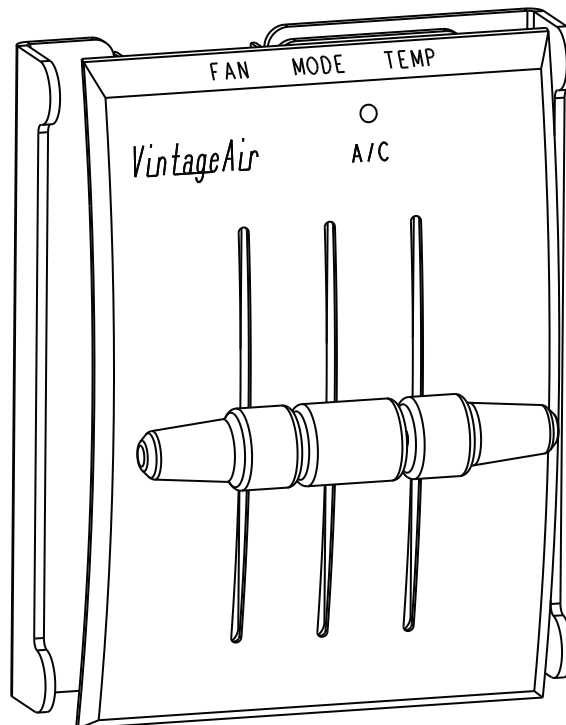




an ISO 9001:2015 Registered Company

1964 ½ - 66 Ford Mustang

Control Panel Kit (473101)



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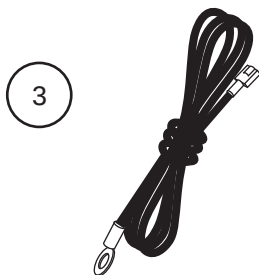
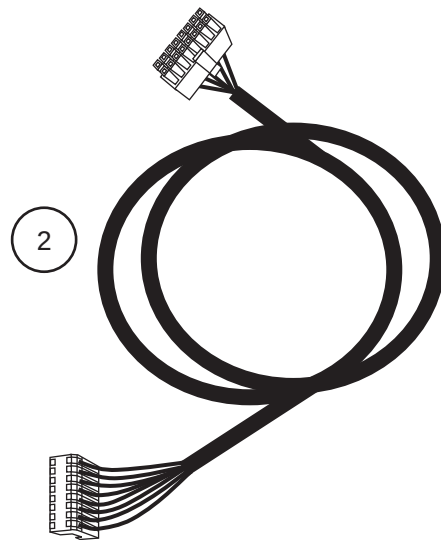
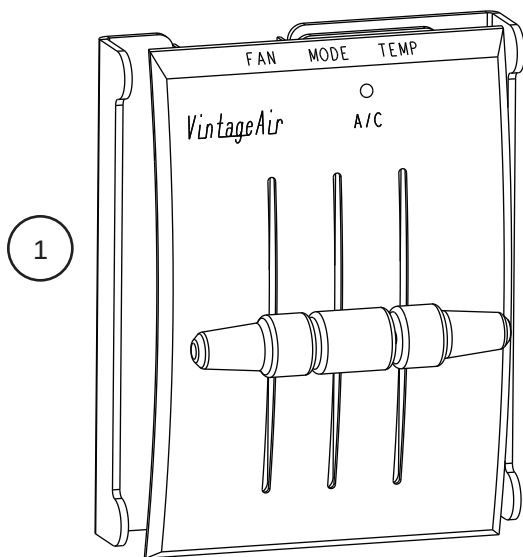


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Packing List: Control Panel Kit (473101)

No.	Qty.	Part No.	Description
1.	1	495010	Control Panel Assembly
2.	1	232007-VUR	Control Harness, Gen IV Universal
3.	1	231520	Ground Wire

**** Before beginning installation, open all packages and check contents of shipment. Please report any shortages directly to Vintage Air within 15 days. After 15 days, Vintage Air will not be responsible for missing or damaged items.**

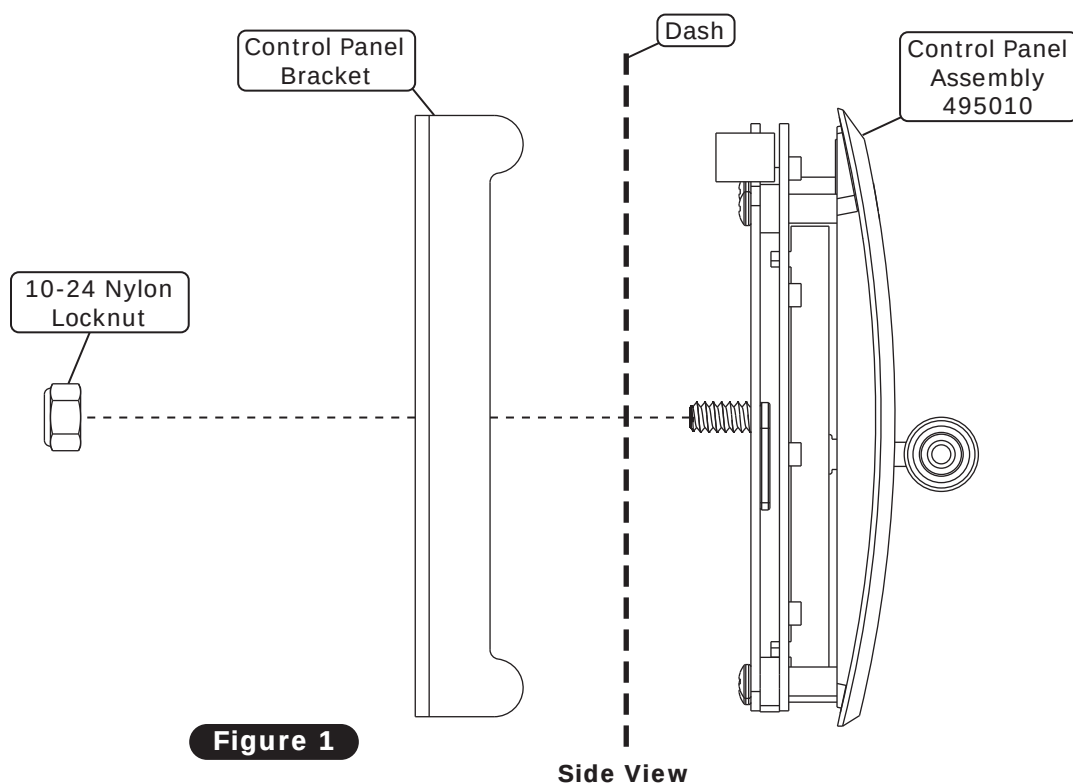




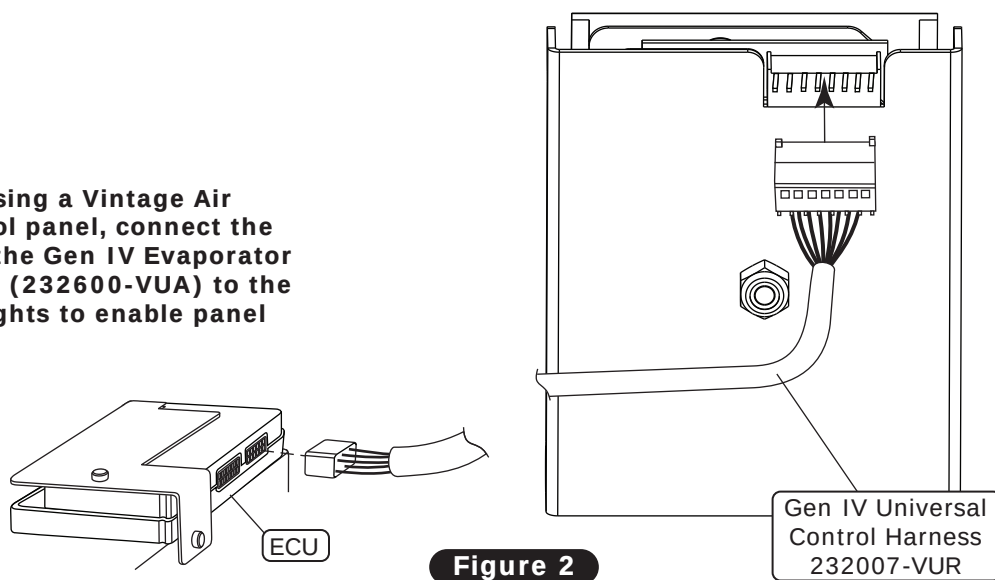
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Control Panel Installation

1. Insert the control harness through the dash opening.
2. Plug the control harness into the control panel assembly and the ECU on evaporator as shown in Figure 2, below, and on Page 7. **NOTE: Difficulty inserting harness connector into control denotes improper connector orientation. Do not force.**
3. Calibrate the control panel as shown on Page 5 and 6.
4. Confirm the control panel functionality as shown on Page 9.
5. Install the control panel into the dash by placing the control panel bracket behind the dash and securing it to the control panel assembly using a 10-24 nylon locknut (See Figure 1, below).



NOTE: When using a Vintage Air supplied control panel, connect the tan wire from the Gen IV Evaporator wiring harness (232600-VUA) to the factory dash lights to enable panel backlighting.



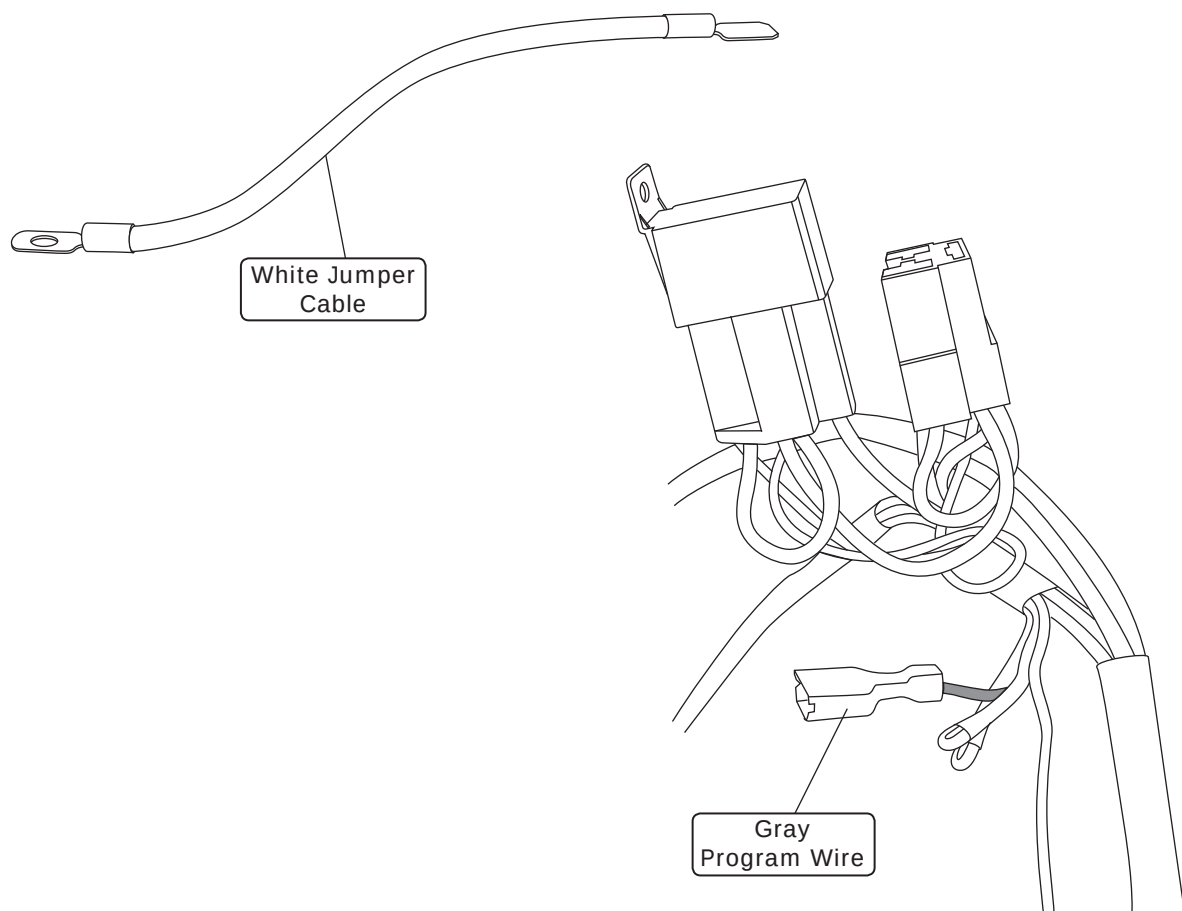


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Control Panel Calibration Procedure

On Vintage Air Gen IV systems using cable converters or replacement electronic controls, it is necessary to calibrate the system to your specific control panel. This procedure ensures that the stroke of your control panel levers or knobs is translated into precise control of the fan speed, temperature blend and mode door position. Please carefully read and understand these procedures before beginning. The procedure may be repeated as many times as necessary to get it right.

In preparation for calibration, you will need to attach the supplied white ground jumper wire to a suitable chassis ground. This jumper wire must be easily connected to the gray programming wire located in the main Gen IV wiring harness next to the compressor relay. During the calibration procedure, you will connect the white jumper to the gray program wire, which will “teach” the Gen IV ECU the upper limits of the control levers or knobs. The blower will momentarily change speeds, signaling that the upper limits have been “learned”. You will move the levers or knobs to opposite extreme positions of their travel and then disconnect the white jumper. The blower will again change speeds, signaling that the lower limits have been learned and that the calibration procedure is complete.

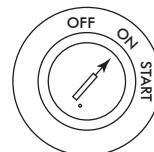




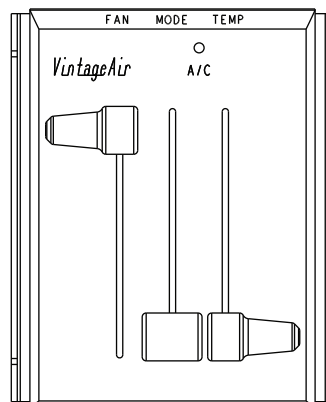
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Control Panel Calibration Procedure (Cont.)

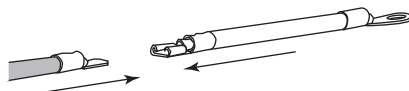
1. Turn on the ignition switch (Do not start the engine).



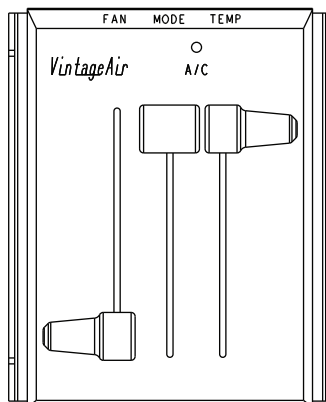
2. Move the control levers/knobs to the positions shown.



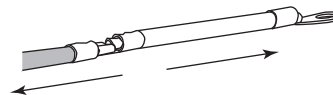
3. Connect the white jumper wire to the gray program wire. Wait for the blower speed to change (Approximately 5 seconds).



4. Move the control levers/knobs to the positions shown.



5. Disconnect the white jumper wire from the gray program wire. The blower speed will change, indicating completion of the calibration procedure.



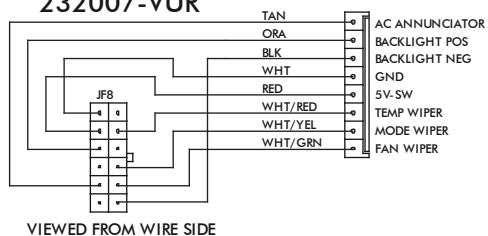
6. Confirm proper operation of controls. Repeat procedure if necessary. When finished, tape over program wire connector with electrical tape to prevent accidental contact with chassis ground.



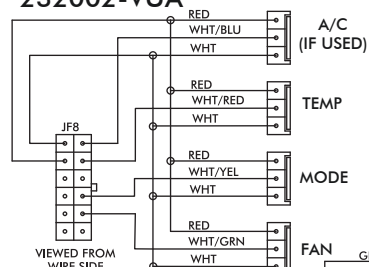
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Wiring Diagram

232007-VUR



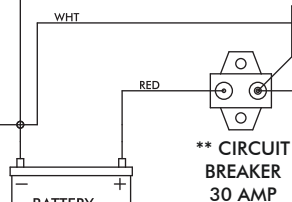
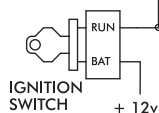
232002-VUA



PROGRAM

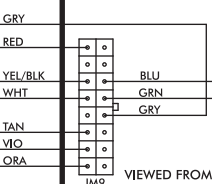
* DASH LAMP (IF USED)

*** WIDE OPEN THROTTLE SWITCH (OPTIONAL)

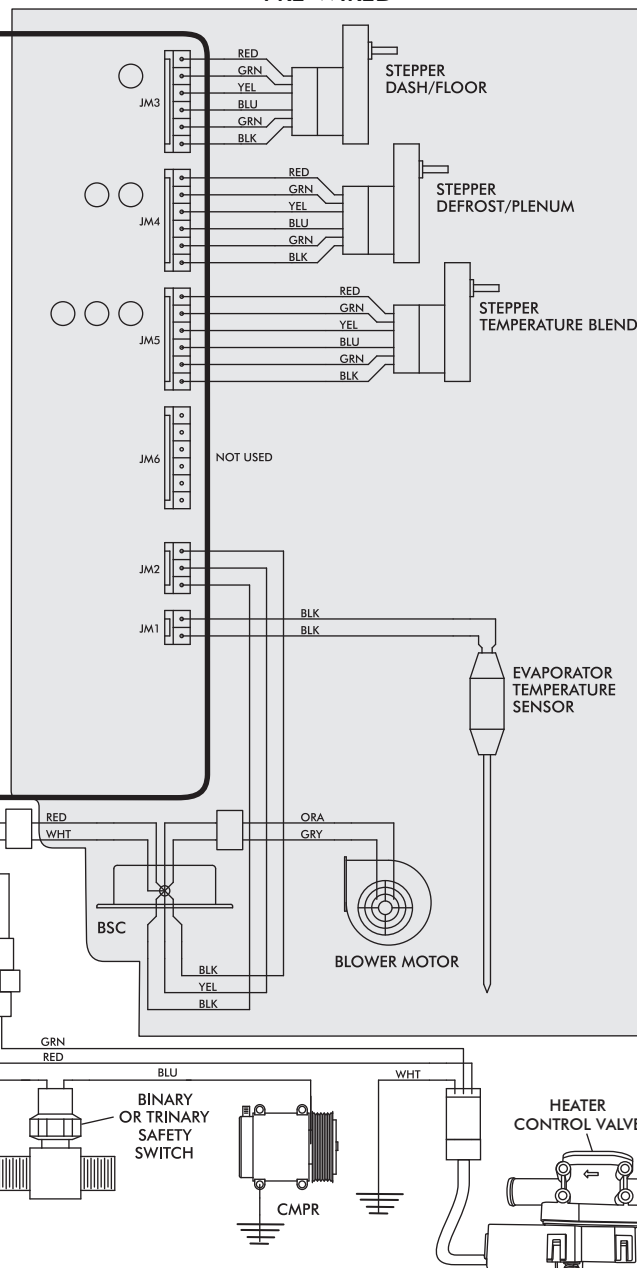


GEN IV ECU

GEN IV WIRING DIAGRAM
REV E, 10/6/2017



PRE-WIRED



NOTE: = CHASSIS GROUND

* 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).

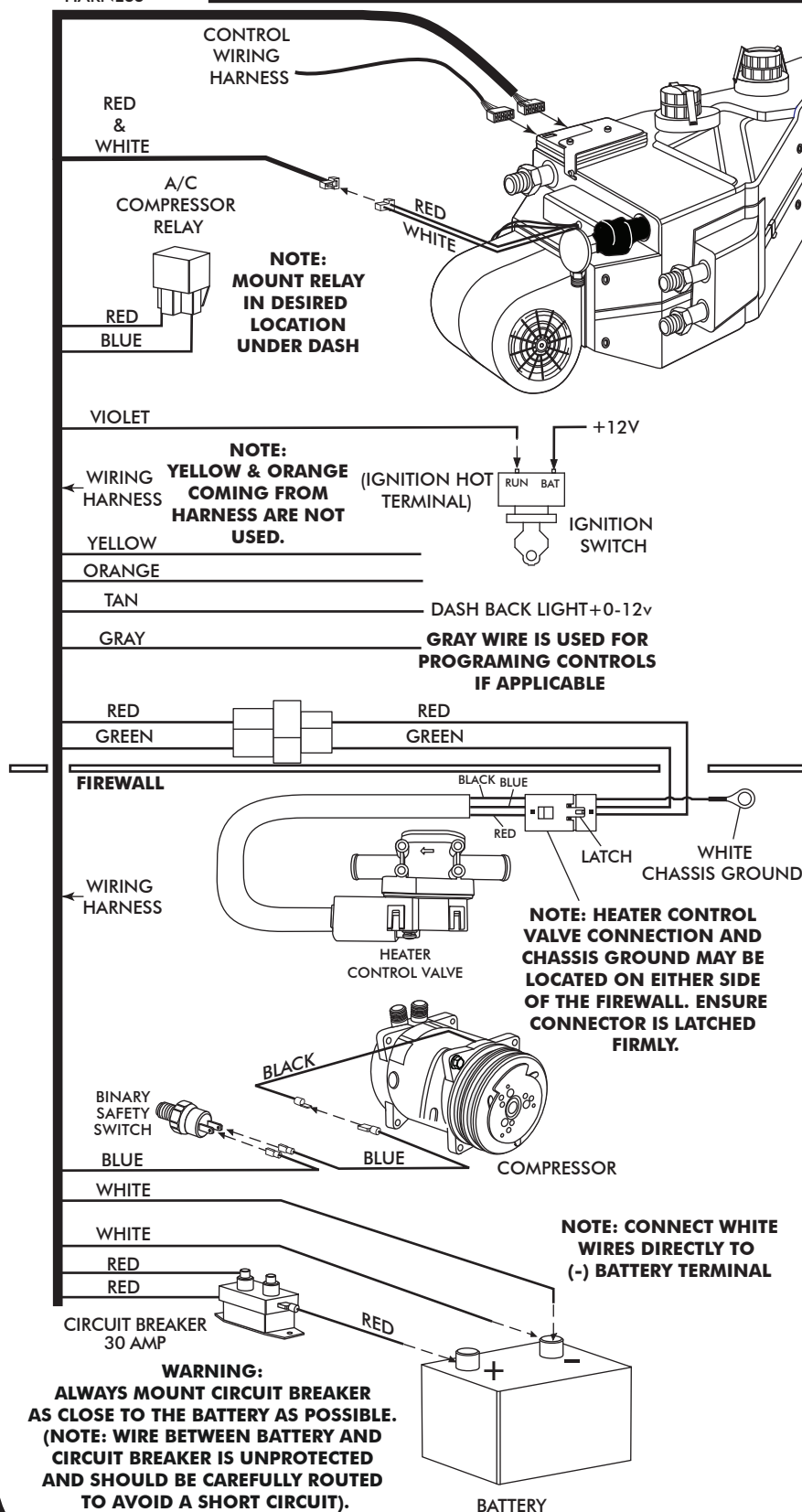
*** Wide open throttle switch contacts close only at full throttle, which disables A/C compressor.



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WIRING
HARNESS

Gen IV Wiring Connection Instruction



Ignition Switch:

Violet 12V ignition switch source (key on accessory) position must be switched.

Dash Light:

When using a Vintage Air-supplied control panel, connect the tan wire from the Gen IV evaporator wiring harness to the factory dash lights to enable panel backlighting.

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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Operation of Controls

On Gen IV systems with three lever/knob controls, the temperature control toggles between heat and A/C operations. To activate A/C, move the temperature lever/knob all the way to cold and then back it off to the desired vent temperature. For heat operation, move the temperature lever/knob all the way to hot and then adjust to the desired vent temperature. The blower will momentarily change speed, each time you toggle between operations, to indicate the change. **NOTE: For proper control panel function, refer to Pages 5 and 6 for calibration procedure.**

Blower Speed

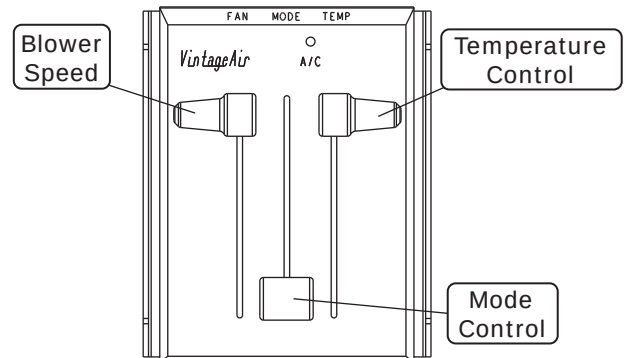
This lever/knob controls blower speed, from OFF to HI.

Mode Control

This lever/knob controls the mode positions, from DASH to FLOOR to DEFROST, with a blend in between.

Temperature Control

This lever/knob controls the temperature, from HOT to COLD.



A/C Operation

Blower Speed

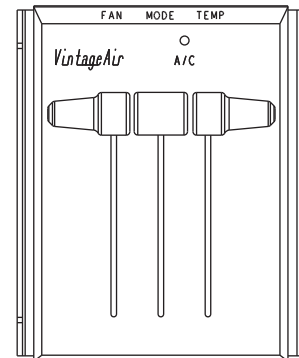
Adjust to desired speed.

Mode Control

Adjust to desired mode position (DASH position recommended).

Temperature Control

For A/C operation, adjust to coldest position to engage compressor (Adjust between HOT and COLD to reach desired temperature).



Heat Operation

Blower Speed

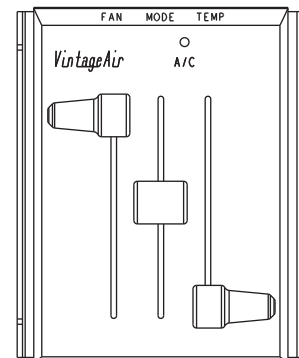
Adjust to desired speed.

Mode Control

Adjust to desired mode position (FLOOR position recommended).

Temperature Control

For maximum heating, adjust to hottest position (Adjust between HOT and COLD to reach desired temperature).



Defrost / De-fog Operation

Blower Speed

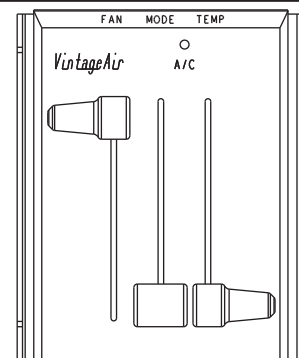
Adjust to desired speed.

Temperature Control

Adjust to desired temperature.

Mode Control

Adjust to DEFROST position for maximum defrost, or between FLOOR and DEFROST positions for a bi-level blend (Compressor is automatically engaged).



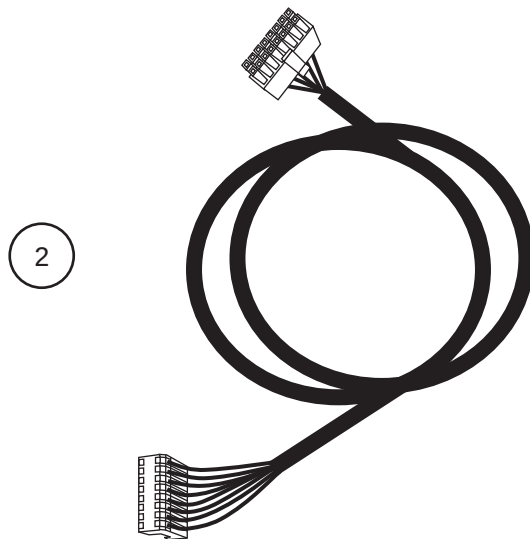
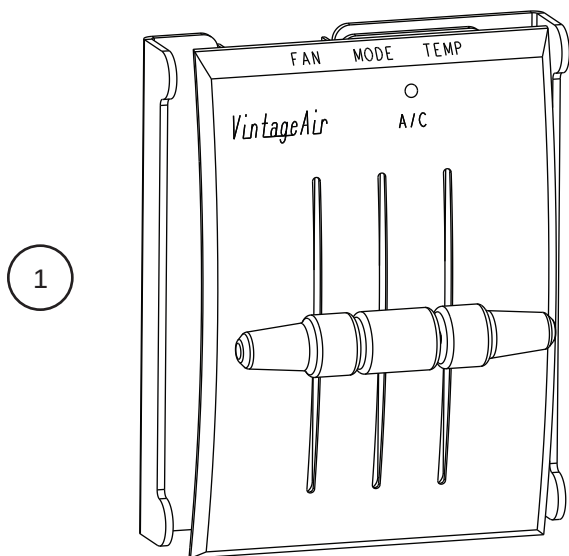


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Packing List: Control Panel Kit (473101)

No.	Qty.	Part No.	Description
1.	1	495010	Control Panel Assembly
2.	1	232007-VUR	Control Harness, Gen IV Universal
3.	1	231520	Ground Wire

Checked By: _____
Packed By: _____
Date: _____



**NOTE: Images may not depict actual parts and quantities.
Refer to packing list for actual parts and quantities.**