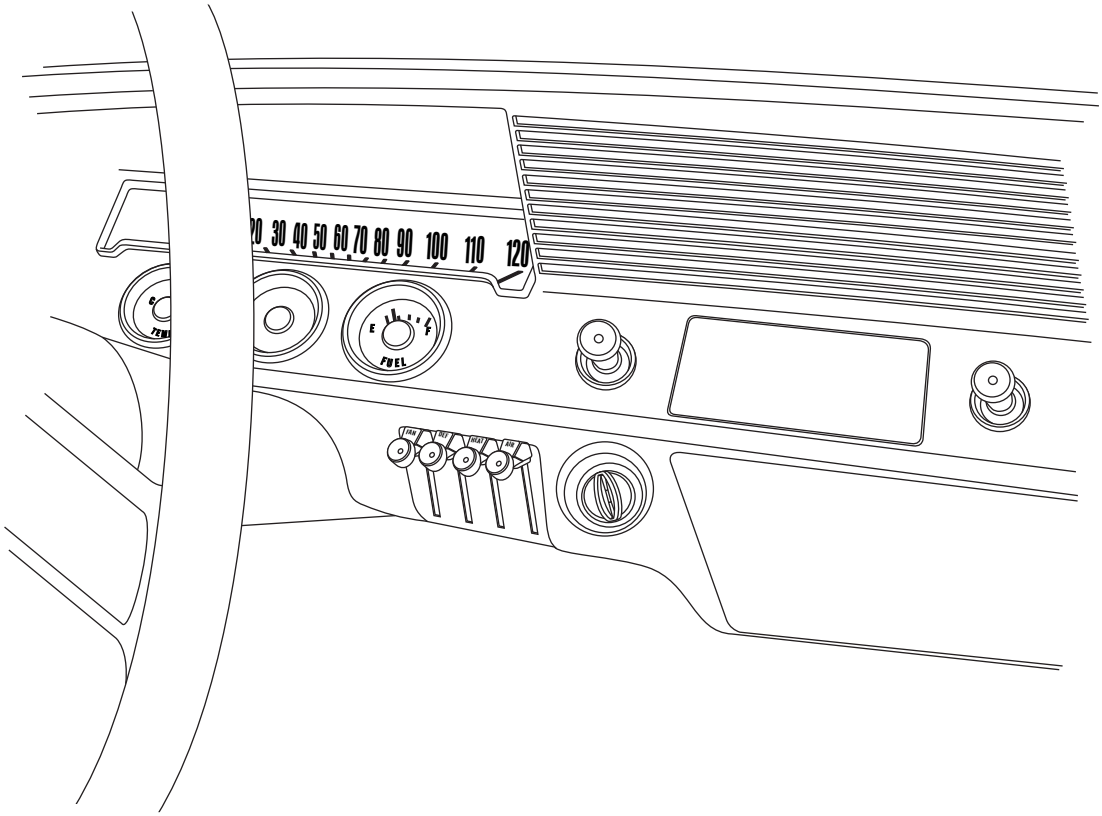
an ISO 9001:2008 Registered Company

1961-62 Chevrolet Impala

Control Panel Conversion Kit (471062)



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Fax: 210-654-3113
www.vintageair.com

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Table of Contents

Thank you for purchasing this control panel kit from Vintage Air. When installing these components as part of a complete SureFit™ system, Vintage Air recommends working from front to back on the vehicle, installing the condenser kit, hose kit, and compressor first, followed by the wiring, evaporator, and finally the control panel.

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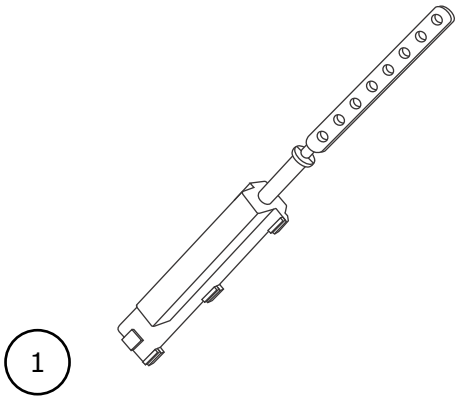
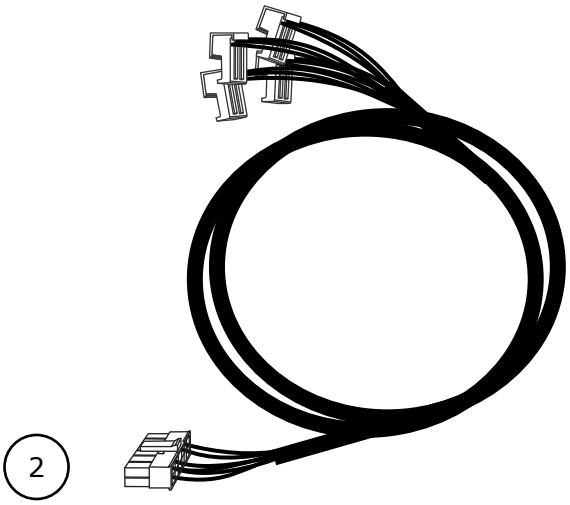
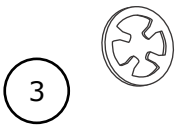
Packing List: Control Panel Kit (471062)

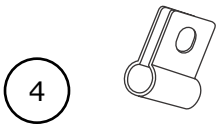
No.	Qty.	Part No.	Description
1.	3	112002-SUA	Cable Converter Assembly
2.	1	232002-VUA	Control Harness, Gen IV Universal
3.	3	65976-VUE	Push-on Ring, 3/16”
4.	3	491010-VUR	Cable Converter Clamp
5.	5	21301-VUP	Tie Wrap, 4”
6.	1	231520	Ground Wire

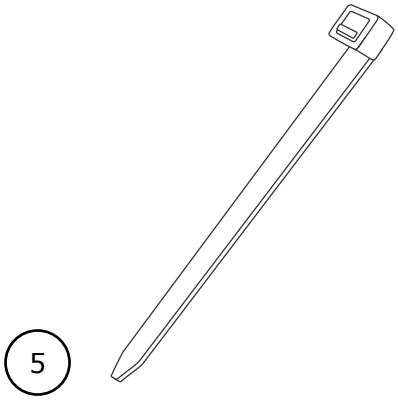
**** Before beginning installation, open all packages and check contents of shipment. Please report any shortages directly to Vintage Air within 15 days. After 15 days, Vintage Air will not be responsible for missing or damaged items.**

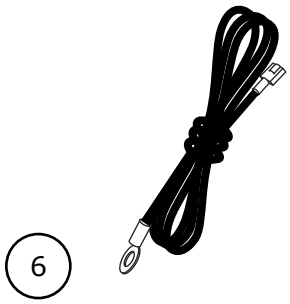












NOTE: Images may not depict actual parts and quantities. Refer to packing list for actual parts and quantities.

OEM Control Panel Removal

Perform the Following:

1. Remove the (4) lever knobs and the (4) mounting screws from the control panel (retain) (See Figure 1, below).

2. Disconnect cables and wires from the back side of the control panel.

3. Remove the control panel from behind the dash (retain).

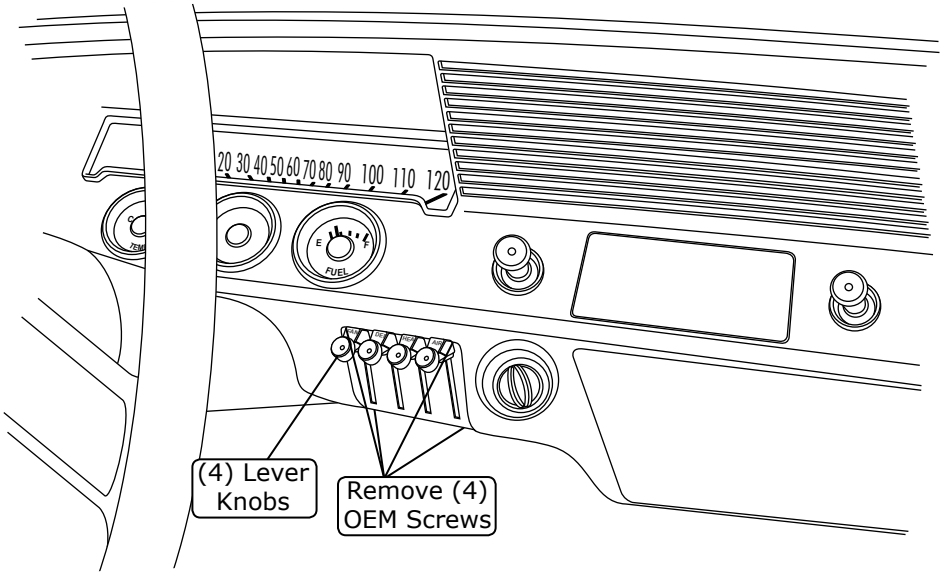


Figure 1

Cable Converter Assembly Modification

1. Locate the (3) cable converter assemblies. Using a pair of wire cutters, cut the cable converter actuator rods as shown in Figure 2, below.

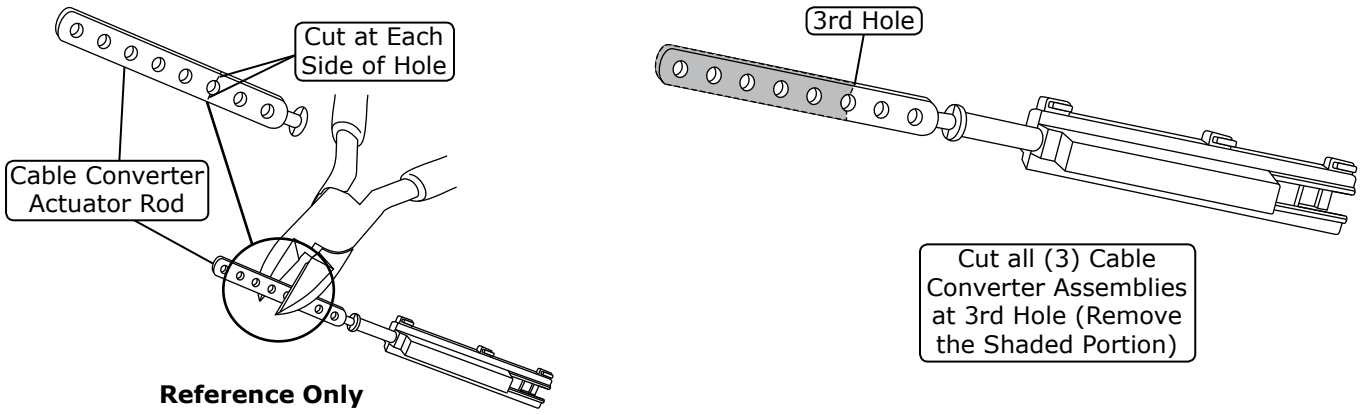


Figure 2

Cable Converter Assembly Mounting Clamp Installation

1. Install the cable converter assembly mounting clamps. **NOTE: Orient clamps in relation to the (3) housing snaps on the cable converter assembly as shown in Figure 3, below.**

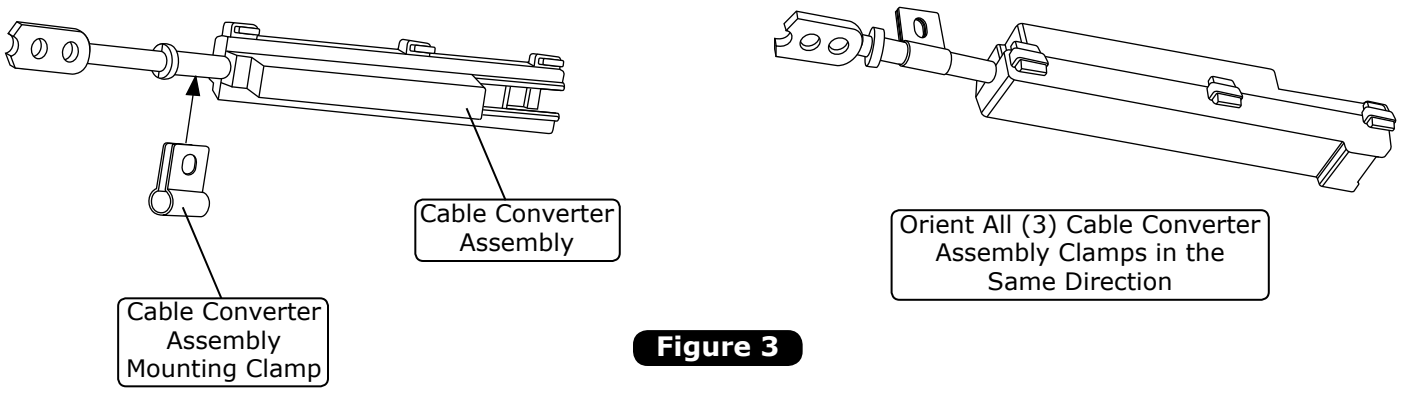


Figure 3

Mode Cable Converter Assembly Installation

1. Install the cable converter assembly onto the mode lever by attaching the cable converter push rod to the OEM cable mounting stud on the lever (See Figure 4, below).
2. Secure the cable converter assembly to the OEM cable clamp mounting location using the OEM screw as shown in Figure 4, below.
3. Since the cable converter assembly can slide back and forth in the clamp before the screw is tightened, position the cable converter assembly such that the flat part of the rod is as close to flush as possible with the end of the housing at the lever's innermost position (See Figure 4, below).
4. Secure the cable converter lever push rod to the OEM cable mounting stud using a 3/16" push-on ring as shown in Figure 4, below.

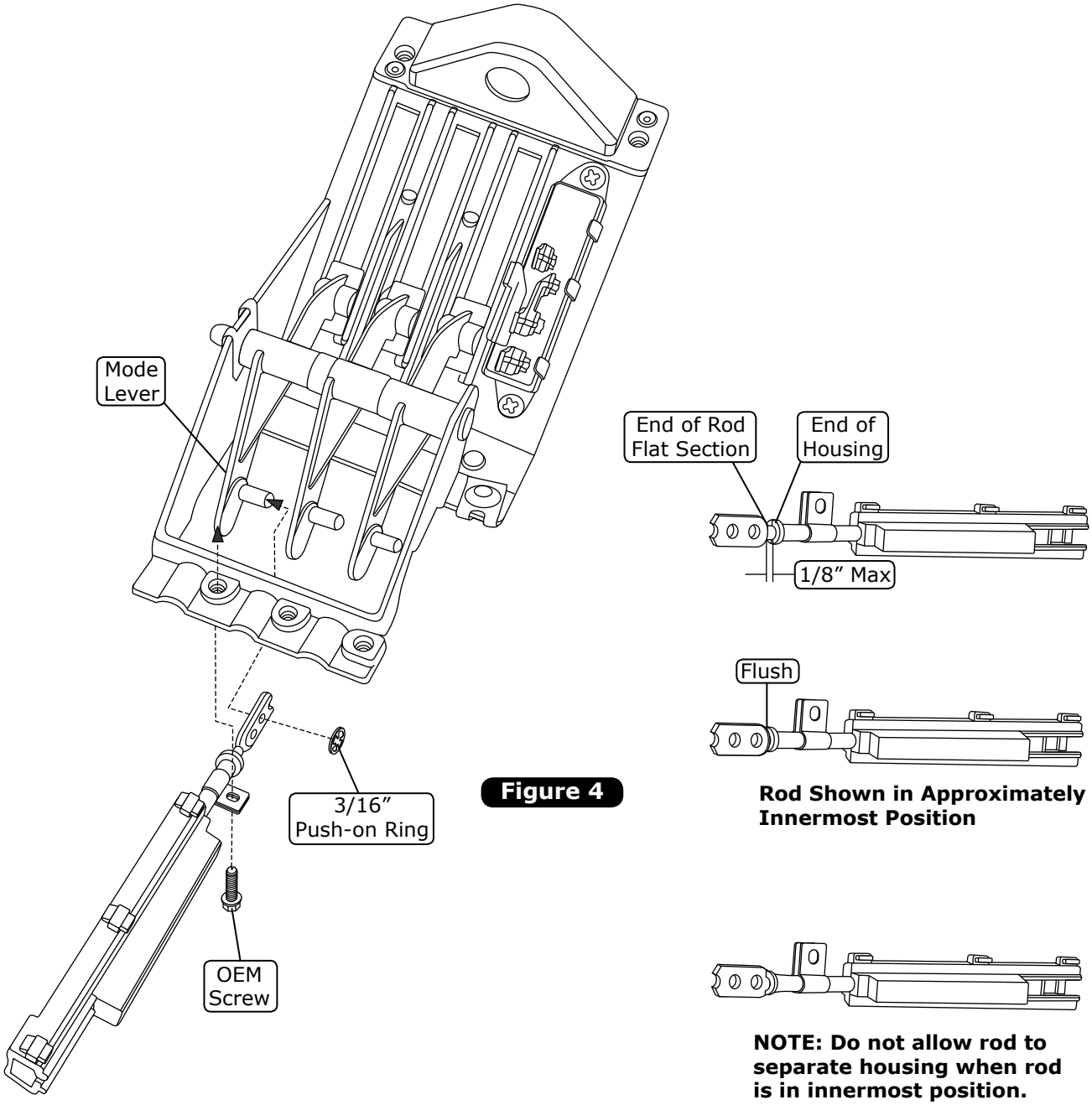
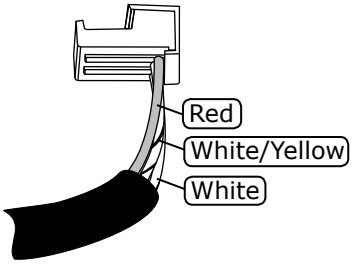


Figure 4

Mode Control Harness

1. Locate the control panel wiring harness, and plug the corresponding connector into the correct cable converter assembly (See Figure 5, below).

2. Once the connector is correctly plugged into the cable converter assembly, secure the wires to the cable converter assembly using one of the supplied tie wraps. The tie wrap must be located between the end of the wire jacket and the step in the cable converter housing, forcing a bend in each wire as it passes over the step in the cable converter housing. The head of the tie wrap must fall on the edge of the housing to remain tight. Ensure that the tie wrap is tight enough that the wires cannot move (See Figure 5a, below).



Mode Cable Converter Assembly

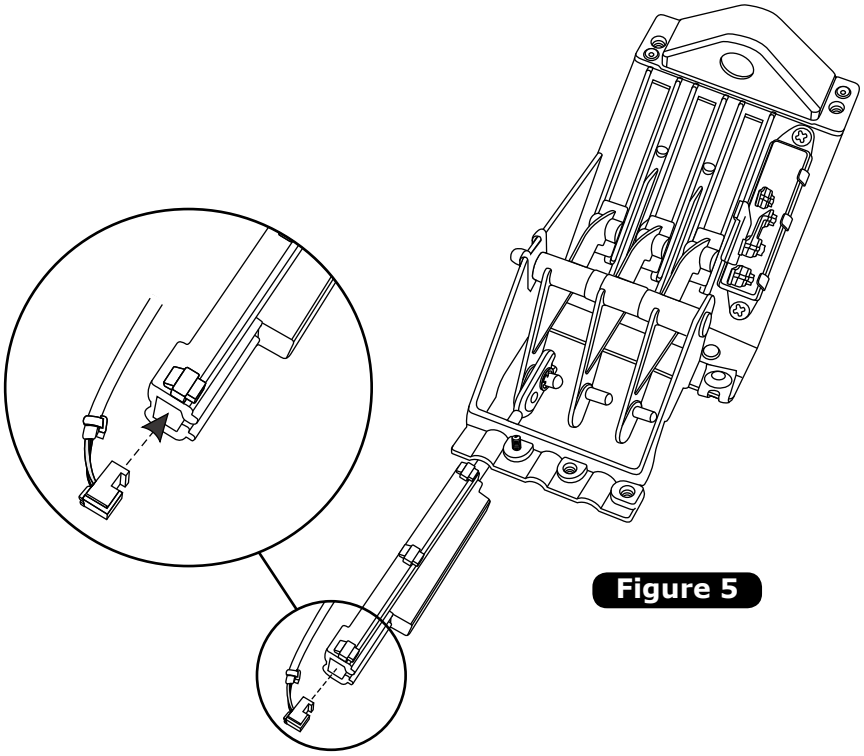
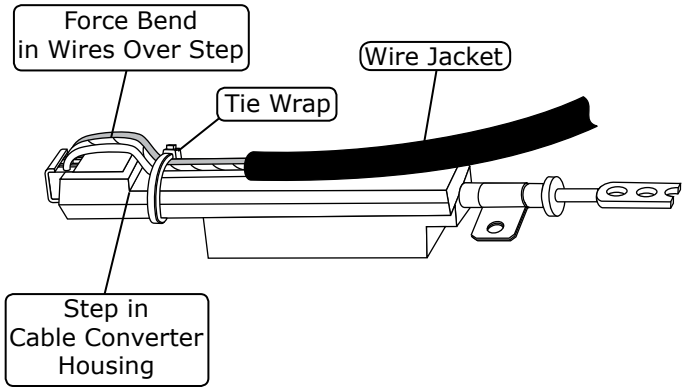


Figure 5



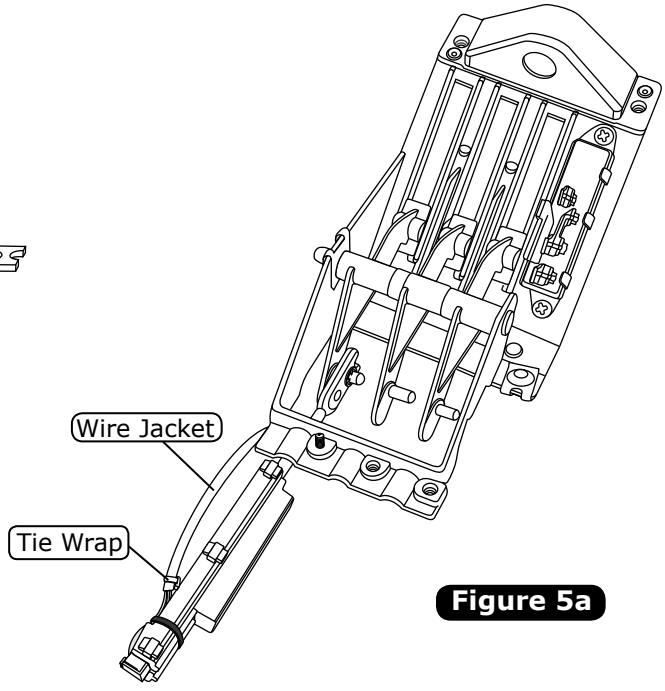


Figure 5a

Temperature Cable Converter Assembly Installation

1. Install the cable converter assembly onto the temperature lever by attaching the cable converter push rod to the OEM cable mounting stud on the lever (See Figure 6, below).
2. Secure the cable converter assembly to the OEM cable clamp mounting location using the OEM screw as shown in Figure 6, below.
3. Since the cable converter assembly can slide back and forth in the clamp before the screw is tightened, position the cable converter assembly such that the flat part of the rod is as close to flush as possible with the end of the housing at the lever's innermost position (See Figure 6, below).
4. Secure the cable converter lever push rod to the OEM cable mounting stud using a 3/16" push-on ring as shown in Figure 6, below.

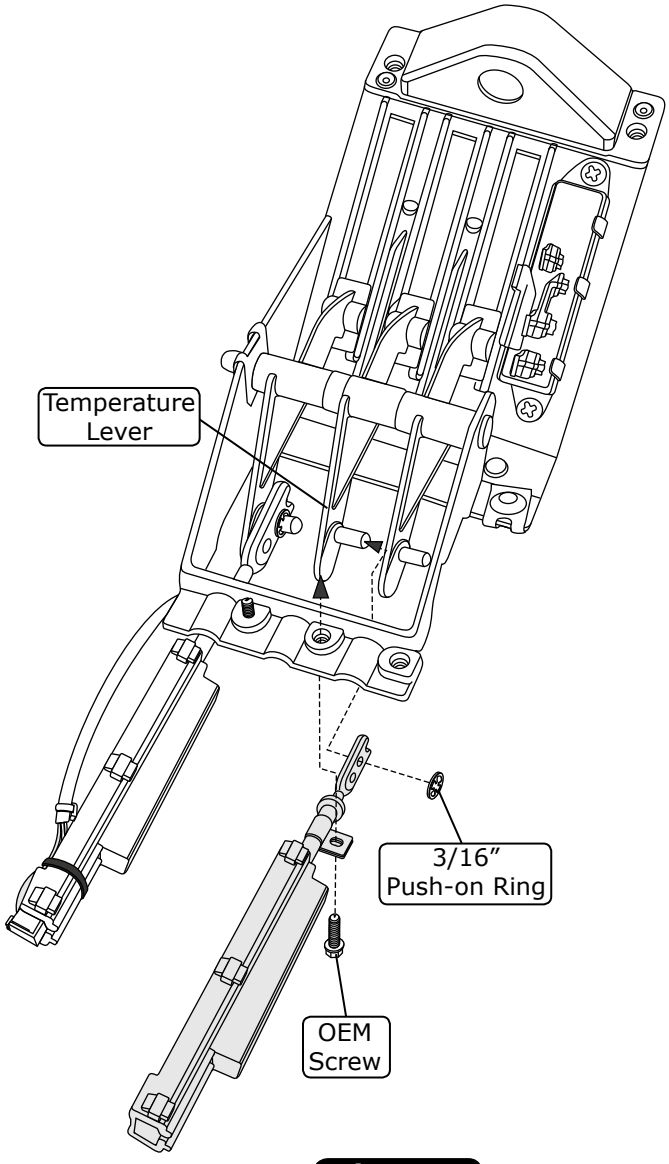
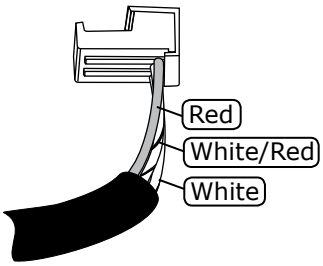


Figure 6

Temperature Control Harness

1. Locate the control panel wiring harness, and plug the corresponding connector into the correct cable converter assembly (See Figure 7, below).

2. Once the connector is correctly plugged into the cable converter assembly, secure the wires to the cable converter assembly using one of the supplied tie wraps. The tie wrap must be located between the end of the wire jacket and the step in the cable converter housing, forcing a bend in each wire as it passes over the step in the cable converter housing. The head of the tie wrap must fall on the edge of the housing to remain tight. Ensure that the tie wrap is tight enough that the wires cannot move (See Figure 7a, below).



Temperature Cable Converter Assembly

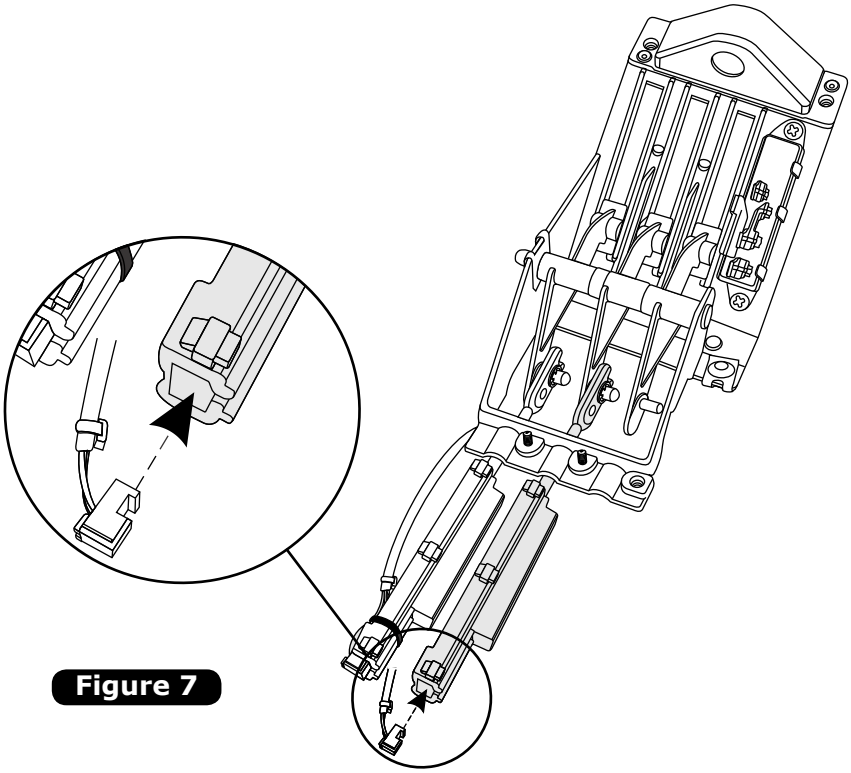
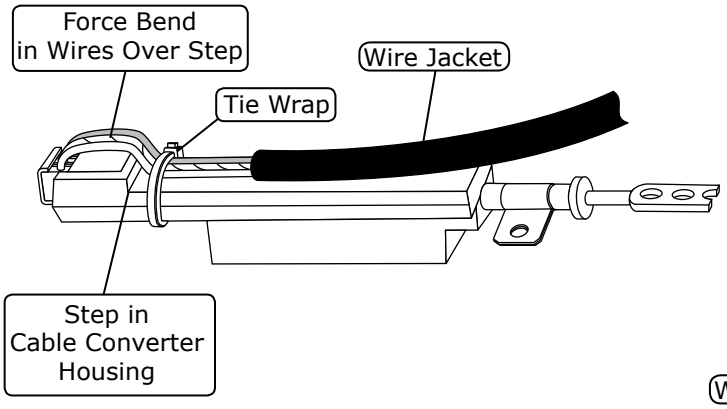


Figure 7



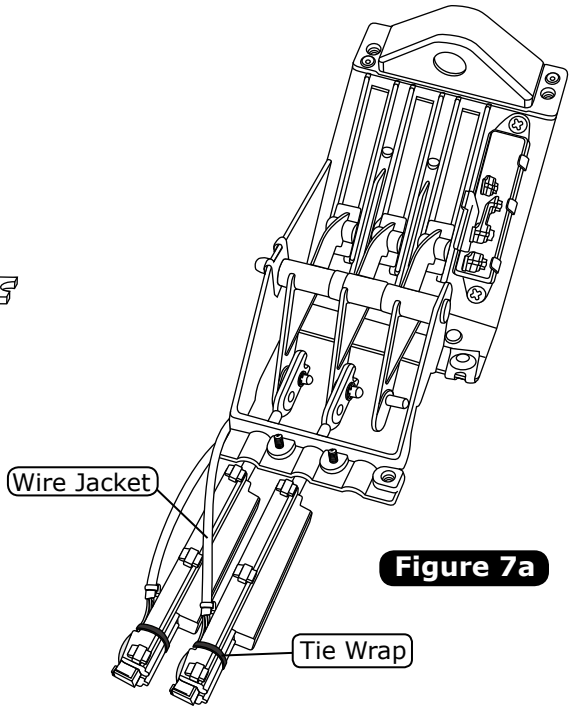


Figure 7a

Blower Speed Cable Converter Assembly Installation

1. Install the cable converter assembly onto the blower speed lever by attaching the cable converter push rod to the OEM cable mounting stud on the lever (See Figure 8, below).
2. Secure the cable converter assembly to the OEM cable clamp mounting location using the OEM screw as shown in Figure 8, below.
3. Since the cable converter assembly can slide back and forth in the clamp before the screw is tightened, position the cable converter assembly such that the flat part of the rod is as close to flush as possible with the end of the housing at the lever's innermost position (See Figure 8, below).
4. Secure the cable converter lever push rod to the OEM cable mounting stud using a 3/16" push-on ring as shown in Figure 8, below.

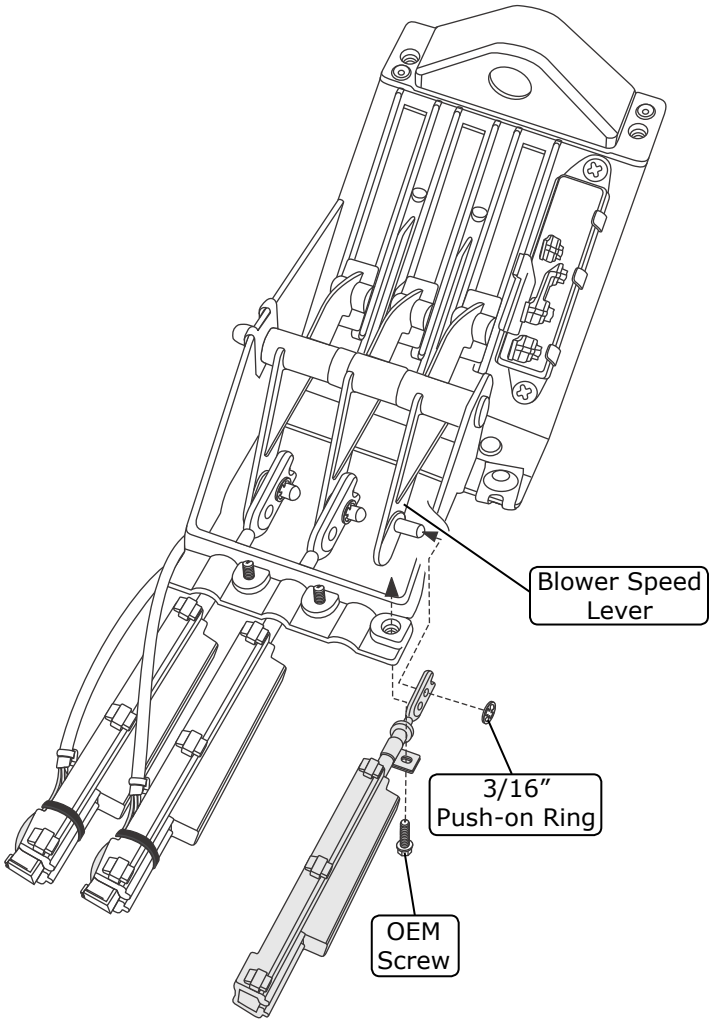
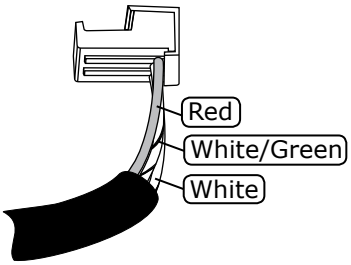


Figure 8

Blower Speed Control Harness

1. Locate the control panel wiring harness, and plug the corresponding connector into the correct cable converter assembly (See Figure 9, below).

2. Once the connector is correctly plugged into the cable converter assembly, secure the wires to the cable converter assembly using one of the supplied tie wraps. The tie wrap must be located between the end of the wire jacket and the step in the cable converter housing, forcing a bend in each wire as it passes over the step in the cable converter housing. The head of the tie wrap must fall on the edge of the housing to remain tight. Ensure that the tie wrap is tight enough that the wires cannot move (See Figure 9a, below).



Blower Speed Cable Converter Assembly

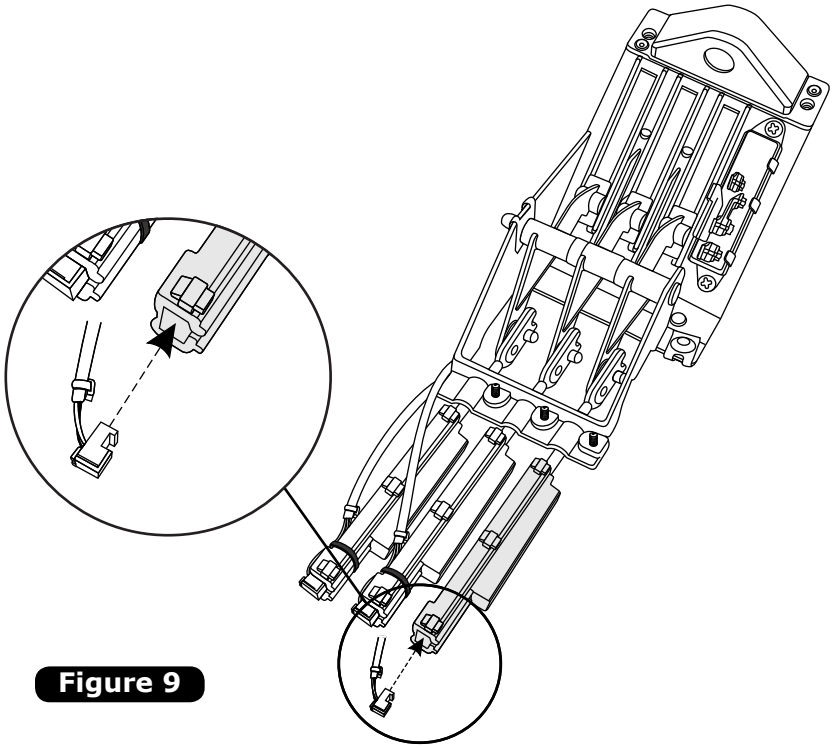
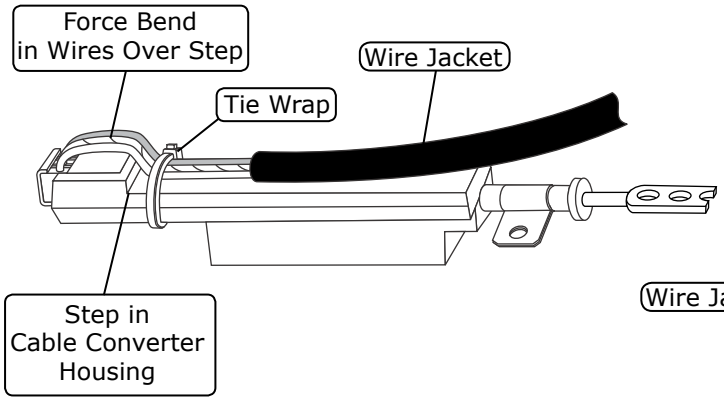


Figure 9



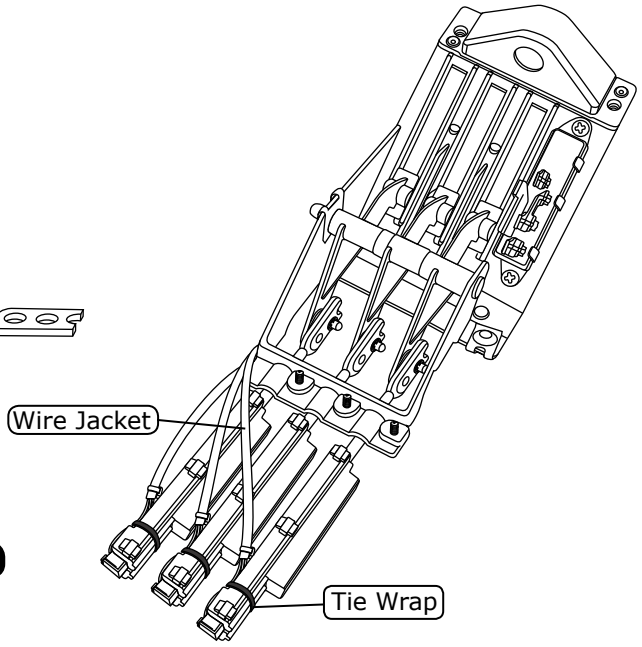


Figure 9a

Control Harness Final Step

1. Using the supplied tie wraps, tie the wires to the control panel. Confirm the wires are secured and do not interfere with lever operation or cable converter assemblies (See Figure 10, below).

NOTE: Tie the unused wire to the control panel approximately as shown. Ensure that the wire does not interfere with levers or cable converter assemblies.

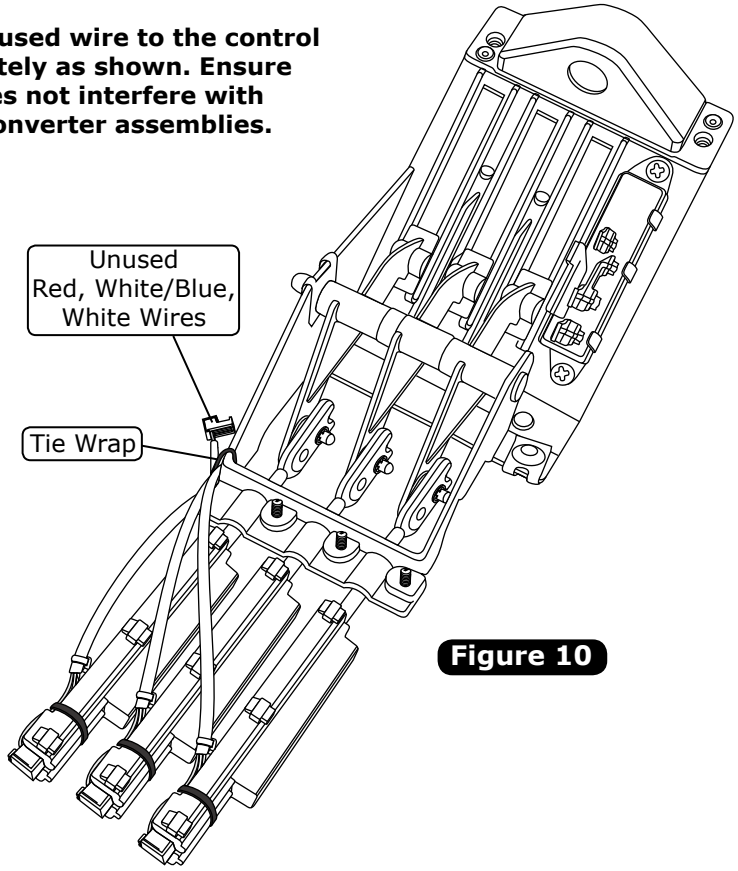
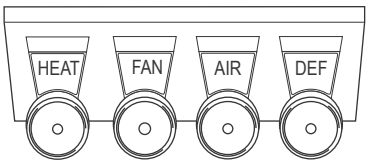


Figure 10

Control Panel Reinstallation

1. Reinstall the control panel into the dash using (4) OEM screws (See Figure 11, below).

2. Reinstall the control panel lever knobs as shown in Figure 11, below.



Reinstall Knobs as Shown

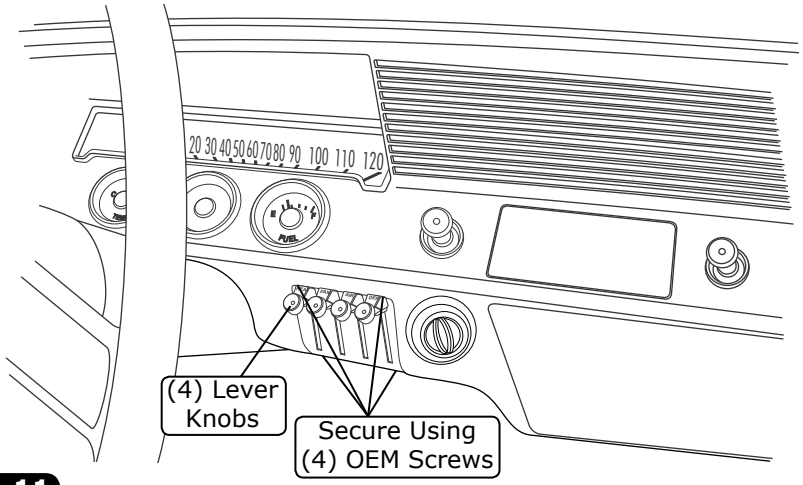


Figure 11

Final Steps

1. Plug the wiring harnesses into the ECU module on the sub case.

2. Wire according to the wiring diagram on Page 16.

3. Calibration procedure and operation instructions:

A. Calibrating the control panel will set the range of travel for the cable converters connected to the OEM control panel levers. Performing this procedure will set the limits of the cable converters at their highest and lowest points.

B. Locate the gray wire with an unused connector in the wiring harness near the cable harness relay. This wire is labeled PROGRAM on the wiring diagram on Page 16.

C. It will be necessary to ground the gray wire for approximately five seconds while moving the controls, so it is sometimes helpful to attach one end of the white jumper to the vehicle's ground (for example, the chassis) and have the other end ready to connect to the gray PROGRAM wire when the procedure requires it.

D. To calibrate the control panel, follow the calibration procedures on Pages 14 & 15.

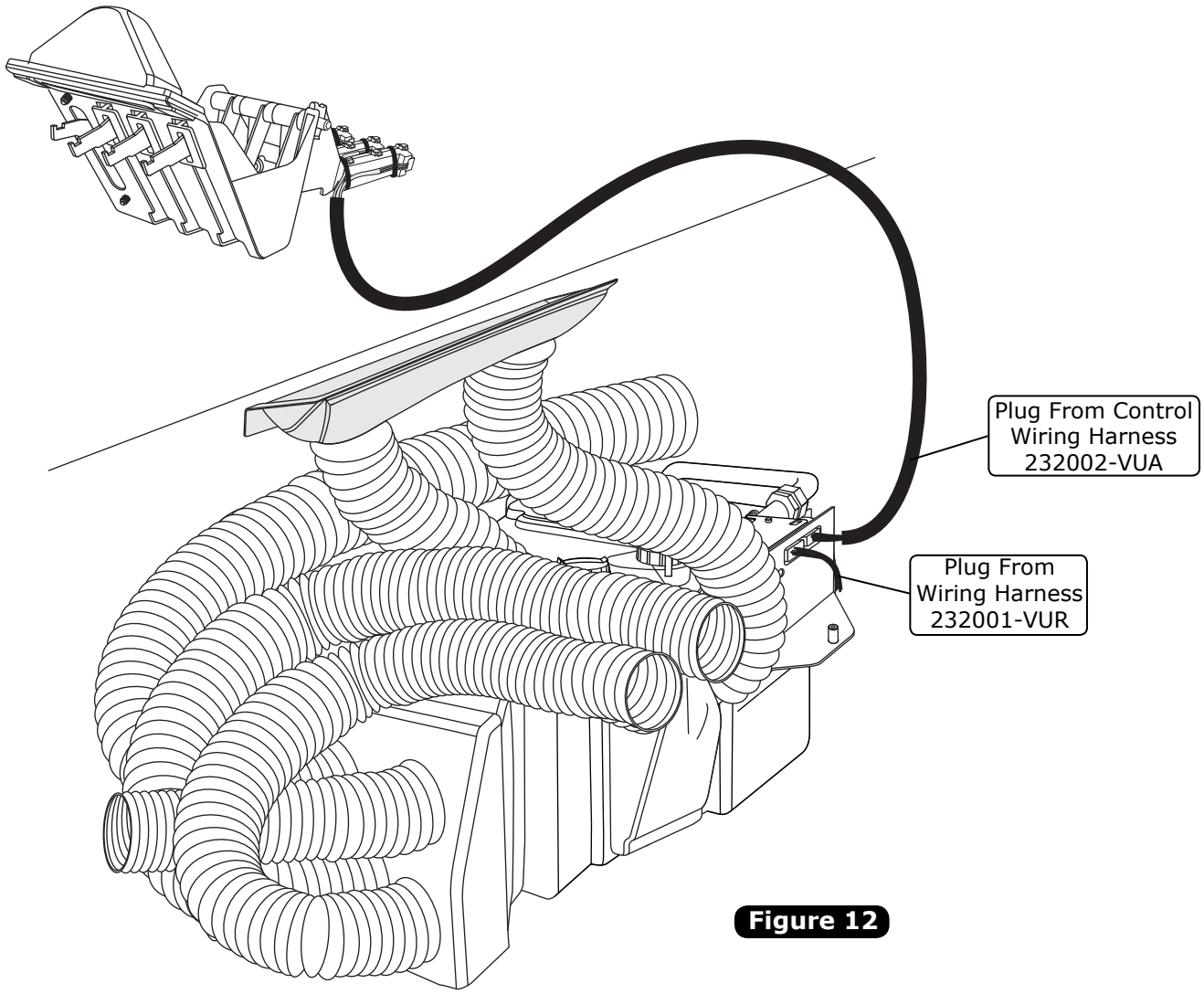


Figure 12

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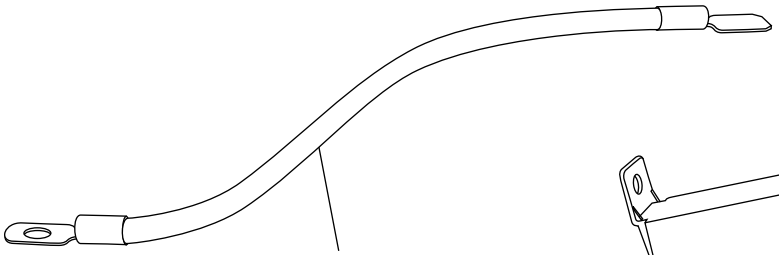
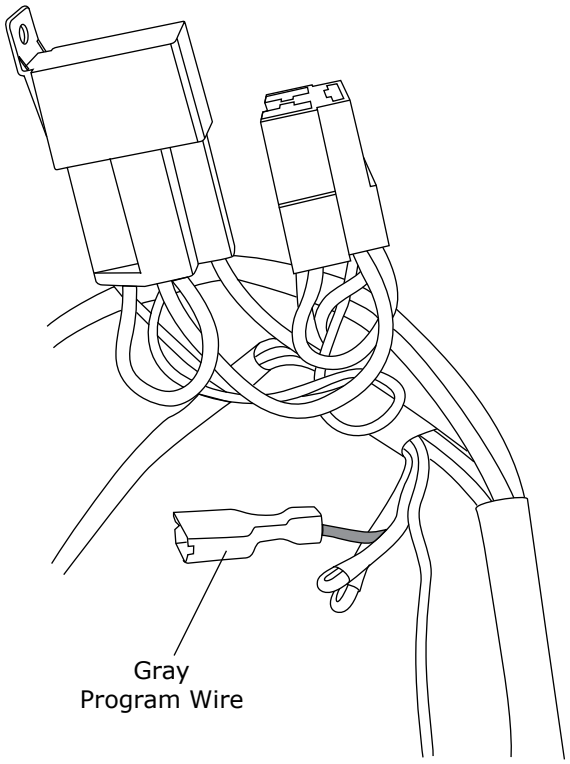
Control Panel Calibration Procedure

On Vintage Air Gen IV systems using factory 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.



White Jumper Cable



Gray Program Wire

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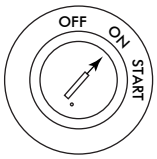
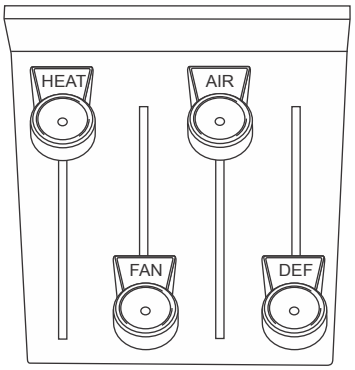
Control Panel Calibration Procedure (Cont.)

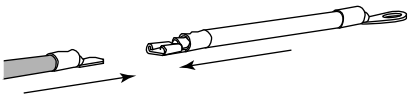
1. Turn on the ignition switch (Do not start the engine).



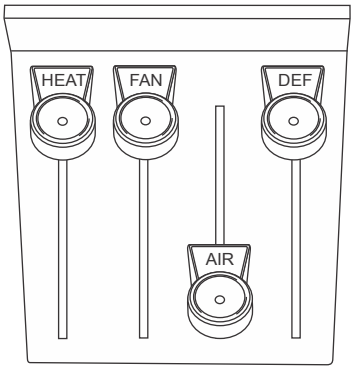
2. Move the control levers/knobs to the position shown.



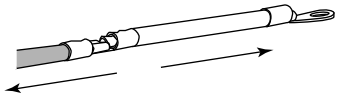
3. Connect the white jumper wire to the gray program wire. Wait for the blower speed to change (Approximately 5 seconds).



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

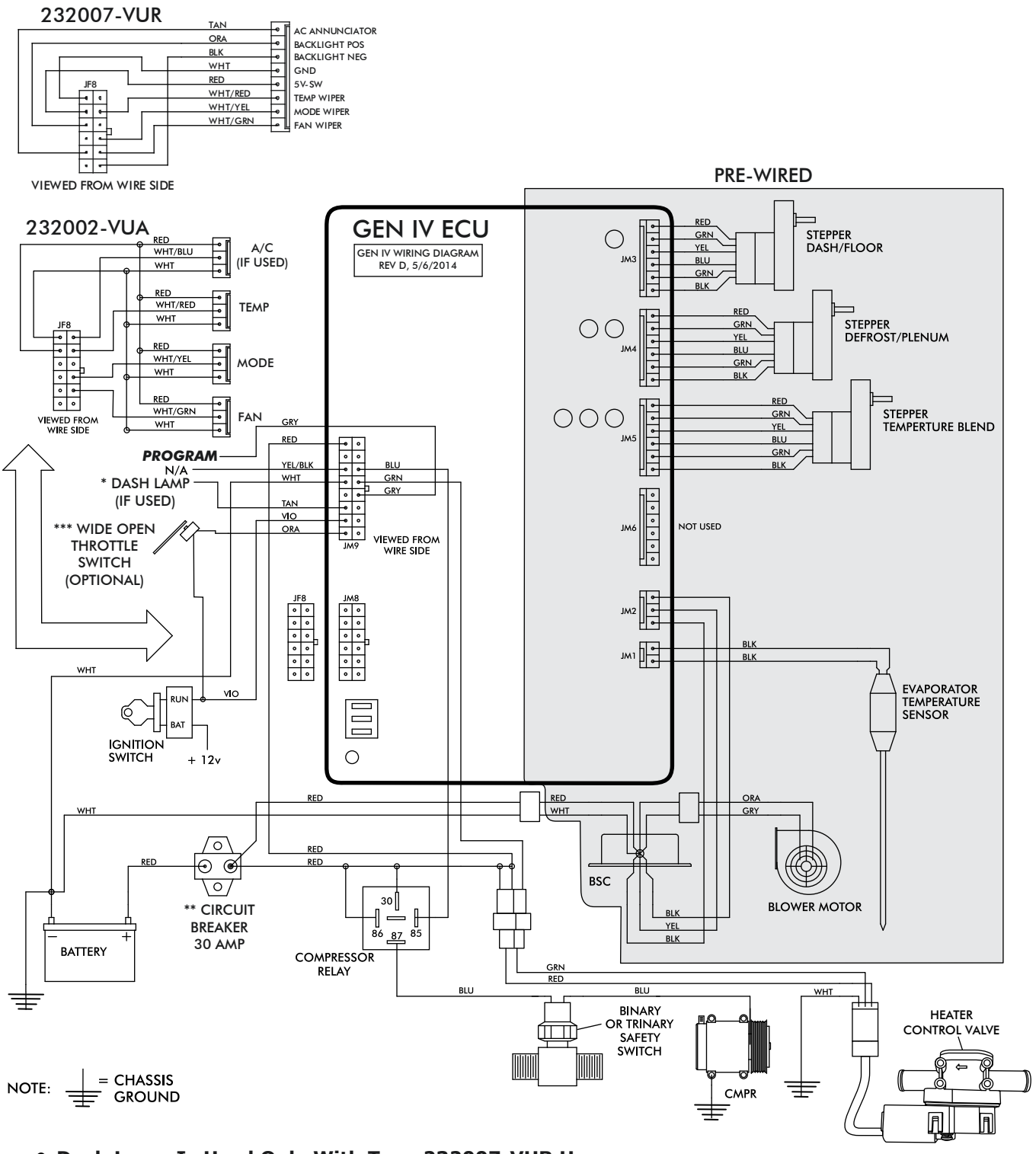


5. Disconnect the white jumper wire from the gray program wire. The blower speed will change, indicating completion of the calibration procedure.



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.

Wiring Diagram



- **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.**

Operation of Controls

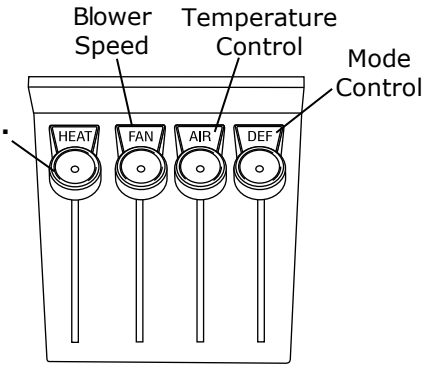
On Gen IV systems with three lever/knob controls, the temperature control toggles between heat and A/C operations. To activate A/C, move the temperature lever/knob all the way to cold and then back it off to the desired vent temperature. For heat operation, move the temperature lever/knob all the way 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 14 & 15 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.

NOTE: Original blower switch will not be used.

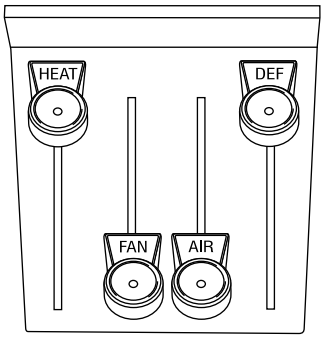


A/C Operation

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).

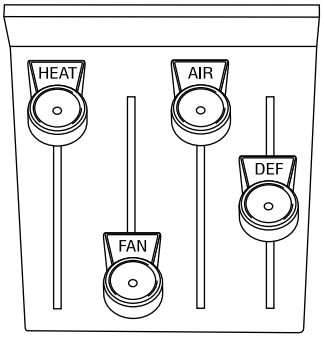


Heat Operation

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).

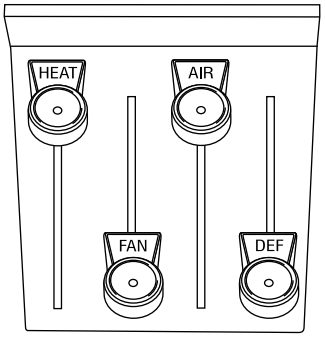


Defrost/De-fog Operation

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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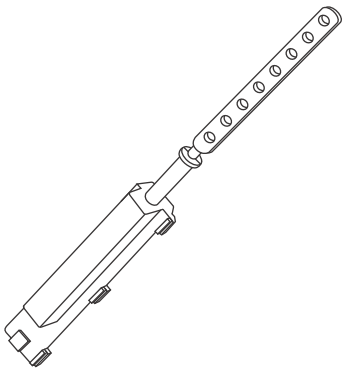
Packing List: Control Panel Kit (471062)

No.	Qty.	Part No.	Description	
1.	3	112002-SUA	Cable Converter Assembly	_____
2.	1	232002-VUA	Control Harness, Gen IV Universal	_____
3.	3	65976-VUE	Push-on Ring, 3/16”	_____
4.	3	491010-VUR	Cable Converter Clamp	_____
5.	5	21301-VUP	Tie Wrap, 4”	_____
6.	1	231520	Ground Wire	_____

Checked By: _____
Packed By: _____
Date: _____



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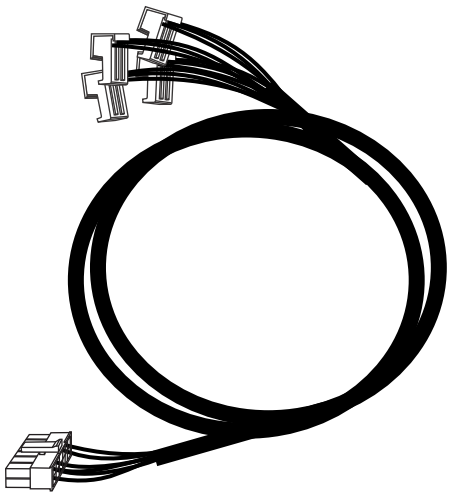

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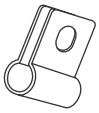

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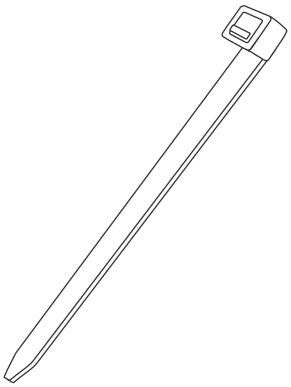

5

6

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