



an ISO 9001:2008 Registered Company

1961-62 IMPALA

CONTROL PANEL
CONVERSION KIT

471062

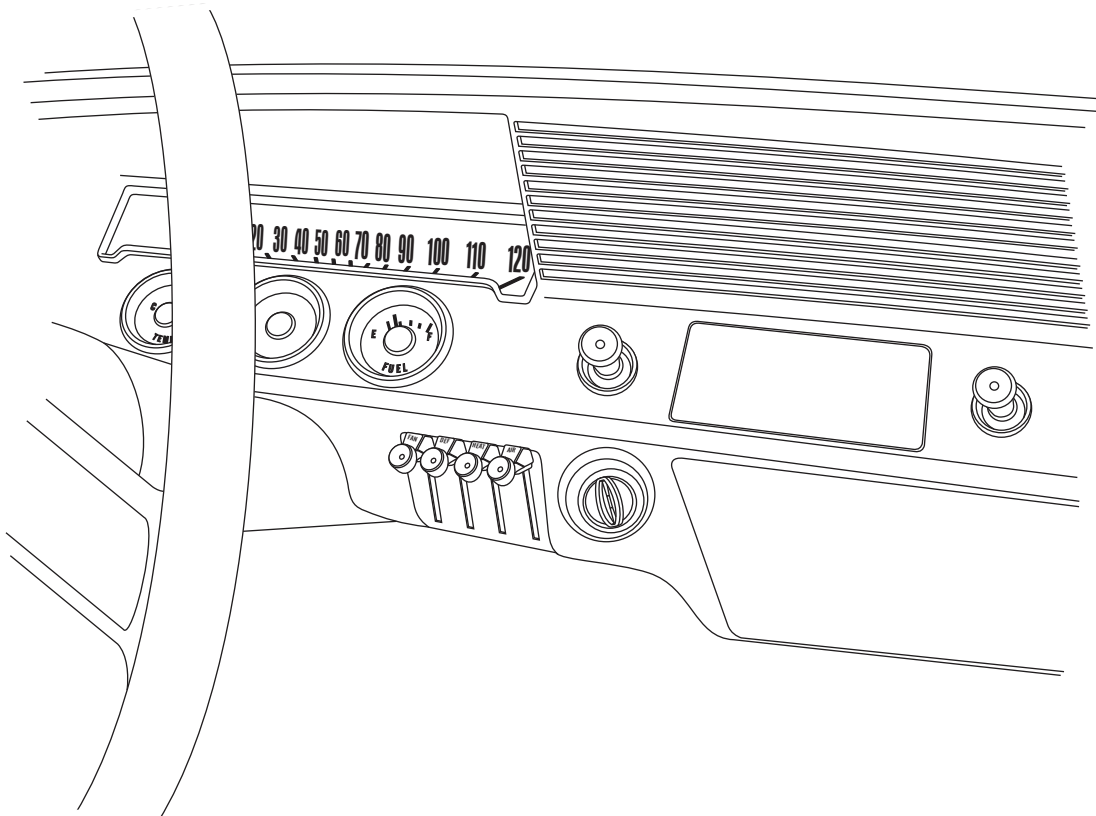




Table of Contents

PAGES

1. COVER
2. TABLE OF CONTENTS
3. PACKING LIST/ PARTS DISCLAIMER
4. REMOVING OEM CONTROL PANEL & SLIDE POT MODIFICATIONS
SLIDE POT ASM MOUNTING CLAMP INSTALLATION SLIDE POT ASM
FIGURES 1,2 & 3
5. DASH/FLR/DEF SLIDE POT ASM INSTALLATION
FIGURES 4
6. CONTROL HARNESS
FIGURES 5 & 5a
7. COLD/HOT SLIDE POT ASM INSTALLATION & CONTROL HARNESS
FIGURES 6 & 6a
8. CONTROL HARNESS CONT. & OFF/ HI SLIDE POT ASM INSTALLATION
FIGURES 6b & 7
9. CONTROL HARNESS
FIGURES 7a & 7b
10. CONTROL HARNESS CONT. & FINAL STEPS
FIGURE 8 & 9
11. FINAL STEPS CONT.
FIGURE 10
12. CONTROL PANEL CALIBRATION PROCEDURE
13. CONTROL PANEL CALIBRATION PROCEDURE CONT.
14. WIRING DIAGRAM
15. OPERATION OF CONTROLS
16. CONTROL PANEL KIT PACKING LIST

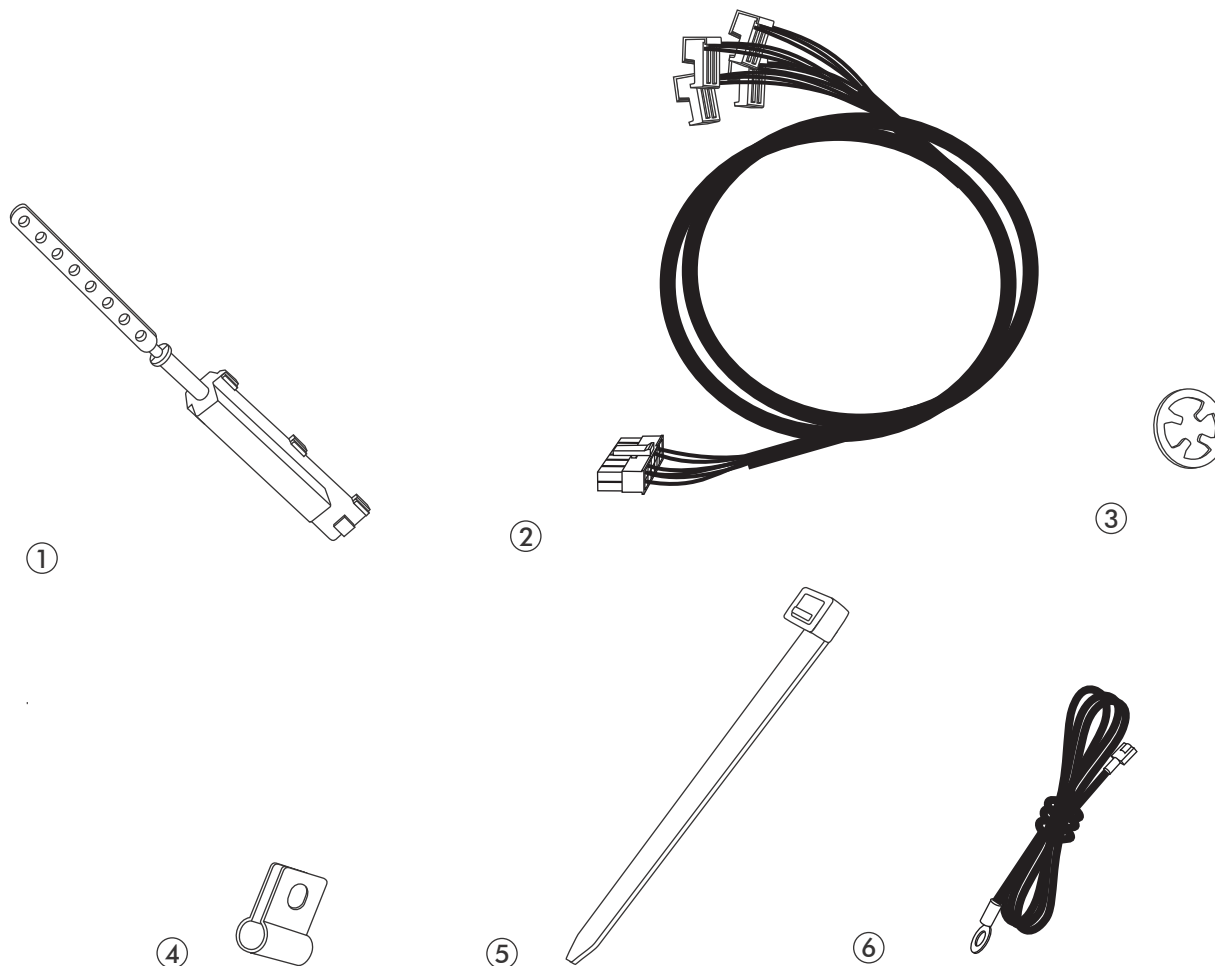


CONTROL KIT PACKING LIST

**CONTROL KIT
471062**

No.	QTY.	PART No.	DESCRIPTION	
1.	3	112002-SUA	SLIDE POT ASM	_____
2.	1	232002-VUA	GEN IV UNIVERSAL CONTROL HARNESS	_____
3.	3	65976-VUE	3/16" PUSH-ON RING	_____
4.	3	491010-VUR	SLIDE POT CLAMP	_____
5.	5	21301-VUP	4" TIE WRAP	_____
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.**





CONTROL PANEL CONVERSION INSTRUCTIONS FOR 1961-62 IMPALA w/ AC

REMOVING OEM CONTROL PANEL

- ☐ REMOVE THE (4) OEM LEVER KNOBS AND THE (4) OEM MOUNTING SCREWS FROM INSTRUMENT PANEL OF DASH. SEE FIGURE 1 BELOW.
- ☐ DISCONNECT CABLES AND WIRES FROM BACK OF CONTROL PANEL.
- ☐ REMOVE THE CONTROL PANEL FROM BEHIND THE DASH.

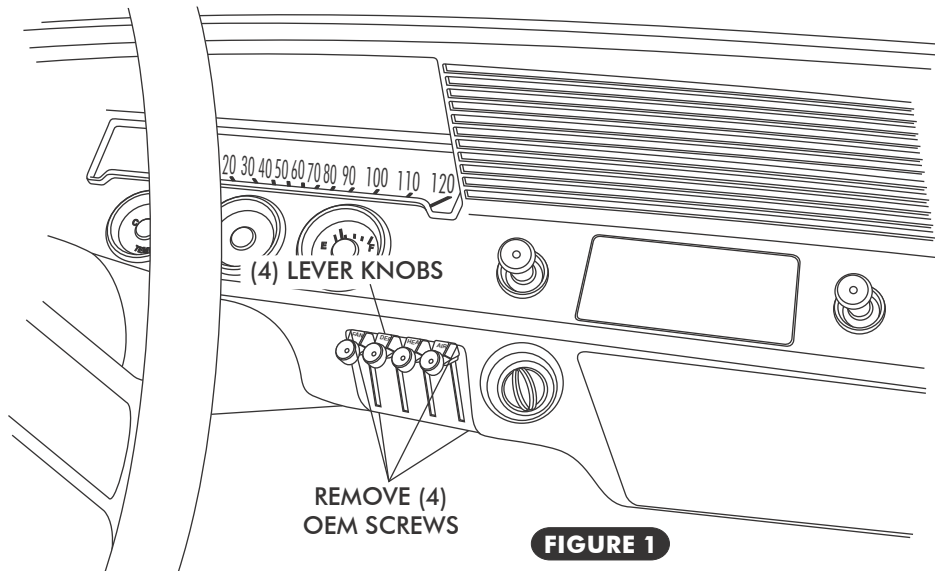


FIGURE 1

SLIDE POT ASSEMBLY MODIFICATIONS

- ☐ LOCATE THE THREE SLIDE POT ASSEMBLIES, AND USING A PAIR OF WIRE CUTTERS, CUT SLIDE POT ACTUATOR RODS AS SHOWN BELOW IN FIGURE 2.

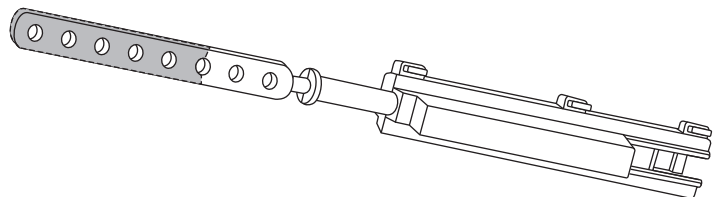
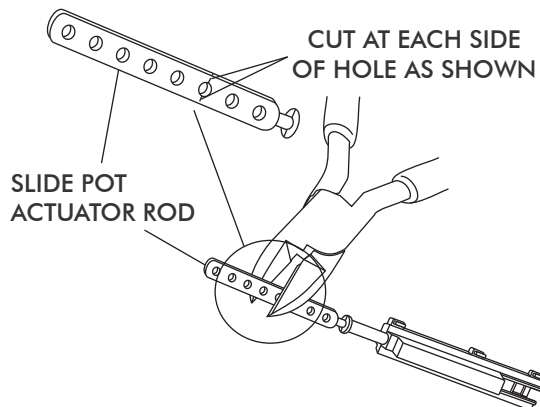


FIGURE 2

CUT ALL THREE SLIDE
POT ASSEMBLIES
AT 3RD HOLE
(REMOVE SHADED PORTION)

SLIDE POT ASSEMBLY MOUNTING CLAMP INSTALLATION

- ☐ INSTALL SLIDE POT ASM MOUNTING CLAMPS. SEE FIGURE 3 BELOW.

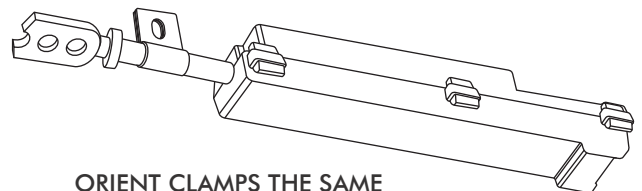
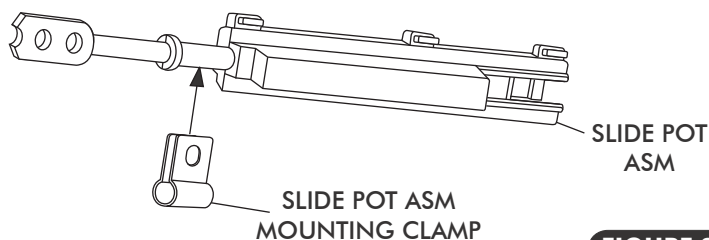


FIGURE 3

ORIENT CLAMPS THE SAME
DIRECTION FOR
ALL (3) SLIDE POT ASSEMBLIES

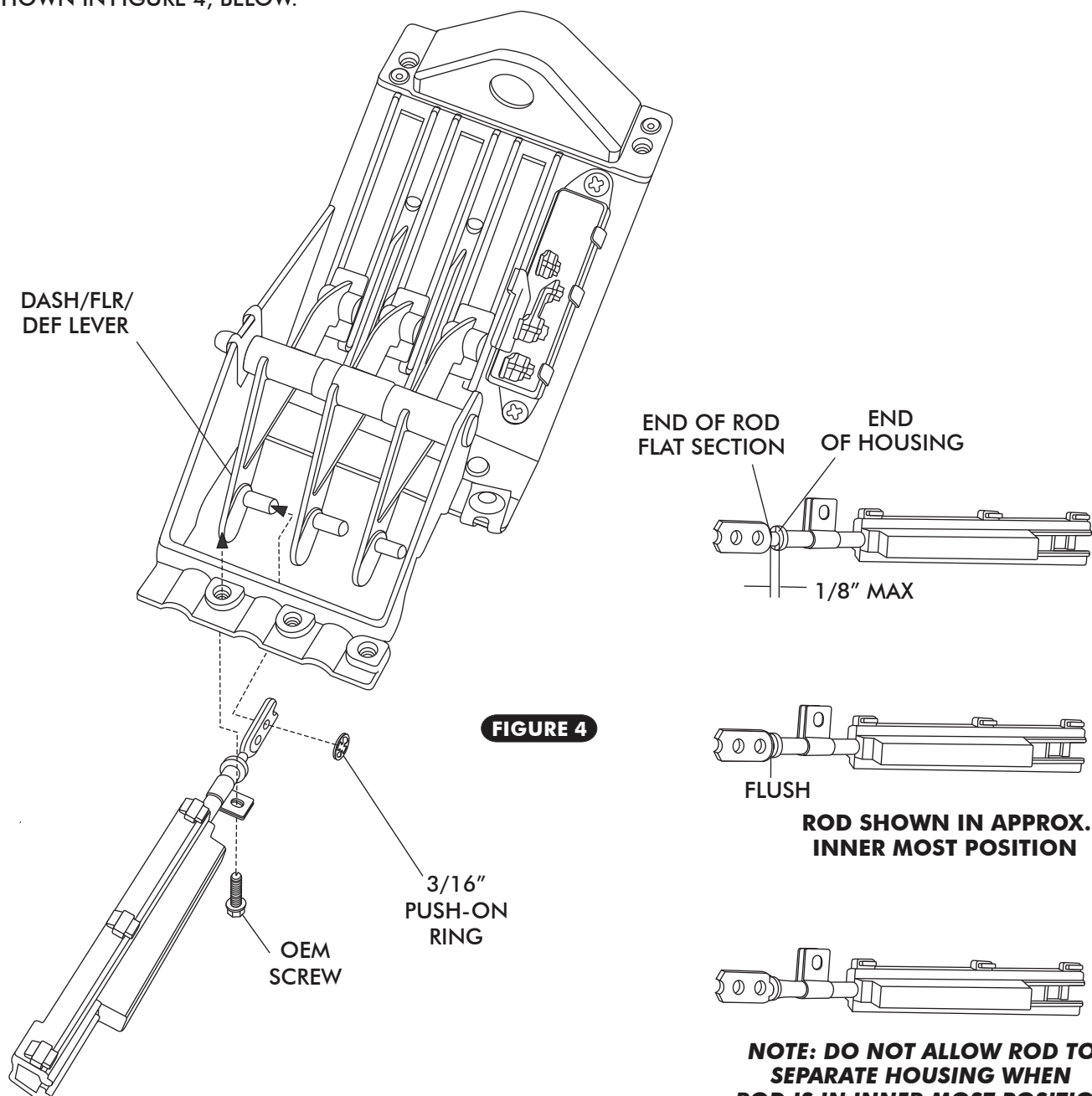
**ORIENT SLIDE POT ASSEMBLIES AS SHOWN AND INSTALL MOUNTING CLAMPS AS SHOWN.
(NOTE: ORIENT CLAMPS IN RELATION TO THE (3) HOUSING SNAPS ON SLIDE POT ASSEMBLY)**



SLIDE POT ASSEMBLY INSTALLATION

DASH/FLR/DEF SLIDE POT ASSEMBLY

- INSTALL SLIDE POT ASM ON THE DASH/FLR/DEF LEVER. SEE FIGURE 4, BELOW.
- INSTALL SLIDE POT LEVER PUSH ROD ONTO OEM CABLE MOUNTING STUD ON LEVER. SEE FIGURE 4, BELOW.
- SECURE THE SLIDE POT ASM TO THE CONTROL PANEL USING THE OEM SCREW IN THE OEM CABLE CLAMP MOUNTING LOCATION. SEE FIGURE 4 BELOW.
- SINCE THE SLIDE POT ASSEMBLY CAN SLIDE BACK AND FORTH IN CLAMP BEFORE SCREW IS TIGHTENED, POSITION SLIDE POT ASSEMBLY SUCH THAT THE FLAT PART OF THE ROD IS AS CLOSE TO FLUSH AS POSSIBLE WITH THE END OF HOUSING AT THE LEVER'S INNER MOST POSITION. SEE FIGURE 4, BELOW.
- SECURE SLIDE POT LEVER PUSH ROD ONTO OEM CABLE MOUNTING STUD USING 3/16" PUSH-ON RING AS SHOWN IN FIGURE 4, BELOW.





CONTROL HARNESS

- LOCATE THE CONTROL PANEL WIRE HARNESS AND PLUG THE CORRESPONDING WIRES INTO THE CORRECT SLIDE POT ASSEMBLY AS SHOWN IN FIGURE 5 BELOW.

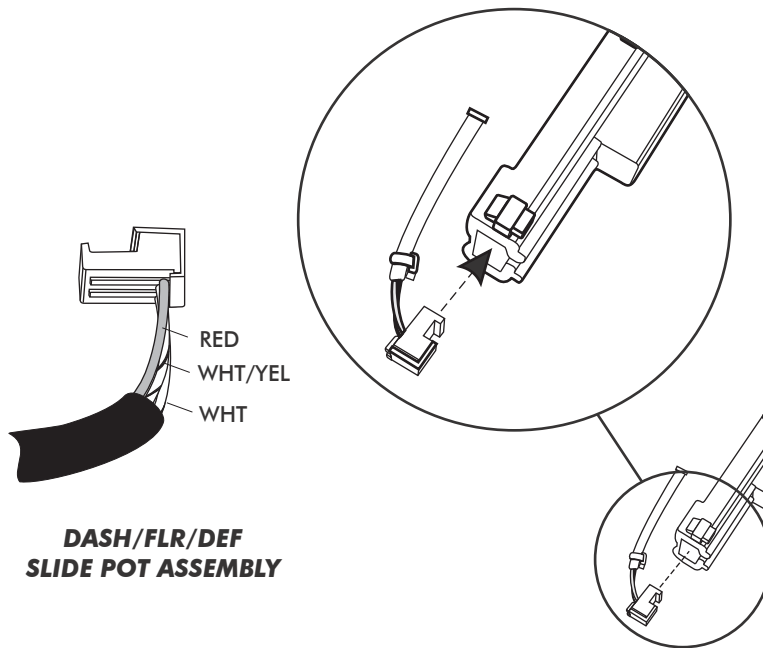


FIGURE 5

- ONCE WIRES ARE CORRECTLY PLUGGED INTO SLIDE POT ASSEMBLY, SECURE WIRES TO THE SLIDE POT ASSEMBLY USING TIE WRAPS (SUPPLIED). SEE FIGURE 5a BELOW. THE TIE WRAP MUST BE LOCATED BETWEEN THE END OF THE WIRE JACKET AND THE STEP IN THE SLIDE POT HOUSING FORCING A BEND IN EACH WIRE AS THEY PASS OVER THE STEP IN SLIDE POT HOUSING. HEAD OF TIE WRAP MUST FALL ON EDGE OF HOUSING AS SHOWN TO REMAIN TIGHT. ENSURE THAT THE TIE WRAPS ARE SNUG ENOUGH THAT THE WIRES CANNOT MOVE. SEE FIGURE 5a.

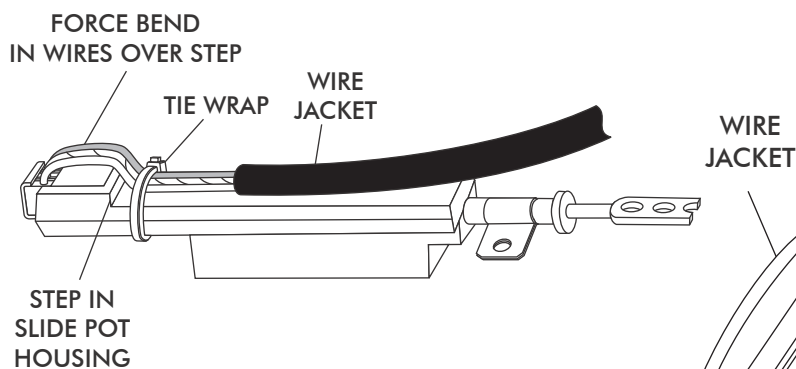
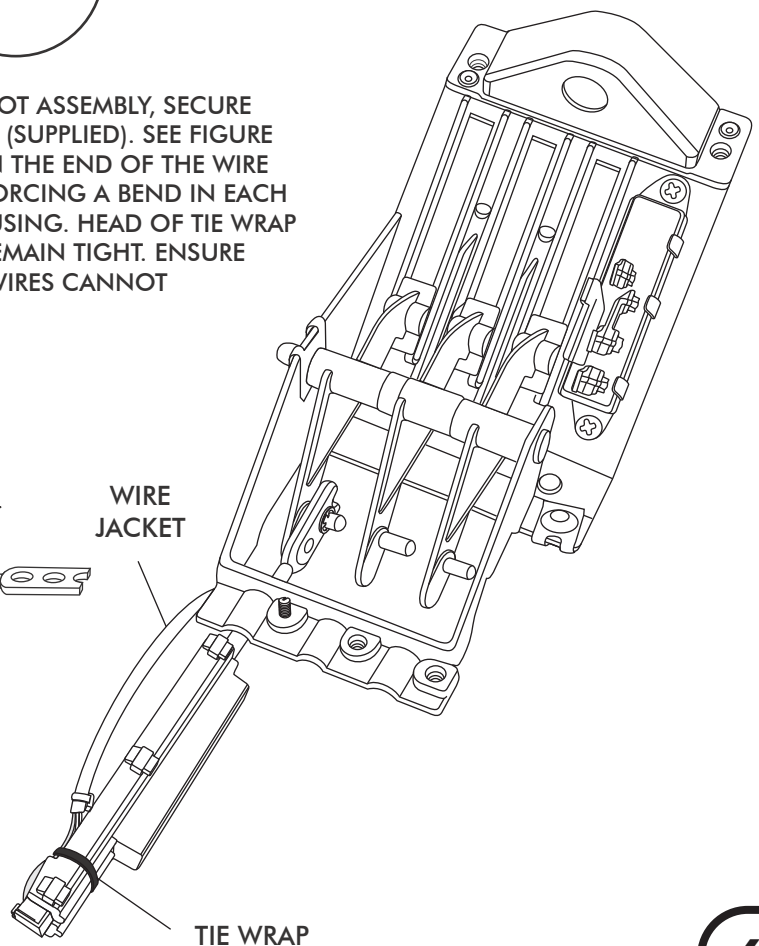


FIGURE 5a





COLD/HOT SLIDE POT ASSEMBLY

- ❑ INSTALL SLIDE POT ASM ON THE COLD/HOT LEVER. SEE FIGURE 6, BELOW.
- ❑ INSTALL SLIDE POT LEVER PUSH ROD ONTO OEM CABLE MOUNTING STUD ON LEVER. SEE FIGURE 6, BELOW.
- ❑ SECURE THE SLIDE POT ASM TO THE CONTROL PANEL USING THE OEM SCREW IN THE OEM CABLE CLAMP MOUNTING LOCATION. SEE FIGURE 6, BELOW.
- ❑ SINCE THE SLIDE POT ASSEMBLY CAN SLIDE BACK AND FORTH IN CLAMP BEFORE SCREW IS TIGHTENED, POSITION SLIDE POT ASSEMBLY SUCH THAT THE FLAT PART OF THE ROD IS AS CLOSE TO FLUSH AS POSSIBLE WITH THE END OF HOUSING AT THE LEVER'S INNER MOST POSITION. SEE FIGURE 4, PAGE 5.
- ❑ SECURE SLIDE POT LEVER PUSH ROD ONTO OEM CABLE MOUNTING STUD USING 3/16" PUSH-ON RING AS SHOWN IN FIGURE 6, BELOW.

COLD/HOT
LEVER

FIGURE 6

3/16"
PUSH-ON
RING

OEM
SCREW

CONTROL HARNESS

- ❑ LOCATE THE CONTROL PANEL WIRE HARNESS, PLUG THE CORRESPONDING WIRES INTO THE CORRECT SLIDE POT ASSEMBLY AS SHOWN IN FIGURE 6a, BELOW.

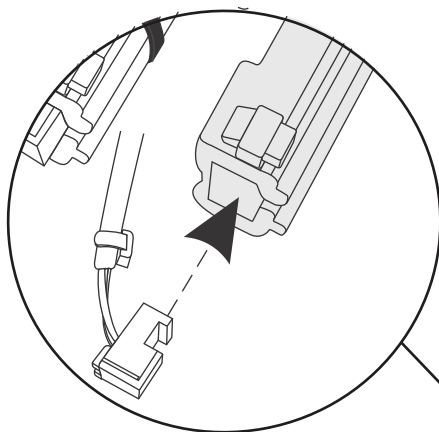


FIGURE 6a

COLD/HOT
SLIDE POT
ASSEMBLY

RED
WHT/RED
WHT



CONTROL HARNESS CONT.

- ONCE WIRES ARE CORRECTLY PLUGGED INTO SLIDE POT ASSEMBLY, SECURE WIRES TO THE SLIDE POT ASSEMBLY USING TIE WRAPS (SUPPLIED). SEE FIGURE 6b, BELOW. THE TIE WRAP MUST BE LOCATED BETWEEN THE END OF THE WIRE JACKET AND THE STEP IN THE SLIDE POT HOUSING FORCING A BEND IN EACH WIRE AS THEY PASS OVER THE STEP IN SLIDE POT HOUSING. HEAD OF TIE WRAP MUST FALL ON EDGE OF HOUSING AS SHOWN TO REMAIN TIGHT. ENSURE THAT THE TIE WRAPS ARE SNUG ENOUGH THAT THE WIRES CANNOT MOVE. SEE FIGURE 6b.

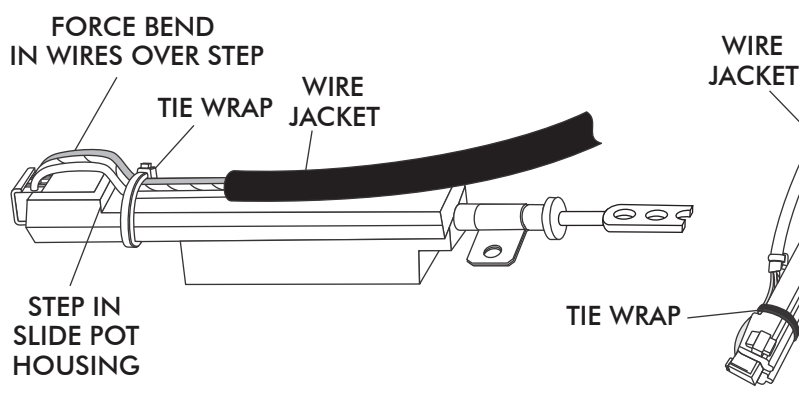


FIGURE 6b

OFF/HI SLIDE POT ASSEMBLY

- INSTALL SLIDE POT ASM ON THE OFF/ HI LEVER. SEE FIGURE 7, BELOW.
- INSTALL SLIDE POT LEVER PUSH ROD ONTO OEM CABLE MOUNTING STUD ON LEVER. SEE FIGURE 7, BELOW.
- SECURE THE SLIDE POT ASM TO THE CONTROL PANEL USING THE OEM SCREW IN THE OEM CABLE CLAMP MOUNTING LOCATION. SEE FIGURE 7, BELOW.
- SINCE THE SLIDE POT ASSEMBLY CAN SLIDE BACK AND FORTH IN CLAMP BEFORE SCREW IS TIGHTENED, POSITION SLIDE POT ASSEMBLY SUCH THAT THE FLAT PART OF THE ROD IS AS CLOSE TO FLUSH AS POSSIBLE WITH THE END OF HOUSING AT THE LEVER'S INNER MOST POSITION. SEE FIGURE 4, PAGE 5.
- SECURE SLIDE POT LEVER PUSH ROD ONTO OEM CABLE MOUNTING STUD USING 3/16" PUSH-ON RING AS SHOWN IN FIGURE 7, BELOW.

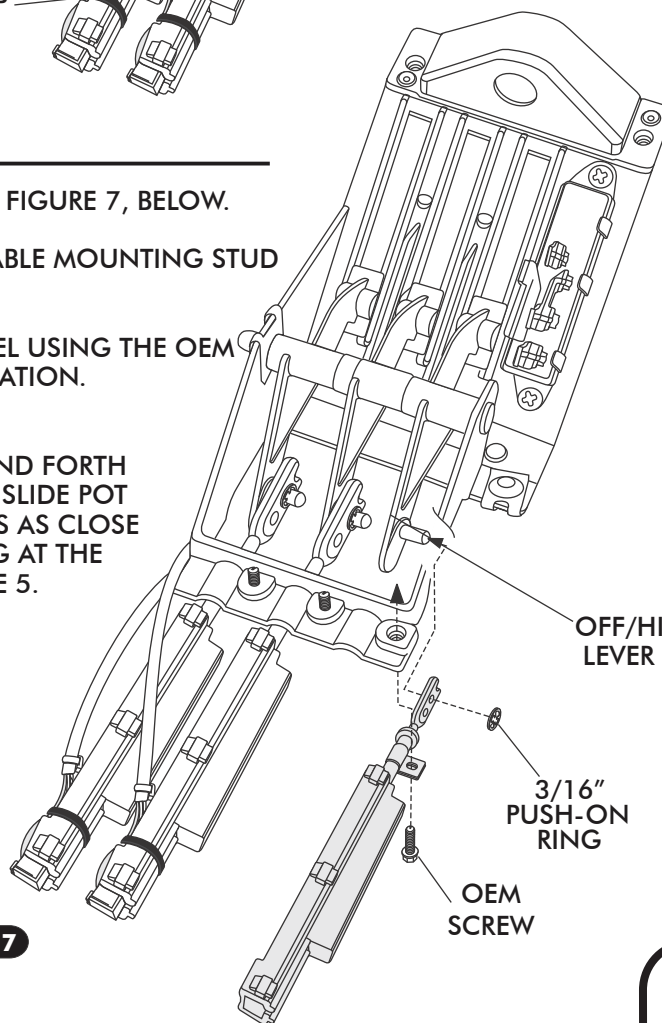


FIGURE 7



CONTROL HARNESS

- LOCATE THE CONTROL PANEL WIRE HARNESS AND PLUG THE CORRESPONDING WIRES INTO THE CORRECT SLIDE POT ASSEMBLY AS SHOWN IN FIGURE 7a, BELOW.

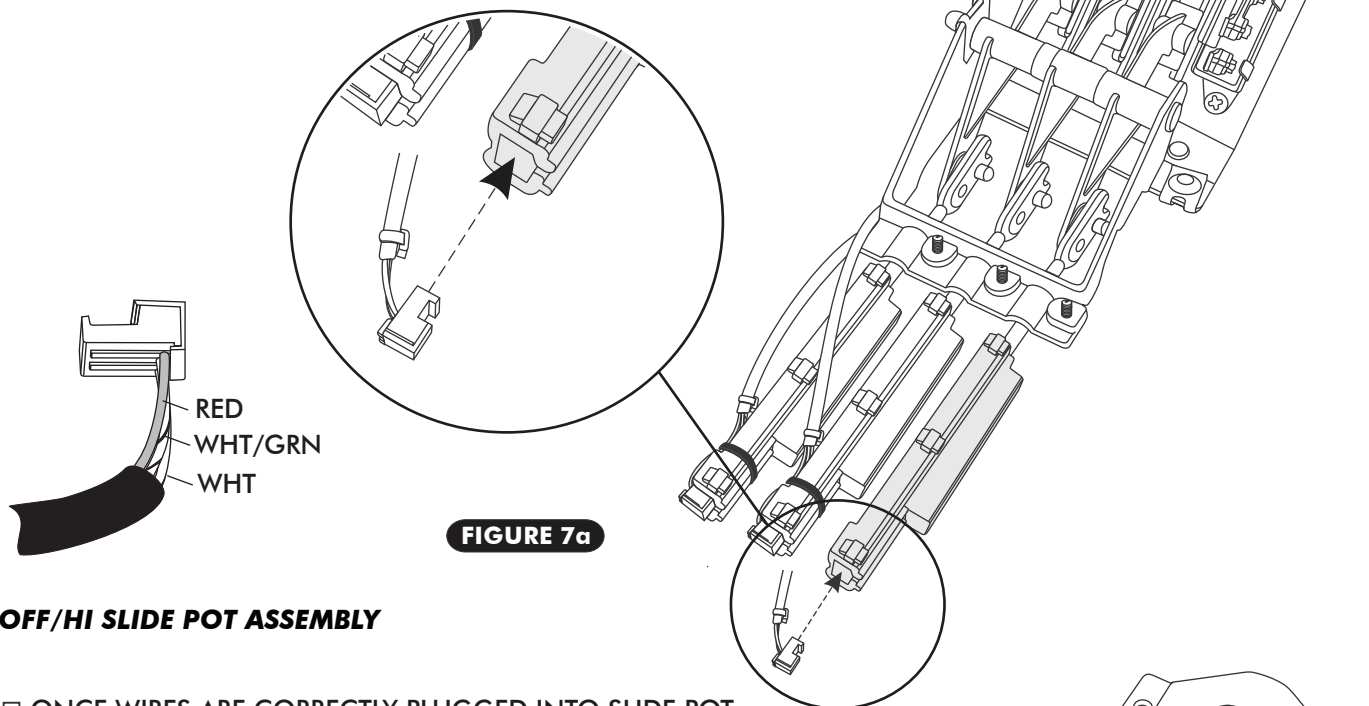


FIGURE 7a

OFF/HI SLIDE POT ASSEMBLY

- ONCE WIRES ARE CORRECTLY PLUGGED INTO SLIDE POT ASSEMBLY, SECURE WIRES TO THE SLIDE POT ASSEMBLY USING TIE WRAPS (SUPPLIED). SEE FIGURE 7b, BELOW. THE TIE WRAP MUST BE LOCATED BETWEEN THE END OF THE WIRE JACKET AND THE STEP IN THE SLIDE POT HOUSING FORCING A BEND IN EACH WIRE AS THEY PASS OVER THE STEP IN SLIDE POT HOUSING. HEAD OF TIE WRAP MUST FALL ON EDGE OF HOUSING AS SHOWN TO REMAIN TIGHT. ENSURE THAT THE TIE WRAPS ARE SNUG ENOUGH THAT THE WIRES CANNOT MOVE. SEE FIGURE 7b.

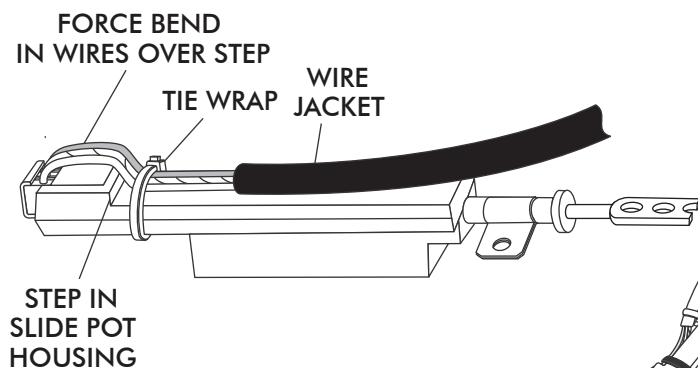


FIGURE 7b



CONTROL HARNESS CONT.

- USING THE SUPPLIED TIE-WRAPS, TIE THE WIRES TO THE CONTROL PANEL AS SHOWN IN FIGURE 8 BELOW. CONFIRM THAT WIRES ARE SECURED AND DO NOT INTERFERE WITH LEVER OPERATION OR SLIDE POT ASSEMBLY.

NOTE: TIE THE UNUSED WIRE TO THE CONTROL PANEL APPROXIMATELY AS SHOWN, ENSURE THAT THE WIRE DOES NOT INTERFERE WITH LEVERS OR SLIDE POT ASSEMBLIES.

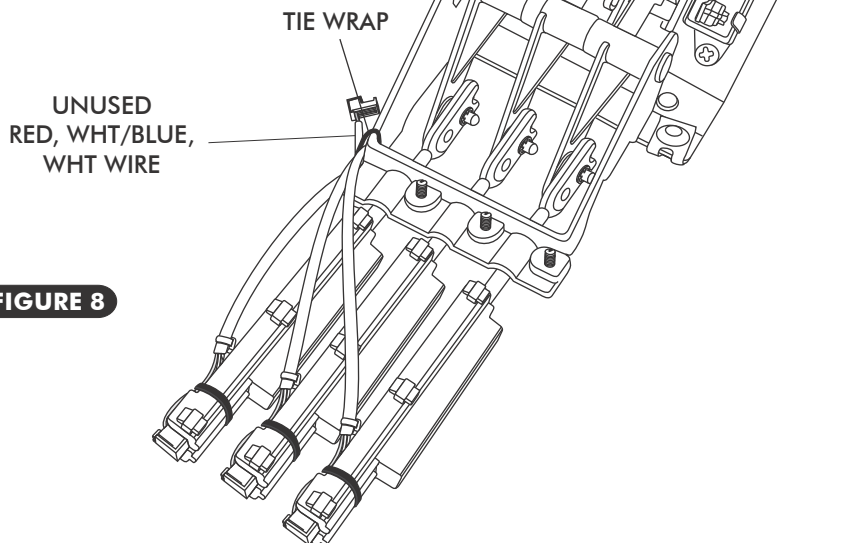
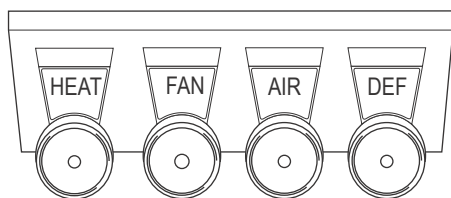


FIGURE 8

FINAL STEPS

- RE-INSTALL CONTROL PANEL IN DASH.
- ONCE CONTROL PANEL IS INSTALLED, INSTALL THE (4) MODE LEVER KNOBS AS SHOWN IN FIGURE 9 BELOW. NOTE: THE FIRST LEVER (HEAT) WILL NOT BE USED.



INSTALL KNOBS AS SHOWN

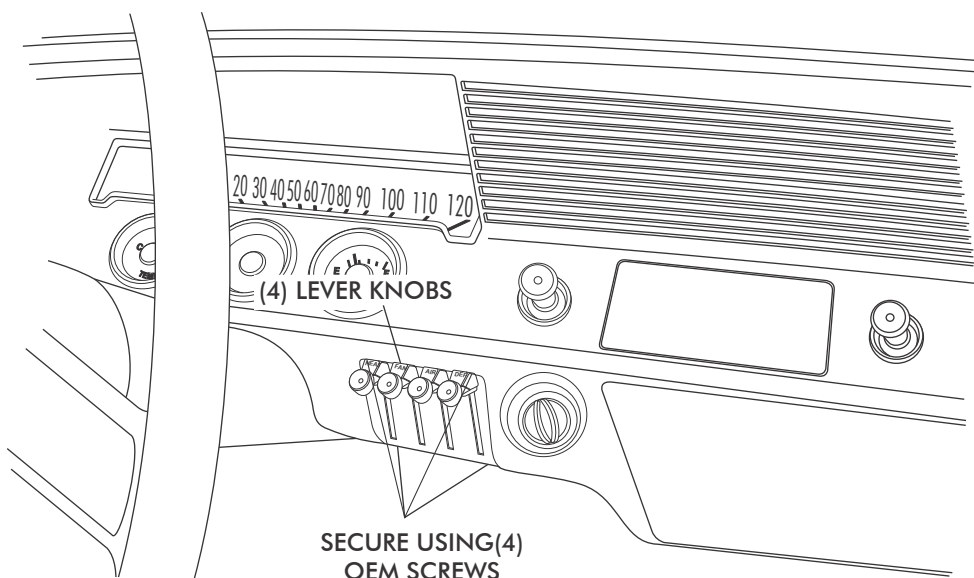


FIGURE 9



FINAL STEPS CONT.

- ☐ PLUG THE WIRING HARNESS INTO THE ECU MODULE ON SUB CASE. SEE FIGURE 10 BELOW.
- ☐ WIRE ACCORDING TO WIRING DIAGRAM ON PAGE 14.
- ☐ CONTROL PANEL CALIBRATION PROCEDURE AND OPERATION INSTRUCTIONS:
 - CALIBRATING THE CONTROL PANEL WILL SET THE RANGE OF TRAVEL FOR THE SLIDE POTS CONNECTED TO THE OEM CONTROL PANEL LEVERS. PERFORMING THIS PROCEDURE WILL SET THE LIMITS OF THE SLIDE POTS AT THEIR HIGHEST AND LOWEST POINTS
 - LOCATE THE GRAY WIRE WITH AN UNUSED CONNECTOR IN THE WIRING HARNESS NEAR THE TWO CABLE HARNESS RELAYS. THE WIRE IS LABELED *PRGM* ON THE WIRING DIAGRAM ON PAGE 14.
 - 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 WIRE TO THE VEHICLE'S GROUND (FOR EXAMPLE THE CHASSIS) AND HAVE THE OTHER END READY TO CONNECT TO THE GRAY *PRGM* WIRE WHEN THE PROCEDURE REQUIRES IT.
 - TO CALIBRATE THE CONTROL PANEL FOLLOW THE CALIBRATION PROCEDURES ON PAGE 12 & 13.

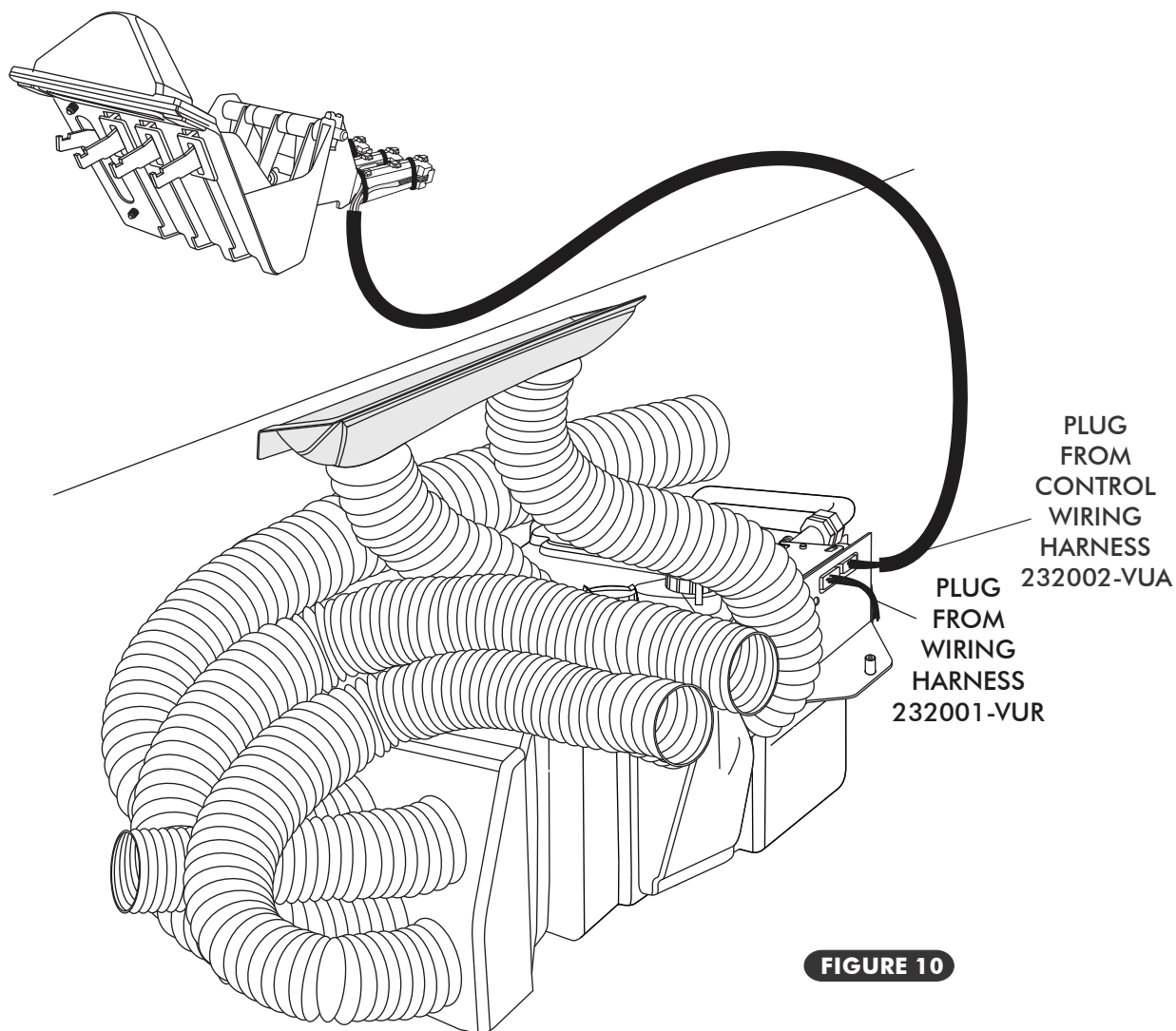


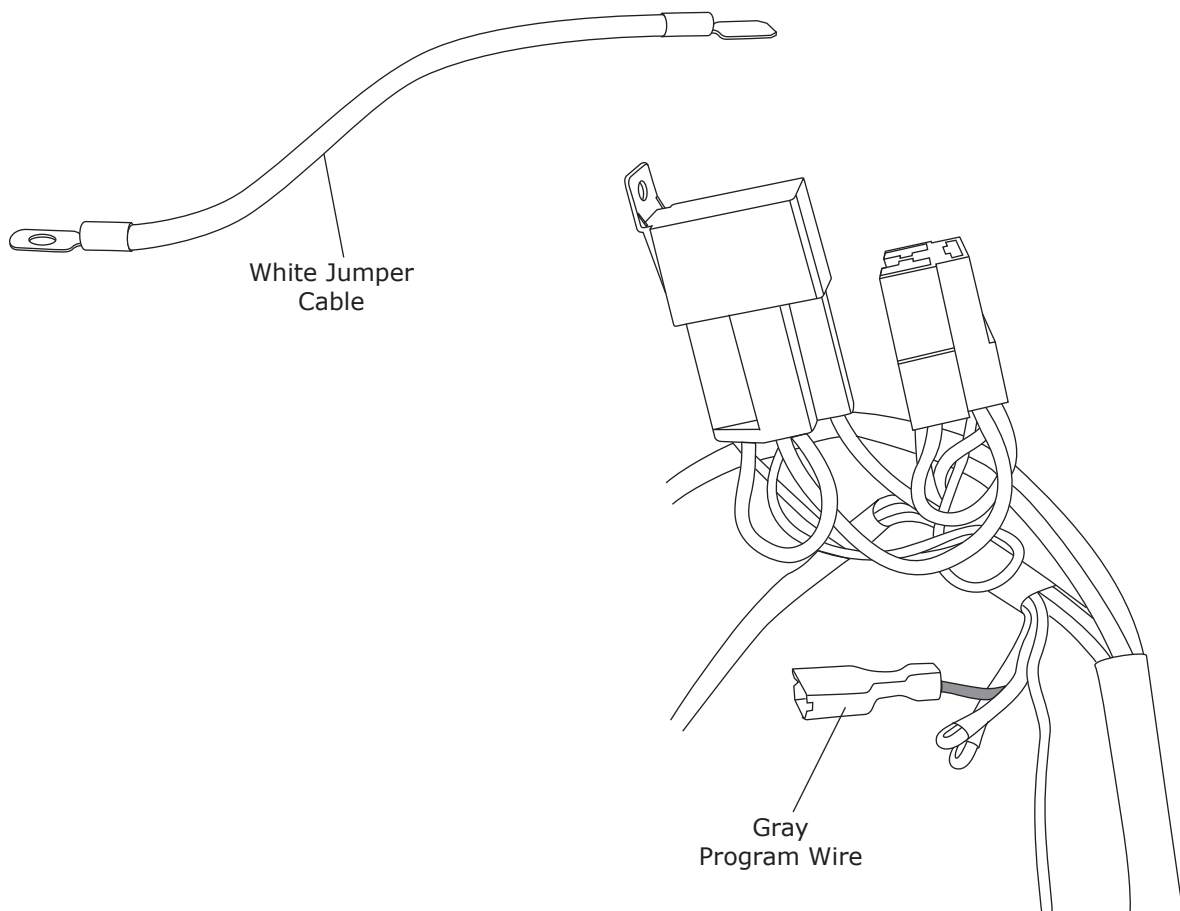
FIGURE 10



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.

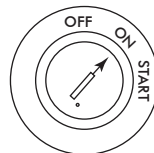
In preparation for calibration, you will need to attach the supplied white ground jumper wire to a suitable chassis ground. This jumper wire must be easily connected to the gray programming wire located in the main Gen IV wiring harness next to the relays. During the calibration procedure, you will connect 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.



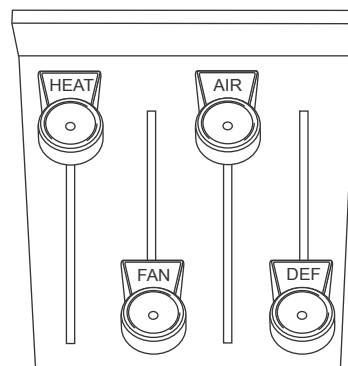


Control Panel Calibration Procedure (Cont.)

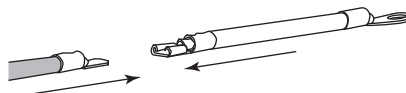
1. Turn on the ignition switch (Do not start the engine).



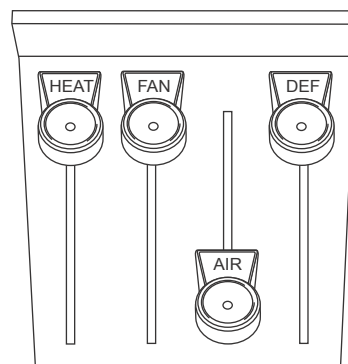
2. Move the control levers/knobs to the position shown.



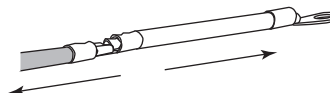
3. Connect the white jumper wire to the gray program wire. Wait for the blower speed to change (Approximately 5 seconds).



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.

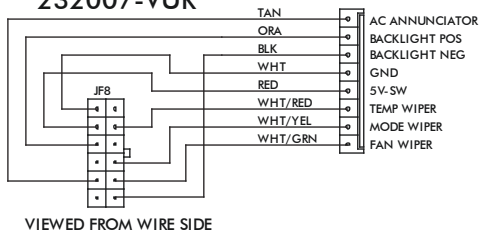


6. Confirm proper operation of controls. Repeat procedure if necessary. When finished, tape over program wire connector with electrical tape to prevent accidental contact with chassis ground.



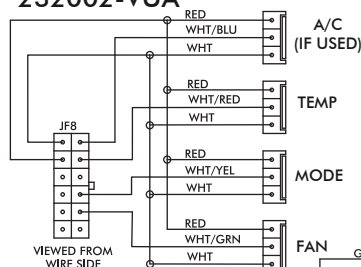
Wiring Diagram

232007-VUR



VIEWED FROM WIRE SIDE

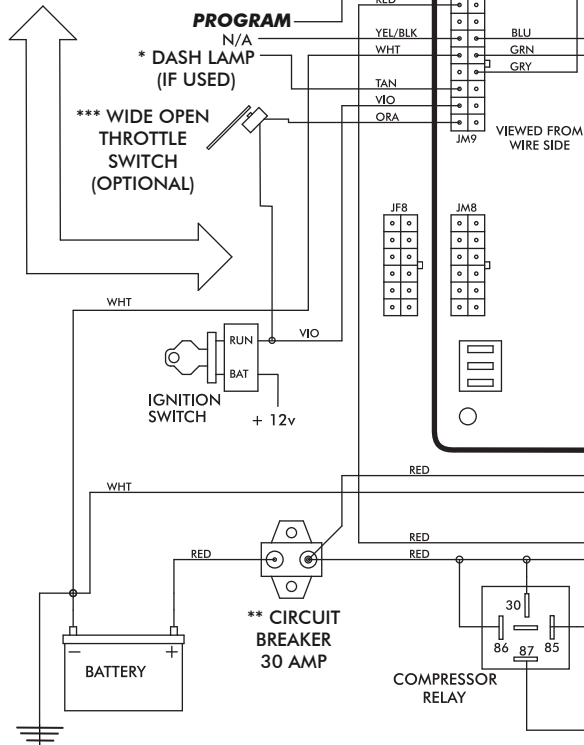
232002-VUA



VIEWED FROM WIRE SIDE

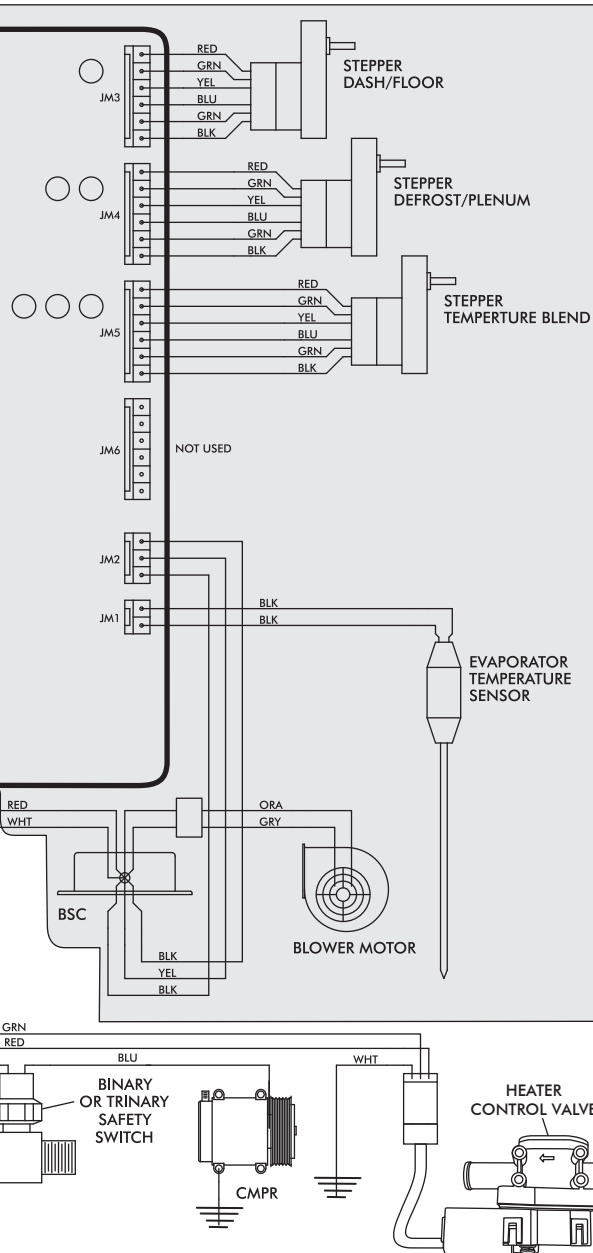
GEN IV ECU

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



NOTE: = CHASSIS GROUND

PRE-WIRED



- 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

NOTE: WHEN BATTERY POWER IS FIRST CONNECTED TO THE ECU, THE COMPUTER GOES THROUGH AN INITIALIZATION SEQUENCE. THIS INITIALIZATION MAY TAKE UP TO 30 SECONDS. DURING INITIALIZATION THE BLOWER WILL NOT OPERATE, BUT THE DOORS INSIDE THE UNIT WILL BE OPERATING. A LOW BATTERY OR DISCONNECTING THE BATTERY MAY ALSO TRIGGER A RE-INITIALIZATION. DURING START UP, A LOW BATTERY MAY DROP BELOW 7 VOLTS, TRIGGERING RE-INITIALIZATION.

NOTE:
ORIGINAL BLOWER SWITCH WILL NOT BE USED.

BLOWER SPEED THERMOSTAT LEVER MODE LEVER

BLOWER SPEED

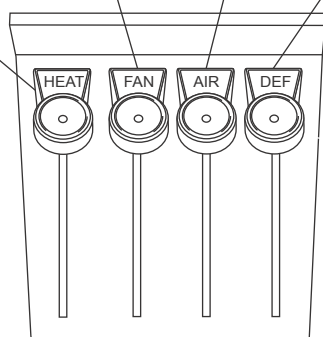
THIS LEVER CONTROLS THE BLOWER SPEED, FROM OFF TO HI

THERMOSTAT LEVER

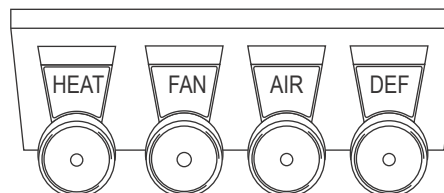
THIS LEVER CONTROLS THE TEMPERATURE FROM HOT TO COLD

MODE LEVER

THIS LEVER CONTROLS THE MODE POSITIONS FROM DASH TO FLOOR TO DEFROST



SYSTEM OFF



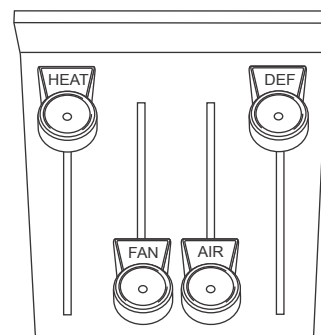
INSTALL KNOBS AS SHOWN

BLOWER SPEED

SLIDE THE FAN LEVER UP OR DOWN TO SELECT DESIRE FAN SPEED (SLIDE LEVER ALL THE WAY DOWN FOR MAXIMUM FAN SPEED)

THERMOSTAT LEVER

IN A/C MODE SLIDE THE AIR LEVER ALL THE WAY DOWN TO ENGAGE COMPRESSOR FOR MAXIMUM COOLING. (SLIDE LEVER UP OR DOWN TO ADJUST DESIRED TEMPERATURE)



A/C MODE

MODE LEVER

SLIDE THE DEF LEVER ALL THE WAY UP FOR DASH MODE

BLOWER SPEED

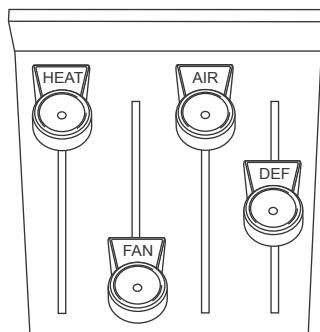
SLIDE THE FAN LEVER UP OR DOWN TO SELECT DESIRE FAN SPEED (SLIDE LEVER ALL THE WAY DOWN FOR MAXIMUM FAN SPEED)

THERMOSTAT LEVER

IN HEAT MODE SLIDE THE AIR LEVER ALL THE WAY UP FOR MAXIMUM HEATING. (SLIDE LEVER UP OR DOWN TO ADJUST DESIRED TEMPERATURE)

MODE LEVER

SLIDE THE DEF LEVER TO THE CENTER FOR FLOOR MODE (SLIDE LEVER UP OR DOWN TO BLEND BETWEEN DESIRED MODE POSITIONS)



HEAT MODE

BLOWER SPEED

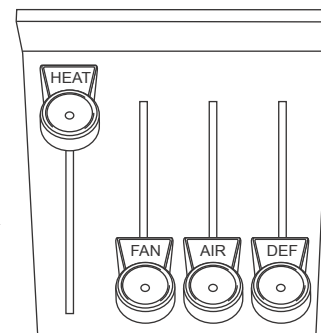
SLIDE THE FAN LEVER UP OR DOWN TO SELECT DESIRE FAN SPEED (SLIDE LEVER ALL THE WAY DOWN FOR MAXIMUM FAN SPEED)

THERMOSTAT LEVER

IN DEF MODE SLIDE THE AIR LEVER ALL THE WAY DOWN TO ENGAGE COMPRESSOR FOR MAXIMUM COOLING. (SLIDE LEVER UP OR DOWN TO ADJUST DESIRED TEMPERATURE)

MODE LEVER

SLIDE THE DEF LEVER ALL THE WAY DOWN FOR DEFROST MODE (SLIDE LEVER UP OR DOWN TO BLEND BETWEEN DESIRED MODE POSITIONS)



DEFROST MODE



CONTROL KIT PACKING LIST

**CONTROL KIT
471062**

No.	QTY.	PART No.	DESCRIPTION	
1.	3	112002-SUA	SLIDE POT ASM	_____
2.	1	232002-VUA	GEN IV UNIVERSAL CONTROL HARNESS	_____
3.	3	65976-VUE	3/16" PUSH-ON RING	_____
4.	3	491010-VUR	SLIDE POT CLAMP	_____
5.	5	21301-VUP	4" TIE WRAP	_____
6.	1	231520	GROUND WIRE	_____

CHECKED BY: _____
PACKED BY: _____
DATE: _____

