

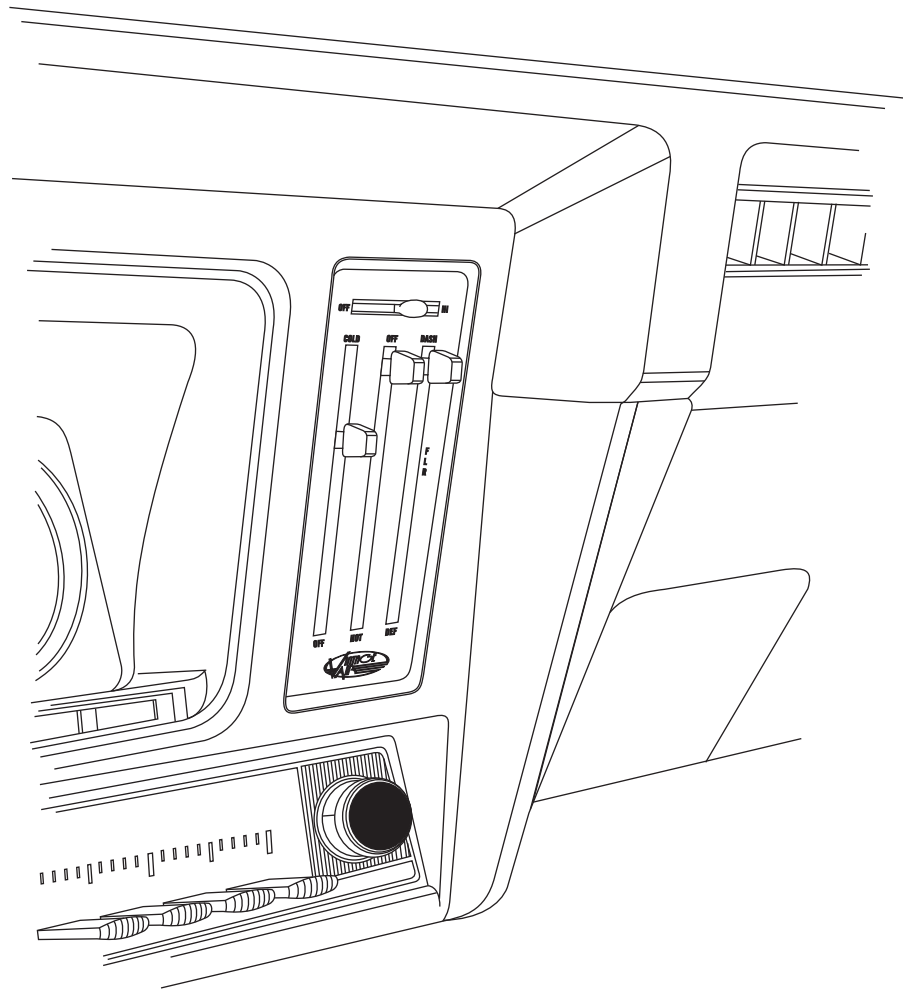


an ISO 9001:2008 Registered Company

1969 CAMARO

WITH AC CONTROL PANEL
CONVERSION KIT

474269



18865 GOLL ST. - SAN ANTONIO, TX. - 78266 ph.210-654-7171 - fax 210-654-3113



Table of Contents

PAGES

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

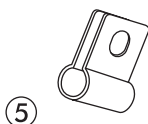
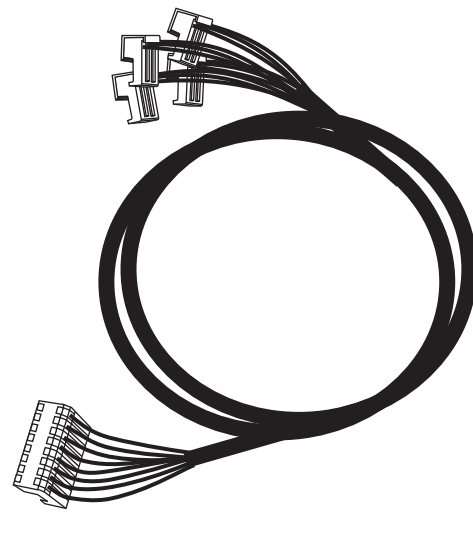
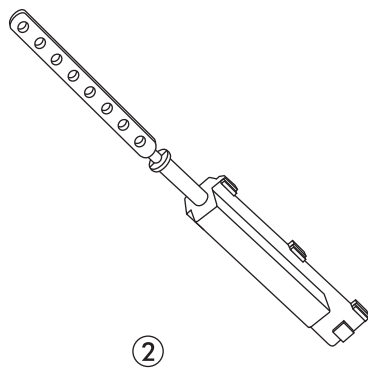
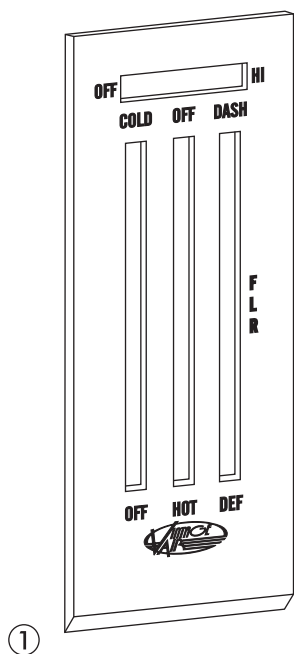


CONTROL KIT PACKING LIST

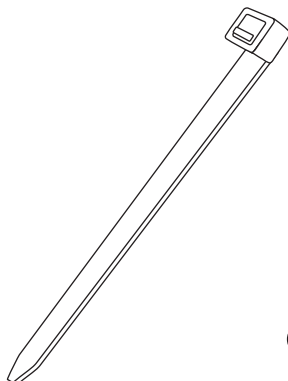
CONTROL KIT
474269

No	QTY	PART No.	DESCRIPTION
1.	1	484169-PCR	1969 CAMARO w/ AC PLACARD w/ BLACK BACKING SHEET
2.	3	112002-SUA	SLIDE POT ASM
3.	1	232002-VUA	GEN IV UNIVERSAL CONTROL HARNESS
4.	3	65976-VUE	3/16" PUSH-ON RING
5.	3	491010-VUR	SLIDE POT CLAMP
6.	5	21301-VUP	4" TIE WRAP
7.	1	231520	GROUND WIRE
8.	1	246108-PUA	BLOWER SWITCH PC BOARD

**** 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.**



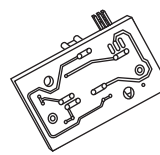
⑥



⑦



⑧





REMOVING OEM CONTROL PANEL

- ☐ REMOVE THE (3) OEM MOUNTING SCREWS FROM INSTRUMENT PANEL OF DASH. SEE FIGURE 1 BELOW.
- ☐ DISCONNECT CABLES AND WIRES FROM BACK OF CONTROL PANEL. NOTE: MAKE SURE THE GLOVE BOX AND GLOVE BOX DOOR HAVE BEEN REMOVED.
- ☐ REMOVE THE CONTROL PANEL FROM BEHIND THE DASH THROUGH THE GLOVE BOX OPENING IN DASH.

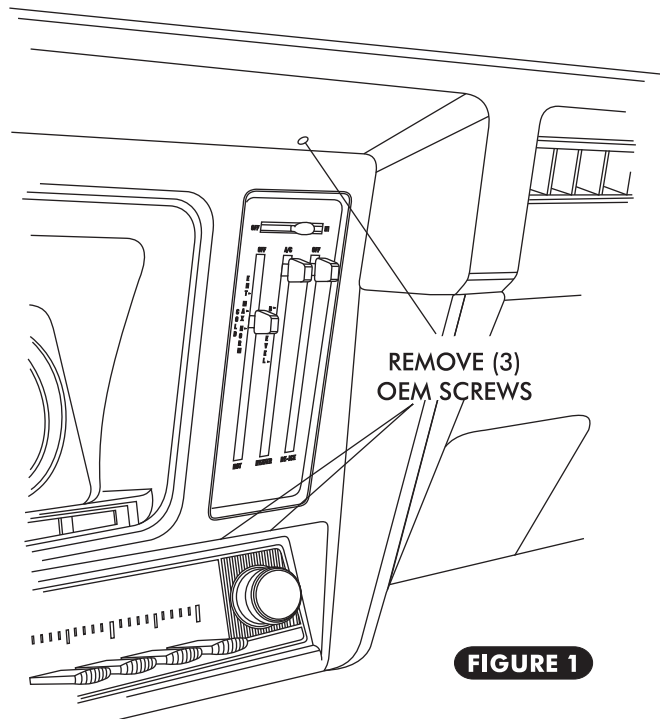


FIGURE 1

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.

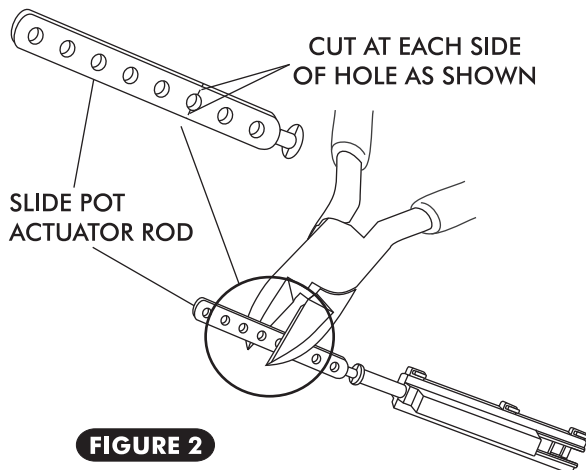
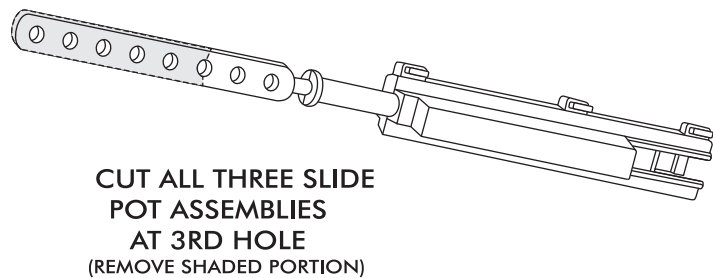


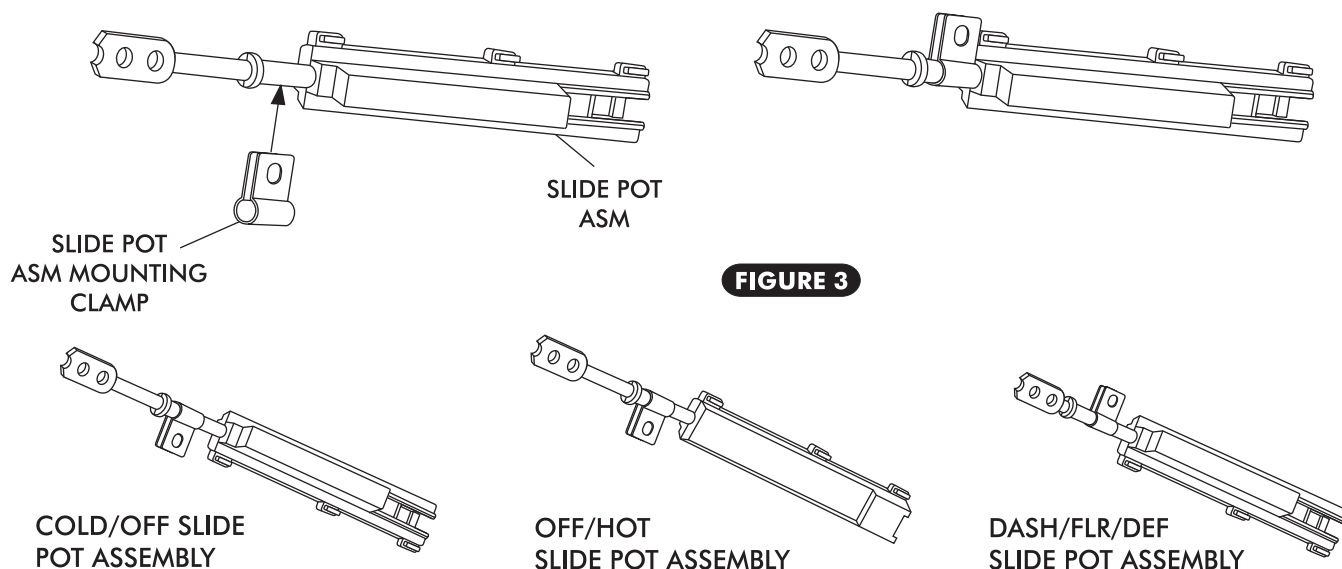
FIGURE 2





SLIDE POT ASSEMBLY MOUNTING CLAMP INSTALLATION

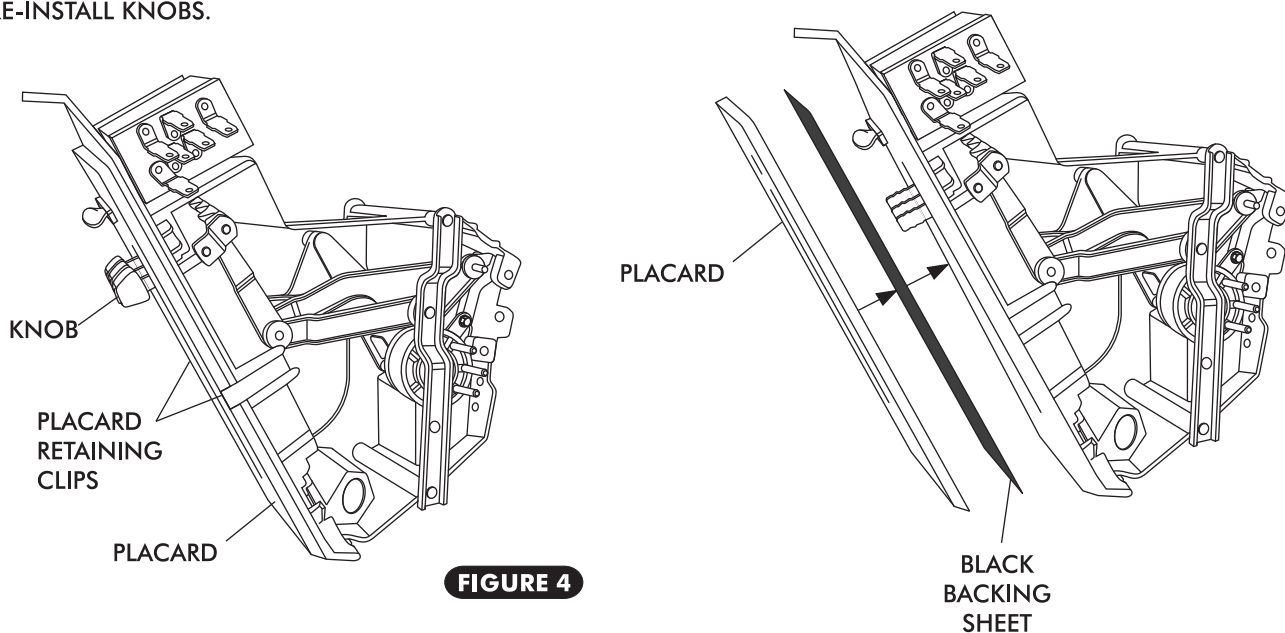
- INSTALL SLIDE POT ASM MOUNTING CLAMPS. SEE FIGURE 3 BELOW.



**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)**

PLACARD INSTALLATION

- REMOVE LEVER KNOBS
- REMOVE PLACARD RETAINING CLIPS. SEE FIGURE 4 BELOW.
- REMOVE BACKING SHEET FROM CONTROL PANEL.
- INSTALL NEW BLACK BACKING SHEET ON CONTROL PANEL. SEE FIGURE 4 BELOW.
- INSTALL NEW PLACARD AND SECURE USING OEM RETAINING CLIPS. SEE FIGURE 4 BELOW.
- RE-INSTALL KNOBS.





SLIDE POT ASSEMBLY INSTALLATION

DASH/FLR/DEF SLIDE POT ASSEMBLY

- ❑ INSTALL SLIDE POT ASM ON THE DASH/FLR/DEF LEVER. SEE FIGURE 5 BELOW.
- ❑ INSTALL SLIDE POT LEVER PUSH ROD ONTO OEM CABLE MOUNTING STUD ON LEVER. SEE FIGURE 5 BELOW.
- ❑ SECURE THE SLIDE POT ASM TO THE CONTROL PANEL USING THE OEM SCREW IN THE OEM CABLE CLAMP MOUNTING LOCATION. SEE FIGURE 5 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 5 BELOW.
- ❑ SECURE SLIDE POT LEVER PUSH ROD ONTO OEM CABLE MOUNTING STUD USING 3/16" PUSH-ON RING AS SHOWN IN FIGURE 5 BELOW.
- ❑ REMOVE VACUUM MODULE (DISCARD) AS SHOWN IN FIGURE 5 BELOW.

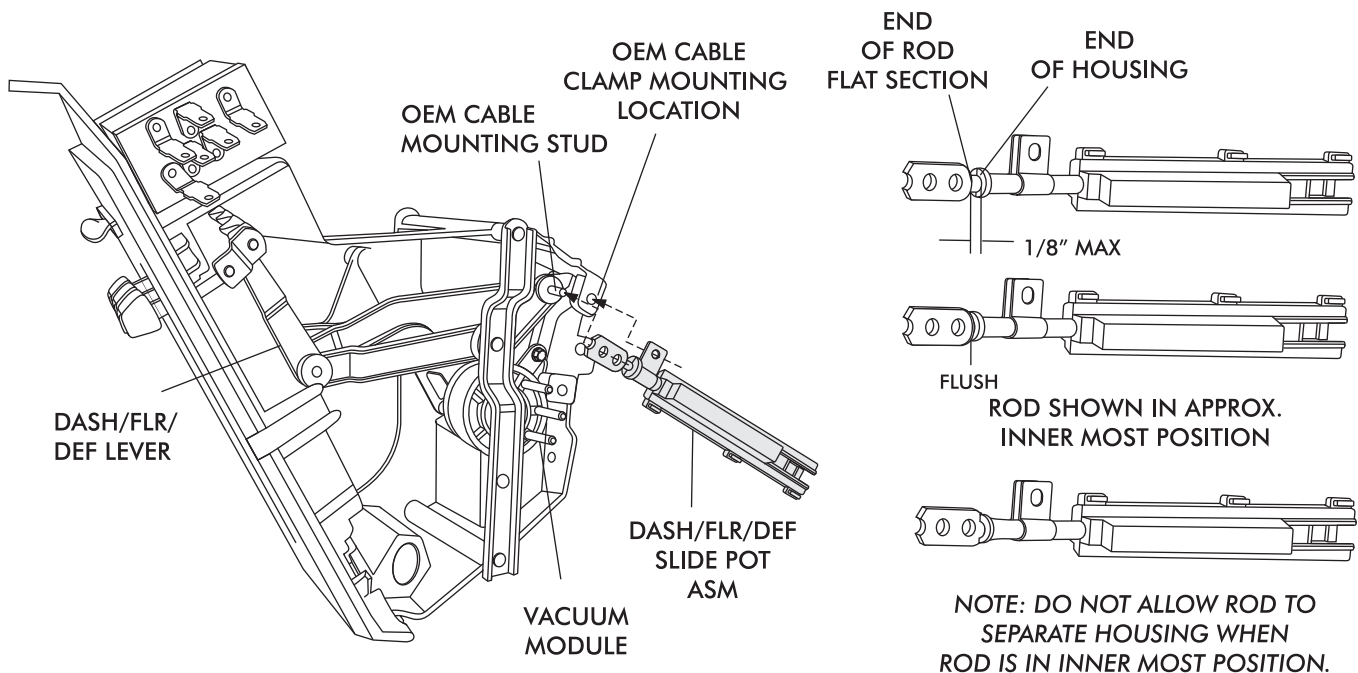
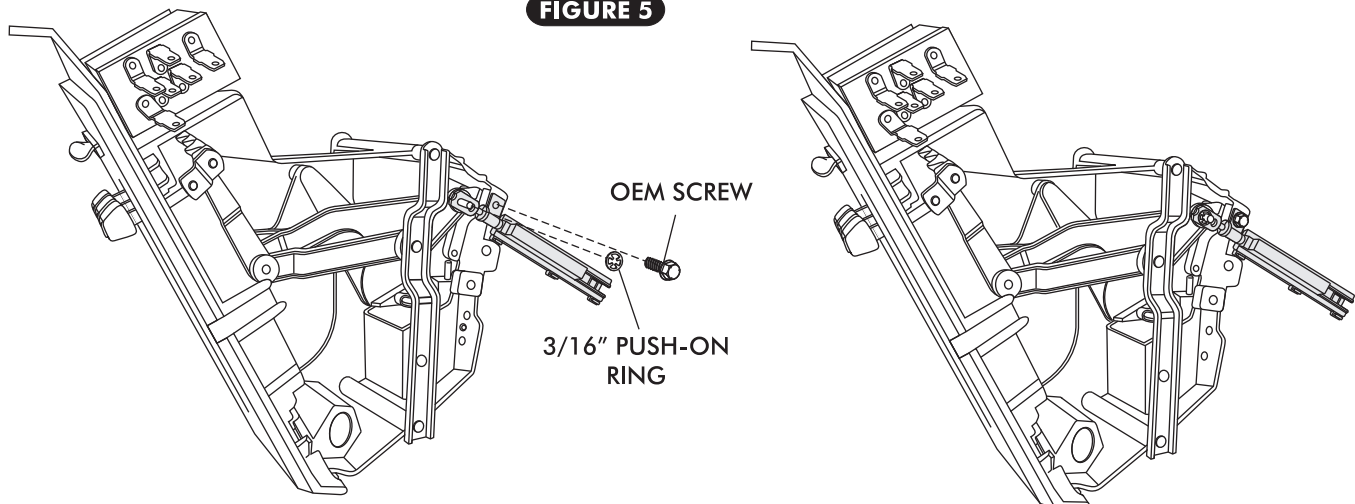


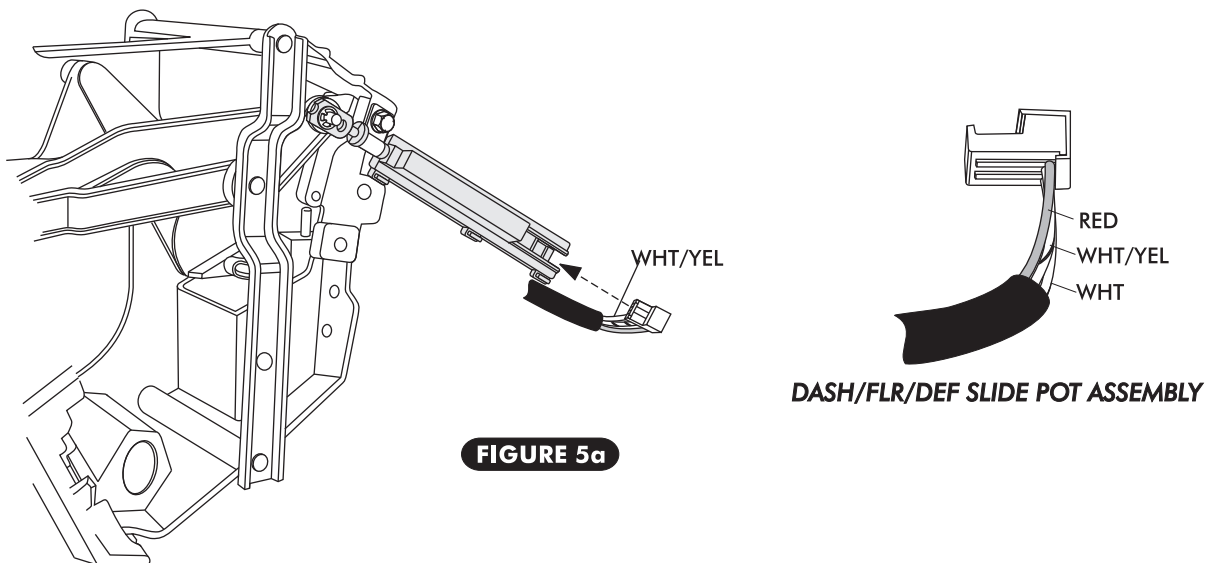
FIGURE 5



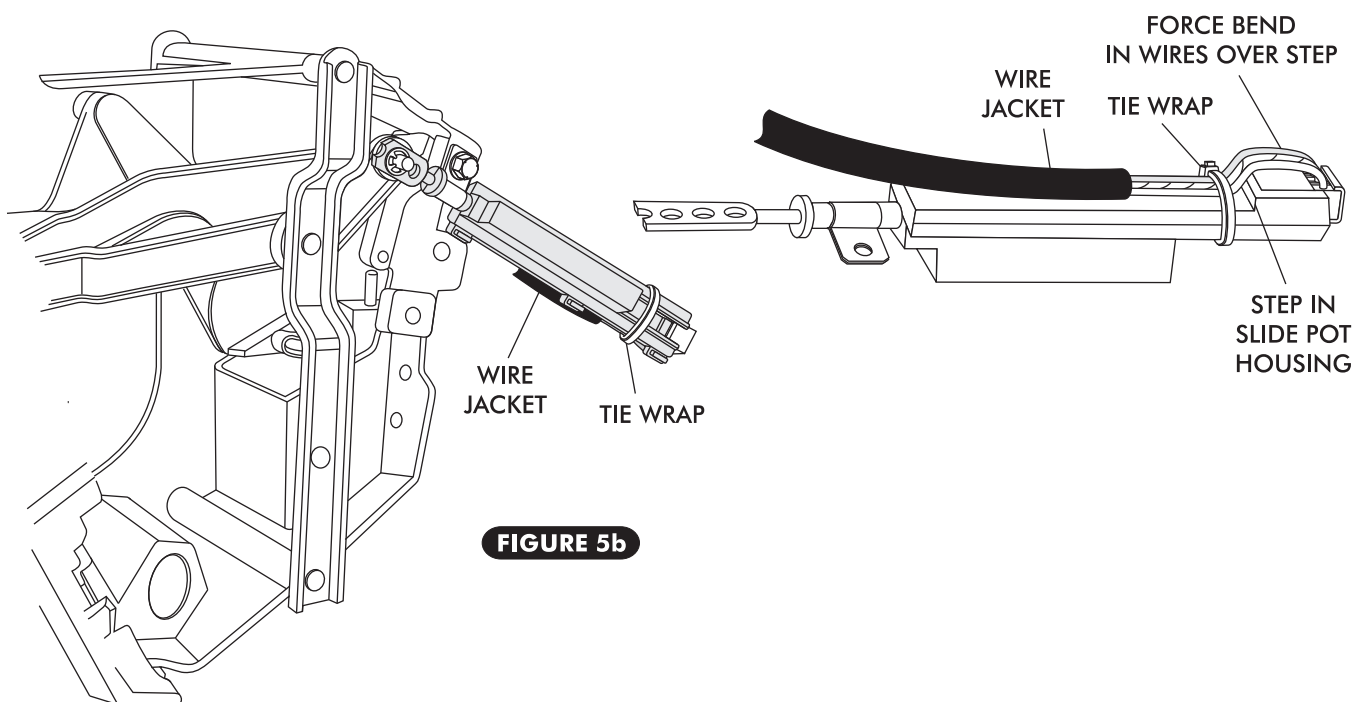


CONTROL HARNESS

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



- ONCE WIRES ARE CORRECTLY PLUGGED INTO SLIDE POT ASSEMBLY, SECURE WIRES TO THE SLIDE POT ASSEMBLY USING TIE WRAPS (SUPPLIED). SEE FIGURE 5b 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 5b.





OFF/HOT SLIDE POT ASSEMBLY

- ☐ INSTALL SLIDE POT ASM ON THE OFF/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. FIGURE 5, PAGE 6.
- ☐ SECURE SLIDE POT LEVER PUSH ROD ONTO OEM CABLE MOUNTING STUD USING 3/16" PUSH-ON RING AS SHOWN IN FIGURE 6 BELOW.

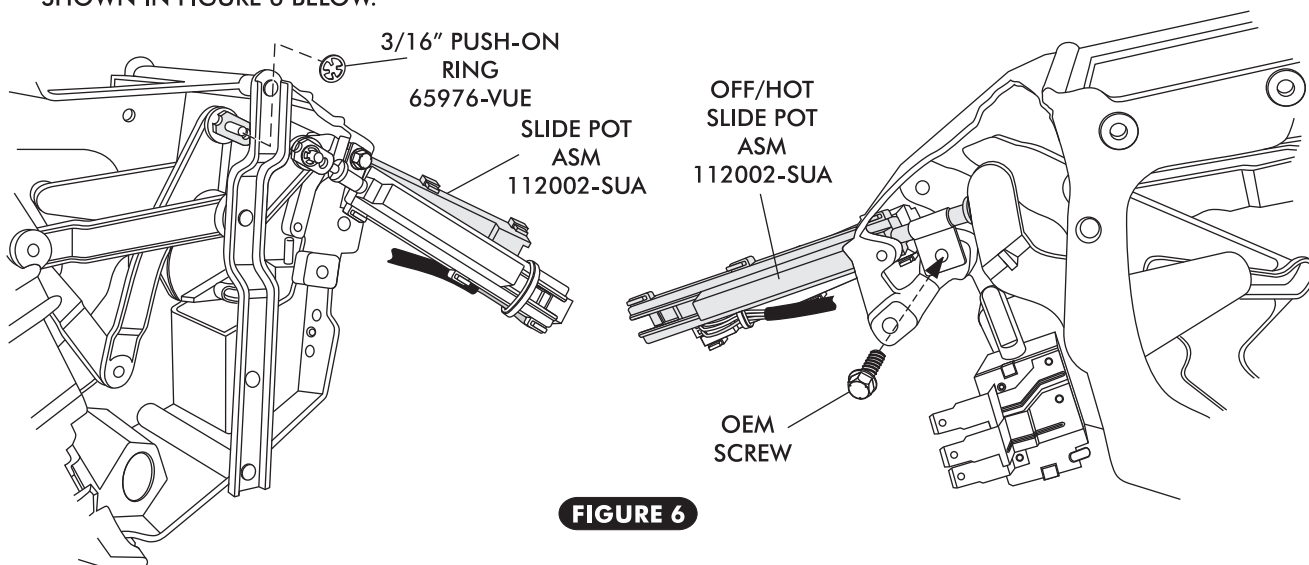


FIGURE 6

CONTROL HARNESS

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

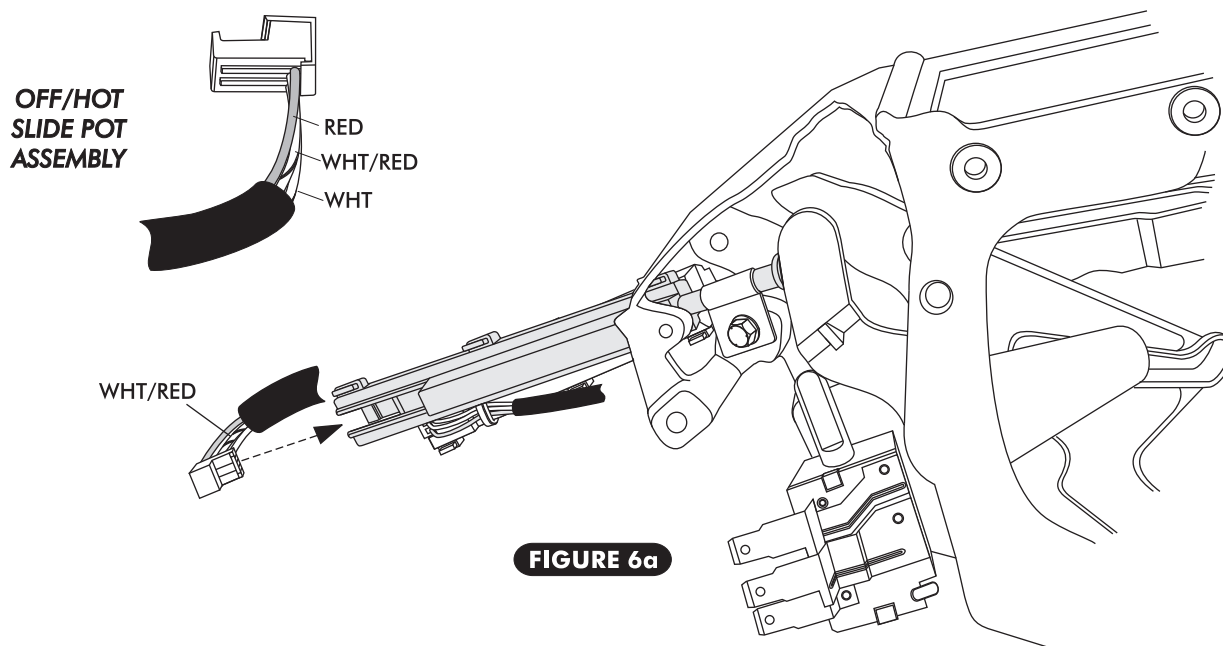


FIGURE 6a



- 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.

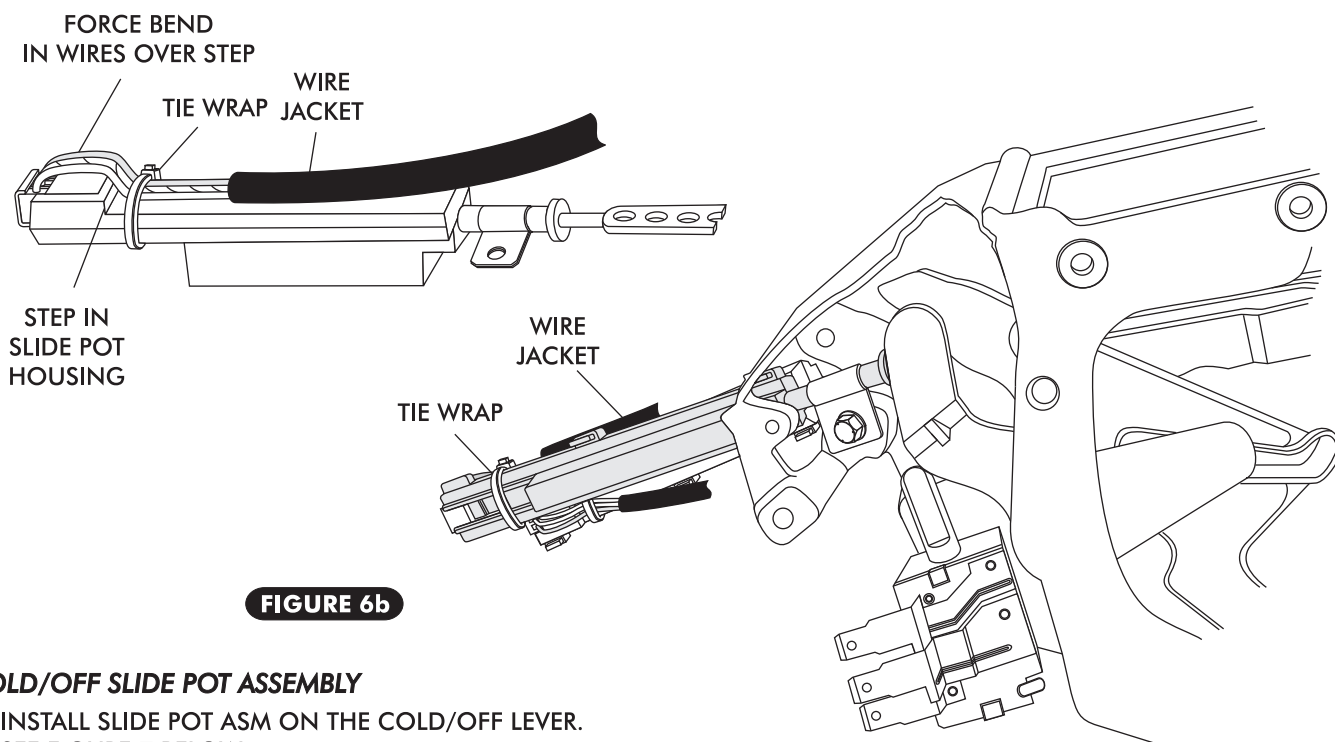


FIGURE 6b

COLD/OFF SLIDE POT ASSEMBLY

- INSTALL SLIDE POT ASM ON THE COLD/OFF 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 5, PAGE 6.
- SECURE SLIDE POT LEVER PUSH ROD ONTO OEM CABLE MOUNTING STUD USING 3/16" PUSH-ON RING AS SHOWN IN FIGURE 7 BELOW.

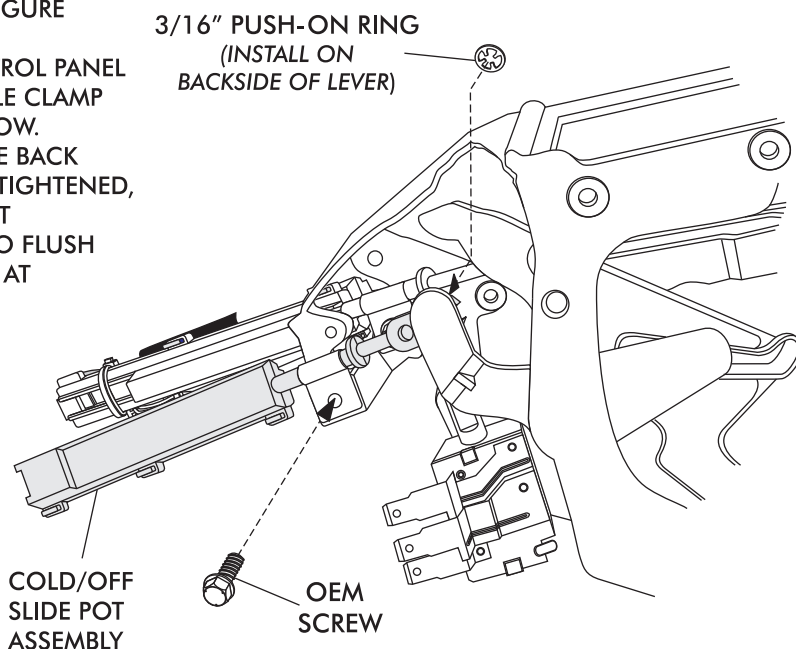
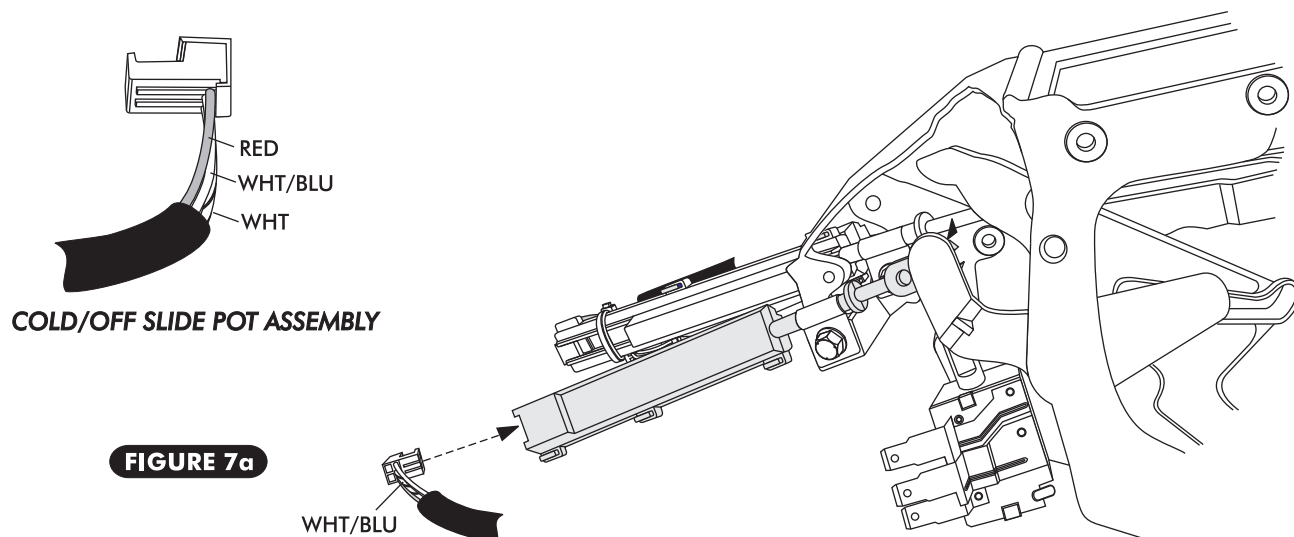


FIGURE 7

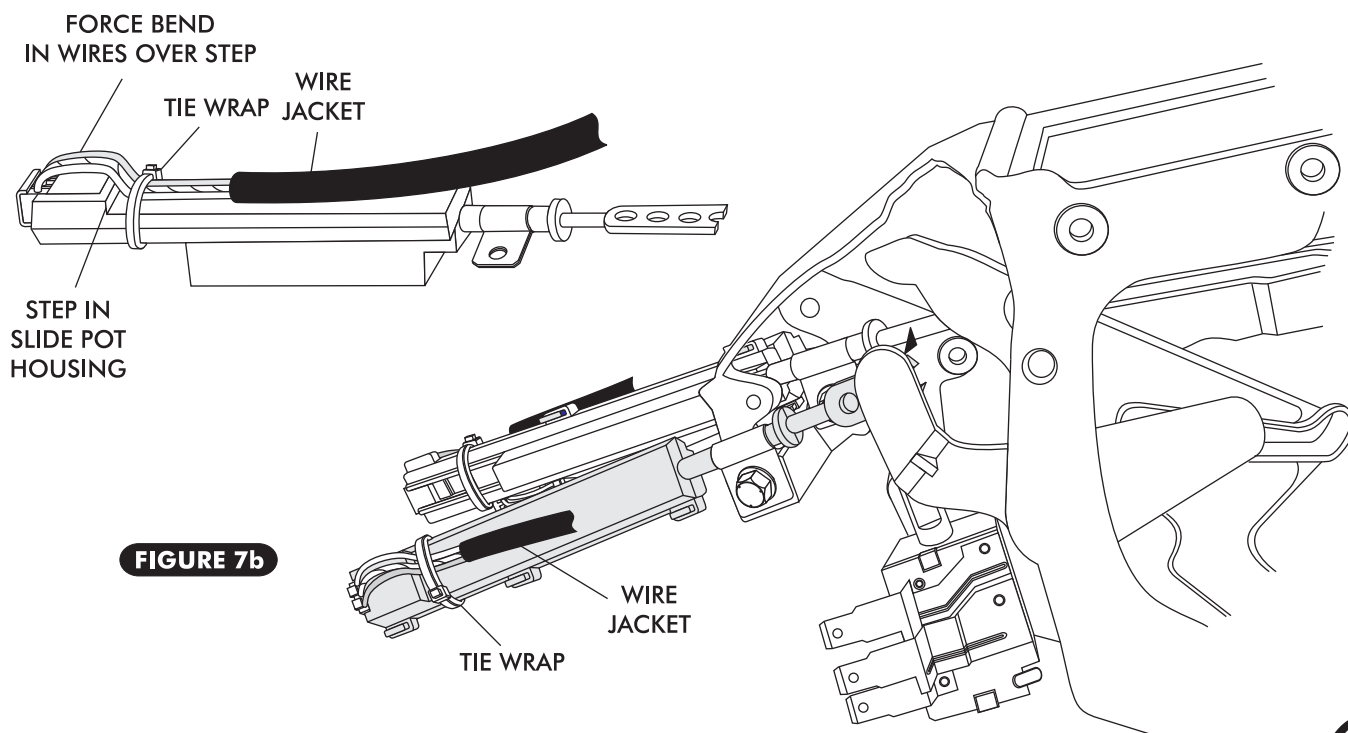


CONTROL HARNESS

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



- 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.





BLOWER SWITCH

- INSTALL THE BLOWER SWITCH PC BOARD ON O.E.M. BLOWER SWITCH AS SHOWN IN FIGURE 8 BELOW.
- PLUG IN THE REMAINING CONNECTOR WITH THE RED, WHT & WHT/GRN WIRES INTO THE BLOWER SWITCH PC BOARD AS SHOWN IN FIGURE 8 BELOW.

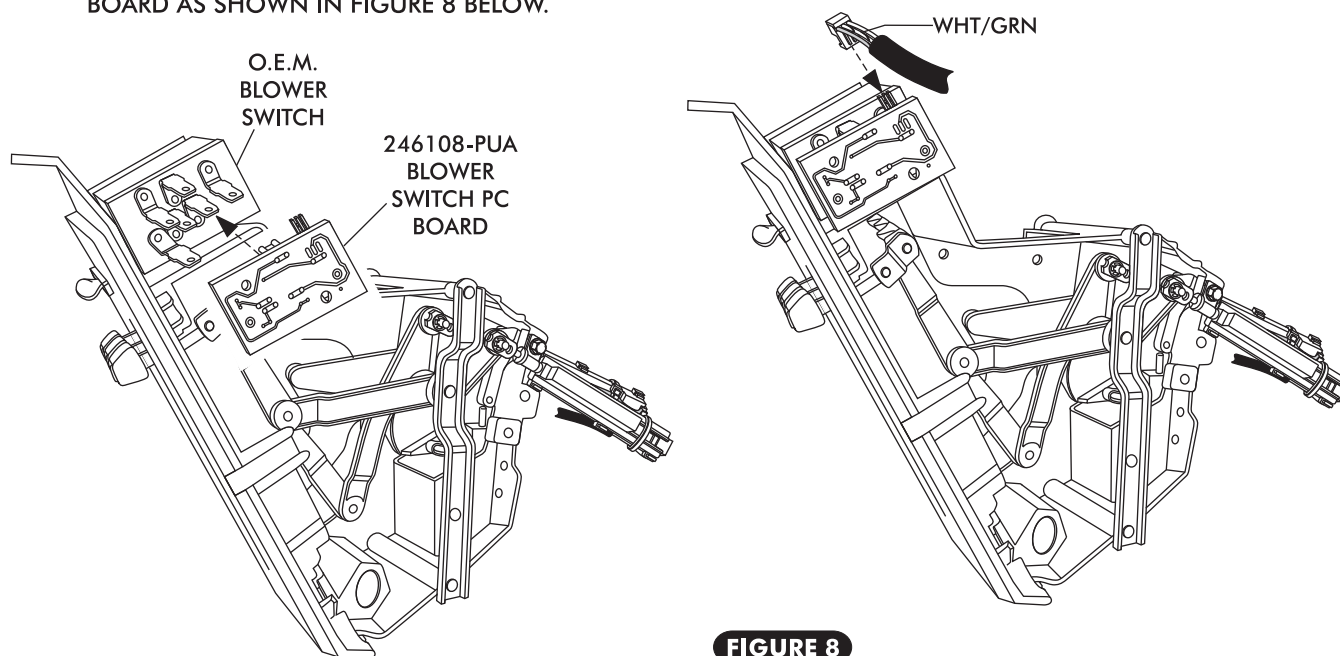


FIGURE 8

CONTROL HARNESS

- USING THE SUPPLIED TIE-WRAPS, TIE THE WIRES TO THE CONTROL PANEL AS SHOWN IN FIGURE 10 BELOW. CONFIRM THAT WIRES ARE SECURED AND DO NOT INTERFERE WITH LEVER OPERATION OR SLIDE POT ASSEMBLY.

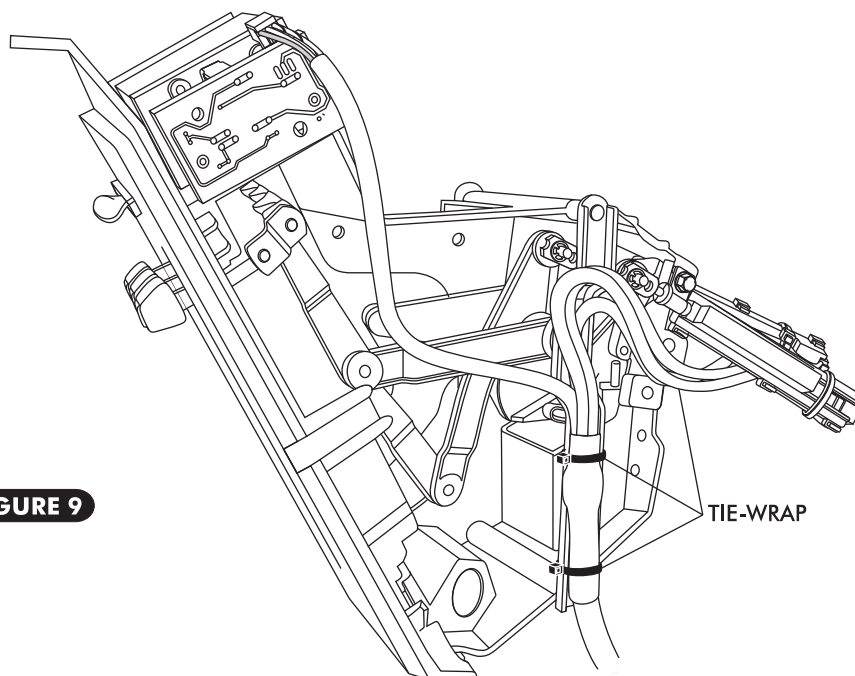


FIGURE 9



FINAL STEPS

- ☐ RE-INSTALL CONTROL PANEL IN DASH.
- ☐ 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 13 & 14.

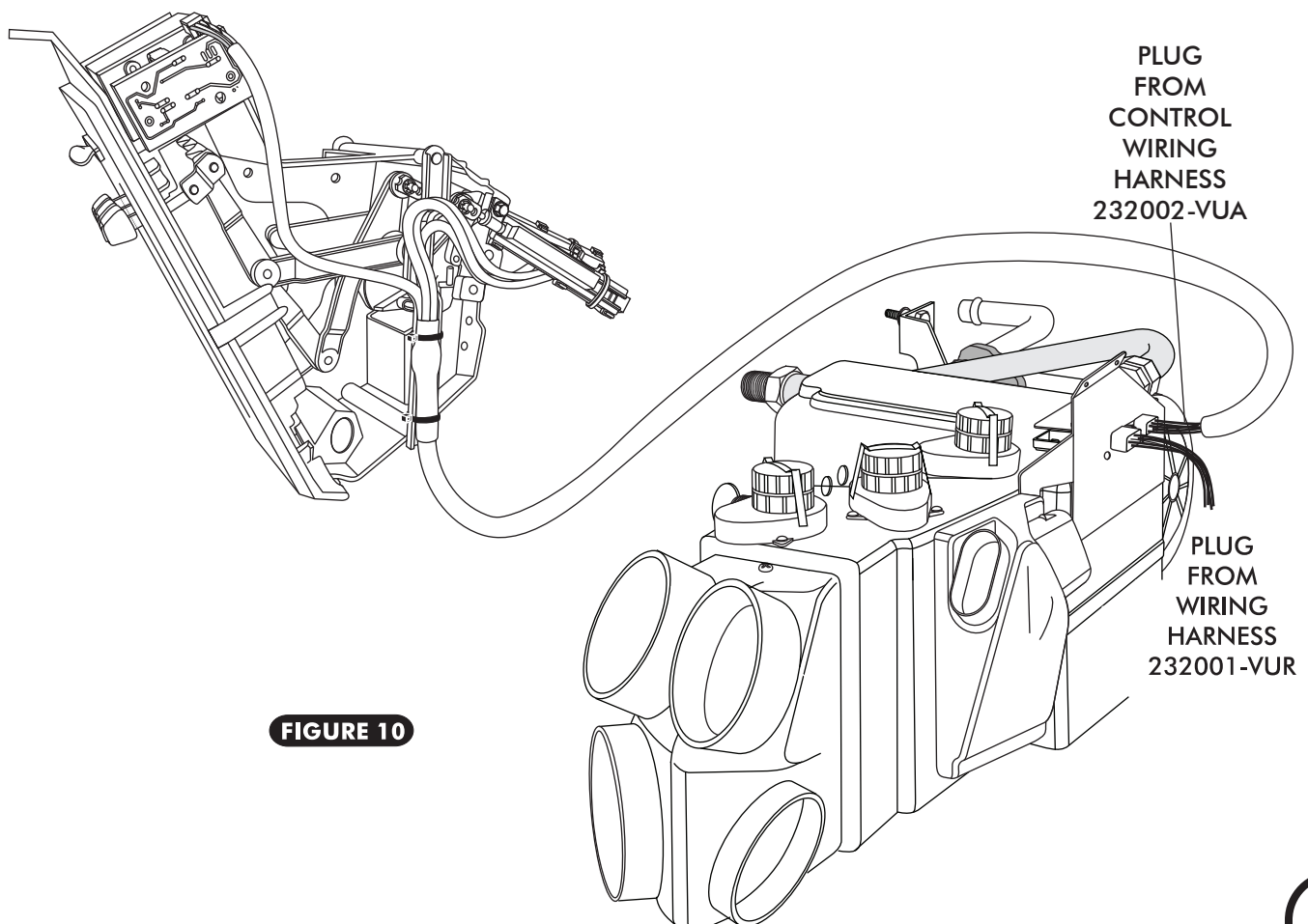


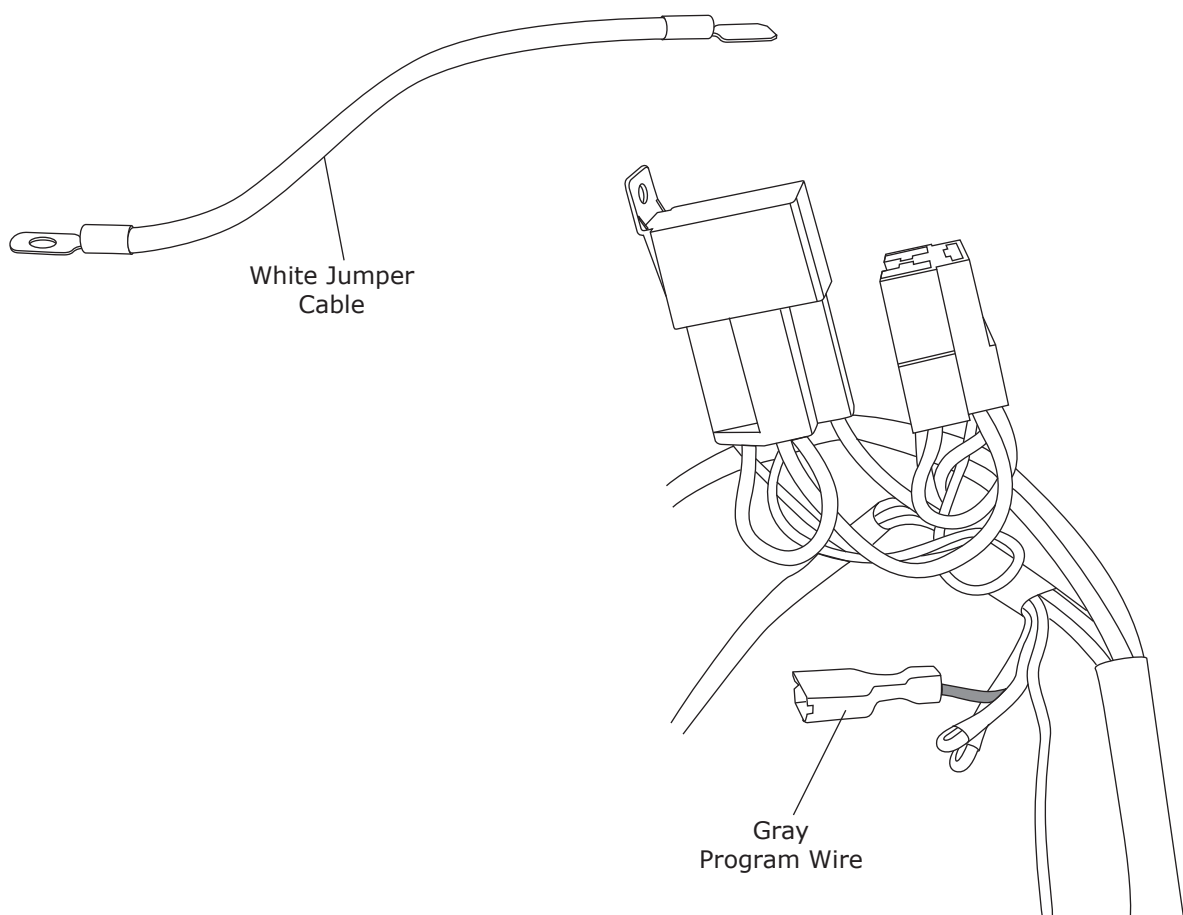
FIGURE 10



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.

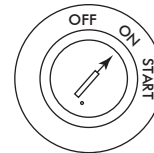
In preparation for calibration, you will need to attach the supplied white ground jumper wire to a suitable chassis ground. This jumper wire must be easily connected to the gray programming wire located in the main Gen IV wiring harness next to the relays. During the calibration procedure, you will connect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

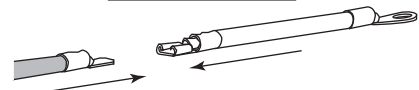
1. Turn on the ignition switch (Do not start the engine).



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



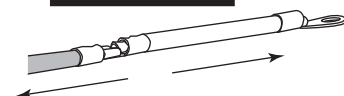
3. Connect the white jumper wire to the gray program wire. Wait for the blower speed to change (Approximately 5 seconds).



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.

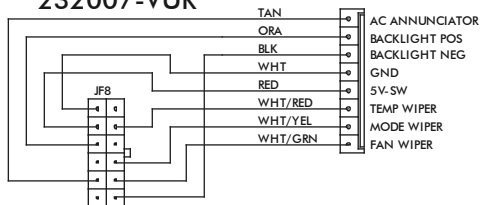


6. Confirm proper operation of controls. Repeat procedure if necessary. When finished, tape over program wire connector with electrical tape to prevent accidental contact with chassis ground.



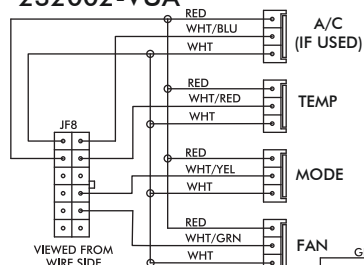
Wiring Diagram

232007-VUR



VIEWED FROM WIRE SIDE

232002-VUA

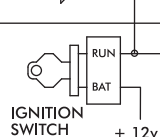


VIEWED FROM WIRE SIDE

PROGRAM

* DASH LAMP (IF USED)

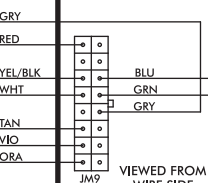
*** WIDE OPEN THROTTLE SWITCH (OPTIONAL)



IGNITION SWITCH +12v

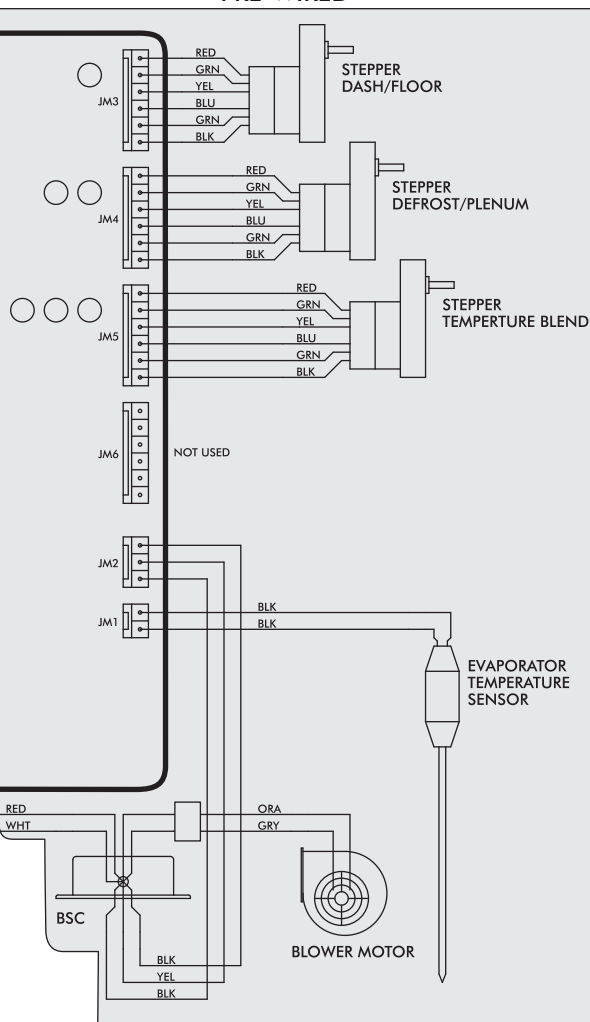
GEN IV ECU

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



VIEWED FROM WIRE SIDE

PRE-WIRED



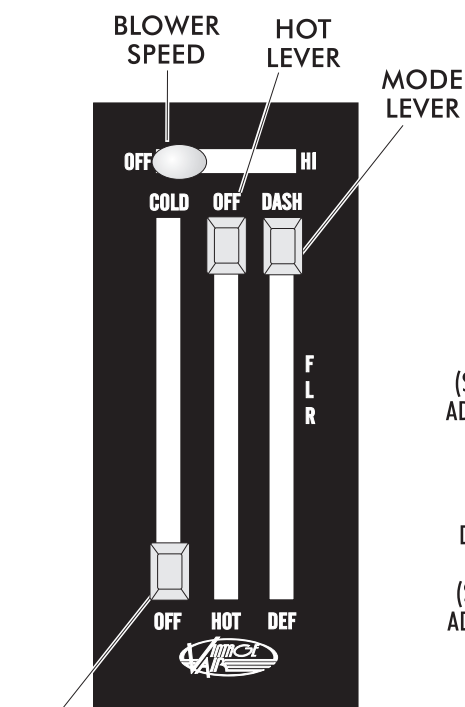
NOTE: = CHASSIS GROUND

- 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.



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.



COLD
LEVER

SYSTEM OFF

BLOWER SPEED

THIS LEVER CONTROLS THE BLOWER SPEED, FROM OFF TO HI

COLD LEVER

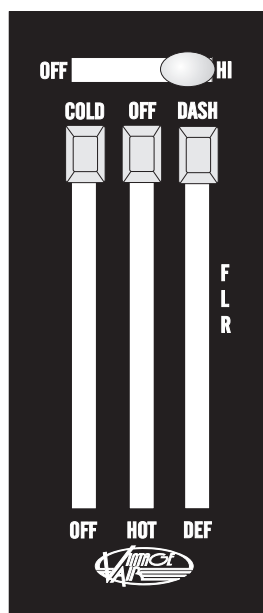
IN A/C MODE SLIDE THE COLD LEVER ALL THE WAY UP TO THE COLD POSITION, FOR MAXIMUM COOLING (SLIDE LEVER UP OR DOWN TO ADJUST DESIRED TEMPERATURE)

HOT LEVER

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

MODE LEVER

SLIDE THE LEVER TO THE "DASH" POSITION



A/C MODE

BLOWER SPEED

SLIDE LEVER TO THE RIGHT TO DESIRED BLOWER SPEED, FROM OFF TO HI

COLD LEVER

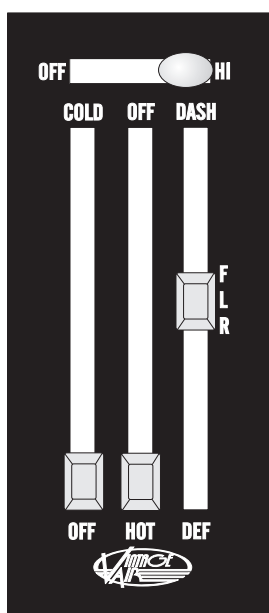
IN A/C MODE SLIDE THE COLD LEVER ALL THE WAY UP TO THE COLD POSITION, TO ENGAGE COMPRESSOR. FOR MAXIMUM COOLING (SLIDE LEVER UP OR DOWN TO ADJUST DESIRED TEMPERATURE)

HOT LEVER

IN A/C MODE SLIDE THE HOT LEVER ALL THE WAY UP TO THE OFF POSITION

MODE LEVER

SLIDE THE LEVER TO THE "DASH" POSITION



HEAT MODE

BLOWER SPEED

SLIDE LEVER TO THE RIGHT TO DESIRED BLOWER SPEED, FROM OFF TO HI

COLD LEVER

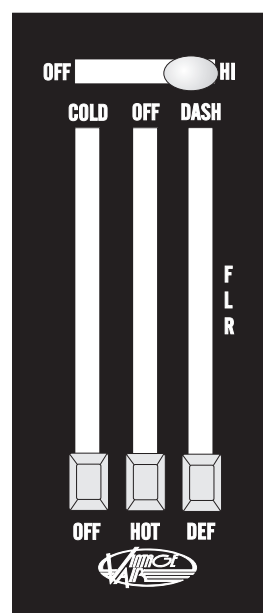
IN HEAT MODE SLIDE THE COLD LEVER ALL THE WAY DOWN TO THE OFF POSITION

HOT LEVER

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

MODE LEVER

SLIDE THE LEVER TO THE "FLR" POSITION



DEFROST/ DE-FOG MODE

BLOWER SPEED

SLIDE LEVER TO THE RIGHT TO DESIRED BLOWER SPEED, FROM OFF TO HI

COLD LEVER

IN DEFROST MODE SLIDE THE COLD LEVER ALL THE WAY UP TO THE COLD POSITION, TO ENGAGE COMPRESSOR. FOR MAXIMUM COOLING (SLIDE LEVER UP OR DOWN TO ADJUST DESIRED TEMPERATURE)

HOT LEVER

IN DEFROST MODE SLIDE THE HOT LEVER ALL THE WAY DOWN TO THE HOT POSITION, FOR MAXIMUM HEATING (SLIDE LEVER UP OR DOWN TO ADJUST DESIRED TEMPERATURE)

MODE LEVER

SLIDE THE LEVER TO THE "DEF" POSITION



CONTROL KIT PACKING LIST

CONTROL KIT
474269

No	QTY	PART No.	DESCRIPTION	
1.	1	484169-PCR	1969 CAMARO w/ AC PLACARD w/ BLACK BACKING SHEET	_____
2.	3	112002-SUA	SLIDE POT ASM	_____
3.	1	232002-VUA	GEN IV UNIVERSAL CONTROL HARNESS	_____
4.	3	65976-VUE	3/16" PUSH-ON RING	_____
5.	3	491010-VUR	SLIDE POT CLAMP	_____
6.	5	21301-VUP	4" TIE WRAP	_____
7.	1	231520	GROUND WIRE	_____
8.	1	246108-PUA	BLOWER SWITCH PC BOARD	_____

CHECKED BY: _____
PACKED BY: _____
DATE: _____

