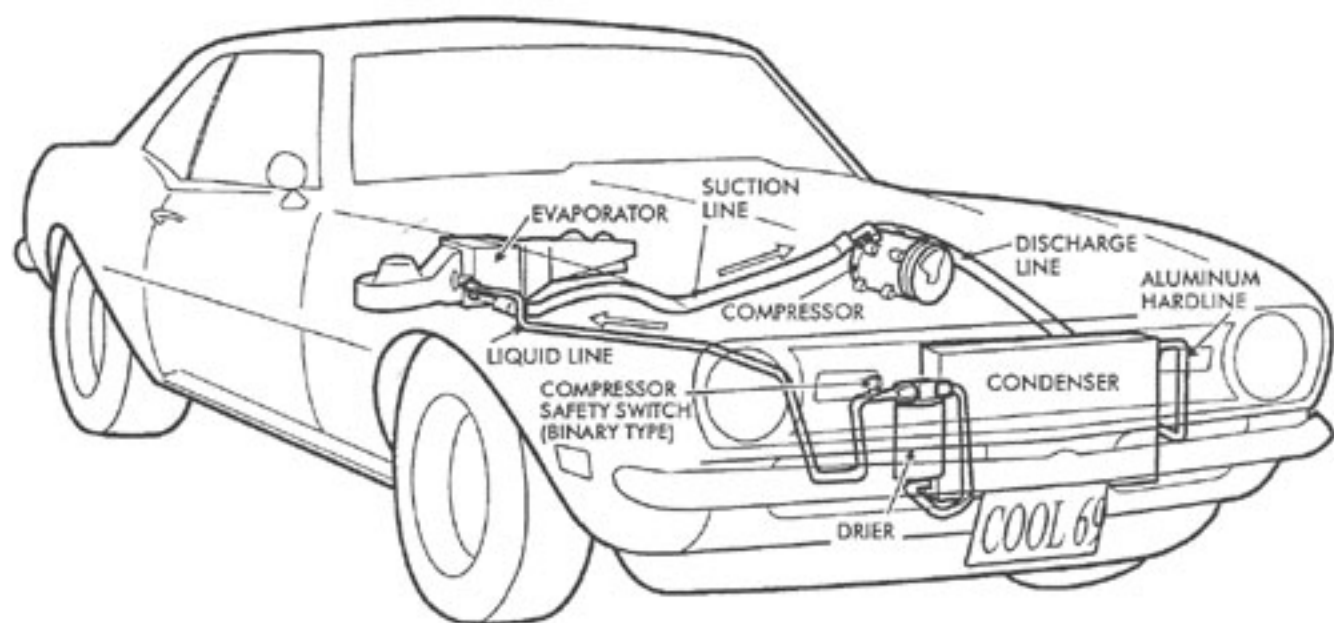


**VENTAGE  
AIR**

INSTALLATION INSTRUCTIONS FOR

# 1969 CAMARO

WITHOUT FACTORY AIR  
(55070-VCZ-A)



10305 I.H. 35 N. - SAN ANTONIO, TX. - 78233 - ph.210-654-7171 - fax 210-654-3113

# 1969 CAMARO WITHOUT FACTORY AIR

## IMPORTANT NOTICE-PLEASE READ

WE RECOMMEND UPGRADING TO THE HEAVY DUTY RADIATOR  
(23" x 17" x 2") WITH A FAN SHROUD  
AND A 6 BLADE FAN WITH A FAN CLUTCH.  
ALL OF THESE COMPONENTS ARE AVAILABLE FROM VINTAGE AIR.

### FOR MAXIMUM SYSTEM PERFORMANCE VINTAGE AIR RECOMMENDS THE FOLLOWING:

70067-VCR - '69 CAMARO RADIATOR  
32067-VCF - FAN SHROUD  
32918-VUF - 18" FAN  
32518-VUF - OEM FAN CLUTCH

### SERVICE INFO:

EVACUATE THE SYSTEM FOR 35-45 MINUTES WITH  
SYSTEM COMPONENTS (DRIER, COMPRESSOR, EVAPORATOR  
AND CONDENSER) AT A TEMPERATURE OF AT LEAST 85° F.  
ON A COOL DAY THE COMPONENTS CAN BE HEATED  
WITH A HEAT GUN OR BY RUNNING THE ENGINE WITH  
THE HEATER ON BEFORE EVACUATING.

LEAK CHECK AND CHARGE TO SPECIFICATIONS.

### REFRIGERANT CAPACITIES

#### 134a SYSTEM

CHARGE WITH 1.8 LBS. OF REFRIGERANT

#### R-12 SYSTEM

CHARGE WITH 2.0 LBS. OF REFRIGERANT

### LUBRICANT CAPACITIES

NEW COMPRESSOR - NO ADDITIONAL OIL NEEDED  
USED COMPRESSOR - CONSULT VINTAGE AIR

### INSTALLATION INSTRUCTIONS FOR 1969 CAMARO AND FIREBIRD

BEFORE STARTING THE INSTALLATION, CHECK THE FUNCTION OF THE VEHICLE (HORN, LIGHTS, ETC.) FOR PROPER OPERATIONS. STUDY THE INSTRUCTIONS AND ILLUSTRATIONS DIAGRAMS. DISCONNECT BATTERY.

#### PASSENGER COMPARTMENT

#### REMOVE THE FOLLOWING (FIGURE 1)

1. Remove and discard the OEM heater assembly.
2. Remove and discard the OEM defroster duct.
3. Remove and discard the OEM heater cover (installed on engine side). Inner fender must be loosened and lowered. Remove 4 bolts from fender at windshield and door area and raise fender to remove blower motor.
4. Remove the OEM dash board.
5. Remove steering column bottom cover.
6. Remove and discard vent duct on driver side.
7. Remove and discard vent duct on passenger side.
8. Remove and discard OEM duct hose.
9. Remove and discard OEM glove box.
10. Remove instrument panel.
11. Remove glove box door.
12. Drop steering column down.

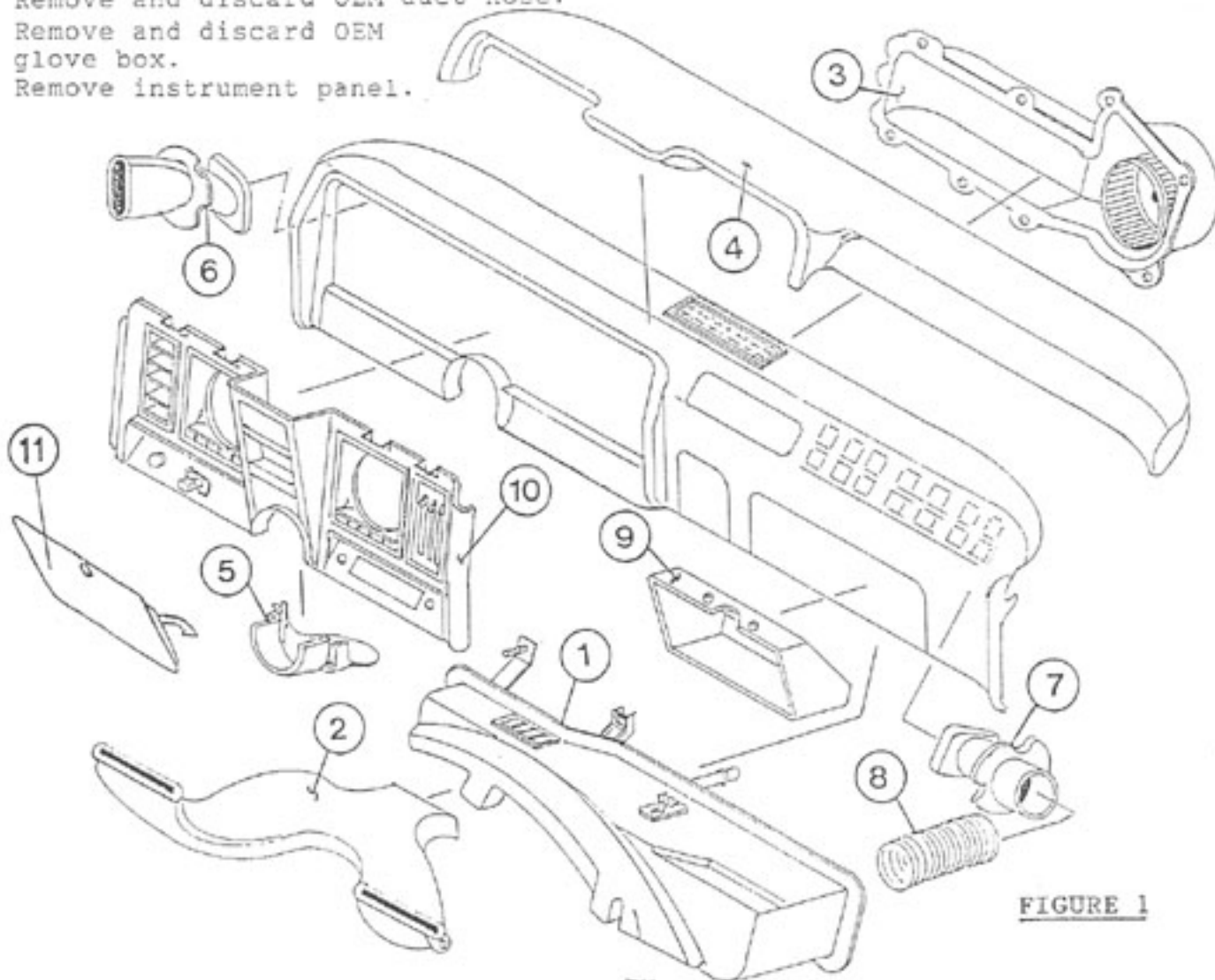
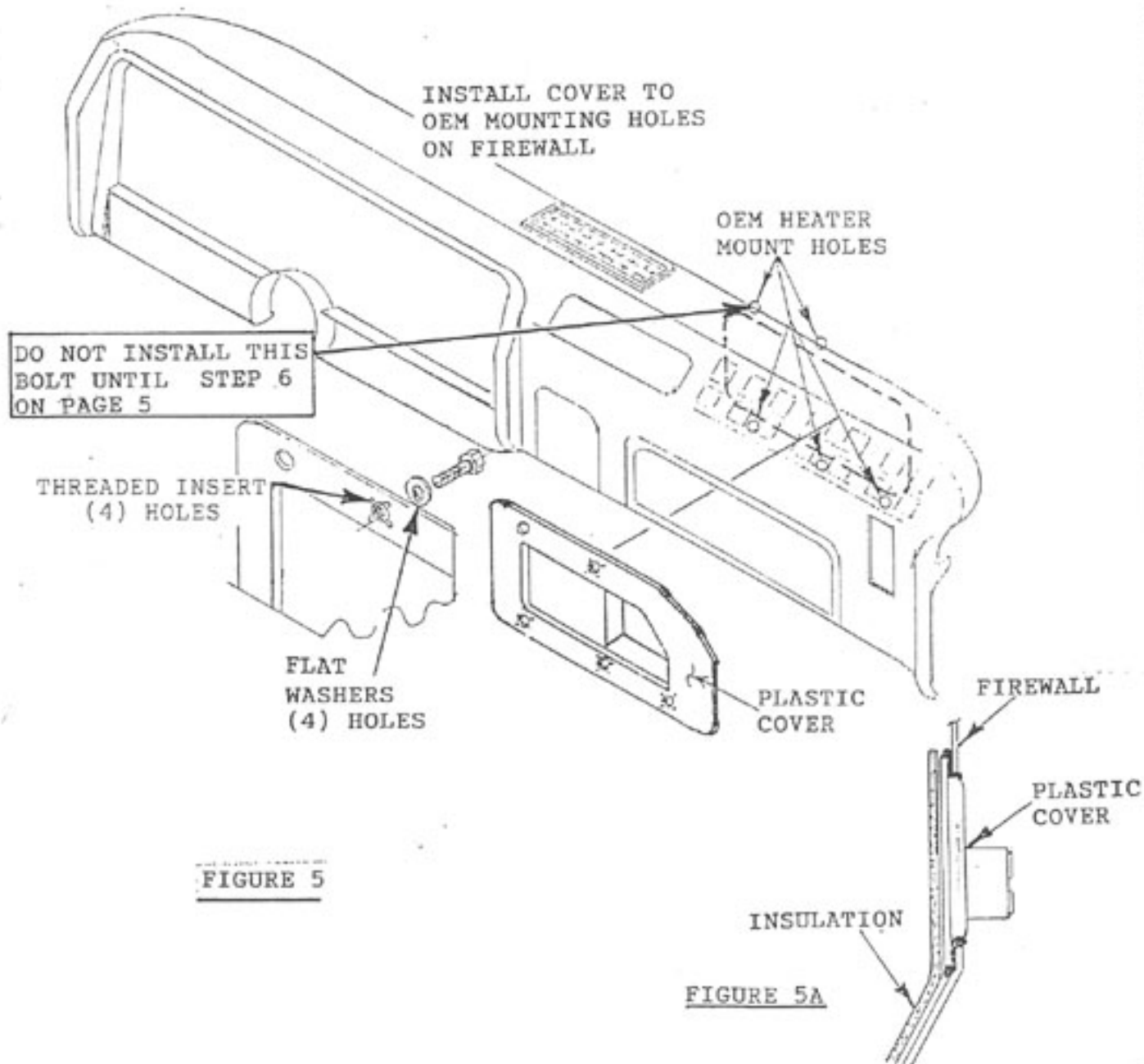
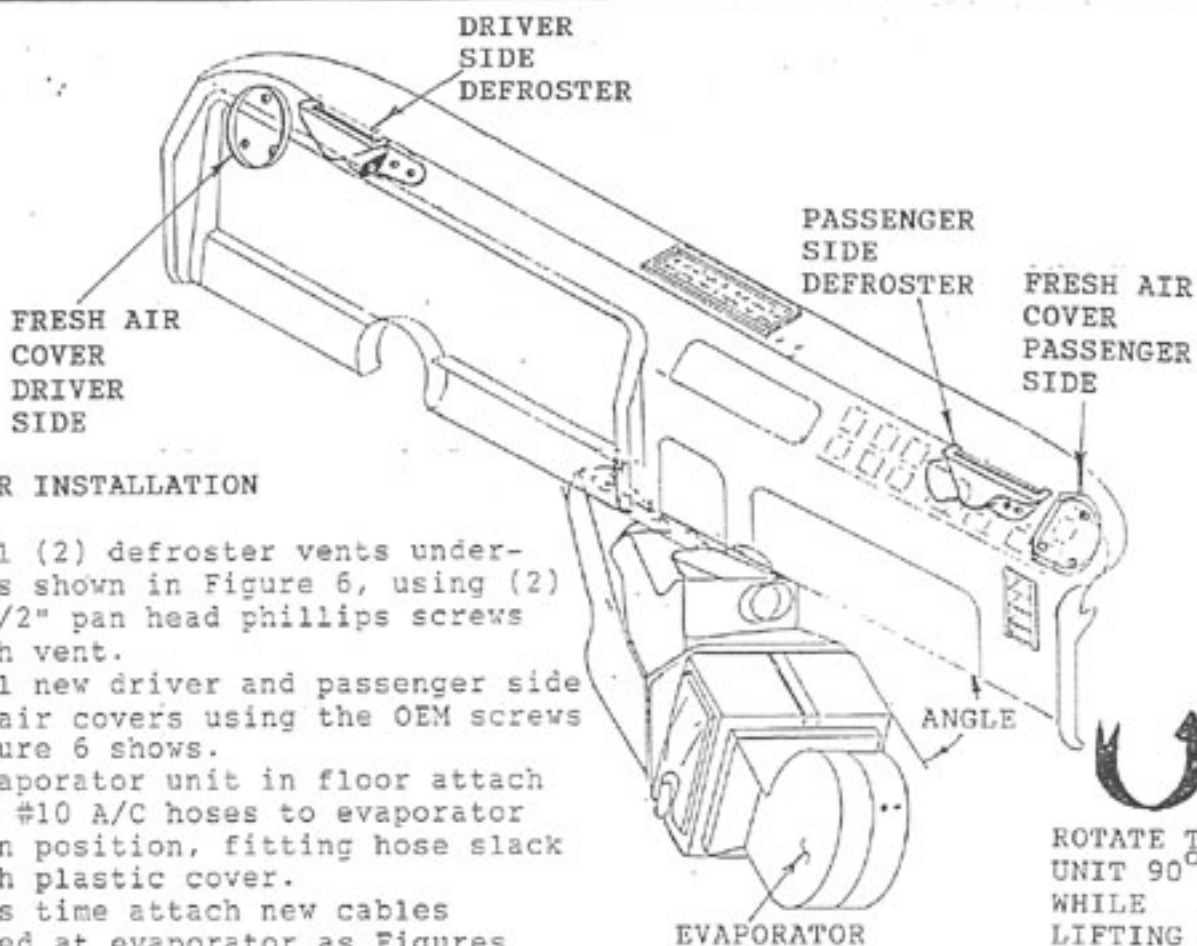


FIGURE 1

1. Mount the firewall cover to OEM heater mounting holes in firewall with (4)  $\frac{1}{4}$ " x 1" bolts w/washers (supplied) as Figure 5 shows. Prior to installing cover, seal perimeter of cover with silicone.





ROTATE THE UNIT 90° WHILE LIFTING INTO POSITION

FIGURE 6

### EVAPORATOR INSTALLATION

1. Install (2) defroster vents underdash as shown in Figure 6, using (2) #8 x 1/2" pan head phillips screws on each vent.
2. Install new driver and passenger side fresh air covers using the OEM screws as Figure 6 shows.
3. Lay evaporator unit in floor attach #6 and #10 A/C hoses to evaporator unit in position, fitting hose slack through plastic cover. At this time attach new cables provided at evaporator as Figures 7A and 7B shows.
4. With the unit positioned underdash install driver side mounting bracket and blower housing bracket onto unit use (2) #8 x 1/2" black pan head screw on each bracket as Figure 7 shows.

HEAT/DEFROST  
DOOR  
CABLE

DEFROSTER  
CABLE 19-1/2"

PUSH ON  
RETAINER  
RING

TEMPERATURE  
CABLE 27"

DRIVER  
SIDE  
MOUNTING  
BRACKET

PUSH ON  
RETAINER  
RING

EVAPORATOR

BLOWER  
HOUSING  
BRACKET

EVAPORATOR  
BRACKET

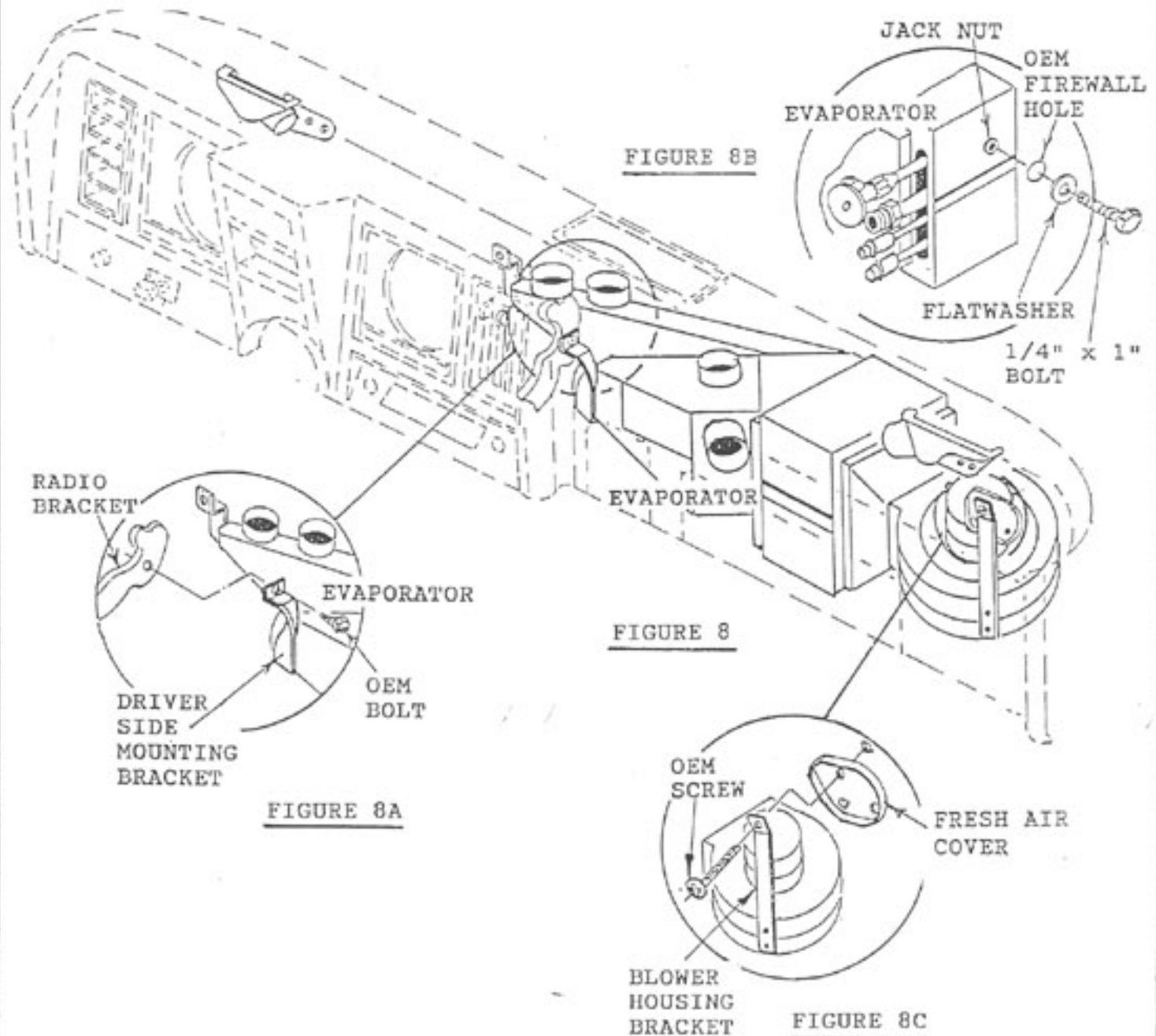
BRACKET

FIGURE 7B

FIGURE 7

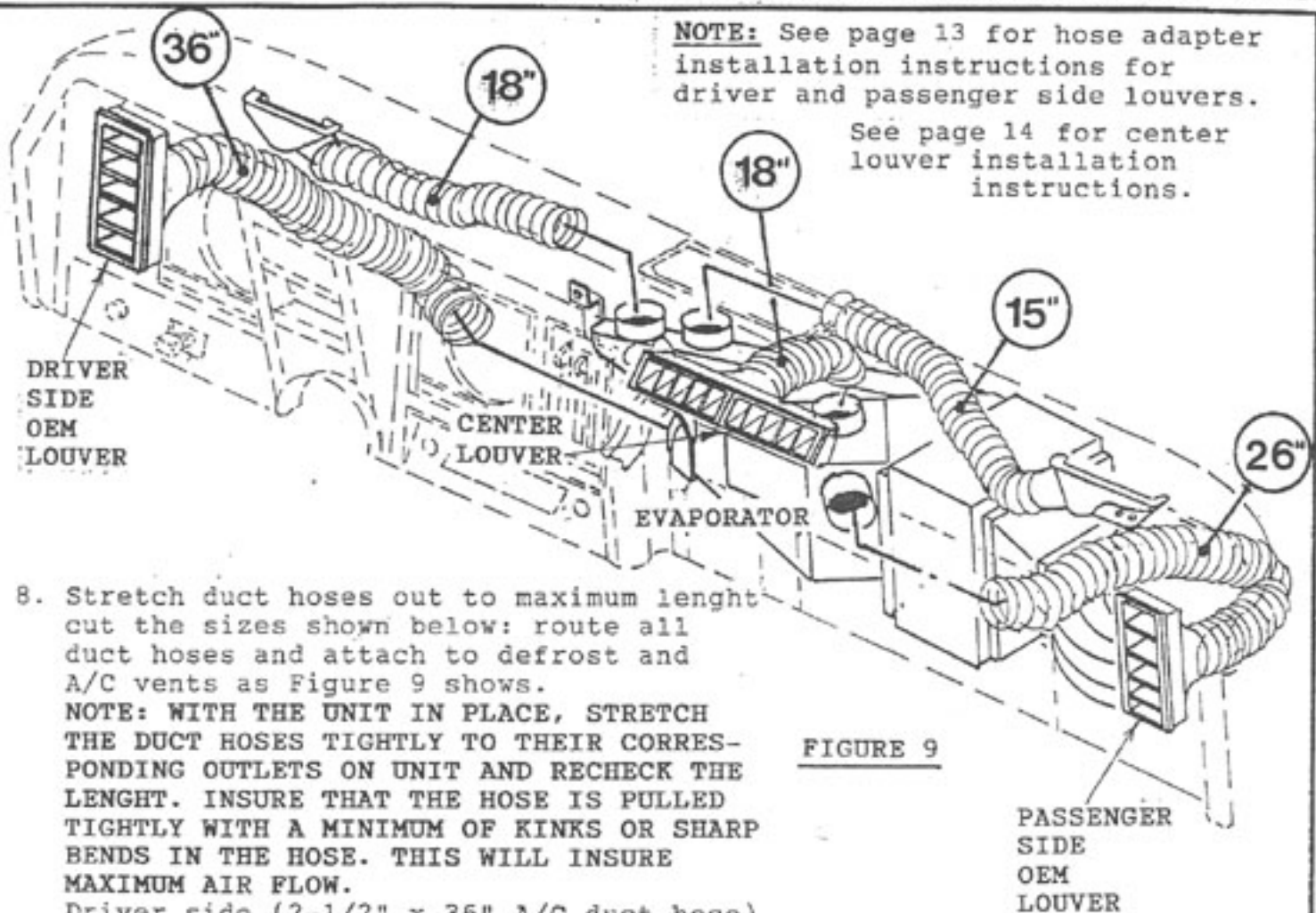
FIGURE 7A

5. First, attach driver side mounting bracket in OEM hole in radio bracket using OEM screw as Figure 8A shows.
6. Raise the evaporator unit up and align jack nut in evaporator unit with OEM hole on firewall, install 1/4" x 1" bolt from engine side as Figure 8B shows.
7. Attach blower housing bracket in front of vent duct cover on passenger side with OEM bolt as Figure 8C shows.



**NOTE:** See page 13 for hose adapter installation instructions for driver and passenger side louvers.

See page 14 for center louver installation instructions.



**FIGURE 9**

- Stretch duct hoses out to maximum length cut the sizes shown below: route all duct hoses and attach to defrost and A/C vents as Figure 9 shows.

**NOTE:** WITH THE UNIT IN PLACE, STRETCH THE DUCT HOSES TIGHTLY TO THEIR CORRESPONDING OUTLETS ON UNIT AND RECHECK THE LENGTH. INSURE THAT THE HOSE IS PULLED TIGHTLY WITH A MINIMUM OF KINKS OR SHARP BENDS IN THE HOSE. THIS WILL INSURE MAXIMUM AIR FLOW.

Driver side (2-1/2" x 36" A/C duct hose)

(2" x 13" defroster duct)

Passenger side (2-1/2" x 26" A/C duct hose)

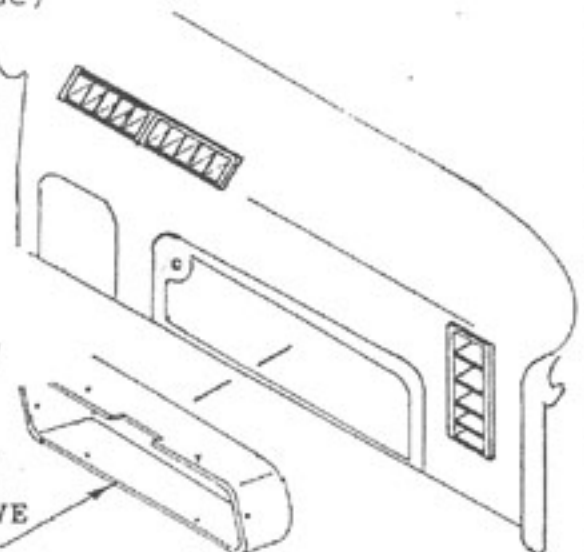
(2" x 15" defroster duct).

Center vent (2-1/2" x 15" A/C hose).

- Insert blue compressor wire lead and (2) 7/32" vacuum lines through grommet in plastic cover.
- Drill 5/8" hole on firewall 1" below plastic cover and 2" toward drivers side from center bolt securing plastic cover. Insert drain hose through firewall and slip other end onto drain outlet on evaporator unit. See Figure 11 on page 7
- Cut the hole on dash board for center louver with template provided on page 14.

### GLOVE BOX INSTALLATION

- Install new glove box provided as Figure 10 shows. Use #6 screw thru OEM holes.



**FIGURE 10**

### ENGINE COMPARTMENT

1. Remove hood latch assembly for installation of condenser as Figure 11 shows.

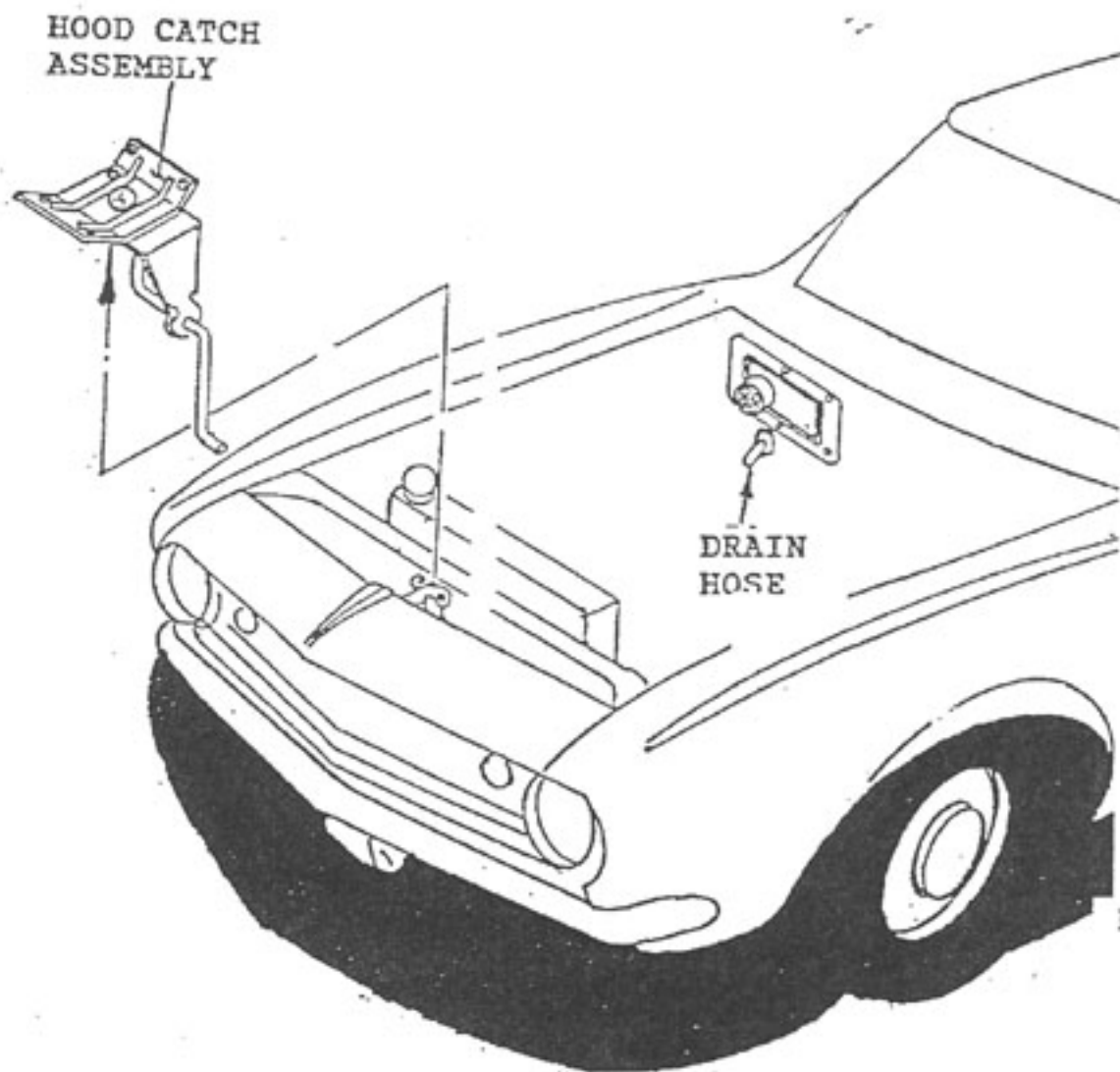


FIGURE 11



### CONDENSER ASSEMBLY

- THE CONDENSER ASSEMBLY MOUNTS TO THE FRONT OF THE CORE SUPPORT. LOWER CONDENSER ASSEMBLY INTO POSITION. BE SURE THE TOP BRACKET IS BEHIND (FRONT LIP) FLANGE ON TOP OF THE CORE SUPPORT. FASTEN DRIVER SIDE LOWER CONDENSER BRACKET TO CORE SUPPORT USING 5/16" X 1-1/2" BOLT AND NUT. LOWER HOOD LATCH SUPPORT BRACKET INTO PLACE. NOTE THAT THE LOWER MOUNTING TAB OF LATCH SUPPORT BRACKET WILL SLIP BEHIND PASSENGER SIDE LOWER CONDENSER BRACKET AND AGAINST THE CORE SUPPORT. ATTACH HOOD LATCH SUPPORT BRACKET WITH ORIGINAL 5/16" BOLT. NOTE THAT THE LOWER BOLT WILL PASS THROUGH THE PASSENGER SIDE LOWER CONDENSER BRACKET AND SECURE IT TO THE CORE SUPPORT. SEE PAGE 9, FIGURE 12.
- REPLACE HOOD LATCH ASSEMBLY. THE 2 (TWO) ORIGINAL 5/16" BOLTS CONNECTING IT TO THE CORE SUPPORT WILL NOW PASS THROUGH AND SECURE THE TOP CONDENSER BRACKET. SEE PAGE 9, FIGURE 12a.

### COMPRESSOR & BRACKETS

- REFER TO SEPERATE INSTRUCTIONS INCLUDED WITH THE BRACKET KIT TO INSTALL THE COMPRESSOR BRACKET. REFER TO FIGURE 11c FOR COMPRESSOR MOUNTING POSITION.
- INSTALL COMPRESSOR USING TABS "C" & "G" WITH OUTLETS FACING UP.

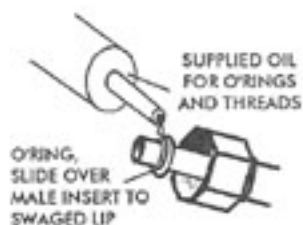
### PULLEYS

- IN MOST INSTANCES THE BELT LENGTHS WILL REMAIN THE SAME. SEE FIGURE 11c.

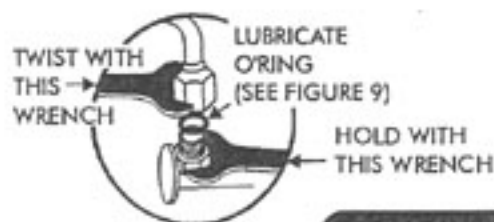
### A/C HARDLINES AT THE CONDENSER

- LOCATE THE O'RING PACKAGE. THERE IS A SPECIFIC SIZE AND THICKNESS O'RING FOR EACH CONNECTION. THE SMALL WHITE TUBE IS A SPECIFIC OIL FOR O'RINGS AND THREADS. SEE FIGURE 11a. O'RINGS SHOULD NOT BE REUSED ONCE A FITTING IS TIGHTENED (DISCARD AND INSTALL NEW O'RINGS). DO NOT OVER TIGHTEN. ALWAYS USE TWO (2) WRENCHES TO PREVENT TWISTING FITTINGS ON HARDLINES. FIGURE 11b.

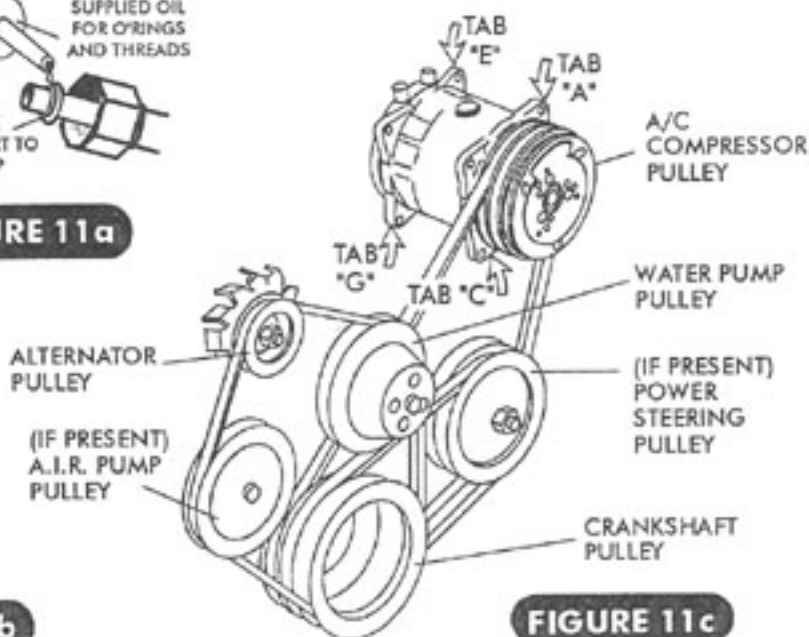
**FOR A PROPER SEAL OF FITTINGS INSTALL SUPPLIED O-RINGS AS SHOWN AND LUBRICATE WITH SUPPLIED OIL.**



**FIGURE 11a**

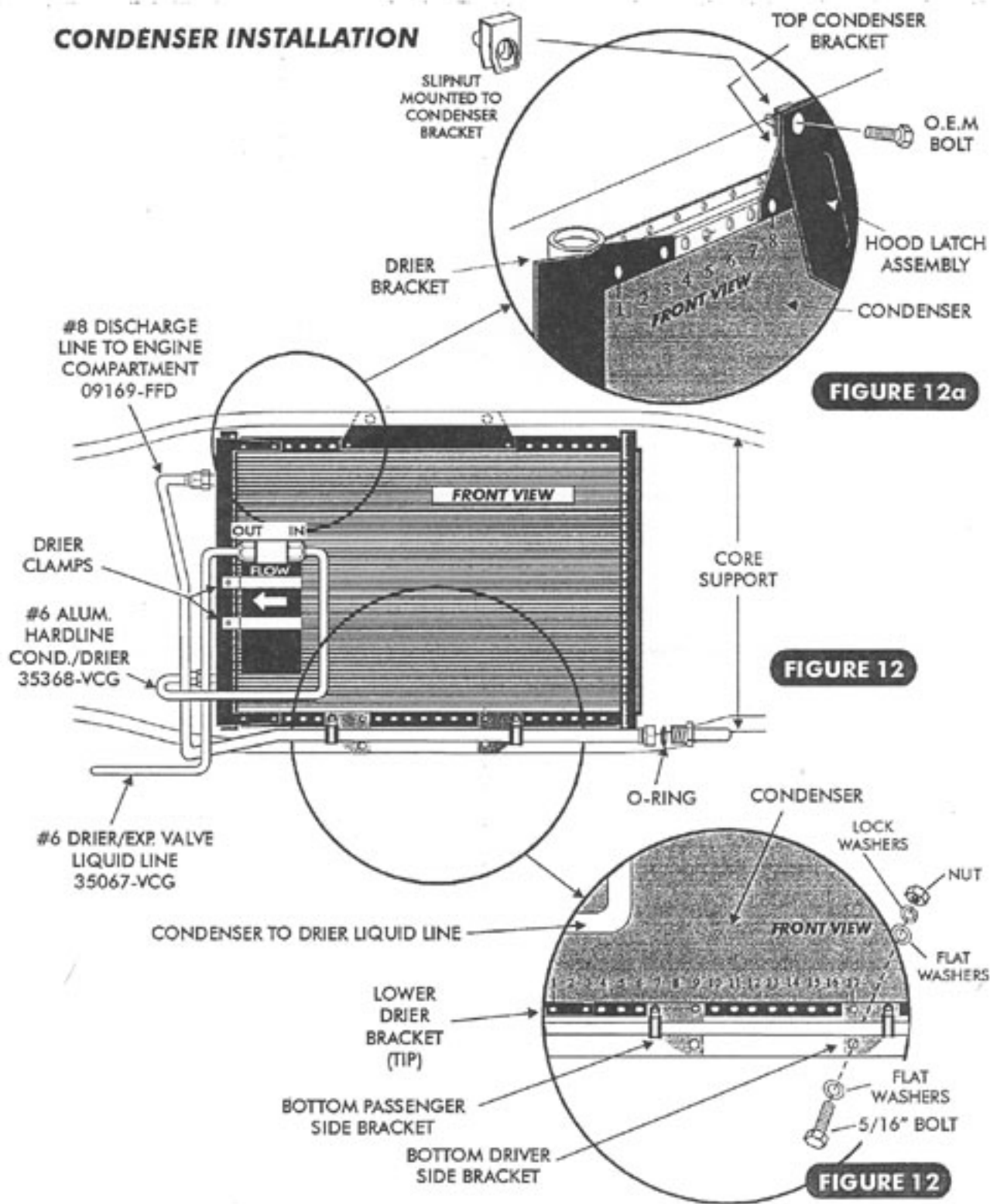


**FIGURE 11b**



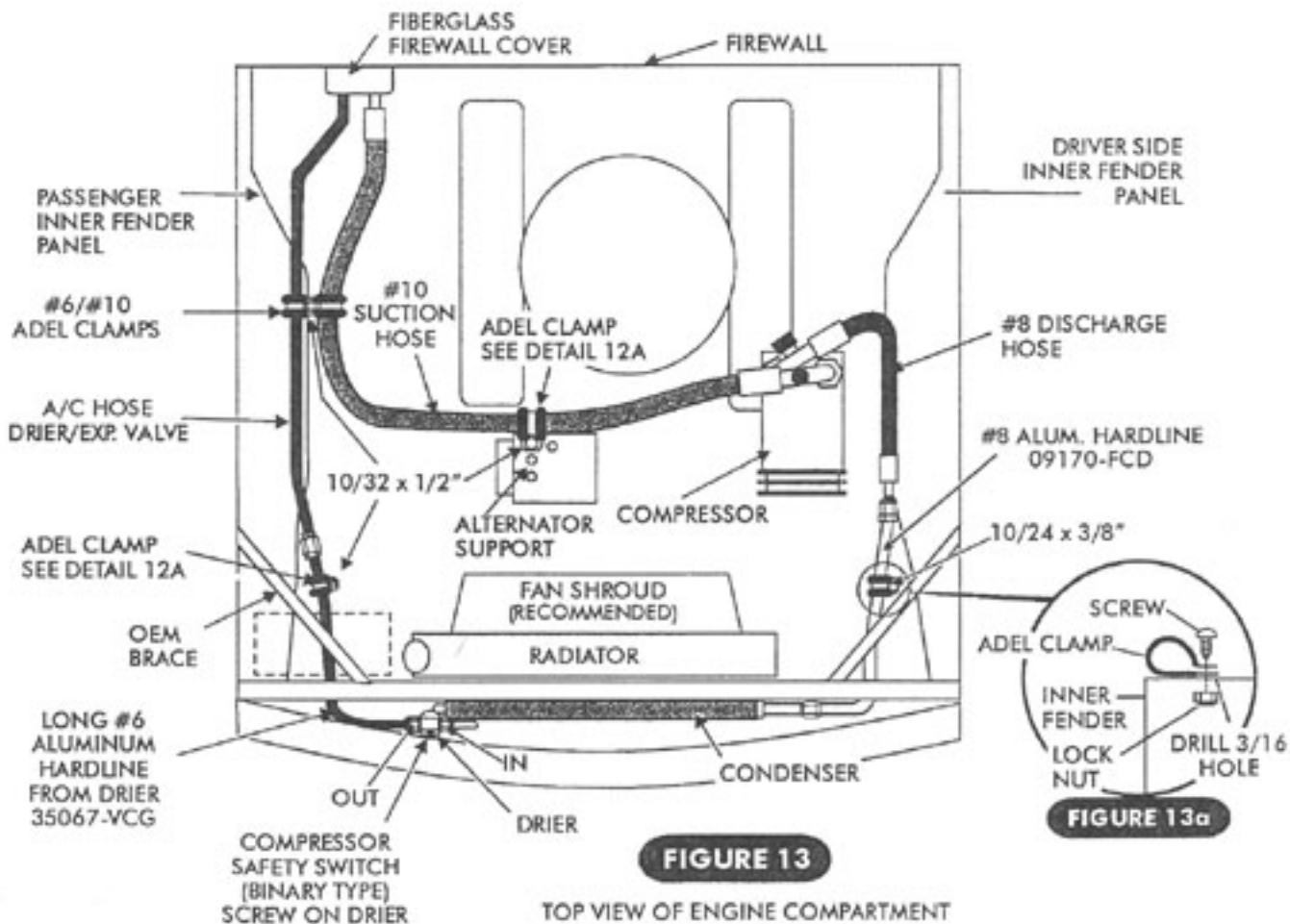
**FIGURE 11c**

### CONDENSER INSTALLATION



## CONDENSER ASSEMBLY (CONTINUED):

- LOCATE THE TWO #8 HARDLINES AND O-RINGS, INSTALL ON CONDENSER AND DISCHARGE HOSE. SEE FIGURE 13 BELOW AND FIGURE 12, PAGE 9.
- FASTEN THE HARDLINE TO THE FRONT OF THE DRIVER'S INNER FENDER PANEL WITH A #4 ADEL CLAMP AND A #10/24 x 3/8" MACHINE SCREW AND LOCK-NUT, DRILL 3/16 HOLE. SEE FIGURE 13A. RECAP END TO KEEP CLEAN.
- LOCATE THE #6 ALUMINUM HARDLINE. THIS LINE GOES FROM THE DRIER, UNDER THE PASSENGER SIDE RADIATOR SUPPORT. INSTALL ON DRIER, SEE FIGURE 13.
- LOCATE THE COMPRESSOR SAFETY SWITCH (BINARY TYPE). LUBRICATE THE THREADS AND FIRMLY SCREW THE SAFETY SWITCH ON DRIER. SEE FIGURE 13.
- LUBRICATE THE O-RINGS AND FITTINGS (SEE FIGURE 11a, PG.8) AND ROUTE THE LINE AS SHOWN ON THE PASSENGER SIDE. SEE FIGURE 13.
- CLAMP THE LINE WITH TWO (2) EACH #2 ADEL CLAMPS AND TWO (2) EACH #10/32 x 1/2" MACHINE SCREWS AND LOCKNUTS. SEE FIGURE 13, DRILL 3/16 HOLES IN THE INNER FENDER PANEL. RECAP THE END OF THE HARDLINE TO KEEP CLEAN.



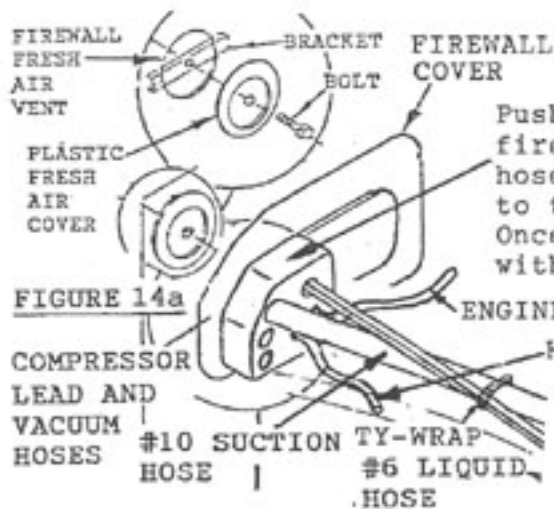
### HOSE KIT INSTRUCTIONS

#### HEATER HOSE INSTALLATION (FIGURE 14)

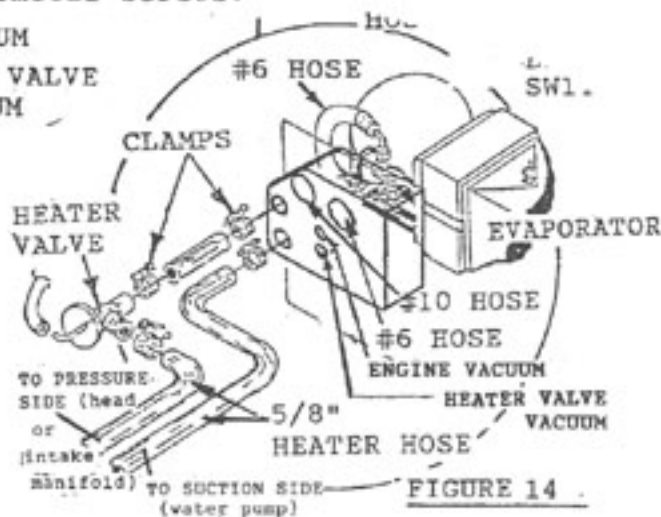
Install heater hoses and heater valve as Figure 14 shows (Heater hose and clamps not included).

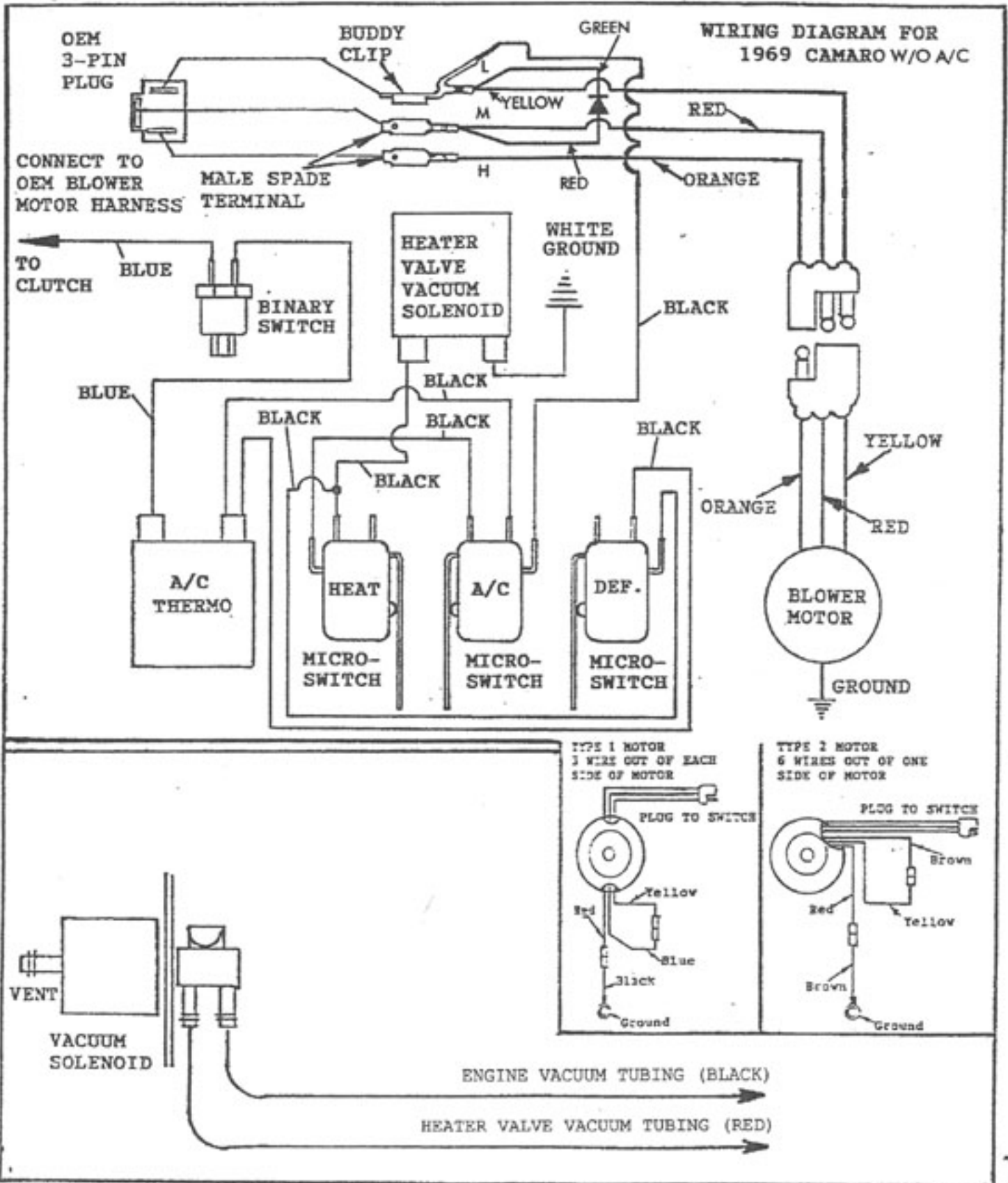
#### REFRIDGERATION HOSE INSTALLATION (FIGURE 14a AND FIGURE 13, PAGE 10)

1. Lubricate and attach the #10 SUCTION HOSE to the compressor (1/2" I.D. hose 63" long, 45° female o-ring fitting on evaporator end and 90 female o-ring fitting on compressor end. - service port on compressor end for R-134a systems only)
2. Lubricate and attach the #8 DISCHARGE HOSE to the compressor (13/32" I.D. hose 19" long, 135° female o-ring fitting on Compressor end - service port on compressor end for R-134a systems only) Str. Male insert fitting on condenser hardline.
3. Lubricate and attach the #6 LIQUID HOSE from the evaporator to the drier (5/16" I.D. hose 36" long, 90 female o-ring fitting On Evaporator end Str. Female o-ring fitting on drier hardline, install BINARY SWITCH on drier.
4. Install the fresh air cover to firewall as Figure 14a shows. This cover covers the hole left by the OEM blower motor hole.
5. Install adel clamps and ty-wraps where shown on Figure 14a and Fig. 13, pg 10 Route compressor lead along liquid hose to compressor safety switch.



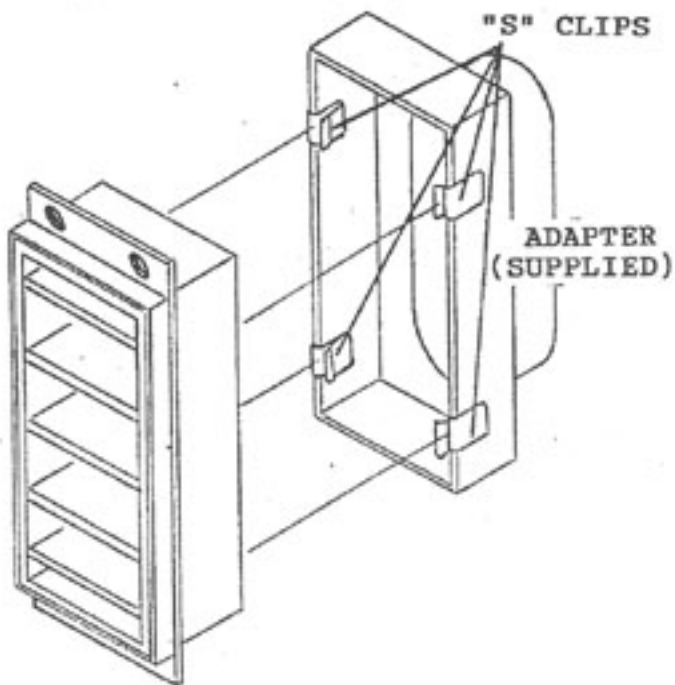
Push hose grommet onto firewall cover after hoses have been attached to the evaporator unit. Once in place, secure with sheetmetal screws.





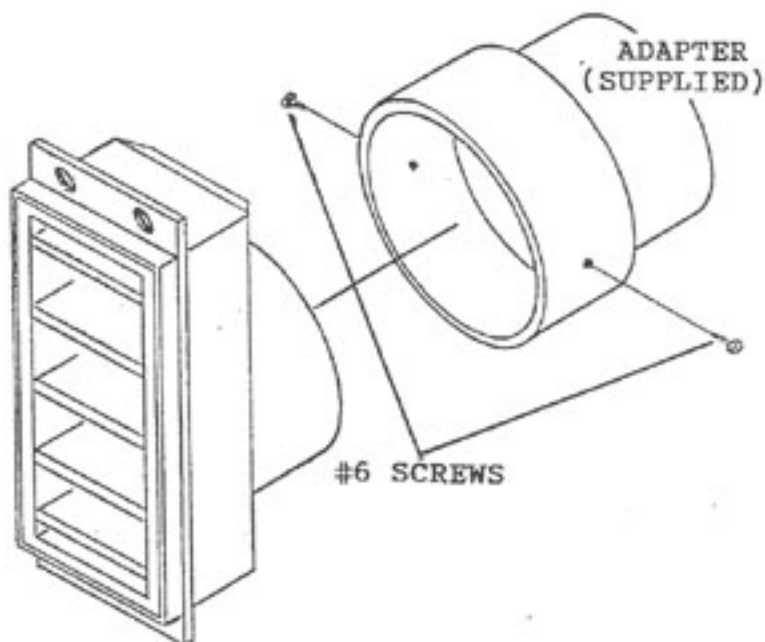
HOSE ADAPTER INSTALLATION  
(OEM LOUVERS)

DRIVER SIDE LOUVER



A

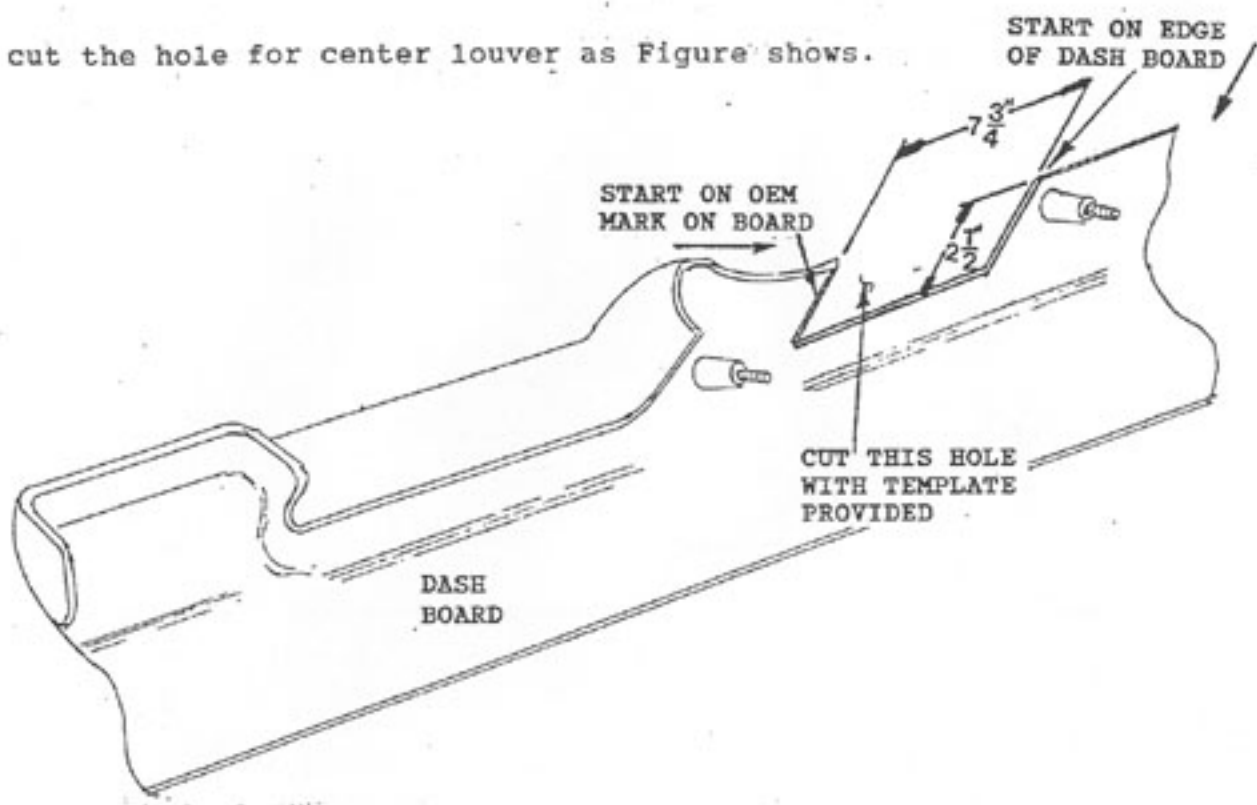
PASSENGER SIDE LOUVER



B

- A. The driver side hose adapter installs by just pushing it onto the back of the OEM louver housing until the "S" clips are secure.
- B. The passenger side hose adapter installs by pushing it over the back of the OEM louver then securing with (2) screws (supplied).

cut the hole for center louver as Figure shows.



7 3/4"

START ON EDGE OF DASH BOARD

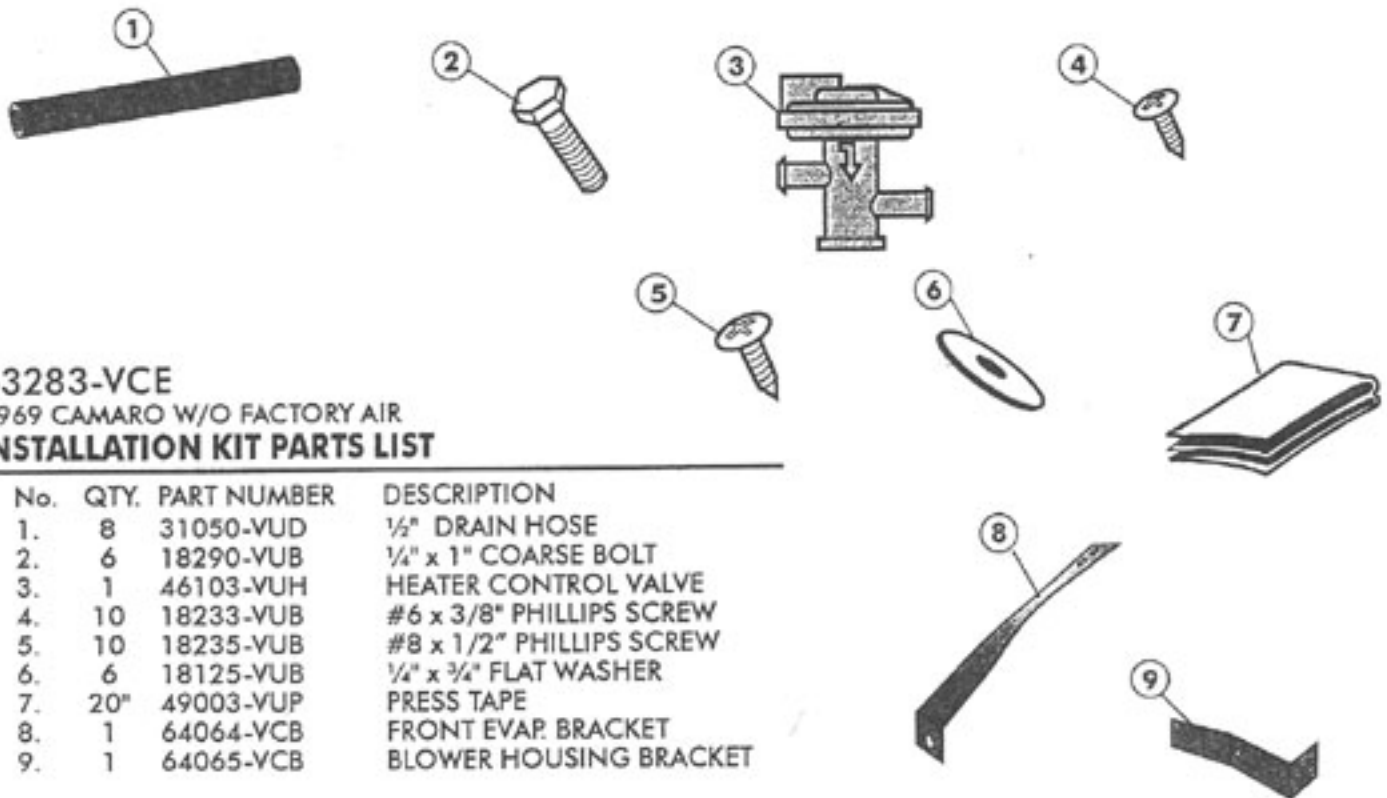
START ON OEM MARK ON BOARD

2 1/2"

TEMPLATE FOR CENTER LOUVER

## FINAL STEPS

- RE INSTALL ANY PREVIOUSLY REMOVED COMPONENTS (BATTERY BOX, BATTERY, GLOVE BOX DOOR, RADIO AND DASHBOARD).
- FILL RADIATOR WITH AT LEAST A 50/50 MIXTURE OF APPROVED ANTIFREEZE AND WATER. IT IS THE OWNERS RESPONSIBILITY TO KEEP THE FREEZE PROTECTION AT THE PROPER LEVEL FOR THE CLIMATE IN WHICH THE VEHICLE IS OPERATED. FAILURE TO FOLLOW ANTIFREEZE RECOMMENDATIONS WILL CAUSE HEATER CORE TO CORRODE PREMATURELY AND POSSIBLY BURST IN AC MODE AND/OR FREEZING WEATHER, VOIDING YOUR WARRANTY.
- EVACUATE THE SYSTEM AT LEAST 30 MINUTES AND CHARGE ACCORDING TO CAPACITIES ON INSIDE COVER PAGE.
- CHECK COMPLETE A/C ASSEMBLY FOR PROPER OPERATION.
- VINTAGE AIR RECOMMENDS THAT ALL A/C SYSTEMS BE SERVICED BY A CERTIFIED AUTOMOTIVE AIR CONDITIONING TECHNICIAN ONLY. SEE INSIDE COVER FOR SERVICE INFORMATION.



### 63283-VCE 1969 CAMARO W/O FACTORY AIR INSTALLATION KIT PARTS LIST

| No. | QTY. | PART NUMBER | DESCRIPTION              |
|-----|------|-------------|--------------------------|
| 1.  | 8    | 31050-VUD   | 1/2" DRAIN HOSE          |
| 2.  | 6    | 18290-VUB   | 1/4" x 1" COARSE BOLT    |
| 3.  | 1    | 46103-VUH   | HEATER CONTROL VALVE     |
| 4.  | 10   | 18233-VUB   | #6 x 3/8" PHILLIPS SCREW |
| 5.  | 10   | 18235-VUB   | #8 x 1/2" PHILLIPS SCREW |
| 6.  | 6    | 18125-VUB   | 1/4" x 3/4" FLAT WASHER  |
| 7.  | 20"  | 49003-VUP   | PRESS TAPE               |
| 8.  | 1    | 64064-VCB   | FRONT EVAP. BRACKET      |
| 9.  | 1    | 64065-VCB   | BLOWER HOUSING BRACKET   |

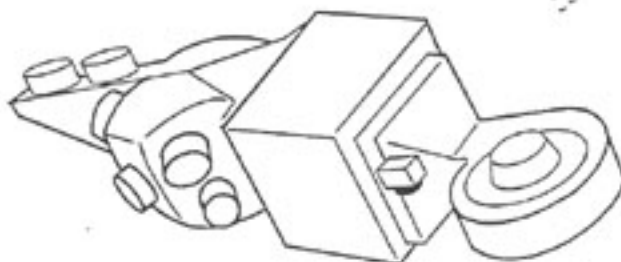


## 55070-VCZ-A EVAPORATOR KIT PACKING LIST

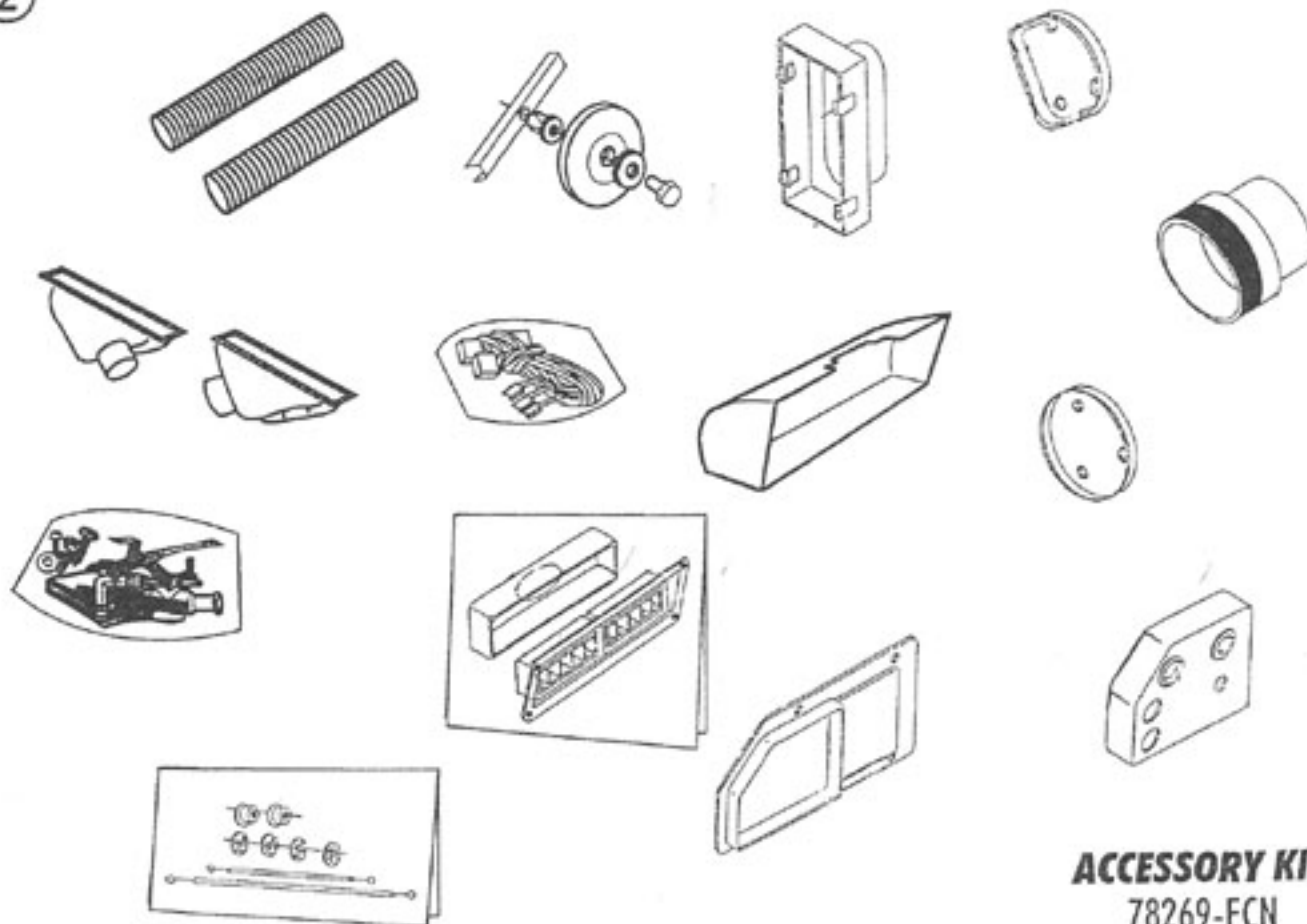
| No. | QTY. | PART No.    | DESCRIPTION                      |
|-----|------|-------------|----------------------------------|
| 1.  | 1    | 55370-VCE-A | EVAPORATOR SUBCASE               |
| 2.  | 1    | 78269-FCN   | 1969 CAMARO W/O AC ACCESSORY KIT |

CHECKED BY: \_\_\_\_\_  
 PACKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_

①



②

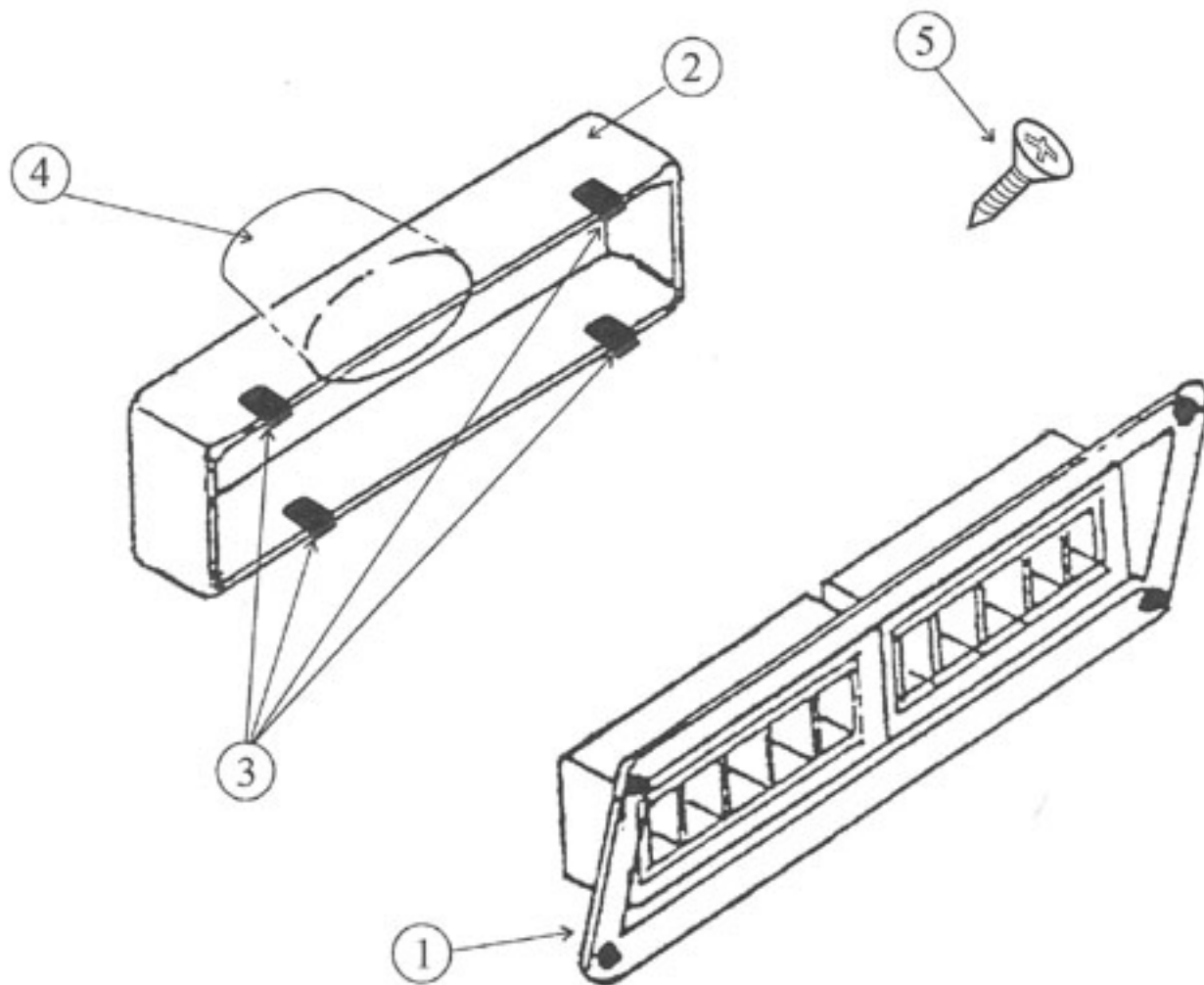


**ACCESSORY KIT**  
**78269-FCN**

### 49069-FCA '69 CAMARO CENTER LOUVER ASSEMBLY KIT PACKING LIST

| No. | QTY. | PART No.  | DESCRIPTION                           |       |
|-----|------|-----------|---------------------------------------|-------|
| 1.  | 1    | 49302-VUL | '69 CAMARO CENTER LOUVER              | _____ |
| 2.  | 1    | 49882-VCI | '69 CAMARO CENTER LOUVER HOSE ADAPTER | _____ |
| 3.  | 4    | 65980-VUE | "S" CLIPS                             | _____ |
| 4.  | 1    | 62422-VUE | 2 1/2" OVAL HOSE ADAPTER              | _____ |
| 5.  | 4    | 18234-VUB | #4 x 3/4" COUNTER-SUNK SCREW          | _____ |

CHECKED BY: \_\_\_\_\_  
 PACKED BY: \_\_\_\_\_  
 DATE: \_\_\_\_\_



## 23269-FCA '69 CAMARO WIRING KIT PACKING LIST

| No. | QTY. | PART No.  | DESCRIPTION           |
|-----|------|-----------|-----------------------|
| 1.  | 3    | 23123-VUW | BUDDY CLIP            |
| 2.  | 1    | 23143-VUW | WIRE HARNESS          |
| 3.  | 1    | 23149-VUW | 30" BLACK JUMPER WIRE |
| 4.  | 1    | 49751-VUI | SINGLE WIRE DIODE     |

CHECKED BY: \_\_\_\_\_  
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 DATE: \_\_\_\_\_

