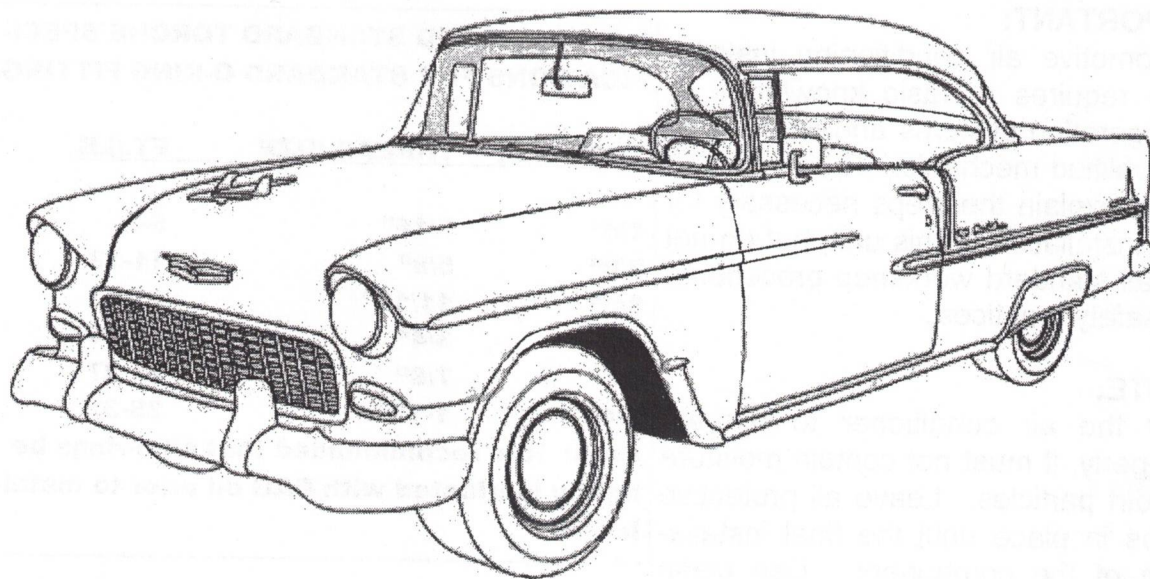


# **AUTOMOTIVE AIR CONDITIONER INSTALLATION INSTRUCTIONS**

## **1955-1956 Chevrolet**

### **Louver & Switch Kit #093-00812**

*Items required, but not included are: BASIC KIT #090-00597*



**SPECIFICALLY DESIGNED FOR R-134A REFRIGERANT ONLY**

#### **IMPORTANT RESTRICTIONS**

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#### **IMPORTANT NOTICE**

If an installation is made on another vehicle other than specified, the factory will not incur any expenses for labor, time and machine expense to make that particular installation. Any deviation from product design component or the use of other material parts and/or system components will be with the installer's responsibility for any such change or deviation.

**MADE IN USA**

Literature #98-04132

## CAUTION

Before starting this installation, take a few minutes to review these instructions. Check that all necessary materials, units and accessory kits that are listed in the application guide are on hand. It is imperative for proper engine operation and vehicle life that adequate engine cooling is provided (i.e., fan shroud and /or larger fan) to offset the added heat load of air conditioning.

Also,

check the vehicle weight capacity as listed on the vehicle certification label. This information is given by the vehicle manufacturer that for proper driving and handling the vehicle's reserve weight capacity not be exceeded. Refer to the manufacturer's recommended sizing guide.

### NOTES:

Unless otherwise specific, all instructions are given from the driver's seat position facing forward with the engine's radiator being the front or forward direction of the vehicle.

### IMPORTANT:

Automotive air conditioning installation requires a basic knowledge of refrigeration systems and services of a qualified mechanic. These instructions explain the steps necessary for the installation of this unit, but do not detail standard workshop procedures or safety practices.

### NOTE:

For the air conditioner to operate properly, it must not contain moisture or dirt particles. Leave all protective caps in place until the final installation of the component. Use clean

Refrigerant Oil on all threaded and sealing surfaces when making fitting connections. Use a backup wrench to avoid twisting the fittings.

### NOTICE:

Automotive air conditioners operate under high pressure and utilize a refrigerant that can be dangerous if not handled properly. Installation, service and repairs should be performed only by those individuals who possess the mechanical skills required and have a basic understanding of refrigeration systems and their operation and who are familiar with and follow safety procedures.

### CAUTION:

Before starting installation, open the hood and disconnect the Negative (-) Ground side of the battery cable. Use protective fender covers to prevent paint scratches.

### RECOMMENDED STANDARD TORQUE SPECIFICATIONS FOR STANDARD O-RING FITTINGS

<u>TUBE O.D.</u>	<u>THREAD SIZE</u>	<u>FT./LB.</u>
1/4"	7/16"	5-7
3/8"	5/8"	11-13
3/8"	11/16"	11-13
1/2"	3/4"	15-20
5/8"	7/8"	21-27
3/4"	1-1/16"	28-33

**Note: It is recommended that all o-rings be lightly lubricated with PAG oil prior to installation.**



This kit is designed to replace the original equipment (O.E.) heater with an integrated AC/heater. The original cable-operated controls will be replaced with electric controls. Before starting this installation, check the function of the vehicle's horn, lights, radio and windshield wipers for proper operation. Review these instructions and Wiring Diagram prior to the start of installation.

#### UNDERHOOD

- 1) Disconnect battery.
- 2) Drain radiator and disconnect the heater hoses at the firewall.
- 3) Remove the heater cover.

#### PASSENGER'S COMPARTMENT

- 4) Remove and discard the original equipment (O.E.) control panel and cables.
- 5) Remove and discard the O.E. glove box.
- 6) Remove the screws from the passenger side vent cable.
- 7) Remove and retain the glove box door and passenger side speaker cover.
- 8) Remove and discard the following O.E. parts (Figure 1): Defrost Duct, Heater housing and Heater Controls.

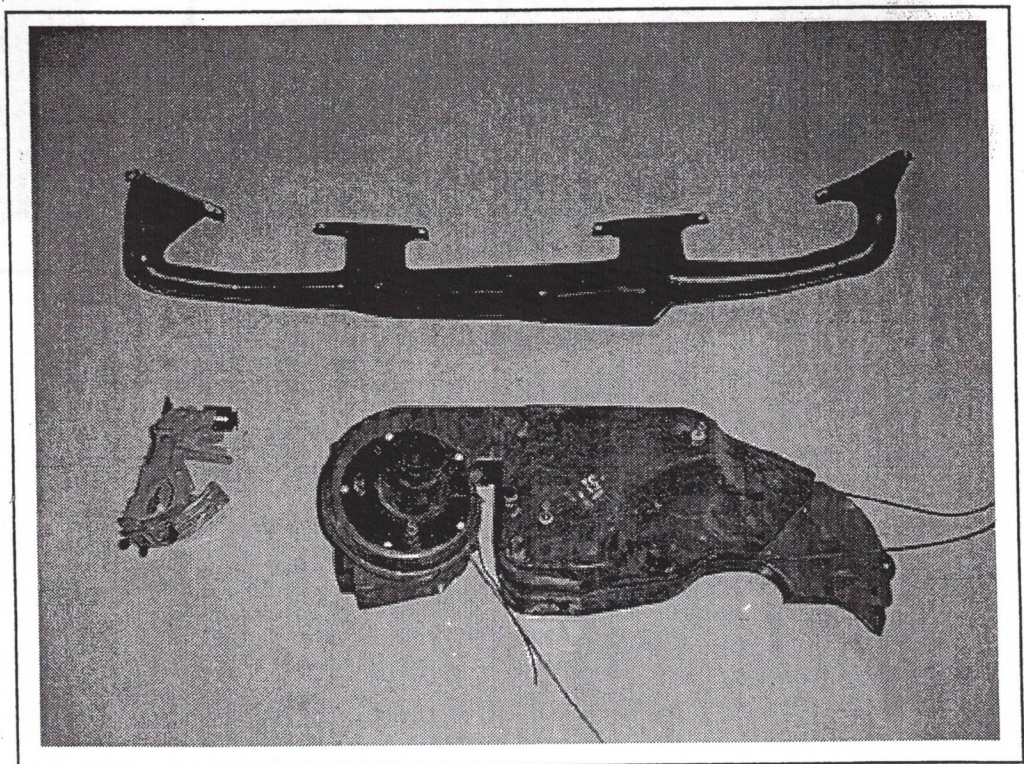
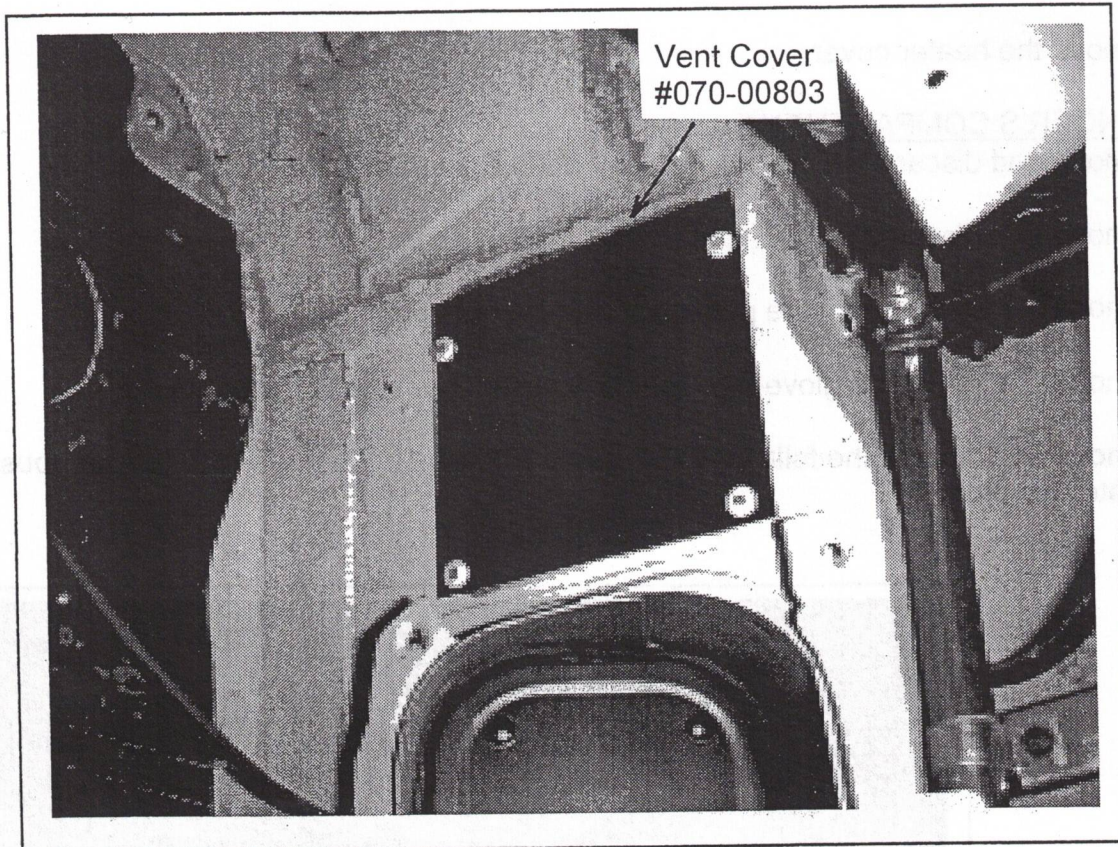


FIGURE 1



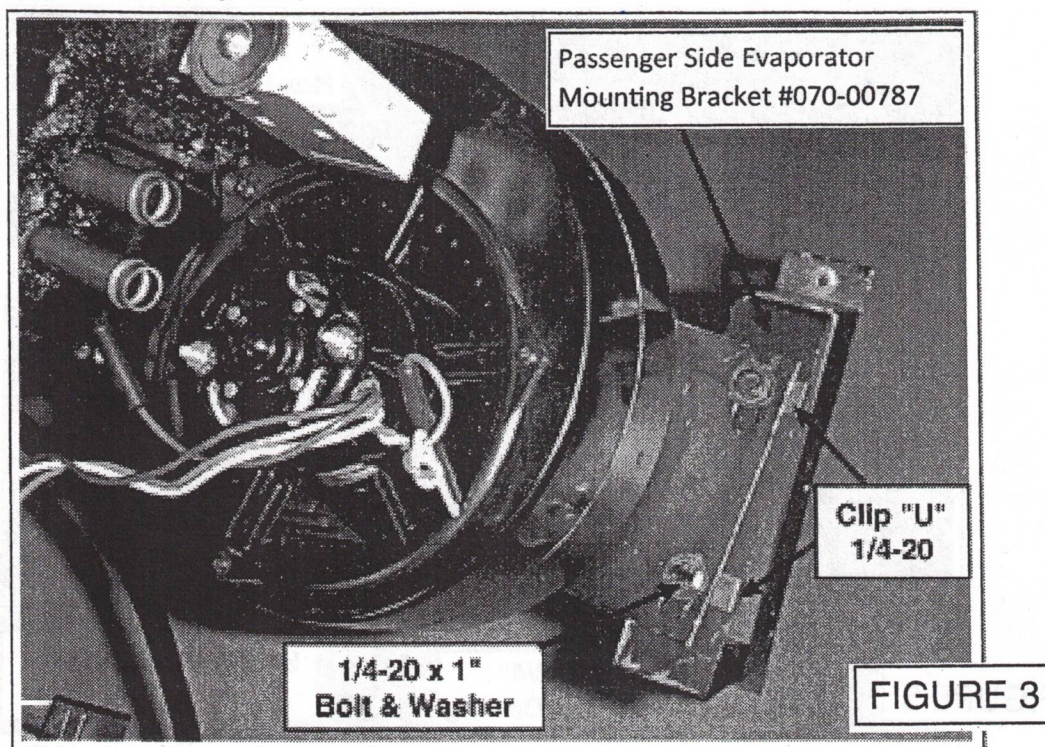
9) Attach the passenger side vent cover (#070-00803) to the original fresh-air intake opening. Use the original hardware. (Figure 2)



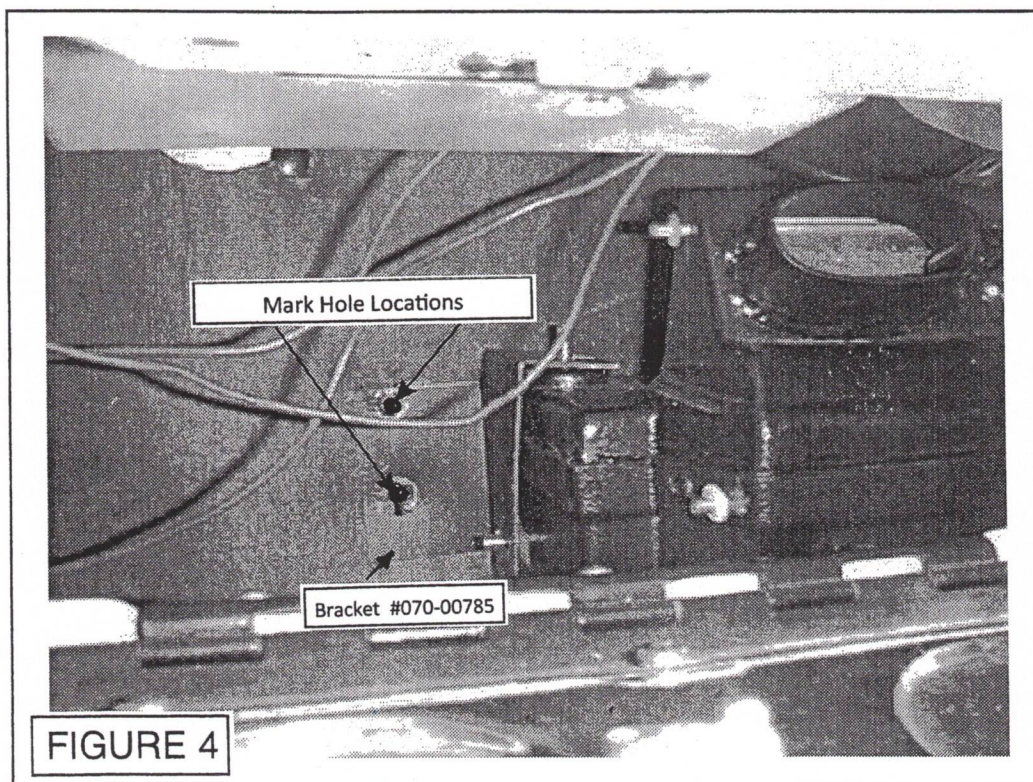
**FIGURE 2**



**10)** Temporarily remove the blower motor cover (#060-00587) from the evaporator; this will allow better access to the evaporator during installation. The blower motor cover will be re-attached in Step 26. Bolt the passenger side evaporator mounting bracket (#070-00787) to the right-side evaporator bracket. U-clips and 1/4-20 hardware, provided. (Figure 3)

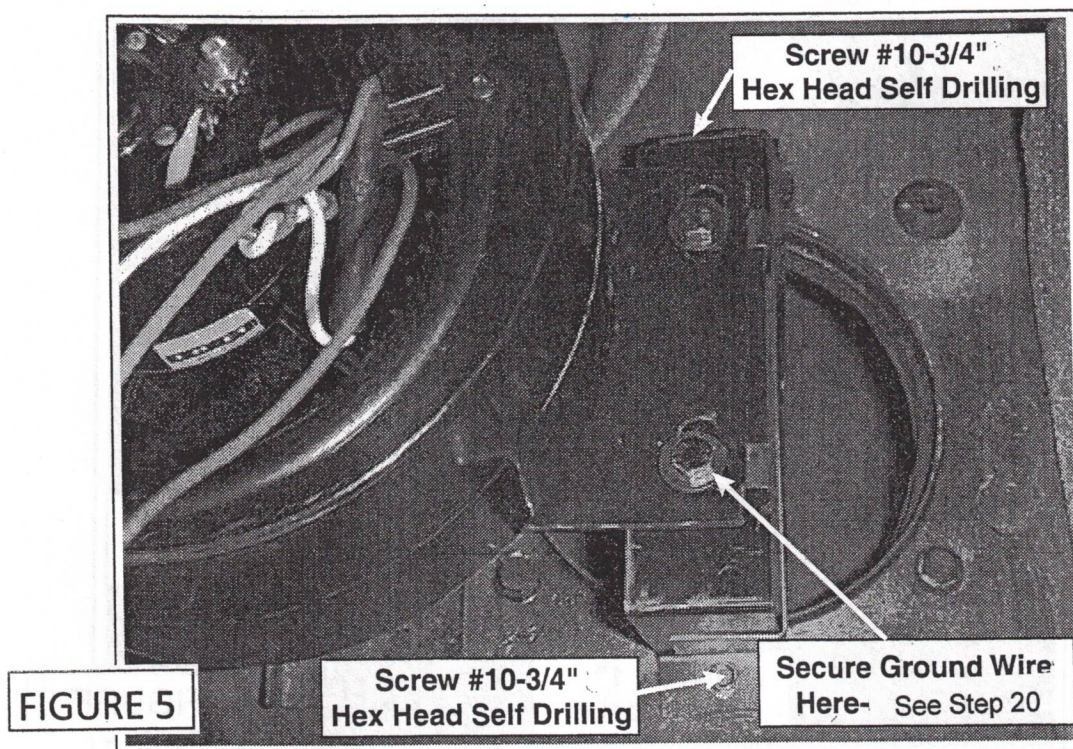


**11)** Attach the driver side mounting bracket (#070-00785) to the evaporator (Figure 4). Lift the evaporator up and into position (as far to the right as it will go). Leave room for the 2 1/2" flex hose connections near the radio. Hold the evaporator so that it is horizontal with the bottom of the dash (look ahead to Step 18 for information on the importance of keeping the evaporator level). Using bracket #070-00785 as a template, mark the location of the mounting holes (drivers side of evaporator); these holes are 1 1/2" apart. (Figure 4)





**12)** Mark the location of the mounting holes on the passenger side. Use the two holes in bracket #070-00787 as a template (Figure 5). Attach the bracket to the firewall with two #10-3/4" hex-head self drilling screws.

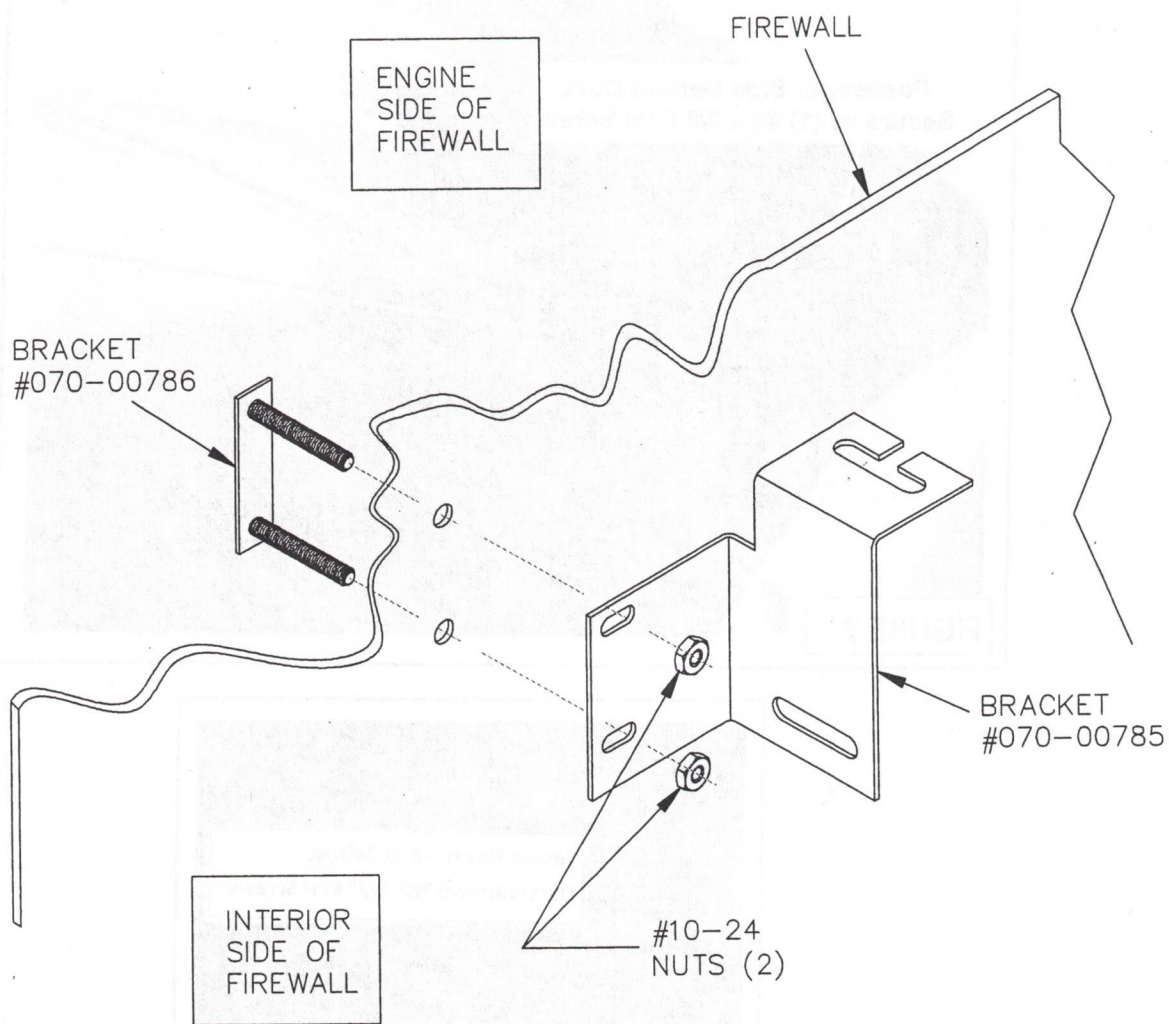


**13)** Remove the evaporator from behind the dash; leave bracket 070-00787 attached to the vehicle.

**14)** Drill the two 1/4" holes that were marked in Step 11. Caution – These holes may be close to the engine's distributor cap. Removal of the distributor cap may be necessary.

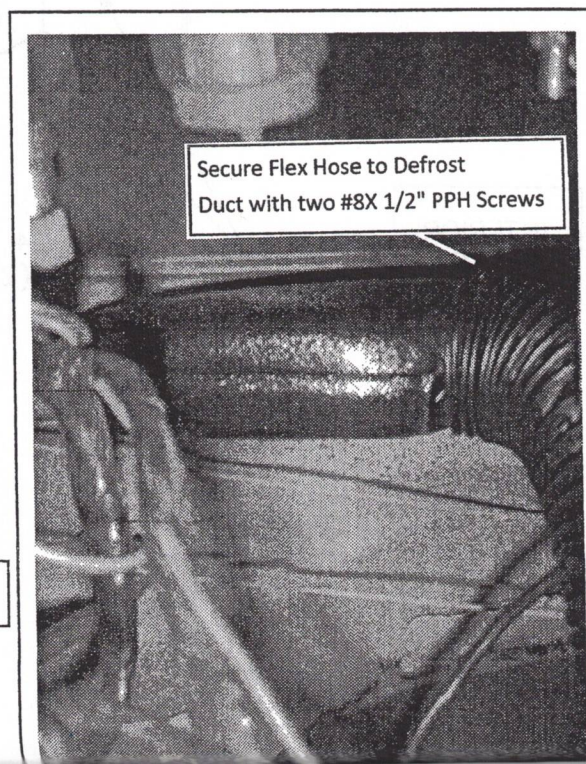
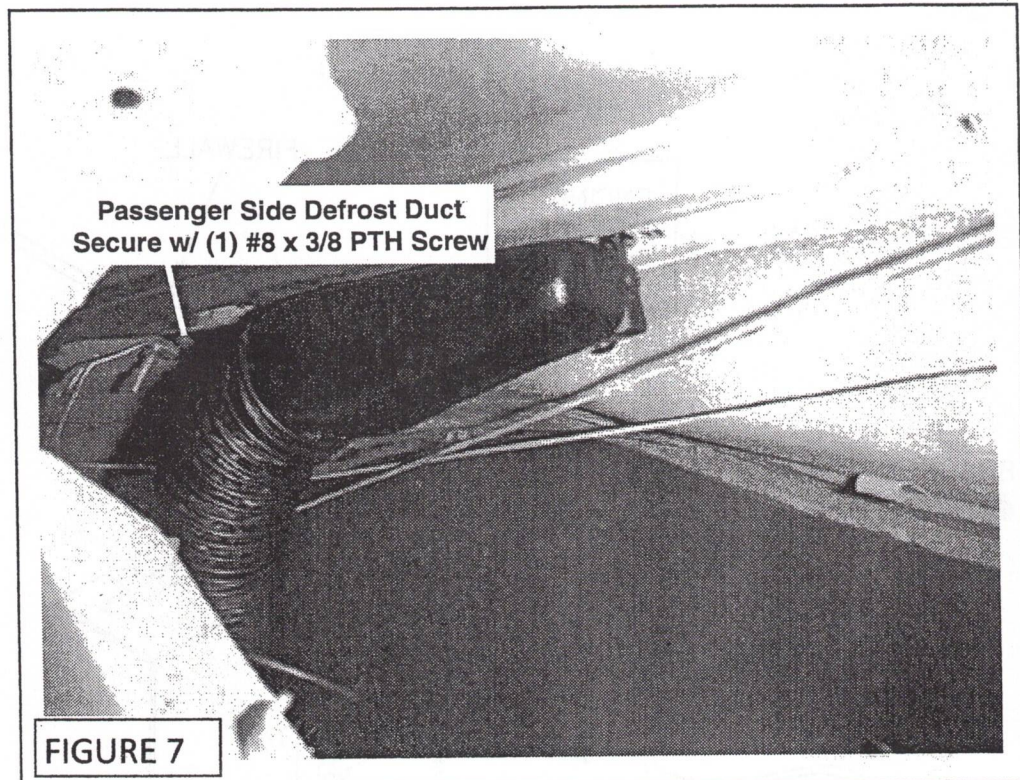


**15)** From the engine-side of firewall, insert bracket #070-00786 through the ¼" holes drilled in Step 14. Attach the driver side mounting brackets (#070-00785) to bracket #070-00786 with two #10-24 nuts. (Figure 6)





16) Prepare the defrost ducts for installation. Attach the 2" flex hose to the ducts with two #8 X 1/2" screws. The driver side duct length is 22"; the passenger side duct length is 16". Install the defroster ducts. Each will be attached to the vehicle with one #8X3/8" PTH screws on each duct. (Figures 7 & 8)





17) Refrigerant fittings and hoses are not supplied with this kit. Obtain proper fittings (low pressure side 7/8-18, short pilot, male nut & high pressure side 5/8-18 short pilot, male nut) for connection to the expansion valve. Clamp the 5/8" heater hose to the copper heater fittings on the coil. Identify the opposite end of the lower heater hose so that it can be easily identified during final installation (Note: The hose connected to the lower fitting will be attached to the outlet of the water valve.)

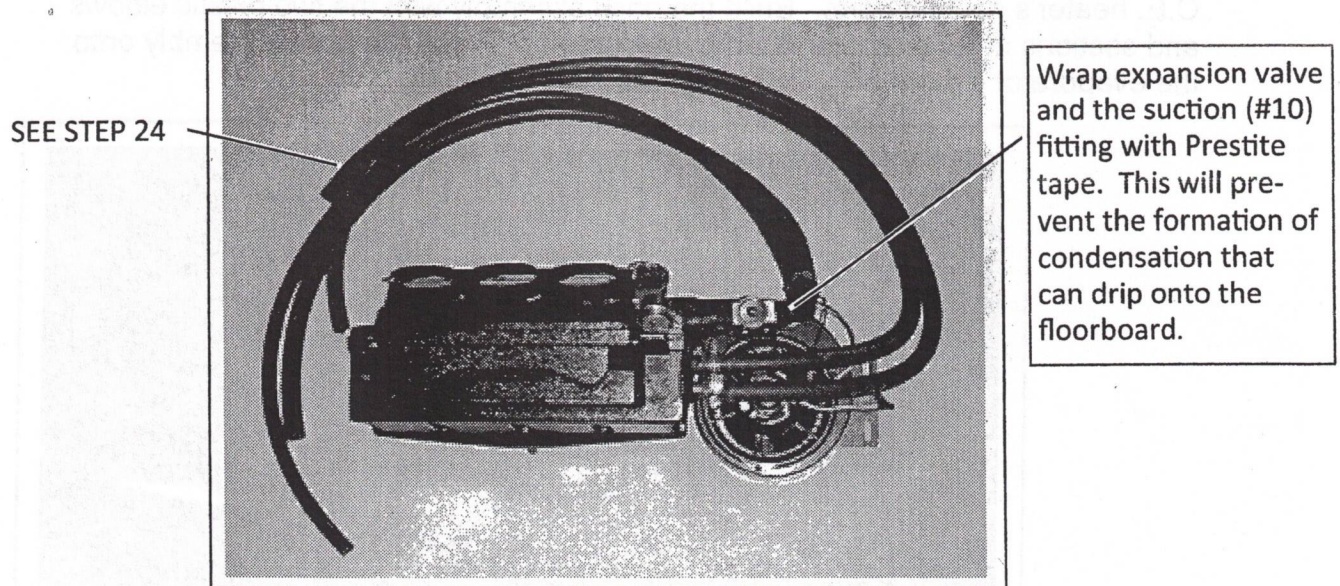


FIGURE 9



18). Lay the evaporator assembly, with hoses, in the passenger side floorboard. Route the hoses through the existing large round hole (far right side of firewall). Push the hoses through the hole to allow evaporator to be lifted into position. Attach the evaporator to both of the previously installed mounting brackets.

**Note:** Before tightening the final mounting fasteners there are some necessary steps that will insure that condensation drains properly. First, the evaporator must be parallel (side-to-side) with the dash. Second, the evaporator must be level, fore and aft, to insure that condensation will drain into the sump and out the drain port. A very slight tilt forward will be beneficial.

19) Construct a condensation drain hose assembly. This hose assembly will exit the firewall through the lower of the two holes previously occupied by the O.E. heater's coolant ports. Build the hose assembly with the two plastic elbows and sections of  $\frac{1}{2}$ " diameter drain hose cut-to-fit. Press the hose assembly onto the evaporator's drain port. (See Figures 10, 11 and 14).

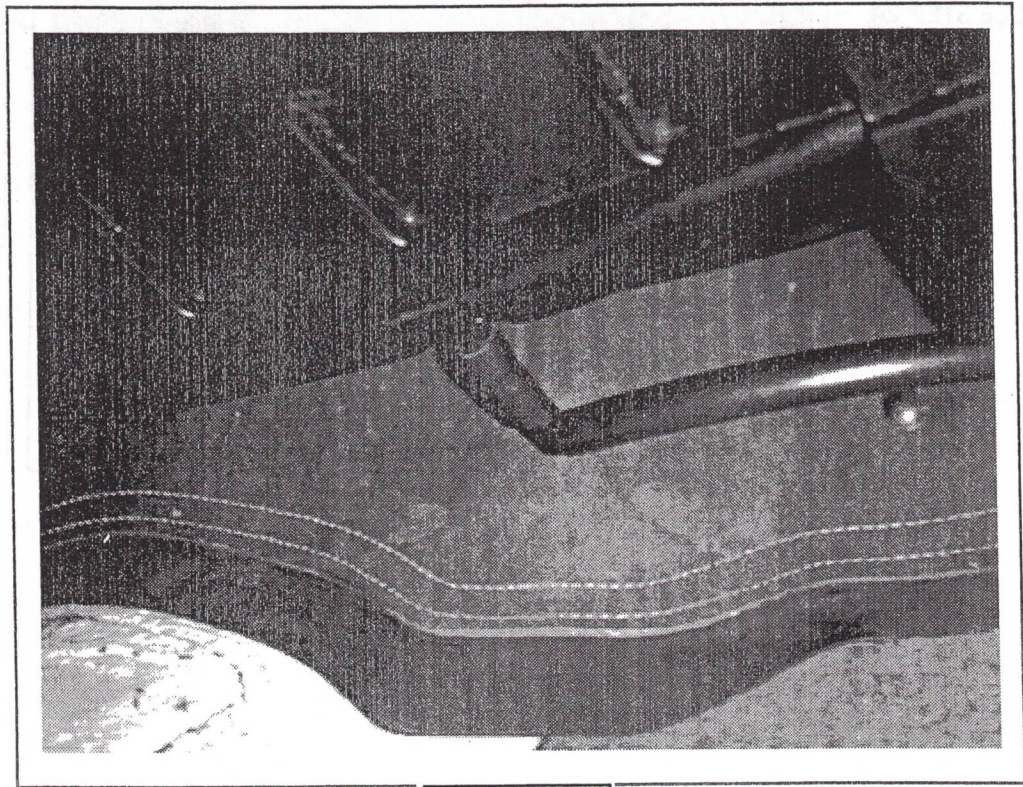


FIGURE 10

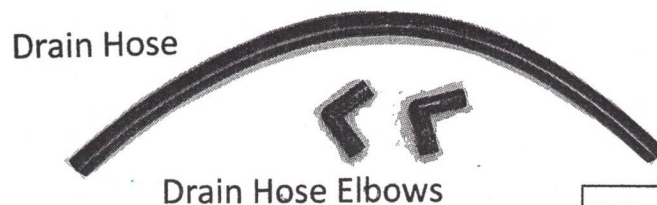


FIGURE 11



20) Attach wire harness #12-02404 to the control panel. Refer to the **Wiring Diagram** while making these connections.

Mount the Control Panel to the underside of the dash, in the location vacated by the removal of the O.E. controls. Route the wire harness to the evaporator and make connection to the blower motor and the mode-selection servo motor.

Attach the black ground wire under the head of the bolt specified in Step 12, Figure 5.

The two blue wires attach to the thermostat (attached to evaporator).

The following are routed through the firewall:

- The three-wire connector for the water valve
- The single blue wire for the compressor clutch.

Due to the size of the water valve connector, it must be routed through the Firewall Hose Cover prior to the insertion of the #6 refrigerant hose. Look ahead to Steps 21 and 22 to coordinate the routing of these wires.

Finally, connect the red fused power wire to the vehicle's electrical system. Look for a power source that is activated when the ignition is turned on and capable of supporting the required 20 amps.

Refer to the **Wiring Diagram** for any questions concerning electrical connections.

CONTROL PANEL

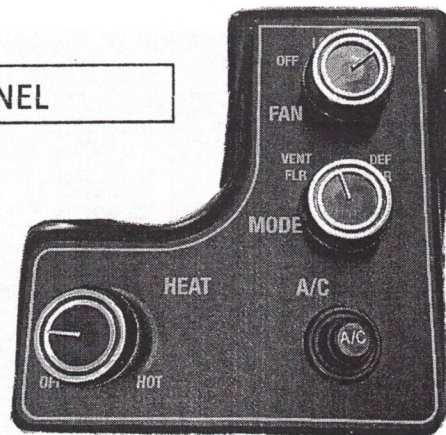
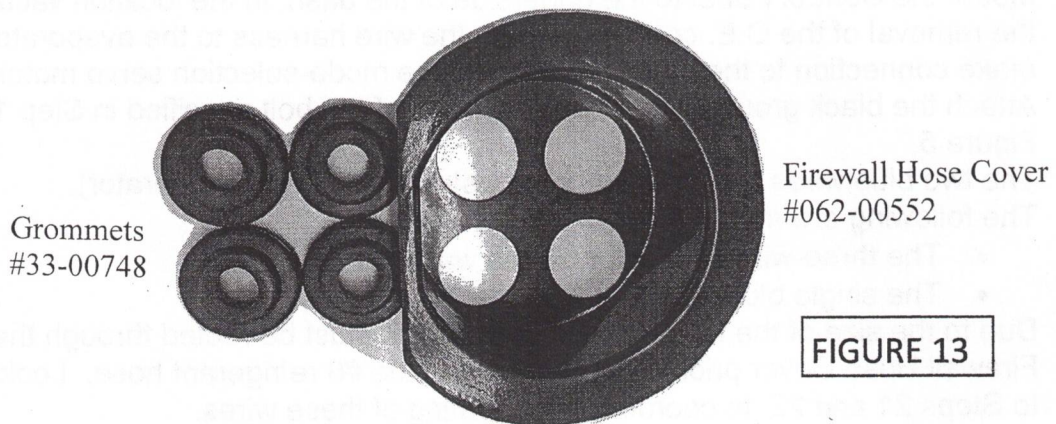


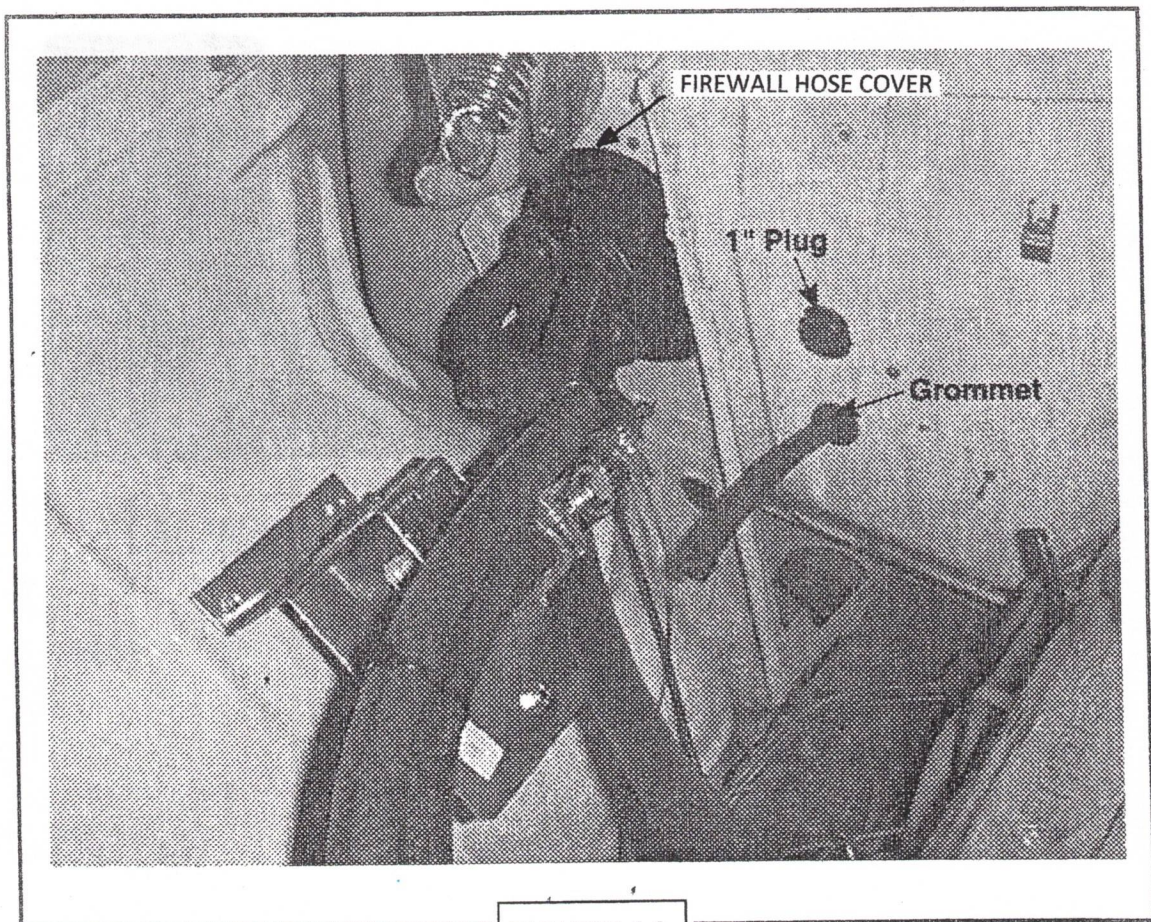
FIGURE 12



**21)** Attach four 1.8" (outside diameter) grommets (#33-00748) to the firewall hose cover #062-00552. (Figure 13)

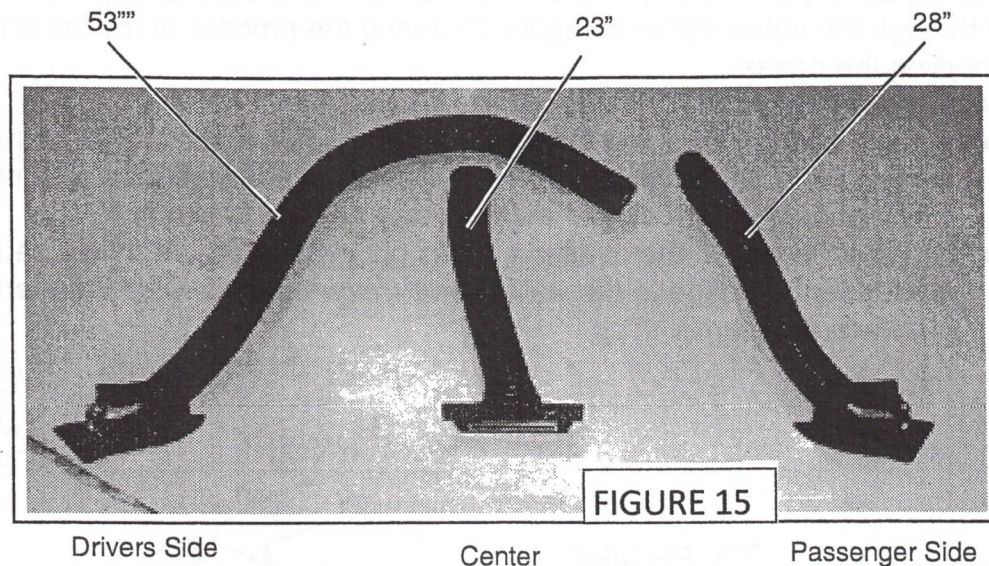


**22)** From the engine side of the firewall, install the firewall hose cover (with grommets installed). A/C and heater hoses will be routed through the grommets. Route the electrical leads for the clutch and water valve through the grommet shared with the #6 hose (Note: The wires must go first.). Place 1" (hole size) plug (#062-00255) into hole in firewall (original O.E. heater port). Place 1.3" (OD) grommet (#33-00695) into the lower of the O.E. heater ports. Route the condensate drain hose through this grommet. (Figure 14)

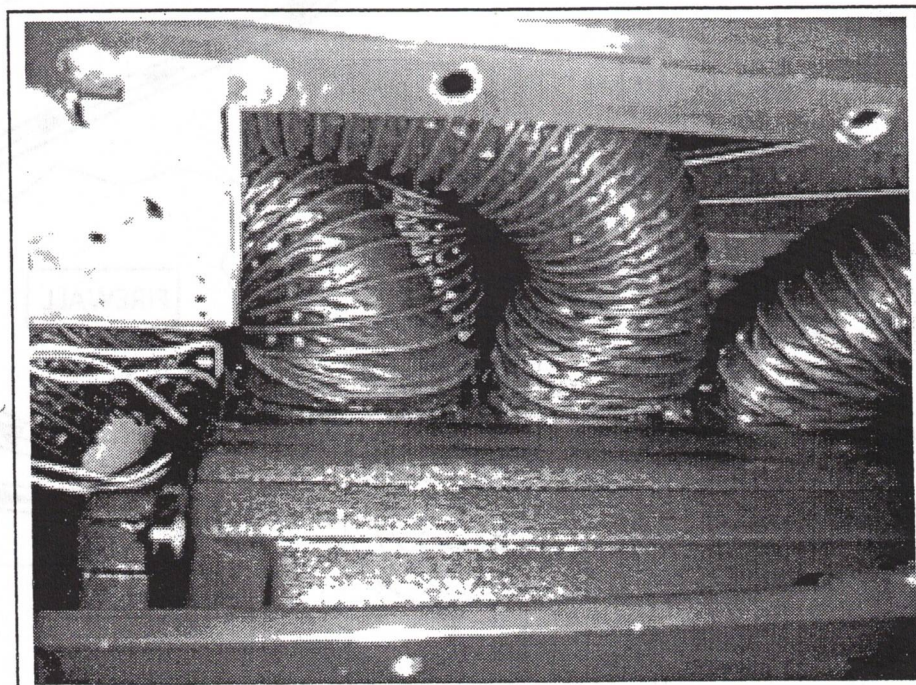




**23)** Prepare the A/C louvers for installation. Cut the 2.5" flex hose into the lengths as illustrated in Figure 15. Press the flex hose onto the louvers; secure the hoses to the louvers with a #8 X 3/8 PTH screw. Route the flex hoses to the evaporator. (Figure 15)



**24)** Press the 2" hoses of the defroster ducts onto the two oval hose adapters of the evaporator. Use two #8 X 3/8 PTH screws to hold the hoses in place. Press the 2.5" hoses, from the louvers, onto the hose adapters of the evaporator. Use three #8 X 3/8" PTH screws to secure the hoses. (Figure 16)

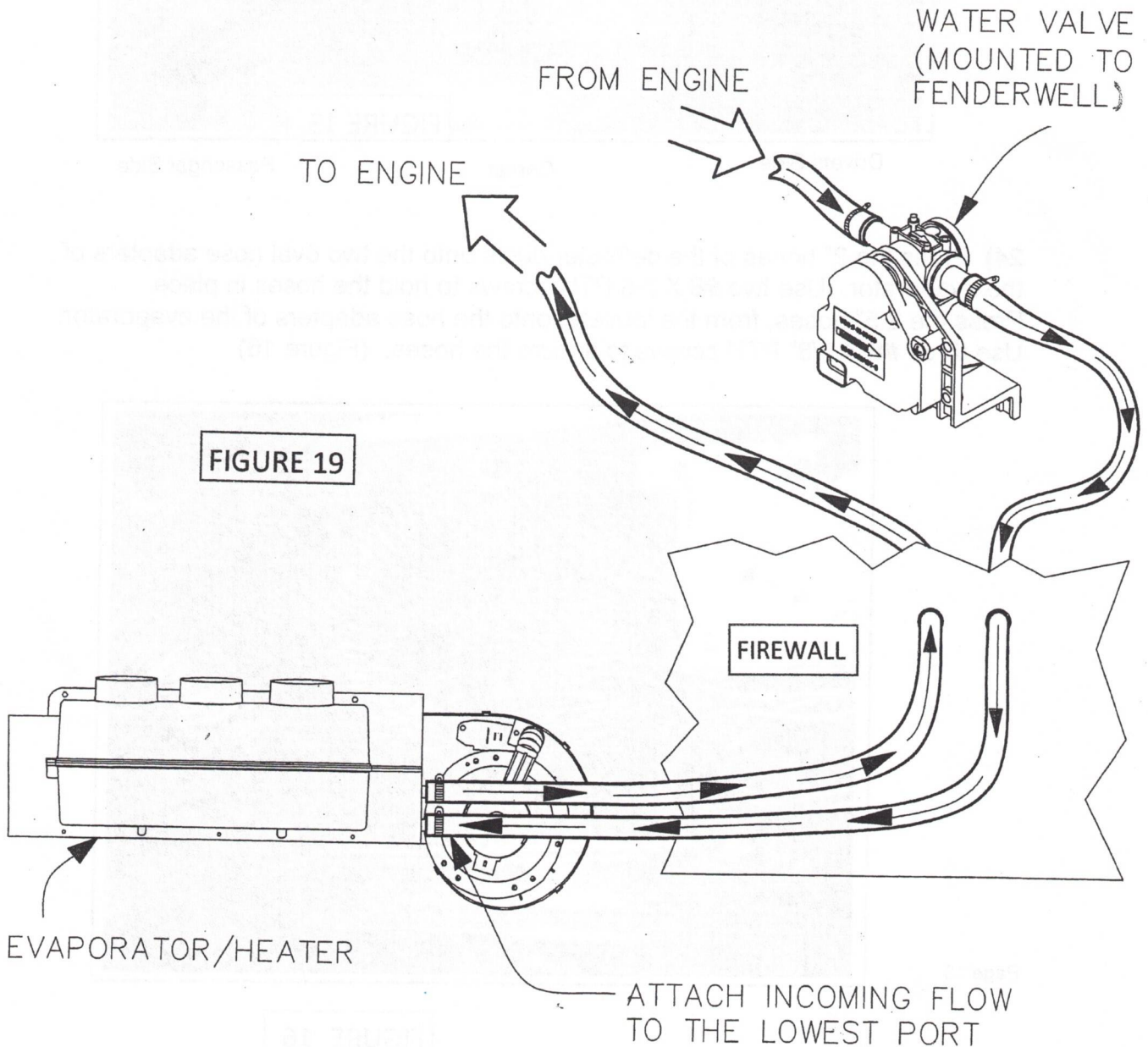




24) Mount the Water Valve to the passenger's side fender well. The correct routing of the heater hoses is essential to the success of the installation. As noted in Step 17, the hose that is connected to the lowest of the two heater ports must be carefully identified and traced to its connection to the water valve. There are arrows on the water valve that indicate the proper direction of coolant flow through the valve. Refer to Figure 19 during the process of routing and connecting the hoses.

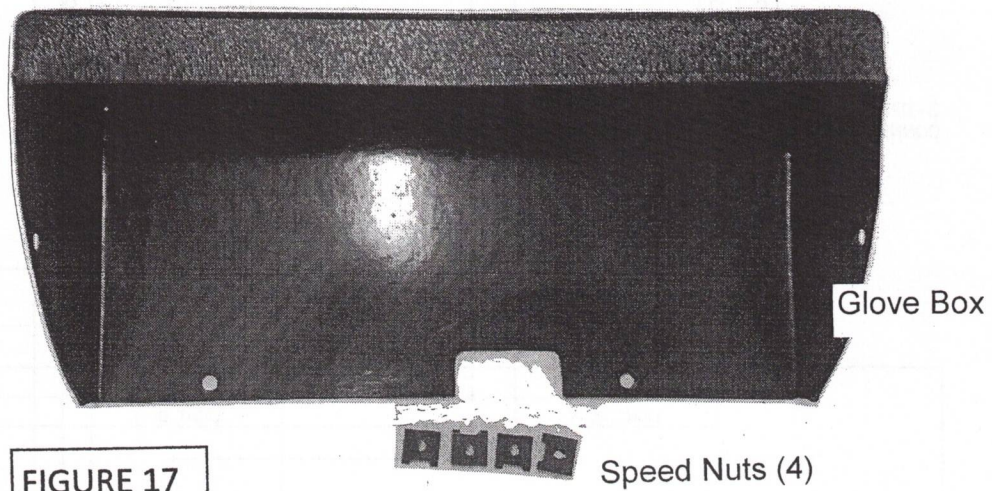
**Note:** Two very important installation tips.....

- Engine coolant is routed through the water valve to the lowest of the two heater ports. Introducing coolant at the lowest point will insure complete filling of the heater coil and will eliminate any entrapped air.
- Coolant flowing in the direction that is opposite to Figure 19 will cause permanent damage to the water valve (reversed flow will permanently displace an internal seal).



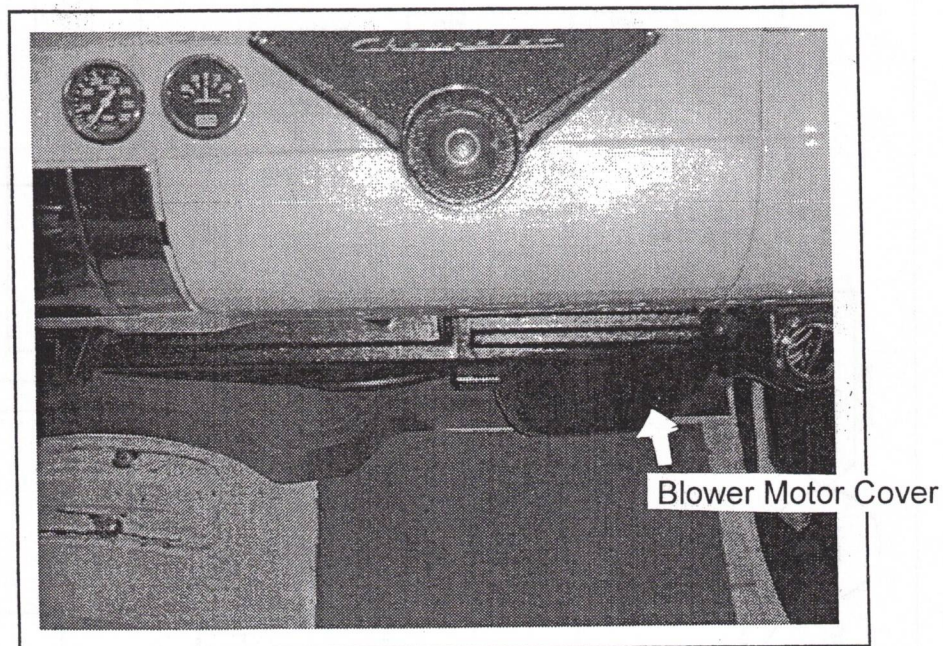


**25)** Attach speed-nuts to the four holes in the glove box (Figure 17). Install the glove box and replace the glove box door.



**FIGURE 17**

**26)** Re-attach the blower motor cover (#060-00587 in Figure 18) that was removed in Step 10.



**FIGURE 18**



# WIRING DIAGRAM

