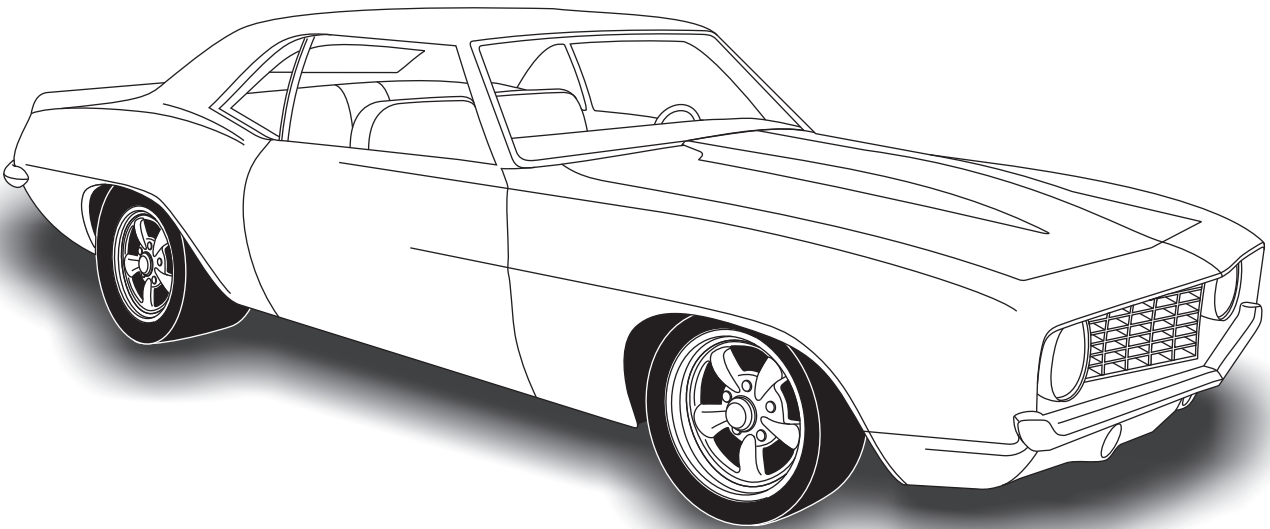




an ISO 9001:2008 Registered Company

# 1969 Chevrolet Camaro

*with* **Factory Air  
Evaporator Kit  
(564169)**



**18865 Goll St. San Antonio, TX 78266**  
**Phone: 210-654-7171**  
**Fax: 210-654-3113**  
**[www.vintageair.com](http://www.vintageair.com)**



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**Thank you for purchasing this evaporator 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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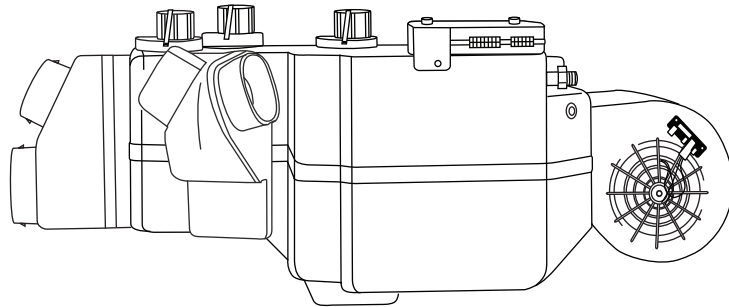
## Packing List: Evaporator Kit (564169)

No.	Qty.	Part No.	Description
1.	1	764169	Gen IV Evaporator Sub Case
2.	1	784169	Accessory Kit

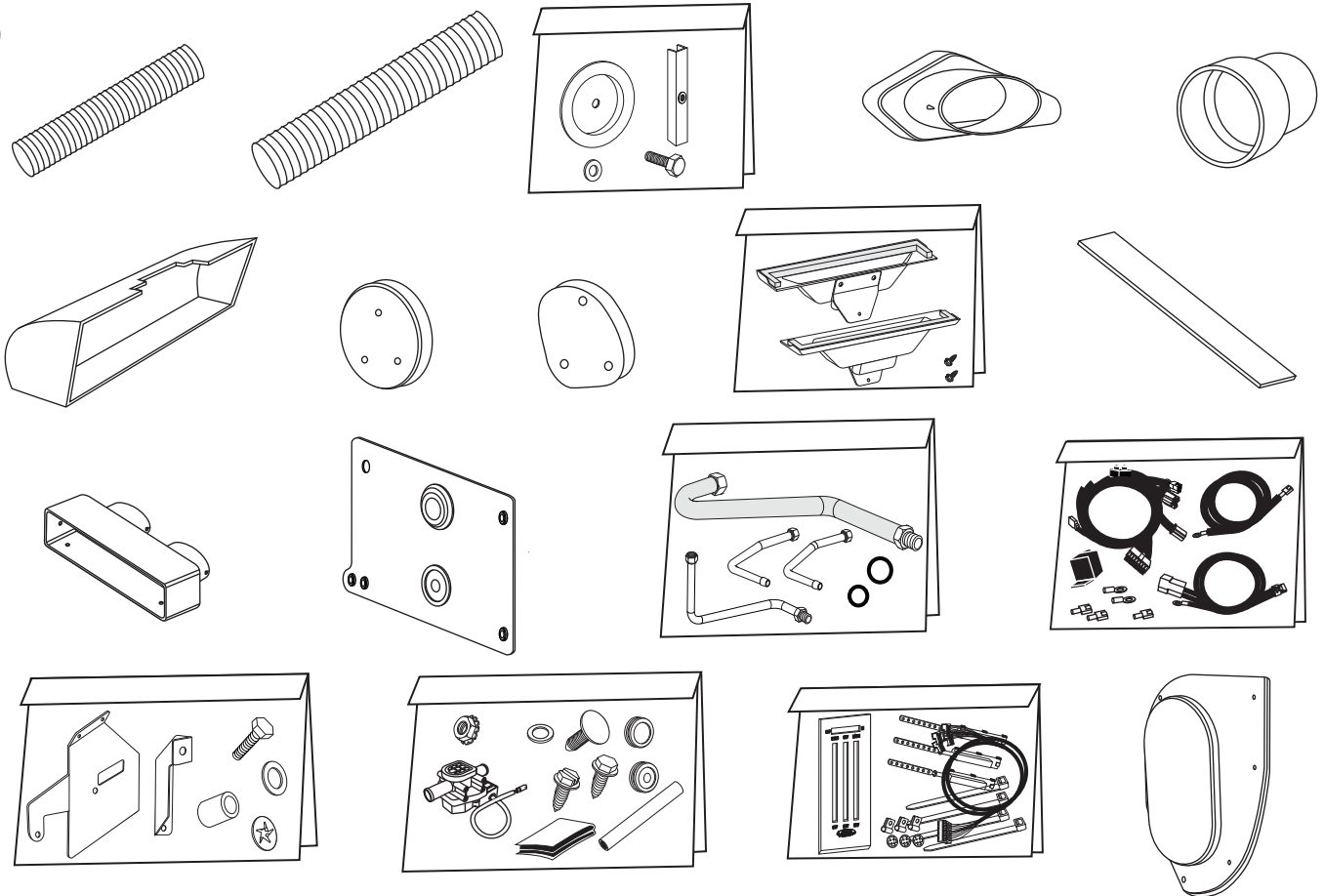
**\*\* Before beginning installation, open all packages and check contents of shipment.  
Please report any shortages directly to Vintage Air within 15 days. After 15 days,  
Vintage Air will not be responsible for missing or damaged items.**

1

**Gen IV Evaporator  
Sub Case  
764169**



2



**Accessory Kit  
784169**

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



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## Important Notice—Please Read

*For Maximum System Performance, Vintage Air Recommends the Following:*

**NOTE:** Vintage Air systems are designed to operate with R134a refrigerant only. Use of any other refrigerant could damage your A/C system and/or vehicle, and possibly cause a fire, in addition to potentially voiding the warranties of the A/C system and its components.

### Refrigerant Capacities:

**Vintage Air System:** 1.8 lbs. (1 lb., 12 oz.) of **R134a**, charged by weight with a quality charging station or scale. **NOTE:** Use of the proper type and amount of refrigerant is critical to system operation and performance.

**Other Systems:** Consult manufacturer's guidelines.

### Lubricant Capacities:

**New Vintage Air-supplied Sanden Compressor:** No additional oil needed (Compressor is shipped with proper oil charge).

**All Other Compressors:** Consult manufacturer (Some compressors are shipped dry and will need oil added).

### Safety Switches

Your Vintage Air system is equipped with a binary pressure safety switch. A binary switch disengages the compressor clutch in cases of extreme low pressure conditions (Refrigerant Loss) or excessively high head pressure (406 PSI) to prevent compressor damage or hose rupture. A trinary switch combines Hi/Lo pressure protection with an electric fan operation signal at 254 PSI, and should be substituted for use with electric fans. Compressor safety switches are extremely important since an A/C system relies on refrigerant to circulate lubricant.

### Service Info:

**Protect Your Investment:** Prior to assembly, it is critical that the compressor, evaporator, A/C hoses and fittings, hardlines, condenser and receiver/drier remained capped. Removing caps prior to assembly will allow moisture, insects and debris into the components, possibly leading to reduced performance and/or premature failure of your A/C system. This is especially important with the receiver/drier.

Additionally, when caps are removed for assembly, **BE CAREFUL!** Some components are shipped under pressure with dry nitrogen.

**Evacuate the System for 35-45 Minutes:** Ensure that system components (Drier, compressor, evaporator and condenser) are 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.

### Bolts Passing Through Cowl and/or Firewall:

To ensure a watertight seal between the passenger compartment and the vehicle exterior, for all bolts passing through the cowl and/or firewall, Vintage Air recommends coating the threads with silicone prior to installation.

### Heater Hose (Not Included With This Kit):

Heater hose may be purchased from Vintage Air (Part# 31800-VUD) or your local parts retailer. Routing and required length will vary based on installer preference.

## Important Wiring Notice—Please Read

*Some Vehicles May Have Had Some or All of Their Radio Interference Capacitors Removed. There Should Be a Capacitor Found At Each of the Following Locations:*

- 1. On the positive terminal of the ignition coil.**
- 2. If there is a generator, on the armature terminal of the generator.**
- 3. If there is a generator, on the battery terminal of the voltage regulator.**

Most alternators have a capacitor installed internally to eliminate what is called “whining” as the engine is revved. If whining is heard in the radio, or just to be extra cautious, a radio interference capacitor can be added to the battery terminal of the alternator.

It is also important that the battery lead is in good shape and that the ground leads are not compromised. There should be a heavy ground from the battery to the engine block, and additional grounds to the body and chassis.

If these precautions are not observed, it is possible for voltage spikes to be present on the battery leads. These spikes come from ignition systems, charging systems, and from switching some of the vehicle’s other systems on and off. Modern computer-operated equipment can be sensitive to voltage spikes on the power leads, which can cause unexpected resets, strange behavior, and/or permanent damage.

Vintage Air strives to harden our products against these types of electrical noise, but there is a point where a vehicle’s electrical system can be degraded so much that nothing can help.

Radio interference capacitors should be available at most auto and truck parts suppliers. They typically are cylindrical in shape, a little over an inch long, a little over a half inch in diameter, and they have a single lead coming from one end of the cylinder with a terminal on the end of the wire, as well as a mounting clip which is screwed into a good ground on the vehicle. The specific value of the capacitance is not too significant in comparison to ignition capacitors that are matched with the coil to reduce pitting of the points.

- Care must be taken, when installing the compressor lead, not to short it to ground. The compressor lead must not be connected to a condenser fan or to any other auxiliary device. Shorting to ground or connecting to a condenser fan or any other auxiliary device may damage wiring, the compressor relay, and/or cause a malfunction.
- When installing ground leads on Gen IV systems, the blower control ground and ECU ground must be connected directly to the negative battery post.
- For proper system operation, the heater control valve must be connected to the ECU.



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## Engine Compartment Disassembly

**NOTE:** Before starting the installation, check the function of the vehicle (horn, lights, etc.) for proper operation, and study the instructions, illustrations, & diagrams.

### Perform the Following:

1. Disconnect battery.
2. Remove battery and battery tray (retain).
3. Drain radiator.
4. Evacuate the A/C system if necessary.
5. Remove OEM condenser and drier (discard).
6. Remove (4) OEM rubber well nuts in the core support (discard).
7. Remove OEM compressor and bracket (discard).
8. Remove OEM evaporator/blower motor assembly (discard) (See Figure 1, below). **NOTE: To remove the evaporator and blower assembly (under hood) and the air distribution system (under dash), the factory manual recommends doing the following: Remove right lower rocker molding. Remove fender attaching bolts. Remove skirt to fender and skirt to reinforcement screws. Pull out on lower portion of fender, moving the skirt away from the fender flange and firewall. Block the skirt with a 2" x 4" block of wood. To avoid damage to paint and sheet metal, and for ease of removal and replacement of components, Vintage Air recommends that the right fender be removed, and the inner panel lowered (See Figure 1, below).**
9. Remove OEM heater hoses, A/C hoses and hardlines (discard).
10. Remove OEM A/C & heater wiring/vacuum harness molded grommet.
11. Install a 1 1/2" plug into the firewall.

## Condenser Assembly and Installation

1. Refer to separate instructions included with the condenser kit to install the condenser.
2. Binary switch installation (Refer to condenser instructions).

## Compressor and Brackets

1. Refer to separate instructions included with the bracket kit to install the compressor bracket.

## Pulleys

1. In most instances, the belt lengths will remain the same.



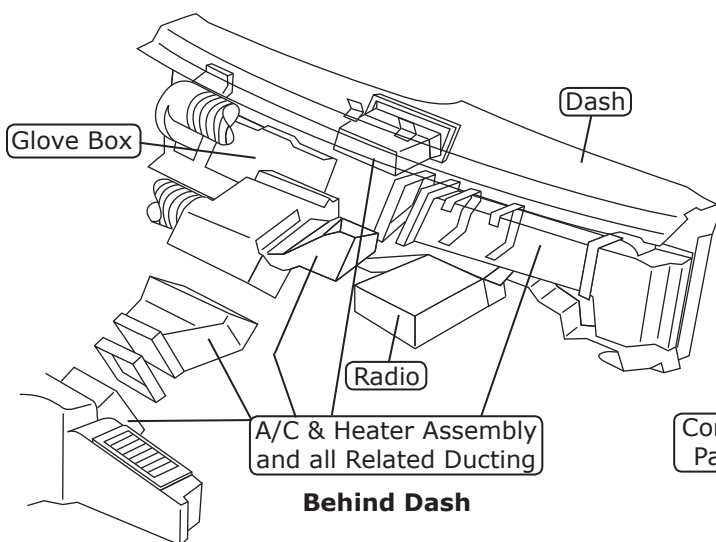
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## Passenger Compartment Disassembly

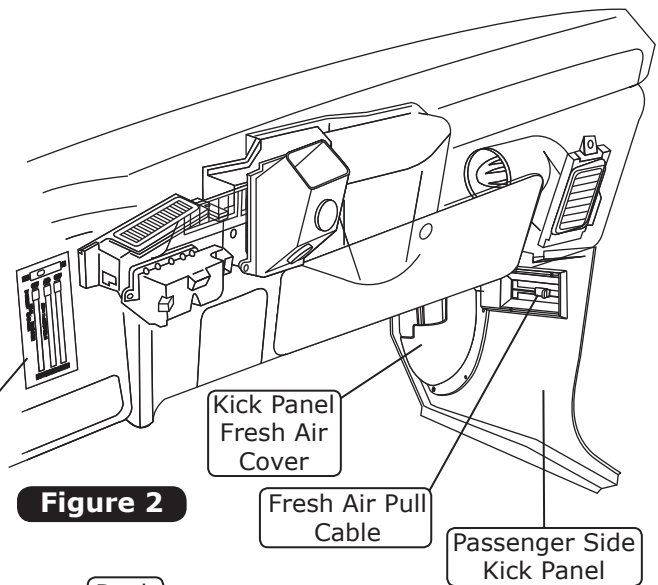
**NOTE: Removal of the dashboard is required to install the evaporator. Vintage Air recommends using the factory manual when disassembling and reassembling the dashboard.**

### Perform the Following:

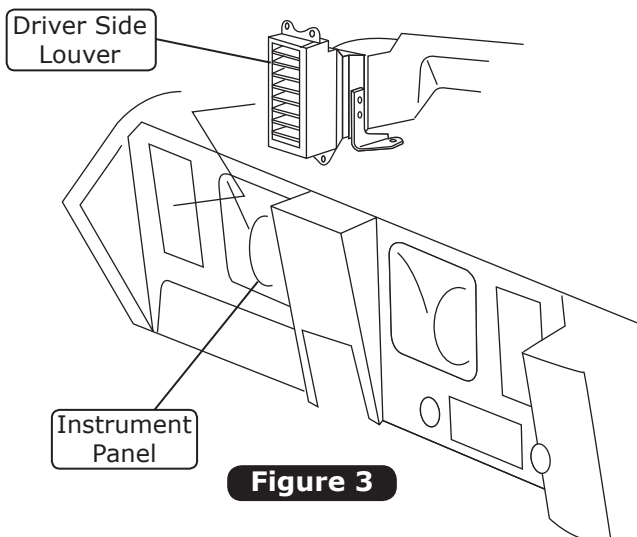
1. Remove the glove box door (retain) (See Figure 4, below).
2. Remove the glove box (discard, but retain screws) (See Figure 1, below).
3. Remove the radio (retain) (See Figure 1, below).
4. Remove the A/C & heater assembly and all related ducting (discard, but retain screws) (See Figures 1 & 2, below).
5. Remove the OEM control panel assembly (See Figure 2, below). **NOTE: Refer to control panel instructions for installation of controls.**
6. Remove the center louver (See Figure 4, below).
7. Remove the driver and passenger side louvers (retain) (See Figure 3, below). **NOTE: Instrument panel must be removed for access to the driver side outlet.**
8. Remove the passenger side kick panel fresh air cover (discard) and kick panel (retain) (See Figure 2, below).
9. Disconnect and remove the cable from the kick panel (discard) (See Figure 2, below).



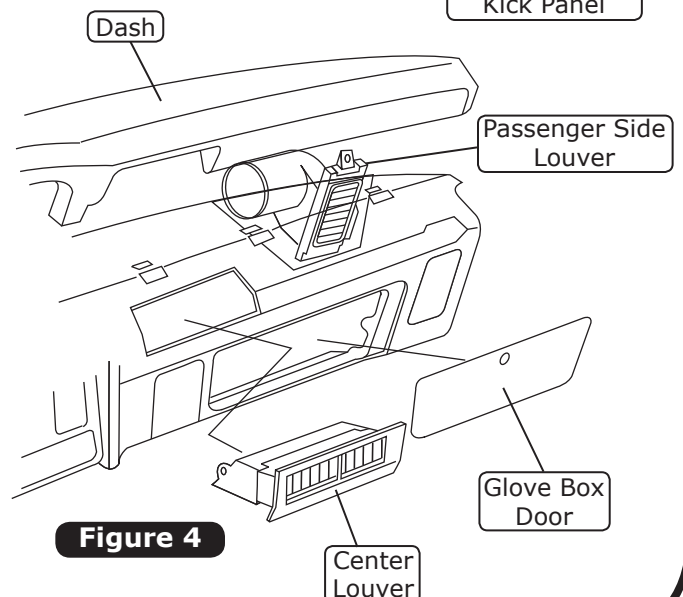
**Figure 1**



**Figure 2**



**Figure 3**



**Figure 4**

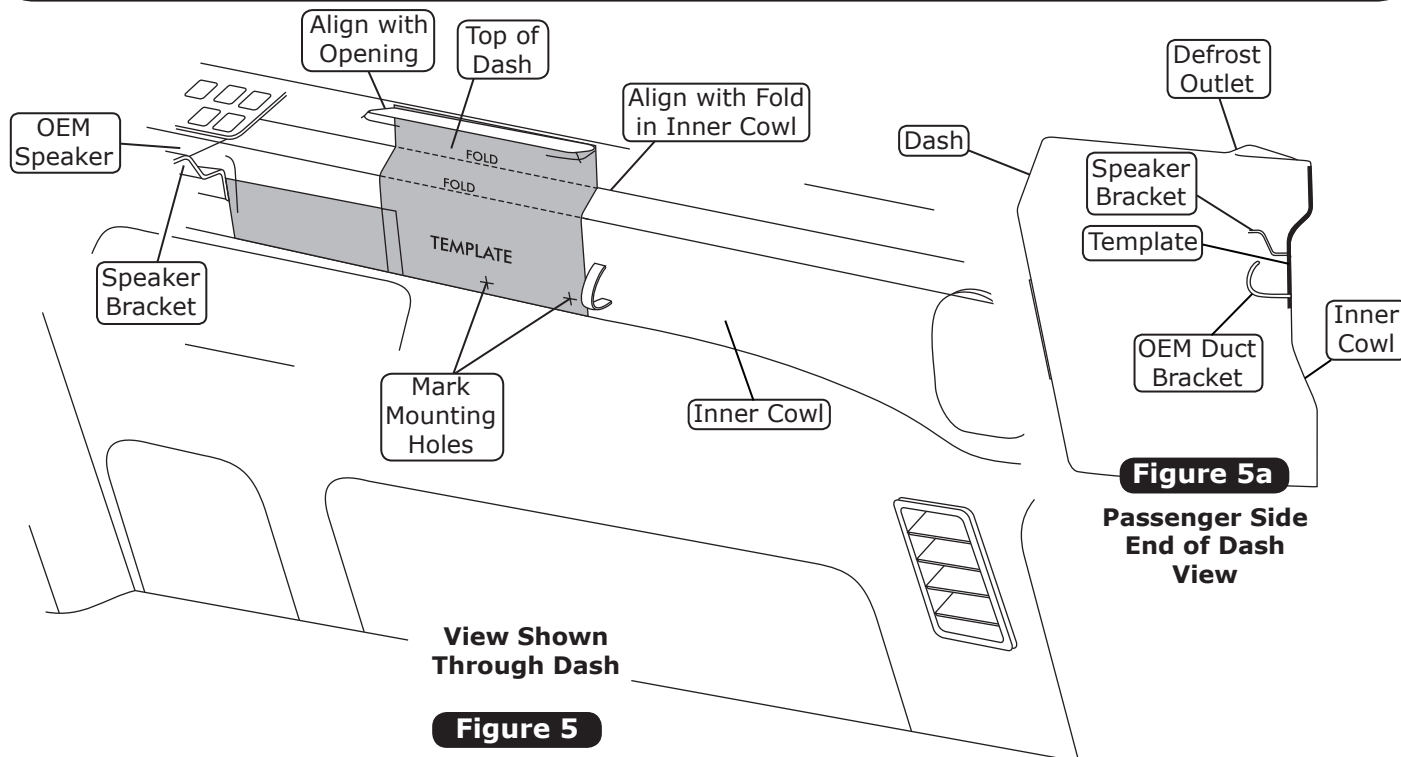




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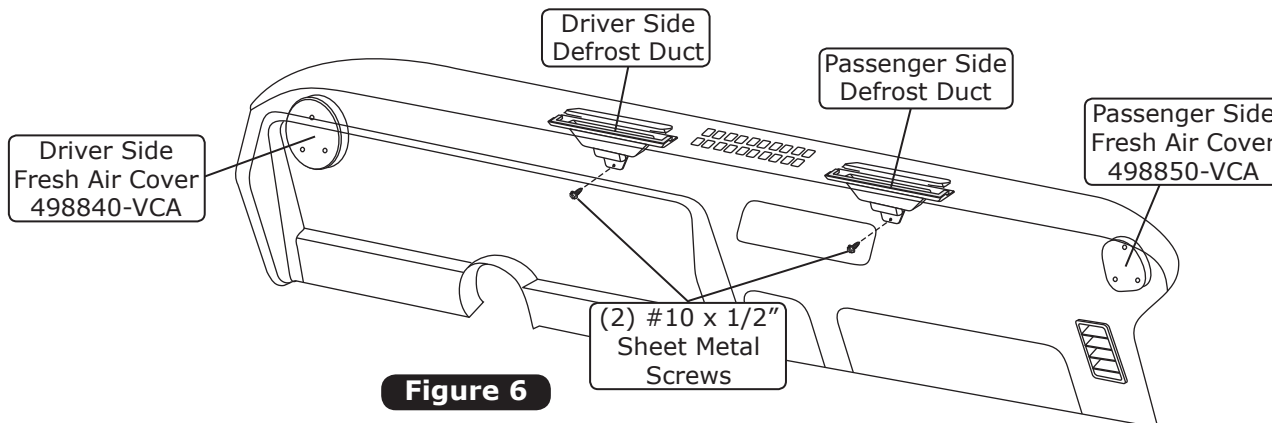
## Evaporator Mounting Holes

1. Cut out the evaporator bracket template on Page 25, and tape together as shown on template. Place the template onto the inner cowl under the dash by aligning the left side of the template against the speaker bracket as shown in Figure 5, below. Fold the template to follow the contour of the inner cowl. Make sure the upper left corner of the template aligns with the left side of the defrost opening in the dash as shown in Figures 5 & 5a, below.
2. Once the template is aligned correctly and taped into place, mark the mounting holes on the inner cowl. After marking the hole locations, drill (2) 3/16" holes in the inner cowl for the evaporator front mounting bracket (See Figure 5, below).



## Defrost Duct & Fresh Air Cover Installation

1. Apply a 1/4" bead of silicone to mating surface of the driver and passenger side fresh air covers, and install using OEM hardware to secure (See Figure 6, below).
2. Install the defrost ducts under the dash as shown in Figure 6, below. Align each defrost duct with the defrost opening in the dash, and hold in place. Using the bracket as a template, drill a 7/64" hole. Secure each defrost duct using a #10 x 1/2" sheet metal screw as shown in Figure 6, below.







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## Hose Adapter Installation

1. Cut off 9" of the OEM driver side A/C duct assembly as shown in Figure 7, below.
2. Install (3) S-clips onto each hose adapter as shown in Figure 7, below.
3. Install the driver & passenger side hose adapters onto the OEM louvers (See Figure 7, below).
4. Reinstall louvers into the dash.

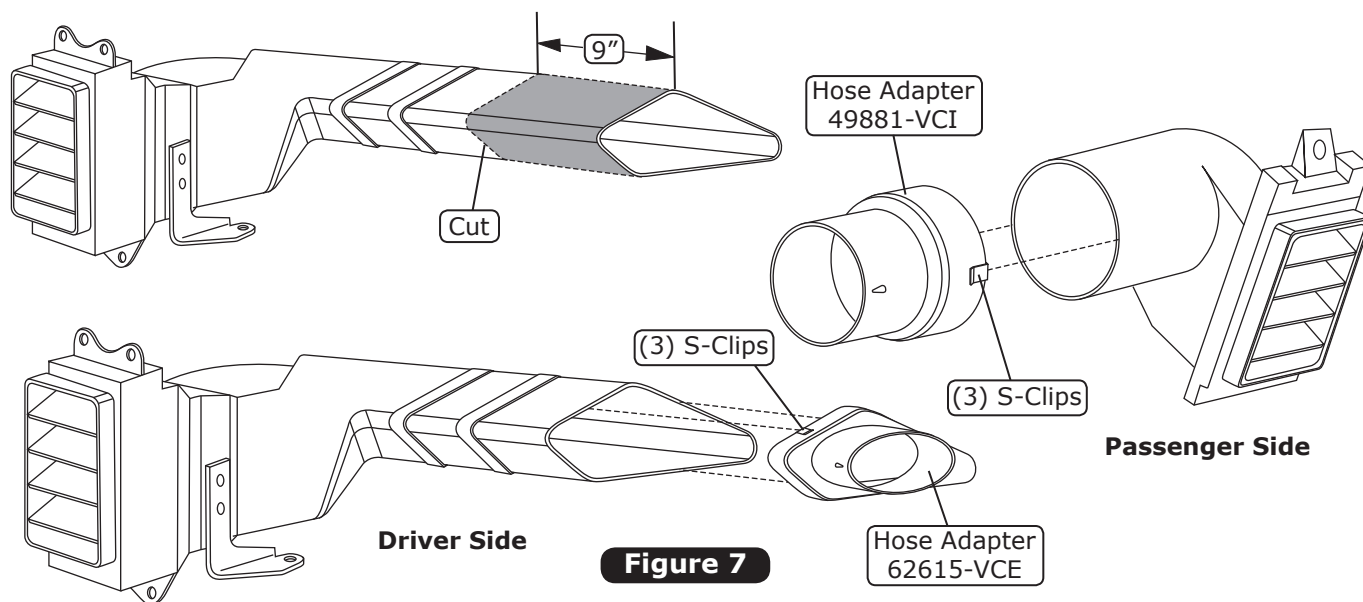


Figure 7

## Fresh Air Cap Installation

1. Apply a 1/4" bead of silicone around the mating surface of the fresh air cap as shown in Figure 8, below.
2. Attach the fresh air cap to the firewall using a 1/4-20 x 1" bolt and a 1/4" washer as shown in Figure 8, below.  
**NOTE: The fresh air cap installs onto the engine side of the firewall.**
3. Drill a 5/8" hole into the firewall using the measurements shown in Figure 8, below. Install a 3/8" grommet into the hole as shown in Figure 10, Page 10.

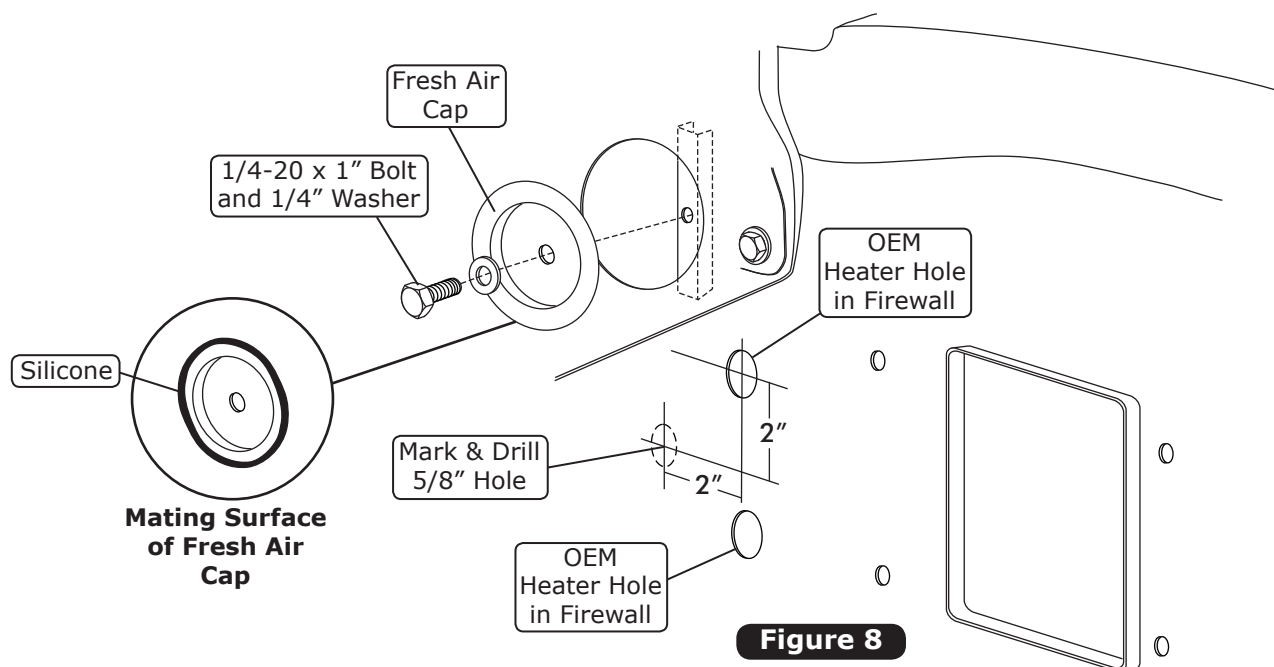


Figure 8



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## Kick Panel Cap Installation

1. Close the fresh air door assembly in the kick panel, and seal around the door with a 1/4" bead of silicone as shown in Figure 9, below.
2. Install the kick panel cap using (5) #10 x 1" pan head screws as shown in Figure 9a, below.
3. Using OEM screws, install the OEM lever housing as shown in Figure 9a, below.

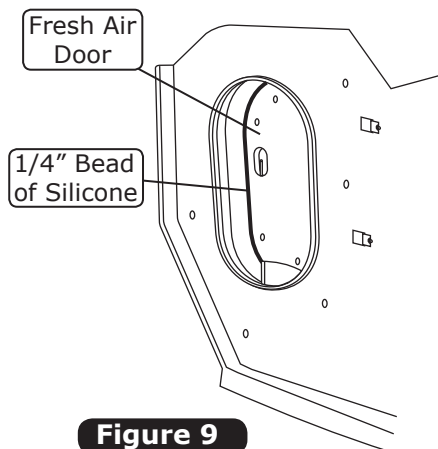


Figure 9

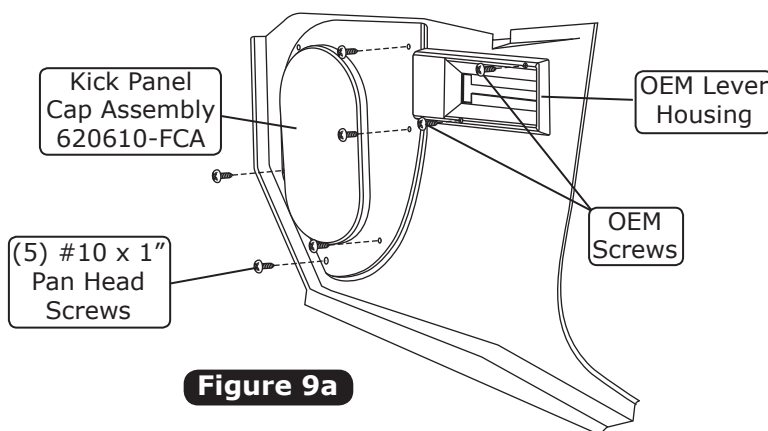


Figure 9a

## Firewall Cover Installation

**NOTE: To ensure a watertight seal between the passenger compartment and the vehicle exterior, for all bolts passing through the firewall, Vintage Air recommends coating the threads with silicone prior to installation.**

1. Enlarge the (4) mounting holes on the firewall to 5/16" (See Figure 10, below).
2. Apply a 1/4" bead of silicone around the mating surface of the firewall cover as shown in Figure 10, below.
3. From the passenger compartment, install the firewall cover onto the firewall. From the engine compartment, secure the firewall cover to the firewall using (3) 1/4-20 x 1" hex bolts and (3) 1/4" washers as shown in Figure 10, below.

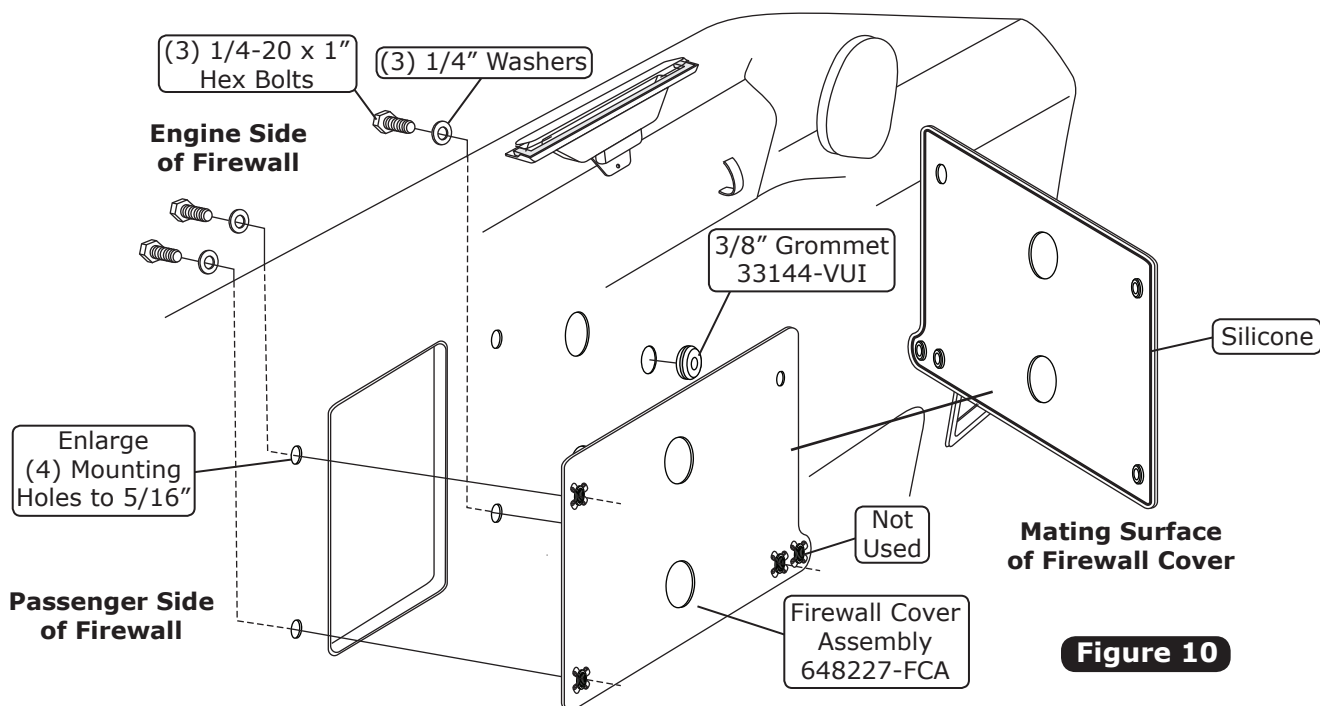


Figure 10



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## Evaporator Bracket & Evaporator Hardline Installation

1. On a workbench, install the evaporator rear bracket using (2) 1/4-20 x 1/2" hex bolts as shown in Figure 13, Page 12.
2. Install the A/C and heater hardlines with properly lubricated O-rings (See Figure 17, Page 15, and Figure 13, Page 12).
3. Install the front mounting bracket onto the evaporator using (2) 1/4-20 x 1/2" hex bolts as shown in Figure 11, below.

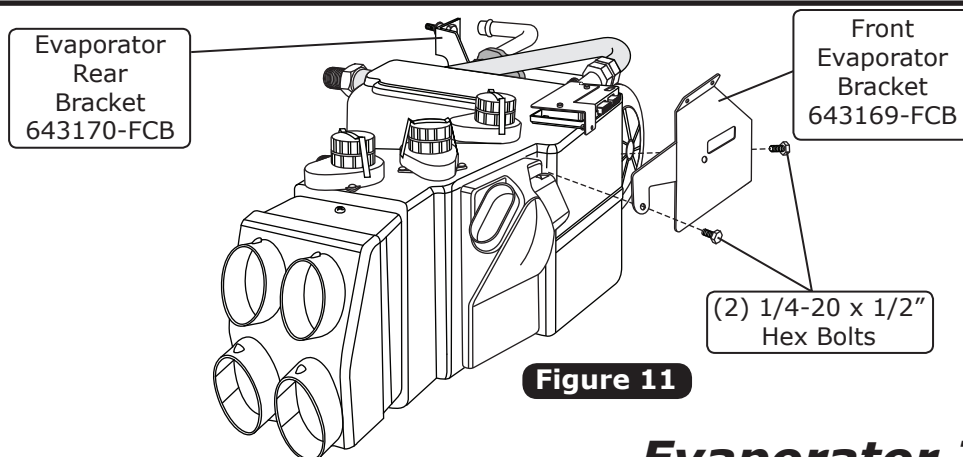


Figure 11

## Evaporator Installation

**NOTE:** To ensure a watertight seal between the passenger compartment and the vehicle exterior, for all bolts passing through the firewall, Vintage Air recommends coating the threads with silicone prior to installation.

1. Lift the evaporator unit up under the dashboard, and secure it loosely to the firewall from the engine compartment using a 1/4-20 nut and a 1/4" washer as shown in Figure 12, below.
2. Using (2) #14 x 3/4" sheet metal screws, secure the front evaporator mounting bracket to the inner cowl (See Figure 12, below). **NOTE: To ensure proper drainage, it is very important that the evaporator is level, both left-right and fore-aft. Check for level on the flat portions of the case around the drain.**
3. Verify that the evaporator unit is level and square to the dash; then tighten all mounting bolts. **NOTE: Tighten the bolt on the firewall first. Then tighten the front mounting bracket.**

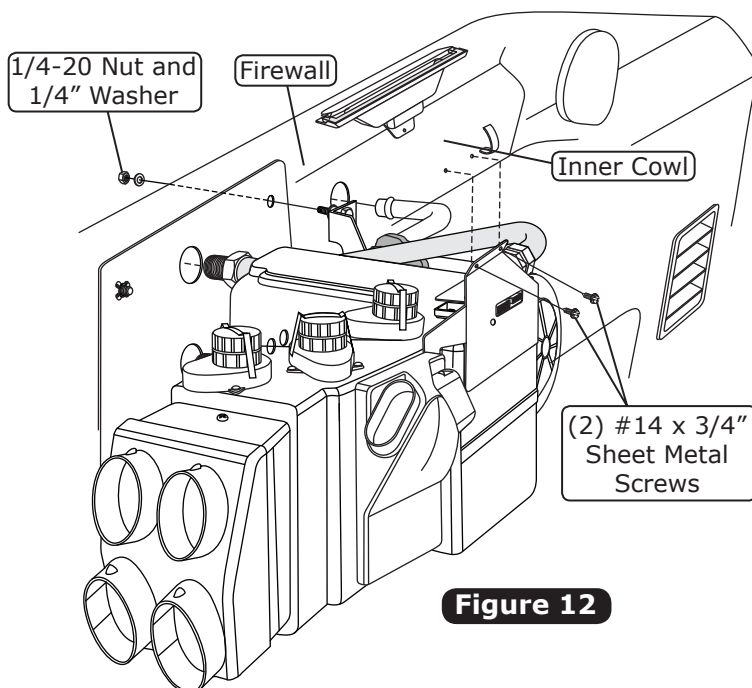


Figure 12



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# Evaporator Bracket & Evaporator Hardline Installation (Cont.)

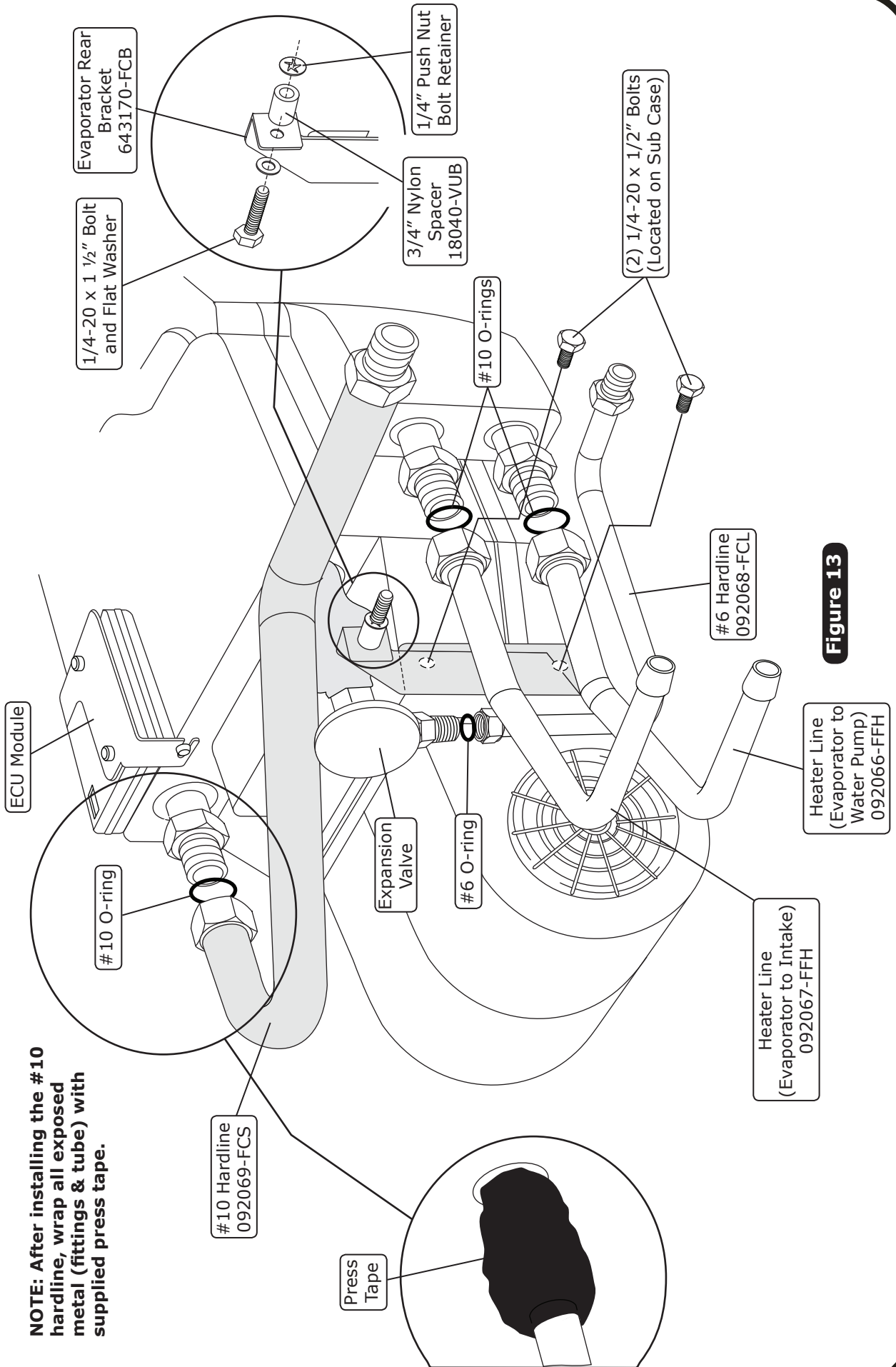


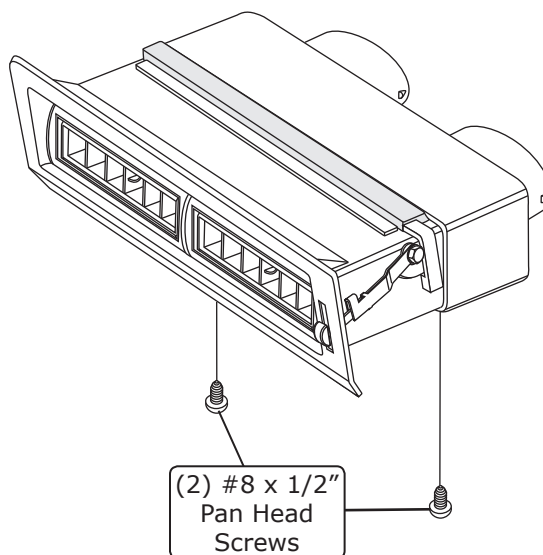
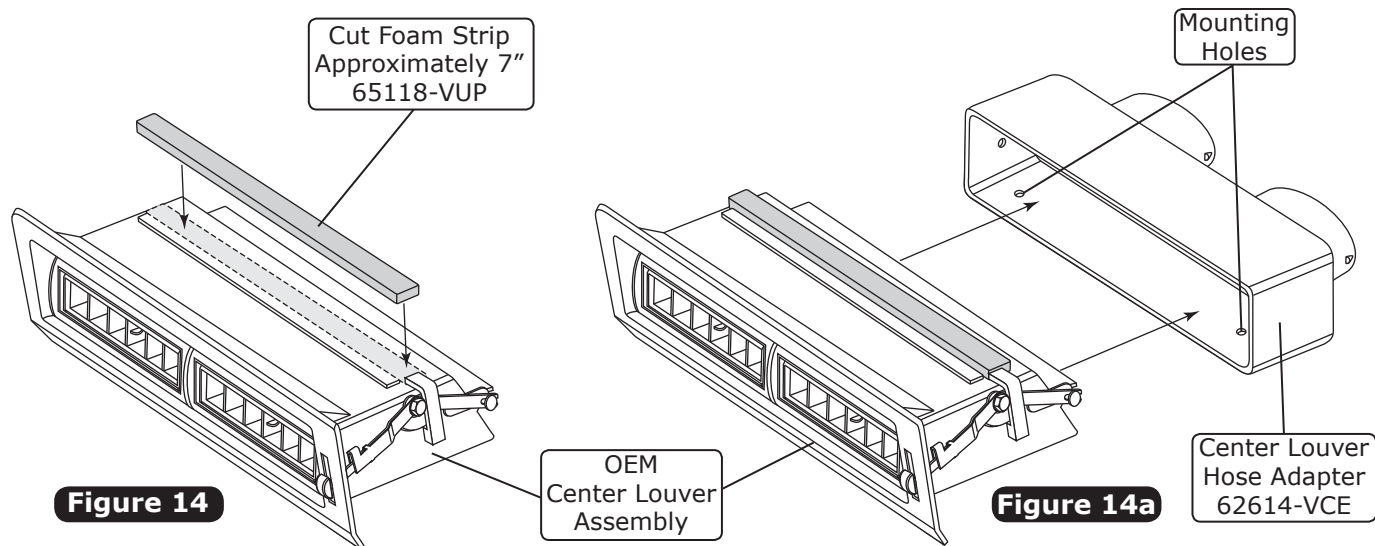
Figure 13



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## Center Louver Installation

1. Install a foam strip onto the center louver assembly as shown in Figure 14, below.
2. Install the center louver hose adapter onto the center louver assembly as shown in Figure 14a, below.
3. Using the (2) mounting holes on the bottom side of the hose adapter as a guide, drill (2) 1/8" holes into the louver assembly (See Figure 14a, below).
4. Secure the hose adapter to the louver assembly using (2) #8 x 1/2" pan head screws as shown in Figure 14b, below.
5. Reinstall the dash.



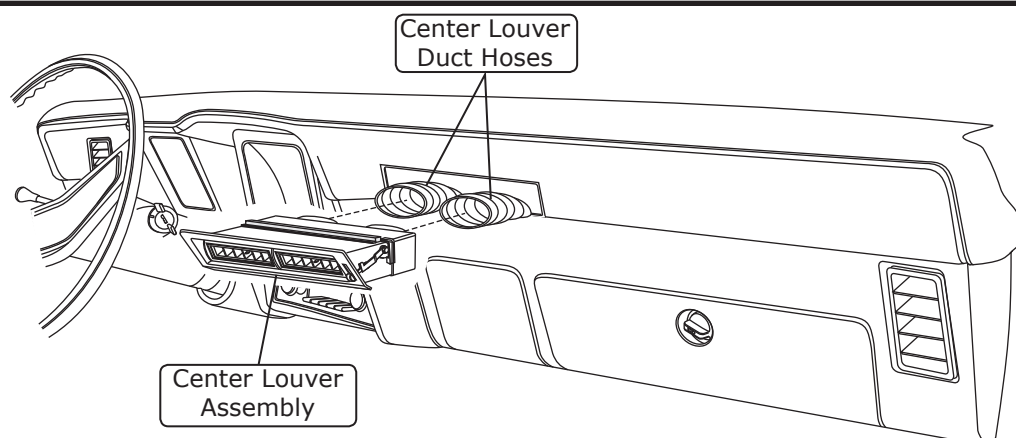
**Figure 14b**



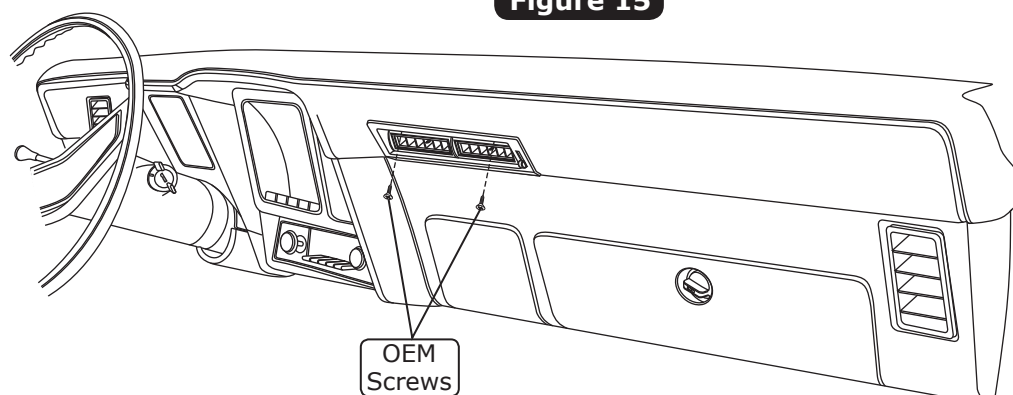
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## Center Louver Installation (Cont.)

1. Attach (2) 25" lengths of 2" duct hose to the center louver as shown in Figure 15, below.
2. Install the center louver assembly into the dash, and secure it with the OEM mounting screws as shown in Figure 15, below.

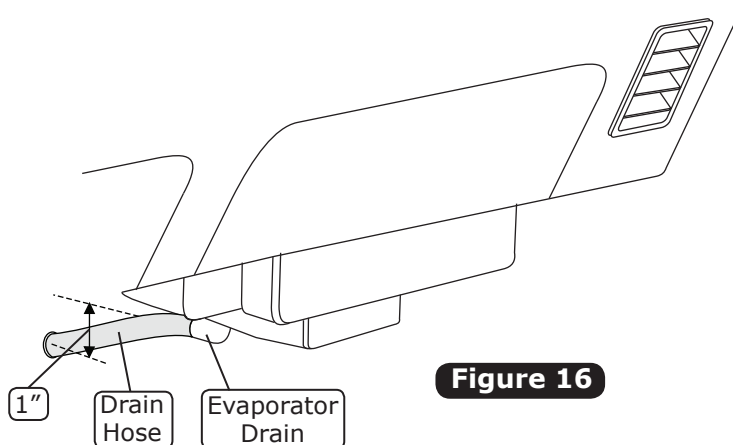


**Figure 15**



## Drain Hose Installation

1. Locate the evaporator drain on the bottom of the evaporator case.
2. In line with the drain, lightly make a mark on the firewall. Measure 1" down and drill a 5/8" hole through the firewall (See Figure 16, below).
3. Install the drain hose onto the outlet on the bottom of the evaporator unit, and route it through the firewall (See Figure 16, below).



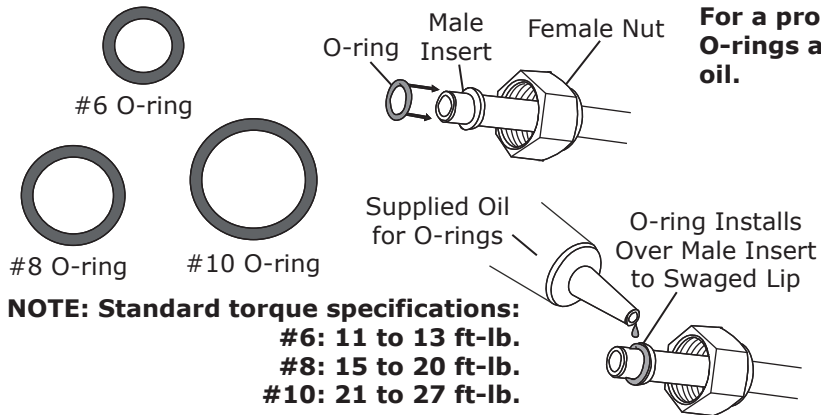
**Figure 16**



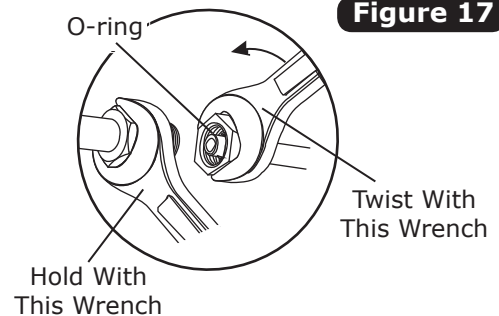


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## Lubricating O-rings



**For a proper seal of fittings: Install supplied O-rings as shown, and lubricate with supplied oil.**



## A/C Hose Installation

### Standard Hose Kit:

1. Locate the #8 compressor A/C hose. Lubricate (2) #8 O-rings (See Figure 17, above) and connect the #8 135° fitting with service port to the #8 discharge port on the compressor (See Figure 19, Page 17). Then route the straight fitting to the #8 condenser hardline coming from under the radiator core support (See Figure 19, Page 17). Tighten each fitting connection as shown in Figure 17, above.
2. Locate the #10 compressor A/C hose. Lubricate (2) #10 O-rings (See Figure 17, above) and connect the #10 135° fitting to the #10 suction port on the compressor (See Figure 19, Page 17). Then route the 45° fitting with service port to the #10 evaporator hardline coming through the firewall (See Figure 18, Page 16). Tighten each fitting connection as shown in Figure 17, above.
3. Locate the #6 evaporator hardline. Lubricate (2) #6 O-rings (See Figure 17, above) and connect the hardline to the #6 hardline on the fenderwell coming under the radiator core support from the drier (See Figure 19, Page 17). Then route the other end of the hardline with lubricated O-ring to the #6 evaporator hardline coming through the firewall (See Figure 18, Page 16). Tighten each fitting connection as shown in Figure 17, above.
4. Use a #2 Adel clamp to secure the #6 evaporator hardline to the inner fender as shown in Figure 19b, Page 17. Secure the Adel clamp to the inner fender using a 10-32 x 1/2" pan head screw and a 10-32 nut.

### Modified Hose Kit:

1. Refer to separate instructions included with modified hose kit.

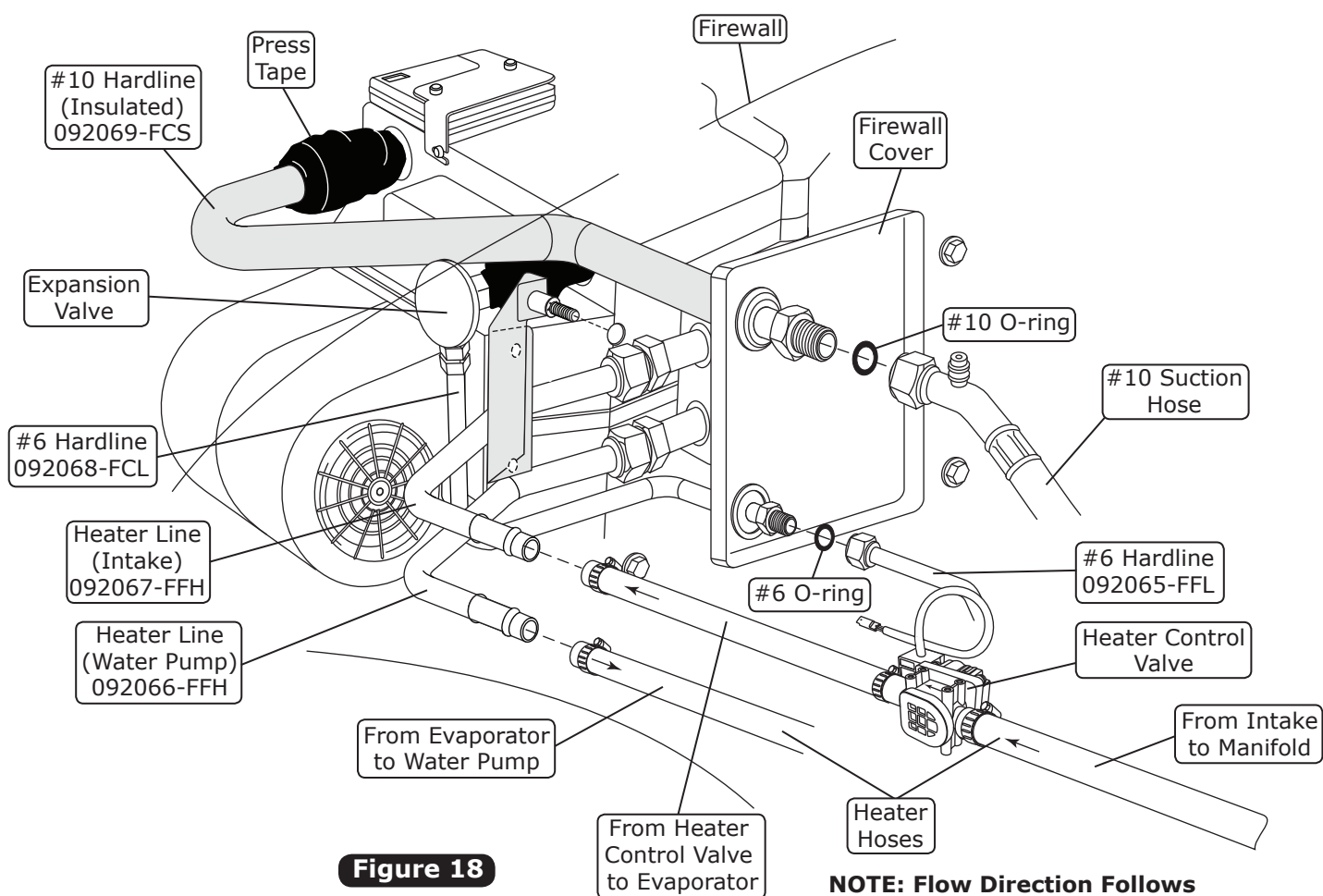




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## Heater Hose & Heater Control Valve Installation

1. Route a piece of heater hose from the lower heater core fitting to the water pump (See Figure 18, below, & Figure 19, Page 17). Secure using hose clamps.
2. Route a piece of heater hose from the intake to the heater control valve, and from the heater control valve to the upper heater core fitting (See Figure 18, below, & Figure 19, Page 17). **NOTE: Install the heater control valve in line with the intake manifold (pressure side) heater hose, and secure using hose clamps. Also note proper flow direction.**
3. Use #2 and #10 Adel clamps to secure the #6 evaporator hardline and the #10 suction hose as shown in Figure 19a, Page 17. Secure the Adel clamps to the inner fender using a 10-32 x 1/2" pan head screw and a 10-32 nut (See Figure 19a, Page 17).

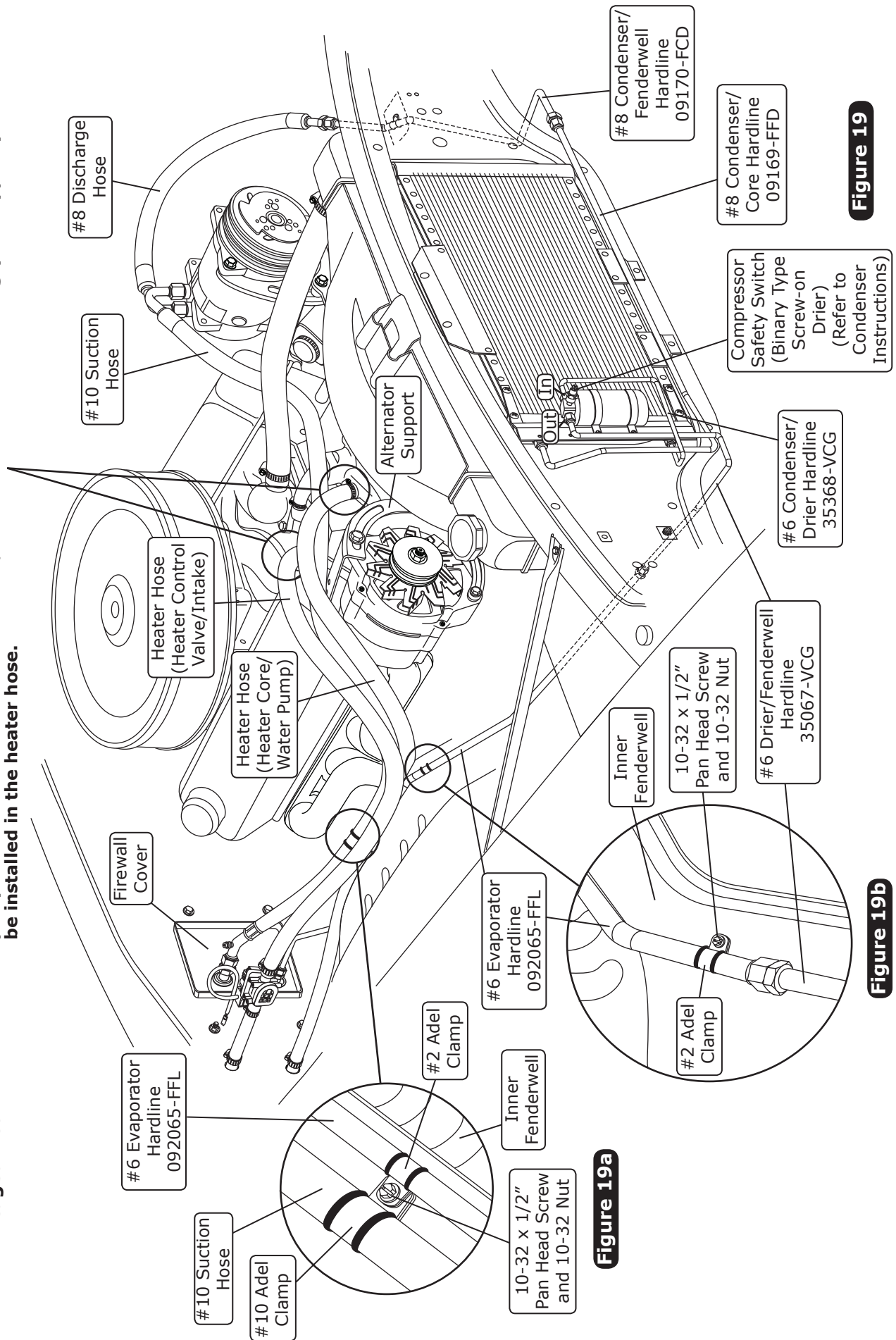




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# A/C and Heater Hose Routing

**NOTE:** Vintage Air Systems use 5/8" heater connections. On engines equipped with 3/4" hose nipples, these will need to be removed and replaced with 5/8" nipples (not supplied). For water pumps with a cast-in 3/4" heater outlet, a 3/4" x 5/8" reducer fitting (not supplied) will need to be installed in the heater hose.



**Figure 19**

**Figure 19b**

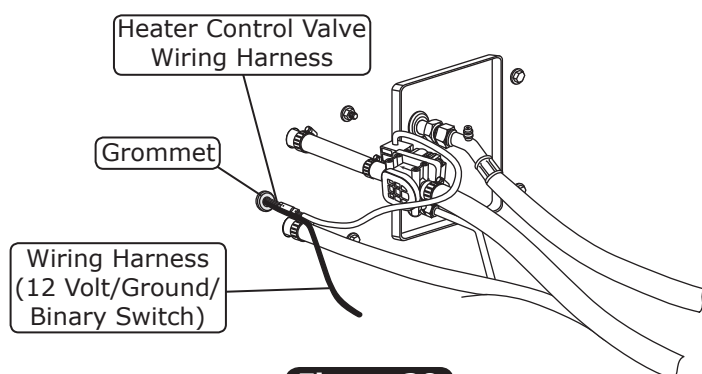
**Figure 19a**



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## Final Steps

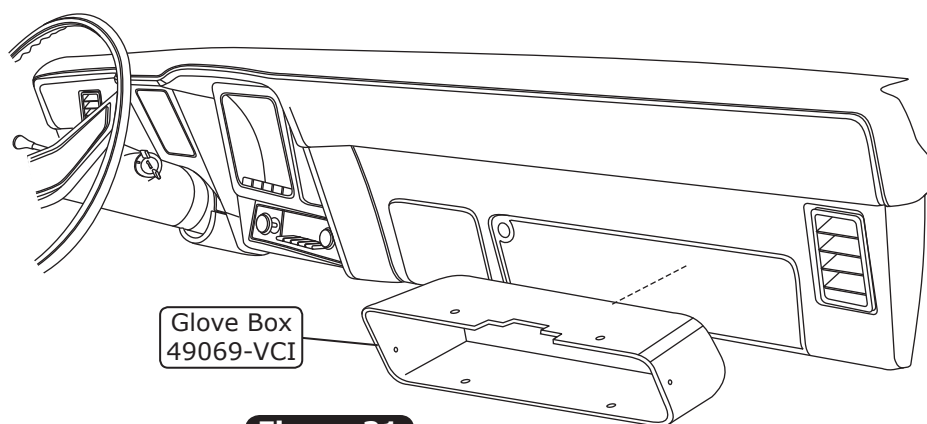
1. Install the duct hoses as shown in Figure 22, Page 19.
2. Route the A/C wires (12 volt/ground/binary switch/heater control valve) through the 3/8" grommet (See Figure 20, below).
3. Install the control panel assembly. Refer to the control panel instructions.
4. Plug the wiring harnesses into the ECU module on the sub case as shown in Figure 22, Page 19. Wire according to the wiring diagrams on Pages 20 & 21.
5. Refer to the instructions below to install the glove box.
6. Reinstall all previously removed items.
7. Fill radiator with at least a 50/50 mixture of approved antifreeze and distilled water. It is the owner's 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 A/C mode and/or freezing weather, voiding your warranty.
8. Double check all fittings, brackets and belts for tightness.
9. Vintage Air recommends that all A/C systems be serviced by a licensed automotive A/C technician.
10. Evacuate the system for a minimum of 45 minutes prior to charging, and perform a leak check prior to servicing.
11. Charge the system to the capacities stated on Page 4 of this instruction manual.
12. See Operation of Controls procedures on Page 22.



**Figure 20**

## Glove Box Installation

1. Install the new glove box into the glove box opening, and secure it using #8 x 1/2" pan head screws through the OEM holes (See Figure 21, below).
2. Reinstall the glove box door using OEM hardware.

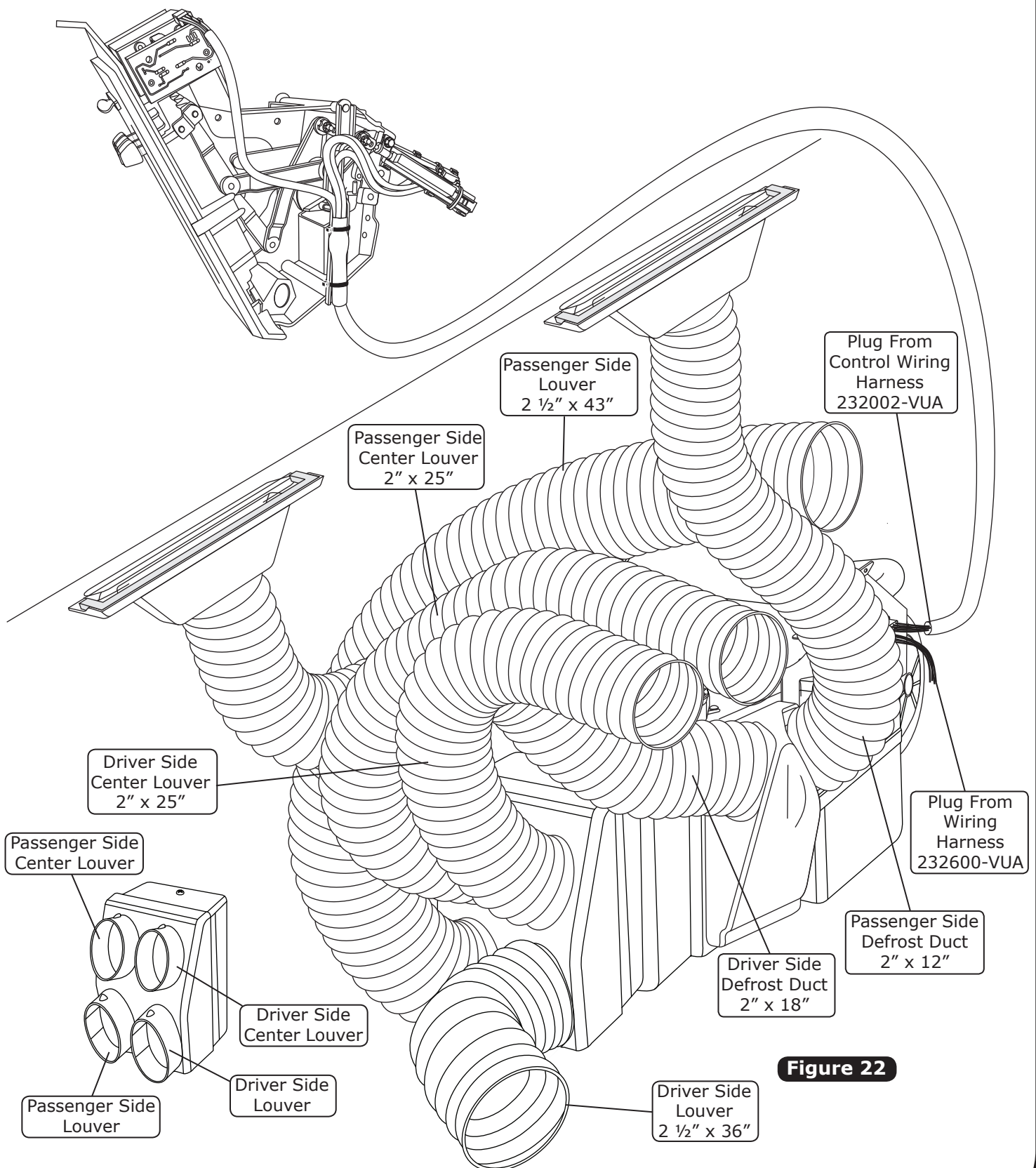


**Figure 21**



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## Control Panel & Duct Hose Routing



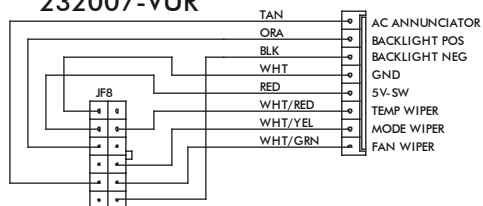
**Figure 22**



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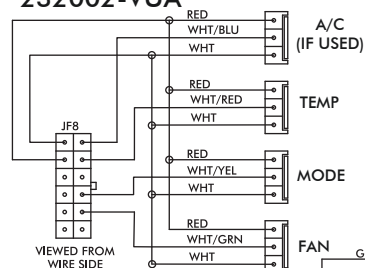
## Wiring Diagram

### 232007-VUR



VIEWED FROM WIRE SIDE

### 232002-VUA



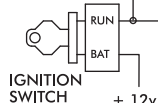
VIEWED FROM WIRE SIDE

### PROGRAM

\* DASH LAMP (IF USED)

\*\*\* WIDE OPEN THROTTLE SWITCH (OPTIONAL)

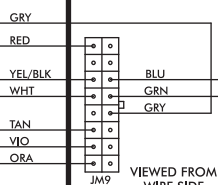
WHT



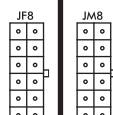
IGNITION SWITCH + 12v

### GEN IV ECU

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



VIEWED FROM WIRE SIDE

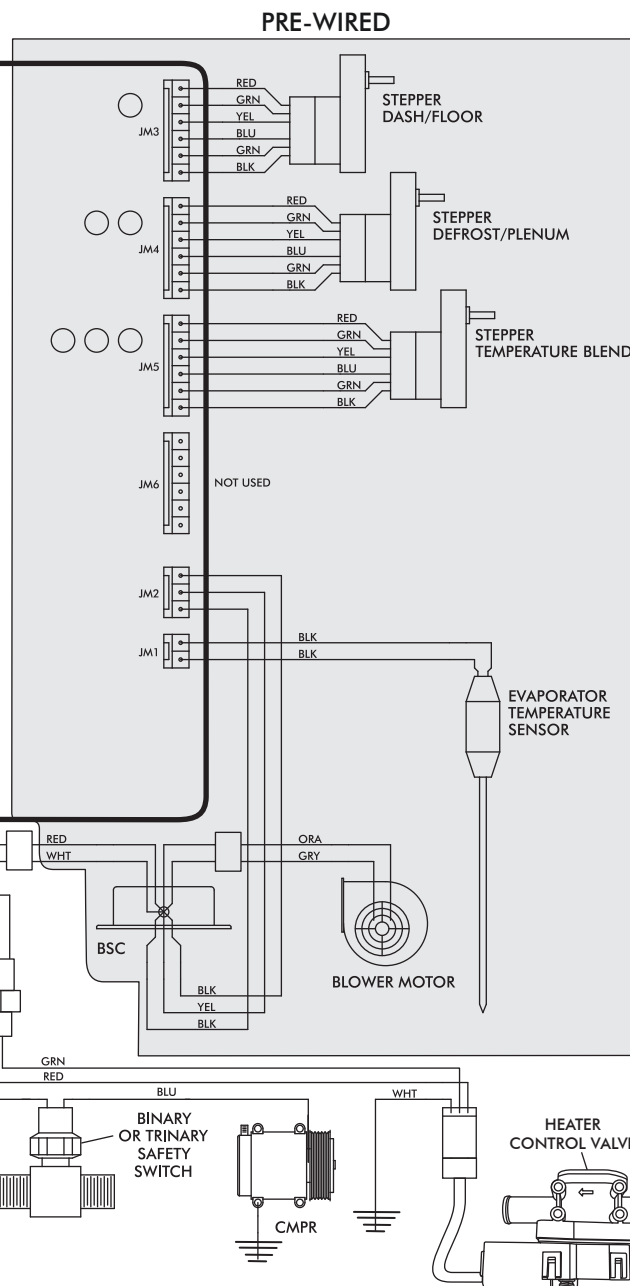


IGNITION SWITCH + 12v

\*\* CIRCUIT BREAKER 30 AMP

COMPRESSOR RELAY

30 86 87 85



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.

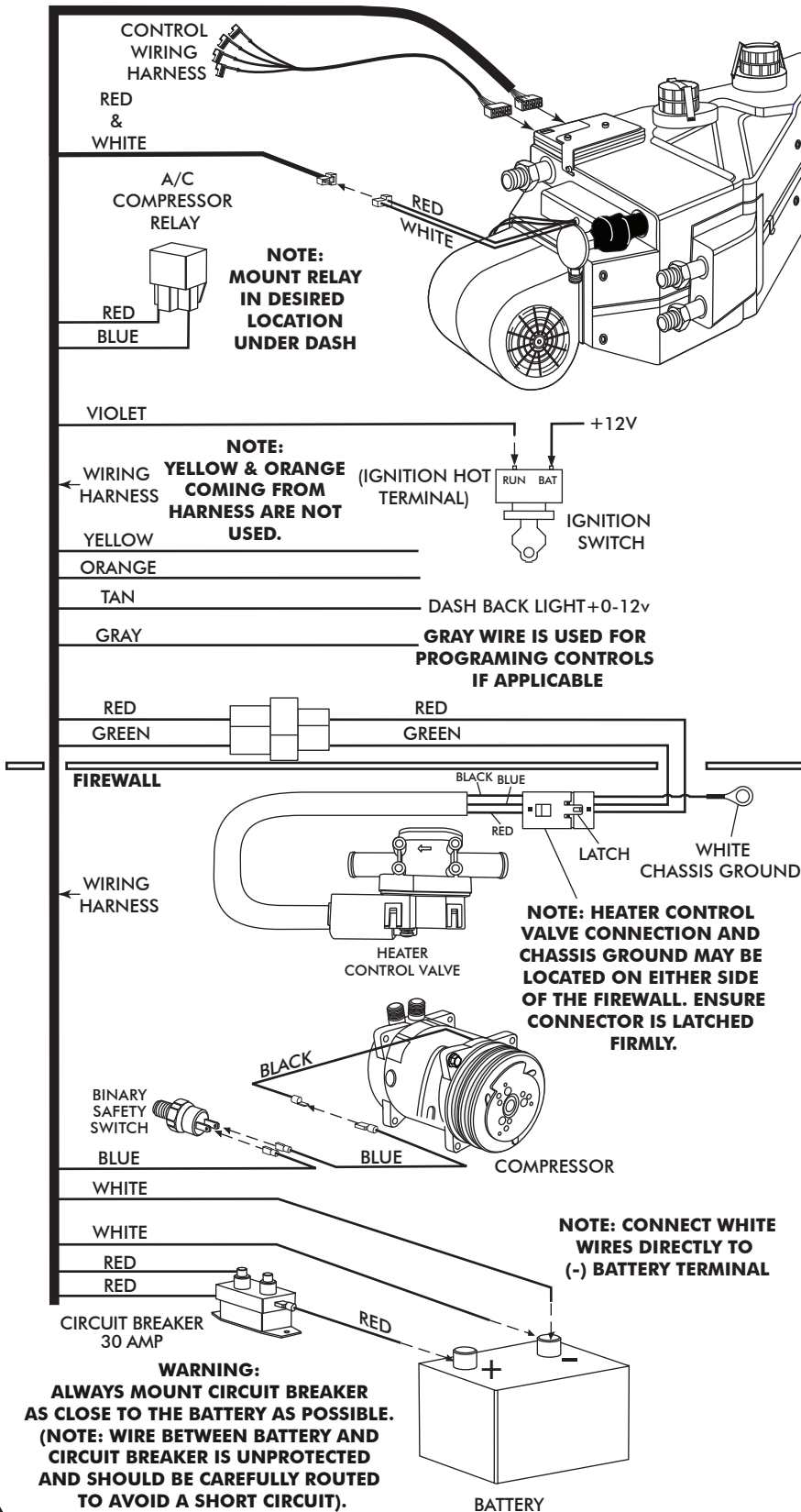




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WIRING  
HARNESS

## Gen IV Wiring Connection Instruction



### Ignition Switch:

Violet 12V Ign Switch Source (Key On Accessory) Position Must Be Switched.

### Dash Light:

Tan Wire Used Only With Vintage Air Supplied Control Panel With LED Back Light.

### Heater Control Valve:

Install With Servo Motor Facing Down, As Shown. Note Flow Direction Arrow Molded Into Valve Body, And Install Accordingly.

### Binary/Trinary & Compressor:

Binary: Connect As Shown (Typical Compressor Wiring). Be Sure Compressor Body Is Grounded.

Trinary Switch: Connect According To Trinary Switch Wiring Diagram.

### Circuit Breaker/Battery:

White **Must** Run To (-) Battery. Red May Run To (+) Battery Or Starter. Mount Circuit Breaker As Close to Battery As Possible.



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## Operation of Controls

**NOTE:** For proper control panel function, refer to control panel instructions for calibration procedure.

### **Blower Speed**

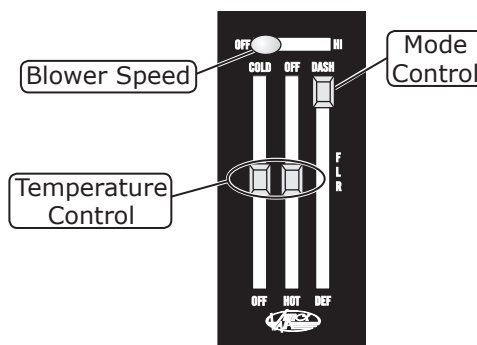
This lever controls blower speed, from OFF to HI.

### **Mode Control**

This lever controls the mode positions, from DASH to FLOOR to DEFROST, with a blend in between.

### **Temperature Controls**

These levers control the temperature, from HOT to COLD.



## A/C Operation

### **Blower Speed**

Adjust to desired speed.

### **Mode Control**

Adjust to desired mode position (DASH position recommended).

### **Cold Lever**

Slide lever all the way up to engage compressor.

### **Heat Lever**

For A/C operation, slide lever all the way up for maximum cooling (Slide lever up or down to reach desired temperature).



## Heat Operation

### **Blower Speed**

Adjust to desired speed.

### **Mode Control**

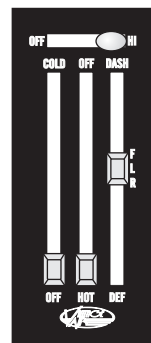
Adjust to desired mode position (FLOOR position recommended).

### **Cold Lever**

Slide lever all the way down.

### **Heat Lever**

For maximum heating, slide lever all the way down (Slide lever up or down to reach desired temperature).



## Defrost/De-fog Operation

### **Blower Speed**

Adjust to desired speed.

### **Cold Lever**

Slide lever all the way up to engage compressor.

### **Heat Lever**

Slide lever up or down to reach 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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# Troubleshooting Guide

Symptom	Condition	Checks	Actions	Notes
1a. Blower stays on high speed when ignition is on.	No other functions work.	Check for damaged pins or wires in control head plug.	Verify that all pins are inserted into plug. Ensure that no pins are bent or damaged in ECU.	
		Check for damaged ground wire (white) in control head harness.	Verify continuity to chassis ground with white control head wire at various points.	Loss of ground on this wire renders control head inoperable.
	All other functions work.	Check for damaged blower switch or potentiometer and associated wiring.		See blower switch check procedure.
1b. Blower stays on high speed when ignition is on or off.		Unplug 3-wire BSC control connector from ECU. If blower shuts off, ECU is either improperly wired or damaged.	Be sure the small, 20 GA white ground wire is connected to the battery ground post. If it is, replace the ECU.	
		Unplug 3-wire BSC control connector from ECU. If blower stays running, BSC is either improperly wired or damaged.	Check to ensure that no BSC wiring is damaged or shorted to vehicle ground. The BSC operates the blower by ground side pulse width modulation switching. The positive wire to the blower will always be hot. If the "ground" side of the blower is shorted to chassis ground, the blower will run on HI.	
			Replace BSC (This will require removal of evaporator from vehicle).	No other part replacements should be necessary.
2. Compressor will not turn on (All other functions work).		System must be charged for compressor to engage.	Charge system or bypass pressure switch.	<b>Danger: Never bypass safety switch with engine running. Serious injury can result.</b>
		Check for faulty A/C potentiometer or associated wiring (Not applicable to 3-pot controls).	Check continuity to ground on white control head wire. Check for 5V on red control head wire.	To check for proper pot function, check voltage at white/blue wire. Voltage should be between 0V and 5V, and will vary with pot lever position.
		Check for disconnected or faulty thermistor.	Check 2-pin connector at ECU housing.	Disconnected or faulty thermistor will cause compressor to be disabled.
		Check for faulty A/C potentiometer or associated wiring.	Repair or replace pot/control wiring.	Red wire at A/C pot should have approximately 5V with ignition on. White wire will have continuity to chassis ground. White/Blue wire should vary between 0V and 5V when lever is moved up or down.
		Check for faulty A/C relay.	Replace relay.	
3. Compressor will not turn off (All other functions work).				



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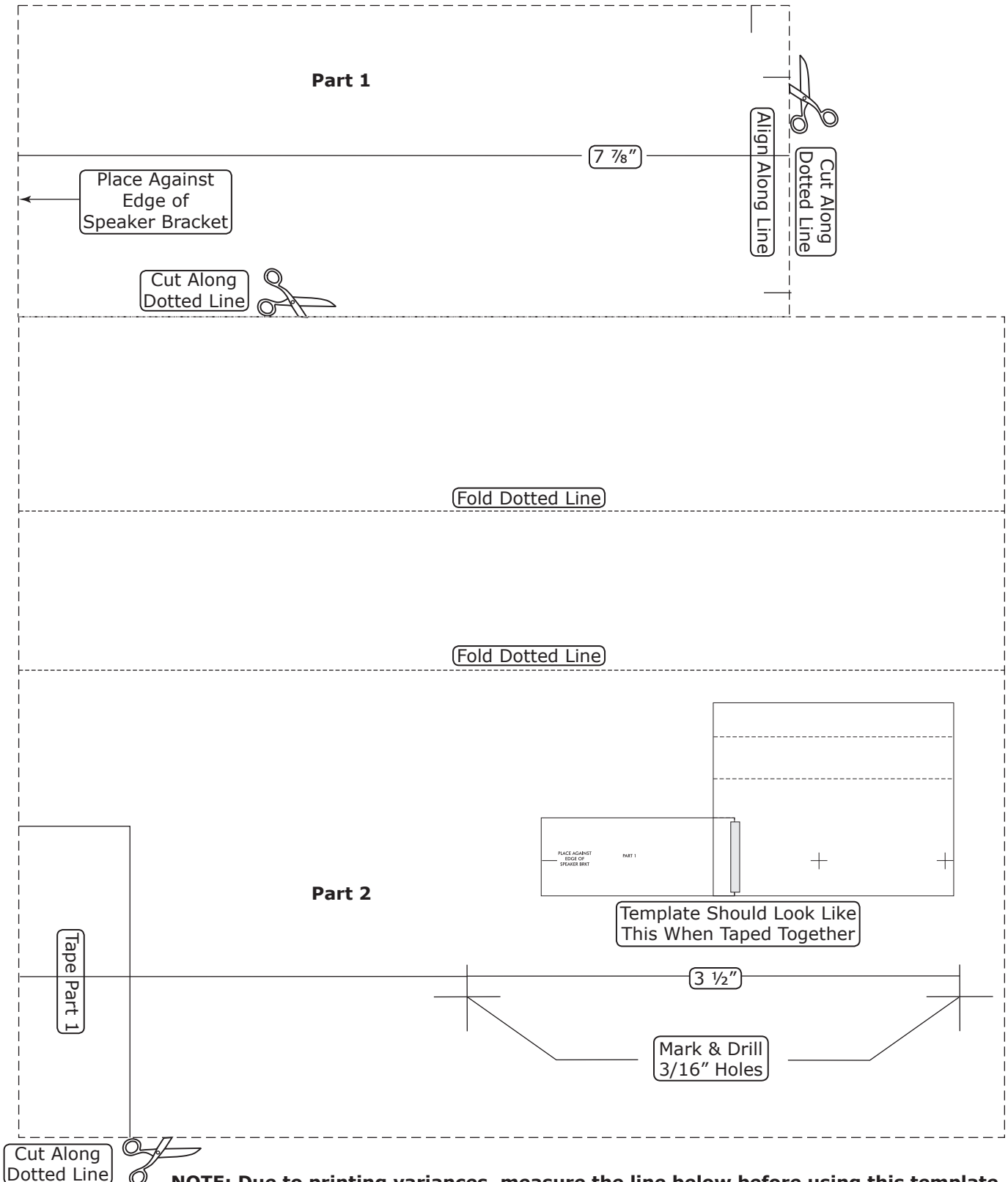
# Troubleshooting Guide (Cont.)

Symptom	Condition	Checks	Actions	Notes
4.	Works when engine is not running; shuts off when engine is started (Typically early Gen IV, but possible on all versions).	Noise interference from either ignition or alternator.	Install capacitors on ignition coil and alternator. Ensure good ground at all points. Relocate coil and associated wiring away from ECU and ECU wiring. Check for burned or loose plug wires.	Ignition noise (radiated or conducted) will cause the system to shut down due to high voltage spikes. If this is suspected, check with a quality oscilloscope. Spikes greater than 16V will shut down the ECU. Install a radio capacitor at the positive post of the ignition coil (See radio capacitor installation bulletin). A faulty alternator or worn out battery can also result in this condition.
	System will not turn on, or runs intermittently.	Will not turn on under any conditions.	Check for positive power at heater valve green wire and blower red wire. Check for ground on control head white wire.	
		Verify connections on power lead, ignition lead, and both white ground wires.		
		Verify battery voltage is greater than 10 volts and less than 16.	Verify proper meter function by checking the condition of a known good battery.	
5.	Loss of mode door function.	No mode change at all.	Check for damaged mode switch or potentiometer and associated wiring.	Typically caused by evaporator housing installed in a bind in the vehicle. Be sure all mounting locations line up and don't have to be forced into position.
		Partial function of mode doors.	Check for obstructed or binding mode doors.	
			Check for damaged stepper motor or wiring.	
6.	Blower turns on and off rapidly.	Battery voltage is at least 12V.	Check for at least 12V at circuit breaker.	System shuts off blower at 10V. Poor connections or weak battery can cause shutdown at up to 11V.
		Battery voltage is less than 12V.	Check for faulty battery or alternator.	
			Ensure all system grounds and power connections are clean and tight.	
			Charge battery.	
7.	Erratic functions of blower, mode, temp, etc.	Check for damaged switch or pot and associated wiring.	Repair or replace.	
8.	When ignition is turned on, blower momentarily comes on, then shuts off. This occurs with the blower switch in the OFF position.	This is an indicator that the system has been reset. Be sure the red power wire is on the battery post, and not on a switched source. Also, if the system is pulled below 7V for even a split second, the system will reset.	Run red power wire directly to battery.	



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## Evaporator Bracket Template



**NOTE:** Due to printing variances, measure the line below before using this template. If template is scaled properly, the line should measure 6 inches.







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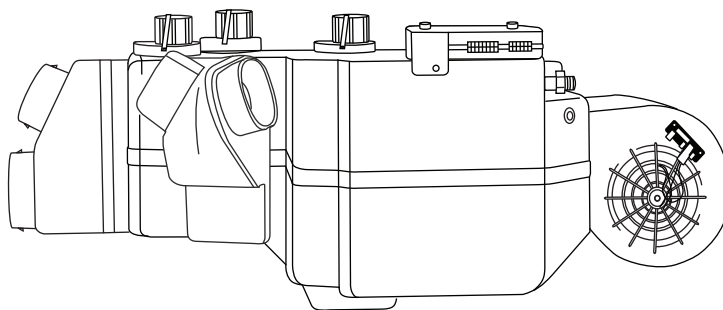
## Packing List: Evaporator Kit (564169)

No.	Qty.	Part No.	Description
1.	1	764169	Gen IV Evaporator Sub Case
2.	1	784169	Accessory Kit

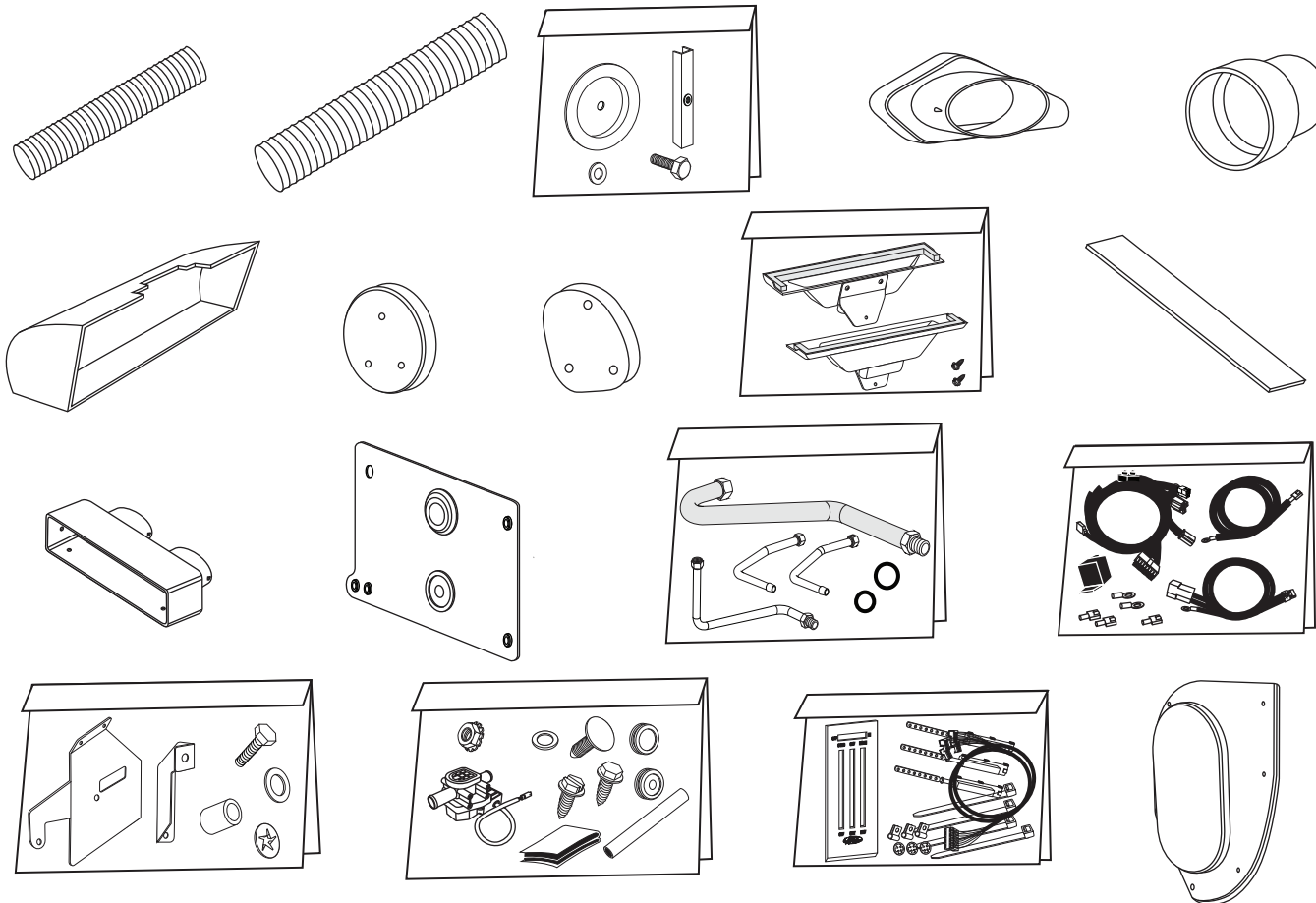
Checked By: \_\_\_\_\_  
Packed By: \_\_\_\_\_  
Date: \_\_\_\_\_

1

**Gen IV Evaporator  
Sub Case  
764169**



2



**Accessory Kit  
784169**

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