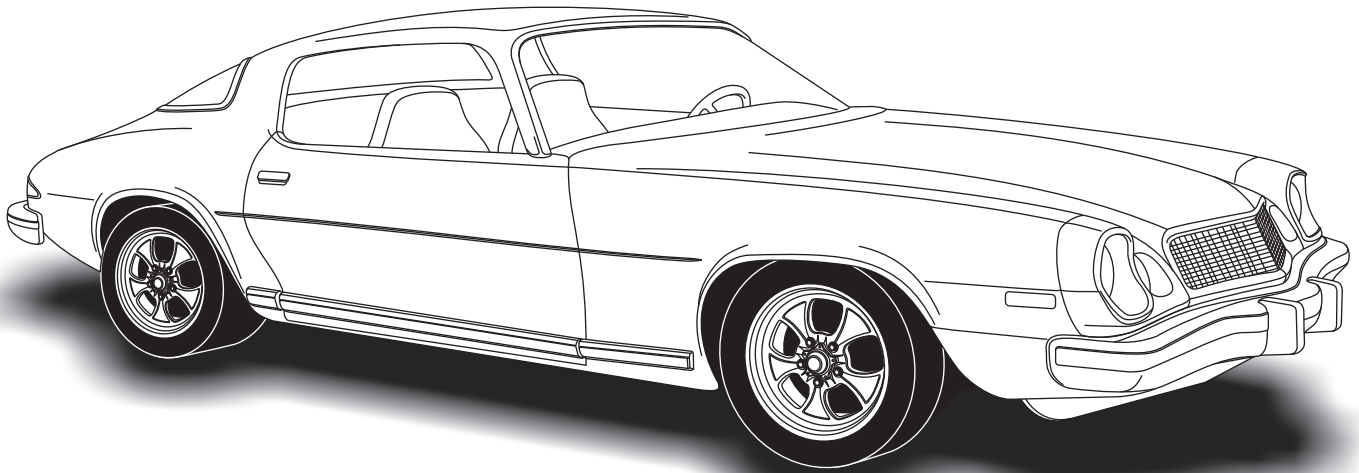




an ISO 9001:2008 Registered Company

# 1970-78 Chevrolet Camaro

*with* **Factory Air  
Evaporator Kit  
(565073)**



18865 Goll St. San Antonio, TX 78266 ph: 210-654-7171 fax: 210-654-3113



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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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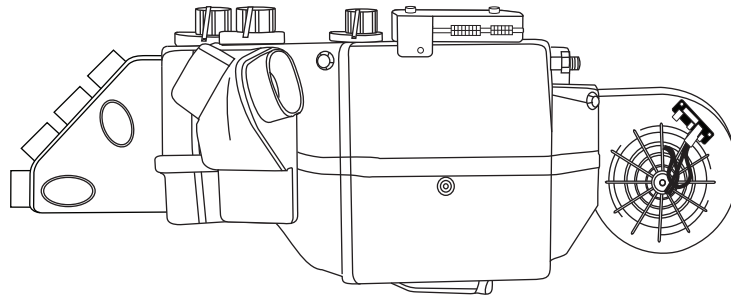
## Packing List Evaporator Kit (565073)

No.	Qty.	Part No.	Description
1.	1	762171	Gen IV 6-Vent Evaporator Sub Case with 204 ECU
2.	1	781177	Accessory Kit

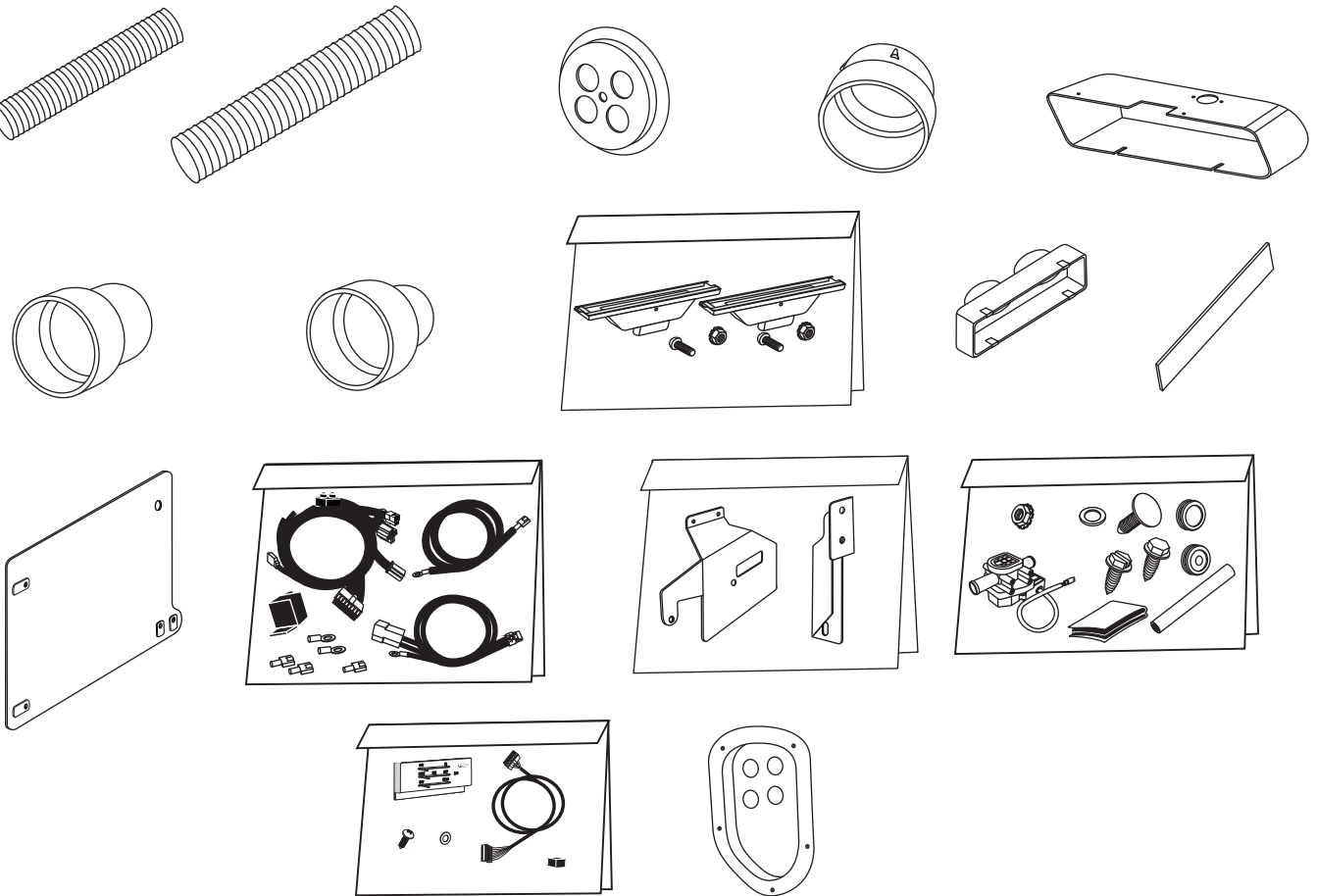
**\*\* Before beginning installation, open all packages and check contents of shipment. Please report any shortages directly to Vintage Air within 15 days. After 15 days, Vintage Air will not be responsible for missing or damaged items.**

①

**Gen IV 6-Vent Evaporator  
Sub Case  
w/ 204 ECU  
762171**



②



**Accessory Kit  
781177**

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



## 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.

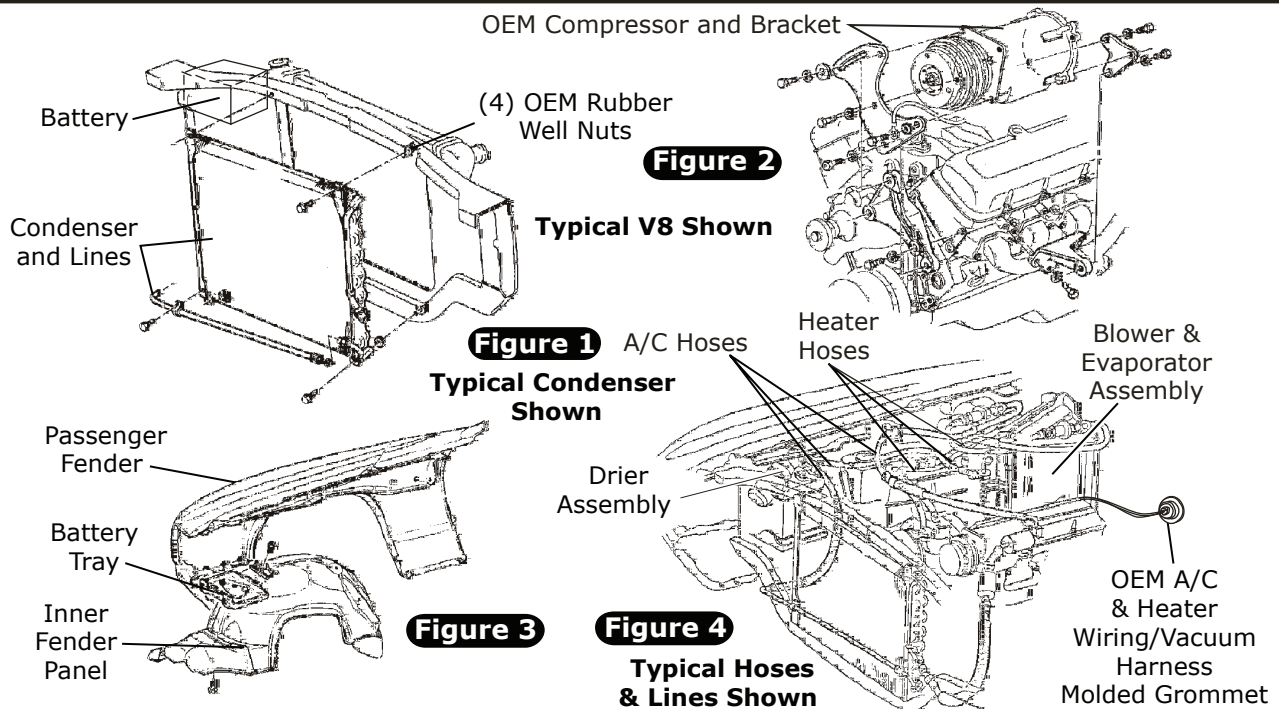


## Engine Compartment Disassembly

**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. Remove battery and battery tray (retain) (See Figures 1 and 3, below).
2. Drain radiator.
3. Evacuate the A/C system if necessary.
4. Remove condenser, lines and the (4) OEM rubber well nuts in core support (discard) (See Figure 1, below).
5. Remove OEM compressor and bracket (discard) (See Figure 2, below).
6. Remove evaporator and blower assembly (discard). To remove the evaporator and blower assembly (under hood) and the air distribution system (under dash), the factory manual indicates doing the following: **Remove right lower rocker molding. Remove lower 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 suggests that the right fender be removed and inner panel be lowered (See Figure 3, below). Remove OEM heater hoses, A/C hoses, hardlines and drier (discard) (See Figure 4, below).
7. Remove OEM A/C & heater wiring/vacuum harness molded grommet (See Figure 4, below).
8. Install 1 1/2" plug in firewall (See Figure 4a, below).



### Condenser Assembly & Installation

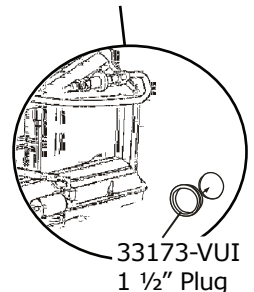
1. Refer to separate instructions included with the condenser kit to install the condenser.
2. Binary switch installation (Refer to condenser instructions).

### Compressor & 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.



**Figure 4a**

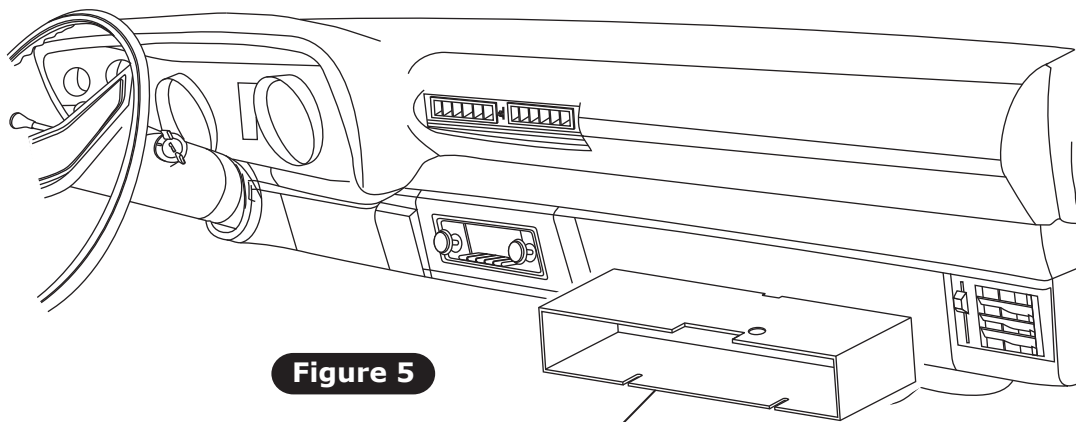


## Passenger Compartment Disassembly

**NOTE: Removal of dashboard is required to install the evaporator. Vintage Air recommends using the factory service manual to disassemble and reassemble the dashboard.**

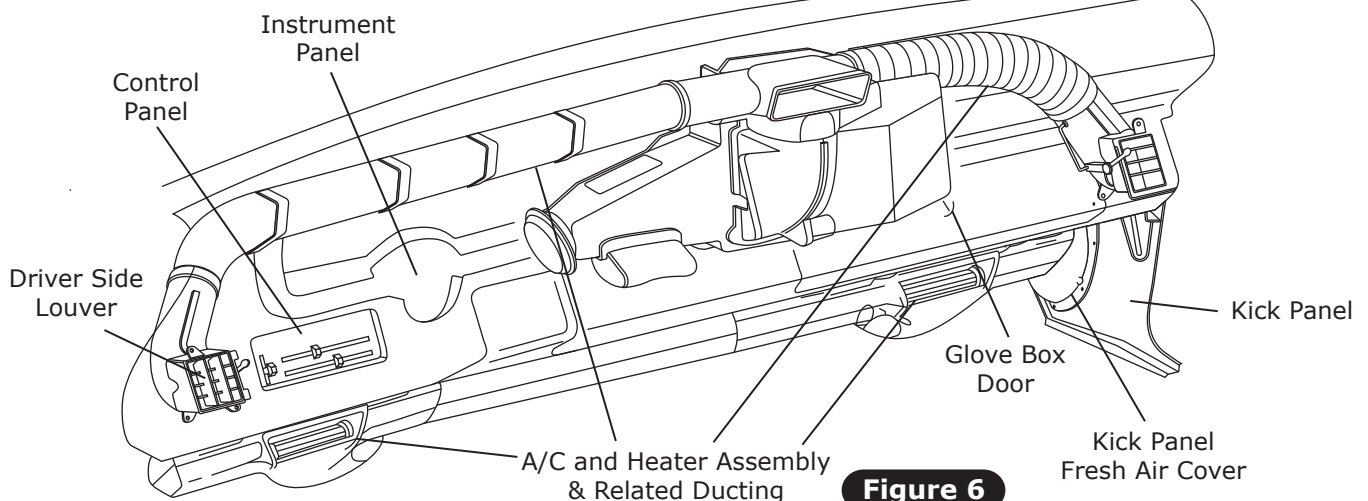
### Perform the Following:

1. Remove glove box door (See Figure 6, below).
2. Remove glove box (discard, retain screws) (See Figure 5, below).
3. Remove A/C, heater/evaporator assembly and all related ducting (discard, but retain screws) (See Figure 6, below).
4. Remove A/C and heat outlets (retain). Instrument panel must be removed to get to left outlet and control panel (See Figure 6, below).
5. Remove control panel assembly (discard control panel) (See Figure 6, below).
6. Remove passenger side kick panel fresh air cover (discard) and kick panel (retain). Remove cable from panel (discard) (See Figure 6, below).
7. Remove OEM defrost duct assembly.



**Figure 5**

Glove Box



**Figure 6**



## Passenger Side Kick Panel and Fresh Air Cover Modification

1. Locate the OEM passenger side kick panel and kick panel fresh air cover.
2. On the kick panel, mark 3/8" out from the fresh air door assembly lip around the entire perimeter of the fresh air door assembly as shown in Figure 7, below. Cut out the section as shown.
3. Once the evaporator sub case is installed (See Page 12), trim the passenger side kick panel fresh air cover as needed, and secure using OEM screws (See Figure 7a, below).

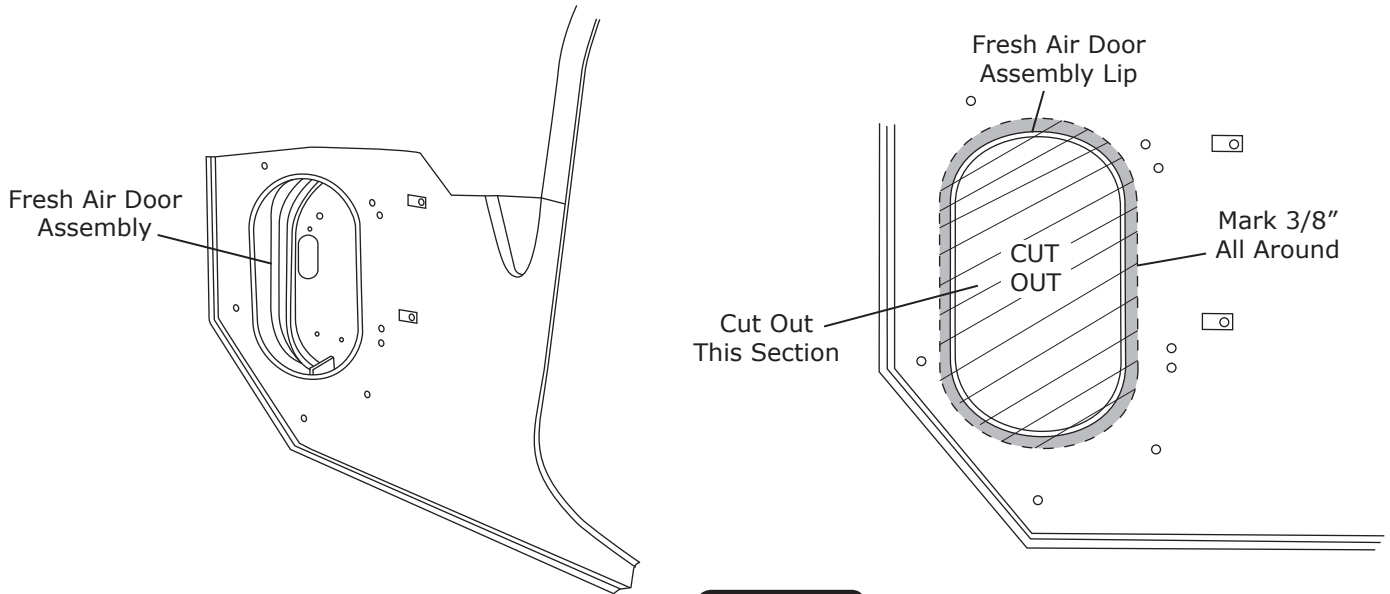


Figure 7

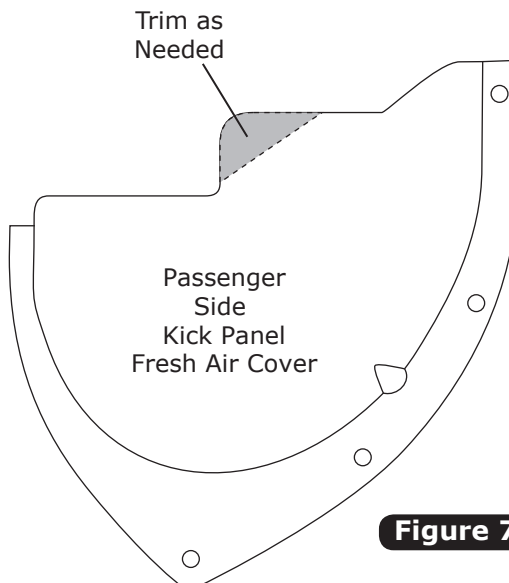


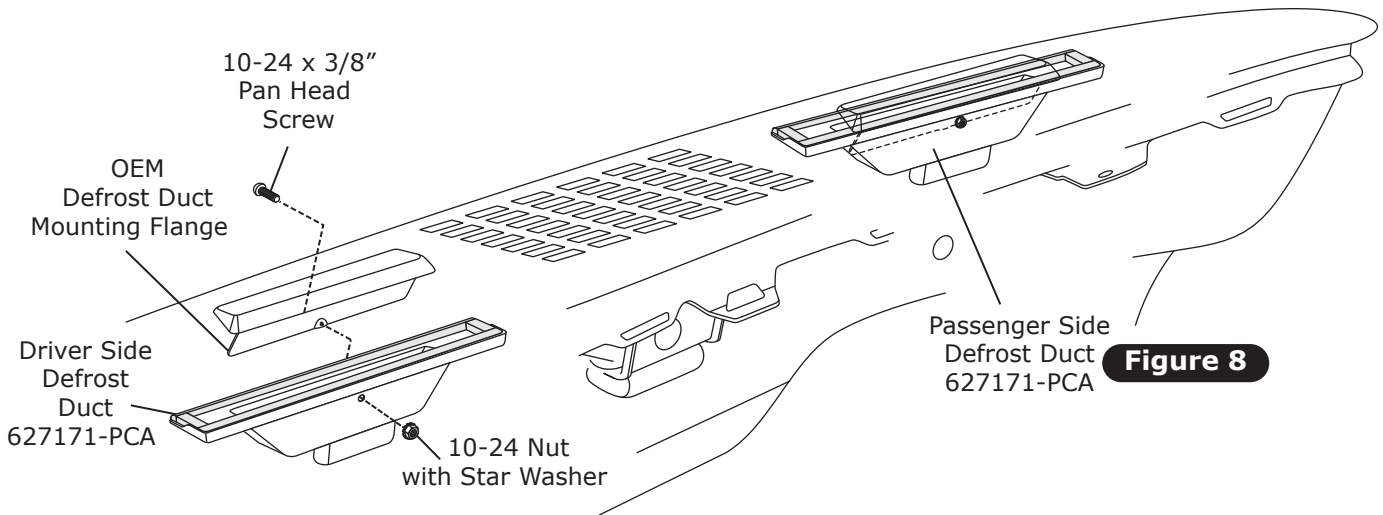
Figure 7a





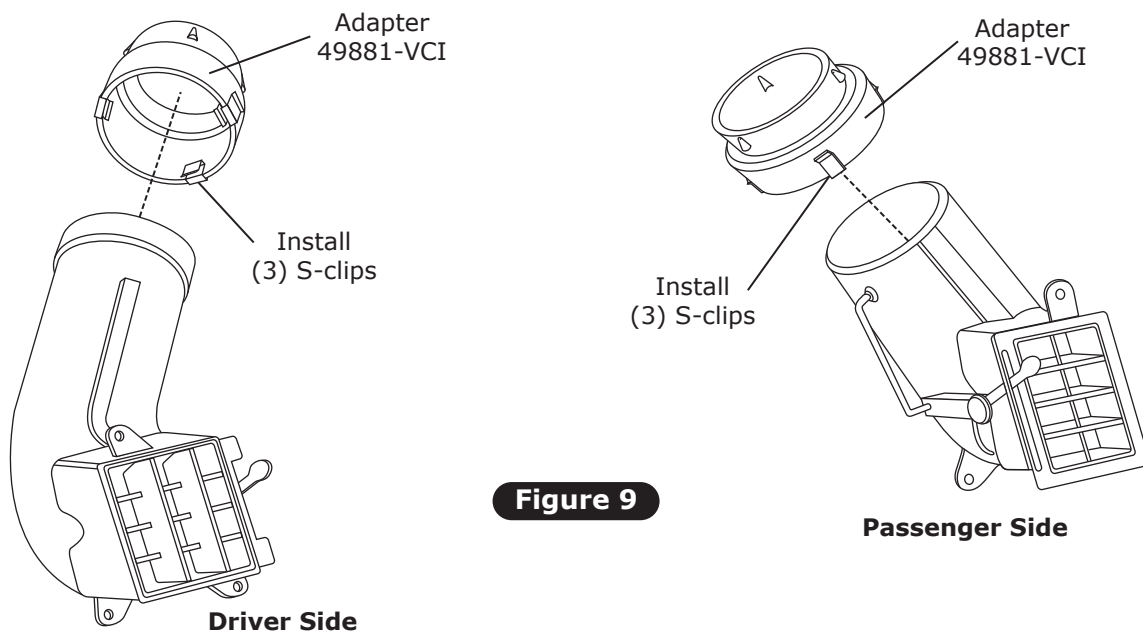
## Defrost Duct Installation

1. Install the defrost ducts under the dash on the OEM defrost duct mounting flange as shown in Figure 8, below. Secure each duct using a 10-24 x 3/8" pan head screw and 10-24 nut with star washer.



## Hose Adapter Installation

1. Install S-clips on the hose adapters as shown in Figure 9, below.
2. Install the driver & passenger side hose adapters onto the OEM louvers (See Figure 9, below).





## Fresh Air Cap Installation

1. Install (4) grommets in the fresh air cap as shown in Figure 10, below.
2. Apply a 1/4" bead of silicone around the mating surface of the fresh air cap as shown in Figure 10, below.
3. Attach the fresh air cap to the firewall using the fresh air cap bracket, a 1/4-20 x 1 1/2" bolt, and a washer as shown in Figure 10, below. **NOTE: The fresh air cap installs on the engine side of the firewall.**
4. Install plugs into the firewall as shown in Figure 10, below.

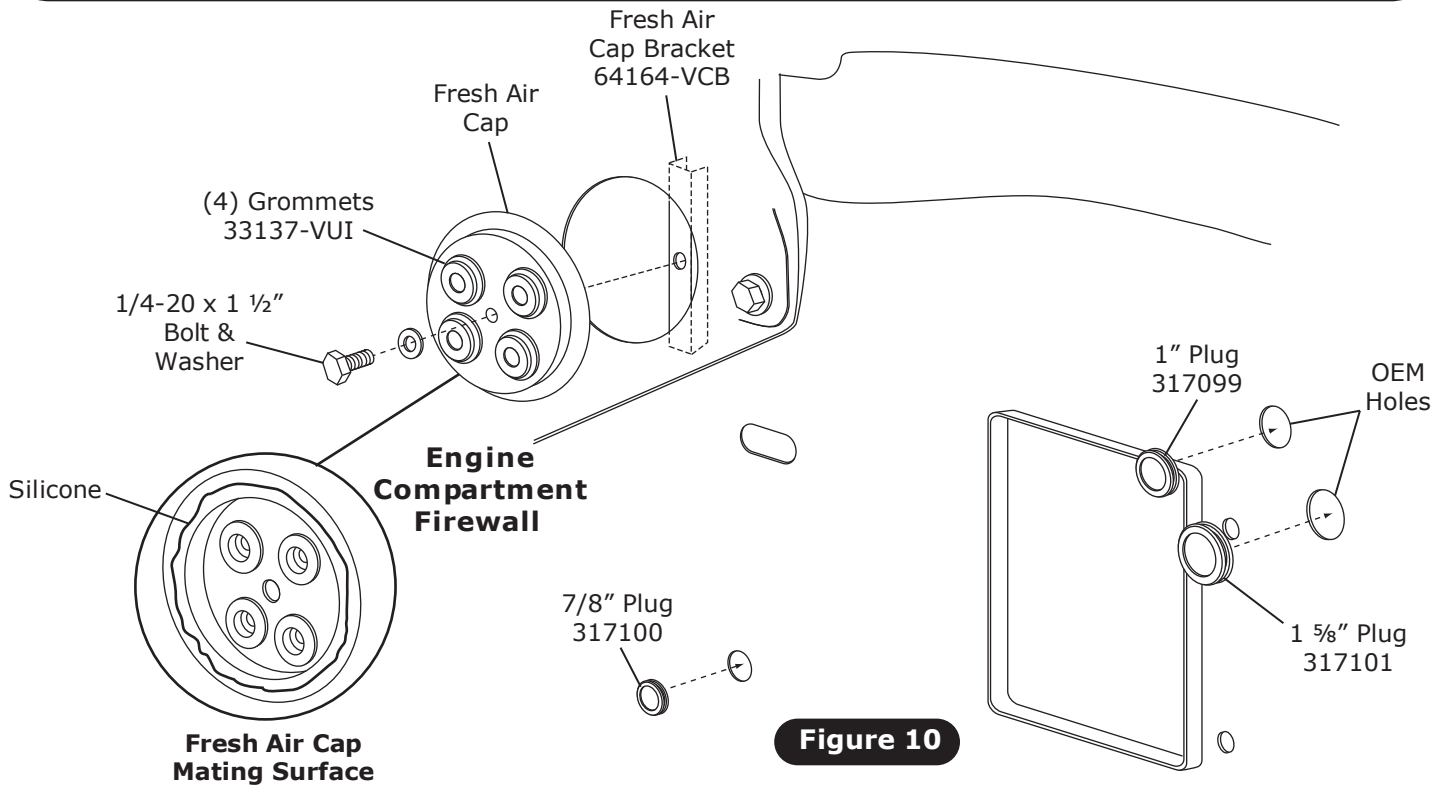


Figure 10

## Heater Cover Assembly and Firewall Cover Installation

1. Using the heater cover assembly as a template, mark and drill (2) 5/16" holes in the firewall (See Figure 11, Page 11). **NOTE: Be sure to center the heater cover assembly hole with the OEM hole on the firewall before drilling.**
2. Enlarge (2) OEM holes in firewall to 5/16" (See Figure 11, Page 11).
3. Apply a 1/4" bead of silicone around the mating surface of the firewall cover (See Figure 11, Page 11).
4. 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" bolts and washers (See Figure 11, Page 11).
5. Apply a 1/4" bead of silicone around the mating surface of the heater cover assembly (See Figure 11, Page 11).
6. From the passenger compartment, install the heater cover assembly onto the firewall (See Figure 11, Page 11). From the engine compartment, secure the heater cover assembly to the firewall using (2) 1/4-20 x 1/2" bolts and washers (See Figure 11, Page 11). **NOTE: For a finished appearance and a watertight seal, Vintage Air recommends applying a smooth bead of automotive seam sealer in the engine compartment to the joints between the heater and firewall covers and the firewall (See Photos 1 & 2, Page 11).**
7. Install a 3/8" grommet into the center hole of the heater cover, and then route the A/C wires through the grommet (12-volt, ground, binary switch, heater control valve) (See Photo 2, Page 11).

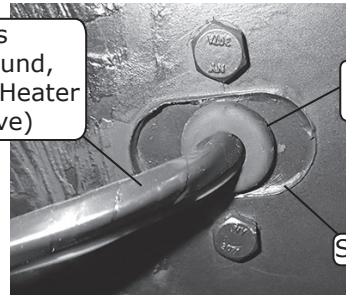


## Heater Cover Assembly and Firewall Cover Installation (Cont.)



Seam Sealer

Photo 1



3/8" Grommet  
33144-VUI

Photo 2

Seam Sealer

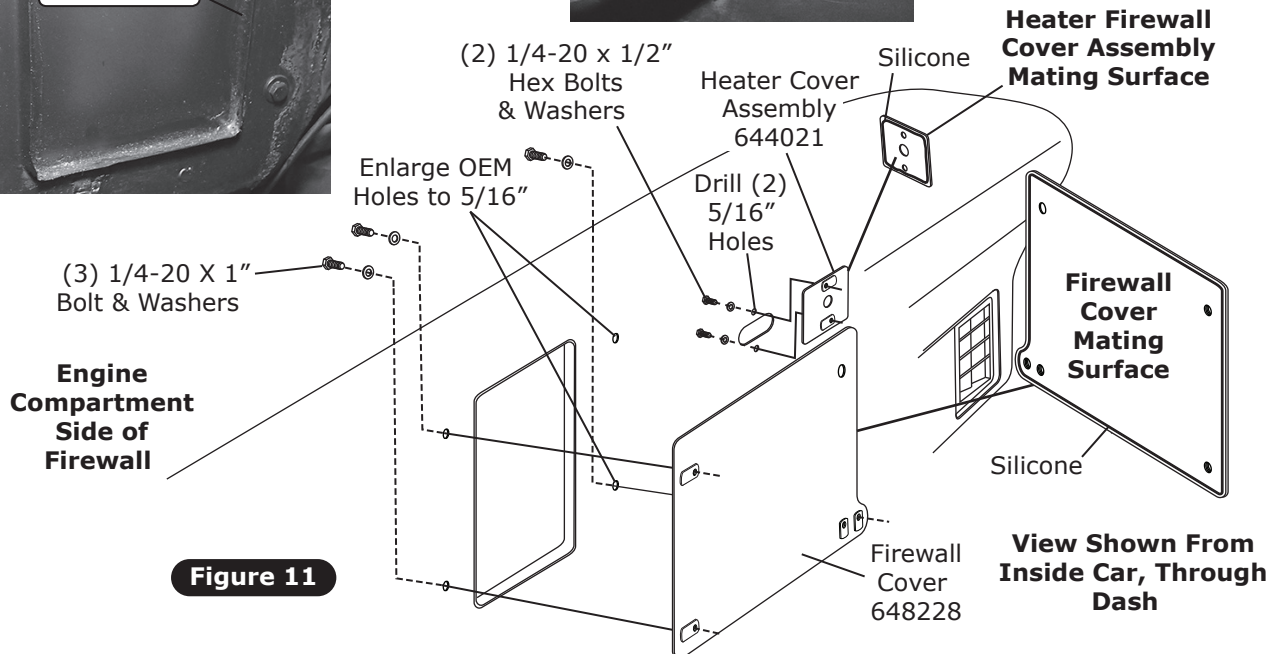


Figure 11

## Kick Panel Fresh Air Cap Installation

1. Install (4) grommets into the kick panel fresh air cap as shown in Figure 12a, below.
2. Place the kick panel into position in the passenger compartment. Route the A/C and heater hoses through the fresh air cap, the kick panel, and the kick panel fresh air cap as shown in Figures 12 & 12b, below.
3. Apply a 1/4" bead of silicone around the mating surface of the kick panel fresh air cap, and secure using (5) OEM screws as shown in Figures 12a & 12b, below.

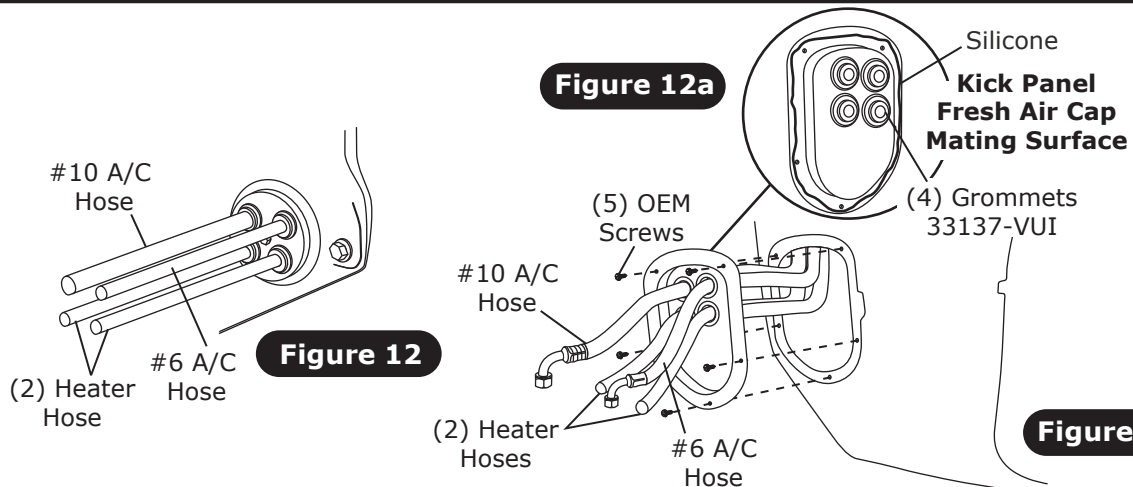


Figure 12a

Figure 12

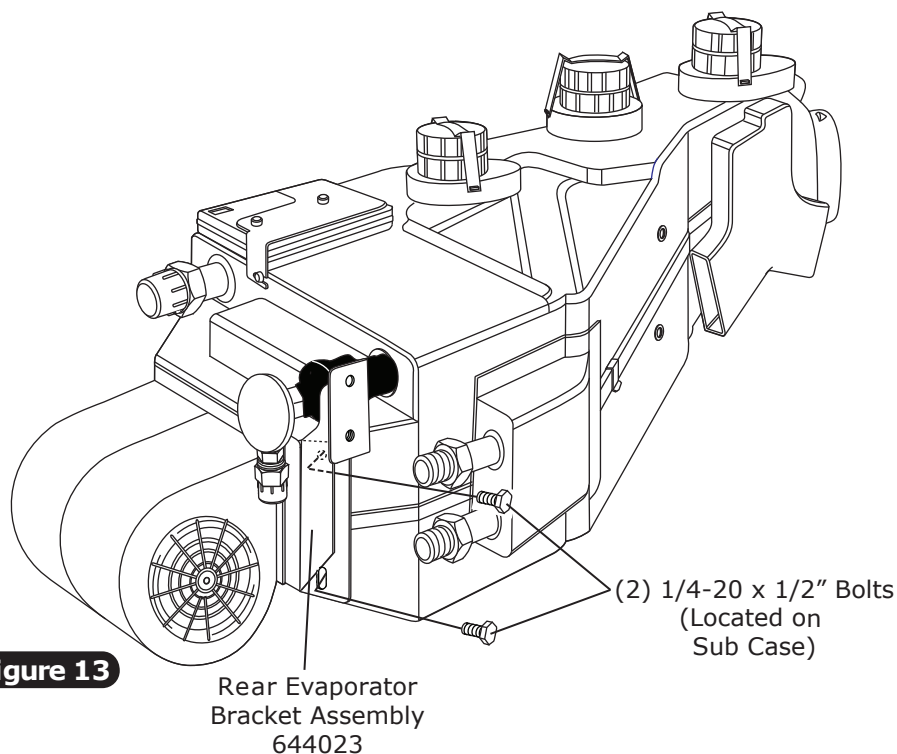
Figure 12b



## Evaporator Installation

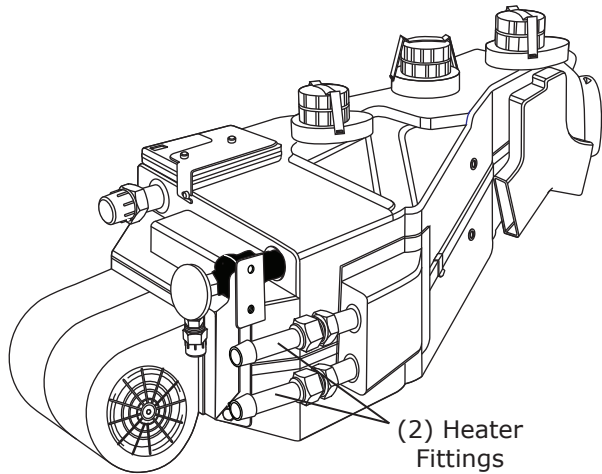
**NOTE: To ensure a watertight seal between the passenger compartment and the vehicle exterior, for all bolts passing through the firewall, Vintage Air recommends coating the threads with silicone prior to installation.**

1. On a workbench, install the evaporator rear bracket using (2) 1/4-20 x 1/2" bolts (supplied on the evaporator sub case) (See Figure 13, below).
2. Install (2) heater fittings (See Figure 14, Page 13) with properly lubricated O-rings (See Figure 19, Page 16).
3. Place the evaporator unit under the dashboard by the passenger side kick panel, and install the heater hoses and #6 A/C hose (See Figure 14a, Page 13). Use (2) hose clamps on the heater hoses.
4. Lift the evaporator sub case up under the dashboard. Using the bottom hole of the bracket, secure loosely to the firewall using a 1/4-20 x 1" bolt and washer (See Figure 15, Page 13). **NOTE: When lifting up the evaporator sub case, be careful to prevent damage to the drain outlet located at the bottom of the unit. Feed the hoses into or out of the kick panel fresh air cap as needed while lifting the evaporator sub case into position.**
5. Install the #10 A/C hose onto the evaporator (See Figure 14a, Page 13) with properly lubricated O-rings (See Figure 19, Page 16).
6. Install press tape all around the #10 A/C hose fitting as shown in Figure 14a, Page 13.
7. Install the front mounting bracket onto the evaporator using (2) 1/4-20 x 1/2" bolts, and tighten (See Figure 15, Page 13).
8. Using the front mounting bracket as a template, mark and drill (2) 5/32" holes on the inner cowl (See Figure 15, Page 13). **NOTE: To ensure proper drainage, it is very important that the evaporator is level, both left-right and fore-aft. Prior to drilling, check for level on the flat portions of the case around the drain.**
9. Loosely attach the front mounting bracket to the inner cowl using (2) #14 x 3/4" sheet metal screws (See Figure 15, Page 13).
10. 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 sheet metal screws.**



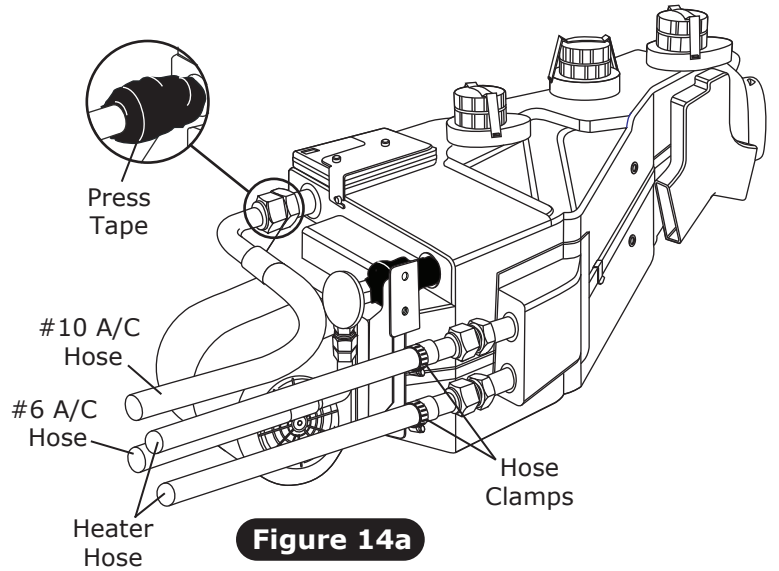


## Evaporator Installation (Cont.)



**Figure 14**

(2) Heater Fittings  
121004



**Figure 14a**

Drill (2)  
5/32" Holes

Kick Panel  
Fresh Air  
Cap

1/4-20 x 1" Bolt  
and Washer

1/4-20 x 1/2"  
Bolt

(2) #14 x 3/4"  
Sheet Metal  
Screws

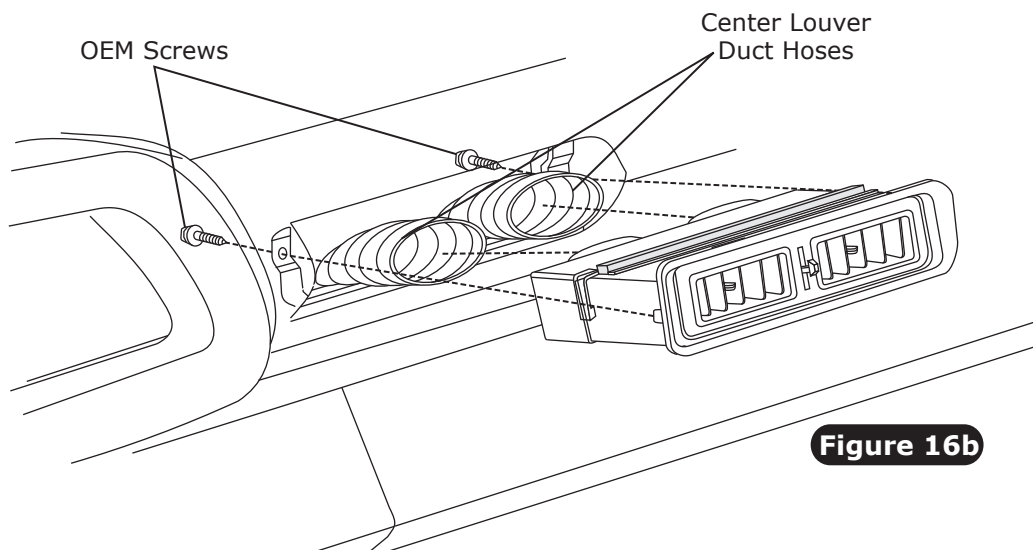
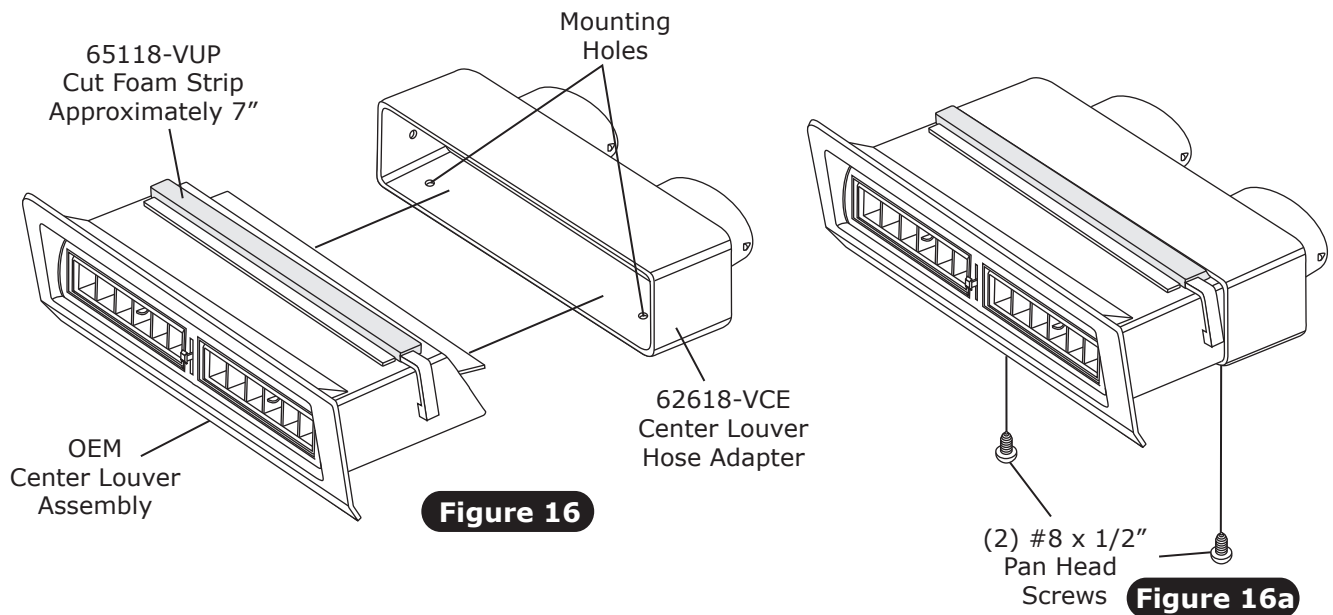
1/4-20 x 1/2"  
Bolt

**Figure 15**



## Center Louver Installation

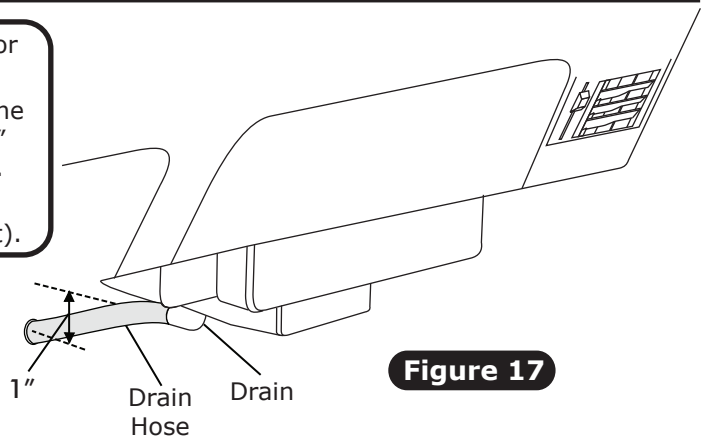
1. Install foam strip onto center louver assembly as shown in Figure 16, below.
2. Install center louver duct hose adapter onto center louver assembly (See Figure 16, below).
3. Using the (2) mounting holes on the bottom side of the duct hose adapter as a guide, drill (2) 1/8" holes in the louver assembly. Secure duct hose adapter to louver assembly using (2) #8 x 1/2" pan head screws (See Figure 16a, below).
4. Reinstall dash.
5. Pull center louver duct hoses through dash and attach to center louver duct hose adapter as shown in Figure 16, below.
6. Install center louver assembly into dash, using OEM mounting screws to secure louver assembly to dash (See Figure 16, below).





## Drain Hose Installation

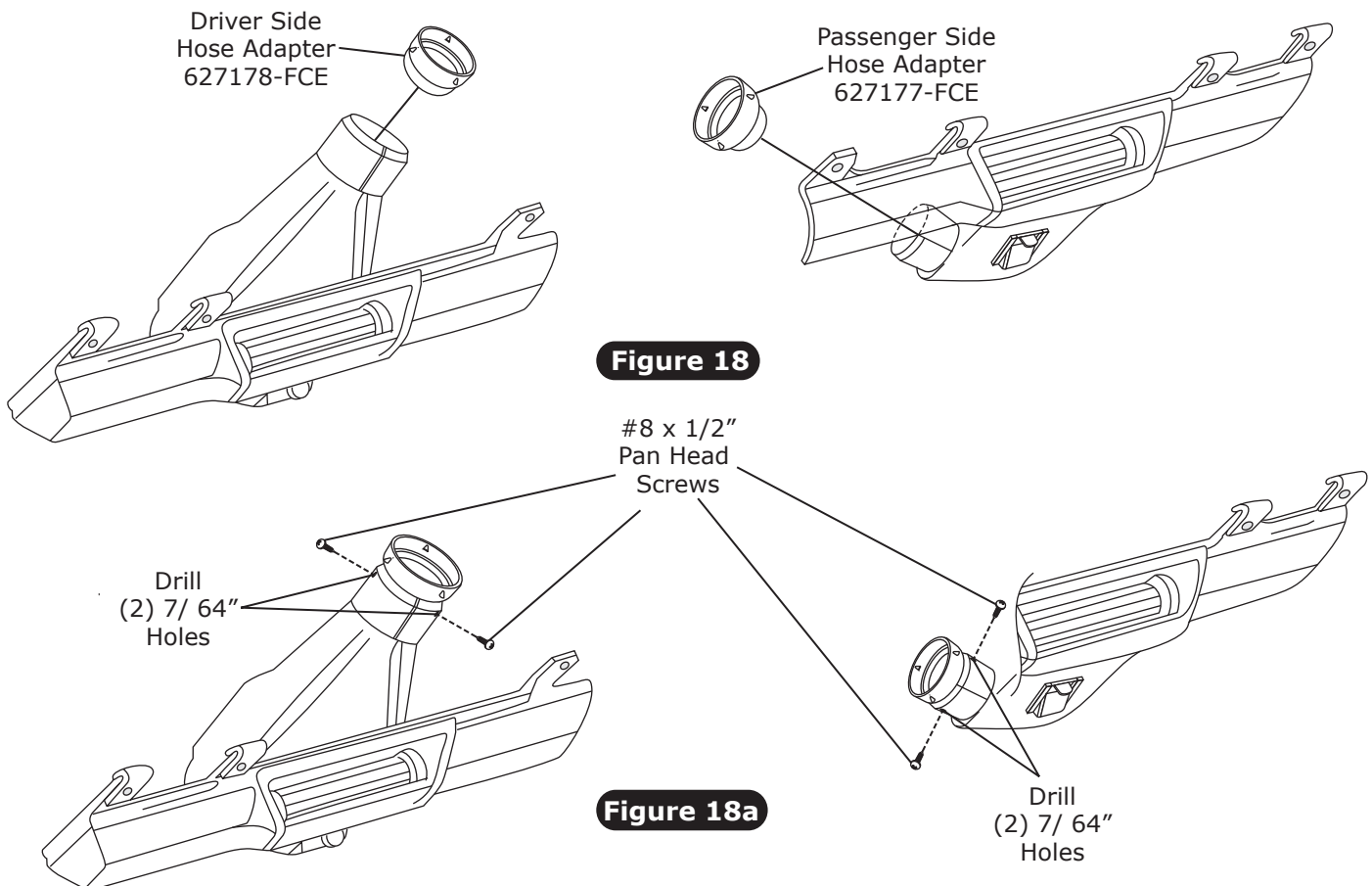
1. Locate evaporator drain on bottom of evaporator case.
2. In line with the drain, lightly make a mark on the firewall. Measure one inch down and drill a 5/8" hole through the firewall (See Figure 17, right).
3. Install drain hose to bottom of evaporator unit, and route through firewall (See Figure 17, right).



**Figure 17**

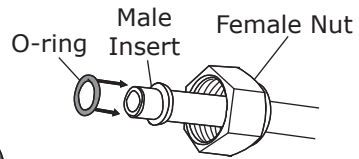
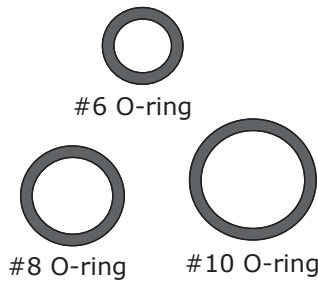
## Under Dash Louver Duct Hose Adapter Installation

1. Install hose adapters as shown in Figure 18, below.
2. Once hose adapters are installed, drill (2) 7/64" holes in OEM under dash louver assemblies as shown in Figure 18a, below.

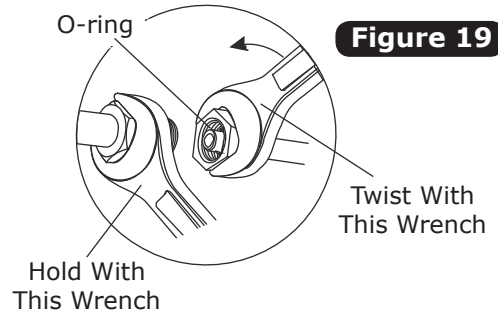
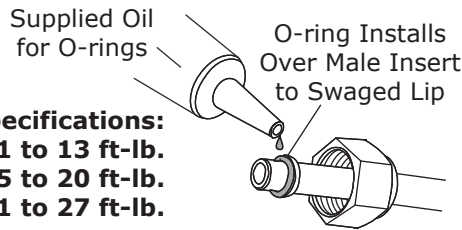




## Lubricating O-rings



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



**Figure 19**

**NOTE: Standard torque specifications:**  
**#6: 11 to 13 ft-lb.**  
**#8: 15 to 20 ft-lb.**  
**#10: 21 to 27 ft-lb.**

## 1970-73 Camaro Standard Hose Kit

1. Locate the #8 compressor A/C hose. Lubricate (2) #8 O-rings (See Figure 19, above) and connect the 90° female fitting with 134a service port to the #8 discharge port on the compressor. Route the 45° female fitting to the #8 condenser hardline coming through the core support (See Figure 20, Page 17). Tighten each fitting connection as shown in Figure 19, above.
2. Locate the #10 compressor A/C hose. Lubricate (2) #10 O-rings (See Figure 19, above) and connect the #10 135° female fitting with 134a service port to the #10 suction port on the compressor. Route the 90° female fitting to the #10 fitting on the evaporator (See Figure 14a, Page 13, and Figure 20, Page 17). Tighten each fitting connection as shown in Figure 19, above.
3. Locate the #6 evaporator A/C hose. Lubricate (2) #6 O-rings (See Figure 19, above) and connect the 45° female fitting to the #6 hardline coming through the core support from the drier. Route the 90° female fitting to the #6 fitting on the evaporator (See Figure 14a, Page 13, and Figure 20, Page 17). Tighten each fitting connection as shown in Figure 19, above.

## 1974-78 Camaro Standard Hose Kit

1. Locate the #8 compressor A/C hose. Lubricate (2) #8 O-rings (See Figure 19, above) and connect the 90° female fitting with 134a service port to the #8 discharge port on the compressor. Route the 45° female fitting to the #8 condenser hardline coming through the core support (See Figure 21, Page 18). Tighten each fitting connection as shown in Figure 19, above.
2. Locate the #10 compressor A/C hose. Lubricate (2) #10 O-rings (See Figure 19, above) and connect the #10 135° female fitting with 134a service port to the #10 suction port on the compressor. Route the 90° female fitting to the #10 fitting on the evaporator (See Figure 14a, Page 13, and Figure 21, Page 18). Tighten each fitting connection as shown in Figure 19, above.
3. Locate the #6 evaporator A/C hose. Lubricate (2) #6 O-rings (See Figure 19, above) and connect the 90° female fitting to the #6 hardline coming through the core support from the drier. Route the 90° female fitting to the #6 fitting on the evaporator (See Figure 14a, Page 13, and Figure 21, Page 18). Tighten each fitting connection as shown in Figure 19, above.

## Modified A/C Hose Kit

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



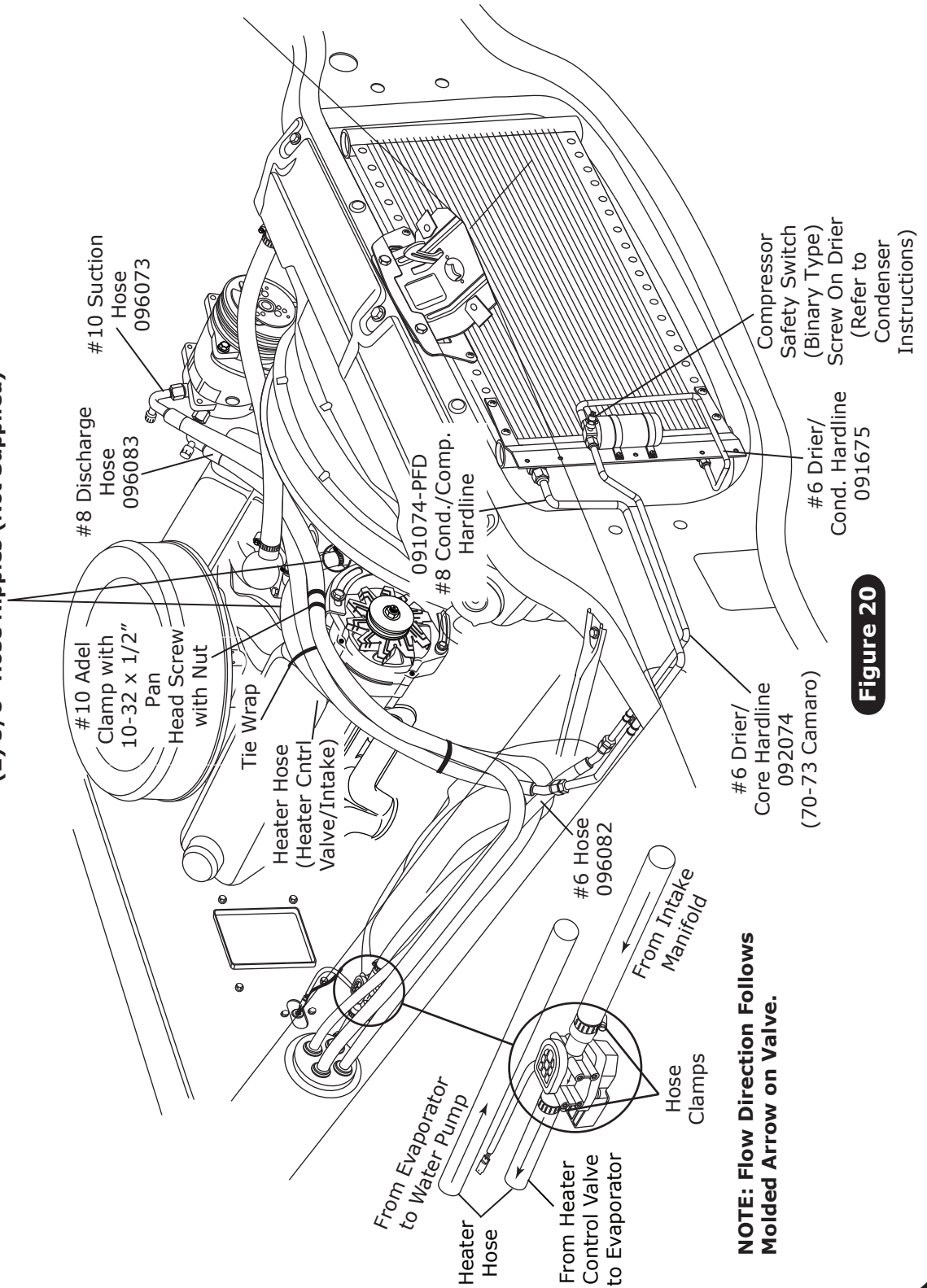


# A/C & Heater Hose Routing 1970-73 Camaro

## Heater Hose & Heater Control Valve Installation

1. Route a piece of heater hose from the water pump to the top heater fitting of the heater core as shown in Figure 14a, Page 13, and Figure 20, below. Secure using hose clamps.
2. Route a piece of heater hose from the intake to the bottom heater fitting of the heater core as shown in Figure 14a, Page 13, and Figure 20, below. **NOTE: Install heater control valve in line with intake manifold (pressure side) heater hose, and secure using hose clamps as shown in Figure 20, below. Also note proper flow direction.**

**NOTE: Vintage Air Systems Require  
(2) 5/8" Hose Nipples (Not Supplied)**



**Figure 20**

**NOTE: Flow Direction Follows  
Molded Arrow on Valve.**

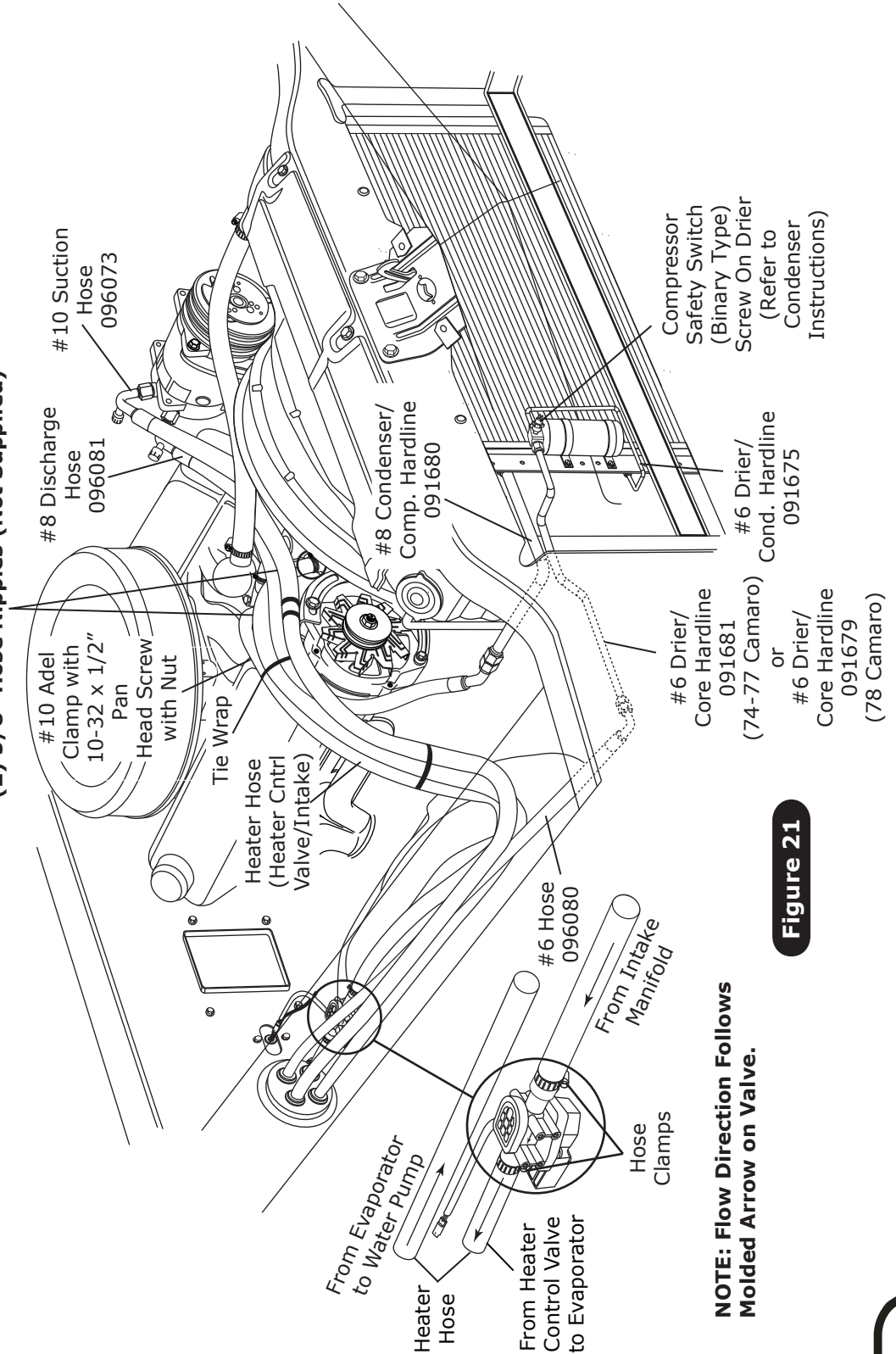


# A/C & Heater Hose Routing 1974-78 Camaro (1978 Camaro Shown)

## Heater Hose & Heater Control Valve Installation

1. Route a piece of heater hose from the water pump to the top heater fitting of the heater core as shown in Figure 14a, Page 13, and Figure 21, below. Secure using hose clamps.
2. Route a piece of heater hose from the intake to the bottom heater fitting of the heater core as shown in Figure 14a, Page 13, and Figure 21, below. **NOTE: Install heater control valve in line with intake manifold (pressure side) heater hose, and secure using hose clamps as shown in Figure 21, below. Also note proper flow direction.**

**NOTE: Vintage Air Systems Require  
(2) 5/8" Hose Nipples (Not Supplied)**



**Figure 21**

**NOTE: Flow Direction Follows Molded Arrow on Valve.**



## Final Steps

1. Install duct hoses as shown in Figure 24, Page 20.
2. Refer to the control panel instructions and install the control panel assembly.
3. Plug the wiring harnesses into the ECU module on the sub case as shown in Figure 24, Page 20 (Wire according to wiring diagram on Pages 21 and 22).
4. Refer to the instruction below and install the glove box.
5. Refer to the instruction below and install the under dash louver assembly.
6. Reinstall all previously removed items (battery box & battery).
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 certified automotive air conditioning 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 the information page (Page 4) of this instruction manual.
12. See Operation of Controls procedures on Page 23.

### Glove Box Installation

1. Install glove box and secure with #8 screws through OEM holes (See Figure 22, below).
2. Install glove box door.

**NOTE: If equipped with the glove box light as shown below in Figure 22a, modify plastic glove box using dimensions provided on Page 26.**

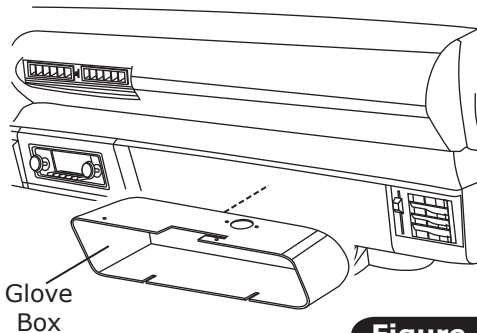


Figure 22

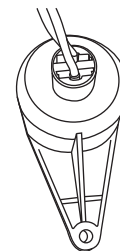


Figure 22a

### Under Dash Louver Installation

1. Reinstall under dash louvers using OEM screws as shown in Figure 23, below.
2. Connect duct hoses to louvers (See Figure 24, Page 20).

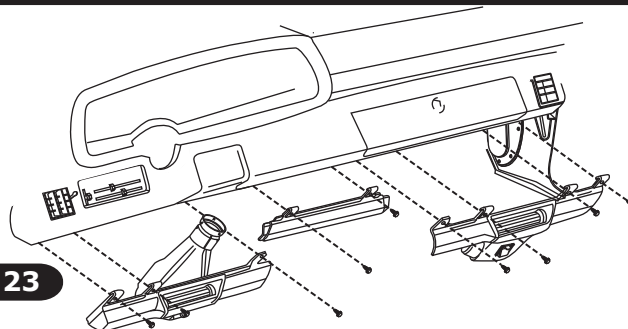
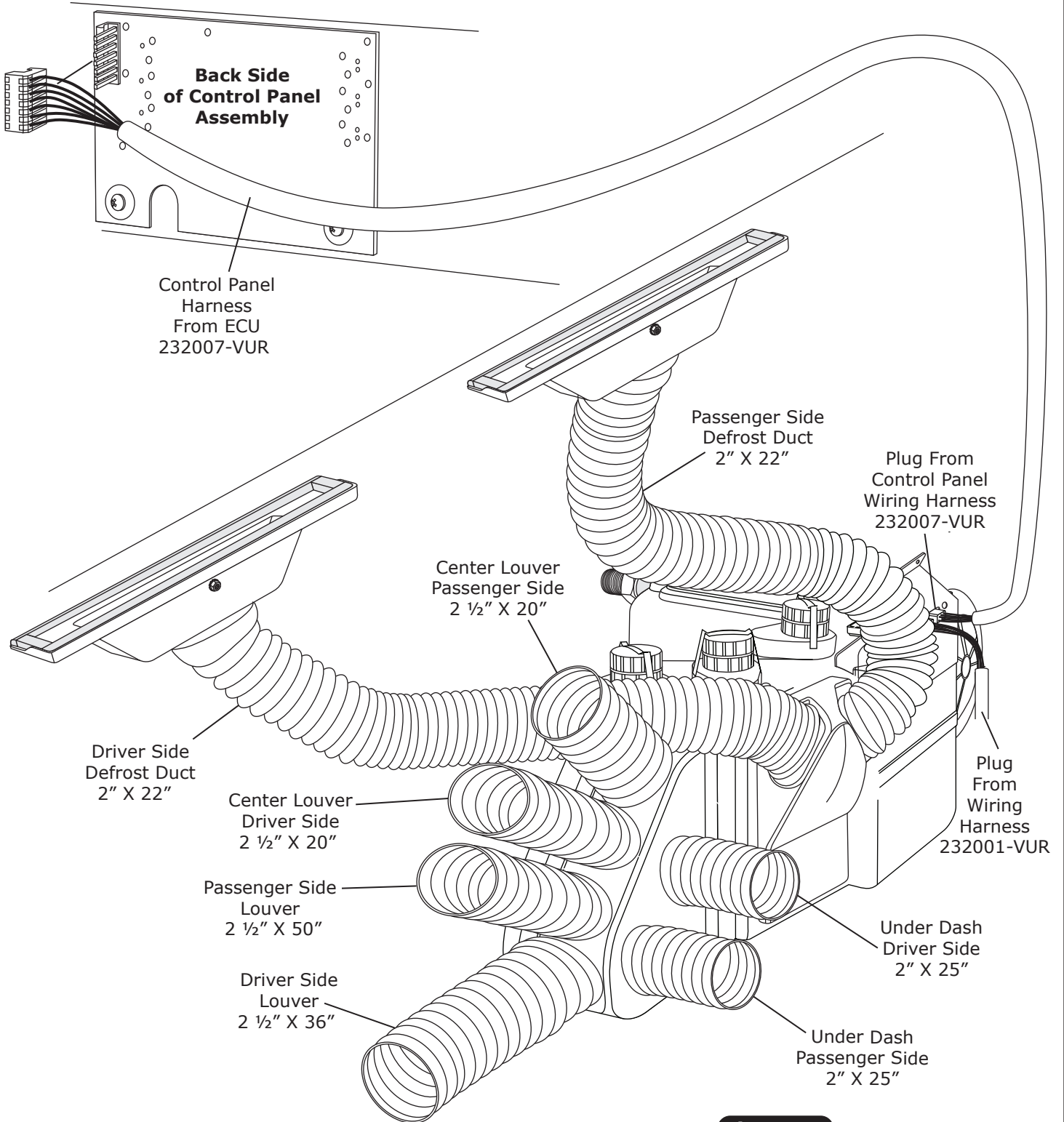


Figure 23



## Control Panel & Duct Hose Routing

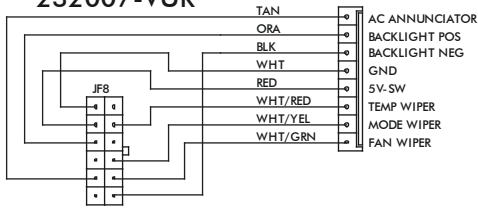


**Figure 24**



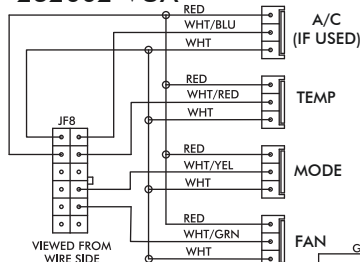
# Wiring Diagram

232007-VUR



VIEWED FROM WIRE SIDE

232002-VUA

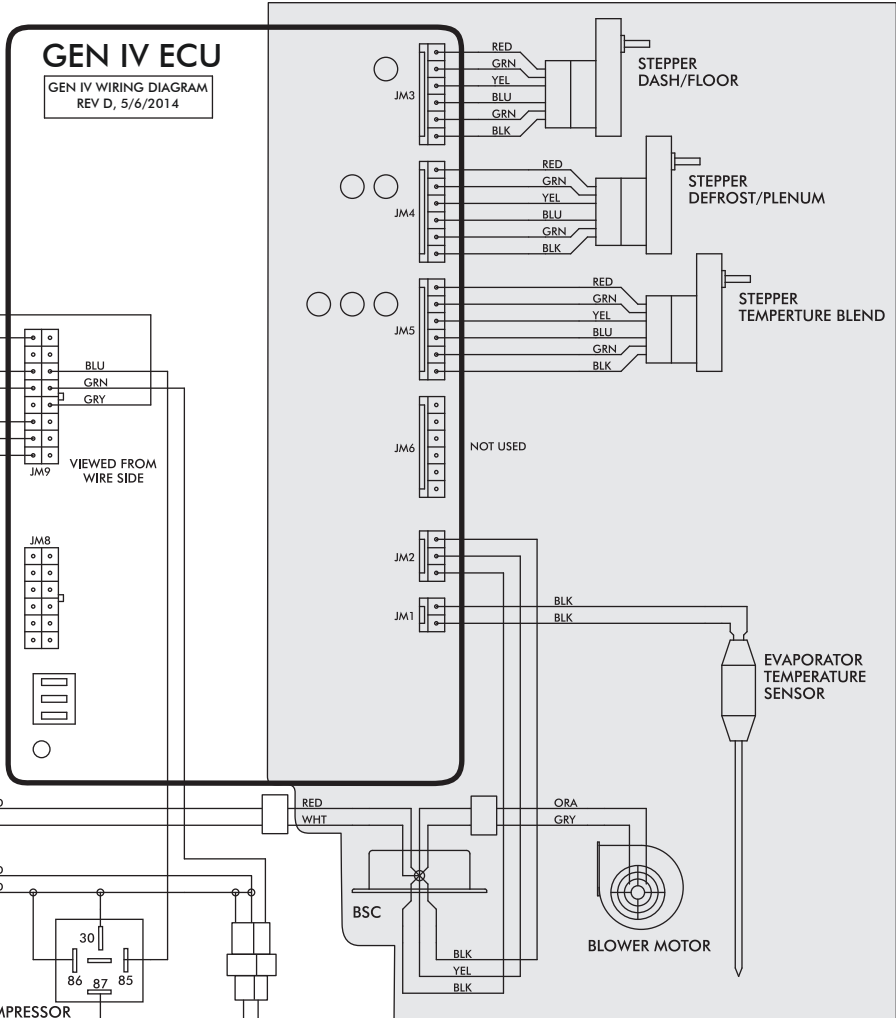


VIEWED FROM WIRE SIDE

GEN IV ECU

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

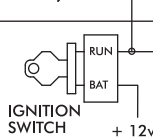
PRE-WIRED



PROGRAM

N/A  
\* DASH LAMP (IF USED)

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



\*\* CIRCUIT BREAKER 30 AMP

COMPRESSOR RELAY

BSC

BLOWER MOTOR

HEATER CONTROL VALVE

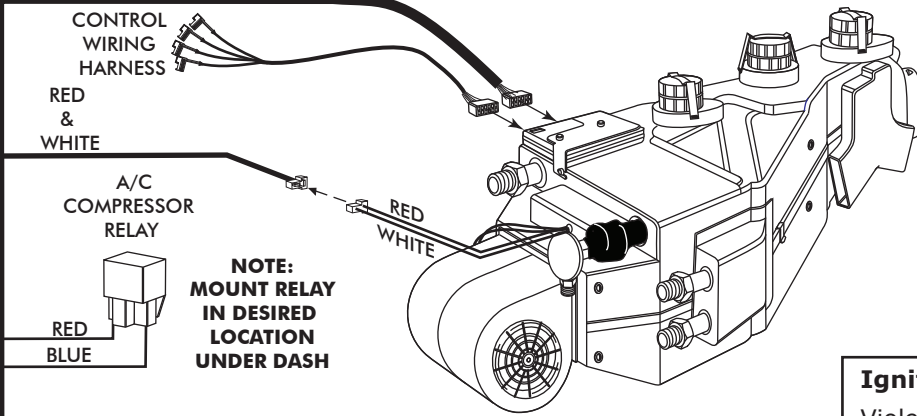
NOTE: = CHASSIS GROUND

- 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.



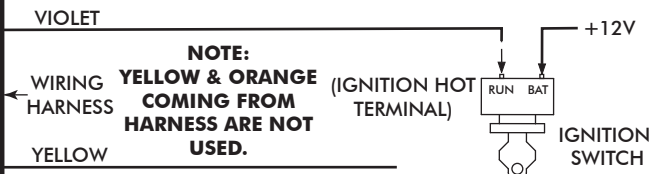
# Gen IV Wiring Connection Instruction

WIRING HARNESS



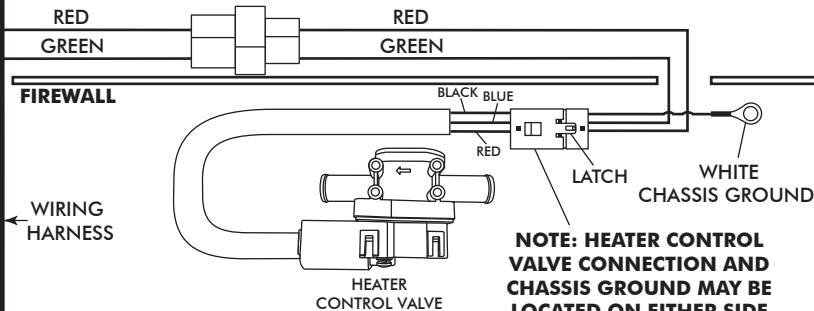
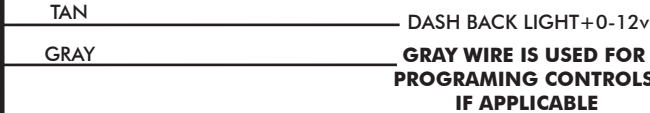
### Ignition Switch:

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



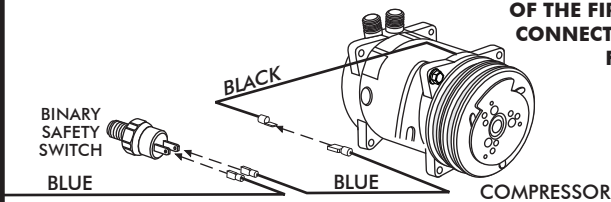
### Dash Light:

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



### Heater Control Valve:

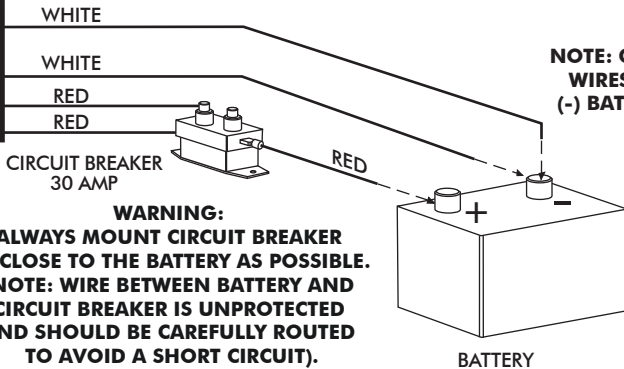
Install With Servo Motor Facing Down, As Shown. Note Flow Direction Arrow Molded Into Valve Body, And Install Accordingly.



### 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.



## Operation of Controls

On Gen IV systems with three lever/knob controls, the temperature control toggles between heat and A/C operations. To activate A/C, move the temperature lever/knob all the way to cold and then back it off to the desired vent temperature. For heat operation, move the temperature lever/knob all the way to hot and then adjust to the desired vent temperature. The blower will momentarily change speed, each time you toggle between operations, to indicate the change.

### Blower Speed

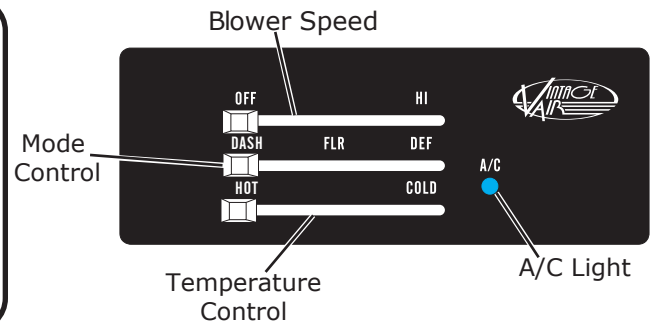
This lever/knob controls blower speed, from OFF to HI.

### Mode Control

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

### Temperature Control

This lever/knob controls 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).

### Temperature Control

For A/C operation, adjust to coldest position to engage compressor (Adjust between HOT and COLD to reach desired temperature).



**NOTE: A/C operation toggles on & off when temperature control is moved to the HOT or COLD ends of travel. A/C operation is indicated by the blue A/C light.**

## Heat Operation

### Blower Speed

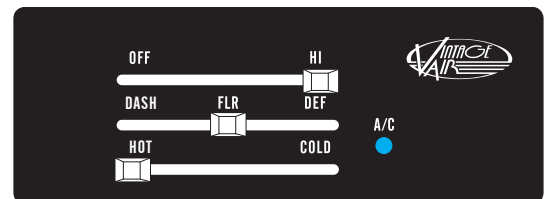
Adjust to desired speed.

### Mode Control

Adjust to desired mode position (FLOOR position recommended).

### Temperature Control

For maximum heating, adjust to hottest position (Adjust between HOT and COLD to reach desired temperature).



## Defrost/De-fog Operation

### Blower Speed

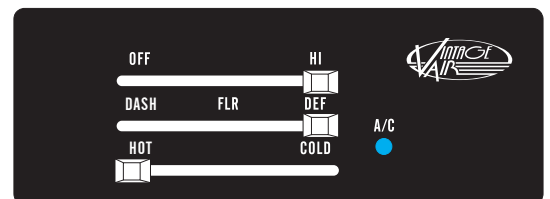
Adjust to desired speed.

### Temperature Control

Adjust to 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).





# 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.	Loss of ground on this wire renders control head inoperable.
	All other functions work.	<p>Check for damaged ground wire (white) in control head harness.</p> <p>Check for damaged blower switch or potentiometer and associated wiring.</p>	<p>Verify continuity to chassis ground with white control head wire at various points.</p> <p>See blower switch check procedure.</p>	
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.	<p>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.</p> <p>Replace BSC (This will require removal of evaporator from vehicle).</p>	No other part replacements should be necessary.
2. Compressor will not turn on (All other functions work).	System is not charged.	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>
	System is charged.	<p>Check for faulty A/C potentiometer or associated wiring (Not applicable to 3-pot controls).</p> <p>Check for disconnected or faulty thermistor.</p>	<p>Check continuity to ground on white control head wire. Check for 5V on red control head wire.</p> <p>Check 2-pin connector at ECU housing.</p>	<p>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.</p> <p>Disconnected or faulty thermistor will cause compressor to be disabled.</p>
3. Compressor will not turn off (All other functions work).		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.	



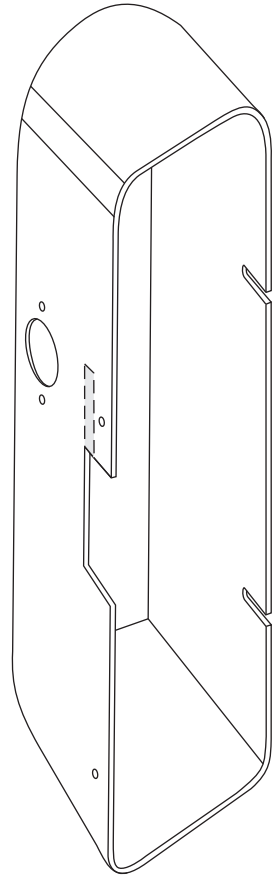
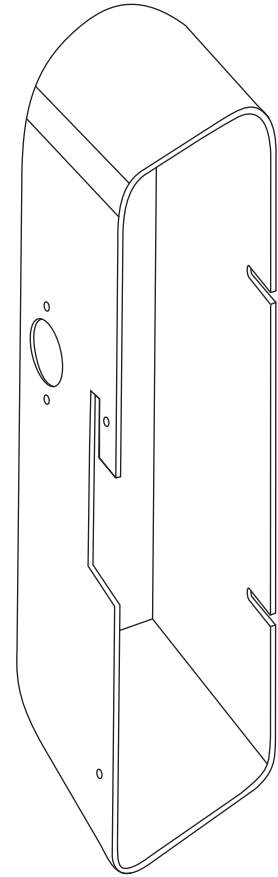
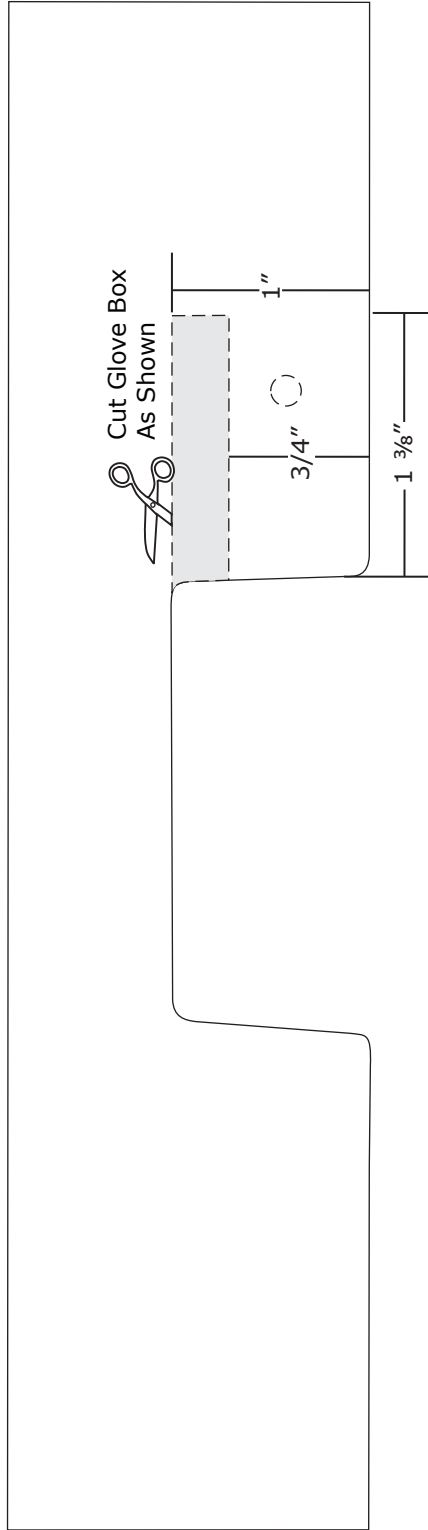


# Troubleshooting Guide (Cont.)

Symptom	Condition	Checks	Actions	Notes
4. System will not turn on, or runs intermittently.	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.
	Will not turn on under any conditions.	Verify connections on power lead, ignition lead, and both white ground wires.	Check for positive power at heater valve green wire and blower red wire. Check for ground on control head white wire.	
		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.	
		Check for damaged mode switch or potentiometer and associated wiring.		
5. Loss of mode door function.	No mode change at all.	Check for obstructed or binding mode doors.		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 damaged stepper motor or wiring.		
		Check for at least 12V at circuit breaker.	Ensure all system grounds and power connections are clean and tight.	
6. Blower turns on and off rapidly.	Battery voltage is at least 12V.	Check for faulty battery or alternator.	Charge battery.	System shuts off blower at 10V. Poor connections or weak battery can cause shutdown at up to 11V.
	Battery voltage is less than 12V.			
7. Erratic functions of blower, mode, temp, etc.		Check for damaged switch or pot and associated wiring.	Repair or replace.	
		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.	



## Glove Box Light Dimensions







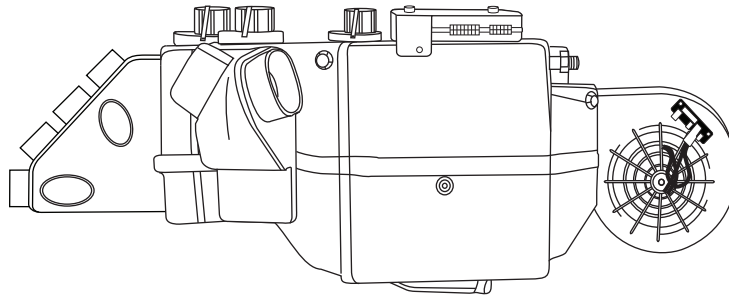
## Packing List Evaporator Kit (565073)

No.	Qty.	Part No.	Description
1.	1	762171	Gen IV 6-Vent Evaporator Sub Case with 204 ECU
2.	1	781177	Accessory Kit

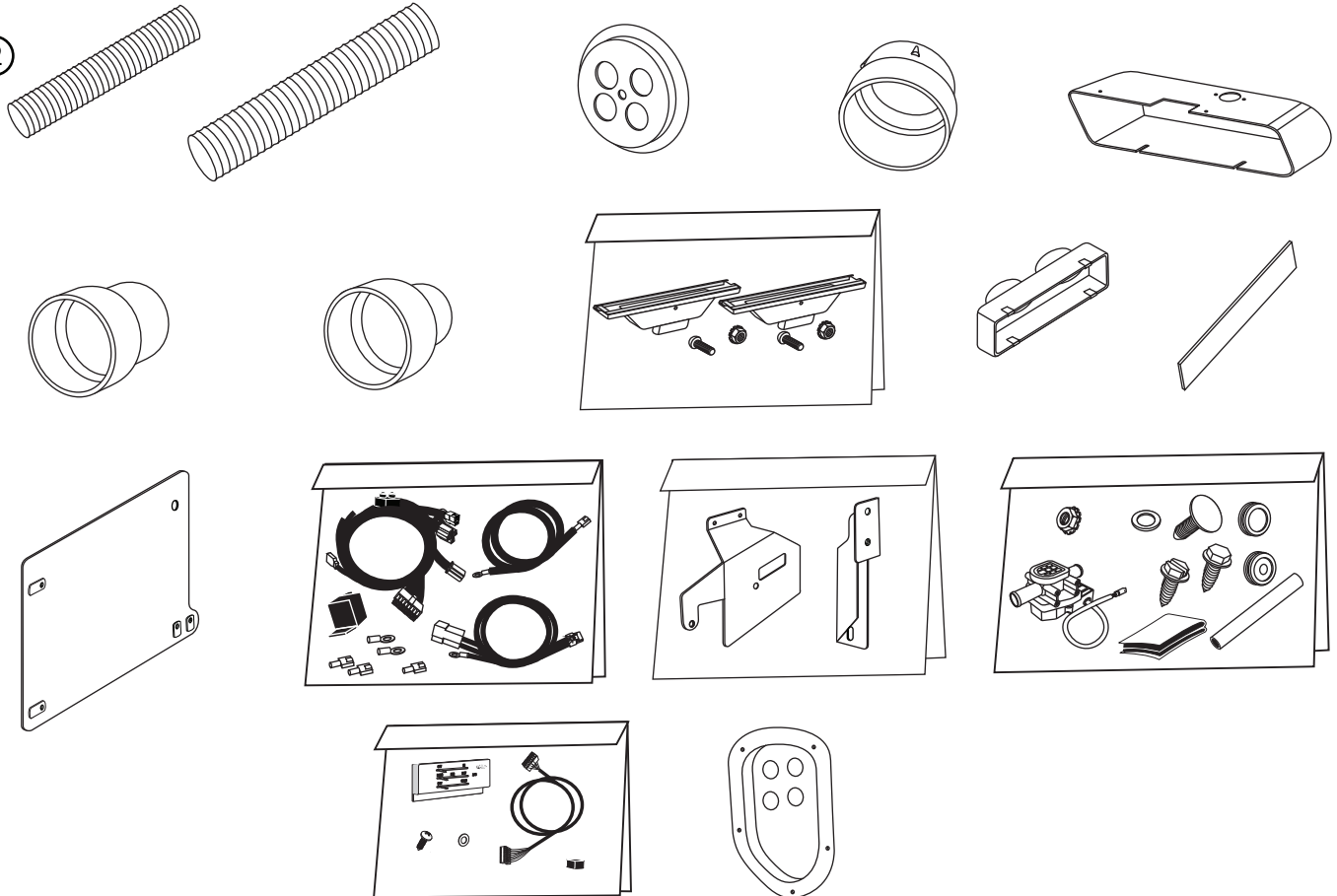
Checked By: \_\_\_\_\_  
 Packed By: \_\_\_\_\_  
 Date: \_\_\_\_\_

①

**Gen IV 6-Vent Evaporator  
Sub Case  
w/ 204 ECU  
762171**



②



**Accessory Kit  
781177**

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