



an ISO 9001:2008 Registered Company

1967-72 CHEVROLET PICKUP

with FACTORY AIR
754170

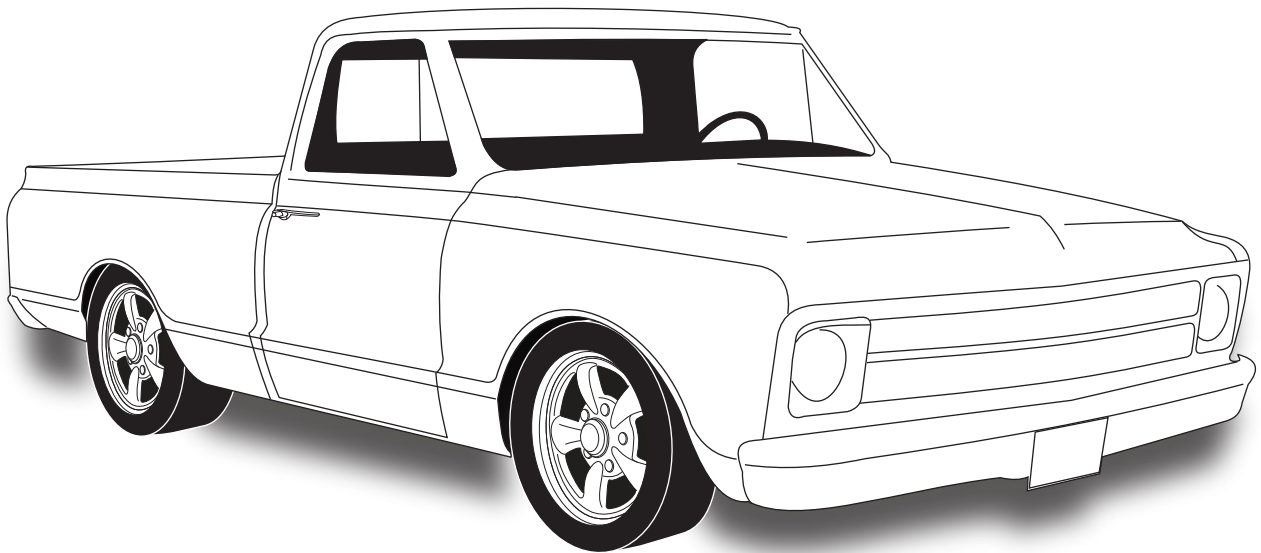




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EVAPORATOR KIT PACKING LIST

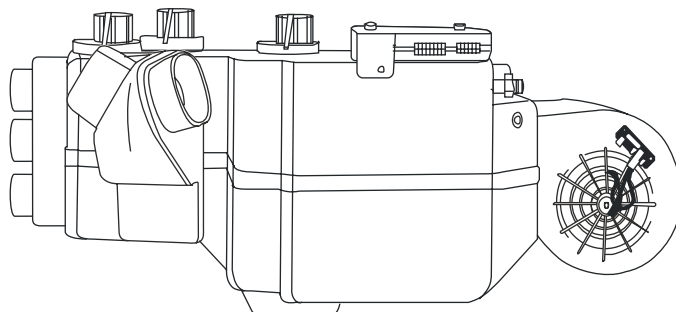
EVAPORATOR KIT
754170

No.	QTY.	PART No.	DESCRIPTION
1.	1	744005	GEN IV 3-VENT EVAP SUB CASE with 204 ECU
2.	1	794170	ACCESSORY KIT 1967-72 CHEVROLET PICKUP with A/C

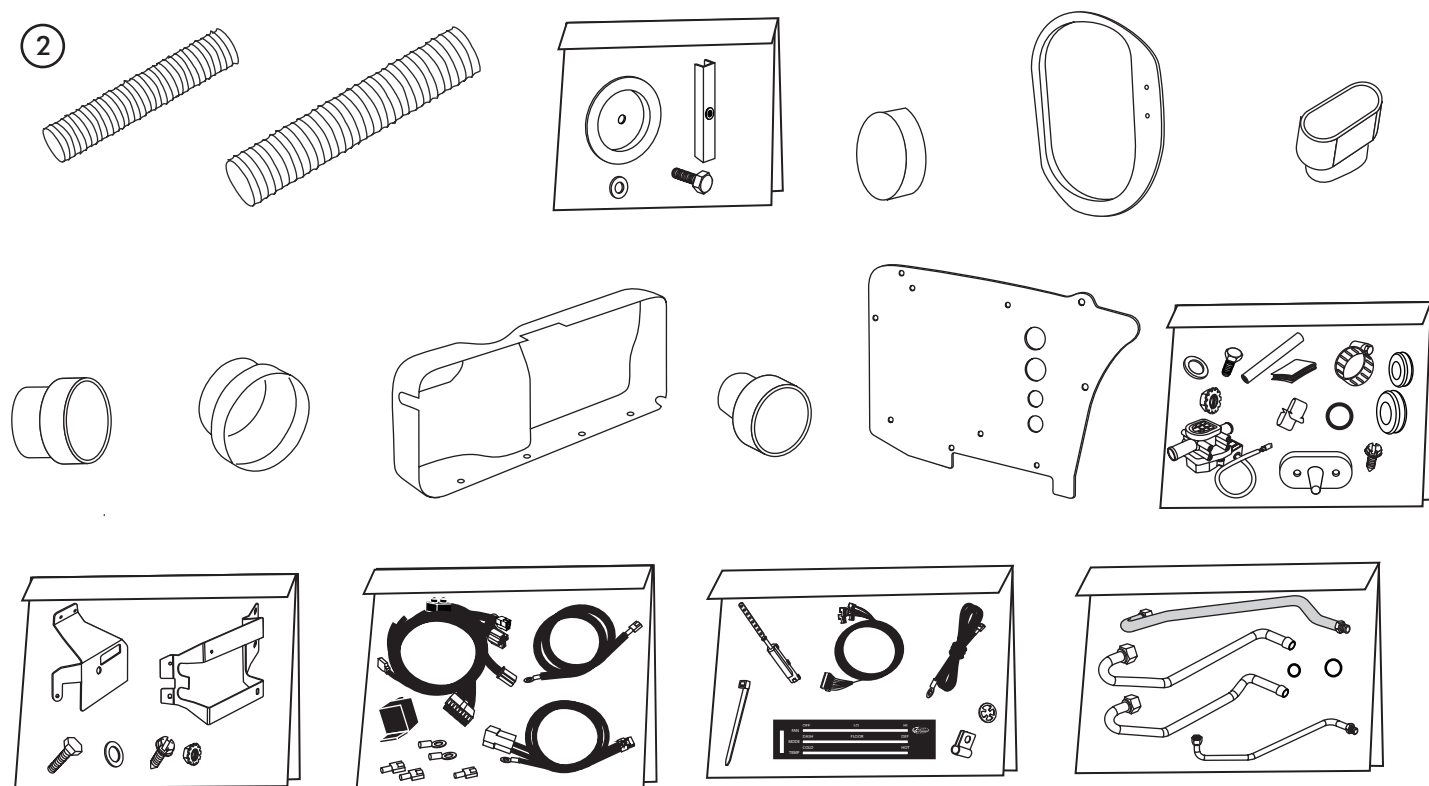
**** BEFORE BEGINNING INSTALLATION, OPEN ALL PACKAGES AND CHECK CONTENTS OF SHIPMENT. PLEASE REPORT ANY SHORTAGES DIRECTLY TO VINTAGE AIR WITHIN 15 DAYS. AFTER 15 DAYS, VINTAGE AIR WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED ITEMS.**

①

**GEN IV 3-VENT
EVAP SUB CASE
with 204 ECU
744005**



②



**ACCESSORY KIT
794170**

**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:

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.

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.

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:

Attention: The following system components are capped: Compressor, evaporator, condenser & drier. Caps may be under pressure with dry nitrogen. Be careful removing caps. Do not remove caps prior to installation. Removing caps prior to installation will cause components to collect moisture and lead to premature failure and reduced performance.

Evacuate the system for 35-45 minutes with system components (Drier, compressor, evaporator and condenser) at a temperature of at least 85° F. On a cool day, the components can be heated with a heat gun OR by running the engine with the heater on before evacuating. Leak check and charge to specifications.

Vintage Air Systems Are Designed to Operate With R134a Refrigerant Only! Use of Any Other Refrigerants Is a Fire Hazard and Could Damage Either Your Air Conditioning System or Your Vehicle.

Use of Any Other Refrigerants Will Void All Warranties of the Air Conditioning System and Components. Use of the Proper Type and Amount of Refrigerant Is Critical to Proper System Operation. Vintage Air Recommends Our Systems Be Charged By Weight With a Quality Charging Station or Scale.

Refrigerant Capacity for Vintage Air Systems:

(For other systems, consult manufacturer's guidelines)

R134a System

Charge with 1.8 lbs. (1 lb., 12 oz.) of refrigerant.

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).



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.



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

ENGINE COMPARTMENT

REMOVE THE FOLLOWING:

- ☐ DISCONNECT BATTERY.
- ☐ DRAIN RADIATOR, REMOVE RADIATOR (RETAIN).
- ☐ EVACUATE THE A/C SYSTEM IF NECESSARY.
- ☐ OEM CONDENSER AND DRIER (DISCARD). SEE FIGURE 1.
- ☐ OEM A/C LINES FROM COMPRESSOR TO EVAPORATOR (DISCARD).
- ☐ OEM COMPRESSOR AND BRACKET (DISCARD).
- ☐ EVAPORATOR BLOWER ASSEMBLY (DISCARD).

NOTE: TO REMOVE THE EVAPORATOR AND BLOWER ASSEMBLY (UNDER HOOD) AND THE AIR DISTRIBUTION SYSTEM (UNDER DASH), THE FACTORY MANUAL RECOMMENDS THAT YOU REMOVE RIGHT INNER FENDER FOR ACCESSIBILITY.

- ☐ OEM HEATER HOSES, A/C HOSES, AND HARDLINES, VACUUM ACTUATOR (AIR INLET VALVE) (DISCARD). SEE FIGURES 1 & 1a.
- ☐ INSTALL COWL VENT ROD CAP USING (2) #14 x 3/4" SHEET METAL SCREWS AS SHOWN IN FIGURE 1a.

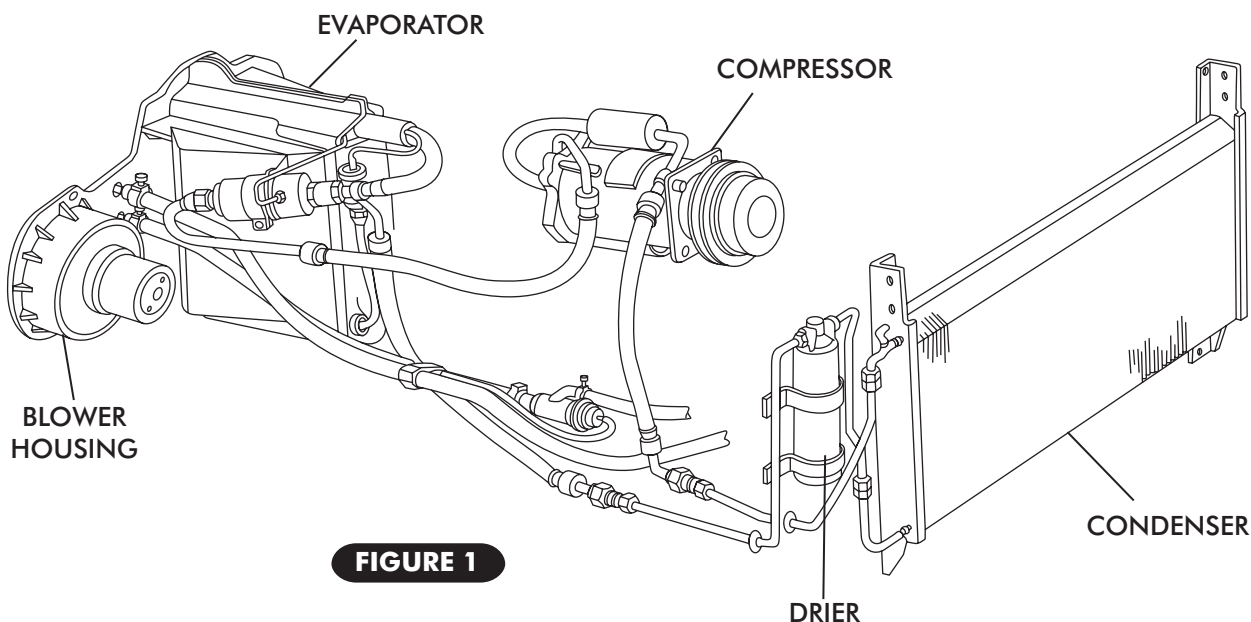


FIGURE 1

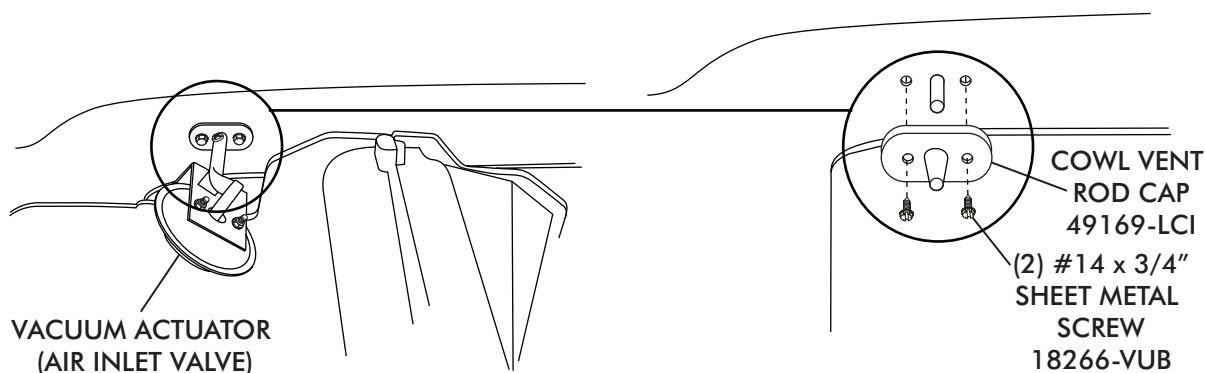


FIGURE 1a



CONDENSER ASSEMBLY & INSTALLATION

- ☐ REFER TO SEPARATE INSTRUCTIONS INCLUDED WITH THE CONDENSER KIT TO INSTALL THE CONDENSER.
- ☐ BINARY SWITCH INSTALLATION (REFER TO CONDENSER INSTRUCTIONS).

COMPRESSOR & BRACKETS

- ☐ REFER TO SEPARATE INSTRUCTIONS INCLUDED WITH THE BRACKET KIT TO INSTALL THE COMPRESSOR AND BRACKET.

PASSENGER COMPARTMENT

REMOVE THE FOLLOWING:

- ☐ REMOVE GLOVE BOX DOOR (RETAIN) AND GLOVE BOX (DISCARD).
- ☐ DISCONNECT ALL WIRES AND CABLES FROM CONTROL PANEL AND RADIO.
- ☐ ALL HOSE AND DUCTING FROM OEM LOUVERS, AND DEFROST DUCTS (SEE FIGURE 2 BELOW).
- ☐ OEM A/C & HEATER ASSEMBLY.
- ☐ FRESH AIR DOOR ASSEMBLY AS SHOWN IN FIGURE 2a.
- ☐ APPLY A 1/4" BEAD OF SILICONE ON THE BACK SIDE OF KICK PANEL CAP, AND INSTALL USING OEM SCREWS (SEE FIGURE 2b BELOW).

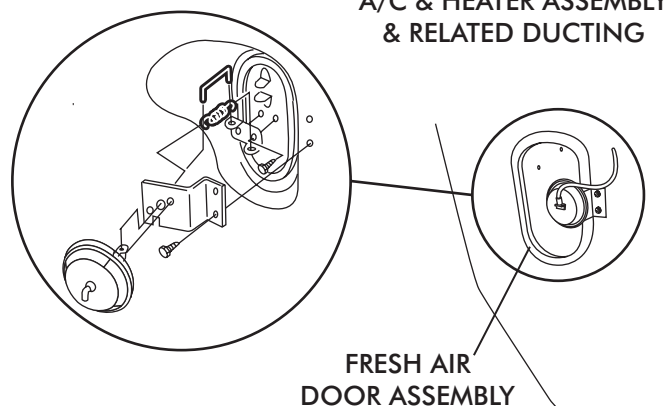
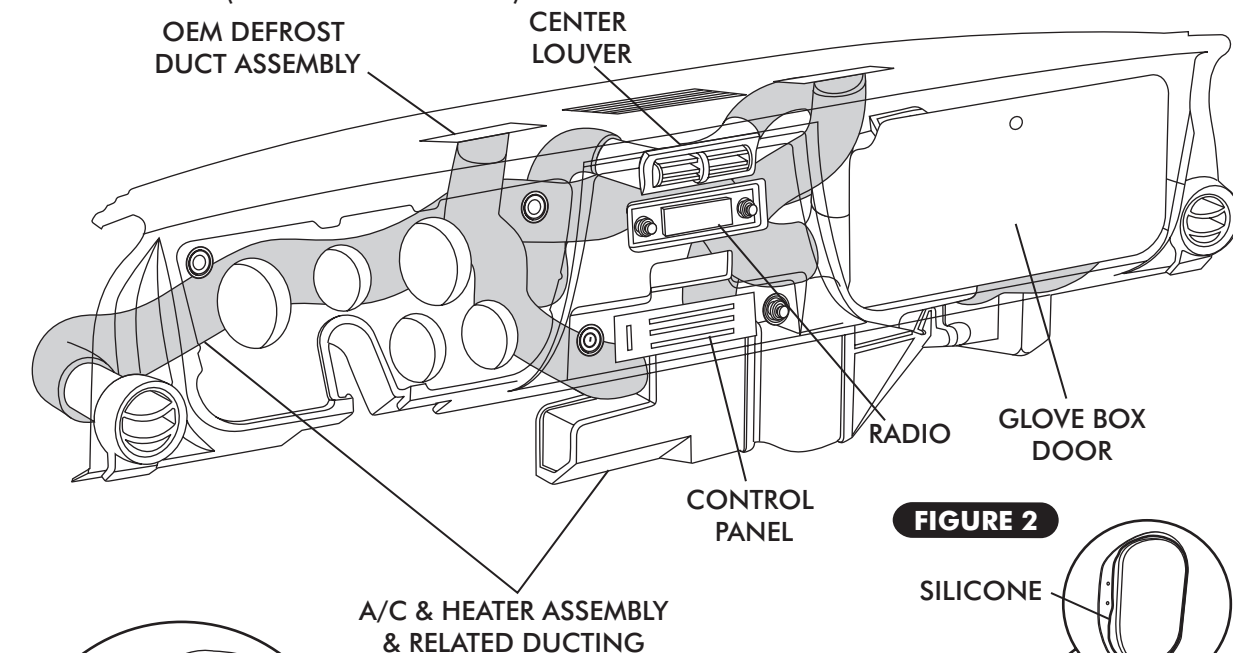


FIGURE 2a

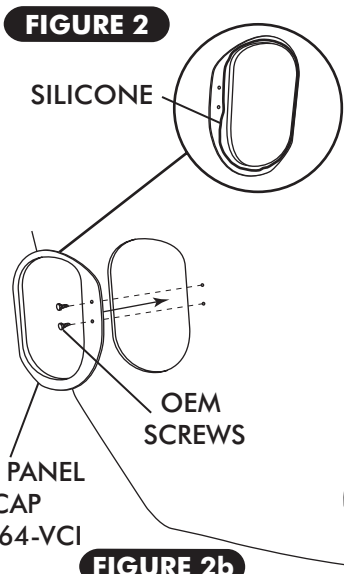


FIGURE 2b



DEFROST DUCT AND LOUVER INSTALLATION

- INSTALL S-CLIPS ON DEFROST DUCT HOSE ADAPTERS AND ATTACH TO OEM DEFROSTER DUCTS AS SHOWN IN FIGURE 3, BELOW.
- INSTALL OEM CENTER VENT HOSE ADAPTER AND CAP ON CENTER LOUVER PLENUM AS SHOWN IN FIGURE 3.
- INSTALL S-CLIPS ON DRIVER/PASSENGER SIDE HOSE ADAPTER AND ATTACH TO OEM DRIVER/PASSENGER SIDE LOUVER HOSE ADAPTER AS SHOWN IN FIGURE 3a.

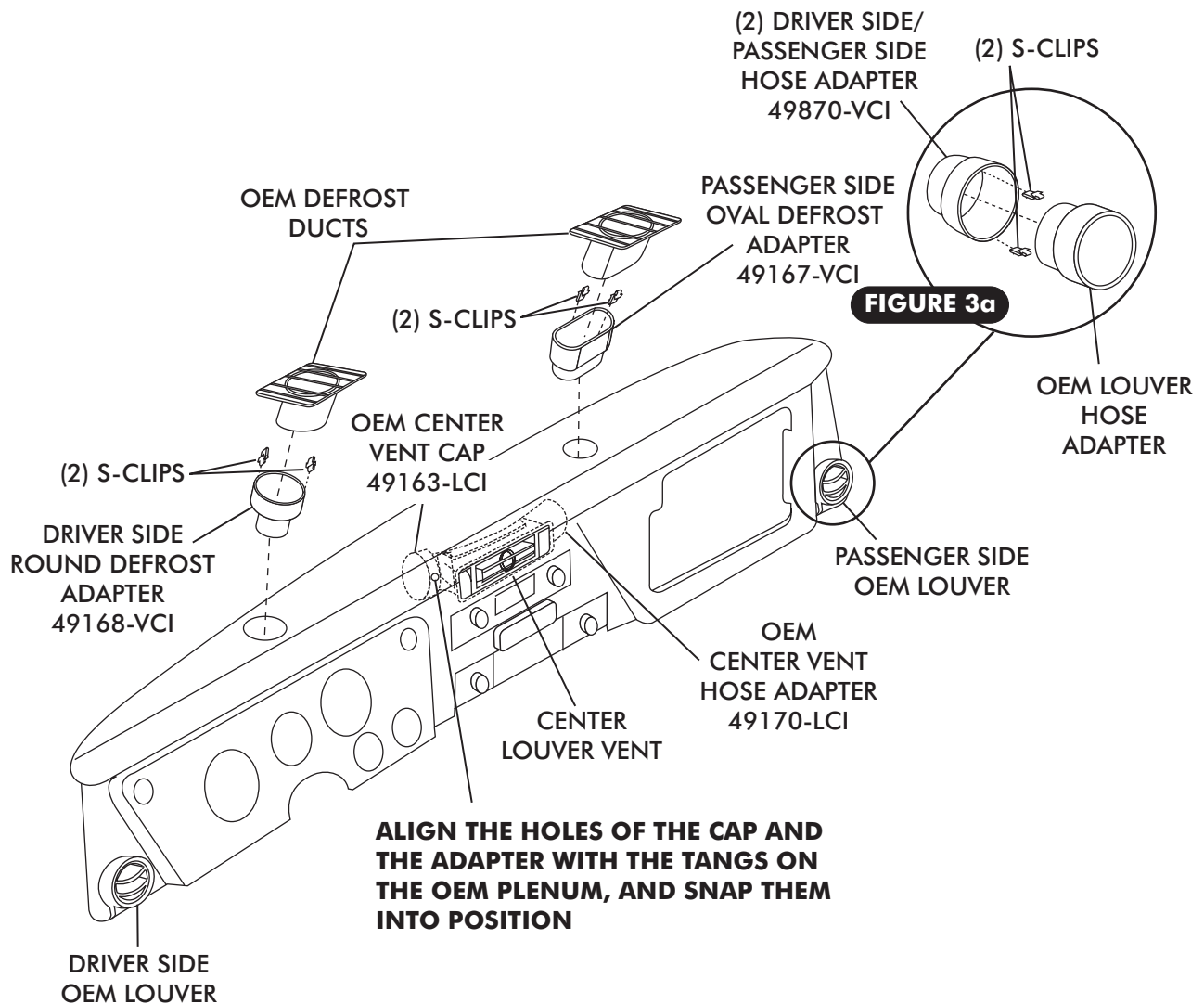


FIGURE 3



FRESH AIR CAP AND FIREWALL COVER INSTALLATION

- APPLY A 1/4" BEAD OF SILICONE AROUND THE BACK SIDE OF THE FRESH AIR CAP AS SHOWN IN FIGURE 4, BELOW.
- ATTACH FRESH AIR CAP TO FIREWALL USING A 1/4-20 x 1" BOLT AND WASHER. SEE FIGURE 4, BELOW.
- APPLY A 1/4" BEAD OF SILICONE AROUND THE BACK SIDE OF THE FIREWALL COVER AS SHOWN BELOW.
- INSTALL FIREWALL COVER TO FIREWALL USING (2) 1/4-20 x 1" HEX BOLTS, (2) FLAT WASHERS AND (2) 1/4" NUTS w/ STAR WASHERS IN THE OEM HOLES AS SHOWN BELOW.
- USE FIREWALL COVER AS TEMPLATE TO DRILL (6) 3/16" HOLES IN FIREWALL AND THEN SECURE USING #14 x 3/4" SHEET METAL SCREWS AS SHOWN BELOW.
- USING FIREWALL COVER AS TEMPLATE, DRILL (2) 9/32" HOLES IN FIREWALL AS SHOWN BELOW.
- INSTALL GROMMETS AS SHOWN BELOW.

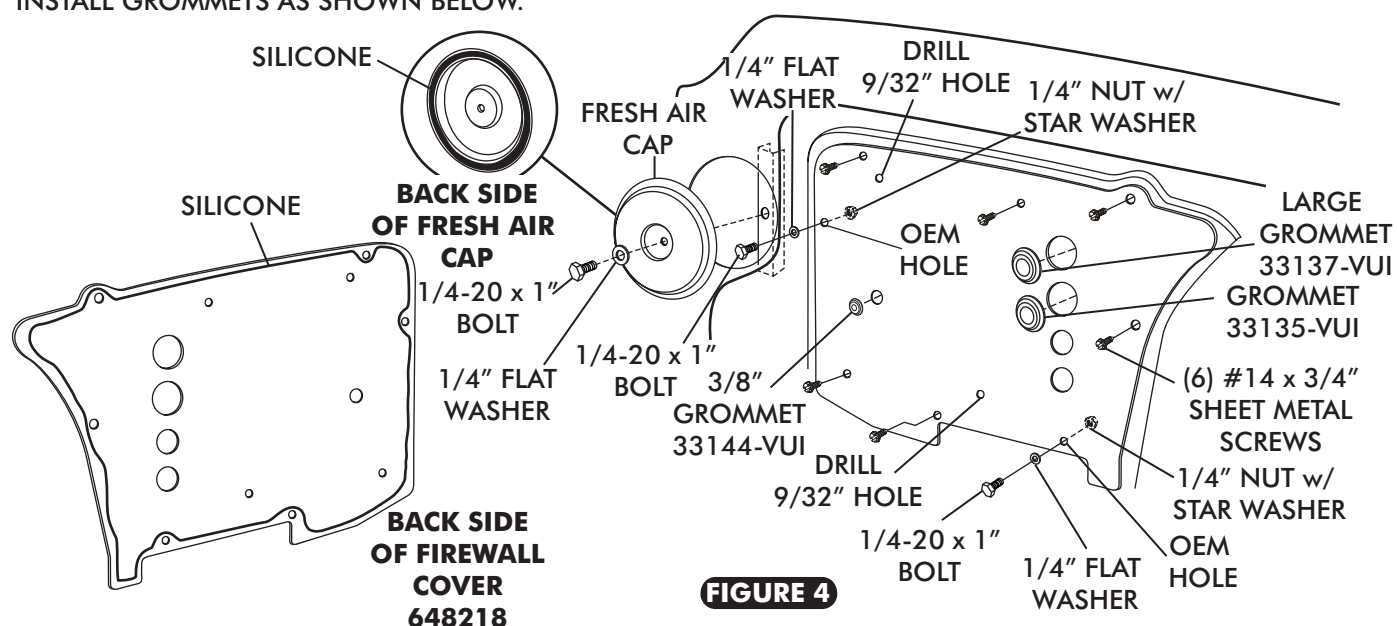


FIGURE 4

BRACKET & EVAPORATOR HARDLINE INSTALLATION

- ON A WORKBENCH, INSTALL EVAPORATOR REAR BRACKET USING (4) 1/4-20 x 1/2" HEX BOLTS.
- INSTALL HARDLINES WITH PROPERLY LUBRICATED O-RINGS (SEE FIGURE 9, PAGE 12, AND FIGURE 6, PAGE 10).
- **NOTE: WRAP THE #10 FITTING CONNECTIONS WITH PRESS TAPE. SEE FIGURE 6, PAGE 10.**
- INSTALL EVAPORATOR FRONT BRACKET ON EVAPORATOR USING (2) 1/4-20 x 1/2" HEX BOLTS AND TIGHTEN AS SHOWN IN FIGURE 5, BELOW.

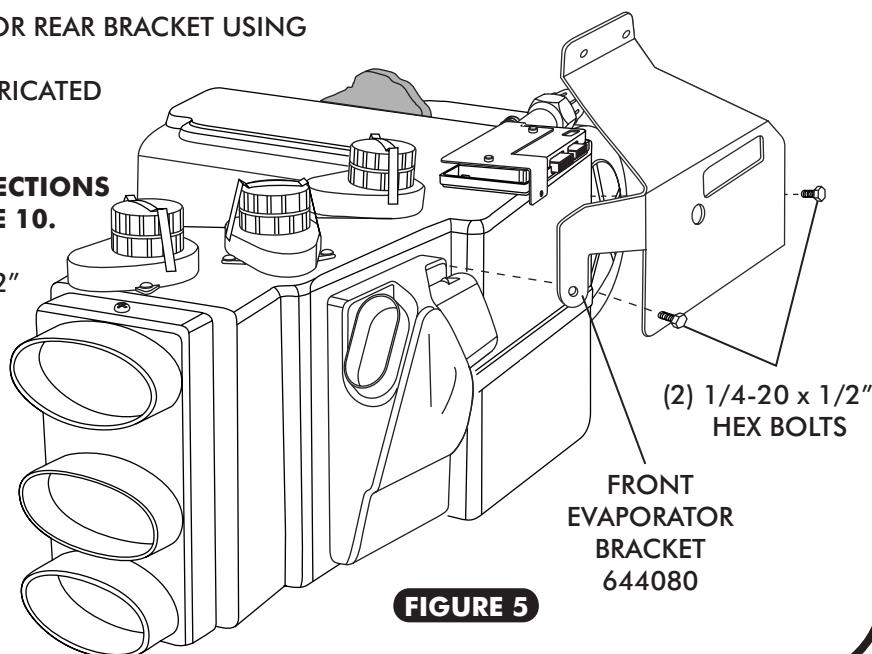
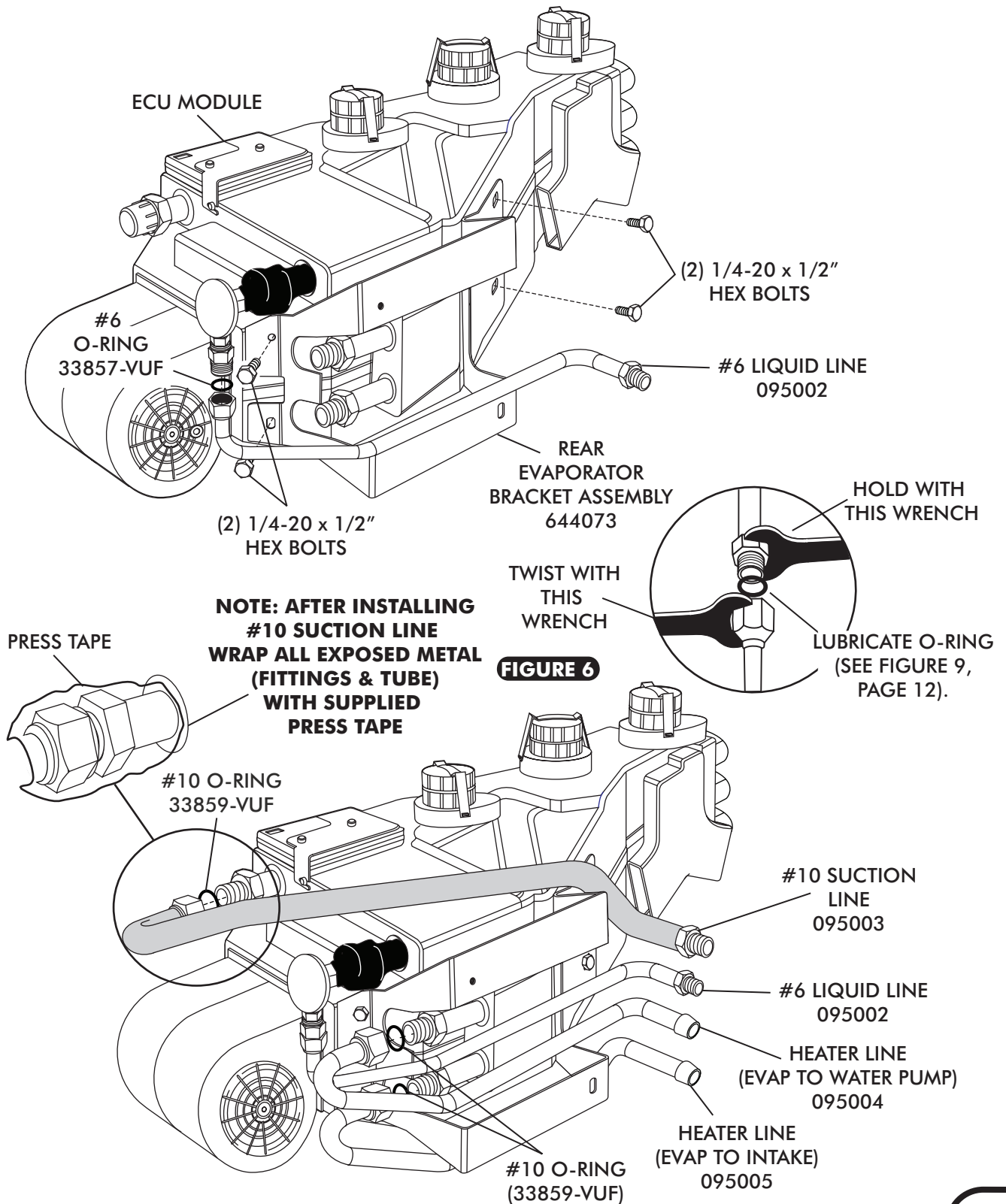


FIGURE 5



BRACKET & EVAPORATOR HARDLINE INSTALLATION CONT.





EVAPORATOR INSTALLATION

- LIFT EVAPORATOR UNIT UP UNDER THE DASHBOARD. SECURE LOOSELY TO THE FIREWALL USING (2) 1/4-20 x 1" HEX BOLTS, (2) FLAT WASHERS AND (2) 1/4" NUTS w/ STAR WASHERS. SEE FIGURE 7.
- **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, BLOCK THE UNIT UP, THEN DRILL FOR FRONT BRACKET SCREWS.**
- SECURE THE FRONT EVAPORATOR MOUNTING BRACKET TO COWL USING (2) #14 x 3/4" HEX SHEET METAL SCREWS. SEE FIGURE 7a, BELOW.
- VERIFY THAT EVAPORATOR UNIT IS LEVEL AND SQUARE TO THE DASH, THEN TIGHTEN ALL MOUNTING BOLTS. **NOTE: TIGHTEN THE BOLT ON FIREWALL FIRST, THEN THE FRONT MOUNTING BRACKET.**

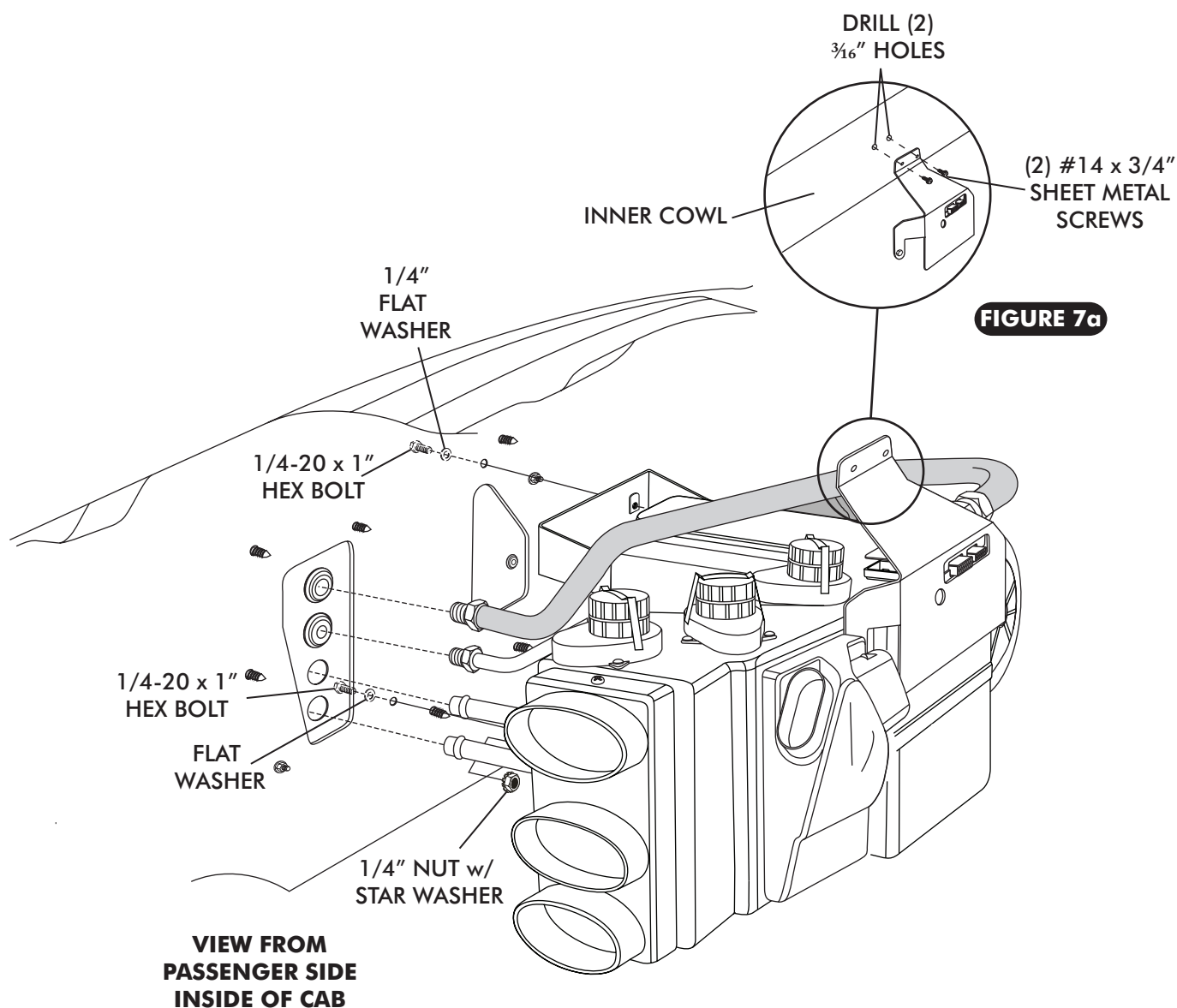


FIGURE 7a

FIGURE 7



DRAIN HOSE INSTALLATION

- ☐ LOCATE EVAPORATOR DRAIN ON BOTTOM OF EVAPORATOR CASE.
- ☐ IN LINE WITH DRAIN, LIGHTLY MAKE A MARK ON THE FIREWALL MEASURE 1" DOWN AND DRILL A 5/8" HOLE THROUGH THE FIREWALL.
- ☐ INSTALL DRAIN HOSE TO BOTTOM OF EVAPORATOR UNIT AND ROUTE THROUGH FIREWALL. INSTALL 1/2" 90° DRAIN ELBOW ON DRAIN HOSE.

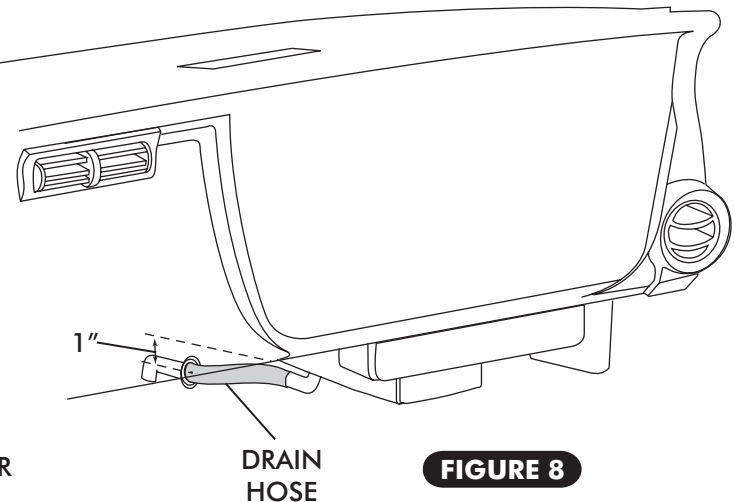
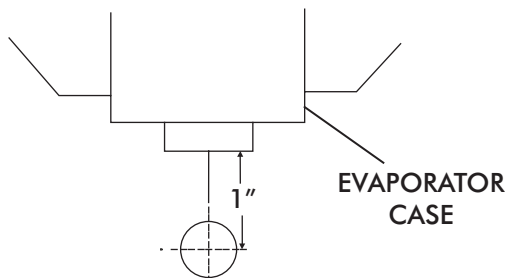


FIGURE 8

LUBRICATING O-RINGS

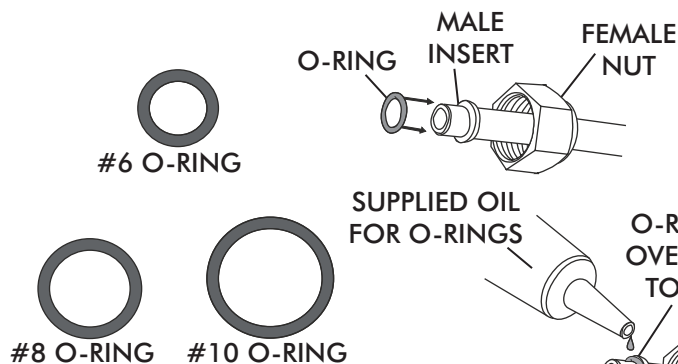
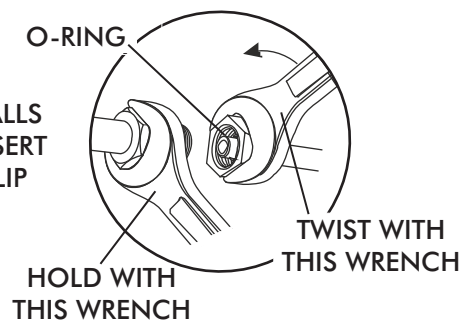


FIGURE 9

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



A/C HOSE INSTALLATION

STANDARD HOSE KIT

- ☐ LOCATE THE #8 COMPRESSOR A/C HOSE. LUBRICATE (2) #8 O-RINGS (SEE FIGURE 9, ABOVE) AND CONNECT THE 135° FEMALE FITTING w/134a SERVICE PORT TO THE #8 DISCHARGE PORT ON THE COMPRESSOR. ROUTE THE STRAIGHT FEMALE FITTING TO THE #8 CONDENSER HARDLINE COMING THROUGH CORE SUPPORT. SEE FIGURE 11, PAGE 14. TIGHTEN EACH FITTING CONNECTION AS SHOWN.
- ☐ LOCATE THE #10 COMPRESSOR A/C HOSE. LUBRICATE (2) #10 O-RINGS (SEE FIGURE 9, ABOVE) AND CONNECT THE #10 135° FEMALE FITTING w/134a SERVICE PORT TO THE #10 SUCTION PORT ON THE COMPRESSOR. ROUTE THE 90° FEMALE FITTING TO THE #10 EVAPORATOR. SEE FIGURE 10, PAGE 13, AND FIGURE 11, PAGE 14. TIGHTEN EACH FITTING CONNECTION AS SHOWN.
- ☐ LOCATE THE #6 EVAPORATOR A/C HOSE. LUBRICATE (2) #6 O-RINGS (SEE FIGURE 9, ABOVE) AND CONNECT THE STRAIGHT FEMALE FITTING TO THE #6 CONDENSER HARDLINE COMING THROUGH CORE SUPPORT. ROUTE THE 90° FEMALE FITTING TO THE #6 EVAPORATOR. SEE FIGURE 10, PAGE 13, AND FIGURE 11, PAGE 14. TIGHTEN EACH FITTING CONNECTION AS SHOWN.

MODIFIED A/C HOSE KIT

- ☐ REFER TO SEPARATE INSTRUCTIONS INCLUDED WITH MODIFIED HOSE KIT.



HEATER HOSE & HEATER CONTROL VALVE INSTALLATION

- ☐ ROUTE HEATER HOSE FROM WATER PUMP TO THE HEATER LINE COMING THROUGH THE FIREWALL AS SHOWN IN FIGURE 10, BELOW. SECURE USING HOSE CLAMPS. **NOTE: A SMALL AMOUNT OF SILICONE SPRAY WILL EASE HEATER HOSE INSTALLATION.**
- ☐ ROUTE HEATER HOSE FROM THE INTAKE TO THE HEATER LINE COMING THROUGH THE FIREWALL AS SHOWN BELOW. **NOTE: INSTALL HEATER CONTROL VALVE IN LINE WITH INTAKE MANIFOLD (PRESSURE SIDE) HEATER HOSE. SECURE USING HOSE CLAMPS AS SHOWN. NOTE PROPER FLOW DIRECTION.**
- ☐ HOSE SHOULD PROTRUDE THROUGH THE FIREWALL COVER SLIGHTLY TO CLOSE THE GAP BETWEEN THE ALUMINUM LINE AND THE FIREWALL COVER. SEAL ANY REMAINING GAP WITH RTV SILICONE.

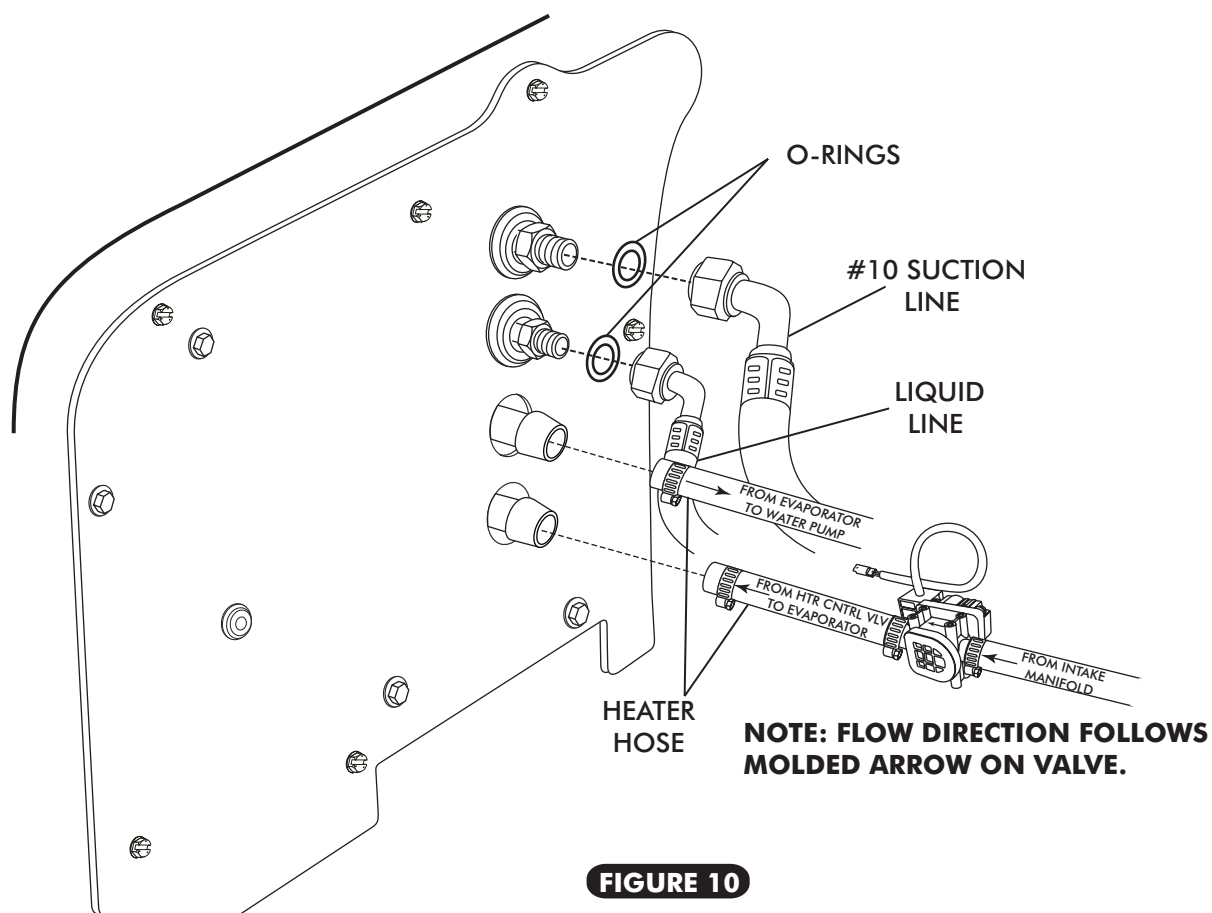
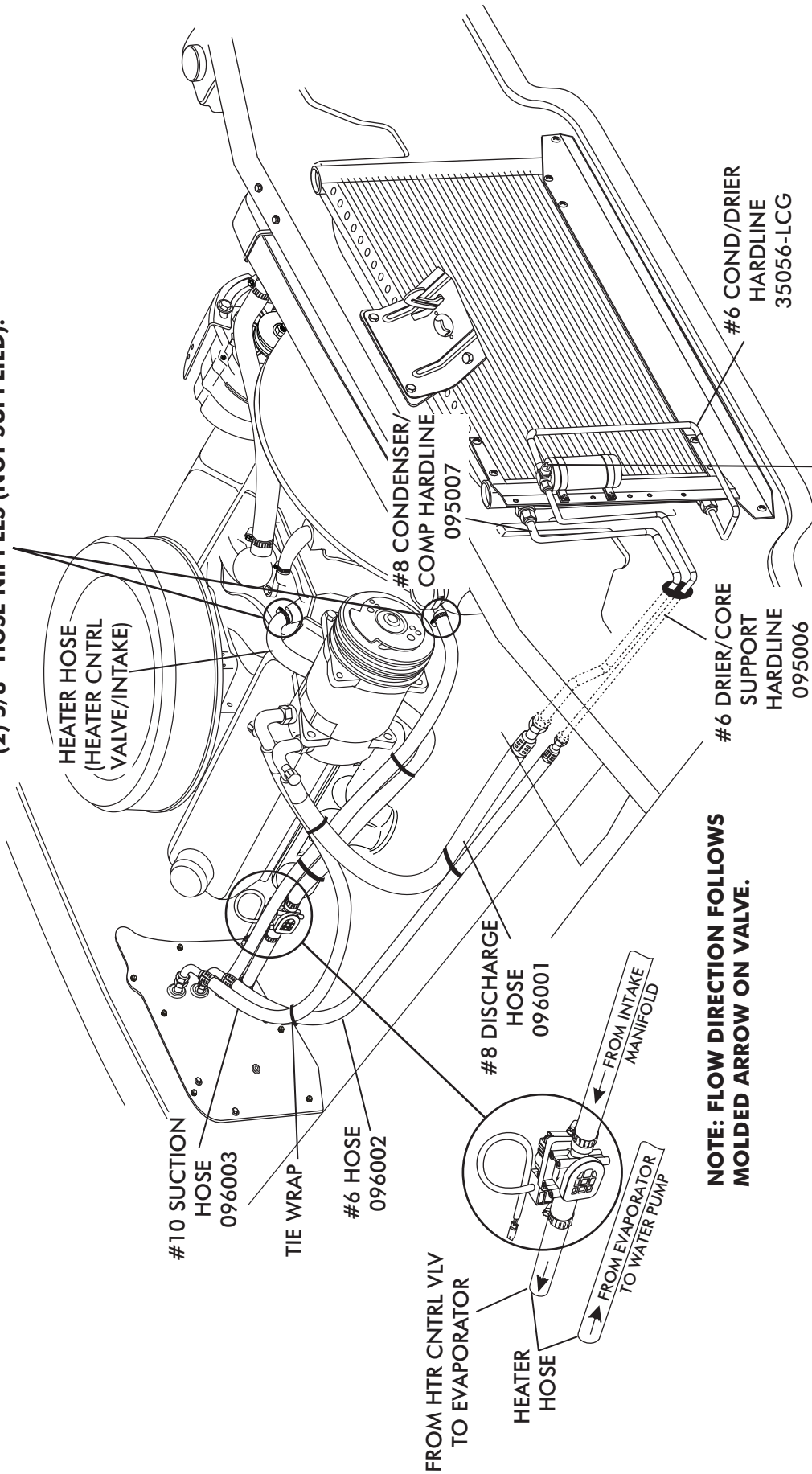


FIGURE 10



A/C & HEATER HOSE ROUTING

**NOTE: VINTAGE AIR SYSTEMS REQUIRE
(2) 5/8" HOSE NIPPLES (NOT SUPPLIED).**



**NOTE: FLOW DIRECTION FOLLOWS
MOLDED ARROW ON VALVE.**

FIGURE 11



FINAL STEPS

- ☐ INSTALL DUCT HOSES AS SHOWN IN FIGURE 13, PAGE 16.
- ☐ ROUTE A/C WIRES THROUGH 3/8" GROMMET AS SHOWN IN FIGURE 12 (12 VOLT/GROUND/BINARY SWITCH/HEATER VALVE).
- ☐ INSTALL CONTROL PANEL ASSEMBLY.
- ☐ PLUG THE WIRING HARNESS IN THE ECU MODULE ON SUB CASE AS SHOWN IN FIGURE 13, PAGE 16 (WIRE ACCORDING TO WIRING DIAGRAM ON PAGE 17 AND 18).
- ☐ INSTALL NEW GLOVE BOX USING OEM SCREWS (SEE FIGURE 12a).
- ☐ INSTALL GLOVE BOX DOOR.
- ☐ REINSTALL ALL PREVIOUSLY REMOVED ITEMS, INNER FENDER.
- ☐ 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.
- ☐ DOUBLE CHECK ALL FITTINGS, BRACKETS AND BELTS FOR TIGHTNESS.
- ☐ VINTAGE AIR RECOMMENDS THAT ALL A/C SYSTEMS BE SERVICED BY A CERTIFIED AUTOMOTIVE AIR CONDITIONING TECHNICIAN.
- ☐ EVACUATE THE SYSTEM FOR A MINIMUM OF 45 MINUTES PRIOR TO CHARGING, AND LEAK CHECK PRIOR TO SERVICING.
- ☐ CHARGE THE SYSTEM TO THE CAPACITIES STATED ON THE INFORMATION PAGE (PAGE 4) OF THIS INSTRUCTION MANUAL.
- ☐ SEE OPERATION OF CONTROLS PROCEDURES PAGE 19.

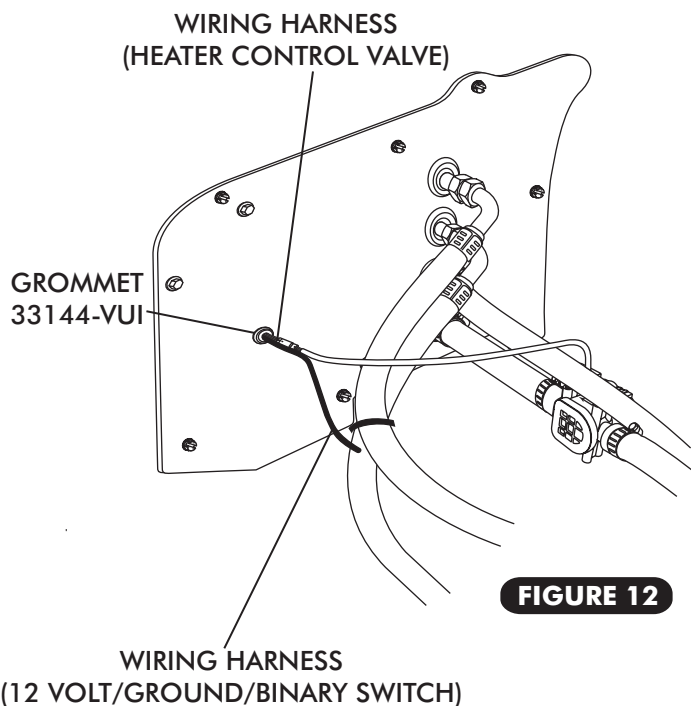
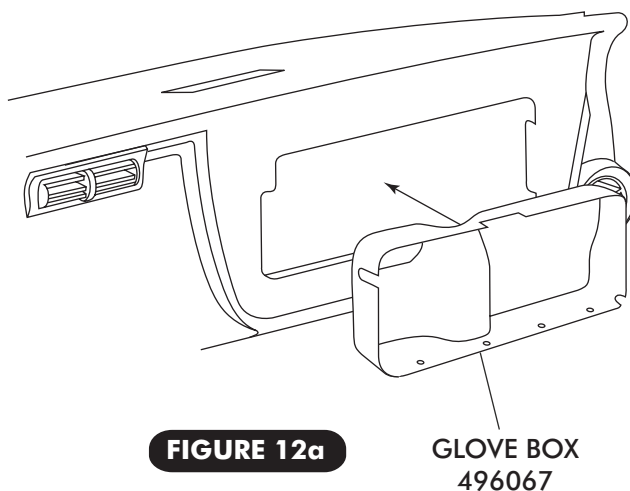


FIGURE 12





CONTROL PANEL & DUCT HOSE ROUTING

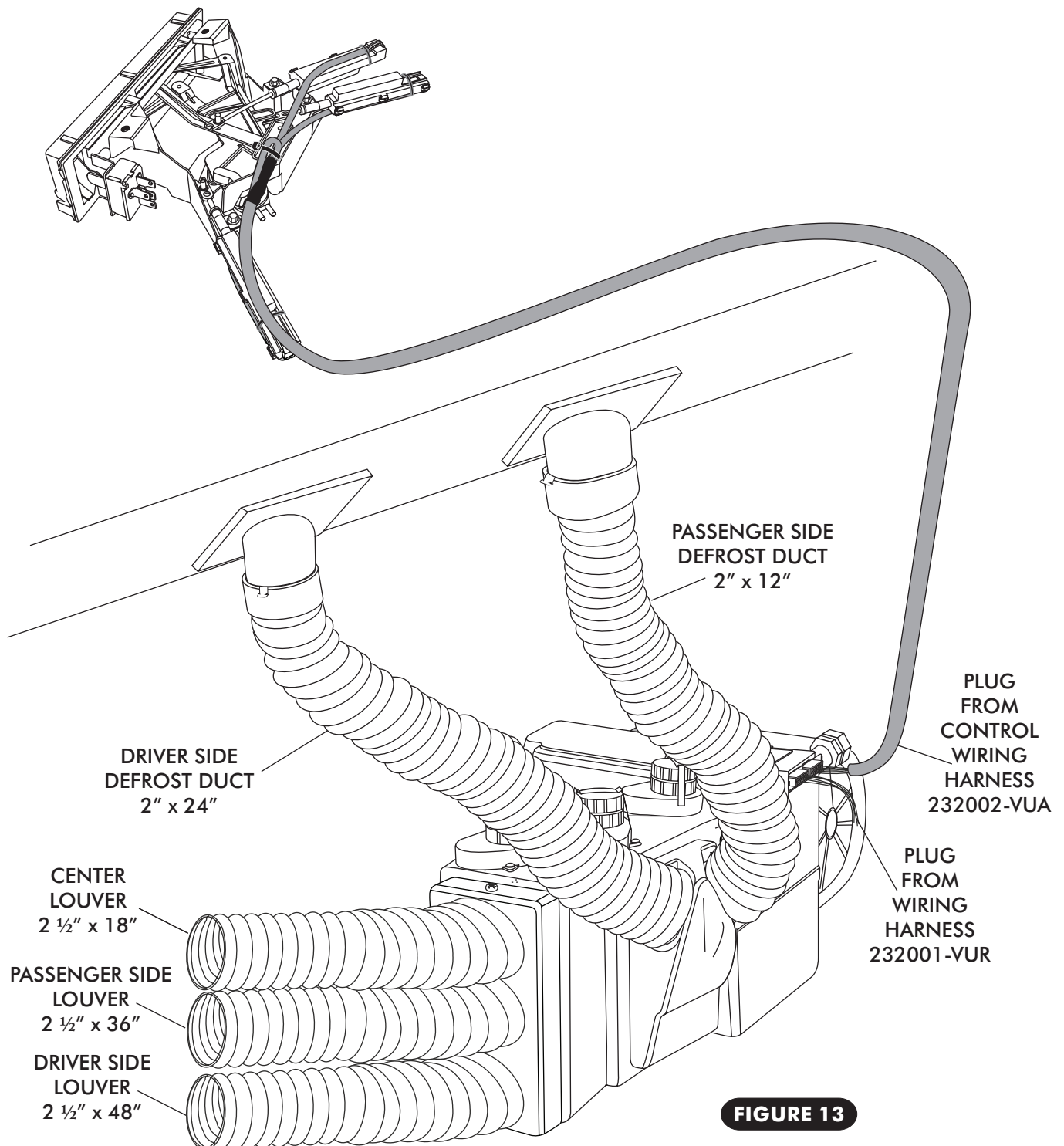
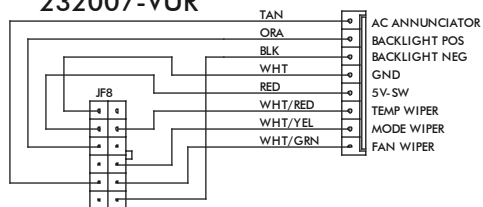


FIGURE 13



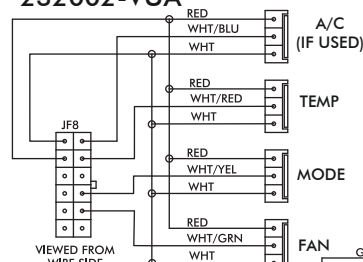
Wiring Diagram

232007-VUR



VIEWED FROM WIRE SIDE

232002-VUA



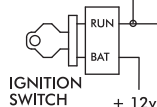
VIEWED FROM WIRE SIDE

PROGRAM

* DASH LAMP (IF USED)

*** WIDE OPEN THROTTLE SWITCH (OPTIONAL)

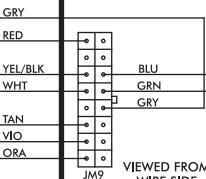
WHT



IGNITION SWITCH + 12v

GEN IV ECU

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

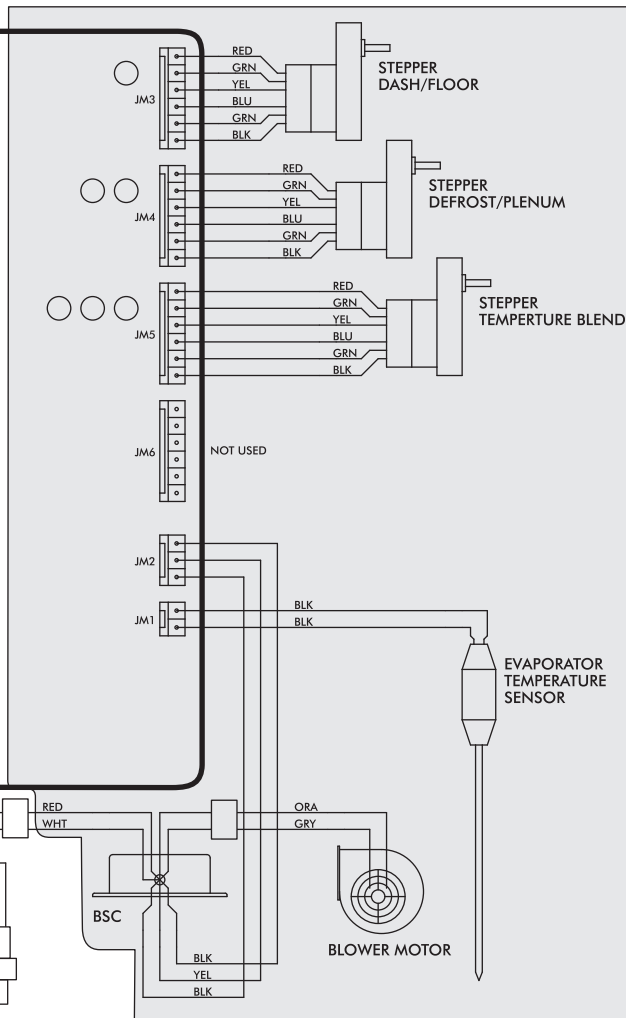


VIEWED FROM WIRE SIDE



VIEWED FROM WIRE SIDE

PRE-WIRED



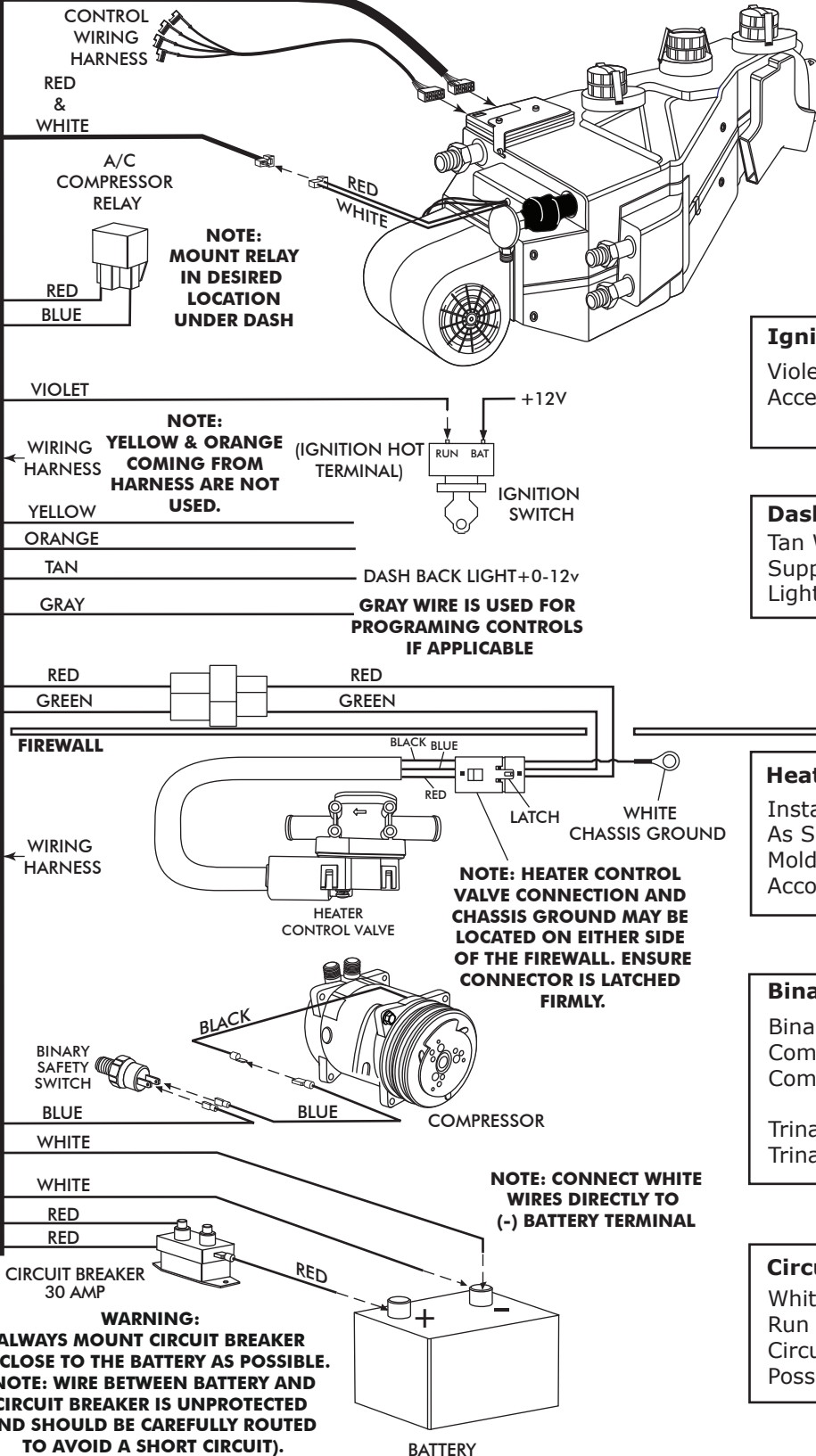
NOTE: = CHASSIS GROUND

- Dash Lamp Is Used Only With Type 232007-VUR Harness.
- Warning: Always Mount Circuit Breaker As Close to the Battery As Possible. (NOTE: Wire Between Battery and Circuit Breaker Is Unprotected and Should Be Carefully Routed to Avoid a Short Circuit).
- Wide Open Throttle Switch Contacts Close Only at Full Throttle, Which Disables A/C Compressor.



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.



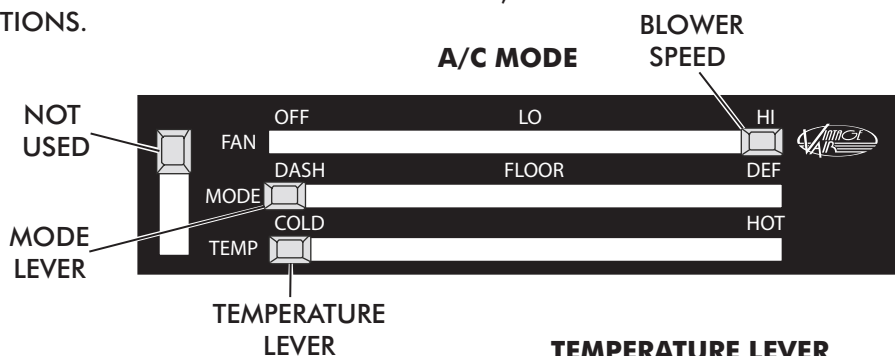
OPERATION OF CONTROLS

NOTE: CONTROLS MUST BE CALIBRATED FOR PROPER OPERATION. SEE CALIBRATION INSTRUCTIONS INCLUDED WITH CONTROLS KIT FOR CALIBRATION PROCEDURE.

THE TEMPERATURE LEVER TOGGLES BETWEEN A/C AND HEAT MODES. FOR A/C MODE SLIDE THE TEMPERATURE LEVER ALL THE WAY LEFT TO ENGAGE THE COMPRESSOR, THEN MOVE THE LEVER TO SELECT THE DESIRED TEMPERATURE. FOR HEAT MODE SLIDE THE LEVER RIGHT TO DISENGAGE THE COMPRESSOR, THEN MOVE THE LEVER TO SELECT DESIRED TEMPERATURE.

NOTE: EACH TIME THE SYSTEM TOGGLES BETWEEN MODES, THE BLOWER WILL MOMENTARILY CHANGE SPEEDS.

ALL SWITCHES ARE VARIABLE BETWEEN POSITIONS, SYSTEM WILL PERFORM A BLEND BETWEEN THE FUNCTIONS.

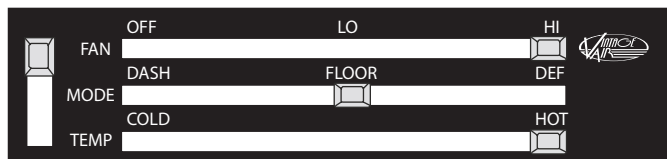


BLOWER SPEED
ADJUST TO DESIRED
SPEED

MODE LEVER
SLIDE THE LEVER TO
THE LEFT POSITION

TEMPERATURE LEVER
IN A/C MODE SLIDE THE
TEMPERATURE LEVER ALL
THE WAY TO THE LEFT
TO ENGAGE COMPRESSOR.
(SLIDE LEVER LEFT OR RIGHT
TO ADJUST DESIRED
TEMPERATURE)

HEAT MODE



BLOWER SPEED
ADJUST TO DESIRED
SPEED

MODE LEVER
SLIDE THE LEVER TO
THE CENTER POSITION

TEMPERATURE LEVER
SLIDE THE TEMPERATURE
LEVER ALL THE WAY RIGHT
TO THE HOT POSITION.
(SLIDE LEVER LEFT OR RIGHT
TO DESIRED TEMPERATURE)

DEFROST/DE-FOG MODE



BLOWER SPEED
ADJUST TO DESIRED
SPEED

MODE LEVER
SLIDE THE LEVER TO
THE RIGHT POSITION

TEMPERATURE LEVER
ADJUST LEVER TO
DESIRED TEMPERATURE.
(COMPRESSOR IS
AUTOMATICALLY
ENGAGED)



Troubleshooting Guide

Symptom	Condition	Checks	Actions	Notes
1a.	Blower stays on high speed when ignition is on.	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. See blower switch check procedure.
		Check for damaged ground wire (white) in control head harness.	Verify continuity to chassis ground with white control head wire at various points.	
1b.	Blower stays on high speed when ignition is on or off.	Check for damaged blower switch or potentiometer and associated wiring.		
		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.	
2.	Compressor will not turn on (All other functions work).	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.	No other part replacements should be necessary.
		System is not charged.	Replace BSC (This will require removal of evaporator from vehicle).	
3.	Compressor will not turn off (All other functions work).	System must be charged for compressor to engage.	Charge system or bypass pressure switch.	Danger: Never bypass safety switch with engine running. Serious injury can result. 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. Disconnected or faulty thermistor will cause compressor to be disabled.
		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.	
3.	Compressor will not turn off (All other functions work).	Check for disconnected or faulty thermistor.	Check 2-pin connector at ECU housing.	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 potentiometer or associated wiring.	Repair or replace pot/control wiring.	
3.	Compressor will not turn off (All other functions work).	Check for faulty A/C relay.	Replace relay.	



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.	Verify connections on power lead, ignition lead, and both white ground wires.	
		Verify battery voltage is greater than 10 volts and less than 16.	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.	
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.	
7.	Erratic functions of blower, mode, temp, etc.	Check for damaged switch or pot and associated wiring.	Ensure all system grounds and power connections are clean and tight.	
			Charge battery.	
			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.	



EVAPORATOR KIT PACKING LIST

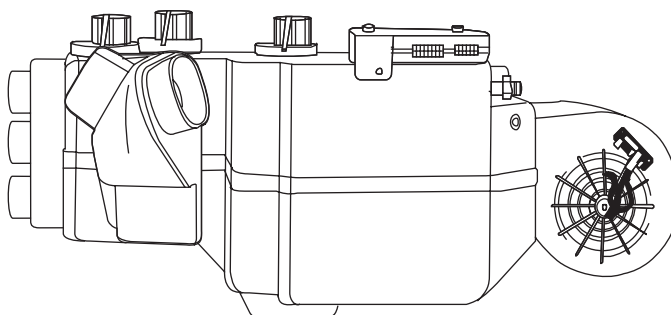
EVAPORATOR KIT
754170

No.	QTY.	PART No.	DESCRIPTION
1.	1	744005	GEN IV 3-VENT EVAP SUB CASE w/ 204 ECU
2.	1	794170	ACCESSORY KIT 1967-72 CHEVROLET PICKUP with A/C

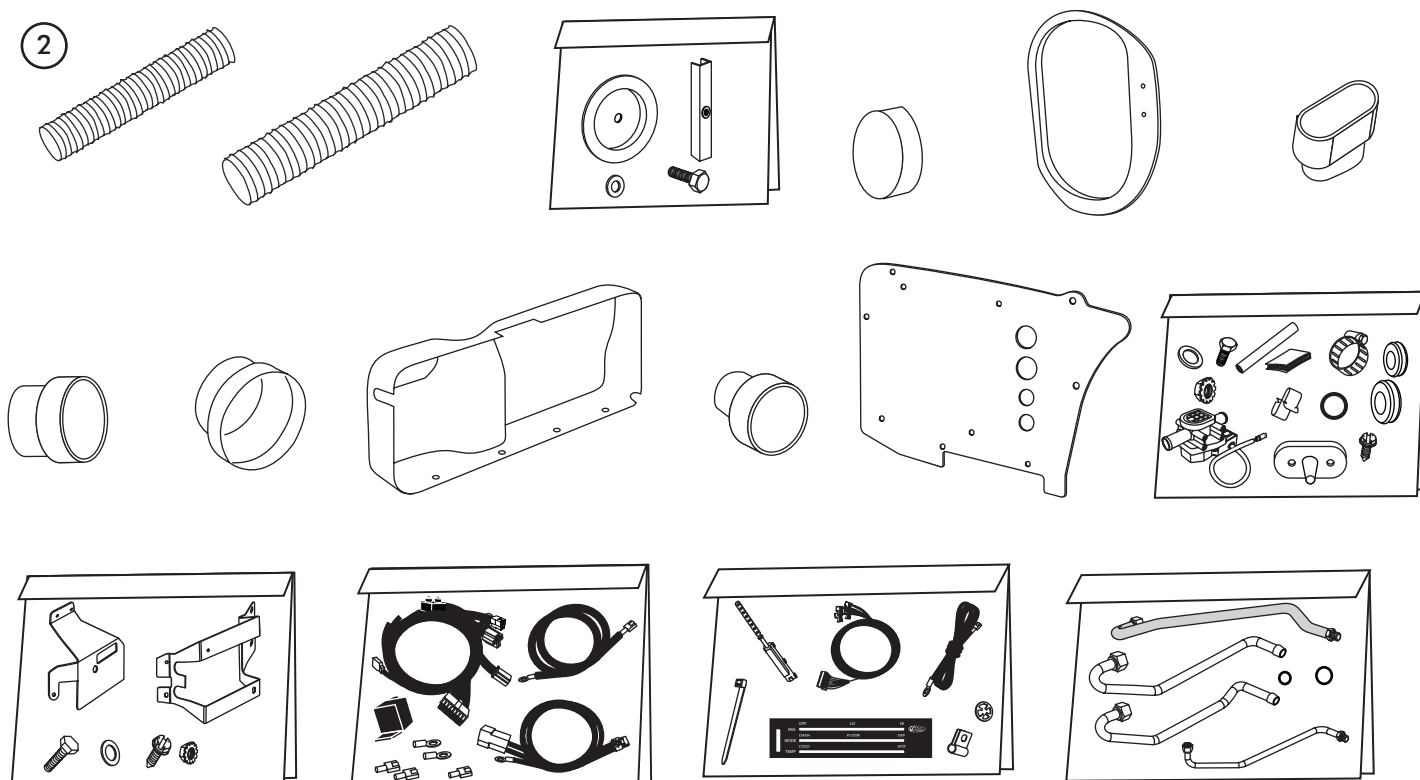
CHECK BY: _____
PACKED BY: _____
DATE: _____

①

**GEN IV 3-VENT
EVAP SUB CASE
w/ 204 ECU
744005**



②



**ACCESSORY KIT
794170**

**NOTE: IMAGES MAY NOT DEPICT ACTUAL PARTS AND QUANTITIES.
REFER TO PACKING LIST FOR ACTUAL PARTS AND QUANTITIES.**