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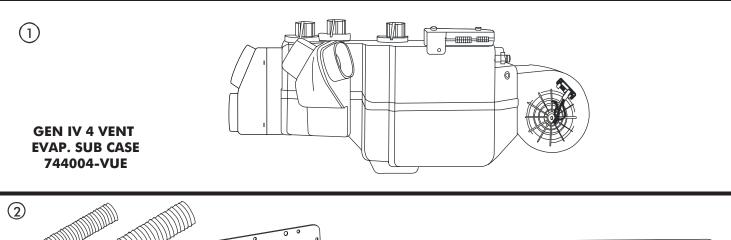


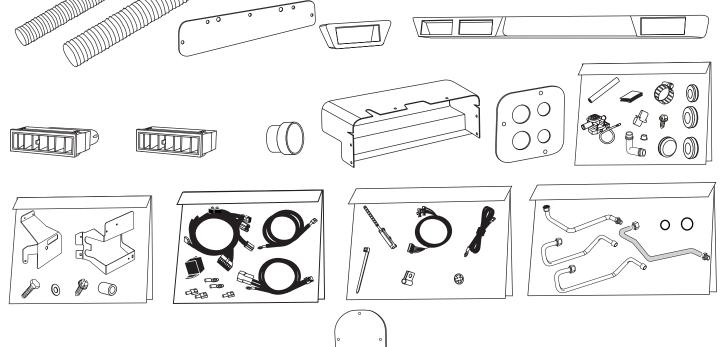
EVAPORATOR KIT 751164

EVAPORATOR KIT PACKING LIST

NO.	QTY.	PART NO.	DESCRIPTION
1.	1	744004-VUE	GEN IV 4 VENT EVAPORATOR SUB CASE
2.	1	791164	ACCESSORY KIT 64-66 CHEV P-UP wo AC w/ DELUXE

** 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.





ACCESSORY KIT NOTE: IMAGES MAY NOT DEPICT ACTUAL PARTS AND QUANTITIES. **REFER TO PACKING LIST FOR ACTUAL PARTS AND QUANTITIES.** 791164



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 <u>under pressure with dry nitrogen</u>. 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 \underline{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.

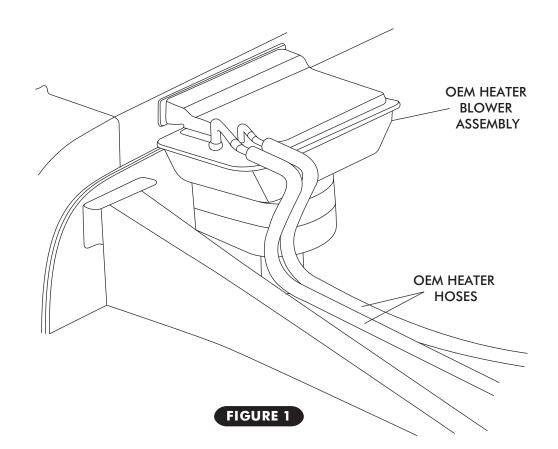


BEFORE STARTING THE INSTALLATION, CHECK THE FUNCTION OF THE VEHICLE (HORN, LIGHTS, ETC.) FOR PROPER OPERATIONS. STUDY THE INSTRUCTIONS, ILLUSTRATIONS, & DIAGRAMS.

ENGINE COMPARTMENT

REMOVE THE FOLLOWING

- □ DISCONNECT BATTERY.
- □ DRAIN RADIATOR, REMOVE RADIATOR (RETAIN).
- □ HEATER BLOWER ASSEMBLY AND OEM HEATER HOSES (DISCARD).



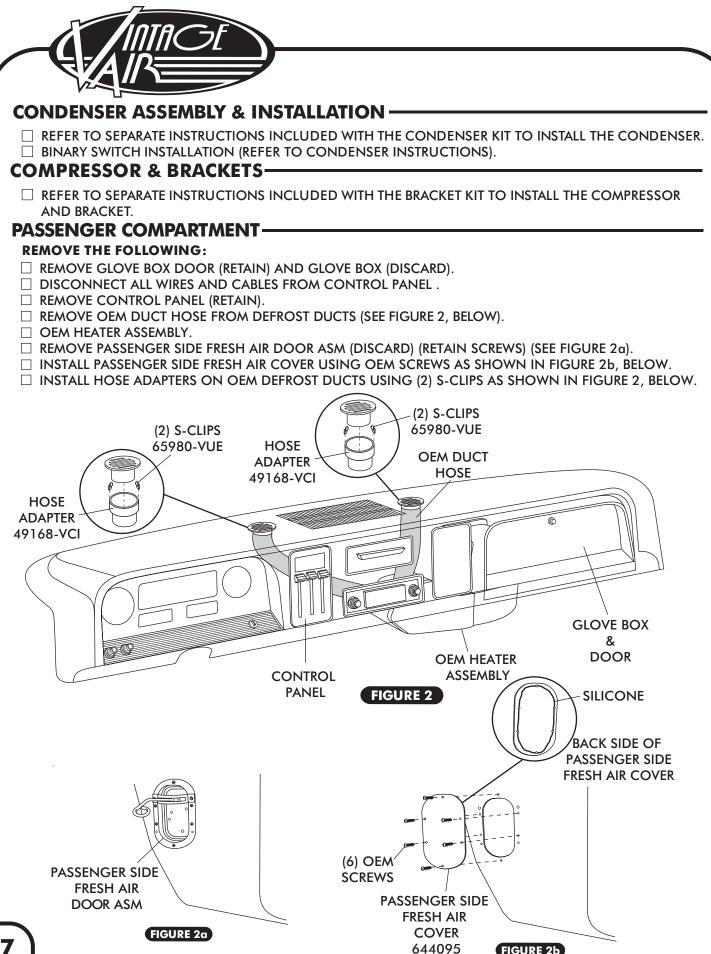
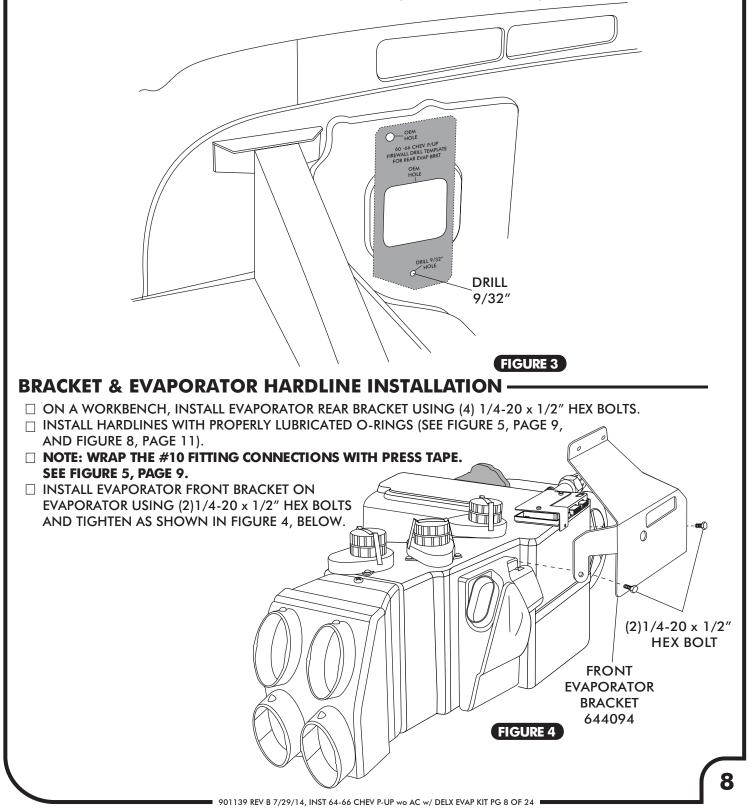


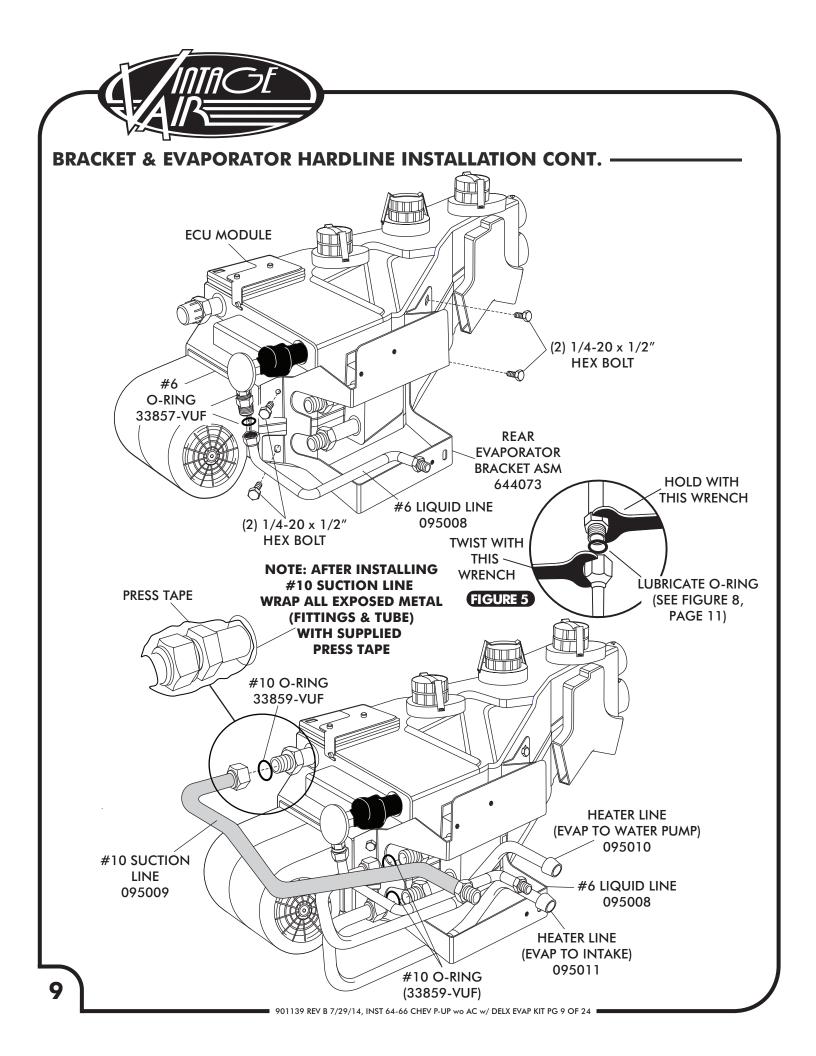
FIGURE 2b



FIREWALL MODIFICATION

□ USING TEMPLATE PROVIDED ON PAGE 23, ALIGN TEMPLATE ON ENGINE SIDE OF FIREWALL WITH OEM HOLES AND MARK AND DRILL 9/32" HOLE IN FIREWALL (SEE FIGURE 3, BELOW).

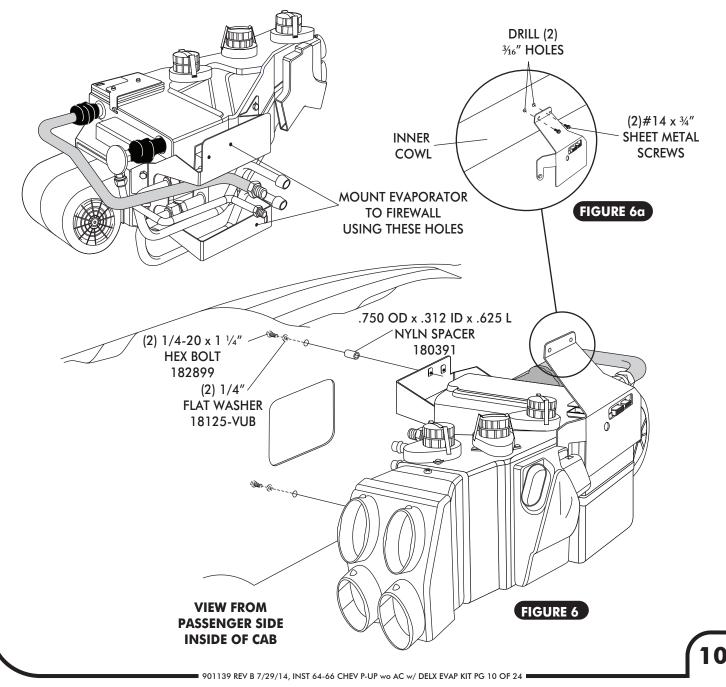






EVAPORATOR INSTALLATION

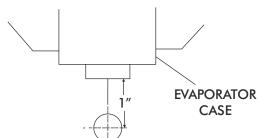
- □ LIFT EVAPORATOR UNIT UP UNDER THE DASHBOARD. SECURE LOOSELY TO THE FIREWALL USING (2) 1/4-20 x 1 ¼" HEX BOLTS, (2) FLAT WASHERS. SEE FIGURE 6.
- □ NOTE: TO ENSURE PROPER DRAINAGE, IT IS VERY IMPORTANT THAT THE EVAPORATOR IS LEVEL, BOTH LEFT-RIGHT AND FORE-AFT. CHECK FOR LEVEL ON THE FLAT PORTIONS 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 6a, 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.





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.



DRAIN FIGURE 7

HOSE

LUBRICATING O-RINGS

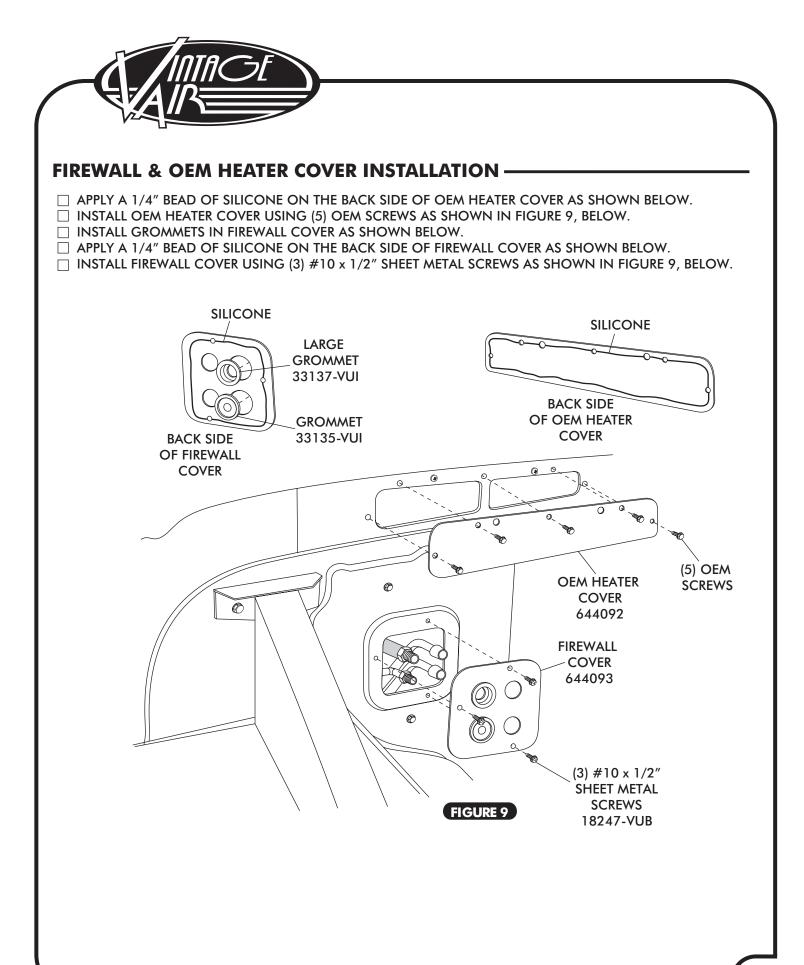
(OIL SUPPLIED WITH HOSE KIT) MALE FOR A PROPER SEAL OF FITTINGS: FEMALE INSTALL SUPPLIED O-RINGS AS SHOWN INSERT O-RING NUT AND LUBRICATE WITH SUPPLIED OIL. O-RING #6 O-RING SUPPLIED OIL FOR O-RINGS O-RING, INSTALLS OVER MALE INSERT TO SWAGED LIP TWIST WITH #80-RING #10 O-RING THIS WRENCH FIGURE 8 HOLD WITH THIS WRENCH

A/C HOSE INSTALLATION STANDARD HOSE KIT

- □ LOCATE THE #8 COMPRESSOR A/C HOSE. LUBRICATE (2) #8 O-RINGS (SEE FIGURE 8, ABOVE) AND CONNECT THE 135° FEMALE FITTING TO THE #8 DISCHARGE PORT ON THE COMPRESSOR. ROUTE THE STRAIGHT FEMALE FITTING w/ 134a SERVICE PORT TO THE #8 CONDENSER HARDLINE COMING THROUGH CORE SUPPORT. SEE FIGURE 11, PAGE 14. TIGHTEN EACH FITTING CONNECTION AS SHOWN IN FIGURE 8, ABOVE.
- □ LOCATE THE #10 COMPRESSOR A/C HOSE. LUBRICATE (2) #10 O-RINGS (SEE FIGURE 8, ABOVE) AND CONNECT THE #10 135° FEMALE FITTING w/134α SERVICE PORT TO THE #10 SUCTION PORT ON THE COMPRESSOR. ROUTE THE 45° FEMALE FITTING TO THE #10 EVAPORATOR. SEE FIGURE 10, PAGE 13 AND FIGURE 11, PAGE 14. TIGHTEN EACH FITTING CONNECTION AS SHOWN IN FIGURE 8, ABOVE.
- □ LOCATE THE #6 EVAPORATOR/ DRIER HARDLINE. LUBRICATE (2) #6 O-RINGS (SEE FIGURE 8, ABOVE) AND CONNECT THE HARDLINE TO THE #6 DRIER HARDLINE COMING THROUGH CORE SUPPORT. ATTACH THE OTHER END OF THE HARDLINE TO THE #6 EVAPORATOR. HARDLINE COMING THROUGH THE FIREWALL. SEE FIGURE 10, PAGE 13, AND FIGURE 11, PAGE 14. TIGHTEN EACH FITTING CONNECTION AS SHOWN IN FIGURE 8, ABOVE.

MODIFIED A/C HOSE KIT

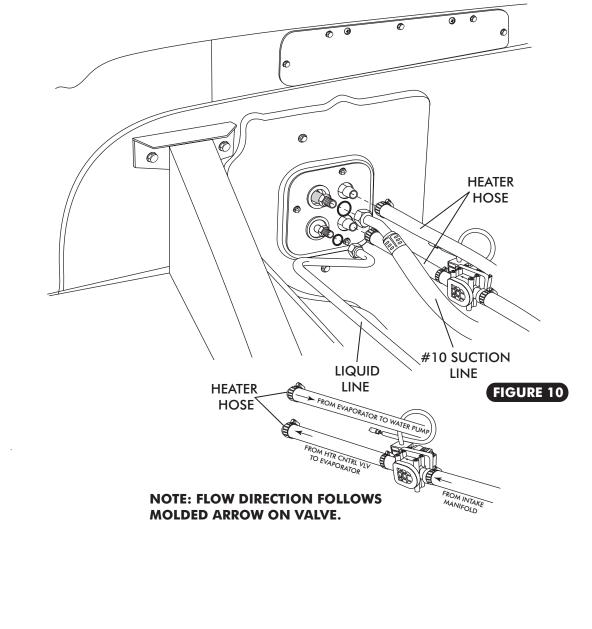
□ REFER TO SEPARATE INSTRUCTIONS INCLUDED WITH MODIFIED HOSE KIT.

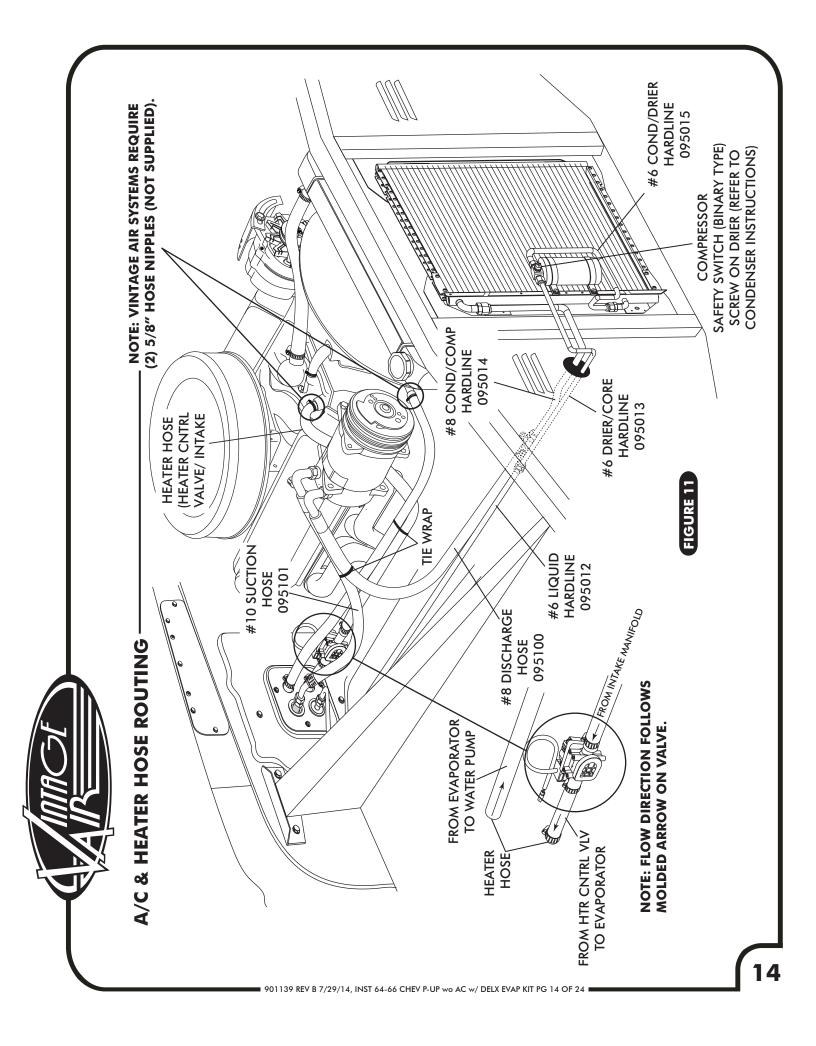




HEATER HOSE & HEATER CONTROL VALVE INSTALLATION -

- □ 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.

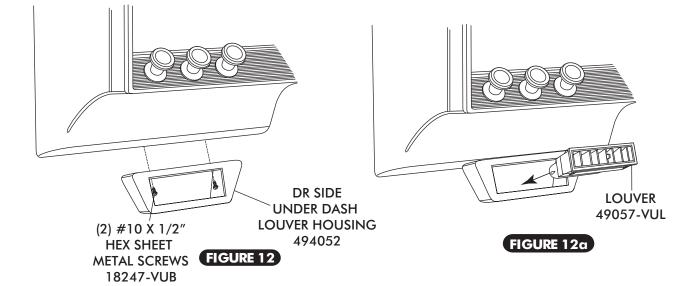






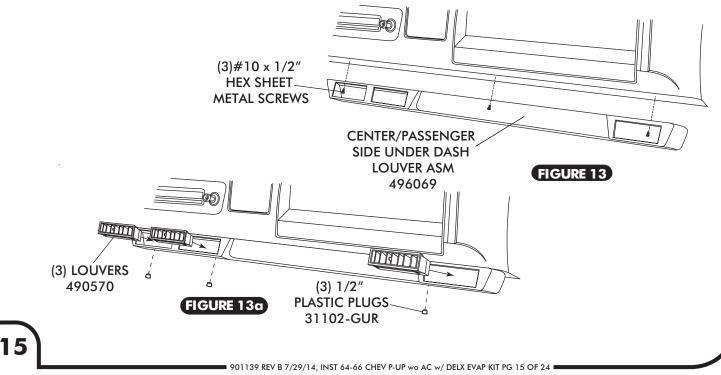
DRIVER SIDE UNDER DASH LOUVER INSTALLATION -

- □ LOCATE DRIVER SIDE LOUVER HOUSING UNDER DASH AND DRILL (2) 1/8" HOLES.
- □ SECURE LOUVER HOUSING TO DASH USING (2) #10 x 1/2" HEX SHEET METAL SCREWS AS SHOWN IN FIGURE 12, BELOW.
- \hfill INSTALL LOUVER IN UNDER DASH HOUSING AS SHOWN IN FIGURE $12\alpha.$



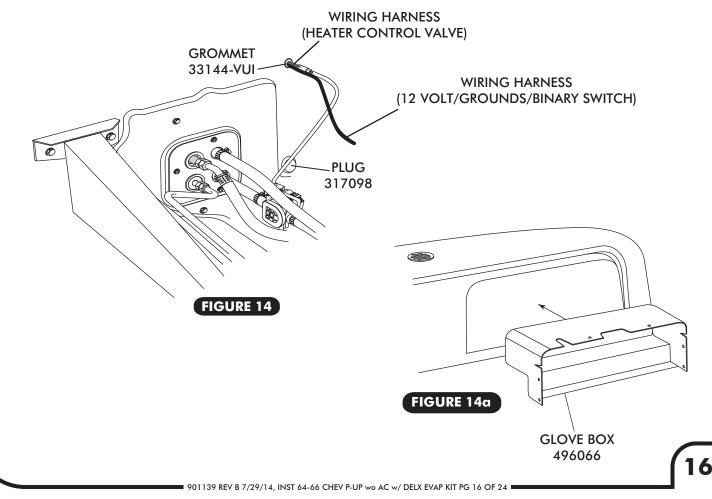
CENTER/PASSENGER SIDE UNDER DASH LOUVER INSTALLATION

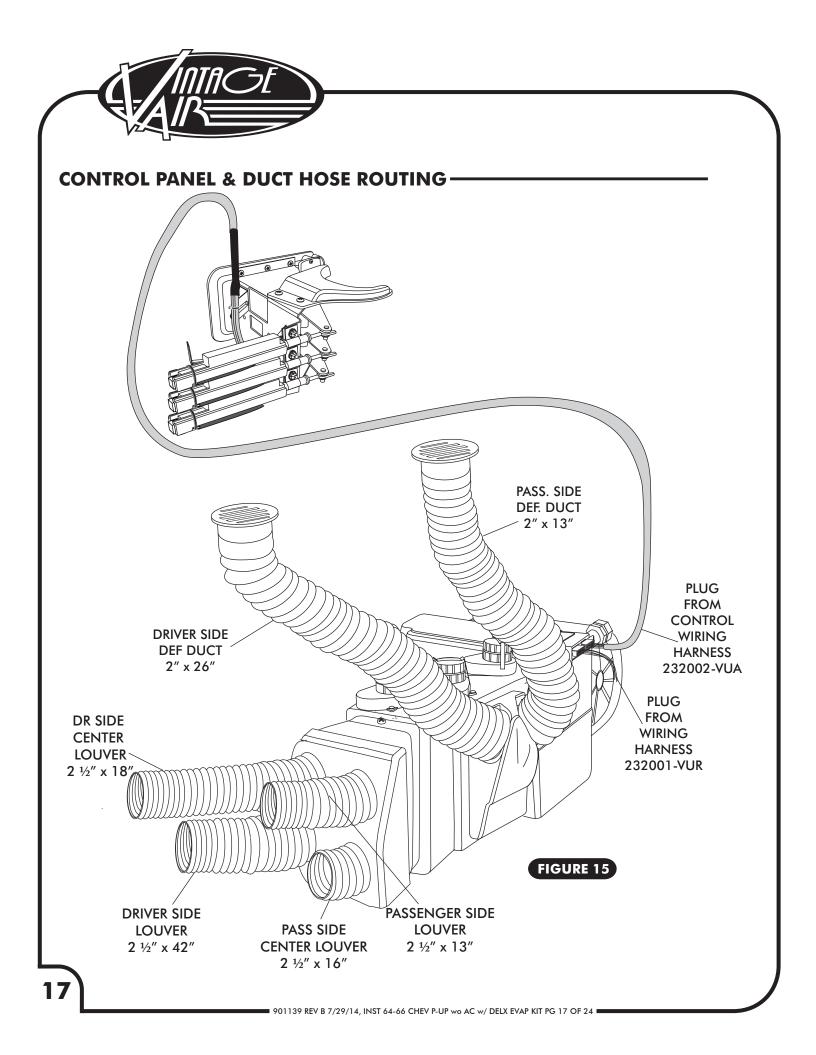
- □ LOCATE CENTER/PASSENGER SIDE LOUVER ASM UNDER DASH AND DRILL (3) 1/8" HOLES.
- □ SECURE LOUVER ASM UNDER DASH USING (3) #10 x 1/2" HEX SHEET METAL SCREWS AS SHOWN IN FIGURE 13, BELOW.
- □ INSTALL LOUVERS IN CENTER/PASSENGER SIDE UNDER DASH LOUVER ASM AS SHOWN IN FIGURE 13a.
- □ INSTALL (3) 1/2" PLASTIC PLUG AS SHOWN BELOW.





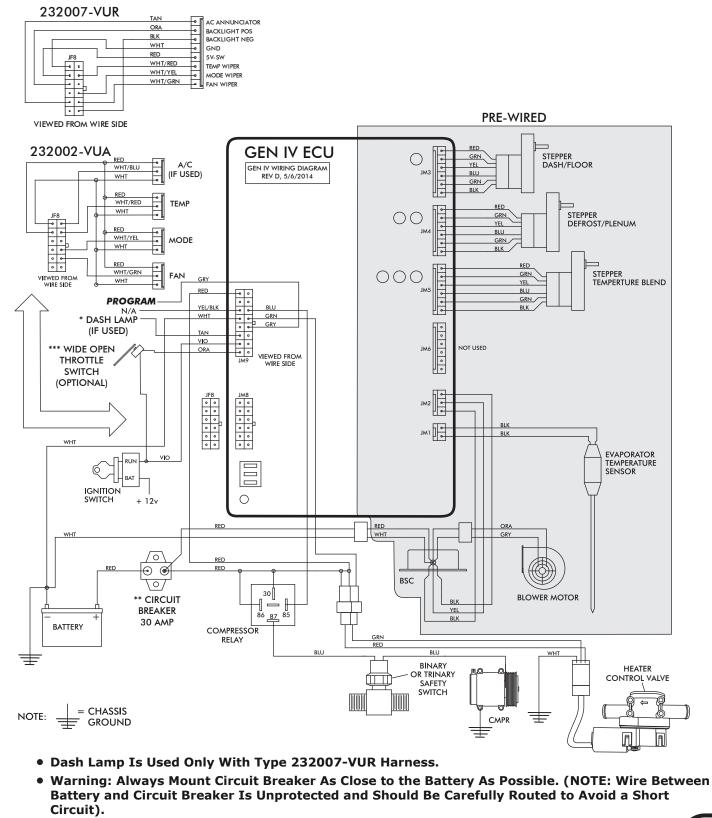
- ROUTE A/C WIRES THROUGH 3/8" GROMMET AS SHOWN IN FIGURE 14 (12 VOLT/GROUND/BINARY SWITCH/HEATER VALVE).
- ☐ INSTALL CONTROL PANEL ASM.
- PLUG THE WIRING HARNESS INTO THE ECU MODULE ON SUB CASE AS SHOWN IN FIGURE 15, PAGE 17 (WIRE ACCORDING TO WIRING DIAGRAM ON PAGE 18 AND 19).
- □ INSTALL NEW GLOVE BOX USING OEM SCREWS (SEE FIGURE 14α).
- □ 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 AC 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 20.



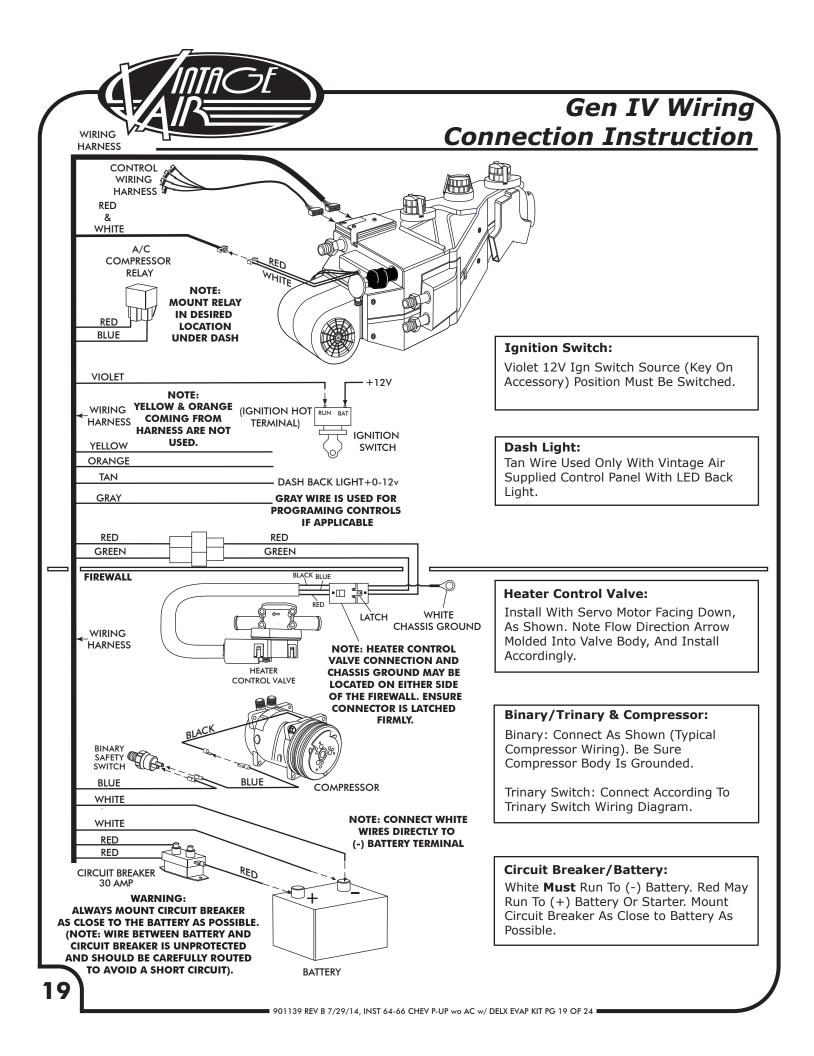




Wiring Diagram



• Wide Open Throttle Switch Contacts Close Only at Full Throttle, Which Disables A/C Compressor.





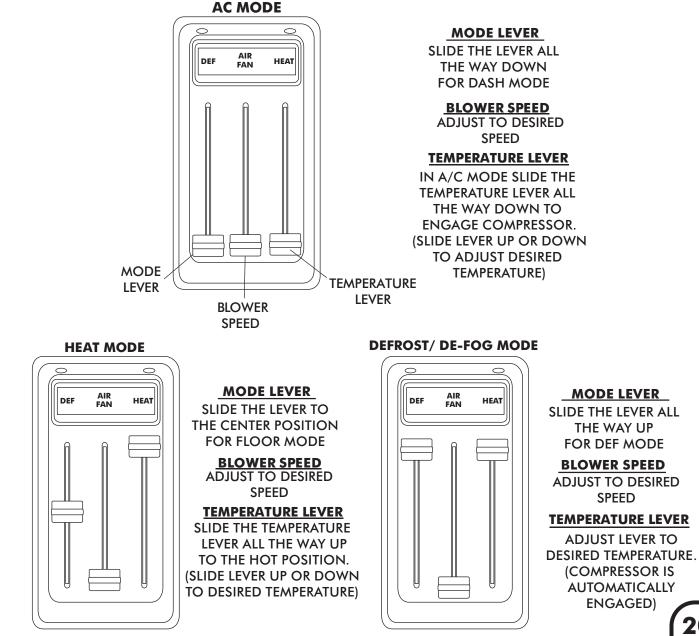
OPERATION OF CONTROLS -

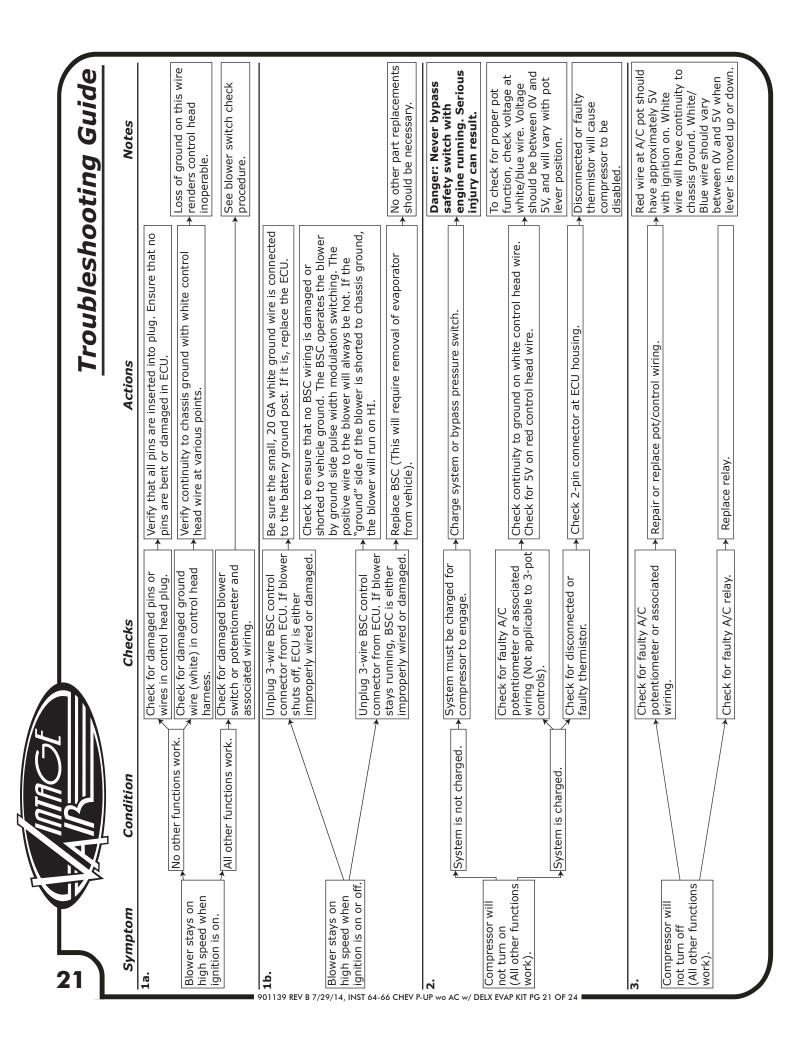
NOTE: CONTROLS MUST BE CALIBRATED FOR PROPER OPERATION.

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





Synthom Condition Checks Actions Actions Actions Motor 4. Animal constraints More when engines and regimes is started of when engines and provinces when and provinces when engines and provinces when engines and provinces when and provinces when engines and provinces when and provinces and and provinces when and provinces when and province	,			Troubleshooting Guide (Cont.	<u>ide (Cont.)</u>
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Versions). Versions). <td>4</td> <td>Works when engine is not running; shuts off when engine is started (Typically early Gen IV, but possible on all</td> <td>Noise interference from either ignition or alternator.</td> <td></td> <td>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</td>	4	Works when engine is not running; shuts off when engine is started (Typically early Gen IV, but possible on all	Noise interference from either ignition or alternator.		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
Will not turn on under any conditions. Weify battery voltage is verify battery voltage is and less a lan condition by checking the condition of then it. Weify battery voltage is verify battery voltage is and less a lan condition by checking the condition of then it. • Monode dom • Monode change at all. • No mode change at all. • Seconded wing. • Check for damaged mode • Seconded on • Check for obstructed on • Description of mode • Check for obstructed on • Description • Description	System will not turn on, or runs intermittentlv.	versions).	Verify connections on power lead, ignition lead, and both	Check for positive power at heater valve green wire and blower red wire. Check for ground on control head white wire.	greater than 16V will shut down the ECU. Install a radio capacitor at the positive post of the ignition
• Theck for damaged mode doors. oss of mode door Switch or potentiometer and class of mode change at all. Switch or potentiometer and class of mode doors. oss of mode door Pertial function of mode Description of class of mode doors. Class of mode doors. unction. Pertial function of mode Dinding mode doors. Enservice of the class of mode doors. Enservice of the class of the clas of the class of the class of the class of t		Will not turn on under any conditions.	d less		coil (See radio capacitor installation bulletin). A faulty alternator or worn out battery can also result in this condition.
Partial function of mode Dinding outpervection Partial function of mode Check for damaged stepper doors. Eattery voltage is at least Battery voltage is at least Check for at least 12V at clean and tight. Bower turns on ind off rapidly. Battery voltage is at least Bower turns on or inting. Ensure all system grounds and power connections are clean and tight. Bower turns on ind off rapidly. Battery voltage is less Check for damaged switch or trans on indo. Check for damaged switch or elean and tight. Check for damaged switch or entaged switch or replace. entage Post and associated wiring. entage Post and associated wiring. entage System has been reset. Be nomentarily solution is with the switch on a write is pulled source. Also, if the system with the switch in system is pulled source. Also, if the system will reset.	5. Loss of mode door function.				Typically caused by evaporator housing installed in a bind in the vehicle. Be sure all
• Battery voltage is at least lower turns on ind off rapidly. Battery voltage is at least lower turns on ind off rapidly. Ensure all system grounds and power connections are circuit breaker. Slower turns on ind off rapidly. Altery voltage is less (than 12V.) Check for faulty battery or circuit breaker. Check for faulty battery or circuit breaker. • Check for faulty battery or than 12V. Check for faulty battery or circuit breaker. Charge battery. • Check for damaged switch or emp. etc. Plean or replace. Check for damaged switch or pot and associated wiring. Repair or replace. • Check for solution is onneentarily on momentarily once son; then which for solution. Initiator that the system has been reset. Be solution the system is pulled below 7V for even a split second, the system will reset.		Partial function of mode doors.			<pre>women = productions line up mounting locations line up and don't have to be forced into position.</pre>
Indext turns on a off rapidly.		Battery voltage is at least	Check for at circuit breake	Ensure all system grounds and power connections are clean and tight.	System shuts off blower at 10V. Poor connections or
rratic functions of lower, mode, emp, etc. Pot and associated wiring. Pot and associated wiring. Pot and associated wiring. Pot and associated wiring. 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.	Blower turns on and off rapidly.	Battery voltage is less than 12V.	Check for faulty battery or alternator.		weak battery can cause shutdown at up to 11V.
Then ignition isThis is an indicator that the system has been reset. Be 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.	7. Erratic functions of blower, mode, temp, etc.			 Repair or replace. 	
	% When ignition is turned on, blower momentarily comes on, then shuts off. This occurs with the blower switch in the OFF position.			 Run red power wire directly to battery. 	





EVAPORATOR KIT PACKING LIST

EVAPORATOR KIT 751164

