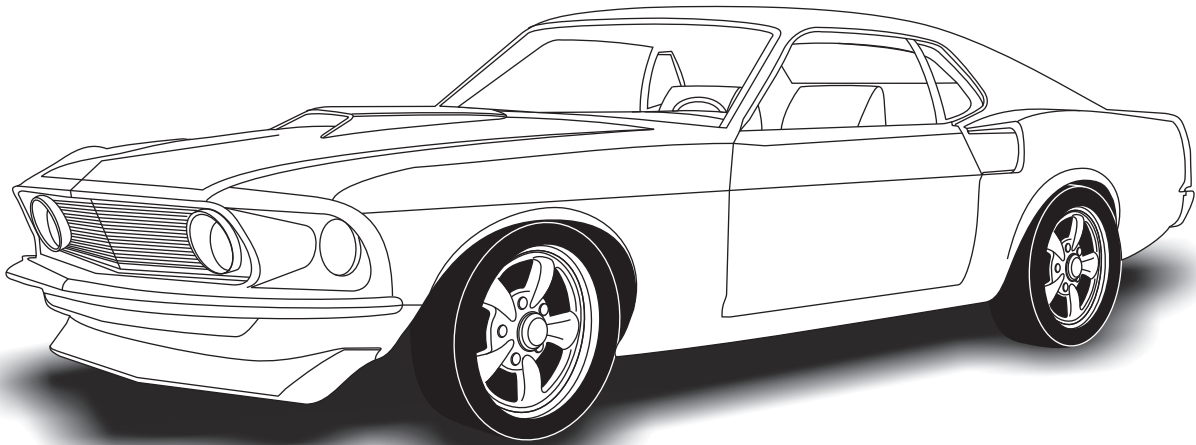




an ISO 9001:2008 Registered Company

1969-70 MUSTANG

WITHOUT FACTORY AIR
551170



18865 GOLL ST. - SAN ANTONIO, TX. - 78266 ph.210-654-7171 - fax 210-654-3113



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EVAPORATOR KIT PACKING LIST

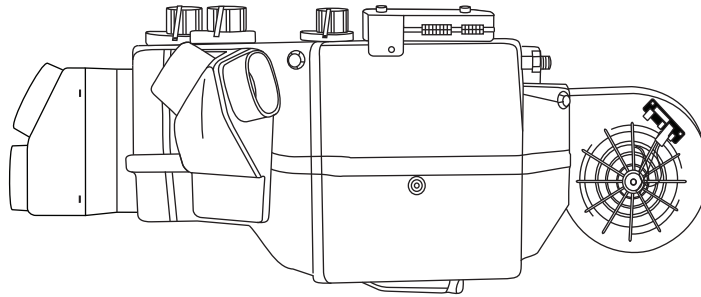
EVAPORATOR KIT
551170

NO.	QTY.	PART NO.	DESCRIPTION
1.	1	763069	GEN IV 4 VENT EVAP. SUB CASE w/ 207 ECU
2.	1	781069	1969-70 MUSTANG wo AC GEN IV ACC. KIT

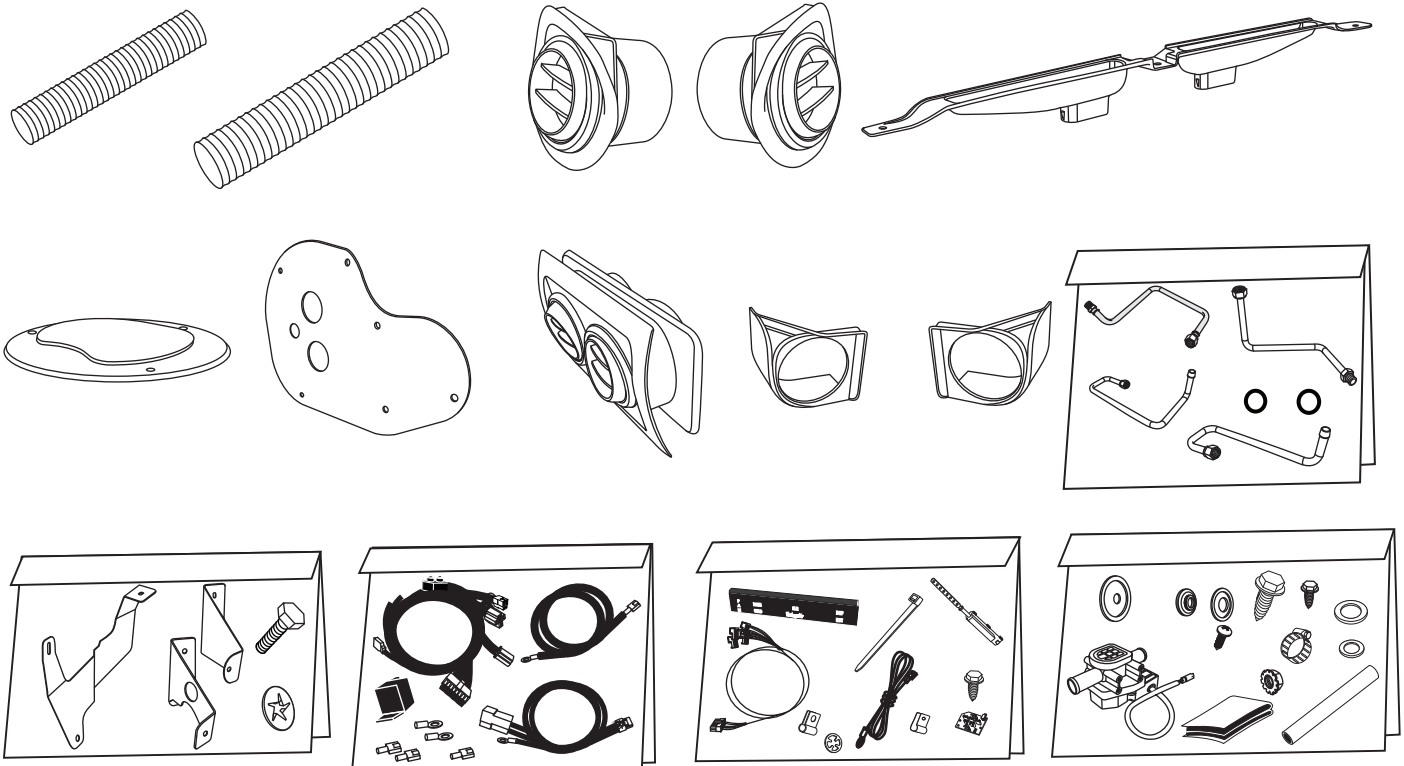
**** BEFORE BEGINNING INSTALLATION OPEN ALL PACKAGES AND CHECK CONTENTS OF SHIPMENT. PLEASE REPORT ANY SHORTAGES DIRECTLY TO VINTAGE AIR WITHIN 15 DAYS. AFTER 15 DAYS, VINTAGE AIR WILL NOT BE RESPONSIBLE FOR MISSING OR DAMAGED ITEMS.**

①

**GEN IV 4 VENT
EVAP SUB CASE
w/ 207 ECU
763069**



②



**ACCESSORY KIT
781069**

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:

- BATTERY (RETAIN).
- DRAIN RADIATOR
- OEM HEATER HOSES (DISCARD).

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

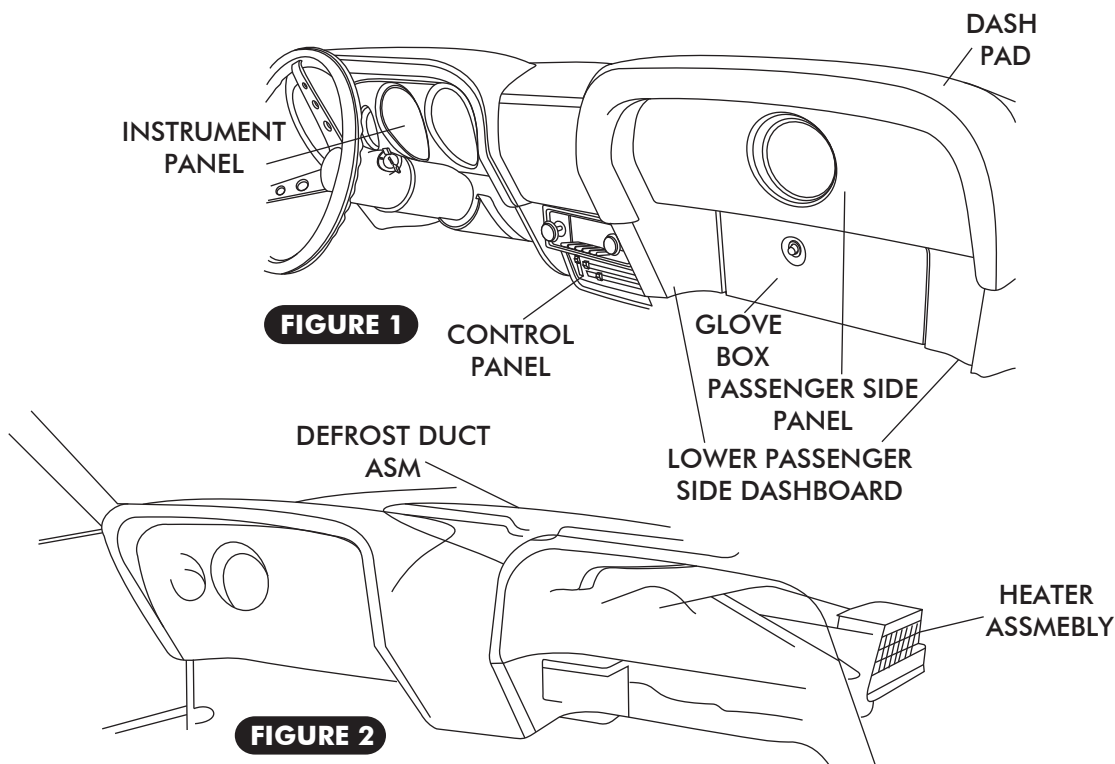
- REFER TO SEPARATE INSTRUCTIONS INCLUDED WITH THE BRACKET KIT TO INSTALL THE COMPRESSOR BRACKET.

PASSENGER COMPARTMENT

NOTE: REMOVAL OF DASHBOARD REQUIRED TO INSTALL THE EVAPORATOR. VINTAGE AIR RECOMMENDS THAT YOU UTILIZE THE FACTORY SERVICE MANUAL WHEN YOU DISASSEMBLE AND REASSEMBLE THE DASHBOARD.

REMOVE THE FOLLOWING:

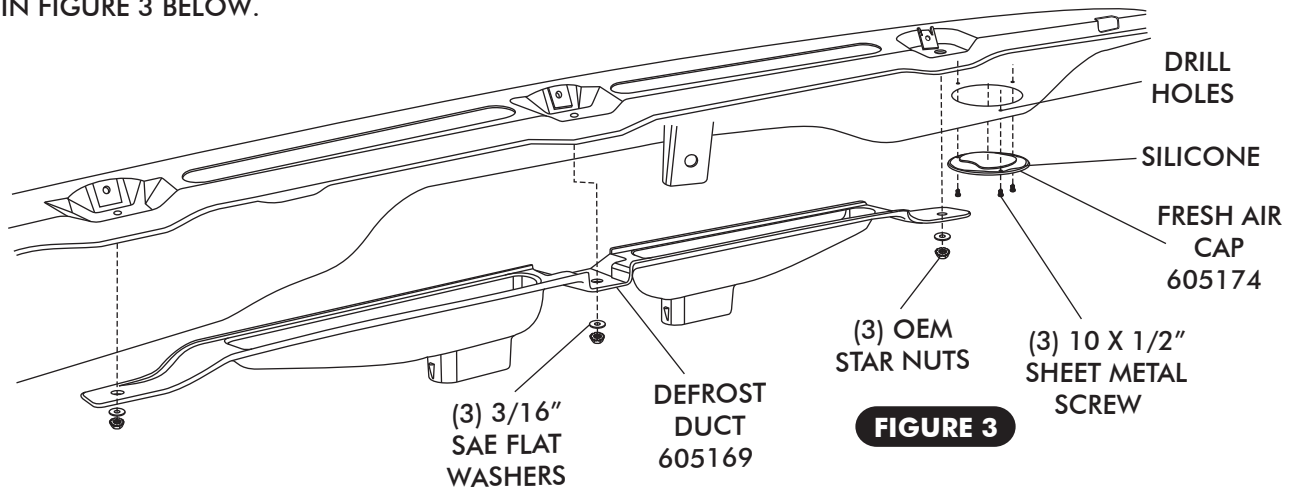
- REMOVE DASH PAD, INSTRUMENT PANEL, PASSENGER SIDE PANEL AND LOWER PASSENGER SIDE DASHBOARD (RETAIN SCREWS) SEE FIGURE 1.
- GLOVE BOX (REATIN) SEE FIGURE 1.
- HEATER ASSEMBLY AND ALL RELATED DUCTING (DISCARD), RETAIN SCREWS. SEE FIGURE 2.
- CONTROL PANEL ASSEMBLY (RETAIN CONTROL PANEL) SEE FIGURE 1.
- REFER TO CONTROL PANEL CONVERSION KIT INSTRUCTIONS FOR INSTALLATION OF CONTROLS.
- REMOVE OEM DEFROST DUCT ASM SEE FIGURE 2.





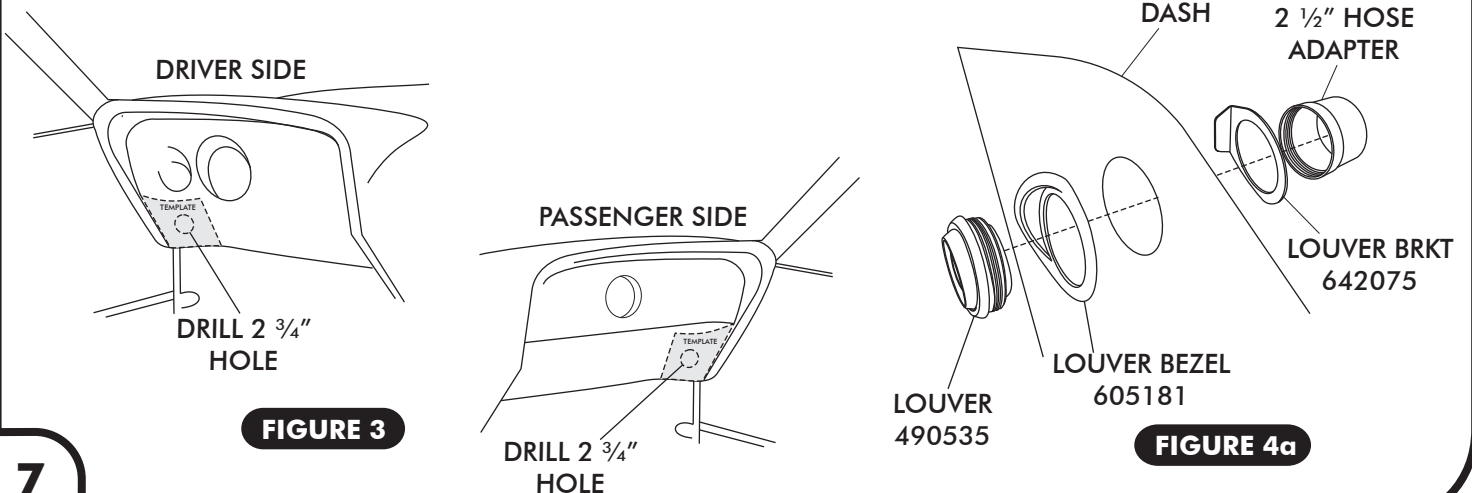
DEFROST DUCT/ FRESH AIR CAP INSTALLATION

- INSTALL DEFROST DUCT UNDER DASH AS SHOWN IN FIGURE 3 BELOW. SECURE USING OEM NUTS w/ (3) 3/16" SAE FLAT WASHERS.
- HOLD FRESH AIR CAP UNDER DASH AND MARK THE (3) MOUNTING HOLES.
- DRILL (3) 1/8" MOUNTING HOLES UNDER DASH.
- APPLY A 1/4" BEAD OF SILICONE AROUND THE BACK SIDE OF THE FRESH AIR CAP AS SHOWN IN FIGURE 3, BELOW.
- SECURE FRESH AIR CAP TO FRESH AIR HOLE USING (3) #10 x 1/2" SHEET METAL SCREWS AS SHOWN IN FIGURE 3 BELOW.



DRIVER AND PASSENGER SIDE LOUVER INSTALLATION

- CUT OUT TEMPLATE PROVIDED ON PAGE 22. PLACE THE DRIVER SIDE TEMPLATE ON THE DASH BY ALIGNING THE LEFT SIDE OF THE TEMPLATE AGAINST THE EDGE OF THE DASH, THEN ALIGN THE BOTTOM OF THE TEMPLATE TO BOTTOM OF DASH AS SHOWN IN FIGURE 4.
- CUT OUT TEMPLATE PROVIDED ON PAGE 23. PLACE THE PASSENGER SIDE TEMPLATE ON THE DASH BY ALIGNING THE RIGHT SIDE OF THE TEMPLATE AGAINST THE EDGE OF THE DASH, THEN ALIGN THE BOTTOM OF THE TEMPLATE TO BOTTOM OF DASH AS SHOWN IN FIGURE 4.
- ONCE TEMPLATE IS ALIGNED CORRECTLY, USE A CENTER PUNCH TO MARK THE HOLE ON THE DASH. REMOVE TEMPLATE. USE A 2 3/4" HOLE SAW TO CUT HOLE IN DASH, SEE FIGURE 4 BELOW.
- INSTALL LOUVERS IN DASH AS SHOWN IN FIGURE 4a BELOW.





EVAPORATOR INSTALLATION

- USE TEMPLATE PROVIDED ON PAGE 25. ALIGN TEMPLATE WITH OEM BLOWER MOTOR MOUNTING HOLES & DRILL (6) 3/16" HOLES IN FIREWALL FROM INSIDE UNDER DASH, SEE FIGURE 5a.
- ON A WORK BENCH, INSTALL EVAPORATOR REAR BRACKET AND HARDLINES WITH PROPERLY LUBRICATED O-RINGS. SEE FIGURE 10, PAGE 11 AND FIGURE 15, PAGE 16.
- REMOVE 2 OEM HEATER PLUGS IN FIREWALL, SEE FIGURE 7, PAGE 9.
- INSTALL FRONT MOUNTING BRACKET ON EVAPORATOR USING (2) 1/4-20 x 1/2" HEX BOLTS AND TIGHTEN AS SHOWN IN FIGURE 5 BELOW.
- LIFT EVAPORATOR UNIT UP UNDER THE DASHBOARD SEE FIGURE 6. SECURE LOOSELY TO THE FIREWALL FROM THE ENGINE COMPARTMENT SIDE USING (2) 1/4-20 NUT AND WASHER, SEE FIGURE 6 BELOW.
- USING (2) #14 x 3/4" SHEET METAL SCREWS w/ 1/4" FLAT WASHER SECURE THE FRONT EVAPORATOR MOUNTING BRACKET TO THE INNER COWL. SEE FIGURE 6 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 SCREWS.)

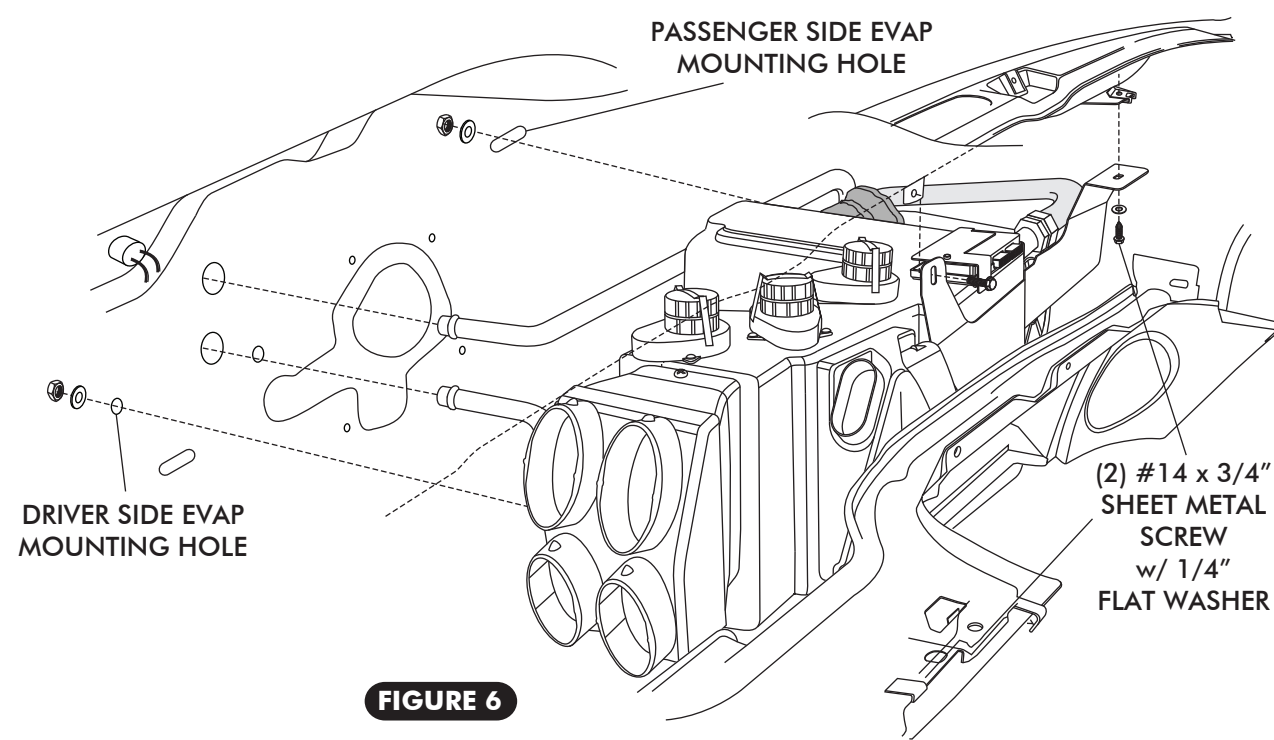
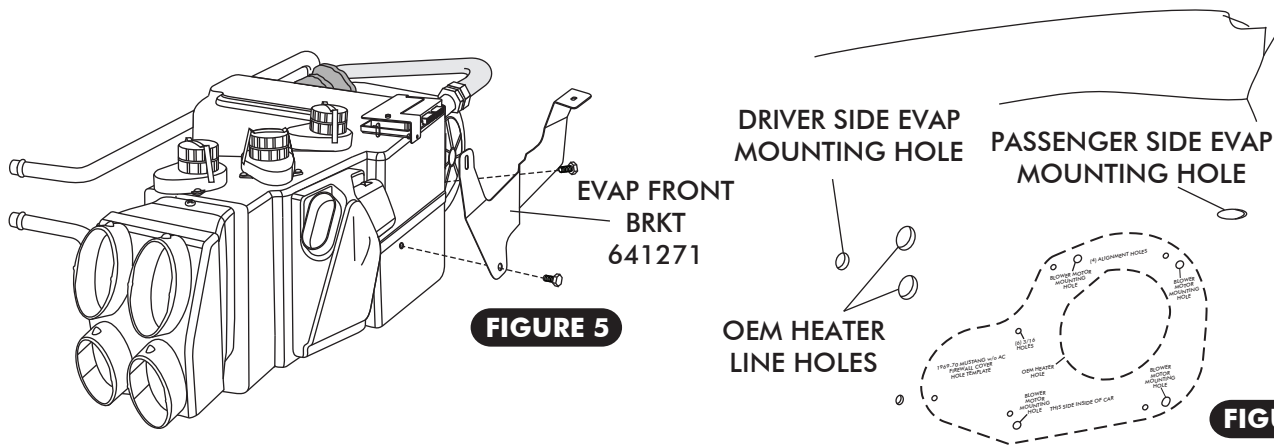


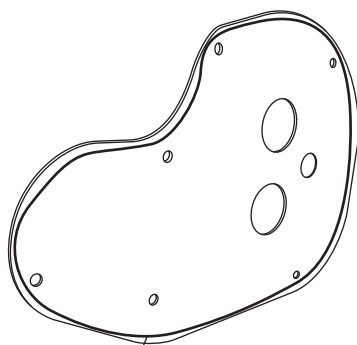
FIGURE 6

FIGURE 5a



FIREWALL COVER INSTALLTION

- INSTALL (3) GROMMETS ON FIREWALL COVER AS SHOWN IN FIGURE 7, BELOW.
- APPLY A 1/4" BEAD OF SILICONE AROUND THE BACK SIDE OF THE FIREWALL COVER AS SHOWN IN FIGURE 7a, BELOW.
- SECURE FIREWALL COVER TO FIREWALL USING (6) #14 x 3/4" SHEET METAL SCREWS, SEE FIGURE 7, BELOW. (NOTE: FIREWALL COVER INSTALLS ON ENGINE SIDE OF FIREWALL.)



SILICONE

FIGURE 7a

FIREWALL COVER
642071

GROMMET
33137-VUI

GROMMET
33144-VUI

GROMMET
33135-VUI

(6) #14 X 3/4"
SHEET METAL
SCREWS

ENGINE
COMPARTMENT
SIDE OF
FIREWALL

(4) OEM
BLOWER MOTOR
MOUNTING HOLES

OEM
HEATER HOLE
IN FIREWALL

OEM HEATER
LINE HOLES
(REMOVE PLUG)

OEM
HOLES

FIGURE 7



CENTER LOUVER INSTALLATION (OPTION 1)

- CUT OUT CENTER LOUVER TEMPLATE PROVIDED ON PAGE 24. ALIGN CENTER LOUVER TEMPLATE ON DASH PAD AS SHOWN IN FIGURE 8a.
- MARK CENTER LOUVER OPENING ON DASH PAD. ONCE CENTER LOUVER OPENING IS MARKED REMOVE TEMPLATE AND CAREFULLY CUT OUT OPENING IN DASH PAD.
- INSTALL CENTER LOUVER ASM AS SHOWN IN FIGURE 8.

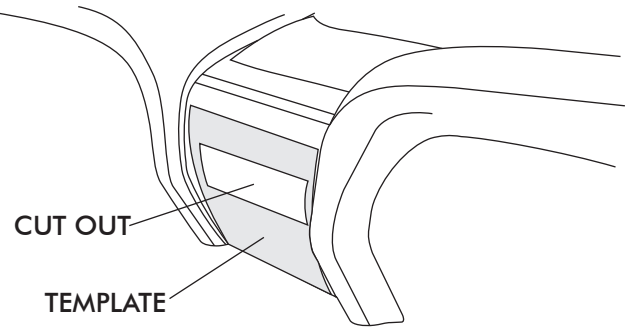
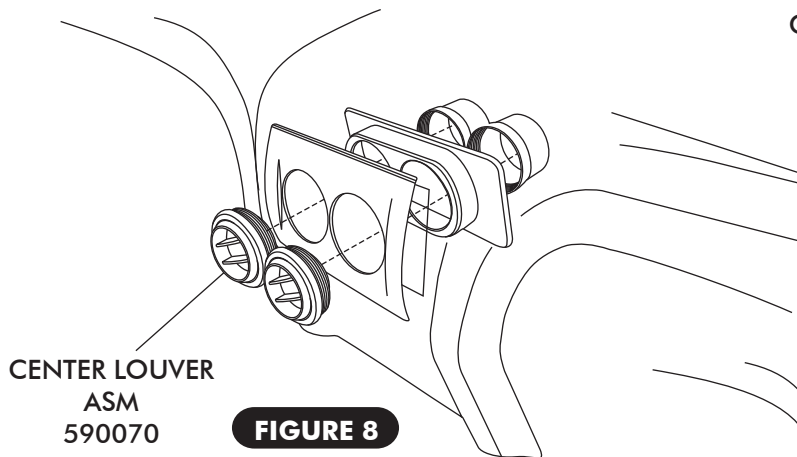
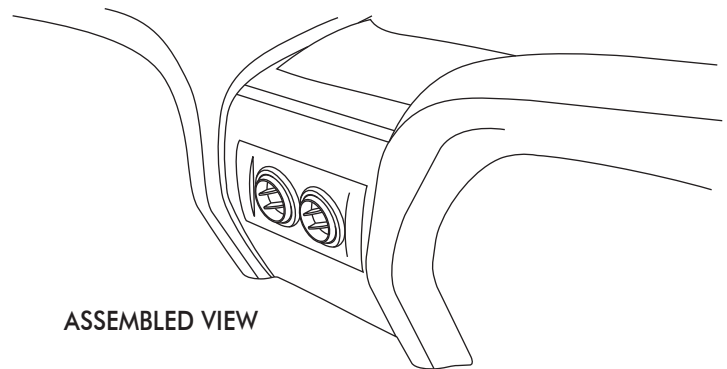
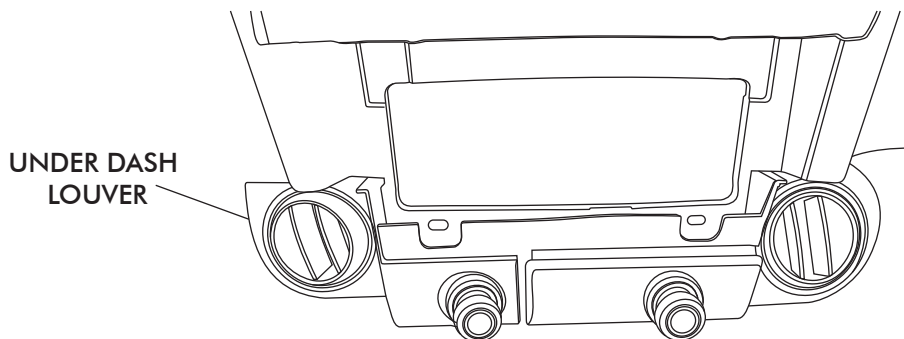


FIGURE 8a



UNDER DASH CENTER LOUVER INSTALLATION (OPTION 2)

- INSTALL UNDER DASH LOUVERS USING (3) #8 x 1/2" PAN HEAD SCREWS.





DRAIN HOSE INSTALLATION

- LOCATE EVAPORATOR DRAIN ON BOTTOM OF EVAPORATOR CASE.
- 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 9.
- INSTALL DRAIN HOSE TO BOTTOM OF EVAPORATOR UNIT AND ROUTE THROUGH FIREWALL. SEE FIGURE 9.

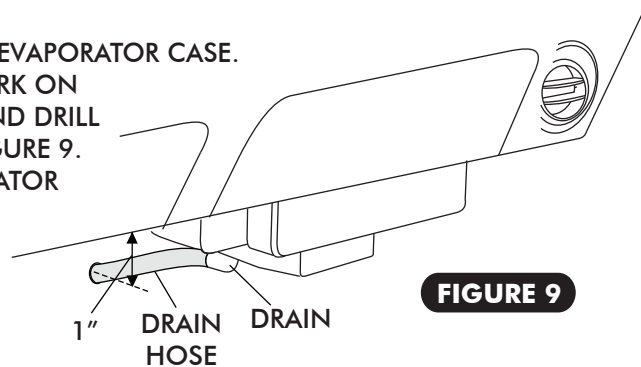


FIGURE 9

LUBRICATING O-RINGS

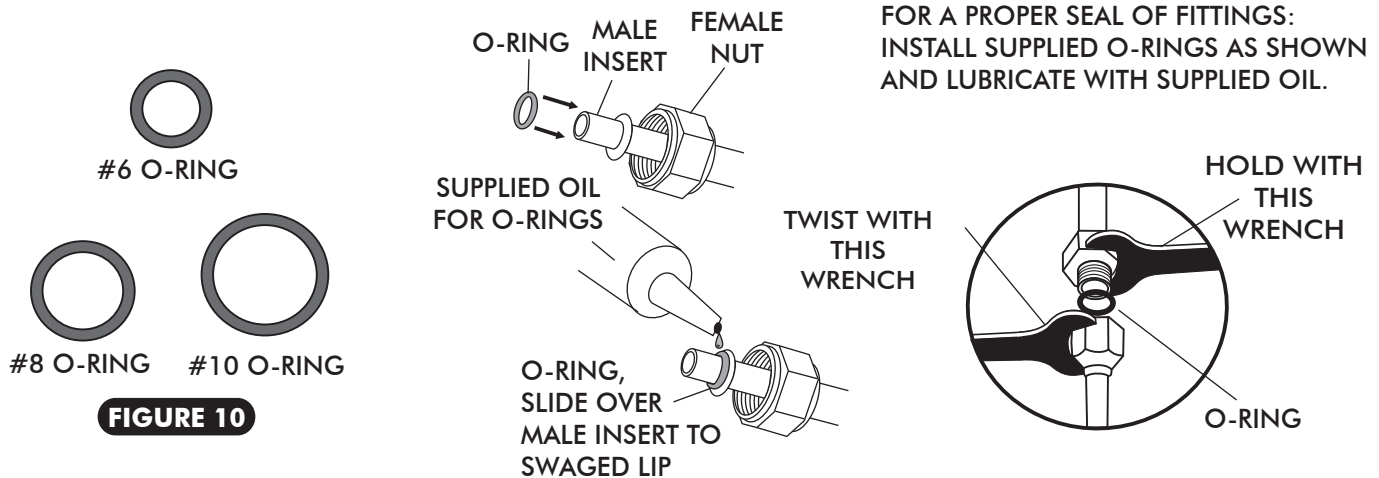


FIGURE 10

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

STANDARD HOSE KIT

- LOCATE THE #8 COMPRESSOR A/C HOSE. LUBRICATE (2) #8 O-RINGS (SEE FIGURE 10, ABOVE) AND CONNECT THE 45° FITTING TO THE #8 DISCHARGE PORT ON THE COMPRESSOR. ROUTE THE STR FEMALE w/ 134a SERVICE PORT FITTING TO THE #8 CONDENSER HARDLINE COMING THROUGH THE RADIATOR CORE SUPPORT. SEE FIGURE 12, PAGE 13. TIGHTEN EACH FITTING CONNECTION AS SHOWN IN FIGURE 10 ABOVE.
- LOCATE THE #10 COMPRESSOR A/C HOSE. LUBRICATE (2) #10 O-RINGS AND CONNECT THE 90° FEMALE w/ 134a SERVICE PORT FITTING TO THE #10 SUCTION PORT ON THE COMPRESSOR, ROUTE THE 135° FEMALE FITTING TO THE #10 EVAPORATOR HARDLINE COMING THROUGH THE FIREWALL. SEE FIGURES 11, PAGE 12 & FIGURE 12, PAGE 13. TIGHTEN EACH FITTING CONNECTION AS SHOWN IN FIGURE 10 ABOVE.
(NOTE: WRAP THE #10 FITTING CONNECTIONS WITH PRESS TAPE. SEE FIGURE 11, PAGE 12 & FIGURE 12, PAGE 13.)
- LOCATE THE #6 EVAP/DRIER A/C HOSE. LUBRICATE (2) #6 O-RINGS AND CONNECT THE STR FEMALE FITTING TO THE #6 DRIER HARDLINE COMING THROUGH THE RADIATOR CORE SUPPORT. ROUTE THE 90° FEMALE FITTING TO THE #6 EVAPORATOR HARDLINE COMING THROUGH THE FIREWALL. SEE FIGURES 11, PAGE 12 & FIGURE 12, PAGE 13. TIGHTEN EACH FITTING CONNECTION AS SHOWN IN FIGURE 10, ABOVE.
- USE (6) TIE WRAPS TO SECURE THE #6 A/C HOSE TO THE EXPORT BRACE AS SHOWN IN FIGURE 12, PAGE 13.

MODIFIED A/C HOSE KIT

- REFER TO SEPARATE INSTRUCTIONS INCLUDED WITH MODIFIED HOSE KIT.



HEATER HOSE & HEATER CONTROL VALVE INSTALLATION

- ROUTE A PIECE OF HEATER HOSE FROM THE WATER PUMP TO THE HEATER LINE COMING THROUGH THE FIREWALL AS SHOWN IN FIGURE 11, BELOW. SECURE USING HOSE CLAMPS.
- ROUTE A PIECE OF HEATER HOSE FROM THE INTAKE TO THE HEATER LINE COMING THROUGH THE FIREWALL AS SHOWN IN FIGURE 11 BELOW. NOTE: INSTALL HEATER CONTROL VALVE IN-LINE WITH INTAKE MANIFOLD (PRESSURE SIDE) HEATER HOSE, SECURE USING HOSE CLAMPS AS SHOWN IN FIGURE 11 BELOW. (NOTE PROPER FLOW DIRECTION.)

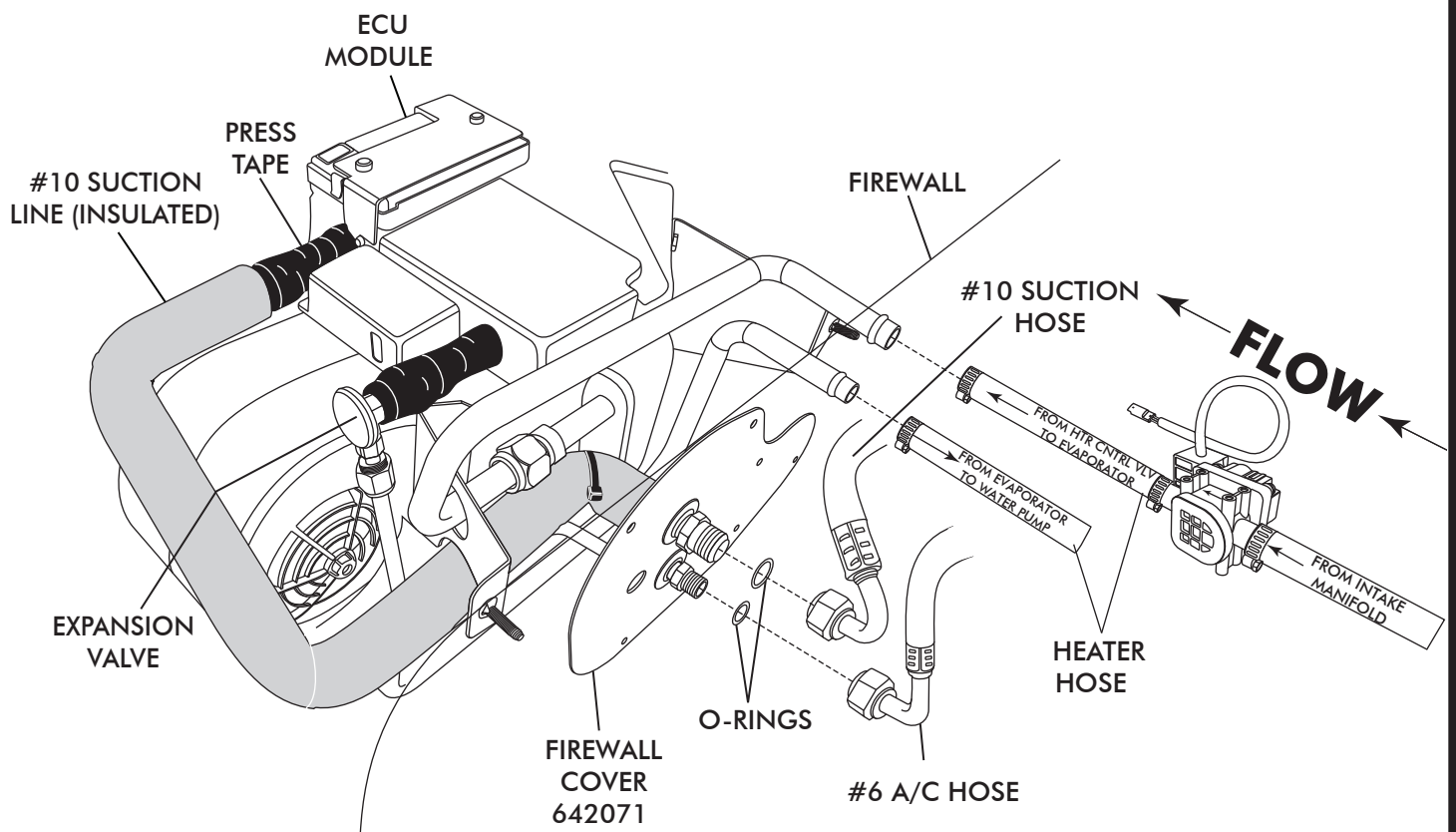


FIGURE 11



AC & HEATER HOSE ROUTING

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

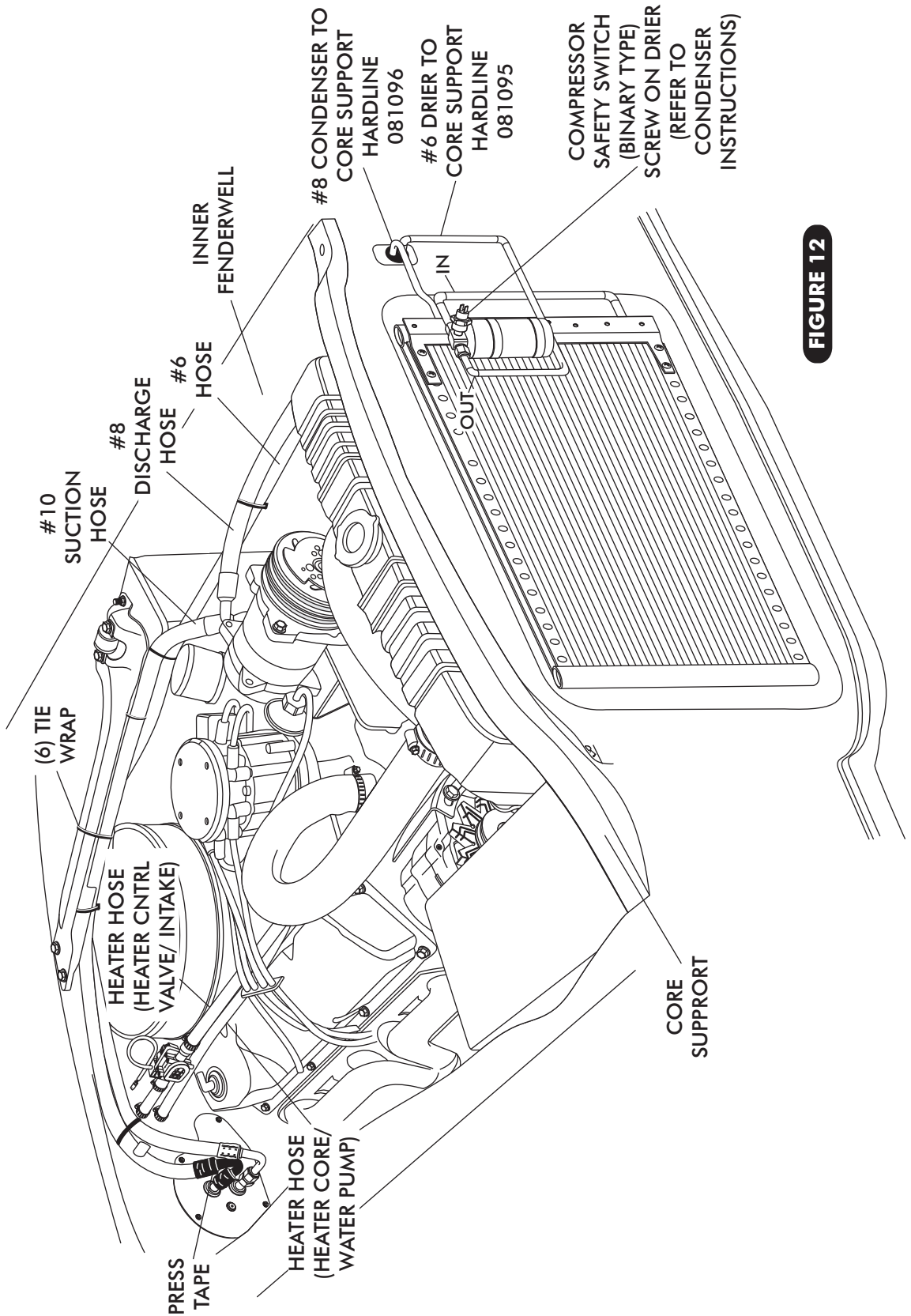


FIGURE 12



FINAL STEPS

- INSTALL DUCT HOSES AS SHOWN IN FIGURE 14, PAGE 15.
- ROUTE A/C WIRES THROUGH 3/8" GROMMET AS SHOWN IN FIGURE 13a (12 VOLT/ GROUND/ BINARY SWITCH/ HEATER VALVE).
- INSTALL CONTROL PANEL ASM.
- PLUG THE WIRING HARNESS IN THE ECU MODULE ON SUB CASE AS SHOWN IN FIGURE 14, PAGE 15 (WIRE ACCORDING TO WIRING DIAGRAM ON PAGE 17 AND 18)
- GLOVE BOX INSTALLATION (SEE FIGURE 13)
- REINSTALL ALL PREVIOUSLY REMOVED ITEMS (BATTERY).
- FILL RADIATOR WITH AT LEAST A 50/50 MIXTURE OF APPROVED ANTIFREEZE AND DISTILLED WATER. IT IS THE OWNERS 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 FITTING, BRACKETS AND BELTS FOR TIGHTNESS.
- VINTAGE AIR RECOMMENDS THAT ALL AC 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.

GLOVE BOX INSTALLATION

- INSTALL GLOVE BOX WITH OEM SCREWS. SEE FIGURE 13.

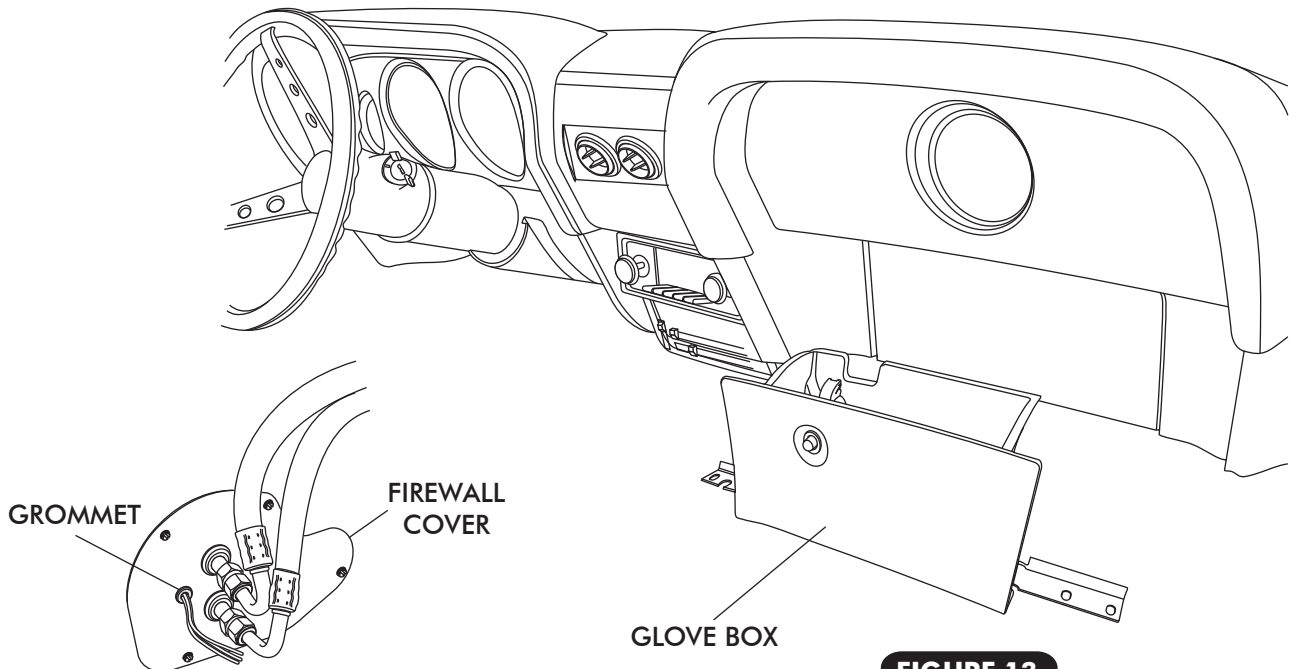


FIGURE 13a

FIGURE 13



DUCT HOSE ROUTING

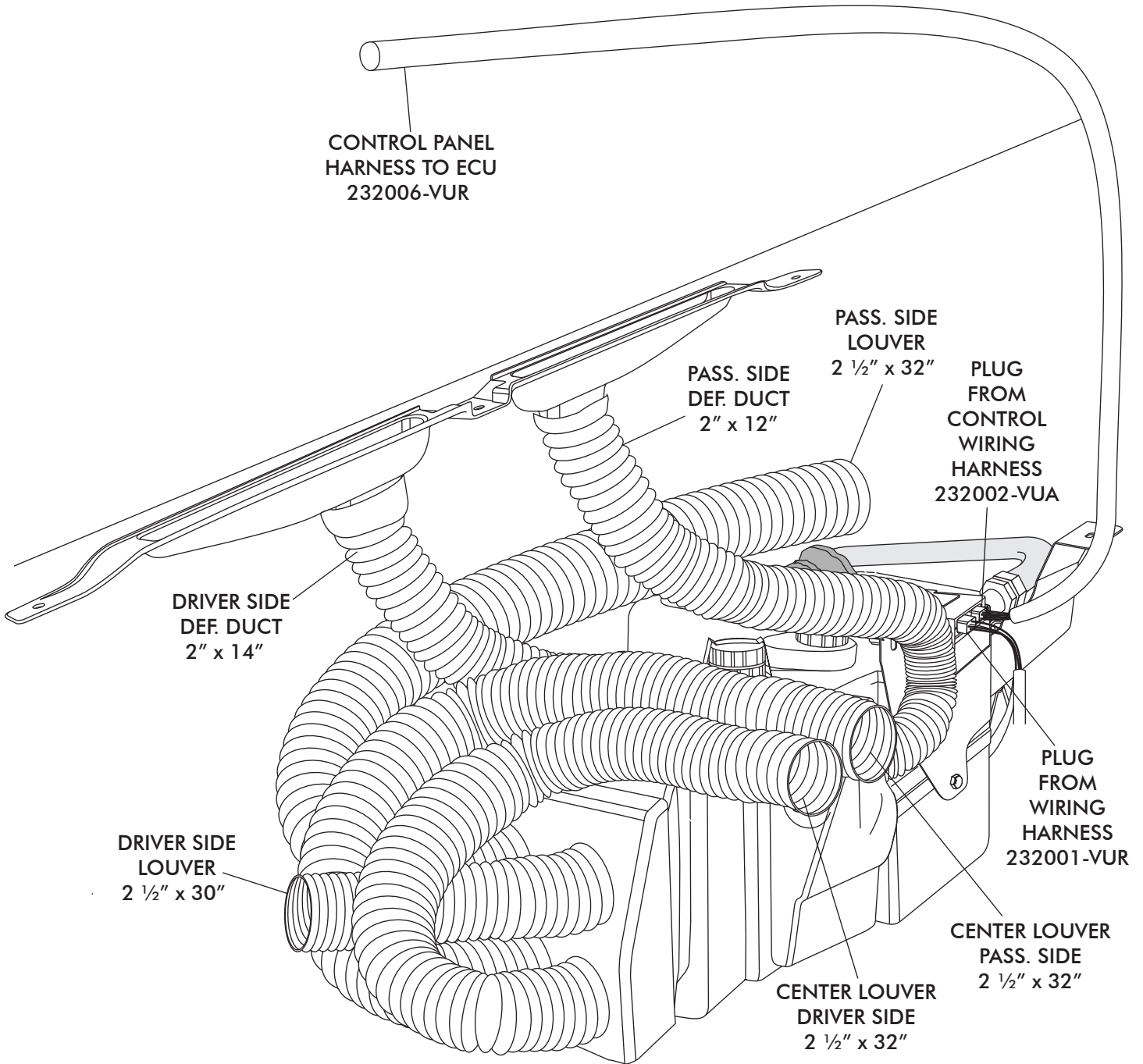


FIGURE 14



EVAPORATOR HARD LINE INSTALLATION

NOTE: AFTER INSTALLING #10 SUCTION LINE WRAP ALL EXPOSED METAL FITTINGS & TUBE WITH SUPPLIED PRESS TAPE.

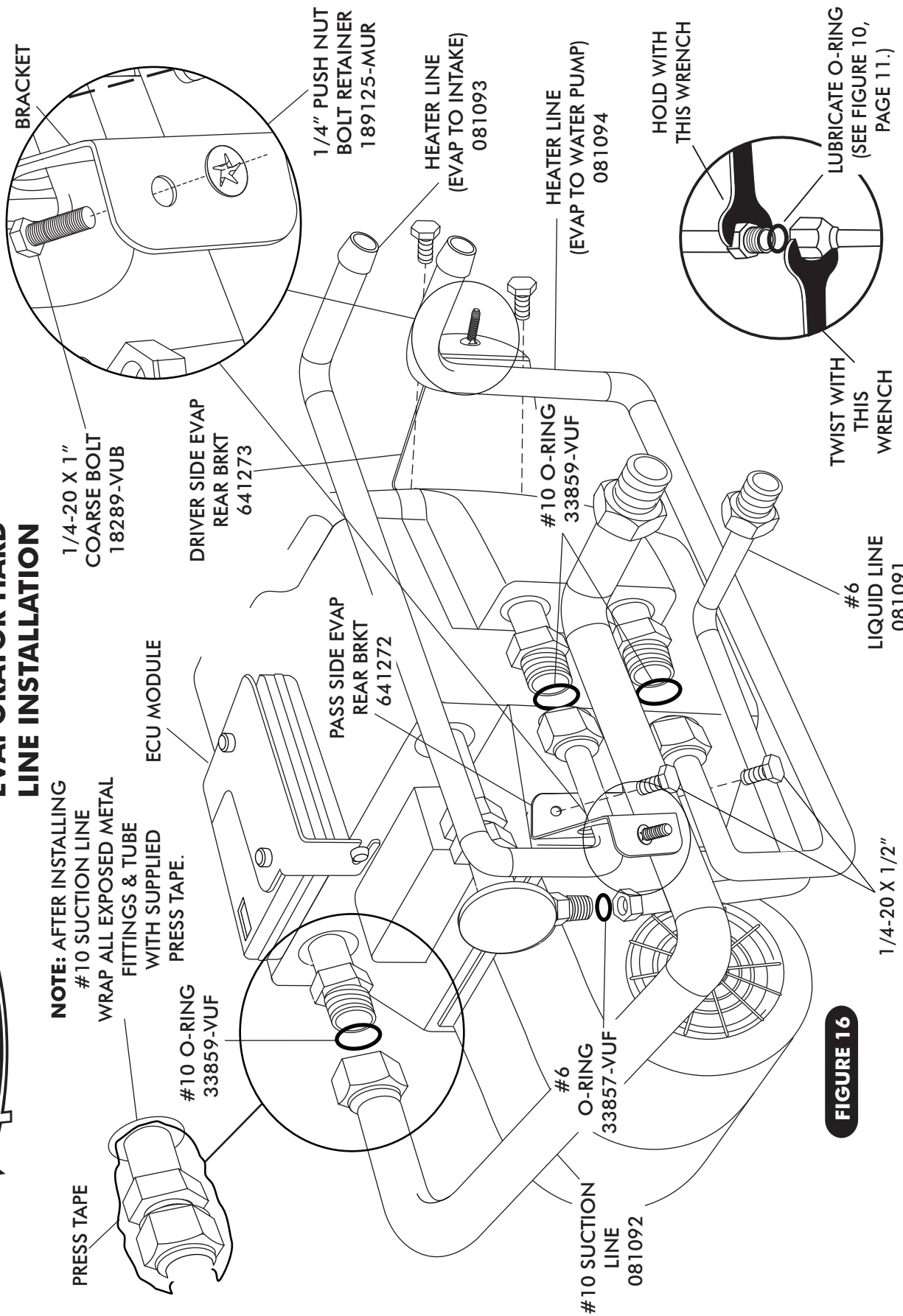
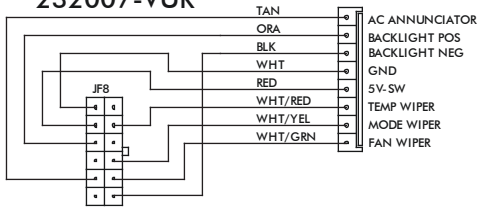


FIGURE 16



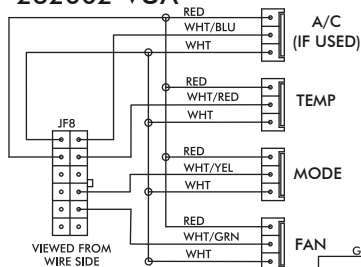
Wiring Diagram

232007-VUR



VIEWED FROM WIRE SIDE

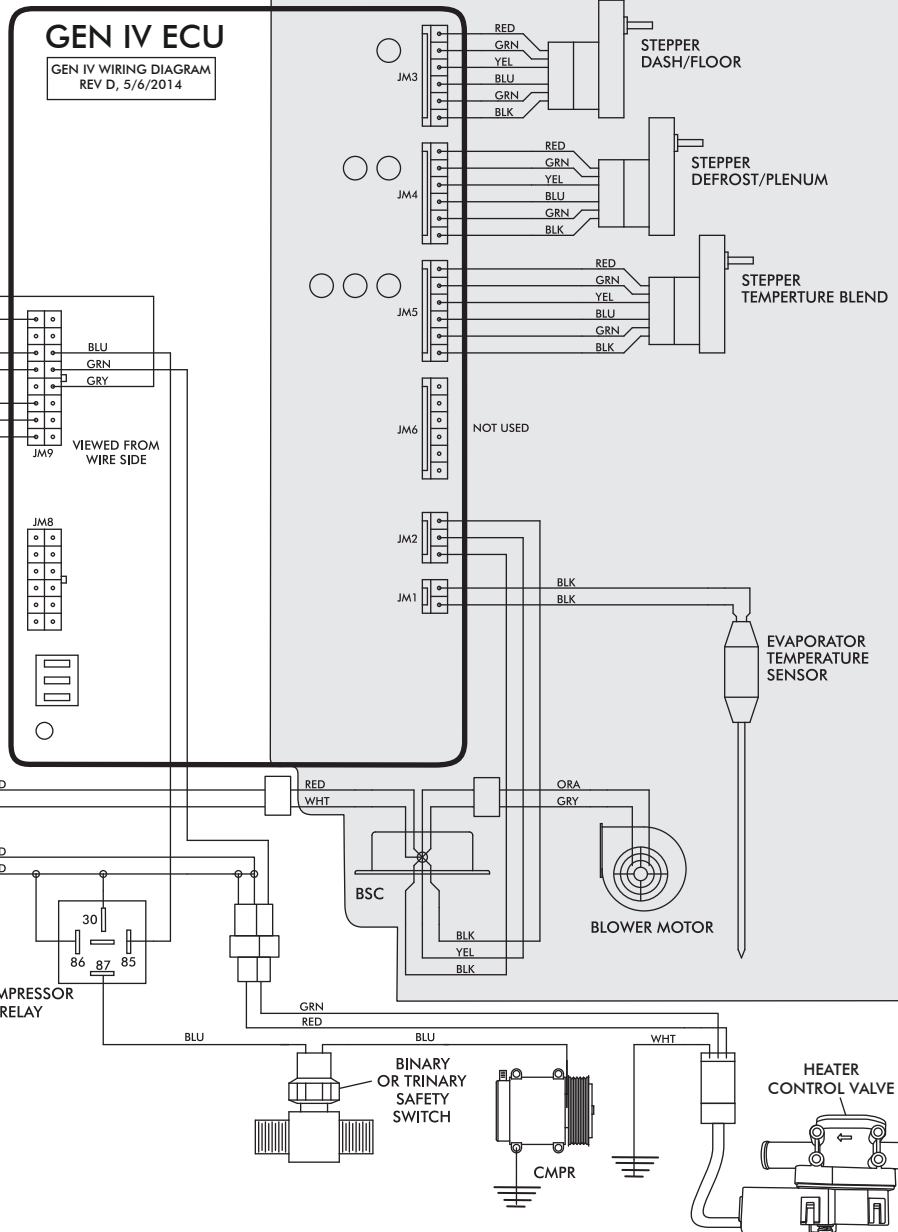
232002-VUA



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)

IGNITION
SWITCH

** CIRCUIT
BREAKER
30 AMP

COMPRESSION
RELAY

BINARY
OR TRINARY
SAFETY
SWITCH

CMPR

HEATER
CONTROL
VALVE

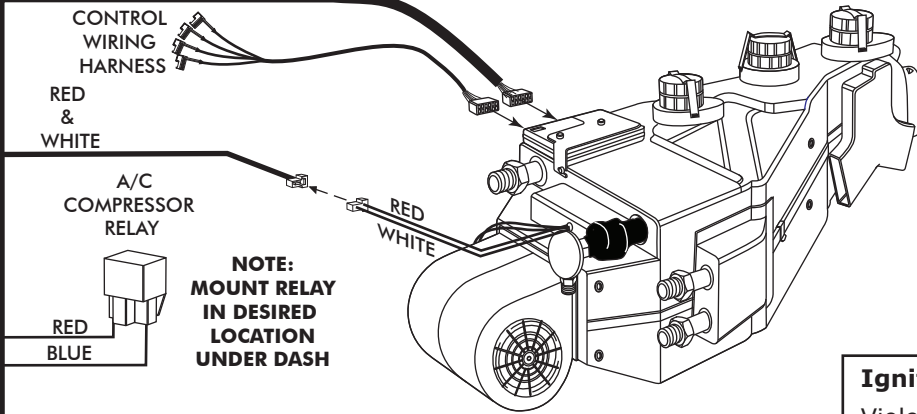
NOTE: = CHASSIS GROUND

- 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.



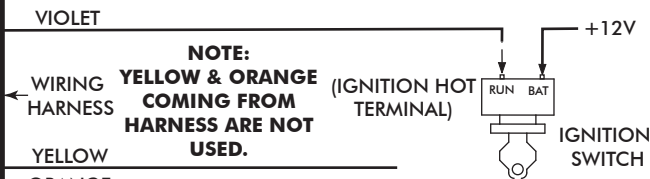
Gen IV Wiring Connection Instruction

WIRING HARNESS



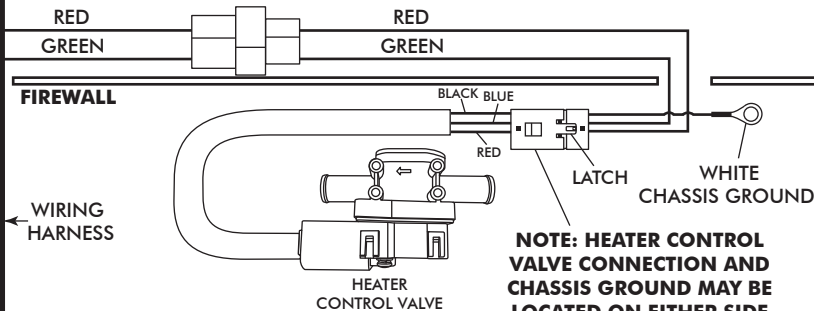
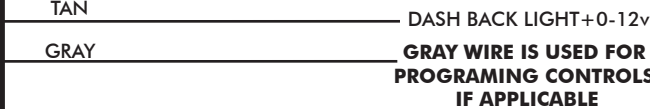
Ignition Switch:

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



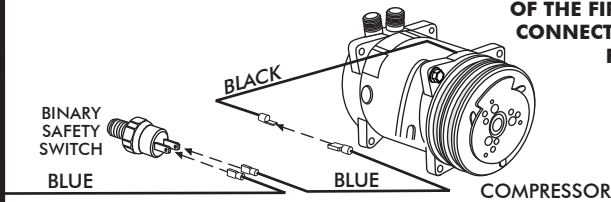
Dash Light:

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.

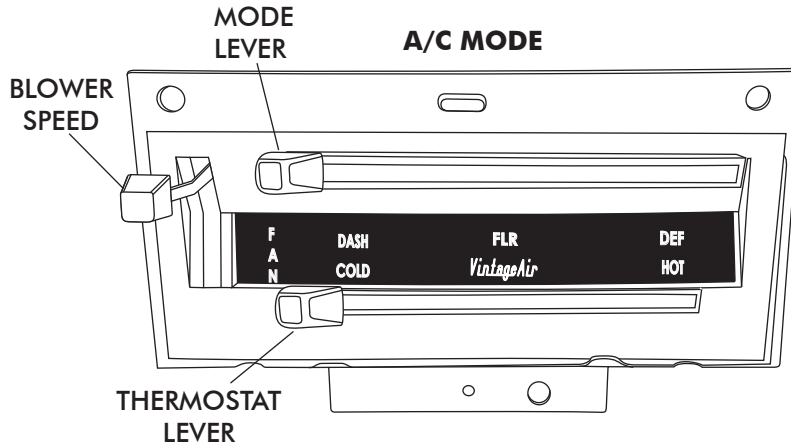
WARNING:
ALWAYS MOUNT CIRCUIT BREAKER AS CLOSE TO THE BATTERY AS POSSIBLE. (NOTE: WIRE BETWEEN BATTERY AND CIRCUIT BREAKER IS UNPROTECTED AND SHOULD BE CAREFULLY ROUTED TO AVOID A SHORT CIRCUIT).

BATTERY



OPERATION OF CONTROLS

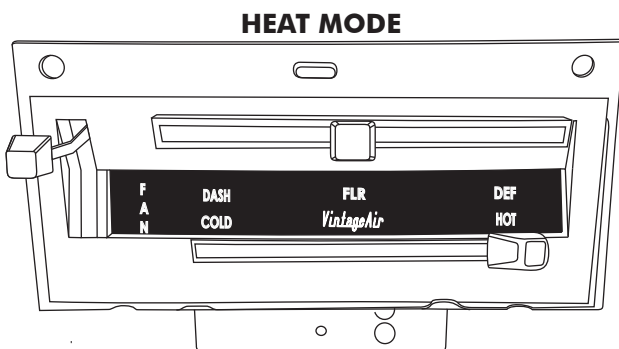
NOTE: WHEN BATTERY POWER IS FIRST CONNECTED TO THE ECU, THE COMPUTER GOES THROUGH AN INITIALIZATION SEQUENCE. THIS INITIALIZATION MAY TAKE UP TO 30 SECONDS. DURING INITIALIZATION THE BLOWER WILL NOT OPERATE, BUT THE DOORS INSIDE THE UNIT WILL BE OPERATING. A LOW BATTERY OR DISCONNECTING THE BATTERY MAY ALSO TRIGGER A RE-INITIALIZATION. DURING START UP, A LOW BATTERY MAY DROP BELOW 7 VOLTS, TRIGGERING RE-INITIALIZATION.



BLOWER SPEED
THIS LEVER CONTROLS THE BLOWER SPEED, FROM OFF TO HI

MODE LEVER
SLIDE THE LEVER TO THE DASH POSITION

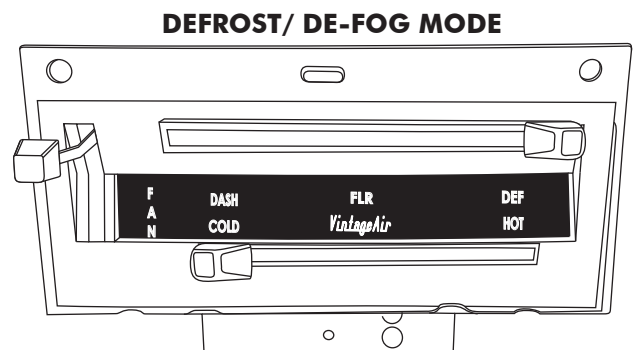
A/C THERMOSTAT LEVER
IN A/C MODE SLIDE THE THERMOSTAT LEVER ALL THE WAY LEFT TO THE COLD POSITION, TO ENGAGE COMPRESSOR FOR MAXIMUM COOLING (SLIDE LEVER LEFT OR RIGHT TO ADJUST DESIRED TEMPERATURE)



BLOWER SPEED
SLIDE LEVER UP TO DESIRED BLOWER SPEED, FROM OFF TO HI

MODE LEVER
SLIDE THE LEVER TO THE FLR POSITION

A/C THERMOSTAT LEVER
IN HEAT MODE SLIDE THE THERMOSTAT LEVER ALL THE WAY RIGHT TO THE HOT POSITION, FOR MAXIMUM HEATING. (SLIDE LEVER LEFT OR RIGHT TO ADJUST DESIRED TEMPERATURE)



BLOWER SPEED
SLIDE LEVER UP TO DESIRED BLOWER SPEED, FROM OFF TO HI

MODE LEVER
SLIDE THE LEVER TO THE DEF POSITION

A/C THERMOSTAT LEVER
IN DEF MODE SLIDE THE THERMOSTAT LEVER ALL THE WAY LEFT TO THE COLD POSITION TO ENGAGE COMPRESSOR. FOR MAXIMUM COOLING. (SLIDE LEVER LEFT OR RIGHT TO ADJUST DESIRED TEMPERATURE)



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. See blower switch check procedure.
	All other functions work.	Check for damaged ground wire (white) in control head harness.	Verify continuity to chassis ground with white control head wire at various points.	
		Check for damaged blower switch or potentiometer and associated wiring.		
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.	No other part replacements should be necessary.
		Unplug 3-wire BSC control connector from ECU. If blower stays running, BSC is either improperly wired or damaged.	Check to ensure that no BSC wiring is damaged or shorted to vehicle ground. The BSC operates the blower by ground side pulse width modulation switching. The positive wire to the blower will always be hot. If the "ground" side of the blower is shorted to chassis ground, the blower will run on HI.	
			Replace BSC (This will require removal of evaporator from vehicle).	
2. Compressor will not turn on (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.	
		Check for disconnected or faulty thermistor.	Check 2-pin connector at ECU housing.	
		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 potentiometer or associated wiring.	Replace relay.	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.	

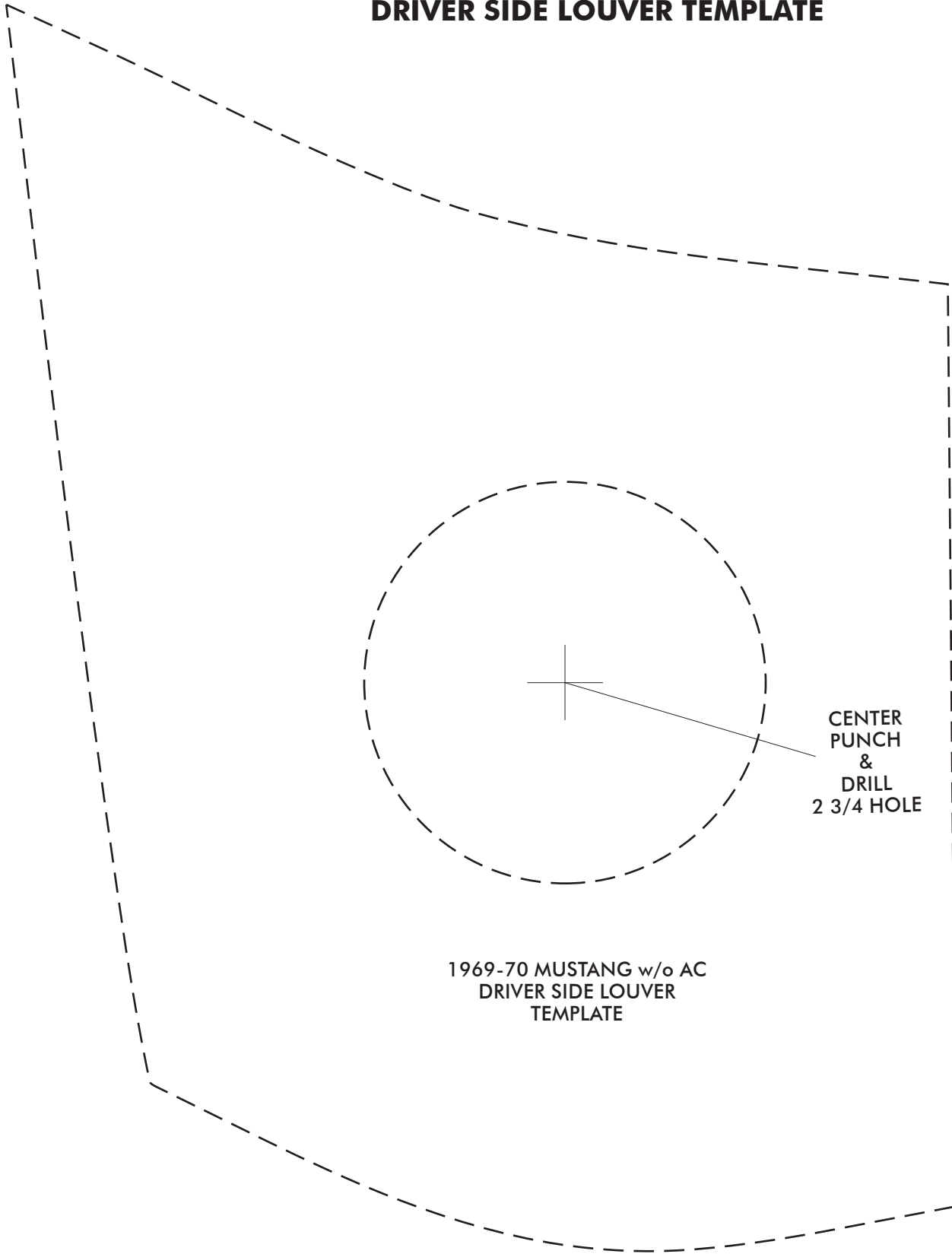


Troubleshooting Guide (Cont.)

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.		
6. Blower turns on and off rapidly.	Battery voltage is at least 12V.	Check for at least 12V at circuit breaker.	Ensure all system grounds and power connections are clean and tight.	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.	Charge battery.	
7. Erratic functions of blower, mode, temp, etc.		Check for damaged switch or pot and associated wiring.	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.	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.	



DRIVER SIDE LOUVER TEMPLATE



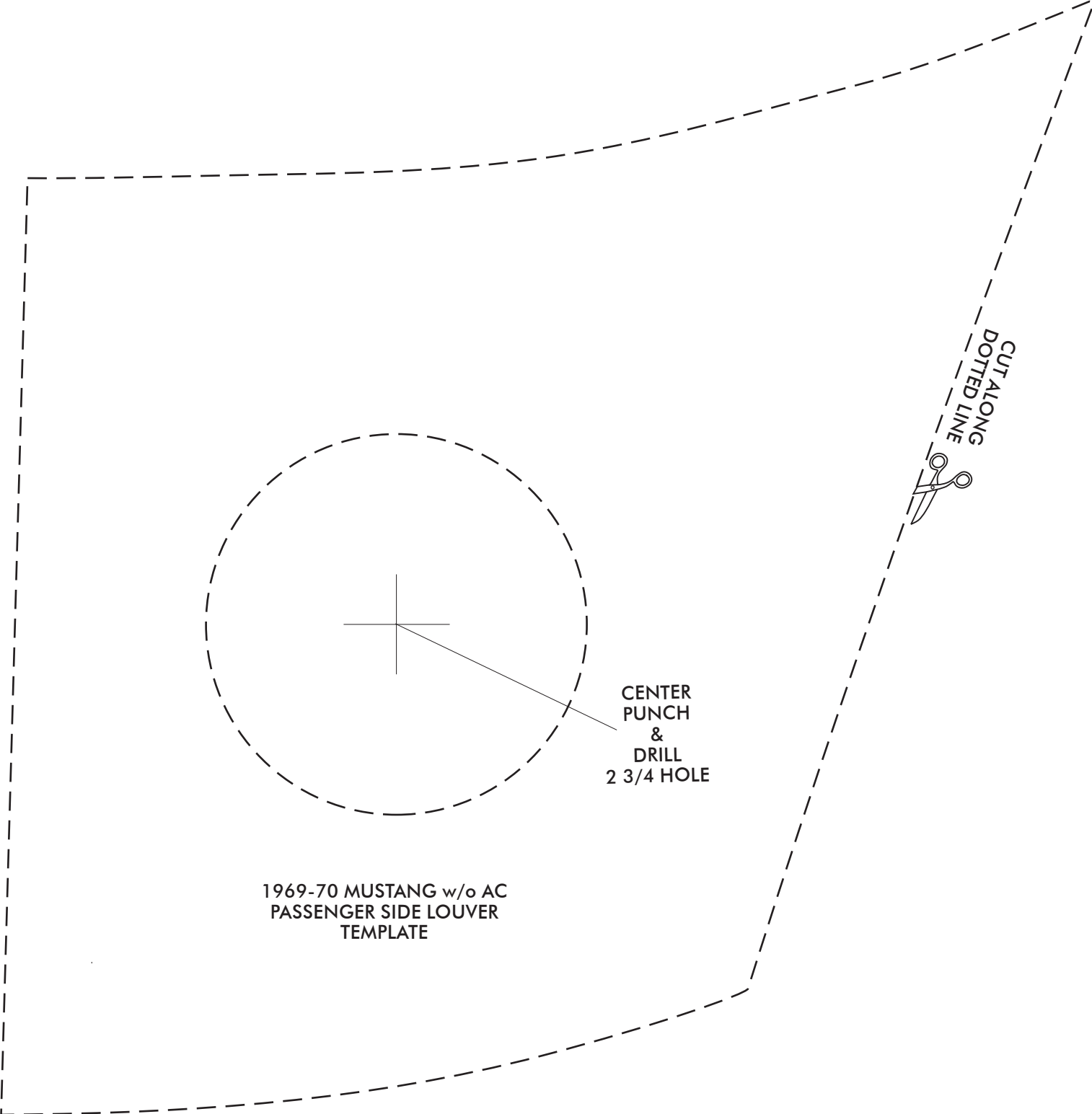
CUT ALONG
DOTTED LINE



CENTER
PUNCH
&
DRILL
2 3/4 HOLE

1969-70 MUSTANG w/o AC
DRIVER SIDE LOUVER
TEMPLATE

PASSENGER SIDE LOUVER TEMPLATE



CENTER
PUNCH
&
DRILL
2 3/4 HOLE

CUT ALONG
DOTTED LINE

1969-70 MUSTANG w/o AC
PASSENGER SIDE LOUVER
TEMPLATE



CENTER LOUVER TEMPLATE

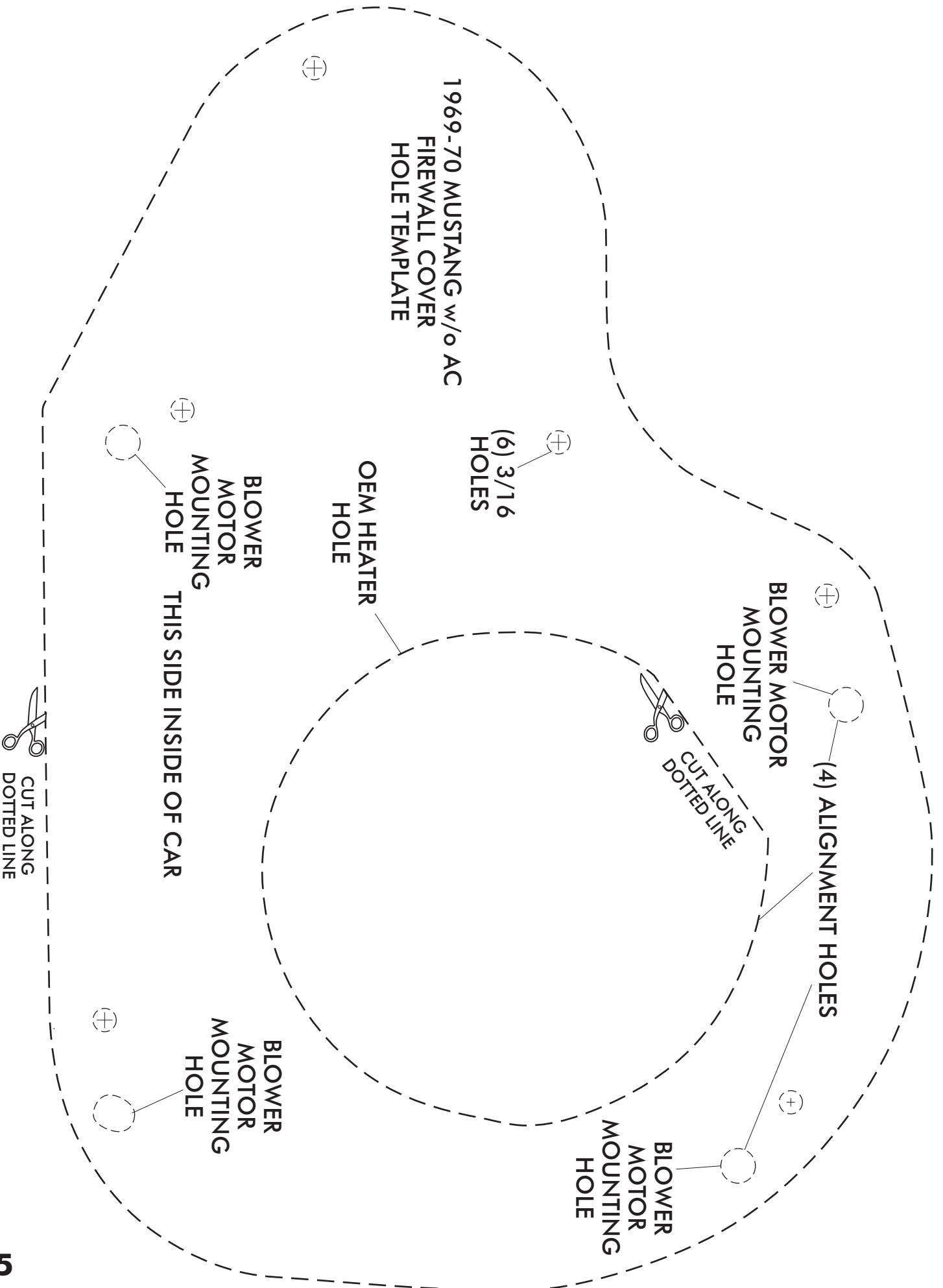
CUT ALONG
DOTTED LINE



CUT ALONG
DOTTED LINE



1969-70 MUSTANG w/o AC
CENTER LOUVER
TEMPLATE





EVAPORATOR KIT PACKING LIST

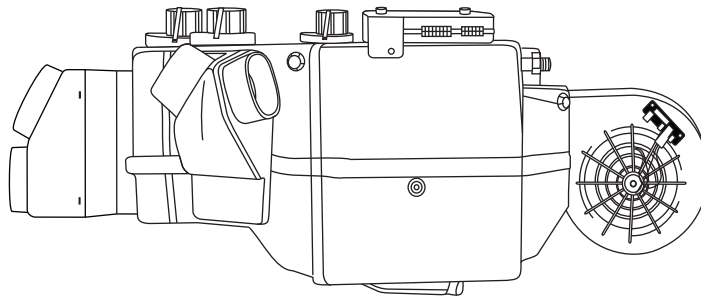
EVAPORATOR KIT
551170

NO.	QTY.	PART NO.	DESCRIPTION
1.	1	763069	GEN IV 4 VENT EVAP. SUB CASE w/ 207 ECU
2.	1	781069	1969-70 MUSTANG wo AC GEN IV ACC. KIT

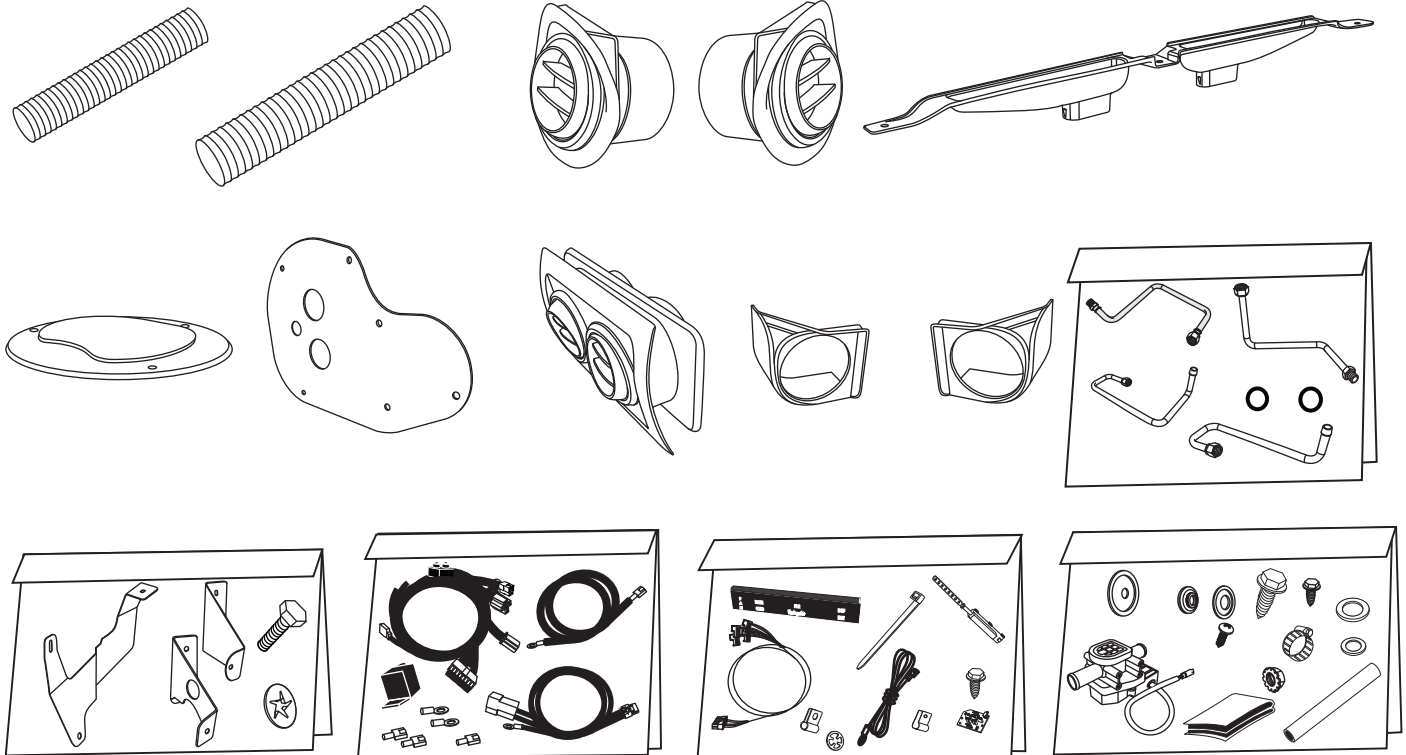
CHECKED BY: _____
 PACKED BY: _____
 DATE: _____

①

**GEN IV 4 VENT
EVAP SUB CASE
w/ 207 ECU
763069**



②



**ACCESSORY KIT
781069**

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