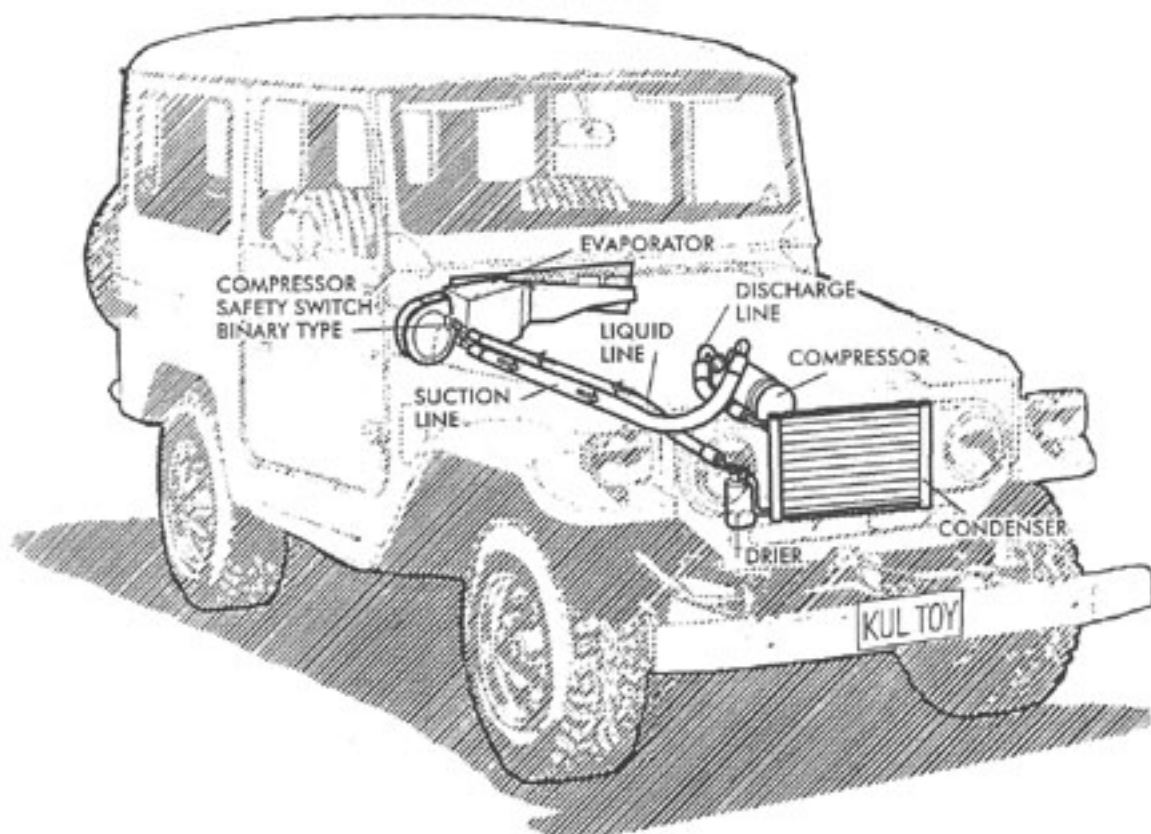


100% VENTAGE
AIR

INSTALLATION INSTRUCTIONS FOR
1968-83
TOYOTA LANDCRUISER
2 DOOR / MODEL 40



10305 I.H. 35 N. - SAN ANTONIO, TX. - 78233 - ph.210-654-7171 - fax 210-654-3113

6/19/97



TOYOTA LAND CRUISER

IMPORTANT NOTICE-PLEASE READ

**FOR MAXIMUM SYSTEM PERFORMANCE
VINTAGE AIR RECOMMENDS THE FOLLOWING:**

SERVICE INFO:

**EVACUATE THE SYSTEM FOR 30-45 MINUTES WITH
SYSTEM COMPONENTS (DRIER, COMPRESSOR,
EVAPORATOR, 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 SPECS.

REFRIGERANT CAPACITIES

134a SYSTEM

CHARGE WITH 1.8 LBS. OF REFRIGERANT

R-12 SYSTEM

CHARGE WITH 2.0 LBS. OF REFRIGERANT

LUBRICANT CAPACITIES

**NEW COMPRESSOR - NO ADDITIONAL OIL NEEDED
USED COMPRESSOR - CONSULT VINTAGE AIR**

INSULATION

**VINTAGE AIR RECOMMENDS INSULATING THE
FIREWALL AND FLOOR FOR GREATER EFFICIENCY
AND REDUCED EVAPORATOR CASE CONDENSATION.**

INSTALLATION INSTRUCTIONS FOR TOYOTA LAND CRUISER

NOTE

BEFORE STARTING THE AIR CONDITIONER INSTALLATION, CHECK FOR PROPER OPERATION OF ALL COMPONENTS (RADIO, LIGHTS, WIPERS, ETC.). STUDY THE INSTRUCTIONS, ILLUSTRATIONS AND DIAGRAMS.

REMOVE THE FOLLOWING (SEE FIGURE 1)

1. DISCONNECT AND REMOVE BATTERY (RETAIN).
2. OEM HEATER (DISCARD) SAVE MOUNTING SCREWS.
3. HEATER DUCT HOSES (DISCARD).
4. BLOWER MOTOR & GRILLE (DISCARD) SAVE MOUNTING SCREWS.
5. PLASTIC DUCT (DISCARD).
6. HEATER VALVE (DISCARD).
7. HEATER HOSES (DISCARD).

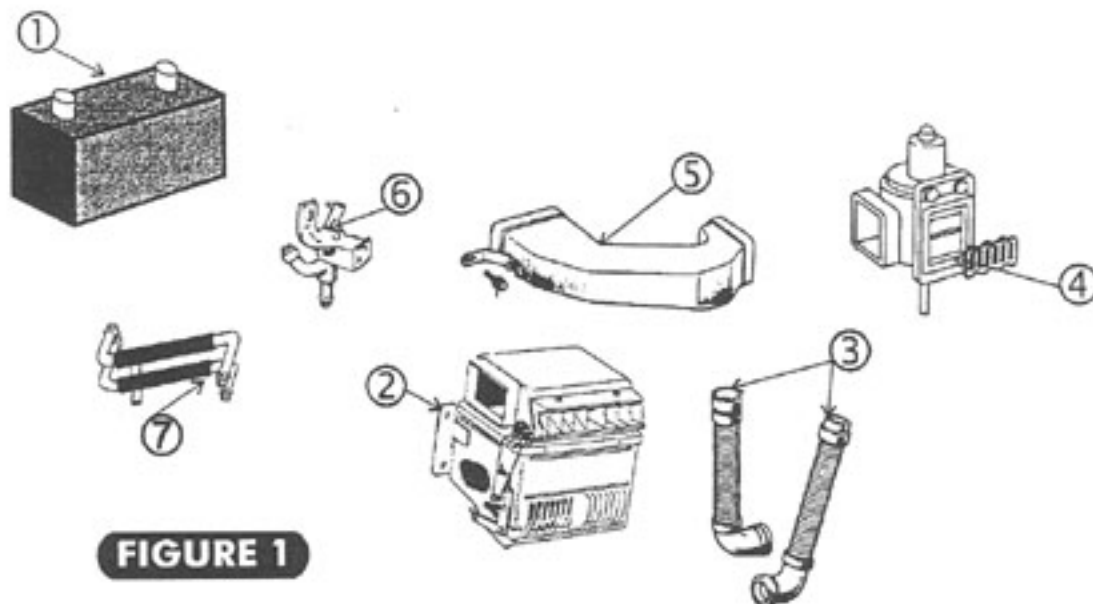


FIGURE 1

ASSEMBLY

COMPRESSOR

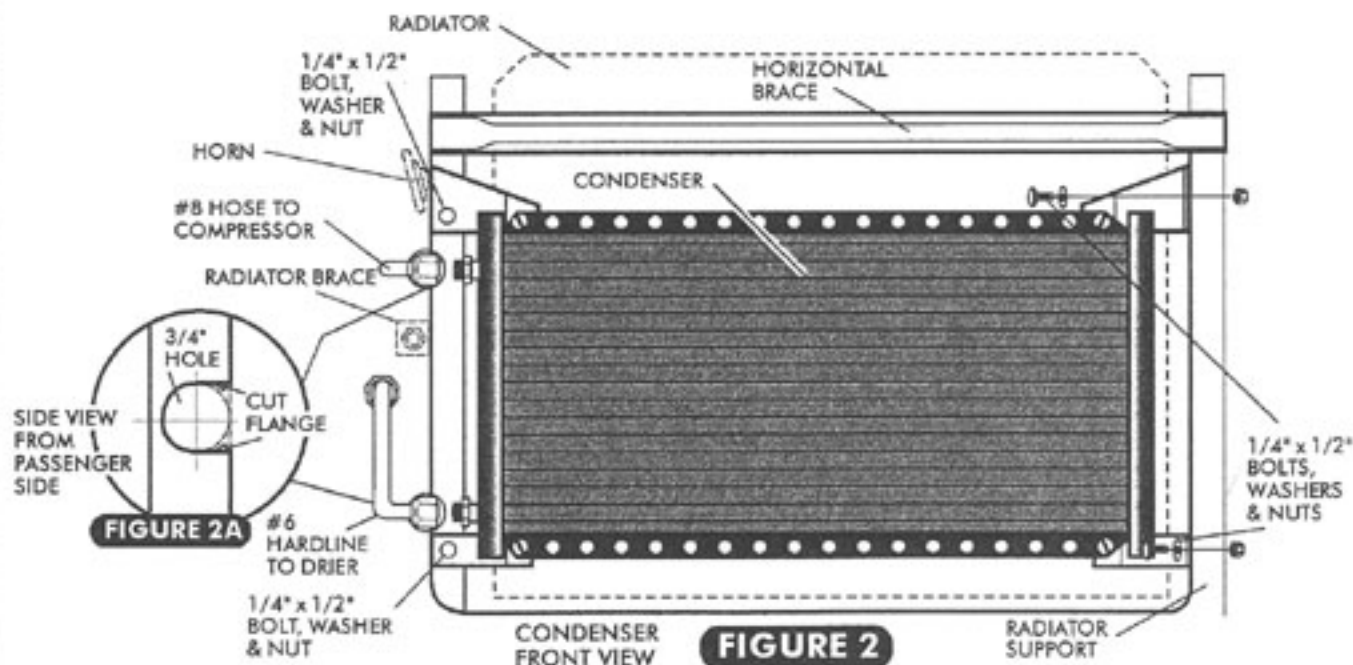
- REFER TO SEPARATE INSTRUCTIONS TO INSTALL COMPRESSOR BRACKET
- INSTALL COMPRESSOR/ALTERNATOR & BRACKET USING HARDWARE INCLUDED WITH BRACKET.

PULLEYS

- CHECK ALIGNMENT OF PULLEYS AND FOLLOW THE INSTRUCTIONS PROVIDED WITH THE BRACKET FOR PROPER PULLEY/BELT COMBINATION.

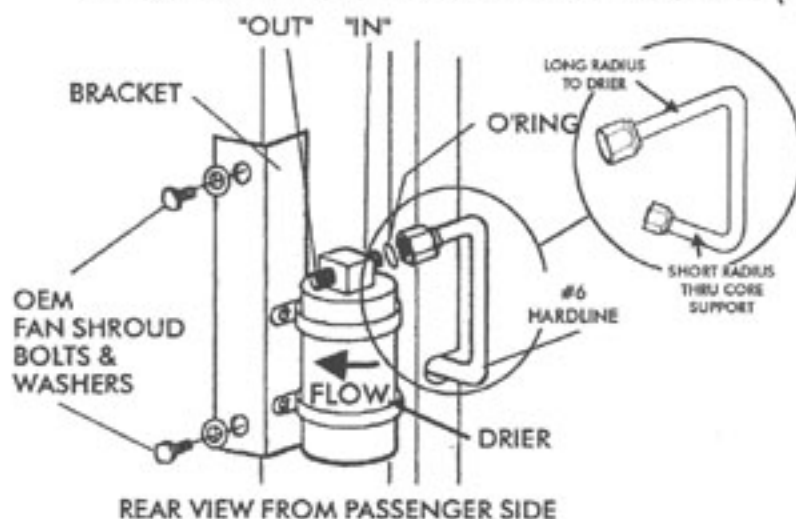
CONDENSER ASSEMBLY (TRUCKS WITH FACTORY A/C - SEE NOTE)

- ROTATE GRILLE ASSEMBLY FORWARD FOR CLEARANCE.
- HOLD CONDENSER ASSEMBLY IN PLACE. THE TOP EDGE MUST BE BELOW THE OEM HORIZONTAL BRACE. THE #8 HOSE (PASSENGER SIDE TOP) WILL RUN BETWEEN THE HORN AND RADIATOR BRACE. SEE FIGURE 2.
- LOCATE AND DRILL (4) FOUR 9/32" MOUNTING HOLES FOR CONDENSER MOUNTING BRACKET. ★ SEE NOTE BELOW.
- SECURE WITH (4) FOUR 1/4"NC x 1/2" BOLTS, NUTS AND FLAT WASHERS (SUPPLIED).
- LOCATE AND DRILL (2) TWO 3/4" HOLES FOR A/C LINE CLEARANCE. CUT FLANGE TO INSERT CONDENSER LINE. SEE FIGURE 2A.
- LOCATE O-RING PACKAGE. THERE IS A SPECIFIC SIZE AND THICKNESS O-RING FOR EACH CONNECTION. THE SMALL WHITE TUBE IS AN OIL FOR O-RINGS AND THREADS (SEE FIGURE 15E ON PG. 11).
- LOCATE THE #6 CONDENSER TO DRIER ALUMINUM HARDLINE. LUBRICATE THE #6 O-RING AND INSTALL THE LINE TO THE LOWER CONDENSER PORT. SEE FIGURE 2, 3 AND FIGURE 4.



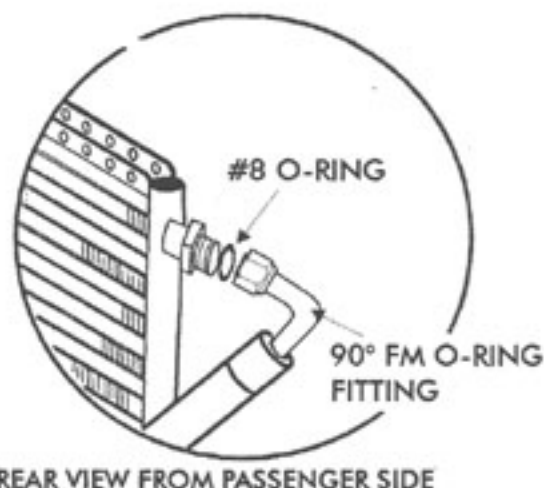
★ **NOTE: TRUCKS WITH FACTORY A/C; USE THE OEM CONDENSER MOUNTING HOLES AND IT IS NOT NECESSARY TO DRILL HOLES FOR A/C HOSE CLEARANCE.**

- MOUNT DRIER ASSEMBLY TO THE BOTTOM TWO (2) PASSENGER SIDE FAN SHROUD BOLTS. SEE FIGURE 3.
- ADJUST THE DRIER IN IT'S CLAMPS UNTIL THE #6 HARDLINE FROM THE CONDENSER ALIGNS PROPERLY.
- LUBRICATE THE FITTING AND THE O'RING AND ATTACH THE HARDLINE TO THE DRIER. SEE FIGURE 3.
- LOCATE THE #8 (MIDDLE SIZE) DISCHARGE HOSE THAT RUNS FROM THE CONDENSER TO THE COMPRESSOR. LUBRICATE THE 90 DEGREE CONDENSER END AND #8 O-RING (SEE FIGURE 15E, PAGE 11) AND ATTACH. SEE FIGURE 4.
- AIM THE HOSE BETWEEN THE HORN AND THE RADIATOR SUPPORT BRACKET (PASSENGER SIDE). SEE FIGURE 2 (PAGE 2). TIGHTEN FITTING AT CONDENSER.
- LUBRICATE THE FITTING AND O'RING AND CONNECT THE OTHER END TO THE COMPRESSOR DISCHARGE PORT. SEE FIGURE 15 (PAGE 11).



REAR VIEW FROM PASSENGER SIDE

FIGURE 3



REAR VIEW FROM PASSENGER SIDE

FIGURE 4

GRILLE EMBLEM ADJUSTMENT

- THE "TOYOTA" GRILLE EMBLEM WILL HIT THE CONDENSER CAUSING A LEAK.
- REMOVE THE EMBLEM AND CUT OFF THE MOUNTING SCREWS FLUSH WITH THE PLASTIC EXTENSION.
- ROUND THE TOP EDGE OF THE PLASTIC EXTENSION WITH A FILE.
- INSERT THE EMBLEM THROUGH THE GRILLE BAR IN THE ORIGINAL LOCATION.
- USE A 7/16", 12 POINT SOCKET TO INSTALL THE TWO (2) 3/8" PUSH ON RINGS (THE SPRING TABS GO UP).

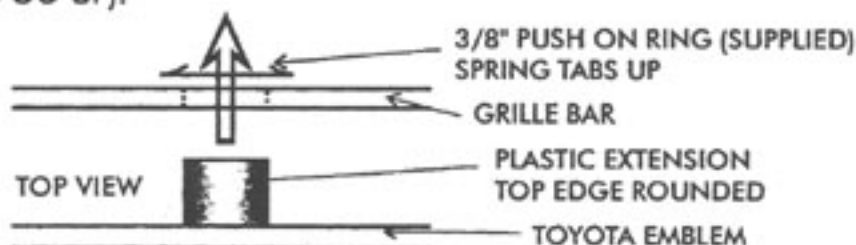
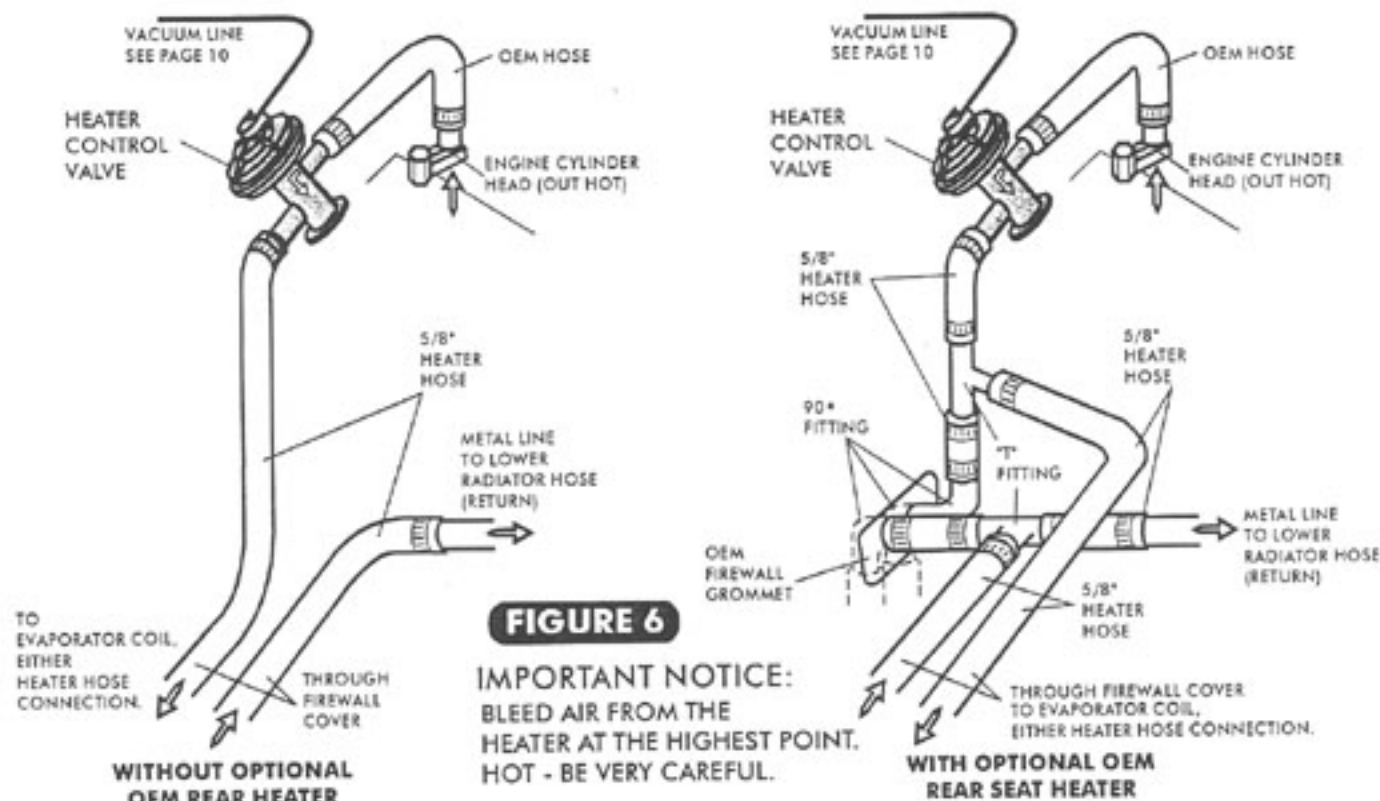


FIGURE 5

REAR HEATER HOSE INSTALLATION (AS REQUIRED)

- IT IS BEST TO CONNECT THE REAR HEATER HOSES BEFORE INSTALLING THE EVAPORATOR.
- YOU WILL NEED THREE (3) 90 DEGREE x 5/8" HOSE FITTINGS AND TWO (2) 5/8" "T" FITTINGS.
- CONNECT THE HOSES AS SHOWN. SEE FIGURE 6.



DRIVER'S SIDE VENT

- LOCATE BAG CONTAINING DRIVER SIDE VENT ASSEMBLY.
- THE MOUNTING BRACKET WITH THE WIDE SPACED MOUNTING HOLES IS FOR TRUCKS WITH A COLLAPSIBLE STEERING COLUMN. THE CLOSER SPACED HOLES ARE FOR A SOLID (EARLY) STEERING COLUMN. USE THE BRACKET THAT FITS YOUR VEHICLE AND DISCARD THE OTHER.
- MOUNT THE BRACKET TO THE COLUMN USING THE ORIGINAL STEERING COLUMN MOUNTING HARDWARE. SEE FIGURE 7.
- ATTACH THE DRIVER SIDE 2-1/2" X 32" DUCT HOSE INSIDE THE VENT ASSEMBLY.
- USE THE FOUR (4) #6 BLACK METAL SCREWS TO SECURE THE VENT ASSEMBLY TO THE MOUNTING BRACKET. SEE FIGURE 7.

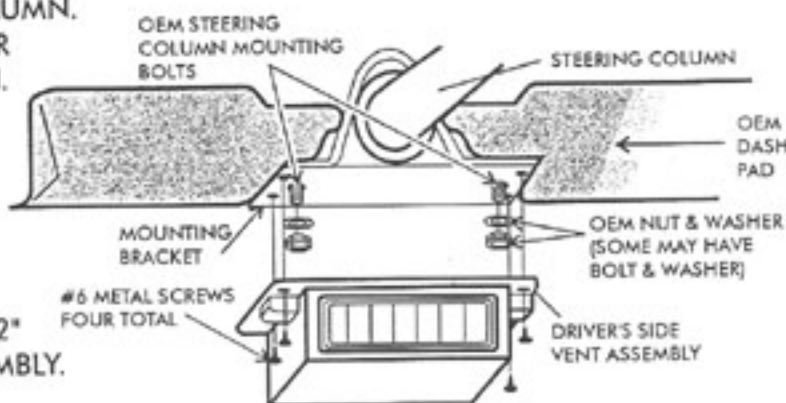


FIGURE 7

EVAPORATOR INSTALLATION

- TOP OF COWL VENT ON EARLY (1968) MODELS MUST BE MADE INOPERABLE.
- CONNECT A 24" x 5/8" HEATER HOSE TO EACH LINE ON THE EVAPORATOR. SEE FIGURE 8.
- CONNECT AND ALIGN THE EVAPORATOR END OF A/C HOSES TO LOWER FIREWALL HOLE, SEE FIGURE 9. (SEE A/C HOSE INSTRUCTIONS ON PG.9).

NOTE: ON ALL EVAPORATOR BRACKETS - USE TOP HOLE WITH DASH PADS AND BOTTOM HOLE WITHOUT DASH PADS.

HEATER LINES:
AIM UP TO
ROUTE THROUGH
OEM FIREWALL
HOLE

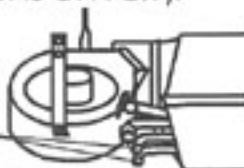


FIGURE 8

LOWER
FIREWALL
HOLE
FROM
INSIDE



FIGURE 9

- REMOVE FIREWALL SIDE BLOWER MOTOR HOUSING BRACKET FROM THE EVAPORATOR AND ATTACH TO THE TOP, PASSENGER SIDE OEM FAN MOUNTING CAPTIVE NUT AND SECURE IT WITH OEM BOLT. SEE FIGURE 10A.
- REMOVE FRONT (DASH) BLOWER MOTOR HOUSING BRACKET FROM EVAPORATOR. THE BRACKET HAS 4 HOLES (SEE FIGURE 10B). THE TOP LARGE HOLES GO TO THE OEM HOLE JUST INSIDE THE GLOVE BOX DOOR TO THE RIGHT (WHEN AVAILABLE). THE SMALLER HOLES GO TO THE OEM SPEAKER MOUNTING HOLES (WHEN AVAILABLE). CHOOSE APPROPRIATE HOLES FOR YOUR TRUCK.

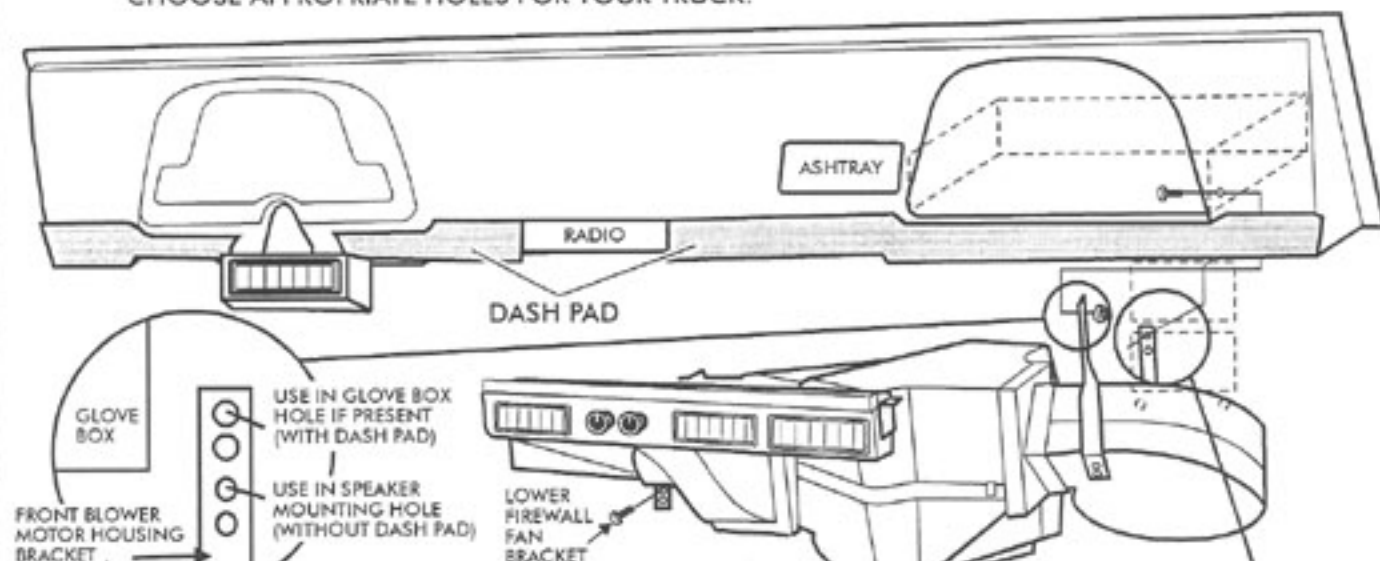


FIGURE 10B

FIGURE 10

CAPTIVE
NUT

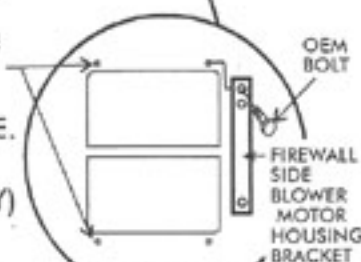


FIGURE 10A

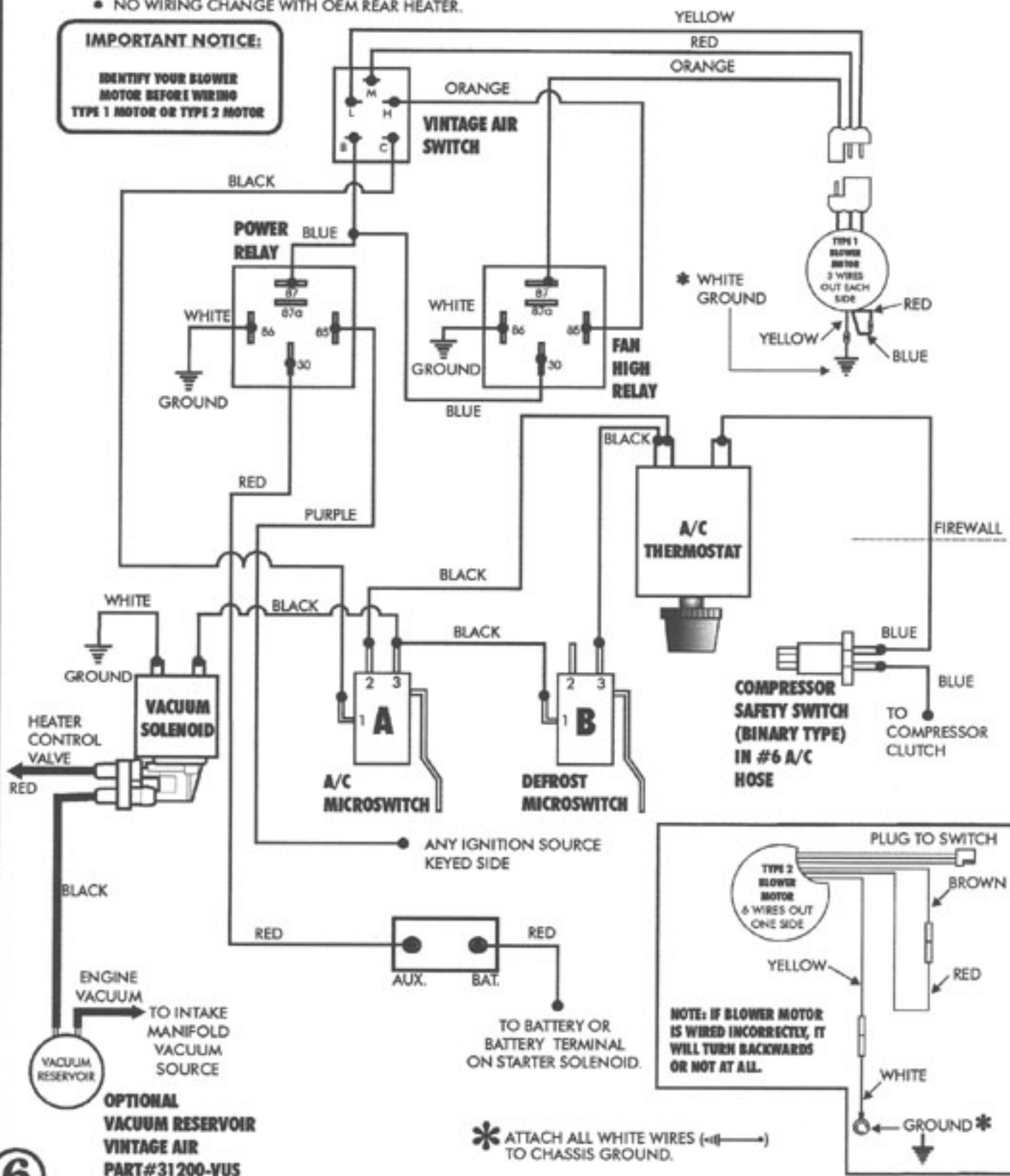
- LAY EVAPORATOR UNDER DASH AND ROUTE HEATER HOSES THROUGH THE FIREWALL COVER AND THE LOWER FIREWALL HOLE. SEE FIGURE 9.
- CONNECT THE FIREWALL SIDE BLOWER HOUSING BRACKET (ONLY) TO THE EVAPORATOR. INSTALL LOWER FIREWALL BRACKET AT OEM HEATER HOLE USING OEM BOLT. SEE FIGURE 10. USE TOP HOLE IN BRACKET.
- AT THIS POINT THE EVAPORATOR WILL HANG AT AN ANGLE SO THE WIRING, DUCTS, AND CABLES CAN BE INSTALLED.
- ADDITIONAL ACCESS CAN BE HAD THROUGH THE RADIO AND ASHTRAY OPENINGS.

WIRING DIAGRAM

- THE NEW SWITCH CAN REPLACE THE OEM FAN SWITCH IF IT'S NOT USED TO CONTROL A REAR HEATER.
- NO WIRING CHANGE WITH OEM REAR HEATER.

IMPORTANT NOTICE:

IDENTIFY YOUR BLOWER MOTOR BEFORE WIRING
TYPE 1 MOTOR OR TYPE 2 MOTOR



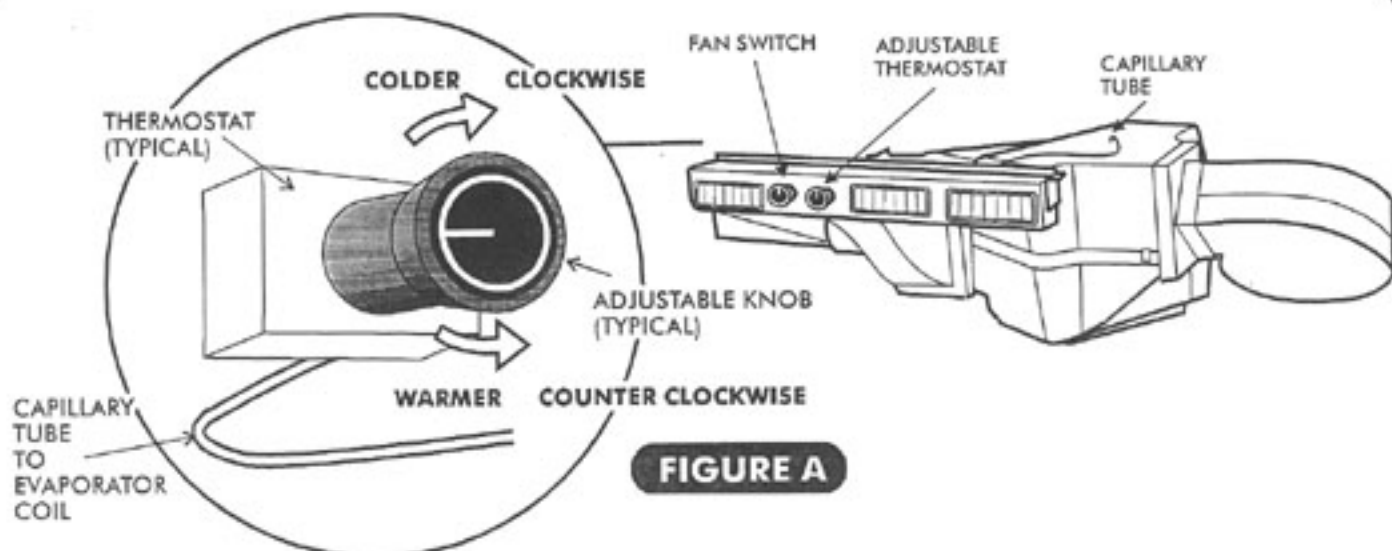


FIGURE A

AIR CONDITIONING ADJUSTMENTS:

- THE AIR CONDITIONER THERMOSTAT CONTROLS COIL TEMPERATURE, IT IS SHIPPED ADJUSTED FULLY COLD (CLOCKWISE), IN THE MAJORITY OF CASES THE A/C WILL OPERATE CORRECTLY AS SHIPPED.
- TURNING THE KNOB ON THE THERMOSTAT TO THE RIGHT (CLOCKWISE) MAKES THE SYSTEM OPERATE COLDER. IF THE THERMOSTAT IS SET TOO COLD THE EVAPORATOR WILL "ICE UP" - THE EVAPORATOR COIL IS RESTRICTED WITH ICE AND COLD AIR FLOW WILL BE REDUCED.
- TURNING THE KNOB TO THE LEFT (COUNTER CLOCKWISE) MAKES THE SYSTEM OPERATE WARMER. THE COMPRESSOR CLUTCH WILL CYCLE OFF FREQUENTLY AND THE A/C SYSTEM WILL NOT GET AS COOL AS IT COULD.

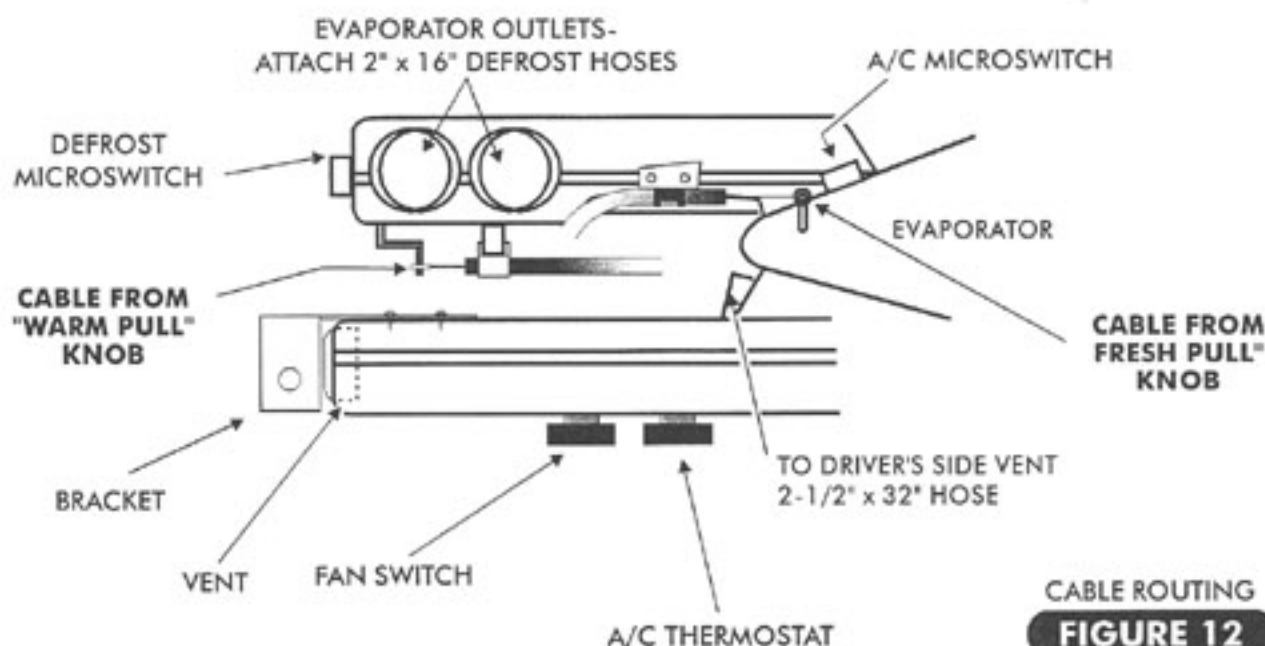
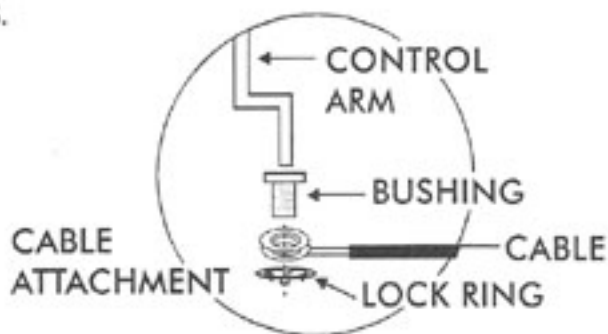
ADJUSTING A/C THERMOSTAT

- 1.) **SYMPTOM:** THE A/C WORKS WELL AT FIRST THEN QUILTS COOLING. THE AIR FLOW FROM THE VENTS IS LOW AND THE COMPRESSOR CYCLES INFREQUENTLY.
SOLUTION: THE THERMOSTAT IS SET TOO COLD AND THE EVAPORATOR IS "ICING UP" AND RESTRICTING AIR FLOW. ALLOW THE ICE TO MELT AND SET THE THERMOSTAT WARMER (COUNTER CLOCKWISE) 10% OF A TURN EACH ADJUSTMENT UNTIL THE SYMPTOMS DIMINISH.
- 2.) **SYMPTOM:** A/C NEVER GETS COLD AND THE COMPRESSOR CLUTCH CYCLES FREQUENTLY.
SOLUTION: THE THERMOSTAT IS SET TOO WARM. SET THE THERMOSTAT COLDER (CLOCKWISE) 10% OF A TURN EACH ADJUSTMENT UNTIL THE COMPRESSOR CLUTCH CYCLES INFREQUENTLY. AVOID SETTING THE THERMOSTAT TOO COLD.
- 3.) **SYMPTOM:** THE A/C NEVER GETS COLD, SOMETIMES EVEN BLOWS HOT, AND THE A/C COMPRESSOR CLUTCH INFREQUENTLY CYCLES OFF.
SOLUTION: THE HEATER MAY BE ON AT ALL TIMES. CAREFULLY FEEL AROUND THE HEATER HOSES AT THE FIREWALL. IF THE HOSES ARE HOT THEN:
 - A) - THE HEATER CONTROL VALVE MAY BE INSTALLED BACKWARDS. CHECK THE FLOW DIRECTION ARROW ON THE VALVE AGAINST THE ILLUSTRATION IN YOUR INSTALLATION INSTRUCTIONS.
 - B) - IF CABLE OPERATED: THE VALVE MAY BE MISADJUSTED.
 - C) - IF VACUUM OPERATED: IT MAY BE GETTING VACUUM AT ALL TIMES (CHECK ELECTRIC SOLENOID).

CONTROL CABLES

- CONNECT CONTROL CABLES. SEE FIGURES 11 & 12.
- SEE FIGURE 16 (PG.11) FOR OPERATION CONTROLS.
- CHECK FOR FULL TRAVEL.

FIGURE 11



**CABLE ROUTING
FIGURE 12**

DUCTS

- CONNECT THE DRIVER'S SIDE VENT DUCT HOSE (2-1/2" x 32") TO THE EVAPORATOR. SEE FIGURE 12.
- ATTACH DEFROST HOSE ADAPTERS TO OEM DEFROST VENTS BY PRESSING FIRMLY OVER "S"-CLIPS. SEE FIGURE 13A.
- ATTACH A 2" x 16" DEFROSTER DUCT HOSE TO EACH EVAPORATOR OUTLET AND DEFROST HOSE ADAPTER. SEE FIGURE 12 & 13A.

EVAPORATOR INSTALLATION (CONTINUED)

- TRUCKS WITHOUT OEM DASH PADS - REMOVE DASH PAD SPACER ON EVAPORATOR. SEE FIGURE 13 & 13B. THE NYLON SPACERS ON BOTH SIDES WILL NOT BE NEEDED.
- TRUCKS WITH THE DASH PAD WILL NEED THE NYLON SPACERS. DRILL A 5/32" HOLE UP THRU THE DASH USING THE HOLE IN THE BRACKET AS A GUIDE. INSTALL THE NYLON BUSHING AND 10/32" X 1" BOLT UP THRU THE BRACKET, THE NYLON, AND DASH. INSTALL THE NUT.

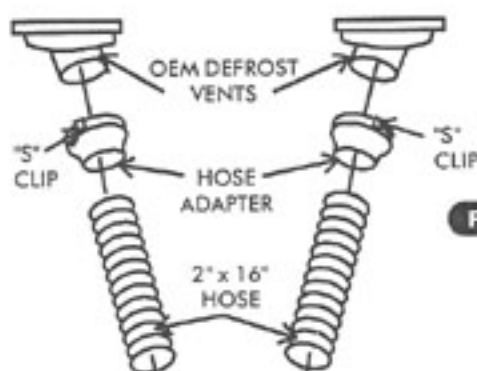


FIGURE 13A

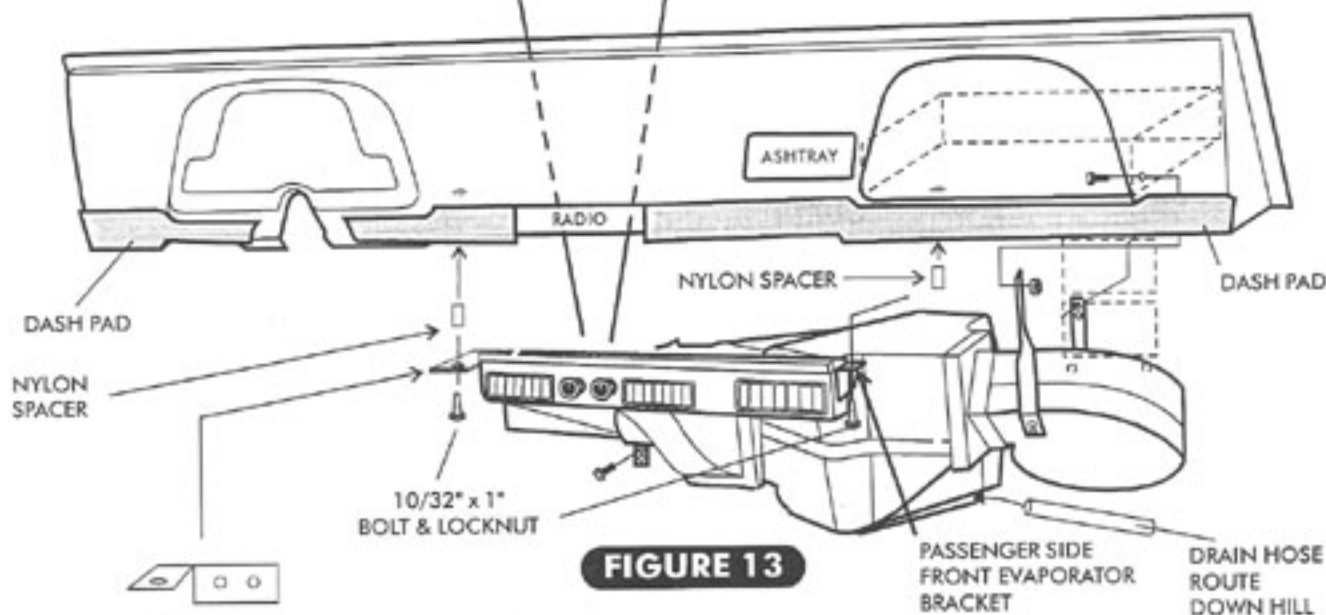


FIGURE 13

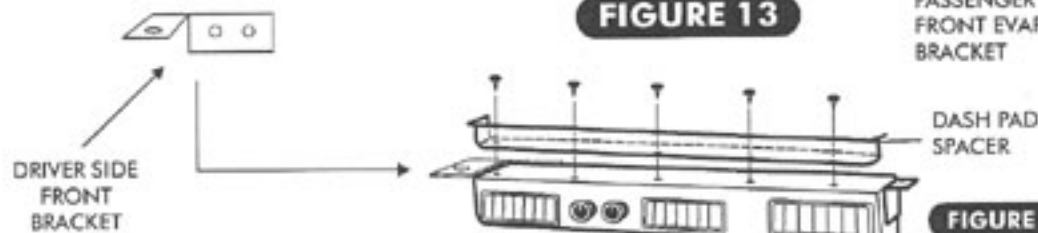


FIGURE 13B

VEHICLES WITHOUT OEM DASH PADS - REMOVE SPACER (5 METAL SCREWS) AND MOVE DRIVER'S SIDE FRONT BRACKET TO DRIVER'S END OF EVAPORATOR. SEE FIGURE 13B.

A/C HOSE INSTALLATION

- ALWAYS CONNECT THE EVAPORATOR END OF THE HOSE FIRST AND LEAVE THE ENDS SLIGHTLY LOOSE FOR ALIGNMENT OF THE FITTINGS.
- BEFORE INSTALLATION BLOW OUT ALL THREE RUBBER HOSES WITH DRY AIR AND RECAP.
- LOCATE O'RING PACKAGE. THERE IS A SPECIFIC SIZE AND THICKNESS O'RING FOR EACH CONNECTION. THE SMALL WHITE TUBE IS AN OIL FOR O'RINGS AND THREADS (SEE FIGURE 15E ON PG. 11).
- LOCATE THE #10 (LARGE SIZE) RUBBER SUCTION HOSE THAT RUNS THROUGH THE FIREWALL COVER TO THE SUCTION SIDE OF THE A/C COMPRESSOR. LUBRICATE THE O'RINGS AND FITTINGS. CONNECT THE STRAIGHT END TO THE EVAPORATOR AND THE 135 DEGREE END WITH SERVICE PORT TO THE SUCTION SIDE OF THE COMPRESSOR. BE SURE THERE IS NO INTERFERENCE BETWEEN THE TWO SERVICE PORTS. SEE FIGURE 15 & 15A (PG. 11).
- LOCATE THE #6 (SMALLEST) RUBBER HOSE. LUBRICATE THE O'RINGS AND FITTINGS. RUN FROM THE EVAPORATOR, THROUGH THE FIREWALL COVER TO THE DRIER. THE 45 DEGREE END CONNECTS TO THE DRIER AND TIPS UP TO CLEAR THE LEFT FRONT SHOCK. SEE FIGURE 15 & 15A (PG. 11).
- USE TWO CLAMP ASSEMBLIES TO SECURE THE #6 AND #10 HOSES. SEE FIGURE 15C.
- THE METAL PARTS OF THE SUCTION HOSE (LARGE) AT THE EVAPORATOR MUST BE COVERED WITH PRESS TAPE TO HELP PREVENT CONDENSATION LEAKS INSIDE THE TRUCK. SEE FIGURE 15B.

FIREWALL COVER INSTALLATION

- INSTALL FIREWALL COVER. SEE FIGURE 14.

IT IS IMPORTANT TO USE THE THREE (3) SUPPLIED 8mm - 1.25 PITCH x 25mm BOLTS TO PREVENT DAMAGE TO THE EVAPORATOR AND GLOVE BOX..

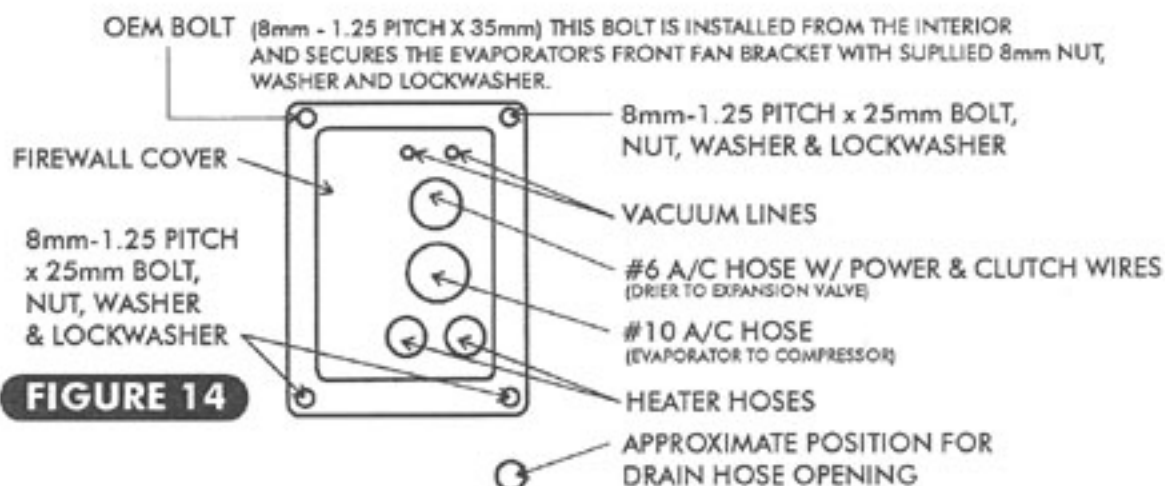
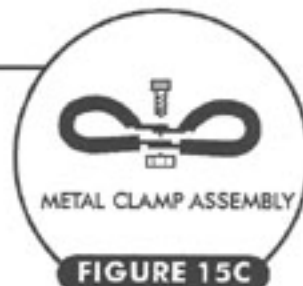
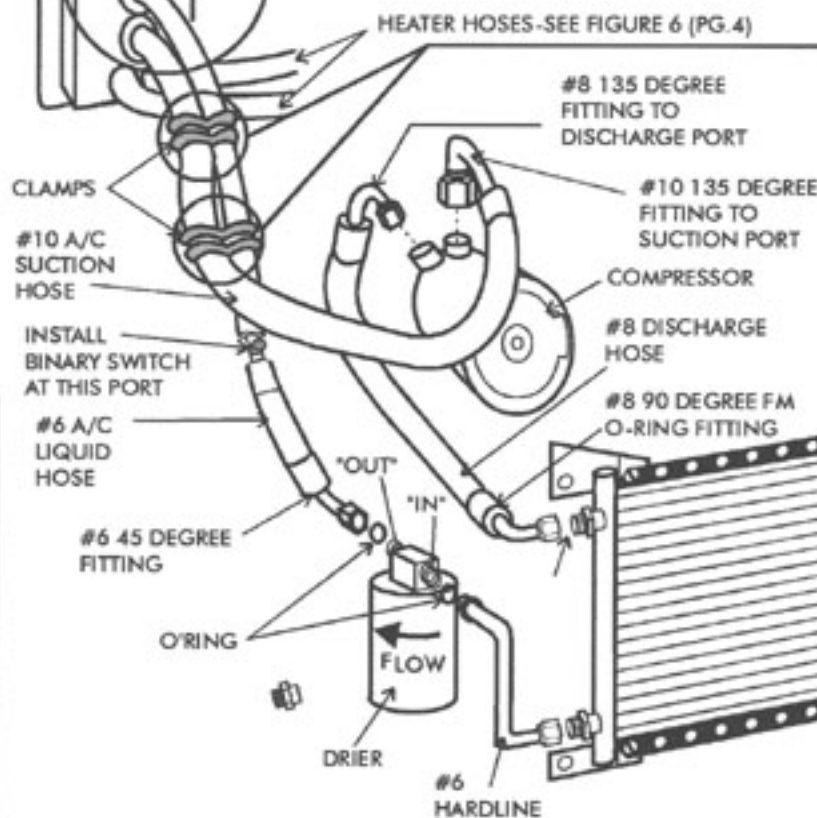
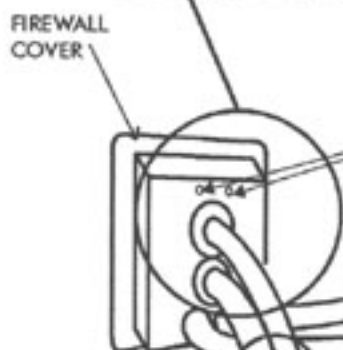
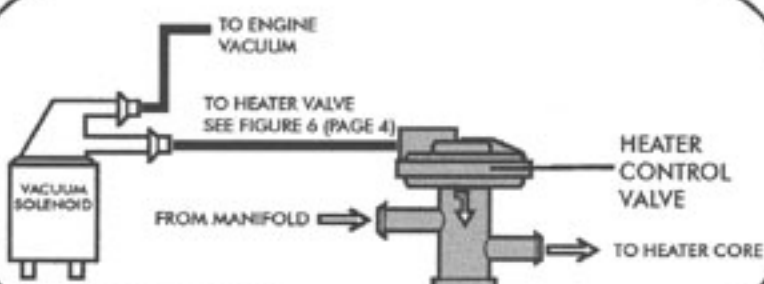
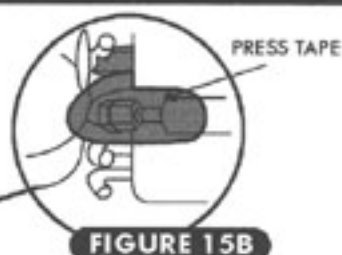
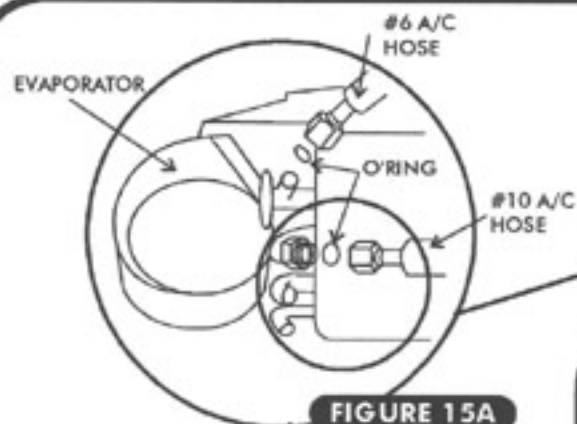
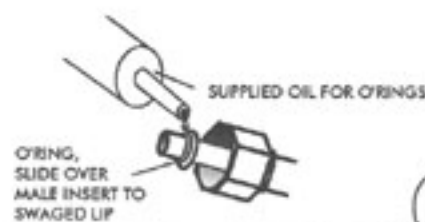
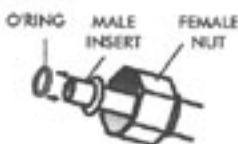


FIGURE 14

- INSTALL DRAIN HOSE AT EVAPORATOR UNIT. LINE UP AND DRILL OPENING IN FIREWALL. BE SURE TO RUN DOWNHILL. SEE FIGURES 13 & 14.



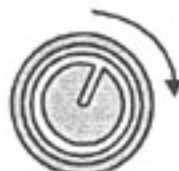
FOR A PROPER SEAL OF FITTINGS
INSTALL SUPPLIED O-RINGS AS
SHOWN BELOW AND LUBRICATE
WITH SUPPLIED OIL.



OPERATION CONTROLS

FIGURE 16

- FAN SWITCH (NEW)
TURN TO OPERATE FAN -
OFF, LOW, MEDIUM AND HI-SPEED.
THE FAN WORKS WITH FOLLOWING CONTROLS



FAN SWITCH

- "FRESH PULL" KNOB (OEM)
PULL: A/C
PUSH: HEATER



A/C-HEATER
SWITCH

- "WARM PULL" KNOB (OEM)
PULL: DEFROST
PUSH: FLOOR OUTLET



DEFROST/FLOOR OUTLET
SWITCH

FINAL STEPS

FINAL STEPS

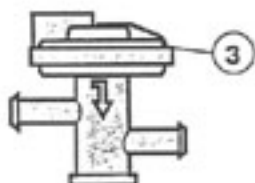
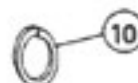
- RE INSTALL ANY PREVIOUSLY REMOVED COMPONENTS (BATTERY, GLOVE BOX, RADIO, GRILLE, ETC.).
- FILL RADIATOR WITH AT LEAST A 50/50 MIXTURE OF APPROVED ANTIFREEZE AND WATER. IT IS THE OWNER'S RESPONSIBILITY TO KEEP THE FREEZE PROTECTION AT THE PROPER LEVEL FOR THE CLIMATE IN WHICH THE VEHICLE IS OPERATED. 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.
- CHECK COMPLETE A/C ASSEMBLY FOR PROPER OPERATION.
- VINTAGE AIR RECOMMENDS THAT ALL A/C SYSTEMS BE SERVICED BY A CERTIFIED AUTOMOTIVE AIR CONDITIONING TECHNICIAN ONLY. SEE INSIDE COVER FOR SERVICE INFORMATION.

63580-LTE

1968-83 TOYOTA LANDCRUISER

DRAIN KIT PARTS LIST

| No. | QTY. | PART NUMBER | DESCRIPTION |
|-----|------|-------------|------------------------------|
| 1. | 10 | 18235-VUB | #8 x 1/2" PAN HEAD SCREW |
| 2. | 15 | 31050-VUD | 1/2" DRAIN HOSE |
| 3. | 1 | 46103-VUH | HEATER CONTROL VALVE |
| 4. | 20 | 49003-VUP | PRESS TAPE |
| 5. | 1 | 18253-VUB | 10/32" x 1" PHILLIPS BOLT |
| 6. | 1 | 18150-VUB | 10/32" MACHINE NUT |
| 7. | 1 | 64779-LTB | EVAP. BRACKET (D.S. FRONT) |
| 8. | 4 | 65975-VUE | PUSH ON RING |
| 9. | 1 | 18513-VUB | 8mm x 1.25 PITCH NUT |
| 10. | 4 | 18610-VUB | 5/16" WASHER |
| 11. | 4 | 18124-VUB | 8mm FLAT WASHER |
| 12. | 3 | 18512-VUB | 8mm x 25mm x 1.25 PITCH BOLT |



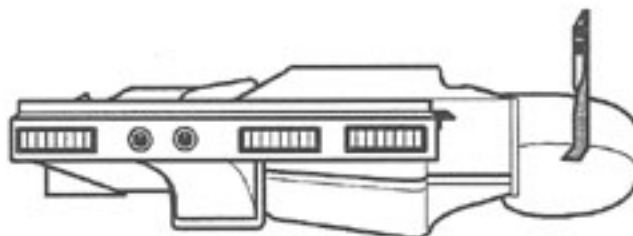
1968-83 TOYOTA LANDCRUISER EVAPORATOR PACKING LIST

75080-LTZ-A EVAPORATOR KIT

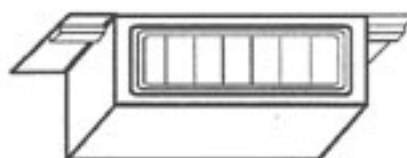
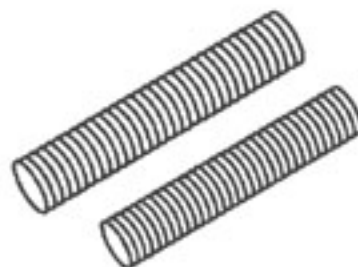
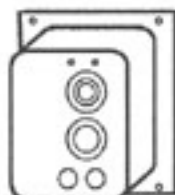
| No. | QTY. | PART NUMBER | DESCRIPTION |
|-----|------|-------------|-----------------|
| 1. | 1 | 55380-LTE-A | EVAPORATOR UNIT |
| 2. | 1 | 79181-LTN | ACCESSORY KIT |

DATE: _____
 CHECKED: _____
 PACKED: _____

①



②



79181-LTN ACCESSORY KIT

1968-83 TOYOTA LANDCRUISER (79181-LTN) ACCESSORY KIT

| No. | QTY. | PART NUMBER | DESCRIPTION |
|-----|------|-------------|-----------------------------|
| 1. | 1 | 62488-LTE | FIREWALL COVER |
| 2. | 1 | 62415-VUE | DEFROST ADAPTERS |
| 3. | 2 | 06200-VUE | 2" X 42" DUCT HOSE |
| 4. | 1 | 06250-VUE | 2-1/2" X 36" DUCT HOSE |
| 5. | 1 | 49080-LTL | DRIVER'S SIDE VENT ASSEMBLY |
| 6. | 11 | 63580-LTE | T.L.C. DRAIN KIT |

DATE: _____
 CHECKED: _____
 PACKED: _____

