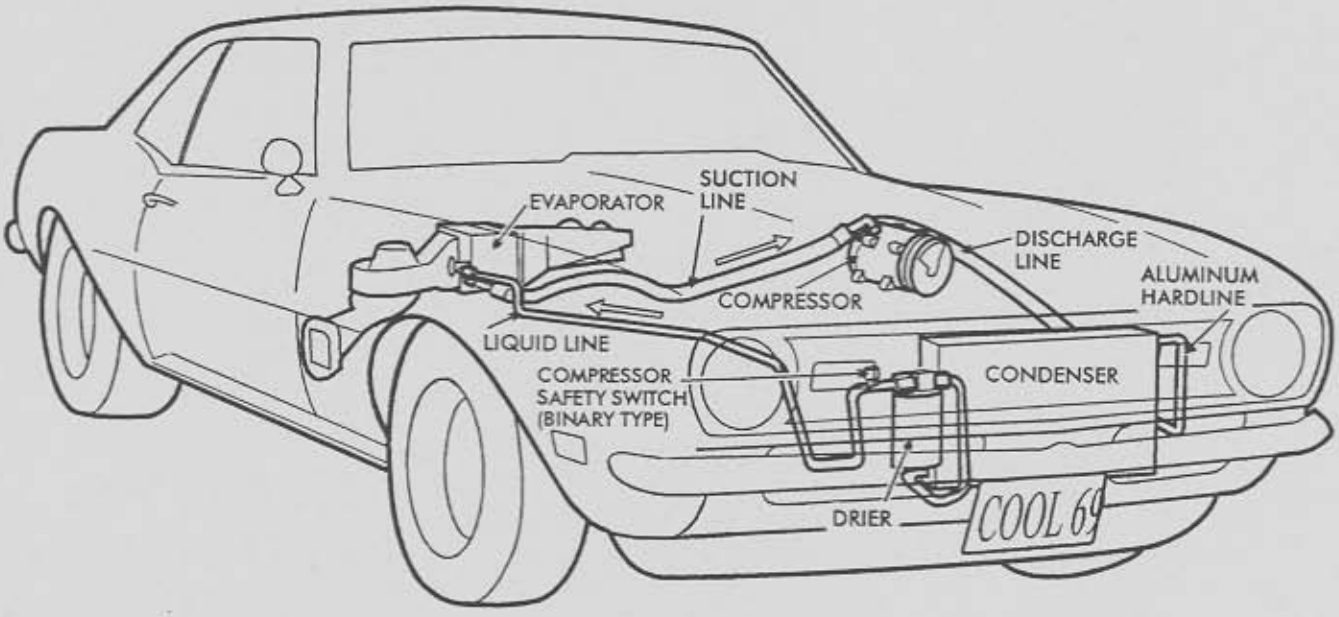
VINTAGE AIR

INSTALLATION INSTRUCTIONS FOR

1969 CAMARO

WITH FACTORY AIR
(55170-VCZ-A)



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10/15/01

1969 CAMARO
WITH FACTORY AIR CONDITIONING

IMPORTANT NOTICE-PLEASE READ

WE RECOMMEND UPGRADING TO THE HEAVY DUTY RADIATOR
(23" x 17" x 2") WITH A FAN SHROUD
AND A 6 BLADE FAN WITH A FAN CLUTCH.
ALL OF THESE COMPONENTS ARE AVAILABLE FROM VINTAGE AIR.

FOR MAXIMUM SYSTEM PERFORMANCE
VINTAGE AIR RECOMMENDS THE FOLLOWING:

70067-VCR - 69' CAMARO RADIATOR
32067-VCF - FAN SHROUD
32918-VUF - 18" FAN
32518-VUF - OEM FAN CLUTCH

SERVICE INFO:

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.

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

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INSTALLATION INSTRUCTIONS FOR 1969 CAMARO WITH FACTORY AIR

NOTE BEFORE STARTING THE AIR CONDITIONER INSTALLATION, CHECK FOR PROPER OPERATION OF ALL COMPONENTS (RADIO, LIGHTS, WIPERS, ETC.). STUDY THE INSTRUCTIONS, ILLUSTRATIONS AND DIAGRAMS. FOR EASE OF INSTALLATION CHECK OFF (☑) EACH PROCEDURE PRIOR TO MOVING ON TO NEXT STEP.

ENGINE COMPARTMENT

☐ PROPERLY PURGE THE A/C SYSTEM OF REFRIGERANT. DO NOT VENT R-12 TO THE ATMOSPHERE.

REMOVE THE FOLLOWING:

☐ 1. BATTERY AND BATTERY BOX (RETAIN). SEE FIGURE 1 AND 3.

☐ 2. CONDENSER AND LINES (DISCARD). RETAIN RUBBER WELL NUTS. SEE FIGURE 1.

☐ 3. OEM COMPRESSOR AND BRACKET (DISCARD). SEE FIGURE 2.

☐ 4. EVAPORATOR AND BLOWER ASSEMBLY (DISCARD). TO REMOVE THE EVAPORATOR AND BLOWER ASSEMBLY (UNDERHOOD) AND THE AIR DISTRIBUTION SYSTEM (UNDERDASH), THE FACTORY MANUAL INDICATES DOING THE FOLLOWING: ***"REMOVE RIGHT LOWER ROCKER MOLDING. REMOVE LOWER FENDER ATTACHING BOLTS. REMOVE SKIRT TO FENDER AND SKIRT TO REINFORCEMENT SCREWS. PULL OUT ON LOWER PORTION OF FENDER, MOVING THE SKIRT AWAY FROM THE FENDER FLANGE AND FIREWALL. BLOCK THE SKIRT WITH A 2 x 4 BLOCK OF WOOD".**** TO AVOID DAMAGE TO PAINT AND SHEET METAL, AND FOR EASE OF REMOVAL AND REPLACEMENT OF COMPONENTS; VINTAGE AIR SUGGESTS THAT THE RIGHT FENDER BE REMOVED AND INNER PANEL BE LOWERED. SEE FIGURE 3.

☐ 5. OEM HEATER HOSES, A/C HOSES, HARDLINES AND DRIER (DISCARD). SEE FIGURE 4.

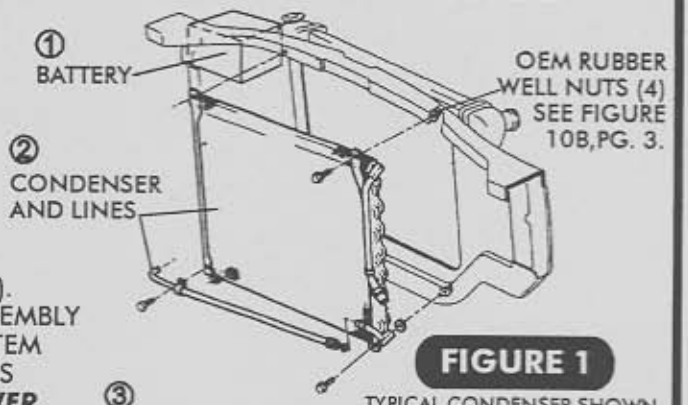

FIGURE 1

TYPICAL CONDENSER SHOWN

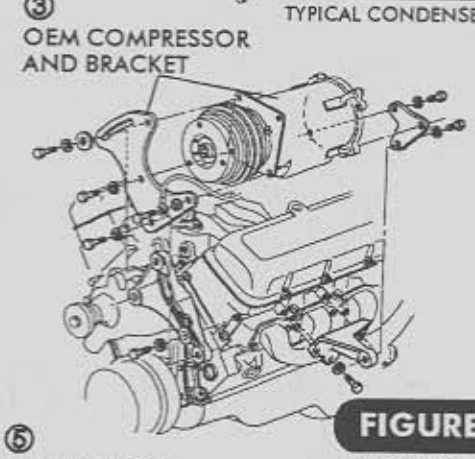

FIGURE 2

TYPICAL V8 SHOWN

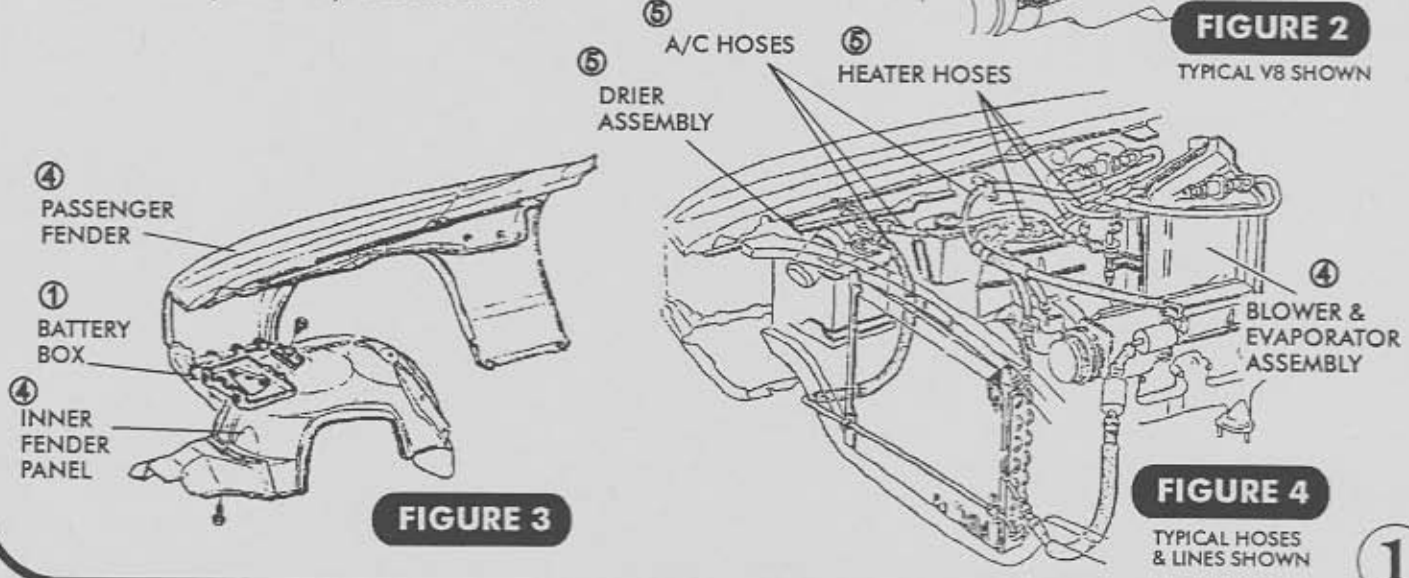

FIGURE 3

FIGURE 4

TYPICAL HOSES & LINES SHOWN

*1969 CAMARO CHASSIS SERVICE MANUAL © 1968 CHEVY DIVISION, GM, PG. 1 A55.

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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:

- ☐ 1. GLOVE BOX DOOR. SEE FIGURE 8.
- ☐ 2. GLOVE BOX SHELL (DISCARD, RETAIN SCREWS). SEE FIGURE 5.
- ☐ 3. RADIO. SEE FIGURE 5 (RETAIN).
- ☐ 4. AC/HEATER ASSEMBLY AND ALL RELATED DUCTING (DISCARD), RETAIN SCREWS. SEE FIGURES 5 & 6.
- ☐ 5. A/C HEAT OUTLETS (RETAIN). INSTRUMENT PANEL MUST BE REMOVED TO GET TO LEFT OUTLET (SEE FIGURE 7) AND CONTROL PANEL (SEE FIGURE 8).
- ☐ 6. REMOVE CONTROL PANEL (RETAIN).
- ☐ 7. REMOVE PASSENGER SIDE KICK PANEL (RETAIN) AND REMOVE DOOR ASSEMBLY (DISCARD) FROM PANEL.

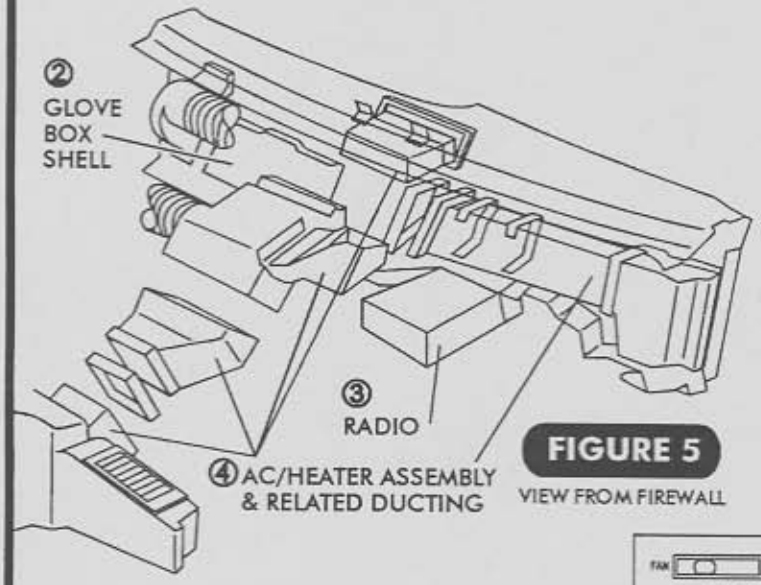


FIGURE 5
VIEW FROM FIREWALL

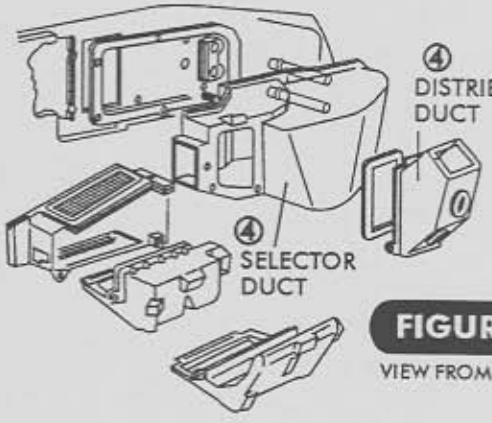


FIGURE 6
VIEW FROM DASH

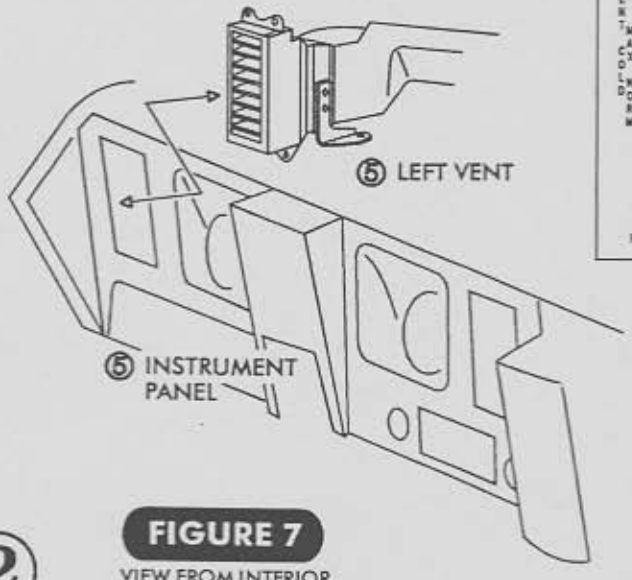
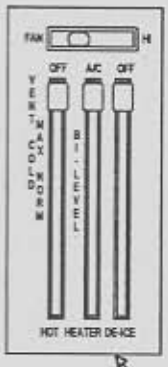


FIGURE 7
VIEW FROM INTERIOR



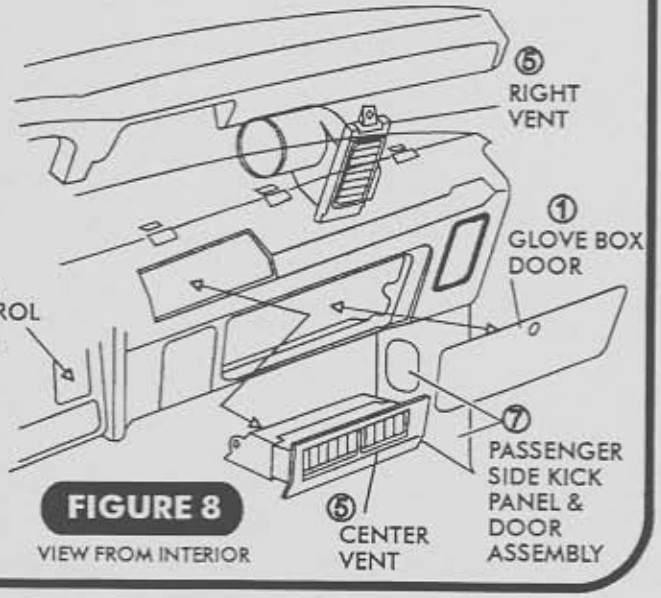


FIGURE 8
VIEW FROM INTERIOR

CONDENSER ASSEMBLY

☐ THE CONDENSER ASSEMBLY MOUNTS TO THE FRONT OF THE CORE SUPPORT. LOWER CONDENSER ASSEMBLY INTO POSITION. BE SURE THE TOP BRACKET IS BEHIND (FRONT LIP) FLANGE ON TOP OF THE CORE SUPPORT. FASTEN DRIVER SIDE LOWER CONDENER BRACKET TO CORE SUPPORT USING 5/16" X 1-1/2" BOLT AND NUT. LOWER HOOD LATCH SUPPORT BRACKET INTO PLACE. NOTE THAT THE LOWER MOUNTING TAB OF LATCH SUPPORT BRACKET WILL SLIP BEHIND PASSENGER SIDE LOWER CONDENSER BRACKET AND AGAINST THE CORE SUPPORT. ATTACH HOOD LATCH SUPPORT BRACKET WITH ORIGINAL 5/16" BOLT. NOTE THAT THE LOWER BOLT WILL PASS THROUGH THE PASSENGER SIDE LOWER CONDENSER BRACKET AND SECURE IT TO THE CORE SUPPORT. SEE PAGE 4, FIGURE 9.

☐ REPLACE HOOD LATCH ASSEMBLY. THE 2 (TWO) ORIGINAL 5/16" BOLTS CONNECTING IT TO THE CORE SUPPORT WILL NOW PASS THROUGH AND SECURE THE TOP CONDENSER BRACKET. SEE PAGE 4, FIGURE 10.

COMPRESSOR & BRACKETS

☐ REFER TO SEPERATE INSTRUCTIONS INCLUDED WITH THE BRACKET KIT TO INSTALL THE COMPRESSOR BRACKET. REFER TO FIGURE 11 FOR COMPRESSOR MOUNTING POSITION.

☐ INSTALL COMPRESSOR USING TABS "C" & "G" WITH OUTLETS FACING UP.

PULLEYS

☐ IN MOST INSTANCES THE BELT LENGTHS WILL REMAIN THE SAME. SEE FIGURE 11.

A/C HARDLINES AT THE CONDENSER

☐ LOCATE THE O'RING PACKAGE. THERE IS A SPECIFIC SIZE AND THICKNESS O'RING FOR EACH CONNECTION. THE SMALL WHITE TUBE IS A SPECIFIC OIL FOR O'RINGS AND THREADS. SEE FIGURE 11a. O'RINGS SHOULD NOT BE REUSED ONCE A FITTING IS TIGHTENED (DISCARD AND INSTALL NEW O'RINGS). DO NOT OVER TIGHTEN. ALWAYS USE TWO (2) WRENCHES TO PREVENT TWISTING FITTINGS ON HARDLINES. FIGURE 11b.

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

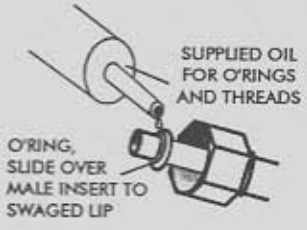


FIGURE 11a

FIGURE 11b

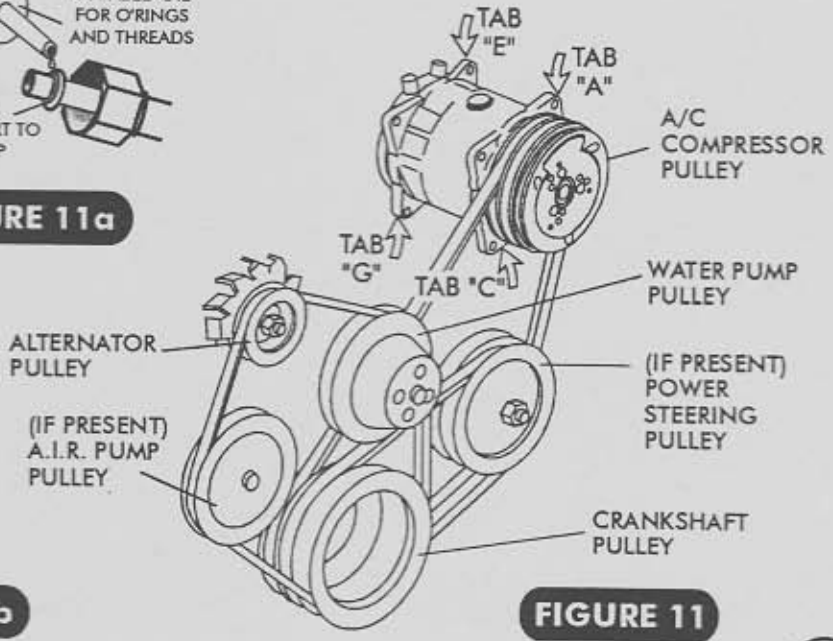


FIGURE 11

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CONDENSER INSTALLATION

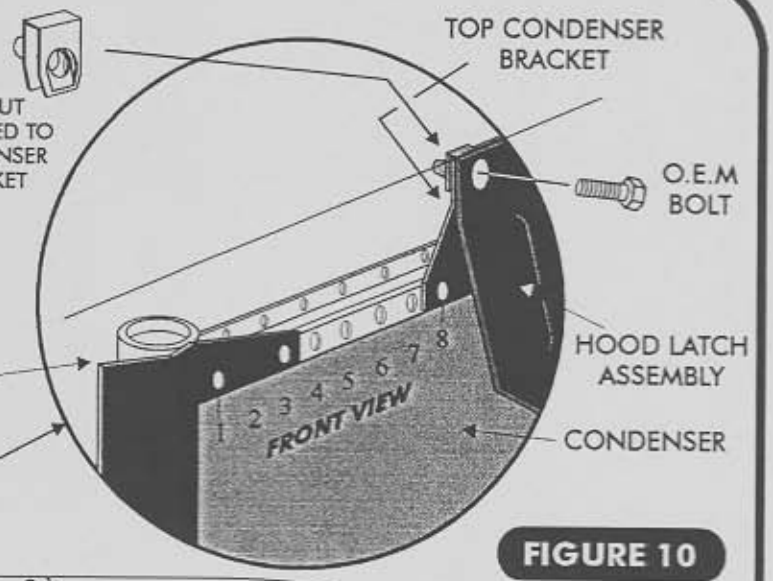

FIGURE 10

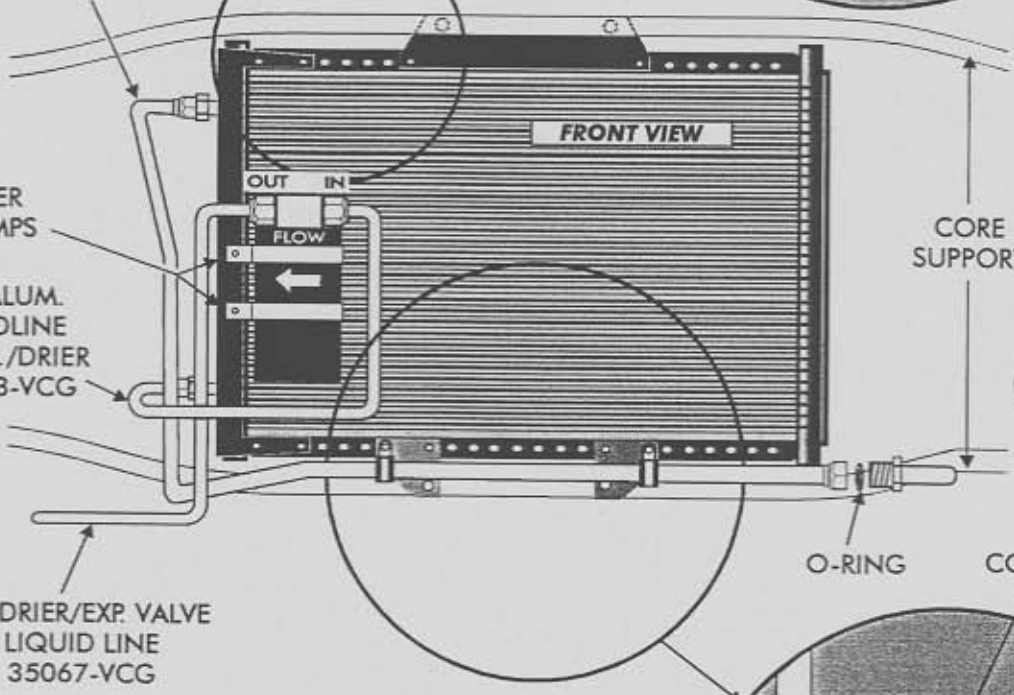

FIGURE 9

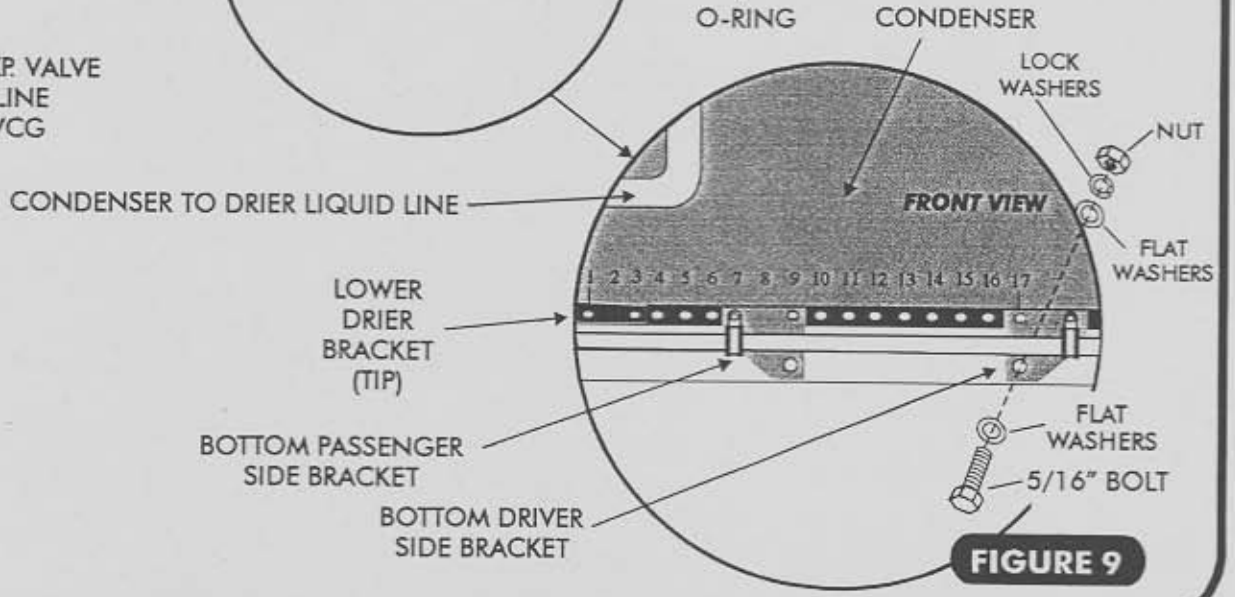

FIGURE 9

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CONDENSER ASSEMBLY (CONTINUED):

- ☐ LOCATE THE SHORT #6 ALUMINUM HARDLINE, INSTALL ON EXPANSION VALVE. SEE FIGURE 12 BELOW.
- ☐ LOCATE THE TWO #8 HARDLINES AND O-RINGS,INSTALL ON CONDENSER AND DISCHARGE HOSE. SEE FIGURE 12 BELOW AND FIGURE 9, PAGE 4.
- ☐ FASTEN THE HARDLINE TO THE FRONT OF THE DRIVER'S INNER FENDER PANEL WITH A #4 ADEL CLAMP AND A #10/24 x 3/8" MACHINE SCREW AND LOCK-NUT, DRILL 3/16 HOLE. SEE FIGURE 12A. RECAP END TO KEEP CLEAN.
- ☐ LOCATE THE #6 ALUMINUM HARDLINE. THIS LINE GOES FROM THE DRIER, UNDER THE PASSENGER SIDE RADIATOR SUPPORT. INSTALL ON DRIER, SEE FIGURE 12.
- ☐ LOCATE THE COMPRESSOR SAFETY SWITCH (BINARY TYPE). LUBRICATE THE THREADS AND FIRMLY SCREW THE SAFETY SWITCH ON DRIER. SEE FIGURE 12.
- ☐ LUBRICATE THE O'RINGS AND FITTINGS (SEE FIGURE 11a, PG.3) AND ROUTE THE LINE AS SHOWN ON THE PASSENGER SIDE. SEE FIGURE 12.
- ☐ CLAMP THE LINE WITH TWO (2) EACH #2 ADEL CLAMPS AND TWO (2) EACH #10/32 x 1/2" MACHINE SCREWS AND LOCKNUTS. SEE FIGURE 12, DRILL 3/16 HOLES IN THE INNER FENDER PANEL. RECAP THE END OF THE HARDLINE TO KEEP CLEAN.

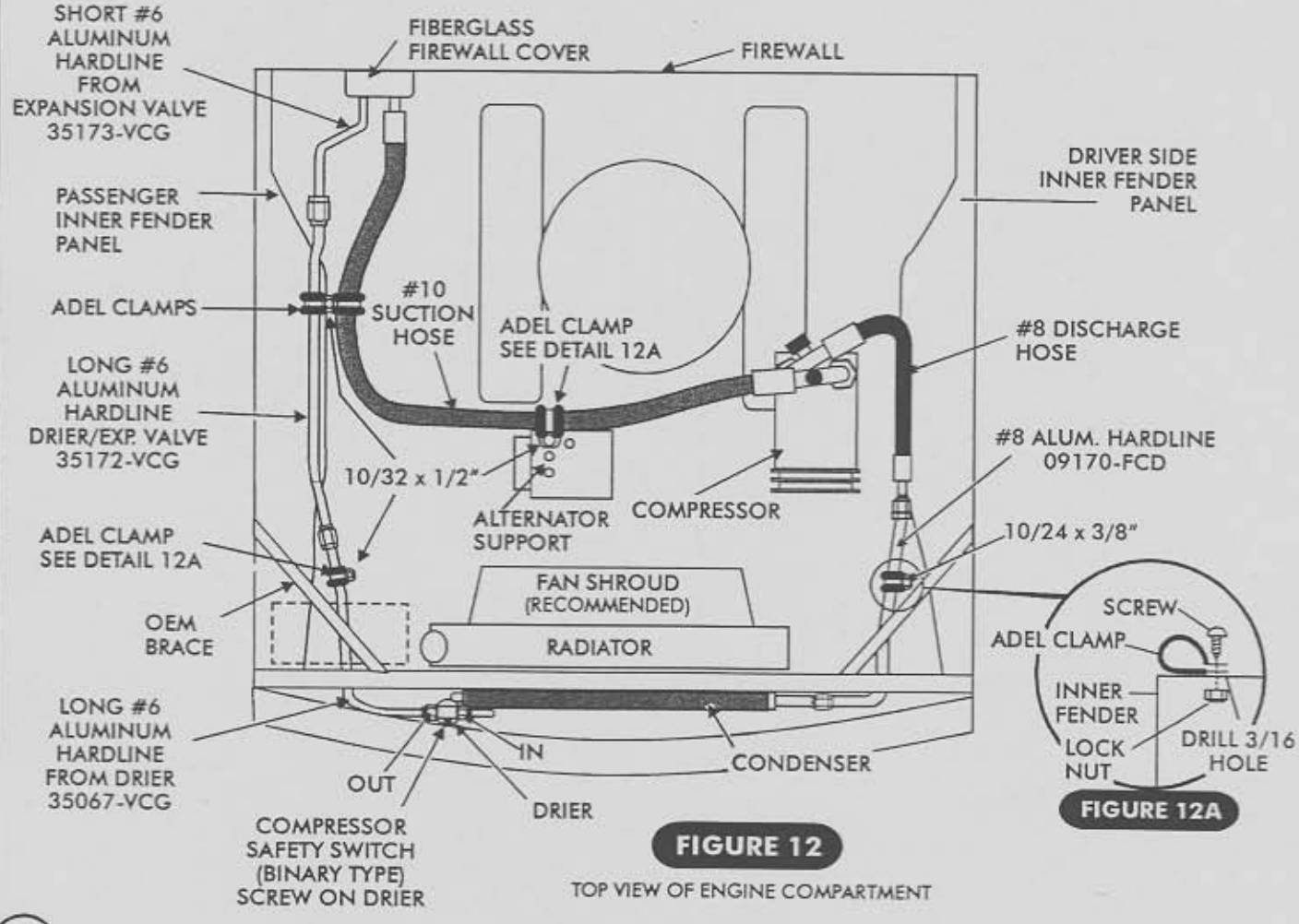

FIGURE 12

TOP VIEW OF ENGINE COMPARTMENT

FIGURE 12A

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CONTROL PANEL MODIFICATIONS (ON WORKBENCH)

ELECTRICAL SWITCHES -

FAN SPEED SWITCH

- ☐ REMOVE THE OEM FAN SWITCH (DISCARD). SEE FIGURE 14.
- ☐ LOCATE AND CUT OUT THE FAN SWITCH TEMPLATE ON PAGE 13.
- ☐ LAY THE TEMPLATE IN PLACE, AND DRILL TWO (2) EACH 3/32" HOLES AS INDICATED ON TEMPLATE.
- ☐ MOUNT THE NEW SWITCH USING TWO (2) EACH #6 x 3/8" METAL SCREWS IN THESE HOLES. BE CERTAIN THE SWITCH CONTROL ARM DOES NOT DRAG THE SIDE OF THE SLOT AND THAT THE SWITCH IS CENTERED. SEE FIGURE 14.
- ☐ INSTALL THE SUPPLIED KNOB - USE A SMALL SCREWDRIVER TO TIGHTEN THE SPRING CLIP, IF NECESSARY. SEE FIGURE 14.

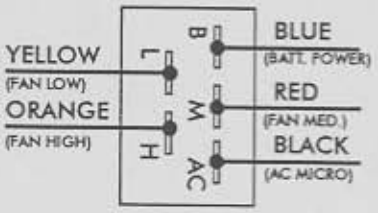


FIGURE 13
FAN SPEED SWITCH (SUPPLIED)

A/C CLUTCH SWITCH (BUTTON)

- ☐ THE BOTTOM SWITCH CONTROLS THE A/C COMPRESSOR CLUTCH. SEE FIGURE 14, PG. 5.

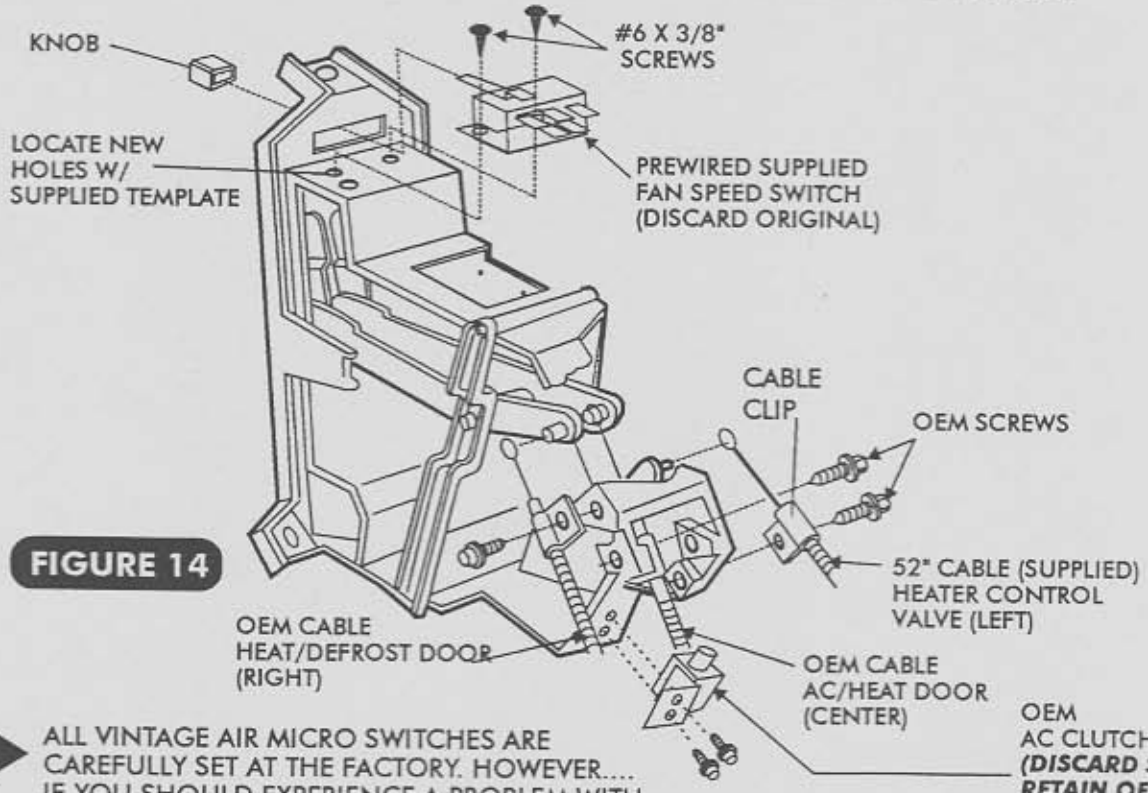
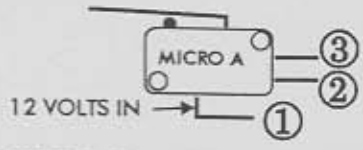


FIGURE 14

NOTE ALL VINTAGE AIR MICRO SWITCHES ARE CAREFULLY SET AT THE FACTORY. HOWEVER.... IF YOU SHOULD EXPERIENCE A PROBLEM WITH THE OPERATION OF YOUR A/C UNIT - DOUBLE CHECK THE ADJUSTMENT OF THE MICROSWITCH.

MICRO SWITCH ADJUSTMENTS

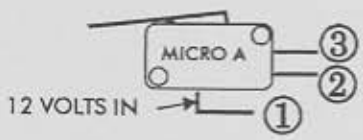
NORMAL POSITION



POWER TRANSFERRED TO POLE #3 - IN RELAXED POSITION.

- NO POWER

DEPRESSED POSITION



-NO POWER

- POWER TRANSFERRED TO POLE #2 IN DEPRESSED POSITION.

BY DEPRESSING THE ARM ON THE MICRO SWITCH AN AUDIBLE CLICK WILL BE HEARD TRANSFERRING POWER TO POLE #2. RELEASE THE ARM AND ANOTHER CLICK WILL BE HEARD, TRANSFERRING POWER TO POLE #3.

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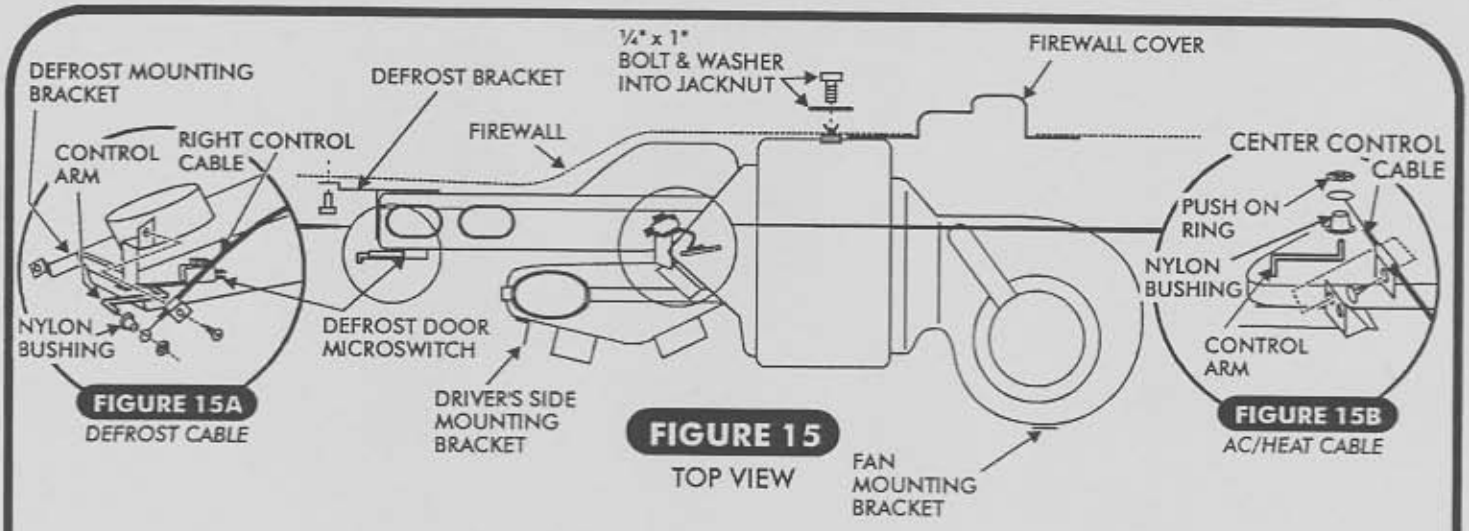

FIGURE 15A *DEFROST CABLE*

FIGURE 15 TOP VIEW

FIGURE 15B *AC/HEAT CABLE*

CONTROL CABLES -

LUBRICATE CONTROL CABLES WITH SILICONE SPRAY BEFORE INSTALLING

NOTE VINTAGE AIR SUGGEST THAT YOU PRE-CONNECT THE CONTROL CABLES ON THE WORK BENCH. MARK THE CONTROL CABLE AT THE HOUSING, TO FACILITATE RE-ASSEMBLY IN THE VEHICLE. ALL OF THE FOLLOWING INSTRUCTIONS ARE WITH THE FRONT OF THE CONTROL PANEL FACING YOU. LUBRICATE ALL SLIDING COMPONENTS IN YOUR CONTROL PANEL.

LEFT CONTROL CABLE - "OFF/COLD/HOT"

- ☐ THE LEFT CONTROL CABLE OPERATES THE HEATER CONTROL VALVE LOCATED UNDER THE HOOD. SEE FIGURE 23, PG.12.
- ☐ REMOVE AND DISCARD THE OEM CABLE.
- ☐ LOCATE THE SUPPLIED 52" CONTROL CABLE AND HEATER CONTROL VALVE. LOCATE CABLE CLIP (PART #18056-VUB) AND INSTALL ON END OF CABLE HOUSING (SEE FIGURE 14, PG. 5).
- ☐ CONNECT ONE END OF THE CABLE TO THE CONTROL PANEL (USE OEM SCREW) AND THE OTHER END TO THE HEATER CONTROL VALVE.
- ☐ ADJUST THE CABLE FOR FULL TRAVEL OF THE HEATER CONTROL VALVE BY SLIDING THE OUTSIDE CABLE HOUSING (AT THE HEATER CONTROL VALVE) IN IT'S CLAMP.

CENTER CONTROL CABLE - "AC/HEATER"

- ☐ THE OEM CENTER CONTROL CABLE OPERATES THE AC/HEAT DOOR ON THE EVAPORATOR.
- ☐ CONNECT THE OEM CENTER CONTROL CABLE TO THE AC/HEAT DOOR. SEE FIGURE 15B. THE AC/HEAT DOOR SHOULD BE IN THE REAR MOST POSITION WITH THE CONTROL LEVER UP (AC) AND FRONT MOST POSITION WITH THE CONTROL LEVER DOWN (HEAT). SELECT THE APPROPRIATE HOLE IN THE MOUNTING BRACKET FOR THE CABLE HOUSING CLAMP. SECURE WITH A #8 x 3/8" METAL SCREW.
- ☐ BEND THE MICROSWITCH ARM ON THE AC/ HEAT DOOR SO THAT IT "CLICKS" WHEN THE CENTER CONTROL LEVER SLIDES THROUGH THE MID POINT OF THE BI-LEVEL SETTING.

RIGHT CONTROL CABLE - "OFF/DEFROST/HEAT"

- ☐ THE OEM RIGHT CONTROL CABLE OPERATES THE HEAT/DEFROST DOOR ON THE EVAPORATOR.
- ☐ CONNECT THE OEM RIGHT CONTROL CABLE TO THE DEFROST DOOR. SEE FIGURE 15A. THE DEFROST DOOR SHOULD BE IN THE DOWN (DEFROST) POSITION WHEN THE RIGHT SLIDE CONTROL LEVER IS DOWN (DEFROST).
  ADJUST THE MOUNTING BRACKET AS NECESSARY TO GET FULL DOOR TRAVEL.
- ☐ ADJUST THE ARM ON THE DEFROST DOOR MICROSWITCH SO THAT IT "CLICKS" WHEN THE RIGHT SLIDE
- ☐ CONTROL LEVER IS IN THE CENTER OF IT'S TRAVEL.

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ELECTRICAL WIRING -

VINTAGE AIR RECOMMENDS TESTING OF CONTROL PANEL & EVAPORATOR ON THE WORKBENCH FOR PROPER OPERATION PRIOR TO INSTALLATION. SEE THE WIRING DIAGRAM ON PG. 13 AND SWITCH ILLUSTRATIONS, FIGURE 13, (PG. 5). TAG THE WIRES FOR EASE OF REASSEMBLING WHEN THE A/C UNIT IS MOUNTED IN THE VEHICLE.

NOTE THE COMPRESSOR SAFETY SWITCH (BOTH BINARY OR TRINARY TYPE) WILL NOT OPERATE COMPRESSOR CLUTCH (SWITCH ON) UNTIL THERE IS REFRIGERANT PRESSURE AVAILABLE. CHECK FOR PROPER A/C COMPRESSOR CLUTCH POWER AT THE A/C THERMOSTAT. SEE WIRING DIAGRAM (PG. 13). THE OPTIONAL TRINARY SWITCH CONTROLS AN ELECTRIC FAN. SEE INSTRUCTIONS PACKAGED WITH THE SWITCH.

DEFROST & A/C VENT INSTALLATION

DEFROSTER OUTLETS -

- ☐ LOCATE THE TWO (2) DEFROSTER OUTLETS. THE FOAM SURFACE GOES AGAINST THE DASHBOARD. THE FLAT SURFACE GOES AGAINST THE FIREWALL AND THE TWO (2) AIR INLETS FACE EACH OTHER. SEE FIGURE 16.
- ☐ HOLD THE VENTS IN PLACE AND DRILL TWO (2) EACH 3/32" HOLES USING THE VENTS AS TEMPLATES. SECURE EACH TO THE FIREWALL WITH TWO (2) #8 x ½" METAL SCREWS. SEE FIGURE 16.
- ☐ CHECK THAT THE FOAM GASKET DOES NOT COVER THE DEFROSTER OUTLET.
- ☐ DO NOT INSTALL THE DUCT HOSES UNTIL THE EVAPORATOR IS IN PLACE.

FIGURE 16A

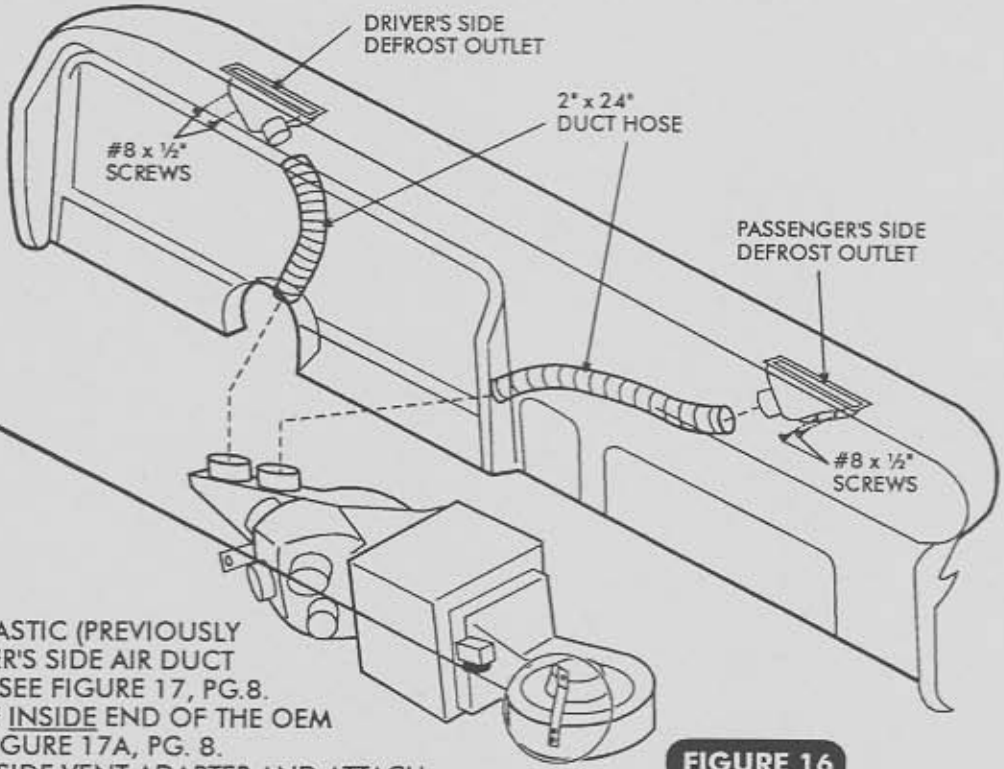

FIGURE 16

DRIVER'S SIDE VENT

- ☐ LOCATE THE LONG PLASTIC (PREVIOUSLY REMOVED) OEM DRIVER'S SIDE AIR DUCT AND VENT ASSEMBLY. SEE FIGURE 17, PG.8.
- ☐ CUT 9" OFF FROM THE INSIDE END OF THE OEM DUCT ASSEMBY. SEE FIGURE 17A, PG. 8.
- ☐ LOCATE THE DRIVER'S SIDE VENT ADAPTER AND ATTACH BY PRESSING "S-CLIPS" ONTO THE OEM DUCT. SEE FIGURE 17B, PG. 8.
- ☐ THE DRIVER'S SIDE VENT ASSEMBLY WAS ORIGINALLY INSULATED FROM THE INSTRUMENT PANEL WITH FOAM STRIPS. REPAIR AS NECESSARY WITH SUPPLIED 11" STRIPS (2PCS.).
- ☐ LAY THE DRIVER'S SIDE DUCT ASSEMBLY IN PLACE AND SECURE VENT TO DASH WITH OEM HARDWARE. DO NOT INSTALL DUCT HOSES UNTIL THE EVAPORATOR ASSEMBLY IS IN PLACE.

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CENTER VENT

- ☐ LOCATE THE (PREVIOUSLY REMOVED) OEM CENTER A/C VENT AND THE (SUPPLIED) CENTER VENT ADAPTER. THE CENTER VENT ADAPTER HAS OPENINGS FOR TWO DUCT HOSES. SEE FIGURE 17.
- ☐ THE DRIVER'S END OF THE OEM A/C VENT HAS A HINGE PIN PROTRUDING FROM IT. THE CENTER VENT ADAPTER HAS A CORRESPONDING HOLE (AT END) AND TWO HOLES (AT BOTTOM) FOR MOUNTING SCREWS.
- ☐ LOCATE THE 7" x 1" FOAM STRIP AND ATTACH TO THE TOP OF THE OEM CENTER VENT. SEE FIGURE 17.
- ☐ PLACE THE HOLE (AT END) OF THE CENTER VENT ADAPTER OVER THE HINGE PIN AND PULL THE ADAPTER ONTO THE CENTER VENT. CHECK THAT THE LINKAGE ON THE PASSENGER END OF THE CENTER VENT MOVES FREELY.
- ☐ DRILL TWO (2) EACH 3/32" HOLES USING THE TWO HOLES IN THE BOTTOM OF THE CENTER ADAPTER AS A GUIDE. SECURE WITH TWO (2) EACH #6 x 3/8" METAL SCREWS.
- ☐ CHECK AGAIN THAT THE PASSENGER SIDE OF LINKAGE MOVES FREELY.
- ☐ INSTALL THE 2" DUCT HOSES ON THE ADAPTER BUT DO NOT INSTALL CENTER VENT UNTIL ALL CABLES ARE ADJUSTED, EVAPORATOR IS WIRED AND DUCT HOSES ARE CONNECTED TO EVAPORATOR.

PASSENGER SIDE VENT

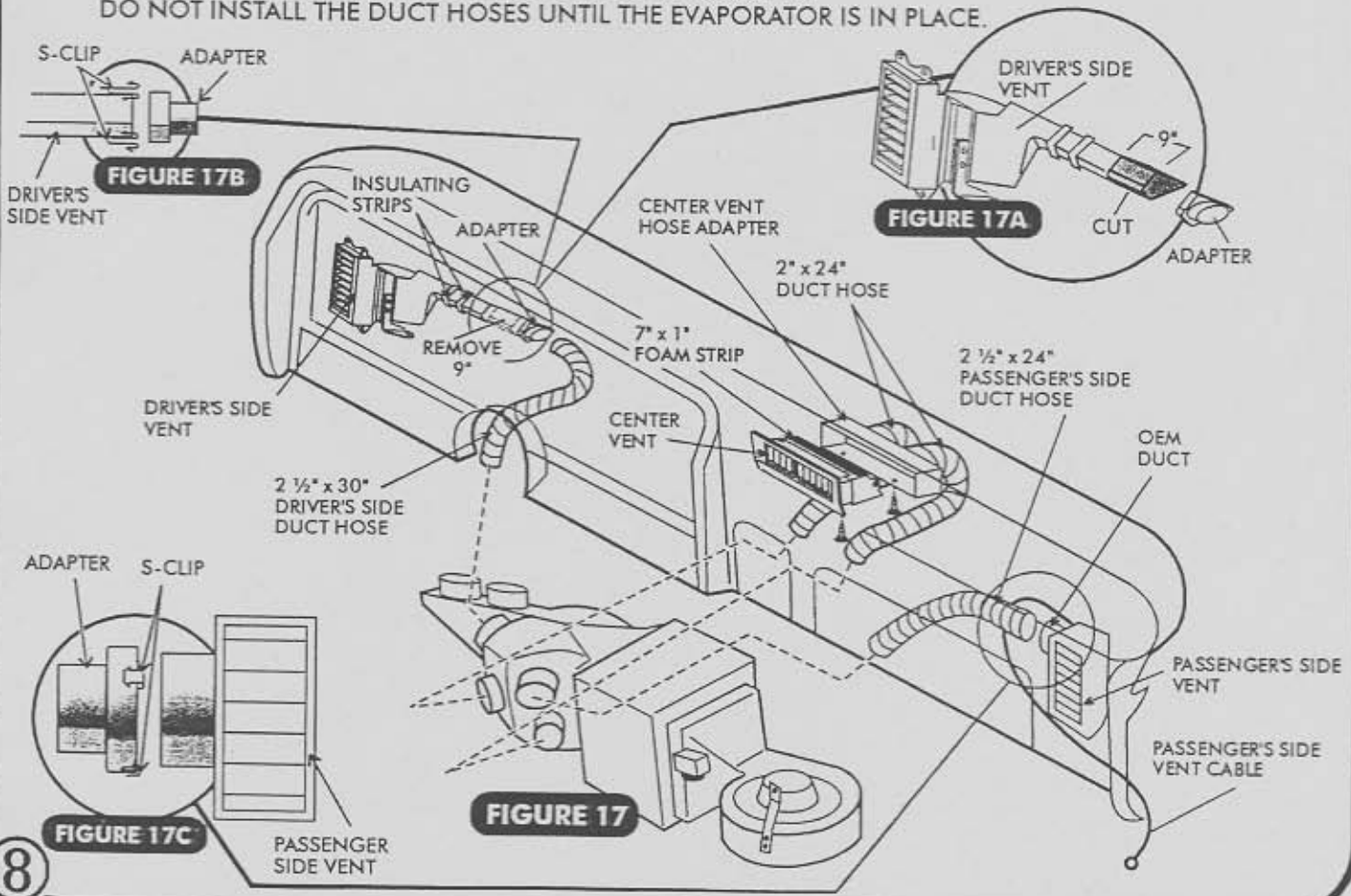
- ☐ LOCATE THE (PREVIOUSLY REMOVED) OEM PASSENGER SIDE A/C VENT.
- ☐ LOCATE THE PASSENGER SIDE VENT ADAPTER AND ATTACH BY PRESSING "S-CLIPS" OVER THE ROUND OEM DUCT. SEE FIGURE 17C.

IMPORTANT - THE PASSENGER SIDE AIR VENT MUST BE INSTALLED IN THE DASHBOARD BEFORE THE EVAPORATOR IS MOUNTED.

LEAVE THE PASSENGER SIDE VENT CONTROL CABLE LOOSE UNTIL THE EVAPORATOR IS INSTALLED.

IMPORTANT - ROUTE THE CONTROL CABLE OVER AND BEHIND THE FAN MOTOR WHEN THE EVAPORATOR IS BEING LIFTED INTO PLACE. SEE FIGURE 17.

DO NOT INSTALL THE DUCT HOSES UNTIL THE EVAPORATOR IS IN PLACE.



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FIREWALL COVERS

PASSENGER SIDE FRESH AIR CAP -

- ☐ CLEAN OUT THE PASSENGER SIDE AIR PLENUM. BE CERTAIN THE DRAIN IS OPEN.
- ☐ ATTACH FRESH AIR CAP TO FIREWALL WITH 1/4" x 1" BOLT & 1/4" BEAD OF SILICONE. (SEE FIGURE 18).

FIREWALL COVER - (TRIAL FIT)

- ☐ THE FIREWALL COVER INSTALLS FROM THE INSIDE OF PASSENGER COMPARTMENT AND PROJECTS THROUGH THE FIREWALL. THE EXTENSION (WITH RUBBER GROMMETS) GOES "UP" AND "OUT" AWAY FROM THE EXHAUST.
- ☐ LOCATE THE FIBERGLASS COVER AND HOLD IT IN PLACE FROM THE INSIDE OF THE VEHICLE. ALIGN THE TWO SLOTS IN THE COVER WITH THE TWO OEM HOLES IN THE FIREWALL.
- ☐ MARK THE TWO OUTSIDE HOLES "A" & "B". DRILL THE TWO HOLES IN THE FIREWALL WITH A 3/16" DRILL BIT. SEE FIGURE 18A, PG. 9.
- ☐ REMOVE COVER AND CLEAN FIREWALL AND BACKSIDE OF FIREWALL COVER TO REMOVE DUST AND DRILL BIT SHAVINGS.

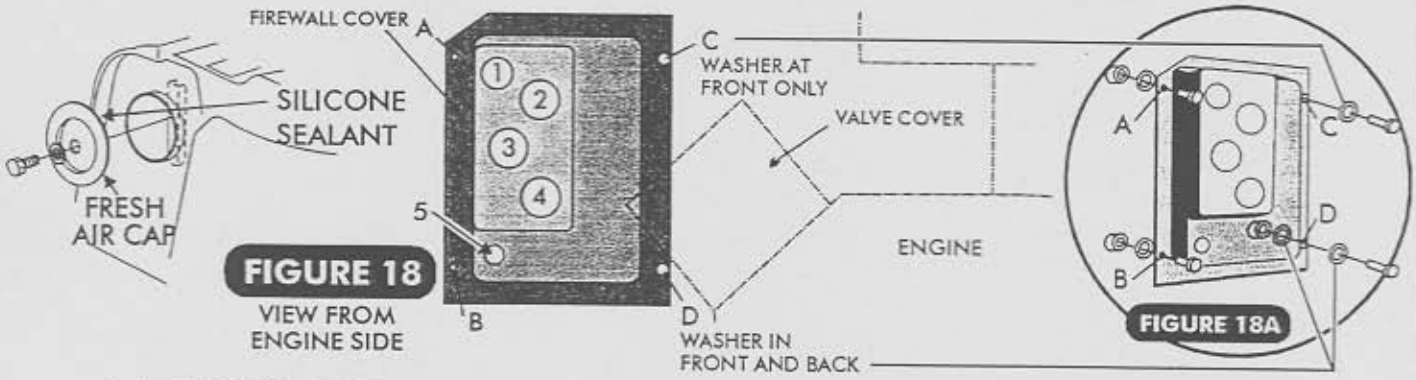

FIGURE 18 VIEW FROM ENGINE SIDE

FIGURE 18A

1. #6 ALUMINUM HARDLINE
2. #10 SUCTION HOSE
3. HEATER HOSE (FROM INTAKE MANIFOLD) AND HEATER CONTROL VALVE CABLE.
4. HEATER HOSE (TO WATER PUMP)
5. EVAPORATOR DRAIN HOSE

A. 10-32 x ½" BOLT, WASHER & LOCKNUT
B. 10-32 x ½" BOLT, WASHER & LOCKNUT
C. ¼" x 1" BOLT & WASHER
D. ¼" x 1" BOLT, TWO (2) WASHERS & NUT

PASSENGER SIDE KICK PANEL - (SEE FIGURE 19)

- ☐ LOCATE THE OEM PASSENGER SIDE KICK PANEL.. THE ORIGINAL DOOR ASSEMBLY SHOULD ALREADY BE REMOVED.
- ☐ INSPECT FOR AND REPAIR ANY CRACKS THAT COULD CAUSE A WATER LEAK. BE CERTAIN THE RAIN DEFLECTOR STOP ON THE KICK PANEL EXTENSION IS INTACT. REFURBISH THE OEM FLEXIBLE CAULK AROUND THE VENT OPENING IF NECESSARY. DO NOT SEAL WITH SILICONE.
- ☐ REINSTALL THE OEM KICK PANEL.
- ☐ INSTALL BLOCK OFF PLATE SUPPLIED. ATTACH WITH FIVE #10 x 1" SCREWS. SEE FIGURE 19.
- ☐ ATTACH ABS CABLE CLAMP WITH TWO #6x 3/8" AND TWO #8 x 3/8" SCREWS. SEE FIGURE 19.

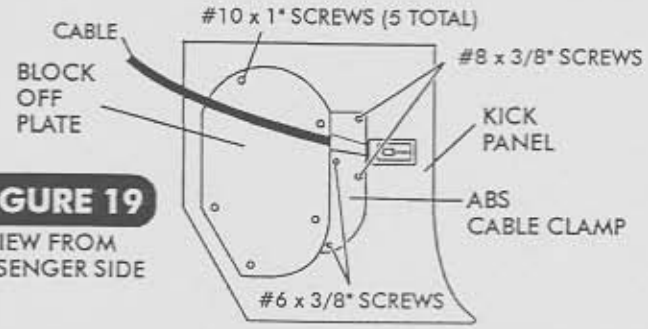

FIGURE 19 VIEW FROM PASSENGER SIDE

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FIREWALL COVER - (FINAL INSTALLATION)

- ☐ PUT A BEAD OF SILICONE CAULK AROUND THE PERIMETER OF FIREWALL COVER ON THE SIDE THAT FITS AGAINST THE FIREWALL. SEE FIGURE 20A.
- ☐ HOLD THE FIREWALL COVER IN PLACE AND REINSTALL FASTENERS "A", "B" & "D" AS DURING "TRIAL FIT". SEE FIGURE 18, PG.9.
- ☐ DO NOT INSTALL BOLT "C" BUT CHECK THAT THE HOLE IS NOT OBSTRUCTED.

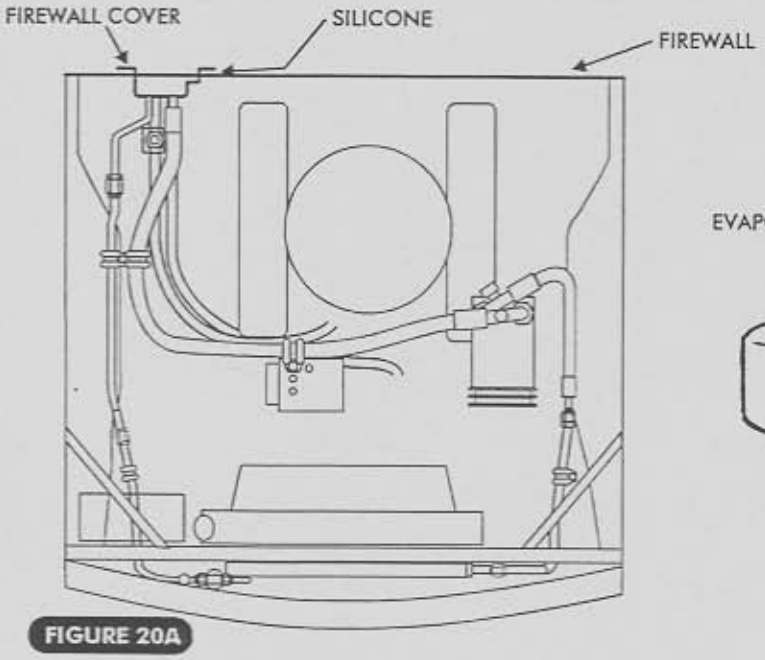

FIGURE 20A

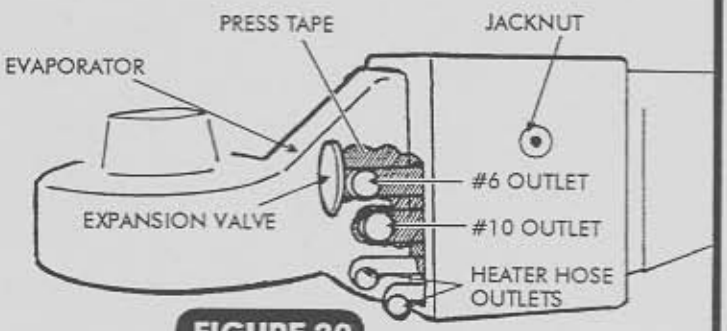

FIGURE 20
FIREWALL VIEW

PASSENGER FENDER & INNER SKIRT

- ☐ RE-INSTALL INNER FENDER SKIRT AND FENDER.

A/C HOSES AND LINES

- ☐ LAY EVAPORATOR UNDER DASH ON PASSENGER SIDE.
- ☐ LOCATE THE #6 ALUMINUM HARDLINE. LUBRICATE THE O'RINGS AND FITTINGS AND ORIENTATE THE ALUMINUM HARDLINE AS SHOWN IN FIGURE 12, PG. 4a.
- ☐ ATTACH ALUMINUM HARDLINE TO EXPANSION VALVE AT THE EVAPORATOR AND WRAP WITH PRESS TAPE. SEE FIGURE 20.
- ☐ LOCATE THE #10 SUCTION HOSE. LUBRICATE THE O'RING AND FITTING ON THE STRAIGHT END. ROUTE THE STRAIGHT END THROUGH THE #2 HOLE IN THE FIREWALL COVER FROM THE ENGINE SIDE. CONNECT THE STRAIGHT #10 FITTING TO THE EVAPORATOR "FINGER TIGHT".
- ☐ PULL THE #10 HOSE TOWARDS FRONT OF VEHICLE AND ORIENT THE 90 DEGREE FEMALE FITTING WITH SERVICE PORT SO THAT IT POINTS **DOWN**.
- ☐ TIGHTEN THE #10 FITTING AT THE EVAPORATOR USING TWO (2) WRENCHES AND WRAP WITH PRESS TAPE.

HEATER HOSES

- ☐ ROUTE THE TWO HEATER HOSES (NOT SUPPLIED) THROUGH HOLES #3 & #4 IN THE FIREWALL COVER AND ATTACH TO EVAPORATOR. SEE FIGURE 18, PG. 9. LUBRICATE HOSES &
- ☐ GROMMETS FOR EASE OF INSTALLATION.
  IMPORTANT: CLAMP THE HEATER HOSES SECURELY AS IT WILL BE DIFFICULT TO RETIGHTEN ONCE THE EVAPORATOR IS IN PLACE.

FIGURE 21

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EVAPORATOR INSTALLATION

- ☐ ***IMPORTANT:*** BEFORE INSTALLING THE EVAPORATOR BE SURE THAT ALL THE WIRING AND CABLES HAVE BEEN CAREFULLY CHECKED FOR PROPER OPERATION (SEE CONTROL PANEL OPERATION, PG.14) AND THAT ALL THE LINES AND HOSES ARE PROPERLY ALIGNED AND TIGHT.
- ☐ THE PASSENGER SIDE VENT MUST BE IN PLACE BEFORE INSTALLING THE EVAPORATOR UNIT.
- ☐ LIFT THE EVAPORATOR UNIT IN PLACE. PULL THE HOSES THROUGH THE FIREWALL COVER FROM THE ENGINE SIDE.
- ☐ WITH AN ASSISTANT, AIM THE PRE ALIGNED #6 ALUMINUM HARDLINE THROUGH THE #1 HOLE IN THE FIREWALL COVER. SEE FIGURE 18, PG.9. PINCH THE GROMMET (ON THE HARDLINE) AND PASS IT THROUGH THE HOLE IN THE FIREWALL COVER TO THE ENGINE SIDE. AS THE EVAPORATOR APPROACHES THE CORRECT MOUNTING POSITION; AIM THE #6 HARDLINE ON THE EVAPORATOR AT THE #6 ALUMINUM HARDLINE ON THE PASSENGER SIDE INNER FENDER PANEL. SEE FIGURE 12, PG. 4a. LUBRICATE THE O'RINGS AND FITTINGS ON THE #6 HARDLINES & CONNECT (FINGER TIGHT).
- ☐ INSTALL THE ¼" x 1" BOLT AND WASHER THROUGH THE FIREWALL COVER (HOLE "C") AND INTO THE JACKNUT ON THE EVAPORATOR CASE. SEE FIGURE 20, PG. 10.
- ☐ INSTALL THE DRIVER'S SIDE EVAPORATOR BRACKET USING A 10/32" x ½" PHILLIPS HEAD SCREW AND NUT THROUGH THE OEM HOLE IN DASH SUPPORT.
  TIGHTEN THE ¼" BOLT AT THE FIREWALL COVER (HOLE "C"). THE EVAPORATOR SHOULD BE LEVEL.
- ☐ DRILL 1/8" HOLE IN FIREWALL USING HOLE IN DEFROST BRACKET AS TEMPLATE.
  ATTACH WITH #10 x ½" SCREW. SEE FIGURE 15 & 15A (PG.6).
- ☐ LOCATE THE PASSENGER SIDE FAN BRACKET AND ATTACH IT TO THE FAN HOUSING WITH TWO (2) EACH #6 x 3/8" SCREWS IN THE PRE DRILLED HOLES. SEE FIGURE 16A, PG. 7.
  DRILL A 3/32" HOLE IN THE PLENUM USING HOLE IN THE TOP OF THE BRACKET AS A GUIDE.
  SECURE WITH A #8 x 3/8" SCREW. SEE FIGURE 16A, PG. 7.
- ☐ CHECK ALIGNMENT OF THE LINES AND HOSES AT THE FIREWALL COVER. RE ALIGN IF NECESSARY - THERE SHOULD BE NO AIR LEAKS.
- ☐ TIGHTEN THE #6 HARDLINES AT THE PASSENGER SIDE INNER FENDER PANEL.
- ☐ INSTALL DRAIN HOSE FROM THE ENGINE SIDE OF FIREWALL COVER AND ATTACH TO DRAIN TUBE ON BOTTOM OF EVAPORATOR.
  POSITION THE 90 DEGREE FITTING FACING DOWN.
  SEE FIGURE 22.

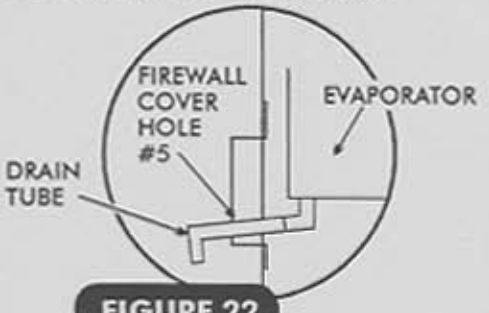

FIGURE 22

DUCT HOSE INSTALLATION

- ☐ WITH THE EVAPORATOR IN PLACE, STRETCH THE DUCT HOSES TIGHTLY TO THEIR CORRESPONDING OUTLETS (SEE FIGURES 16, PG.7 & FIGURE 17, PG.8) AND VERIFY THE HOSE LENGTHS.
- ☐ INSURE THAT THE HOSE IS PULLED TIGHTLY WITH A MINIMUM OF KINKS OR BENDS TO PROVIDE MAXIMUM AIR FLOW WITH A MINIMUM OF NOISE.
- ☐ PULL THE DUCT HOSES FIRMLY OVER THE OUTLETS TO SECURE THEM ON THE LOCKING PINS.
- ☐ REINSTALL CENTER VENT (SEE CENTER VENT INSTRUCTIONS ON PAGE 8).

A/C HOSES INSTALLATION

- ☐ LOCATE THE END OF THE PREVIOUSLY INSTALLED #10 RUBBER HOSE FROM THE #2 HOLE IN THE FIREWALL COVER.
- ☐ LUBRICATE THE O'RING AND FITTING AND CONNECT 90 DEGREE FITTING TO THE SUCTION SIDE OF THE COMPRESSOR. SEE FIGURE 12, PG. 4a. LEAVE FINGER TIGHT.
- ☐ SECURE #10 RUBBER HOSE TO ALTERNATOR SUPPORT WITH SUPPLIED #10 ADEL CLAMP, #10 x ½" SCREW AND LOCKING NUT. USE REAR MOST OEM HOLE IN SUPPORT. SEE FIGURE 12, PG. 4a.
- ☐ CLAMP THE #10 RUBBER HOSE TO THE PASSENGER SIDE INNER FENDER PANEL WITH A #10 ADEL CLAMP USING THE SAME SCREW PREVIOUSLY USED TO CLAMP THE #6 ALUMINUM HARDLINE. SEE FIGURE 12, PG. 4a.
- ☐ LOCATE THE #8 RUBBER HOSE. THIS HOSE RUNS FROM THE HARDLINE (CLAMPED TO THE FRONT OF THE DRIVER'S SIDE INNER FENDER PANEL) TO THE DISCHARGE PORT OF THE COMPRESSOR. SEE FIGURE 12, PG. 4a.

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A/C HOSES INSTALLATION (CONTINUED)

- ☐ LUBRICATE THE O'RINGS AND FITTINGS AND CONNECT THE 135 DEGREE #8 END (WITH SERVICE PORT) TO THE DISCHARGE SIDE OF COMPRESSOR. LEAVE FINGER TIGHT.
- ☐ CONNECT THE STRAIGHT END OF THE #8 HOSE TO THE HARDLINE CLAMPED ON THE DRIVER'S SIDE INNER FENDER PANEL. LEAVE FINGER TIGHT.
- ☐ SEPARATE THE FITTINGS ON THE COMPRESSOR AND TIGHTEN. ALSO TIGHTEN THE FITTING AT THE HARDLINE. ALWAYS USE TWO WRENCHES.
- ☐ ROUTE HEATER HOSES (FROM HOLES "3" & "4" OF THE FIREWALL COVER). SEE FIGURE 18, PG. 9.
- ☐ LOCATE THE HEATER CONTROL VALVE THAT WAS PREVIOUSLY USED WHILE PRE ADJUSTING THE HEATER CABLE FROM THE CONTROL PANEL.
- ☐ INSTALL THE HEATER CONTROL VALVE IN THE LINE EXITING FIREWALL COVER HOLE #3.
- ☐ CONNECT THE CONTROL CABLE; THE CORRECT ADJUSTMENT SHOULD BE MARKED ON THE CABLE HOUSING.
- ☐ ROUTE A HEATER HOSE FROM THE HEATER CONTROL VALVE TO THE HOSE CONNECTION ON THE FRONT OF THE INTAKE MANIFOLD.
- ☐ THE HEATER HOSE THAT RUNS FROM THE #4 HOLE IN THE FIREWALL COVER ROUTES OVER THE ALTERNATOR SUPPORT TO THE WATER PUMP. SEE FIGURE 23.
- ☐ TYE WRAP THE HEATER HOSES TO THE #10 RUBBER HOSE. SEE FIGURE 22.

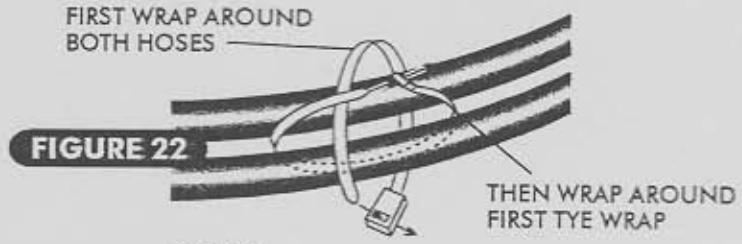

FIGURE 22

SUGGESTED HOSE ROUTING

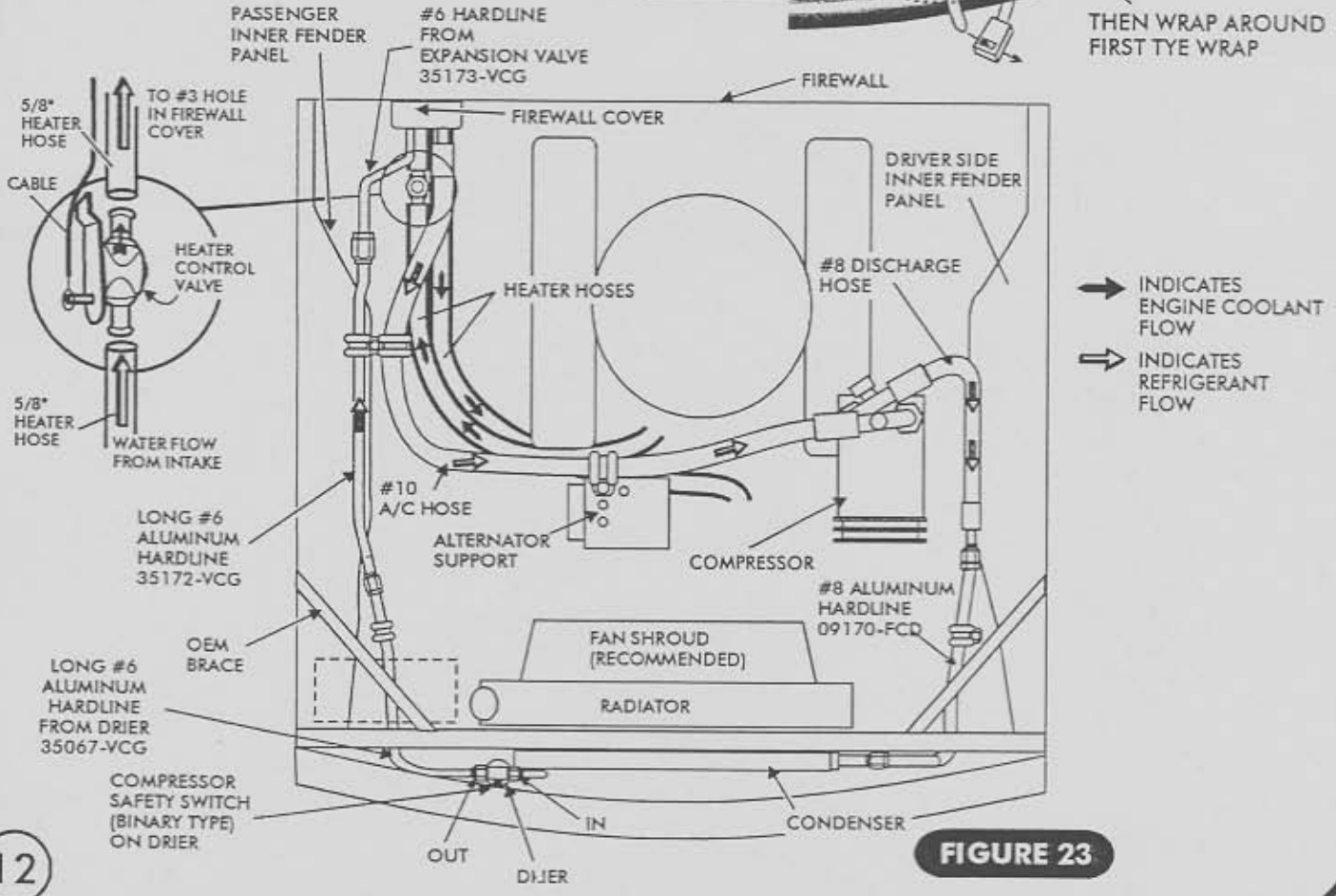

FIGURE 23

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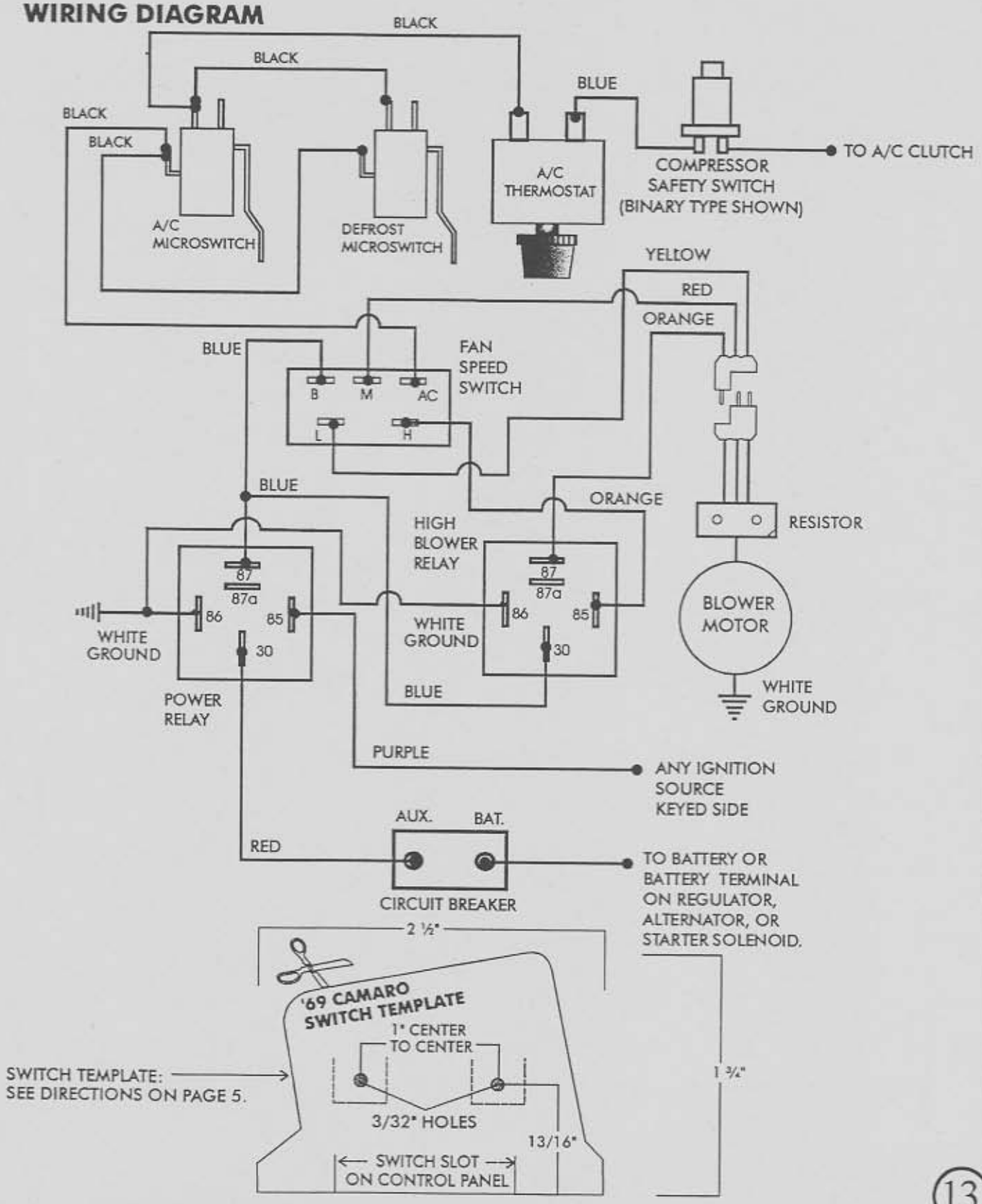
WIRING DIAGRAM



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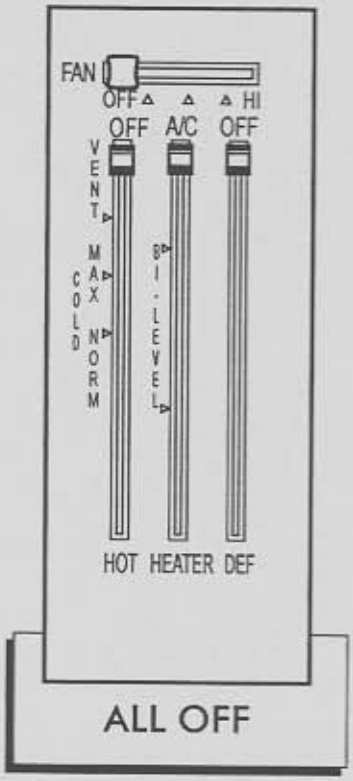
CONTROL PANEL OPERATIONS



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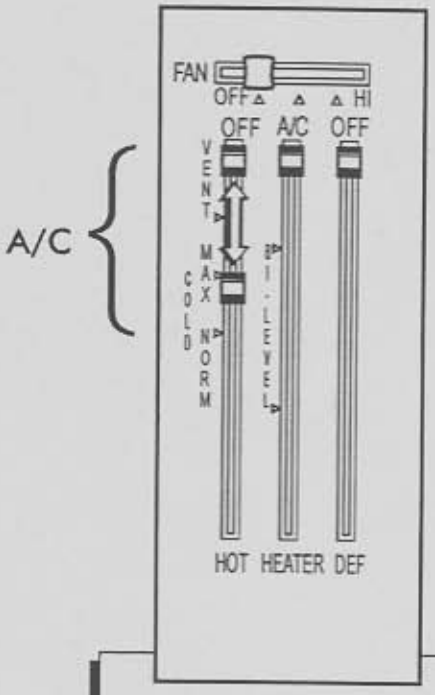
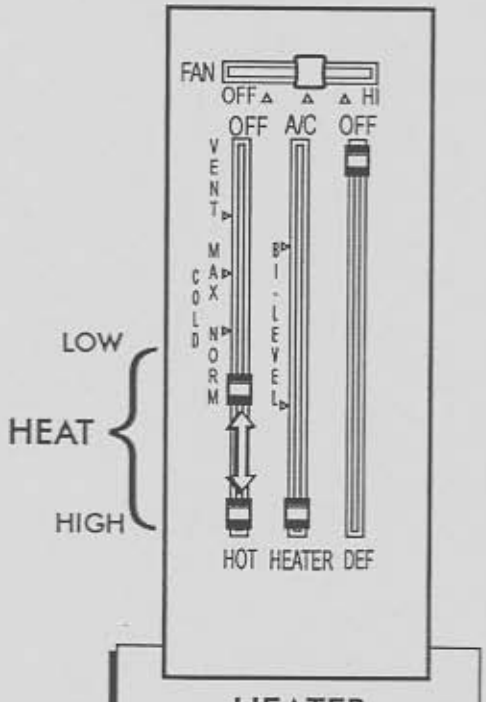
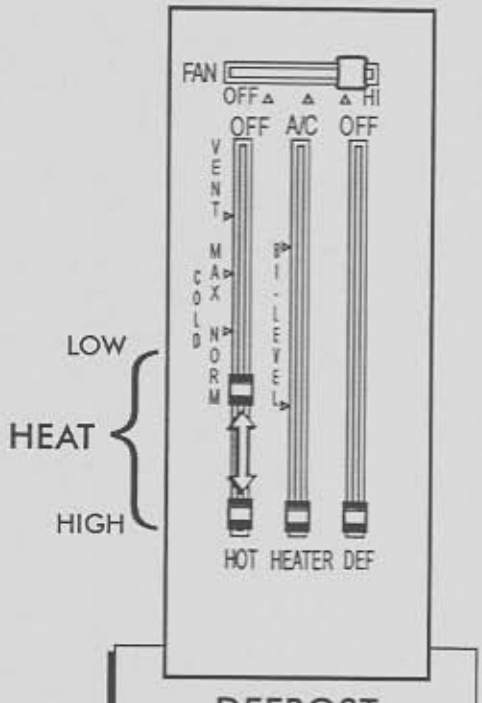


AIR CONDITIONER
LOW FAN SHOWN



HEATER
MED. FAN SHOWN



DEFROST
HIGH FAN SHOWN

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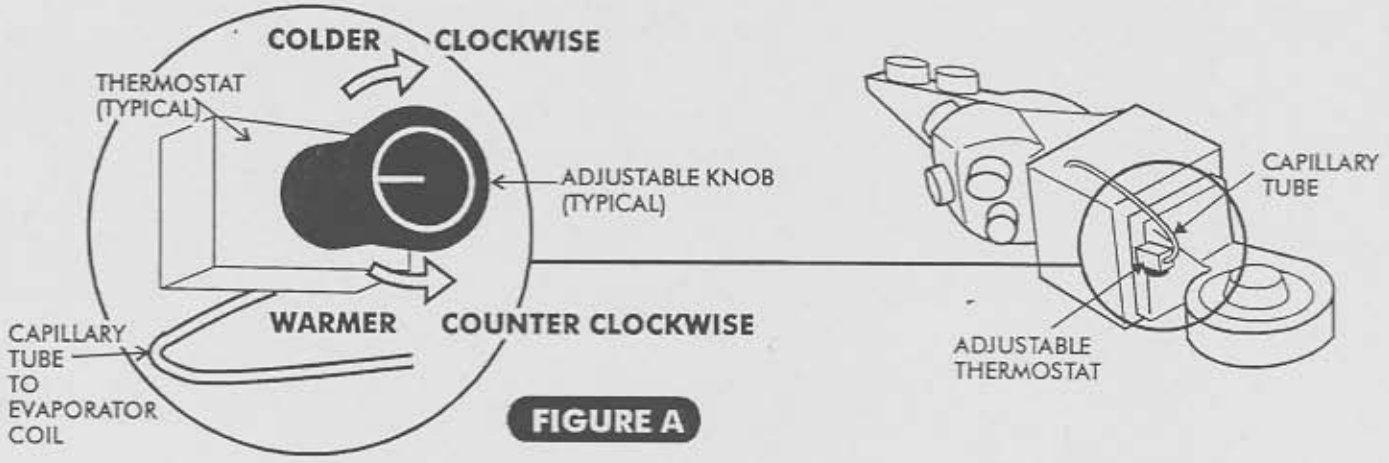

FIGURE A

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 QUITS 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. THEY SHOULD BE COLD WHEN THE A/C IS ON. IF THE HOSES ARE HOT....
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) - CABLE OPERATED: THE VALVE MAY BE MISADJUSTED.
C) - HEATER CONTROL VALVE IS INSTALLED IN WRONG HEATER HOSE.

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FINAL STEPS

- ☐ INSTALL NEW GLOVE BOX WITH SIX (6) OEM SCREWS.
- ☐ INSTALL FAN GUARD COVER TO BLOWER HOUSING WITH (3) 6 x3/8 SCREWS SEE FIGURE 24 BELOW.
- ☐ RE INSTALL ANY PREVIOUSLY REMOVED COMPONENTS (BATTERY BOX, BATTERY, GLOVE BOX DOOR, RADIO AND DASHBOARD).
- ☐ FILL RADIATOR WITH AT LEAST A 50/50 MIXTURE OF APPROVED ANTIFREEZE AND 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.
- ☐ 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.

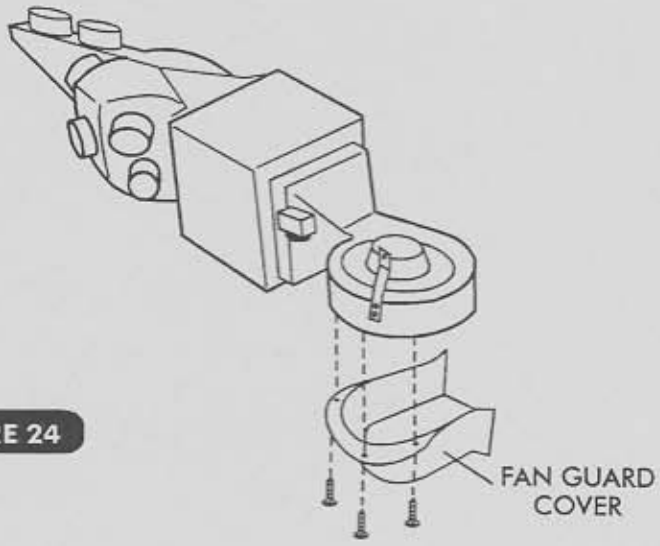

FIGURE 24

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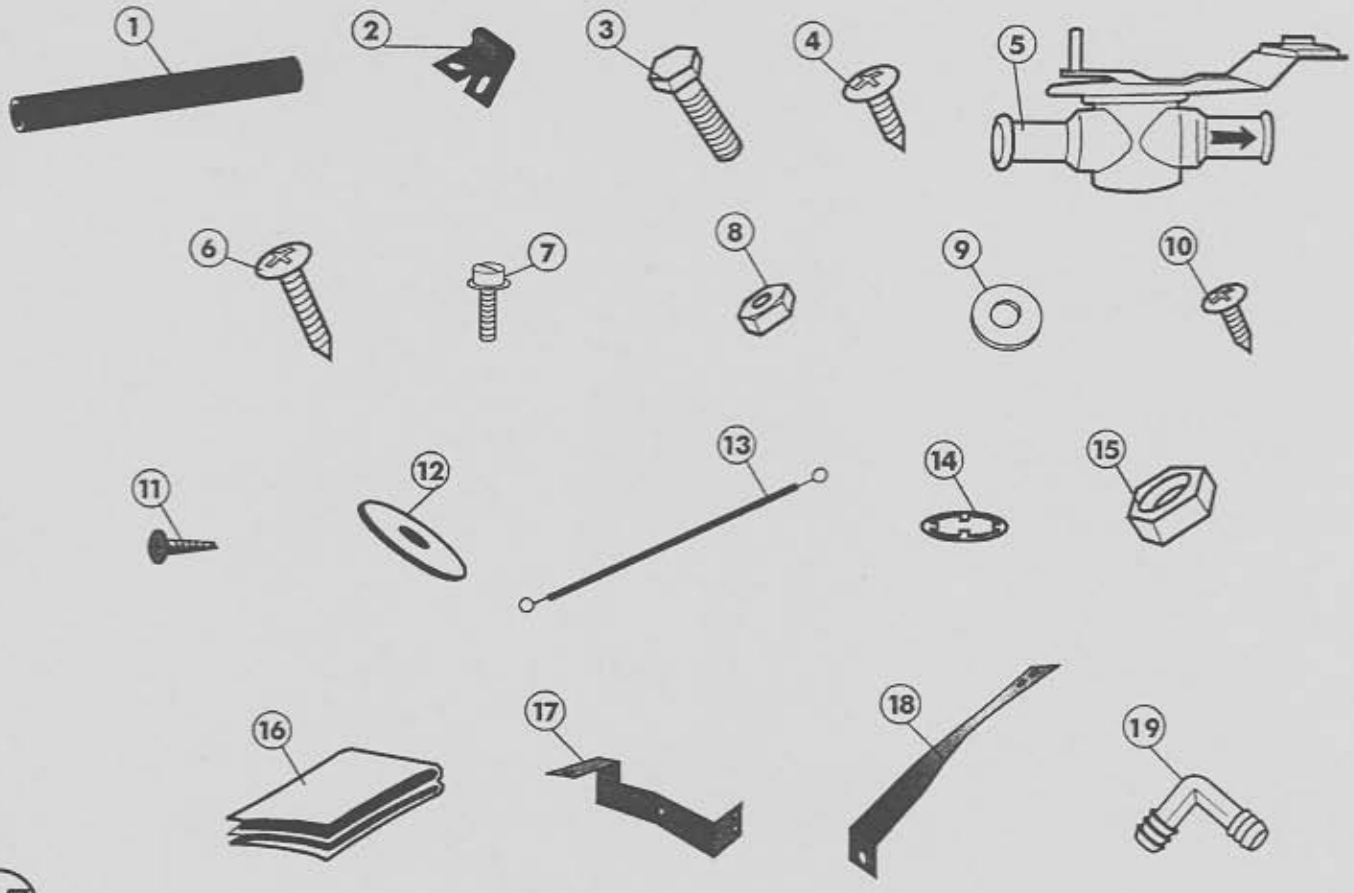
63284-VCE

1969 CAMARO W/ FACTORY AIR

INSTALLATION KIT PARTS LIST

No.	QTY.	PART NUMBER	DESCRIPTION
1.	9	31050-VUD	½" DRAIN HOSE
2.	1	18056-VUB	CABLE CLIP
3.	2	18290-VUB	¼" x 1" BOLT
4.	1	18247-VUB	#10 x ½" SCREW
5.	1	46105-VUH	HEATER CONTROL VALVE
6.	5	18244-VUB	#10 x 1" PHILLIPS SCREW
7.	8	18250-VUB	10/32 x ½" PH SCREW
8.	8	18150-VUB	10/32 MACHINE NUT
9.	2	18123-VUB	3/16" FLAT WASHER
10.	12	18233-VUB	#6 x 3/8" PHILLIPS SCREW
11.	10	18235-VUB	#8 x 1/2" PHILLIPS SCREW
12.	3	18125-VUB	¼" x ¾" FLAT WASHER
13.	1	49154-VCI	69 CAMARO HTR.CNTRL. CABLE.
14.	3	65975-VUE	PUSH ON RING
15.	1	18136-VUB	¼" NUT
16.	20"	49003-VUP	PRESS TAPE
17.	1	65990-VCB	FRONT EVAP. BRACKET
18.	1	65992-VCB	BLOWER HOUSING BRACKET
19.	1	65598-VUE	1/2" DRAIN ELBOW



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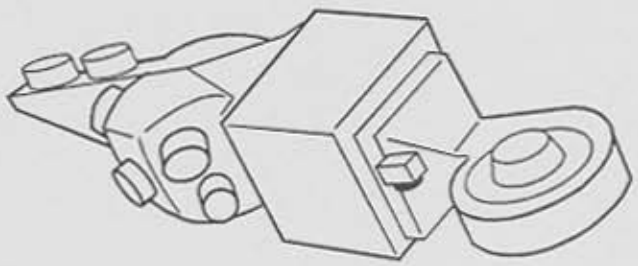
55170-VCZ-A EVAPORATOR KIT PACKING LIST

No.	QTY.	PART No.	DESCRIPTION	
1.	1	55372-VCE-A	EVAPORATOR SUBCASE	_____
2.	1	78169-FCF	1969 CAMARO W/AC ACCESSORY KIT	_____

CHECKED BY: _____
PACKED BY: _____
DATE: _____

①



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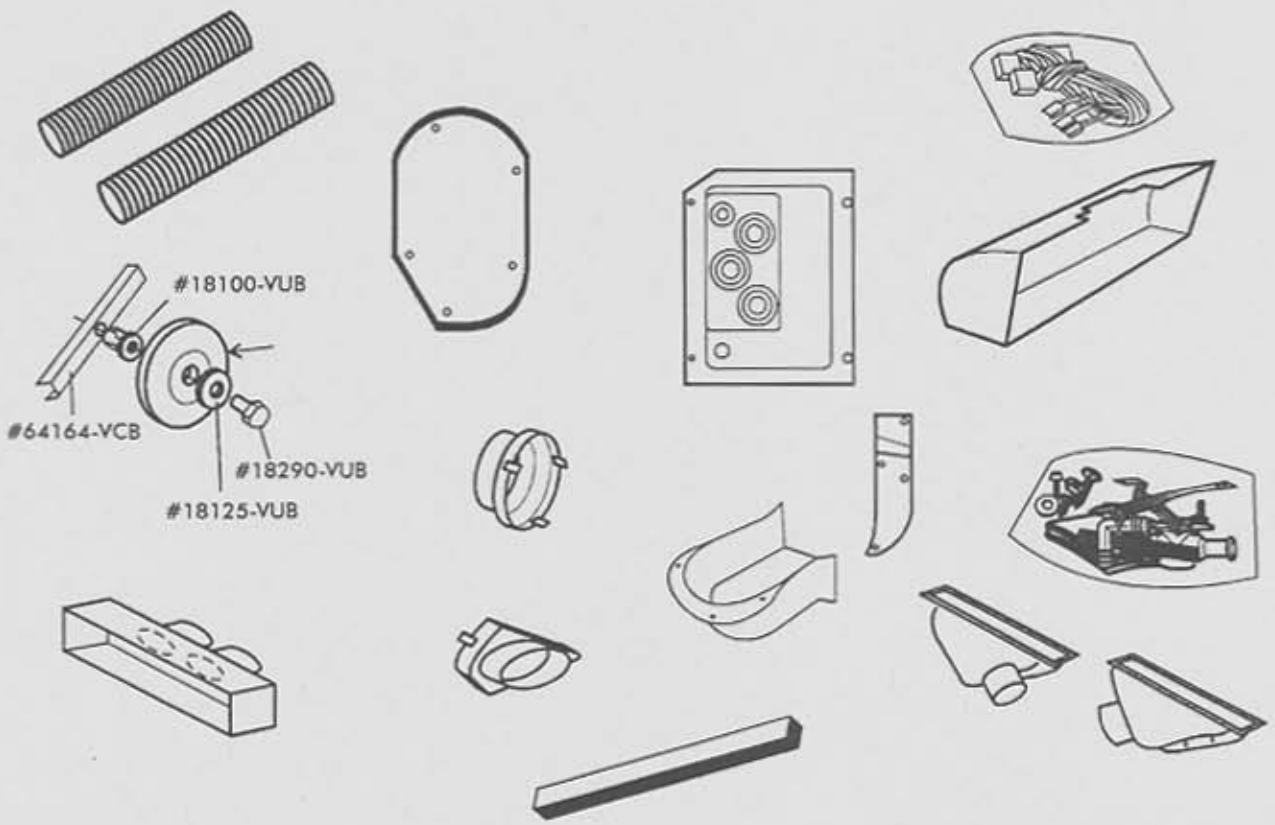

ACCESSORY KIT
78169-FCF