INSTALLATION INSTRUCTIONS FOR

67-68 CAMARO & FIREBIRD
WITHOUT FACTORY AIR
(55074-VCZ-A)
1967/68 CAMARO & FIREBIRD
WITHOUT FACTORY AIR

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 - '67/69 CAMARO RADIATOR
32067-VCF - FAN SHROUD
32918-VUF - 18" FAN
32518-VUF - OEM FAN CLUTCH

SERVICE INFO:

EVACUATE THE SYSTEM FOR 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
INSTALLATION INSTRUCTIONS FOR
1967/68 CAMARO & FIREBIRD

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 (X) EACH PROCEDURE PRIOR TO MOVING ON TO NEXT STEP.

ENGINE COMPARTMENT

IF YOUR VEHICLE HAS AN EXISTING A/C SYSTEM-

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

REMOVE THE FOLLOWING: (SEE FIGURE 1)

☐ JACK UP VEHICLE AND PLACE JACK STANDS UNDER FRAME. REMOVE RIGHT FRONT TIRE (RETAIN).
☐ DRAIN RADIATOR.
☐ REMOVE HOOD LATCH ASSEMBLY (RETAIN), INCLUDING HOOD LATCH SUPPORT.
☐ REMOVE HEATER HOSE CLAMP FROM INNER FENDER PANEL AND DISCONNECT THE HEATER HOSES FROM THE HEATER CORE. TAPE THE OUTLETS ON THE HEATER CORE.
☐ ANY OTHER ACCESSORIES ATTACHED TO INNER FENDER PANEL MUST BE REMOVED AT THIS TIME.
☐ REMOVE BATTERY AND BATTERY TRAY. YOU MAY GAIN ACCESS TO THE FORWARD BATTERY TRAY SECURING BOLTS BY REMOVING HEADLAMP BEZEL (RETAIN).
☐ ALTHOUGH IT IS POSSIBLE TO REMOVE THE OEM BLOWER MOTOR PLENUM WITHOUT REMOVING THE OUTER FENDER FROM THE CAR, ON 1968 MODELS IT IS VERY DIFFICULT. REMOVE FENDER AND SKIRT ACCORDING TO FACTORY SERVICE MANUAL FOR YOUR PARTICULAR YEAR AND MODEL.
☐ DISCONNECT THE BLOWER MOTOR WIRE AT THE MOTOR FLANGE.
☐ REMOVE THE BLOWER MOTOR ATTACHING SCREWS AND REMOVE THE MOTOR (DISCARD).
☐ PRY THE FLANGE GENTLY (SEALER ACTS AS AN ADHESIVE).
☐ REMOVE THE BLOWER MOTOR PLENUM (DISCARD) AND CLEAN THE OEM SEALER FROM THE FIREWALL.
☐ REMOVE THE BLOWER MOTOR WIRING (DISCARD).

FIGURE 1
PASSenger COMPARTMENT

REMOVE THE FOLLOWING: SEE FIGURE 2

☐ 1. REMOVE THE ASHTRAY (RETAIN).
☐ 2. REMOVE ASH TRAY SLIDER ASSEMBLY (RETAIN).
☐ 3. REMOVE GLOVE BOX DOOR (RETAIN).
☐ 4. REMOVE AND DISCARD OEM GLOVE BOX (SAVE THE THREE TINNERMAN NUTS FROM THE BOTTOM EDGE).
☐ 5. REMOVE THE CENTER DASH TRIM PLATE (RETAIN).
☐ 6. REMOVE THE RADIO (RETAIN).
☐ 7. REMOVE OEM CONTROL PANEL (RETAIN).
☐ 8. LOOSEN STEERING COLUMN AND LOWER. REMOVE THE INSTRUMENT PANEL ASSEMBLY (RETAIN).


☐ 9. REMOVE THE HEATER DISTRIBUTION BOX (DISCARD).
☐ 10. REMOVE THE OEM DEFROST DUCT (DISCARD).

NOTE: REMOVE THE FRONT SEATS (OPTIONAL FOR EASE OF A/C INSTALLATION ONLY).

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FIGURE 2
VIEW FROM INSIDE VEHICLE
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 CONDENSER BRACKET TO CORE SUPPORT USING 5/16" X 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 4.

☐ 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 3.

COMPRESSOR & BRACKETS

☐ REFER TO SEPERATE INSTRUCTIONS INCLUDED WITH THE BRACKET KIT TO INSTALL THE COMPRESSOR BRACKET. REFER TO FIGURE 4 FOR COMPRESSOR MOUNTING POSITION.

PULLEYS

☐ IN MOST INSTANCES THE BELT LENGTHS WILL REMAIN THE SAME. SEE FIGURE 4.

FIGURE 4

MOUNT THE COMPRESSOR USING TABS "G" & "C"

PULLEYS (VINTAGE AIR) SHORT PUMP

- SMALL BLOCK CHEVY
  - #22302-VCQ - WATERPUMP PULLEY (DOUBLE GROOVE)
  - #22312-VCQ - CRANKSHAFT PULLEY (DOUBLE GROOVE)
  - #22213-VCQ - CRANKSHAFT PULLEY (TRIPLE GROOVE) (WITH POWER STEERING A 3 GROOVE CRANK PULLEY IS REQUIRED)

- BIG BLOCK CHEVY SHORT PUMP
  - #22412-VCQ - WATER PUMP PULLEY (DOUBLE GROOVE)
  - #22413-VCQ - CRANKSHAFT PULLEY (TRIPLE GROOVE)
**Passenger Compartment**

- Locate center vent opening using template on page 19. Carefully cutout opening, do not exceed dimensions given on template.
- Install the center vent on the trim plate as shown in Figure 5.
- Foam back of plate around duct with supplied foam. Using template on pg. 19 to correct size.

**Figure 5**

**Note**: If equipped with passenger and driver side vents you may omit the following vent installation procedures.

**(FOR VINTAGE AIR VENTS ONLY)**
- If your vehicle was not equipped with OEM passenger and driver side vents you must use template (pg. 22 & 23) to locate and cut the holes for vent installation.
- Install the vents at this time.
- If vehicle is equipped with Astro-ventilation you must install the Astro-vent block-off caps (see Figure 6).
- Install the defrost ducts underdash as shown in Figure 6 by drilling one (1) 7/64" hole for each vent. Attach using one (1) #8 x 1/2" sh. mtl. screw for each vent.

**Note**: Put a small amount of silicone sealer on each screw before installing.

**(FOR OEM ASTRO VENTS ONLY)**
- Cut and modify as shown on page 20.
- Reinstall modified astro vents in dash

**Figure 6**
FIREWALL COVER INSTALLATION

- Put a ¼" bead of silicone sealant (as shown in Figure 7) around the inside perimeter of the bolt holes on the firewall cover. Install cover from inside the passenger compartment using four (4) ¼" x 1" bolts and washers in the holes indicated in Figure 7.
- Attach fresh air cap to firewall with ¼" x 1" bolt & 1/4" bead of silicone (see Figure 7).

FIGURE 7
VIEW FROM ENGINE COMPARTMENT

FOUR (4) ¼" x 1" BOLTS & WASHERS

CONTROL PANEL CONVERSION

- Locate the OEM heater/defrost control panel.
- Remove the top cable (air cable - discard).
- Remove the OEM blower switch (discard switch but retain the attaching screws).
- Place 1/8" nylon washers under blower switch mounting plate and install previously removed OEM screws.
- Attach the fan link arm to the new switch as shown in Figure 8. Tighten the nylon lock nut only tight enough to remove excess play (the arm should rotate freely, but have no up and down movement).
- Lower the switch to the mounting plate and slide the fan link arm over the OEM pin. Attach the switch to the plate with two #6 x ¼" pan head sh. mtl. screws.
- Grease all moving parts in the control panel.

FIGURE 8

BLOWER SPEED SWITCH
#6 x ¼" SCREWS
1/8" NYLON SPACER
4/40 NYLOCK NUT
1/8" PUSH-ON RING
OEM BOLTS
FAN LINK ARM
OEM BOLTS
4/40 x 3/8" BOLT

BACK VIEW
DEFROSTER CABLE
TEMPERATURE CABLE
AIR CABLE (REMOVE)
EVAPORATOR TESTING:

VINTAGE AIR RECOMMENDS TESTING OF CONTROL PANEL & EVAPORATOR ON THE WORK-BENCH FOR PROPER OPERATION, PRIOR TO INSTALLATION.

- ATTACH CABLES TO EVAPORATOR AND CONTROL PANEL AS SHOWN ON PG. 8, FIGURE 9.
- AFTER INSTALLING CABLES AND VERIFYING FULL OPENING AND CLOSING OF EVAPORATOR DOOR, HEAT/DEFROST DOOR. YOU ARE READY TO COMPLETE THE WIRING TO VERIFY PROPER OPERATION OF THE UNIT.

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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 (12 VOLTS) AT THE THERMOSTAT. (THE OPTIONAL TRINARY SWITCH CONTROLS AN ELECTRICAL FAN. SEE INSTRUCTIONS PACKAGED WITH THE SWITCH)

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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 MICRO SWITCHES.

MICRO SWITCH ADJUSTMENTS

NORMAL POSITION

- POWER TRANSFERRED TO POLE #3 IN RELAXED POSITION.
- NO POWER
12 VOLTS IN

DEPRESSED POSITION

- NO POWER
- POWER TRANSFERRED TO POLE #2 IN DEPRESSED POSITION.
12 VOLTS IN

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.
WIRING FOR TESTING

☐ Attach the wire from pole #1 of micro A on the top of the evaporator to the A/C pole on the blower speed switch. (See wiring diagram pg 18).
☐ Attach red, blue, yellow and orange blower speed switch wires as shown on pg. 18.
☐ Attach all white wires together and ground temporarily.
☐ The red wire in the wiring harness connects to battery power. (12 volts)
☐ The purple wire will also need to be connected to direct power for testing purposes. It must be hooked to ignition on power only once installed in the vehicle.
☐ Adjust the control panel levers to the A/C mode. See pg 16
☐ Turn the blower speed switch to low. There should be power at the A/C thermostat.
☐ Select the heat mode and power will cease at the thermostat.
☐ Select defrost mode and A/C clutch power will return to the thermostat.
☐ If all tests were successful tag and label the wires for ease of installation into the vehicle. Remove cables from the evaporator unit. Remove red, blue, yellow, orange, and wire from pole #1 of micro from blower switch.

☐ evaporator is now ready to install.
**EVAPORATOR INSTALLATION**

**NOTE** IMPORTANT: BEFORE INSTALLING THE EVAPORATOR BE SURE THAT ALL WIRING AND CABLES HAVE BEEN CHECKED FOR PROPER OPERATION.

- LIFT EVAPORATOR AND ROTATE INTO POSITION
- ATTACH DRIVER SIDE MOUNTING BRACKET ON THE EVAPORATOR UNIT TO THE RADIO BRACKET USING OEM SCREW. INSERT THE ¼" x 20 x 1" BOLT WITH FLAT WASHER THRU THE REMAINING HOLE IN A.B.S. FIREWALL COVER. SECURE TO THE JACKNUT ON THE REAR OF THE EVAPORATOR SEE PG13, FIGURE 17.

- THE PASSENGER SIDE EVAPORATOR BRACKET ASSEMBLY CONSISTS OF 2 SEPARATE BRACKETS. ONE BRACKET COMES MOUNTED ON THE EVAPORATOR UNIT. THE OTHER BRACKET IS PACKED IN THE DRAIN KIT BAG. THIS BRACKET MOUNTS TO THE TOP OF THE LOWER DASH PANEL THROUGH AN EXISTING HOLE. CONNECT THIS BRACKET TO THE DASH AND THE MATING BRACKET USING ¼" X 20 X 1" BOLTS AND NUTS, AS SHOWN IN FIGURE 10.

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**Figure 10**

- Radio Bracket
- Rotate the unit 90° while lifting into position
- ¼" x ½" bolt
- Evaporator Blower Bracket
- ¼" x 1" bolt
- Bottom
- Angle
HOSES: REFRIGERATION / HEATER / VACUUM

HEATER HOSES:

- Locate firewall cap. The holes in the firewall cap will be referred to by numbers. See Figure 11. Insert a length of 5/8" heater hose through hole #3 in firewall cap. Connect this end of hose to the lower heater core outlet, and fasten with clamp. Keep the firewall cap approximately 7" from firewall. Route hose and connect other end to the suction (water pump) side of coolant system and fasten with clamp.
- Insert another length of 5/8" heater hose through hole #2, connect to the upper heater hose outlet and fasten with clamp. Do not connect other end at this time.
- Slide firewall cap toward firewall until it is seated against firewall cap. Do not fasten firewall cap at this time.
- Carefully measure and cut the upper hose in hole #2 approximately 8" from firewall cap. Connect this hose to the outlet side of the heater control valve and fasten with clamp. See Figure 11.
- Connect another length of 5/8" heater hose to the inlet on heater control valve and fasten with clamp. Route this hose and connect to engine coolant system discharge port and fasten with clamp.
- Remove firewall cap by carefully sliding it away from the firewall until it rests against the heater control valve. This will allow access to the A/C hose fittings.

**Figure 11**
HOSES: REFRIGERATION

- 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 12. O-rings should not be reused once a fitting is tightened (discard and install new O-rings). Do not overtighten. Always use two (2) wrenches to prevent twisting fittings on hardline (see Figure 13).

- Study Figures 14, 15 & 16 on page 12. These figures show routing details.

- Locate #6 aluminum hardline w/ grommet installed. Slide grommet next to binary switch port on line. Pass the end of this line with the 90° bend through hole #5 of the firewall cap. Locate a #6 O-ring. Lubricate and install on the end of the #6 line with the 90° bend. Connect this end to the expansion valve and tighten.

- Locate remaining #6 aluminum hardline. This line will connect the drier to the #6 line from the expansion valve. Route this line as shown in Figure 16. Make the connection to the drier first. Locate a #6 O-ring. Lubricate and install on the #6 line. Connect to the drier and tighten. Locate a #6 O-ring, lubricate and install on #6 line for the final connection of the two #6 lines, connect and tighten.

- Locate #10 suction hose (1/2" ID line with a straight and a 135° end). Locate large 1/4" x 1/2" grommet and install on #10 suction hose over nut on straight fitting. Slide grommet past fittings and onto rubber hose. Pass the end with the straight fitting through hole #1 in firewall cap. Locate a #10 O-ring, lubricate and install on the end with straight fitting. Connect this end to evaporator #10 outlet.

- Do not tighten at this time.

- Locate a #10 O-ring, lubricate and install on the #10 suction hose 135° end.

- Locate supplied press tape. Wrap the #10 connection with press tape. Connect this end to the compressor suction port. Adjust A/C belt and then tighten both fittings.

- Slide the cover against the firewall.

- Secure with 4 S-clips and seal with silicone.

- Slide #10 and #6 grommet to firewall cap and install in cover.

- Locate #8 aluminum hardline, this is an extension from the condenser to the engine compartment. Locate a #8 O-ring, lubricate and install on the end with the short 90° bend. Route as shown in Figure 16. Connect to condenser and tighten.

- Locate #8 discharge hose. Locate a #8 O-ring, lubricate and install on the 135° fitting end of the #8 discharge hose. Connect this end to the discharge port of compressor.

- Locate another #8 O-ring. Lubricate and install on the straight fitting of the #8 discharge hose. Connect this end to the #8 aluminum hardline extension from the condenser and tighten both ends of line.
HOSES: REFRIGERATION / HEATER / VACUUM


☐ INSERT BLUE COMPRESSOR WIRE LEAD (LOCATED ON THE THERMOSTAT) THRU THE GROMMET WITH THE #10 LINE IN IT, AND ATTACH TO THE COMPRESSOR SAFETY SWITCH LOCATED ON THE #6 ALUMINUM HARDLINE. ATTACH THE OTHER BLUE WIRE TO THE SAFETY SWITCH AND CONNECT TO THE COMPRESSOR.

VACUUM

☐ ROUTE THE VACUUM LINE FOR THE HEATER CONTROL VALVE THRU THE 15/64" HOLE IN THE HOSE COVER AND ATTACH ONE END TO THE HEATER CONTROL VALVE (THE OTHER VACUUM LINE CONNECTS TO AN ENGINE VACUUM SOURCE). SEE PAGE 10, FIGURE 11 FOR VACUUM LINE CONNECTIONS.

CONTROL PANEL INSTALLATION

☐ INSTALL THE CONTROL PANEL INTO THE DASH.

☐ ATTACH 24-5/8" DEFROST CABLE TO DEFROST CABLE BRACKET w/#8 SCREW AS SHOWN IN FIGURE 9 PAGE 8.

☐ SECURE CABLE END WITH 1/8" PUSH ON RING.

☐ ATTACH 37-1/8" A/C HEAT DOOR CABLE TO THE A/C HEAT DOOR BRACKET w/#8 SCREW. SECURE CABLE END WITH AN 1/8" PUSH ON RING (SEE FIGURE 9, PAGE 8).
WIRING

☐ Connect all wiring according to schematic on page 18.

DUCT HOSES

☐ Attach ABS center vent hose adapter. See Figure 20.
☐ Stretch duct hoses out to maximum length, cut to sizes shown below.
☐ Route and attach defrost duct hoses to the defrost ducts.
☐ Route and attach driver's and passenger's side hoses (see Figure 19).
☐ Attach center vent duct hose to the evaporator and the center vent hose adapter.
☐ Reinstall the radio, ashtray glider and ashtray.
☐ Install the center trim plate

**FIGURE 19**

- 2" x 18" Driver's side defrost duct hose
- 2" x 22" Passenger's side defrost duct hose
- 2 ½" x 36" Passenger's side A/C duct hose
- 2 ½" x 22" Center vent A/C duct hose

**FIGURE 20**

- 8 x ½" sheetmetal screws
- Trim plate
- Center vent hose adapter
GLOVE BOX INSTALLATION

The new glove box is made in two (2) pieces for easy installation.

☐ Locate the three (3) tinnerman nuts previously removed from the original glove box shell and slide them into position at door hinge holes punched in dash.
☐ Insert bottom half of new glove box, securing only with one OEM screw on each side through dash holes (see Figure 21).
☐ Insert top half of glove box and fasten to bottom half using five (5) #6 x 3/8" black pan head Phillips screws (see Figure 21).
☐ Install glove box door using three (3) OEM screws through the tinnerman nuts.

FINAL STEPS

☐ Replace the instrument panel assembly and raise the steering column into place and tighten.
☐ Reinstall all previously removed items (fender skirt, fender, wheel, battery box, battery and seats).
☐ 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 AC mode and/or freezing weather, voiding your warranty.
☐ Double check all fittings, 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 inside the front cover of this instruction manual.
OPERATION OF CONTROLS

SYSTEM OFF

A/C MODE
SELECT FAN SPEED WITH THE TOP LEVER. THE BOTTOM TWO LEVERS MUST BE IN THE FAR LEFT POSITION FOR THE A/C MODE.

HEAT MODE
SELECT FAN SPEED WITH TOP LEVER. SLIDE CENTER LEVER TO THE RIGHT.

DEFROST MODE
SELECT FAN SPEED WITH TOP LEVER. SLIDE CENTER LEVER TO THE FAR RIGHT. SLIDE BOTTOM LEVER TO THE FAR RIGHT.
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.
**WIRING/VACUUM DIAGRAM**

**IMPORTANT NOTICE:**
IDENTIFY YOUR BLOWER MOTOR BEFORE WIRING
TYPE 1 MOTOR OR TYPE 2 MOTOR

**TYPE 1 BLOWER MOTOR**
3 WIRES OUT EACH SIDE

**TO BATTERY OR BATTERY TERMINAL ON STARTER SOLENOID**

**AUX. 30 amp CIRCUIT BREAKER**

**POWER RELAY**
WHITE 850
PURPLE 85
GROUND 87
WHITE GROUND 86

**FAN HIGH RELAY**
ANY IGNITION SOURCE KEYED SIDE

**BLOWER SWITCH**
YELLOW 87
RED 87a
BLUE 86
ORANGE 85

**A/C MICRO SWITCH**
BLACK 31200-VUS
WHITE GROUND 87

**DEFROST MICRO SWITCH**
BLACK 87
WHITE GROUND 85

**A/C THERMOSTAT**
BLUE 34677-VUS

**TO COMpressor CLUTCH**
BLUE 87

**VACUUM SOLENOID**
BLACK GROUND 30
RED 86

**VACUUM HEATER CONTROL VALVE**
TO INTAKE MANIFOLD VACUUM SOURCE
RED BLACK

**OPTIONAL VACUUM RESERVOIR**
VINTAGE AIR PART#31200-VUS

**ATTACH ALL WHITE WIRES (→) TO CHASSIS GROUND.**
CUT SUPPLIED FOAM TO MATCH TEMPLATE. PEEL PROTECTIVE BACKING AND STICK TO BACKSIDE OF TRIM PLATE.

CENTER VENT TEMPLATE FOR VINTAGE AIR LOUVER ONLY

TEMPLATE FOR CUTTING HOLE IN TRIM PLATE FOR V.A. CENTER LOUVER INSTALLATION

1-5/8"

4-7/16"

CENTER VENT
CUT OUT ON DOTTED LINE
CUT OUT ON DOTTED LINE AND PLACE ON FACE OF TRIM PLATE MARK AND CUT HOLE

FOAM TEMPLATE
O.E.M. ASTRO VENT MODIFICATIONS

CUT & DISCARD

ADD HOSE ADAPTER

TWO "S" CLIPS
NOTE: MOST CARS HAVE THIS HOLE... IF YOURS DOES NOT, USE THE TEMPLATE PROVIDED IN ORDER TO LOCATE THE HOLE.

WITH TEMPLATE PROVIDED ON THIS PAGE DRILL A 5/16" HOLE UNDER THE RIGHT SIDE OF THE DASH. THE 5/16" HOLE IS FOR THE BLOWER HOUSING BRACKET MOUNTING BOLT (SEE FIGURE 10, PG. 9).

TAPE TEMPLATE TO DASH, CENTER PUNCH AND DRILL 5/16" DIAM. HOLE

GLOVE BOX

BACK EDGE OF DASH UNDER PASSENGER SIDE

TEMPLATE

CUT ON DOTTED LINES OF TEMPLATE AND PLACE AS SHOWN ABOVE.

ALIGN WITH EDGE OF GLOVE BOX

TOP

FOLD UNDER DASH AT LINE

TOP

5/16 HOLE

BACK EDGE OF DASH

TEMPLATE FOR 1967/68 CAMARO
without FACTORY AIR CONDITIONING
PASSENGER'S SIDE VENT TEMPLATE FOR VINTAGE AIR LOUVER ONLY
1967 CAMARO

CENTER PUNCH AND DRILL 2 1/2" DIAM. HOLE

GLOVE BOX EDGE

CUT

FOLD UNDER DASH AT DOTTED LINE

ALIGN WITH EXISTING OEM HOLE UNDER DASH

TEMPLATE FOR BALL LOUVER ON PASSENGER SIDE AREA
DRIVER'S SIDE VENT TEMPLATE FOR VINTAGE AIR LOUVER ONLY
1967 CAMARO

CENTER PUNCH AND DRILL 2 1/2" DIAM. HOLE

DRIVER'S SIDE

ALIGN THIS EDGE WITH DASH TO INSTRUMENT PANEL PARTING LINE

CUT

FOLD UNDER DASH AT DOTTED LINE

EXISTING OEM HOLE
OPTIONAL DRIVER SIDE TEMPLATE

DRIVER SIDE TEMPLATE FOR INSTALLING O.E.M. ASTRO VENTILATION LOUVERS INTO A NON-AIR DASH.

CUT HERE

CUT HERE

CUT HERE

FOLD UNDER DASH

CUT HERE

DRILL 1/8" HOLE

EDGE OF DASH ROLL AT INSTRUMENT CLUSTER


8/7/01 67-68 CAMARO 19 TO END
Passenger side template for installing O.E.M. astro ventilation louvers into a non-air dash.

Cut on dotted line.

Fold under dash.

Cut here.

Drill 1/8" hole.
1967-68 CAMARO & FIREBIRD w/OUT FACTORY AIR

EVAPORATOR KIT
55074-VCZ-A

ACCESSORY KIT
78168-FCN

1967-68 CAMARO & FIREBIRD w/OUT FACTORY AIR
EVAPORATOR KIT PACKING LIST

<table>
<thead>
<tr>
<th>NO.</th>
<th>QTY</th>
<th>PART NO.</th>
<th>DESCRIPTION</th>
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<td>1</td>
<td>55467-VCE-A</td>
<td>EVAPORATOR w/BRACKETS</td>
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<tr>
<td>2.</td>
<td>1</td>
<td>78168-FCN</td>
<td>67-68 CAMARO w/OUT AIR ACCESSORY KIT</td>
</tr>
</tbody>
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CHECKED BY: ____________________________
PACKED BY: ____________________________
DATE: ____________________________