specializing in “AIR CONDITIONING, PARTS AND SYSTEMS” for your classic

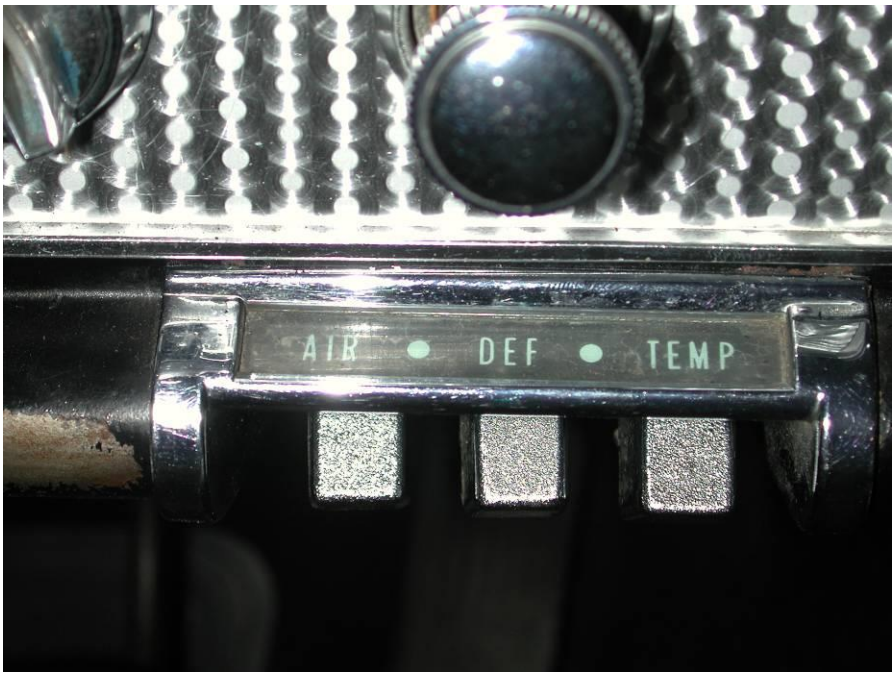
“PERFECT FIT”
IN-DASH

HEAT/ COOL/ DEFROST

1964 CHEVROLET IMPALA

CONTROL & OPERATING INSTRUCTIONS

The controls on your new “Perfect Fit” system. Offers complete comfort capabilities in virtually every driving condition. This includes Temperature control in all of the modes. This system also provides DEHUMIDIFICATION in the defrost mode and the ability to blend the air between Face and Heat / Defrost modes.



THE PICTURE YOU SEE ABOVE SHOWS THE CONTROLS IN THE FACE MODE. THIS MEANS THAT THE AIR WILL BE DISTRIBUTED THROUGH THE FACE OUTLETS. THIS ALSO HAS THE TEMPERATURE LEVER IN THE COLD POSITION. WITH THE CONTROLS IN THIS POSITION YOU WILL GET THE AIR THROUGH THE FACE OUTLETS WITH THE COMPRESSOR ON.

CAUTION: ALL OF THE OUTSIDE VENTS MUST BE CLOSED WHEN THE SYSTEM IS IN THE A/C MODE. THIS WILL ALLOW THE A/C SYSTEM TO FUCTION AT ITS MAXIMUM PERFORMANCE LEVEL.

THE FOLLOWING SUMMARY WILL DESCRIBE EACH OF THE CONTROL LEVERS FUNCTION.

FAN SPEED SWITCH: There are 3 speeds plus Off. When the switch is in the off position it will disconnect the 12V power to the Blower Motor and the A/C Clutch. This will shut down the entire system. When the switch is moved to any of the blower speeds 1,2 or 3 there is 12V supplied to the Micro-Switch that is mounted on the Face Duct.

FACE / DEFROST / HEAT DOOR CONTROL: When the Control Knob is pulled all the way UP the air is distributed to the FACE outlets. In this position the compressor clutch is engaged. When the knob is pushed half of the way DOWN the air will go to the DEFROST outlets. In the Defrost position the compressor clutch is engaged for dehumidification. When the knob pushed all the way Down the air will go to the FLOOR outlets. In the FLOOR position the compressor is disengaged.

TEMPERATURE CONTROL: The Temperature Knob as shown is at the COLDEST temperature position. As the lever is pushed down the temperature of the discharged air will RISE to the HOTTEST point.

Note: The temperature lever will function in any of the modes.

manufacturing

specializing in "AIR CONDITIONING, PARTS AND SYSTEMS" for your classic

INSTALLATION INSTRUCTIONS
1964 CHEVROLET IMPALA

Congratulations! ! You have just purchased the highest quality, best performing A/C system ever designed for you Classic Car. To obtain the high level of performance and dependability our systems are known for, pay close attention to the following instructions.
Before beginning the installation check the box for the correct components.

Evaporator
Face Duct Assembly
Inlet Air Block Off Assembly
Firewall Block Off Assembly
Flex hose 2" dia. x 3ft. – 1ea.
Flex hose 2" dia. x 4ft. – 1ea.
Flex hose 2 ½" dia x 1ft. – 2ea.
Sack Kit Hardware
Sack Kit Control
Glove box

IMPORTANT INFORMATION

1. Before starting, read the instructions carefully and follow proper sequence.
2. Check condition of engine mounts. Excessive engine movement can damage hoses to A/C, heater, radiator, transcooler, and power steering systems.
3. Before starting, check vehicle interior electrical functions. i.e. interior lights, radio, horn, etc. When ready to start installation, disconnect battery.
4. Fittings. Use one or two drops of lubricant on O'rings, threads and rear of bump for O'ring where female nut rides. Do not use thread tape or sealants.
5. Always use two wrenches to tighten fittings. Try holding in one hand while squeezing together while other hand holds fitting in position.
6. Shaft seals in a small percentage of compressors will require as much as 3-4 hours run time to become leak free.
7. Compressors supplied in our complete systems are filled with proper amount of oil.
8. Compressor requires technician to hand turn 15-20 revolutions before and after charging with liquid from a charging station before running system. Compressors with damaged reed valves cannot be warranted.
9. Should you have any technical questions, or are suspect of missing, or defective parts, call us immediately. Our knowledgeable staff will be glad to assist you.

YOU CAN NOW BEGIN THE INSTALLATION

Remove Glove box door and the glove box. Discard glove box.

Retain original hardware.

DRAIN RADIATOR AND DISCONNECT BATTERY GROUND CABLE.

In order to remove the heater assembly. It is necessary to remove the Blower Housing Assembly first.

Carefully lift vehicle and place support stands under center of the vehicle as shown.

It is necessary to lower the inner fender well on the passenger side. Remove the passenger front tire. Remove and retain (9) bolts from around the inner fender. Lower inner fender well to gain access to the (2) screws above and below the blower motor assembly.

Remove (7) screws around perimeter of the Blower Housing. The (2) screws around the blower motor can be accessed from below and between the fender well and fender.

Retain (2) screws around blower motor.

Attach the block off behind the Hood Hinge assembly. Use the original hardware.

Reinstall Inner Fender Well using the original hardware. Reinstall front tire and remove the jack and stands.

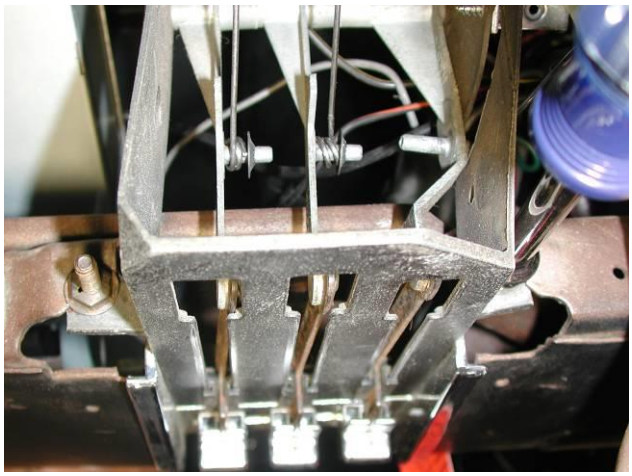
Locate behind the original control head on heater box, the resistor connector located on heater box..

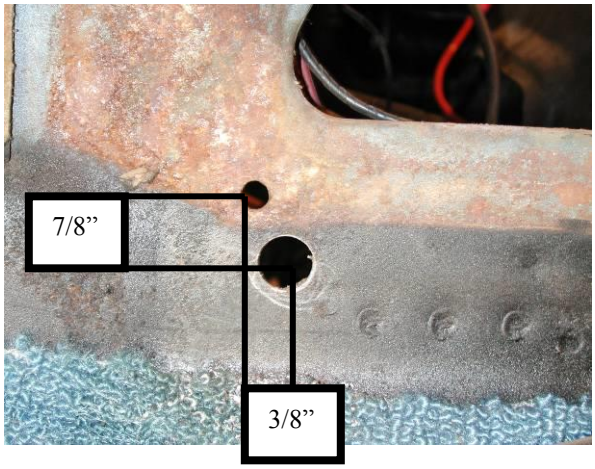
Disconnect the electrical connector.

Remove (2) nuts located under the control head.

Remove the control head and disconnect the electrical connector. Also disconnect (3) original control cables retain the original hardware.

Set the control head aside for modification and reinstall.





Locate behind dash and on firewall the hole that previously mounted the heater box.
Drill (1) ¾” dia. hole for the drain tube as shown.

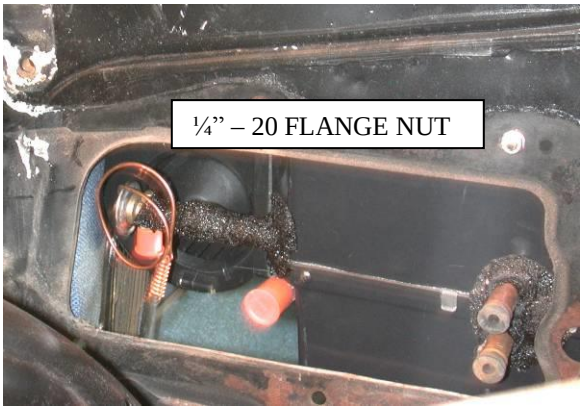
All modifications to the vehicle are complete. We will now begin the installation of the system.

Locate the evaporator, Air Distribution Duct assembly and (4) #10 x 5/8” pan head screws..

Place evaporator on the bench and attach Distribution assembly onto the evaporator using (4) #10 x 5/8” pan head screws.

Lift unit up and behind the glove box opening.

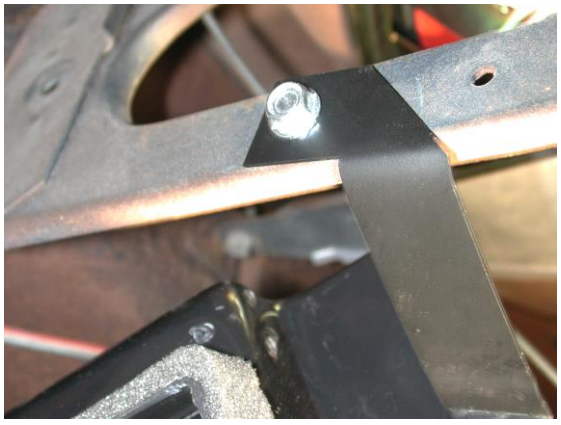
Insert (1) upper rear Evaporator mounting stud through the original hole as shown. Attach using (1) ¼" – 20 flange nut provided.



Locate in the hardware sack kit the evaporator support brace, (1) #14 x 3/4" tek screw.

Remove #10 screw from the evaporator assembly and attach support brace to the evaporator using original screw.

Attach top part of brace to the instrument panel support brace using (1) #14 x ¾" tek screw.



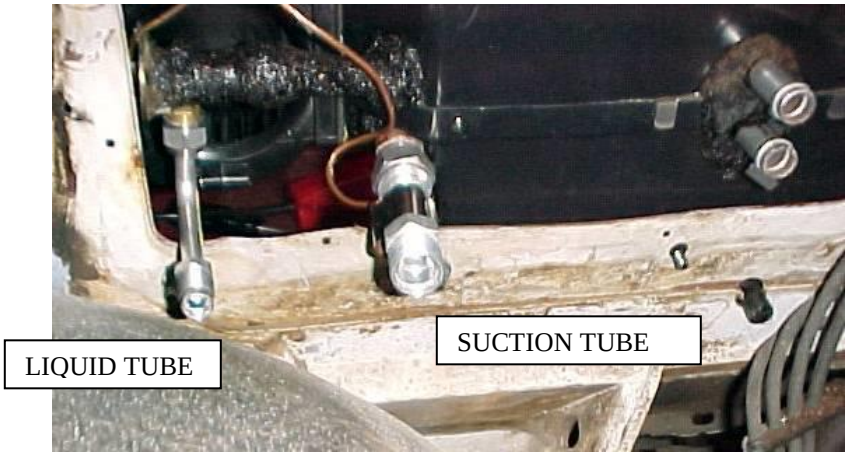
Locate in the hardware sack kit (2) #14 x ¾" tek screws.

Attach blower support brace to the body using (2) #14 tek screws.

CAUTION: BE SURE THAT THE EVAPORATOR IS LEVEL WITH THE BOTTOM OF THE DASH.

Locate in the hardware sack kit the following components.

Suction Tube
Liquid Tube
TXV Bulb Clamp
Refrigerant Tape
(1)#6 o-ring
(1) #10 o-ring

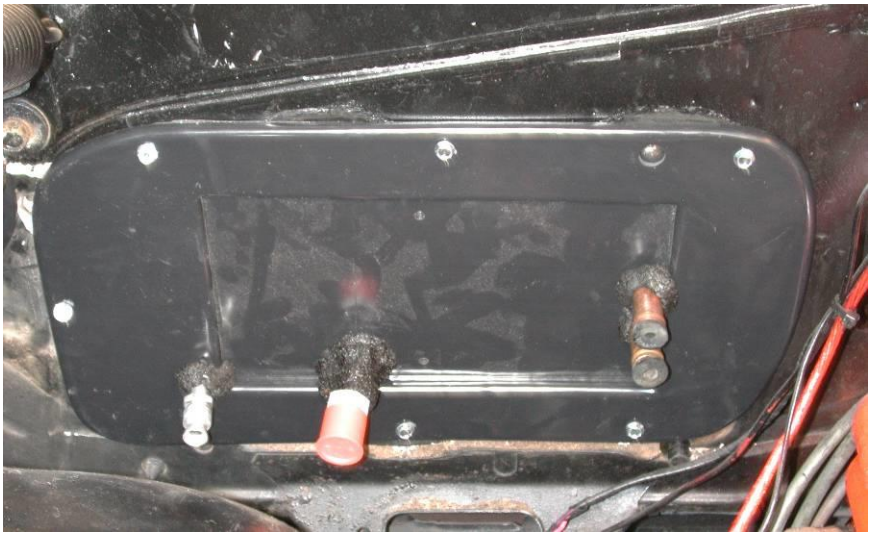


Install liquid line onto the Expansion valve (TXV) as shown. Use #6 o-ring and (2) drops of mineral oil on the o-ring and tighten securely.
Install Suction Tube on the outlet to the unit as shown. Use #10 o-ring and (2) drops of mineral oil on the o-ring and tighten securely.

Locate Sensing Coil attached to the TXV and utilizing Bulb Clamp, attach it to the Suction Tube.

CAUTION: SYSTEM WILL NOT FUNCTION PROPERLY IF THE SENSING COIL IS NOT CLAMPED IN THE CORRECT POSITION. SEE PICTURE.

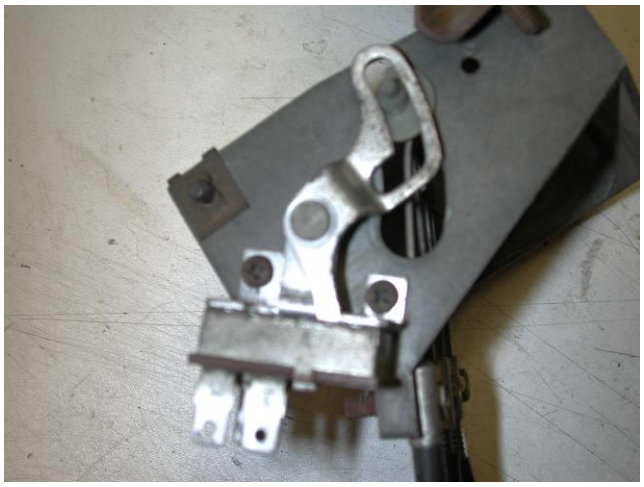
Wrap Suction Tube and Sensing Coil with the refrigerant tape provided. Be sure that all of the exposed metal is covered.



Locate the Firewall Block Off plate, and (6) #10 x ¾" hex head tek screws.

On engine side of firewall attach over hookup tubes from the evaporator using (6) #10 Tek screws.

Using refrigerant tape seal around tubes at the firewall block off plate.



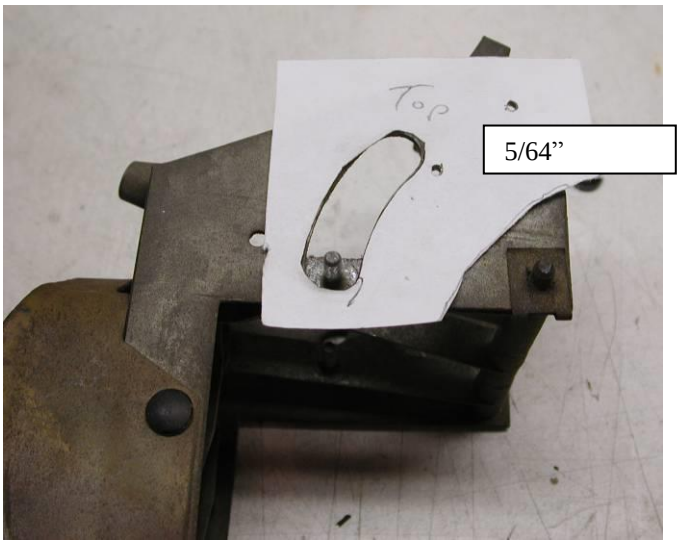
Locate the original control assembly. Remove and discard the original blower switch. Discard all original hardware.

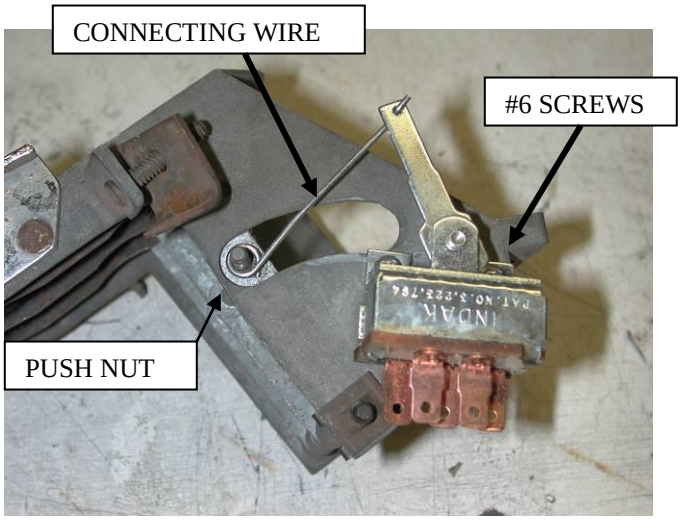
Locate Control Switch Drill Template from the installation instructions.

Locate to top edge of the controls and along left side as shown.

Mark and drill (2) holes 5/64” dia.

Reinstall the original knob and lever assembly.

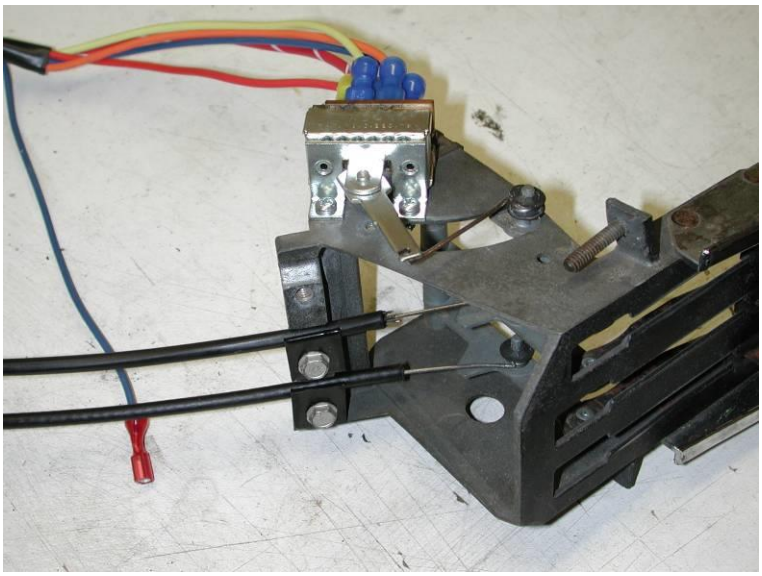




Locate the blower switch, (2) #6 x 3/8” pan head screws, (1) 3/16” push nut and the connecting wire from the control sack kit.

Attach control switch assembly and connecting wire to the original control head using (2) #6 x 3/8” pan head screws.

Locate wire harness from the control sack kit. Attach harness to blower switch according to the wiring diagram on next page.



Locate in the control sack kit (1) SHORT control cable, (1) LONG Temperature control cable, (2) cable clips and (2) 3/16” push nuts.

Attach (longest) temperature control cable using original hardware to bottom control arm and (1) 3/16” push nut. NOTE: Cable sleeve is 1/4” from the lever arm.

Attach the (shortest) Face / Heat cable to the center control arm. Using (1) push nut, and the original screw and cable clip. NOTE: The cable sleeve is 1/4” from the lever arm.

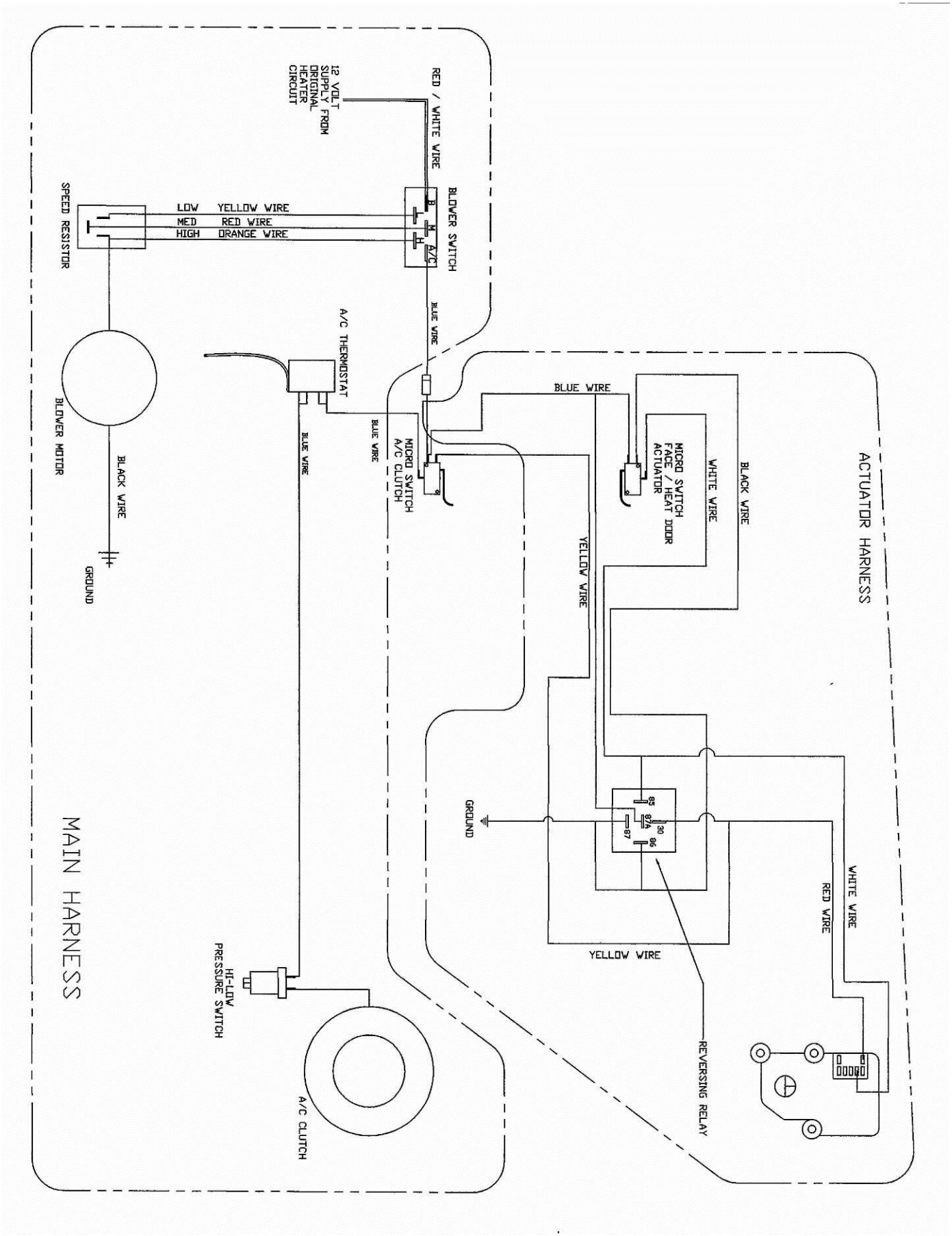
Locate original wire harness that was attached to the blower switch. Cut the connector off. Attach (1) ¼” male spade connector to the brown wire.

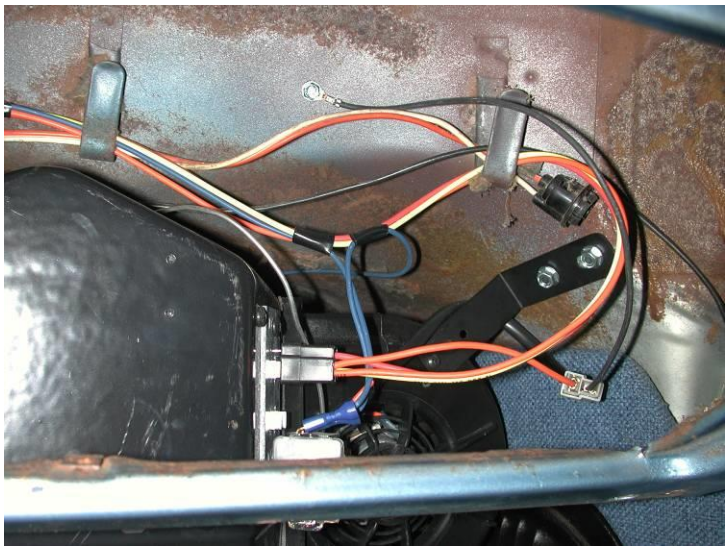
Place control assembly on floor of the car.

Attach red / white striped wire from blower switch to brown wire from the original harness.

Insert light socket back into the control head.

Reinstall control head using original hardware.


MAIN HARNESS
ACTUATOR HARNESS
12 VOLT SUPPLY FROM ORIGINAL HEATER CIRCUIT
RED / WHITE WIRE
BLOWER SWITCH
SPEED RESISTOR
LOW YELLOW WIRE
MED RED WIRE
HIGH ORANGE WIRE
A/C
BLUE WIRE
A/C THERMOSTAT
BLOWER MOTOR
BLACK WIRE
GROUND
MICRO SWITCH A/C CLUTCH
BLUE WIRE
BLUE WIRE
MICRO SWITCH FACE / HEAT DOOR ACTUATOR
WHITE WIRE
BLACK WIRE
YELLOW WIRE
GROUND
85
87A
30
87
86
YELLOW WIRE
WHITE WIRE
RED WIRE
REVERSING RELAY
HI-LOW PRESSURE SWITCH
A/C CLUTCH



Route the main harness across front of unit to the resistor and blower motor. Route blue clutch wire over evaporator and out through the hole in the firewall above the unit. Secure ground from the blower motor using (1) #10 x ¾ " hex head Tek screw. Also secure ground wire from electrical servo motor to the center brace using (1) #10 tek screw.

REFER TO THE WIRING DRAWING FOR PROPER CONNECTIONS.

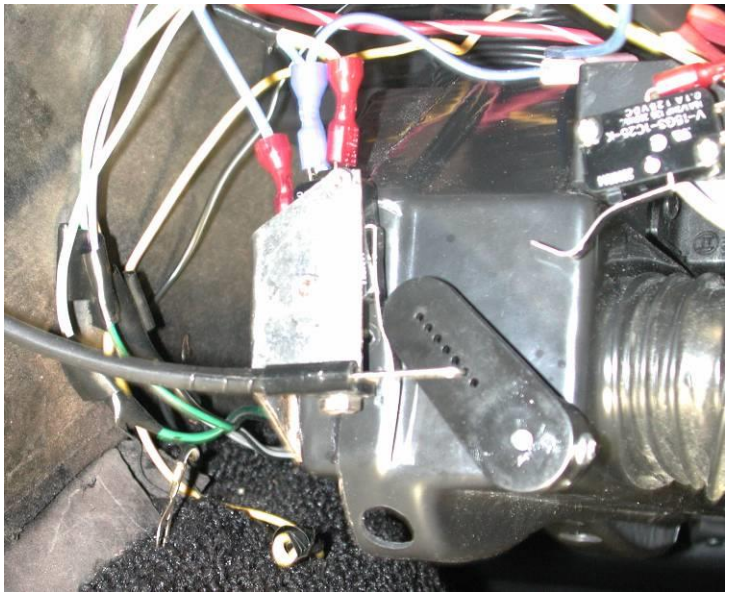
Hang wire harness on the clips

Attach (2) blue wires to the micro-switch located next to the face / heat door crank arm.

Route temperature cable in front of center ducts and through hole above the unit. Attach this cable to the water valve.

Attach Face / Heat cable to door on side of the center duct assembly using (1) #8 screw.

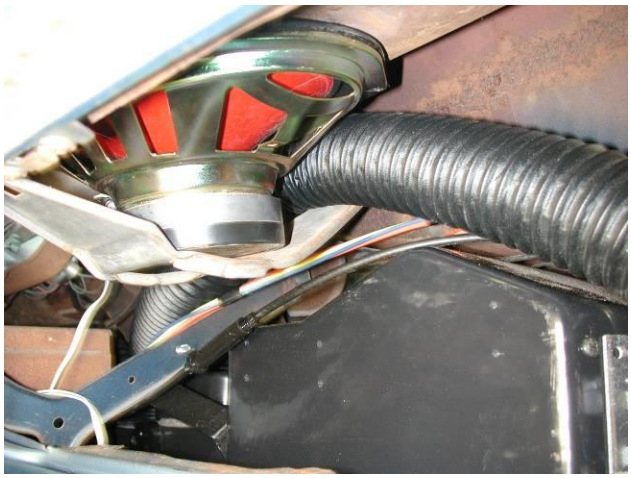
Locate center wire of the cable in 2nd hole from the pivot of the crank arm.



Locate in the hardware sack kit the remote louver assembly , and (2) #10 x ¾" hex head tek screws.

Locate 2" dia flex hose 48" from the unit box. Cut 40" off the duct hose.

Attach remote louver on the passenger side of instrument panel, using (2) #10 tek screws.



Route 2” dia x 40” flex hose from right outlet on top of the distribution duct across top of the evaporator and attach to the passenger louver assembly.

Locate in the hardware sack kit the remote louver and (2) #10 x ¾” hex head tek screws.

Locate 2” dia flex hose 36” from the unit box.

Attach remote louver on the passenger side of instrument panel, using (2) #10 tek screws.

Route flex hose over to center distribution duct and attach to left outlet on side of the duct.

Locate the center face distribution hose adapter (2) pieces of 2 ½”dia flex hose 6” long, and (2) #10 x ¾” tek screws.

Attach adapter under center of the instrument panel using the (2) #10 tek screws.

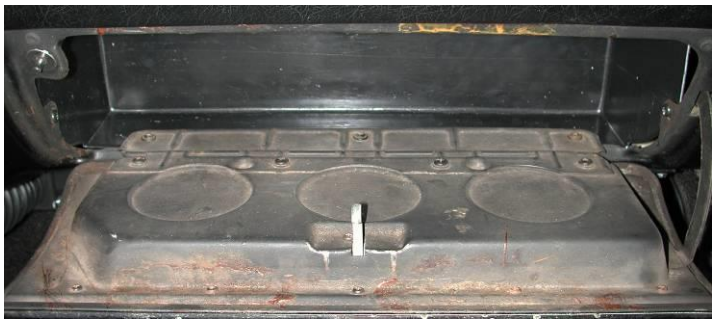
Attach 6” flex hose between center hose adapter and the distribution duct hose adaptors.

Locate Center Louver Bezel Assembly and (4) #8 x 3/8" pan head screws.

Attach bezel assembly over the hose adaptor and fasten with (4) #8 screws. (2) on bottom and (1) on each side.

Locate Glove Box provided in the kit and install using original hardware.

If vehicle is equipped with original speaker cut hole in top of the glove box.



Reinstall glove box door. Attach using original hardware.

Caution: Carefully check under the Instrument Panel for all cables, electrical harness, or Flex Hoses that might interfere with the safe operation of the vehicle.

Installation of the interior components is complete. We will now install the under hood portion of the system.

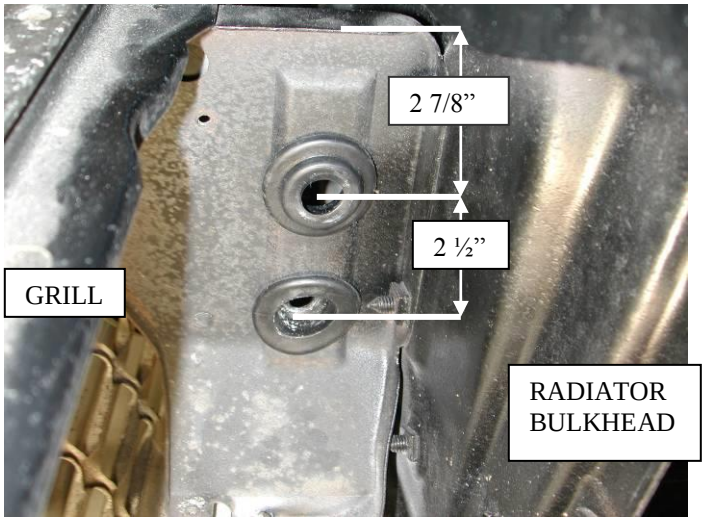
INSTALL THE COMPRESSOR ADAPTER KIT AND COMPRESSOR AT THIS TIME PER THE MANUFACTURERS DIRECTIONS.

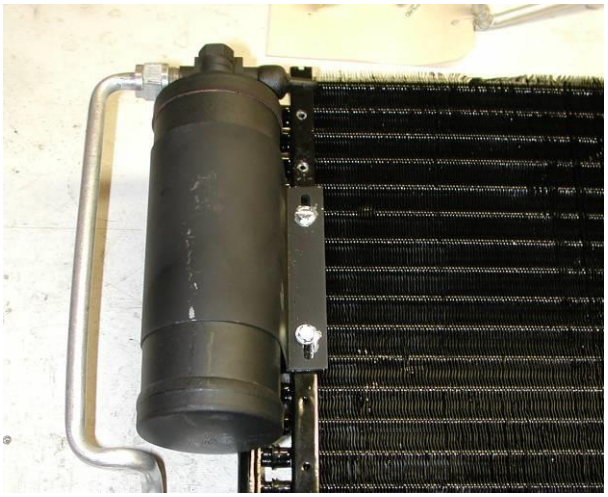
Drain and remove the radiator and fan shroud.

Locate and drill (2) holes 1 3/8” diameter. Between grill and radiator support on passenger side of the vehicle.

Location is shown in the picture to the right.

Attach (2) grommets as shown.





Locate Filter / Drier, Drier Mounting Bracket, Aluminum Liquid tube, (2) #6 o-rings, and (2) #10 x 3/8” hex head screws.

Install filter drier to condenser on third hole from top as to allow the Liquid Tube to attach as shown.

Install a few drops of mineral oil to the o-ring fittings, and secure.

Locate the Condenser, (2) left condenser mounting brackets, and (4) #10 x 3/8” hex head screws.

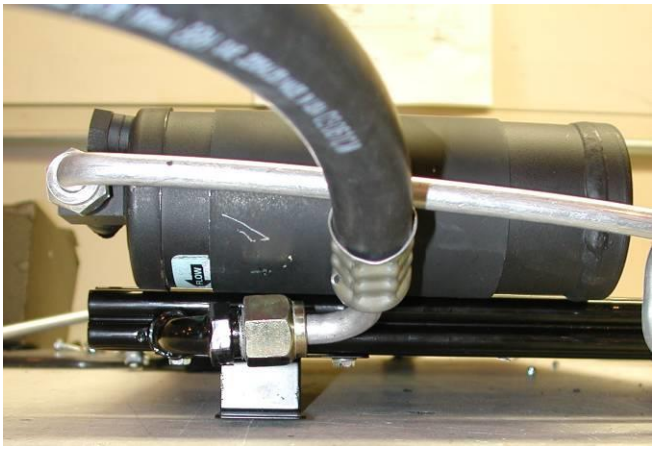
Attach brackets to the condenser. Top bracket in the top hole as shown.
Lower left condenser bracket attach bracket to condenser on third hole from the bottom.

Locate the Condenser, (1) right condenser mounting brackets, and (2) #10 x 3/8” hex head screws.

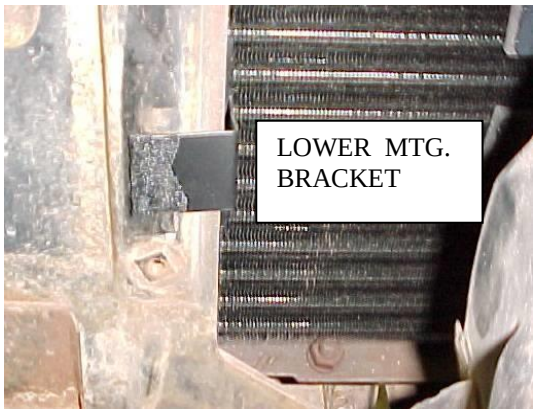
Attach bracket to the condenser. Bracket in the top hole as shown.

Locate the discharge hose without the service port, and (1) #8 o-ring.

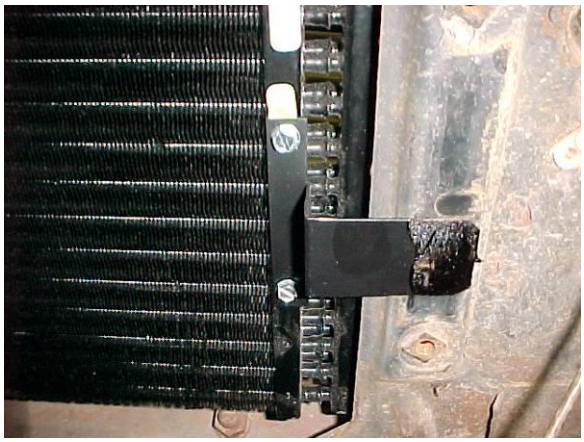
Attach 90 deg. end to the condenser as shown. Be sure that the hose is tightened so that the hose goes up at an angle as shown.



Carefully place Condenser Assembly through the Radiator Support as shown. Notice: on the next page slide the discharge hose through top grommet in the support. Route hose around battery towards the compressor.



Locate in the condenser kit the lower right condenser mounting and (2) #10 x 3/8” hex head screws. Attach bracket to the condenser on third hole from the bottom.



Locate the liquid hose, Hi / Low pressure switch assembly, wire harness and (3) #6 o-ring.

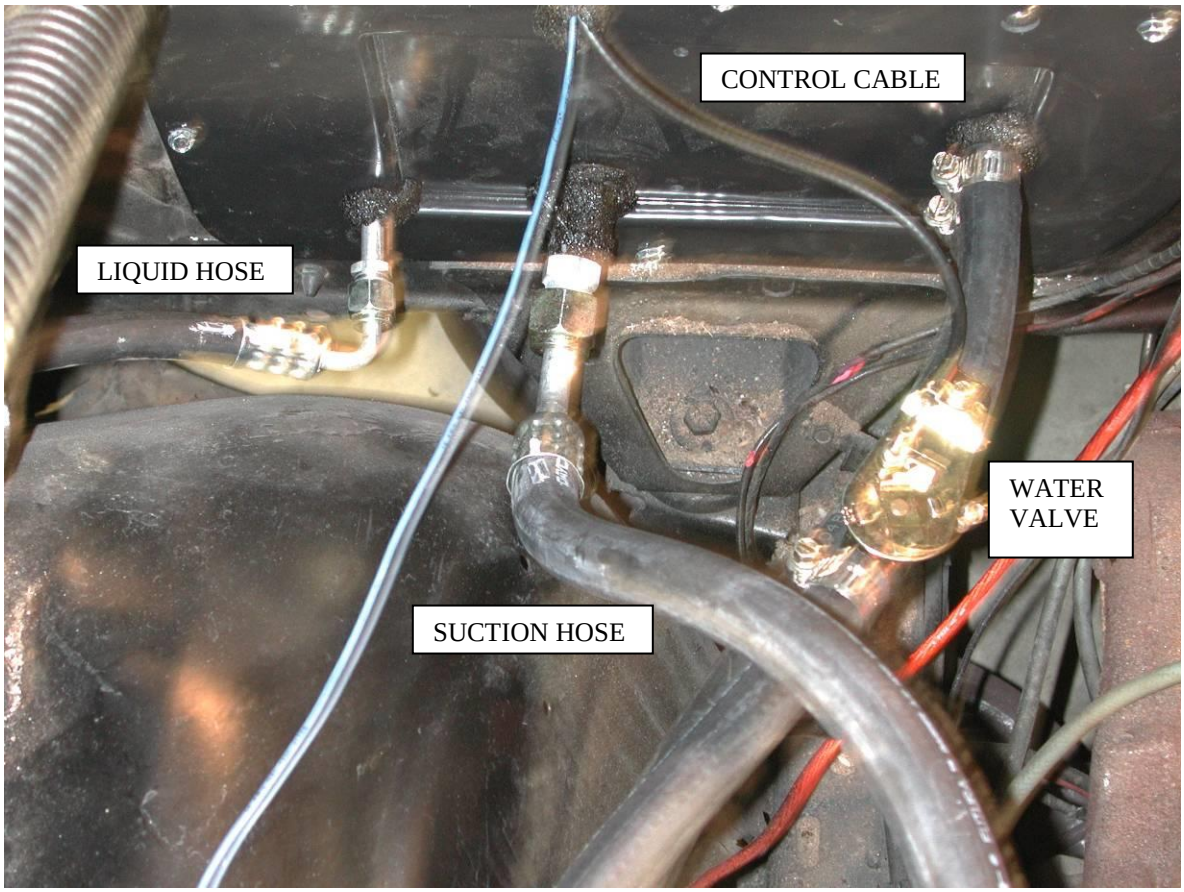
Attach Hi / Low switch assembly to the drier on the outlet from the filter / drier using (1) #6 o-ring and a few drops of mineral oil.
Note: Switch should be facing down.

Attach liquid hose assembly to the switch assembly using (1) #6 o-ring and a few drops of mineral oil.

Insert other end through lower grommet in the bulkhead.

Route hose behind battery and between fender and the fender well. Attach to #6 fitting at the firewall block off using (1) #6 o-ring and few drops of mineral oil.

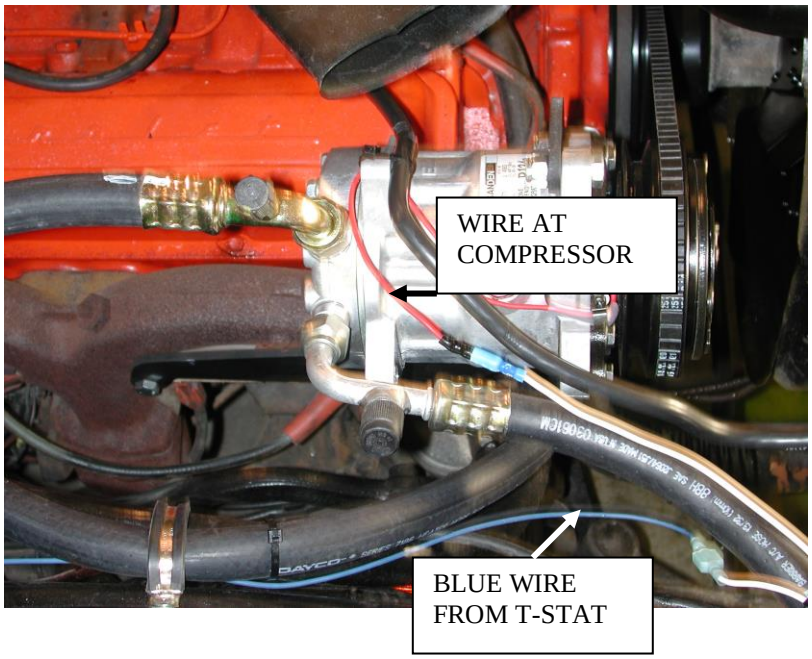
Attach wire harness to the pressure switch and route wires through grommet along with the liquid hose. Route wires along with #8 discharge hose to the compressor.



Locate the water valve and (3) worm gear clamps from the hardware sack kit.

Cut 6” of heater hose from the **RETURN HOSE**. Attach this piece to top fitting at the firewall. Water valve is installed on the other end of the 6” piece.

Attach supply line from engine to the bottom hose connection.
Set control lever in the Cold position and be sure that the water valve is closed.
Locate insulation tape and seal around cable at firewall.



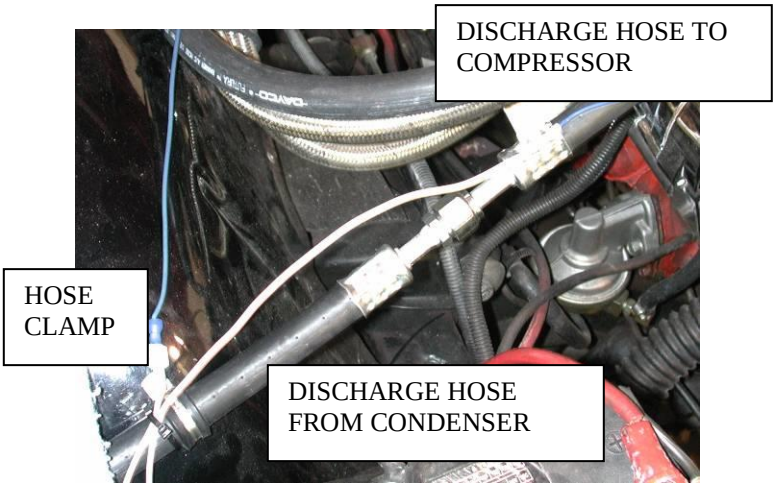
Route (1) of the white wires along with the #8 refrigerant hose. Attach to the compressor clutch.
Other white wire attaches to Blue Clutch wire from the thermostat.

PICTURE SHOWS DRIVERS SIDE COMPRESSOR MOUNTING

Locate remaining #8 discharge hose and (2) #8 o-rings, (1) #8 hose clamp, and (1) #10 tek screw.

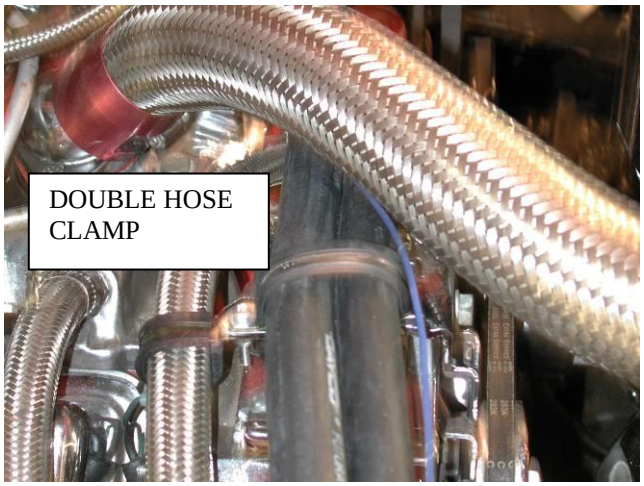
Connect fitting with service port to the compressor using (1) #8 o-ring and a few drops of mineral oil.

Connect straight end to discharge hose from the condenser using (1) #8 o-ring and few drops of mineral oil.



Fasten #8 hose to the fender well behind battery using hose clamp and (1) #10 tek screw..

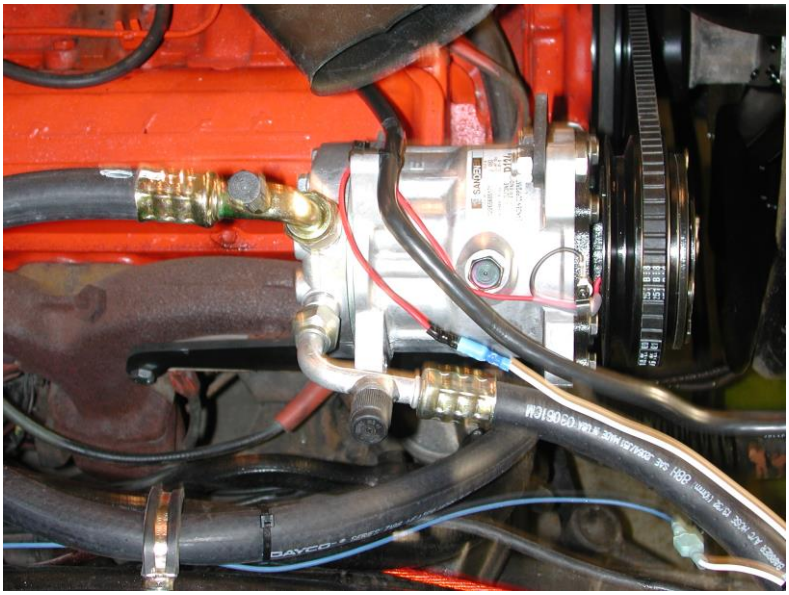
Locate #10 refrigerant hose. Attach end with service fitting to the compressor using (1) #10 o-ring and a few drops of mineral oil.
Attach other end to #10 fitting at the firewall. Attach using (1) #10 o-ring and a few drops of mineral oil.
Tighten securely.



Locate the double hose clamp and (1) #10-24 screw and nut.

Attach discharge and suction hose to the alternator bracket as shown using clamp and screw and nut.

PICTURE SHOWS PASSENGER SIDE COMPRESSOR MOUNTING.



Reinstall radiator and fan shroud using original hardware.

THE ENGINE COMPARTMENT OF YOUR SYSTEM IS COMPLETE. THE UNIT IS READY FOR EVACUATION AND CHARGING.

THIS SHOULD BE DONE BY A QUALIFIED AND CERTIFIED AIR CONDITIONING TECHNICIAN.

NOTE: ***COMPRESSOR IS SUPPLIED WITH THE CORRECT OIL CHARGE. DO NOT ADD OIL TO SYSTEM.***

134A SYSTEMS 24 oz OF REFRIGERANT
Recommend that power fuse is 25amp minimum

Congratulations you have completed the install of your CLASSIC AUTO AIR "Perfect Fit Series" climate control system.

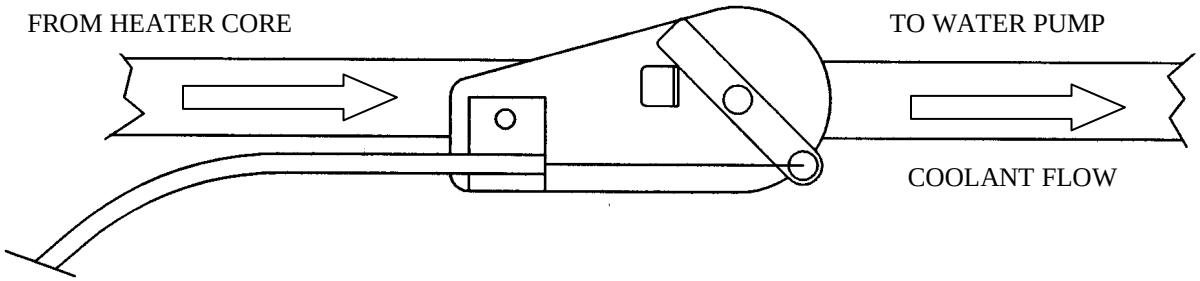
IMPORTANT

CAUTION: WATER VALVE MUST BE INSTALLED PER THE INSTRUCTIONS.

Classic Auto Air has done extensive testing on the correct method to install the water valve in order to get a repeatable and progressive temperature control.

Locate the **bottom** connection from the evaporator/heater unit off of the firewall and attach a 6" piece of 5/8" dia. heater hose with the supplied hose clamp. Next attach the inlet side of the water valve using another supplied hose clamp, (make sure the arrow on the water valve points toward the engine) Attach a heater hose from the outlet side of the water valve and route to the connection on the water pump.

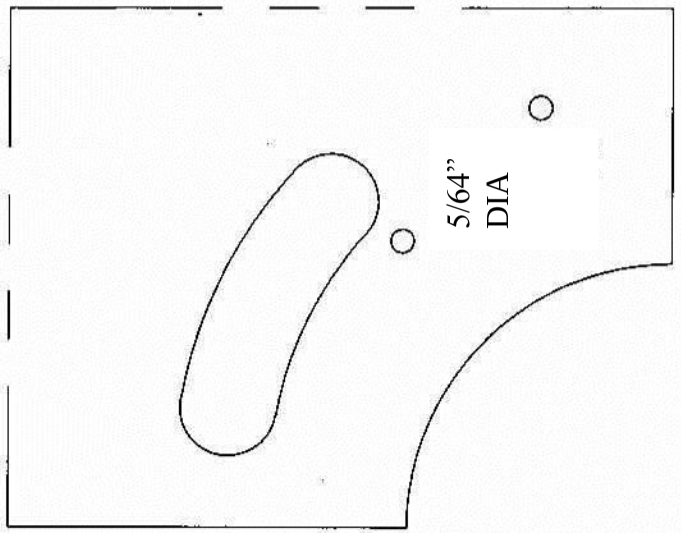
NOTE: WATER VALVE = WATER PUMP



CAUTION: WATER VALVE MUST BE INSTALLED ON HEATER LINE ROUTED TO WATER PUMP.

NOTE: ***COMPRESSOR PURCHASED WITH KIT IS SUPPLIED WITH THE CORRECT OIL CHARGE. DO NOT ADD OIL TO SYSTEM.***
134A SYSTEMS 24 oz OF REFRIGERANT
Recommend that power fuse is 25amp minimum

1964 CHEVY IMPALA



TEMPLATE SWITCH MOUNTING