



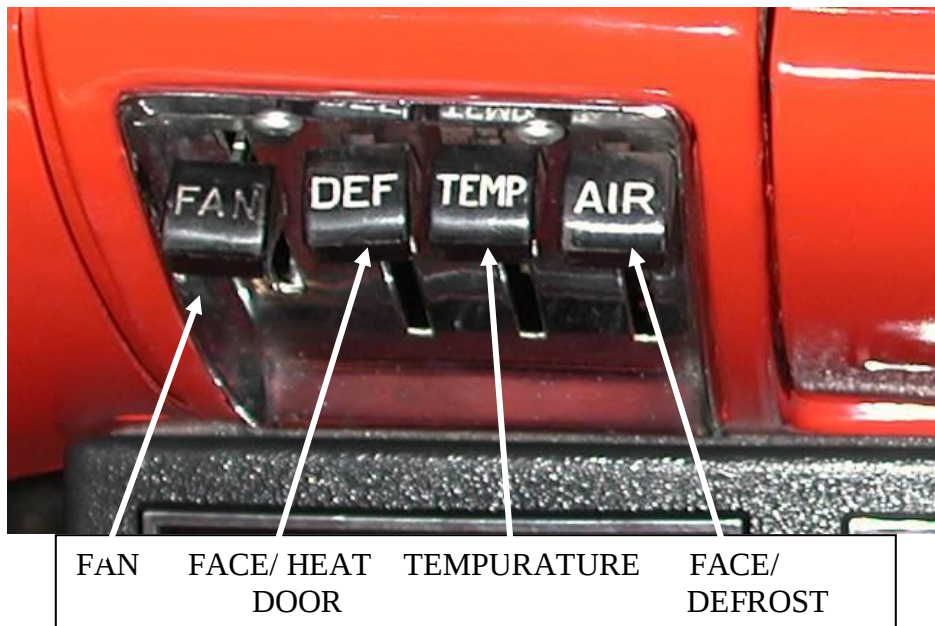
specializing in “AIR CONDITIONING, PARTS AND SYSTEMS” for your classic

“PERFECT FIT” IN-DASH

HEAT/ COOL/ DEFROST
1961-62 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 DEFROST MODE. THIS MEANS THAT THE AIR WILL BE DISTRIBUTED THROUGH THE DEFROST OUTLETS. THIS ALSO HAS THE TEMPERATURE LEVER IN THE COLD POSITION. WITH THE CONTROLS IN THIS POSITION YOU WILL GET THE AIR THROUGH THE DEFROST 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 FUNCTION 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 pushed DOWN the air is distributed to the FACE outlets. When the knob is pulled UP the air will go to the defrost outlets. The knob can be moved any position from the TOP position to the BOTTOM. This will give blend between the defrost and the face outlets.

FACE / HEAT DOOR CONTROL: When the Control Knob is pushed all the way DOWN the air is distributed to the floor outlets. NOTE: the Face / Defrost door must be in the Down position. When the Knob is pulled UP the air is distributed to the Face outlets. In the UP position the Compressor clutch is engaged and you have A/C.

TEMPERATURE CONTROL: The Temperature Knob as shown is in 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.



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

INSTALLATION INSTRUCTIONS

1961-62 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. – 1ea.
Sack Kit Hardware
Sack Kit Control
Glove box
Unit Cover

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.

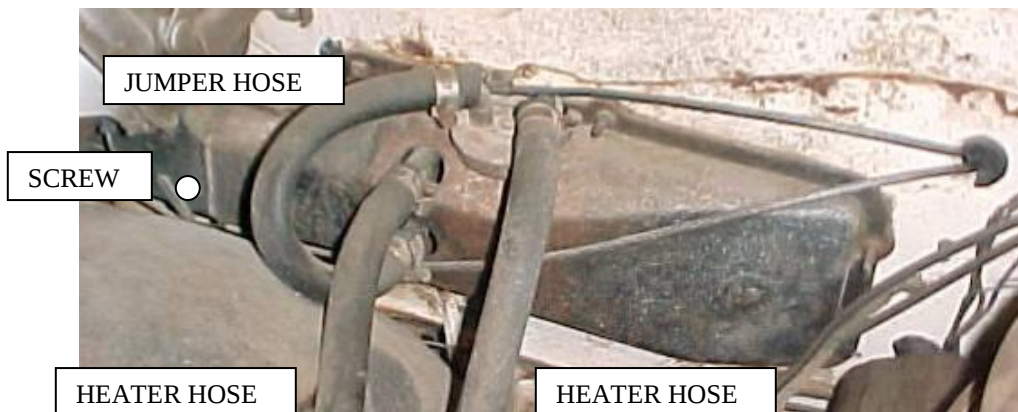
YOU CAN NOW BEGIN THE INSTALLATION

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

Retain original hardware.



DRAIN RADIATOR AND DISCONNECT BATTERY GROUND CABLE.



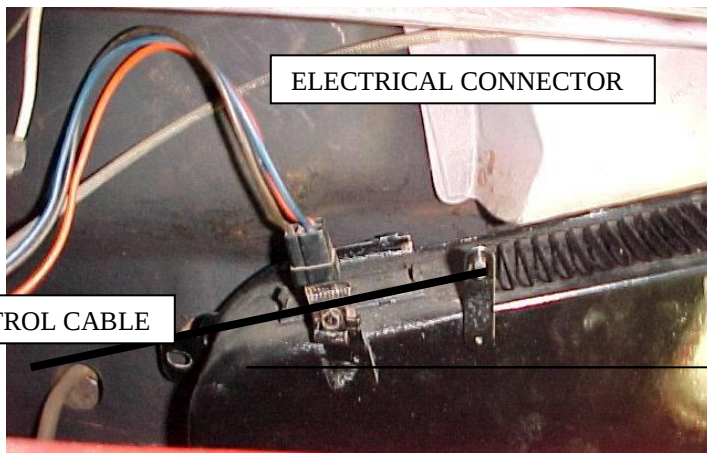
Removal of original Heater Assembly can be accomplished by disconnecting the control cables.

Remove heater hoses from engine and also jumper hose from heater coil to the water valve.

Around perimeter of the housing remove (7) nuts that hold the air box to the firewall. Also remove the screw that attaches blower to the housing.

Remove and discard heater air box and the original hardware.





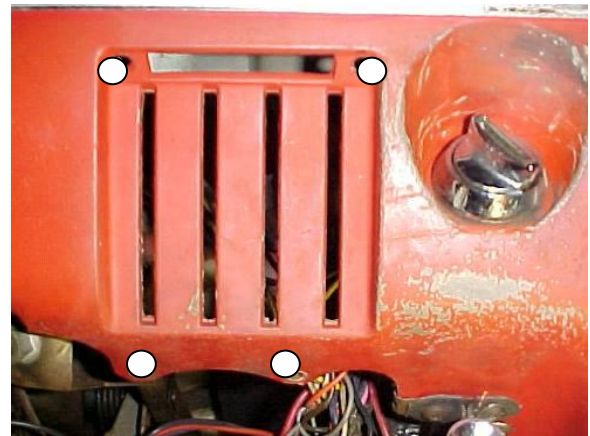
Locate behind glove box opening the control cable and resistor connector.

Remove the cable, and disconnect electrical connector.

Carefully remove and retain the control knobs.

Remove (4) screws located under the control head.

Remove control head and disconnect the electrical connector. Set the control head aside for modification and reinstall.

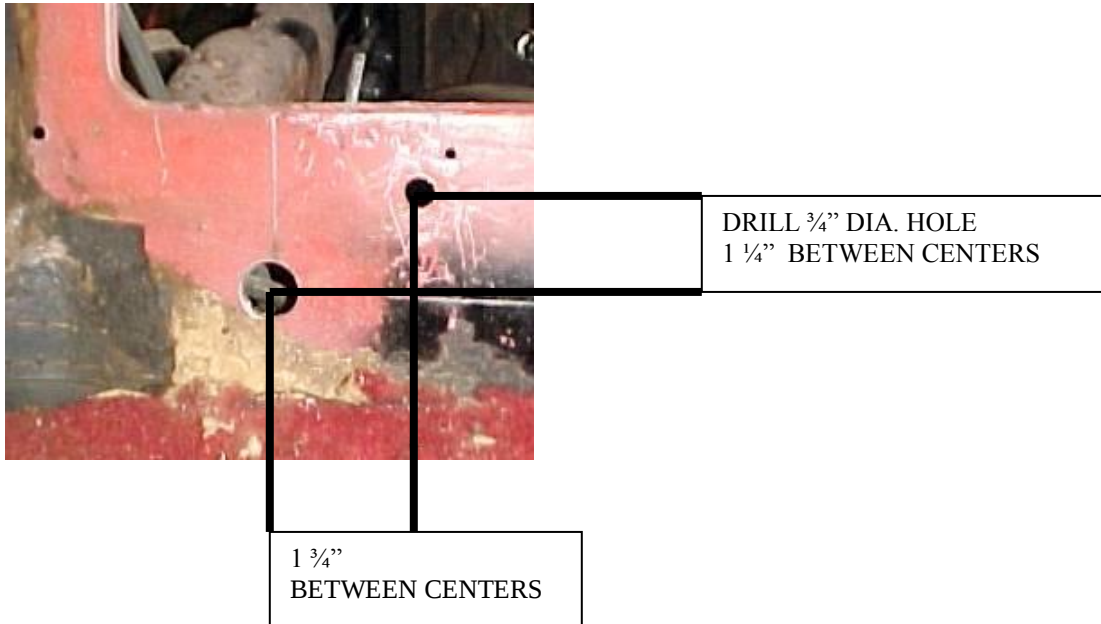


Located on driver's side of the heater box is a screw that retains the heater box.

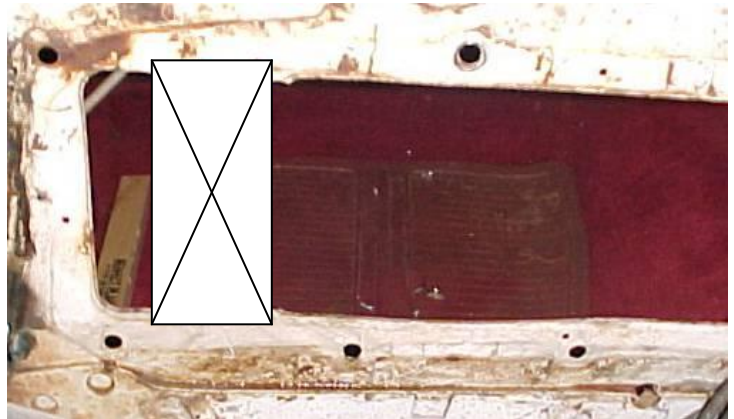
Remove and discard.

Remove the entire heater box and discard.

Locate behind dash and on firewall the hole that previously mounted the heater box.
Drill (1) $\frac{3}{4}$ " dia. hole for the drain tube as shown.



On engine side of firewall cut off and discard dividers from the firewall opening.



Remove hood, passenger side hood hinge and the blower motor assembly.

Discard the blower motor assembly and retain original hardware.



Locate inlet block off plate from the unit box.

Attach over inlet hole on the firewall using original screws.

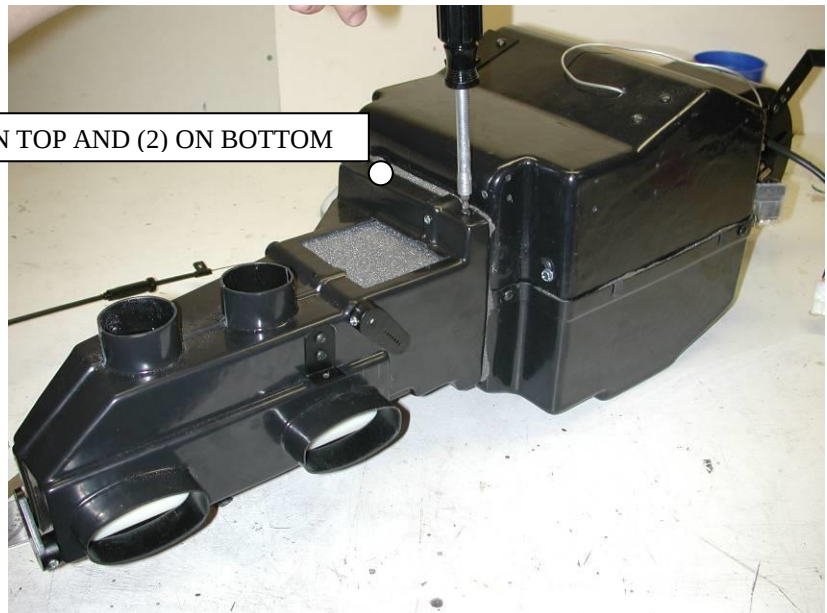
Reinstall hood latch and hood using original hardware.

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

Locate 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.

(2) ON TOP AND (2) ON BOTTOM



**NEXT STEP SHOWN
FROM ENGINE SIDE**



Locate evaporator and the firewall stud bracket.

Place evaporator on floor of the vehicle. Place firewall stud bracket through (3) holes at bottom of the opening.

Lift unit up and behind the glove box opening.

Insert (2) upper rear Evaporator mounting studs through the original holes as shown. Attach using (2) 1/4" - 20 flange nuts provided.



STUD BRACKET FROM INSIDE OF THE CAR

Locate in the hardware sack kit the blower support brace, (2) #8 x 3/8" pan head screw and (1) 1/4"-20 x 5/8" hex head screw and (1) 1/4"-20 flange nut.

Attach end to bottom edge of the dashboard using the 1/4"-20 x 5/8 screw and flange nut, through the existing hole.

Attach to the blower motor using (2) #8 x 3/8" pan head screws.

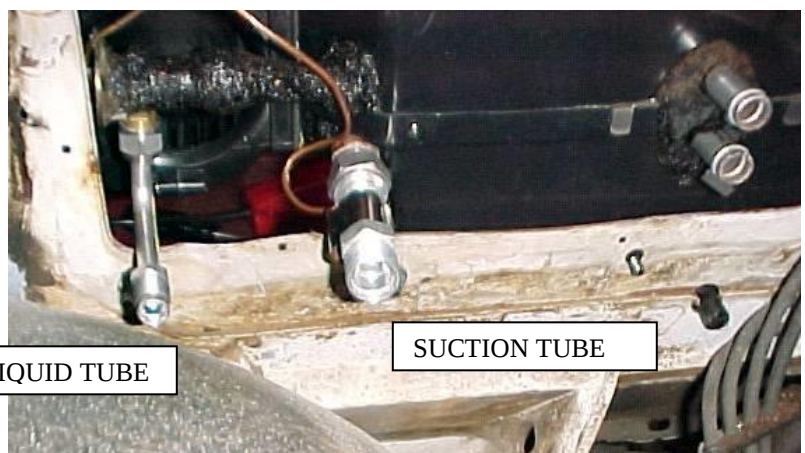


Locate in the hardware sack kit (1) 1/4"-20 x 5/8" hex head screw and (1) 1/4"-20 flange nut.

Attach brace on left side of evaporator through hole in the instrument panel.

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



LIQUID TUBE

SUCTION TUBE

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 the Suction Tube to 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 to the Suction Tube.

CAUTION: THE 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 refrigerant tape provided. Be sure that all of the exposed metal is covered.



Locate the Firewall Block Off plate, (5) 1/4"-20 flange nuts and (2) #10 x 3/4" hex head tek screws.

On engine side of firewall attach over hookup tubes from the evaporator using (5) flange nuts and (2) #10 Tek screws.



NOTE: NEXT FEW STEPS ARE LOCATED BEHIND THE INSTRUMENT PANEL.

Locate original control assembly. Remove and discard the following components. Retain all original hardware.

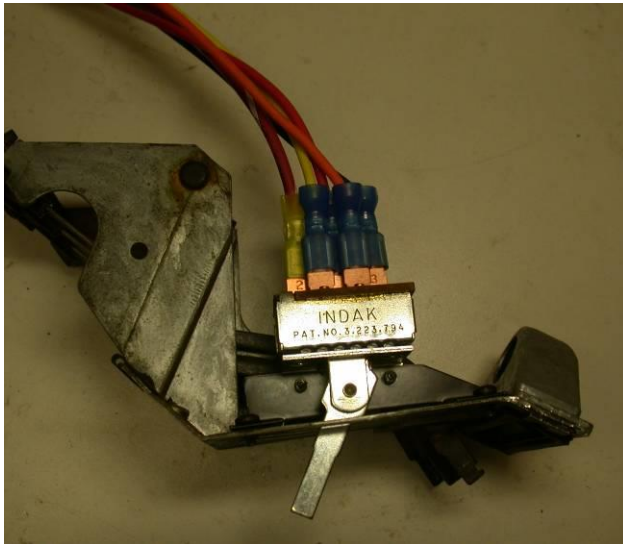
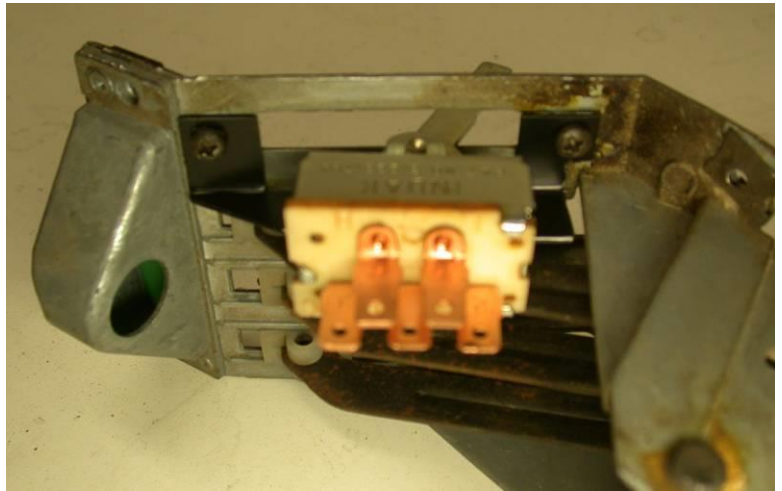
- (1) Original Blower Switch
- (2) Heat Cable
- (3) Temp Cable
- (4) Air Shutoff Cable

Locate the control head.

Locate in the control sack kit the blower switch, blower switch bracket, (3) 3/16" push nut, and (2) #6 x 3/8" pan head Philips screws.

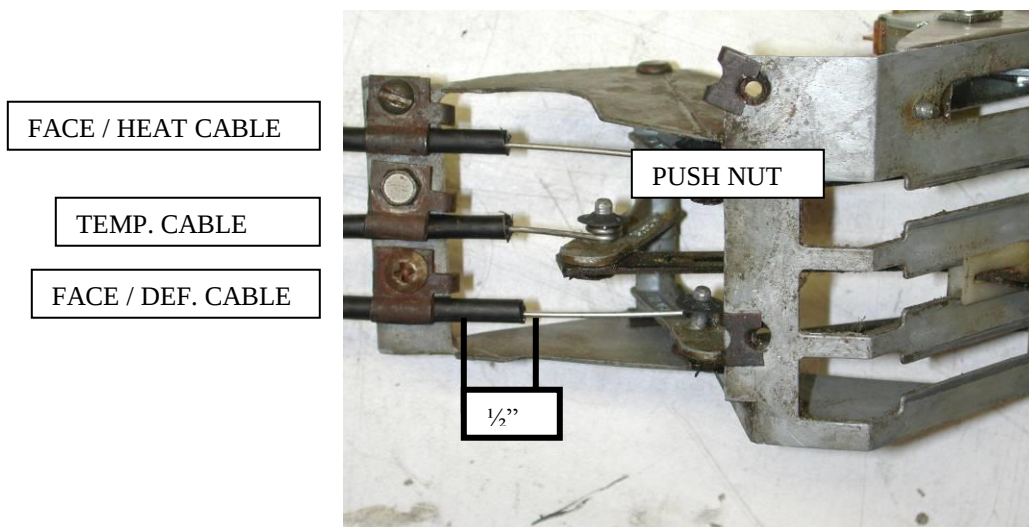
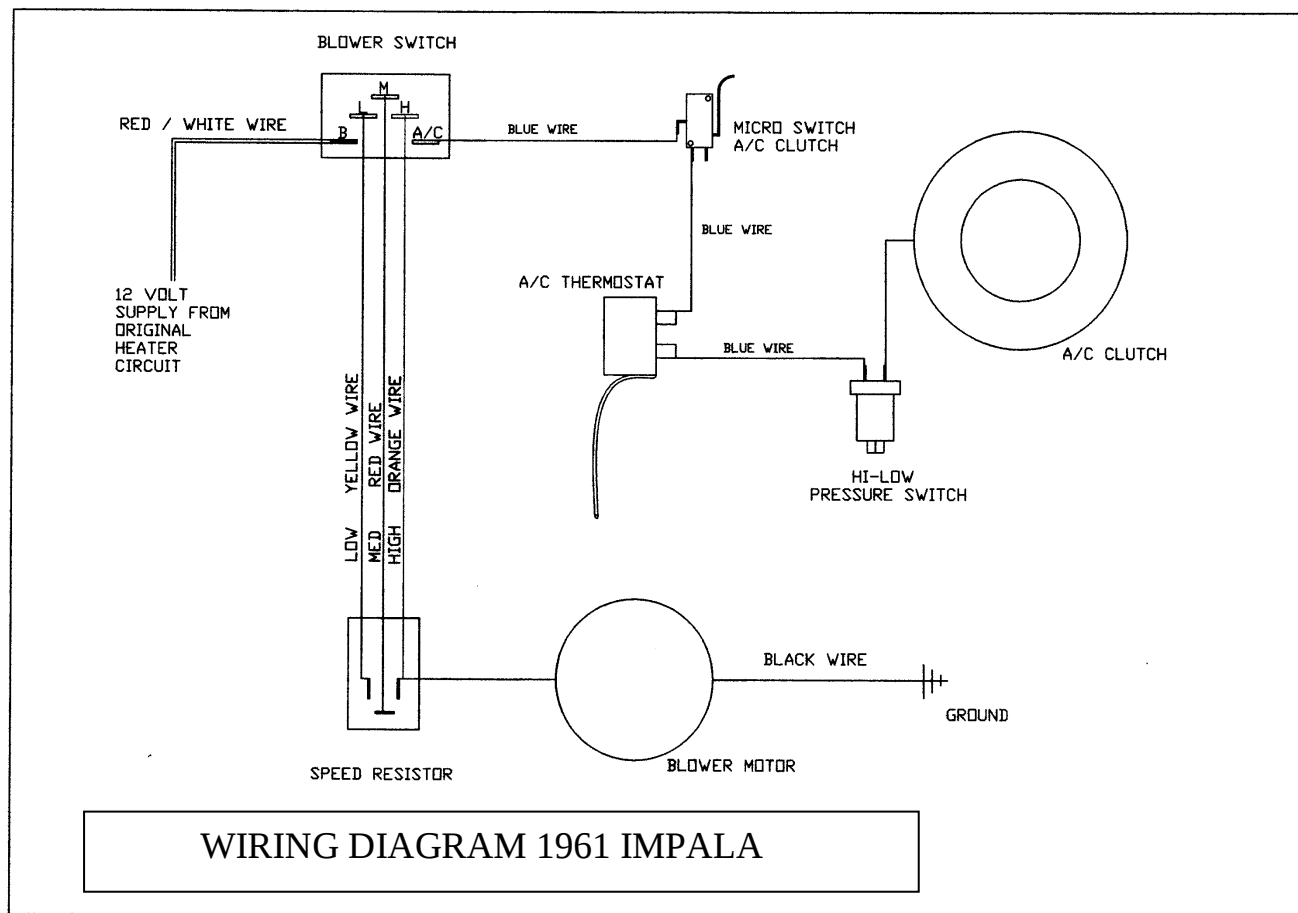
Attach blower switch to the switch bracket using (2) #6 x 3/8" pan head screws.

Attach assembly to original control head using the original hardware.



Locate wire harness from the control sack kit.

Attach harness to blower motor according to the wiring diagram on page 9.



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

Attach temperature control cable using original hardware to the center control arm and (1) 3/16" push nut. NOTE: Cable sleeve is 1/2" from the cable clip bracket.

Attach Face / Heat cable to the top lever. Using (1) push nut, original screw and cable clip. NOTE: Cable sleeve is 1/2" from cable clip bracket.

Attach the Face / Defrost cable to the bottom lever. Using (1) push nut, and the original screw and cable clip. NOTE: The cable sleeve is 1/2" from cable clip bracket.

Locate the Center Duct Assembly and (2) #8 x 1/2" pan head screws.

Attach Face / Defrost cable to front of the duct assembly using (1) #8 screw. Cable is located in 2nd hole from end of the crank arm.



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

Cable is located in 2nd hole from pivot of the crank arm.



Locate in the hardware sack kit the remote louver with the hole in top, and (2) #10 x 3/4" hex head tek screws.





Locate the 2" dia flex hose (1) 48" long from the unit box.

Attach remote louver on passenger side of instrument panel over screw that attaches the blower support bracket, using (2) #10 tek screws.

Route 2" dia x 48" flex hose from glove box opening across and attach to the passenger louver assembly.



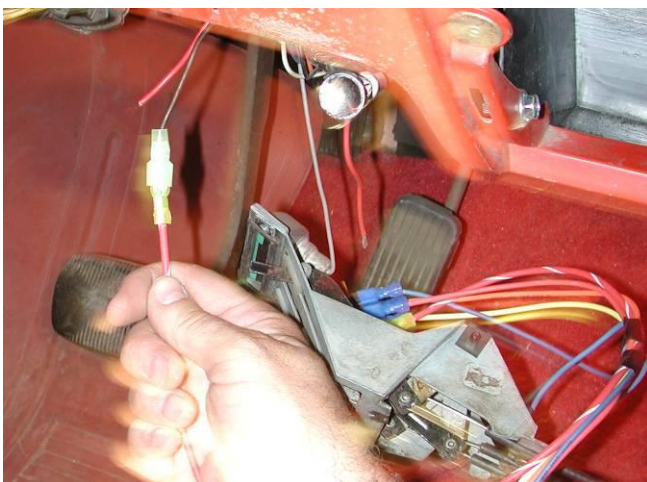
Locate original wire harness that was attached to the blower switch. Cut the connector off. Attach (1) 1/4" male spade connector to the red wire.

Place duct assembly and control assembly on floor of the car.



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

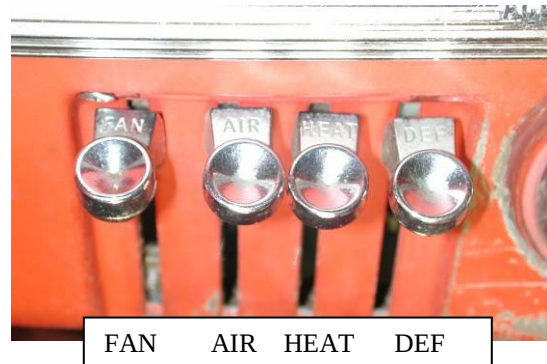
Insert light socket back into the control head.





Reinstall control head using original hardware.

Reinstall the original control knobs.

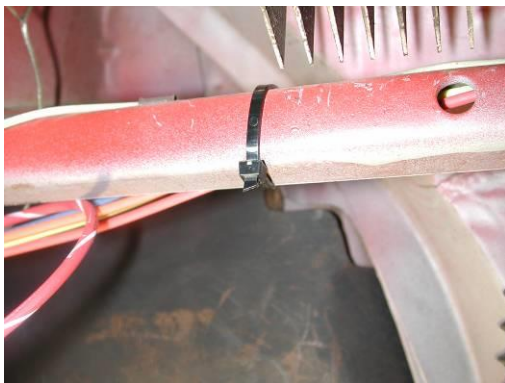


Route main harness across front of unit to the resistor and blower motor. Route blue clutch wire over evaporator and out through hole in firewall above the unit. Secure ground from the blower motor using (1) #10 x 3/4 " hex head Tek screw.

REFER TO THE WIRING DRAWING FOR PROPER CONNECTIONS.

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

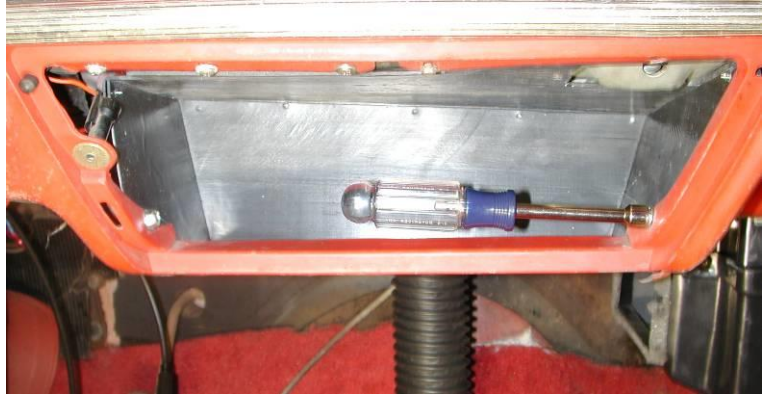
Set control lever in the Cold position and be sure that water valve is closed.
Locate insulation tape and seal around cable at firewall.



Locate behind glove box the cross brace. Route wire harness inside the brace. Tywrap in place.

Locate Glove Box and (2) #14 x $\frac{3}{4}$ " tek screws.

Install glove box behind the opening.
Attach using (2) #14 screws.



Reinstall glove box door. Attach using only the (2) center screws.

Locate the face duct assembly.
Attach to evaporator outlet using s-clips at the top and the bottom of the duct.

Locate Center Louver hose adapter and (1) piece of 2 $\frac{1}{2}$ " dia flex hose 12" long, cut to 6".

Attach flex hose from face duct to the center louver assembly as shown to the right.



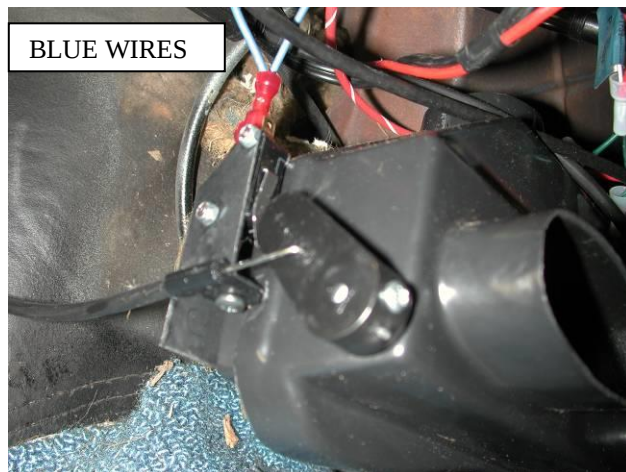
Locate (2) #10 x 3/4" tek screws.

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



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

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



Locate (2) blue wires with 3/16" female connectors from the a/c harness. Attach to Micro-Switch on side of the center face duct. Refer to the wiring diagram.

Locate flex hose from passenger outlet and attach to top hose adapter on the center face duct assembly.

Locate 2" Dia. flex hose, (1) piece 36" long. Attach to face duct over the side outlet. Route above and behind instrument cluster and down to the driver's louver.

Locate the Drivers Louver Mounting Plate and (2) 1/4"-20 x 5/8" screw and flange nuts.

Attach mounting plate to bottom of the instrument panel using 1/4"-20 hardware.





Locate drivers louver, and (2) #10 x 3/4" tek screws.

Attach louver to mounting plate.

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

Locate the Unit Cover and (3) #10 x 5/8 pan head screws.

Attach cover to unit as shown.



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

Drain and remove the radiator and fan shroud.

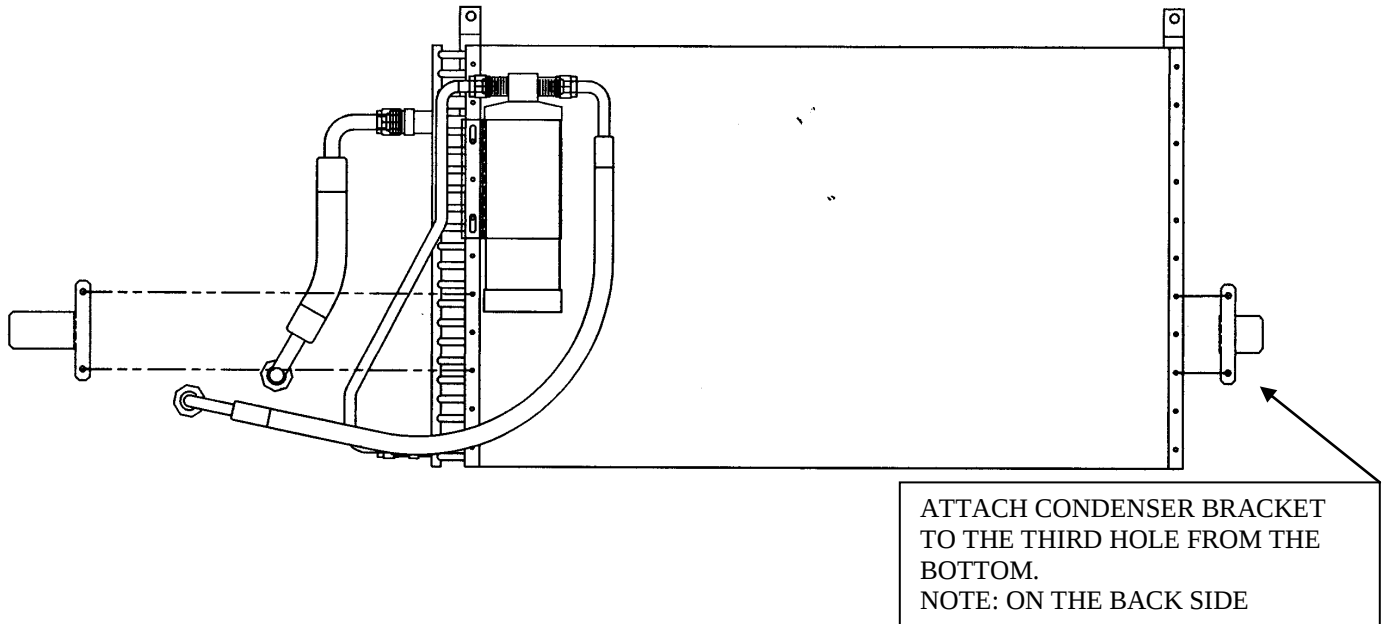
Locate the Condenser, (2) upper condenser mounting brackets, and (4) #10 x 3/8" hex head screws. Attach brackets to the condenser as shown. NOTE: BRACKETS ON BACK SIDE

Locate the 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 lower right condenser bracket, (2) #10 x 3/8" hex head screws. Attach bracket to condenser on third hole from the bottom on back side of condenser.



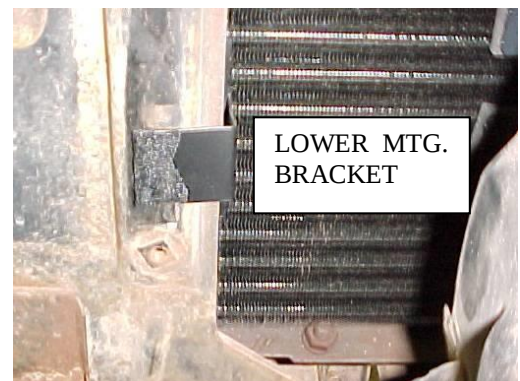
Carefully place Condenser Assembly through the Radiator Mounting Bulkhead as shown.

Top (2) condenser mounting brackets will need a hole drilled in the top of the radiator bulkhead.

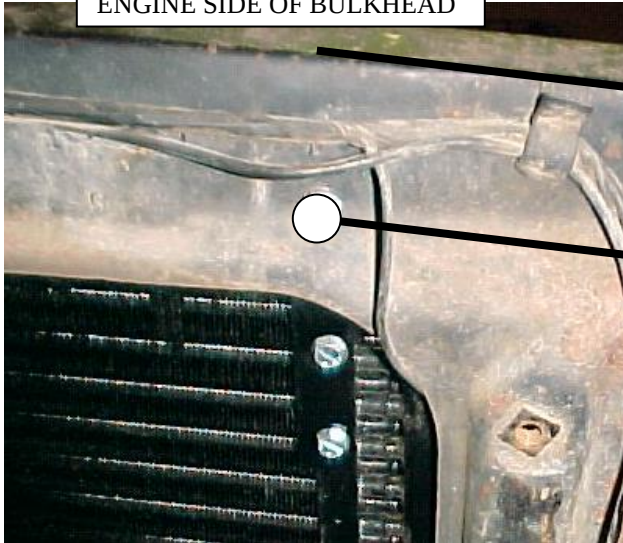


Locate condenser horizontally using lower left bracket as shown in the picture to the right.

Drill (1) 1/4" dia. hole for each of the brackets, 1 5/8" from top of the radiator bulkhead. Attach brackets using (2) 1/4-20 X 5/8 hex head bolts and flange nuts.



ENGINE SIDE OF BULKHEAD



DRILL (1) 1/4" DIA. HOLE
1 5/8" FROM THE TOP OF
RADIATOR BULKHEAD

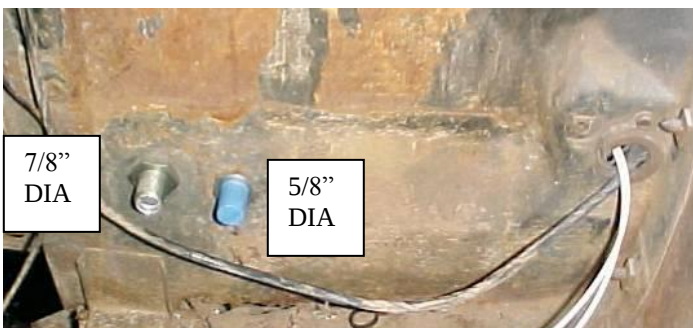
Locate in the condenser kit the lower right condenser mounting and (2) #10 x 3/8" hex head screws. Attach bracket to condenser on third hole from the bottom.



Locate the Water Valve and (3) worm gear clamps.

Supply line from engine is attached to the lower heater hookup tube. Cut 6" off end of **RETURN LINE** and install the water valve using (3) worm gear clamps as shown above.

Note: It is recommended that you replace heater hoses from the engine to the hookup tubes.



7/8"
DIA

5/8"
DIA

Remove battery and the battery tray. Retain original hardware.

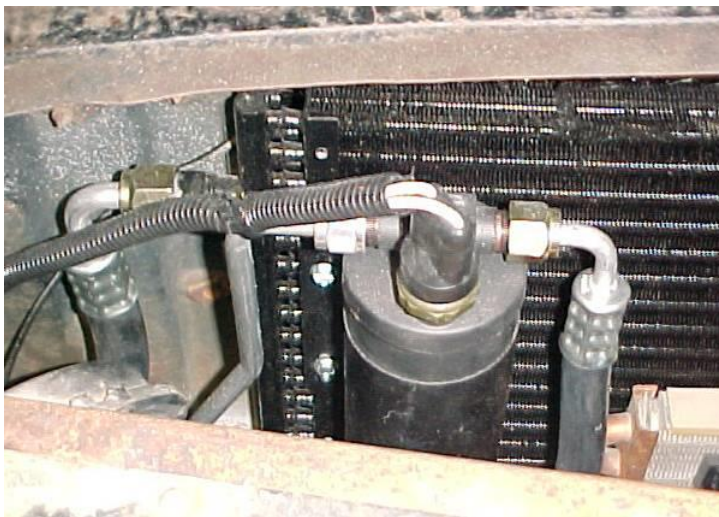
Drill (1) 5/8" dia. hole below the battery tray.

Drill (1) 7/8" dia. hole below the battery tray.

Locate discharge hose with the bulkhead fitting, and (1) #8 o-ring.

Attach hose to condenser using the #8 o-ring and a few drops of mineral oil.

Insert bulkhead fitting through 7/8" dia hole that was drilled below the battery tray.



Locate liquid hose with the bulkhead fitting and (1) #6 o-ring.

Attach 90 deg. end to outlet from the filter/drier using the #6 o-ring and a few drops of mineral oil.

Insert bulkhead end through 5/8" dia hole previously drilled in the radiator bulkhead.

Locate Hi/Low pressure switch and wire harness from the condenser kit. Using a few drops of mineral oil, attach the switch to top of the filter/drier.

Route two white wires over behind passenger side light assembly and out through the existing grommet.

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



Locate fittings on the bulkhead.

Locate #8 Refrigerant Hose attach to bulkhead fitting using (1) #8 o-ring and a few drops of mineral oil.

Route other end with service port to compressor and attach using (1) #8 o-ring and a few drops of mineral oil.

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.

Locate the #6 liquid hose. Attach straight end to bulkhead fitting below the battery tray. Route along inner fender and attach to #6 fitting at the firewall.

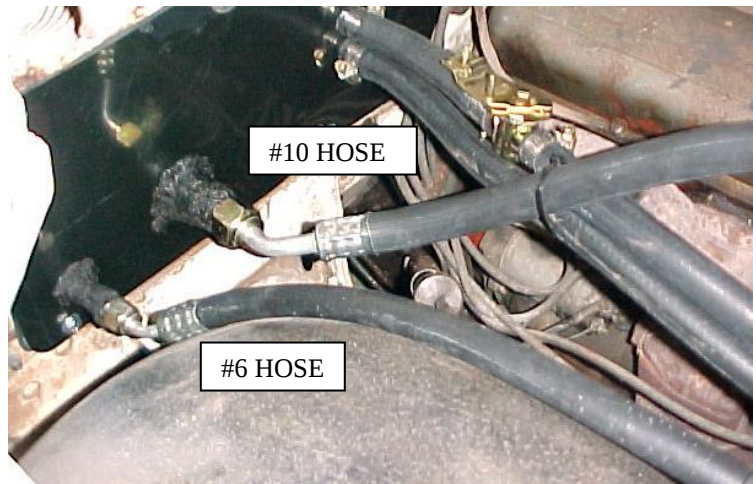
Attach using (2) #6 o-ring and a few drops of mineral oil.

Locate the #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.



Reinstall battery tray, battery, 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.***

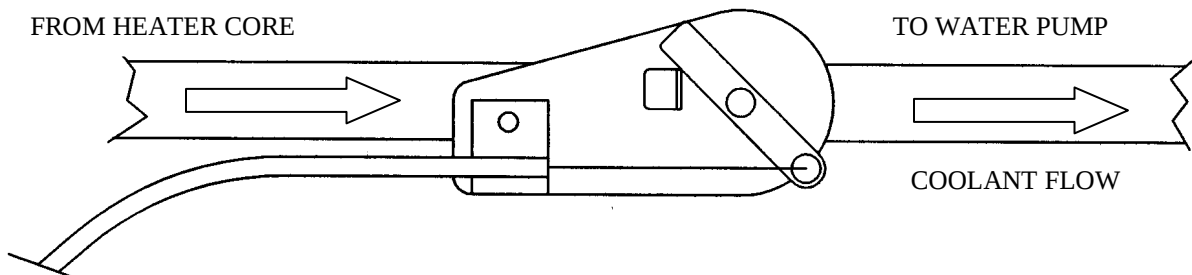
IMPORTANT

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***