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

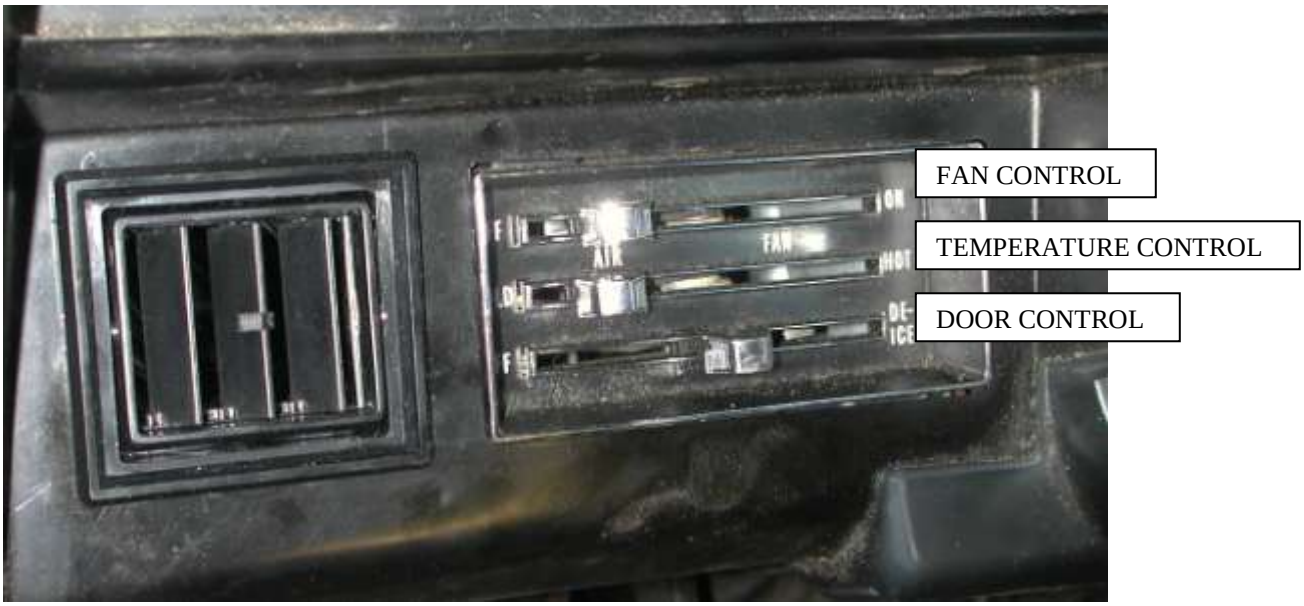
“PERFECT FIT SERIES”
IN-DASH

HEAT/ COOL/ DEFROST

1968 CHEVROLET NOVA
HEATER ONLY

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 the ability to blend the air between Heat, and Defrost modes.



THE PICTURE YOU SEE ON PAGE ONE SHOWS THE CONTROLS IN THE A/C MODE. THIS MEANS THAT THE AIR WILL BE DISTRIBUTED THROUGH THE DASH LOUVERS. THIS ALSO HAS THE TEMPERATURE LEVER IN THE COLD POSITION. WITH THE CONTROLS IN THIS POSITION YOU WILL GET THE AIR THROUGH THE LOUVERS AT THE COLDEST TEMPERATURE AVALIABLE.

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 which is mounted on the defrost air housing.

FLOOR / FACE / DEFROST MODE: When the BOTTOM lever is moved all the way to the LEFT, it will direct the air to the floor ducts. When the lever is moved into the CENTER position the air is directed to the Dash Louvers. When the lever is pushed to the RIGHT, the air will be directed onto the defrost outlets. When the lever is in the Defrost position the A/C Compressor is activated and provides Dehumidification.

TEMPERATURE CONTROL: The temperature lever as shown is in the COLDEST temperature position. As the lever is pushed to the RIGHT the temperature of the discharged air will RISE to the HOTTEST point.
Note: The temperature lever will function in any of the modes.

AIR CONDITIONING MODE: The picture shows the controls in the A/C Mode (air-flow out the louvers).
When Air Conditioning is required the compressor clutch must be activated. This is accomplished when the RIGHT lever is in the Center position. When the compressor is activated the Temperature Lever will control the air from maximum cold through maximum heat.

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

INSTALLATION INSTRUCTIONS
1968 CHEVROLET NOVA

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.

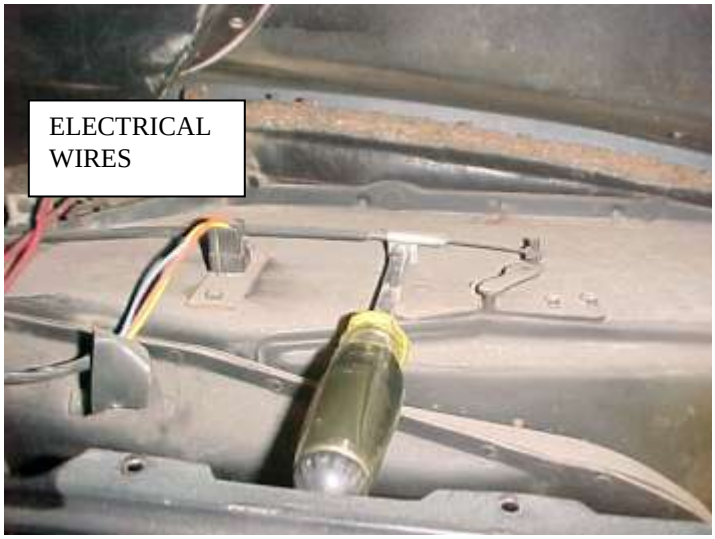
Evaporator
Face Duct Assembly
Defrost / Heat Duct Assembly
Inlet Air Block off Assembly
Firewall Block off Assembly
Flex hose 2” dia.x 1 ft.
Flex Hose 2” dia. x 2 ft
Flex Hose 2” dia x 3 ft
Flex Hose 2” dia x 4 ft
Sack Kit Hardware
Sack Kit Control
Glove box

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 glove box, discard glove box retain original hardware.



Removal of the Original Heater Assembly can be accomplished by disconnecting three control cables.
One attached to the Temperature door.

Disconnect the electrical wires at the resistor.

One attached to the Heat / defrost door. This can be found behind heater box next to the throttle cable.

Third cable is located on top of the heater next to the defrost ducts.

Locate (2) screws above the controls and remove.

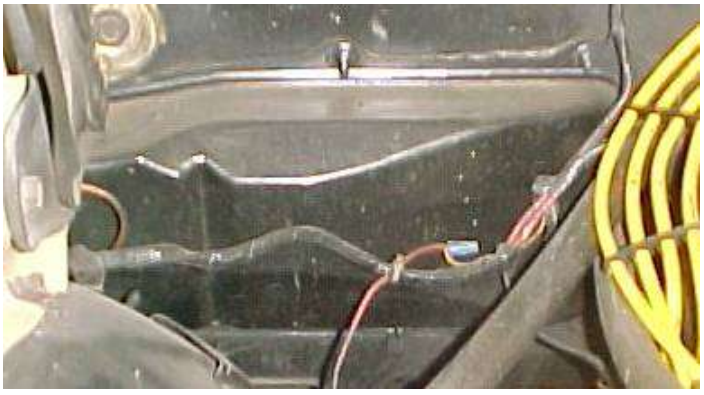
Locate support bracket from the controls to the steering assembly. Remove these bolts and bracket.

Remove original control head.

Retain original hardware.

When removing the control assembly, disconnect electrical plug on the switch and (2) control cables. Also remove light socket. Retain original hardware.

Set controls aside for modification.



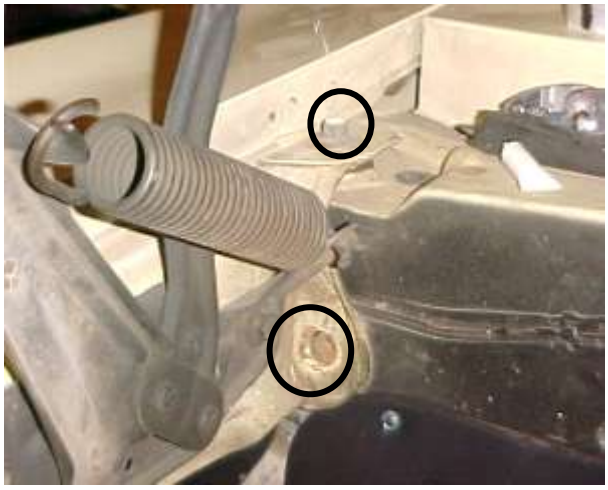
In order to remove the heater assembly it is necessary to remove the Blower Housing Assembly first.

It is also necessary to remove the passenger side fender.

Remove hood and retain the original hardware.

Remove passenger side light bezel. Retain original hardware.

Remove front bumper. Retain original hardware.



Remove (2) bolts as shown.

Located behind the passenger door, remove fender bolt.

Locate under front fender behind the wheel well (2) fender bolts. Remove and retain.

CAUTION: FENDER IS INSTALLED WITH SPACERS FROM THE FACTORY. MAKE NOTE OF QUANTITY FOR REINSTALLATION.

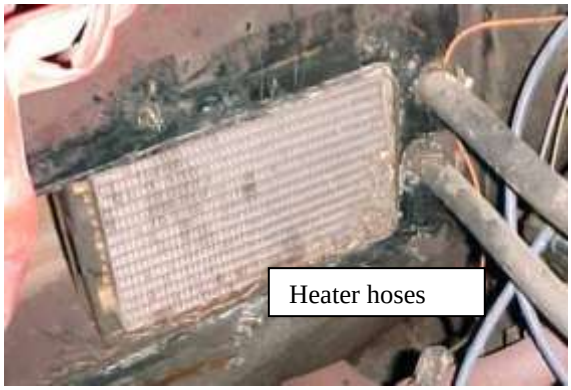
Remove (2) bolts as shown.

Remove and retain the inner fender bolts.

Carefully remove fender and set aside.
Retain all original hardware.

Remove the blower and housing assembly. Remove and retain the (2) screws that are above and below the blower motor.

DRAIN COOLANT FROM RADIATOR.
Remove Heater hoses from heater coil at firewall.



Located behind the glove box opening. Remove heater assembly and discard.

Locate the air inlet block off from the kit.

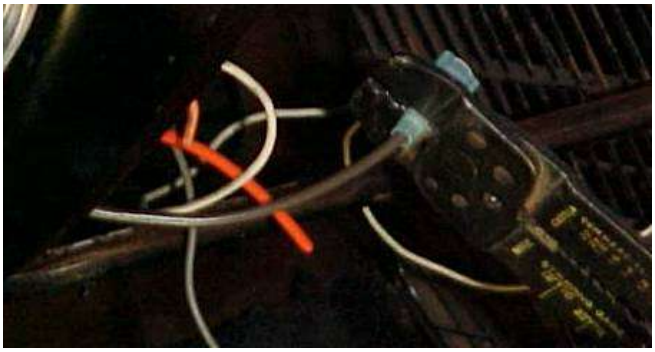
Using original hardware attach over inlet hole.

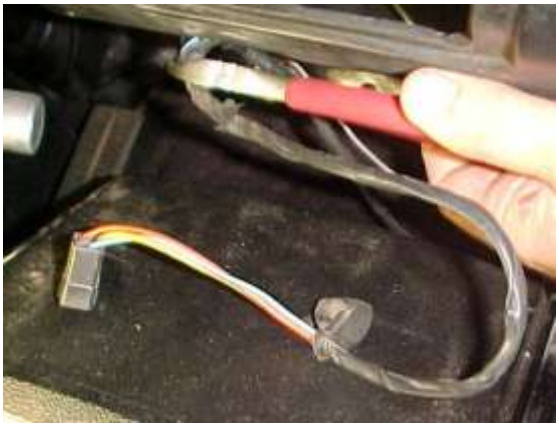
INSTALL FRONT FENDER AND THE HOOD. BE SURE THAT THE BODY SPACERS ARE IN THE CORRECT LOCATION.

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

Locate wire assembly that plugged into the original blower switch. Cut all but the brown wire as far back as you can.

Cut brown wire at the plug. Attach a male insulated spade connector.



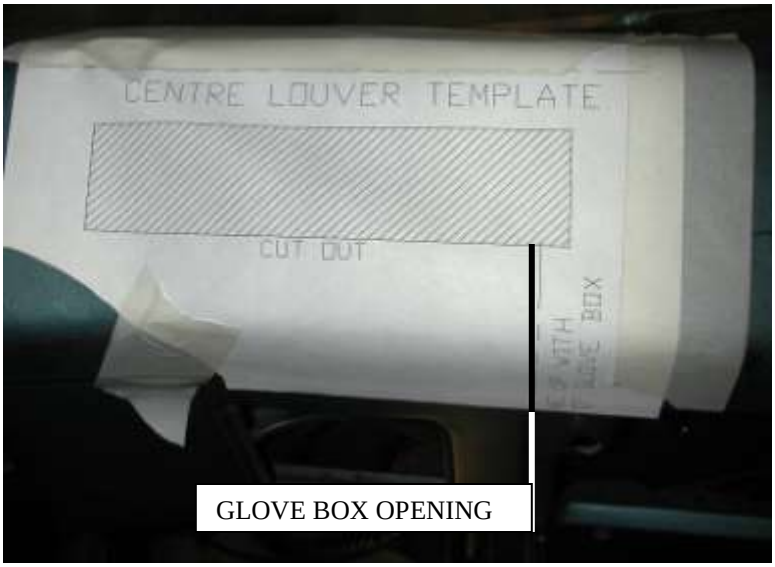


Locate the wire assembly that attached to the resistor. Cut the wires back as far as possible.

Locate the template provided. Cut out template and tape to the dash pad.

There is a vertical line on the template. This line should line up with edge of the glove box opening. Bottom of the template will line up with bottom edge of padded dash.

Carefully cut dash pad along the opening in the template.



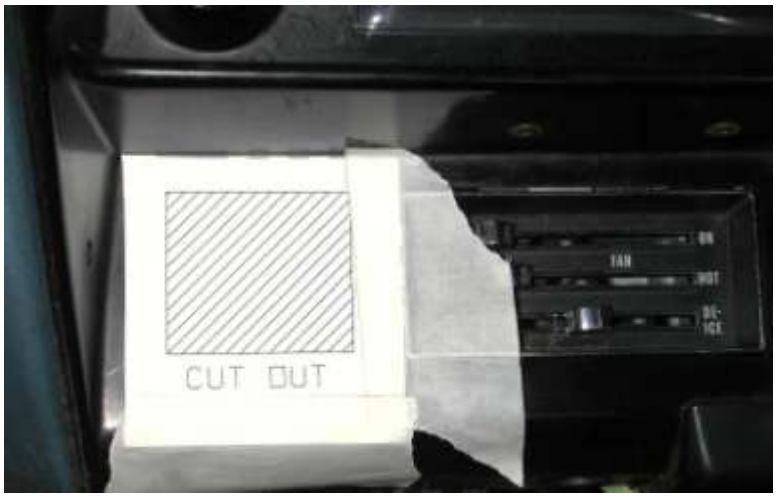
Locate template for the passenger side louver assembly.

Attach to right side of the glove box.

Cut panel carefully to the line. It may be necessary to use a file to finish sizing the hole. Use louver from the hardware sack kit to test fit.

Locate driver's side louver template and carefully cut out the perimeter. Attach to the instrument cluster as shown.

Cut panel carefully to the line. It may be necessary to use a file to finish sizing the hole. Use louver from the hardware sack kit to test fit.



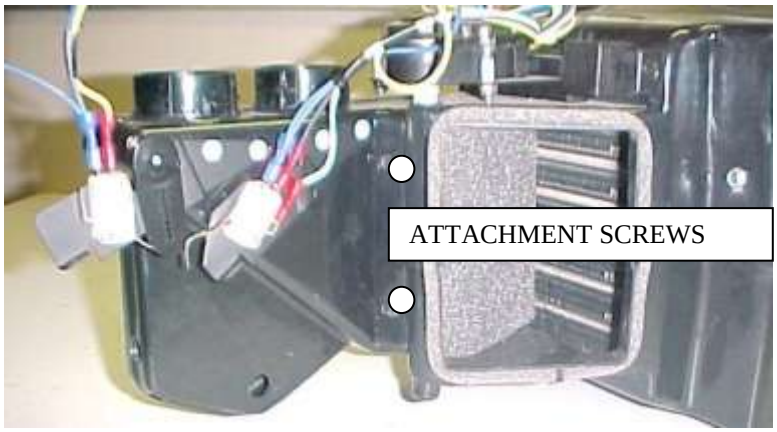
Locate 2" dia flex hose and (2) #8 x 3/8" pan head screw.

Cut 42" of flex hose and attach it to the passenger louver assembly.

Install louver assembly and route flex hose behind instruments and over to center of the car.

All modifications to the vehicle are complete; we will now begin the installation of the System.

Locate Evaporator, Defrost Duct Assembly, and (2) #10 x 5/8" pan head screws. Attach defrost duct to the evaporator using the (2) screws. Be sure that s-clips on back of the duct are attached to opening flange on the evaporator.



Locate electrical harness that is attached to the face door and connect to the micro switches. Refer to the wiring diagram on last page for correct connections.

Locate the defrost duct looking through the glove box opening.

Cut off the lower section of the duct level to the support bracket.

Place Evaporator assembly on passenger floor, lift into place.

Insert upper rear Evaporator mounting stud through original hole as shown. Attach using (1) ¼" – 20 flange nut provided. Also insert the defrost outlets into the defrost duct assembly.

Locate in the hardware sack kit (2) mounting brackets, (2) #10 x ¾" tek screws, and (4) #10 x 5/8" pan head screws.
Attach brackets to holes provided on front of the evaporator using #10 pan head screws.

Holding evaporator level with bottom of glove box opening attach to the body of the car using (2) tek screws.

CAUTION: INSTALL SCREWS TO THE HOUSING USING A NON-POWERED SCREW DRIVER.

Locate the Firewall Block Off plate, and (7) #10 x ¾" hex head tek screws.

On engine side of firewall attach over hookup tubes from evaporator using (7) #10 x ¾" hex washer head Tek screws.

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Locate the original control assembly. Remove and discard the following components. Retain all of the original hardware. (1) Original Blower Switch (2) Control Cable

Locate the blower switch assembly provided in kit.

Attach Blower Switch assembly on to control head with original screws.

Locate the Connecting Wire and 3/16" push nut. Attach to the switch and lever as shown.

Locate in the control sack kit the (SHORT) Heat / Defrost control cable, (LONG) Temperature control cable, (2) 3/16" push nuts and (2) Cable Clips.

Rotate the control head upside down. Attach the temperature control cable and clip to bottom lever arm using the original screw and 3/16" push nut. NOTE: Cable sleeve is located 1/16" from the lever arm.

Attach Heat / Defrost cable to control lever in the center. Using (1) cable clip, (1) push nut and the original screw. NOTE: Cable sleeve located 1/16” from the lever arm.

Attach Wire Harness supplied in unit to the blower switch.

REFER TO THE WIRING DRAWING ON LAST PAGE FOR PROPER CONNECTIONS.
NOTE: NEXT FEW STEPS ARE LOCATED BEHIND THE INSTRUMENT PANEL.

Reinstall control head using the original hardware.

Connect power wire (brown / from the original harness) to Red / White stripe wire from the new harness supplied.

Route harness across to top of the evaporator, connect to the 4 pin connector at blower motor and locate 2 spade connecters, plug into thermostat. Refer to the wiring diagram.
Locate black wire with ring terminal from the blower motor and (1) #10 tek screw.
Attach this terminal to the body.

Locate ground wire from the servo motor harness and attach it to the brace as shown. use (1) #10 tek screw.

Locate (2) blue wires at control end of the wire harness. Wire from the controls attaches to the jumper connector on the micro switch.

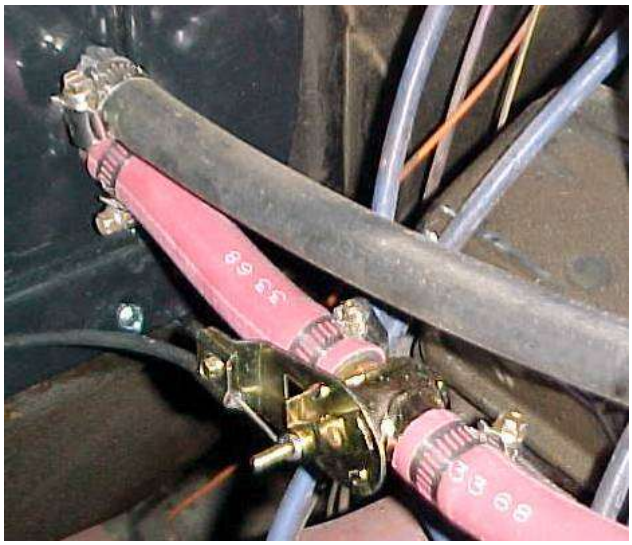
Wire from thermostat connects directly to the micro switch.

Route shortest of the (2) cables and attach to the defrost / heat duct. Insert cable into 3rd hole from end of the crank arm.

Attach using (1) #8 x ½” pan head screw.

Route temperature cable across and behind evaporator and out the suction tube hole.

Also locate blue clutch wire from the thermostat. Route over top of the unit and out the suction hole tube.



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

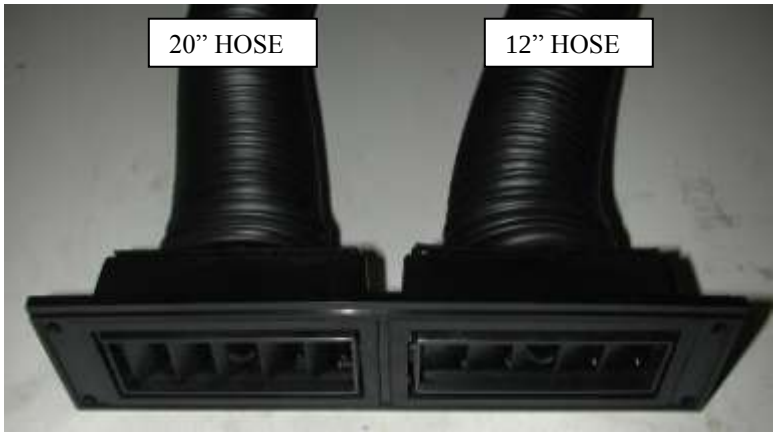
Supply line from engine is attached to the upper heater hookup tube. Cut 6" off end of the return line and install water valve using (3) worn gear clamps as shown above.

Locate temp cable and attach it to the heater water valve. Be sure that the temp lever on control head is in the cold position.

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

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

Locate 2" flex hose from the drivers louver and attach to left outlet on the face duct.



Locate in the hardware sack kit the center louver assembly, and (4) #6 X 1” screws.

Locate the 2” flex hose.

Cut (1) piece of hose 12” long and (1) piece of hose 20” long.

Attach to the hose adapters.

Insert center louver assembly through opening and attach to the dash pad using (4) #6 x 1” pan head screws from the hardware sack kit.

Route flex hose down and attach left louver to the lower front outlet.

Attach right louver to the top outlet.

Locate 2” dia flex hose, and (2) #8 x 3/8” pan head screw. Cut 34” of flex hose and attach to the passenger louver assembly.

Insert assembly through the opening and snap in place. Attach other end of hose to front outlet on the unit.

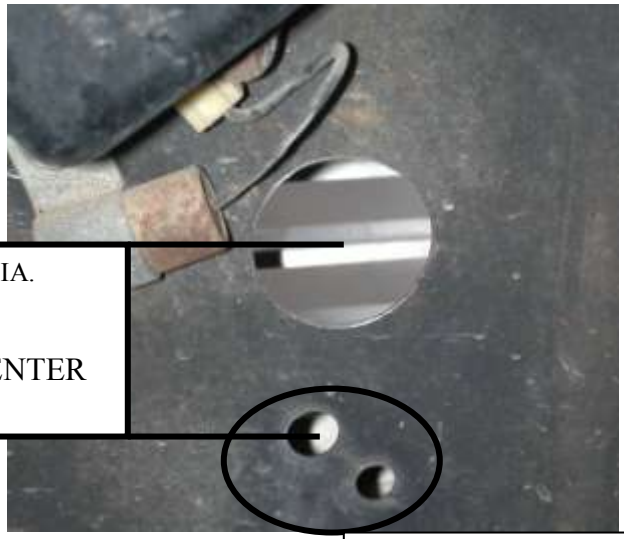
Locate the New Glove Box supplied in kit. Slide through opening as shown. Reinstall the glove box and door. Attach using original hardware.

NOTE: Flex hose from the passenger louver routes above the glove box.

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

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

Remove the hood latch assembly. Retain original hardware.



Located on drivers side of radiator and on the radiator bulkhead. There are (2) holes.

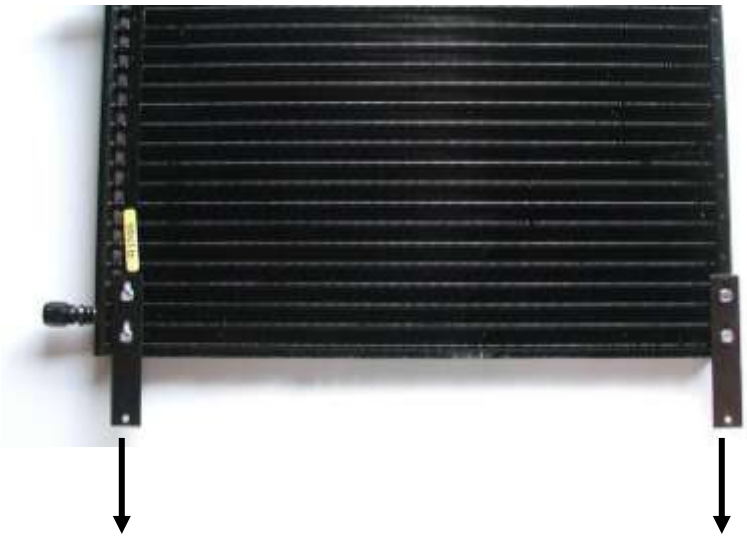
Locate and drill (1) 1 ½" dia hole, 1 ¾" above the top original hole.

Locate the Condenser, (2) top condenser mounting brackets, (2) bottom condenser mounting brackets and (8) #10 x 3/8” hex head screws. Attach brackets to the condenser as shown.

Place condenser on the bench with fittings to the left.

Attach the lower mounting brackets to the bottom (2) holes using (4) #10 hex head screws.

Tighten screws at the bottom of slots.



Turn condenser over and attach top mounting brackets to the top holes using #10 hex head screws.

Locate in the hardware sack kit (2) 5/16 j-clips.

Attach over holes in the upper radiator bulkhead.

Slide condenser assembly down in front of the radiator.

Locate (2) 5/16-18 x ½" hex head bolt and flat washer.

Attach top left bracket to the j-clip using 5/16" bolt and washer.

Locate the discharge tube, (1) #8 o-ring and (1) hole grommet. Attach tube to fitting on the condenser using a few drops of mineral oil and the o-ring. Other end goes through the hole previously drilled.
Install grommet over the tube as shown.

Attach top right bracket to the j-clip using 5/16" bolt and washer

Locate the liquid tube, (1) #6 o-ring, 3/8" hose clamp, and (2) #10 tek screws.

Attach looped end of the tube to lower condenser fitting using (1) #6 o-ring and a few drops of mineral oil.

Other end will be attached to the lower condenser bracket using the 3/8" clamp and a #10 tek screw.

Using other tek screw secure the right side lower condenser bracket.

REINSTALL THE FRONT BUMPER AND HOOD LATCH ASSEMBLY USING ORIGINAL HARDWARE.

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

NOTE: THIS INSTALL IS CORRECT FOR A 350CID V8 ENGINE, WITH ALTERNATOR ON PASSENGER SIDE OF VEHICLE.
IF YOUR VEHICLE IS EQUIPTED WITH A DIFFERENT ENGINE PACKAGE IT WILL BE NECESSARY TO ROUTE THE HOSES DIFFERENT

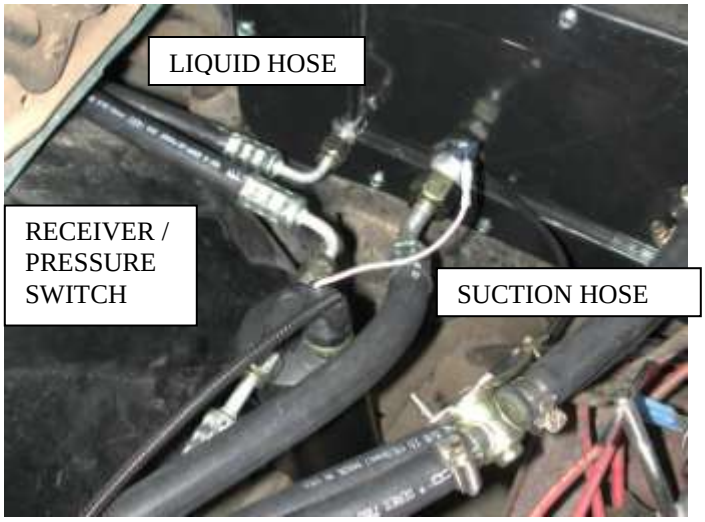
Locate Discharge hose and (1) #8 o-ring.

Attach #8 refrigerant hose with the service port end to the compressor using (1) #8 o-ring and a few drops of mineral oil.

Attach the other end to fitting from the condenser. Tighten securely.

Locate the suction hose and (2) #10 o-rings.

Attach end with service port to the compressor as shown above.



Route hose over the radiator hose, across engine and over to #10 fitting on the firewall.

Attach both ends using #10 o-rings and a few drops of mineral oil.

Locate the Filter / Drier, Drier Mounting Bracket, liquid hose (short), (2) #6 o-rings and (2) #10 x 3/4" hex head tek screws.

Install Filter drier to the inner fender well as shown.

Install #6 liquid hose between firewall and the drier.

Use a few drops of mineral oil on the o-ring and fittings, tighten securely.

Locate Hi-Low pressure switch and attach to top of the receiver drier using a few drops of mineral oil.

Locate the liquid hose (long) and (2) #6 o-ring.

Attach one end to the drier. Route other end along inner fender and down to the condenser fitting. Attach using #6 o-ring and a few drops of mineral oil.

Locate the remaining clamps and screws. Attach hoses to the alternator bracket and the inner fender well.

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 FITS SERIES", climate control system.

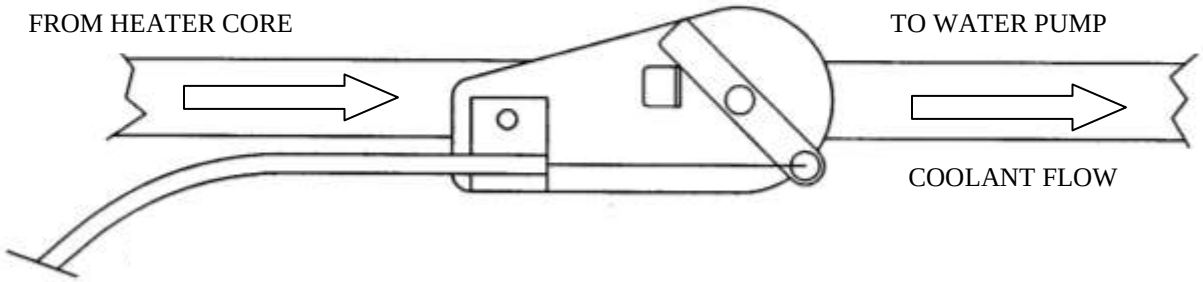
IMPORTANT

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