



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

## **“PERFECT FIT SERIES” IN-DASH**

HEAT/ COOL/ DEFROST

**1959-60 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 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 HOTTEST POSITION. WITH THE CONTROLS IN THIS POSITION YOU WILL GET THE AIR THROUGH THE DEFROST OUTLETS WITH THE TEMPERATURE AT THE LOWEST POINT.

**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 DOOR CONTROL:*** When the Control Knob is pulled UP the air is distributed to the DEFROST outlets. When the knob is pushed DOWN the air will go to the FACE 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 HOTTEST temperature position. As the lever is pulled up the temperature of the discharged air will FALL to the COLDEST point.

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



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## ***INSTALLATION INSTRUCTIONS 1959-60 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 1ft  
Flex hose 2” dia. x 2ft.  
Flex hose 2” dia. x 3ft  
Flex hose 2” dia. x 4ft  
Flex hose 2 ½” dia. x 1ft.  
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 glove box. Discard glove box.

Retain original hardware.



**DRAIN RADIATOR AND DISCONNECT BATTERY GROUND CABLE.**

**This vehicle is either equipped with standard or deluxe heater assembly.**

### **STANDARD HEATER**

Standard heater can be removed as follows.

Remove (4) nuts around the blower motor. Discard hardware.



Remove control cables from the heater box and the control head. Discard cables and hardware.

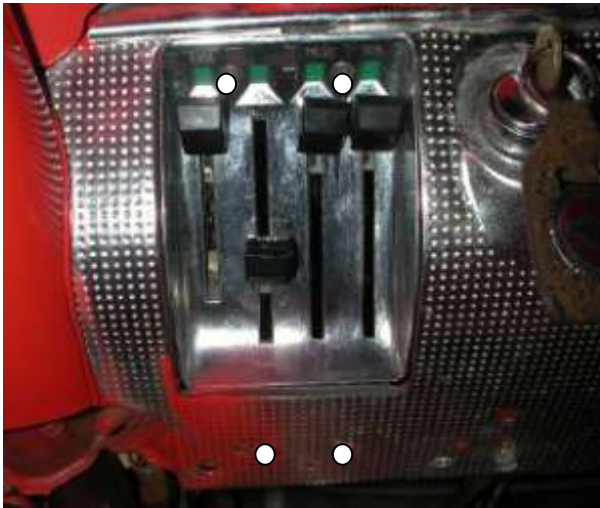
Remove (4) screws holding the control head to the instrument panel. Remove and discard controls.

Disconnect defrost flex ducts and discard.

Carefully remove the heater box and discard.



### **DELUXE HEATER**



Remove (4) screws located under the control head.

Remove control head and disconnect the electrical connector and light socket.

Set the control head aside for modification and reinstall.

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

Disconnect cable to the defrost / heat door. Remove screw that supports end of the heater assembly and discard hardware.

Disconnect electrical harness from the resistor block.





Locate under glove box opening the cover plate on the front of the heater box.

Remove cover plate and disconnect control cable from the water valve. Pull cable out of back of the heater box.

Located on the firewall in the engine compartment.

Disconnect control cable and electrical wire to the blower motor.

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



Remove and discard the blower box, heater on inside of the car and the original hardware.

NOTE: THIS STEP NOT REQUIRED ON STD HEATER

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

Discard the blower motor assembly and retain original hardware.

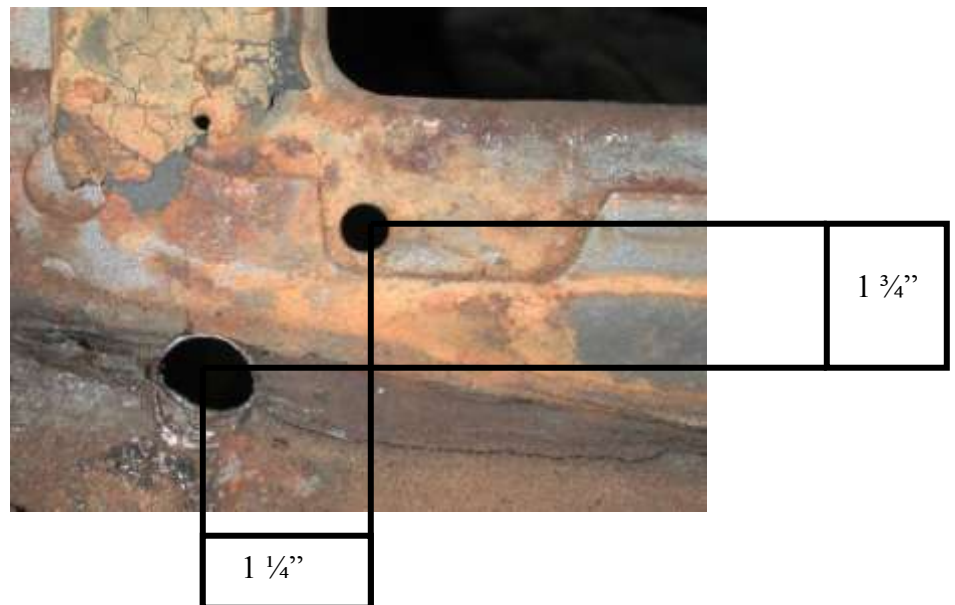


Locate inlet block off plate from the unit box.

Attach over inlet hole on the firewall using original screws.

Reinstall hood latch and hood using original hardware.

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



**DELUXE HEATER ONLY**

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

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

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.



FACE / DEFROST CABLE

FACE / HEAT CABLE

TEMPERATURE

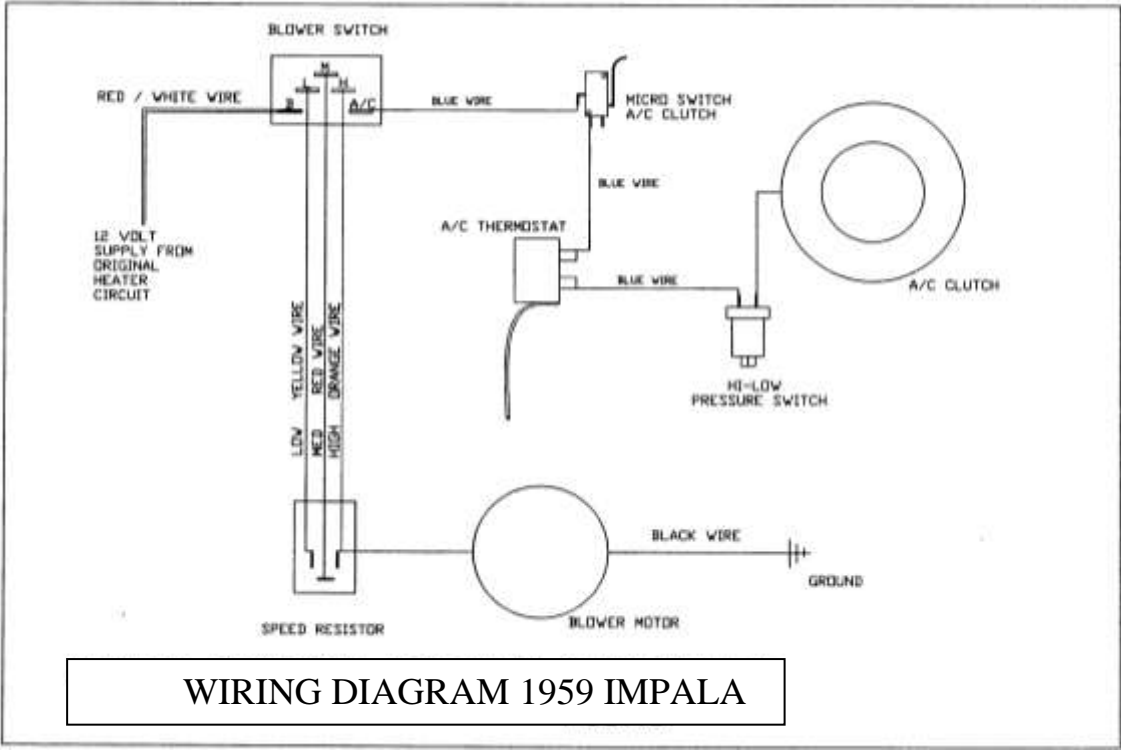


Locate in the control sack kit (2) SHORT control cables, (1) LONG Temperature control cable and (3) 3/16" push nuts.

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

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

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



*All modifications to the vehicle are complete. We will now begin 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 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 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 above blower the blower support brace, and (1) #14 x 3/4" tek screw.

Attach brace to the air box as shown.

NOTE: Unit must be level with bottom of the instrument panel.

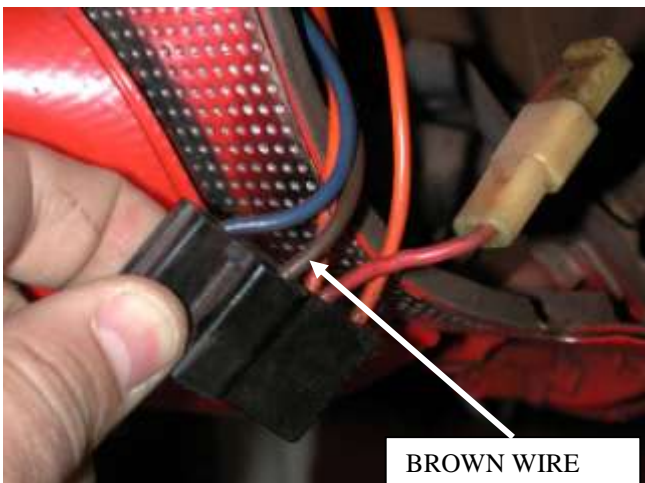


Locate (1) #10 x 3/4" tek screw from the hardware sack kit.

Locate the bracket under the distribution duct. Attach bracket to the firewall using (1) #10 x 3/4" tek screw.

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

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



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

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

Insert light socket back into the control head.

## STANDARD CONTROLS.

Locate the control head and attach wire harness to the blower switch. Refer to the wiring diagram on page 11.

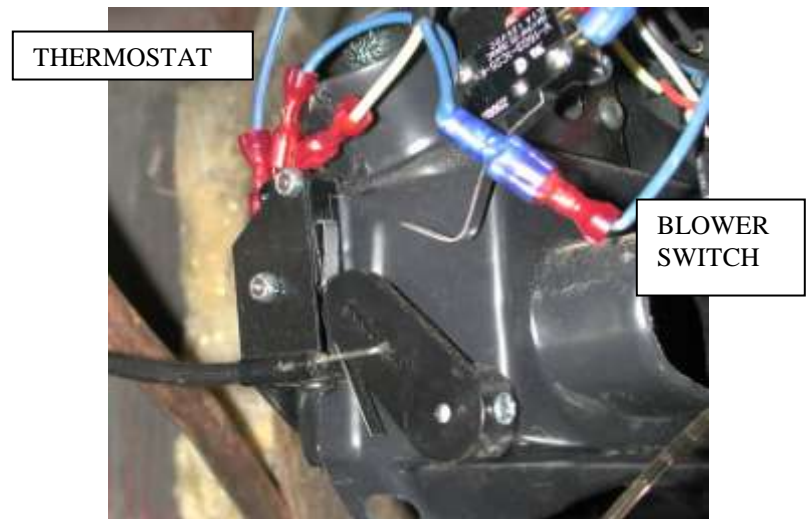
Slide control assembly through the opening and attach using the original hardware,

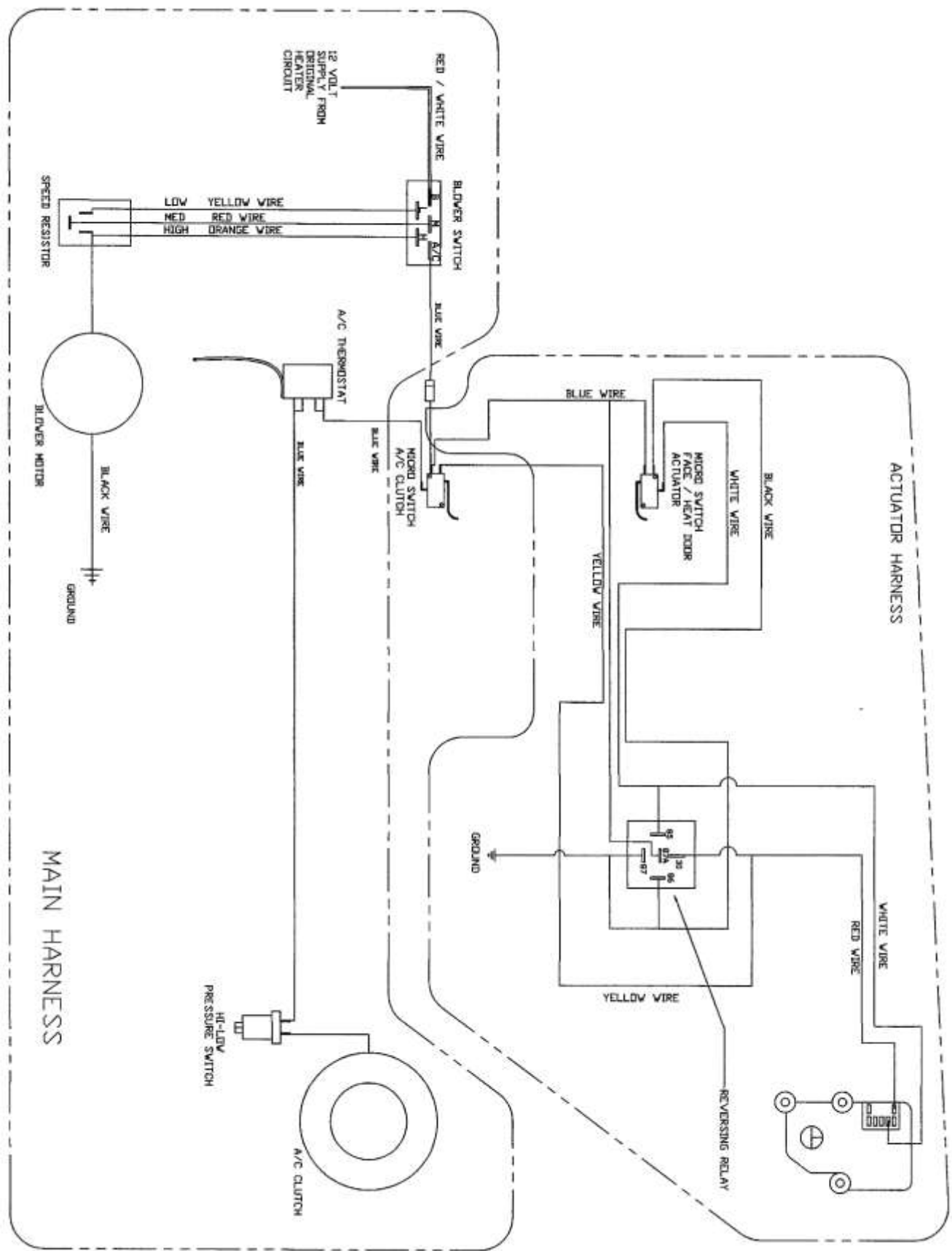


Attach Face / Heat cable to the door on side of center duct assembly using (1) #8 screw.

Locate the cable in the 2<sup>nd</sup> hole from pivot of crank arm.

Attach wire harness to the micro switch as shown. Wire from the blower switch is connected to the pigtail. Wire from thermostat is connecting directly to the micro switch.





## DELUXE CONTROLS:

Reinstall control head using the original hardware.

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

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

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

## THE REST OF THE INSTALLATION IS FOR BOTH STYLE CONTROLS

Locate in the hardware sack kit (2) defrost hose adaptors, (4) #8 x 3/8" pan head screws, cut the 1ft of 2" dia. flex hose 7" long and cut (1) 2ft piece of 2" duct hose 18" long.

Attach hoses to the defrost adaptors using (2) #8 screws for each adaptor.

Attach 18" assembly to the drivers side defrost diffuser.

Attach 7" assembly to the passenger side defrost diffuser.





Locate (1) piece of 2" dia. flex hose 48" long.

Attach hose to top outlet on the face / heat duct. Route hose behind defrost duct hose over and down to the passenger remote louver.

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

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

Relocate passenger fresh air control cable to bottom of the remote louver.



Route temperature cable in front of center ducts and over top of ducts and out through grommet that the original control cable went through. 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.

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

REFER TO THE WIRING DRAWING FOR PROPER CONNECTIONS.

Locate Center Louver hose adapter and (1) 2 1/2" x 1ft flex hose and cut into (2) pieces 6" long.



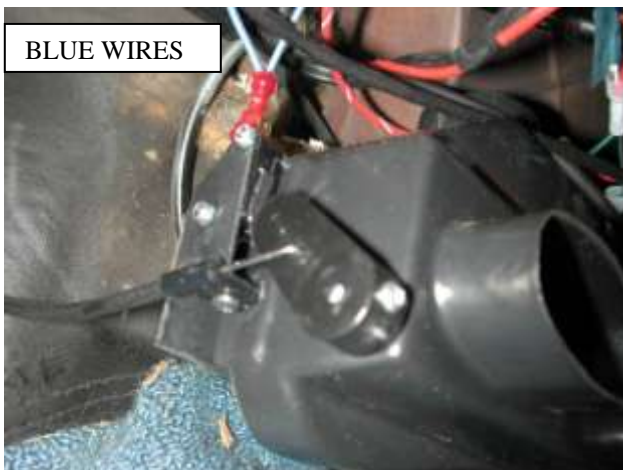
Attach flex hose from face duct to the center louver assembly as shown to the right.

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

Attach adapter under 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 the hose adapter 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 the 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 drivers louver and (2) #10 x 3/4" tek screws.

Attach louver to bottom edge of instrument panel on the drivers side using (2) #10 screws.



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



Locate and install Glove Box that is supplied with the unit. Attach using the original hardware.

Reinstall the original glove box door using original hardware.

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

Drain and remove the radiator and fan shroud.

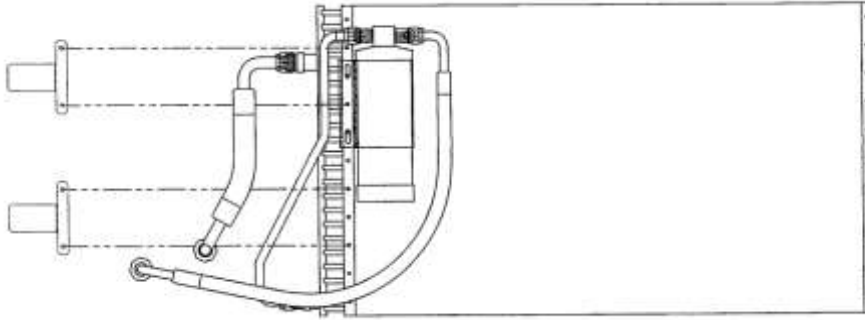
Locate the Condenser, (2) right condenser mounting brackets, (2) left condenser mounting brackets, and (8) #10 x 3/8" hex head screws. Attach brackets to the condenser as shown. NOTE: BRACKETS ON BACK SIDE

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 the top as to allow Liquid Tube to attach as shown.

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

(2) LEFT HAND  
CONDENSER  
BRACKETS.  
TOP / 2<sup>ND</sup> HOLE  
BOTTOM / 3<sup>RD</sup>  
HOLE



(2) RIGHT HAND  
CONDENSER  
BRACKETS.  
TOP / 2<sup>ND</sup> HOLE  
BOTTOM / 3<sup>RD</sup>  
HOLE

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

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



LOWER MTG.  
BRACKET



CONDENSER  
BRACKETS

Reinstall radiator and fan shroud.

Clamp condenser between radiator and the  
bulkhead.

**Remove battery and the battery tray. Retain original hardware.**

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

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

Locate bulkhead fitting and mark location for the bulkhead fitting. Drill a 7/8" dia hole below the battery tray.

Insert #8 fitting through the hole and attach nut.



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

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

Locate bulkhead fitting and mark location for hole. Drill 5/8" dia hole in radiator bulkhead next to the #8 fitting.

Insert #6 fitting through hole and attach with nut.

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



Locate the fittings on the bulkhead.



Locate #8 Refrigerant Hose Assembly attach to the 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.

Locate the Hi / Low pressure switch kit. Attach switch and harness to the T-fitting using a few drops of mineral oil.

Attach fitting assembly to liquid hose on the firewall.

Locate #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.



Route (1) of the white wires along with the #10 refrigerant hose. Attach to the compressor clutch. The other white wire attaches to Blue Clutch wire from the thermostat.

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 all fittings securely.

Reinstall battery tray and battery, using original hardware.

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

Cut 6" of heater hose from the RETURN line. Attach to top heater hose connection and the water valve using the (3) clamps provided.

The SUPPLY line attaches to the engine.



Set temperature control lever to the coldest position. Attach the cable to water valve. Adjust cable so that water valve is in the off position.

***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.***

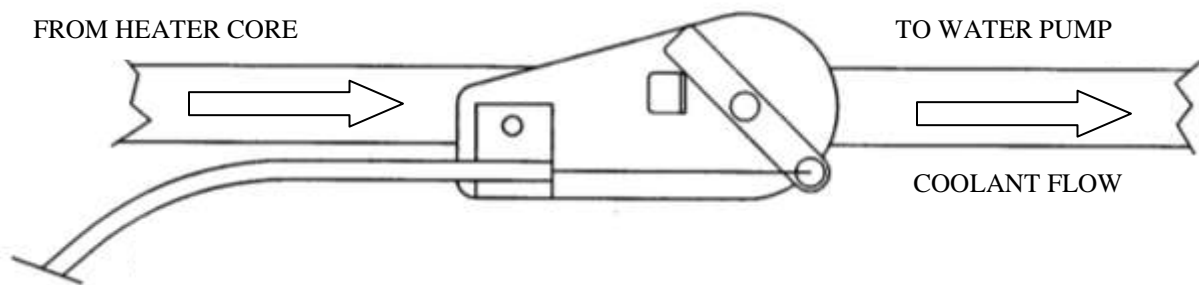
# ***IMPORTANT***

**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***