



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

### "PERFECT FIT" IN-DASH

HEAT/ COOL/ DEFROST

#### 1964 - 1966 CHEVROLET PICKUP STANDARD CONTROLS

#### **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 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 main housing.

**FACE AND FLOOR / DEFROST MODE:** When the push pull cable is pulled all the way OUT, it will direct the air to the floor / and defrost ducts. The cable can be moved any position from full in to full out. This will give blend between all distribution outlets.

**TEMPERATURE CONTROL:** The temperature Knob as shown is in the COLDEST temperature position. As the lever is pulled out 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 Knob in the Face Mode (air-flow out the face outlets).

When the Mode control knob is pushed all the way IN the Air Conditioning is activated the compressor clutch is on. 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

# "PERFECT FIT" IN-DASH

HEAT/ COOL/ DEFROST

#### 1964 - 1966 CHEVROLET PICKUP DELUXE CONTROLS

#### **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. And the ability to blend 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 main housing.

**FACE AND FLOOR / DEFROST MODE:** When the Control Lever is in the upper position it will direct the air to the FACE LOUVERS. When the lever is pushed all the way down the air will be distributed to the HEAT and DEFROST ducts. The cable can be moved any position from top to bottom. This will give blend between all distribution outlets.

**TEMPERATURE CONTROL:** The Temperature Lever 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.

**AIR CONDITIONING MODE:** The picture shows the Control Lever the Face Mode (air-flow out the face outlets).

When the Mode control lever is in the top position the Air Conditioning is activated the compressor clutch is on. 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 1964-66 CHEVROLET PICKUP

Congratulations!! You have just purchased the highest quality, best performing A/C system ever designed for you Classic Truck. 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
Flex Hose 2"dia x 1ft – 1 ea.
Flex Hose 2"dia x 2ft – 3 ea.
Flex Hose 2"dia. x 3ft. – 1ea.
Flex Hose 2"dia. x 4ft. – 1ea.
Sack Kit Hardware
Kit Control
Glove Box
Firewall Block Off (2)

#### 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 CAUTION: DISCONNECT BATTERY GROUND CABLE

Remove Glove box door and glove box. Retain glove box door and it's original hardware. Discard the glove box housing.





AIR SHUTOFF DOOR CABLE ATTACHMENT

> Under the glove box opening locate defrost / floor distribution box. Remove (3) screws around the housing flange. Remove (2) control cables. One cable is attached to the floor / defrost door. One cable is

attached to the air shutoff door.

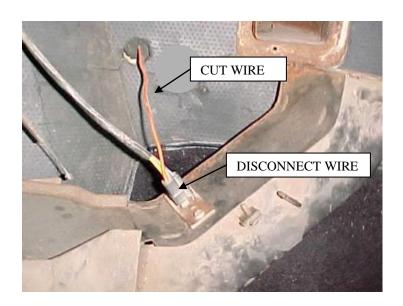
On left side of the housing remove and discard the support screw.

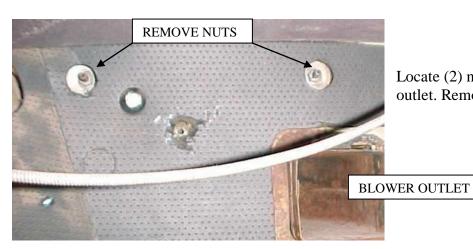


#### Rotate the housing.

Located on the back is a speed control resistor, disconnect wire connector. Cut the wire that goes through firewall and connects to original heater motor.

Remove and discard housing.



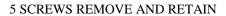


Locate (2) nuts above the blower outlet. Remove and discard.

Drain radiator and then remove heater hoses from the heater connections. Also remove (5) screws that attach heater assembly to the firewall.

Discard the original heater assembly and retain original hardware.







NOTE: THE 5 TH SCREW IS ON THE LEFT SIDE OF THE HEATER BOX.



Remove and discard original Switch / Cable assembly. Retain switch trim bezel.

Locate on the back of the cover plate. (4) mounting tabs.
Straighten these tabs and remove and retain the cover plate.

Set aside the cover plate for later modifications and reinstallation. Discard the original Switch Assembly..



If truck is equipped with deluxe heater remove the control head. Retain original mounting hardware and cable clips.

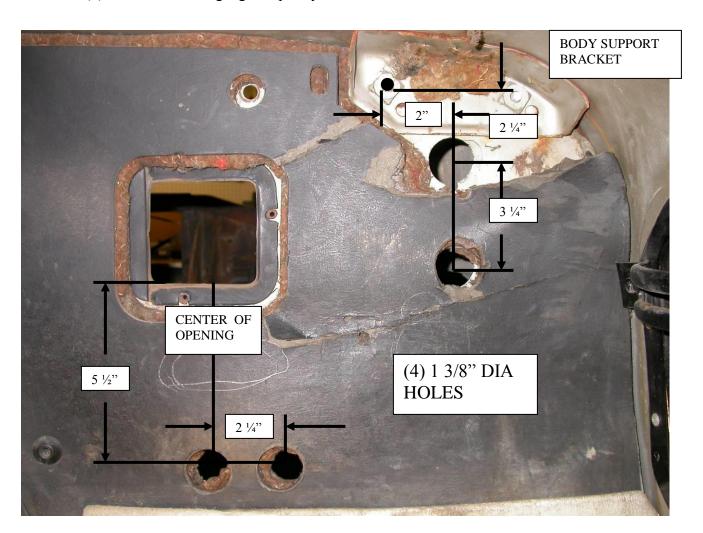




When removing control head disconnect electrical plug at blower switch. Cut Brown wire off back of the connector housing as shown.

Discard original wire harness.

Behind glove box opening the following modifications to the firewall are required. Hole locations are for the heater and air conditioning hoses. Carefully lay out as shown. Cut (4) 1 3/8" holes using a good quality hole saw.



## Modifications to the vehicle are complete. You can now begin installing your new Classic Air "Perfect Fit Series" system.



Locate the Evaporator from the kit. Carefully set the Evaporator on a bench.

Locate in the Control Sack Kit shortest of the (2) Control cables. Insert cable in to Door crank arm as shown. Using (1) #10 x 5/8" Pan Head Phillips screw attach cable clip to the attachment bracket.

For trucks with deluxe controls use cable clip supplied in kit.

Locate wire harness from the control sack kit. Attach (4) blue wires to the micro switches in parallel. Refer to the wiring diagram on page 16.

Attach resistor plug to the resistor by the motor. Attach (2) blue wires to thermostat

and the 2 pin blower connector to blower motor.

Locate the defrost / heat duct assembly from the unit box, and  $(2) #10 \times 5/8$ " pan head screws.

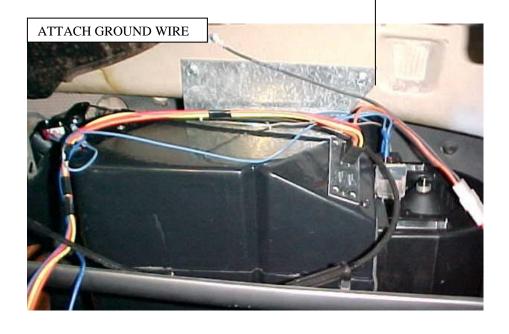
Attach the duct to back of the evaporator through the metal u-clips.



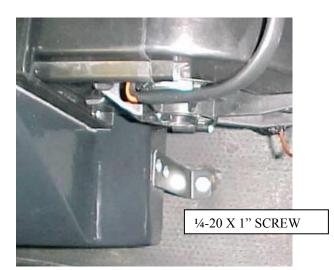
Carefully slide Evaporator into position behind glove box opening. (see picture on next page.) Allow approximately 1/8" between top of the Evaporator and the body. Line the edge of the mounting bracket to the edge of the indentation in the body.

LINE UPTHE BRACKET TO THE EDGE OF THE INDENTATION IN THE BODY.

Locate in the Hardware Sack Kit (2) #14 x <sup>3</sup>/<sub>4</sub>" Hex Head Tek Screws. Attach the evaporator to the body.



Also locate in the Hardware Sack Kit (1) #10 x <sup>3</sup>/<sub>4</sub>" Hex Head Tek Screw. Locate black wire with Ring Terminal from the blower motor. Attach the wire as shown.



Locate on the Evaporator the bracket to the right and under the blower motor as shown.

Drill 9/32" Dia. hole through bracket, insulation and the floor.

Locate from the hardware sack kit (1)  $\frac{1}{4}$  - 20 x 1" hex head screw and (1)  $\frac{1}{4}$  - 20 flange nut. Insert the screw through the drilled hole and Attach nut from behind the passenger front tire. Tighten securely.





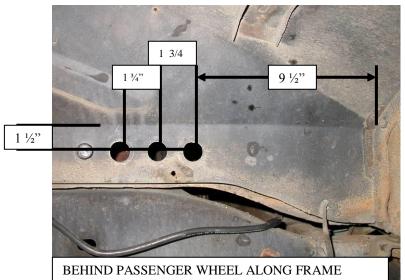
Locate the support bracket, (1)  $\#10 \times 3\%$ " tek screw, and (2)  $\#8 \times 3/8$ " pan head screws from the hardware sack kit.

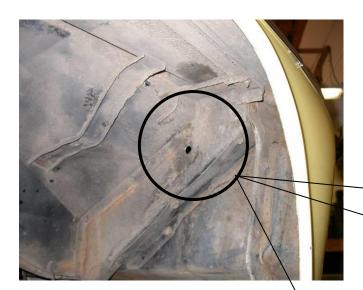
Attach bracket to firewall using the #10 screw. Attach to bottom of the unit using (2) #8 screws.

Remove the front passenger wheel.

Locate and drill (3) 7/8" diameter holes in the inner fender panel as shown in picture to the right.

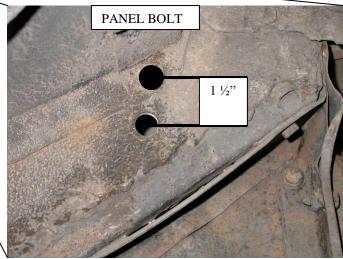
The 9 ½" dimention is located at the junction of fender panel and radiator bulkhead panel.





Locate the panel bolt behind the passenger head light.

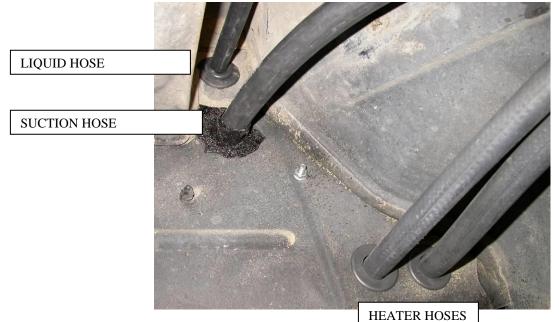
Measure 1  $\frac{1}{2}$ " down and drill (1) hole 5/8" diameter.





Locate (3) hole grommets from the hardware sack kit.

Install grommets into the previously drilled holes in firewall. Leave the one hole without a grommet.





Locate the 42" long liquid hose (smallest diameter) with the 90 deg. and the 45 deg fittings.

From the inner fender insert the 90 deg end through top hole with the grommet. And attach to the expansion valve using (1) #6 o-ring and a few drops of mineral oil.

Route blue clutch wire from thermostat through the grommet as ahown.

Locate the suction hose.

Insert 90 deg fiittng end of hose from the inner fender and attach to evaporator coil as shown.

Use a #10 o-ring and a few drops of mineral oil.

Locate (1) #8 worm gear clamp and carefully attach sensing bulb from the expansion valve to metal on the suction fitting.

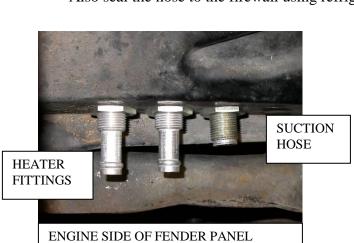




Be sure that the sensing bulb is off set from the bottom of the tube. As shown in the picture

Locate in the hardware sack kit the refrigerant tape. And wrap all exposed metal surfaces to prevent condensation.

Also seal the hose to the firewall using refrigerant tape.



Locate (2) heater hose bulkhead fittings from the hardware sack kit.

Insert though the front (2) 7/8" dia holes previously drilled and attach using the nuts provided.

Insert the bulkhead fitting on the suction hose assembly from under the inner fender panel. Attach using the nut provided.



Locate (2) 40" pieces of heater hose and (2) #8 worm gear clamps from the unit box. Attach

hoses to bulkhead fittings using the worm gear clamps.

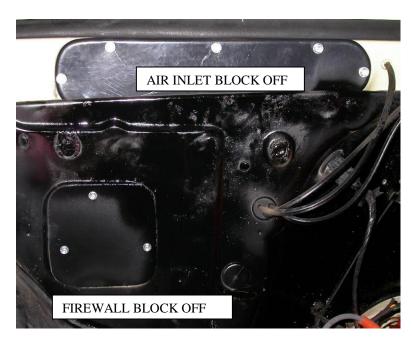
Route heater hoses across to the firewall and insert through lower (2) grommets into interior of the truck. (refer to picture on page 9).





Route heater hoses up and attach to heater tubes on back of the evaporator using (2) #8 worm gear clamps.

Access clamps through hole in the firewall.





Locate the firewall block off and air inlet block off from the unit box.

Attach over the holes using (3) #10 x  $\frac{3}{4}$ " tek screws on the firewall block off, and #14 x  $\frac{3}{4}$ " tek screws on the air inlet block off.



Locate and drill (1) hole 11/16" diameter to the left and slightly down from the drain nipple on bottom of the evaporator.

Locate drain tube from the hardware sack kit and attach to drain nipple and then insert through the hole.



Locate in the hardware sack kit (2) 2" x 2 ½" Defrost Hose adaptors and install over the original Defrost outlets.

ATTACH HOSE TO ADAPTOR WITH #10 X 5/8 SCREWS.



Locate in the kit (1) piece of 2" dia. x 3ft. of flex hose.

Cut off (1) piece 12" long and install it between the right hose adaptor on the defrost / heat duct and the passenger side defrost plenum.

Cut off (1) piece 18" long and install it between the left hose adaptor on the defrost / heat duct and the drivers side defrost plenum.



12" x 2" dia. FLEX HOSE

18" x 2" dia FLEX HOSE

#### TRUCKS WITH STANDARD HEAT SYSTEMS:

Locate in the Control Kit the following items.

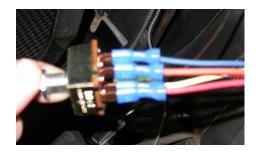
- 1) Blower Switch Assembly
- 2) Control Knob (fan)
- 3) Control Knob (heat)
- 4) Control Knob (temp)
- 5) Template Control
- 6) Temperature Cable

Locate the control template on last page of the instructions. Cut out template along the edge and tape it to the original control face.

Drill holes as shown on the template.

Reinstall the control face plate.

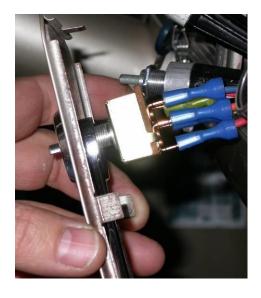




Attach wire harness to the blower switch using the diagram on page 16.

Install the blower switch on to control face plate. Insert shaft through the plate and the switch bezel. The switch nut supplied will just fit into the bezel. Tighten the switch from the back side.

Reinstall the control face plate into the dash.





Insert door control cable through center hole in the control face plate. Attach using the switch nuts provided.

Insert temperature cable through bottom hole in the control face plate. Attach using the switch nuts provided.

Attach Fan, Heat, and Temp knobs to Control shafts as shown.

Route temperature control cable behind heat duct and down to heater hoses below the unit. Insert cable through right grommet and out into the wheel well.





Attach a male insulated 1/4" spade terminal to the brown wire that was cut on page 4.

Connect to the Red / White stripe wire that comes from the new blower switch.

NOTE: CHECK "HEAT" CABLE FOR SMOOTH OPERATION AND FULL DOOR TRAVEL.

#### TRUCKS WITH DELUXE HEAT SYSTEMS:

Remove the original blower switch. Retain the mounting hardware.



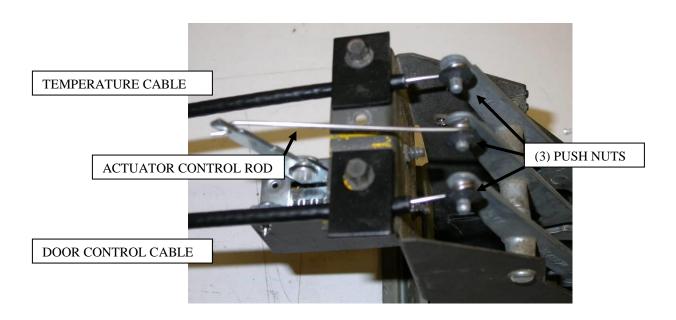


Locate the switch mounting bracket. Attach to the bottom of control head using the original hardware.



Locate blower switch supplied in the switch kit and (2) #6 x 3/8" pan head screws.

Attach switch to the switch bracket using the #6 screws.



Locate longest of the control cables supplied and (1) push nut.

Attach cable to heat lever using the original hardware. Attach push nut over the lever drive pin.

Locate the actuator control rod and (1) push nut.

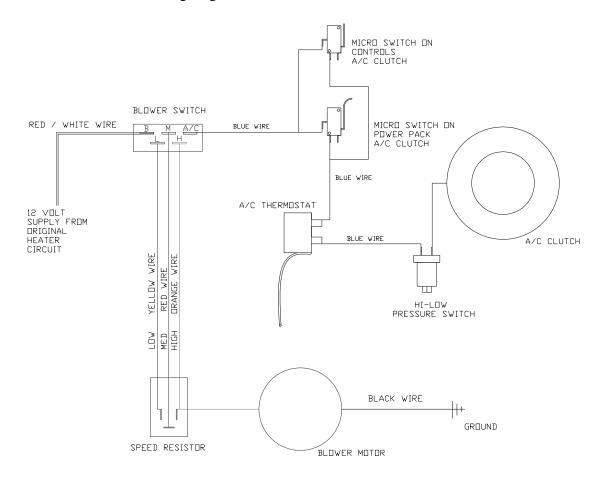
Attach to the switch and then to the center control lever. Attach push nut over the lever drive pin.

Locate control cable that is attached to the unit in the truck.

Attach cable to the defrost lever using original hardware. Attach push nut over the lever drive pin.

Install wire harness to the switch. Refer to the wire harness schematic below.

#### Reinstall the control head using original hardware.





Locate the center louver assembly and (2) #10 tek screws from the hardware sack kit.

Attach the back of the assembly to the bottom of dash using the (2) # 10 screws. Be sure to center the assembly under the radio.

Attach front louver bezel using (2) #8 x 3/8" pan head screws provided.





Locate (2) pieces of the 2" diameter flex hose 1ft long.

Cut both pieces 13" long. Be sure that hose is firmly pulled when measuring for cutting.

Attach hoses to the center hose adaptors and route left one to the side outlet and right one over to the top left one.

Locate the passenger under dash louver and (2)  $\#10 \times \sqrt[3]{4}$ " tek screws.

Install the housing to bottom of the dash next to the kick panel.

Insert louver into housing and snap into place.





Locate 2" diameter flex hose 36" long. Cut 28" of the 2" flex hose.

Attach one end to the right top outlet on the duct.

Route flex hose up and over evaporator behind the glove box.

Attach other end to hose adaptor on back of the passenger louver assembly.



Locate 2" flex hose 48" long. Cut 2" flex duct to 44" long. Attach to last outlet on the face duct. Route over radio and across behind instruments to the drivers side of steering column.

Locate the last louver and (2)  $\#10 \times \frac{3}{4}$ " tek screws.

Attach housing to bottom of the dash using the #10 screws.

Insert louver into housing and snap into place.

Attach 44" flex hose to the back hose adaptor.



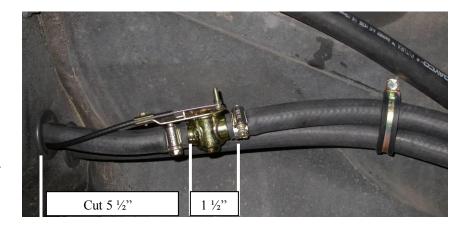


Locate in kit, the New Glove Box.

Install along with Glove Box Door using the original hardware.

Locate the water control valve, (2) #8 worm gear clamps, (1) double hose clamp, and (1) #10 screw and nut.

Cut 5 ½" from the firewall. Install the water valve using the worm gear clamps. Attach temperature cable and adjust so that when knob is all the way in water valve is off.



Using the double hose clamp, with screw and nut attach the heater hoses to the fender.

**CAUTION:** The control cables are equipped with inline adjusters. Adjust the Defrost, Face / Heat door, and Water valve cable so that the full travel of the Control lever, operates the door to its full travel. Make sure that the water valve completely closes when the Lever is in the cold position.

The Micro Switch that is mounted on the Face / heat door is used to turn on the compressor clutch. This will occur when the control lever is in the face position. It may be necessary to adjust the thin metal arm on the switch. Make sure that the Clutch Micro Switch is depressed when the lever is in the face position.

The engine compartment components should be installed at this time. Carefully follow the electrical diagram provided on page 16.

THE COMPRESSOR MOUNTING COMPONENTS WILL DIFFER DEPENDING ON THE ENGINE AND DRIVE ACCESSORIES THAT YOUR VEHICLE IS EQUIPT WITH. THE FOLLOWING INSTRUCTIONS SHOW THE PROPER INSTALLATION SEQUENCE FOR THIS VEHICLE



Remove Bulkhead supports on the drivers and passenger side. Retain all original hardware.

Remove battery, original fan, fan shroud, drain and remove radiator. Retain all original hardware.



### CAUTION: IF VEHICLE IS EQUIPTED WITH A (4) BLADE FAN IT IS NECESSARY TO UPGRADE TO A (6) BLADE FAN.

Locate following components from the under hood components box.

Condenser

Receiver Drier / Hi –Low pressure switch Drier mounting bracket Discharge Hose. Liquid Hose (2) Right and Left condenser mounting brackets

(4) #10 x 3/8 hex washer head screws

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

Locate and cut (1) 1 3/8" dia. hole under battery box in radiator bulkhead.

Locate (1) grommet supplied and install into the hole.





Attach Hi / Low pressure switch to top of the drier using a few drops of mineral oil.

Using the drier bracket and #10 tek screws install the drier assembly to the passenger side radiator bulkhead between the core opening and the grille.



Locate #6 liquid hose with the 90 deg bulkhead fitting on one end.

Attach end with the bulkhead through the hole behind the head light previously drilled. The straight end connects to drier using (1) #6 o-ring and a few drops of mineral oil.

Also attach switch boot to top of the pressure switch.



Locate under the fender the liquid hose from the firewall.

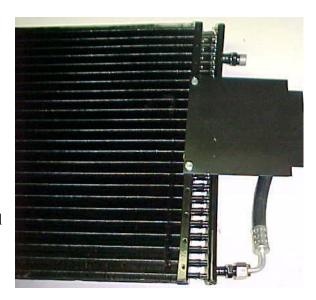
Route over body brace and attach it to the bulkhead fitting behind the head light using (1) #6 o-ring and a few drops of mineral oil.

Drill (1) ½" dia hole to the left of the fitting and install the plasti grommet from the kit. Route wire from pressure switch through grommet and connect to blue wire from the thermostat.



Locate Condenser, Short condenser mounting bracket, long condenser mounting bracket, and #6 liquid hose assembly.

Attach Hose Assembly to lower connection on condenser. Use #6 o-ring and a few drops of mineral oil.



Attach brackets to the condenser using  $(4) \# 10 \times 3/8$ " hex head screws. Brackets are located in the  $4^{th}$  hole from top of the condenser.



Place the condenser assembly from the engine side of the bulkhead into the opening in the bulkhead.

The condenser mounting brackets are designed to be clamped between fan shroud mounting bracket and the bulkhead. The top (2) bolts need to be removed and the others loosened. Slide condenser between and rest the condenser brackets on second set of bolts. The 2 top bolts can now be reinstalled. Tighten all mounting bolts.

Attach #6 hose to drier inlet using (1) #6 o-ring and a few drops of mineral oil.





Locate the discharge hose.

Insert end without service port through grommet and around front of the bulkhead.

The hose will route between the drier assembly and condenser mounting bracket. Attach to upper condenser fitting using (1) #8 o-ring and a few drops of mineral oil.

Insert second wire from pressure switch through same grommet as the hose. This will hookup to the compressor clutch.

Reinstall the battery, original fan (or 6 blade heavy duty), fan shroud, and radiator. Use the original hardware.





Locate the Suction Hose and attach to compressor using (1) # 10 o-ring. Also attach Discharge hose to compressor using (1) #8 o-ring adding a few drops of mineral oil to each connection. Tighten securely.

Route Suction hose from the compessor to #10 bulkhead fitting on the fender. Use (1) #10 o-ring and a few drops of mineral oil. Tighten both ends securely.

Reinstall the Bulkhead support cover both sides, and the Hood Latch mounting bracket. Use the 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

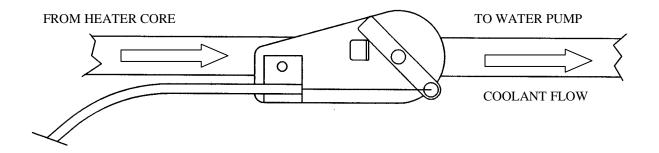
# **IMPORTANT**

## **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

ORIGINAL SWITCH HOLE TEMPLATE CONTROL DRILL (2) 7/16" DIA HOLES