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

“PERFECT FIT”
IN-DASH

HEAT/ COOL/ DEFROST

1966-1977 FORD BRONCO

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 ON THE FIRST PAGE SHOWS THE CONTROLS IN THE FACE MODE. THIS MEANS THAT THE AIR WILL BE DISTRIBUTED THROUGH THE FACE OUTLETS. THIS ALSO HAS THE TEMPERATURE KNOB 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

INSTALLATION INSTRUCTIONS
1966 -77 FORD BRONCO

Congratulations!! You have just purchased the highest quality, best performing A/C system ever designed for you Classic 4 X 4. 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
Flex Hose 2"dia. x 17 ft.
Heater Hose (2)
A/C Hoses (2)
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

CAUTION: DISCONNECT BATTERY GROUND CABLE

Disconnect the battery ground cable.

Drain radiator and disconnect Heater hoses from the heater connections on engine side of the firewall.

Remove Glove box door, and glove box. Retain the glove box door and all original hardware. Discard the glove box housing.

Located behind glove box are the defrost duct hoses. Remove the entire hose and discard.

Disconnect Heat/defrost control cable from the heater. Discard the hardware.

Located on the firewall in the engine compartment (4)
Hex head nut and washers.

Remove and discard.

Remove the heater. Discard flexible air tube to the air inlet flange.

Lay heater on the floor and disconnect cable to the fresh air door. Discard the hardware.

Disconnect electrical harness from the resistor and blower motor.

Remove the inlet air flange. Discard flange and original mounting hardware.

Locate the air inlet block off and (4) #10 x ¾” tek screws.

Attach the block off over the inlet hole as shown, using (4) #10 screws.

Remove the radio, and control assemblies.

Blower switch removal requires the knob to be removed. Discard knob.

Remove nut from front of the blower switch, retain trim ring, and discard switch assembly. The brown wire attached to the switch is the power for the new heater and a/c unit.

Remove remaining (2) controllers from back of the panel by loosening the nuts.

The controllers that were removed from the panel need to be modified.

Clamp the cable into a vise and cut the cable as close behind the trim ring as possible.

Discard the knob, and cable. Retain the trim ring.

Using a soft cloth so as not to damage the ring. Clamp the trim ring and drill center of the ring to 7/16” diameter.

This will allow the new control cables to fit through.

Locate the new controls and blower switch from the control sack kit.

Remove the first nut and position the back nut ¼” from the end of the threads.

Install blower switch with the blower trim ring through the center hole and attach with the switch nut previously removed.

Be sure switch is in the off position and the flat is pointing down.

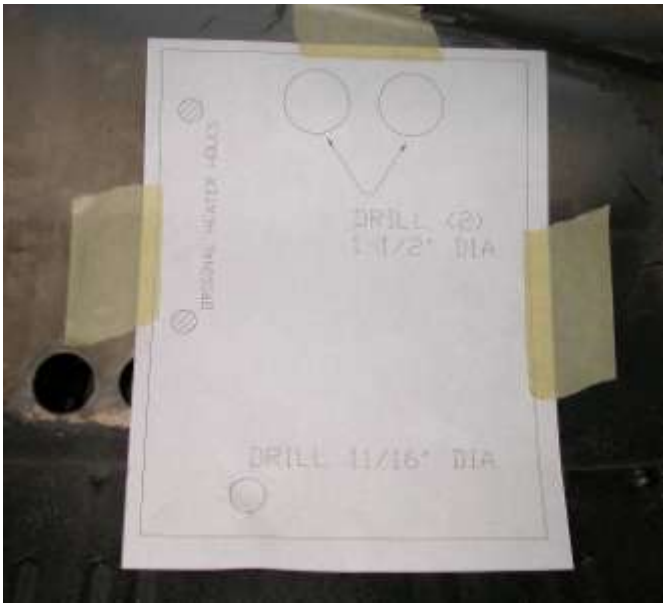
Locate the control cable assembly with the ring on the end. Attach cable through the left hole along with the “Temp” trim ring. Use the switch nut provided.

Locate the last of the control cables and the “Defrost” trim ring. Attach cable through right hole and the defrost trim ring. Use the switch nut provided.

Attach the knobs provided using an allen wrench as shown.

Locate the #1 template from last few pages of the installation instructions.

Attach to the dog house and drill (2) holes 5/16” dia. as shown.



Locate the #2 template.

Attach over the (2) original heater mounting holes. Drill (2) 1 ½” holes and (1) 11/16” hole as shown.

The modifications to the vehicle are complete. You can now begin installing your new Classic Auto Air “Perfect Fit Series” system.

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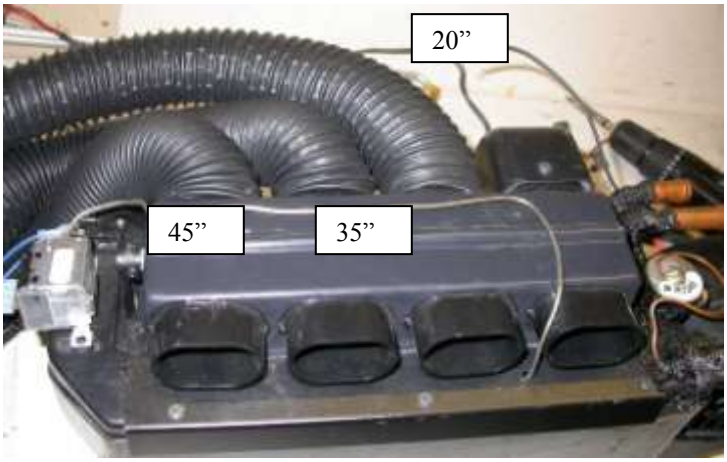
Locate the Evaporator Assembly. Place on work bench.

Remove drivers side heat dump and discard the dump and the hardware.



Locate 2” dia x 24” (1pc), 2” x 36” and 2” x 48” flex hose from the unit box.

Cut (1) pieces (1) 20” long, (1) piece 35” long, and (1) piece 45” long.

Attach over the outlets as shown.

Locate (2) 2 ½” to 2” flex hose adapter and (4) #8 x 3/8” pan head screws from the hardware sack kit.

Attach to the ends of the 20”, and 35” flex hose. Using (2) of the #8 screws for each connection.

Locate the blower support bracket and (2) #8 x 3/8” pan head screws from the hardware sack kit.

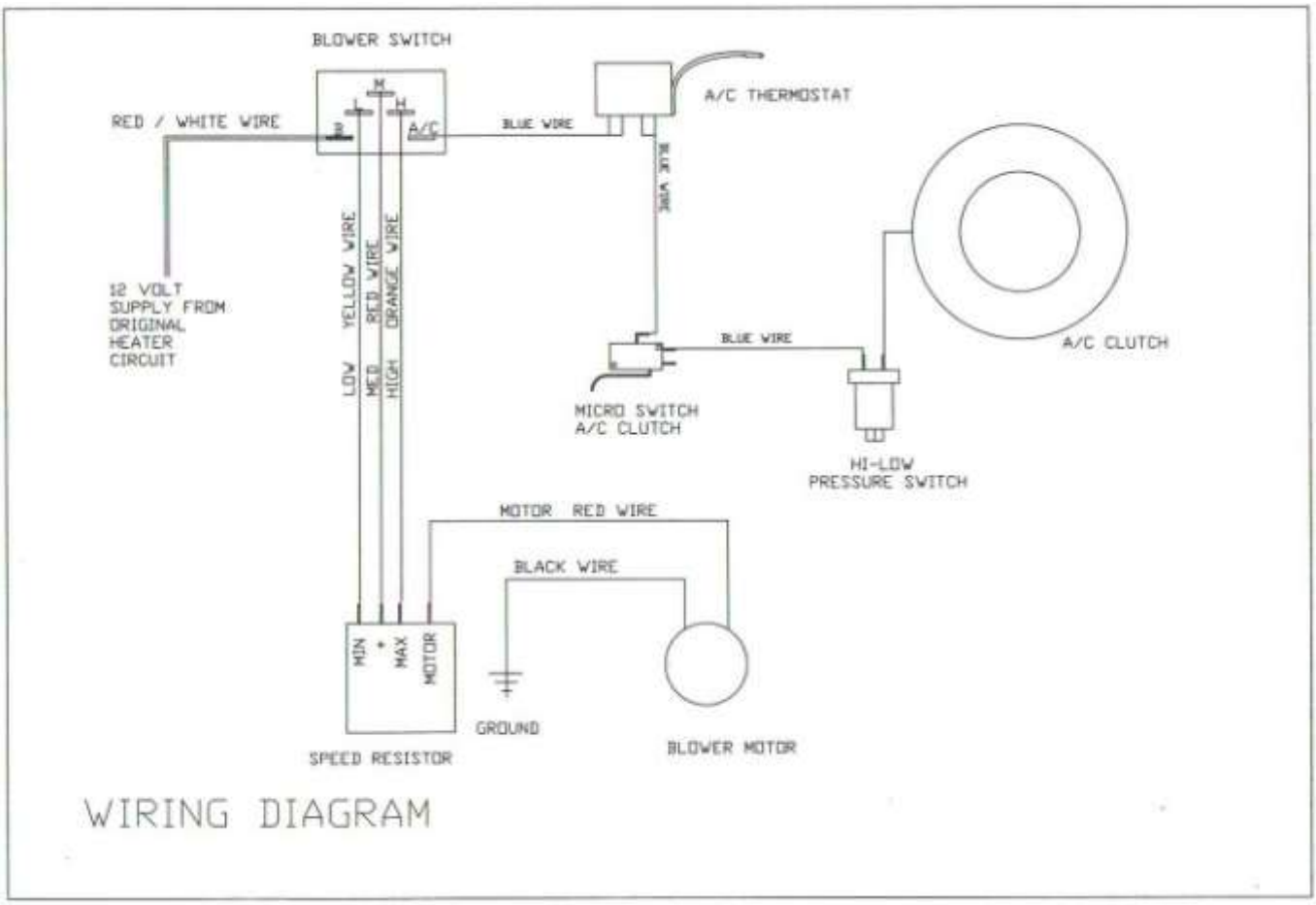
Attach bracket to top of the blower motor as shown, using the (2) #8 screws.

Locate the wire harness from the unit box.

Route the harness over top of the unit and connect blue wires to the thermostat and micro switch.

Other end will plug into the blower motor connector.
Long blue wire is the clutch wire. This will go through firewall out to the compressor

REFER TO WIRING DIAGRAM BELOW



Remove the ¼-20 j- clip from top hole on rear mounting bracket next to the blower assembly.

Locate the rear Evaporator brace assembly and (1) ¼-20 x 5/8” bolt from the hardware sack kit.

Loosely attach brace to lower hole on the unit bracket.

Carefully slide unit behind the glove box.

Locate (2) ¼-20 x 1” hex head screws.

Attach drivers side of the unit through holes in the firewall that was previously drilled, and into the ¼-20 j-clips as shown.

ENGINE SIDE OF FIREWALL

LEFT SIDE OF UNIT

Locate (1) #14 x 3/4” tek screw from the hardware sack kit.

Holding evaporator level with edge of the dash attach blower bracket to the air box using #14 screw as shown.

Locate (1) #10 x ¾” tek screw. Attach ground from blower motor to body next to the blower support.

NOTE: The routing of the flex hose and the door cable.

Locate (1) ¼-20 x 5/8” hex head screw from the hardware sack kit.

Insert screw from engine side of firewall and attach to the rear support brace.

Tighten the screw on back of the unit.

Route 20” flex hose with the hose adapter to passenger defrost diffuser. Attach adapter over diffuser using the clips on the adapter.

Route 35” flex duct with the hose adapter to drivers defrost diffuser. Attach adapter over diffuser using the clips on the adapter.

Locate the remote heat dump and (2) #10 x ¾” tek screws from the main box.

Attach heat dump to firewall just to left of the clutch pedal using (2) #10 tek screws.

Route 45” flex hose over the steering column and attach to the heat dump.

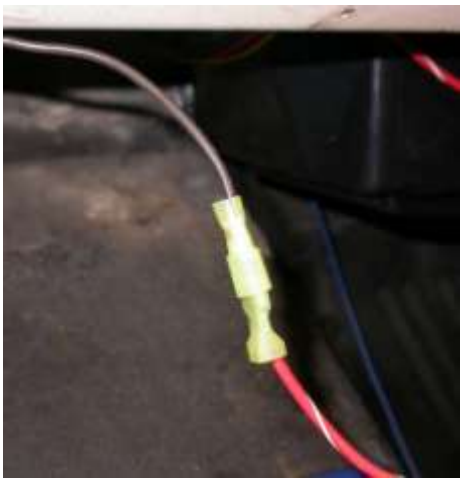
Locate (1) #8 x 3/8” pan head screw from the hardware sack kit.

Route control cable and insert end of cable into second hole from the pivot of the crank arm

Attach using the #8 screw.

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

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



Locate the (5) terminal plug on the end of the wire harness for the unit. Plug this into back of the blower switch.

Locate brown wire that was the power wire for the original heater. Cut off the connector and attach (1) ¼" male spade connector.

Attach this wire to the red/white stripped wire from the unit wire harness.

Check the heater fuse and be sure that it is min. 25 amp.

Locate in the hardware sack kit (2) grommets.

Insert into the (2) holes previously drilled.

Locate the (2) pieces of heater hose from the unit box.

Insert hoses through grommets from engine side of the firewall.

Located behind the glove box opening.

Attach the two hoses to the heater connections on the unit using (2) worm gear clamps provided.

Tighten securely.

Locate the liquid hose (smallest), suction hose (largest), and (2) bulkhead plates from the hardware sack kit.

Insert bulkhead fittings through (1) the bulkhead plate and then through the firewall.

On engine side of the firewall attach second bulkhead plate over the fittings and use the fitting nut and rubber seal to attach. Tighten securely.

Route smallest hose up and around blower and attach to the expansion valve using (1) #6 o-ring and a few drops of mineral oil.

Route largest of the hoses around blower and attach to the unit using (1) #10 o-ring and a few drops of mineral oil.

Locate the refrigerant insulation tape from the hardware sack kit.

Wrap metal connection using the tape. There should be no exposed metal surfaces.

Locate the clear ½" drain tube from the hardware sack kit.

Attach over drain nipple on bottom of the unit and insert other end through the hole previously drilled.

Reinstall the radio.

Locate the center dual louver assembly, (2) #10 x ¾" tek screws, and (2) #8 x 3/8" pan head screws.

Attach hose adapter to bottom of the dash using #10 screws. Be sure to center the louvers under the radio.

Attach front louver assembly to the hose adaptor using the #8 screws.

Locate 2"flex hose from the unit box.

Cut (1) piece 18" long and (1) piece 20" long.

Attach 20" piece to driver's side louver and 18" piece to the passenger side.

Locate the single under dash louver assembly, and (2) #10 x ¾" tek screws.

Attach the housing to drivers side under the dash using #10 screws.

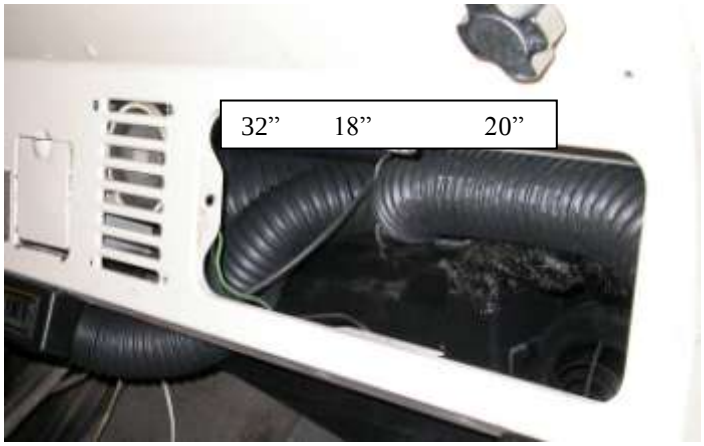
Insert louver into the housing.

Locate 2" x 36" and 2" x 24" (2) flex duct. Cut one piece at 32", one at 20" and one at 18".

Attach 32" hose to the driver's louver and route across to left outlet on the unit.

Route 18" flex hose from center louver to next left outlet on the evaporator

The 20" flex duct goes to next outlet on the evaporator.



Locate the single under dash louver and (2) #10 x ¾" tek screws.

Attach housing to driver's side under the dash using the #10 screws.

Insert the louver into the housing.

Locate last of 2" x 24" flex hose and cut 23" piece. Attach flex hose to hose adapter on back of the louver. Route hose up and behind glove box opening. Attach to last remaining outlet on the main unit.

The engine compartment components should be installed at this time. Carefully follow the electrical diagram provided on page 8.

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

Locate the following components from the under hood components box.

Condenser
Discharge Tube
Liquid Tube
(4) Condenser mounting brackets
(8) #10 x 3/8 hex washer head screws

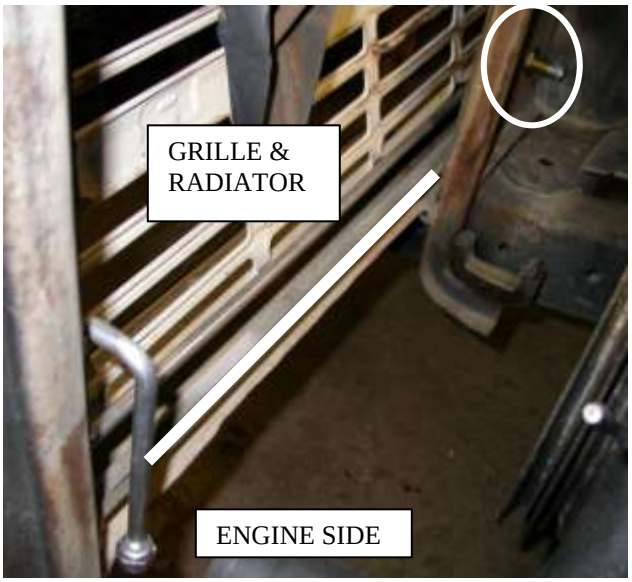
Remove Radiator Fan, Shroud and the Radiator. Retain the original mounting hardware.

Locate the drivers side radiator support Template from last few pages of the installation instructions.

Locate template on the radiator support and drill (1) hole 7/8" diameter.

Locate the passengers side radiator support Template from last few pages of the installation instructions.

Locate template on the radiator support and drill (1) hole 3/4" diameter.



Locate the Liquid Tube from the condenser kit.

From engine side of radiator support insert the bulkhead through the ¾" hole previously drilled.

The tube will lay between the grille and radiator support and will drop over into the engine side as shown.

Locate the Discharge tube from the condenser kit.

Insert bulkhead end of the tube through the 7/8" hole on drivers side previously drilled.

Locate condenser and (1) left, (1) right mounting bracket, and (4) #10 x 3/8" hex head screws.

Attach both of the brackets to condenser in the 5th hole from the bottom.

Slide condenser assembly so that condenser is on engine side of the radiator support with the mounting brackets between the support and the grille.

Note: Condenser top edge should be even with top of the radiator support.

Attach tube assemblies to the condenser fittings using o-rings and a few drops of mineral oil for each connection.

Locate (2) #14 x ¾" tek screws.

Install lower condenser mounting brackets to radiator support using the #14 screws as shown.

Locate remaining condenser mounting brackets, (4) #10 x 3/8" hex head screws, and (2) #14 x ¾ tek screws.

Attach brackets to condenser using #10 screws and bracket to the radiator support using the #14 screws.

Reinstall radiator, fan shroud and fan using the original hardware.

Note: It will be necessary to trim the fan shroud around the compressor clutch.

Locate the discharge hose and (2) #8 o-rings.

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

Other end attaches to #8 bulkhead fitting on the radiator support using (1) #8 o-ring and a few drops of mineral oil. Tighten securely.

Locate the #10 suction hose.

Attach end of hose with the service port to the compressor using (1) #10 o-ring and a few drops of mineral oil.

Route suction hose from compressor to #10 fitting at the firewall.

Attach to the fitting using (1) #10 o-ring and few drops of mineral oil.

Locate (1) hose clamp, and (1) #10 x 3/4” tek screw from the condenser kit.

Attach suction hose to firewall using the clamp and screw.

Locate the Receiver / Drier, hi/low pressure switch, Drier Mounting bracket, and (2) #10 x ¾" tek screws.

Attach pressure switch to the drier and then the assembly to inner fender liner behind battery box using the (2) # 10 x ¾" tek screws.

Locate the short #6 liquid hose and (2) #6 o-rings.

Attach hose to bulkhead fitting from the condenser tube. Route hose up in front of battery and attach to inlet on the drier using (1) #6 o-ring and a few drops of mineral oil.

Tighten all fittings securely.
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Locate remaining #6 liquid hose assembly and (2) #6 o-rings.

Attach 90 deg end to drier and route hose along fender well and the 45 deg end to bulkhead fitting on the firewall.

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

NOTE: THE SUPPLY LINE FROM THE ENGINE WILL BE HOOKED TO THE DRIVERS SIDE HOSE.

Locate in the Hardware Sack Kit the Water Valve and (4) worm gear clamps.

Attach the water valve to the passenger side hose. Use the worm gear clamps supplied.

Cut the supply hose from the engine and attach it to the hose splice on the drivers side heater hose. Use the worm gear clamps supplied.

Locate the Temperature Control Cable and attach it to the water valve as shown. Set the cable so that the Temp knob is pushed all the way in and the water valve is in its fully closed position.
Locate the electrical plug that attaches to the Pressure switch on the drier

There are two white wires attached to the pressure switch, route one of them to the compressor clutch and attach a Female bullet connector. The other wire route along the Liquid hose and attach to clutch wire at the firewall. Secure wires with tywraps provided.

Use the same refrigeration tape to seal around the cable and clutch wire.
Reinstall and reconnect the battery.

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" system.

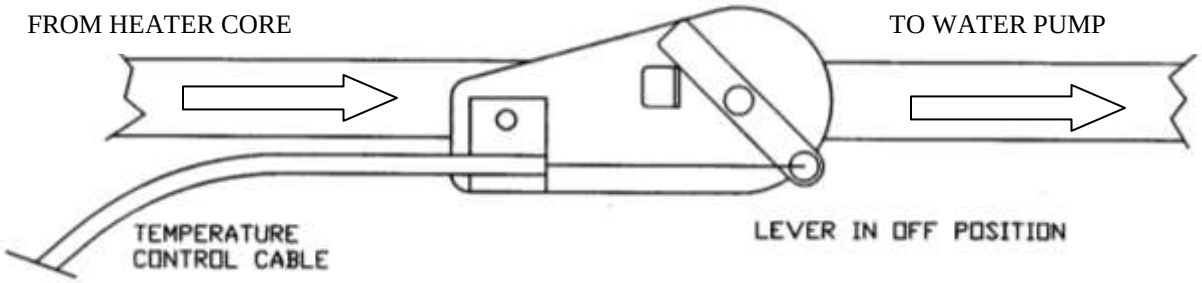
IMPORTANT

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