



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

“PERFECT FIT” IN-DASH

HEAT/ COOL/ DEFROST 1958-60 FORD THUNDERBIRD CONTROL & OPERATING INSTRUCTIONS

The controls on your new “Perfect Fit” system, offer 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 PICTURES YOU SEE ABOVE SHOW 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 AVAILIABLE.

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 LOWER CONTROL LEVER CAN BE MOVED TO THE LEFT AND WILL OPEN THE PASSENGER FRESH AIR DOOR.

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 lever is MOVED all the way RIGHT, it will direct the air to the floor / and defrost ducts. The lever can be moved to any position from CENTER to RIGHT. 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 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 LEVER in the Face Mode (air-flow out the face outlets).

When the Mode control knob is pushed all the way to the LEFT against the lower stop in the control bezel 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.



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INSTALLATION INSTRUCTIONS 1958-60 FORD THUNDERBIRD

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.

Box 1

Evaporator

Box 2

Unit Mounting Plate

Block off Firewall

Sack Kit Hardware

Sack Kit Control

Control Cables (2)

2” Diameter Flex Hose 4ft

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, trans cooler, 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 of the system.

Disconnect battery ground cable. Drain radiator.

Carefully remove the Glove Box door, glove box, trim cover and console cover as shown below

To remove the glove box door remove and retain the 5 screws on the hinge assembly.

Also remove the screws that attach the center brace to the trim panel. Retain screws and brace.



Remove and retain the screws from both sides of the door supports. Discard hardware and left door support. Set door aside.



Remove and retain the trim around the glove box.

Remove and discard box.



Remove (4) screws at the trim to the console on passenger and drivers side.

Remove and retain the passenger kit panel.

Remove and retain the (2) screws attaching the trim to the body.

Remove panel and retain.



Remove and retain the screws on the front of the console cover.

Remove and retain the (2) screws at the bottom of the control mounting assembly.



Locate behind the glove box opening the fresh air door. Disconnect the cable.



Locate on the front of the heater box the Heat / Defrost door cable. Disconnect.

Disconnect the electrical connectors from the blower switch.

Disconnect the temperature cable from the control head. Retain original hardware.



Remove the control assembly and set aside.

Disconnect heater hoses from heater coil.

Disconnect the electrical wires from the blower motor.

Remove and discard the (5) screws holding the blower housing to the firewall.

Remove and discard the blower assembly.





Remove the (4) nuts as shown. Discard the hardware.

NOTE: This will allow removal of the heater box. From inside of the car.

Remove the (4) screws holding the passenger side fresh air inlet assembly to the body.

Remove the assembly and discard along with the hardware.



Locate the air inlet block off plate and attach over the inlet using (5) #10 x $\frac{3}{4}$ " tek screws supplied in kit.

BEFORE



It is necessary to trim the insulation at the bottom of the opening in the firewall.

AFTER

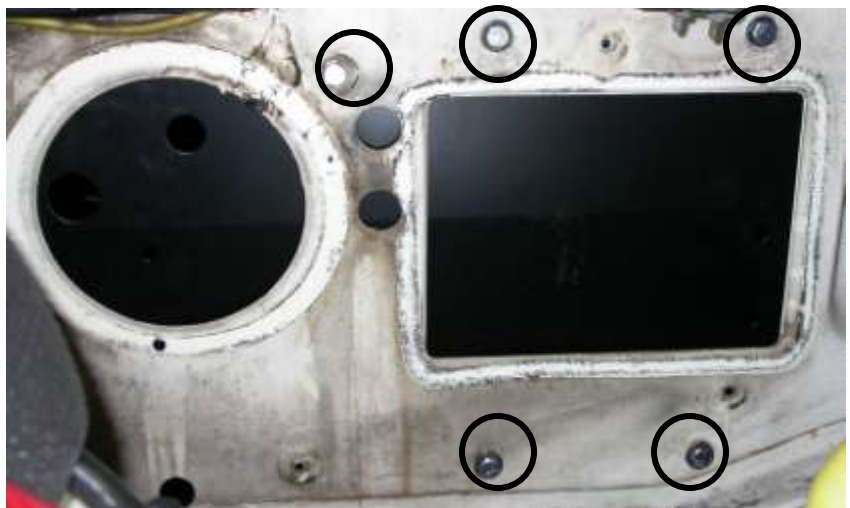


REMOVE THIS SECTION OF INSULATION



Locate the Unit Mounting Panel, (5) $\frac{1}{4}$ " - 20 x $\frac{5}{8}$ " screws, (5) $\frac{1}{4}$ " - 20 flange nuts and $\frac{1}{4}$ " flat washers.

Attach panel to the inside of the firewall as shown.



The following (3) pictures shows the (2) hole requirements for the heater hookup.

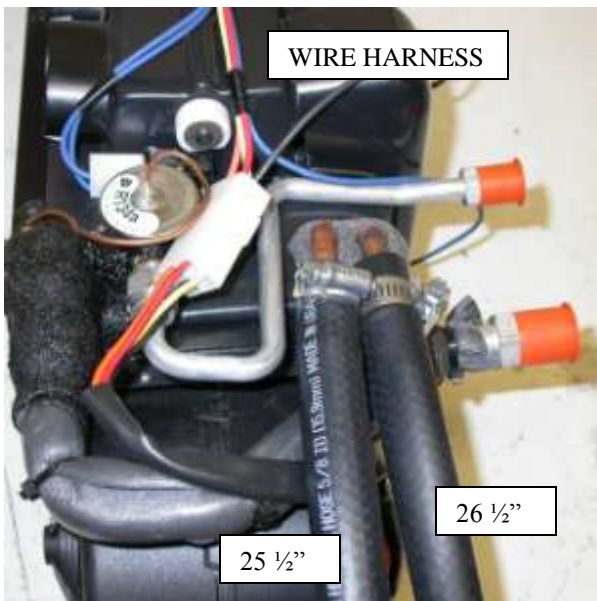
Locate and drill (2) holes 15/16" dia.



Match drill (1) 11/16" dia hole as shown.

Locate in the hardware sack kit (2) #10 bulkhead fittings.

Remove the lock nut and insert through the 15/16" holes. Loosely install the lock nuts on the engine side of the firewall. Let fittings hang down as shown.



Locate the wire harness from the control sack kit and attach the plug to the blower motor and the micro switch.

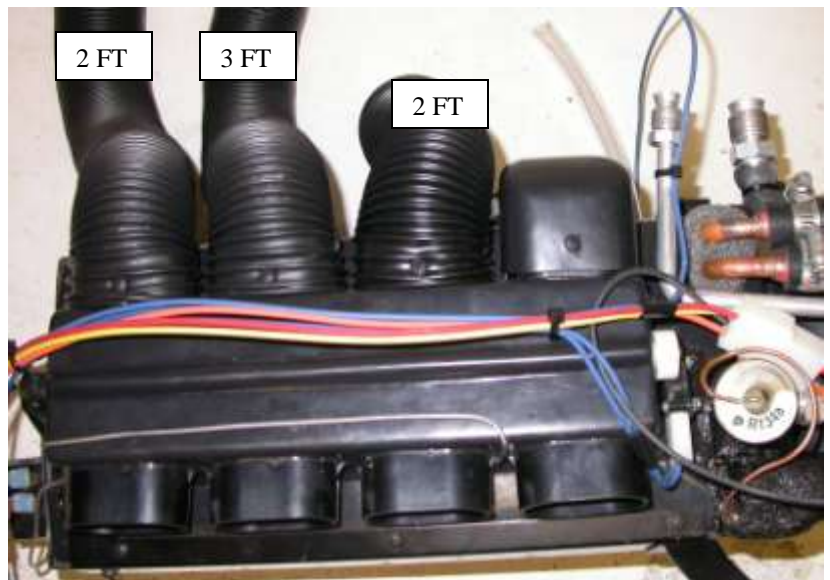
Route harness over the top of the unit.

Locate (1) 25 1/2" heater hose, (1) 26 1/2" heater hose and (2) worm gear clamps from the unit box.

Attach the hoses as shown to the heater tubes using the worm gear clamps. Tighten clamps securely.

Locate in the unit box. (2) 2 ft sections of flex hose and (1) 3ft section of flex hose.

Attach to the evaporator as shown using (1) #8 x 3/8" pan head screw for each hose.



Lift the evaporator into position. The (2) left duct hoses will go behind the windshield wiper motor towards the drivers side.

The third hose goes over the top.

Insert the tubes and the blue wire through the mounting plate.

Attach the evaporator to the mounting plate using (3) 1/4"-20 x 5/8" screws.





Locate in the hardware sack kit (1) support brace and (1) #10 x 3/4" tek screw.

Remove the pan head screw from the right side of the unit. Attach the brace to the unit reusing the screw.

The other end of brace attach to the body using the #10 tek screw.

Locate (2) worm gear clamps.
Attach the heater hoses to the bulkheads below the unit.

Tighten the locknuts on the fittings.

Install the drain tube through the firewall hole as shown.



Remove the mounting screw from the passenger side defrost assembly.

Discard the assembly and the hardware.

Locate the defrost diffuser in the hardware sack kit.

The clips on the edge of the diffuser will attach to the metal lip around dash opening.





Locate the 2 / 2 ½” hose adaptor and attach to the 3 ft. flex hose, using (1) #8 x 3/8” pan head screw.

Attach over the end of the drivers defrost diffuser using the s-clips.

Route the hose on the top of the evaporator around the wiper motor cables and attach to the defrost diffuser using (1) #8 x 3/8” pan head screw.



Locate in the hardware sack kit the drivers side heat dump and (2) #10 tek screws.

Locate and attach to firewall so that the heated air is distributed to the driver.

Attach the 2” flex hose to the dump.



Locate the original control assembly.
Remove and discard original switch. Retain the knob. Discard the hardware.

Remove the original control cables and retain clips and screws.

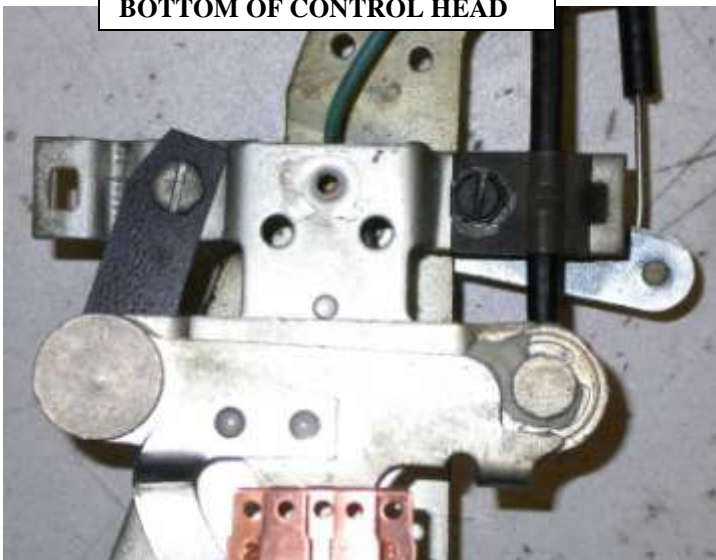
Locate blower switch assembly provided in the kit.

Attach switch using the original nuts that attaches the face to the mounting plate.

BOTTOM OF CONTROL HEAD



BOTTOM OF CONTROL HEAD



Locate (2) control cables and the lever stop bracket from the kit.

Using original cable clip and hardware attach short cable to the BOTTOM control lever.

NOTE: When lever is in the position shown the cable housing will touch.

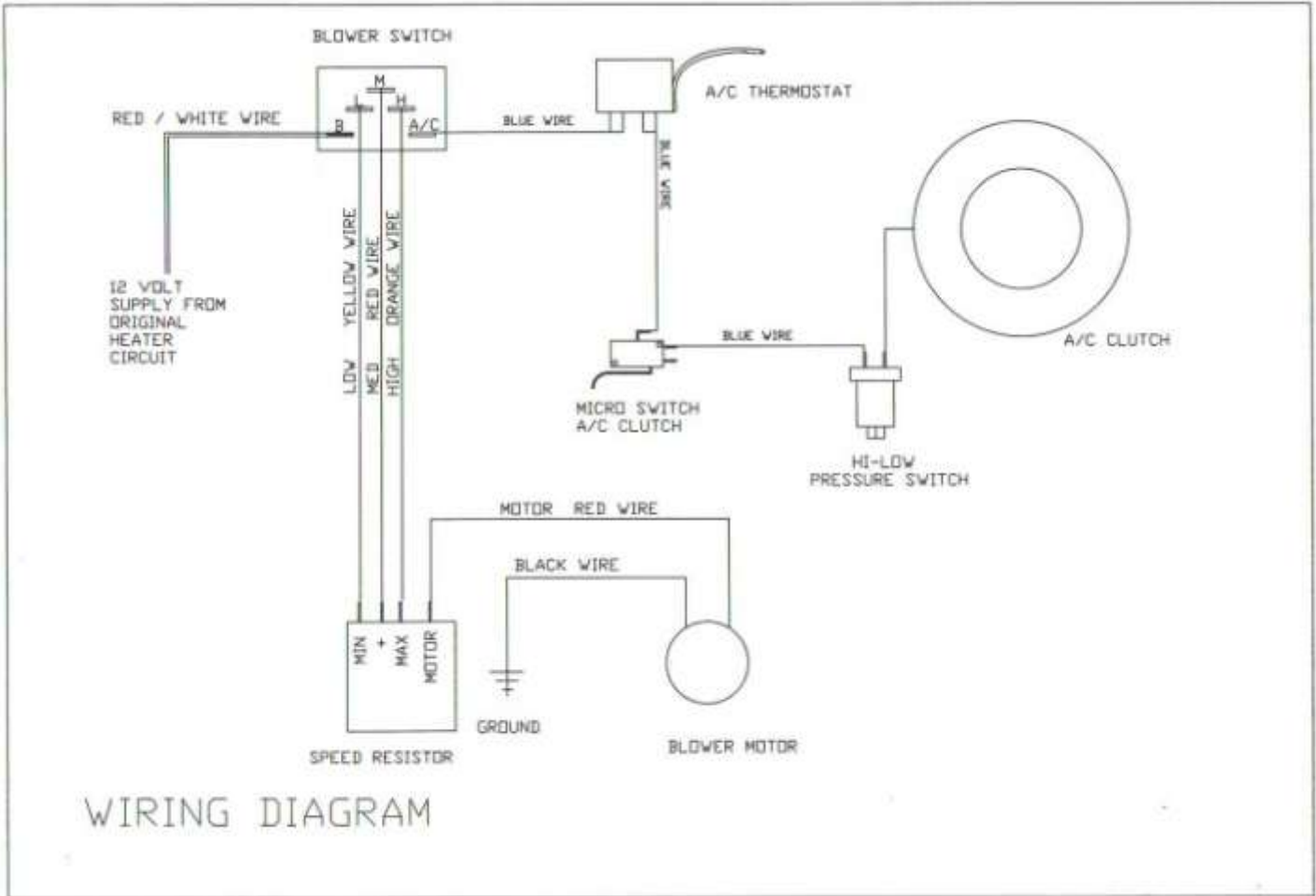
Attach the lever stop bracket over the left drive pin and attach using the original screw.



COOLANT FLOW

Turn controls over.

Using original cable clip and hardware attach longest of the control cables to the TOP lever.



Attach ground wire from blower connector to the body using (1) #10 tek screw.



Locate brown wire that was attached to the original blower switch. Cut off the connector and add a 1/4" male spade connector.

Plug red/white wire from a/c wire harness to this wire. This is your power wire for the system.

Reinstall the control assembly to the console using the original hardware.



Insert cable offset into 2nd hole from pivot of the door. Attach cable flag to the bracket using (1) #8 x 3/8" pan head screw.

Check adjustment of the door by moving the control lever from left to right.

On the engine side of the firewall.

Drill 1/2" hole next to the heater bulkhead and insert the snap bushing supplied in kit.

Route longest of the control cables across bottom of the evaporator and out through bushing.

Locate (2) 45 deg. Heater hose fittings and (2) #10 o-rings. Attach heater hoses from the engine to the fittings.



NOTE: IT IS RECOMMENDED THAT YOU REPLACE THE HOSES AT THIS TIME. THE SYSTEM IS DESIGNED FOR 5/8" DIA HOSES.

Locate the water valve and (2) worm gear clamps from the control sack kit.

Cut the return hose 10" from the fitting.
NOTE: RETURN HOSE IS ATTACHED TO THE WATER PUMP.

Install water valve using the (2) worm gear clamps.

Attach the cable to the water valve.

Adjust cable so that when temp lever is all the way to the left when the water valve is closed.



Locate the firewall block off and (5) #10 tek screws.

Slide cover over the a/c connections.

Attach to firewall using the #10 tek screws.

REINSTALL CONSOLE COVER, LOWER TRIM PANEL, AND GLOVE BOX DOOR USING THE ORIGINAL HARDWARE.



Locate the following flex hoses:
(2) 2ft., (1) 4ft., and (1) 5ft.

The (2) 2ft pieces cut off to 18" and 15".

Attach the 5ft section to the left center outlet and route over to left of the steering column.

Attach the 4ft section to the left outlet and route over to the right of the steering column.
Attach the 18" section to the right center outlet and route to the left passenger outlet.
Attach the 15" section to the right outlet and route to the right passenger outlet.

Locate (4) of the remote louver assemblies, (8) #10 tek screws.



On the passenger side mount the louver assemblies back so that the glove box door can open all the way.

On the drivers side mount the louvers as shown.

Using #10 screw attach through the holes in the bottom of the housing.

Insert louver assembly into the housing
And then attach the flex hose.



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

Install the compressor drive kit at this time.

***The engine compartment components should be installed at this time.
Carefully follow the electrical diagram provided on page 10.***

Locate following components from the condenser kit. Condenser, (2) top condenser mounting bracket, (2) bottom condenser mounting brackets and (8) #10 x 3/8" screws.

Place condenser on the bench with fittings on the left side.

Attach bottom condenser brackets to bottom hole of the condenser. Using the #10 screws.

Attach top condenser brackets to top hole of the condenser. Using the #10 screws



Locate the drier, drier mounting bracket, pressure switch, (1) #6 liquid tube (short),(1) liquid tube (long), (4) #6 o-rings and (2) #10 x 3/8" hex screws.

Attach short liquid tube to #6 fitting on condenser using (1) o-ring and a few drops of mineral oil.

Using (1) o-ring and a few drops of mineral oil the other end attaches to the to the drier inlet.

Use the tube to locate drier and mounting bracket. Attach using the #10 screws.

Attach long liquid tube to the drier using a #6 o-ring and a few drops of mineral oil. Attach pressure switch to liquid tube using a few drops of mineral oil.

Locate the #8 discharge tube and #8 o-ring. Attach discharge tube to #8 fitting on the condenser using #8 o-ring and a few drops of mineral oil.

Remove the radiator panel cover. Set aside for reinstallation, retain hardware.



Located on the bottom of the radiator are (2) mounting bolts.

These can be accessed from under the car.

Loosen these bolts do not remove.

Slide condenser between radiator and the radiator support.

Locate the condenser assembly so the upper mounting brackets are inline with the holes on the top of the radiator.

Tighten the bottom radiator mounting bolts.





Locate (1) 3/8" tube clamp and (1) #10 x 3/4" tek screw. Attach liquid tube to the radiator support using clamp and screw.

Attach the electrical boot to the pressure switch, route white wires across the discharge tube.

Tywrap the wires to the tube.



Locate (1) tube bracket, (1) 1/2" tube clamp, (1) #10 x 3/4" tek screw and (1) #10-32 x 3/8" screw and nut.

Attach bracket to the core support using the #10 tek screw.

Attach tube clamp to bracket using (1) #10 screw and nut.

Reinstall the radiator panel cover using the original hardware.

Trim the passenger side of cover to clear liquid line.



REINSTALL RADIATOR FAN AND SPACER USING THE ORIGINAL HARDWARE.

Locate #6 liquid hose and (2) #6 o-rings. Attach hose between fitting on firewall and fitting on the condenser.



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

Attach hose to fitting on the block off and end with the service port to the compressor.



When routing suction hose attach hose the firewall as shown using (1) clamp and a #10 tek screw.



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

Attach end of the hose to the condenser fitting and end with the service port to compressor.

Locate (2) white wires tywrapped to the discharge tube.

Route along the discharge hose. Cut one of the wires and attach female bullet connector provided and plug into the compressor clutch wire.

Other wire route along suction hose and connect to blue clutch wire from the thermostat.

CAUTION: CHECK AROUND ENGINE TO BE SURE THAT THERE IS NOTHING THAT WILL INTERFERE WITH SAFE OPERATION OF THE VEHICLE.

***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. Congratulations you have completed
the install of your CLASSIC AUTO AIR "Perfect Fit Series" system.***

***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***

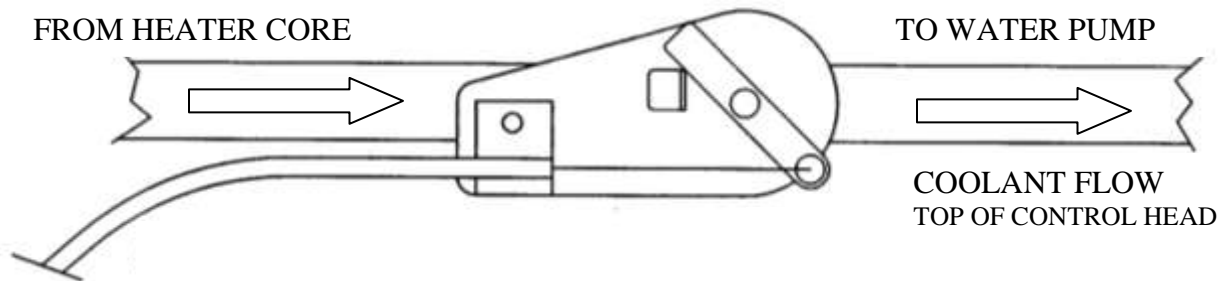
“PERFECT FIT SERIES”
IMPORTANT

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