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

“PERFECT FIT SERIES”
IN-DASH

HEAT/ COOL/ DEFROST

1964-67 PONTIAC GTO

CONTROL & OPERATING INSTRUCTIONS

The controls on your new “Perfect Fit Series” 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 ABOVE SHOWS THE CONTROLS IN THE DEFROST MODE. THIS MEANS THAT THE AIR WILL BE DISTRIBUTED THROUGH THE DEFROST DIFFUSERS. THIS ALSO HAS THE TEMPERATURE LEVER IN THE COLD POSITION. WITH THE CONTROLS IN THIS POSITION YOU WILL GET THE AIR THROUGH THE DEFROST 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 TOP lever is pulled all the way to the LEFT, it will direct the air to the DEFROST ducts. When the lever is moved to the CENTER position between "OFF" and "NORMAL", the air is directed to the Dash Louvers. When the lever is pushed to the far Right, the air will be directed onto the FLOOR 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: When Air Conditioning is required the compressor clutch must be activated. This is accomplished when the TOP lever is in the Center position. When the compressor is activated the Temperature Lever will control the air from maximum cold through maximum heat.

NOTE: The original controls utilized (2) control cables. The control face has (3) positions "OFF", "NORMAL", and "DEICE". This new unit will only use the left portion of the controls between "OFF" AND "NORMAL".

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

INSTALLATION INSTRUCTIONS
1964-67 PONTIAC GTO

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.

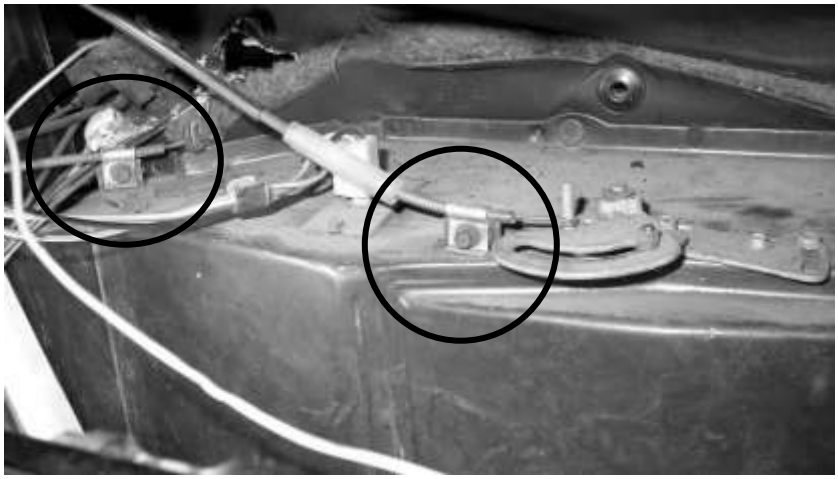
Evaporator
Face Duct Assembly
Defrost / Heat Duct Assembly
Inlet Air Block Off Assembly
Firewall Block Off Assembly
Flex hose 2" dia. (4) 1', (2) 3'
Sack Kit Hardware
Sack Kit Control
(2) Control Cables
Glove box

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 the Glove box door, the glove box, discard glove box retain original hardware.



The removal of the Original Heater Assembly can be accomplished by disconnecting the three control cables.

One attached to the Temperature door.

One attached to the heater next to the defrost ducts.

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

Disconnect electrical harness at the resistor block.

Remove the (4) nuts located on the back of the control head.

Remove the control head and set aside for modification and reinstall.

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

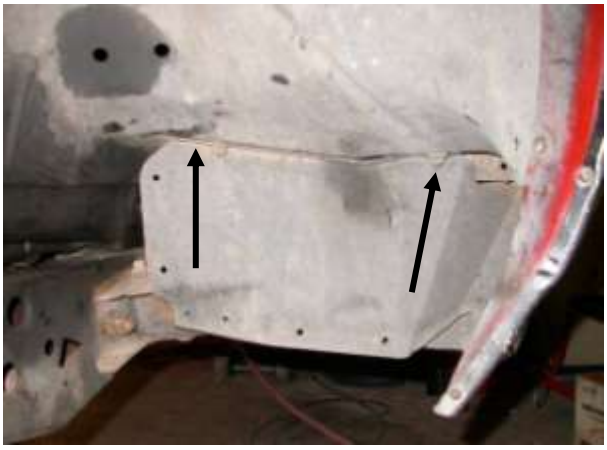
Carefully lift vehicle and place support stands under the vehicle as shown.

It is necessary to lower the inner fender well on the passenger side. Remove the passenger front tire. Remove and retain the (4) bolts from around the inner fender and wheel opening.

Remove and retain the (2) bolts as shown. And the (2) bolts that fasten the top of the inner fender to the engine side of the fender assebly.

Located under the fender behind the wheel opening is (1) bolt that holds the inner fender linner to the fender. Remove and retain.

Remove the front bumper by removing the (4) bolts that attach it to the frame.



Remove the (2) bolts as shown. Bolts located from the engine side of fender linner.

Remove the (2) screws from the splash guard and the fender.

Remove the (2) bolts the attach the inner fender to the body.

Push the inner fender linner over the frame and down.

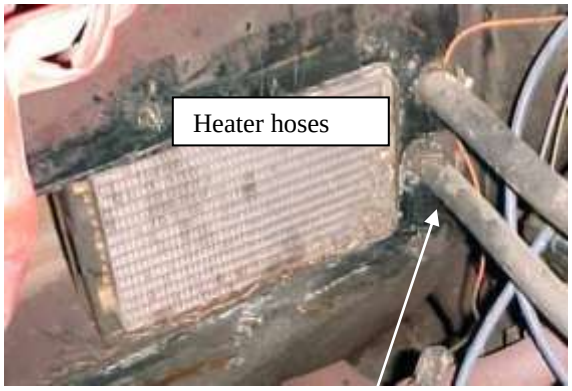
Remove the (7) screws around the perimetre of the Blower Housing. The (2) screws around the blower motor can be accessed from between the fender linner and fender.

Retain the (2) screws around blower motor.

Remove the blower assembly by rotating the housing. Discard blower housing.

Locate the Air Inlet Block Off Plate.
Attach the block off behind the Hood Hinge assembly. Use the original hardware.

Reinstall the Inner Fender Liner, splash guard, and front bumper using the original hardware. Reinstall the front tire and remove the jack and stands.



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

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

Locate the Defrost Air Duct behind the control opening in the instrument panel. Remove and retain original hardware.

On the last page of the instructions is the template for the Defrost Duct. Tape in place and cut the trim line.

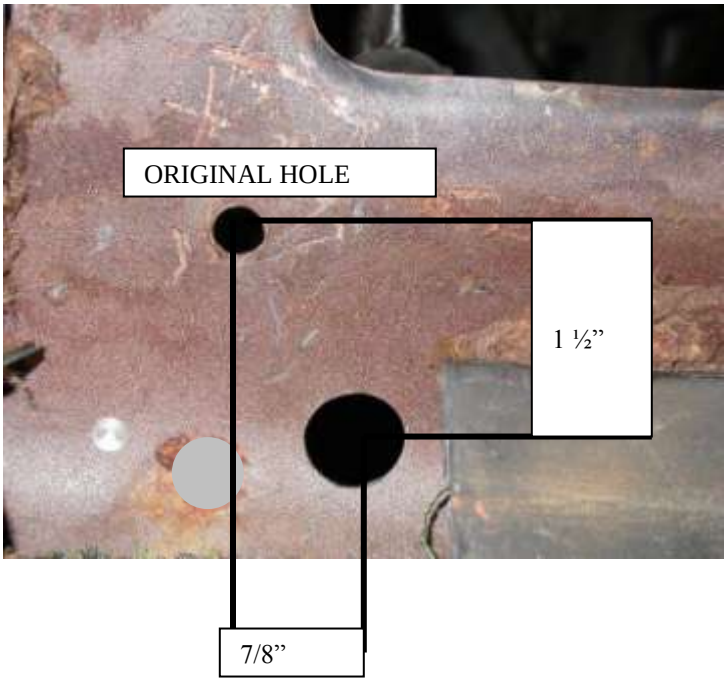
Trim the edges of the duct as shown.

Locate in the hardware sack kit the ¼” x ½” open cell foam. Wrap around the opening as shown.

Locate in the hardware sack kit the Defrost duct adaptor.

Attach over duct as shown using (2) #8 x 3/8” pan head screws.

Reinstall defrost duct using original hardware.



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

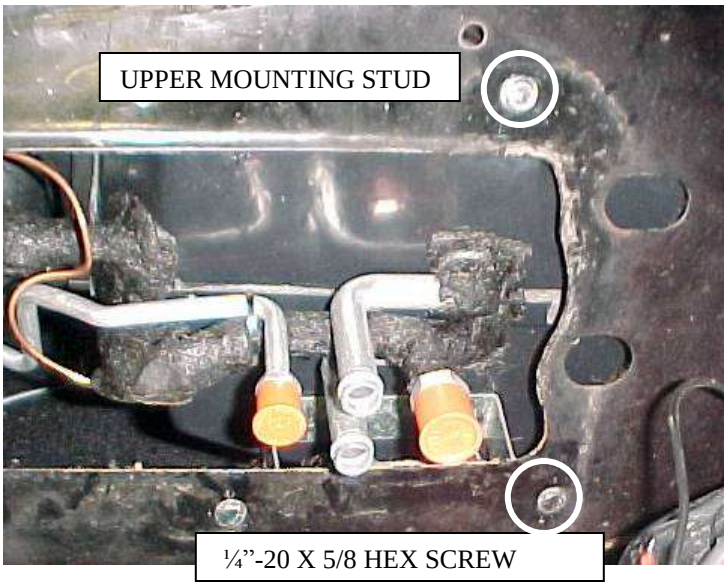
All of the modifications to the vehicle are complete we will now begin the installation of the Unit.

Locate the Evaporator, the Defrost Duct Assembly, and (2) #10 x 5/8" pan head screws.

Attach the defrost to the evaporator using the (2) #10 screws. Be sure that the s-clips are pushed over the outlet on the back side.

Attach the wire harness from the actuator using the diagram on page 20.

NEXT STEP SHOWN FROM ENGINE SIDE



Place evaporator on the floor of the vehicle. Lift unit up and behind the glove box opening.

Insert the upper rear Evaporator mounting stud through the original hole as shown. Attach using (1) ¼" – 20 flange nut provided.

Locate in the hardware sack kit (1) ¼" –20 x 5/8" hex head screws. Attach to lower mounting bracket through the existing holes.

Locate in the hardware sack kit the blower support brace and (1) #8 x 3/8" pan head screw and (1) #10 x ¾" tek screw.

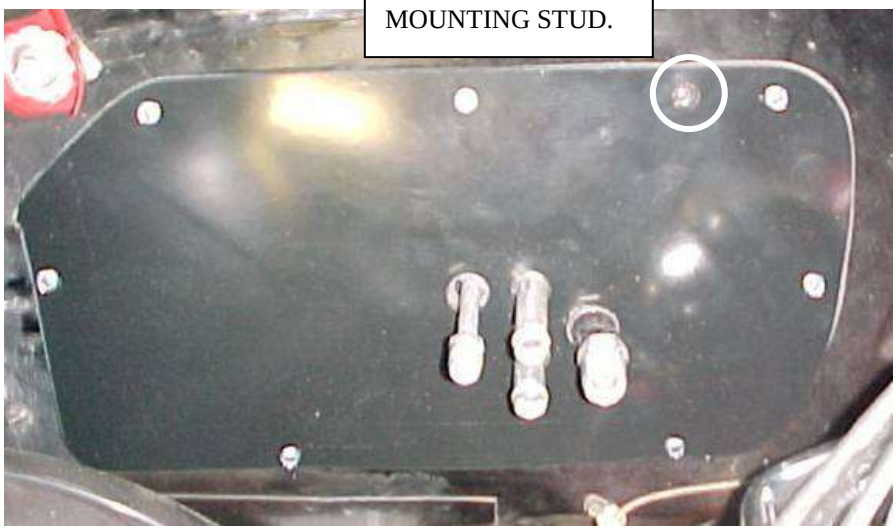
Attach to the blower motor using (1) #8 x 3/8" pan head screws. Attach the end of the brace to the bottom of the instrument panel using the #10 screw.

.

Locate in the hardware sack kit the left support brace, (1) #10 x 5/8" pan head screw and (1) #10 x ¾" tek screw.

Using a none powered screw driver attach the brace through the holes provided on the evaporator. Carefully tighten.

Attach brace to the panel using (1) #10 x 3/4" tek screw.



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

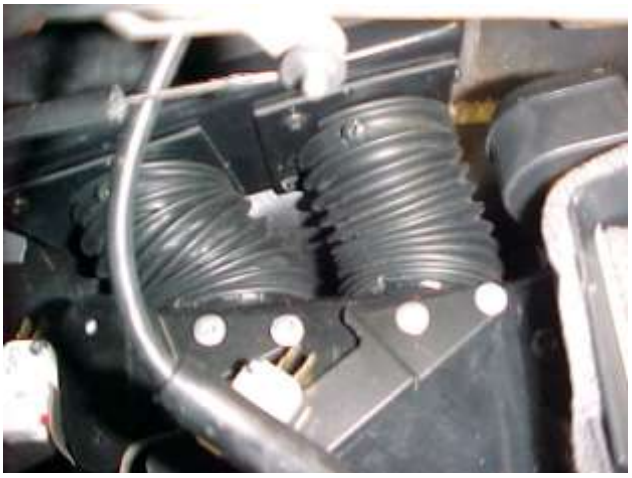
On the engine side of the firewall attach over the hookup tubes from the evaporator using (7) #10 x ¾" hex washer head Tek screws.

Locate refrigeration tape provided and seal around the hookup tubes.

Locate the Water Valve and (3) worm gear clamps.
See Technical Data Sheet on page 23.
The supply line from the engine is attached to the upper heater hookup tube. Cut 6" off the end of the **RETURN LINE** and install the water valve using (3) worn gear clamps as shown above.

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

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

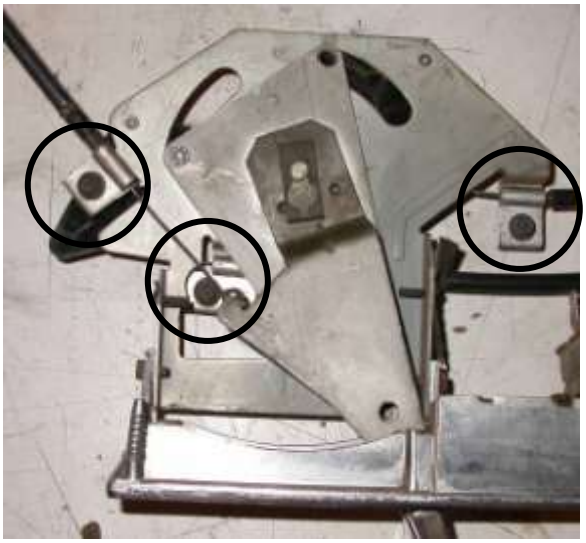


.

Locate the 2” Dia. flex hose (2) pieces 1’ and attach to the hose adaptors on the top of the defrost / heat duct assembly and onto the hose adaptors on the defrost duct.

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

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



Remove the original blower switch discard the original switch and hardware.

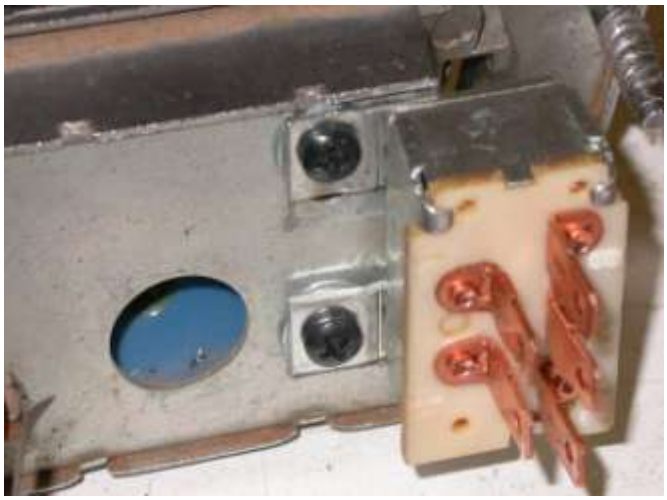
Remove cables retain original hardware.

Locate in the control sack kit the blower switch, (2) #6 x 3/8” pan head Philips screws and (2) #6 washers.

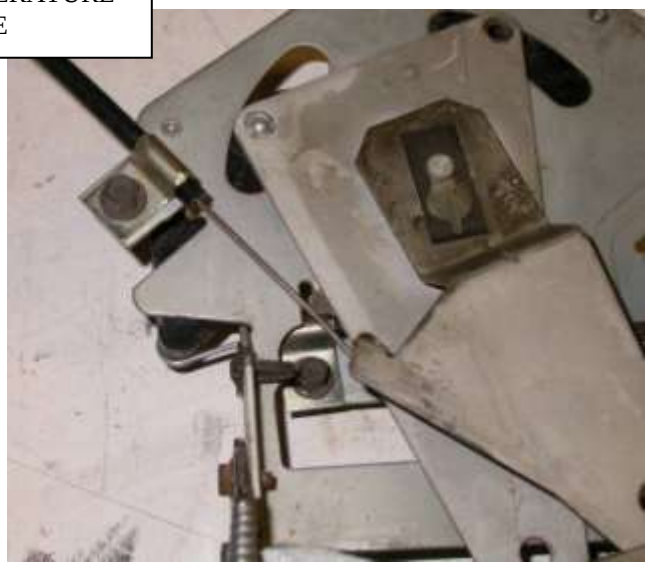
Slide the blower switch into position. Using the switch as a locator, drill (1) hole 1/8” dia for the top screw.

Attach the switch to the control head using (1) #6 x 3/8” pan head screws and (1) flat washer.

Drill the second hole for the second screw. Attach using the same hardware.



TEMPERATURE CABLE



Locate in the control sack kit the (SHORT) Heat / Defrost control cable, the (LONG) Temperature control cable, (2) Cable Clips.

Attach the temperature control cable and clip to the under side using the original screw.
NOTE: The cable sleeve is 1/8” from the lever pin.

Attach the Heat / Defrost cable to the top side. Use (1) cable clip and the original screw. NOTE: The cable sleeve IS 1/8” from the clip.

It will be necessary to open the ring of the cable to fit over the drive pin on the controls.

Attach Wire Harness supplied in unit to the blower switch. Reference the wiring diagram on page 12.

Attach the switch knob to the new switch.

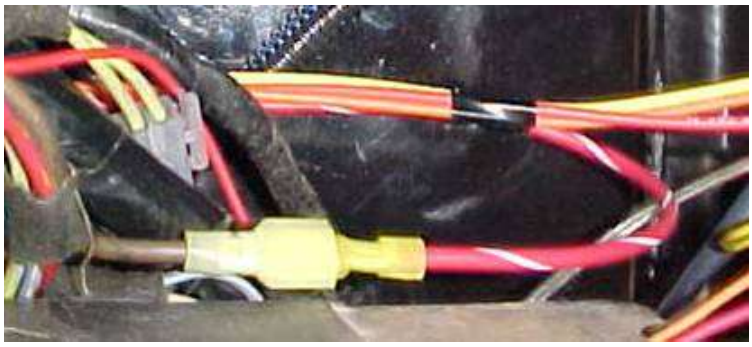
Reinstall control head using original hardware.

Route the electrical assembly to the Defrost Duct assembly and hookup the micro switch. Route the main harness to the thermostat and the blower motor. Route the blue clutch wire over the evaporator and out through the hole in the firewall above the unit. Secure ground from the electronic actuator and the blower motor using (2) #10 x ¾" hex head Tek screw.

REFER TO THE WIRING DRAWING ON NEXT PAGE FOR PROPER CONNECTIONS.

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

Insert the light socket back into the control head.

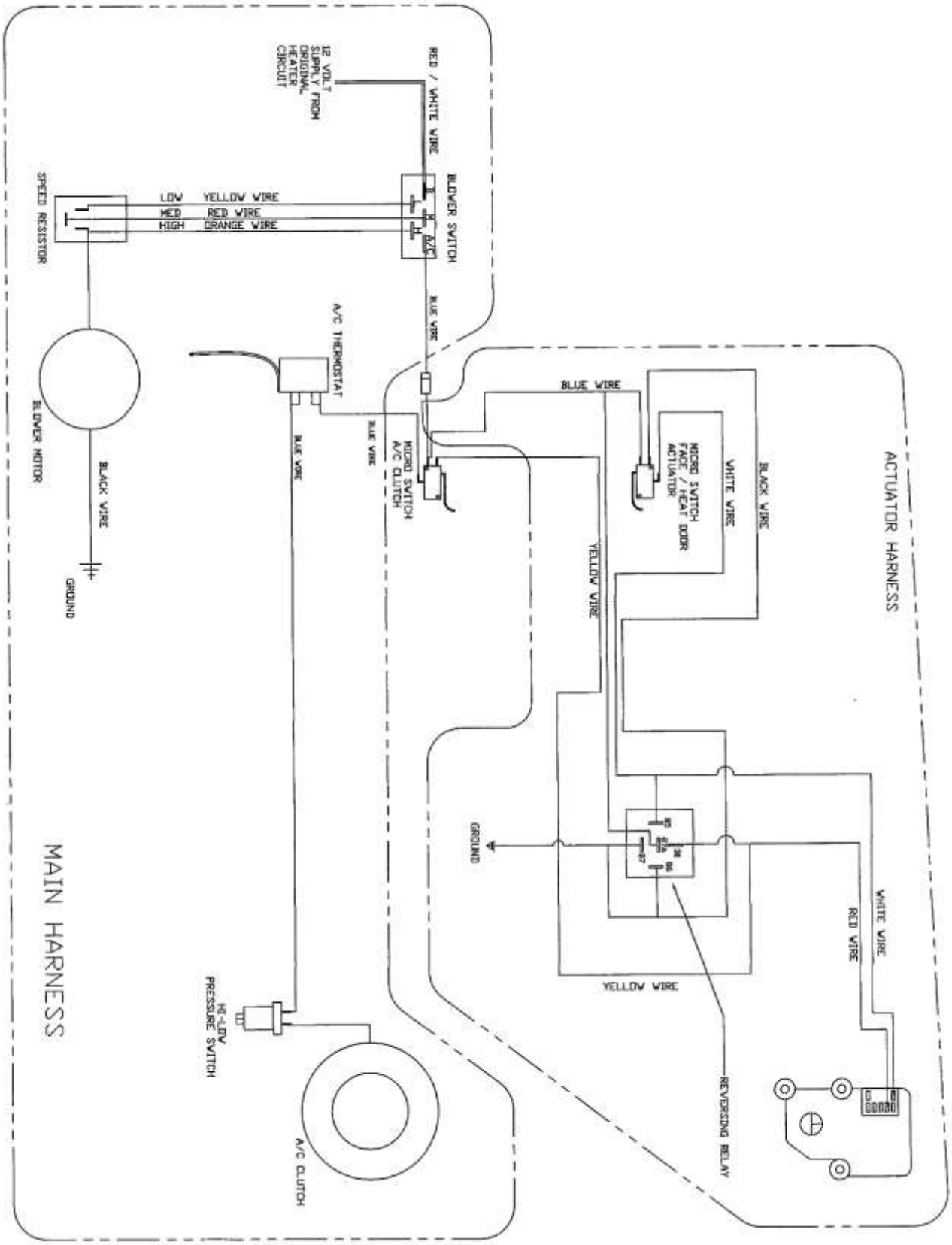


Route the temperature cable front and over the top of the evaporator assembly, and out through the hole above the unit. Attach this cable to the water valve.

Set the control lever in the Cold position and be sure that the water valve is closed.
Locate insulation tape and seal around cable at firewall.

Route the defrost cable and attach to the defrost/heat duct. Insert cable into the second hole at the bottom.

Attach using (1) #8 x 1/2" pan head screw.


MAIN HARNESS
ACTUATOR HARNESS
12 VOLT SUPPLY FROM ORIGINAL HEATER CIRCUIT
RED / WHITE WIRE
BLOWER SWITCH
SPEED RESISTOR
LOW YELLOW WIRE
MED RED WIRE
HIGH ORANGE WIRE
A/C
BLUE WIRE
A/C THERMOSTAT
BLOWER MOTOR
BLACK WIRE
GROUND
MICRO SWITCH A/C CLUTCH
MICRO SWITCH FACE / HEAT DOOR ACTUATOR
WHITE WIRE
YELLOW WIRE
GROUND
WHITE WIRE
RED WIRE
YELLOW WIRE
REVERSING RELAY
HI-LOW PRESSURE SWITCH
A/C CLUTCH

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

Locate in the hardware sack kit the Under Dash Louver Assembly with the 2” oval hose adaptor.

Attach it under center of the Instrument Panel as shown. Attach using (2) #10 x 3/4” TEK screws.

Attach the face assembly over the hose adaptor using (2) #8 x 3/8” pan head screws.

Find 1’ of 2” dia. flex hose. Attach the flex hose to the drivers hose adaptor and back to the outlet on the face duct.

Locate the 2” Dia. flex hose find (1) piece 1’ long. Attach to the face duct and attach to the passenger side of the center louver.

Locate in the hardware sack kit (2) single louver assemblies, and (4) #10 tek screws.

On passenger side attach just to the left of the fresh air door controller.

On the driver side attach just to the right of the brake release.

Attach using the #10 tek screws.

Install the louver assemblies as shown.

Locate the 2” Dia. flex hose find (1) piece 3’ long. Attach to the face duct over the top outlet. Route above evaporator and down to the passenger louver.

Locate the 2” Dia. flex hose find (1) piece 3’ long. Attach to the face duct over the left outlet. Route above and behind the instrument cluster, and down to the driver’s louver.

Locate the new Glove Box supplied in kit. Install using original hardware.

Reinstall the glove box assembly using original hardware.

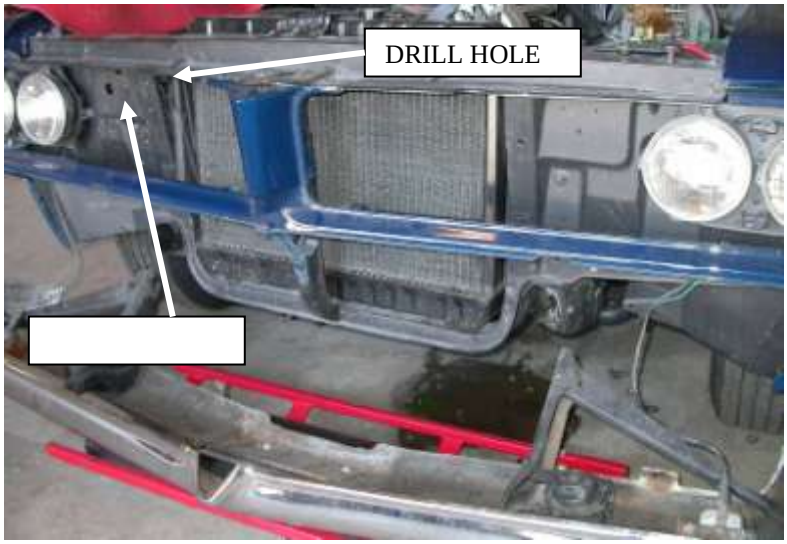
Caution: Carefully check under the Instrument Panel for all cables, electrical harness, or Flex Ducting that might interfere with the safe operation of the vehicle.

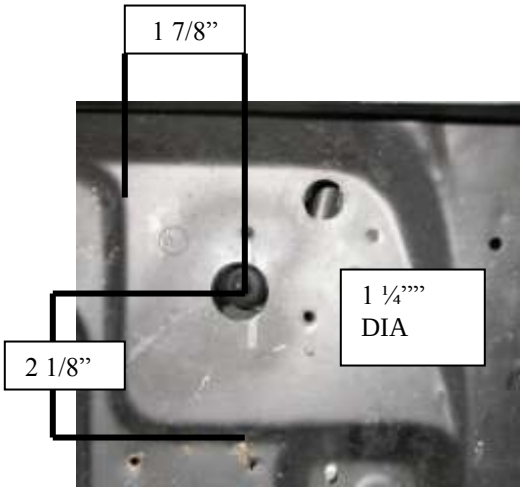
The installation of the interior components is complete. We will now install the under hood portion of the unit.

1964- MODELS:

Remove the head light trim bezels, the (2) grill inserts and the front bumper.

Retain the original hardware.



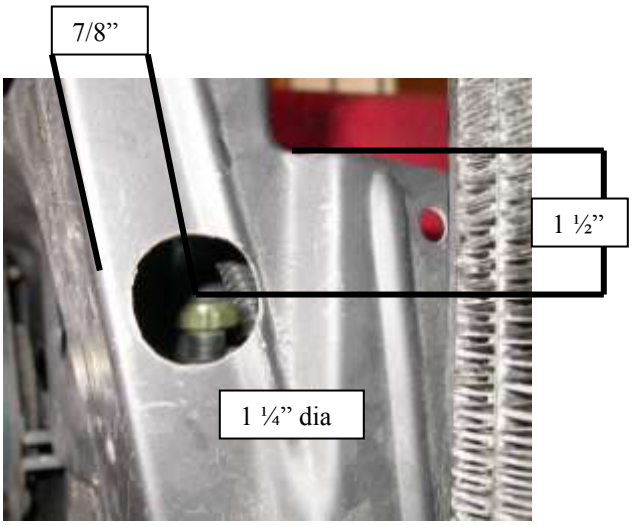


Drill (2) holes as shown.

Drill hole 1 1/4” diameter.

Drill hole 1 ¼” diameter.

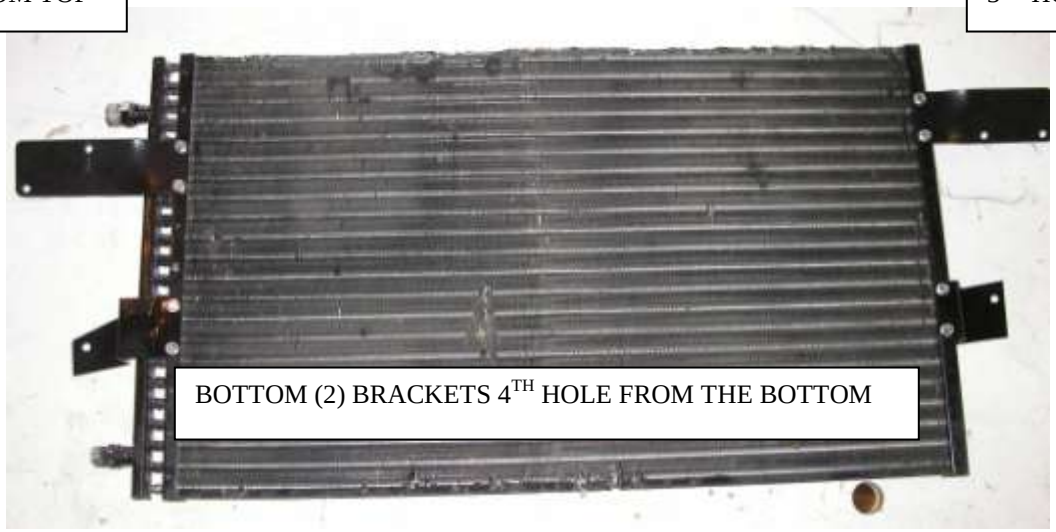
Install the 1 ¼” hole grommets into the drilled holes.



Locate the condenser, (4) condenser mounting brackets and (8) #10 x 3/8” hex head screws.

TOP LEFT BRACKET
3RD HOLE FROM TOP

TOP RIGHT BRACKET
3RD HOLE FROM TOP

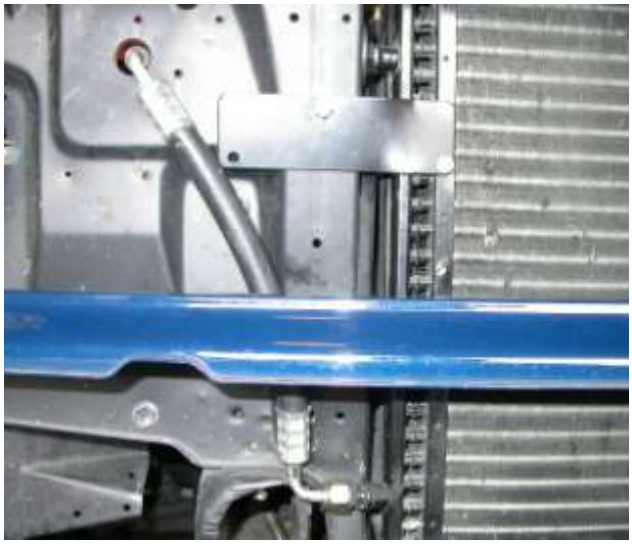


Slide condenser assembly into place and attach to the radiator bulkhead using (4) ¼”-20 x 5/8” hex head bolts and flange nuts. Use existing hose in bulkhead.

Locate the drier and drier mounting bracket from the condenser kit.

Attach to the engine side of the bulkhead using (2) #10 tek screws.

NOTE: THE INLET SIDE OF THE DRIER MUST BE INLINE WITH THE HOLE IN BULKHEAD.



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

Attach the hose to the drier and the condenser using the (2) o-rings and a few drops of mineral oil.

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

Attach the 90 deg end without the service port to the condenser fitting. The other end goes to the compressor.

Install the pressure switch assembly using a few drops of mineral oil.

Reinstall head light trim bezels, the (2) grill inserts and the front bumper.

Use the original hardware.

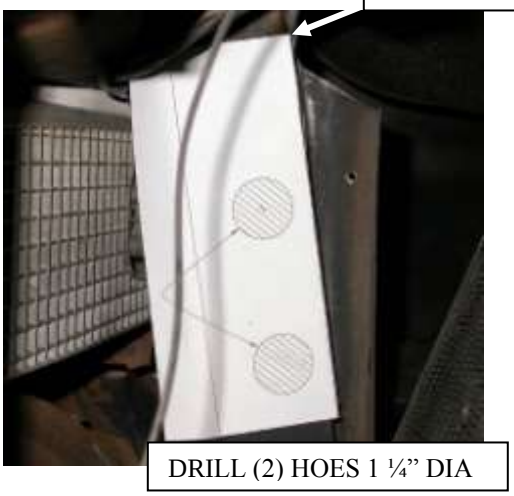
1965-67 MODELS:

Drain radiator; remove the fan guard or the fan shroud if equipped. Retain shroud and original hardware.

Remove and retain the upper radiator mounting bracket.

Locate the template on the last page of the instructions.
Cut out the template as required.

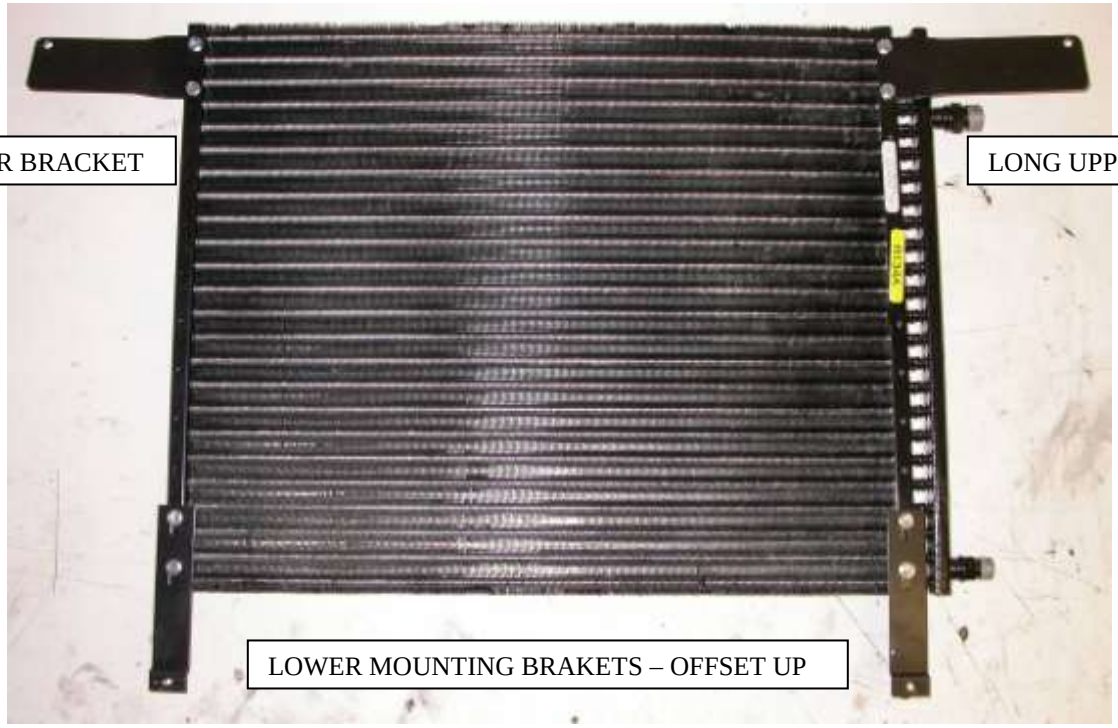
Attach to the inside of the radiator support on the passenger side. Drill (2) 1 ¼" dia holes per template.



Locate (2) 1" hole grommets from the sack kit.

Insert into the 1 /14" holes.

Locate the Condenser, (2) upper condenser, (2) lower condenser mounting brackets, and (8) #10 x 3/8" hex head screws. Attach brackets to the condenser as shown. Loosely attach lower brackets.



Insert the condenser in front of the radiator.

Attach the upper mounting brackets through the existing holes in the radiator support, using (2) ¼"-20 x 5/8" bolt and flange nut.

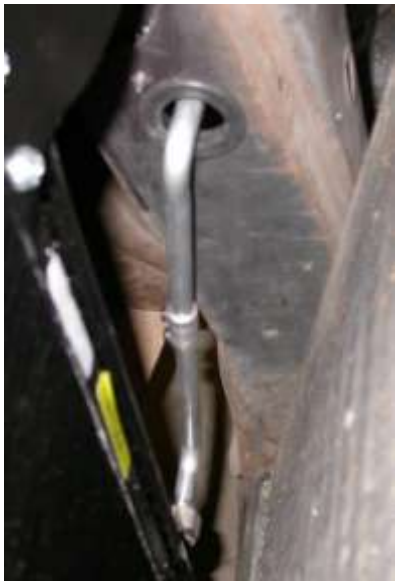
Locate (2) #10 x ¾" tek screws.

Attach lower brackets to the radiator support as shown.

Tighten lower condenser screws.

Locate the Receiver / Drier, Drier Mounting Bracket, Aluminum Liquid tube, (2) #6 o-rings, and (2) #10 x ¾" tek screws.

Insert the tube through the grommet and attach to the lower condenser fitting. Install with a few drops of mineral oil to the o-ring fittings.



Attach the drier to the top end of the liquid tube. Use (1) #6 o-ring and a few drops of mineral oil.

Using the liquid tube as a guide attach the drier to the radiator bulkhead using (2) #10 tek screws through the mounting bracket.
Tighten the #6 fittings.

Locate the discharge tube, (1) #8 o-ring, ½" hose clamp, and (1) #1- x ¾" tek screw.

Insert the tube through the top grommet and attach to the condenser fitting using the #8 o-ring and a few drops of mineral oil.

Attach the ½" hose clamp to the tube and fasten using the #10 screw.

Tighten the fitting on the condenser.

Reinstall the upper radiator mount and the shroud or the fan guard using the original hardware.

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

Locate the #8 Refrigerant Hose Assembly attach to the fitting next to the radiator using (1) #8 o-ring and a few drops of mineral oil.

Route the other end to the compressor and attach using (1) #8 o-ring and a few drops of mineral oil.

Locate the #10 refrigerant hose assembly.

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

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

Tighten securely.

Install the HI / LOW Pressure switch into the fitting on top of the drier. Tighten securely.

Route (1) of the white wires along with the #8 refrigerant hose. Attach to the compressor clutch.

The other white wire attaches to the Blue Clutch wire from the thermostat.

Locate the #6 liquid hose assembly. Attach to the drier. Route across the inner fender and attach to the #6 fitting at the firewall.

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

Locate the double hose clamp and (1) #10 tek screw.

Clamp heater hose and liquid hose together as shown.

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

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

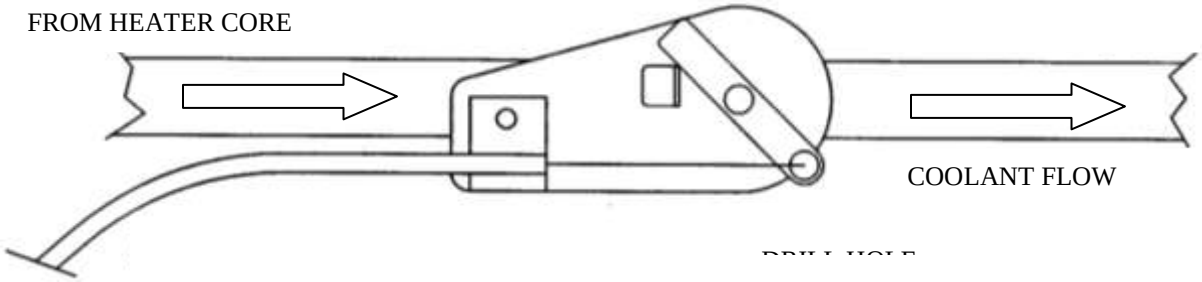
IMPORTANT

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