



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

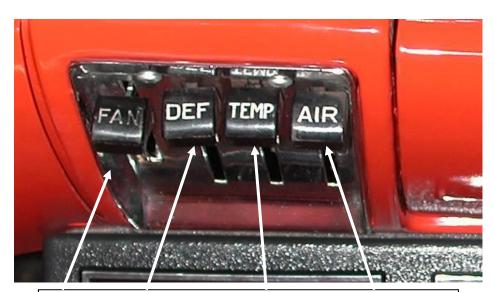
"PERFECT FIT" IN-DASH

HEAT/ COOL/ DEFROST

1958 CHEVROLET IMPALA

CONTROL & OPERATING NSTRUCTIONS

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 DEHUMIDIFICATION in the defrost mode and the ability to blend the air between Face and Heat / Defrost modes.



FAN FACE/ HEAT TEMPURATURE NON DOOR FUNCTIONAL

THE PICTURE YOU SEE ABOVE SHOWS THE CONTROLS IN THE DEFROST MODE. THIS MEANS THAT THE AIR WILL BE DISTRIBUTED THROUGH THE DEFROST OUTLETS. THIS ALSO HAS THE TEMPERATURE LEVER IN THE COLD POSITION. WITH THE CONTROLS IN THIS POSITION YOU WILL GET THE AIR THROUGH THE DEFROST 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 Face Duct.

FACE / **DEFROST**/ **HEAT DOOR CONTROL**: When the Control Knob is pushed DOWN the air is distributed to the FACE outlets. When the knob is pulled UP the air will go to the defrost/ heat outlets. The knob can be moved any position from the TOP position to the BOTTOM. This will give blend between defrost/heat and the face outlets.

When the Knob is pulled all the way UP and all the way DOWN the Compressor clutch is engaged and you have A/C or DEHUMIDIFIED DEFROST.

TEMPERATURE CONTROL: The Temperature Knob 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.





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INSTALLATION INSTRUCTIONS 1958 CHEVROLET IMPALA

Congratulations! ! You have just purchased the highest quality, best performing A/C system ever designed for you Classic Car. To obtain the high level of performance and dependability our systems are known for, pay close attention to the following instructions.

Before beginning the installation check the box for the correct components.

Evaporator
Face Duct Assembly
Defrost duct assembly
Center louver assembly
Inlet Air Block Off Assembly
Firewall Block Off Assembly
Flex hose 2" dia. x 1ft (2), 2ft (2), 3ft, and 4ft.
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 REGIN THE INSTALLATION

DRAIN RADIATOR AND DISCONNECT BATTERY GROUND CABLE

Remove Glove box door and glove box. Discard glove box.

Retain original hardware.





Remove (4) screws located under the control head.

Remove control head, remove the cables, and disconnect the electrical connector. Set the control head aside for modification and reinstall.

Located on the firewall in the engine compartment.

Disconnect control cable and electrical wire to the blower motor.

Around perimeter of the housing remove (6) nuts that hold the air box to the firewall.



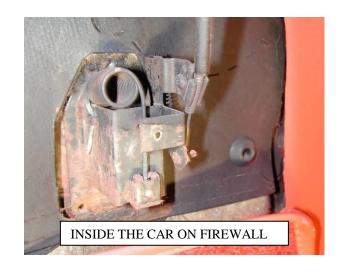


Disconnect the heater hoses from the heater and the thermostat.

Remove and discard the blower box and original hardware.



Remove and discard the thermostat from the firewall.





Remove and discard the defrost flex hoses.

Remove the (4) screws that attach the heater box to the inside of the firewall behind the glove box.

Remove heater from car and discard.

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

(1) Original Blower Switch



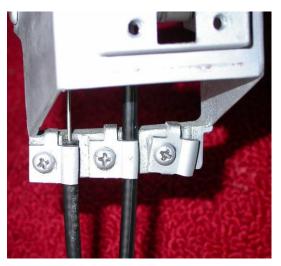


Locate in the control sack kit the blower switch, blower switch bracket, (3) 3/16" push nut, and (2) #6 x 3/8" pan head Philips screws.

Attach blower switch to the switch bracket using (2) #6 x 3/8" pan head screws.

Attach assembly to original control head using the original hardware.

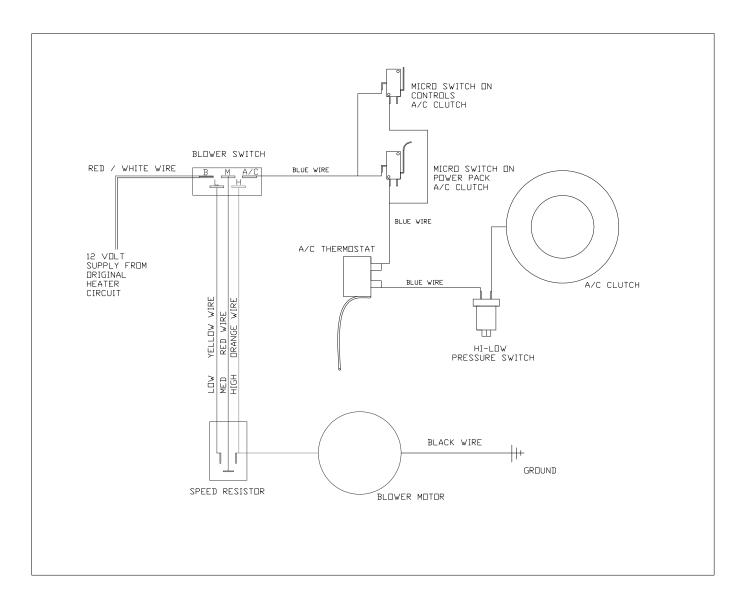




Locate in the control sack kit (2) control cables and (2) 3/16" push nuts.

Attach temperature control cable (the cable with eyelets on both ends) using original hardware to the center control arm and (1) 3/16" push nut. NOTE: Cable sleeve is touching the control arm when the arm is in the down position.

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



Locate Firewall Block Off plate, (5) 1/4"- $20 \times 5/8$ " hex head screws and (5) 1/4"-20 flange nuts. On engine side of the firewall attach over the hole in the firewall (5)





Locate the air inlet block off and (4) $\#10 \times 3\%$ tek screws.

Attach over the hole using the #10 screws.



Locate the wire harness from the unit box and attach the harness to the blower switch. Reinstall the control head using the original mounting hardware.

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

Attach red / white striped wire from blower switch to the brown wire from original harness. Refer to the wiring diagram on page 5.

Locate Evaporator, and defrost duct, and place on bench.

Attach the defrost duct to back of the unit using (2) #10 screws. Line up with the u-clips on the back of unit.





Set the evaporator on the floor of the car.

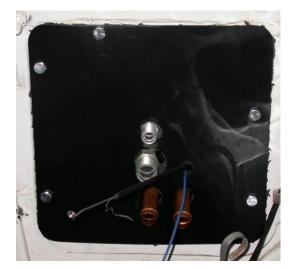
Attach control cable to door crank arm in the 3rd hole from the door pivot. Attach to the cable mounting bracket using (1) #8 screw.

Route the harness across the top of the evaporator. Attach wire harness to the micro switches, thermostat and the blower motor. Refer to the diagram on page 5. Lift unit up behind the glove box and insert the refrigerant and heater tubes through the firewall block off.

Attach the upper bracket to the air box using (2) $\#14 \times \frac{3}{4}$ " tek screws.

NOTE: THE UNIT MUST BE LEVEL WITH THE BOTTOM OF THE INSTRUMENT PANEL AND CENTERD IN THE HOLES IN THE FIREWALL.





Insert the temperature control cable and the clutch wire through the grommet in the firewall block off.

The black wire from the motor connection plug needs to be grounded to the body. Use (1) #10 tek screw as shown.





Locate in the hardware sack kit (1) $\frac{1}{4}$ "-20 x 1" hex bolt and flange nut.

Holding unit against the firewall, match drill through the lower support bracket a ¼" dia. hole.

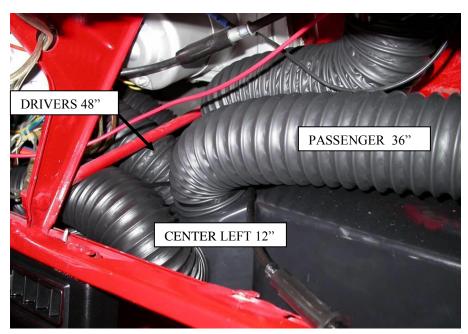
Insert the 1/4" bolt and use the nut on the engine side.

Locate in the unit box (2) 2ft 2" diameter flex hose. Cut each to 16" long.

Attach the hoses to the defrost outlets on the defrost / heat duct and route to the original defrost diffuser.

Secure using (1) $\#8 \times 3/8$ " pan head screw.





Locate (1) piece of 2" dia. flex hose 36" long.

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

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

Attach hose to top left outlet on the face / heat duct. Route hose over and down to the drivers remote louver.

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

Remove the left lower screw from the control head. Locate the center louver hose adaptor at the edge of the controls.



Using (1) of the #10 tek screws and attach adaptor using the hole for the control head. Attach the right #10 screw as shown.

Attach bezel assembly over the hose adapter and fasten with (2) #8 screws.

Locate (2) 2" dia. flex hose 12" and attach between the face duct and the center hose adaptor as shown.





Locate in the hardware sack kit the duct assembly support brace and (3) #8 x 3/8" pan head screws.

Push temperature cable up and on top of the heat duct.

Attach the bracket to the heat duct using (1) #8 screw. Pull duct up to the face duct and secure using the (2) #8 screws.

On the passenger side of the instrument panel remove and discard the hardware for the outside vent knob. Let assembly drop to the floor.

Locate passengers louver assembly, and (2) $\#10 \times 3\%$ tek screws.

Attach louver to bottom edge of instrument panel using (2) #10 screws. Attach the 36" flex hose to the ball louver.

Reinstall the vent cable assembly using (2) #10 tek screws from the hardware sack kit.



On the drivers side of the instrument panel remove and discard the hardware for the outside vent knob. Let assembly drop to the floor.

Locate drivers louver assembly, and (2) $\#10 \times ^{3}/_{4}$ " tek screws.

Attach louver to bottom edge of instrument panel using (2) #10 screws. Attach the 48" flex hose to the ball louver.

Reinstall the vent cable assembly using (2) #10 tek screws from the hardware sack kit.



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

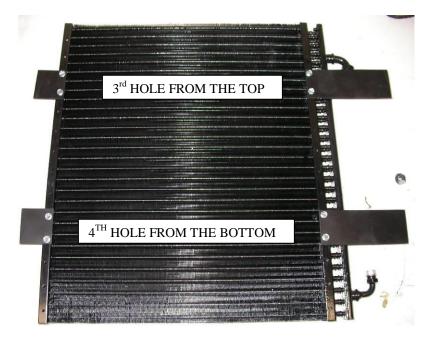
Locate and install Glove Box that is supplied with the unit. Attach using the original hardware.

Reinstall the original glove box door using original hardware.

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

Drain and remove the radiator and fan shroud.

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



Turn condenser assembly over.

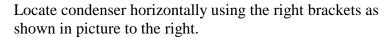
Locate the Filter / Drier, Drier Mounting Bracket, Aluminum Liquid tube, (2) #6 orings and (2) #10 x 3/8" hex head screws.

Install filter drier to condenser using the Liquid Tube to position and attach using (2) #10 screws as shown.

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



Loosen the (4) radiator mounting bolts.



The condenser mounting will slide between the radiator and core support.

Tighten the original radiator bolts.



Locate in the condenser box (1) liquid tube and (1) discharge tube.

Loosely attach to the drier and condenser as shown. Using the tubes locate and drill (1) 11/16" diameter hole for the liquid tube, and (1) 13/16" diameter hole for the discharge tube.

Reinstall the tubes using (2) #6 o-rings for the liquid tube and (2) #8 o-rings for the discharge tube. Use a few drops of mineral oil at each fitting.



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

Locate the fittings on the radiator core support.

Locate #6 liquid hose. Attach 45 deg. fitting to bulkhead fitting at the radiator core support. Route along inner fender and attach to #6 fitting at the firewall. Attach using (2) #6 o-ring and a few drops of mineral oil.

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

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





Locate the #10 refrigerant hose.

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

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

Tighten all fittings securely.





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

Route the (2) white wires through the existing grommet as shown above.

Route wires along the discharge hose and connect (1) to the compressor and (1) to the blue wire from the thermostat.

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

Cut 6" of heater hose from the RETURN line (hose that is attached to the water pump). Attach to bottom heater hose connection and the water valve using the (3) clamps provided.

The SUPPLY line attaches to the intake manifold at the engine.



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

Reattach the battery cables using original hardware.

Reinstall the anti freeze to the cooling system.

THE ENGINE COMPARTMENT OF YOUR SYSTEM IS COMPLETE. THE UNIT IS READY FOR EVACUATION AND CHARGING.

THIS SHOULD BE DONE BY A QUALIFIED AND CERTIFIED AIR CONDITIONING TECHNICIAN.

NOTE: COMPRESSOR IS SUPPLIED WITH THE CORRECT OIL CHARGE. DO NOT ADD OIL TO SYSTEM.

134A SYSTEMS 24 oz OF REFRIGERANT Recommend that power fuse is 25amp minimum

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

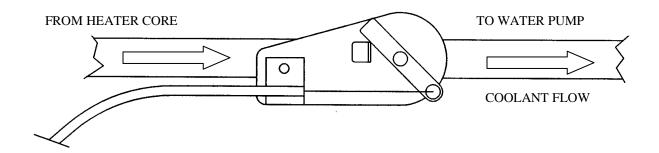
<u>IMPORTANT</u>

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