Congratulations...

You have just purchased the highest quality, best performing A/C system ever designed for your vehicle.

Congratulations! You have just purchased the highest quality, best performing A/C system ever designed for your 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
Inlet Air Block Off Assembly
Firewall Block Off Assembly
Flex Hose 2"dia. x 3ft.
Flex Hose 2"dia. x 4ft x 2ea..
Flex Hose 2 ½"dia. x 2 ft.
Sack Kit Louver
Sack Kit Hardware
Sack Kit Control
Glove Box
Check List, Pre-Installation:

☐ Before beginning the installation check the shipping box for the correct components. YOUR BOXED UNIT INCLUDES A LIST OF MAJOR COMPONENTS AND A LIST OF BAGGED PARTS. We have a 5 stage check process to make sure you have everything you’ll need.

☐ If your vehicle has been or is being modified, some procedures will need to be adjusted to fit your particular application.

☐ A basic cleaning of the engine compartment and interior before beginning will make things go more smoothly.

☐ Check condition of engine mounts. Excessive engine movement can damage hoses to A/C and/or heater.

☐ Before starting, check vehicle interior electrical functions (interior lights, radio, horn, etc). Make a note of anything that does not work as it’s supposed to. During the installation you might find the opportunity to repair or upgrade non-working or out of date components. When you’re ready to start the installation, DISCONNECT THE BATTERY FIRST.

☐ Drain the radiator. Retain the coolant and reuse, or dispose of properly.

☐ SAFETY FIRST: Wear eye protection while drilling/cutting, deburr sharp edges, and never get in a hurry or force a part.

☐ Tools: Your installation only requires the basic tools everyone has in their garage, nothing exotic or specific to A/C or Heat equipment.

Procedures, During Installation:

☐ Fittings: Use one or two drops of mineral oil (supplied with your kit) on ALL rubber o-rings, threads and where o-rings seat in fittings. Do not use thread tape or sealants.

☐ Measure twice (or more), cut once

☐ Should you have any technical questions, or feel you have defective components (or missing items), call us immediately, we will be glad to assist you. Our toll-free number is listed on every page, we’re here to help!

CAUTION: DISCONNECT BATTERY GROUND CABLE
YOU CAN NOW BEGIN THE INSTALLATION...
A Basic Overview of Automotive A/C....

1 **Evaporator with Blower Fan** In order to remove the heat from the air in the vehicle, the A/C evaporator allows the refrigerant to absorb the heat from the air passing over it. The blower fan moves cool air out into the car interior.

2 **Compressor** The compressor pumps and circulates the refrigerant through the system.

3 **Condenser** The condenser is a heat exchanger mounted at the front of the vehicle. Heat drawn out of the interior of the car is expelled here.

4 **Receiver/Drier** The drier not only dries refrigerant, it also filters the refrigerant and stores it under certain operating conditions.

5 **High Pressure Switch** A pressure switch is used to shut down the system if high or low pressure is detected, basically it acts as a safety switch.

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The air conditioning system in your car is comprised of a compressor, condenser, expansion valve, receiver/drier, and evaporator. Refrigerant (also known as Freon) is compressed in the compressor. In the condenser, gas is cooled to a liquid state and travels to the expansion valve. As the liquid refrigerant goes through the expansion valve it rapidly cools in the evaporator. A fan blows over the evaporator and cools the air that blows out your vents.
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.

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 cable is MOVED all the way RIGHT, it will direct the air to the floor / and defrost ducts. The lever can be moved any position from LEFT 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.
Disconnect battery ground cable. Drain radiator.

Disconnect air inlet duct and the flexible adapter. Remove the duct. Retain the duct, flex adapter and all of its original hardware.

Remove screws around perimeter of the heater frame.

Remove the heater assembly.

Lay assembly on bench. Remove (4) screws that hold the coil to the housing.

Discard screws and the original heater coil. Retain housing.
Carefully remove glove box door and the glove box. Retain all original hardware.

Locate behind glove box opening the tubular support brace. Remove and retain nuts and washers from center of the vehicle.

Remove and discard brace, bolts, nuts and washers from the end of the brace next to the passenger door.

Locate the blower switch. Using a small screw driver loosen the set screw in the knob.

Remove and retain the knob for later reinstallation.
Using a pair of pointed nose pliers loosen and remove the center retaining nut.

Remove the trim bezel, retaining nut and retain.

Disconnect electrical connections from the blower switch.

Remove and discard the blower switch.

Locate the brown wire and label. It will be the power wire for the a/c system. Upgrade the fuse to 25 amps.

Located under the hood and beside blower assembly are (2) electrical connections. Disconnect and pull wires through firewall to inside of the car and discard.

Located on top of the duct assembly is (2) vacuum hoses. One goes to the water valve on the engine. And one goes to a tee connection next to the wiper motor.
Water valve on engine. Disconnect vacuum tube.

Remove the water valve and discard.

Remove tee assembly and connect the source to the wiper motor.

Remove cable clips from the (3) control cables. Retain the attachment hardware.

Locate behind the dash (2) screws that hold the control head in place.
NOTE: there is one on both sides of the control head.

Retain all original hardware.
Locate on end of the blower assembly the defrost / heat duct. Remove the screw from the drivers end.

Discard screw.

Located above heater box remove and discard the defrost duct hoses.

Locate and remove (3) screws around perimeter of the heater box.

Remove heater assembly from behind the glove box.

Discard the heater and mounting hardware.

Locate and drill (1) 13/16” dia. hole as shown.

Modification of the vehicle is complete.
Locate the blower switch assembly and (2) switch nut.

Insert into the original blower switch hole and attach using the switch nut.

NOTE: SWITCH SHOULD BE INSTALLED SO THAT SWITCH NUT IS AT THE END OF THE SHAFT.

Locate the original switch bezel and shaft nut.

Slide over the switch shaft.

Reinstall knob, tighten securely

Locate the Evaporator and set it on the bench.

Locate shortest of the control cables. Insert offset end into the crank arm into 2nd hole from the pivot of the door.

Locate (1) #8 x 3/8" pan head screw. Attach flag on the cable to bracket as shown.
Locate the suction tube assembly, #10 o-ring, liquid tube, #6 o-ring and refrigerant tape.

The liquid to is attached to the expansion valve using #6 o-ring and a few drops of mineral oil.

The suction tube is attached to the #10 fitting using a o-ring and a few drops of mineral oil.

Wrap all exposed metal surfaces on the suction tube with refrigerant tape.

NOTE: WHEN ATTACHING THE REFRIGERANT TUBES, MAKE SURE THAT THEY ARE INLINE WITH REAR MOUNTING BRACKET.

Locate (2) pieces of 5/8" dia. heater hose and (2) #8 hose clamps supplied.

Attach shortest of the hoses to rear heater fitting using the worm gear clamp.

Attach remaining hose to front heater fitting using the worm gear clamp.
Locate wire harness from the unit box. Attach harness to the blower motor and ground the wire from the motor (see top pg-13). Refer to wiring diagram below.
Locate 2” dia. x 2ft. flex hose from the kit, cut (1) piece 18”. Locate 2” dia. x 4ft. flex hose, cut (1) piece 42”.

Attach 18” hose to defrost outlet on back of the unit using (2) #8 x 3/8” pan head screws.

Attach 42” hose to heat outlet on back of the unit using (2) #8 x 3/8” pan head screws.

Locate in the hardware sack kit the defrost hose adapter and (2) #8 x 3/8” pan head screws. Attach to end of the 18” flex hose.

Locate the original control head, original cable clip, screw and the water valve control cable from the unit box.

Attach cable to top temp lever as shown using the original hardware.

Reinstall control head using the original clamps and screws.

Be sure to attach the light socket before installation.
This picture is for reference only.

When installing evaporator the heater hoses, clutch wire and temperature control cable will go through the firewall mounting plate.

Insert items through the opening. The mounting plate will be attach later.

Locate evaporator and insert it up and behind instrument panel behind the glove box opening.

Attach driver’s side mounting bracket over studs that the support brace attaches to. Use original nuts and flat washers.

Locate in the hardware sack kit (1) #10 x ¾” tek screw.

Attach blower support brace to the body rib as shown.
Route 18” defrost duct over to drivers defrost diffuser. Push s-clips over edge of the inlet.

Short flex hose from top rear of the evaporator needs to be inserted into the passenger defrost diffuser.

Locate the unit mounting plate assembly and (2) #10 x 5/8” pan head screws.

Insert temperature cable and clutch wire through grommet hole in the mounting bracket.

Insert heater hoses through holes in the mounting plate. Short hose through the lower hole.

Insert #6 and #10 fitting through mounting bracket and attach using the fitting nut. Locate (2) ¼” -20 x 5/8” hex head screws and flat washers. Attach rear unit brace to the mounting bracket.

Using #10 pan head screws attach the mounting bracket to the original holes.
Locate (1) #10 x ¾” tek screw. Locate black wire from blower motor and ground just above air inlet in the kick panel.

Locate clear drain tube from the hardware sack kit. Attach to the drain fitting on unit and out through the hole previously drilled.

Looking up to the bottom of the control head.

Attach control cable from the face / heat door to lower lever next to the radio. Use original hardware.

Attach control cable from air inlet door to its original location and original hardware.
CAUTION: Control cables are equipped with inline adjusters. Adjust the Defrost, Heat / Face door and Water valve cable so that full travel of the Control cable operates the door to its full travel. Make sure that water valve completely closes when cable is in the cold position.

Locate in the hardware sack kit (1) of the outboard louver assemblies and (2) #10 x ¾” hex head screws.

Attach to underside of instrument panel next to the kick panel on passenger side.

Locate second of the outboard louvers and (2) #10 x ¾” hex head screws.

Attach housing to left of the steering column on drivers side.

Insert louver assemblies into the housings.

Locate the center hose adapter and (2) #10 x ¾” tek screws.

Attach hose adapter to underside of the instrument panel and centered on the ash tray.

Locate the center louver assembly, and (2) #8 x 3/8” pan head screws.

Attach assembly to the hose adaptor using #8 screws.
Locate 2" dia. x 2ft., 3ft. and 4ft. flex hose from the kit.

Cut (1) piece 20” long, (1) piece 24” long, and (1) piece 42” long.

Attach 42” piece to left face outlet and route over top of the radio. Then down and attach to the drivers louver.

Attach 24” piece to next outlet and route to the left side of the center louvers.

Attach 20” piece to next outlet and route to right side of the center louvers.

Cut (1) piece of 2” x 3ft. flex hose to 32” long.

Attach to last outlet on evaporator. Route it up and over to the passenger side louver.

Use a ty-wrap through the original hole to hold duct in place.

Locate in the hardware sack kit the remote heat dump, (2) #8 x 3/8” pan head screws and (2) u-clip fasteners

Attach flex hose to the heat dump using #8 screws.
Attach heat dump assembly to driver's air inlet deflector using the u-clips.

Engine compartment components should be installed at this time. Carefully follow the electrical diagram provided on page 7.

**REMOVE RADIATOR**

Locate following components from the condenser kit. Condenser, (1) left condenser mounting bracket, discharge tube (1) #8 o-ring, liquid tube (1) #6 o-ring and (2) #10 x 1/4" hex head screws.

Attach left condenser bracket to 3rd hole from bottom of the condenser, using the #10 screws.

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

Attach liquid tube to #6 fitting on the condenser using #6 o-ring and a few drops of mineral oil.
Using (4) 5/16” -18 x ½” bolt and washers, loosely attach these to the radiator support on grill side of the support.

Carefully rotate condenser into position. Hook the tube assemblies through opening on passenger side.

Slide condenser left side bracket into the 5/16” bolts.

Locate right side condenser mounting bracket and (2) #10 x 1/4” hex head screws.

Attach right side bracket over 5/16” bolts and attach the bracket to condenser using (2) #10 x 1/4” hex head screw.

Tighten condenser bolts using a long extension through the grill.

Locate the condenser tube support bracket. Attach bracket to the condenser tubes as shown.
Locate the original heater core frame. Carefully enlarge the heater hose holes to 1”.

Insert the heater hoses through the frame. Attach frame over the block off using original hardware.

Locate in the condenser kit, drier mounting bracket, drier clamp, filter / drier, (2) #10 x ½” hex head screws and the hi-low pressure switch.

Attach drier to the mounting bracket using #10 screws and drier clamp. Attach hi-low pressure switch to drier using a few drops of mineral oil.

Loosen bolts that support the original blower and slide drier assembly behind the original bracket. Tighten bolts.
Locate the 90 deg 5/8” water fitting.

Install fitting where the water valve was on the water neck. This is the supply line from the engine.

Locate the Temperature Control Cable and attach to the water valve as shown. Set cable so that the Temp lever is pushed all the way to the left and water valve is in its fully closed position.

Locate the water valve, 5/8” hose splice and (4) worm gear clamps. Note: it is recommended that you replace the heater hoses from the engine at this time.

Locate short #6 liquid tube and (2) #6 o-rings. Attach hose between #6 fitting on block off and the drier.

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

Locate #10 suction hose and (2) #10 o-rings. Attach hose to fitting on block off and end with the service port to the compressor.

Locate #8 discharge hose and (2) #8 o-ring. Attach hose to condenser fitting and the end with the service port to the compressor.
Locate the new air plenum. Slide plenum over the refrigerant hoses and attach using original cams. Install flexible hose between the blower and the plenum.

Locate female bullet connector that is supplied with the Hi-Low pressure switch. Cut one of the white wires from the pressure switch. Attach bullet connector to this wire and plug into the compressor clutch wire. As shown route the long white wire from the pressure switch along the suction hose and connect to the clutch wire that was inserted through firewall.

Fan relay is attached to the condenser. Ground the fan and relay to the body. Follow diagram on next page to hook up the fan. Fan ground needs to be attached with its own screw.
AUXILIARY FAN RELAY / ELECTRICALS

BATTERY OR ALTERNATOR 12V

CONNECT TO COMPRESSOR WIRE / AFTER SWITCH

85 87A 86

BOTTOM OF RELAY

CONNECT TO FAN ASSEMBLY

GROUND
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

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