

Installation Manual

1955-56 FORD FAIRLANE & CROWN VICTORIA

DOCUMENT #1-1077

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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 During the installation you might find the opportunity to repair or upgrade non-working or out of date components.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.

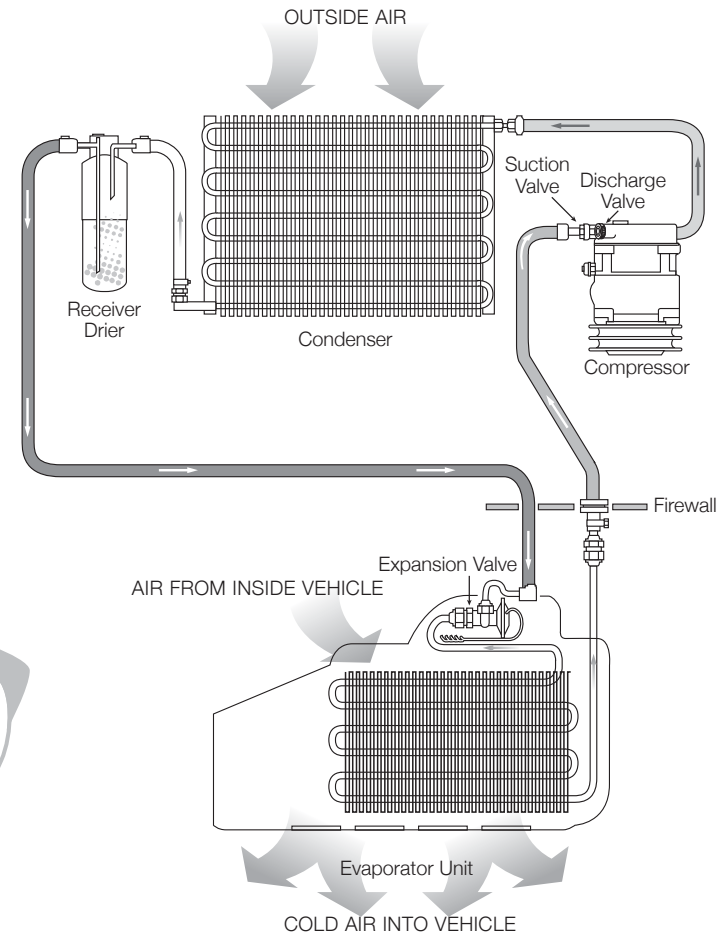
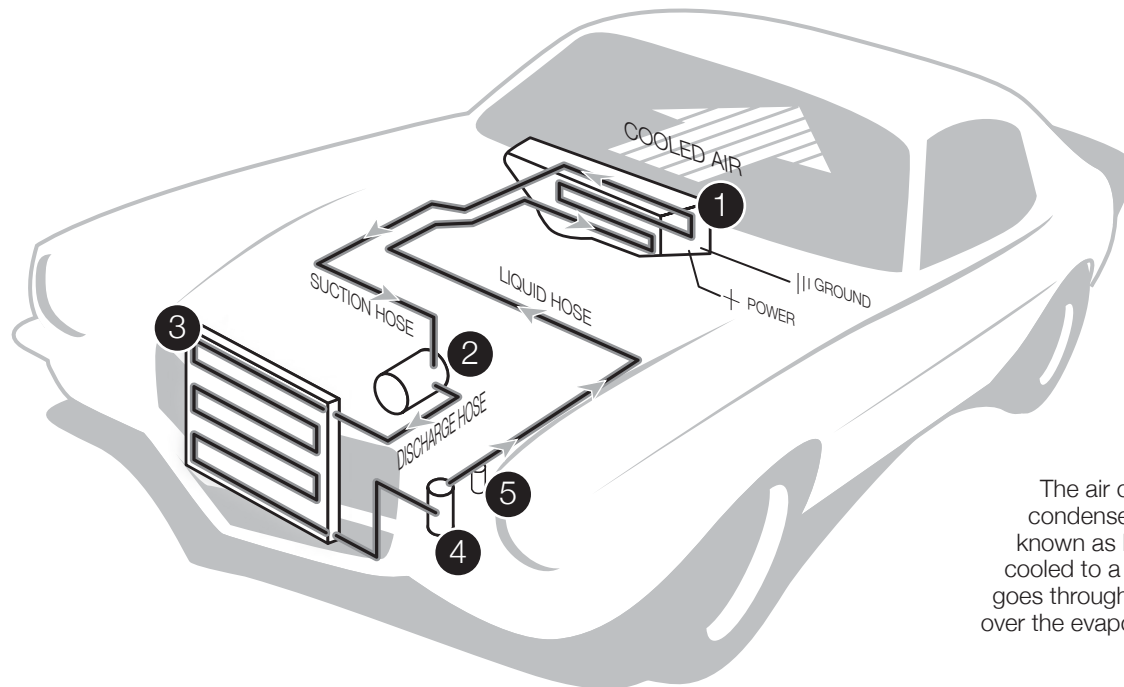
Procedures, During Installation:

- ☐ 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.



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

**“PERFECT FIT SERIES”
IN-DASH
HEAT/ COOL/ DEFROST**

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.



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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 AVAILABLE.



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.

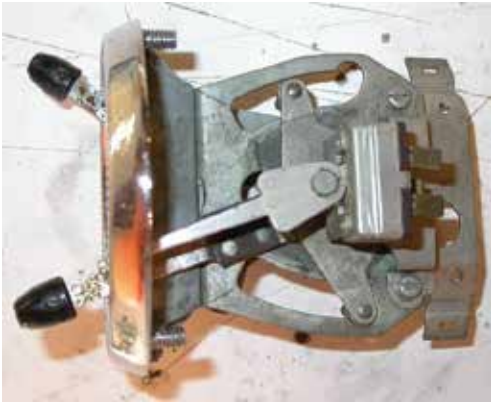
FAN SPEED SWITCH: There are 3 speeds, plus off. When the switch is in the off position it will disconnect the 12V power to the Blower Motor and the A/C Clutch. This will shut down the entire system. When the switch is moved to any of the blower speeds 1, 2 or 3 there is 12V supplied to the Micro-Switch 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. When the lever is in the CENTER position the passenger fresh air door is closed. When the LEVER is moved from the Center to the Left the passenger fresh air door is opened.

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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Locate behind the controls (3) retaining nuts. Remove these nuts and remove controls from the car. Note: Original cable that connects to passenger outside air door will be reused.

Locate power source to the original heater identify for use with new system.

Remove original blower switch and control cables. Retain all original hardware.

Locate in the control sack kit the new blower switch, switch mounting bracket, switch knob and (2) #8 x 3/8" pan head screw.

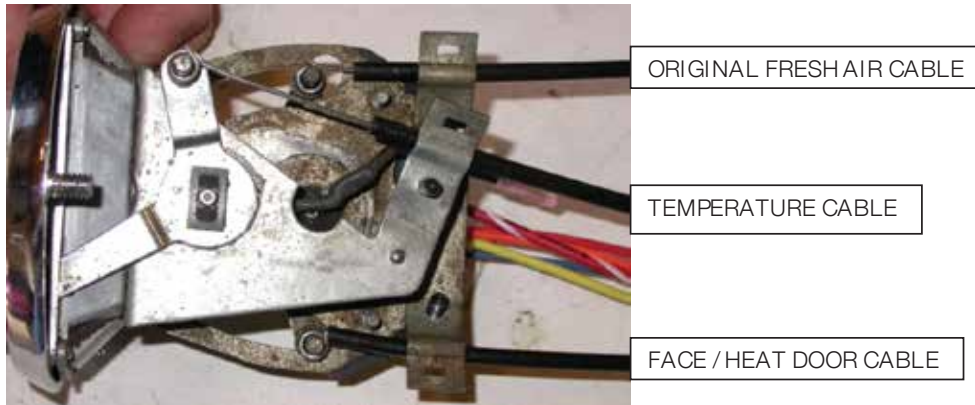
Attach switch to the bracket using (2) #8 screws. Attach the assembly to original controls using original hardware as shown. Install switch knob on to blower switch lever.

Locate electrical harness from the control sack kit and connect to the blower switch as shown.

Locate (2) control cables from the unit box. Using original hardware attach to the control head as shown. Longest of the cables is the face / heat door cable. Shortest is the temperature cable.

Reinstall control head and route the cables and harness to evaporator.





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Locate behind the controls (2) retaining nuts. Remove these nuts and remove controls from the car. Note: Original cable that connects to passenger outside air door will be reused.

Locate power source to the original heater identify for use with new system.

Remove original blower switch and control cables. Retain all original hardware.

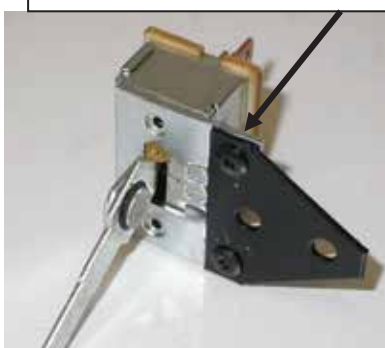
Locate in the control sack kit the blower switch assembly, switch mounting bracket #2 and (2) 1/8" pop rivets.

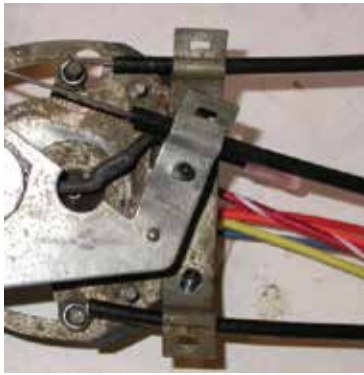
The blower switch needs to be modified as shown. Assemble switch to bracket using the 1/8" pop rivets as shown.

Attach switch assembly to original controls using original hardware as shown.



BEND MOUNTING TABS

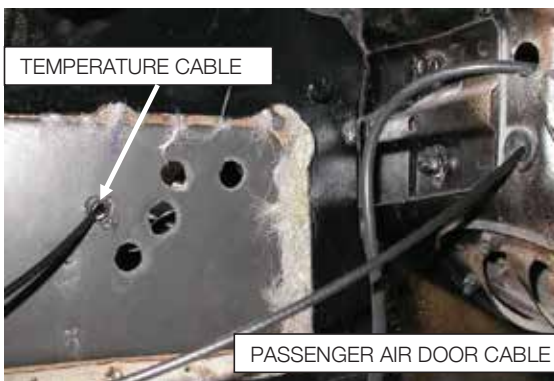




ORIGINAL FRESH AIR CABLE

TEMPERATURE CABLE

FACE / HEAT DOOR CABLE



TEMPERATURE CABLE

PASSENGER AIR DOOR CABLE

Install switch knob on to blower switch lever.

Locate (2) control cables from the unit box. Using original hardware attach to the control head as shown. Shortest of the cables is the face / heat door cable. Longest is the temperature door cable.

Reinstall control head and route the cables and harness to evaporator.

Locate firewall block off and (6) #10 x 3/4" tek screws.

Attach over opening on the firewall using #10 screws.

Route temperature cable across and out through the 1/2" grommet in the firewall block off.



Locate evaporator and (4) hookup tubes from the unit box.

Locate (4) hose clamps and (2) pieces of heater hose.

Attach heater tubes to the heater outlets as shown. NOTE: BE SURE TO TIGHTEN THE HOSE CLAMPS FIRMLY.

Attach small liquid tube to the expansion valve using (1) #6 o-ring and a few drops of mineral oil.

Attach suction tube assembly to the coil outlet fitting using (1) #10 o-ring and a few drops of mineral oil.

Locate refrigerant tape from the hardware sack kit and wrap the connection as shown.

Be sure there is no exposed metal.

Bend hookup tubes to be in approximate location as shown.

Locate rear unit mounting bracket and (2) ¼"-20 x 5/8" hex head screws.

Attach bracket to the evaporator using ¼" screws as shown.

Locate drivers rear unit mounting bracket and (2) ¼"-20 x 5/8" hex head screws.

Attach bracket to the evaporator using ¼" screws as shown.

Attach wire harness to the micro switch and the thermostat and route harness over to the blower assembly.

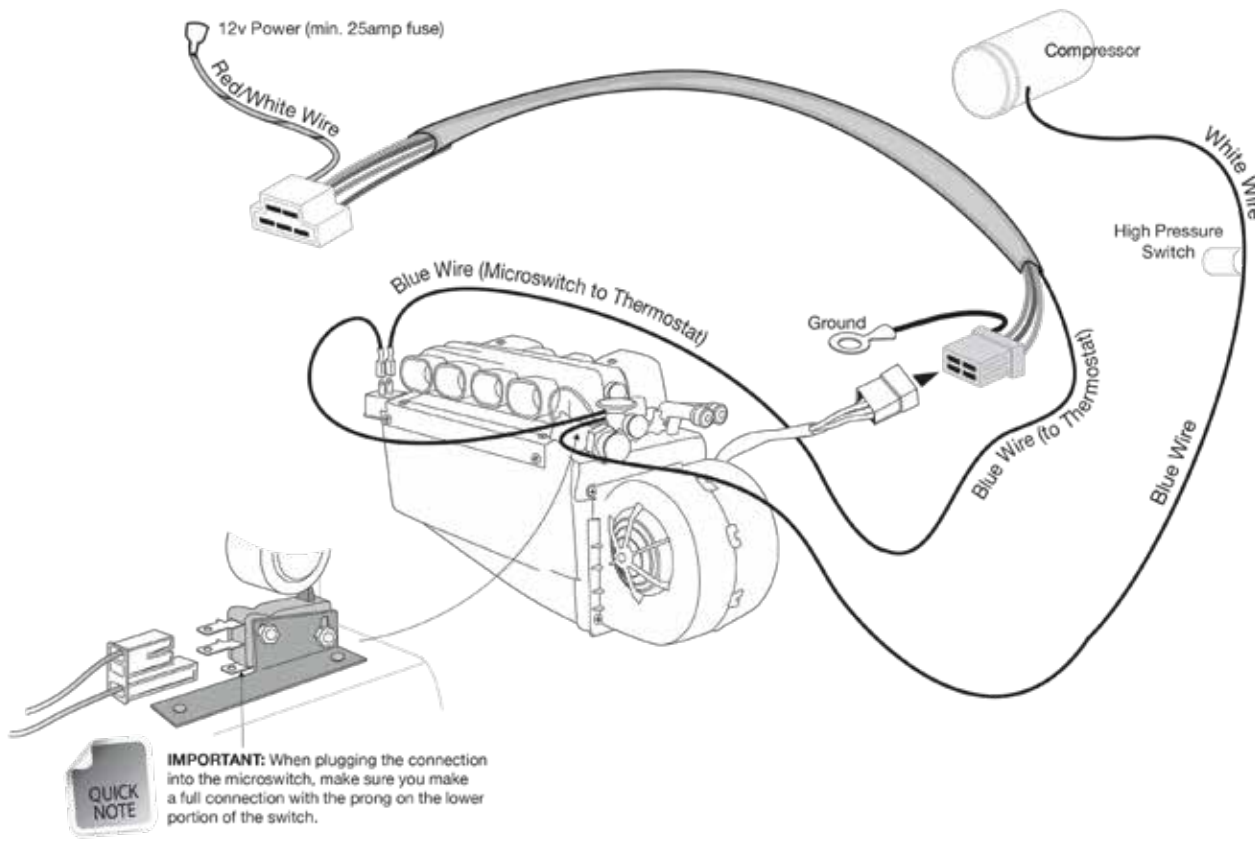


Locate (1) #8 x 3/8" pan head screw from the hardware sack kit.

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

Attach using the #8 screw.

The next step is to utilize the main wiring harness per this diagram.





Lift evaporator assembly up and insert hookup tubes through the firewall block off. Locate the 1/4"-20 x 1 hex head screws and attach rear mounting bracket to the block off. Screw on the bulkhead nuts.



Locate the drivers' side mounting bracket, (2) 1/4"-20 x 1" hex head screw and flange nuts.

Holding evaporator level, match drill through the firewall and attach bracket using the screws and nuts.

Locate the blower support bracket, (2) #8 x 3/8" pan head screws and (2) #10 x 3/4" tek screw.

Attach bracket to blower and to bottom of dash as shown.

Locate black ground wire from motor and using #10 screw ground to the body.



Locate 2" dia. flex hose (1) 1ft. and (2) 3ft., in the unit box. In the hardware sack kit (2) defrost hose adapters and (4) #8 x 3/8" pan head screws.

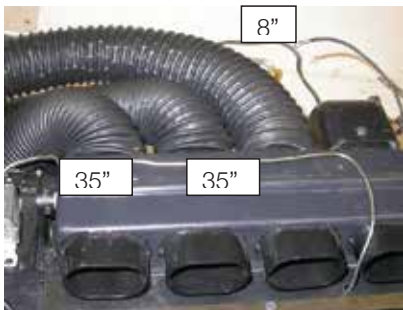
Cut 1ft. flex hose to 8" and attach to defrost adapters using (2) #8 screws.

Cut 3ft. flex hose to 35" and attach to defrost adapters using (2) #8 screws.

Cut 3ft flex hose to 35" long. Attach 1st 35" hose to 1st outlet on the left.

Attach 2nd 35" hose with the defrost adapter to 2nd outlet.

Attach 8" hose with the defrost adapter to 3rd outlet.



Locate the remote heat dump and (2) #10 x ¾ tek screws from the hardware sack kit.

Attach heat dump to the firewall to the left of the steering column using #10 screws.

Route hoses as shown below.



35" HOSE



35" HOSE WITH DEFROST ADAPTOR
DRIVERS DEFROST DIFFUSER



8" WITH DEFROST
ADAPTOR



ROUTE 43" HOSE OVER
RADIO AND OVER TO THE DRIVERS LOUVER



Locate in the hardware sack kit the (4) remote louver assemblies, and the #10 x 3/4" hex head tek screws.



Mount the (4) remote louver assemblies in desired location of dash. Locate 2" dia flex hose from the unit box and attach to the unit.



Insert clutch wire through grommet hole in the firewall bracket along with the water valve cable.

Locate power wire previously identified and attach to the red / white wire from the unit wire harness.

Drill (1) 11/16" hole for the drain tube as shown.

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



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

The Micro Switch that is mounted on the Face / heat door is used to turn on the compressor clutch. This will occur when the control lever 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.

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

This install is done with a vehicle that is equipped with a 289 V8 ENGINE.

Install the engine kit following the instructions provided.

Remove the hood latch panel and retain original hardware. Remove the hood seal panel and retain original hardware.



Locate the condenser, (2) of the condenser mounting brackets and (4) #10 x 3/8" hex head screws from the condenser box.

Set condenser in front of the radiator and modify brackets to mount from the condenser to the radiator bulkhead bolts.

Locate the discharge hose assembly and (1) #8 o-ring.

Loosely attach straight end of the hose to the condenser using (1) #8 o-ring and a few drops of mineral oil.

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

Modify brackets to mount from condenser to the radiator bulkhead bolts.

Using the discharge hose assembly as a guide locate and drill (1) 13/16" dia. hole.

Insert bulkhead fitting through hole and install the bulkhead nut.



Locate (2) liquid tube assemblies, receiver drier, drier mounting bracket, (3) #6 o-rings, (2) #10 x 3/8 hex screws and hi/low pressure switch.

Attach shortest of the liquid tubes to the condenser fitting using (1) o-ring and a few drops of mineral oil.

Using the tube as locator attach tube to the drier inlet using (1) #6 o-ring and a few drops of mineral oil. Attach drier to the condenser using the mounting bracket and (2) #10 x 3/8" hex head screws. Tighten the fittings.

Loosely attach the last of the liquid tubes to the drier and locate the hole in the radiator support. Remove the tube. Drill (1) 11/16" hole. Reinstall liquid tube to the drier using (1) #6 o-ring and a few drops of mineral oil. Insert the bulkhead fitting through hole and install the bulkhead nut.

Reinstall hood latch panel and hood seal panel using the original hardware.

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

Attach 90 deg fitting to the bulkhead fitting on the radiator support using (1) #6 o-ring and a few drops of mineral oil.

Route hose behind battery and connect to #6 fitting on the firewall. Use (1) #6 o-ring and a few drops of mineral oil.

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





Attach 90 deg fitting without the service port to #10 fitting on the firewall using (1) #10 o-ring and a few drops of mineral oil.



Route other end around and attach to the compressor using (1) #10 o-ring and a few drops of mineral oil.

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

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

Attach other end to #8 fitting on the radiator support using (1) #8 o-ring and a few drops of mineral oil.

Locate the inlet block off from the hardware sack kit. Attach it over the air inlet behind 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!

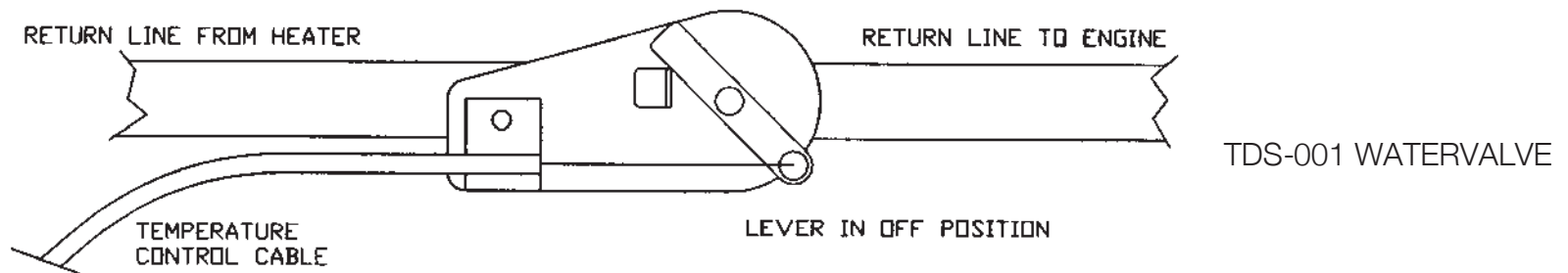
CAUTION: WATER VALVE MUST BE INSTALLED PER THE INSTRUCTIONS.

This data sheet covers the proper installation of the "Temperature Control Water Valve" that is supplied in your Air Conditioning , Heating, and Defrost unit. 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.

It is necessary to locate the "Supply Line" from the engine on the vehicle and route a hose directly to the heater connection.

NOTE: The supply line will be coming from the engine block after the water has passed through and absorbed heat from the engine. Typically it is located next to the return radiator hose from the engine to the top of the radiator.

Locate the "Return Line" from the heater connection. Cut 6" of 5/8" dia. heater hose and attach it to the inlet side of the water valve. Attach this assembly to the return heater connection. Attach a heater hose from the outlet side of the water valve and route to the return connection on engine. NOTE: The return connection is typically located on the 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**

New A/C System Preparation... A MUST READ!

Please read through these procedures before completing this new A/C system charging operation.

A licensed A/C technician should be utilized for these procedures to insure that your new system will perform at it's peak, and that your compressor will not be damaged.



- 1) Your radiator/cooling system is an integral part of your new system. Please insure that you have a 50/50 mix of distilled water and antifreeze. The heater coil **MUST** be purged (cycle heater control valve) to make sure no water, without antifreeze, is in the heater coil before you charge the A/C system.
- 2) Evacuate the system for 45 minutes (minimum).
- 3) **Your new compressor MUST be hand-turned 15-20 revolutions before and after charging with liquid. Failure to do this may cause the reed valves to become damaged** (this damage is NOT covered by your warranty).
- 4) Your new system requires 134a refrigerant. It will require 1.5 lbs (or 24 oz).
- 5) Your new compressor comes charged with oil - NO additional oil is needed.
- 6) Insure that the new belt is tight.
- 7) **DO NOT CHARGE SYSTEM WITH LIQUID REFRIGERANT!**

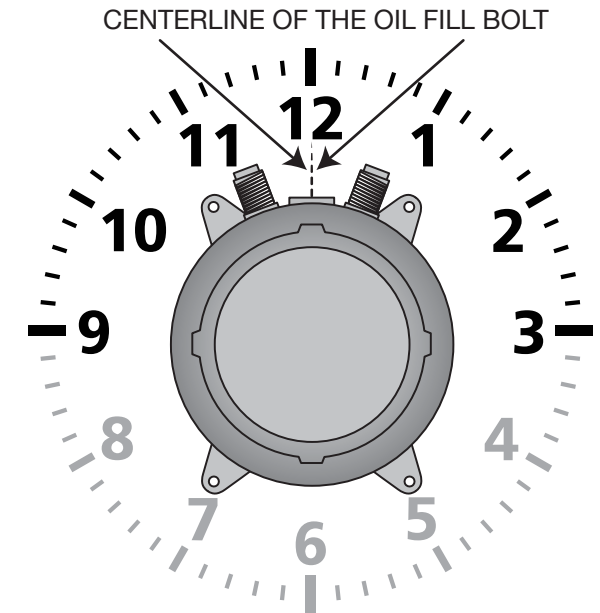
RECOMMENDED TEST CONDITIONS: (After system has been fully charged and tested for basic operation)

- Determine the temperature outside of the car
- Connect gauges or service equipment to high/low charging ports
- Place blower fan switch on medium
- Close all doors and windows on vehicle
- Place shop fan directly in front of condenser
- Run engine idle up to approx. 1500 rpm

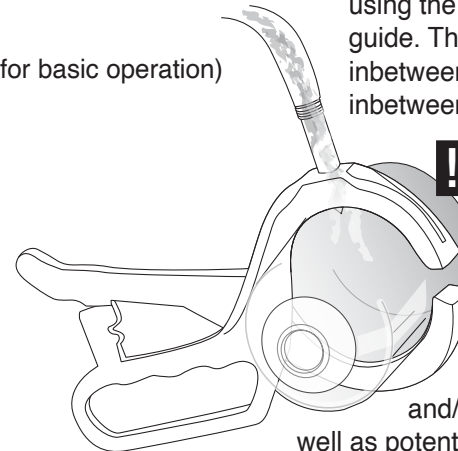
ACCEPTABLE OPERATING PRESSURE RANGES:

1. HIGH-SIDE PRESSURES (150-275 PSI)
2. LOW-SIDE PRESSURES (10-25 PSI in a steady state)

Readings above are based on an ambient temperature of 90° with an adequate airflow on condenser



CAUTION! When mounting your compressor and/or adjusting the belt use caution. Mount by using the centerline of the oil fill plug as your guide. The compressor can **ONLY** be mounted inbetween the 9 to 3 positions. **DO NOT** mount inbetween the 4 to 8 positions.



Do NOT tilt, shake or turn refrigerant can upside-down OR use a charging station to install refrigerant while the engine is running. Doing so will direct liquid refrigerant into the compressor piston

chamber, causing damage to reed valves and/or pistons and/or other components, as well as potentially seizing the compressor. Allow a minimum of 30 minutes for liquid to "boil off." You must hand turn the compressor hub (not the pulley) a minimum of 15 complete revolutions prior to starting the engine with the clutch engaged.

TROUBLESHOOTING GUIDE

TEST CONDITIONS USED TO DETERMINE SYSTEM OPERATION

(THESE TEST CONDITIONS WILL SIMULATE THE AFFECT OF DRIVING THE VEHICLE AND GIVE THE TECHNICIAN THE THREE CRITICAL READINGS THAT THEY WILL NEED TO DIAGNOSE ANY POTENTIAL PROBLEMS).

- B. CONNECT GAUGES OR SERVICE EQUIPMENT TO HIGH/LOW CHARGING PORTS.
- C. PLACE BLOWER FAN SWITCH ON MEDIUM.
- D. CLOSE ALL DOORS AND WINDOWS ON VEHICLE.
- E. PLACE SHOP FAN IN FRONT OF CONDENSER.
- F. RUN ENGINE IDLE UP TO 1500 RPM.

ACCEPTABLE OPERATING PRESSURE RANGES (R134A TYPE)

- 1. HIGH-SIDE PRESSURES (150-275 PSI) **Note- general rule of thumb is two times the ambient (daytime) temperature, plus 15-20%.*
- 2. LOW-SIDE PRESSURES (10-25 PSI in a steady state).

CHARGE AS FOLLOWS: R134A = 24 OZ.
NO ADDITIONAL OIL IS NECESSARY IN OUR NEW COMPRESSORS.

TYPICAL PROBLEMS ENCOUNTERED IN CHARGING SYSTEMS

NOISY COMPRESSOR. A noisy compressor is generally caused by charging a compressor with liquid or overcharging

- A. If the system is overcharged both gauges will read abnormally high readings. This is causing a feedback pressure on the compressor causing it to rattle or shake from the increased cylinder head pressures. System must be evacuated and re-charged to exact weight specifications.
- B. Heater control valve installation - Installing the heater control valve in the incorrect hose. Usually when this occurs the system will cool at idle then start to warm up when raising the RPM's of the motor. THE HEATER CONTROL IS A DIRECTIONAL VALVE; MAKE SURE THE WATER FLOW IS WITH THE DIRECTION OF THE ARROW. As the engine heats up that water transfers the heat to the coil, thus overpowering the a/c coil. A leaking or

faulty valve will have a more pronounced affect on the unit's cooling ability. Installing the valve improperly (such as having the flow reversed) will also allow water to flow through, thus inhibiting cooling. Check for heat transfer by disconnecting hoses from the system completely. By running down the road with the hoses looped backed through the motor, you eliminate the possibility of heat transfer to the unit.

- C. Evaporator freezing - Freezing can occur both externally and internally on an evaporator core. External freeze up occurs when the coil cannot effectively displace the condensation on the outside fins and the water forms ice (the evaporator core resembles a block of solid ice), it restricts the flow of air that can pass through it, which gives the illusion of the air not functioning. The common cause of external freezing is the setting of the thermostat and the presence of high humidity in the passenger compartment. All door and window seals should be checked in the event of constant freeze-up. A thermostat is provided with all units to control the cycling of the compressor.
- D. Internal freeze up occurs when there is too much moisture inside the system. The symptoms of internal freeze up often surface after extended highway driving. The volume of air stays constant, but the temperature of the air gradually rises. When this freezing occurs the low side pressure will drop, eventually going into a vacuum. At this point, the system should be checked by a professional who will evacuate the system and the drier will have to be changed.
- E. Inadequate airflow to condenser - The condenser works best in front of the radiator with a large supply of fresh air. Abnormally high pressures will result from improper airflow. Check the airflow requirements by placing a large capacity fan in front of the condenser and running cool water over the surface. If the pressures drop significantly, this will indicate the need for better airflow.
- F. Incorrect or inadequate condenser capacity - Incorrect condenser capacity will cause abnormally high head pressures. A quick test that can be performed is to run cool water over the condenser while the system is operating, if the pressures decrease significantly, it is likely a airflow or capacity problem.
- G. Expansion valve failure - An expansion valve failure is generally caused by dirt or debris entering the system during assembly. If an expansion valve fails it will be indicated by abnormal gauge readings. A valve that is blocked will be indicated by high side that is unusually high, while the low side will be unusually low or may even go into a vacuum. A valve that is stuck open will be indicated by both the high and low pressures rising to unusually high readings, seeming to move toward equal readings on the gauges.
- H. Restrictions in system - A restriction in the cooling system will cause abnormal readings on the gauges. A high-side restriction (between the compressor and the drier inlet) will be indicated by the discharge gauges reading excessively high. These simple tests can be performed by a local shop and can help determine the extent of the systems problem.

Trouble Shooting Your Classic Auto Air A/C System

PROBLEM: system is not cooling properly

ISSUE: cold at idle, warmer when raising engine RPM's

Make sure the Water Valve is positioned correctly

The water valve is a directional valve and should be installed with the arrow pointing towards the water pump, it should be connected to the heater hose that runs from the heater core to the water pump. If the water valve is connected to the incorrect hose it allows water to circulate through the system via the heater core over powering the cooling effect of the A/C coil, (normally the air conditioning is functioning properly).

Step 1: Check placement of the water valve, correct if needed. (In some cases changing the location of the water valve may not fix the above problem.) Continue to next step.

Step 2 If changing the location of the water valve does not rectify the issue, then possibly the water valve is permanently damaged and may need to be replaced. To check the integrity of the water valve completely remove the water hoses for the heater core and "loop" together. (This will remove the heater system completely from the possibilities) If the system now cools, replace the water valve

Verify Adequate Air Flow to Condenser

For an air conditioning system to function properly there has to be adequate airflow across the condenser. The function of the condenser is to dissipate heat, without proper airflow your system will not cool correctly in the cabin of your vehicle.

Step 1: connect gauges to a/c hoses. The pressures should be: with the ambient temp is 90, low side pressures should be between 10-25 psi, high side pressures should be between 150-275 psi

Step 2: IF the low side pressures are normal and the high side pressures are high then there might be an airflow issue, continue to next step.

To test air flow to Condenser do the following three tests:

1. Place a piece of paper on the condenser with the car in idle and see if paper is held in place.
2. With car in idle, attach gages, and place a large capacity fan in front of

the condenser. What happens to the pressures?

3. With car still in idle and gages attached, pour water down the front of the condenser. What happens to the pressures?

If the paper is held in place you are at least getting some air flow. If the high side decreases during test 2 & 3 then your condenser is not getting enough air which is causing your system to not cool properly. To correct this issue you will need a more powerful mechanical fan.

Step 3: Confirm correct Refrigerant charge in System

All of our systems should be charged with 24 oz or 1.5 lbs of R134A Refrigerant only. If overcharged you will need to evacuate the system and recharge with the correct amount.*

What measurements mean:

Low Temp and High Pressure seem to be equal...

You have a malfunctioning expansion valve that is stuck open.

High Side is extremely high and Low Side is extremely low (possibly into vacuum)...

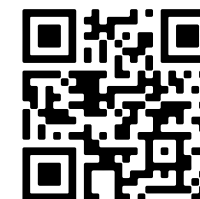
There is a blockage in the system. Remove hoses and blow compressed air through in both directions. If pressures don't change its possible that your expansion valve is stuck closed and would have to be replaced.

*Compressor Concerns:

This is often misdiagnosed as a problem for the system not cooling properly. If you have a noisy compressor it is due to improper charging of refrigerant. An overcharged (more than 24 oz or 1.5 lbs R134A) compressor can cause rattling. If charged with pure liquid there is a high probability you have bent reed valves that are causing tapping sound.

SCAN QR code
with your mobile camera

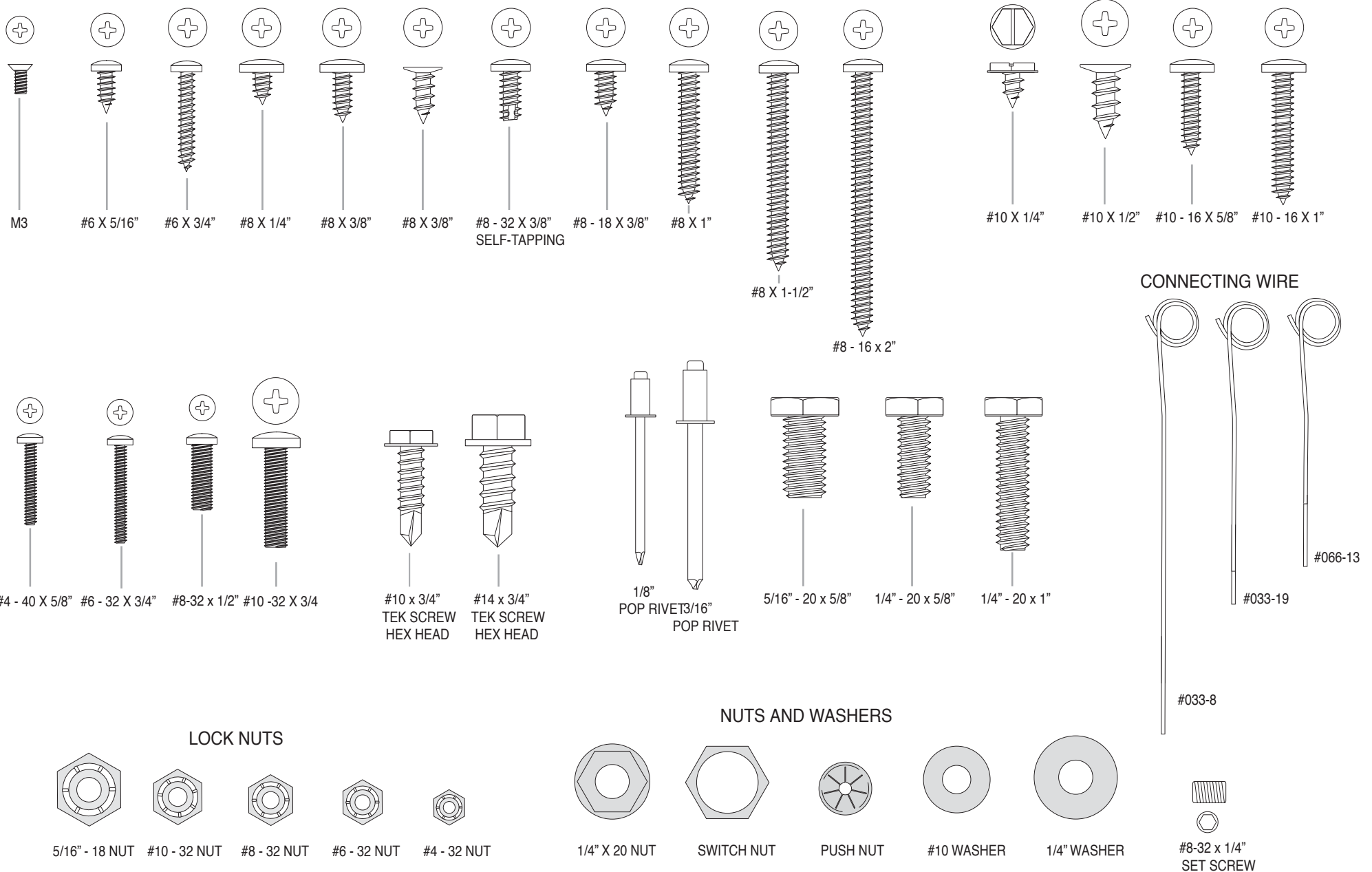
Get the technical support you want the moment you need it, with no wait times. Simply **SCAN** the **QR code** and be directly taken to our support section to troubleshoot all things A/C.



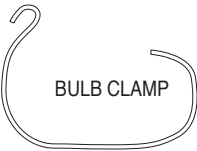
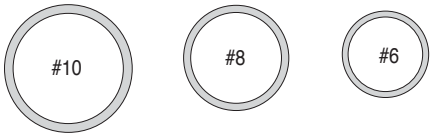


Classic Auto Air Hardware Reference Guide

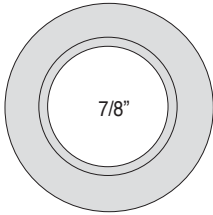
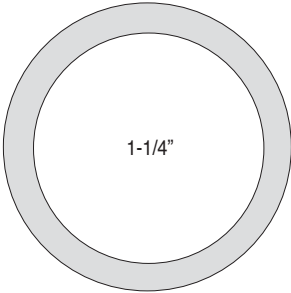
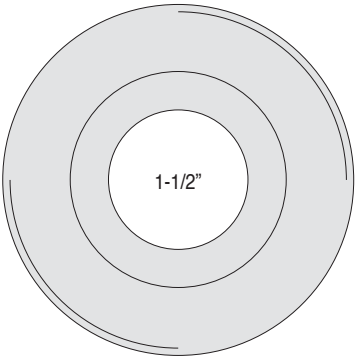
This is our basic line-up of hardware. No single kit will not contain all of these, but you can use this guide to match-up hardware for shape and size (all of these are actual size.)



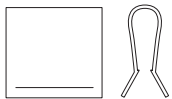
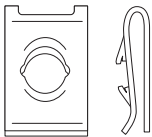
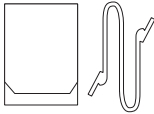
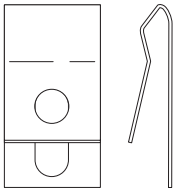
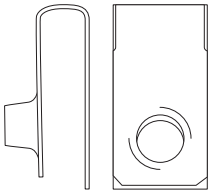
ORINGS



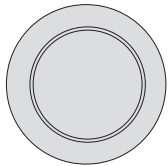
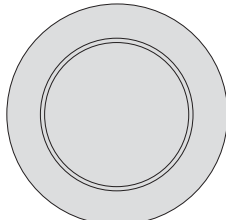
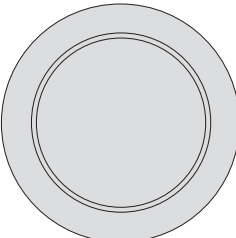
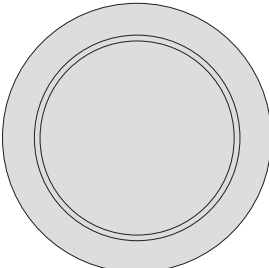
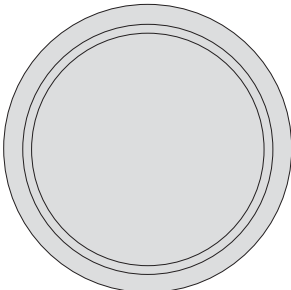
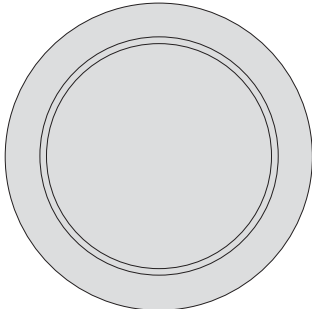
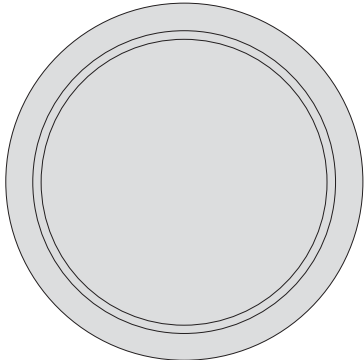
GROMMETS



CLIPS



HOLE PLUGS



HOSE CLAMPS

