

Installation Manual

1967-72 CHRYSLER "A" BODIES

DOCUMENT #1-1062

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 During the installation you might find the opportunity to repair or upgrade non-working or out of date components.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

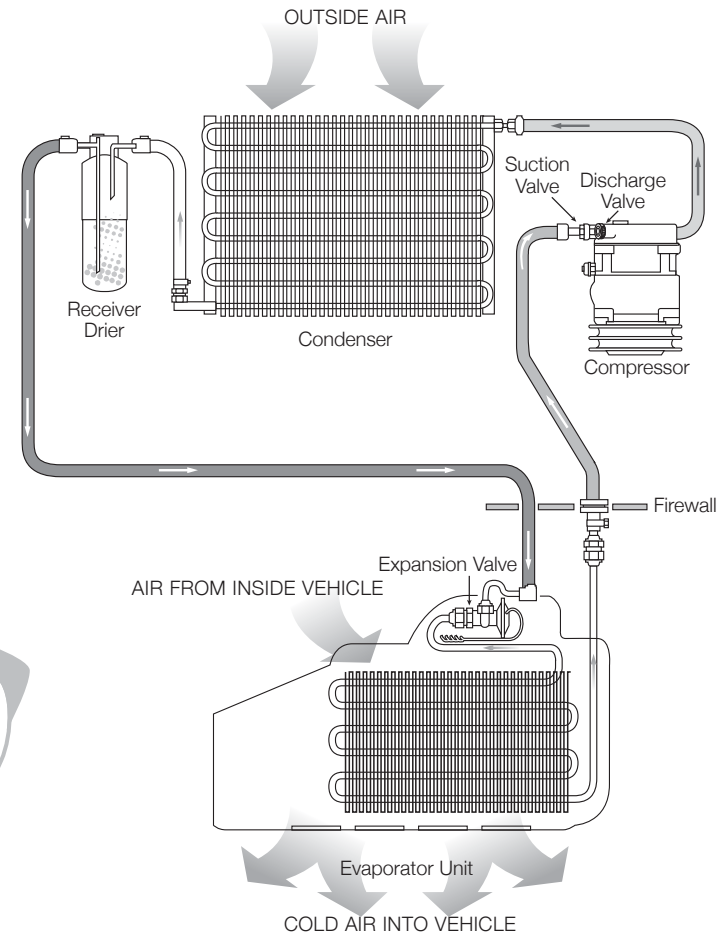
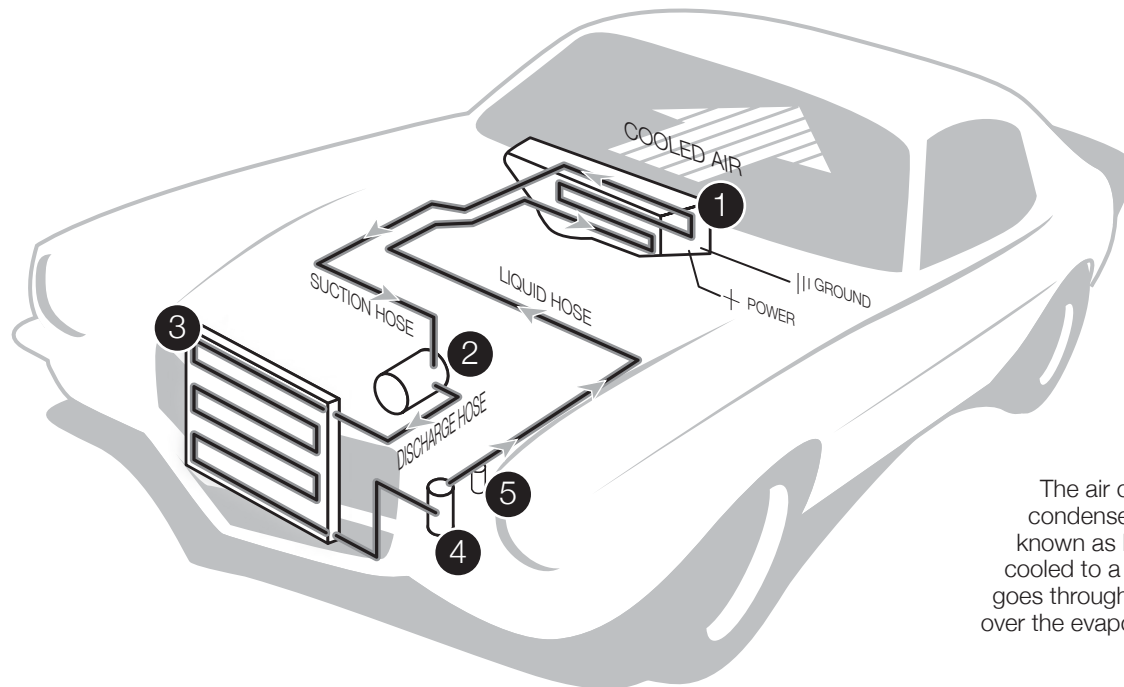
Procedures, During Installation:

- ☐ 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. Offers complete comfort capabilities in virtually every driving condition. This includes Temperature control in all of the modes.



THE PICTURE YOU SEE SHOWS THE CONTROLS IN THE HEAT MODE. THIS MEANS THAT THE AIR WILL BE DISTRIBUTED THROUGH THE HEATER OUTLETS. THIS ALSO HAS THE TEMPERATURE LEVER IN THE COLDEST POSITION. WITH THE CONTROLS IN THIS POSITION YOU WILL GET THE AIR THROUGH THE HEATER OUTLETS AND THE OUTLET TEMPERATURE AT THE COLDEST POSSIBLE DEGREE.



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 Defrost Duct.

HEAT / FACE / DEFROST DOOR CONTROL: When the Control Knob is pushed all the way to the LEFT the air is distributed to the DEFROST outlets. When the knob is pushed to the MIDDLE of the controls the air will go to the FACE outlets. In the FACE position the compressor is engaged. When the knob is pushed all the way to the RIGHT the air will go to the HEAT outlets. In the Defrost position the compressor clutch is engaged for dehumidification.

TEMPERATURE CONTROL: The Temperature Knob as shown is at 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.



Carefully remove Glove box door and glove box. Retain door and original hardware. Discard the glove box.

DRAIN RADIATOR AND DISCONNECT BATTERY.

Removal of the Original Heater Assembly can be accomplished by disconnecting the control cables.

Disconnect cable to the blend air door.

Disconnect electrical harness from the resistor block. Disconnect control cable from the heat defrost door.

Disconnect cable from the air shut off door.





Around perimeter of the Blower Motor remove (4) nuts that hold heater assembly to the firewall.

Disconnect heater hoses to the heater core.

Open fresh air door on the passenger side. Remove the screw that holds support rod in place. Remove and discard the support rod.

Remove kick panel and disconnect ground wire to the blower motor. Remove the heater assembly and discard.

Locate the Inlet Block off plate and (3) #10 x $\frac{3}{4}$ " tek screws. Attach block off over the air inlet opening using #10 screws.





In order to remove the Control head the dash bezel needs to be loosened to gain access to screws on back of the control head. Remove (2) screws holding controls onto the dash bezel. Retain original hardware.

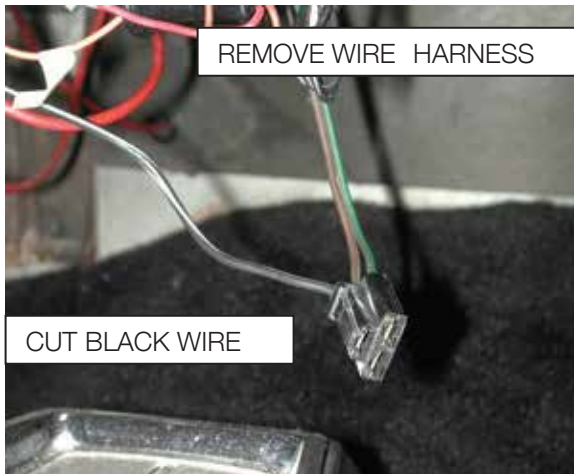
Locate original wire harness that was attached to the blower switch. Cut the connector off. Attach (1) ¼" male spade connector to the BLACK wire.

1968 AND LATER "A" BODY'S

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

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

Cut off (2) control cable hook up pins.





Locate the cable attachment bracket and (3) 1/8" pop rivets.

Place the bracket over center nut and rotate so that the bracket just misses the center spring clip. Drill (3) 1/8" dia holes in lever using the bracket as a template. Install the pop rivets.

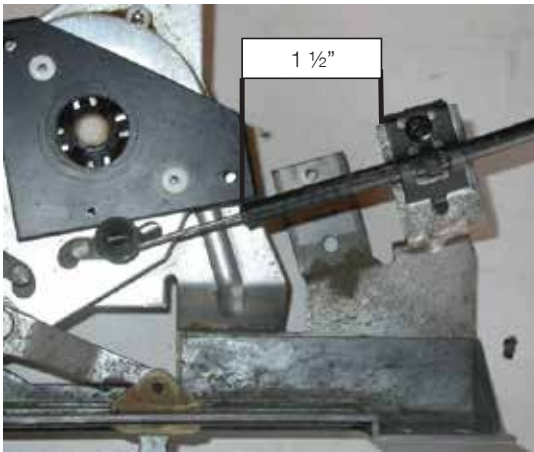
Locate the switch bracket, blower switch and (2) 1/8" pop rivets. Attach switch to mounting bracket using pop rivets as shown.



Using the switch assembly as a guide. Match drill mounting holes into the control assembly. Use a 1/8" drill bit.

Open previously drilled holes to 5/32" dia. and attach the switch assembly using (2) #8 x 3/8" pan head screws.





Locate shortest of the control cables from the kit.

Attach cable to control head using the original cable retaining clip. Allow cable housing to be 1 1/2" from cable clip to end of the housing.

Push over tab on the attachment bracket (1) 3/16" push nut. Then put on the cable eyelet and another 3/16" push nut.

1967 AND OLDER "A" BODIES

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

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

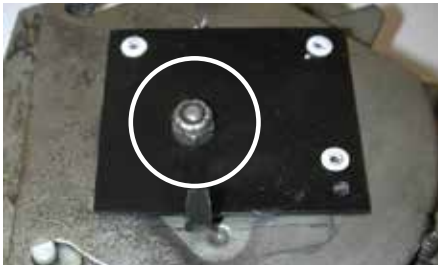
Cut off (2) control cable hook up pins.





Locate in the control sack kit the blower switch assembly.

Attach assembly to original control head using the original hardware.



Locate the cable attachment bracket and (2) 1/8" pop rivets.

Place bracket over the nut and rotate so that cable connection tab is just to the left of the dimple in the control lever. Drill (3) 1/8" dia holes in lever using the bracket as a template. Install the pop rivets.

Locate the cable connection bracket and (2) #8 x 3/8" pan head screw.

Attach bracket to control head using the #8 screws as shown.



Locate wire harness from the control sack kit.

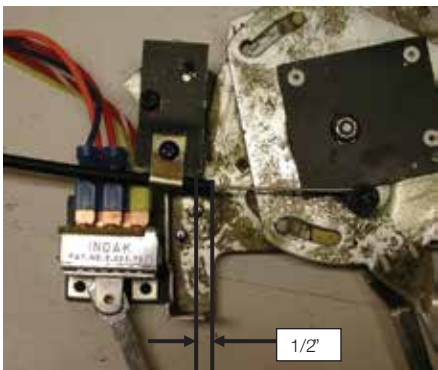
Attach harness to blower switch according to the wiring diagram below.

Locate in the control sack kit (1) SHORT control cables, (1) LONG Temperature control cable, (1) cable clips, (1) #8 x 3/8" pan head screw and (2) 3/16" push nuts.

Attach shortest cable to the Face / Heat lever. Using (1) push nut, cable clip and #8 screw.

NOTE: Cable sleeve is 1/2" past the attachment bracket. Attach temperature control cable to lever on bottom of the control head using the original hardware, and (1) 3/16" push nut.

NOTE: Cable sleeve is 1/4" from the cable clip bracket.



Reinstall control head using the original hardware.

Reattach dash bezel using original hardware.

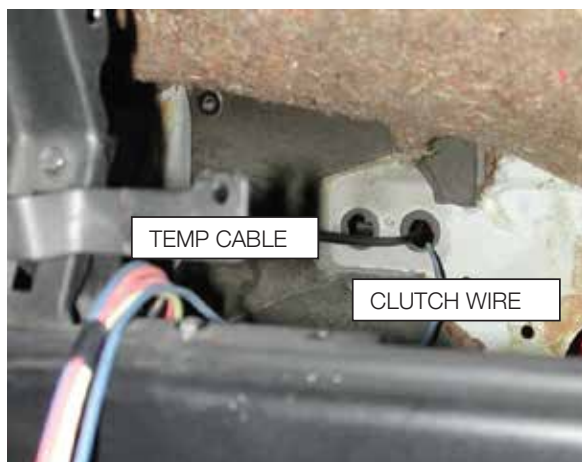
Locate chrome switch knob and attach to the blower switch.

Reinstall the original lever knobs.

Remove insulation around the blower hole as shown.

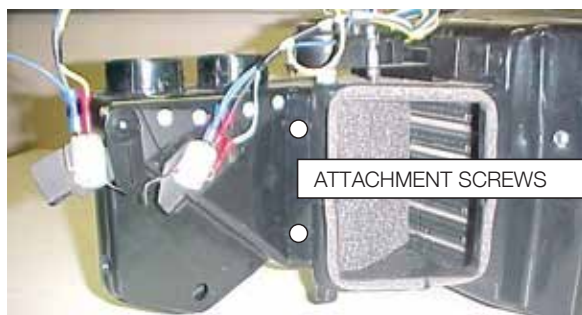
All modifications to the vehicle are complete. We will now begin the installation of the system.





Insert temperature cable through the original heater tube hole.

Hang electrical harness out the glove box opening. Insert blue clutch wire through same opening as the temp. cable.



Locate Evaporator, Defrost Duct Assembly and (2) #10 x 5/8" pan head screws. Attach defrost duct to the evaporator using (2) screws. Be sure that s-clips on back of the duct are attached to opening flange on the evaporator.

Locate electrical harness that is attached to the face door and connect to the micro switches. Refer to wiring diagram on the last page for correct connections. Place evaporator on floor of the vehicle, Lift unit up and behind the glove box opening.

Insert hookup tubes through the original heater motor hole.



Attach evaporator to the firewall using (2) 1/4"-20 x 5/8" screws and flat washers provided.

Locate the blower support brace and (1) #10 x 3/4" tek screw.

Attach brace to the air box as shown.

Locate in the hardware sack kit the unit support bracket, (1) #10 x $\frac{3}{4}$ " tek screw and (1) #10 x $\frac{5}{8}$ " pan head philips screw.

Attach bracket to top pre drilled hole in the unit using #10 pan head screw.

CAUTION: DO NOT USE POWER SCREW DRIVER

Attach other end to the body using #10 tek screw.

Locate the Firewall Block Off plate, (4) #10 x $\frac{3}{4}$ " tek screws. On engine side of firewall attach over hookup tubes from the evaporator using #10 Tek screws.

Route main harness across top of the unit to the resistor and blower motor.

REFER TO THE WIRING DRAWING FOR PROPER CONNECTIONS.



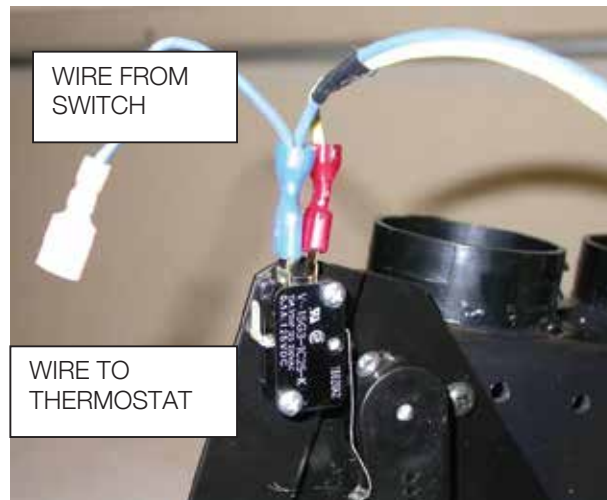
Secure ground from the blower motor using (1) #10 x ¾ "hex head Tek screw.

Reinstall the passenger kit panel using original hardware.

Locate (2) blue wires on the wire harness. Blue wire from blower switch connects to the blue pigtail. Wire to the thermostat connects to tab on side of the micro switch.

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

Route mode control cable down and attach to the defrost duct. Insert cable into 3rd hole from the pivot of the crank arm. Attach cable to the bracket using (1) #10 X 5/8" screw.





Locate (2) defrost hose adapters, (4) #8 x 3/8" pan head screws and the 2" flex hose.

Cut 1 piece 18" long and attach to the hose adapter using (2) #8 screws. Attach over defrost outlet on the drivers side. Route up and attach hose adapter on drivers side. Note: picture below. Both passenger and drivers defrost attach the same.



Cut 1 piece 24" long and attach to passenger outlet on the defrost duct. Route hose along firewall and then back to the passenger defrost outlet.





Locate in the hardware sack kit the (4) remote louver assemblies, and the #10 x $\frac{3}{4}$ " 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.

36" duct to
driver's louver

8" duct to left
center louver



28" duct to
passenger's louver

4" duct to right
center louver

Locate new glove box and the original mounting screws.

Slide glove box into position and attach using original hardware.

Reinstall glove box door using original hardware.



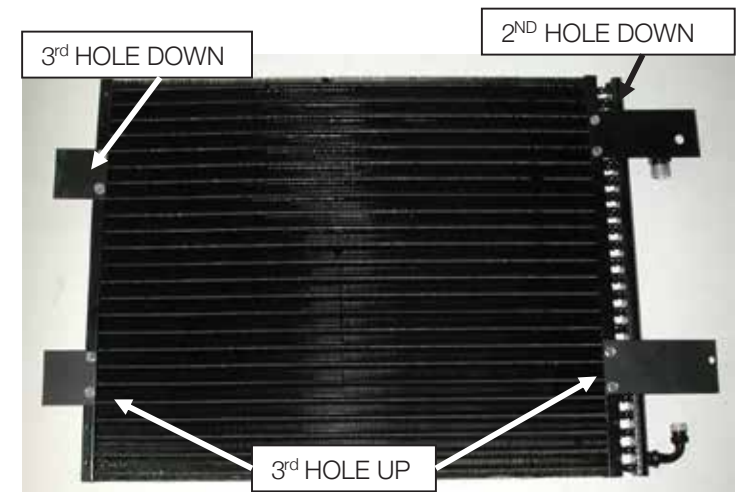
Locate clear drain tube from the hardware sack kit. Carefully drill a 11/16" diameter hole just below the drain nipple. Insert drain tube through hole and over nipple under the evaporator.

Drain radiator and remove fan and fan shroud. Retain all original hardware.

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

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.





Remove the upper radiator mounting bolts and retain.

Loosen the bottom mounting bolts.

Carefully slide Condenser Assembly between Radiator support and the radiator.

Reinstall radiator upper bolts clamping condenser brackets between radiator support and the radiator.

Be sure that the condenser is located all the way to the drivers side of opening.

Locate the Liquid Tube and (1) #6 o-ring.

Insert tube through the radiator support opening on passenger side.

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





Locate the Filter Drier, (3) ¼" – 20 x 1" screws, flange nuts and pressure switch kit. Using liquid tube to location the drier, drill (3) ¼" diameter holes in the inner fender.

Attach drier using (3) screws and nuts.

Attach pressure switch and harness to the liquid tube using a few drops of mineral oil.

Attach #6 fitting to the drier using (1) #6 O-ring and a few drops of mineral oil.



Locate #8 discharge hose, and (1) #8 o-ring. Insert hose through hole on the radiator bulkhead.

Attach to upper condenser fitting using (1) #8 o-ring and a few drops of mineral oil.

NOTE: Grille removed for clarity.

Locate the Water Valve and (3) worm gear clamps.

Supply line from engine is attached to the LOWER heater hookup tube. Cut 6" off end of the RETURN LINE and install water valve using (3) worm gear clamps as shown above.



Attach control cable to the water valve. The wire of the cable needs to be all the way out when attaching to water valve. Also set the control lever in cold position.

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

Locate the Liquid Hose and (2) #6 o-rings. Attach 45 deg. end to the tube at firewall. Use (1) #6 o-ring and a few drops of mineral oil. Route other end along fender to the drier using (1) #6 o-ring and a few drops of mineral oil.

Locate the Discharge hose and (2) #8 o-rings. Attach end with the service port to tube next to drier and the other end to compressor. Use (1) #8 o-ring on each of the fittings and a few drops of mineral oil.

Locate the suction hose and (2) #10 o-rings. Attach end with the service port to compressor and other end to fitting at the firewall. Use (1) #10 o-ring on each of the fittings and a few drops of mineral oil.

Locate the double hose clamp and (1) #10 x 3/4" tek screw.
Clamp suction and liquid hose to the fender as shown.

Route (1) of the white wires along with #8 refrigerant hose. Attach to the compressor clutch. Other white wire attaches to Blue Clutch wire from the thermostat.

Reconnect battery and fill the radiator.





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.

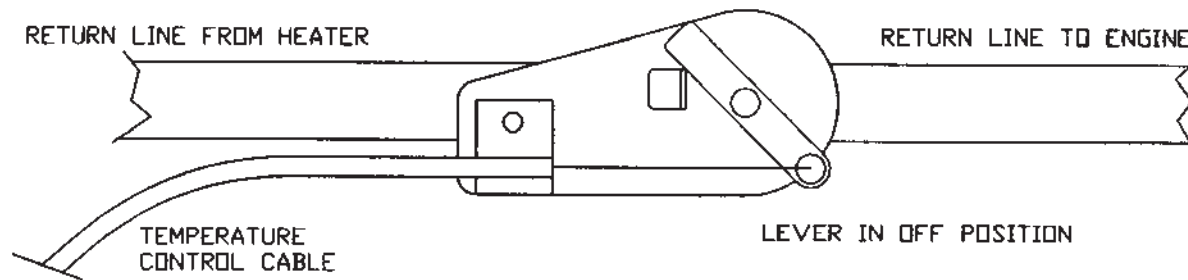
It is necessary to locate the "Supply Line" from the engine on the vehicle and route a hose directly to the heater connection.

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.

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TDS-001 WATERVALVE

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!**

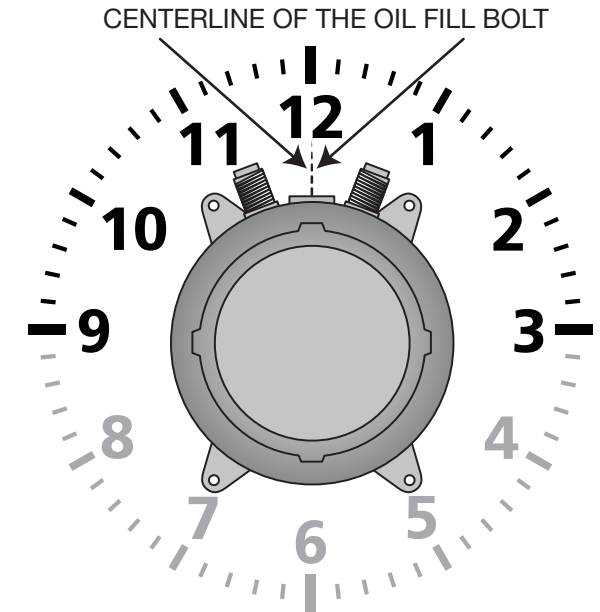
RECOMMENDED TEST CONDITIONS: (After system has been fully charged and tested for basic operation)

- 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

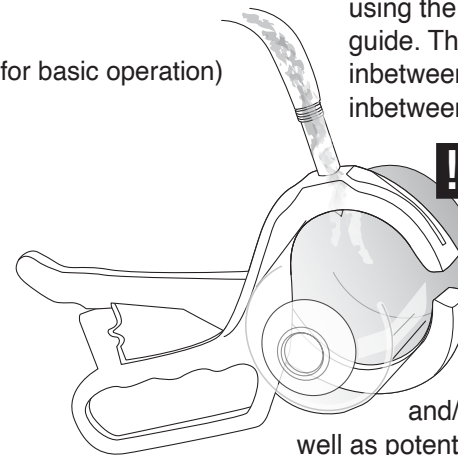
ACCEPTABLE OPERATING PRESSURE RANGES:

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)...

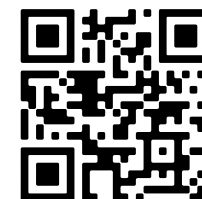
There is a blockage in the system. Remove hoses and blow compressed air through in both directions. If pressures don't change its possible that your expansion valve is stuck closed and would have to be replaced.

*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

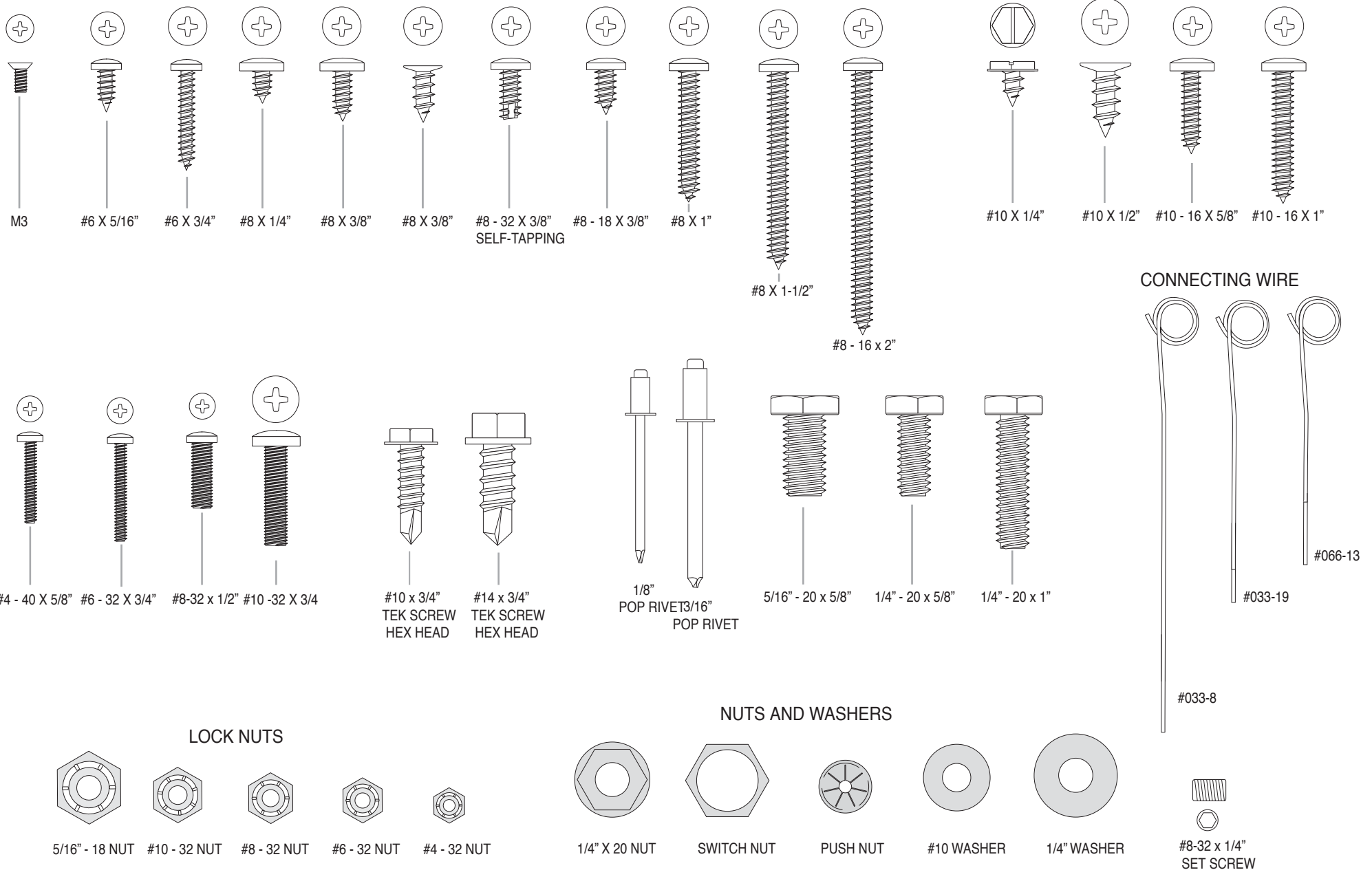
Get the technical support you want the moment you need it, with no wait times. Simply **SCAN** the **QR code** and be directly taken to our support section to troubleshoot all things A/C.



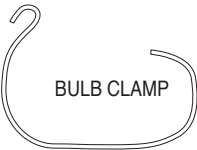
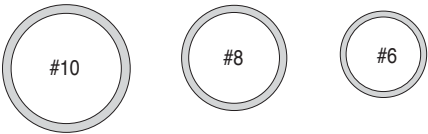


Classic Auto Air Hardware Reference Guide

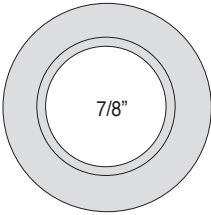
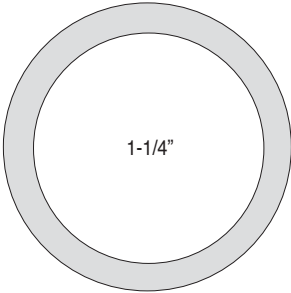
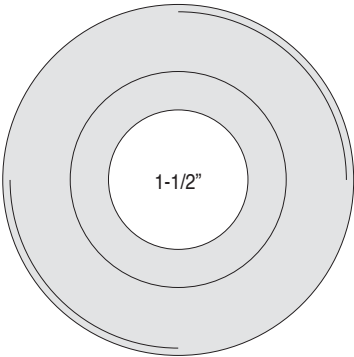
This is our basic line-up of hardware. No single kit will not contain all of these, but you can use this guide to match-up hardware for shape and size (all of these are actual size.)



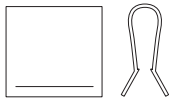
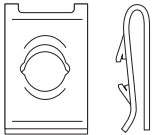
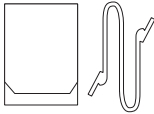
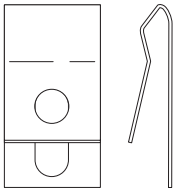
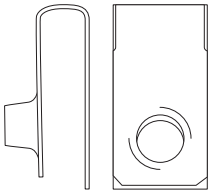
ORINGS



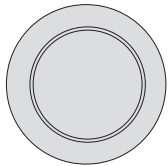
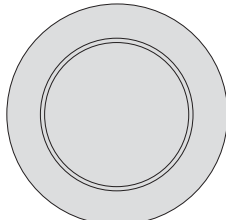
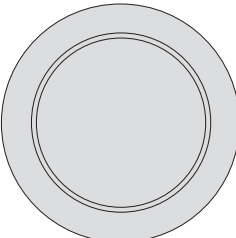
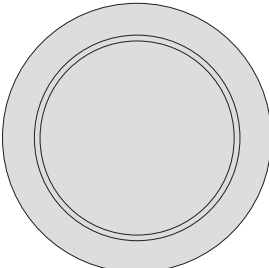
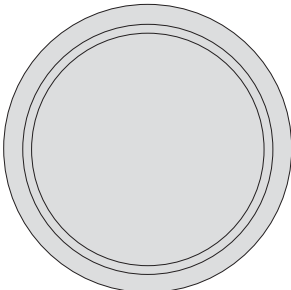
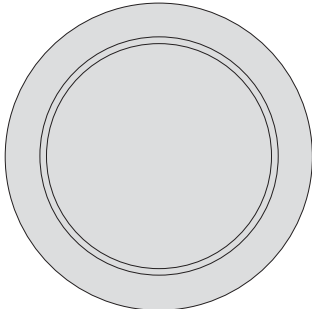
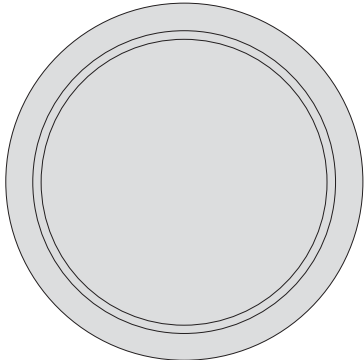
GROMMETS



CLIPS



HOLE PLUGS



HOSE CLAMPS

