DAILY DRIVER Classic© SERIES

Installation Manual

Under-dash Evaporator

DOCUMENT #1-1010

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CLASSIC AUTO AIR©

Congratulations...

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

To obtain the high level of performance and dependability our systems are known for, please pay close attention to the following instructions. Our installation steps and procedures are derived from a long history of research and development and the combined experience achieved thru thousands of successful installations (and feedback from customers like you). Please remember that our #1 goal is that you'll have a successful installation and a system that performs at a very high level for many years to come.

Before starting, read the instructions carefully, from beginning to end, and follow the proper sequence. We've included a general A/C overview and a safety and general checklist that you should read before starting your installation.

Again, thank you from our entire staff.

A Basic A/C Overview

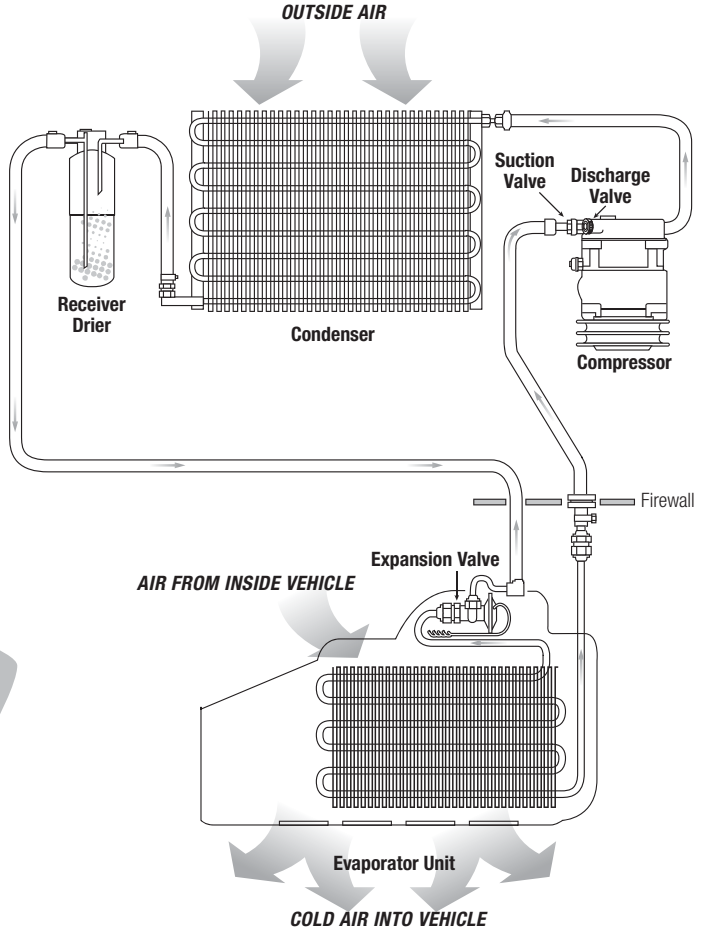
1 Evaporator with Blower Fan In order to remove the heat from the air in the vehicle, the A/C evaporator allows the refrigerant to absorb the heat from the air passing over it. The blower fan moves cool air out into the car interior.

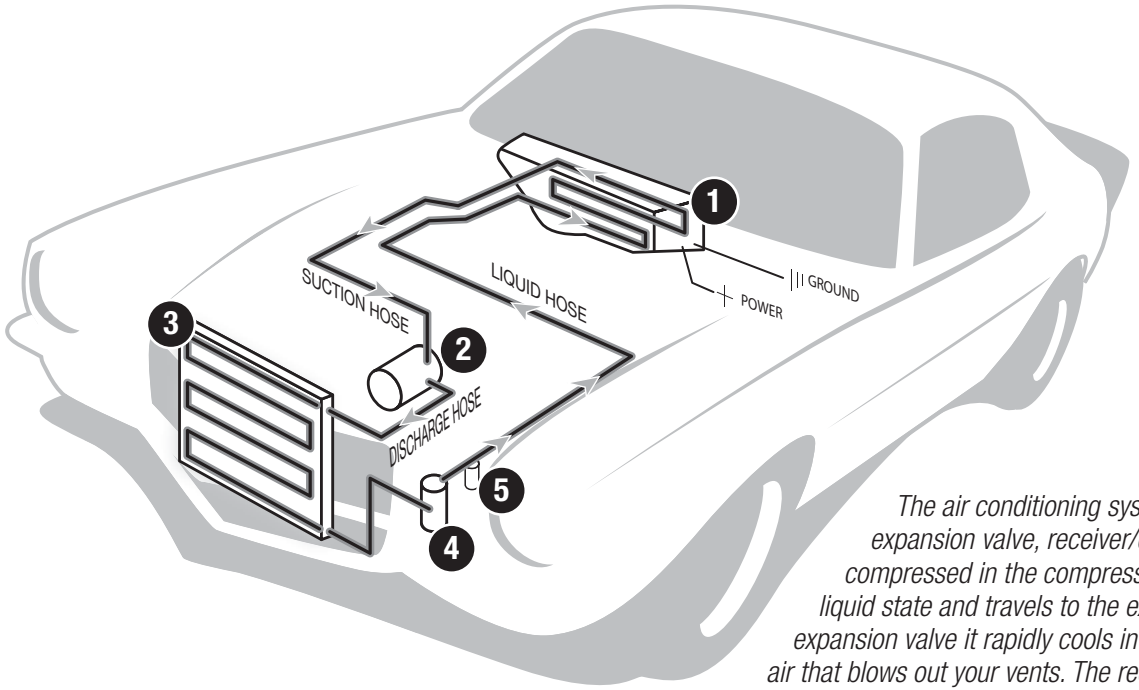
2 Compressor The compressor pumps and circulates the refrigerant through the system.

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 and turns into a gas. In the condenser, this 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 receiver-drier separates gas and liquid.

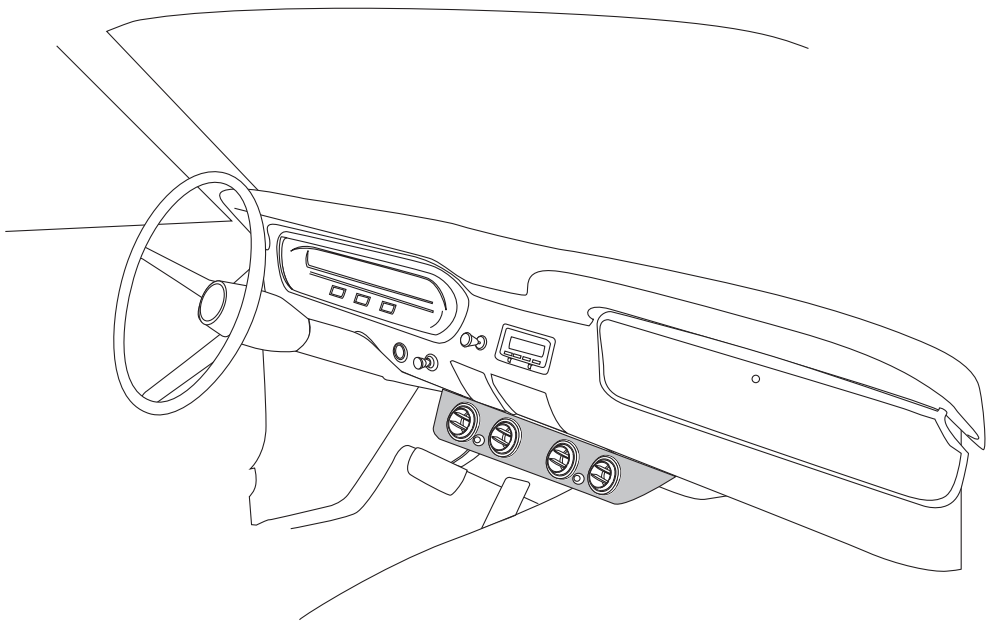
Check List, Pre-Installation:

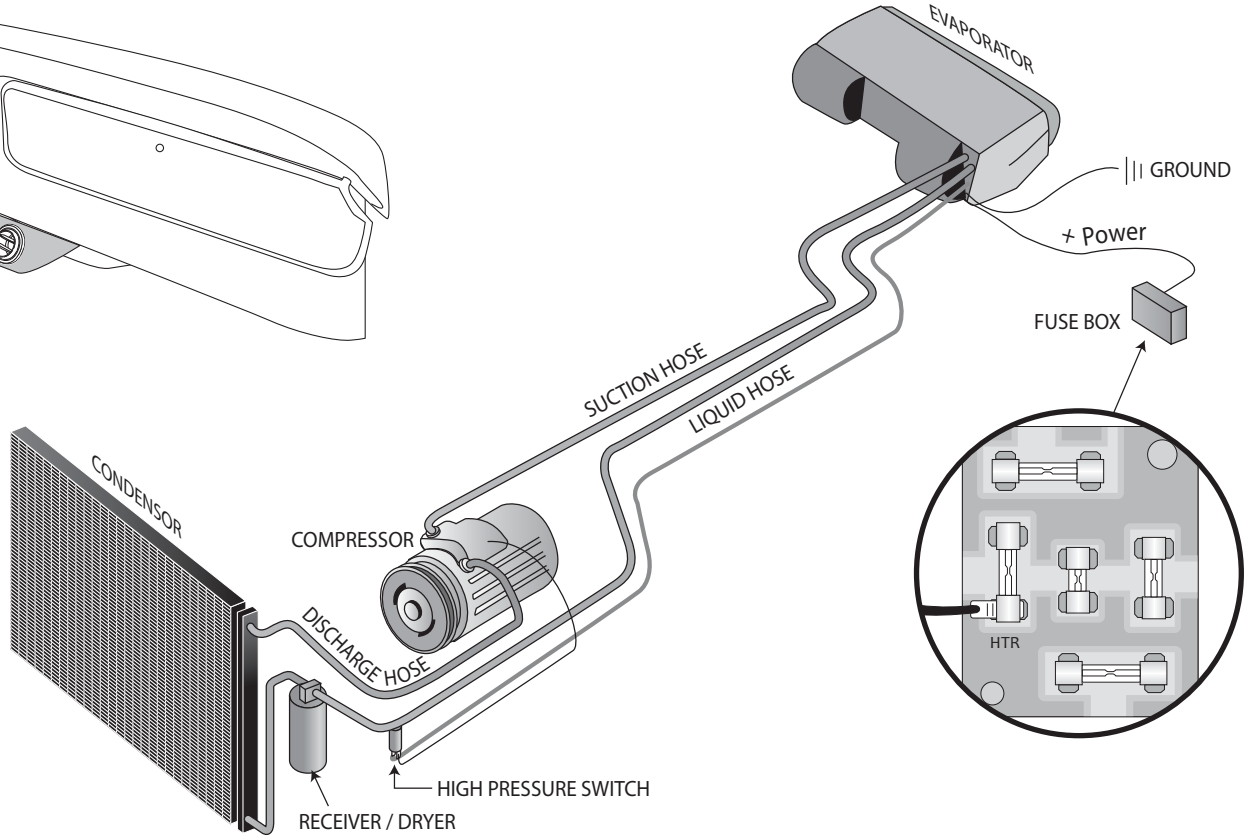
- ☐ Before beginning the installation check the shipping box for the correct components. YOUR BOXED UNIT INCLUDES A LIST OF MAJOR COMPONENTS AND A LIST OF BAGGED PARTS. We have a 5 stage check process to make sure you have everything you'll need.
- ☐ **If your vehicle has been or is being modified, some 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 rear of bump for o-ring where female nut rides. 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!**

YOU CAN NOW BEGIN THE INSTALLATION...



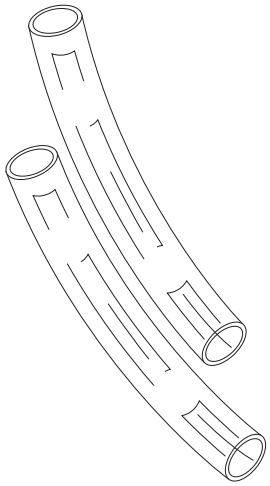


This is a basic layout of how the system is routed in regards to hoses and the electrical set-up. As you can see, it's really a pretty simple and straight-forward layout. The hoses that we provide will ONLY fit where they intended to go, so there really is no chance that you'll route one to the wrong place.... as always, feel free to call us with any questions.

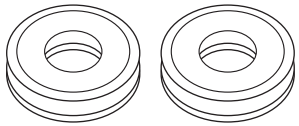
OK, you're ready to start the installation. Follow all the steps carefully and watch for our handy tips...

THESE ARE THE PARTS YOU WILL FIND IN YOUR PARTS BAG A

You will use all of these parts and hardware during the installation steps.



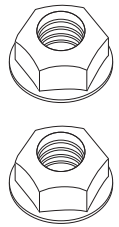
Two 9” Drain Tubes



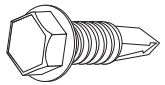
Two Grommets

Two Zip-Ties

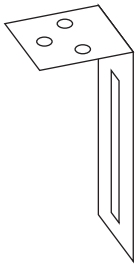
Refrigerant Tape



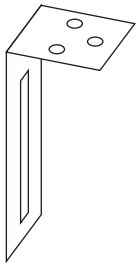
Two 1/4” - #20 Flange Nuts



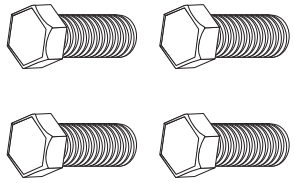
One #10 - 16 x 3/4"
Tek Screw



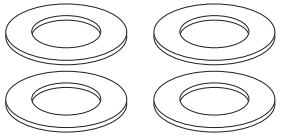
One Left Mounting Bracket



One Right Mounting Bracket



Four 1/4” - #20 x 5/8”
Hex Head Screws



Four 1/4” SAE Washers

Illustrations NOT shown actual size

Locate both mounting brackets and attach to evaporator unit as show below. Use two 1/4" x #20 x 5/8 hex bolts to attach brackets to unit combined with two 1/4" SAE washers (hand tighten only at this time, see figure 1). These brackets are designed to allow you to adjust the installation angle and fine tune the final location to your particular dash. With the brackets installed you can mark the locations to drill. Drill two 9/32" holes and test mount the evaporator. Once the evaporator is in place you can also spot a good place to drill the two holes thru the firewall for the main hoses (check for obstructions first). Drill two 1 3/8" holes thru the firewall.

Once the two firewall holes are drilled and the included grommets inserted into the holes, you can mount the evaporator back into place (It is a good idea to wait until you have made all connections to the evaporator unit before tightening the bolts and nuts).

BE SURE TO CHECK THAT THE FINAL LOCATION WILL NOT INTERFERE WITH THINGS LIKE THE ASH TRAY, SHIFTER, ETC.

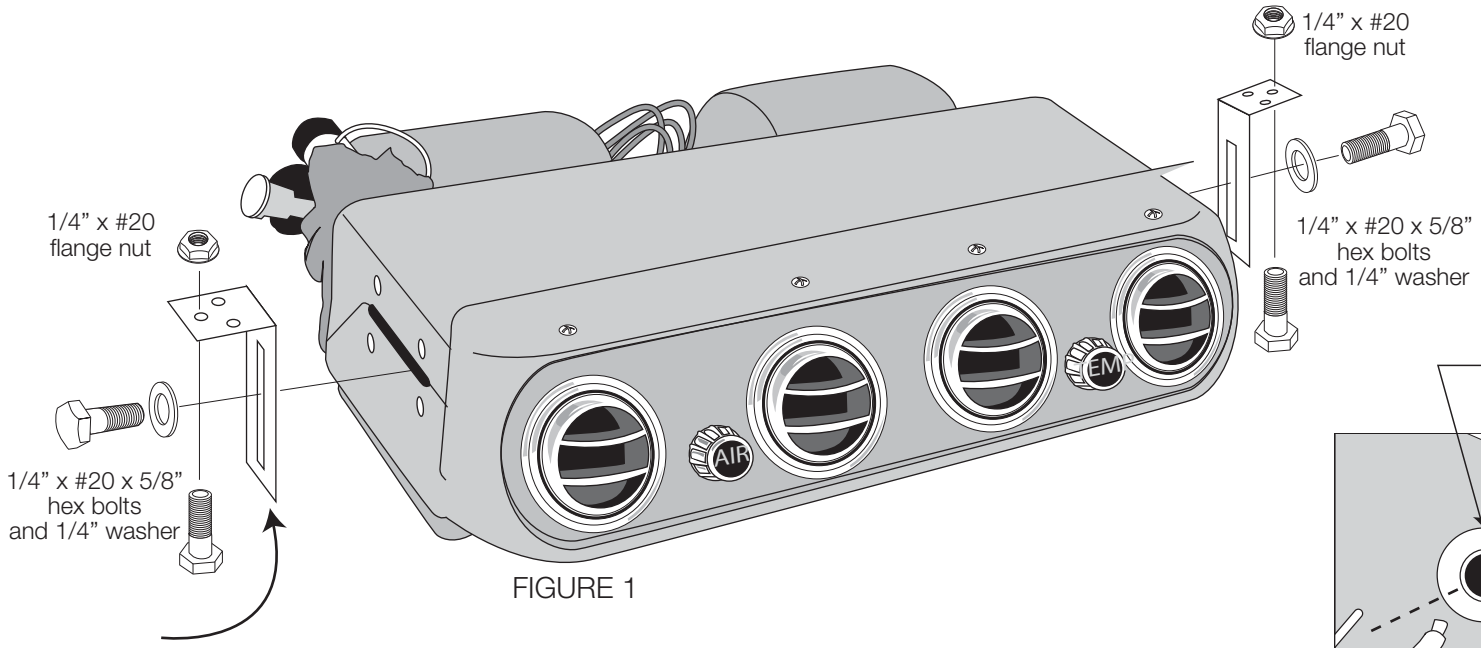
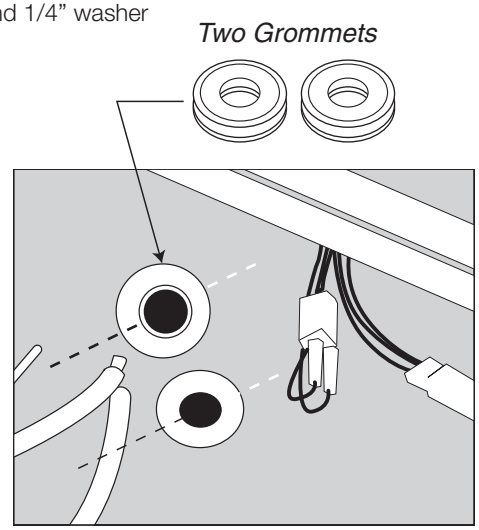


FIGURE 1



Holes drilled thru firewall

TECH TIPS

Brackets are adjustable to position evaporator correctly under the dash. Your unit should be installed with at least a slight degree of slant toward the rear of the unit to facilitate proper drainage of condensation. It is IMPORTANT that you give your evaporator enough tilt to allow for drainage.

Locate the two 9” drain tubes. Using a sharp knife cut X’s in the carpet in a non-conspicuous spot for the drain tubes (see figure 2). Drill two 11/16” diameter holes and attach drain tubes as shown below and push thru floorplan. These tubes will drain off the natural condensation.

You should now route the liquid and suction hose from the engine compartment thru the holes and connect to the evaporator unit. These hoses should be routed so that they are not kinked or will interfere with any moving components under the dash.

Use the two-wrench method, to avoid stripping the threads (see figure 3). Once all the connections are made and snug, you can tighten the bracket nuts and bolts.

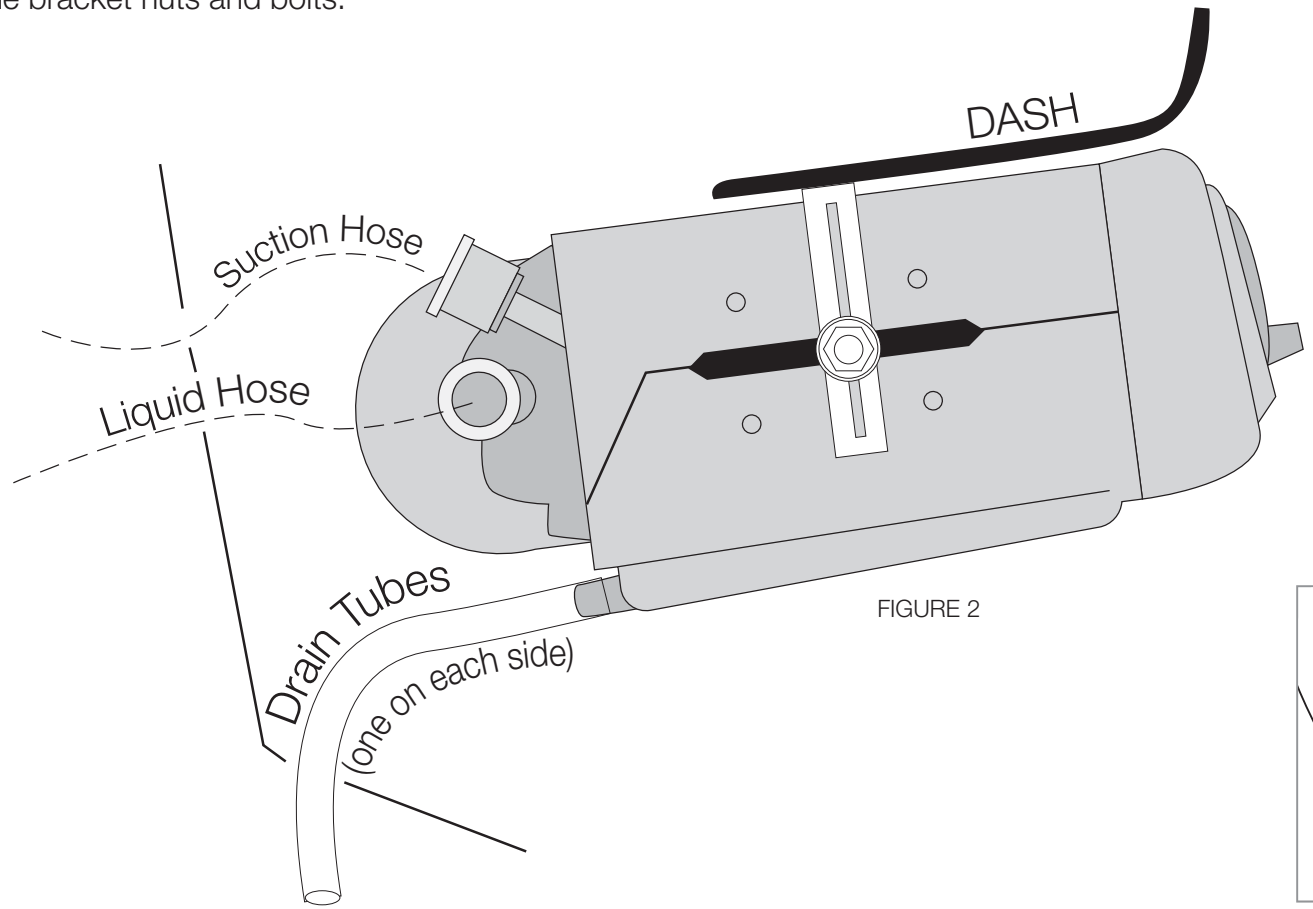


FIGURE 2

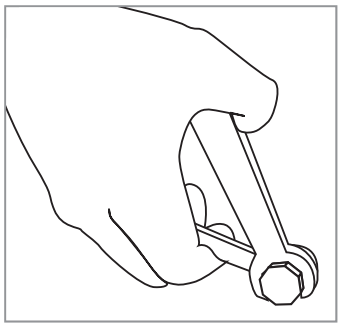
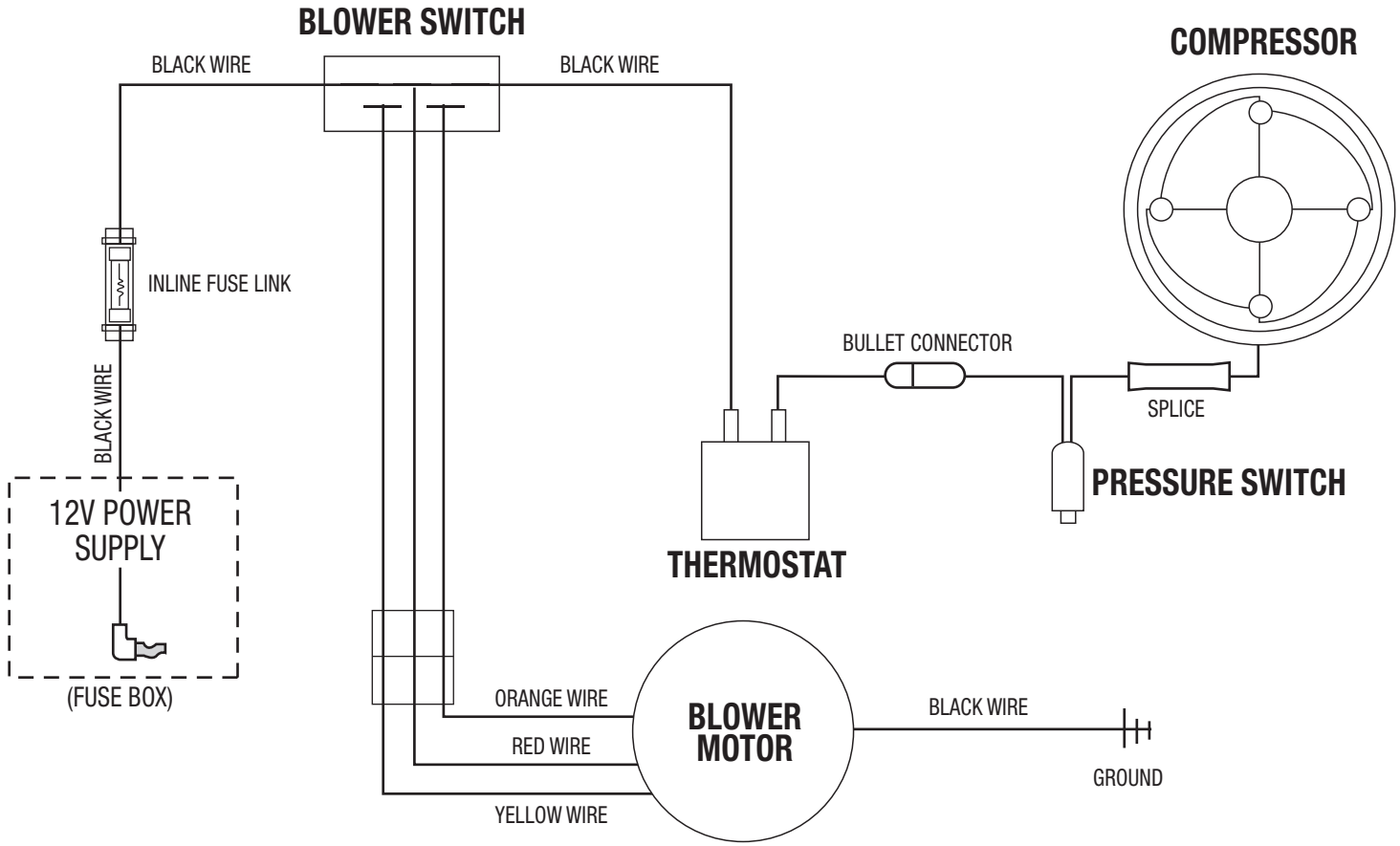


FIGURE 3

Wiring Diagram/Overview



Your evaporator unit has a power lead that you will need to route to your OEM fuse box and attach to the fuse at the HEATER terminal. Also, make sure this terminal has a fuse of at least 20 amps. Your lead has an inline fuse, so you'll be doubly protected. Lastly, when you route the lead make sure it does interfere with any moving parts under the dash.

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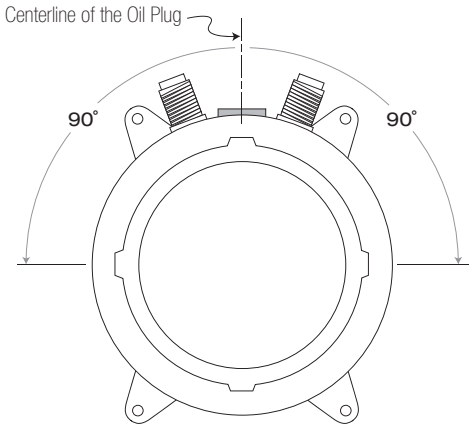
New A/C System Preparation

Please read thru 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.

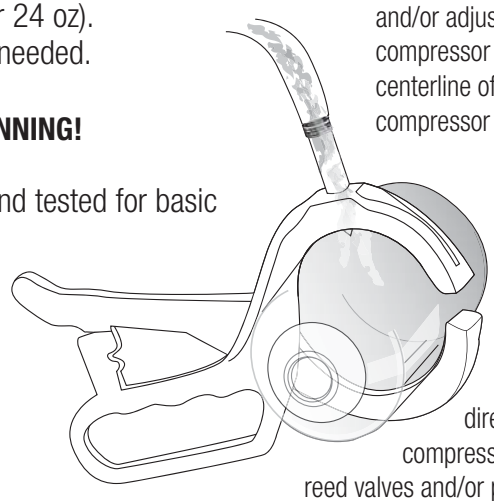
1) Your radiator/cooling system is an integral part of your new system. Please insure that you have a 50/50 mix of distilled water and antifreeze. The heater coil **MUST** be purged (cycle heater control valve) to make sure no water, without antifreeze, is in the heater coil before you charge the A/C 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 WHILE THE ENGINE IS RUNNING!**



CAUTION! When mounting your compressor and/or adjusting the belt, use caution not to tilt the compressor up to or more than 90˚ off the centerline of the oil fill plug. This can cause compressor failure.

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



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.

ACCEPTABLE OPERATING PRESSURE RANGES:

1. HIGH-SIDE PRESSURES (150-250 PSI)
2. LOW-SIDE PRESSURES (15-25 PSI in a steady state)

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