

**JCB 2CX
W/ JCB Engine**



**Phone (519) 485-5961 or 1-800-267-2665
Fax: (519) 485-3745 or 1-888-267-3745**

COMPRESSOR INSTALLATION

Two of three compressor mount bolts. Third bolt is in the lower front hole.



Compressor – not exactly as shown.
Tail plate configuration is different.

Dip Stick tube may have to be moved
ahead towards the filter to make room for
compressor fittings.



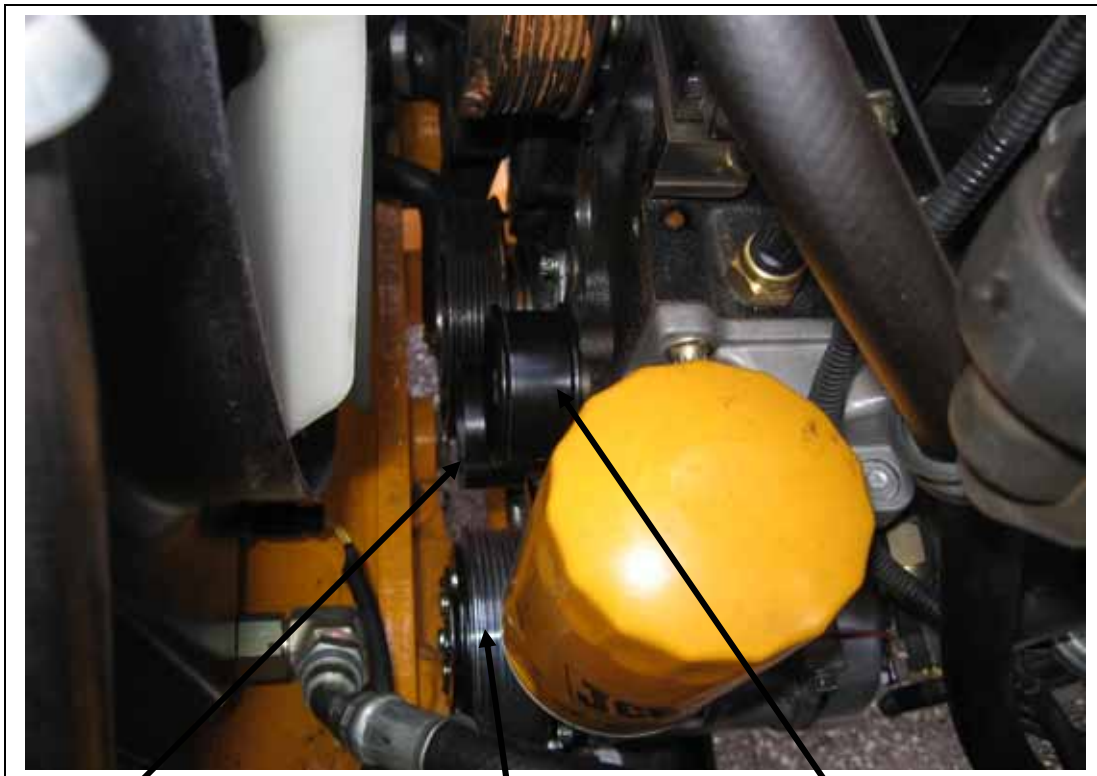
Remove existing belt and lower right idler pulley. Remove these bolts



Slide the compressor into place from this position.
***NOTE: The mounting lugs have been drilled out to allow for alignment of the belt. Ensure that the bolts are tightened after the belt is aligned.



Mount the back side idler pulley in this M10 threaded hole.



Belt tensioning pulley. (16mm nut molded into tensioner pulley frame just below pulley towards crank pulley for installing an M16 socket and drive to loosen the tensioner.

Compressor

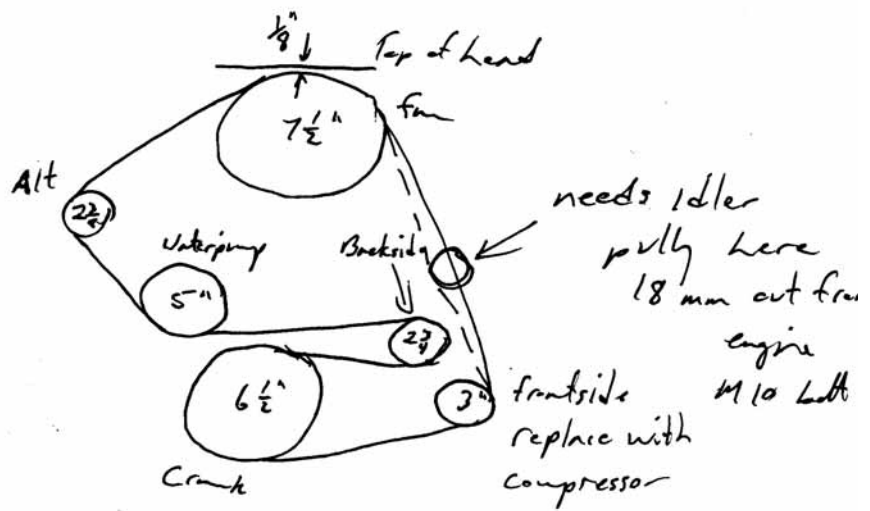
Additional idler pulley(not exactly as shown)



Tensioner pulley.

Mount additional idler pulley here. There is a direct mount setup and an excentric mount set up if extra belt adjustment is required.

JCB 930 Forklift with JCB Engine



CONDENSER INSTALLATION

13/32" straight fitting at the condenser

5/16" fitting at the condenser



5/16" 90° fittings at drier.

Mount the condenser just above the hoses running below the oil cooler.



Condenser mounted in place using M8 hardware provided.



Bolt drier mount bracket in place using the existing hardware.

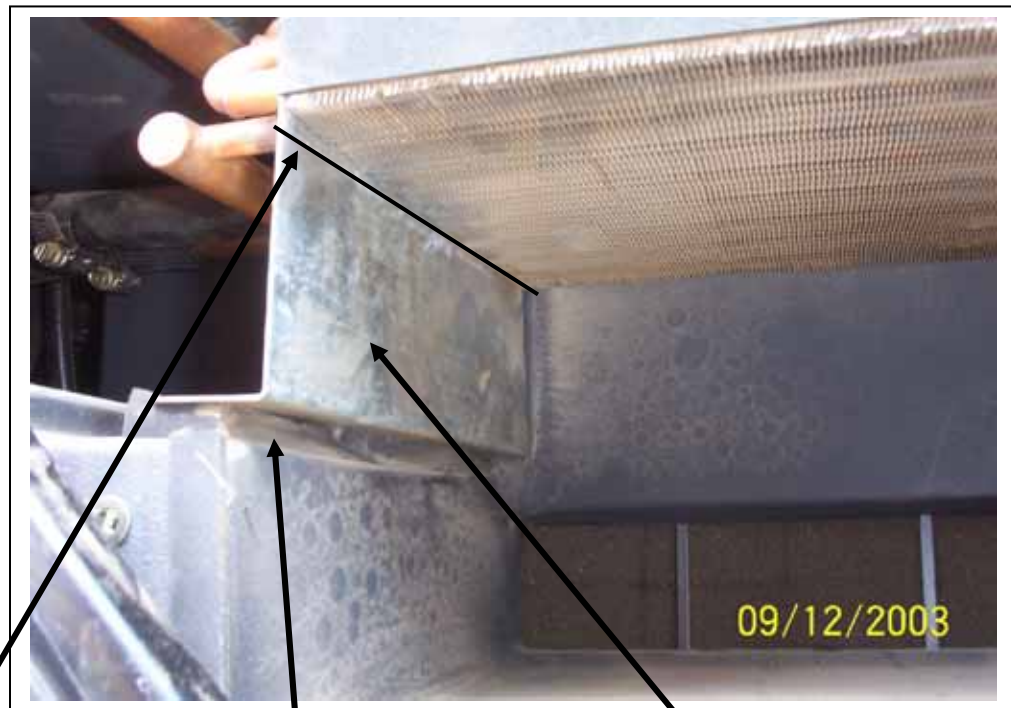
Secure the drier to the straight bracket using the supplied gear clamps.

5/16" inlet line coming from condenser.

EVAPORATOR



Access the heater coil on the right side of the cab by removing the plastic and metal cover panels. Clamp off and disconnect the heater lines and remove the coil from the cab.



Cut along here

Remove the foam rubber from the top and bottom

Trim off the lower flanges of the heater coil flush with the fin area of the coil



Cut along here

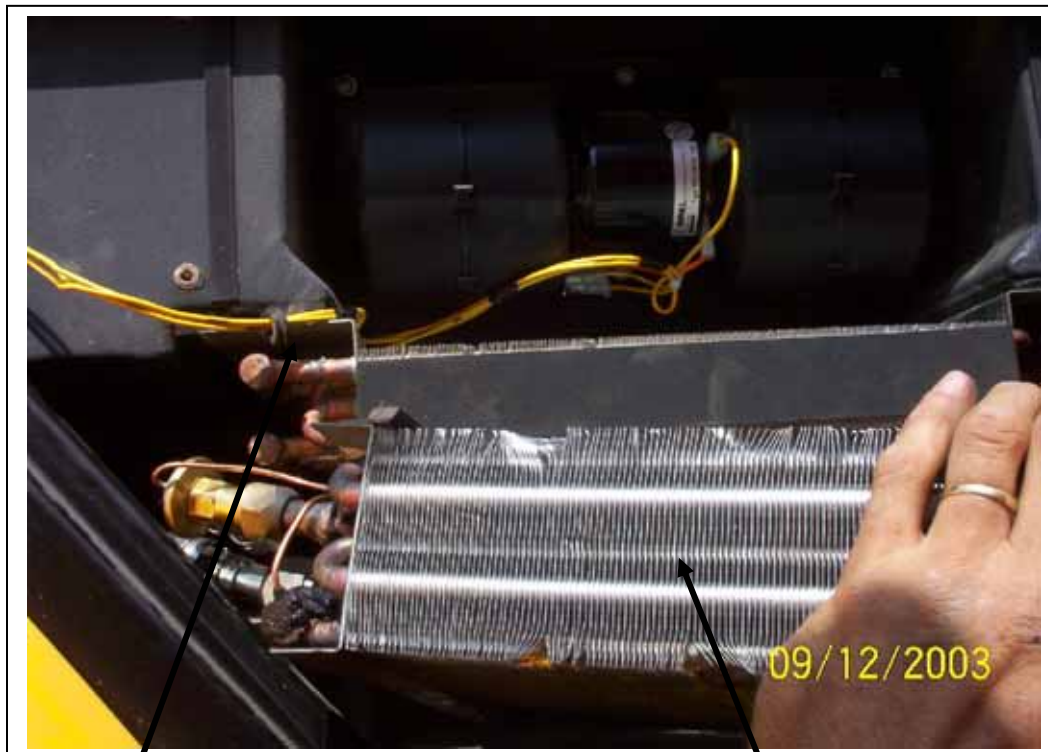
Remove foam



A/C hoses coming up with heater hoses into the cab

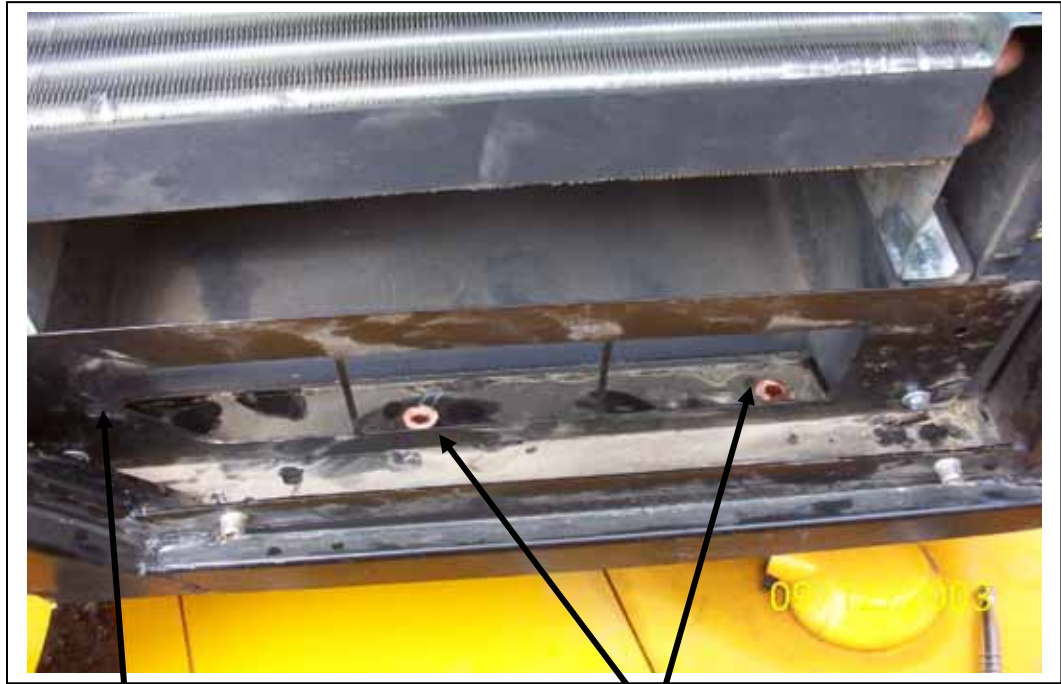


Connect the A/C hoses to the evaporator before sliding into place



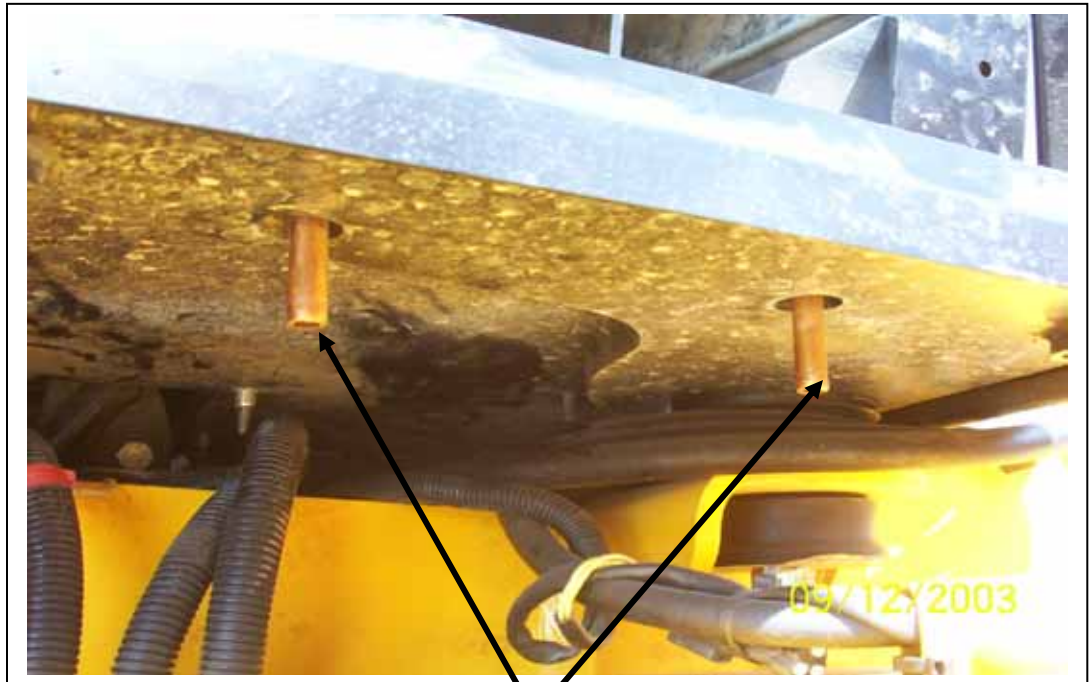
Route the thermostat probe through the existing wire grommet then into the A/C coil between the first and second row of tubes close to the fitting end.

Slide fitting end in first with the heater coil on top.

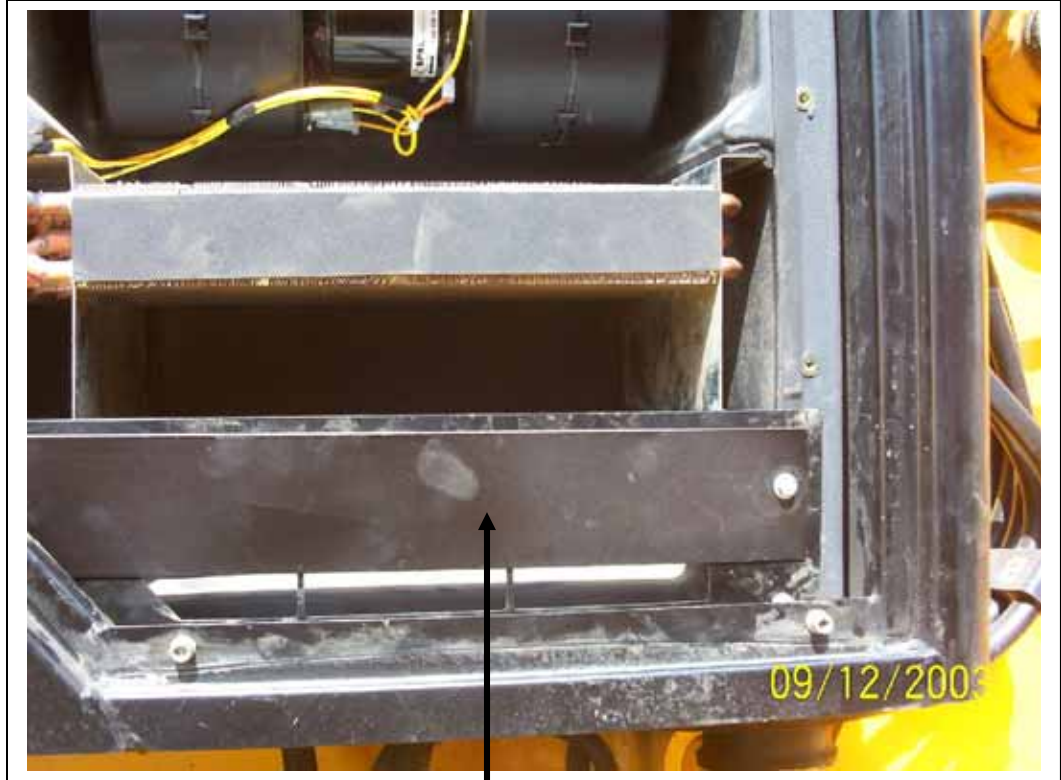


Re-install outside air intake panel

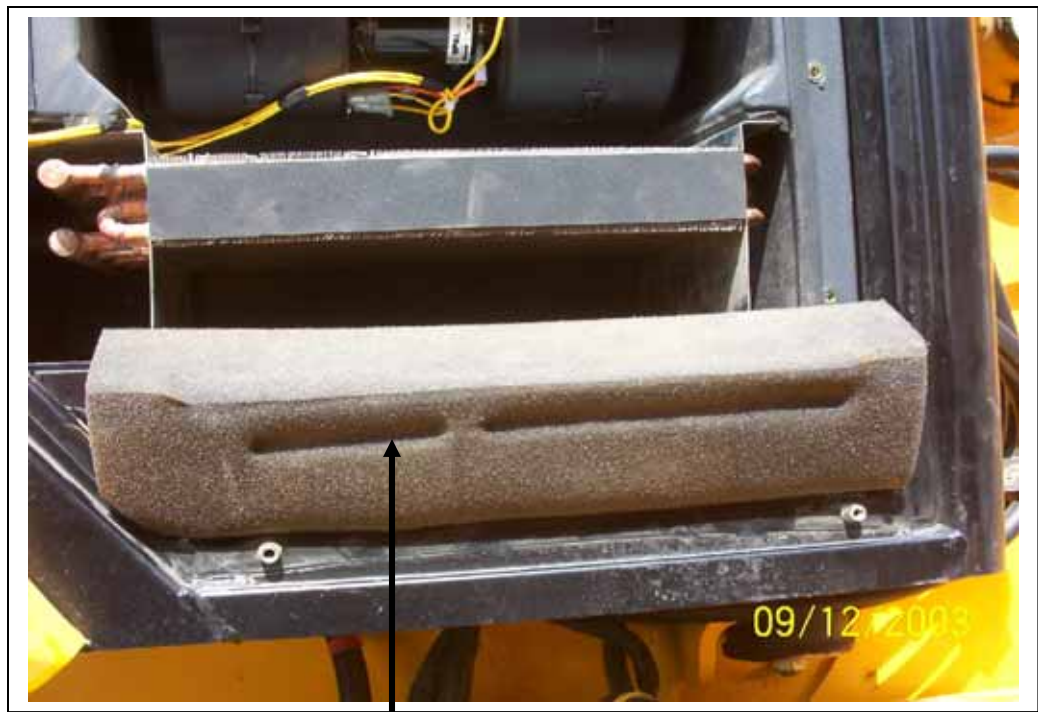
Glue in 3/8" drain tubes using epoxy



Drain pipes below cab. Install drain tubes and restrictors.



Outside air restrictor plate installed using existing hardware



Foam filter back in place

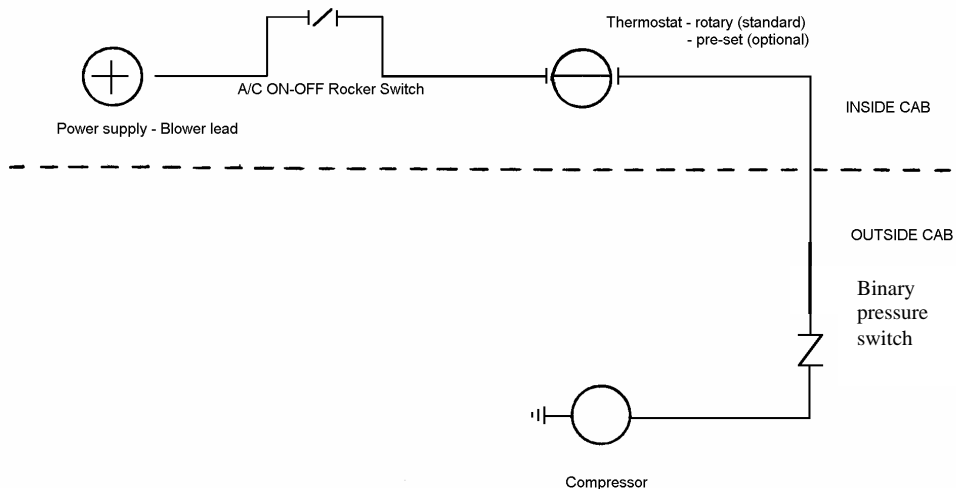


Main cover plate back on heater/evap box

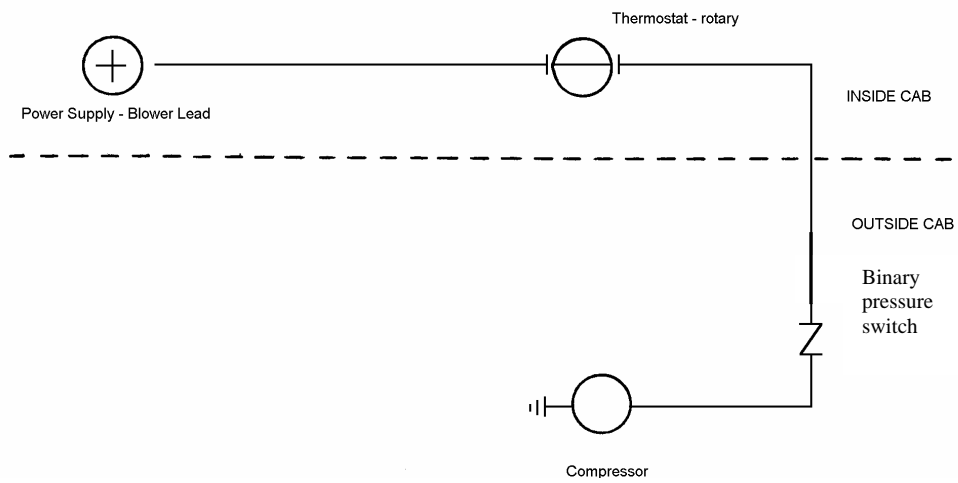


Possible thermostat location. Thermostat can be tied up below the dash and used as a preset.

A/C on-off push button (not shown) can be mounted where available.

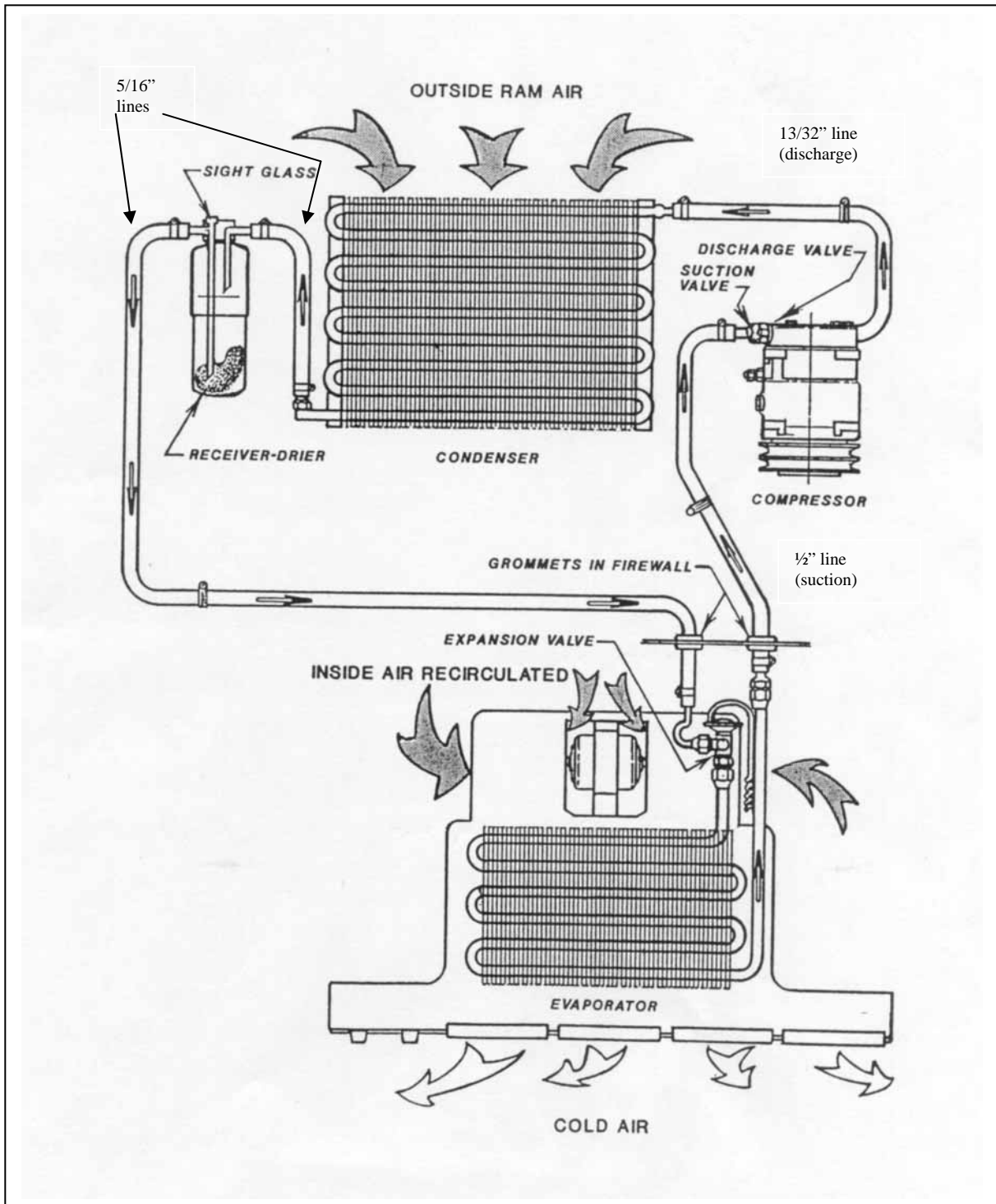


Wiring for option 1.



Wiring for option 2.

Refrigerant Flow Pattern in a Standard Air Conditioning System



Thermostat Setting Procedures

- 1) Thermostat types
 - a) preset
 - b) adjustable
 - a) A preset thermostat is adjusted to its specific cut in and cut out temperatures when manufactured and does not have a rotary adjustment for the operator.
 - b) An adjustable or rotary thermostat has been manufactured to a predetermined cut in and cut out temperatures, but it is also operator adjustable to achieve the desired comfort level.

Both types of thermostats can have their factory settings adjusted by turning the setting screws on the body of the thermostat. One body type has the setting screws mounted externally and labeled for direction of rotation. The other body type requires the removal of the plastic end plate to expose the set screw.

- 2) Thermostat probe location: The location of the thermostat probe in an evaporator coil can be very important to achieve the maximum cooling potential of the coil while also preventing coil freeze-up. There is no set location for the thermostat probe to be put that will be optimum for all systems, but several rules of thumb may be followed:
 - a) Insert the probe in the coldest area of the evaporator coil.
 - b) Insert the probe from the top of the coil down, if possible.
 - c) Make sure that at least the last 3" of the thermostat probe are in the coil.

To find the most likely area where the coil is the coldest, consider these factors:

- 1) Direction of air flow through the coil.
 - 2) The coil area likely to have the lowest air flow.
 - 3) The inlet locations of the refrigerant into the coil.
 - 4) The inlet of the hotter outside air into the coil area.
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- 1) Usually the coldest side of the evaporator coil will be the air outlet side. Often the thermostat probe can be inserted between the last and second last row of tubes.
 - 2) The lower air flow area of the evaporator coil in most systems tends to be near either end of the coil. These areas will be colder
 - 3) The area of the coil that the refrigerant inlet tube(s) occupy should be the coldest part of the coil.
 - 4) If the system is equipped with an outside air intake, where and how that air is brought into the evaporator area can have a large effect on the coil temperature. If all the outside air is piped into the evaporator in one area, that area will be considerably warmer in hot weather.

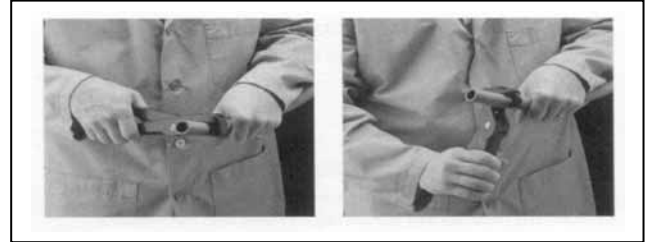
By looking at all these different factors, the area of an evaporator coil most likely to be the coldest can be determined.

Once the probe is inserted, the A/C system needs to be tested. Run the system to ensure that the thermostat is cycling the compressor off at the appropriate temperature. A core temperature ranging between 25° and 30° F should cause the thermostat to cycle off. The air temperature at the vent outlet closest to the evaporator coil should be between 38° F and 45° F when the compressor cycles off.

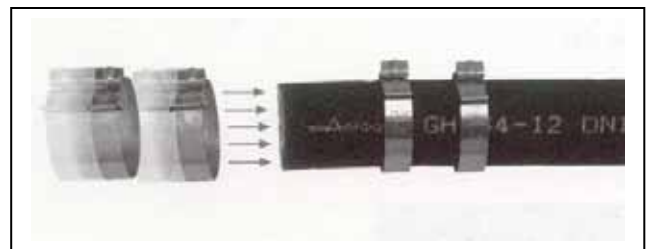
If the thermostat doesn't cycle off after a reasonable cool down period, and the air outlet temperature has dropped below 40° F, the cut in and cut out settings should be adjusted until the compressor is cycling on and off regularly. Let the system run for a decent time period (at least 15 min) and then check the evaporator coil for any signs of freezing.

Aeroquip E-Z Clip Assembly Instructions

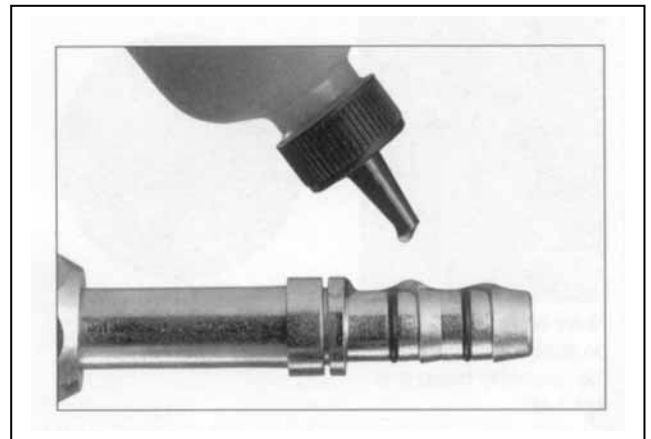
Step 1. Cut the hose to proper length with an appropriate cutting tool. Aeroquip's hand held hose cutter has been specially designed for cutting all non-wire reinforced hose, such as GH-134 Multi-Refrigerant hose. Be sure the cut is made square to the hose length.



Step 2. Install two proper-sized clips onto the cut end of the hose. Orientation of the clips does not affect the performance of the connection. However, for ease of assembly, both clips should have the same orientation. NOTE: Failure to slide the clips over the hose at this time will require the clips to be stretched over the hose or fitting later. This may permanently damage the clip.



Step 3. Lubricate the nipple with a generous amount of the refrigeration or A/C system's compressor lubricating oil. This MUST be done to lower the force of nipple insertion.

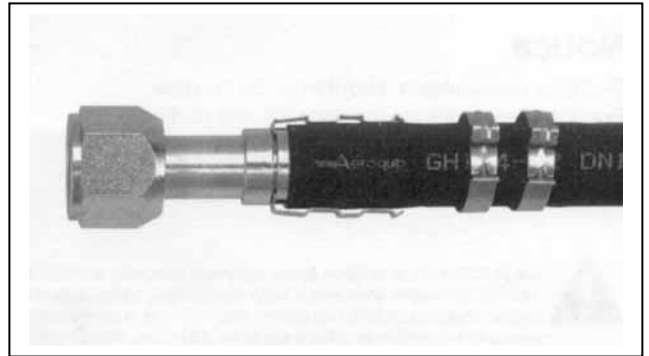


Step 4. Insert the nipple into the hose. To ensure that the nipple is fully inserted, check the gap between the cut end of the hose and the shoulder on the nipple. Care should be taken to avoid kinking or other damage to the hose during nipple insertion. NOTE: Be sure to wipe excess oil from the nipple and hose.

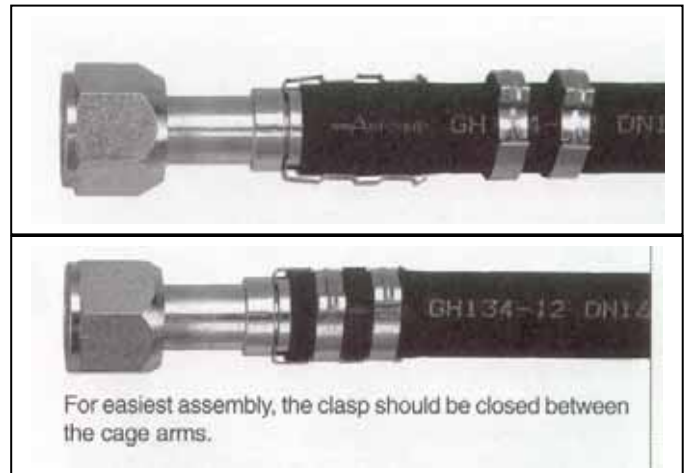


Step 5. Snap the cage into the groove on the nipple. The arms should extend over the hose length. When the cage has been correctly installed in the cage groove, the cage will be able to rotate in the groove. This step **MUST** be performed to ensure:

1. The clips will be located over the O-rings on the nipple.
2. The connection will be compatible with the connection's pressure rating.



Step 6. Slide the clips over the cage arms and into the channels on each arm.



Step 7. Use the pliers to close the clips. The pliers should be positioned squarely on the clip connection points and should remain square during the closing of the clip.

NOTICE: E-Z Clip components should not be reused.

