

**CAT 906
WITH MITSUBISHI ENGINE
INSTALLATION INSTRUCTIONS**

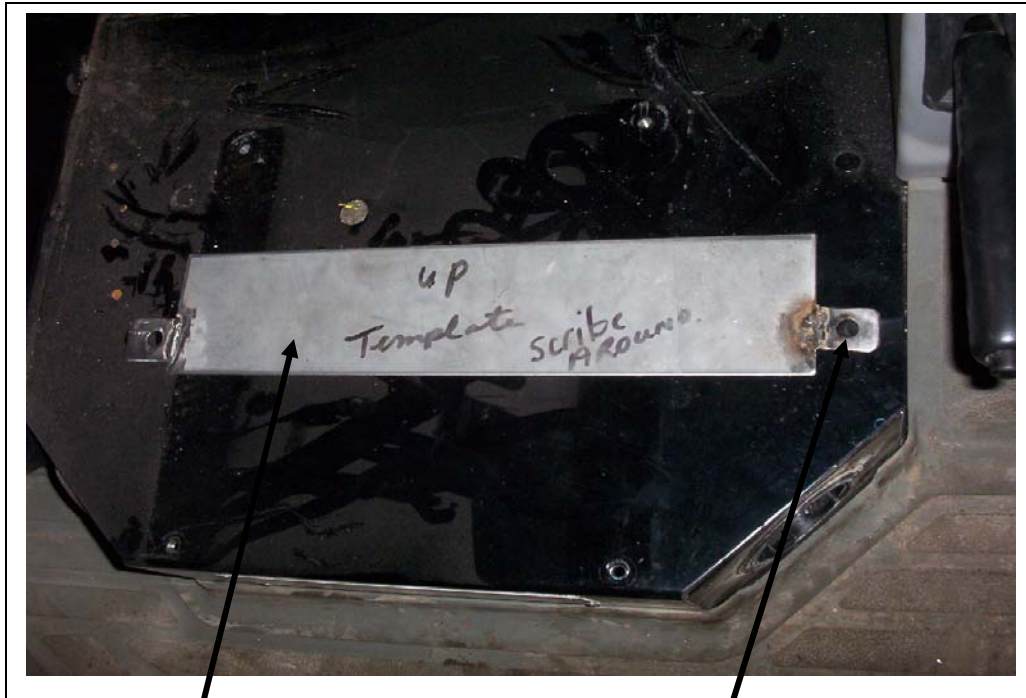


**PHONE 1-800-267-2665
FAX 1-888-267-3745**

EVAPORATOR INSTALLATION (902/906/908)



Seat removed

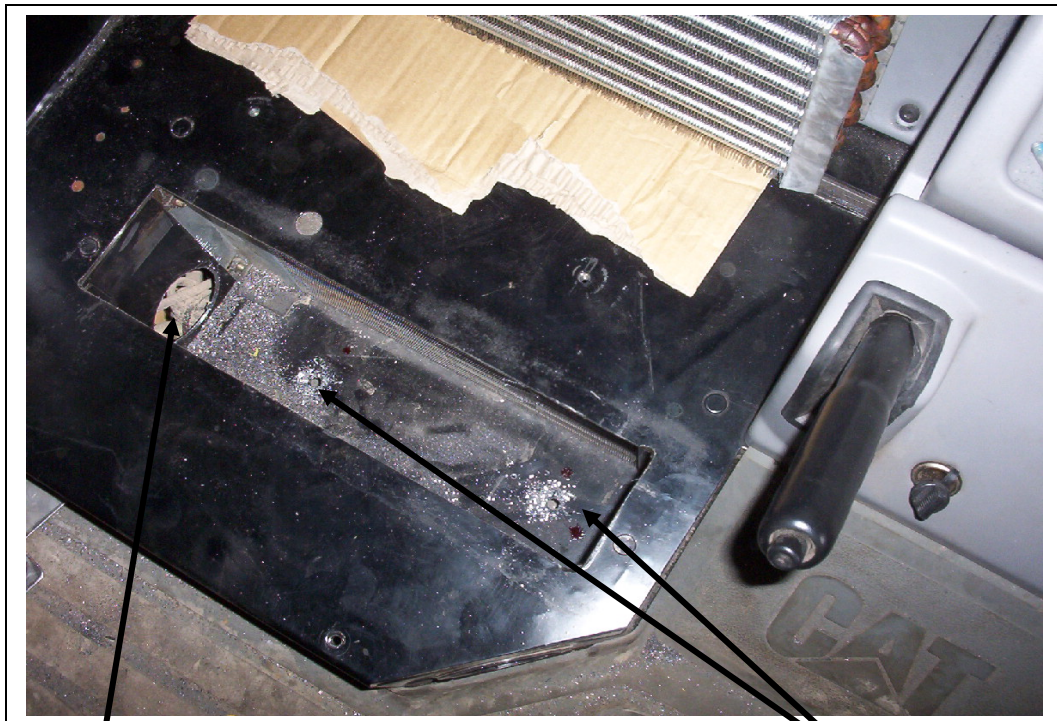


Cut out template

Center template over front two metal plugs.

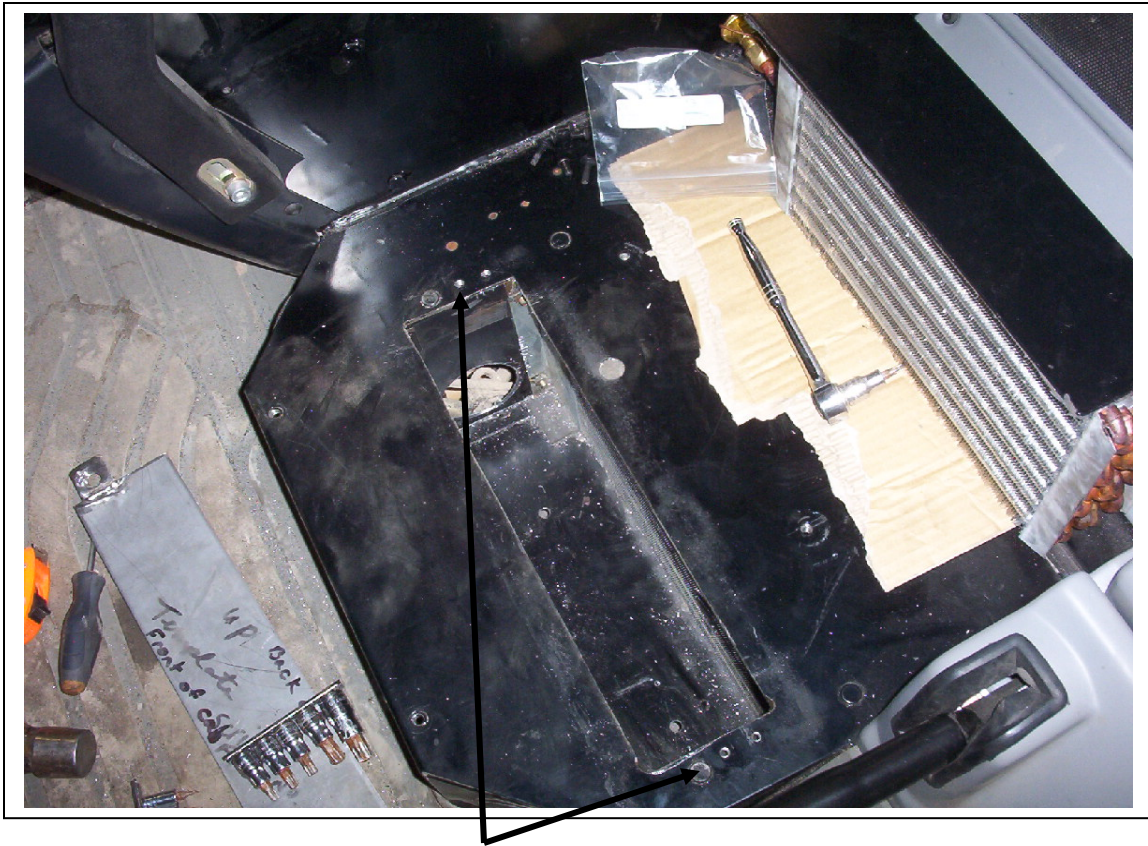


Hole scribed and pilot holes drilled for jigsaw blade.



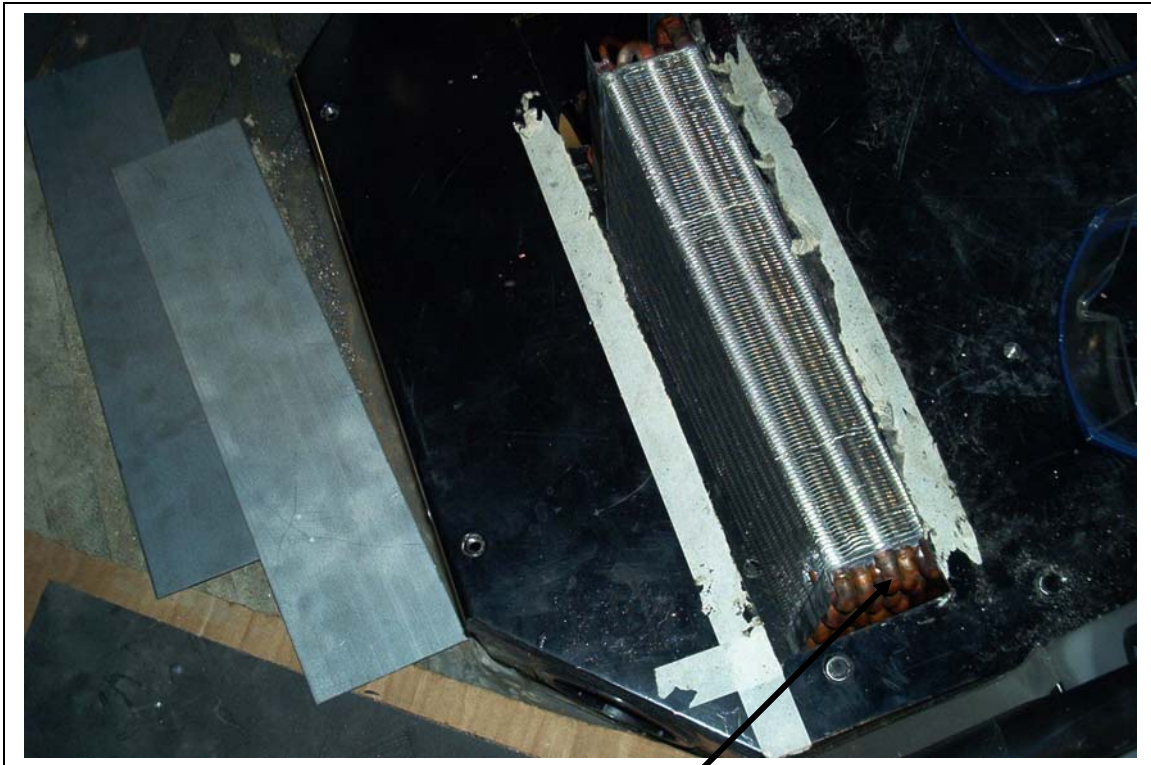
Cut out a 3" diameter hole as shown for the evaporator lines to go through.

Drill two 1/4" holes for drainage.



Fit the lid in place and drill and tap for 1/4" bolts. One bolt per end.

Place the evaporator coil in the box with the fittings out through the 3" hole. Slide the coil towards the left side of the box and hook the evaporator flange behind the heater coil mounting flange.



Hook flange of the evaporator coil behind the mounting flange for the heater coil to secure this end of the coil.



Install the retaining plate on the fitting end of the coil. Hold the plate tight to the coil and secure with the self drilling screws provided.



Run the thermostat probe from the right control console area, out through the floor and into the evaporator through the 3" hole. Install into the coil as shown.

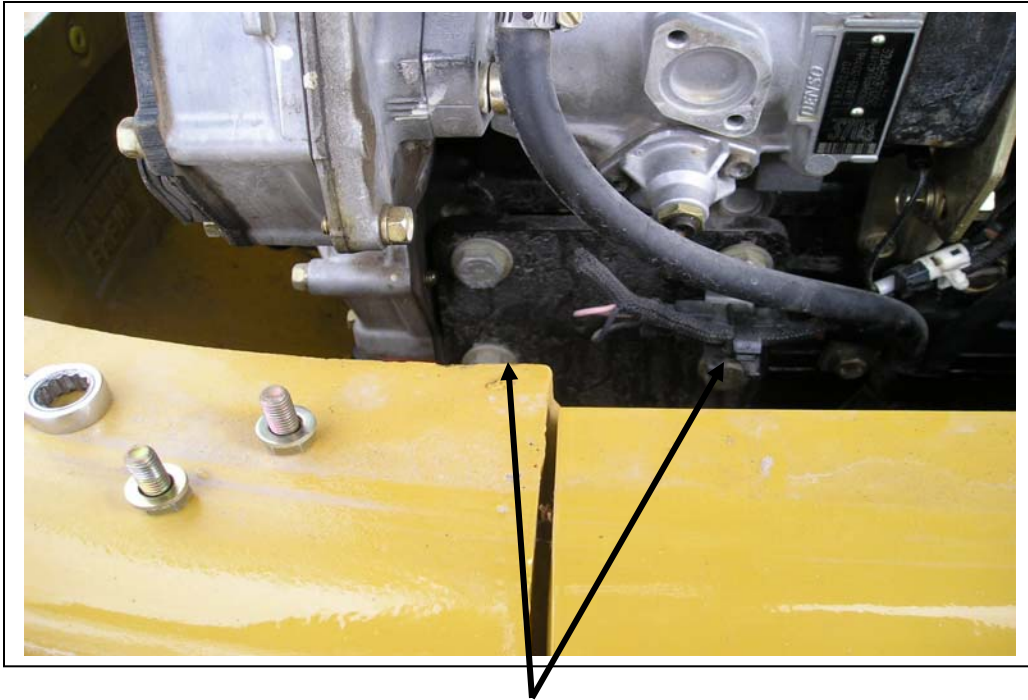


Retaining plate in place

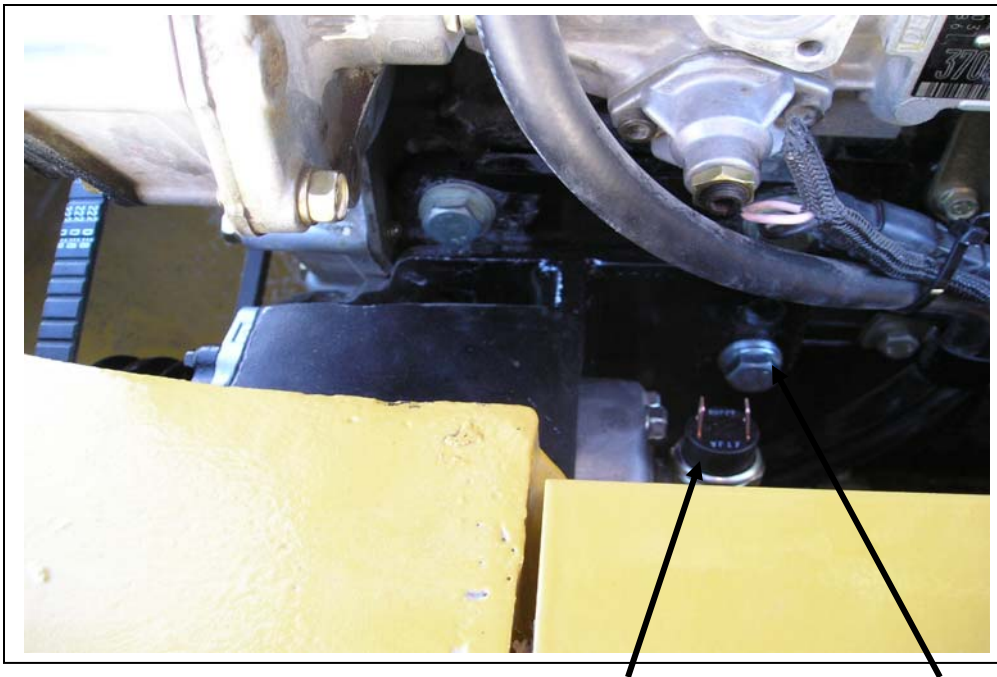
Thermostat probe in place.

Once the A/C lines have been connected to the evaporator coil, seal the 3" hole with tar tape.

COMPRESSOR MOUNT



Remove these bolts to mount the compressor mount bracket.

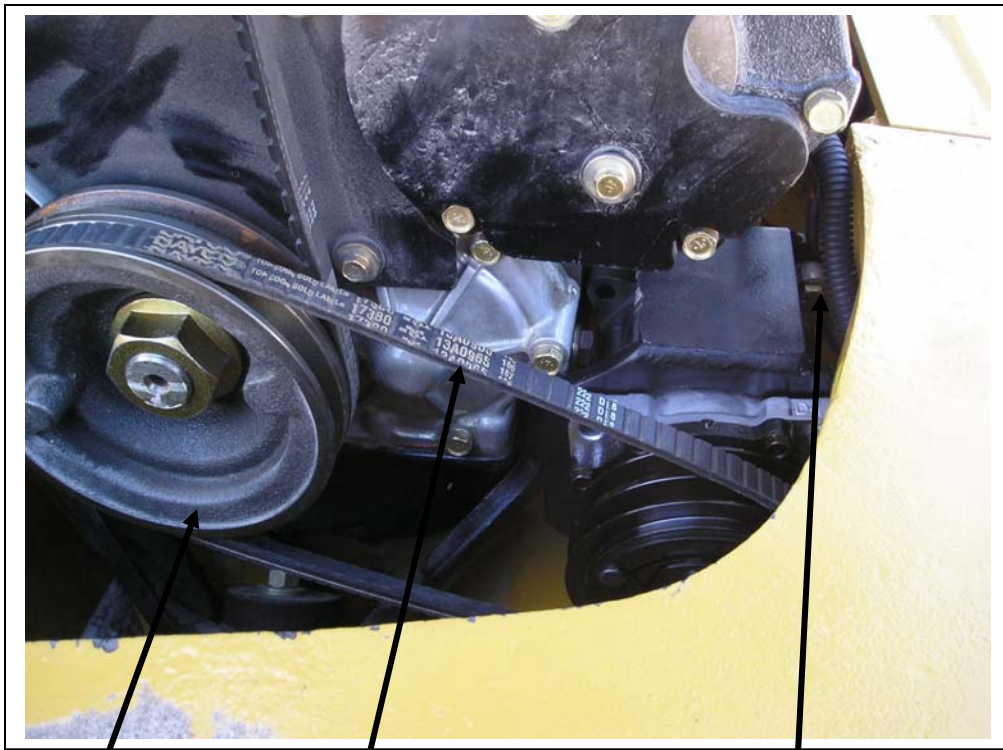


Pressure switch Rear mount bolt.

Put compressor in place on bottom of engine compartment. Position the mount and bolt in place. Lift the compressor up into place and bolt with the 3/8" x 1 1/2" bolts provided. Mount the compressor so the binary switch points straight up.



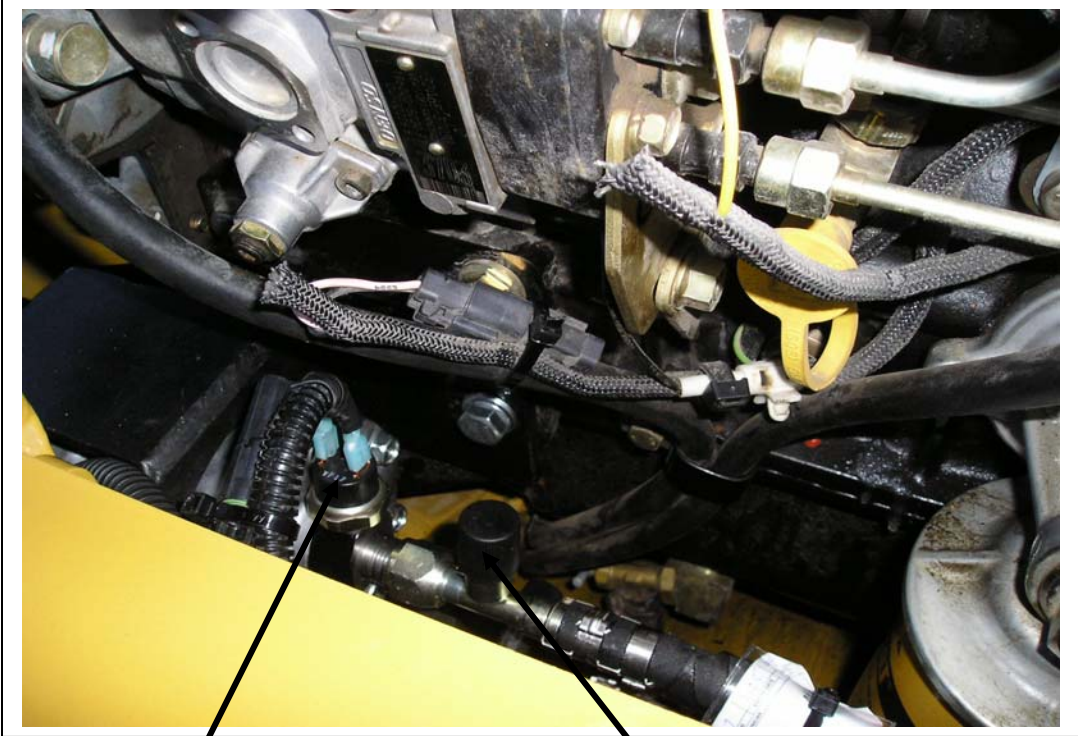
Front mount bolts.



Existing drive pulley

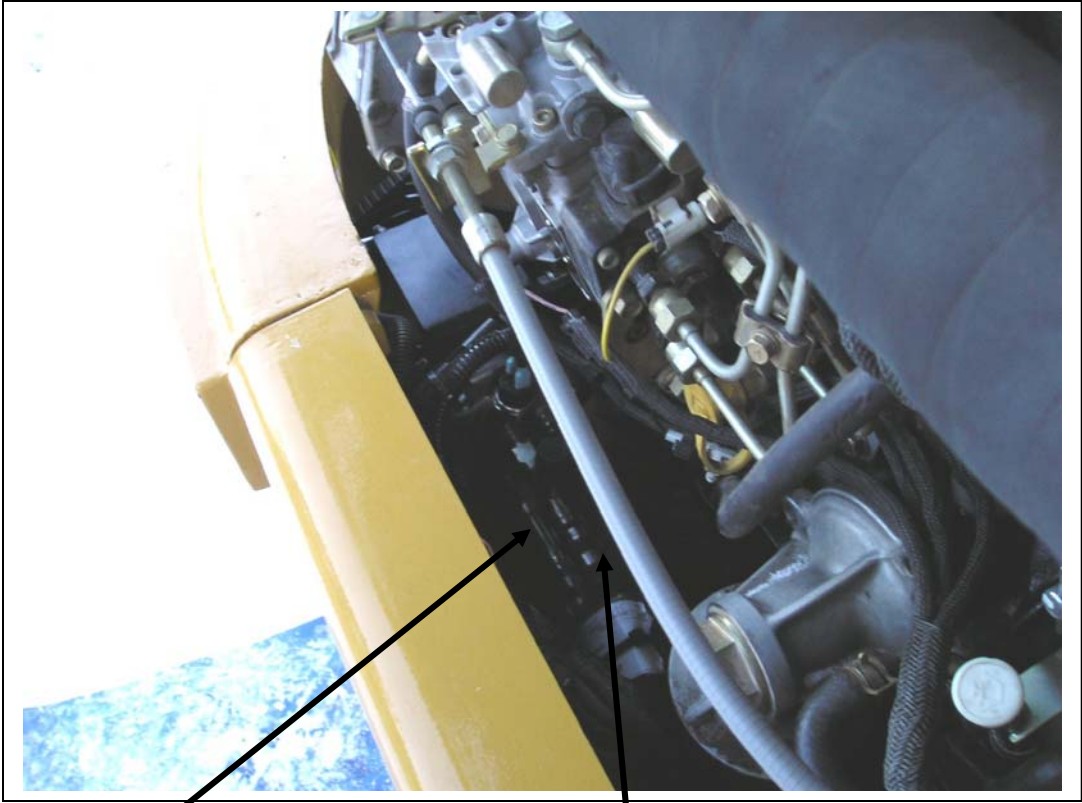
Belt in place

Top bolts mounting compressor to mount bracket.



Pressure switch

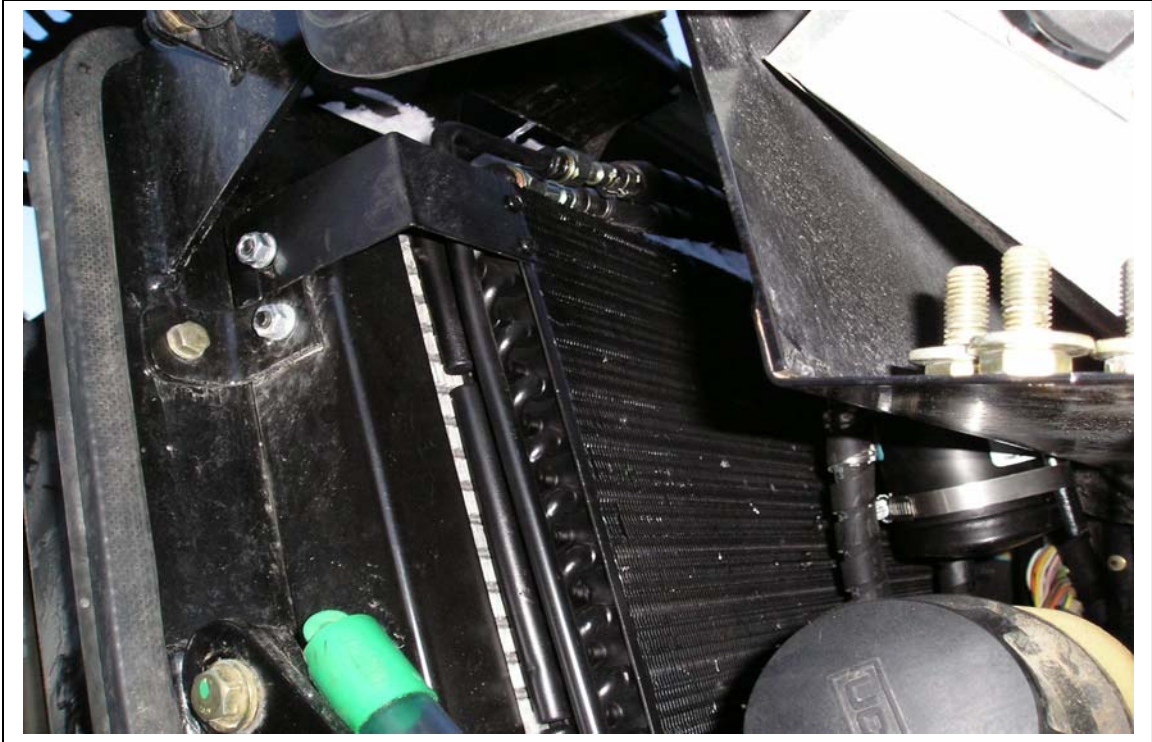
13/32" fitting complete with R134a access port.



1/2" fitting

13/32" fitting

CONDENSER (902/906)



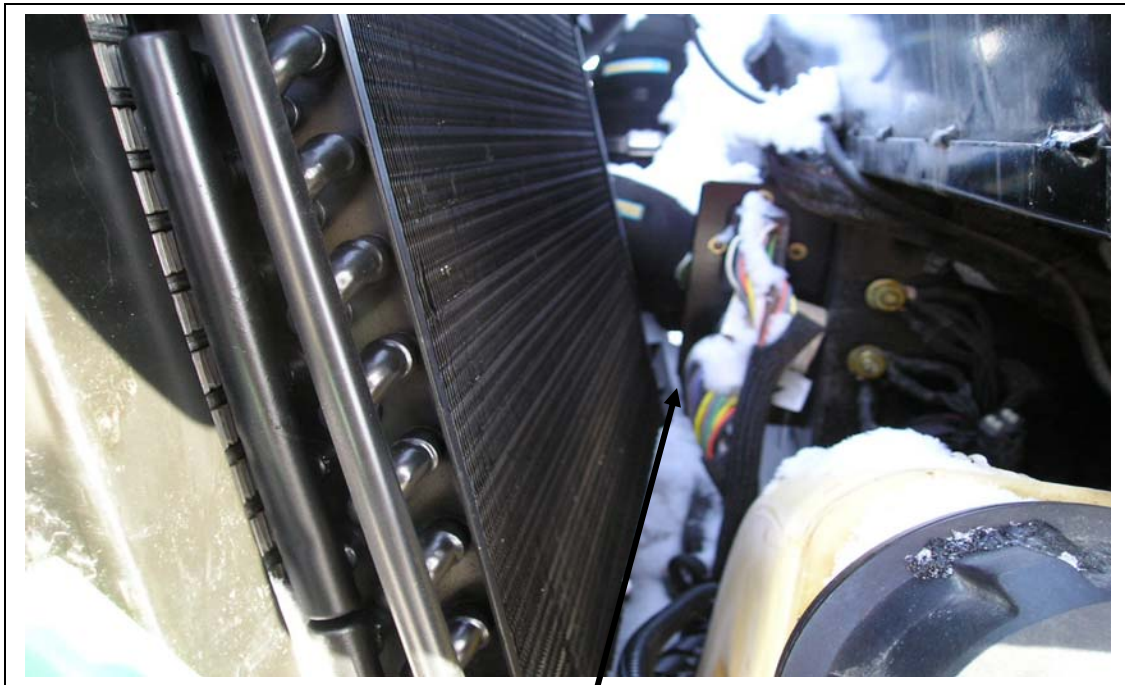
The condenser installs in front of the radiator and is dropped in from the top.



Cut the lower corner off this electrical plug mount bracket to make room for the condenser coil.



Loosen the upper nut of each pair of radiator mounting bolts. Slide the condenser coil down from the top onto the four loosened nuts and retighten the nuts.



Condenser coil in place with electrical plug bracket already trimmed off.



Mounting nuts on the left end of the condenser coil.

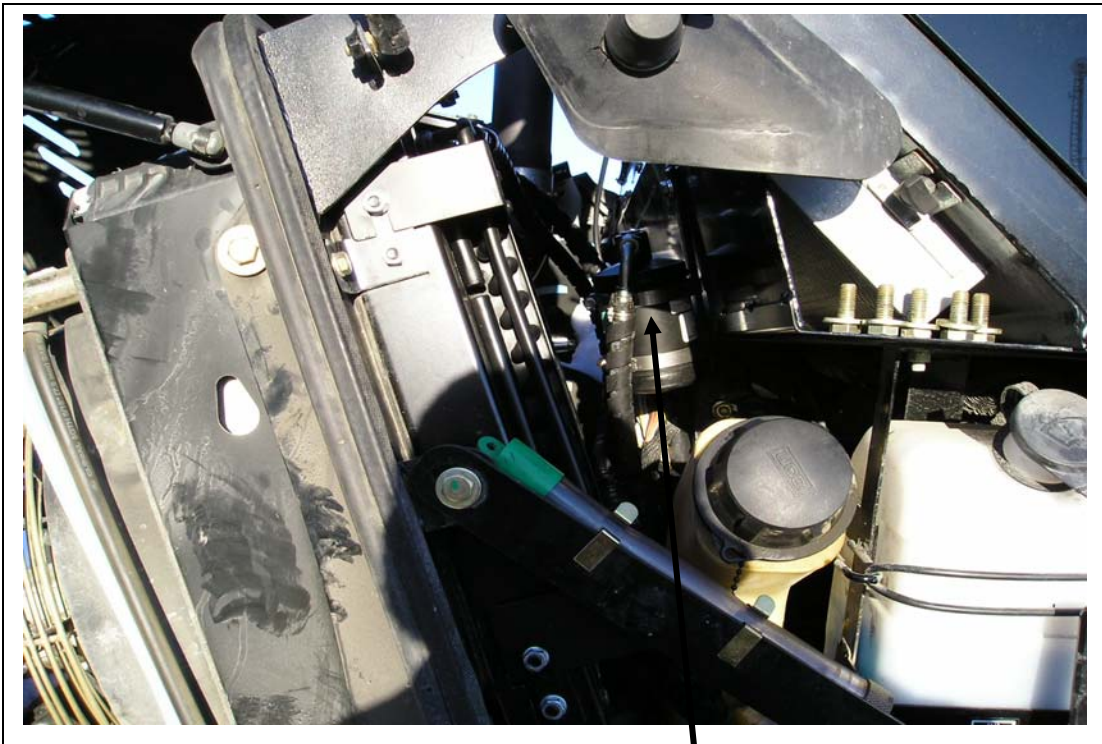
RECEIVER DRIER (902/906)



Receiver drier

M8 x 25mm bolt lock and flatwasher.

Straight drier bracket.



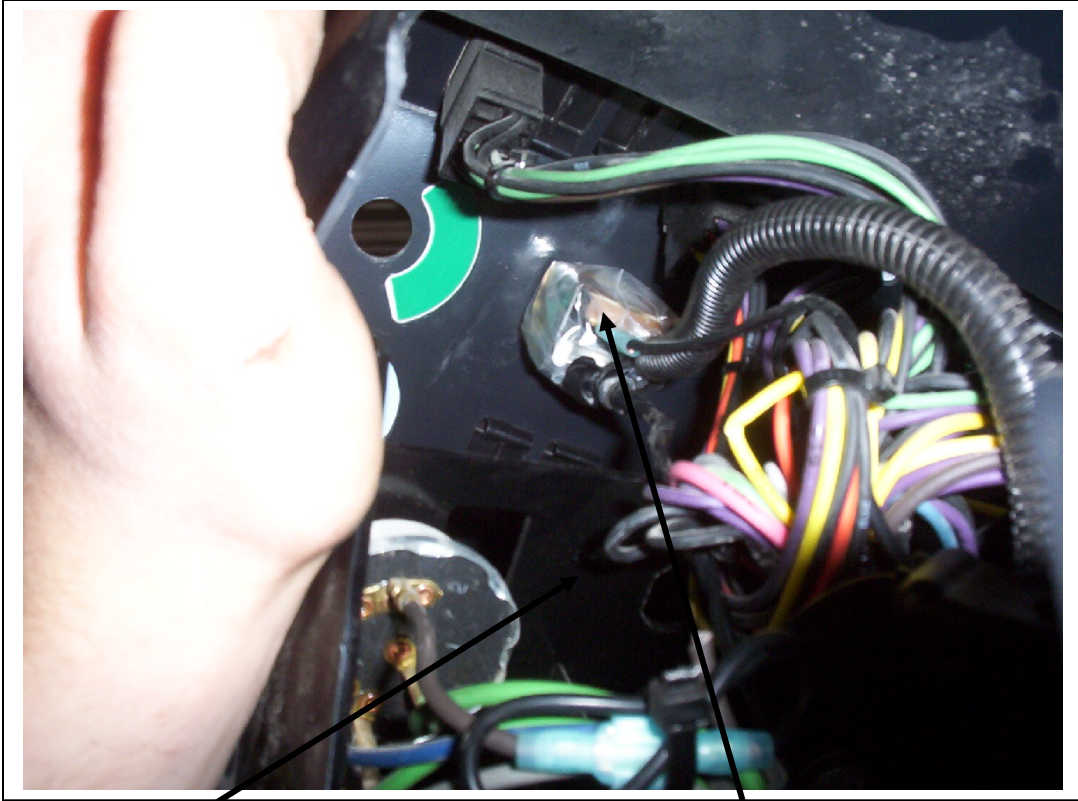
Drier in place ahead of the condenser with all hoses connected.



Thermostat and decal in place in right hand control console.

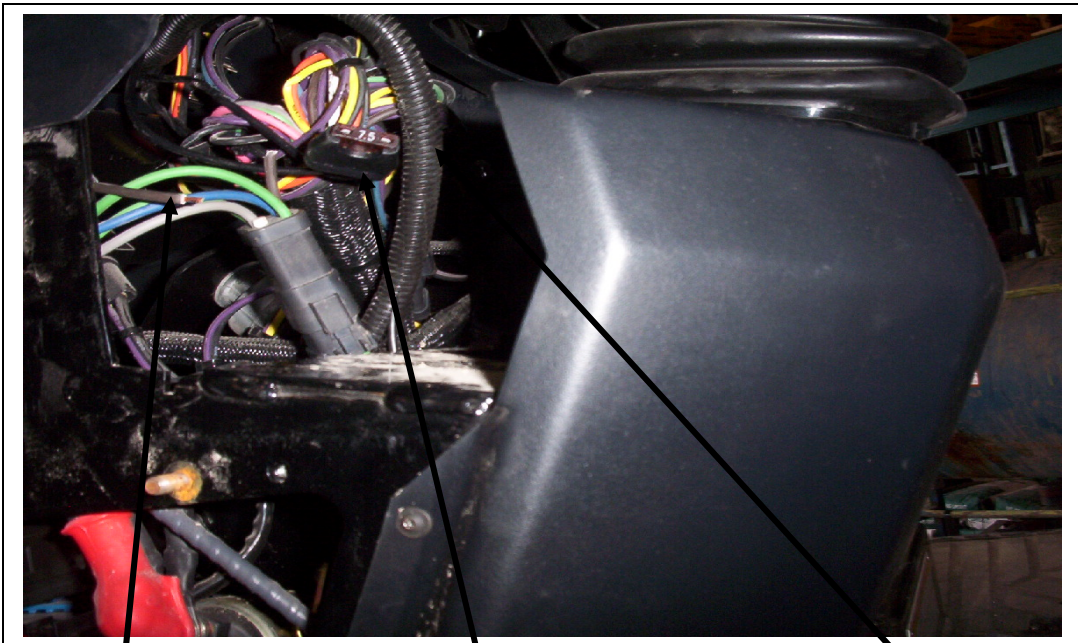


Unbolt console cover



Thermostat mounts to metal frame with the fender washer on the outside of the metal frame.

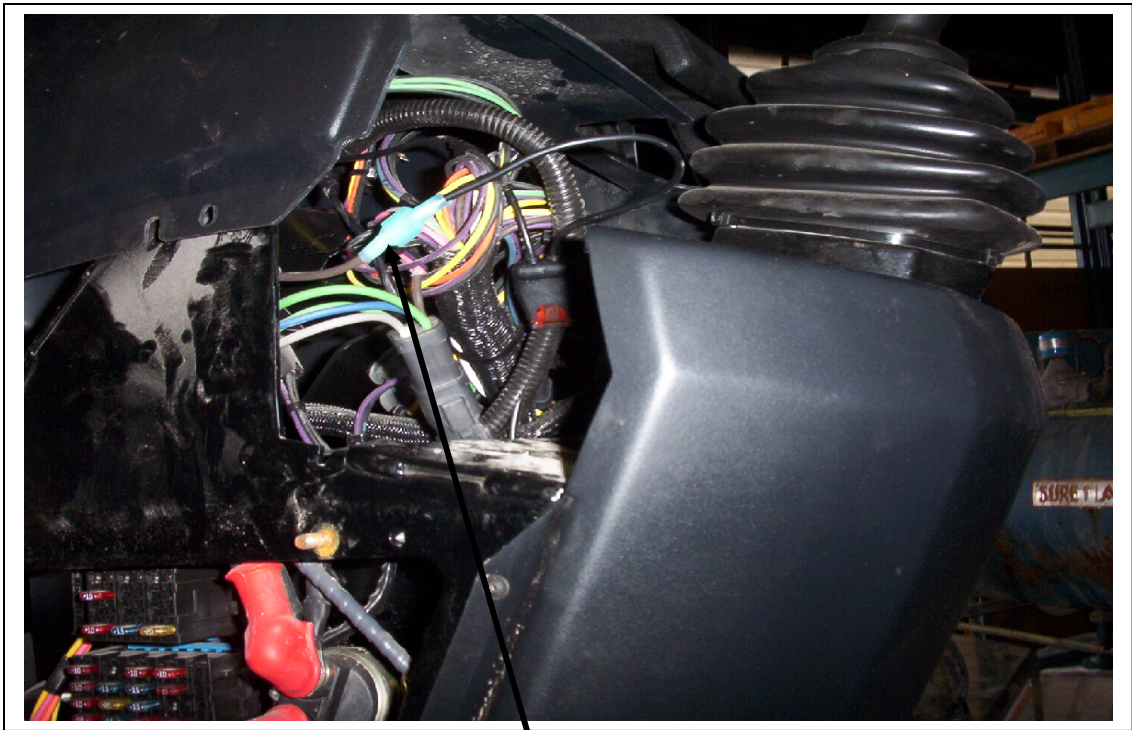
Thermostat wired and ready to mount to metal frame beside the blower switch



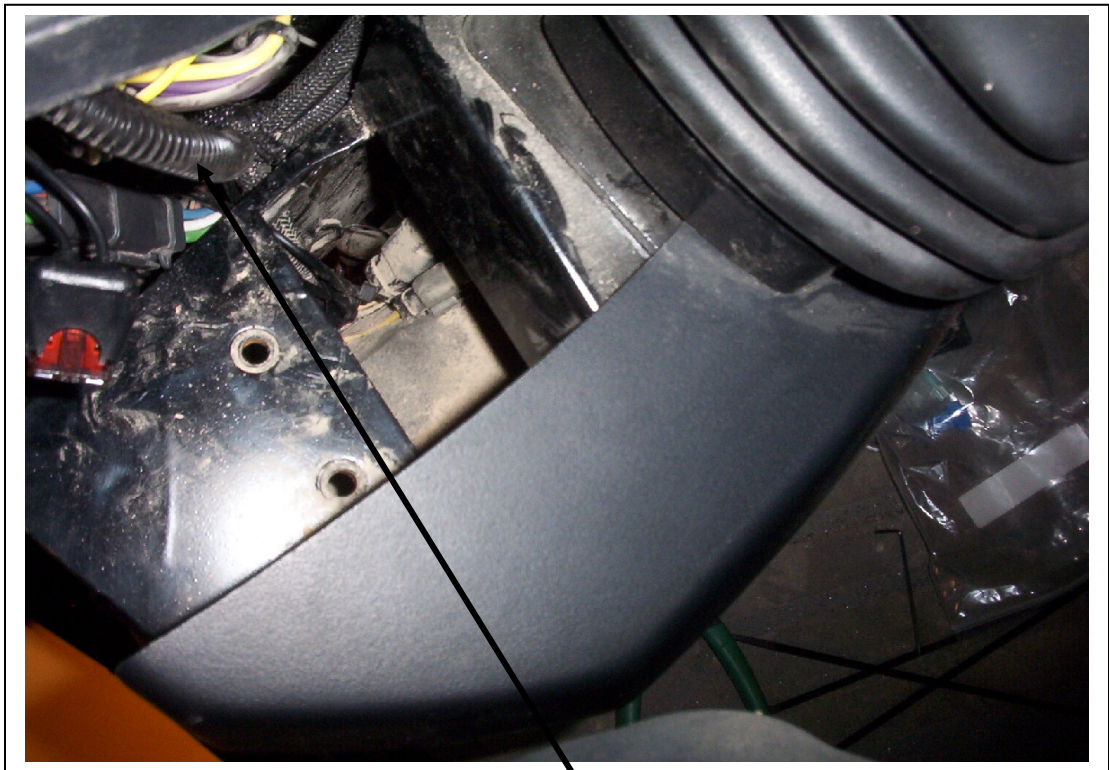
Cut this wire coming off the blower switch

Inline ATO fuse connected to the clutch wire.

Clutch wire run from the binary switch on the drier.



Wire from blower switch connected to the ATO fuse.

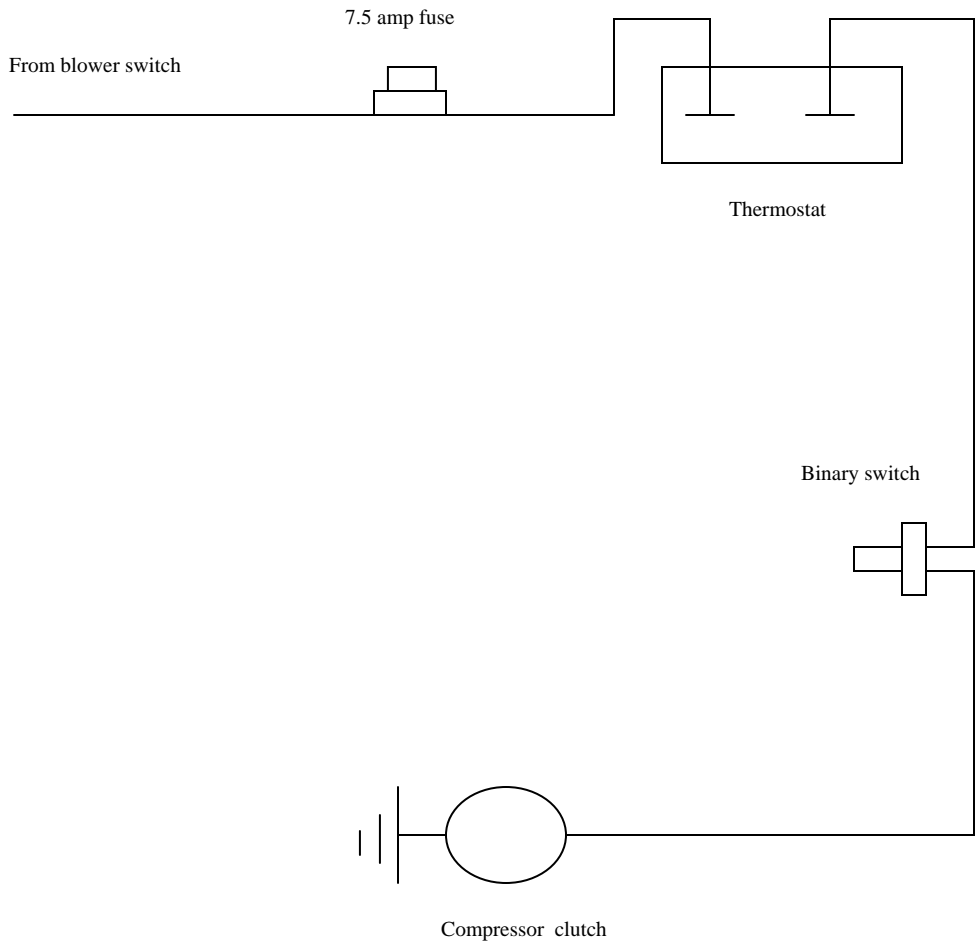


Clutch wire and thermostat probe going down and out of the cab through the floor to the drier and the evaporator.



Clutch wire and thermostat probe
under the cab.

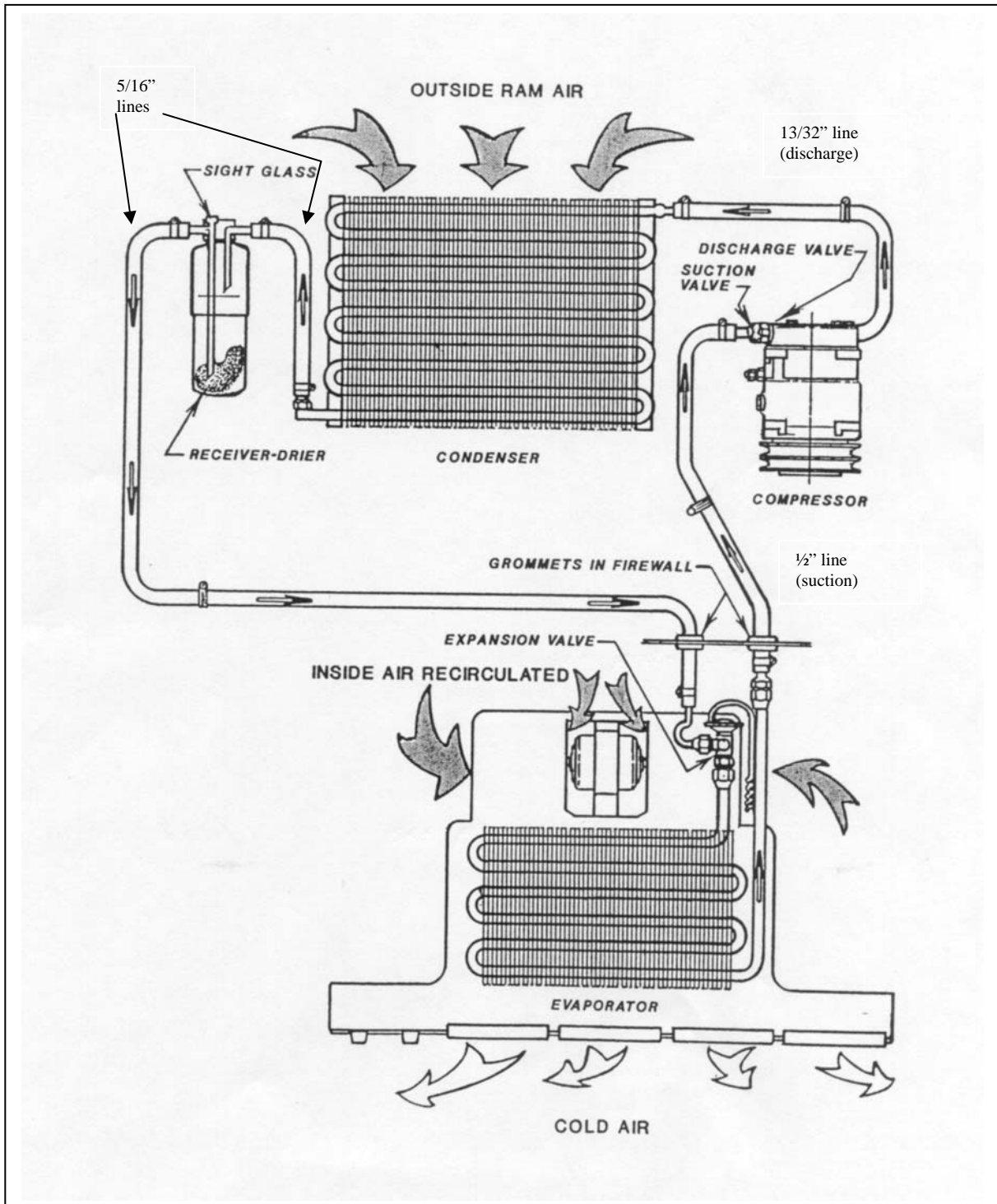
902/906/908 Electrical



CHARGING AND TESTING

- 1) Pressure test the system using nitrogen to a pressure of 250 psi. Check for leaks.
- 2) Add 2oz of SP20 Sanden PAG oil to the system.
- 3) Vacuum the system for at least ½ hour.
- 4) Check that the vacuum holds.
- 5) Fill the system with 2.5lbs of R134a refrigerant. **DO NOT USE ANY OTHER TYPE OF REFRIGERANT OR IT WILL VOID THE WARRANTY.**
- 6) Test the system. Check the cycling temperature of the thermostat. Adjust the thermostat settings if required to avoid coil freeze up problems. See the thermostat setting procedures at the end of these instructions.

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.
-
- 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.

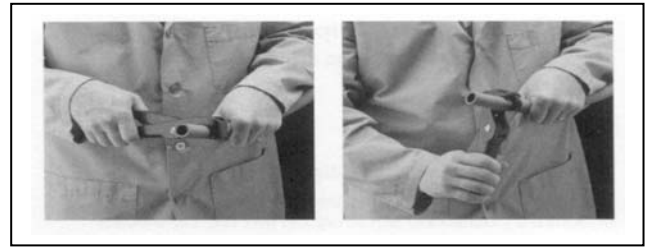
By looking at all these different factors, the area of an evaporator coil most likely to be the coldest can be determined.

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.

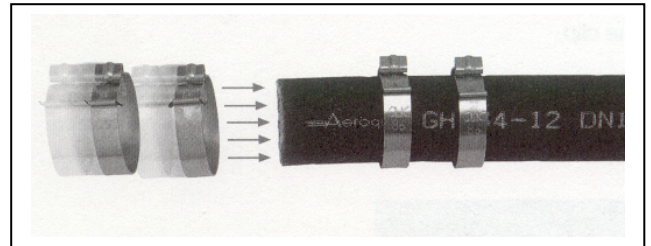
If the thermostat doesn't cycle off after a reasonable cool down period, and the air outlet temperature has dropped below 40° F, the cut in and cut out settings should be adjusted until the compressor is cycling on and off regularly. Let the system run for a decent time period (at least 15 min) and then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

Aeroquip E-Z Clip Assembly Instructions

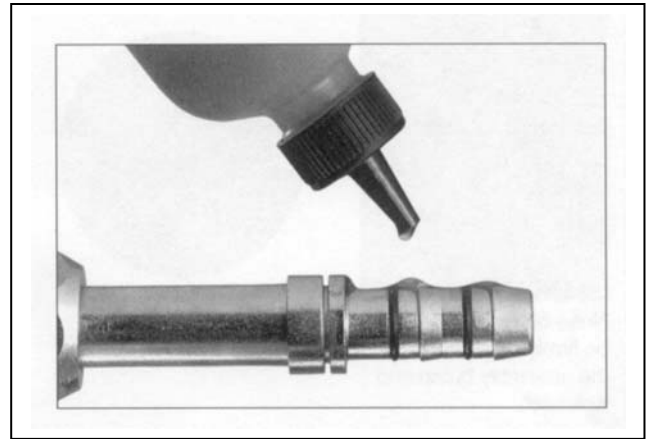
Step 1. Cut the hose to proper length with an appropriate cutting tool. Aeroquip's hand held hose cutter has been specially designed for cutting all non-wire reinforced hose, such as GH-134 Multi-Refrigerant hose. Be sure the cut is made square to the hose length.



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.

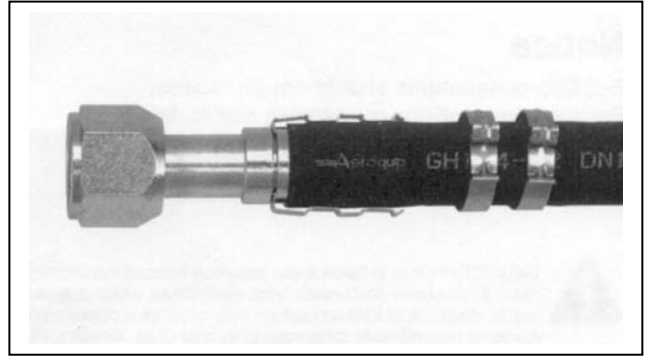
NOTE: Be sure to wipe excess oil from the nipple and hose.



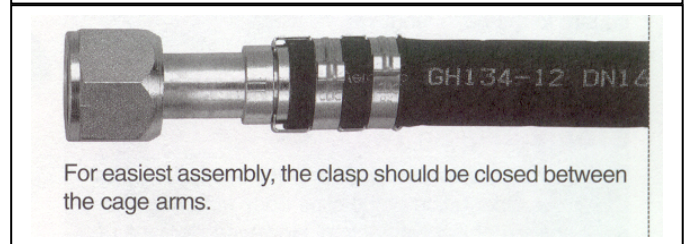
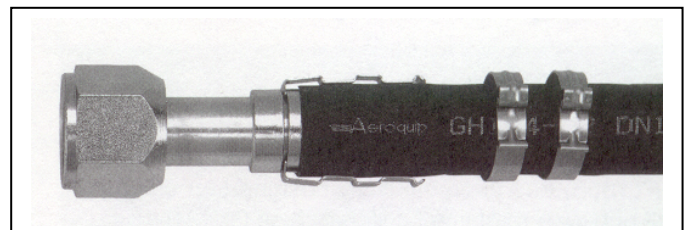
Step 5. Snap the cage into the groove on the nipple. The arms should extend over the hose length. When the cage has been correctly installed in the cage groove, the cage will be able to rotate in the groove.

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.

