

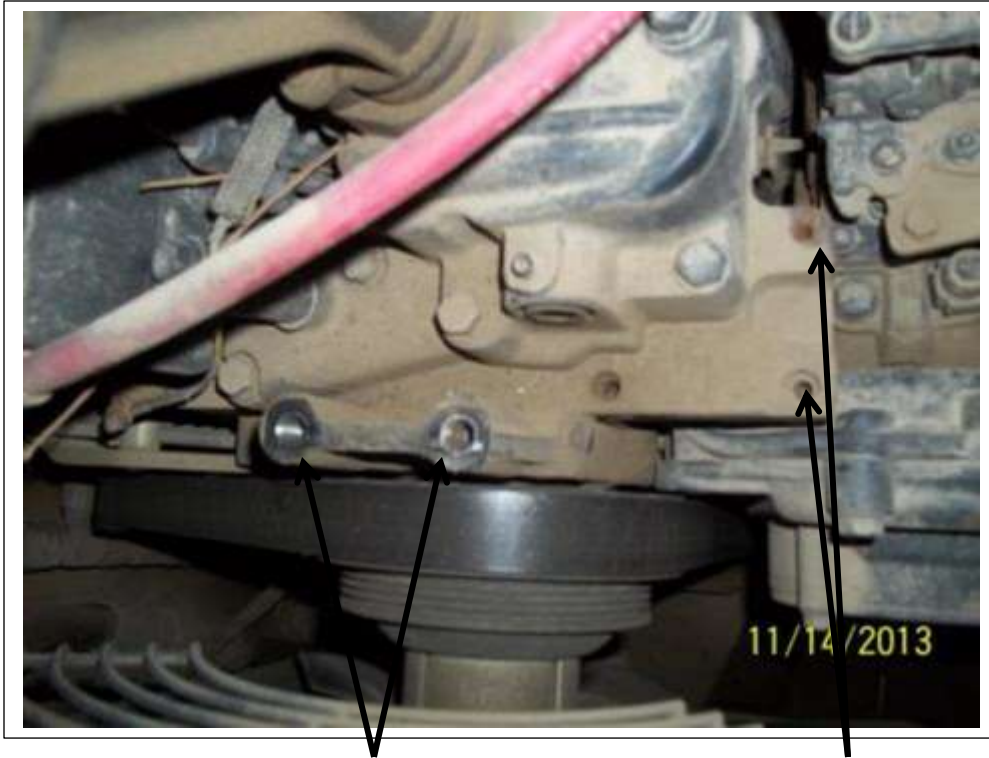
**CASE 420/430
SERIES 3
SKIDSTEER
INSTALLATION INSTRUCTIONS**



PHONE: (519)485-5961 OR 1-800-267-2665

FAX: (519)485-3745 OR 1-888-267-3745

COMPRESSOR



Remove engine lift bracket and discard the bolts

Run an 8MM tap through these two holes and blow clean.



Replace engine lift bracket on top of mount and secure with new 10MM hardware.

8MM bolts and spacers

Remove filter lid temporarily to install mount and compressor.



Compressor will drive off of this 4 groove pulley.

Cut out this much of the fan screen to allow the compressor to fit.



Re-install air filter lid as shown.

Insert spacer here

Install compressor, belt, hardware and tighten belt.

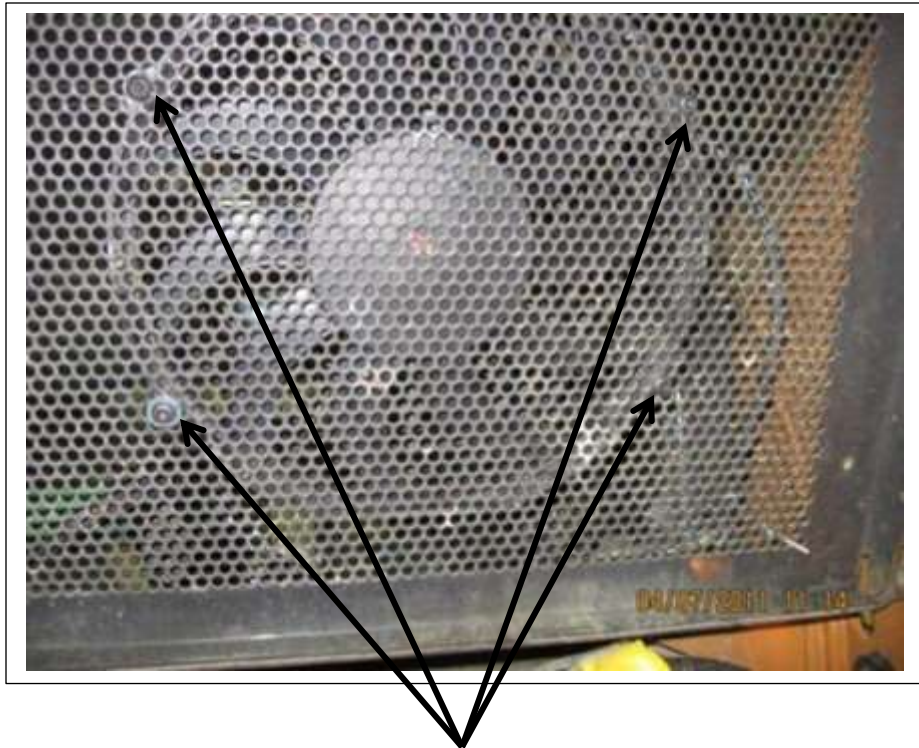
CONDENSER



The condenser will mount beneath the engine hood with the fan mounted on the top of the lid first.



Condenser fan shown in place on the top of the engine cover.



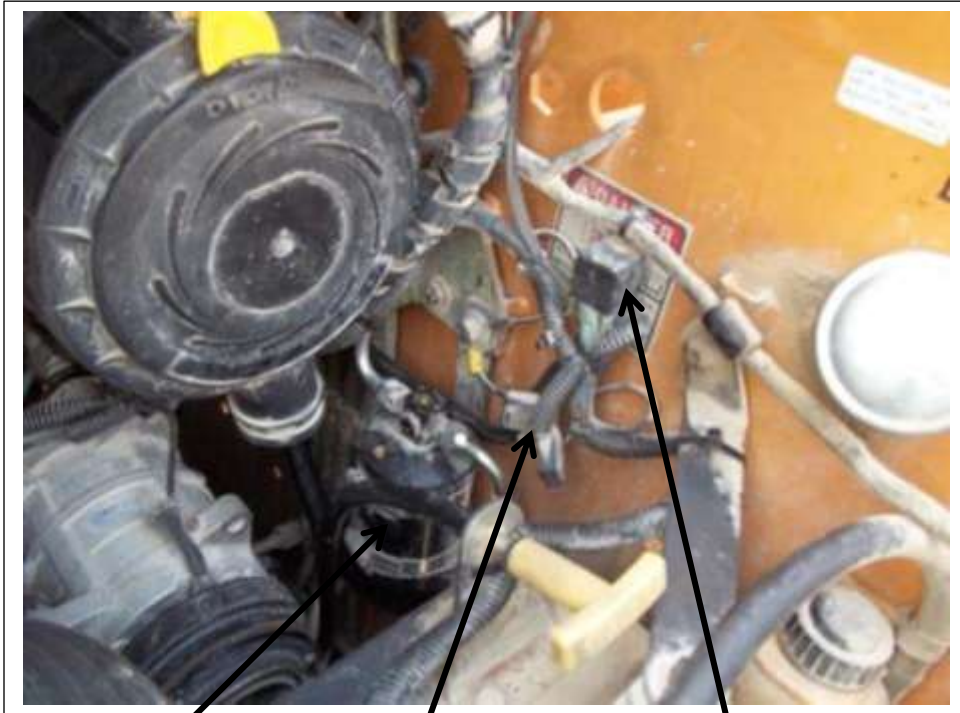
Use the button head to fasten the fan in place. Insert from below as shown to avoid contact with the condenser coil.



Condenser shown in place. Fasten with 1/4" hardware from the top into the clinch nuts on the condenser flanges.

RECEIVER DRIER

The receiver drier is mounted as shown with the bracket provided. Also note the location of the relay and ATO fuse holder.



Receiver drier

Fuse holder

Relay.

EVAPORATOR



Remove cover and filter. Remove the large roof plate. The evaporator will be installed beside the heater coil.



Remove the filter



Mark the location of the edge of the heater coil.
Stay ¼" away from the heater coil and mark the width of the coil
and cut with thin blade grinder



Use a hole saw to cut a hole for the hoses.



Two 1 1/8 holes drilled and grommets installed for the hoses coming from the evap.



Hoses will go down here.

Clean out debris. Double check the cut out to ensure the fit for the evaporator coil.



Connect hoses to the coil as shown. Lightly oil the O-rings when installing. Tighten fittings and feed the hoses down through the hole.





Attach expansion valve probe to the suction side and tar tape around it.



Install thermostat as shown. (detailed instructions are at the end of these instructions)



Foam and seal in evaporator coil.
Silicone cover and install.



Cover fastened in place



Tape after cover installed.



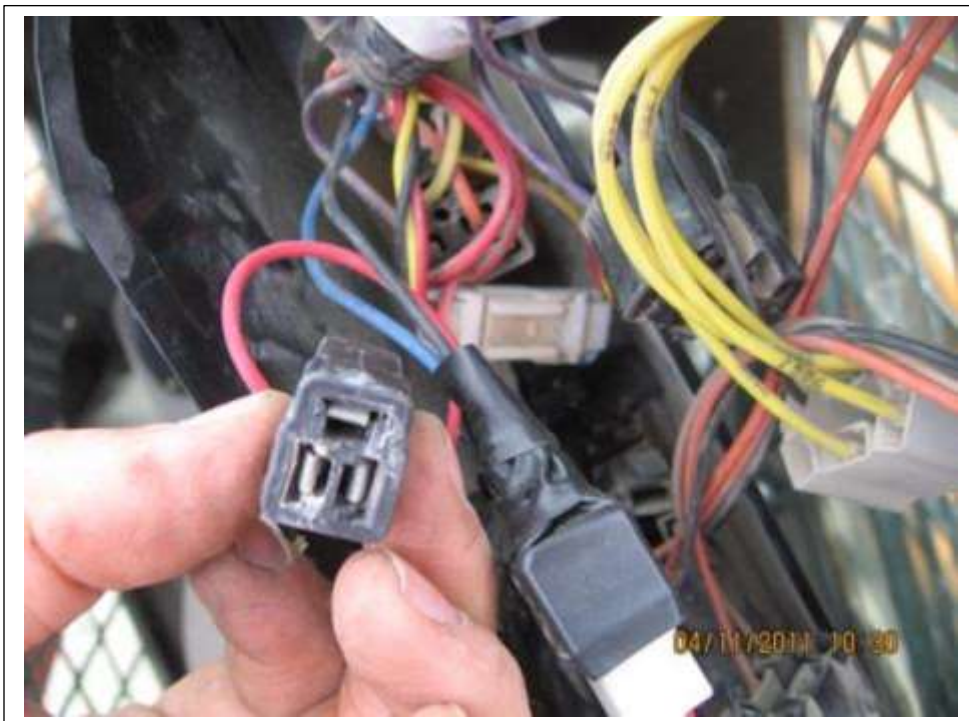


Set large lid on and mark the locations where the clinch nuts need to go.
Carefully install the clinch nuts and then the lid.

ELECTRICAL



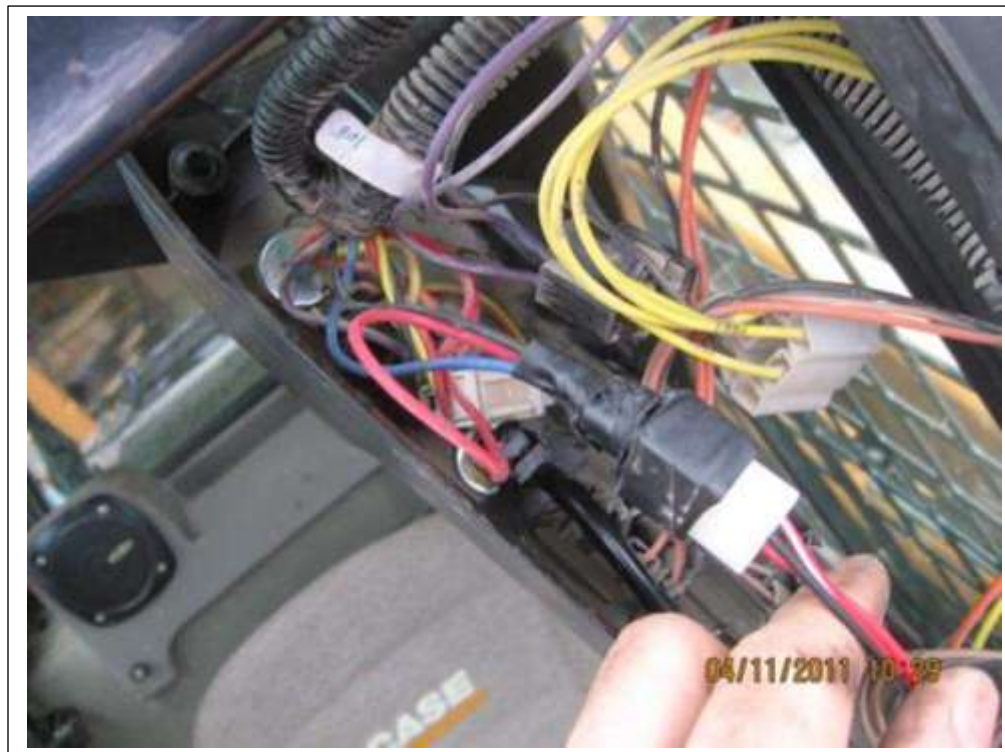
AC switch installed

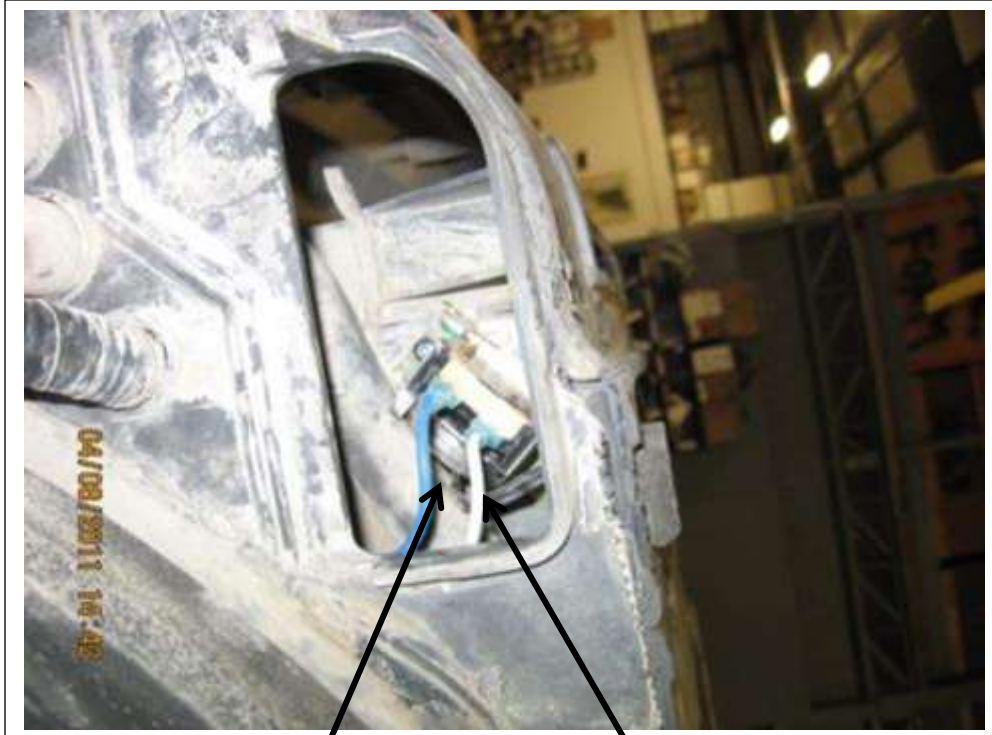


Find this electrical fitting behind the fan switch panel.
Check with a test light. (should be fan on power for AC switch)
Connect that wire through the AC on/off switch then to the blue wire
which can also be located in the harness by the thermostat.



Cut and use



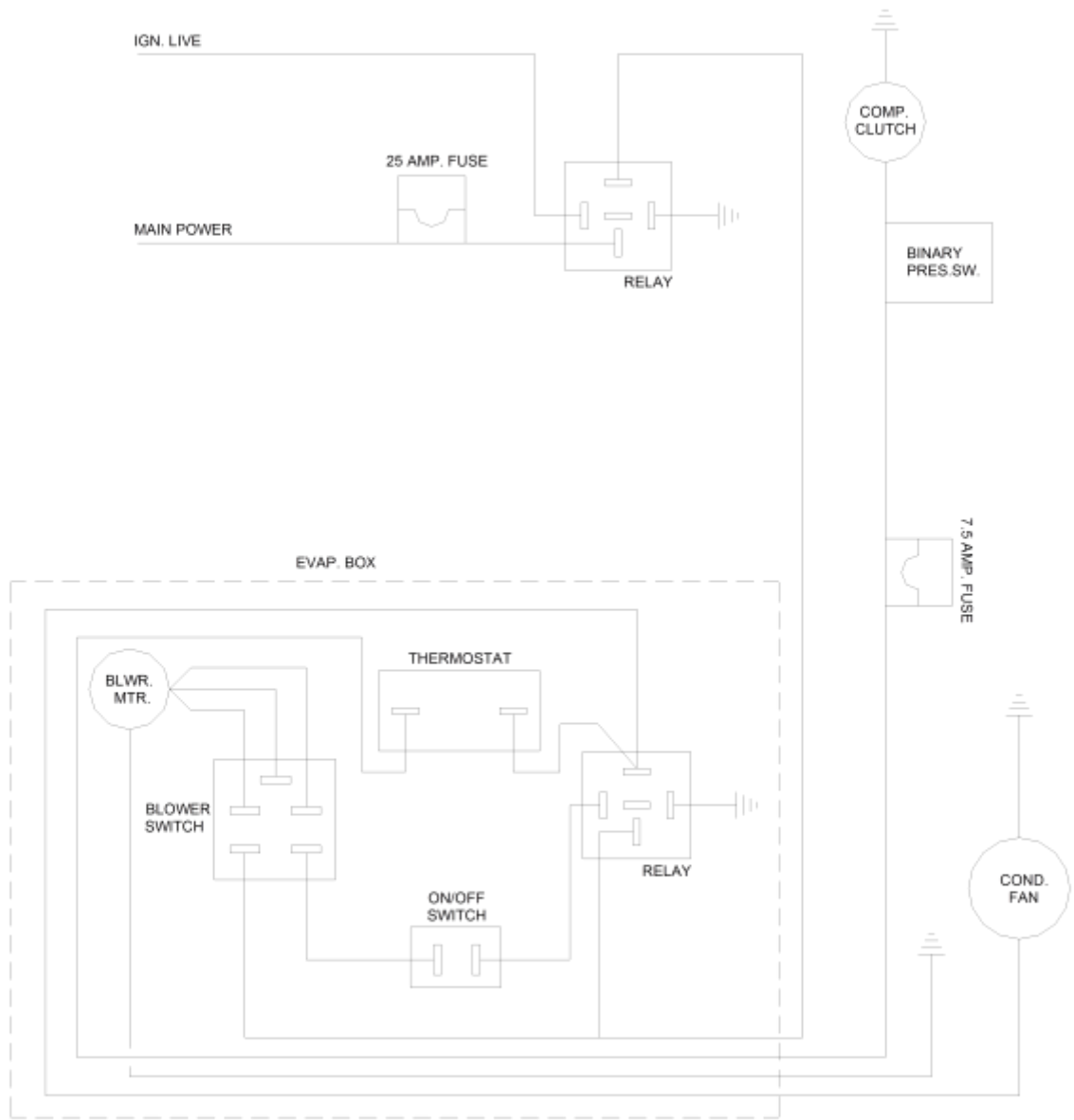


Thermostat connections

Return wire to relay.

BASIC WIRING WITH ELECTRIC COND.

MAR. 11, 2004





Connect drain tubes and feed as shown.



Drill for drain tubes.



Drill hole to send drain tubes through

HOSE RUNS



Hoses will come out here from evaporator



Hoses from evaporator wrapped with hose wrap.

Drill holes here for hoses.



Drill here for the hoses.



Holes drilled for AC hoses similar to heater hoses except other side.



Fasten hoses such that they will not interfere with opening and closing of the engine compartment.



Hoses secured to cab

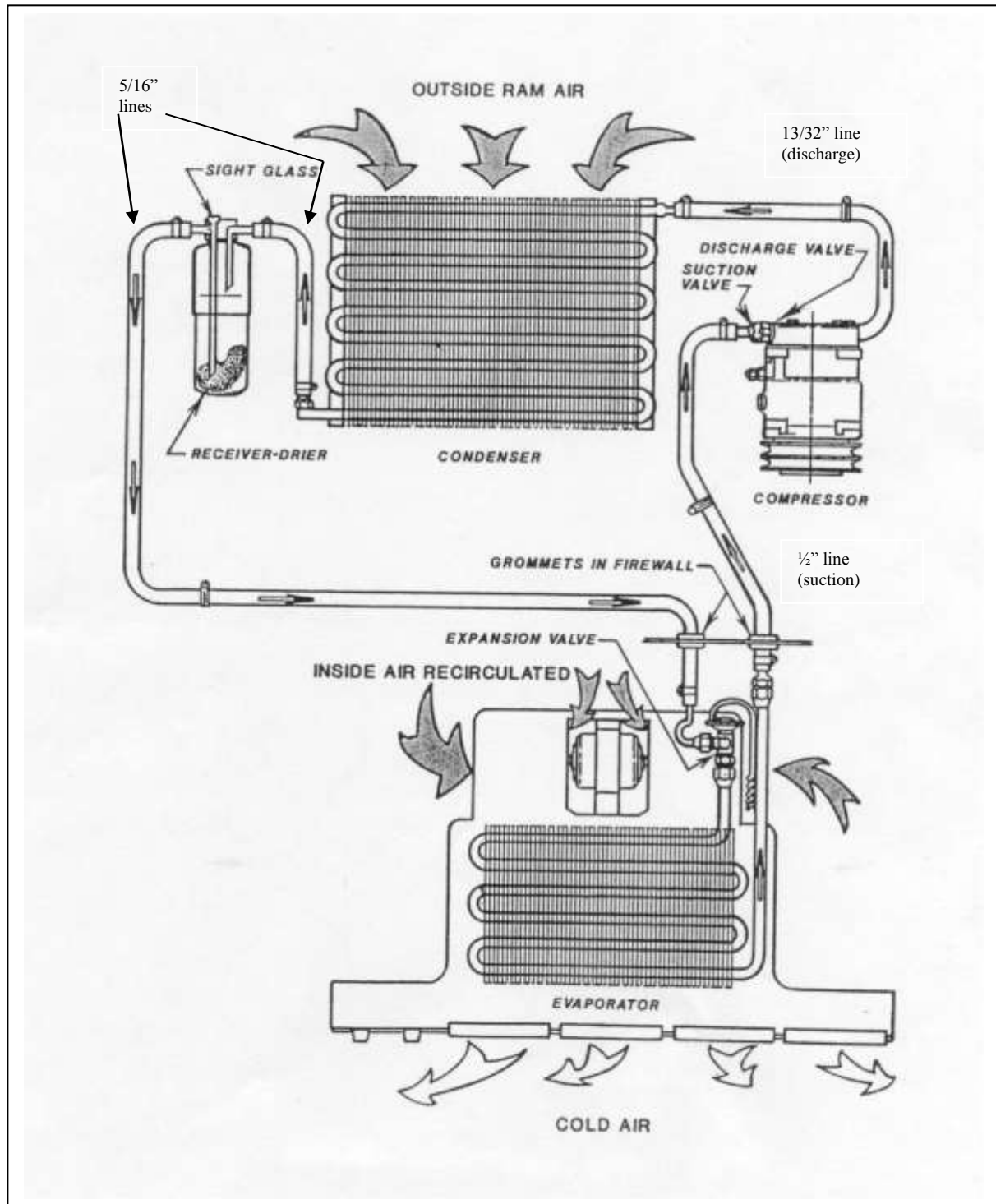


AC hoses to engine

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 1.75 to 2 lbs 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.
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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.

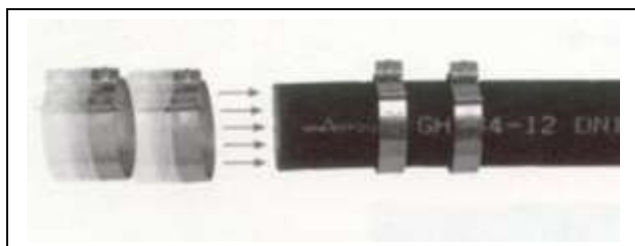
If the thermostat doesn't cycle off after a reasonable cool down period, and the air outlet temperature has dropped below 40° F, the cut in and cut out settings should be adjusted until the compressor is cycling on and off regularly. Let the system run for a decent time period (at least 15 min) and then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

Aeroquip E-Z Clip Assembly Instructions

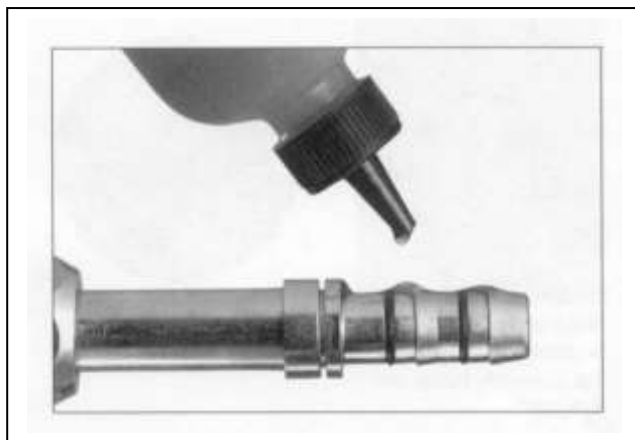
Step 1. Cut the hose to proper length with an appropriate cutting tool. Aeroquip's hand held hose cutter has been specially designed for cutting all non-wire reinforced hose, such as GH-134 Multi-Refrigerant hose. Be sure the cut is made square to the hose length.



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.



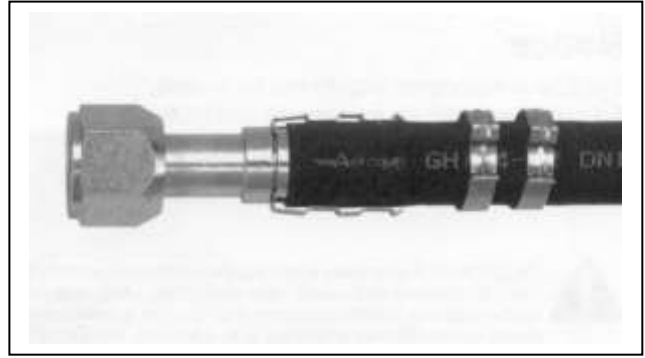
Step 4. Insert the nipple into the hose. To ensure that the nipple is fully inserted, check the gap between the cut end of the hose and the shoulder on the nipple. Care should be taken to avoid kinking or other damage to the hose during nipple insertion.

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.

