

**HR 32 Terex Excavator
S/N 1501 and up
Installation Instructions**



**TEREX
1-877-907-8300**

EVAPORATOR:



- Remove seat and seat mount plate
- Remove existing heater box by removing the four M8 nuts from the mount studs under the floor.
- Clamp off and disconnect the heater lines from the box. Disconnect and remove the bottom front louver and pull both flex hoses down through the hole in the floor.
- Pull box up and forward so the flex ducts on the back of the box can be removed.
- Disconnect the outside air control cable from the lower right corner of the box

Existing flex ducts with plastic adapters removed.

New 2 1/2" flex duct for extra louver on left side of cab.

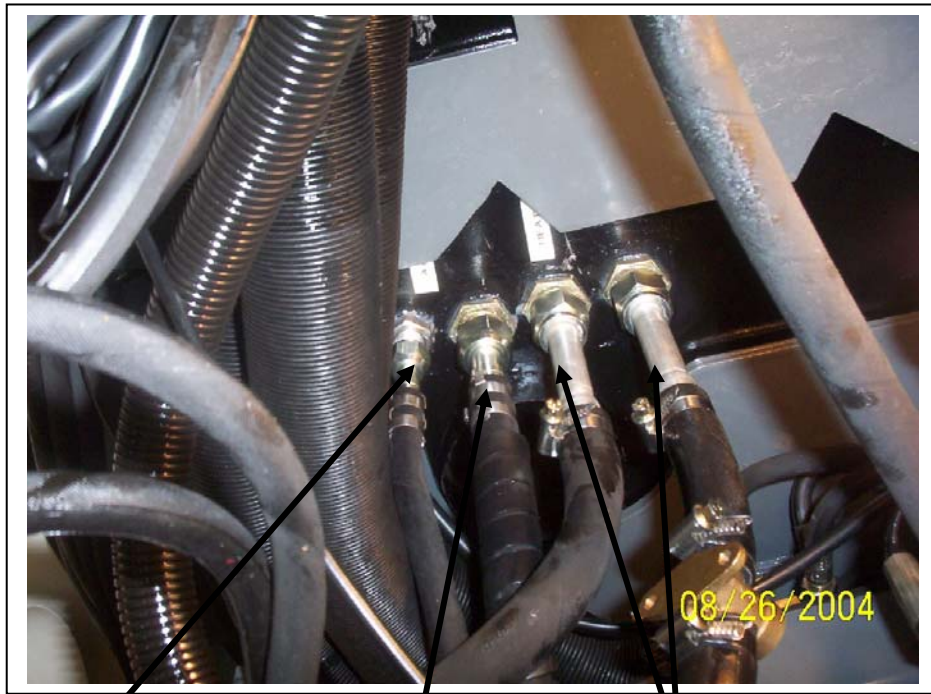


- Re-arrange the flex ducts so the two existing back louvers connect to the new heat/cool box directly in front of the blower outlets.

Cut out an extra $\frac{1}{2}$ to $\frac{3}{4}$ " of metal from this area at the back of the seat frame. This will allow the box to fit in the space easier.



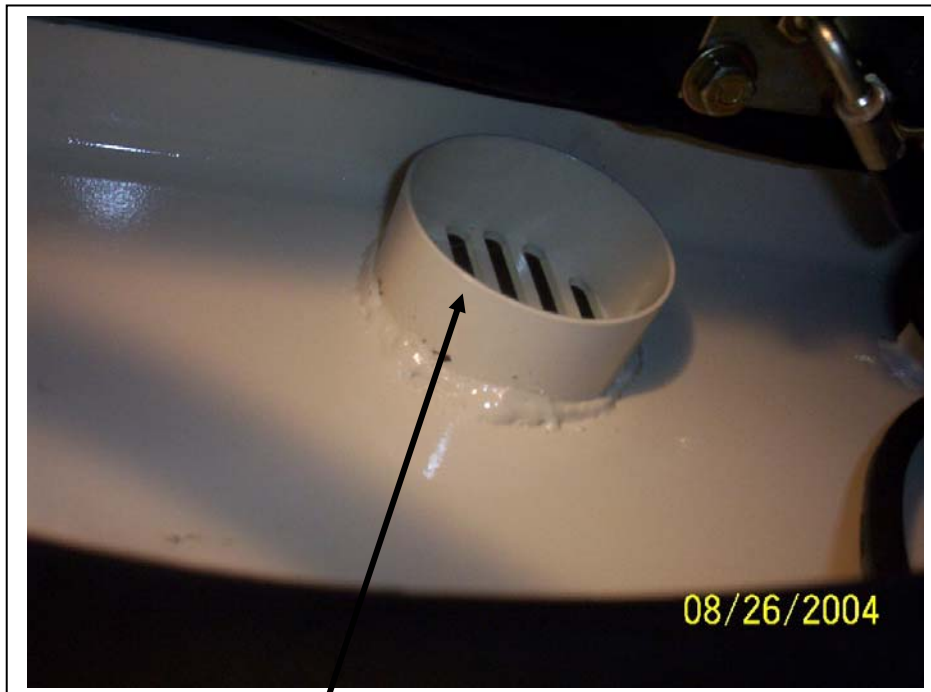
- Slide the box partway into place and connect the six flex hoses to the box.
- Continue working the box into place until it drops down flat into the hole.
- It may be easier to remove the cab body to allow access to the back of the box.



5/16" A/C line
connected to box
under floor

1/2" A/C line
connected to box
under floor.

Heater lines connected to the
supplied fittings on the box. The
lines may have to be shortened a



Install adapter down to 2 1/2" hose fitting and discard old flex pipe.
Run supplied 2 1/2" flex hose to 2 1/2" flex hose on the bottom of the box
just ahead of the four hose fittings.



Extra louver installed in the back left corner of the cab. Use the self drilling screws provided. Connect the flex hose to the louver before mounting.



Louver and flex hose back in place

Air filter under this access panel

Thermostat probe

Remove seat and seat mount plate to access the air filter.

ELECTRICAL



Bring the clutch wire up into the cab through the hole in the floor just behind this panel.

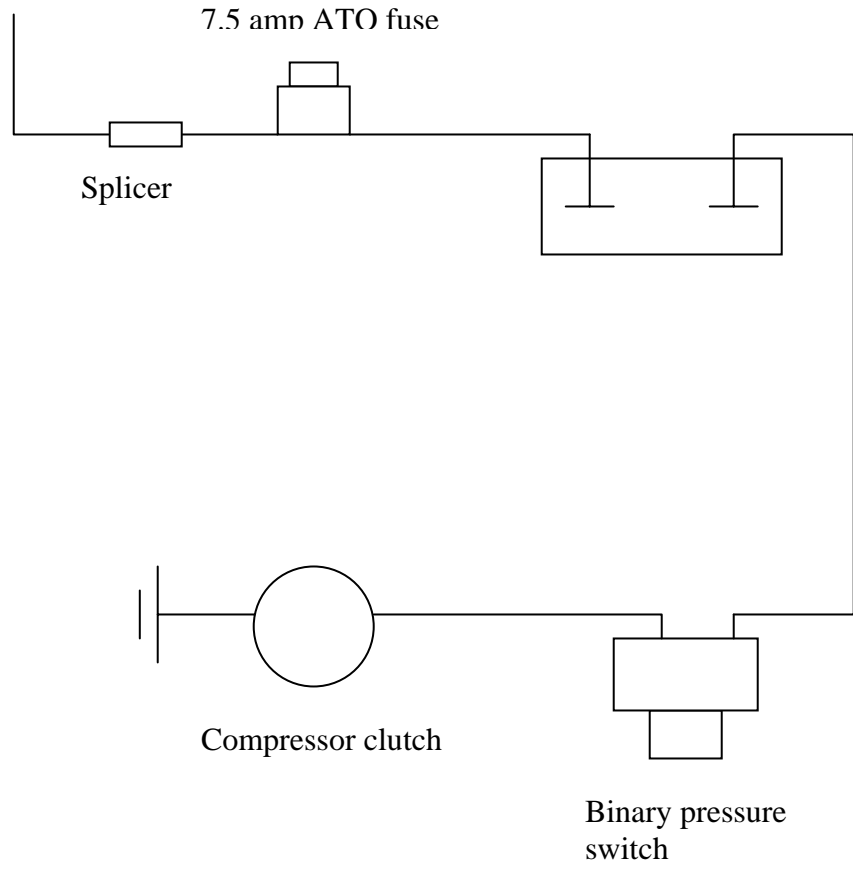


Drill a 7/16" hole and mount the thermostat here. Run the thermostat probe down towards the floor and into the heat/cool box area through the existing hole for the heater control cable.

Cut the small wire and splice the inline ATO fuse holder onto it. The correct small wire on the switch is double connected into one of the terminals on the blower switch with a heavier gauge wire. Check to ensure it has full power on all speeds.

HR 32 TIER II Wiring Diagram

Small wire
from blower
switch



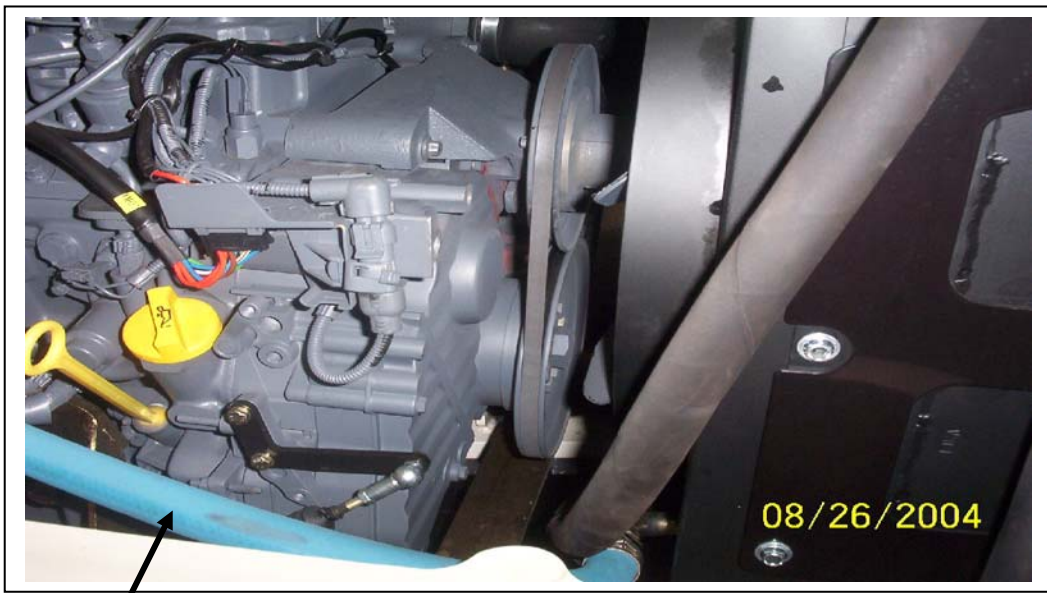
COMPRESSOR MOUNT

Existing pre A/C setup on the engine



Reroute this hose down lower on the engine

Angle this line in tight to the engine head.



Reroute this oil line down low on the engine.

Remove the eight bolts holding the existing pulley onto the crank.



Install the add on pulley using the longer bolts supplied.



Mount location
for tightener /
stiffener arm

Mount location for
angled stiffener
bracket.

Mount location for main
mount plate



Tightener stiffener arm in place using the longer M8 bolts supplied.

Angled stiffener bracket in place using the longer M8 bolt supplied.



Main mount plate installed. Bolt it to the engine and the angled stiffener bracket. Use the supplied M10 bolts to attaché it to the engine and the 3/8" x 1 " bolt for the angled stiffener.

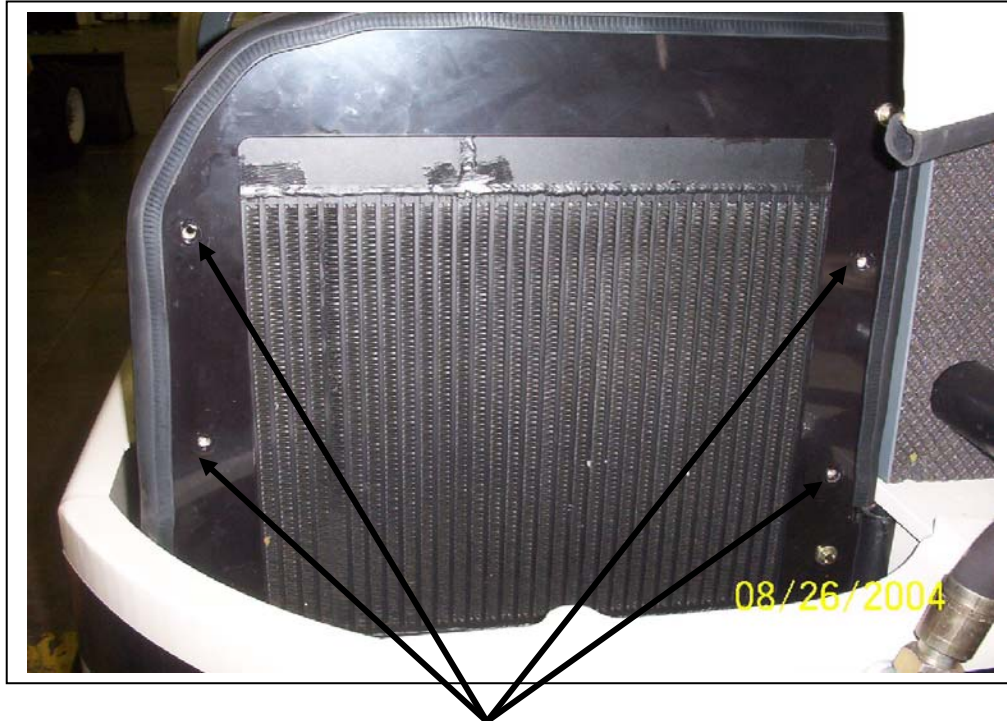
Before mounting the compressor, notch out the fan shroud as shown. Loosely place the compressor on the mount and mark out the area to be cut out.



Bolt the compressor onto the mount loosely and install the belt. Tension the belt and tighten down all four compressor bolts.

Bolt the pad fitting onto the compressor if it has been shipped loose. Make sure that the two black "O" rings are in place.

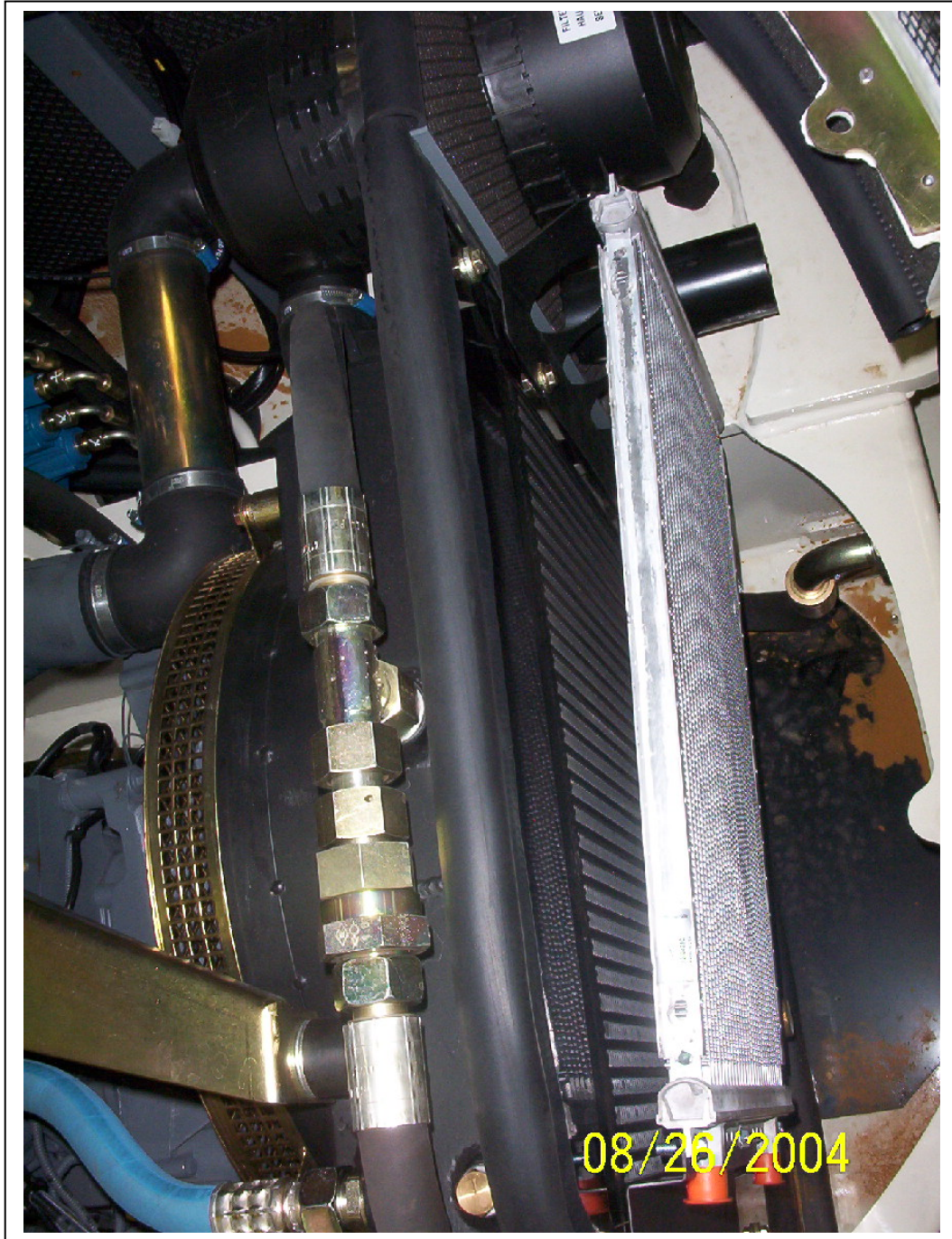
CONDENSER



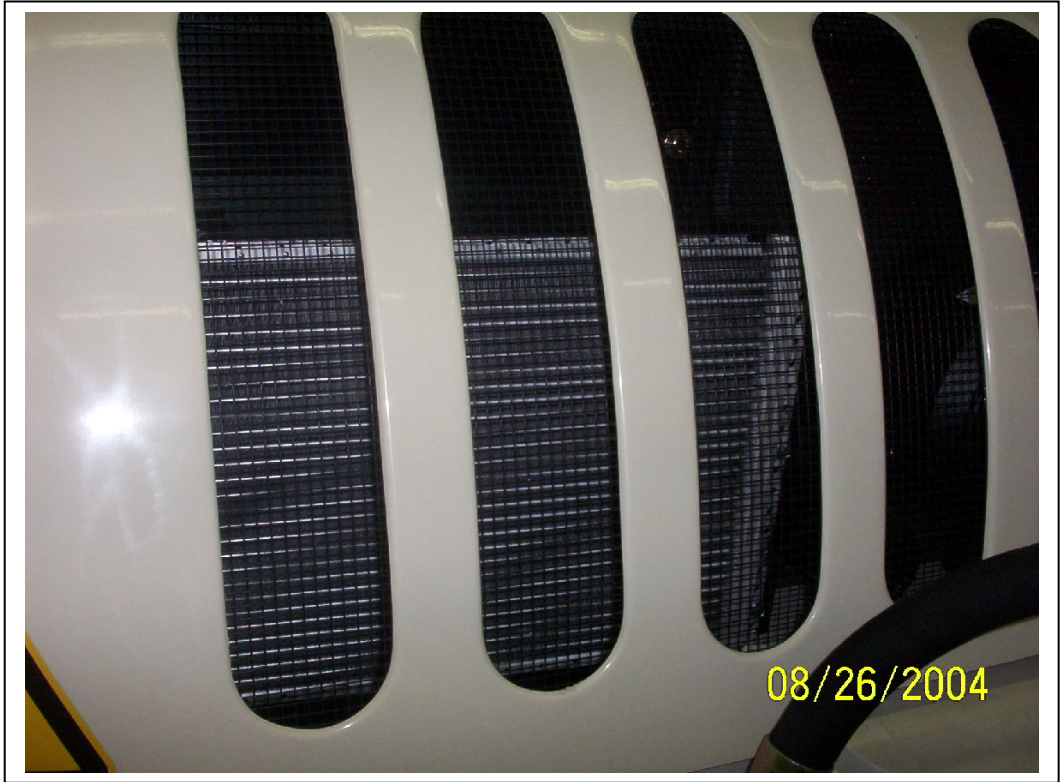
Remove these four bolts



Set the condenser in place with the fittings toward the back of the machine. Bolt in place using the existing hardware

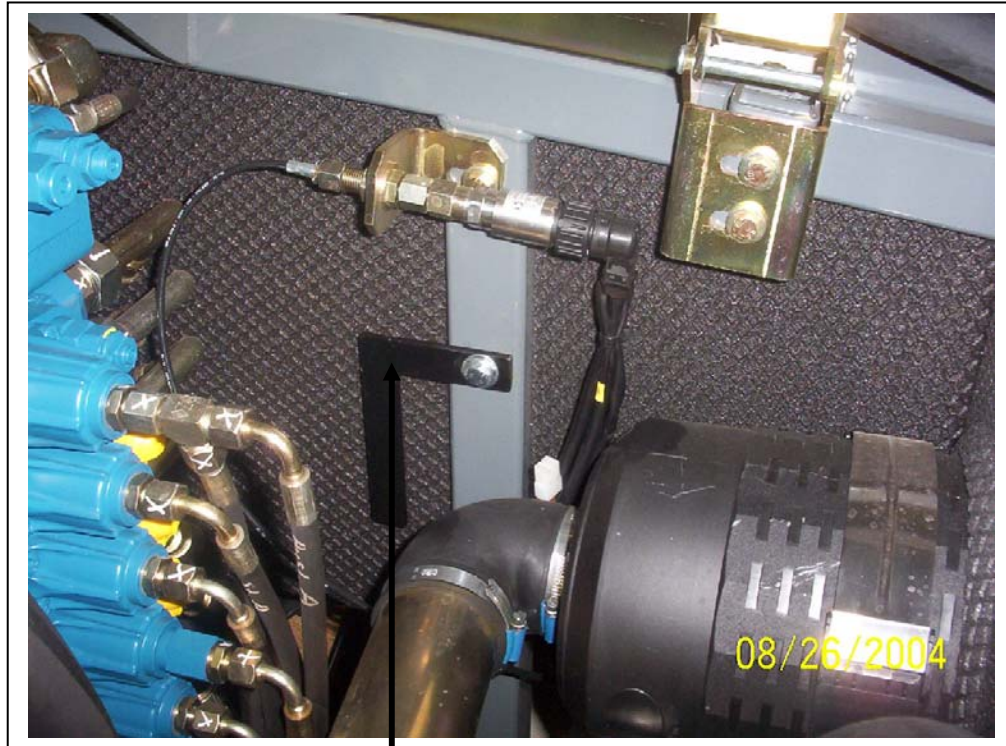


The condenser frame is angled to allow for easy cleaning and maximum air flow across the radiator.



Condenser in place with the hood down

RECIEVER DRIER

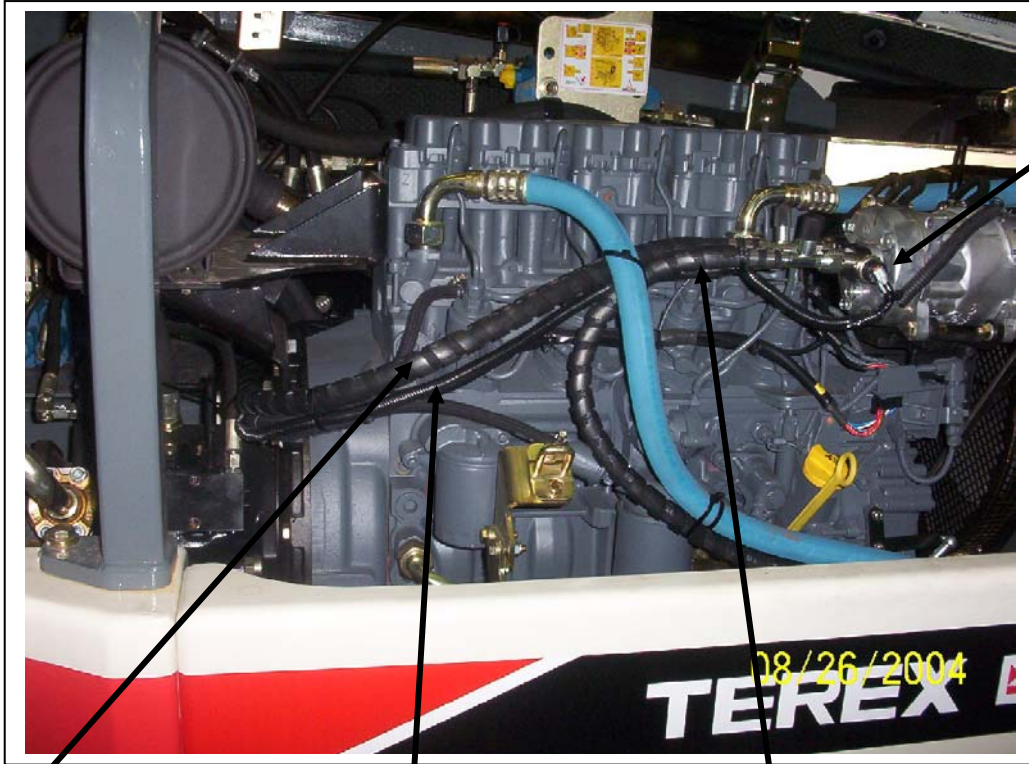


Bolt the drier mount “L” bracket onto the existing M8 hole just above the back of the air cleaner.



Install the drier onto the bracket using the two #48 gear clamps provided. Have the inlet pointing towards the front of the air cleaner.

HOSE RUNS



Electrical connections at the binary switch on the pad fitting.

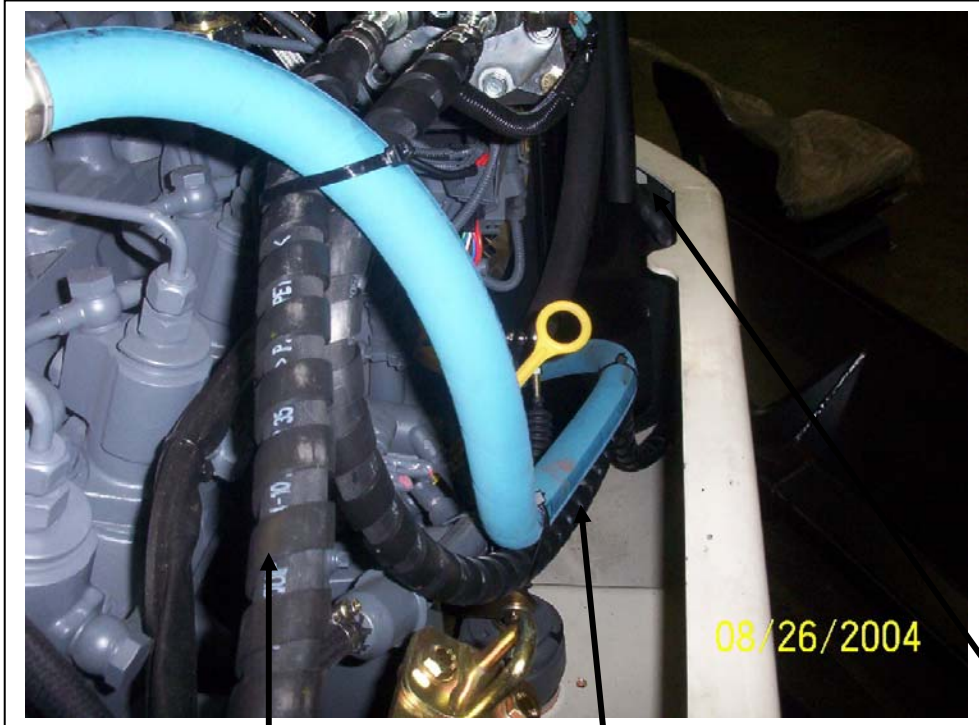
1/2" A/C line from the engine side fitting on the compressor.

14 gauge black clutch wire run with the 1/2" A/C line over to the cab wall area.

13/32" A/C line from the outside fitting on the compressor looping down and around towards the radiator area.



1/2" line and clutch wire looping around the back of the engine and running to the right again over towards the drier area.



1/2" line and clutch wire.

13/32" line running towards the radiator area and passing to the outside of the radiator on the intake side.

13/32" line running beside the radiator.



13/32" line passing beside the radiator.

13/32" 90° fitting at the condenser

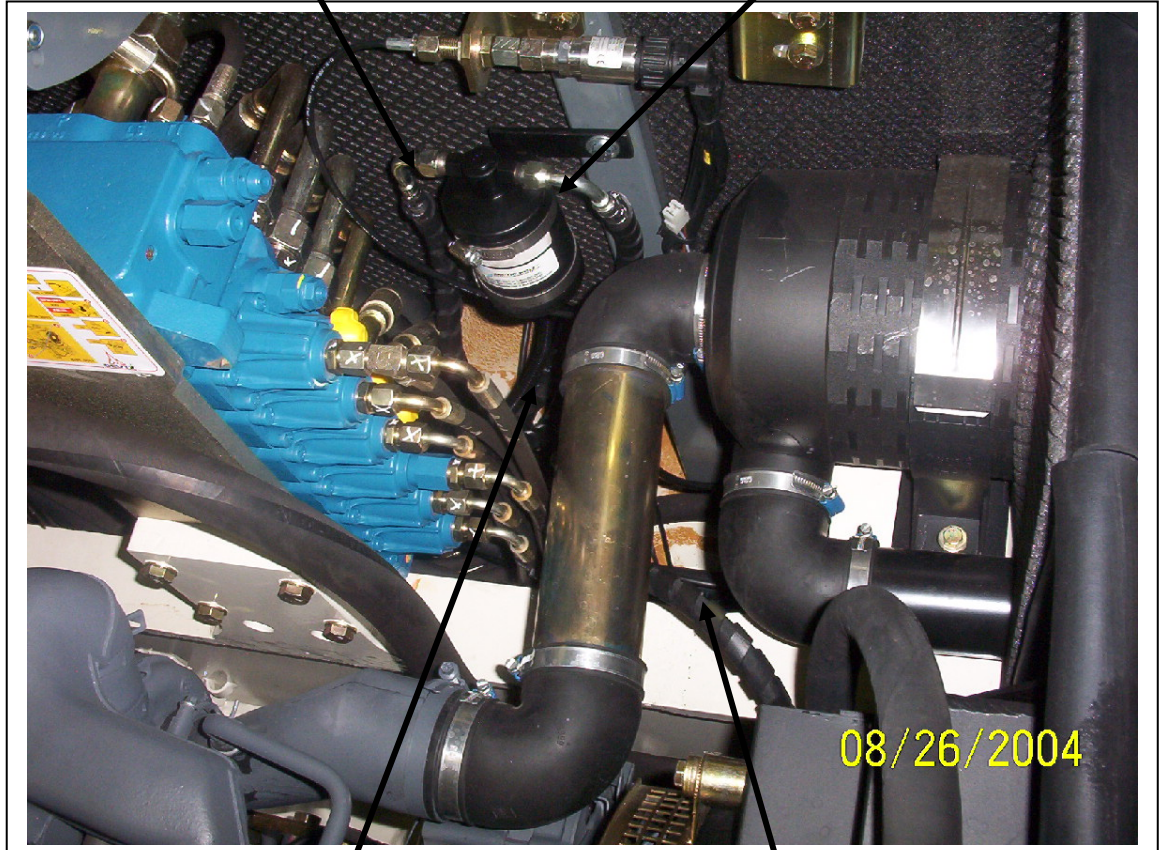
5/16" 90° fitting on the bottom outlet of the condenser.



5/16" line from the lower fitting on the condenser running into the engine compartment area beside a hydraulic hose.

5/16" 90° fitting on the outlet of the drier running down under the cab.

5/16" 90° fitting on the inlet side of the drier.



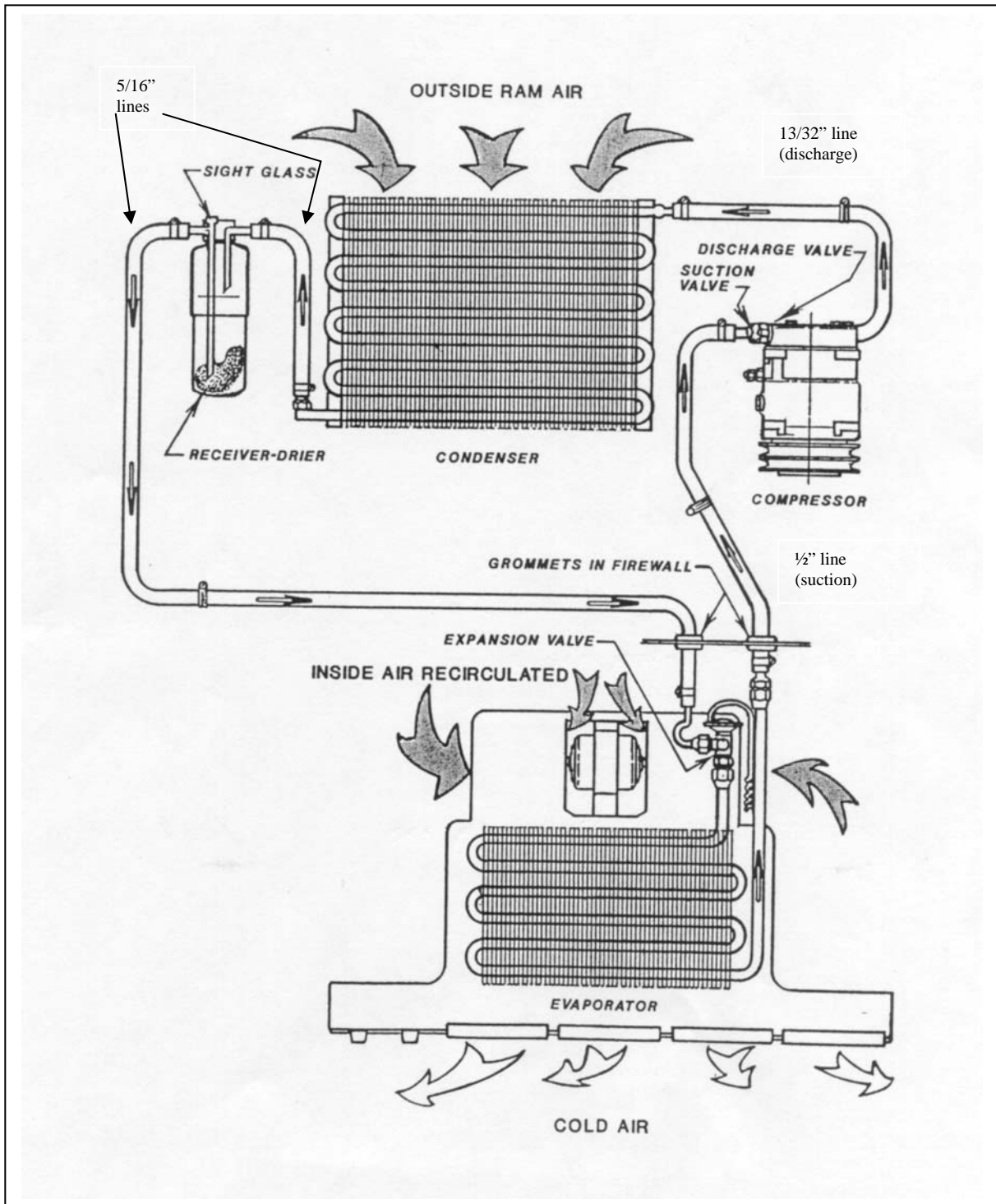
5/16" and 1/2" lines running through under the cab along with a bundle of hydraulic lines. Use a snake or wire run through from under the cab to fish the hoses through to the heat/cool box area.

5/16" line from the condenser going to the inlet side of the drier. Make sure to tie it out of the way of belts and fans.

CHARGING AND TESTING

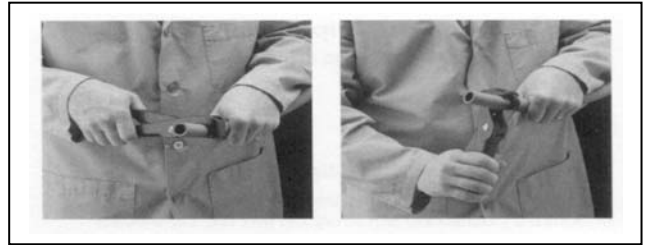
- 1) Pressure test the system using nitrogen to a pressure of 250 psi. Check for leaks.
- 2) Add 2oz of SP20 Sanden PAG oil to the system.
- 3) Vacuum the system for at least ½ hour.
- 4) Check that the vacuum holds.
- 5) Fill the system with 1.75 lbs. of R134a refrigerant. **DO NOT USE ANY OTHER TYPE 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

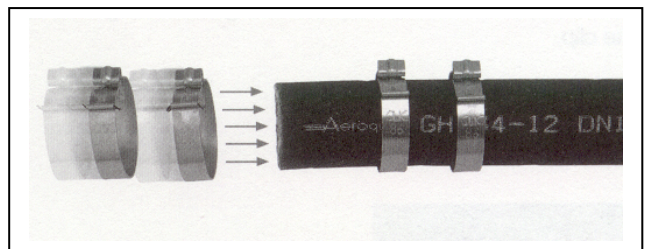


Aeroquip E-Z Clip Assembly Instructions

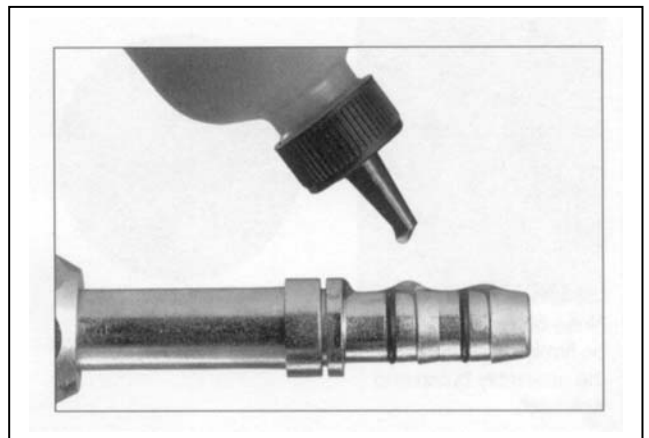
Step 1. Cut the hose to proper length with an appropriate cutting tool. Aeroquip's hand held hose cutter has been specially designed for cutting all non-wire reinforced hose, such as GH-134 Multi-Refrigerant hose. Be sure the cut is made square to the hose length.



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.

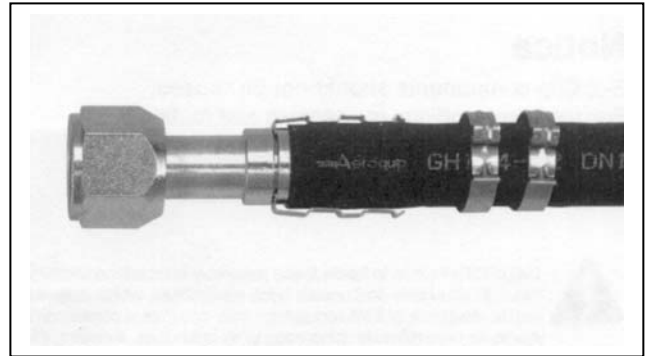


Step 4. Insert the nipple into the hose. To ensure that the nipple is fully inserted, check the gap between the cut end of the hose and the shoulder on the nipple. Care should be taken to avoid kinking or other damage to the hose during nipple insertion. NOTE: Be sure to wipe excess oil from the nipple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

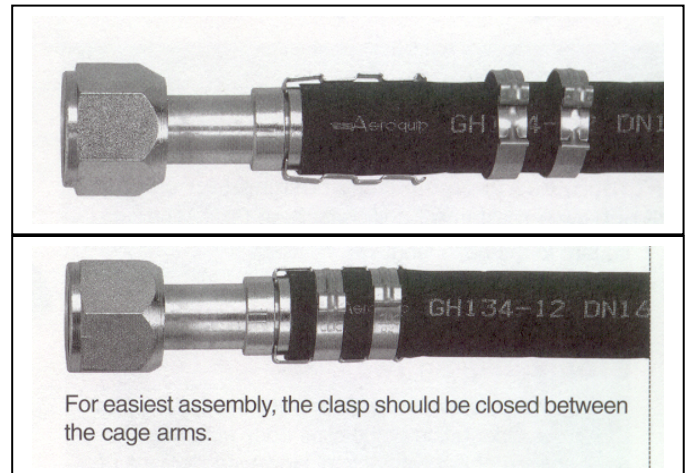


Step 5. Snap the cage into the groove on the nipple. The arms should extend over the hose length. When the cage has been correctly installed in the cage groove, the cage will be able to rotate in the groove. This step **MUST** be performed to ensure:

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.

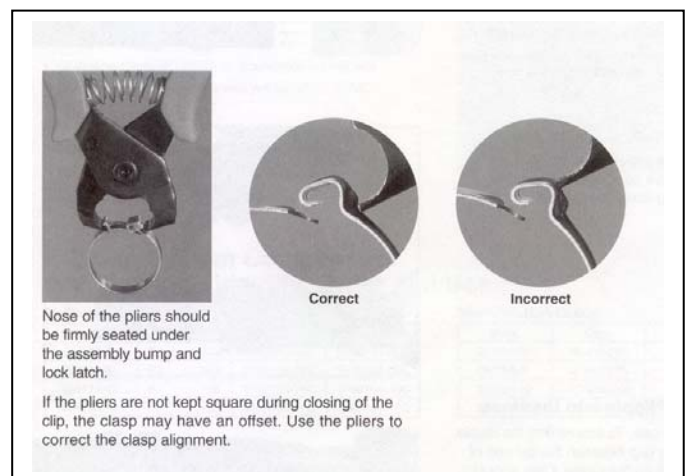
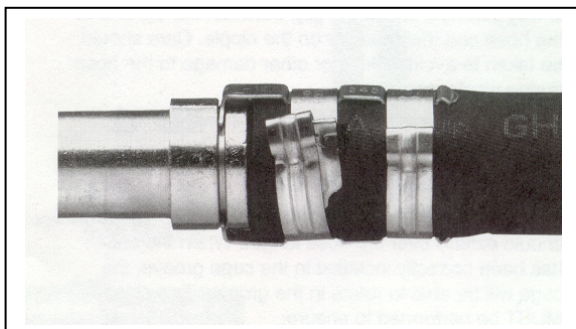


Step 6. Slide the clips over the cage arms and into the channels on each arm.



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.



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.