

**TL 120 OVER S/N 0280**

**Terex Mini Loaders**

**Installation Instructions**



**1 800-267-2665**

**Evaporator:** The evaporator setup for the Terex loader is a “drop in” design that goes in under the operator’s seat. It uses the original heater blowers, air ducts, louvers, blower controls and air filters with some minor modifications to reduce the outside air intake.

Steps:

1. Open the storage compartment to the right of the operator’s seat. Remove the contents of the compartment. Remove the rubber mat on the bottom of the compartment. Remove the plastic compartment to the left of the operator’s seat. Remove the plastic panel directly behind the seat as well.



Remove before unbolting seat plate.

2. Unbolt the seat plate from the seat platform. Leave the seat attached to the plate. Slide the seat plate forward towards the steering wheel to expose the blowers and foam piece that covers the top of the heater box. Remove the foam piece and put aside for later re-installation.



Seat plate slid forward.

Heater coil

Evaporator goes in here.

3. Disconnect the two heater lines from the heater box. Remove all five flex ducts from the heater box... Unscrew the front L mount bracket from the floor of the cab. (found between the 3<sup>rd</sup> and 4<sup>th</sup> air outlet.)



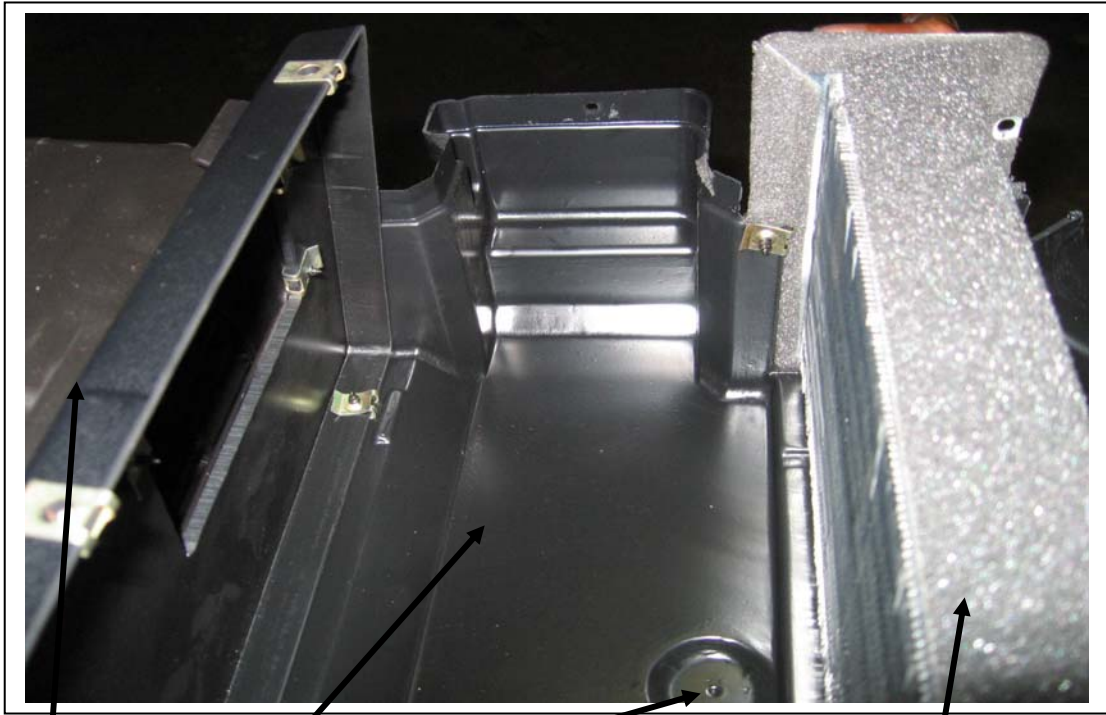
Unscrew L bracket from the floor.

Remove flex ducts.

Unplug blower wire harness.

Heater lines to be disconnected.

4. Remove the box from the cab and unscrew the top half of the box and remove the lid.



Blowers

Evaporator area

Spot for drain tube.

Heater

5. Drill a 1/2" hole in the box bottom in the middle of the dimpled area on the box.



1/2" hole drilled for drain tube.



6. Glue the copper drain tube adaptor into the 1/2" hole using 5 min epoxy.



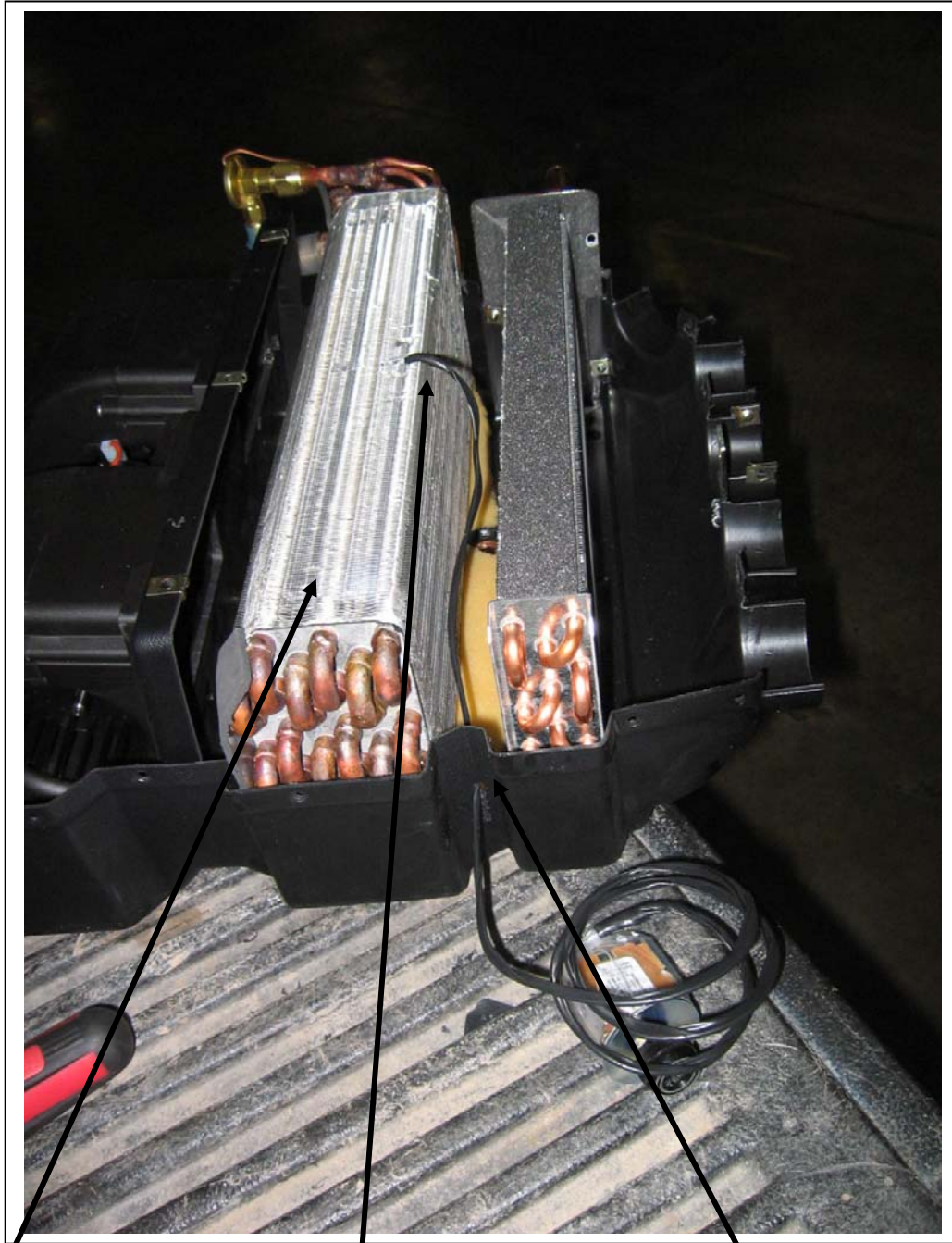
Copper glue in drain tube adaptor in place.

7. Notch out the bottom right side of the box as shown to accommodate the bottom fitting of the evaporator coil.



Plastic cut out of this area for evaporator fitting.

8. Slide the evaporator coil into place with the fittings out the right side of the box.



Evaporator coil in place.

Insert thermostat probe in between first and second row of tubes four inches deep.

Drill 1/8" hole to install thermostat probe as shown.

9. Drill a 1/8" hole in the left end of the box between the two coils for the thermostat probe.





Thermostat probe.

L mount bracket.

1/2" drain tube adaptor



10. Notch the top half of the box to accommodate the evaporator fitting and then re-install it. Seal all around the fittings with Tar tape.



Notch out this area of the lid.

Seal with tar tape

Screws holding the box together.

11. Install the heat/cool box back into the cab and secure by screwing down the L bracket. Re-connect wiring and heater lines. Re-install all flex ducts.



Blower wiring plug

L mount bracket

Heater lines

12. Connect the A/C fittings to hoses by bringing the hoses up under the cab through the existing foam grommet and onto the evaporator fittings. Also bring the clutch wire up with the hoses. Tar tape all metal parts to stop sweating of the fittings.



Clutch wire

5/16" straight female fitting.

1/2" 90° female fitting.

13. Remove the inside vanes of the inside air recirculation louver to maximize the inside air recirculation in the cab.



Remove the inside vanes.



14. The outside filtered air intake for the cab is not designed for extreme climates and needs to be restricted to achieve the maximum cooling potential. This is done by removing the outside air intake panel on the right side of the cab, just behind the right door. On the back side of the air intake panel install the 6.5" X 6.5" piece of self adhesive foam so that it covers all but the bottom two louvered vents.



One vent left open

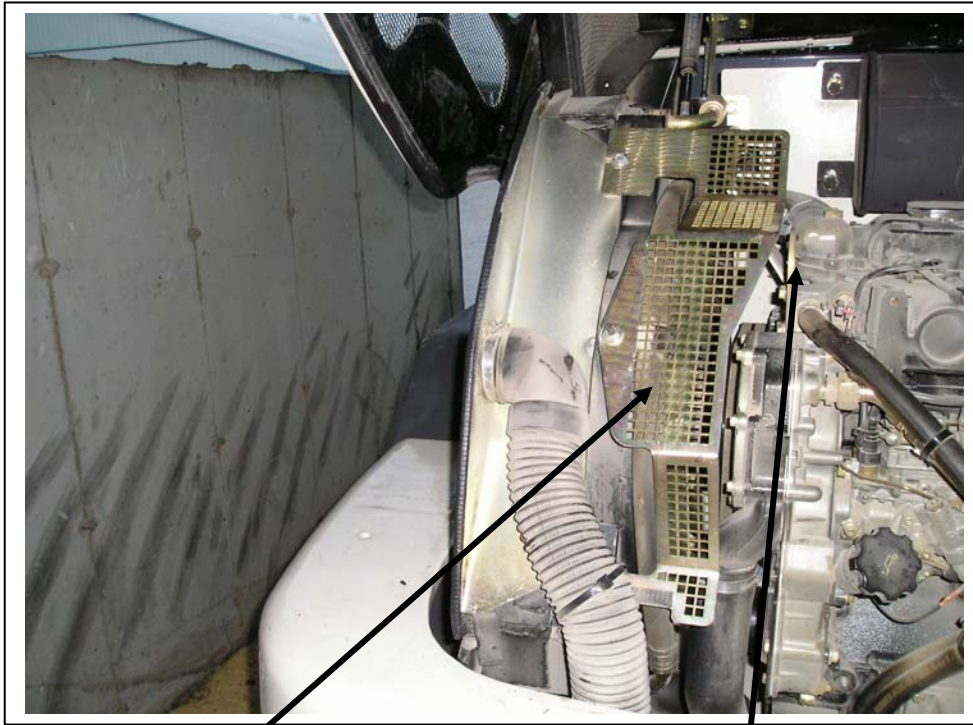
Foam panel in place



Air intake panel back in place.

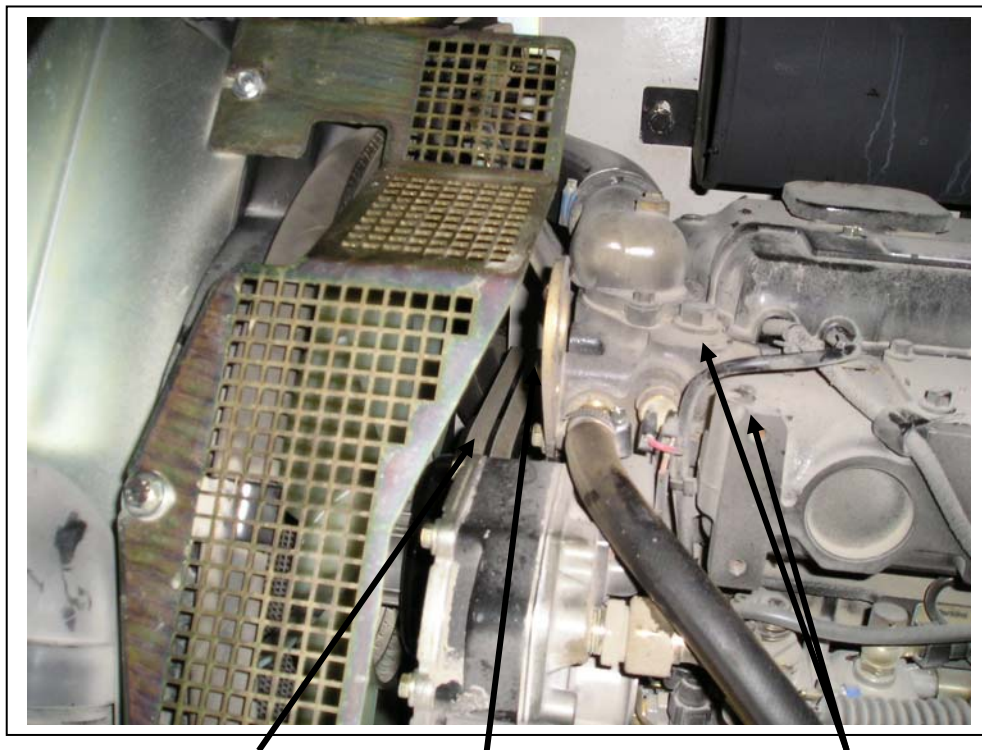
15. Replace the outside air intake panel

## COMPRESSOR MOUNT



Remove fan guard

Remove engine lifting bracket.



Remove outside belt

Remove this engine bracket and the mount uses three M10 holes in this area.

Top two M8 mount holes for compressor bracket.



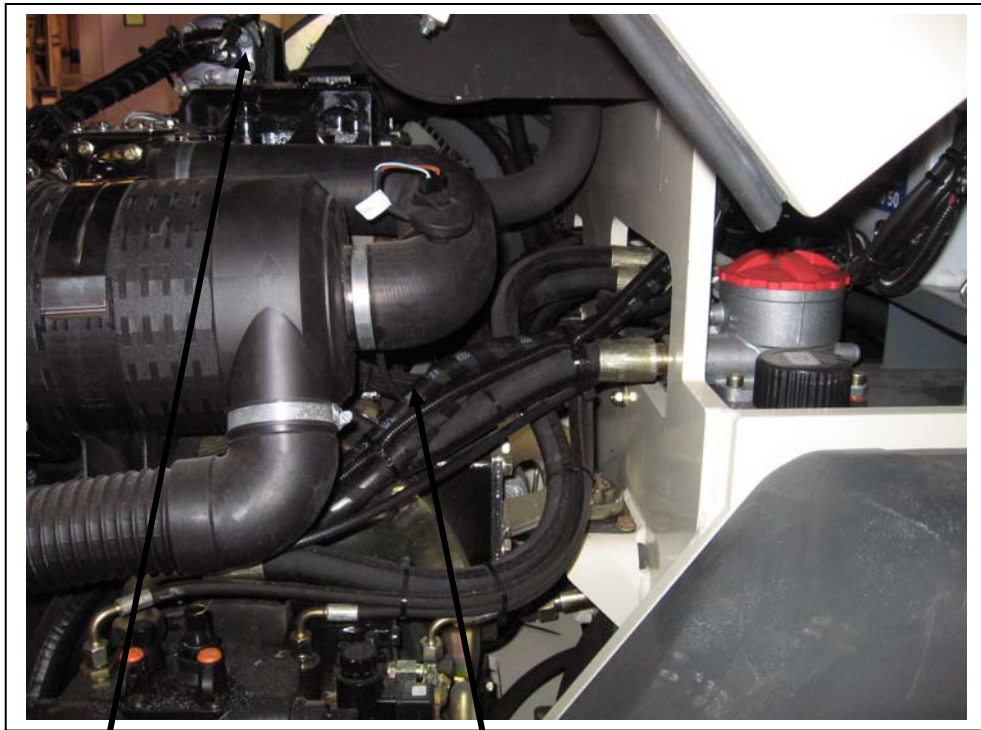


New belt

Compressor and mount in place.

Two M8 mount bolts.

A/C Hoses and clutch wire. Run hoses and wiring back as low as possible so as not to rub on the engine cover.



Compressor

A/C hoses and clutch wire around back of engine.





L shape drier bracket.

Drier inlet

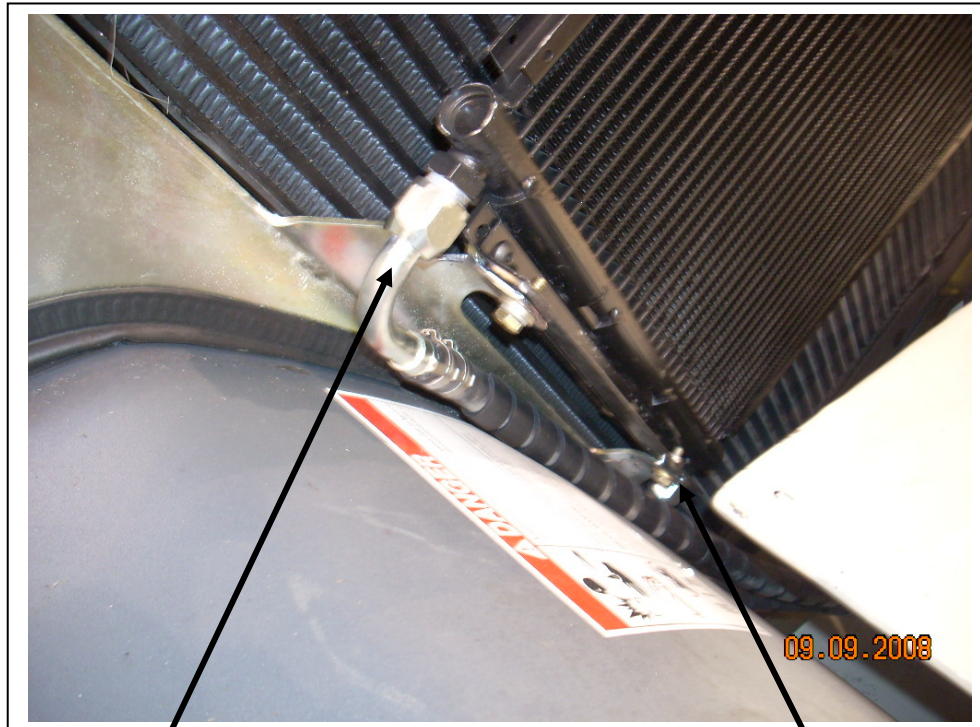
Binary switch

5/16" hose out to evaporator

CONDENSER



Condenser mounted in place.

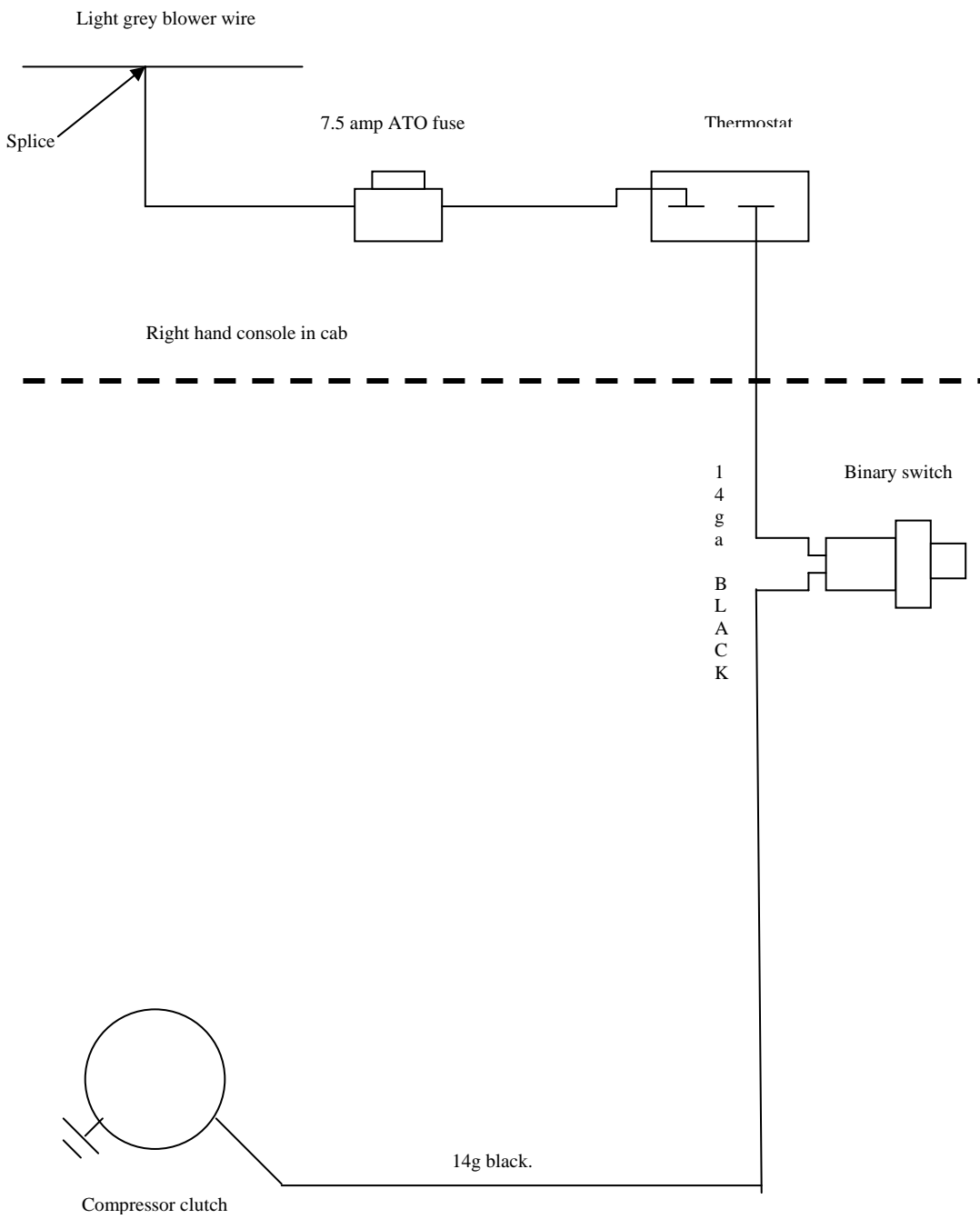


5/16" 90° fitting

13/32" 90° fitting

**TL120 Electrical**

**12 Volt System**



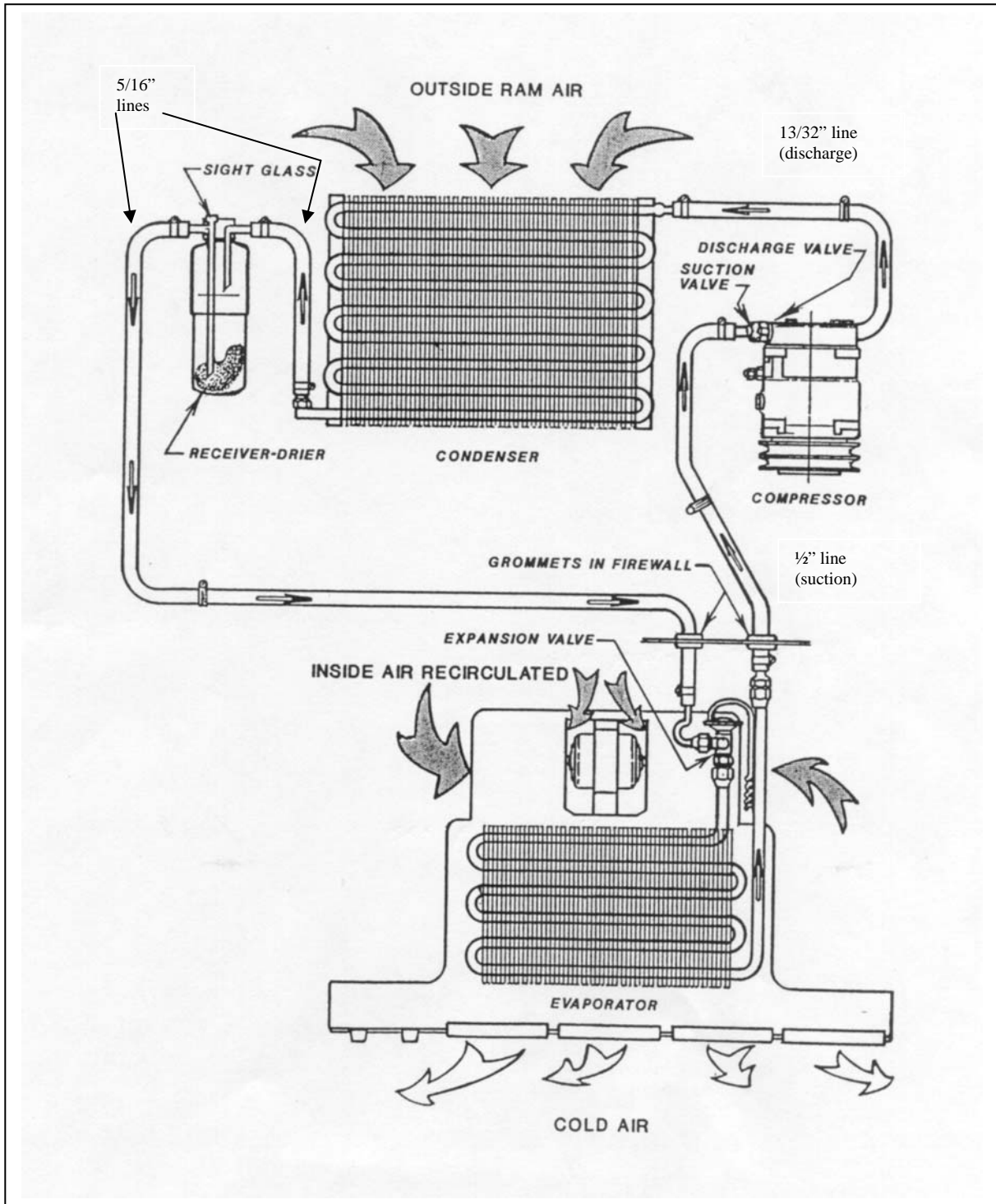




Clutch wire from thermostat.

Clutch wire to compressor

## 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.

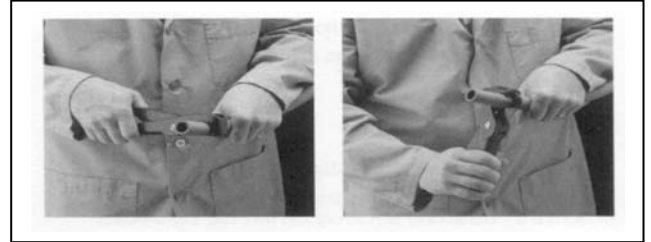


Once the probe is inserted, the A/C system needs to be tested. Run the system to ensure that the thermostat is cycling the compressor off at the appropriate temperature. A core temperature ranging between 25° and 30° F should cause the thermostat to cycle off. The air temperature at the vent outlet closest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

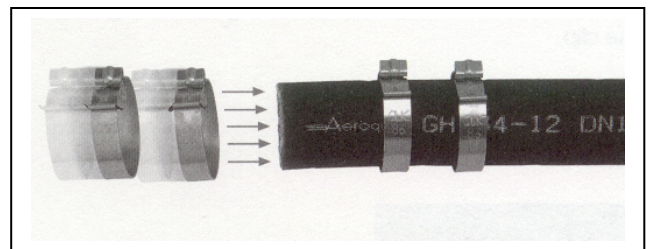
If the thermostat doesn't cycle off after a reasonable cool down period and the air outlet temperature has dropped below 40° F, the cut in and cut out settings should be adjusted until the compressor is cycling on and off regularly. Let the system run for a decent time period (at least 15 min) and then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

## Aeroquip E-Z Clip Assembly Instructions

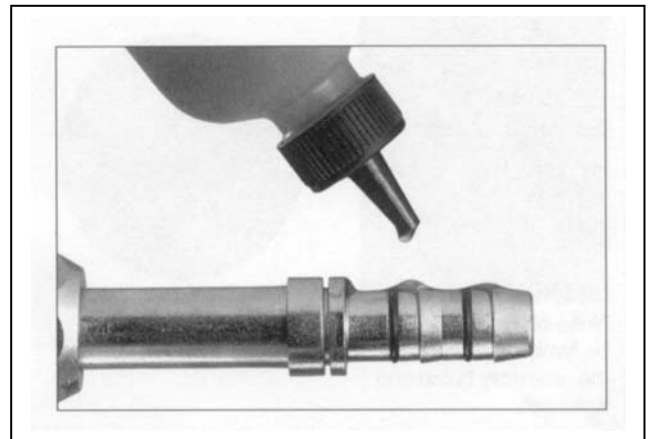
Step 1. Cut the hose to proper length with an appropriate cutting tool. Aeroquip's hand held hose cutter has been specially designed for cutting all non-wire reinforced hose, such as GH-134 Multi-Refrigerant hose. Be sure the cut is made square to the hose length.



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.



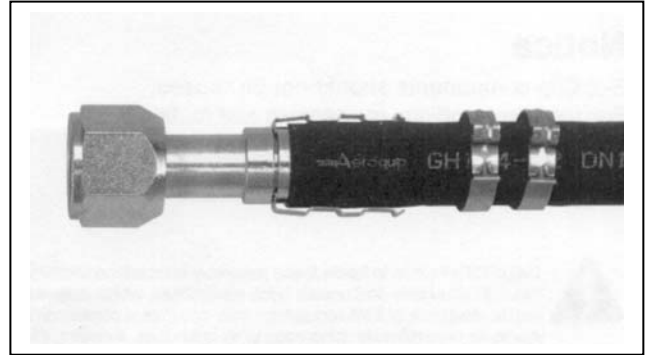
Step 4. Insert the nipple into the hose. To ensure that the nipple is fully inserted, check the gap between the cut end of the hose and the shoulder on the nipple. Care should be taken to avoid kinking or other damage to the hose during nipple insertion. NOTE: Be sure to wipe excess oil from the nipple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



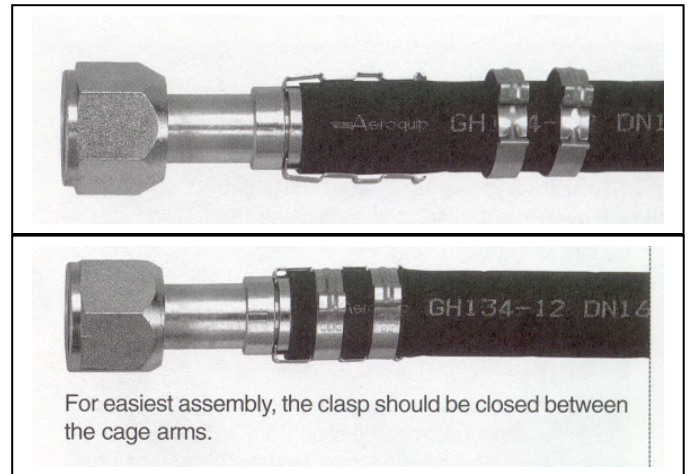
Step 5. Snap the cage into the groove on the nipple. The arms should extend over the hose length. When the cage has been correctly installed in the cage groove, the cage will be able to rotate in the groove.

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.

