

CASE 521D TIER II/621D TIER II
INSTALLATION INSTRUCTIONS



Phone: 1-800-267-2665

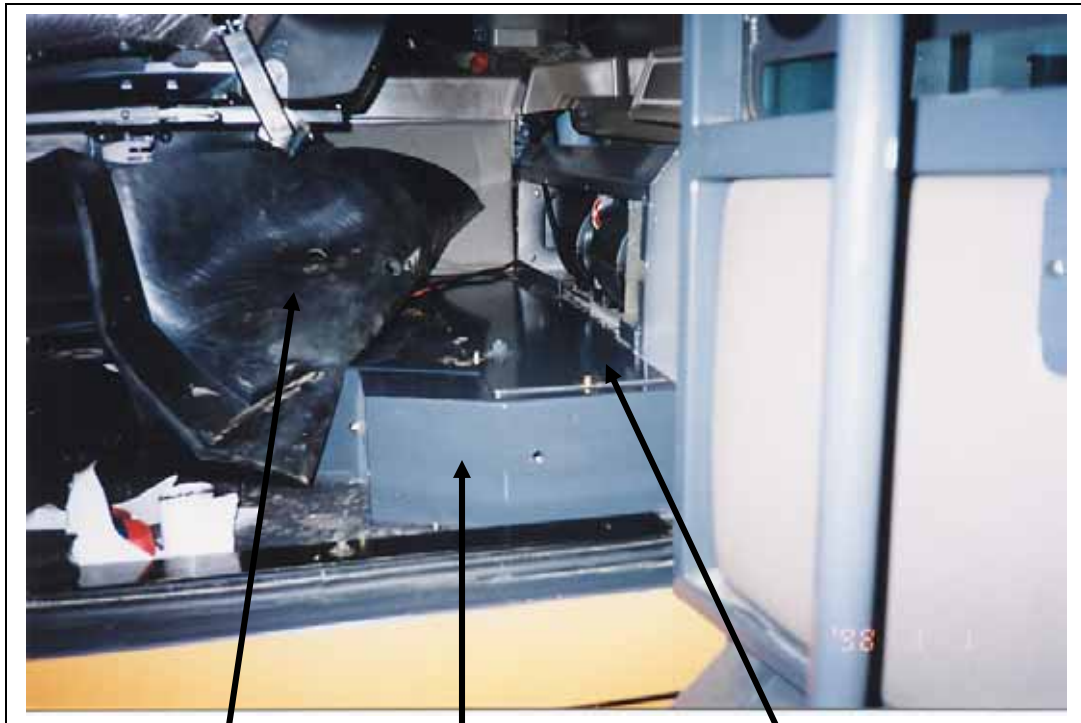
Fax: 1-888-267-3745

EVAPORATOR



Unbolt the seat and slide forward

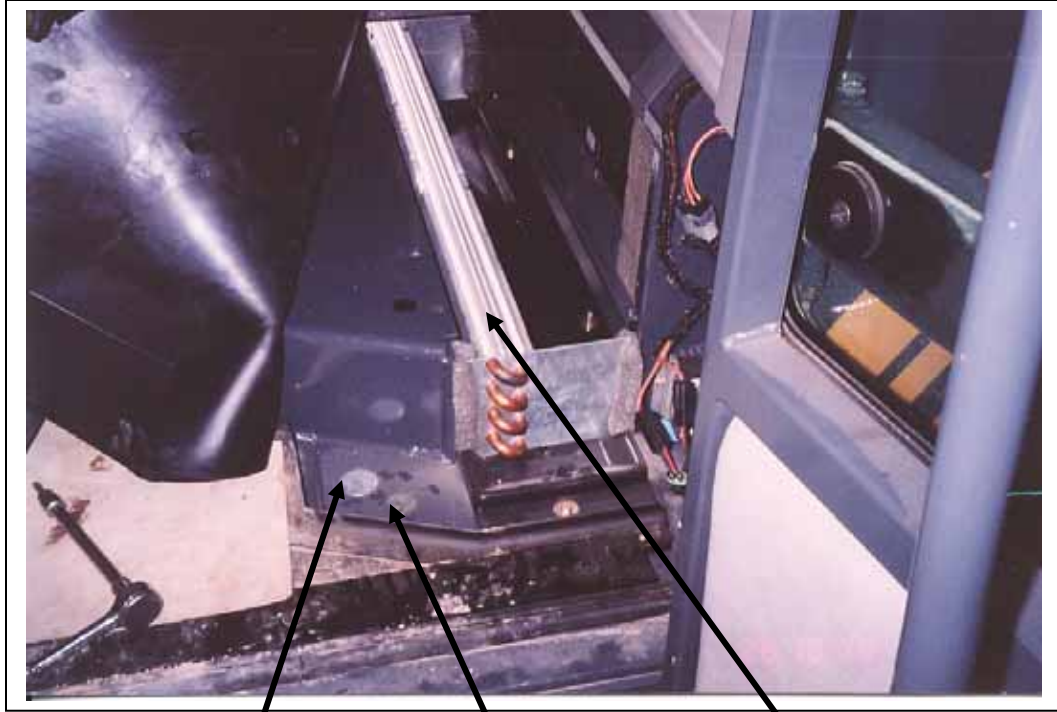
Remove this panel



Move rubber mat out of the way to access the heater area.

Remove cover

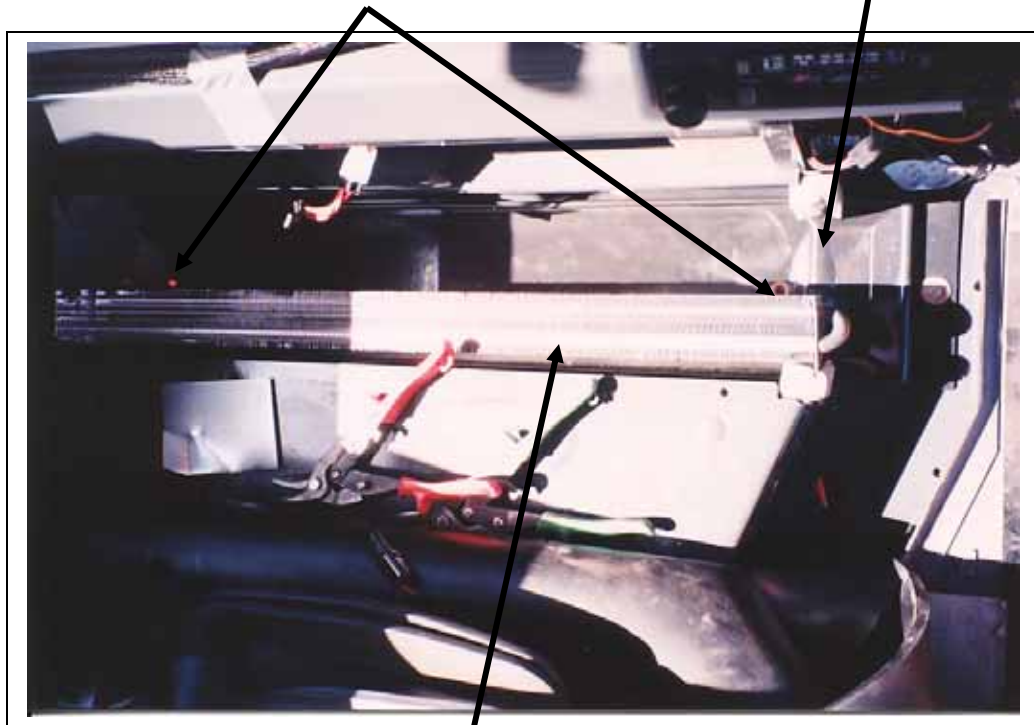
Remove this plate



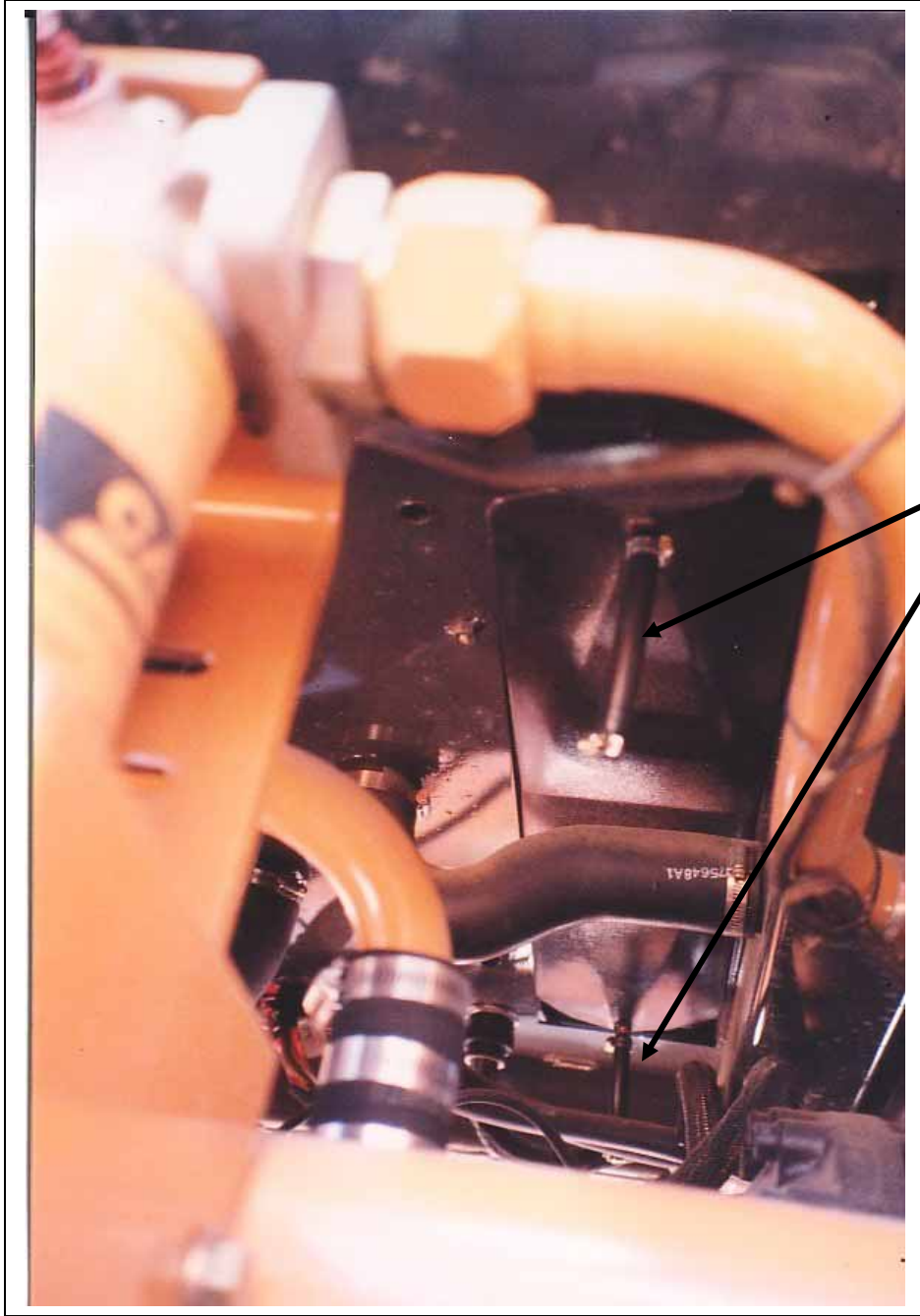
1/2" A/C line knockout 5/16" A/C line knockout Heater coil

Copper drain tubes epoxied into existing holes

Metal notched out for A/C coil fittings.



Heater coil



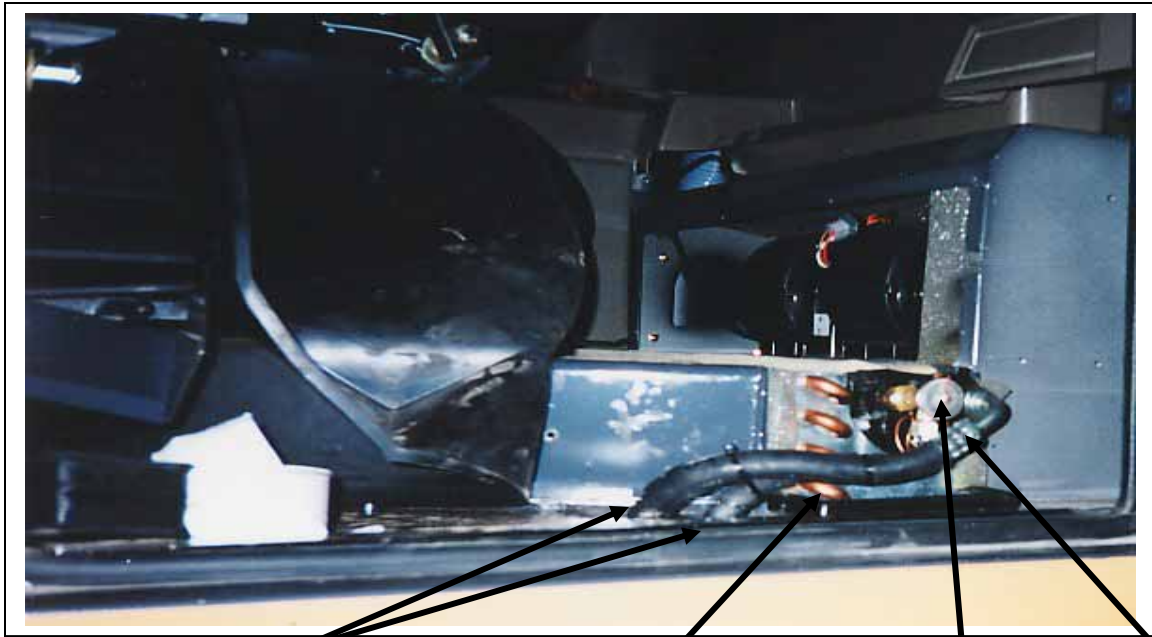
Drain lines
and
restrictors
installed
under cab.



Heater coil

Evaporator coil

Thermostat probe inserted 2" from end of coil between the 1st and 2nd row of tubes on the heater coil side



Existing knockouts in cab floor

Heater coil flange notched out to allow A/C coil fittings through.

Expansion valve

1/2" A/C line

ELECTRICAL



Hoses and clutch wire going back towards engine on left side of machine.



Thermostat location in cab on right control panel

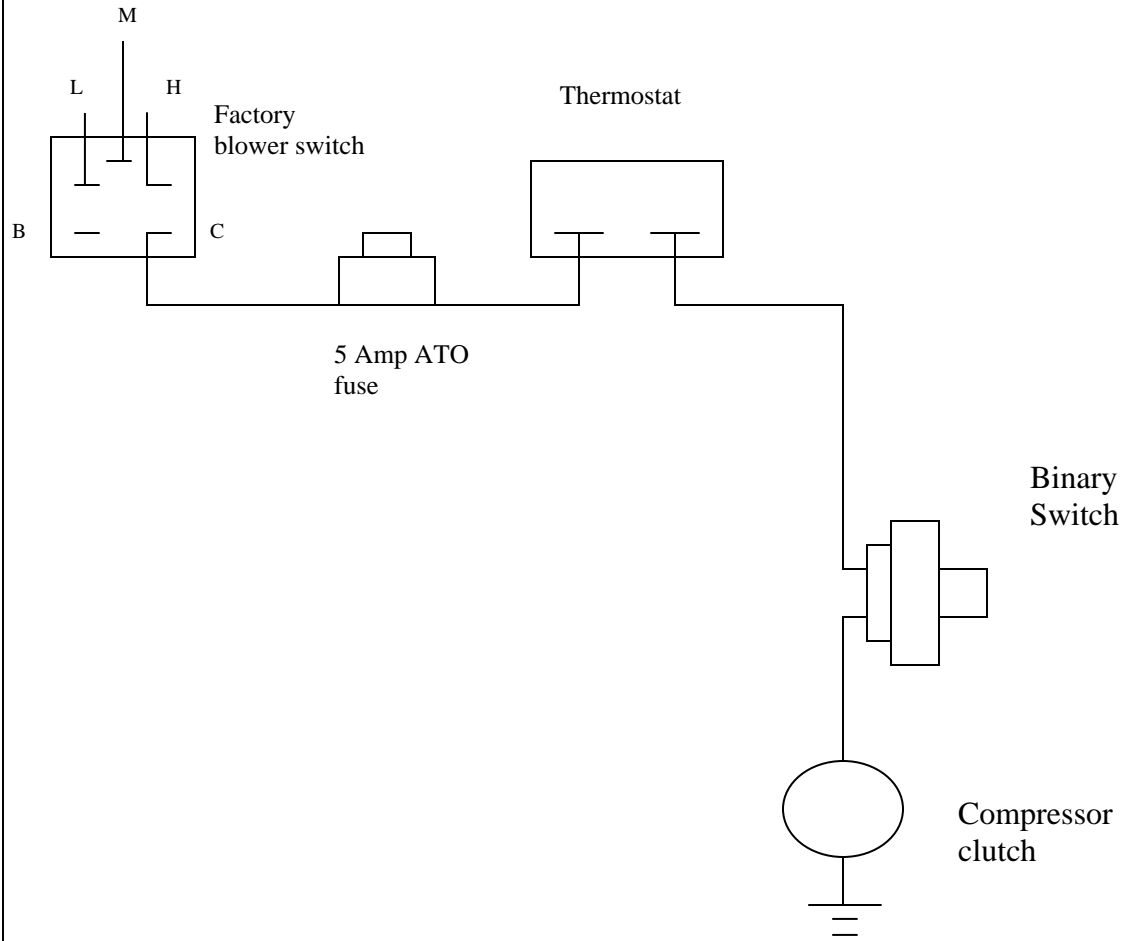


Clutch wire in electrical compartment on right of cab. Run over to the thermostat keeping clear of the filter intake cover.



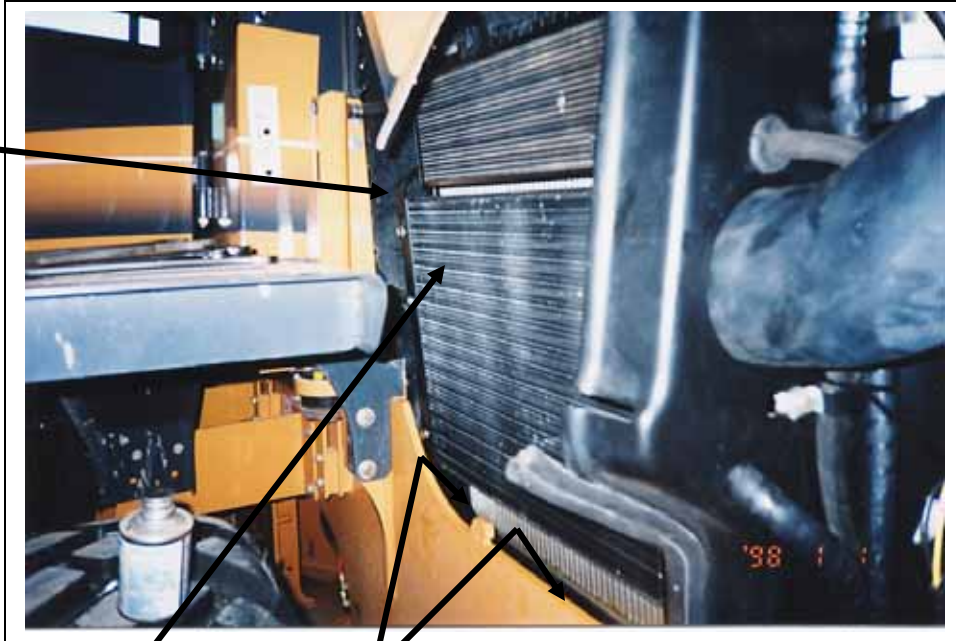
Clutch wire on right side of cab going up with hydraulic control lines

Wiring diagram 521D and 621D CASE



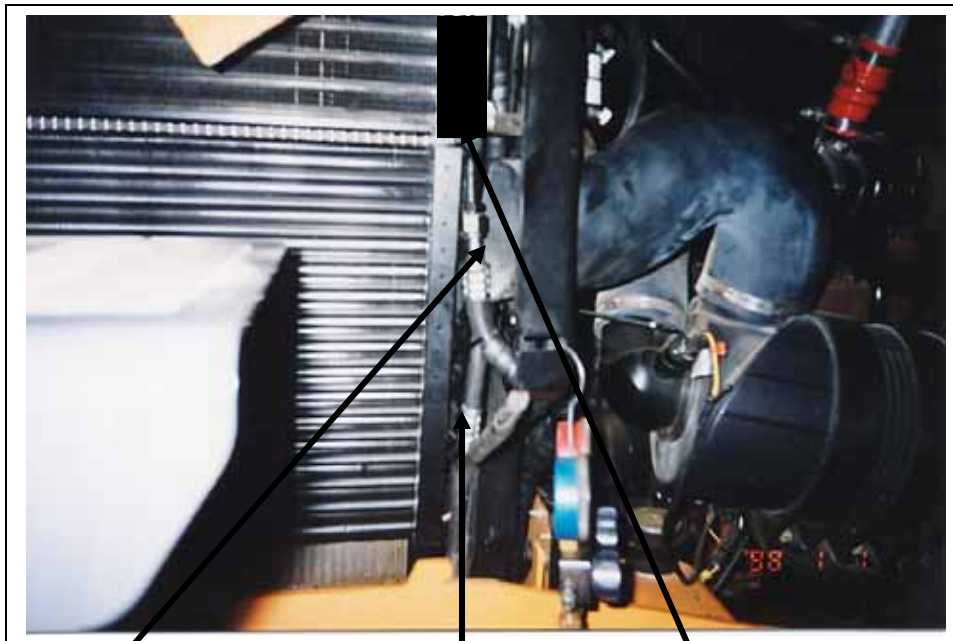
CONDENSER

The upper brackets use the existing oil cooler mounts with 1 1/2" spacers and M8 x 60 mm bolts



Condenser coil

Lower condenser mount bolts. Remove the existing M8 bolts and replace with M8 x 20mm bolts with large OD flat washers. Slip the slotted lower condenser brackets onto the bolts behind the flat washers.



13/32" line

5/16" line

Upper bracket bolts to oil cooler mount using the 1 1/2" spacer and M8 x 60mm bolts



Removable fender well back
in place.

Condenser in place



1 1/8" hole
drilled in
plastic
shroud for
5/16" hose

1 1/8" hole drilled in plastic shroud for
13/32" hose

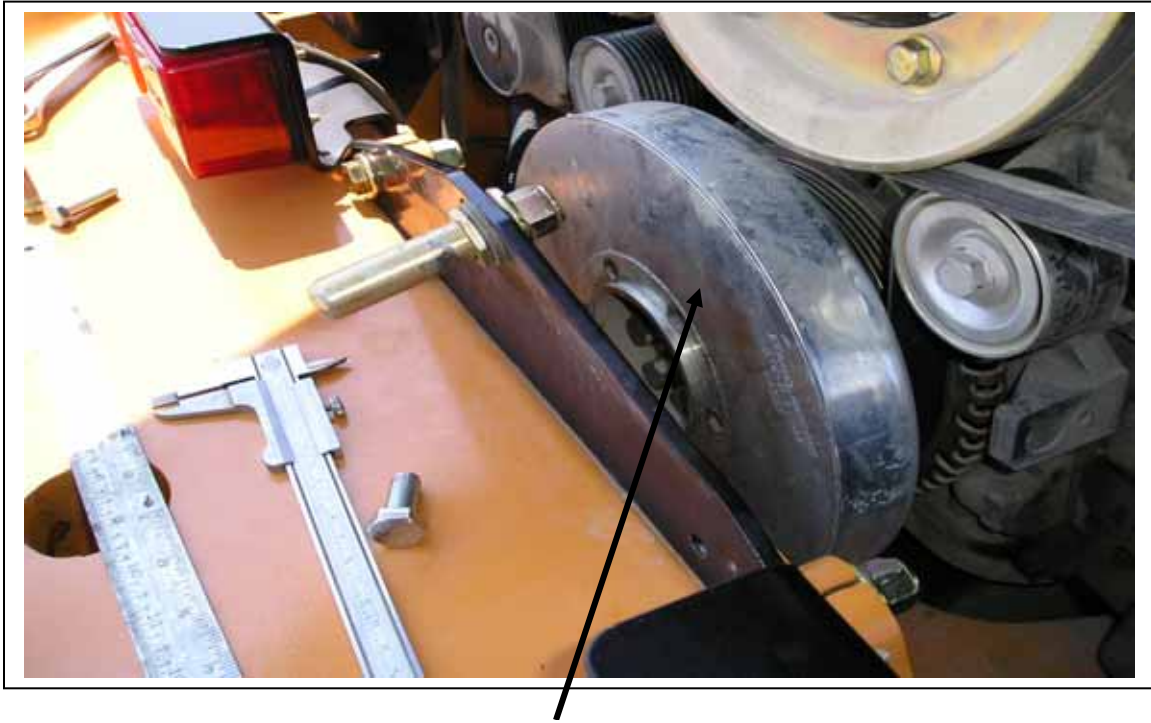
Receiver drier

RECEIVER DRIER

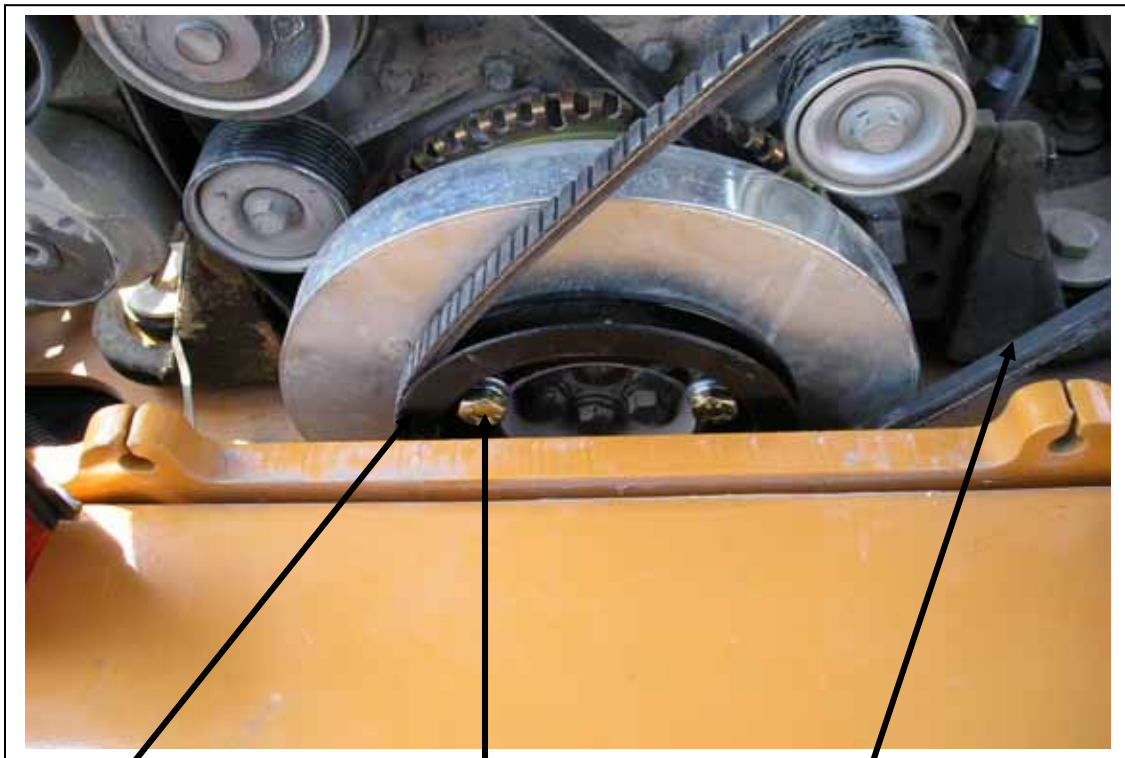


The receiver drier mounts off an existing bolt hole using an M8 x 30 mm bolt and straight bracket. Clamp the drier to the bracket with the two #48 gear clamps.

COMPRESSOR SET UP



Pulley mounting surface on crank. Use three out of six holes.



Add on pulley.

M10 x 25mm x 1.25 pitch
medium thread bolts.

17440 belt



M8 x 25mm bolts

Compressor mount

Compressor



Compressor

Compressor mount

M8 x 25mm bolts

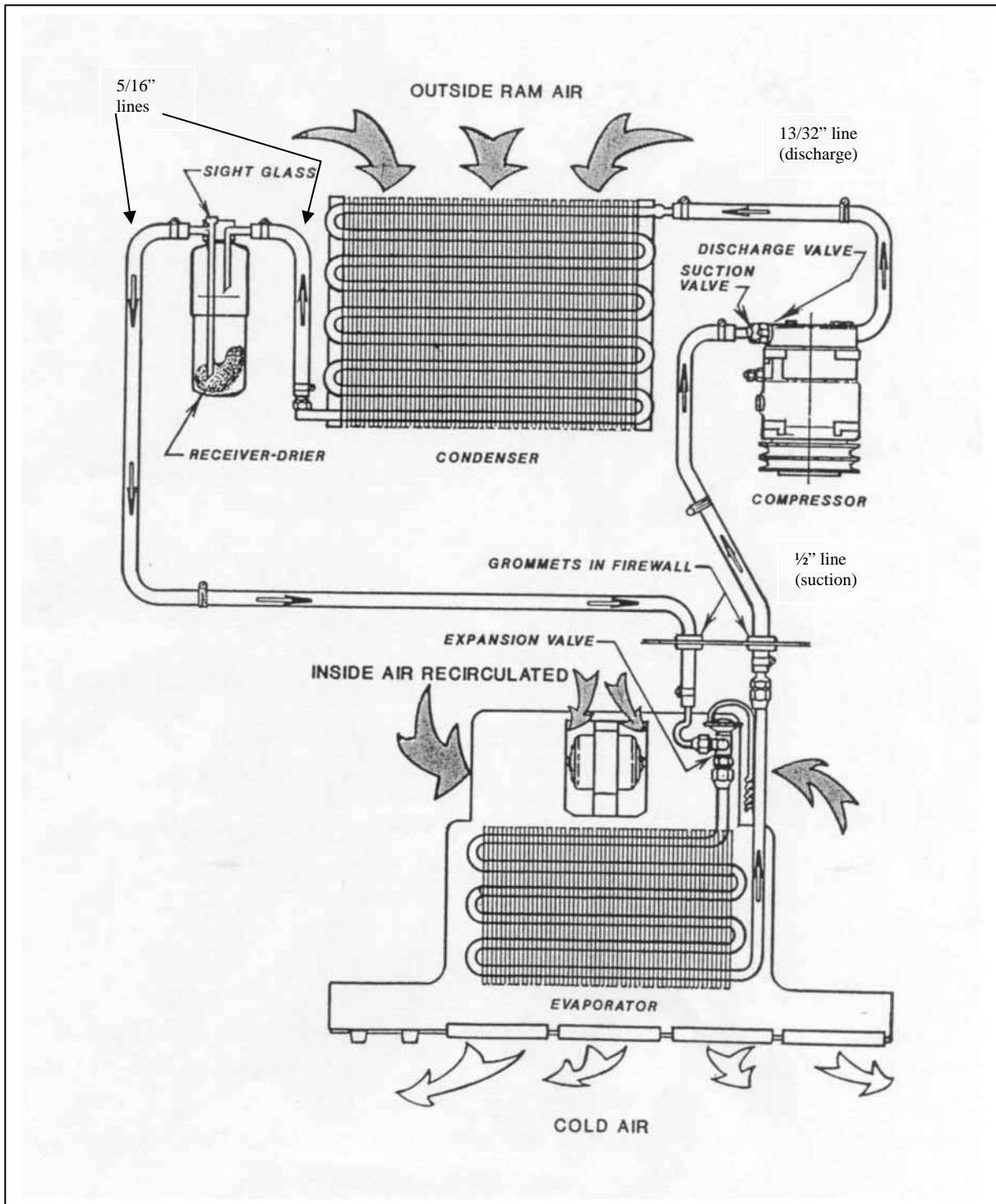


Cut and trim plastic belt cover to fit around compressor clutch and belt.



Trim cover to fit belt as required.

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.

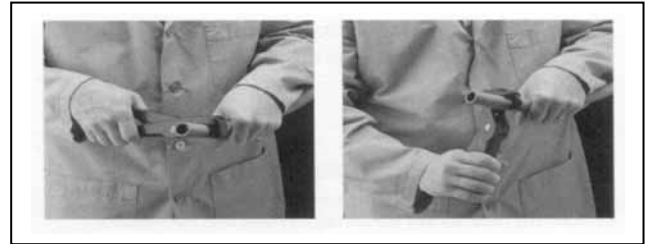
By looking at all these different factors, the area of an evaporator coil most likely to be the coldest can be determined.

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

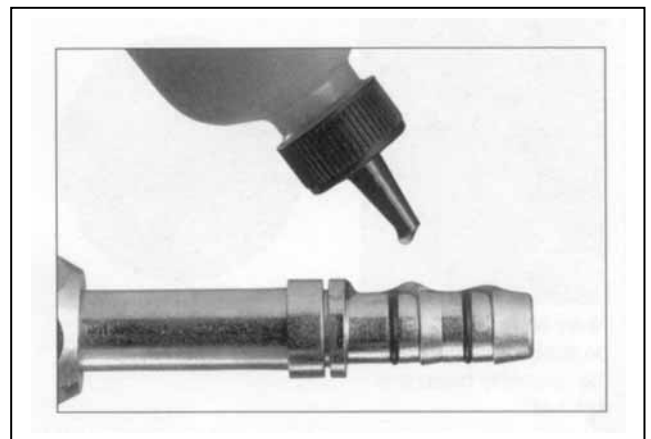
Step 1. Cut the hose to proper length with an appropriate cutting tool. Aeroquip's hand held hose cutter has been specially designed for cutting all non-wire reinforced hose, such as GH-134 Multi-Refrigerant hose. Be sure the cut is made square to the hose length.



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.

