

**CASE CX36B  
MINI EXCAVATOR  
INSTALLATION INSTRUCTIONS**



PHONE (519)485-5961 OR 1-800-267-2665  
FAX: (519)485-3745 OR 1-888-267-3745

## COMPRESSOR

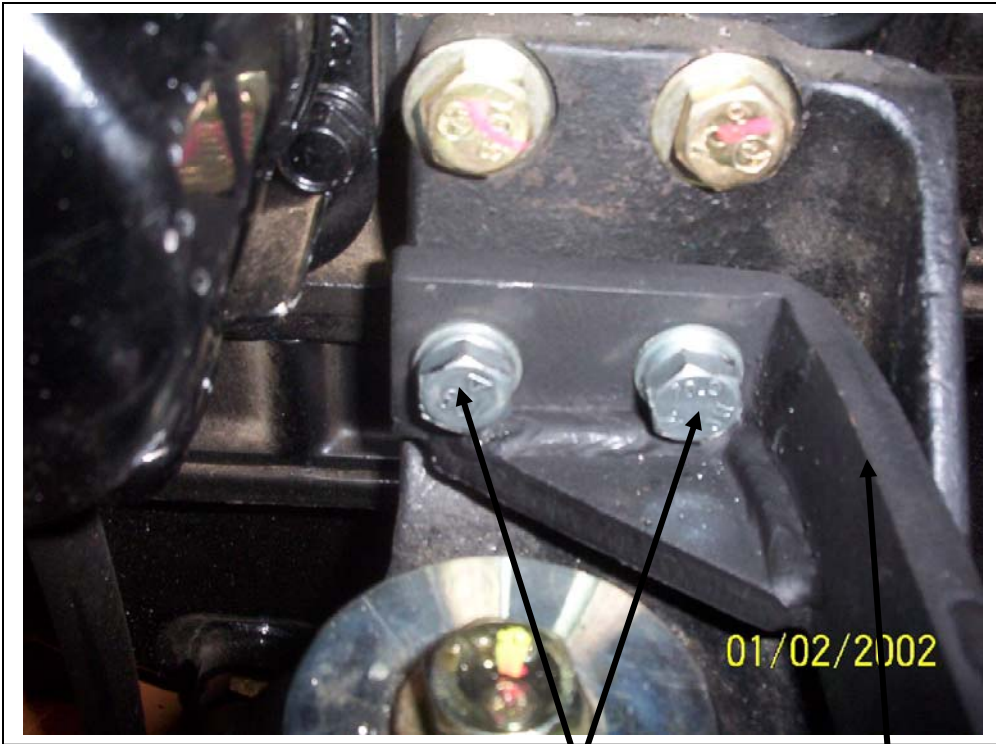


Remove and discard this small fan shield.

Temporarily remove overflow bottle. Re-install after pulley and compressor are installed.



Install add on pulley as shown on front of crank shaft. Small center lip aligns into crankshaft. Three M10 bolts provided with kit.



Remove the two lower bolts from the mount-to-engine. Install compressor mount as shown and install new bolts provided in kit.

Compressor mount.



Compressor mount installed and tightened.





Compressor installed onto mount.  
Install belt and check alignment.

M8 x 100mm bolt, lock and  
flat washer.



Tightener bracket installed. 3/8" spacer and M8 bolt supplied in kit.

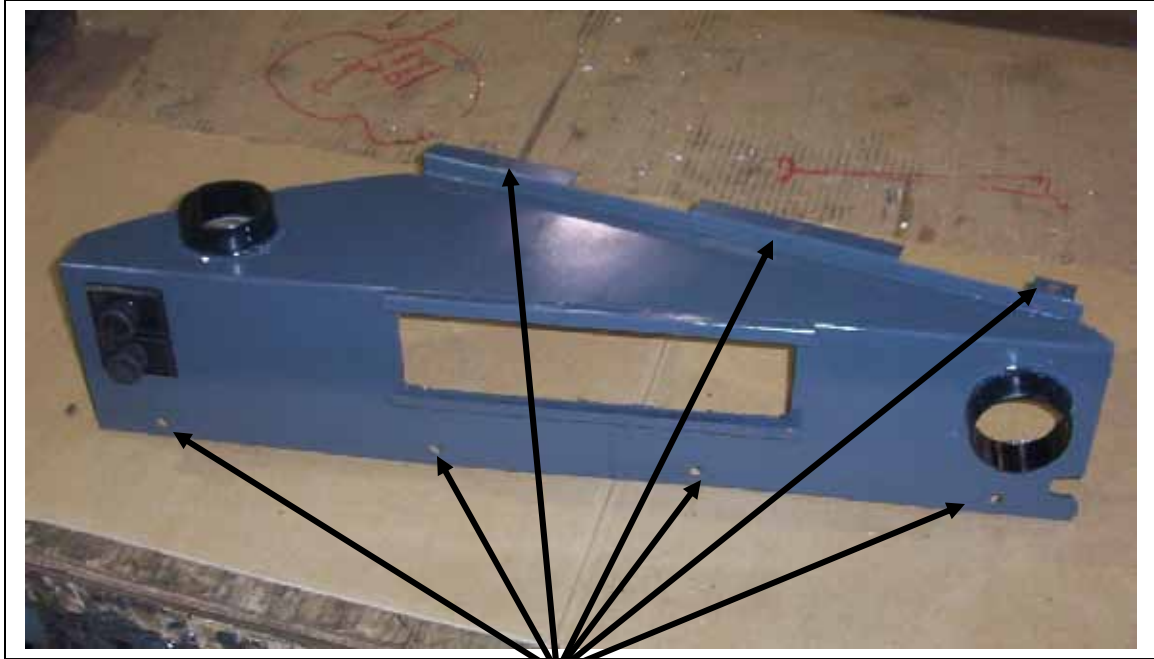


Tightener bracket.

A/C belt







Use the evaporator cover to mark the seven mount holes. Drill and tap to ¼"





Install evaporator coil and drain pan.



Expansion valve mounting bracket.

Expansion valve

Evaporator coil





Drain tube



Notch and install self adhesive foam as shown.



Self adhesive foam to seal evaporator box.



Mount resistor and bracket using two #10x3/4 self tapping screws.

Silicon front edge and drain pan to seal evaporator.



Mount two 12v relays ½" from top edge of back panel.  
\*\*NOTE: All grounds



Evaporator cover shown in place.  
\*\*NOTE: Complete electrical wiring prior  
to closing the evaporator.\*\*





Mount and connect the fan/louver assemblies 8 1/2" from top of evaporator cover.



Right side vent and blower assembly.



Left side assembly.

## CONDENSER

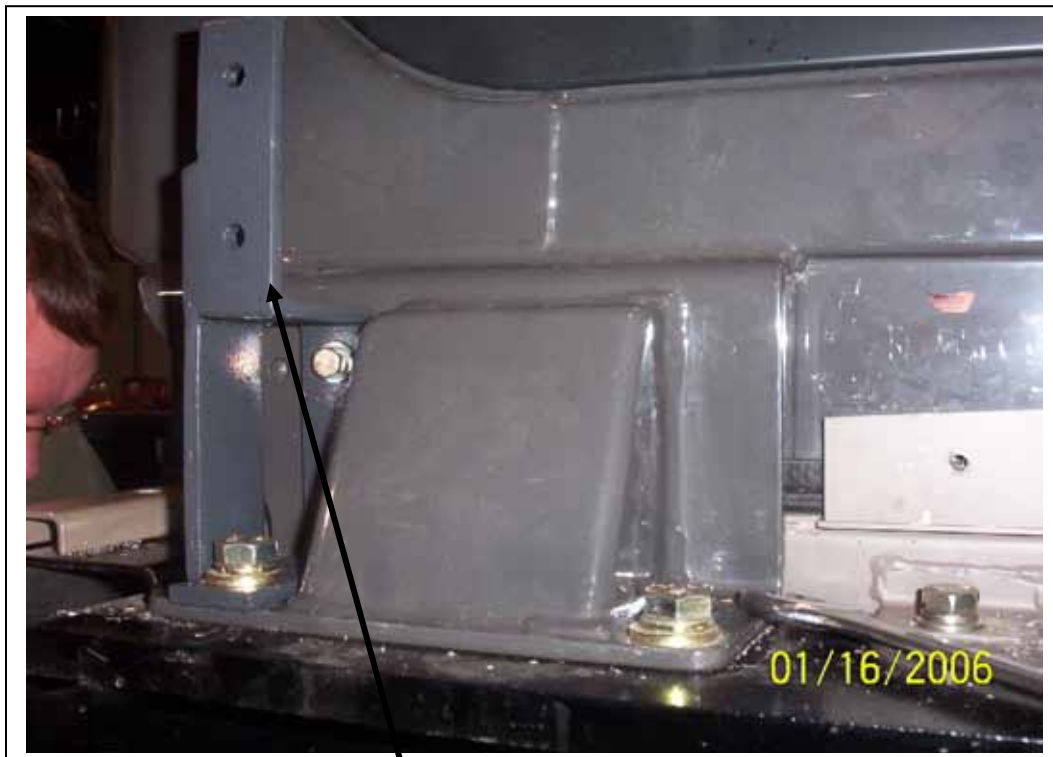
The condenser mounts on the right side of the machine above the hydraulic system. Open the compartment door to access the mount points.



Left hand condenser  
mount bracket.

Existing bolt.

Drill and tap for 1/4" bolt.



Left hand condenser bracket

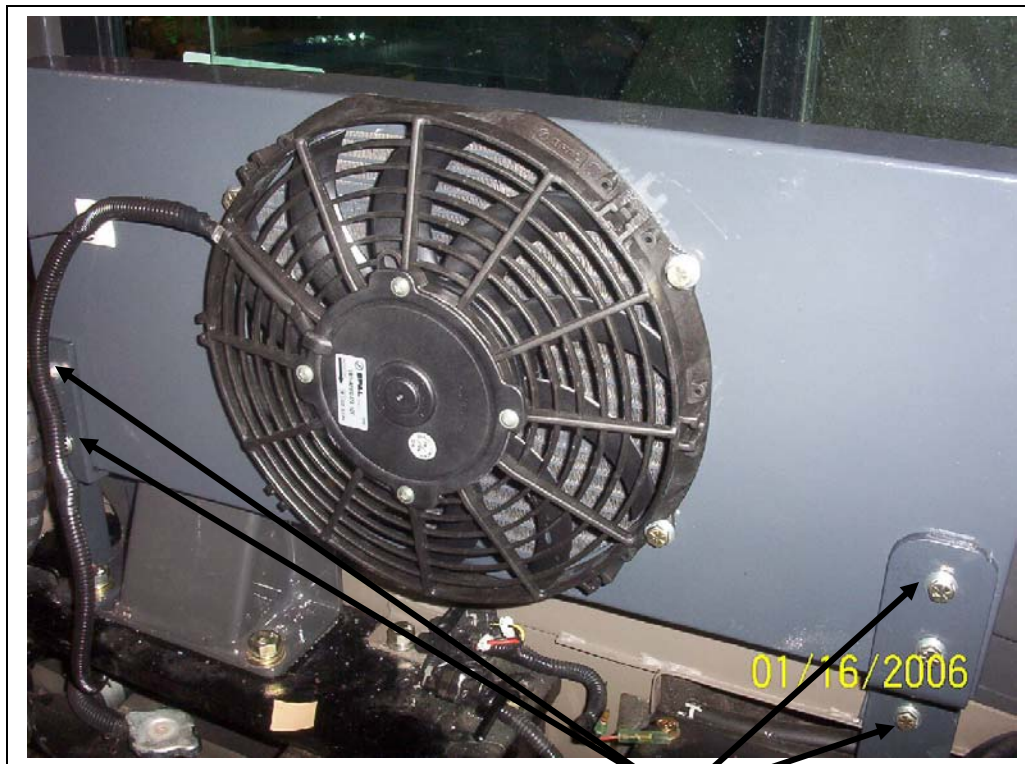




1/4" spacer goes behind bracket.

Drill and tap for 1/4" bolt.

Right hand condenser bracket.



Mount condenser shroud and coil into the two brackets using 1/4x3/4 bolts

## RECEIVER DRIER



Drain tube

12GA mounting bracket

#10 hose connected  
at expansion valve.

Fasten here with #10  
self drilling screws.  
(same on other side)

With the engine compartment open, and plastic rear cover removed, install the 12GA bracket as shown and fasten each end with 2 # 10 self drilling screws.



Binary switch

Copper line and hose installed  
and routed behind the drier.

Receiver drier.

Install drier as shown using two #40 gear clamps provided in the kit. Do not tighten clamps until all the small copper lines are connected.

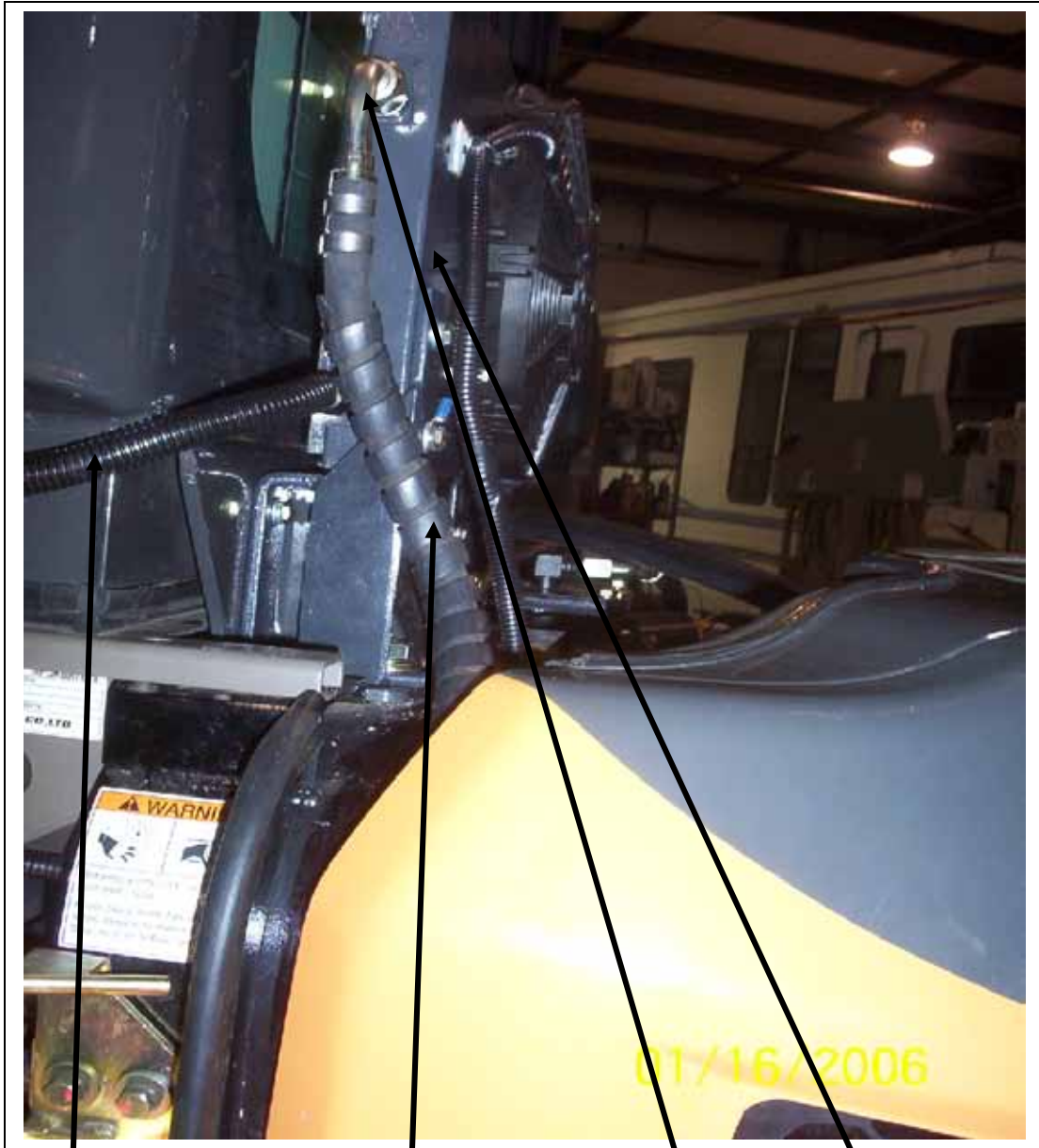


Copper line to  
expansion valve.

Copper line to condenser.



## HOSE CONNECTIONS



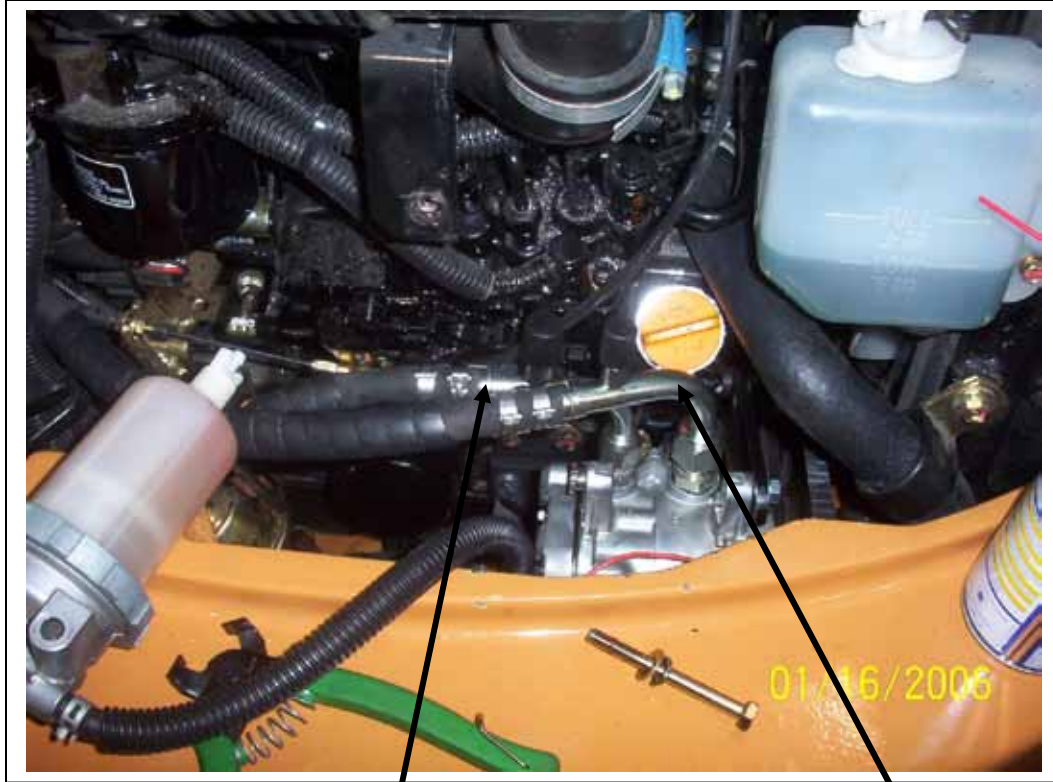
#6 copper line to receiver drier.

#8 hose to compressor.

#8 90° fitting at condenser

Condenser assembly

The #8 hose runs from the condenser to the compressor. Keep it inside the side door at the hinge. A small hole at the bottom allows access to the engine compartment.



#8 90° fitting w/134a  
access port.

#10 90° fitting w  
134a access port.

Both #8 and #10 hoses connected at the compressor. Charging of the system is done here. The fuel filter is temporarily removed but not disconnected. The #8 hose runs underneath the compressor.



This #6 hose will connect to the copper line coming from the condenser.

#10 hose at expansion valve.

The #10 hose from the block expansion valve goes behind the air filter bracket then curves around to the left and to the compressor.



## ELECTRICAL



Two pin terminal marked reserved.  
60" 14ga red wire attached here for  
ignition live.

60" 10ga red wire complete with 20  
amp fuse and holder vampire clipped to  
this point for main power.

Power is drawn from existing heat unit under seat. Both 10ga and  
14ga wire are bundled together in 3/8" wire loom to run up to the  
evaporator and blowers.



Main power and ignition live wires from existing heater to relays.

20" 14ga black(grnd) and 46" 14ga Orange (fan pwr) together to fan on right side.



38" 14ga Red, Yellow, Orange wire from blower switch to resistor.

50" 14ga black(grd) and 17" 14ga Orange (fan pwr) run together to fan on left side. (not seen)



12v resistor with fan wires.



Evaporator cover open to run wiring.

Self adhesive foam along top edge to seal cover.

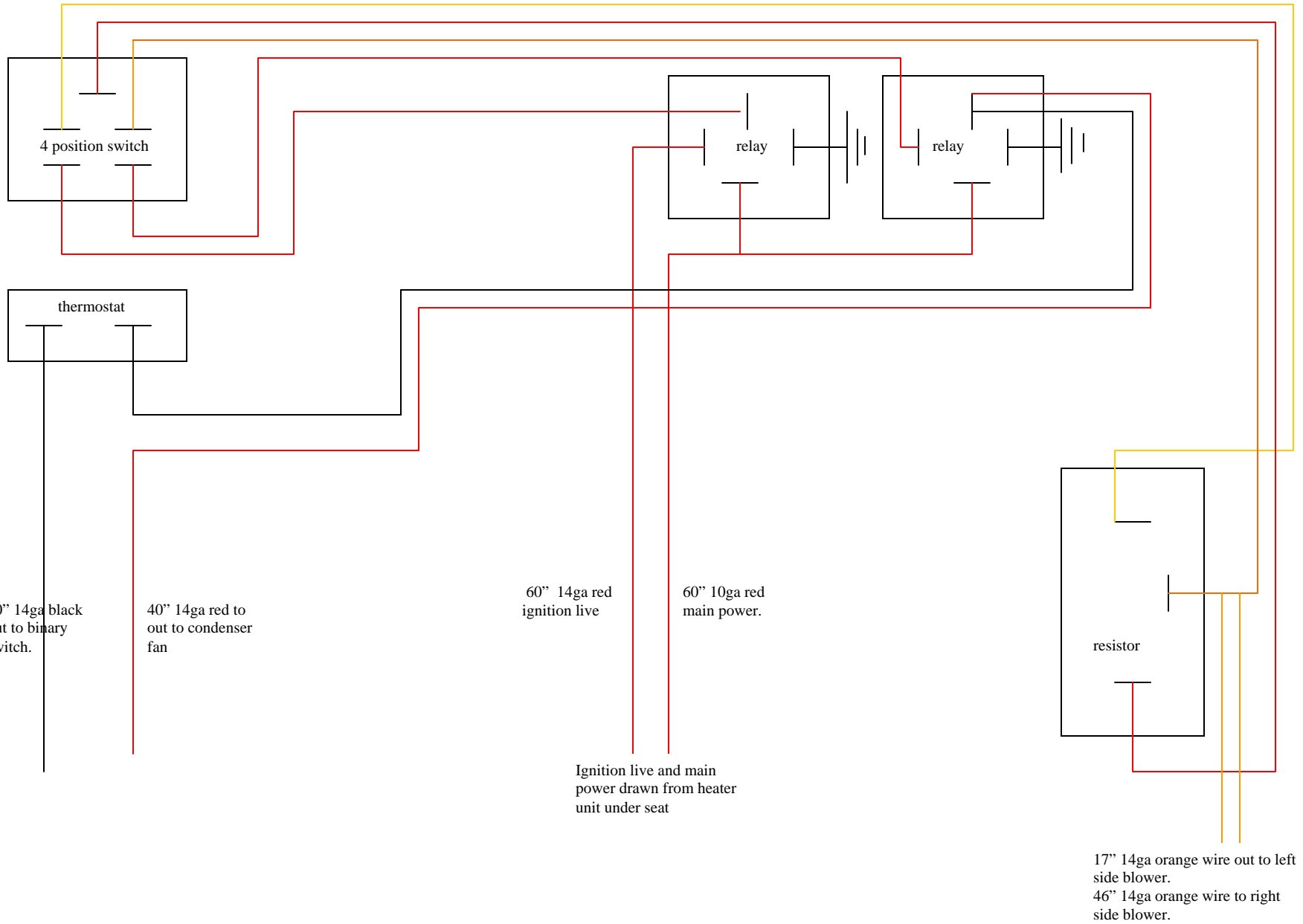


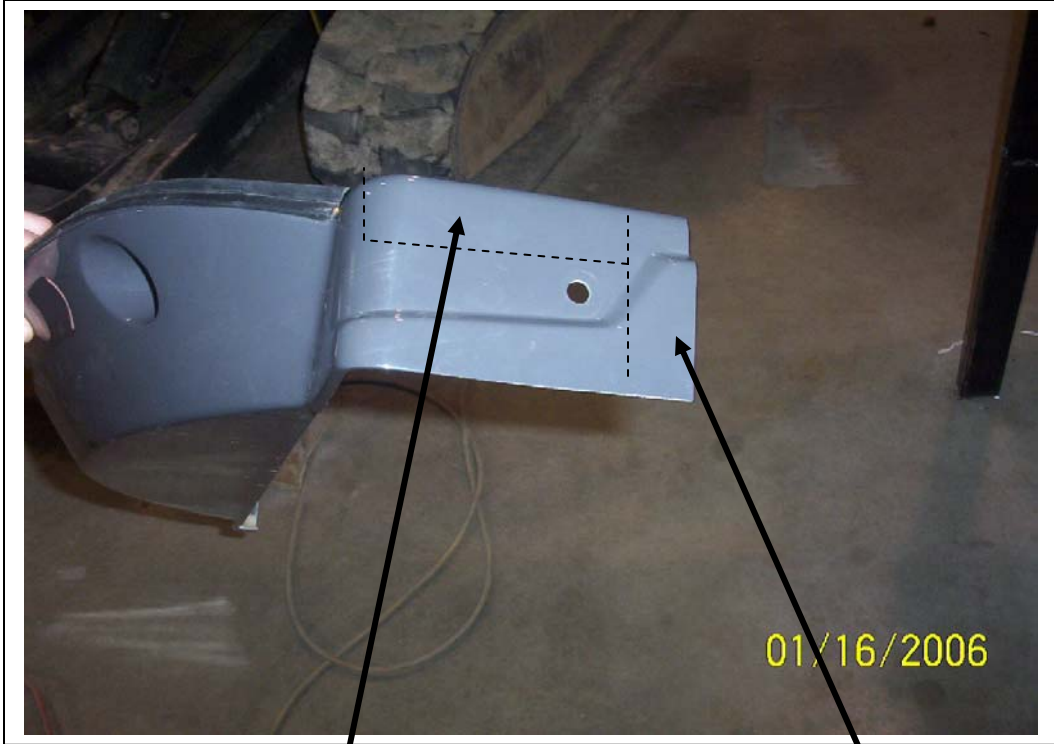


Evaporator cover in place.

Power and ground wires for fans.

# CASE CX36B WIRING DIAGRAM





Cut off 1 1/2" here to clear hoses.

Cut off 1" to clear hoses.



Plastic cover cut as required.





Notch out plastic cover to clear the hoses coming out of the evaporator.



Rear door notched out for hoses and wiring. Install trim to prevent sharp edges from cutting through anything.



Cable tie all hoses and wiring to prevent wear. Be sure to secure the #8 hose to the bracket.



Install hose guard over #8 hose and fitting. Set in place, mark to drill for 3/8" hole. Install clinch nut provided



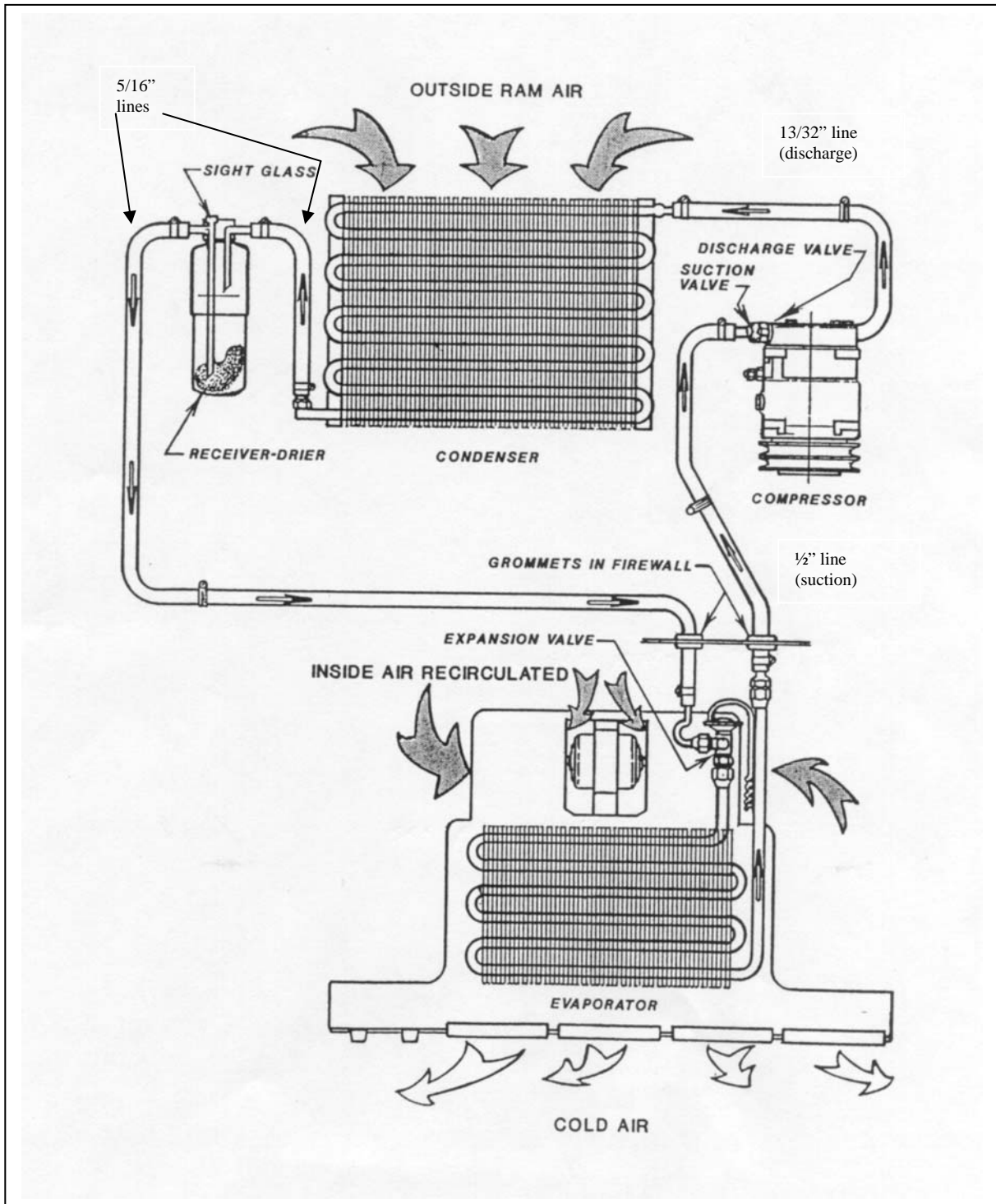
Install drain tube here. Run along same route as the #10 A/C hose until it is below the engine. Secure with gear clamp.



## **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 1.25lbs 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.

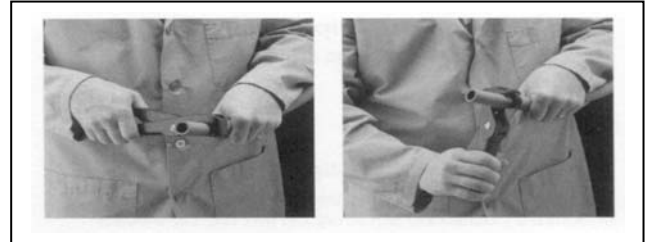


Once the probe is inserted, the A/C system needs to be tested. Run the system to ensure that the thermostat is cycling the compressor off at the appropriate temperature. A core temperature ranging between 25° and 30° F should cause the thermostat to cycle off. The air temperature at the vent outlet closest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

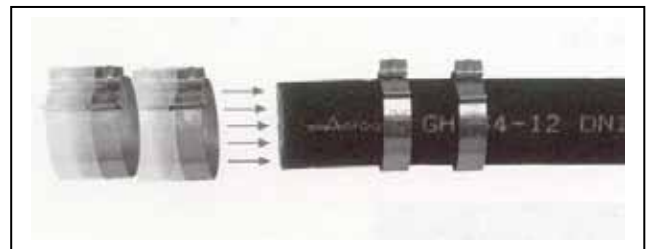
If the thermostat doesn't cycle off after a reasonable cool down period, and the air outlet temperature has dropped below 40° F, the cut in and cut out settings should be adjusted until the compressor is cycling on and off regularly. Let the system run for a decent time period (at least 15 min) and then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

## Aeroquip E-Z Clip Assembly Instructions

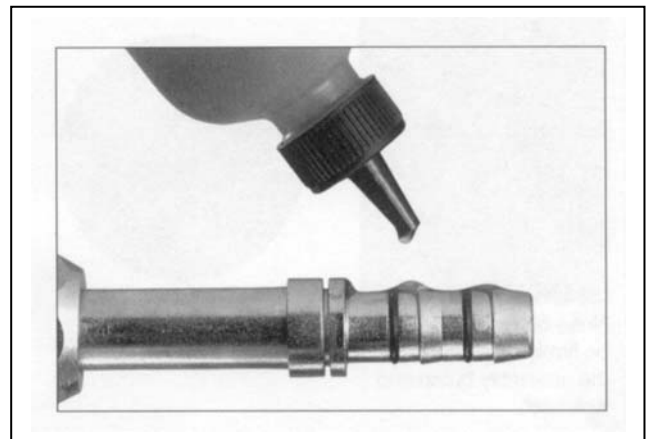
Step 1. Cut the hose to proper length with an appropriate cutting tool. Aeroquip's hand held hose cutter has been specially designed for cutting all non-wire reinforced hose, such as GH-134 Multi-Refrigerant hose. Be sure the cut is made square to the hose length.



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.



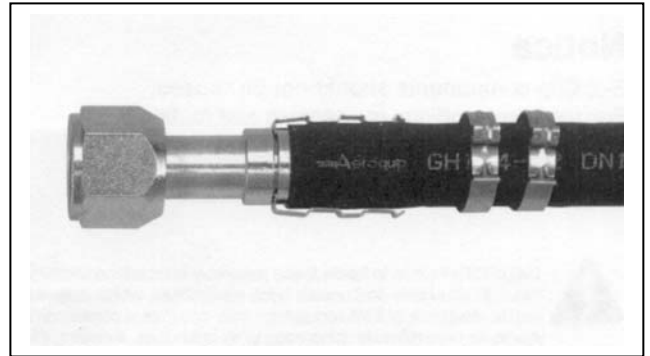
Step 4. Insert the nipple into the hose. To ensure that the nipple is fully inserted, check the gap between the cut end of the hose and the shoulder on the nipple. Care should be taken to avoid kinking or other damage to the hose during nipple insertion.

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

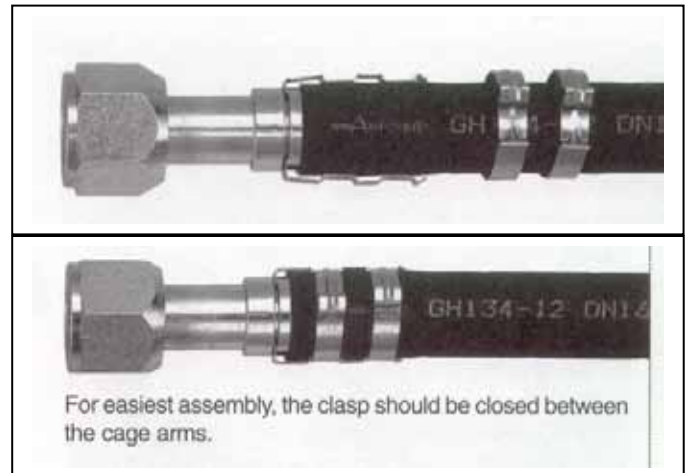


Step 5. Snap the cage into the groove on the nipple. The arms should extend over the hose length. When the cage has been correctly installed in the cage groove, the cage will be able to rotate in the groove. This step **MUST** be performed to ensure:

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.

