

# NORCOLDER™

## Installation Guide

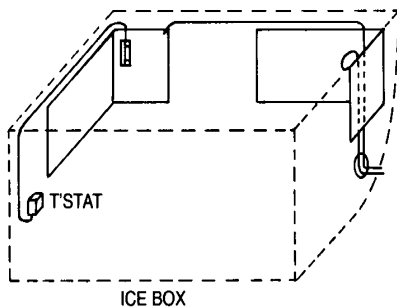
### Steps to follow in a typical Norcolder installation.

#### REQUIRED TOOLS

- 1/4" drill and assorted bits
- 1 1/4" hole saw
- 7/8" and 3/16" wrenches or 2 adjustable wrenches
- Philips and straight screwdrivers
- Wire cutters and/or wire strippers
- Electrician tape and wire connectors
- Tube of silicone

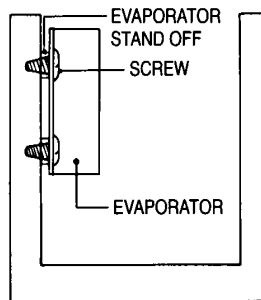
#### INSTALLATION

1. Select the most convenient location for the compressor unit (40-watt system)...or the compressor unit and power supply (80-watt system). Make sure the area is well ventilated, and that there is enough clearance for you to make the necessary tubing and wire connections. Also, predetermine that you have a means to route the power supply. Position the compressor (and power supply), but do *not* bolt down at this time.



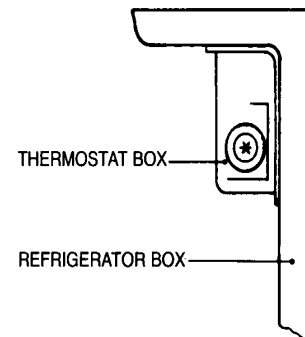
2. Go to the ice box interior, and select the location of the evaporator(s). Position the evaporator(s) to be as high as possible (for better circulation) in a corner. Dual evaporators may be stacked, or placed in opposing corners. The long dimension of the evaporators should be placed along the long dimension of the ice box. Make sure the tubing emerges from the *top* of the evaporator(s).

3. Using the evaporator(s) as a template, mark the 4 mounting holes on the ice box interior walls, then drill. CAUTION: Be aware of depth restrictions near the hull.
4. Take the evaporator(s) in hand and *carefully* uncoil the copper tubing until the entire length is straight. CAUTION: Avoid putting undue stress on any of the tubing bends, and particularly where it connects to evaporator(s).
5. Using the evaporator mounting holes as guides, decide at which point within the ice box the tubing will best enter/exit to achieve the most direct route to the compressor. Using the 1 1/4" hole saw, make a hole at that point. Snake the tubing through the hole from inside the ice box.

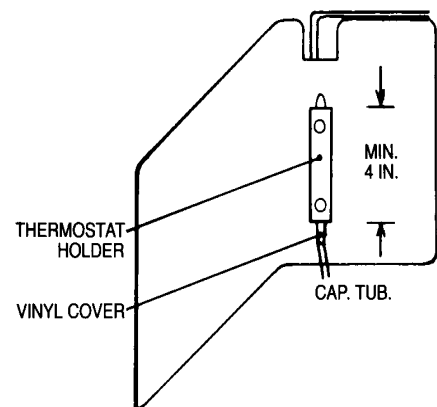


6. Now mount the evaporator(s) using the screws and spacers provided. By careful hand forming, route the copper tubing inside the ice box so it is out of the way. CAUTION: Make gradual bends only, no kinks, since these can not only cause damage but can restrict free flow of refrigerant. Once routed to your satisfaction, you may wish to clamp the tubing to secure it to the box interior.

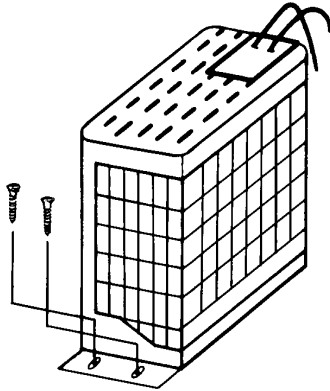
7. Select a location within the ice box for the thermostat. It can be mounted in any position where it is easy to reach, and where the sensing wire (capillary tube) extends to the designated mounting area on the evaporator.



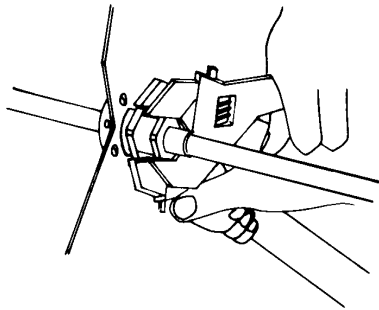
8. Mark the 3 thermostat mounting holes; drill holes and mount with appropriate screws. Place the supplied vinyl sleeve over the end of the sensing wire; then attach the wire to the evaporator with the bracket and screws provided. Feed the gray thermostat wire through the same hole as the tubing.
- Now you have finished inside the box.



9. Route the copper tubing to the compressor. Do not connect yet. Align the compressor in its final position with the tubing, and bolt it to the mounting surface.



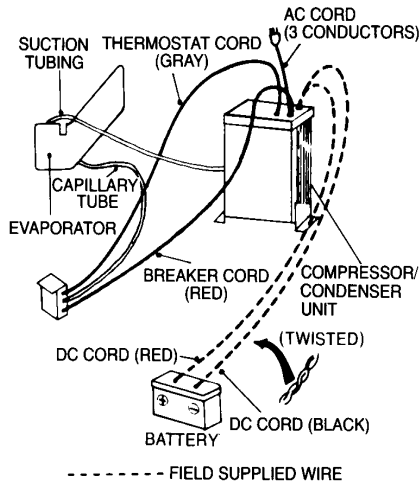
10. Remove coupling dust caps and plugs from the tubing and compressor, making sure that the synthetic seals are intact. Wipe off the coupling seals and threaded surfaces with a clean cloth to prevent dirt or foreign material entering the system. Lubricate the rubber seal in the male half with refrigeration oil.
11. Thread coupling halves together by hand to insure proper mating of threads. Then using the proper size wrenches (on coupling body hex and union nut), tighten until coupling bodies "bottom" or definite resistance is felt. Using a marker or ink pen, mark a line lengthwise from the coupling hex to the bulkhead. Then tighten an additional  $\frac{1}{6}$  to  $\frac{1}{4}$  turn. This final turn is necessary to insure that the knife edge metal seal bites into the brass seat of the coupling halves, forming the leakproof joint. You will hear a momentary hiss, indicating that the seal has been properly opened.



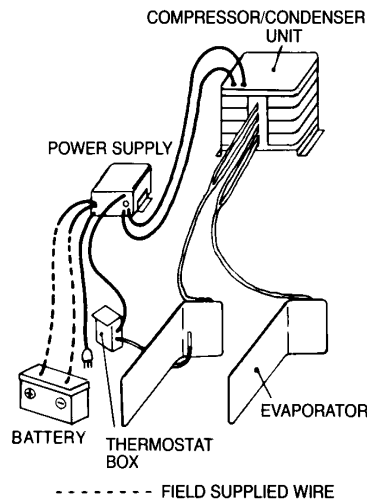
If torque wrench is used, the following torque values are recommended.  
Coupling Size: No. 6  
Ft. Lbs.: 18

12. Make the electrical connections to complete the installation. First connect the color-coded wires as appropriate. After these are made, connect the DC wires to a dedicated 12V supply with a circuit breaker. Plug the AC power cord into a standard fused receptacle.

#### 40-WATT SYSTEM



#### 80-WATT SYSTEM



13. After all connections have been made and the refrigerator is operating, properly plug the hole in the box with silicone. Clamp tubing and wires as needed.



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