EVAPORATOR REPLACEMENT 307 1059 01

1) Lower the water plate to an open position, and cover any exposed plastic with wet rags to protect it from the heat of brazing.

2) Remove any capillary tube thermostat bulbs, evaporator probe from the holder on the evaporator.

3) Remove the refrigerant charge and remove the old evaporator by first disconnecting the TXV from the evaporator.

4) Separate the evaporator outlet from the heat exchanger by heating the swaged joint until the two tubes can be disconnected.

5) Separate the hot gas line from the evaporator by heating the joint until the tubes can be disconnected.

6) Remove the evaporator from the cuber by locating the 4 bolts (two in the front channel and 2 in the back channel) and unbolting the evaporator from the channels.

7) Mount the new evaporator (Mount and braze all parts back on). Evacuate and dehydrate the cuber and charge with refrigerant, check for leaks.

NOTE: (If you use a hack saw to cut off the tubing, use nitrogen to blow the chips out of the tubing.)



USE THE CLIP TO MOUNT THE ACTUATOR & COLD WATER THERMOSTAT







USE THE CLIP TO MOUNT EVAPORATOR PROBE

WATER PLATE

Too little ice web thickness (spacing between the evaporator and the water plate) or incorrect alignment of the water plate and evaporator may cause icing of injection and return holes on the water plate surface. Refer to water plate alignment drawing.



If water injection holes on the water plate become blocked with scale, some of the freezing cells will be void of ice at time of harvest. This condition may be cured by using a 1/16" drill bit to clean the injection holes with care not to scratch the water plate surface. Empty cells may collapse due to expansion of ice in adjacent cells.

If the holes are cleaned and no water flows through them to form ice in the cells, the lateral conduits have become clogged. To clean the laterals, remove the plugs at the right end of the water plate. Run a small brush through the laterals and flush out the foreign material. When replacing the plugs use new ones as the old ones have aged and may not seal properly. To replace a plug, push it in with an Allen wrench or similar blunt end tool. This stretches the plug so it will be tight when the tool is removed.

CUBE QUALITY

Proper adjustment of the control stream and water level probes will produce ice cubes containing a 1/8" to 3/16" dimple. Oversized dimples may be caused by insufficient water fill, control stream set too high and/or a leak in the water circulation system. Undersized dimples are caused by overfilling, control stream set too low and/or mis-adjustment of the low level probe.

EVAPORATOR REPLACEMENT INSTRUCTIONS GBR00148, GBR00153 and GBR00167 EVAPORATOR KITS

CAUTION:

RISK OF PERSONAL INJURY, PROPERTY DAMAGE, EQUIPMENT FAILURE OR FIRE.

- Refer all maintenance to qualified personnel.
- Disconnect power before servicing equipment.
- Read all instructions and understand your particular model requirements before proceeding.
- Protect all components that could be damaged by the brazing operations, required by this procedure. This
 includes, but is not limited to, the water plate, tank, expansion valve, tube insulation, pump, hinges, water
 valve and wiring in all models and printed circuit boards in some models.

If these parts cannot be protected, then move them away from the brazing operation as required.

- 1. Lower the water plate to the full open position. Remove or protect it from heat.
- 2. Remove actuator and cold water thermostat capillary tubes (electro-mechanical and classic) or evaporator probe (electronic) from the bulb well on the evaporator. Also, remove the expansion valve bulb from the evaporator.
- 3. Recover the refrigerant from the unit.
- 4. Separate the expansion valve from the evaporator inlet tube.
- 5. On electro-mechanical and electronic models, separate the suction tube from the evaporator outlet tube by heating the brazed joint. On Classic models, cut the suction tube as shown in Illustration "A".
- 6. Separate the defrost (hot gas) tube from the evaporator inlet tube by cutting the defrost tube just above the bead, as shown in Illustration "A". Note- if the defrost tube connection to the evaporator is made using a tee, then separate the defrost tube by heating the joint.
- 7. Locate the four screws holding the evaporator to the support channels. Remove the screws, while supporting the evaporator, and remove the evaporator from the unit.
- 8. Prepare the new evaporator for installation as follows:

On electro-mechanical and electronic models-

- a. Twist the evaporator outlet tube up approx. 20 deg. from horizontal as shown in Illustration "B".
- b. Position the tee and elbow tube (provided in the kit), as shown in Illustration "B" and braze the joints.





On Classic models-

- a. Cut 1" off the short leg of the elbow tube (provided in the kit).
- b. Cut the evaporator outlet tube 1-1/4" from the evaporator, even with the inlet tube
- c. Position the tee and the elbow tube on the evaporator inlet, as shown in Illustration "C", and braze the joints.
- d. Position the "U" tube (provided in the kit), as shown in Illustration "C", and braze the joints.
- e. On "K" (cube-let) Classic evaporators only cut back the inlet end of the elbow tube 1/2" as shown in Illustration "C".



- 9. Attach the (4) evaporator spacers (provided in kit) to the evaporator with (4) #10 screws (provided in kit). Leave screws slightly loose at this time.
- 10. Install the expansion valve bulb screw and speed nut as shown in Illustration "D".
- 11. Position the evaporator assembly in the unit and attach with (4) #10 screws. Tighten upper and lower screws at this time.
- 12. Adjust the inlet and outlet tubes as required to connect them to the expansion valve and suction tube and braze the joints.
- 13. Install the expansion valve bulb (see Illustration "D") and the thermostat capillary tubes or evaporator probe.
- 14. Adjust the alignment and spacing of the water plate as shown in Illustration "D".



