

SW 036 CHARGING PROCEDURE

REFRIGERANT CHARGE AND CHECK

WARNING-Do not exceed nameplate charge under any condition.

This unit is factory charged and should require no further adjustment. If the system requires charge, reclaim the charge, evacuate the system, and add required nameplate charge.

If weighing facilities are not available, or to check the charge, use the following procedure:

- 1- Attach gauge manifolds and operate unit in cooling mode until system stabilizes (approximately five minutes). Make sure outdoor air dampers are closed.
- 2- Use a thermometer to accurately measure the entering water temperature.
- 3- Apply the water temperature to table 1 to determine normal cooling operating pressures.

**TABLE 1
NORMAL COOLING OPERATING PRESSURES**

Condenser Entering Water Temp	Discharge ±10 psig	Suction ± 5 psig
59°F	245	140
77°F	312	144
86°F	339	148

- 4- Compare the normal operating pressures to the pressures obtained from the gauges. Minor variations in these pressures may be expected due to differences in installations. Significant differences could mean that the system is not properly charged or that a problem exists with some component in the system. **Correct any system problems before proceeding.**
- 5- If discharge pressure is high, remove refrigerant from the system. If discharge pressure is low, add refrigerant to the system.
 - Add or remove charge in increments.
 - Allow the system to stabilize each time refrigerant is added or removed.
- 6- Operate the unit in heating mode until system stabilizes (approximately five minutes).
- 7- Apply the water temperature to table 2 to determine normal heating operating pressures. Use steps 6 and 7 to adjust refrigerant.

**TABLE 2
NORMAL HEATING OPERATING PRESSURES**

Condenser Entering Water Temp	Discharge ±10 psig	Suction ± 5 psig
32°F	291	77
50°F	321	106
68°F	352	137

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