

DEFROST (TIME INITIATED - TEMPERATURE TERMINATED)

After a run period of approximately 6 hours, the evaporator coil will be frosted and require a defrost. Four defrost cycles per day are programmed at the factory (4 a.m., 10 a.m., 4 p.m., and 10 p.m.). It may be necessary to change the defrost cycle times to fit your work schedule.

The interior temperature may rise 10-20° F during the defrost cycle. Do not be alarmed. No thawing of the product will occur. Soon after the cycle is complete, the unit will return to proper temperature.

The defrost sequence is as follows:

- (1) Timer starts defrost cycle.
- (2) Liquid line solenoid valve closes, evaporator fans stop, and the defrost heaters are energized.
- (3) After pumping down, the compressor stops.
- (4) The heaters warm the coil, melt the frost, and trip the termination thermostat at the set temperature.
- (5) The defrost cycle is terminated; the liquid line solenoid opens; and defrost heaters are de-energized.
- (6) The pressure switch closes and the compressor starts the refrigeration cycle.
- (7) The evaporator fans will remain off until the coil temperature reaches approximately 20°F.

Should the termination thermostat fail to end the defrost cycle; the timer fail-safe time is designed to end after 30 minutes.

DEFROST ADJUSTMENTS - FREEZER

Optimal defrost is accomplished when the defrost cycle ends immediately after all the ice has cleared from the finned coil surface on the evaporator. Too long or too short of a defrost period may cause operational problems or waste electricity.

The defrost periods set at the factory are for "average" freezer use. Depending on the frequency of door openings and the ambient climate, it may be necessary to make adjustments to the defrost cycle.

ICE DROPLETS FORMING ON THE CEILING is a sign that the system is remaining in defrost too long after the ice clears from the coil fins. This can be corrected by turning the defrost duration screw towards the "shorter" position (fig. 5-1). If freezer still remains in defrost too long, a defrost setting pin should be removed from the timer clock (fig. 5-2). Repeat if necessary.

ICE BUILD-UP ON BACK OF EVAPORATOR COIL is a sign that the defrost period is not long enough. Turn duration setting towards the "longer" position (fig. 5-1). If build-up still occurs, a defrost setting should be added to the timer clock (fig 5-2).

NOTE:

- (1) If excessive ice build-up has occurred, it may be necessary to manually melt away ice from coil surface, prior to making adjustments. System must be turned off in order to manually defrost the coil.
- (2) Allow 24 hours between adjustments.
- (3) Not all freezers are adjustable. To find out if yours is, find the defrost control (fig. 5-1), or call for assistance.

DEFROST CONTROL

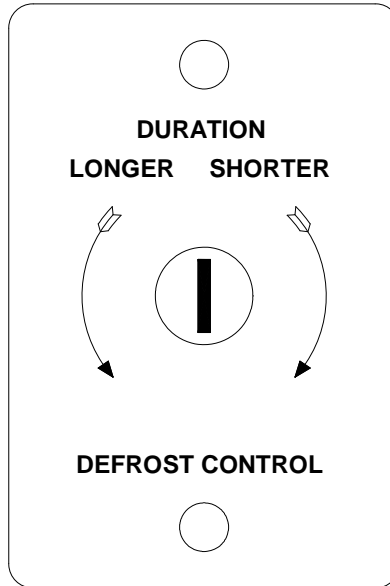


FIGURE 5-1

LOCATED ON RIGHT END OF EVAPORATOR COIL (MLT MODELS ONLY)

DEFROST TIMER CLOCK

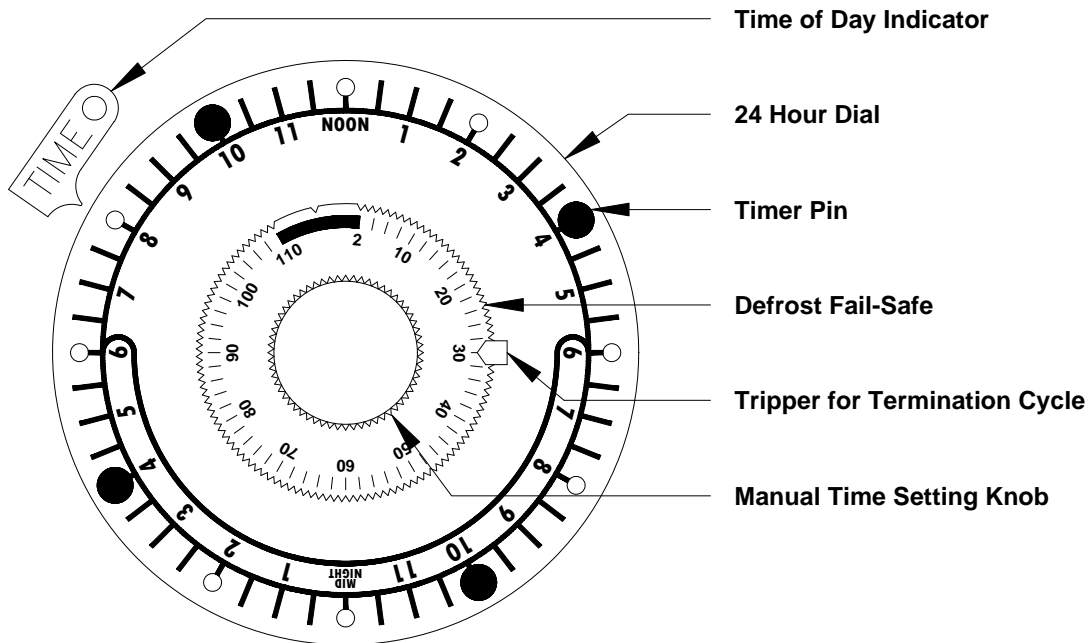


FIGURE 5-2

LOCATED IN ELECTRICAL CONTROL PANEL ON TOP OF WALK-IN