Micro Control Systems
APPLICATION NOTE
APP-034

Software ACDRB
Refrigeration Control
New Defrost Features

Revision History

Date	Author	Description
06/20/02	R Toney	Created document

The following defrost control is active with ACDRB 9.00-A software and greater

New set points:

#	NAME	DESCRIPTION
100	DEF ENABLE	0, Defrost control is inactive. 1, Defrost control is active.
101	DEF LLS ON	Time that an evaporator must be on, a compressor running, before a defrost cycle for that evaporator will be initialized. The set point value is expressed in minutes.
102	DEF DURATION	The time of the defrost cycle. The set point value is expressed in minutes.
103	DEF CIRCUITS	Number of evaporators that can be in a defrost cycle at the same time.

Defrost Control Logic:

- When an evaporator is running, one or more of its compressors are on, run time is accumulated, DEF TMR, for each compressor. When this time exceeds the time in set point #101, that evaporator (circuit) will beginning a defrost cycle. When an evaporator enters a defrost cycle, the state of the associated compressors are changed to DEFROST.

- The time of the defrost cycle is determined by set point #102. For the length of time of the defrost cycle the compressors will be turned off and the liquid line solenoid will be closed. This is a natural time delayed defrost.

- When the defrost cycle ends, the accumulated run time, DEF TMR, for that evaporator will be reset to zero and the compressors for that evaporator will be returned to a normal 'OFF' state.

- When the compressors associated with an evaporator are not on, the accumulate run time is reduced by the value of set point #101 divided by set point #102. This accounts for time that a natural defrost would be occurring.

- When a compressors is turned on, the associated evaporator's accumulate run time, DEF TMR, begins counting at its present value.

PC-Connect Version 3.2-I will display the defrost timers, DEF TMR and the number of circuits in defrost.