



ESG Service Information

File In/With: SK Behind General Tab

SI0023

New

3-02

Equipment Affected: YS Chillers Using MicroComputer Control Center

Software Enhancements Effective March 2002

General

Beginning March 7, 2002 an enhanced version of software for YS chillers (R-22 and R134A) using the MicroComputer Control Panel was released. YS chillers Style “ D “ or earlier experiencing oil management problems should consider installing the new version of EPROM. Programming changes are outlined below.

The EPROM version and part number is:

Version	S.01F.20
Csum	4D1F
Part Number	031-01102-002

Note: This EPROM can only be used in the 031-01065 board

This EPROM is available from the Baltimore Parts Distribution Center for retrofit to existing chillers.

Discharge Superheat Recovery:

An improved supplemental discharge superheat recovery operation, which operates based upon change of discharge superheat, has been added. As long as the discharge superheat value lies between 15.0 and 25.0°F, or the % of the slide valve is less than 40, the routine will control the discharge superheat.

After a 3 minute hold off delay at the beginning of the compressor energize signal, the routine samples the discharge superheat and change of discharge superheat (delta superheat) value every 5 seconds. If the delta discharge superheat is 0°F or greater, the slide valve will load. If the discharge superheat experiences a negative change greater than 1°F, the slide valve will unload. If the change is between 0 and -0.9, both load and unload outputs are turned off. The unload pulse is fixed at 0.5 seconds pulse width and can occur each time the routine is entered (every 5 seconds). The load pulse also uses a 0.5 second pulse width, but can be configured to occur in multiples of 5 seconds, from 25 seconds.

The ‘Load’ key and the 1380 access code are used. The appropriate message, “S’ HEAT LOAD CYCLE TIME=XSEC (x5)”, is displayed as the 2nd scrolled message. Acceptable entries are 1 to 5, with 1 being the default value. If the superheat falls below 15°F, the slide valve outputs are both held off, until the overcharge detection routine causes an unload, if required. If the superheat continues to fall below 10°F, the previous overcharge detection routine will attempt to increase the discharge superheat and provide a warning, just as before.