

	YK Centrifugal Chillers	
	SERVICE BULLETIN	Supercedes: Nothing
File with: 160.49-M2		

Subject: YK Chiller Non-Graphic Control Center – Eprom Enhancements

On/about March 2000, the following eprom versions are available for Variable Speed Drive YK chillers not equipped with the Optiview Control Center. These eproms contain the following enhancements.

<u>Eprom Version</u>	<u>Part Number</u>	<u>Application</u>
C.06F.02	031-01675-001	Chillers equipped with Style A VSD
C.YKV.06.19	031-01675-002	Chillers equipped with Style B - D 50Hz VSD
C.YKV.06.20	031-01675-003	Chillers equipped with Style B - D 60Hz VSD

Proximity Probe

High Speed Drain Line Oil temperature

It is no longer necessary for the Control Center to monitor this parameter. Since it is no longer sensed in new production chillers, it is neither sensed nor displayed with this eprom. All Cycling and Safety shutdowns related to this parameter have been eliminated. Therefore, if the High Speed Drain Line Oil Temperature circuits fail in the Proximity Probe, it is not necessary to replace the Proximity Probe. The existing eprom can be replaced with this new version and the defective Drain Line Oil Temperature circuits in the Probe will not affect operation.

Proximity Probe

The proximity distance must now exceed the lower safety threshold (-25 mils from reference position) for 2 continuous seconds before a safety shutdown is initiated.

Coastdown after Power Failure

If a power failure occurs during chiller run, the duration of the power failure determines whether a “System Coastdown” (post-lube) is performed when power is restored follows: If the power failure is < 2 minutes, a full 2.5 minute “System Coastdown” with oil pump operation performed when power is restored. If > 2 minutes, the “System Coastdown” is not performed.

Compressor Backspin at Shutdown

To minimize compressor backspin at chiller shutdown, the pre-rotation vanes are driven closed prior to shutting down on the following Cycling shutdowns:

- Low Chilled Liquid Temperature
- Multi-unit Sequence (TB2-9)
- Internal time Clock
- Remote/Local Cycling (TB2-13)
- Remote stop (TB2-8)
- Remote Stop from ISN 4500 BAS system (RS-485 serial port)

When any of the above shutdown commands are received, the vanes are driven fully closed. During vane closure, “System Shutting Down – Vanes Closing” is displayed. When the vanes are fully closed (or 210 seconds have elapsed since closure initiated), the start signal is removed from the starter and “System Coastdown” begins.

Standby Compressor Seal Lubrication

To maintain oil seal integrity while the chiller is shutdown, the oil pump is turned on for 2 minutes every 24 hours if the chiller has not run in the last 24 hours. While the pump is running, “Standby Lube In Process – X.X Min Left” is displayed.

If at least 15 PSID oil pressure is not achieved within 30 seconds of pump turn on, the cycle is terminated and “Standby Lube Lockout – Check oil Level” is displayed as a Status Key Warning message. No more Standby Lubrication cycles will be performed until the Warning Reset key is pressed in SERVICE mode (initiating another cycle).

The Standby Lubrication Cycle must be enabled or disabled using the OIL PRESSURE key in SERVICE mode. Respond accordingly to the prompt message “Enable standby Lube = 0 (0=No;1=Yes).