YORK®

Service Information

File In/With: –	SI0365
	New 1117
Equipment Affected: YK Style G and later chiller	
V.01 03630 OptiView Chiller Control Panel Software	

GENERAL

Beginning November 2015, enhanced software will be supplied in new production YK chillers and replacement microboard kit 331-03630-601. Version 01 is applicable to the 031-03630-001 microboard for YK Style G and later YK chillers. The enhancements are listed below.

The microboard, software version and program card part number is:

031-03630-001 = Y.OPT.01.01.308 (P/N 031-03601-002)

CONDENSER REFRIGERANT LEVEL CONTROL

The program was changed to operate the same as the YMC^2 Refrigerant Level Control.

ANALOG OUTPUTS ADDED

The 03630 microboard is designed with four additional Analog Outputs. This program version utilizes three of the four Analog Outputs.

- Hot gas Bypass 0 to 10VDC TB8-2
- Heat Recovery/Head Pressure Control Valve 0 to 10VDC or 4 to 20mA TB7-2/1
- Condenser Level Control Valve 0 to 10VDC TB6-2

The LTC I/O board is now only required for:

- Heat Recovery chillers
- High Temp Heat Pump chillers
- When OptiSave is installed
- When Isolation Valves are installed

Work on this equipment should only be done by properly trained personnel who are qualified to work on this type of equipment. Failure to comply with this requirement could expose the worker, the equipment and the building and its inhabitants to the risk of injury or property damage.

The instructions on this service bulletin are written assuming the individual who will perform this work is a fully trained HVAC & R journeyman or equivalent, certified in refrigerant handling and recovery techniques, and knowledgeable with regard to electrical lock out/tag out procedures. The individual performing this work should be aware of and comply with all Johnson Controls, national, state and local safety and environmental regulations while carrying out this work. Before attempting to work on any equipment, the individual should be thoroughly familiar with the equipment by reading and understanding the associated service literature applicable to the equipment. If you do not have this literature, you may obtain it by contacting a Johnson Controls Service Office.

Should there be any question concerning any aspect of the tasks outlined in this bulletin, please consult a Johnson Controls Service Office prior to attempting the work. Please be aware that this information may be time sensitive and that Johnson Controls reserves the right to revise this information at any time. Be certain you are working with the latest information.

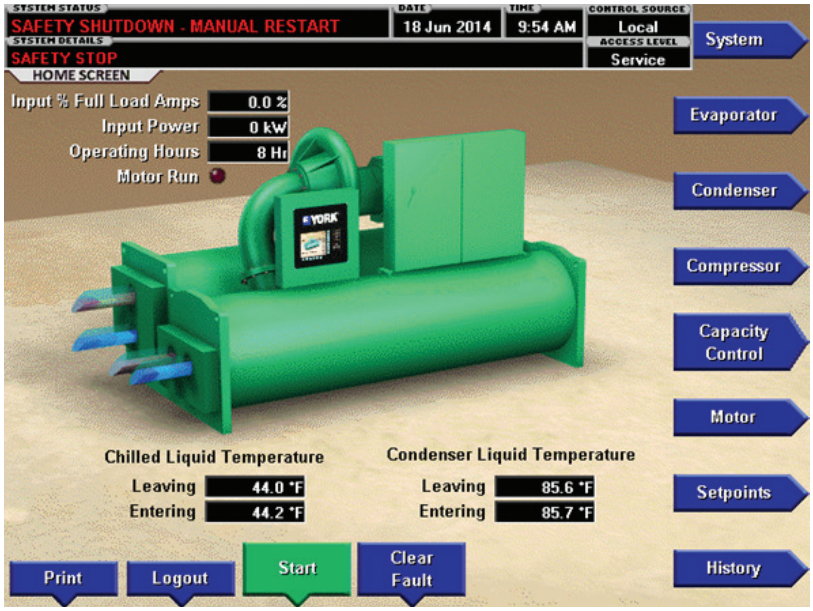
Product Technical Support

SALES ORDER DATA USED IN CONFIGURATION

Some of the information in the Sales Order screen is used to configure the chiller operating parameters. If this information is incomplete or incorrect, the chiller may not run or may run improperly.

CLEAR FAULT BUTTON

A “Clear Fault” button has been added to the Home Screen. This button replaces the action of turning the compressor switch off when a Safety Fault is present. This button will only show when a Safety Fault is present that has already been released. When this button is pressed, all released Safety Faults will be cleared.



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START BUTTON

A “green START button is now displayed on the Home screen. The user must press this Start button in Local mode to start the chiller. If the chiller is in Remote mode, the user must press this button the first time in order for the BAS Remote Start to be able to start the chiller. This is similar to the rocker switch on earlier panels where the rocker had to be in the Run position to enable remote Start control.

SOFT SHUTDOWN BUTTON

A red Soft Shutdown button is displayed on the Home screen and replaces the green Start button whenever the chiller is running. Pressing this while the chiller is running will cause the vanes to drive closed before shutting down.

DISCHARGE SUPERHEAT LIMITING

Discharge Superheat Limiting is automatically activated for certain compressor and shell combinations.

Compressor CFM limiting, implemented as Discharge Superheat limiting, is intended to prevent liquid slugging of the compressor when paired with smaller shells. The following table defines the combinations of evaporators and Q compressors. All combinations listed as Yes in the table will be subject to Low Discharge Superheat Limiting.

EVAPORATOR CODE	DISCHARGE SUPERHEAT LIMITING SALES ORDER FLAG				
	COMPRESSOR CODE				
	Q3	Q4	Q5	Q6	Q7
2C	No	No	Yes	Yes	Yes
2D	No	No	Yes	Yes	Yes
2E	Yes	Yes	Yes	Yes	Yes
4C	No	No	No	No	No
4D	No	No	No	No	Yes
4E	No	No	No	No	Yes
4F	No	No	No	No	Yes
4G	No	No	No	No	Yes
4H	No	Yes	Yes	Yes	Yes
4I	Yes	Yes	Yes	Yes	Yes
6A	No	No	No	No	No
6B	No	No	No	No	No
6C	No	No	No	No	No
6D	No	No	No	No	No
6E	No	No	No	No	Yes
6F	No	No	Yes	Yes	Yes

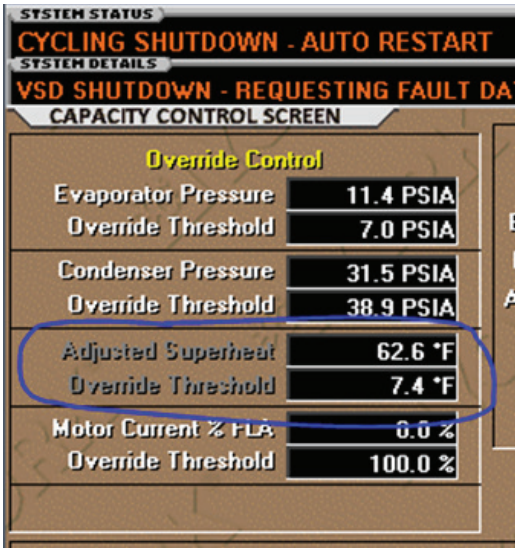
A new message “Discharge – Low Superheat Limit” is displayed in yellow when the Discharge Superheat Override is active.

Low Discharge Superheat Limit is triggered when the Adjusted Superheat is below the Override Threshold. This can be viewed on the Capacity Control Screen.

If the text shows in white, the Discharge Superheat Limiting is Active. If it shows as grey, it is disabled and Will Not limit capacity. The Override Threshold is adjustable on the Override Tuning Screen with Admin access between 0.01 and 10.0 with a default value of 5.0.

Any time the Discharge Low Superheat Limiting is active, it will reduce Capacity by first decreasing the VSD frequency until it hits the surge map, then closes the PRV if needed, and finally opens the hot gas if further capacity reduction is required.

Any time capacity control loads it first closes the hot gas, then opens the PRV, then increases the VSD frequency. This applies for the Low Discharge Superheat Limiting override and the other overrides (motor current, high condenser pressure, low evaporator pressure limit) as well as Capacity Control.



LD23128

REMOTE START/STOP

The hard-wired remote start/stop has been changed to use only one input at TB4-7. A contact closure between TB4-1 (1120VAC) and TB4-7 equals a remote start and an open between those two terminals is seen as a remote stop command.

EVAPORATOR TRANSDUCER

The Evaporator Transducer range is selectable on the Setup screen to select either the 6 - 74PSIG standard or 0-125PSIG heat recovery/heat pump sensor as appropriate. Test Op password level is required.