



Service Information

File In/With: –	SI0396	
	New	818
Equipment Affected:	YK Mod G and H	
V05 03630 OptiVlew Chiller Control Panel Software		

GENERAL

Beginning July 2018, enhanced software is supplied in new production YK chillers and replacement microboard kit 331-03630-601. Version 05 is applicable to the 031-03630-001 microboard for YK Mod G and later YK chillers. The enhancements are below.

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

031-03630-001 = Y.OPT.01.05.308 (P/N 031-03601-002)

Features included in this version of the software are:

Liquid Refrigerant Carryover Control

This change is to implement the controls necessary to support the YK Mod H chiller. This will include adding compressor carryover limiting (implemented as motor current limiting) to prevent liquid slugging of the compressor when paired with evaporators that have a lower CFM limit than the compressor.

Improved LCHLT Control at Low Loads

Technicians in the field have noted unstable LCHLT control at low loads. It was determined that the Capacity Control gain is too high for this condition. This change will provide a service level adjustment to the gain that can be lowered, if needed, based on site conditions. The Technician can adjust the Capacity Control Gains as Normal, 50% or 30%. This functionality was removed from older software versions but is being re-instated in this software version.

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.

Variable Water Outlet Control

This feature satisfies new CE energy requirements in Europe, but may also be useful to other parts of the world. When Variable Water Outlet Control is Enabled on the Setup Screen, the local and remote cooling setpoints are ignored and the Selected Cooling Setpoint is set based on the Entering Condenser Liquid Temperature as follows.

ENTERING CONDENSER LIQUID TEMPERATURE	SELECTED COOLING SETPOINT
ECLT \geq 82.4 °F (28 °C)	44.6 °F (7 °C)
75.2 °F (24 °C) \leq ECLT < 82.4 °F (28 °C)	47.3 °F (8.5 °C)
68.0 °F (20 °C) \leq ECLT < 75.2 °F (24 °C)	50.0 °F (10 °C)
ECLT < 68.0 °F (20 °C)	52.7 °F (11.5 °C)

The Selected setpoint shall be ramped at 0.1 °F/sec when changing between values in the table.

HYP VSD Fault Waveform

The VSD fault waveform shown from the History Details was found to not always be the correct waveform. The index to the Selected Fault on the History Screen was not correct. This bug has been fixed.

Motor Lubrication

Johnson Controls now uses multiple motor suppliers that have different lubrication intervals and in some cases require different lubricants, as a result the lubrication screen and programming will now allow the entry of different lubrication intervals for the recommended, warning, and shutdown for motor lubrication.