MODEL – YIA	YORK BY JOHNSON CONTROLS	IsoFlow™

START-UP CHECKLIST

*TO: _____ JOB NAME: _____

_____ LOCATION: _____

_____ CUSTOMER ORDER NO. _____

YORK TEL. NO. _____ YORK ORDER NO._____ YORK CONTRACT NO._____

CHILLER

MODEL NO. _____ SERIAL NO. _____

The work (as check below) is in process and will be completed by _____ (Month) / _____ (Day) / _____ (Year)

The following work must be completed in accordance with installation instructions:

A. GENERAL

1. Review the Installation Checklist (Form 155.16-CL1) ☐
2. Chiller is properly installed and leveled ☐
3. Neoprene Isolators or Pads properly installed (if applicable) ☐
4. Evaporator and Condenser water piping is complete ☐
5. Water piping is supported properly and there is NO strain on the waterboxes. ☐
6. Strainers are clean and installed in both evaporator and condenser water circuits prior to water supply to chiller ☐
7. Water connections arranged to match design specifications ☐
8. Relief piping is complete and meets local building codes ☐
9. Wiring is complete per field wiring specifications Form 155.16-PA1 ☐
10. Confirm any field control wiring modifications are done per Form 155.16-PA2 ☐
11. Verify chiller is charged with refrigerant ☐
12. Verify chiller is charged with oil ☐
13. Verify Solution and Refrigerant Pump Rotation ☐
14. Verify all operating valves are open and service valves to atmosphere are closed. ☐
15. All Pressure Relief Devices (including Unit Rupture Disk) are vented or drained to a safe area ☐
16. Verify leak tightness of chiller ☐

B. MICRO PANEL (Refer to Form 155.16-M3) SYSTEM COMMISSIONING CHECKLIST

Use the following checklist during commissioning to assure all Setpoints have been programmed to the desired value and all calibrations have been performed. The programming of some of the Setpoints require a PROGRAM mode access.

An explanation of each setpoint or Calibration Procedure below is contained in the reference document listed in parenthesis adjacent to each item. If any of the Setpoints have to be changed, use the standard programming procedures in Operation Manual Form 155.16-O3. Thresholds, values and calibrations of items marked with an asterisk .*. have been determined and entered/set at the YORK Factory at the time of manufacture.

1. PROGRAM JUMPERS/SWITCHES: (155.16-PA1)

Verify Mircoboard Program Jumpers and Program switches are configured appropriately ☐

Determine if equipped with Microboard 031-01065-000/001 or 002 ☐

Verify I/O Expansion Board Program Jumpers ☐

Verify J51 is removed for operation ☐

2. SYSTEM SETPOINTS: (155.16-O3)

Record the Following Setpoints:

Leaving Chilled Liquid Temp Setpoint _____

Purge Pump Service Interval Setpoint _____

Pulldown Demand Setpoint _____

Remote/Reset Temp Range Setpoint _____

Data Logger Setpoint (155.16-NO1.2) _____

Maximum Allowed Entering Condenser Water Temp Setpoint _____

Maximum Allowed Unload Limit Setpoint _____

Maximum Allowed Loading Setpoint _____

Leaving Chilled Water Temp. Minimum Allowed Setpoint _____

3. BUFFALO PUMP SETPOINTS: (155.16-O3)

Record the Following Setpoints:

Refrigerant Float Switch Shutdown Timer Setpoint _____

Refrigerant Pump Shutdown Delay Setpoint _____

Refrigerant Pump Startup Delay Setpoint _____

4. PROGRAMMABLES: (155.16-O3)

Steam/Hot Water Valve Part Number ☐

Clock ☐

Daily Schedule ☐

(Continued on Pg. 2)

5. PIPING ☐

- Evaporator and Condenser water piping is complete ☐
- Water Piping is supported properly and there is NO strain on the waterboxes ☐
- Water connections arranged to match design specifications ☐
- Rupture Disk piping is complete and meets all local building codes; NO strain on Rupture Disk Flange ☐
- Relief piping is complete and meets local building codes ☐
- All appropriate flow devices are installed and operational ☐
- All operating valves are open ☐
- All thermometer and pressure gauges are installed in the supply and return connections where applicable ☐
- Purge pump is mounted and properly connected ☐
- Flow rates of chilled; condenser, hot water / steam are balanced to specifications ☐
- Verify all operating valves are open and service valves to atmosphere are closed ☐
- All pressure relief devices (including Rupture Disk) are vented or drained to a safe area ☐

6. WIRING

- Verify Customer supplied 3-phase unit disconnect switch ☐
- Verify Max dual element fuse amperage in panel is correct per Installation Instructions (155.16-N3) ☐
- Wiring is complete per field wiring specifications (Form 155.16-PA2) ☐
- Confirm any field control wiring modifications are done per (Form 155.16-PA1) ☐

7. MECHANICAL

- Verify all vacuum pump hoses and apparatus are installed (gas ballast valve, piping for bubble test) ☐
- Add purge pump oil and check for proper belt tension ☐
- Check purge pump rotation, tightness of hoses and capability of drawing a vacuum ☐
- Check all unit valves (incl. spindle valves) ☐
- Set all pump isolation valves to fully open ☐
- Purge unit if necessary ☐
- Check unit pump rotations ☐

8. MISCELLANEOUS CHECKS

- Operate unit at low fire (approx. 30%) ☐
- Increase heat input to unit and monitor bubble rate out of absorber section, solution/refrigerant levels ☐
- At full load, verify all customers flows thru machine ☐
- At full load conditions; add or remove refrigerant to keep unit from spilling, if low on refrigerant, add to achieve a full evaporator pan ☐
- Record amount of refrigerant charge ☐
- At full load conditions, trim solution charge and record solution charge ☐
- Purge unit to the internal pressure. Purge until 30 bubbles per min or less rate is achieved ☐
- Air Handling equipment is operational and there is required cooling or heating building load for start-up ☐
- At full load conditions; record and maintain all unit conditions on Unit Log Form 155.16-F2 ☐
- Verify proper dilution cycle at unit shutdown ☐

NOTES

BY JOHNSON CONTROLS

P.O. Box 1592, York, Pennsylvania USA 17405-1592

Form 155.16-CL2 (509)
Supersedes: Nothing