PRODUCT DRAWING		Supersedes: 155.17-PA2 (1192) Form 155.17-PA2 (1296) YPC WIRING DIAGRAM – FIELD CONNECTIONS	
YORK INTERNATIONAL CORPORATION P.O. Box 1592, York, PA 17405		MILLENNIUM <sup>T</sup>	CONTROL CENTER
CONTRACTOR ORDER NO YORK CONTRACT NO YORK ORDER NO		PURCHASER	
REFERENCE DATE		PROVAL DATE	CONSTRUCTION DATE

For use with YORK Millennium YPC Two Stage Absorption Chillers: Applies to all Direct-Fired and Steam Fired Models.

### JOB DATA

Model No. \_\_\_\_\_

No. of Units \_\_\_\_\_

Input Power \_\_\_\_\_ Volts, 3-Phase, \_\_\_\_\_ Hz

## NOTES (Refer to Figure 1)

- 1. All field wiring shall be in accordance with the National Electrical Code (N.E.C.) as well as all other applicable codes and specifications.
- 2. Unit shall be grounded in accordance with N.E.C. (Table 250-95) for equipment grounding, using copper conductor only. Power panel is furnished with one 3/8" hex head cap screw and lock washer (ground lug is not furnished) for grounding. Ground the control center with ground screw furnished, using copper conductor only.
- Wiring, electrical conduit, junction boxes, fused disconnect switches (FDS), starters (M), pushbutton stations (PB), manual-off-automatic switch (S), flow switch (FLS), control relays, furnished by others unless otherwise specified.
- 4. Items marked \* furnished by York International Corporation.
- 5. Items marked \*\* available from York International Corporation at additional cost.

- 6. Chilled and condenser flow switch is required on all units. Hot water flow switch is required on direct-fired units only (not required for cooling only direct-fired chillers).
- 7. Control power supply 115V-50/60 Hz, 10 ampere capacity for control center only, is supplied by a control power transformer (CPT) located in the power panel. (Factory Installed)
- 8. Single point power wiring is provided for customer connection. If multiple conduits are used, they should contain an equal number of wires from each phase in each conduit to prevent overheating. Use copper conductors only; do not use aluminum conductors. Flexible conduit for final connection to power panel should be used to provide vibration isolation.
- 9. Wiring diagram for ISN ParaFlow Control Center, Form 155.17-W1 for direct-fired units and Form 155.19-W1 for steam units. Field wiring modifications per Form 155.17-PA1.

- 10. Wire # 14 AWG copper for one way distance of less than 175 feet. Wire #12 AWG copper for one way distance of more than 175 feet, but less than 300 feet.
- 11. Power factor correction capacitors, when utilized, must be sized to meet the N.E.C. and verified through the local York International office. Improperly installed or sized capacitors may result in equipment malfunction or damage.
- 12. Automatic control of the chilled, condenser, and hot water pumps by the control center is shown. Chilled, condenser, and hot water pump motor starter holding coils (not by YORK) to be furnished for 115V-50/60 Hz. The total power requirements for the water pump starters (6M, 7M, 8M) must be a maximum of 2.5 amps inductive at 250 VAC. If power requirements exceed this value furnish coil for line voltage, and control relays with 115V coil.

Two chilled water pump operating modes are available via the LWT Pump programming jumper (J54) on the micro board. With J54 installed, the chilled water pump operates during start sequence, during unit operation, dilution cycle, and LWT cycling shutdowns; with J54 removed, the chilled water pump operates as above plus it operates during MULTI-UNIT and REMOTE/LOCAL cycling shutdowns.

- 13. Each 115 VAC field-connected inductive load, i.e., relay coil, motor starter coil, etc. shall have a transient suppressor wired (by others) in parallel with its coil, physically located at the coil. Spare transient suppressors are factory supplied in a bag attached to the fuse holder bracket in the ISN ParaFlow Control Center.
- 14. Orientation of flow switches indicate normal flow during chiller operation.
- 15. The factory supplied jumper between 4 and 53 must be removed when safety devices are installed.
- 16. Contacts 44, 45; 55, 56; 87, 88 can be used as dry contacts to connect to building automation systems. For this application NO CONNECTION TO THE L TERMINAL or to the motor starter coil should be made. If YORK's panel contacts are not used directly to start the pumps as shown in Fig. 1, then they must be used as dry contacts connected to the building automation system to indicate when chilled, tower, and hot water flow are required.

## WIRING DIAGRAMS FIELD SYSTEM WATER PUMP AND FLOW SWITCH INTERFACE DETAILS



# PARAFLOW DIRECT-FIRED FIELD WIRING



#### NOTES:

- 1. Not required for "Gas Only" Chillers.
- 2. YORK supplied harness; customer to terminate field connections.
- 3. Customer supplied wiring.
- 4. Exhaust Gas Temp. Probe must be mounted by customer in exhaust stack at outlet of unit.
- 5. Customer supplied wiring for optional Input/Output features.
- 6. For details, see Wiring Diagram Form 155.17-W1.
- For additional details, see Field Controls Modifications Diagram Form 155.17-PA1.
- 8. Flow Switch supplied by customer.
- 9. CHW Flow Switch supplied by YORK.
- 10. Hot water units always require a separate hot water flow switch.

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Customer Supplied Wiring — — — —
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YORK Supplied Wiring

All customer wiring must be copper. All customer supplied wiring must conform to NEC as well as local codes.

### FIG. 2



### PARAFLOW STEAM FIELD WIRING

#### NOTES:

- 1. Steam Shutoff Valve supplied by customer.
- 2. YORK supplied harness customer to terminate field connection.
- 3. Customer supplied wiring.
- 4. Steam Valve Actuator, and Steam Valve supplied by YORK.
- 5. Customer supplied wiring for optional Input/Output features.
- 6. For details, see Wiring Diagram, Form 155.19-W1.
- 7. For additional details, see Field Control Modifications Diagram, Form 155.17-PA1.
- 8. Flow Switch supplied by customer.
- 9. CHW Flow Switch supplied by YORK.

Customer Supplied Wiring — — — —

YORK Supplied Wiring

All customer wiring must be copper.

All customer supplied wiring must conform to NEC as well as local codes.

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