

SYSTEM CONTROLS

Southgate

Temperature Control Units Water & Oil 30° - 500°F

- Portable Chillers
 Air & Water-Cooled
 20° 70°F
- Central Chillers
 Air & Water-Cooled
 Packages & Modules
 20° 70°F
- Pump Tank Stations
 Chilled or Tower Water
 200 3000 gallons
- Cooling Tower Cells
 45 540 tons
- Filters
- · Heat Exchangers
- · Heat Recovery Units
- System Controls

WARRANTY

 1 Year: Covering parts and labor

CHECKMATE[™]

System Control and Monitoring for Cooling Tower Systems and Pump Tank Stations

The **ADVANTAGE** CheckMate[™] Series control and monitoring instrument puts you in control of your central cooling tower system or chilled water pump tank system. Checkmate[™] is a convenient and easy to use package.

CheckMate[™] control instruments are tailor made for **ADVANTAGE** systems and the duty of controlling and monitoring evaporative cooling tower and chilled water systems.

CheckMate[™] monitors up to 2 process pumps and controls 6 outputs to achieve unprecedented capability and flexibility in your plant water system. And, as your capacity requirements grow, Checkmate[™] is ready with expansion capability built-in!

The *to process* control probe and up to 5 other temperature probes allow you to monitor every aspect of your water system's performance.



An alarm output is provided for a visual / audible beacon and the Modbus® / RTU interface provides detailed access to all of Checkmate™ temperature and status configurations.

TTK-1500 pump tank station with polyethylene reservoir and 3 pump system shown with Checkmate™ monitoring and system control instrument



Checkmate™ system control and monitoring instrument shown with pump station control switches.



CheckmateTM system monitoring and control instrument.



APPLICATIONS

Heat exchangers can be used on a variety of process applications.



















Troughs & Tanks

Rolls

Radiators and Air Coils

Jacketed Vessels and Mixers

Top Operator™ Pump / Fan Control



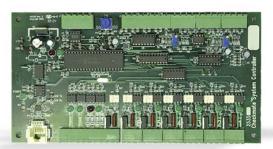


- · Combines 3 traditional components to 1 item
 - On / Off or On / Off / Auto Switch
 - Running Light
 - Overload Trip Light
- Allows for On / Off / Auto configuration
- · Can be controlled and monitored by:
 - ADVANTAGE Checkmate™ Control System
- Any programmable Controller (PLC)
- · Allows for manual override

Checkmate™ Staging Board

The staging board works in conjunction with the Checkmate™ display panel or as a stand-alone device to stage cooling tower fans and pumps to match system capacity to cooling requirements.

When used as a standalone device, the desired cooling tower water temperature is selected



by using the setpoint dial on the staging board mounted inside the electrical panel. When the Checkmate™ display panel is purchased, the setpoint is entered on the panel located on the front of the cabinet. The display panel communicates with the staging board to stage fans and pumps and report system status.

Display Screens



Main Screen

TEMP.	SETU	P °F
SETPOINT		80
HI ALARM		15
LO ALARM		25

Temperature Setup Screen

STATUS	°F
FROM PROCESS	90
TO PROCESS	80
FROM TOWER	78

Temperature Status Screen

STATUS
WATER LEVEL
WATER PRESS.

Set Up Screen

OK

OK

STATUS H	OURS
PROCESS PUMP	6,264
STANDBY PUMP	21
TOWER PUMP	2,611
TOWER FAN	1,460

Hour Log



Checkmate™ Display Panel



- Set tower water temperature (tower systems)
- View important temperatures:
 - To / From Process
 - To / From Tower or Chiller
- · View important system status variables:
 - Temperature alarm
 - Pressure alarm
 - Tank level status
 - Pump & fan accumulated running hours
- Modbus[®] communication protocol
- Programmed for application
- Control and monitor nearly any combination of tower fan and pumps
- · Time & Date stamped error log
- · 4 year warranty

