Field Wiring

'AS' Cooling Towers

CONTROLLER: SAT

Your controller may not use all of these sensor types.

Conductivity Sensors:	Cable to:	Located:
Tower 1 Conductivity	A+ & A-, E+ & E-	Door mounted circuit board
		Blue cable sleeve sensors
Raw Water or Closed	S1 & S2, T1& T2	Modules located in back of
Loop Conductivity	Color coded	enclosure – labeled by function
		Black cable sleeve sensors

Cabling Notes: Extend conductivity sensor cables with 4 x AWG22 cable, shielded or unshielded & color coded black, white, red and green.

pH & ORP Sensors:	Cable to:	Located:
Tower 1 pH	C+ & C-	Door mounted circuit board
or ORP if no pH sensor	Coax. Shield to C-	Green ground wire to backplate
ORP if pH & ORP	Sensor + & -	Module located in back of
controller	Coax. Shield to '-'	enclosure – labeled by function
	Green wire to 'Gnd'	See manual appendix D3.

Cabling Notes: Do not parallel pH cables & AC power cables.

If sensor cables are shortened, strip center conductor 'black' insulation from inner 'clear' insulation before terminating. Do not extend pH sensor cables.

Any mix of three contact head, turbine & paddlewheel sensors may be connected to the controller.

Water meters:	Cable to:	Located:
Tower Make-up	'O' input	Door mounted circuit board
Tower Bleed	'P' input	Door mounted circuit board
Closed Loop Make-up	'Q' input	Door mounted circuit board

Cabling Notes: Contact head meters wire to O+ & O- through Q+ & Q-. See manual Sections 3.3.5 & 4.3 for turbine & paddlewheel cabling.

Flowswitch:	Cable to:	Located:
Tower Recirculating	'U' input	Door mounted circuit board

Cabling Notes: Connect to U+ & U-. Dry contacts may be substituted for a flowswitch. Contacts must be closed to operate pumps and solenoids.

Chemical Pumps are usually plugged into the pump plug enclosure at the end of the flexible, blue conduit. If you wish to hard wire the bleed solenoid:

Bleed Solenoid:	Cable to:	Located:
Bleed Solenoid	Line to NO2	Door mounted circuit board
	Neutral to N2	

Cabling Notes: Cable solenoids with AWG18 to AWG14 cable, multiple stranded.

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