Cooling Tower Set-up Using Thermister
Cooling Tower Set-up w/out Automation System and not using PI programming

- NOTE:range of thermister is 40-90 degrees (Equation:40+half of percent setting number)

1301 Minimum AI
Set to 70 percent (approximate) (this is equal to 75 degrees)... Set to 80 percent(this is equal to 80 degrees)
1302 Maximum AI
Set to 90 percent(approximate) (this is equal to 85 degrees)...Set to 100 percent(this is equal to 90 degrees)

First setting of 70% to90% will keep the temperature between 75 and 85 degrees(generally midpoint between these numbers). The tighter the numbers are together the tighter the temperature will be (less swing)

Second setting of 80% to 100 percent will keep the temperature between 80 and 90 degrees(generally midpoint between these numbers). The tighter the numbers are together the tighter the temperature will be (less swing)

Remember to set J1 to CURRENT

1104 EXT 1 Reference
Set just below minimum speed (12 Hz)
1401 Supv 1 Over
1402 Supv 2 Over (Use <u>only</u> for cycling rainfall pump)
3201 Ext Ref 1 Hz (ACH550)
3202 Supv 1 Lim Lo
Set just below minimum speed but just above Ext 1 Ref   (13HZ)
3203 Supv 1 Lim Hi
Set just above minimum speed   (17 Hz)
3204 Supv 2…………Use <u>only</u> for cycling Rainfall Pump
3205Supv 2 Lim Lo……..Set just below drive lo limit setting (ie. If drive LO is 13Hz set this one to 12Hz)
3206 Supv 2 Lim Hi…….. Set just below drive hi limit setting (ie. If drive HI is 17Hz set this one to 16Hz)

The relay (whichever used/usually RO1) will cycle the drive on and off.
The relay (whichever used/usually RO2) will cycle the rainfall on and off (this needs to happen before the drive cycles on and off to prevent dry tubes in the tube bundle and to prevent tube scaling)

If drive is cycling often due to cold tower water use the two parameters listed below

1404 RO1 On Delay
Set to 3 seconds
1303 Filter AI1
Set to 3 seconds

If it is desired to view the temperature on the display use the parameters listed below

3418 Output 3 DSP Form
Set to +0.0
3419 Output 3 DSP Unit
Set to Degrees Farenheit (will be abbreviated)
3420 Output 3 Min
Set to 40 Degrees Farenheit
3421 Output 3 Max
Set to 90 Degrees Farenheit