



- PLC Function & Operation
- Re-Set PLC “Timing Out”

PLC Function & Operation

The PLC function is to unify the system as a fully integrated and automated operation – controlling pump, zone humidistat/sensor and fans. All operation is within the on/off cycle for moisture added to plant air space.

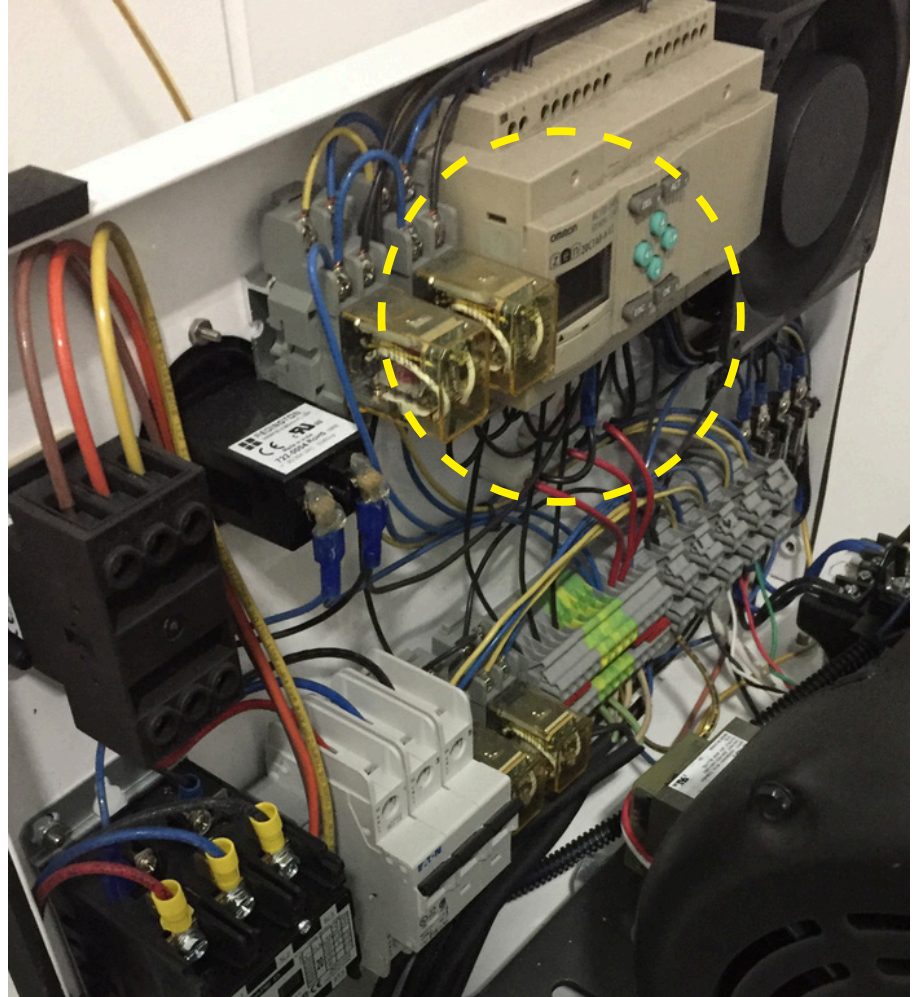
When the pump receives the start signal from the humidistat, the PLC sequentially turns on any fans that are part of the system; then the water supply to the pump, then the pump motor. The delays between these functions can be programmed to factory set timing sequences. Upon termination of the start signal, the PLC then sequentially stops the operation of the pump motor, then the valves, then the fans. The time between this sequential shut down is also programmable and can be set based on the system or project requirements.

The PLC also handles the signal from the high pressure safety switch. It will provide a delay (sufficient time to let the system fully charge). This delay also allows for a loss of pressure for a short period of time (as when a second zone is opened while the system is already running thereby temporarily dropping the output pressure) without immediately terminating the system. IF the pressure is lost beyond the set time (as when the water supply has been terminated OR there is a breach in the high pressure line resulting in a loss of high pressure in the system), the PLC will shut down the system and provide a signal to the red Pressure Fault indicator light included on the pump side panel. The PLC requires a ‘reset’ to allow the system to begin operating again.

The plc also controls a green indicator light for when the pump is operating and a yellow indicator light which illuminates after a programmed period of time – typically 500 hours – providing a notice that it is time to change the oil, check for leaks from the pump seals, check the pulley belts for wear, check the filters for possible replacement, etc...

The PLC is the brains of our pump systems and can be programmed to do whatever is needed in terms of system functionality. Although we do have a standard program, we can and do provide customized programs for clients that have specific operational requirements.

Currently, we also use the PLC to track things like the number of pressure faults, the number of on/off cycles, and the total run time of the pump.





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PLC Timing Adjustment: Re-Set PIC “Timing Out”

Adjusting the PLC to increase the Time for Pump to Pressurize before Timing Out

PLC Screen shown inside yellow dotted area on pg 1.

The time delay is pre-set at the factory for 25 seconds.

• **Note:** The steps below will basically double the amount of time (25 seconds to 65 seconds) of the factory setting. The setting can be raised up to a maximum of 99 seconds if needed.

• Steps to adjust the delay timer for the high pressure switch signal. Power up the PLC.

From the main screen:

1. Press OK button, screen will change
2. Use the down arrow to get to Parameter
3. Press OK, screen will change
4. ‘0’ will be changing from darkened to lightened. Press OK
5. ‘0’ will be blinking
6. Press the down arrow until the ‘0’ changes to a ‘b’
7. Press OK, ‘b’ will begin flashing with a darkened square.
8. Press the Down arrow, the curser will drop down to the last ‘0’ on the ‘25.00’ number at the bottom right hand side of the display.
9. Press OK, the ‘0’ will begin blinking
10. Press the left arrow 3 times to move the cursor to the ‘2’ of the ‘25.00’ number.
11. Press the up arrow to change the ‘2’ to a ‘6’
12. Press OK
13. Press ESC 2 times to return to the operational screen (timer now set for 65 seconds)