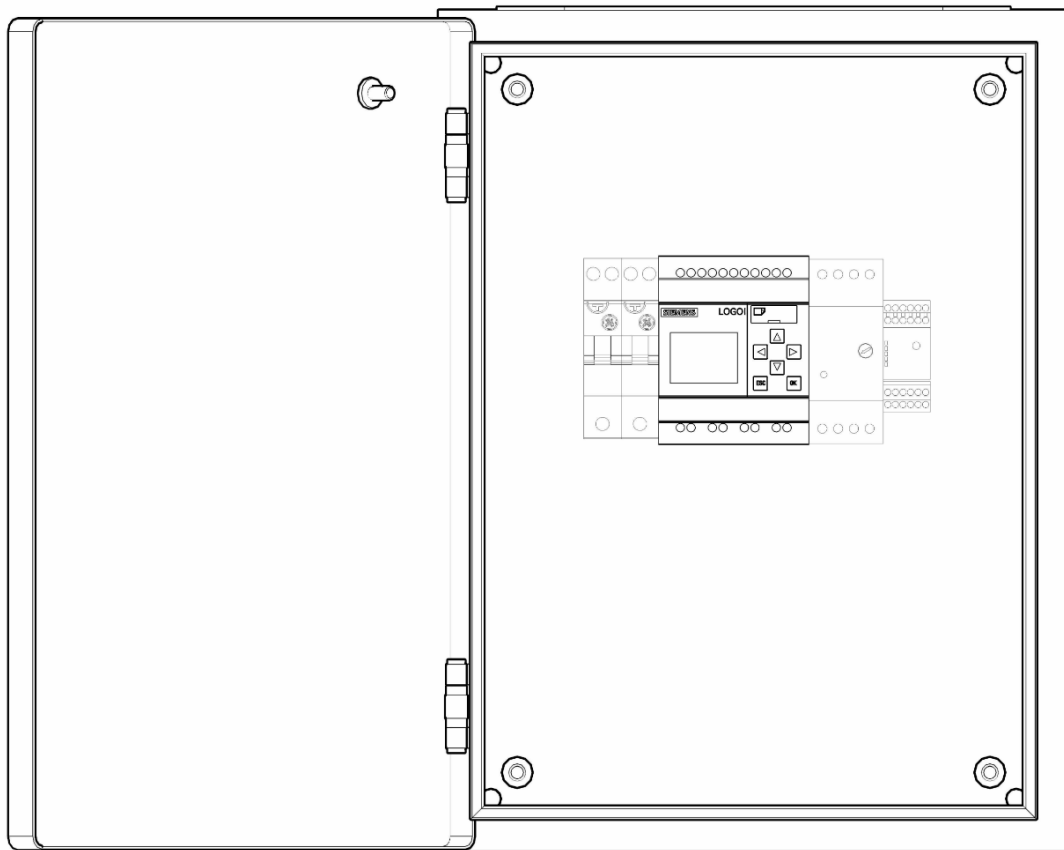




Control panel PR010 setup guide



www.smartcooling.us

Smart Cooling™ support services: support@smartcooling.us

Support WhatsApp number: +37126811452

Dear Customer,
We congratulate you for choosing our product.

We provide customers with advanced pre-cooling adiabatic systems that reduce energy consumption, boost chiller capacity, and protect chiller condensers.

Follow this procedure for assistance

1. Make a video with voice comments
2. Send it to the WhatsApp support number below
3. Our technicians will contact you shortly



WhatsApp support at **+ 371 26 81 14 52**

OR



Email support at **support@smartcooling.us**

We are here to help you!

This manual is for the PRO10 pre-cooling adiabatic Smart Cooling™ system.

The Smart Cooling™ system is powered by the PRO10 control panel.

Manufacturer: Blue Energy Global, Skolas Street 18, Ogre, LV5001, Latvia

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EC Declaration of Conformity	Error! Bookmark not defined.

PRO10 Control Panel

The PRO10 control panel is integral to the operation of your pre-cooling adiabatic Smart Cooling™ system.

To start working with PRO10 control panel you must switch on all circuit breakers in the PRO10 control box and emergency stop switch outside the control box. The system then starts operating on default setting.

To turn off the PRO10 control panel you must switch off all circuit breakers.

See following pages for instructions on how to set up and operate the PRO10 control panel.

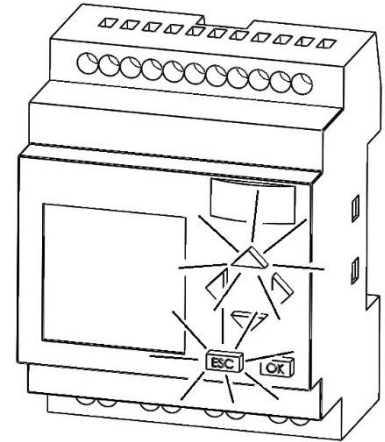
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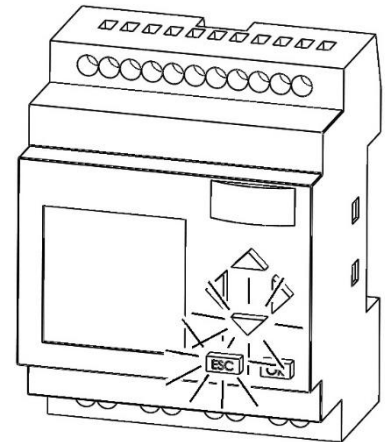
Start work – enter “Settings” section

- Press ESC + ▲ to enter the "Settings" section. Pressing this combination repeatedly returns the system to working mode. If this combination is not pressed repeatedly, after 10 minutes it returns to default automatically.



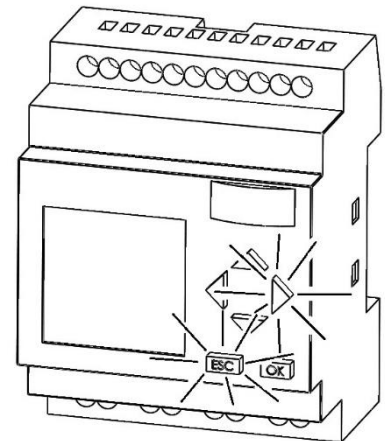
Water supply error – timer reset

- Press ESC + ▼ and hold for 5 seconds to restore the pump-usage recording timers, in cases where there was no water supply in the inlet. This option shows whether, when, and for how long the water supply from the main water supply has been interrupted.



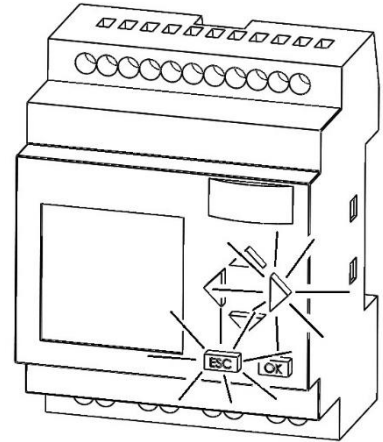
Erasing Errors

- Press ESC + ► to reset the system’s high-pressure water errors (if any). An error occurs (and the system stops automatically) if the water pressure in the nozzle line has not reached 30 BAR within 30 seconds with the pump running, and with loss or failure of water pressure in the nozzle system. This option is designed to prevent pumps from operating while nozzle line connections are disconnected. If any of the connections are disconnected and there is water leakage in the nozzle system, the high pressure pump is not able to reach the minimum of 30 BAR system and thus the controller automatically shuts off the pumps.



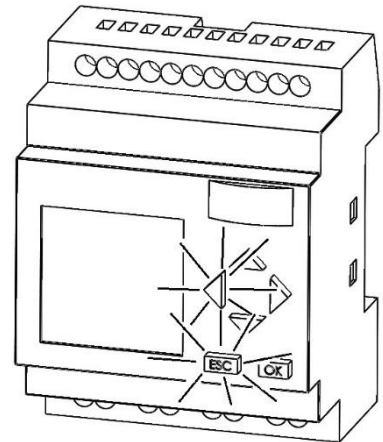
Force start of high-pressure pumps

- Press **ESC + ►** and hold for 3 seconds to start all pumps and sweep all water valves in pump outlets (if any) manually regardless of other control signals. The pump station starts to operate in full mode regardless of whether the SET point has been reached, or the chiller is operating, or a signal has been received from the chiller. This option is required for system installation and system maintenance to rinse the system and to check system performance. Display shows "RINSE MODE".



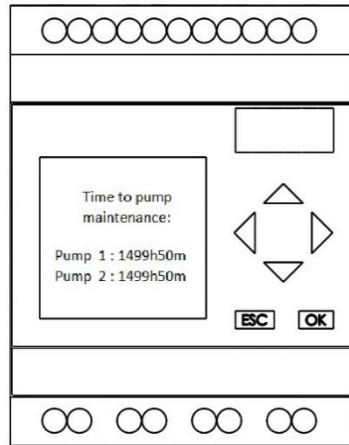
Maintenance timer reset

- Press **ESC + ◀** and hold for 5 seconds to reset the maintenance timer. Timers of pump counters that have reached maintenance time are reset back to 1500 hours.

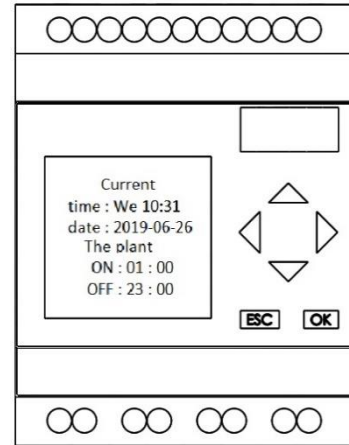


Content of "Settings" section

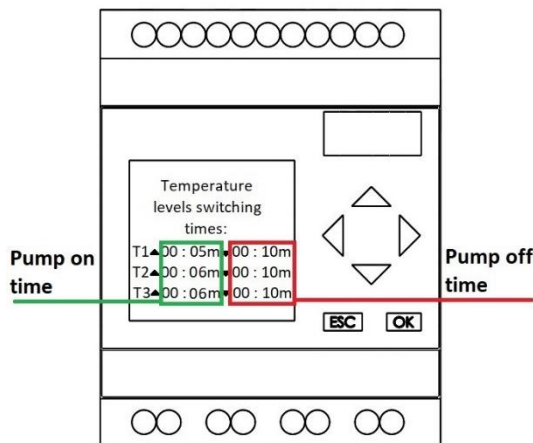
1. Pump maintenance time (view only)



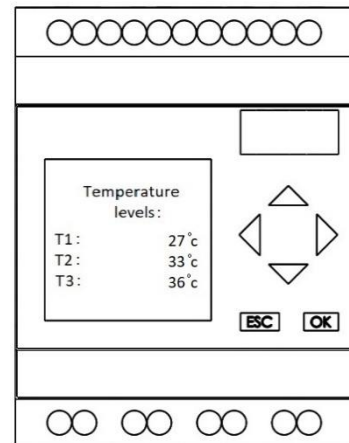
2. System operation time scheduler: when night mode is on it will display "NIGHT MODE system is off"



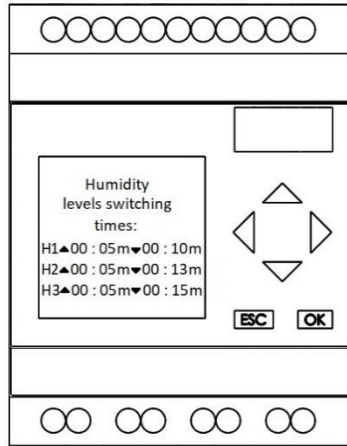
3. Pump operating pulse time settings in temperature mode. ON time must be higher than 15 seconds.



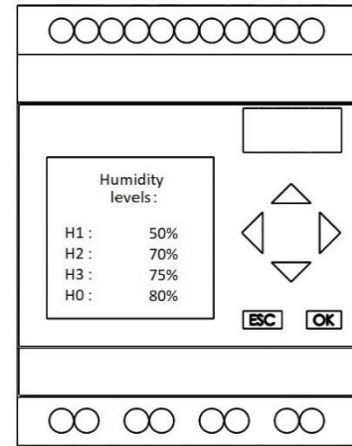
4. Temperature level settings, T2 value must be higher than T1 and T3 must be higher than T2.



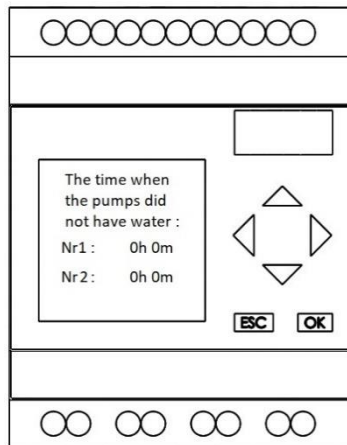
5. Pump operating pulse time settings in humidity mode.



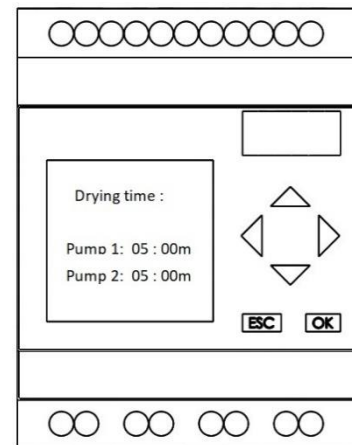
6. Humidity level settings: H2 value must be higher than H1, H3 must be higher than H2 and H0 must be higher than H3.



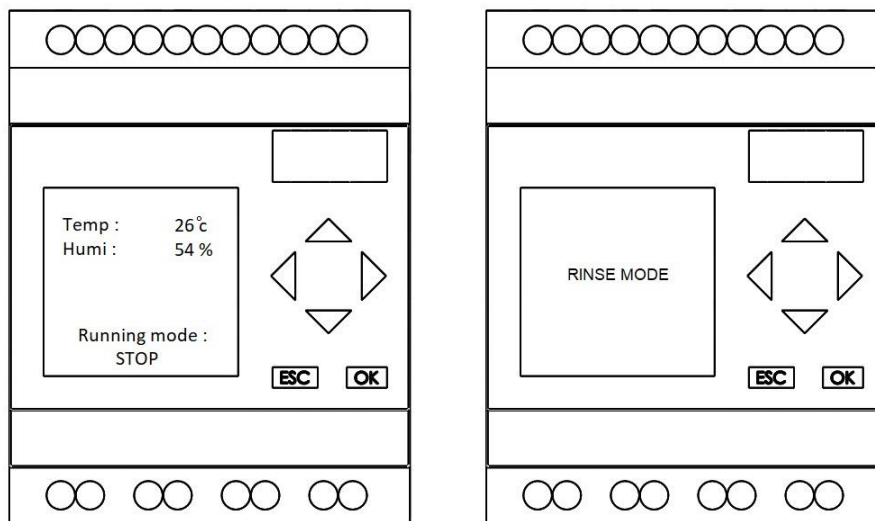
7. A timer counts when the system has not had water in the inlet, but has been requesting pumps to work (view only).



8. Setting the system drying time: time when the system in question is forced to a standstill after 55 minutes of continuous operation. You will see in display "DRYING MODE". If you want to switch off drying, set "Drying time" to 00:00m.

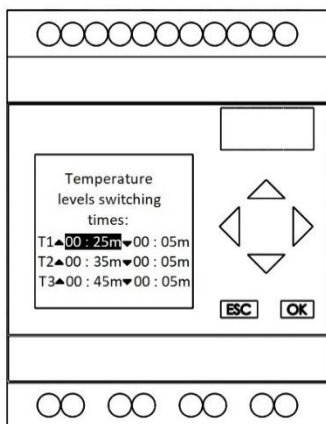


9. To stop the adiabatic system from operating, change the SET POINT to a temperature of 10°C. This will ensure that the adiabatic system does not work, but system rinsing is still set for every 12 hours. When the system rinses, "RINSE MODE" will be displayed

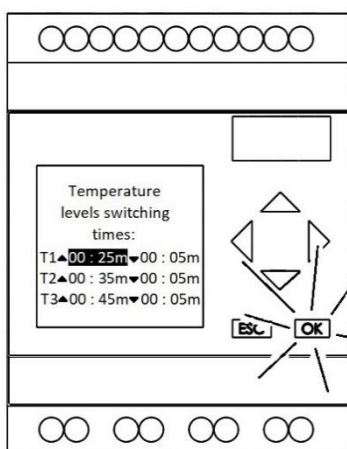


Change of parameters

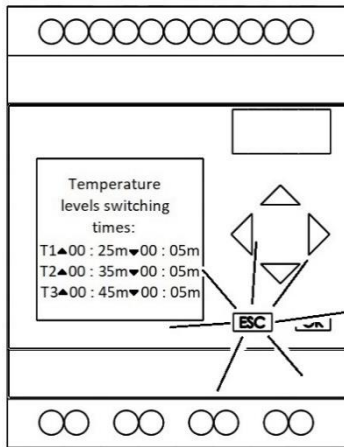
In the "Settings" section find the page with the parameters to be changed. Press ESC and hold until the window of the parameter to be changed appears.



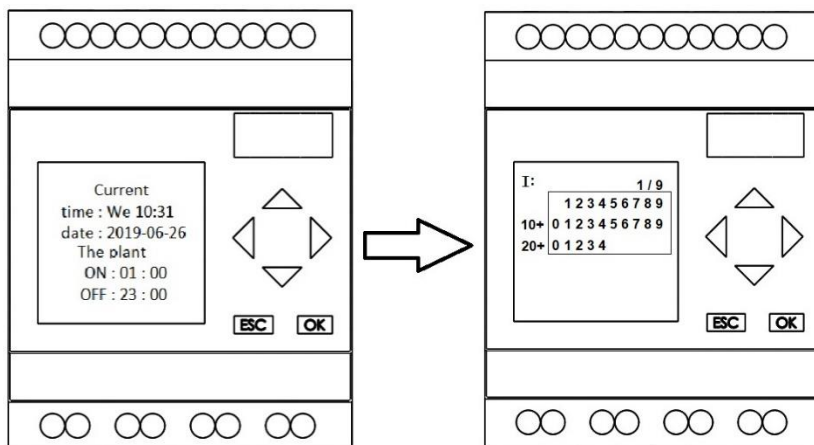
Then with arrows ▼ and ▲ select the desired parameter. Press OK and with the arrows change the parameters. Confirm changes with the OK button.



Press ESC button to return.

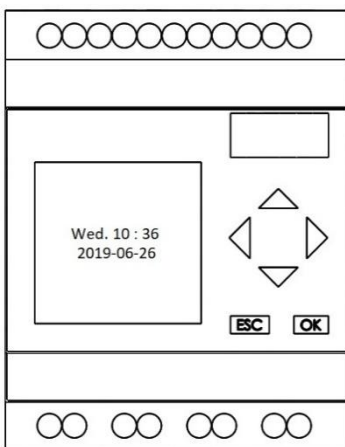


When you see system operation time scheduler (left image), there is a possibility you have accidentally entered the advanced settings section (right image, there are a total of 9 such pages) by pressing ← or → buttons. To exit advanced settings section keep pressing ← or → button until you see system operation time scheduler (left image).

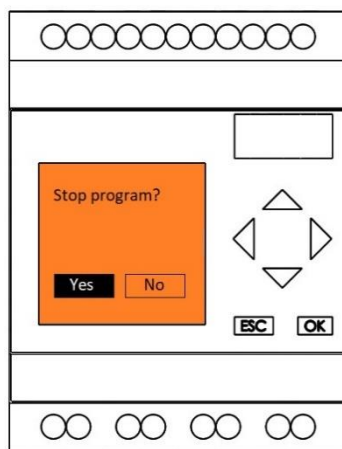
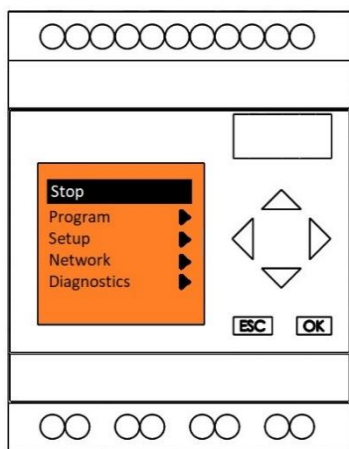


Setting the Time and Date of the Controller

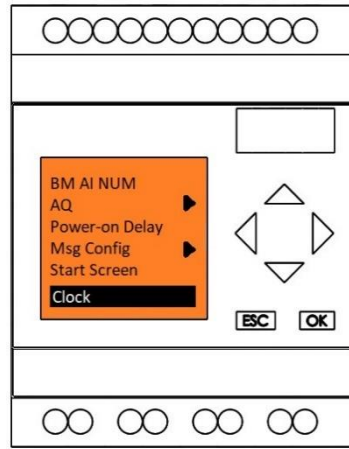
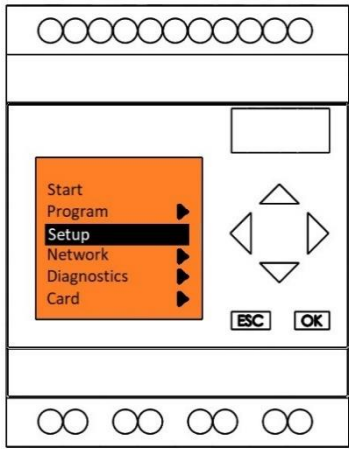
In the "Settings" section press ▼ button until you reach the current time and date window.



Press ESC and the Stop window appears. In the Stop window stop the controller (press OK, select Yes and confirm with OK)

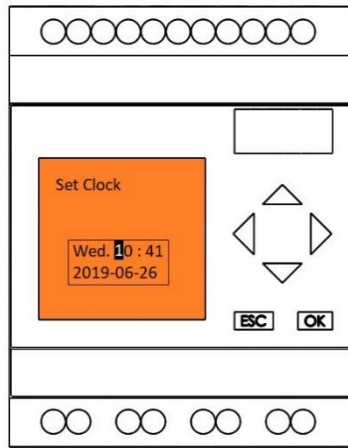
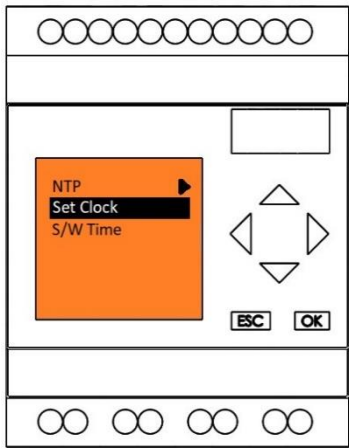


Go to the bottom of **Setup** section to the **Clock** section.



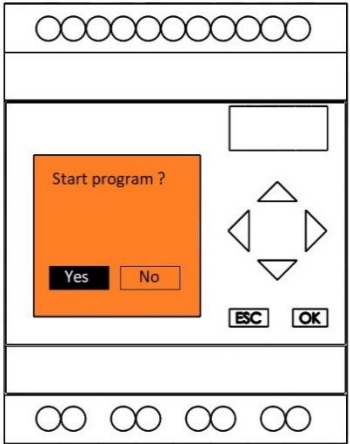
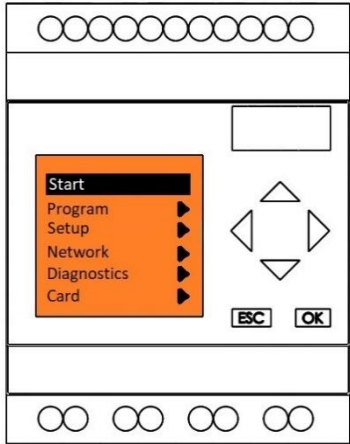
In **Clock** section go to **Set Clock** and set the time and date.

- From left to right > **Hours : Minutes**
- Always make sure the local time and date are set in the controller



Confirm with **OK** and return with **ESC**.

In the **Start** section turn on the controller in operating mode.
(Press **OK**, select **Yes** and confirm with **OK**)

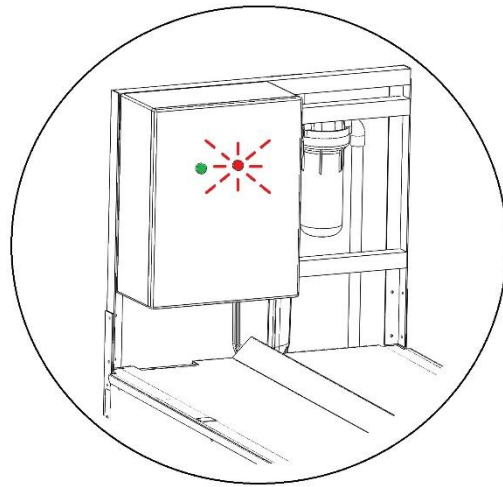
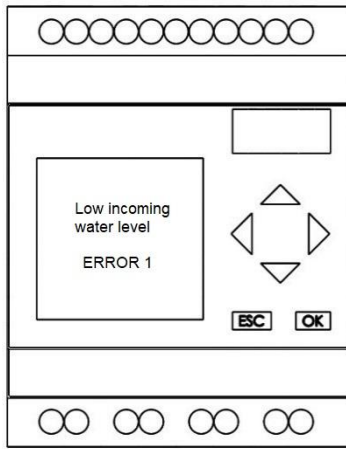


Remember:

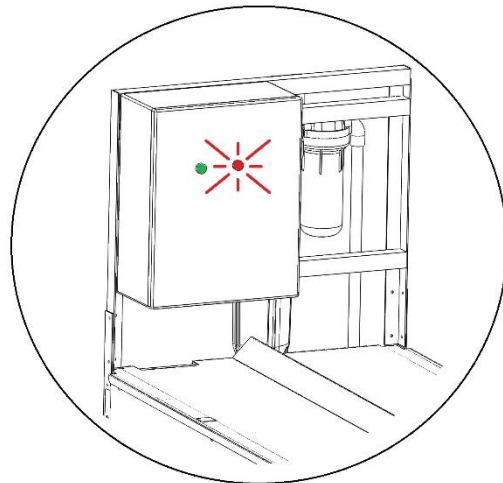
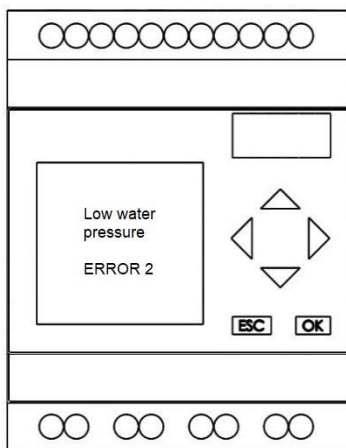
All circuit breakers must always be turned on in the control box.



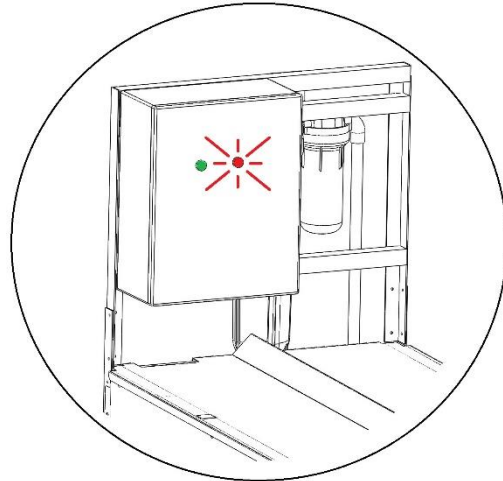
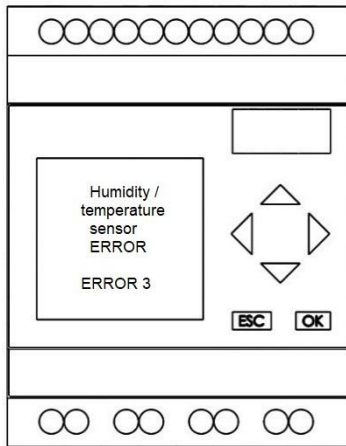
Errors and other notifications



ERROR 1 - "Low incoming water level" – Red light on the PR010 operation panel is blinking. Indicates that there is no or insufficient incoming water, the system will not operate until the required amount of water appears. When you see this notification, please check water supply is being supplied adequately. If the water supply is restored then this message will disappear automatically and the pump/pumps will operate.



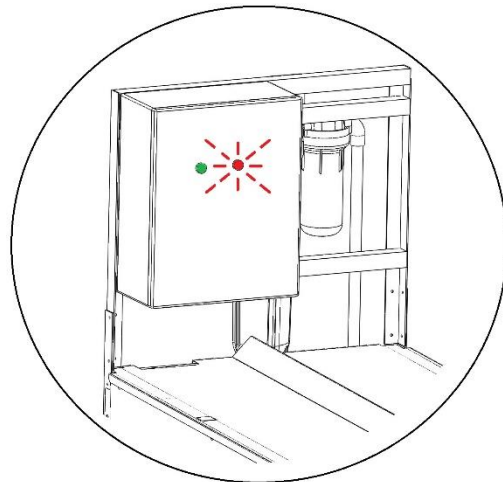
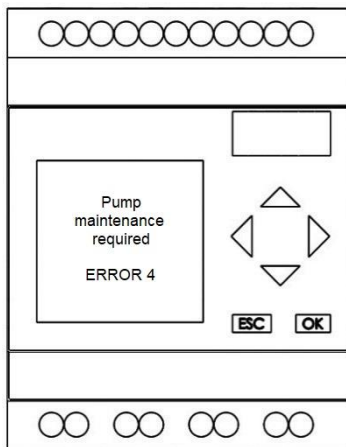
ERROR 2 - "Low water pressure" - Red light on the PR010 operation panel is lit. This error indicates that the pump/pumps have not pumped 30 BAR to the system for 15 seconds. The system (pump 1, or pump 2, or both together) is blocked. If you see this notification, please check all tube and nozzle connections for water leakage, if you find some, please repair and restart the system. You can unlock the system with a combination of the "Reset" buttons (ESC + ►).



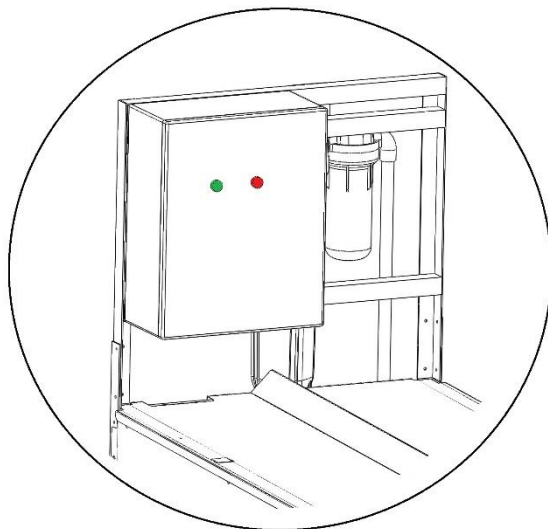
ERROR 3 - “Humidity / temperature sensor error” - Red light on the PR010 operation panel is lit. This error can be indicated in 3 cases:

- the outdoor humidity is actually above 99%
- outdoor temperature is above +80° or under -20° celsius
- damaged sensor (in this case please change sensor)

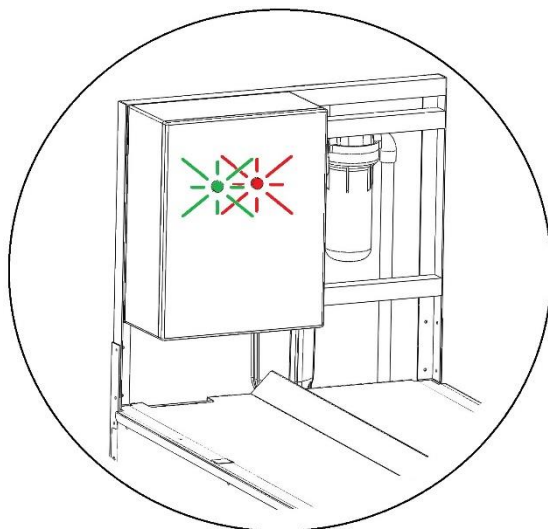
This error is cleared automatically if the sensor readings are within the operating range.



ERROR 4 - “Pump maintenance required” - Red light on the PR010 operation panel is blinking. Indicates that the pump/pumps require maintenance. The system will be locked. Please do pump maintenance, after that, system can be unlocked by resetting the pump maintenance time. Press ESC + ◀ and hold for 5 seconds to reset the maintenance timer.



The indications on the PR010 operation panel cover do not light up. The appliance is not supplied with voltage. The error clears automatically when the power is restored.

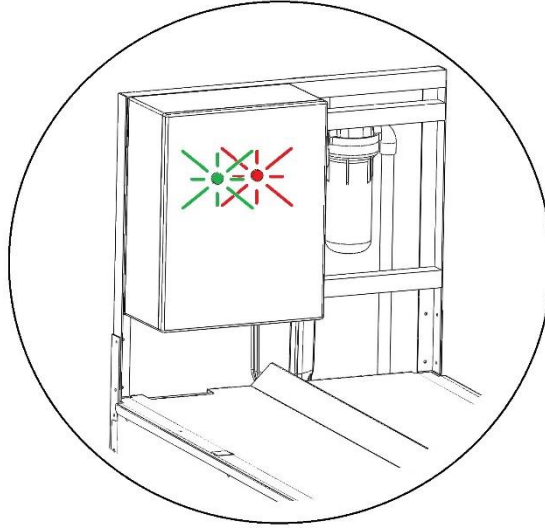


The green and red indication on the PR010 operation panel cover is lit. There is no 24V DC voltage in the PR010 operation panel. The PR010 operation panel controller does not work. The fault is related to the power supply "TR" or its power supply power breaker F4.

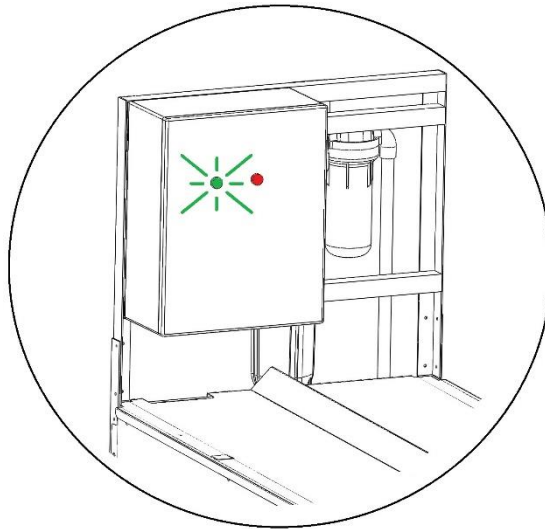
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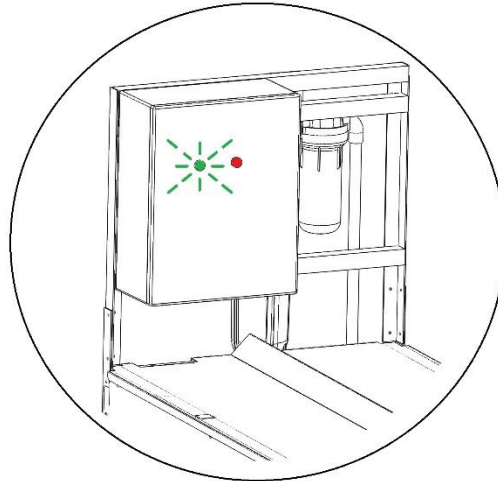
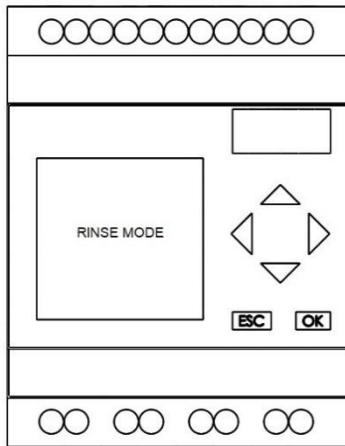
Support WhatsApp number: +37126811452



The green and red indication on the PR010 operation panel cover is lit. PR010 operation panel controller does not work. The PR010 operation panel controller is stopped or damaged.

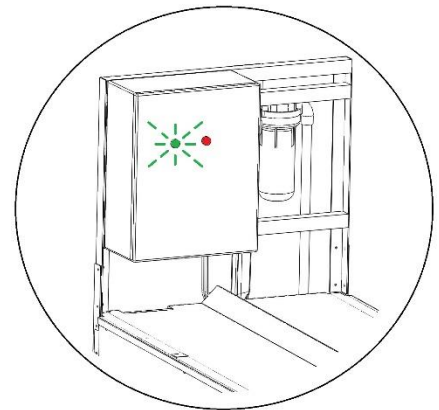
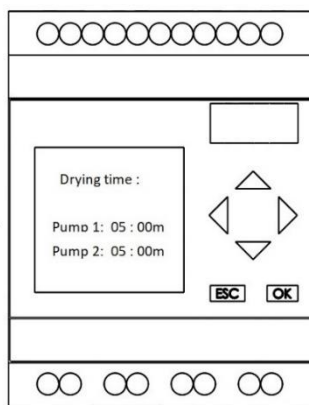
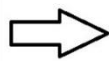
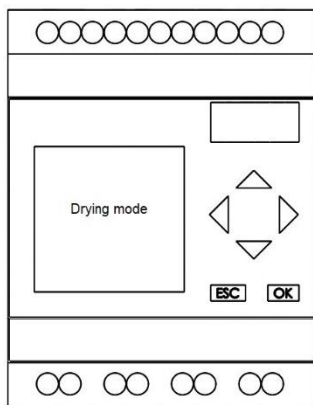


The green indication on the PR010 operation panel cover is lit. PR010 operation panel works properly.

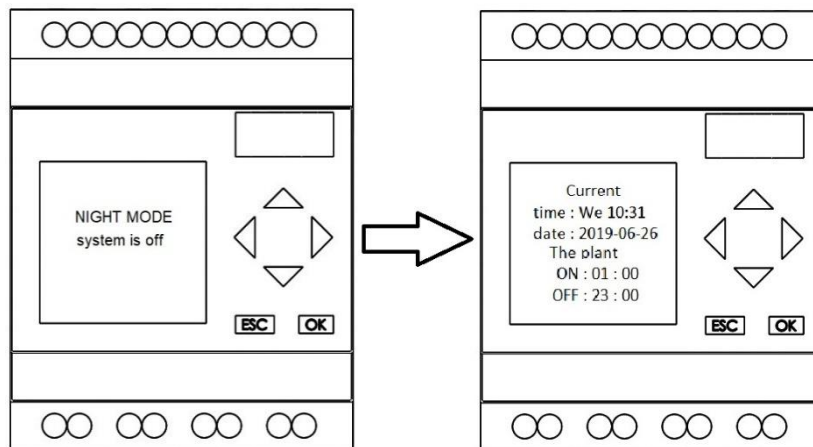


“Rinse mode” – Green light on the PR010 operation panel is blinking. This notification appears when automatically “RINSE MODE” is switched on or forced to start the pumps by pressing (ESC + ►) for 3 seconds. System is rinsing for 15 seconds after the system has been switched off for 12 hours and the system continues this rinsing process every 12 hours until the system turns on. When the system is in rinsing mode, no action is required, rinsing is a necessary process for the system. When conducting maintenance, use rinsing mode to rinse all the system and to check if the system works correctly.

Recirculation pump rinsing is automatically switched on after 24 hours of recirculation pump idle and it’s rinsing for 5 seconds. When you manually turn on “Rinse mode” (ESC + ►), the recirculation pump is also forced to start.



“Drying mode” – Green light on the PR010 operation panel is blinking. This notification appears when the system is forced to a standstill after 55 minutes of continuous operation. Drying mode lasts 5 minutes and no action is required while in this mode. After 5 minutes the system will restart automatically and drying mode notification will disappear.



“**NIGHT MODE system is off**” – This notification appears when the system is off and will not work until system reach set time to switch ON. In the system operation time scheduler the time when the system switches on and when the system switches off will be displayed. These time settings can be changed if necessary.

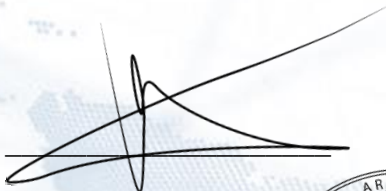
EC DECLARATION OF CONFORMITY

Manufacturer Blue Energy Global Ltd
Address Skolas street 18, Ogre, Ogre County, Latvia
LV 5001
Contacts office@smartcooling.us
+371 29178847
www.smartcooling.us
Person who is authorised to compile
the technical file Rihards Spots, engineer
Brandname Smart Cooling™
Machine: Adiabatic Pre-Cooling System Pro10

We, Blue Energy Global Ltd hereby declare that the above mentioned machine conforms with the requirements of directive 2006/42/EC The Machinery Directive and directive 2014/35/EU Low Voltage Directive and are designed according to following harmonized standards:

EN ISO 12100:2010 Safety of machinery – General principles for design – Risk assessment and risk reduction.

EN 60204-1:2006 Safety of machinery — Electrical equipment of machines — Part 1: General requirements

Signature: 

Date: 18th February 2022

Name: Armands Muceniaks
Position: Member of the board



Place: Ogre, Latvia

