



PLUS
—•••CONTROLLER

USER MANUAL

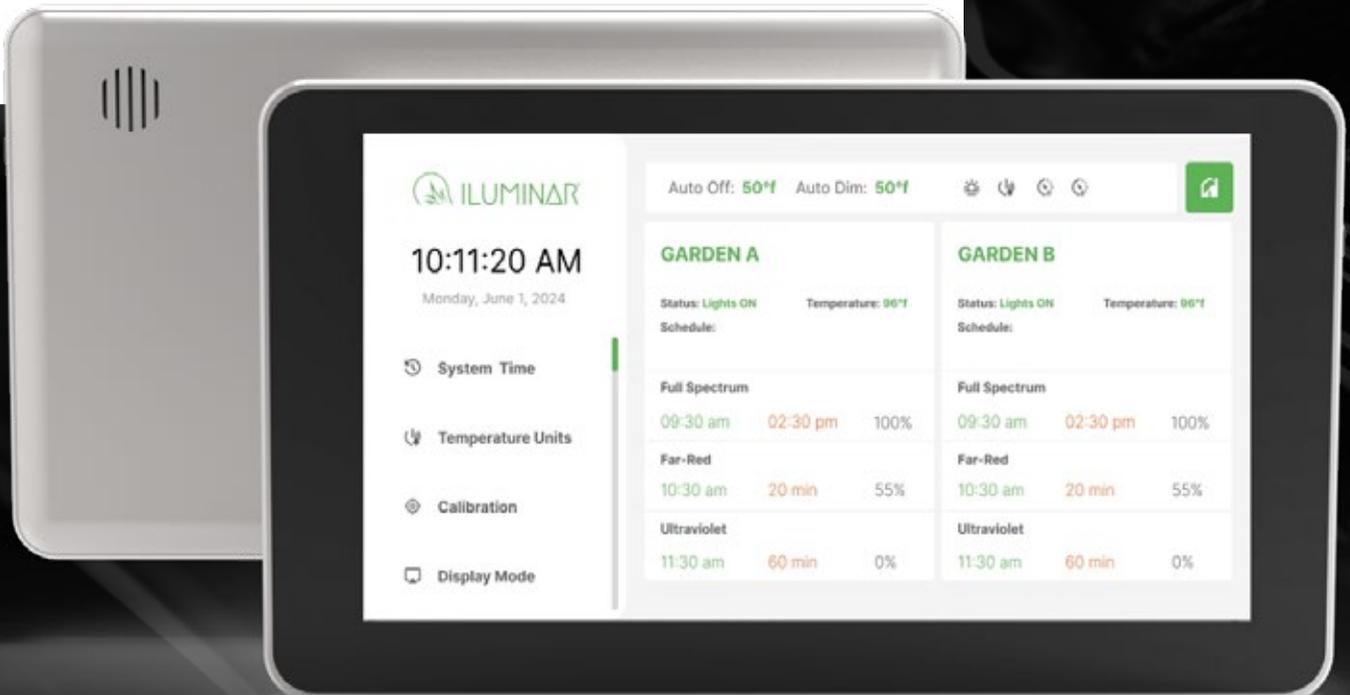


PLUS Controller
RS-485 Protocol IL-RS-485-PLUS

00 Contents



- 01** Pre-Install Information
- 02** Technical Specification
- 03** Hardware & Accessories
- 04** Operating Instructions
- 05** Important Cautions & Warranty



Please read this manual thoroughly prior to installing or operating the ILUMINAR Lighting PLUS Controller

- The ILUMINAR Lighting Plus Controller is fully compatible with the iLogic Series: iLogic PLUS MS and iLogic PLUS FS grow light fixtures.
- The Plus Controller is designed to control two light groups in any given area. The controller uses 5V2A DC voltage to control LED. The controller operates on a 24-hour time cycle. The controller also has the ability to simulate sunrise and sunset cycle from 10-60 minutes.
- Each of the two-lighting group channels has a room overheat protection function that can be set as needed. You can use the PAD touchscreen to easily view and modify the current settings for each channel.
- The screen will automatically turn off after 45 seconds of no use to protect plants from interruption of the light cycle. Moreover, the Plus Controller is portable, easily operated and installed.



DELIVERY CONTENTS

- 1 x Controller Plus
- 2 x 10m Temperature Cable with Sensor
- 2 x 5m Signal Cables
- 1 x Manual



To convert RS-485 into 0-10v, this commercial controller requires a Plus adapter, which must be purchased separately.





02 Technical Specs

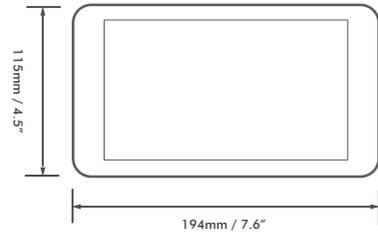
MODEL: PAD Controller **SKU:** IL-RS-485-PLUS

TECHNICAL SPECS

Model	PAD Controller
Product Size	194*115*14mm / 7.6*4.5*0.5"
Power Supply	Switching power supply
Adaptor AC Input	AC110 - 277V 50 / 60Hz
DC Input for PAD	5V 2A
Display Screen Size	7"
Touch Area Size	154.91*86.62mm / 6.09*3.38"
Resolution Rate	1024*600
Screen Flash Rate	60Hz
Working Temp.	0° - 35°C / 35° - 95°F

PHYSICAL SPECIFICATIONS

Height: 14mm / 0.5"
 Weight - N.W.: 0.25kg / 0.55lbs
 Package Size: 277*256*70mm / 10.9*10*2.7"



3 YEAR
WARRANTY



www.iluminarlighting.com | 1-877-540-5588 | sales@iluminarlighting.com

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Hardware & Accessories



MAIN PARTS OF CONTROLLER:

1 Display Screen 7"

5 Temp B

2 Signal A

6 DC 5V Input

3 Temp A

7 USB C

4 Signal B

8 Home Button

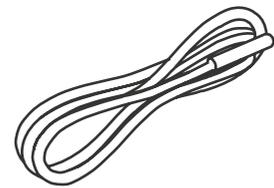
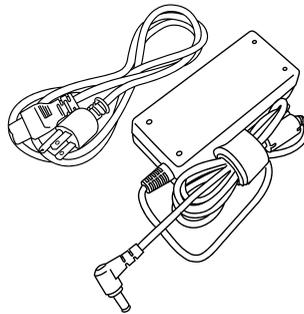
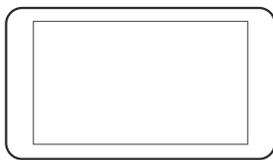


IN THE BOX

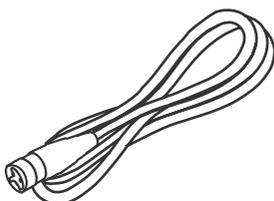
1 Plus Controller

1 Power Supply AC Adaptor

2 Temperature Cable



2 Signal Cables



Do not dispose of original packaging

All returns will need to be in the original Illuminar packaging in order to avoid product damage during shipping. Any damage to products not in their original packaging will not be covered under warranty. Before you begin installation, check that you have all the necessary parts to begin.

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Operating instructions

★ PLUS CONTROLLER FEATURES

- Easy Programming
- Simple Feel and Use
- Data Logging of Changes and Events
- Accurate Temperature Monitoring
- Customized Cycle Options
- Auto Save Temp/Shut down Temp
- Incredible Simplicity

Initial Setup

The screenshot shows the ILUMINAR PLUS Controller interface. Callouts point to the following features:

- High Temperature Auto Shut down Set Point**: Points to the 'Auto Off: 50°F' indicator.
- High Temperature Auto Dim Set Point**: Points to the 'Auto Dim: 50°F' indicator.
- Sunrise/Sunset**: Points to the sunrise and sunset icons.
- Temperature Units**: Points to the temperature unit selection icons.
- Light Cycle A & Light Cycle B**: Points to the light cycle selection icons.
- Local Time**: Points to the '10:11:20 AM' display.
- Up and down slide key**: Points to the vertical slider on the left side of the menu.
- Menu**: Points to the menu icon on the left side of the screen.
- Current room status**: Points to the 'Status: Lights ON' indicator for Garden A.
- Current Room Temperature**: Points to the 'Temperature: 96°F' display for Garden A.
- Current Output**: Points to the '100%' output level for Full Spectrum in Garden A.

*Please slide up and down to switch over menu categories.

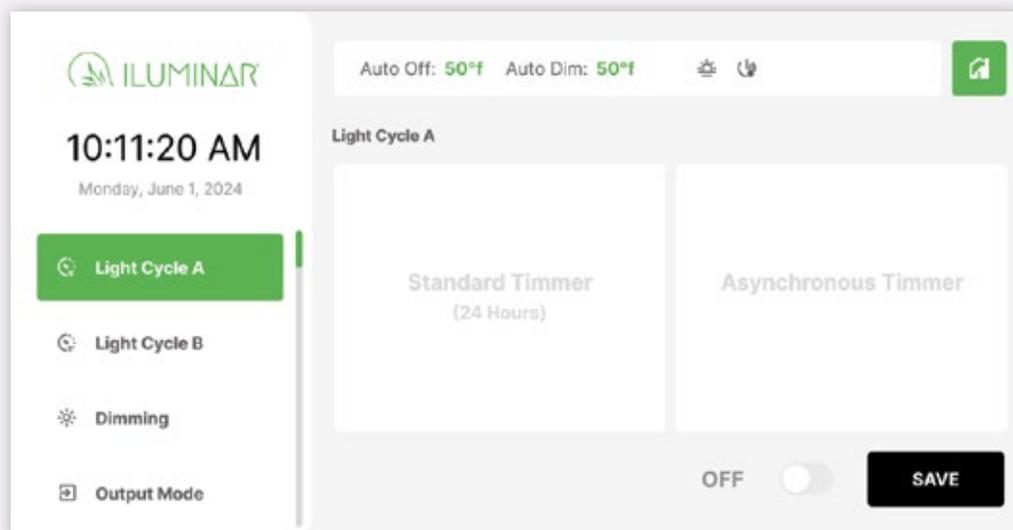
☰ MENUS CATEGORIES

1	Light Cycle A	7	Calibration	13	Data Log
2	Light Cycle B	8	Display Mode	14	Settings
3	Dimming	9	Auto Dim Temp	15	Security
4	Output Mode	10	Auto Shut Down	16	Factory Reset
5	System Time	11	Sunrise/Sunset		
6	Temperature Units	12	Cloud Mode		

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Operating instructions

1. Light Cycle A



There are three Timer Modes: **Standard Timer**, **Asynchronous Timer** and **Timer Off**.

Standard Timer (24 Hours): can individually set the start time and close time of FS, start time and duration of FR and UV.

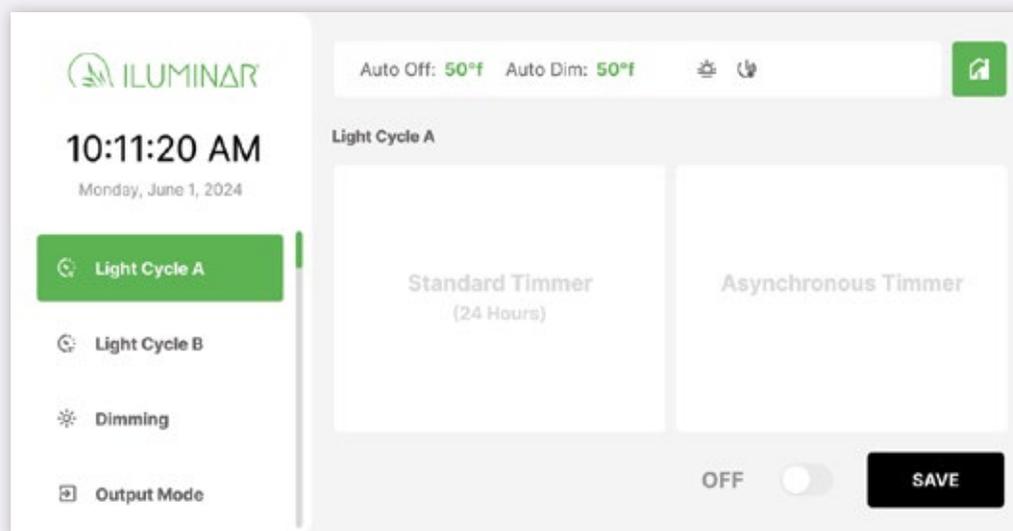
Asynchronous Timer: led grow lights repeat again and again according to the parameters users preset.

Timer Off: Once select Timer Off, the Standard Timer or Asynchronous will be closed.



Notice: Only select the Auto in the Output Mode, the Standard Timer or Asynchronous Timer will work.

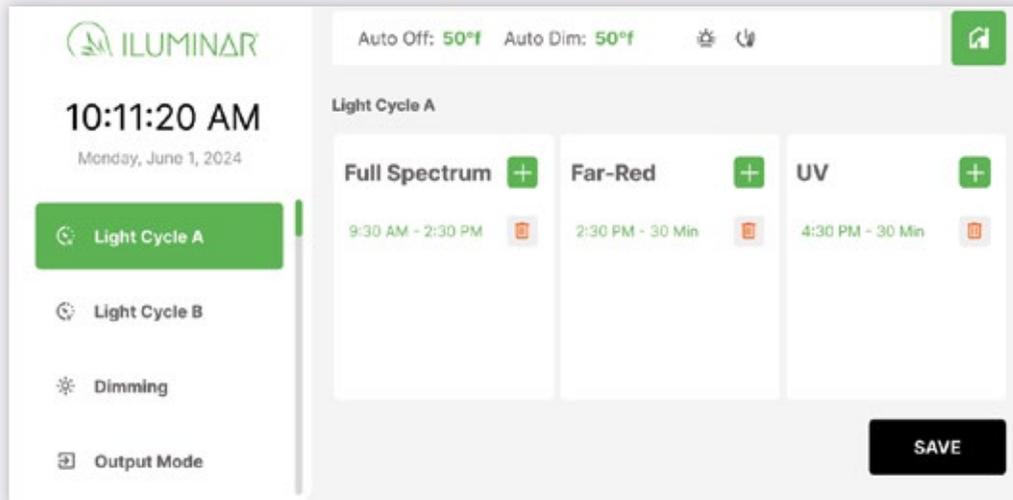
Users can select “Standard Timer” or “Asynchronous Timer” or “OFF”



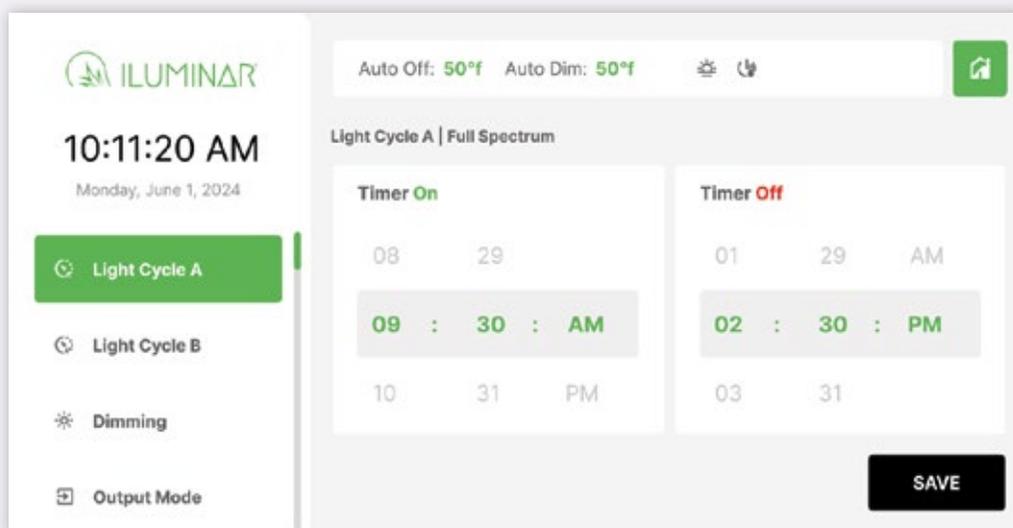
04

Operating instructions

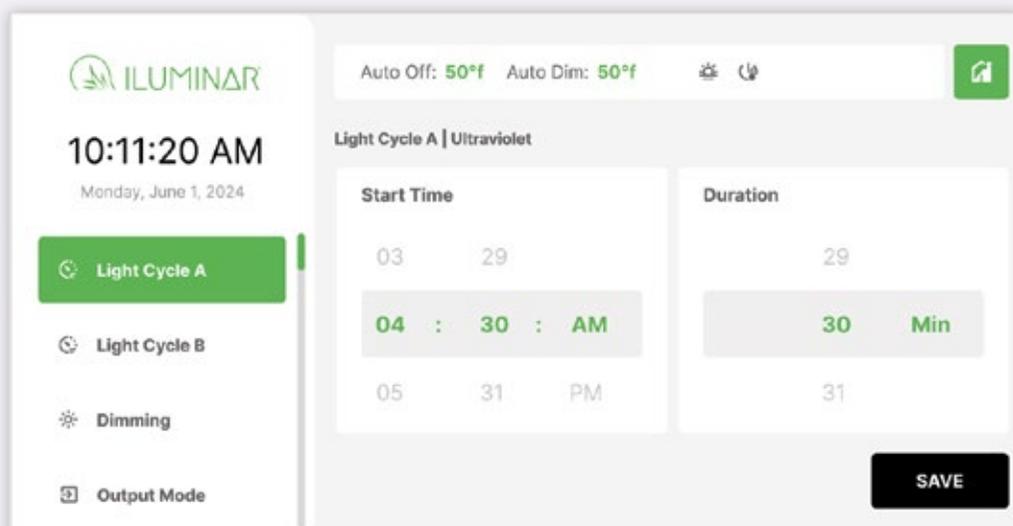
Standard Timer mode, use “+” to add time points, “-” to delete time points.



For **FS**, users can set on time and off time.



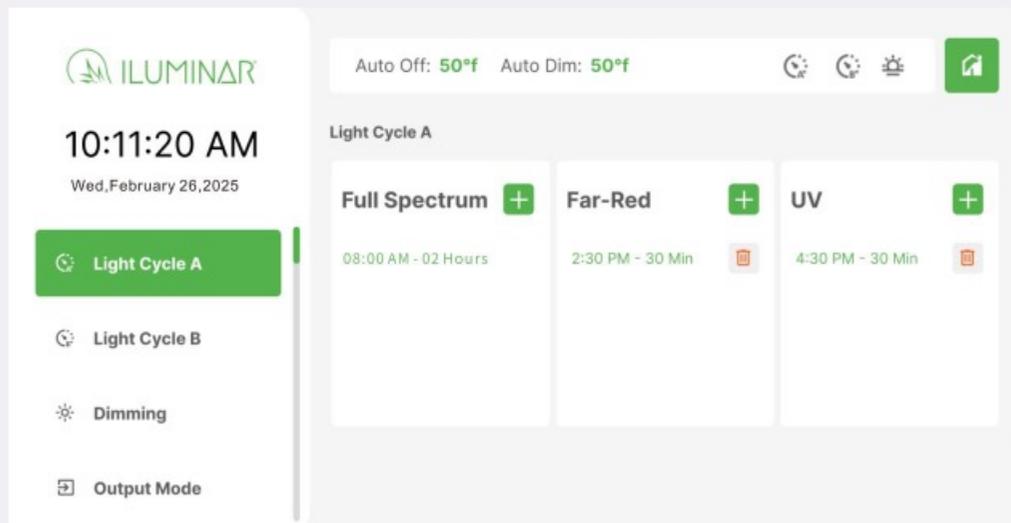
For **FR** and **UV**, users can set the start time and duration. Press “+” to add the time point, “-” to delete the time point. Notice: For FR and UV, users only add a maximum of 10 time points.



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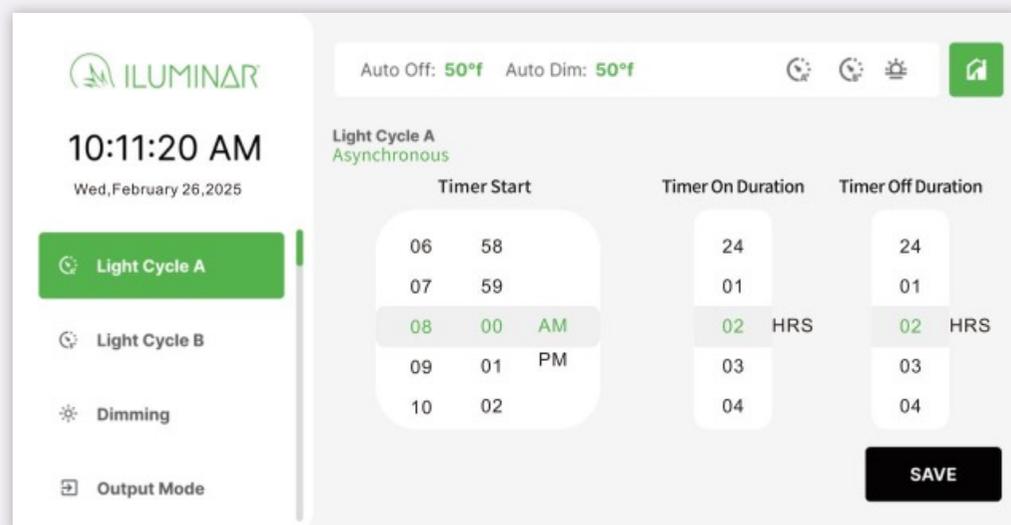
Operating instructions

Asynchronous Timer means the FS of led lights will repeat again and again according to parameters users preset (the FS of start time and duration time).



For FS, user can set “Timer Start” “Timer On Duration” “Timer Off Duration”.

For example, when “Timer Start” is 8:00 AM, “Timer On Duration” is 2 hours, “Timer Off Duration” is 2 hours, then the lights FS will start working at 8:00 a.m., run for two hours, and turn off for two hours, finally repeat this process until 8 a.m. the next morning and continue to follow this process until you change the controller settings.



When the light repeats this cycle until 8:00 AM the next day, if the light is off or has been running for less than two hours, it will not complete the current cycle. Instead, it will directly start the process from 8:00 AM as per the scheduled routine.

The FR & UV settings are the same as the FR & UV settings in the Standard Timer.

Press **Timer Off**, the Standard Timer or Asynchronous will be closed.



Notice: Only users select the “Auto mode” in the output mode, above operation will work.

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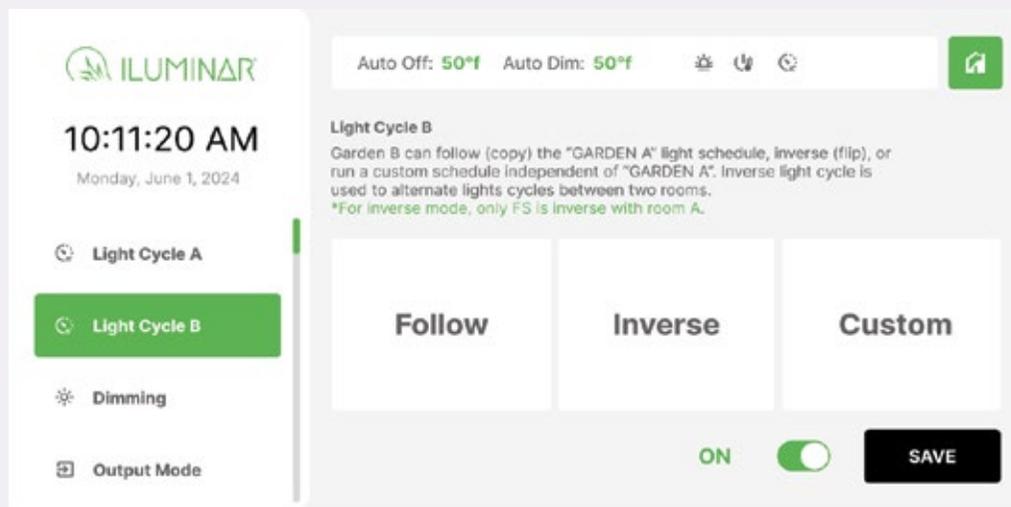
Operating instructions

2. Light Cycle B

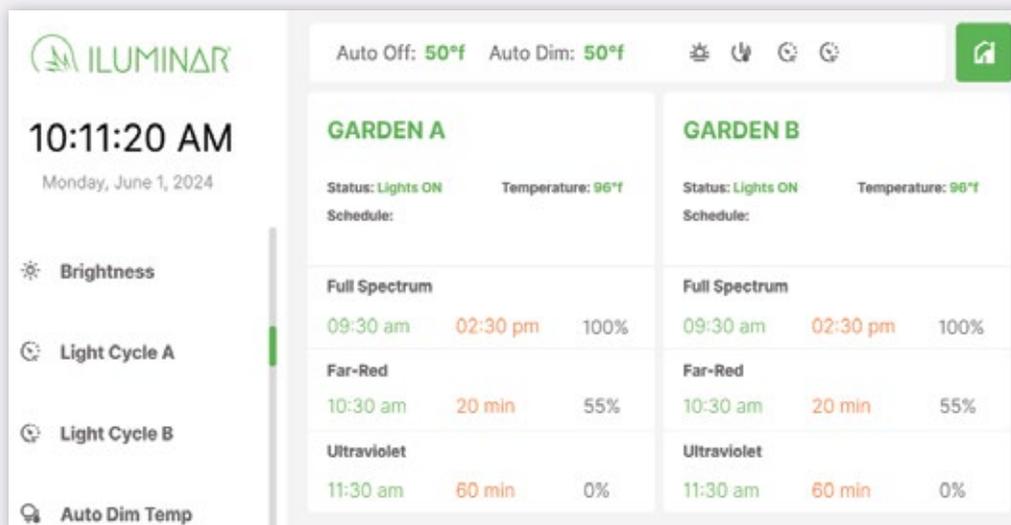
There are four modes: **Follow**, **Inverse**, **Custom** and **Off**.

Selecting the four modes respectively means Garden B can follow (copy) the Garden A light cycle schedule, inverse (flip), or run a custom schedule independent of Garden A. Inverse light cycle is used to alternate lights cycles between two rooms. For example, 12 hours on and 12 hours off.

Users can select "Follow" or "Inverse" or "Custom" or "OFF" modes.



Follow Mode: Garden B can copy the Garden A light cycle schedule and brightness.



Inverse Mode: Garden B can run inverse schedule of the Garden A. Please note only FS is inverse. FR and UV need set by users.

Custom Mode: Garden B can run custom schedule of the Garden A.

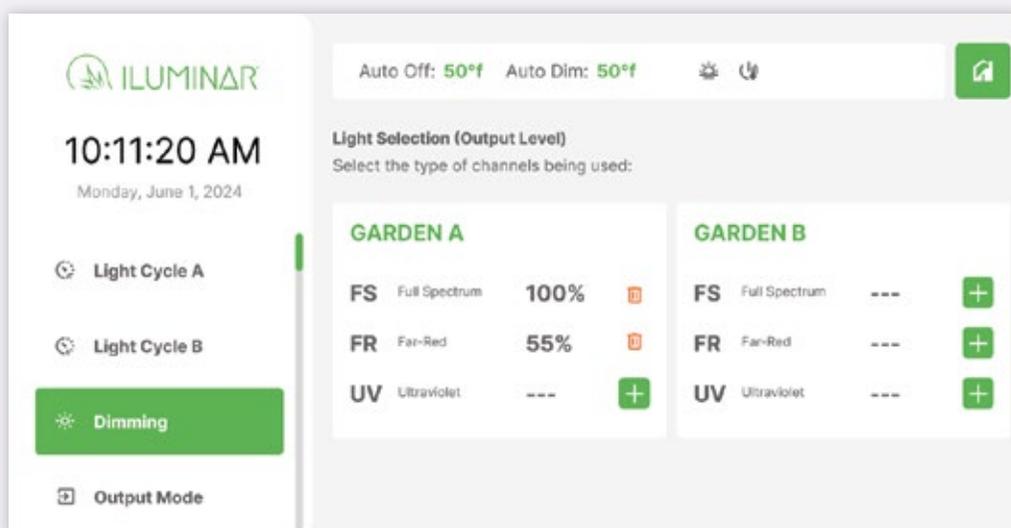
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Operating instructions

3. Dimming

Three channels can be selected to apply to Garden A & Garden B. Users can select the output wattage to change the light intensity setting of the **FS**, **FR** and **UV**. The range of output wattage is 0% ~100%.

“+” to set brightness of each channel,  to delete setting



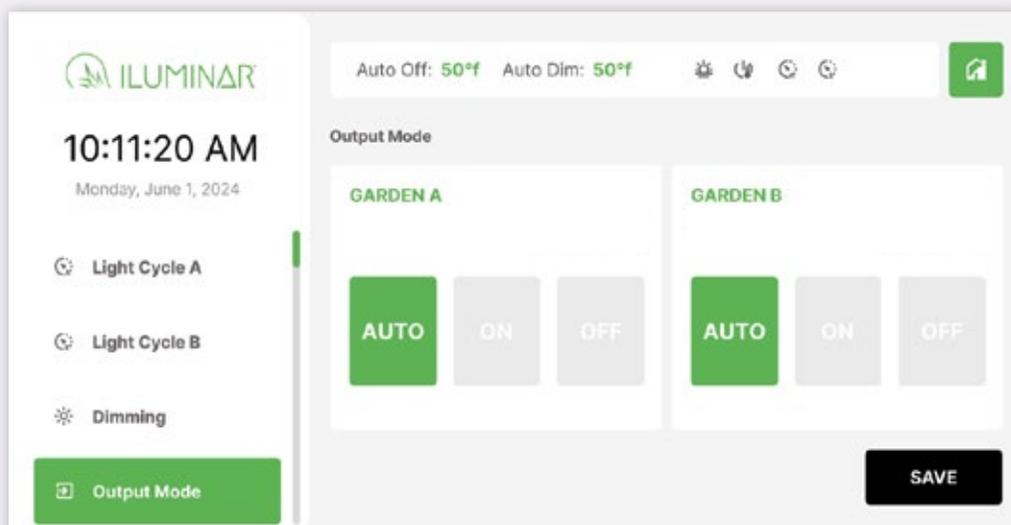
4. Output Mode

Three modes can be selected to apply to Garden A & Garden B: Auto, On and Off.

Select “Auto”, the associated garden will follow the set schedule (Light Cycle A & Light Cycle B).

Select “On” means that users need to turn on the lights manually.

Select “Off” means that the associated garden will stay off until this value is changed.



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Operating instructions

5. System Time

In **System Time** page, users can set time & date. There are two time modes 12H/24H for users to choose. After confirmation, press the **'Set Time'** button and return to the main menu.

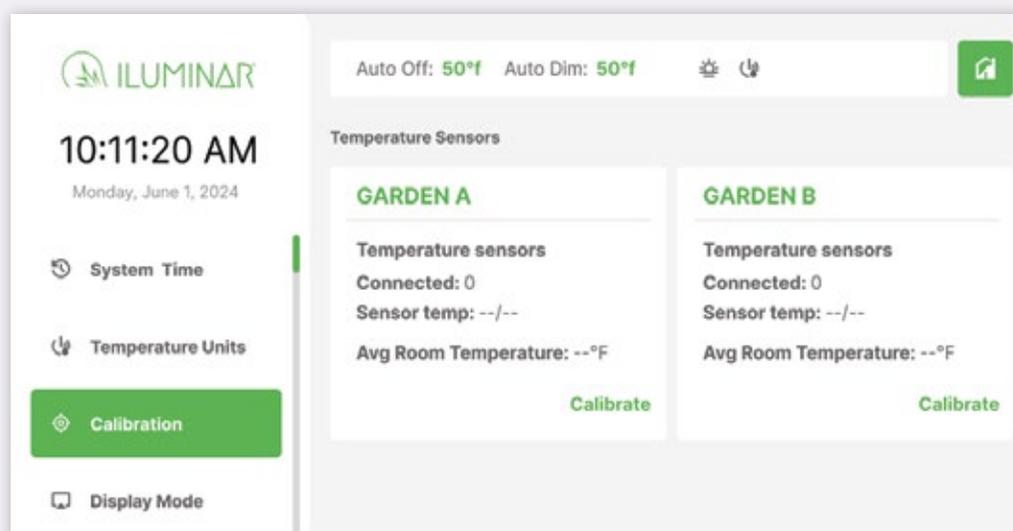
6. Temperature Units

Temperature Units allow users to choose between Celsius and Fahrenheit according to personal preference. After selecting temperature units, please press the button **'OK'**.

7. Calibration

The temperature sensor should be protected against the radiation heat of the lamp. **"Temperature Sensors"** show individually the number of connected fixtures, sensor temperature and calibrated room temperature in Garden A and Garden B.

Calibration Page shown below:

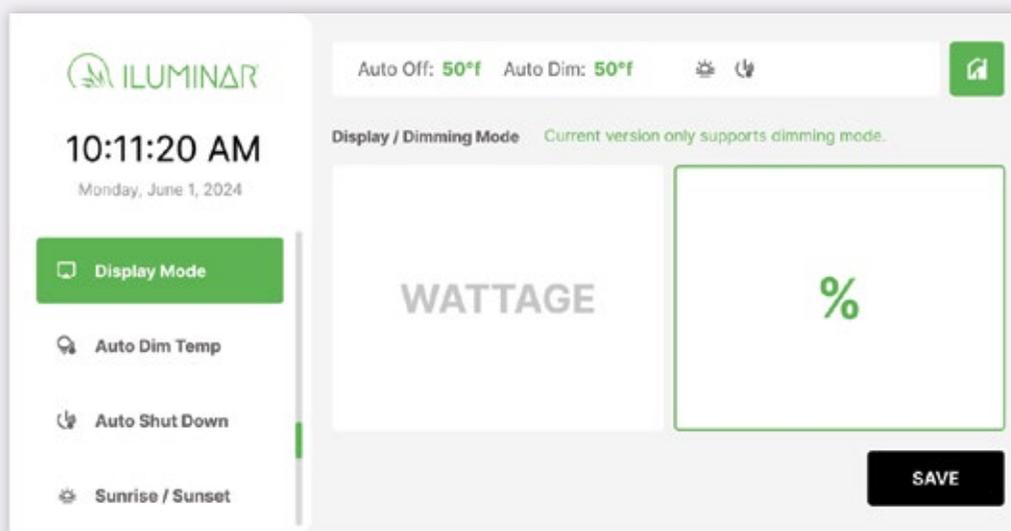


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Operating instructions

8. Display Mode

There are two display modes: wattage and %. Selecting Wattage will show the output in wattage; selecting % will show the output in percentage. Wattage mode allows users to dim from preset wattage. % mode allows users to dim by percentage 50% - 100% (more control). Current version only support %.

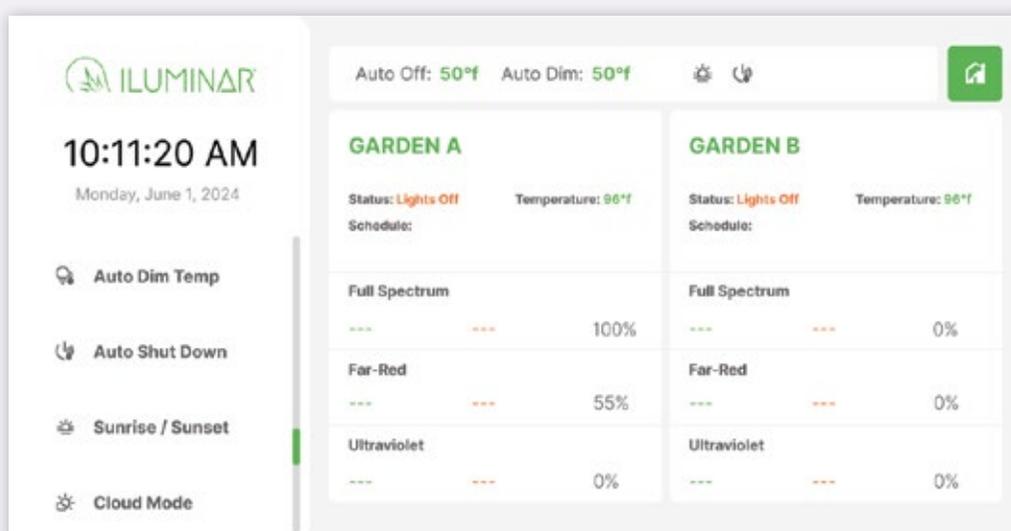


9. Auto Dim Temp

Users can preset maximum temperature of the room before using lights. Once the room reaches the maximum temperature, the system will auto dim the light up to 50% of setting to prevent the room from overheating.

10. Auto Shut down

If the temperature of the room is still over the maximum temperature of shut down temperature, the light will auto shut down.



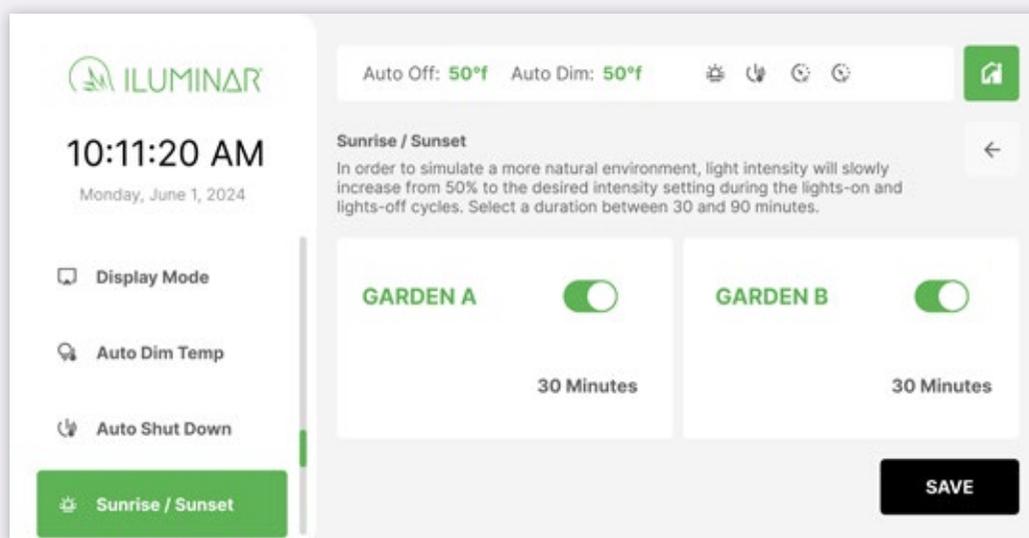
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Operating instructions

11. Sunrise/Sunset

In order to simulate a more natural environment, light intensity will slowly increase from 0% to the desired intensity setting during lights run.

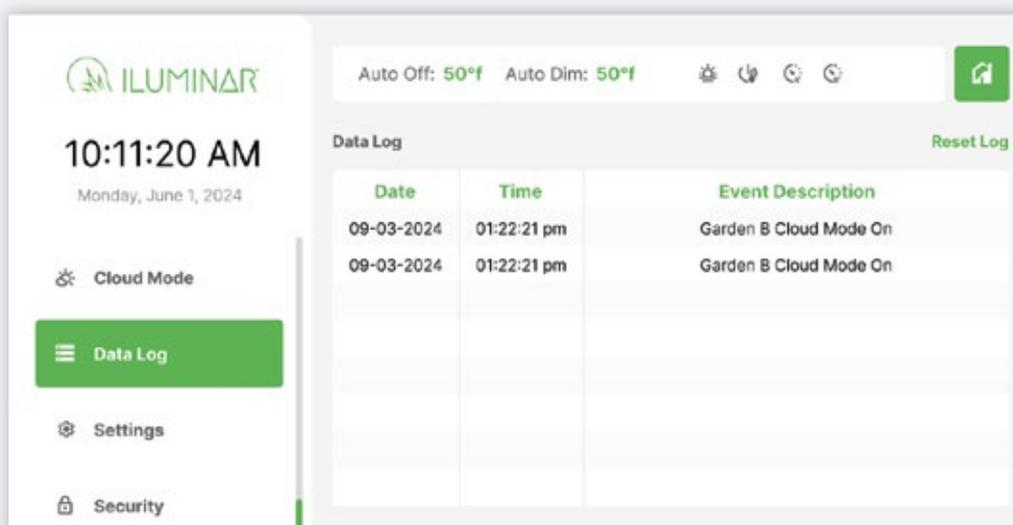
Pressing **“On”**, users can set individually the duration of sunrise and sunset for garden A and Garden B. Press **“Off”**, the sunrise and sunset will be closed. The time setting range is 30 - 90mins.



12. Cloud Mode

Cloud mode is an exclusive feature that creates a more realistic and natural environment for your garden. Initially, this system runs the lights at your preset intensity for 3 hours, subsequently decreases power up to 40% for 30 minutes, and then returns to your preset intensity. This cloud mode will repeat until the lights turn off.

Users can set individually the cloud mode for Garden A and Garden B. Press **“On”**, the cloud mode turn on. Press **“Off”**, the cloud mode turn off.



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Operating instructions

13. Data Log

Data Log show operating data record: the date, the time and event description. There is a **“Clear Log”** button in the top right corner on the Data Log page. If press it and select **“Clear”**, all data log will be deleted.

14. Settings

Users can adjust the screen sleep Timeout and backlight level. There are three options for selection: 5 min, 30 min and never.

15. Security

Users can input new password.

16. Factory Reset

Users can reset PAD into factory default parameters.



05

Important Cautions & Warranty



PREPARATION

Transportation

Improper transportation may harm or can even cause damage to Controller PLUS (and external adaptor). In case of obvious damage or incomplete scope of supply, please refer to your vendor immediately.

Unboxing

Please handle and unbox the Controller PLUS with care! Check the delivery contents for completeness first. A detailed list of the product range is contained on the inner cover in this manual.

Through transport or due to a long storage time, the Controller PLUS might get a little polluted. Therefore, we recommend to clean it before each use with a dry and soft tissue.



OPERATION

Safety measures & precaution

Warning! Warning! This PAD is powered with electricity (**AC110-250V**)! To prevent injury, we ask you to desist from improper use!

Never open the case of the device! Health hazards await the consumer and the warranty of the device expires.

GUARANTEE

3 YEAR WARRANTY

At ILUMINAR, we stand behind our products and our technology as well as our customers. All ILUMINAR Controller PLUS are backed by our 3-Year Guarantee. Please visit our website iluminarlighting.com/warranty for more information.



