LUCIUS

LIGHT MANAGEMENT CONTROLLER

INSTRUCTION MANUAL

INTRODUCTION

THANK YOU FOR PURCHASING LUCIUS LIGHT MANAGEMENT CONTROLLER (LMC).

The following guide contains the necessary information for the operation and maintenance of the Lucius Light Management Controller (LMC). Please read and understand this entire instruction manual before attempting to Install and operate this product.

1. PRODUCT DESCRIPTION

The Lucius Light Management Controller (LMC) is designed to control the Lucius ballasts.

Features such as turning lights ON or OFF; dimming, boosting, simulating sunrise and sunset can be controlled by using the Lucius LMC.

Lucius LMC has 2 zones. Each zone can control up to 100 ballasts / lights (total 200).

Temperature setting for Auto Dimming and Auto Shut Down can be activated to assist in the prevention of crop damage. The ballasts and lamps may generate excessive heat in the grow area if the environmental control system is not adequate; in this case the lights can be dimmed or even shut down as a safety precaution.

The Lucius LMC is equipped with 2 Temperature Probes, each for monitoring the temperature inside of its own zone, it also allows the temperature range parameters to be set as a safety feature.

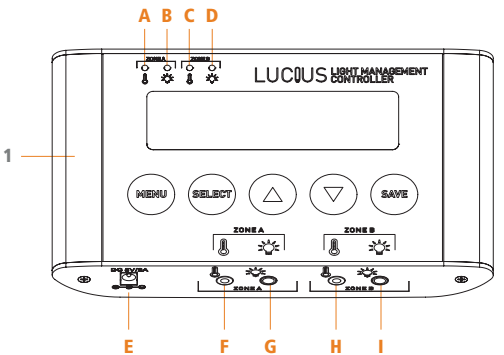
The Lucius LMC LED display is high contrast, clarity in dark and bright light environments. It is also equipped with LED status indicators.

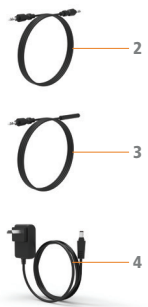
2. CONTENTS AND BUTTON FUNCTIONS

→ **1. Lucius LMC**

A	Temperature LED for Zone A	▽	Decrease Value
B	Power LED for Zone A	SAVE	Save / Confirm
C	Temperature LED for Zone B	**E**	Power Adaptor Socket
D	Power LED for Zone B	**F**	Temperature Probe Socket for Zone A
MENU	Menu	**G**	Output Signal Socket for Zone A
SELECT	Select	**H**	Temperature Probe Socket for Zone B
△	Increase Value	**I**	Output Signal Socket for Zone B

→ **2. Signal Wire x2pcs**
→ **3. Temperature Probe x2pcs**
→ **4. Power Adaptor**





3. SPECIFICATION

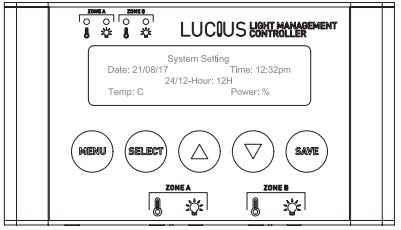
Product Name	Lucius Light Management Controller
Product Code	LMC1
Dimensions (LxWxH)	128 x 80 x 25mm / 5"x3"x1"
Weight	235 g / 0.52 lbs
Operating Temperature	0°C to 35°C / 32°F to 95°F
Operating Humidity	<80%
Maximum Number of Ballasts Per Port	100
Total Number of Ballasts Per Controller	200
Waterproof and Dustproof	IP20
Power Supply	Adaptor: 100V-240V AC 50/60Hz - DC 5V/2A
Signal Wire	3.5mm Male Jumper Cable 5m Equipped with the magnet ring to meet EMC requirements
Temperature Probe	2.5mm Male Temperature Probe 5m 0°C to 50°C / 32°F to 122°F
Compatible Ballasts	315W, 2x315W, 400W, 600W, 630W, 800W,1000W
Power Control Range	315W: 315W-OFF 400W: 60% to 110% (240W to 440W) - OFF 600W: 60% to 110% (360W to 660W) - OFF 630W: 600W - 630W - OFF 800W: 60% to 110% (480W to 880W) - OFF 1000W: 65% to 115% (650W to 1150W) - OFF
Power Step Up / Down Accuracy	1% of nominal power
Sunshine / Sunset Duration Setting	Between 0 to 30 minuets
Temperature Setting Rage for Auto Dimming	5°C to 45°C / 41°F to 113°F
Temperature Setting Rage for Auto Shut Down	10°C to 50°C / 50°F to 122°F
Power LED Status	LED ON: the LMC output is activated LED OFF: the LMC output is deactivated
Temperature LED Status	LED ON: The Temperature Probe is connected and the temperature is within the set range LED OFF: The Temperature Probe is not connected LED blinks slowly: The auto dimming is activated LED Blinks fast: The auto shut down is activated

4. SETTING UP THE LUCIUS LMC

1 Connect the power adaptor to the power supply and Lucius LMC. Switch ON the power. The Lucius LMC turns ON.

2 The first menu is **"System Setting"** set the **Date, Time, Temperature** and **Power**. Use (SELECT), (△), and (▽) to adjust the parameters. After setting press (SAVE) to save the data.

Note: *After setting or making any alterations to the menu you must press button (SAVE) to save, otherwise you will have to repeat the process.*



SYSTEM SETTING MENU DESCRIPTION

"Date" setting:
The date can be set in either mm/dd/yy format or dd/mm/yy format.

"Time" setting:
The time can be set in either 12hrs format or 24hrs format.

"Temperature" setting:
Temperature options in degree Celsius or in Fahrenheit.

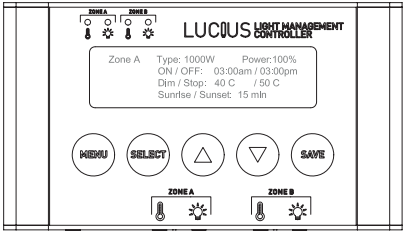
"Power" setting:
Ballast output power setting/dimming has 2 options adjusted by percentage (%) or by watt (W).

Option 1 Power setting is by percentage, power adjustment will be in increments of 1%. For example if you have chosen the 1000W ballast, then the power adjustment range is 65% to 115%. (65%, 66%, 67%, 68%, …..115%).

Option 2 Power setting is by watt, power adjustment will be in increments of 1% of nominal power of the ballast calculated into watt. For example, if you have chosen the 1000W ballast, then the power adjustment will be from 650W to 1150W increments of 10W which is 1% of 1000W. (650W, 660W, 670W, 680W, …1150W).

3

Press the button (MENU) to go to the next menu. The second menu is "**Zone A**". Set the ballast **Type**, **Power** adjustments, **ON** and **OFF** time, the **Dimming** and **Stop** shutdown temperature, duration for the Sunrise and Sunset. Use button (SELECT), (△), and (▽) to adjust the parameters. After setting, press button (SAVE) to save the data.



ZONE A/B MENU DESCRIPTION

"Type" setting:
You can choose the type of ballast 315, 2x315, 400, 600, 630, 800, 1000W.

Note: *You can connect a combination of different ballast wattages to the same Lucius LMC. In this case you MUST choose the setting with the highest ballast wattage, and set the power setting to percentage (%) on the System Setting Menu of the Lucius LMC. For example, if you are using 315W and 600W ballasts in Zone A/B, in the System Setting Menu choose the power type as a percentage, save, and in the Zone A/B menu choose the 600W type and save.*

"Power" setting:
Adjusting the ballast output power to the desired level. In order to increase the life span and performance of the lamp, we recommend operating the lamps at 100% for the first 100hrs of lamp life.

"ON/OFF" setting:
Light operating hours; adjust time to the desired period.

"Dim/Stop" setting:
Set the temperature range so the ballasts can reduce heat by dimming down or increase the heat by dimming up. Also set temperature range at which the ballasts will stop and turns of due to extreme heat.

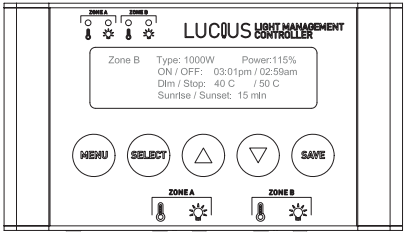
"Sunrise/Sunset" setting:
You can simulate the sunrise and sunset. Maximum duration for the sunrise / sunset is 30 minutes. When the ballast turns on, it will start at the minimum power setting and gradually increase to reach the maximum power set by the user, before the light turn off they will gradually dim to simulate sunset.

4

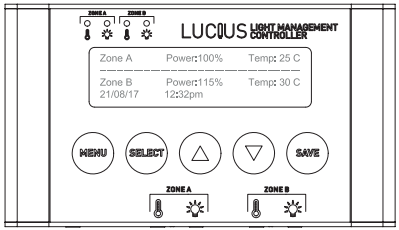
Press the button (MENU) to go to the next menu. The third menu is "**Zone B**". All settings are similar to "**Zone A**" explained in System Setting Menu SECTION **3**.

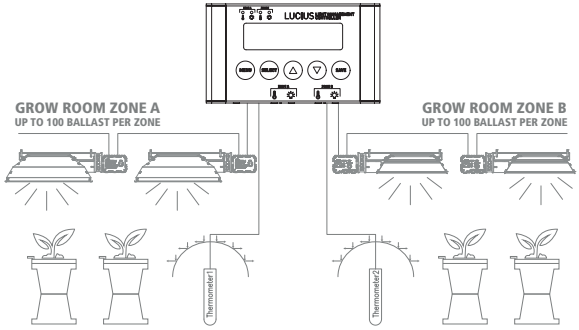
OVERLAP ZONE A AND B WARNING:

In flowering stage at 12hrs light, if Zone A is running at maximum load of power supply, allow 1 minute between Zone A turning off and Zone B turning on. For example, if you set the time of Zone A to between 3:00am and 3:00pm, then for the Zone B set the time between 3:01pm and 2:59am.



5 Press button (MENU) to go to the next menu. The forth menu is **"Data Display"** in this menu it displays all data. You also can adjust the power manually by using button (SELECT), (△), and (▽).





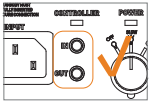
5. OPERATION

→ Before operation, ensure all electrical connections, ballast and lamp installation are secure. Refer to the Lucius Recom Ballast Instruction Manual.

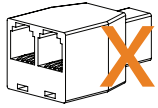
1 Switch off main power of the ballast.

2 Connect the Lucius LMC to the input AUX port of the ballast via the Controller Jumper Cable (Signal Wire).

3 Using Controller Jumper Cable (Signal Wire), connect the output AUX port of the first ballast to the input AUX port of second ballast and repeat this process to connect up to 100 ballasts per controller port x 2 zones (Total 200 ballasts).



Ballast input view

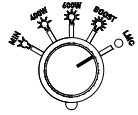


No splitter needed

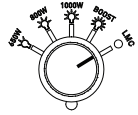
4 Connect the Temperature Probes to the Lucius LMC socket. There are 2 Temperature Probes each for the use in its own zone.

Note: *Position the Temperature Probe same level as the top of the plant canopy. Ensure you raise the Temperature Probe as the plants grow and never allow the Temperature Probe to be buried beneath the plant canopy. If you are using a climate control system, preferably install all Temperature probes / sensors in the same location close together. Temperature Probe should not be exposure or positioned directly under the light. Attempt to cover the Temperature Probe as indicated in the image.*

5 Turn the ballast control knob to the "LMC" option.



600W DE



1000W DE

6 Connect the Lucius LMC power adaptor to a power supply and turn the Lucius LMC on. Adjust all Lucius LMC settings according to this instruction manual.

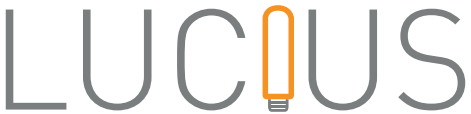
7 Switch on the main power of the ballast. The controller LED on the ballast will turn on when the controller connection is successful and the ballast is now controlled by the Lucius LMC.

6. WARRANTY

Refer to warranty on packaging. Lucius is not liable and the warranty will be voided under the following circumstances:

- Incorrect use of the product
- Not adhering to the notes established in this user guide
- Improper storage and handling
- Unauthorised modification of the product
- Use of unauthorised accessories or parts with the product
- Purchases from unauthorised retailers or dealers

Contact the retailer where the product was originally purchased for warranty claims and further information.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