



LIGHT MANAGEMENT UNIT
USER GUIDE



HORTITEK® LIGHT MANAGEMENT UNITS (LMU)

Enables gardeners to safely and easily control their grow lights.

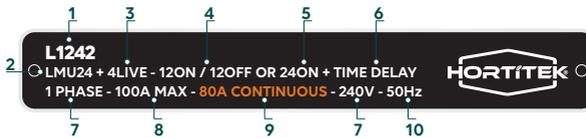
The LMU serves 3 main functions:

- **Time Control:** Hortitek LMU can simulate any light cycle by using the 24-Hour timer.
- **Power Control:** Hortitek LMU can control, distribute and protect the load by using the circuit breakers.
- **Time Delay:** This feature reduces the startup current and prevents voltage drop in the network by staggering the ignition of the load.

KEY FEATURES



LMU LEGEND



1- L1242: MODEL NUMBER

2- LMU24: NUMBER OF TIMED SOCKETS

LMU24 = 24 timed sockets. These timed sockets control the light cycle of connected ballasts using the 24-Hour Timer.

3- 4LIVE: NUMBER OF LIVE SOCKETS

4LIVE = 4 always-on LIVE sockets. These can be used for fans, pumps, heaters or other appliances.

4- 12ON / 12OFF: SIDE A / SIDE B OPERATION

This indicates the number of HALF ON / HALF OFF sockets. 12ON / 12OFF = 12 times sockets are on while 12 time sockets are off.

5- 24ON: ALL ON OPERATION

This indicates the number of ALL ON sockets. 24ON = 24 timed sockets will be on at once.

6- TIME DELAY: LMU IS EQUIPPED WITH TIME DELAY.

7- 1 PHASE/240V: INCOMING VOLTAGE TYPE

This indicates the incoming voltage type of the LMU, either 1 PHASE/240V or 3 PHASE/415V.

8- 100A MAX: MAXIMUM PEAK CURRENT RATING

This is the maximum load that can be safely supported by the LMU. This maximum should only be sustained for 4 hours.

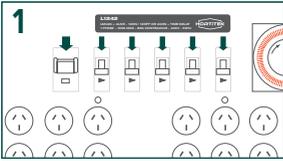
9- 80A CONTINUOUS: MAXIMUM CONTINUOUS CURRENT RATING

This is the maximum load that can be safely supported by the LMU in continuous, 24-hour operation.

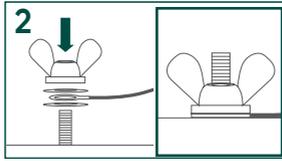
10- 50Hz: INCOMING POWER FREQUENCY

Both 1 PHASE and 3 PHASE power have a frequency of 50Hz in Australia and New Zealand.

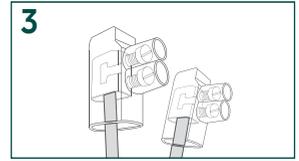
SET UP & OPERATION



Turn off all Circuit Breakers (CB) by pushing the switches downwards.



Connect and tighten the supply Earth to the LMU Earth lug.

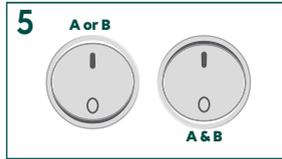


Have a licensed electrician connect the LMU supply wires to the incoming power supply using the wire connectors provided.

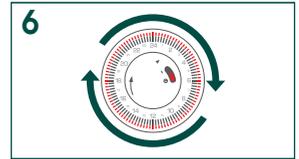
Note: When connecting the LMU supply wires, ensure that the incoming power supply wires are of equal or greater size/gauge.



Connect all lamps to their respective ballast, then connect the ballasts to the LMU. Refer to the Lamp Distribution Guide provided with your LMU to prevent Overloading.



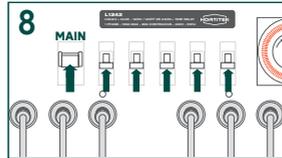
If applicable, set your desired LMU function using the selector switch (Refer to selector switch guide).



Set your desired light cycle by adjusting the 24-hour timer (Refer to 24-hour timer guide).



Connect the control cable to the PowerPoint and turn the switch ON.



Turn ON the Main Circuit Breaker, next turn on all other Circuit Breakers one-by-one with a 10-second delay between each, by pushing the switches upwards.

All Lamps will turn ON
Note: To prevent a voltage drop in the network, Hortitek LMUs are equipped with Time Delay. This function staggers the ignition of lights sequentially by 1-2 minutes.

IMPORTANT NOTES

- Do not cover or obstruct ventilation openings.
- Do not obstruct the Circuit Breakers with cables or other objects.
- Do not store or operate the LMU outdoors or in a moist environment, or near water sources.
- To prevent exposing the LMU to high ambient temperatures (above 40°C), avoid placing the LMU in the same room as heat sources such as ballasts or lights.
- Sudden voltage increases can cause damage to your LMU and related appliances. If you live in an area at high risk of lightning strikes, it is highly recommended that you have a licensed electrician install a surge protection device between the LMU and the Incoming Mains Supply cables.

- The surge protection device should be of the same current rating as the Main Circuit Breaker on the switchboard. (All LMU's are equipped with a fuse and MCB's to protect the unit and attached devices from short circuits and overloading).
- Dust build-up in unused sockets on the LMU can lead to reliability issues. Always ensure that unused sockets are sealed off to maximise the longevity of your Hortitek LMU.
 - Always use a licensed electrician to connect your Hortitek LMU to the Mains Power Supply.

SELECTOR SWITCH GUIDE

For models that include a Selector Switch, it can be used to control how many lights are active in each on/off cycle. That is, gardeners can choose to have half of their lights on, while the other half are off.

This is highly useful in situations where gardeners have more than one grow room set up and wish to keep them on different light cycles to prevent excessive power draw. Other benefits include reduced heat generation, or simply to maximise their usage of their energy supply with lights operating all day as opposed to only half the day.

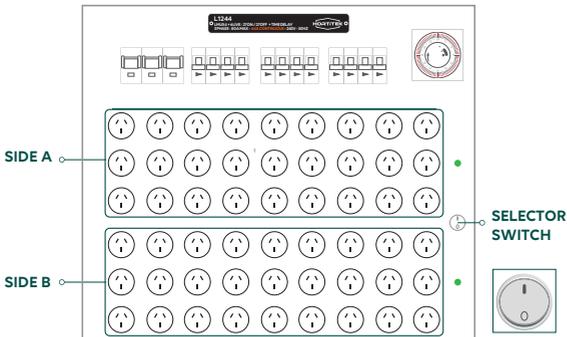
SELECTOR SWITCH - HALF ON / HALF OFF (A or B)

In the I position: The Timer will turn Side A sockets on and Side B sockets off. When the Timer turns Side B sockets on, Side A sockets will turn off.

SELECTOR SWITCH - ALL ON (A & B)

In the O position: The Timer will turn both Side A sockets and Side B sockets on simultaneously. It will also turn both Side A sockets and Side B sockets off simultaneously.

A Selector Switch will alter the way in which the Timer is used to control the light cycle. Further explanation is given in the following pages.



24-HOUR TIMER GUIDE

Hortitek LMU's 24-hour timer has 2 modes Automatic and Permanent

I PERMANENT MODE

To override the timer, set the timer switch to Permanent Mode, this disregards the position of any pins and sets all LMU sockets on.

O AUTOMATIC MODE

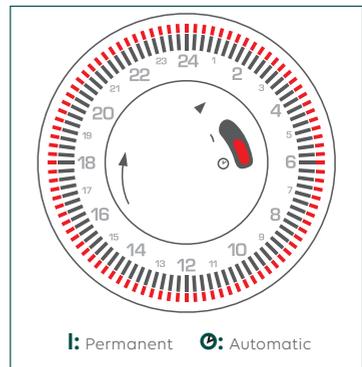
Ensure the timer switch is on Automatic Mode. This is the default and recommended setting when using Hortitek LMU.

Setting the time: Turn the timer clockwise and point the arrow on the face to the current time.

The Timers on Hortitek LMU's have 96 red pins, with each pin representing 15 minutes (4 pins = 1 hour). Use the red pins to set your 24-hour cycle.

When pins are facing inside, the sockets connected to the timer A and B are off, and when the pins are facing outside, they are on. This can be used to simulate day and night such as 12 hours on, 12 hours off continuously.

The operation of the Timer depends on which function the Hortitek LMU selector switch is set.



A or B

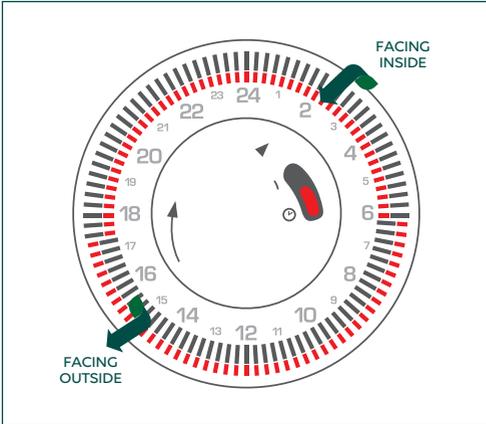


**SELECTOR SWITCH -
HALF ON / HALF OFF**

Red pins facing inside will cause Side A to turn off, and Side B to turn on.

Red pins facing outside will cause Side A to turn on, and Side B to turn off.

For example, the Timer below shows 48 pins facing Inside, and 48 pins facing Outside. This means that one side (Side A or Side B) is on for 12 hours, while the other side is off for 12 hours.



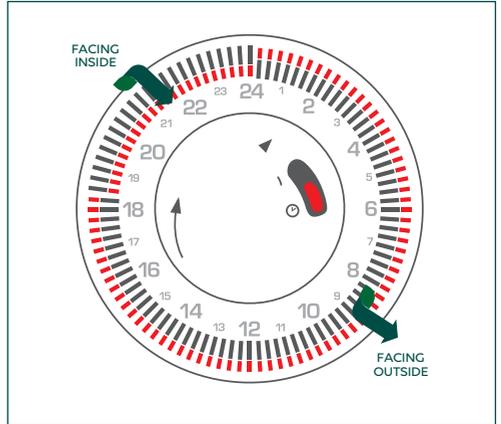
A & B

**SELECTOR SWITCH -
ALL ON**

Red pins facing outside will cause all sockets to turn on.

Red pins facing inside will cause all sockets to turn off.

For example, the Timer below shows 24 pins facing Inside, and 72 pins facing Outside. When the Timer is on the Outside pins, all sockets will be on for 18 hours. When the Timer is pointing to the Inside pins, all sockets will be off for 6 hours.



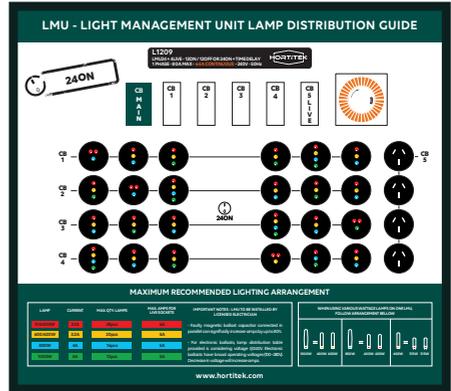
HOW TO READ THE DISTRIBUTION GUIDE

The Distribution Guides included with all Hortitek LMU's have been specially designed to distribute the power evenly on the LMU and protect against overloading. It eliminates the guesswork in setting up your lighting system.

Each lamp has been colour-coded:

RED = 315/400W | **YELLOW = 600/630W**

BLUE = 800W | **GREEN = 1000W**



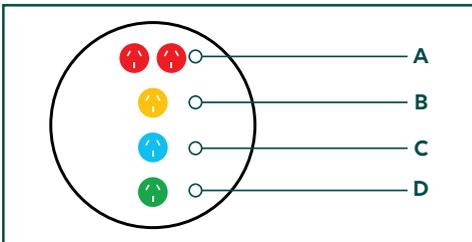
EXAMPLE:

MAXIMUM RECOMMENDED LIGHTING ARRANGEMENT

LAMP	CURRENT	MAX. QTY. LAMPS	MAX. AMPS FOR LIVE SOCKETS
315/400W	2.1A	36pcs	6A
600/630W	3.2A	24pcs	6A
800W	4A	20pcs	6A
1000W	5A	16pcs	5A

- If using 600/630W lamps, the maximum number of lamps allowed to this LMU's timed sockets are 24pcs and 6A maximum for the live sockets.

TIMED SOCKET



- A- If using 315/400W lamps, the maximum number of lamps allowed to this socket is 2.
- B- If using 600/630W lamps, the maximum number of lamps allowed to this socket is 1.
- C- If using 800W lamps, the maximum number of lamps allowed to this socket is 1.
- D- If using 1000W lamps, the maximum number of lamps allowed to this socket is 1.



SAFETY PRECAUTIONS

- Connecting more lamps than suggested in your model's lamp Distribution Guide may cause overloading.
- If faulty ballasts are connected to the LMU, this will increase the current (Amps) drawn and will cause overloading.
- Overloading of the LMU causes high temperatures within the unit and puts a lot of strain on all of the components. As a result, it will damage the LMU and decrease its service life.
- Do not mount the LMU in an enclosed space.
- Ambient temperatures for safe operation of the LMU must be lower than 40°C.

When connecting a ballast to its socket on the LMU, follow these steps:

- Turn off the related Circuit Breaker (CB) by pushing the switch downwards.
- Connect the ballast to the Socket.
- Turn on the related Circuit Breaker (CB) by pushing the switch upwards.

Always use a licensed electrician.

TROUBLE SHOOTING

Please refer to the website for all the information about Trouble Shooting.

For more information about Hortitek LMU's refer to

hortitek.com/hortitek-lmu

