LED-ONE

GREEN AMBER CANADA

CONTENTS

USER MANUAL
https://greenamber.ca/led-one-cannabis-grow-light/

1 - Precautions

✓ Please ensure that you read and familiarize yourself with all instructions and direction given in this manual prior to the operation of the equipment. Consider all safety instructions in order to avoid damage which may be caused by improper use. Ensure these instructions are given to all parties who use or are in contact with lights.

✗ DO NOT operate this equipment other than intended in this manual.

✓ Please ensure you consult a local electrical professional who can determine if the electrical infrastructure you intend to use for operation is adequate to support the continual use of the light. Please ensure all infrastructure meets local code requirements, including all power connectors, wiring and outlets.

✗ DO NOT use other power adaptors or electrical connections that did not otherwise come with your LED-ONE

✗ DO NOT submerge driver box, LED bars, cables or controller in water. Doing so will result in permanent damage to light and components. See warranty information

✓ Please ensure you take time when removing contents of light packaging in an area with adequate space to assemble the light. Damage could occur to the equipment if items are forced out, damaged, dropped during transportation, removal or assembly. Light bars are made with light weight material that can be damaged if mishandled, misused or dropped.

✗ DO NOT touch this light with wet hands or immediately after it has been in constant operation for several hours.

✗ DO NOT try to repair the device yourself. There is a risk of electric shock and will also void warranty if you do. If there are any questions or concerns in setting up and use of your lights, Green Amber can provide direct support to you.
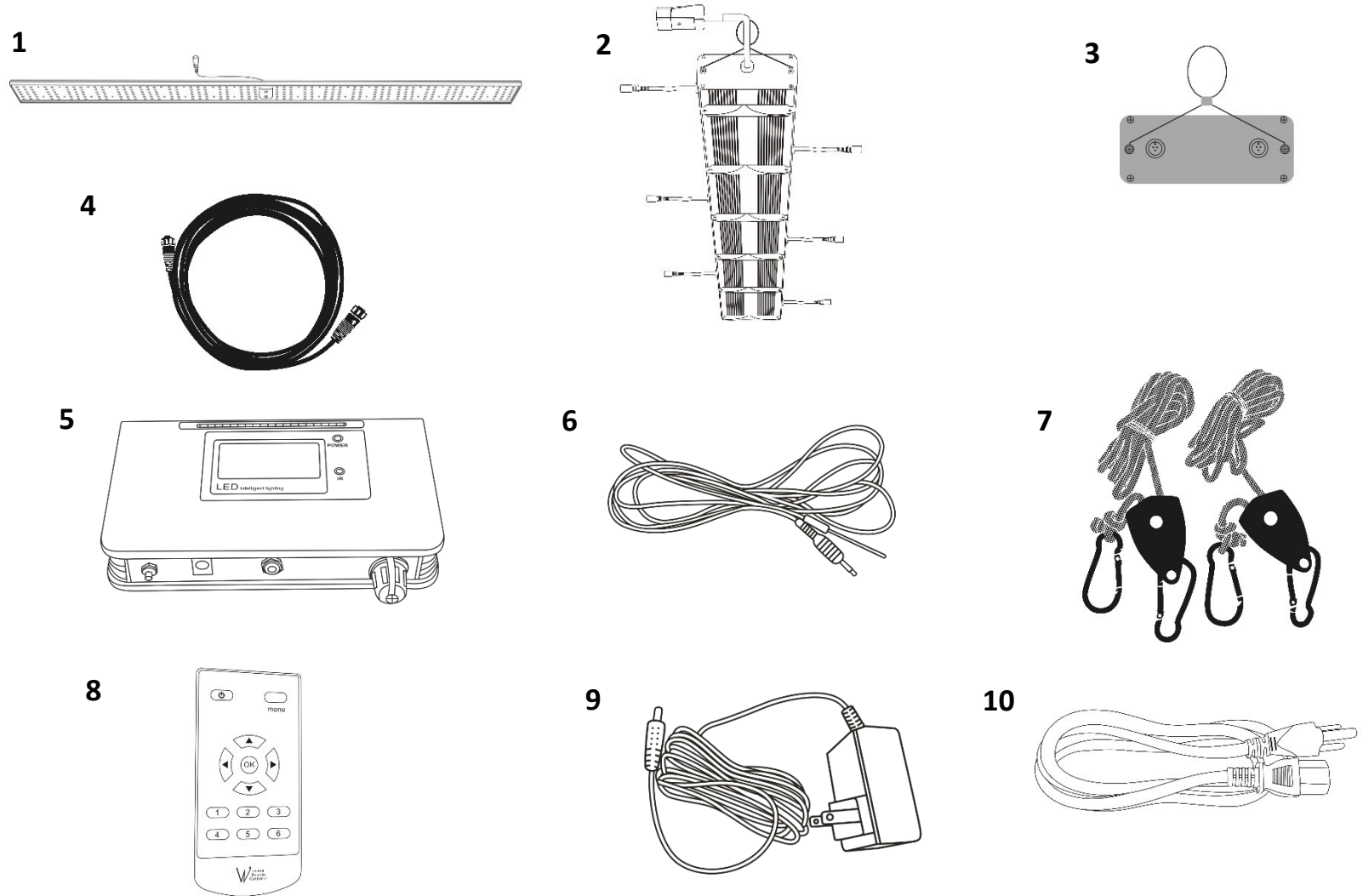
2 - Disclaimer

PACKAGE CONTENTS

1) LED bars (6)
2) Driver box
3) Anchor hanger (2x, each end)
4) Controller cable (3PIN),
5000 mm (54")
5) Controller module
6) Temperature sensor
7) Adjustable hanging ratchet
cords 2000 mm (22")
8) Controller remote
9) Controller power adaptor
10) AC power cord 3x14AWG,
1500 mm (16")

*cord and cable sizes can be customized

Green Amber's LED-ONE is a customizable LED light source intended for indoor and greenhouse cultivation. LED-ONE produces a spectrum of light energy to promote photosynthesis in plants, leading to better growth and yield production. LED lighting focuses on producing Photosynthetically Active Radiation (PAR) which is the main energy source to drive the photosynthetic process.

The lighting unit is ideal for programmable operation with light intensity and spectrum customization to focus in on the energy and spectral needs of the plants being cultivated. Intensity and spectrum customizations allow you to dial in the required light quality for a specific application. By directing the exact specifications of spectrum, intensity and duration of energy required, it assists to unlock the genetic potential of the plant.
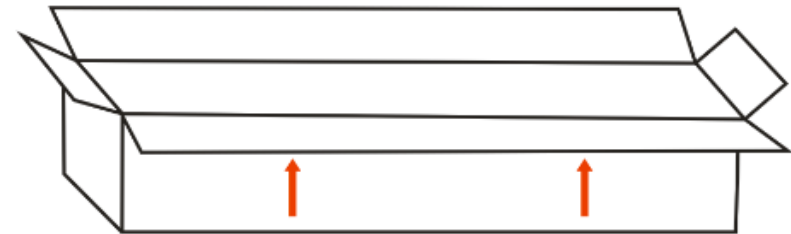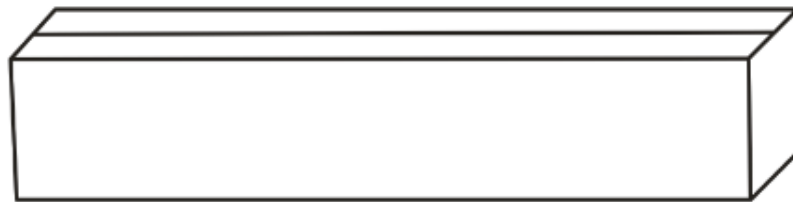
LED units are accompanied by a controller that adjusts the features and program. Multiple units can be daisy chained and managed by just one controller enabling further planning and customization of your cultivation environment.

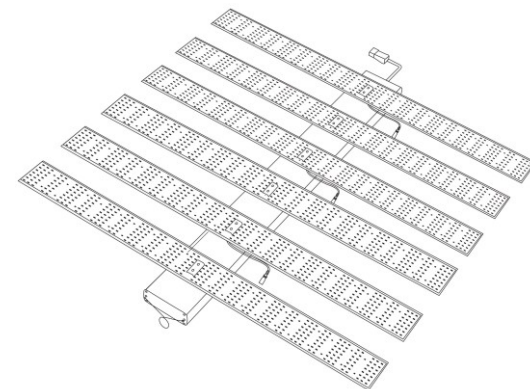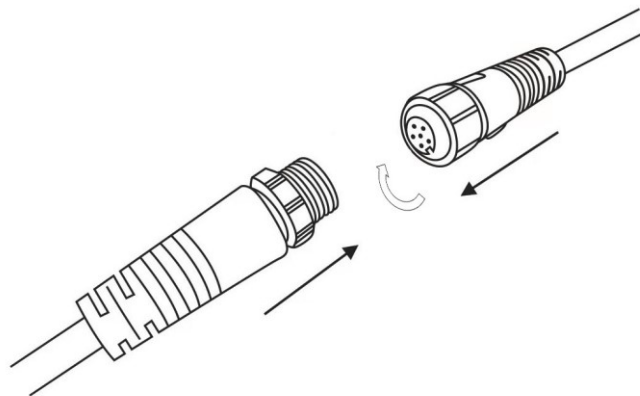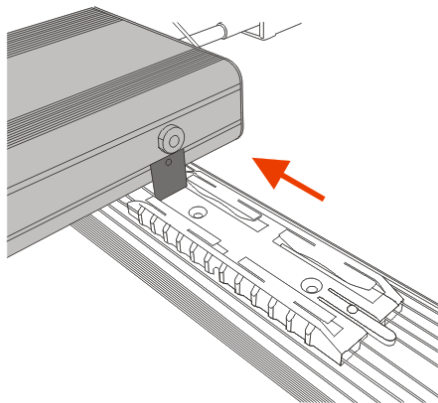This light was designed for indoor and covered greenhouse applications only. Not intended for outdoor use.

1)UNPACKING:

- Find a clear working space of at least 3.75 sqm. (40 sq. ft.) to assemble light.
- Open box top end, remove packaging and any plastic package contents.
- Remove light bars from packaging and lay out.
- Remove driver box from packaging and lay out.

2) ASSEMBLY:

- Lay out driver box, logo side down.
- There are plastic locking clips on each LED bar. Slide LED bars through plastic clips into metal brackets on driver box. Once bars have slid enough and are centered to the driver box, they will "click" into place. Verify they are secured by trying to slide again and ensuring that they have locked.
- Once bar is secured, connect 6 PIN male connector from bar and 6 PIN female connector from driver box. Line up each connector using the slots on each end and push together.
- There should be no resistance when connecting. DO NOT force connectors together. If there is resistance, you may damage the connector. Twist lock on female end until tight to secure.

4 – Assembly and Installation
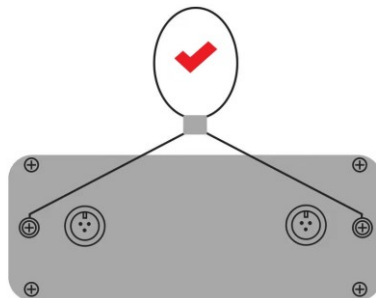
3) CONTROLLER:

- Use 3 PIN controller cable and insert female connector end into 3 PIN male "IN" connector on driver box by lining up slots on each end and pushing together. Similar to connector assembly found in step 2. Connect opposite end of cable in the same fashion to the "OUT" on the bottom of controller.
- There should be no resistance when connecting. DO NOT force connectors together. If there is resistance, you may damage connector. Twist lock on female end until tight to secure in place.
- Insert temperature sensor 3.5mm jack into bottom of controller. Attach controller power cord. Mount temperatures sensor in desired location of your grow.
- Wall mount controller using screws and holes on back of controller. Ensure there is enough length for controller cable from wall mount to where light will hang.
- To ensure your safety, make sure controller is off (power indicator off) before plugging into outlet.

- You can manage up to 150 lights using one controller. Daisy chain all lights to be used under single controller by connecting another controller cable to the "OUT" 3 PIN connector male end on the driver box and connecting the other end in the same manner described above into the "IN" connector on the driver box of the next light in the chain. Repeat for as many lights as needed.

4) HANGING:

- Attach hanging ratchet cord clip to loop on the anchor bracket at each end of driver box. Use the clip attached to the ratchet itself. Then use ratchet release lever to loosen other clip end and attach to the desired hanging point. Perform this step for each end of the driver box. Ensure that clips have some play when connected to the anchor hanger and hanging point.
- You can use multiple hanging points for each end of the driver box but either must be *secured* and have the ability to hold a weight of 20 KG to support light or it will fall and be damaged.
- Set desired height by pulling the hanging rope from the ratchet. Adjust each side equally to ensure that the light stays level for even light coverage. Use level tool to adjust height.
- Use the ratchet release lever to reduce height. Caution: If light is hanging and the release lever is used, the weight of the light may cause it to rapidly drop. Always support or hold the light when using the release lever to prevent light from falling. Connect AC power cord to light fixture and plug into outlet.

ONCE CONTROLLER IS CONNECTED TO LIGHT AND BOTH ARE PLUGGED IN, UNIT IS READY FOR USE

WITHOUT CONTROLLER CONNECTED, THE LIGHT WILL POWER ON AT ONE HUNDRED PERCENT INTENSITY ON ALL SPECTRUMS.

Controller Display Window Overview (main display)

- Time and date
- Temperature
- Current lighting program mode
- Current spectrum and intensity of program mode
- CH1 = White/Yellow spectrum diodes, 0-100%
- CH2= Blue spectrum diodes, 0-100%
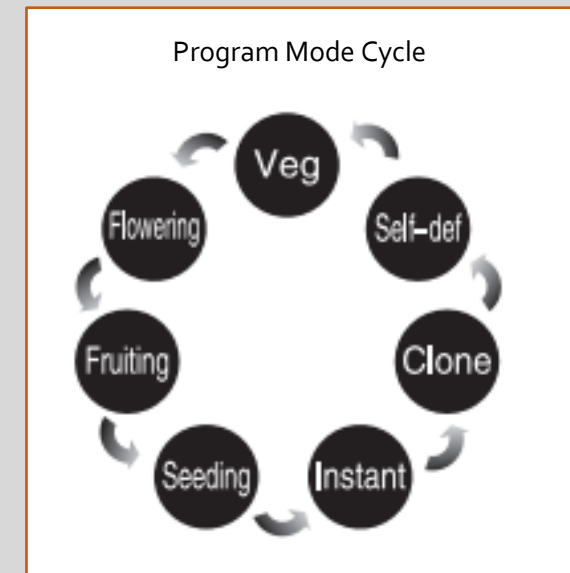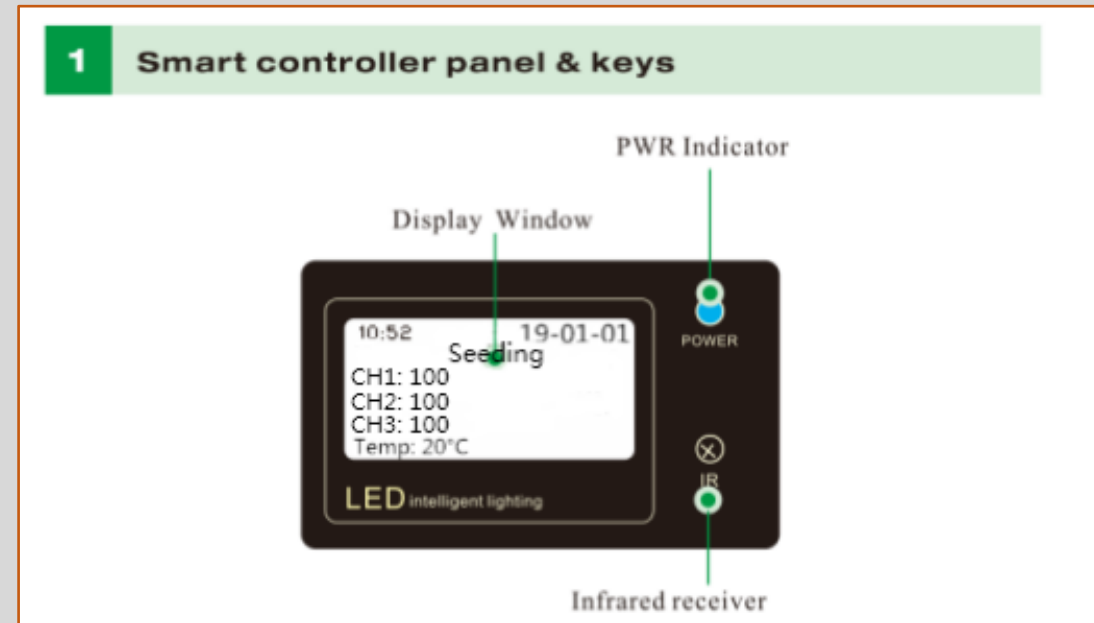- CH3 = Red spectrum diodes, -100%

Power Indicator
- Will light up when controller is active
- When the controller first powers on it runs through test mode and lights will flash intermittently until test is completed.

Infrared receiver
- For use with remote

Seven program modes are available (see diagram). **From the main display window, pressing the "right arrow" button will cycle through each of the programs**. **Once stopped on a program, it will run the desired program and follow the timed curve setting.** Each program mode has its own customizable 24 hour timed curve setting except for mode "Instant". Instant mode does not run a curve setting. It keeps the light constantly on and adjusts to the programmed channel intensity. The light will display this customized spectrum until another mode is selected or spectrum is changed in Instant mode.

Program Mode Cycle

Remote Control Overview

On/Off

- Turns the light and controller on and off

Menu

- Brings up the controller's menu items
- Backs out from any program screen

OK/Edit button

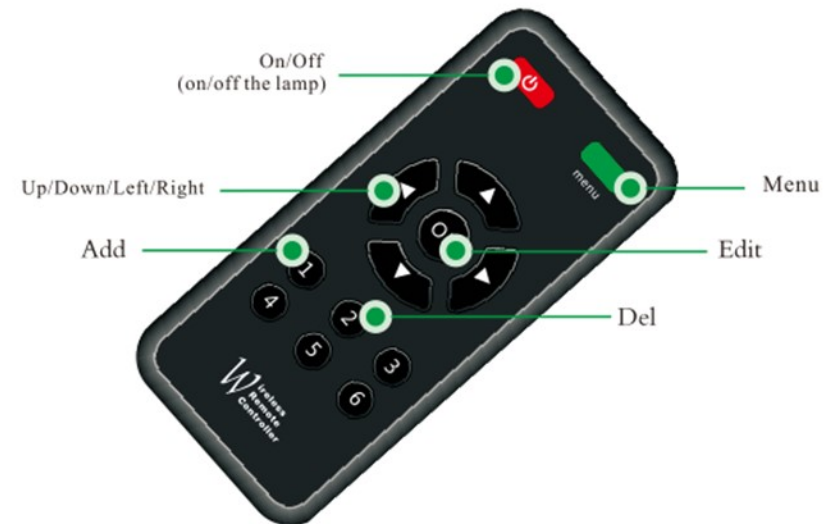- Confirms selection of items in controller

Arrow buttons

- Control the movement up, down, left and right to scroll through items in controller menu, selects items

Number buttons

- Only used for additional selection functions in controller menu. E.g. Add and Delete items from program mode.

2 Remote controller
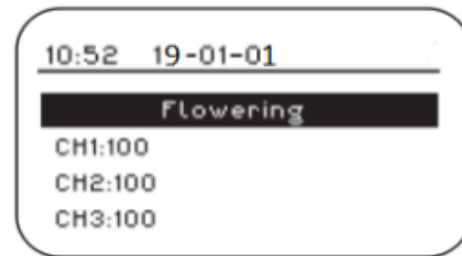
CONTROLLER OPERATION OF LIGHT

(see diagrams for controller displays)

- To cycle through the program modes to enter settings, press "menu" button to enter the menu screen, then highlight program mode setting and select it with "right arrow" button. Use "right arrow" button to cycle though programs and stop at "INSTANT"
- Once the INSTANT mode shows on the display, use the "up/down arrow" buttons to scroll through CH1-CH2-CH3.
- Once a channel is highlighted, use the right and left arrow buttons to edit and increase and decrease the spectrum intensity from 0-100%.

  NOTE: if set to 0 (zero) then that channel will not be visible during unit operation

3 **Menu Operation**

Step 1: Press menu to enter the mode Setting.

```
10:52   19-01-01

     Flowering

CH1:100
CH2:100
CH3:100
```

Press " ▶ " key
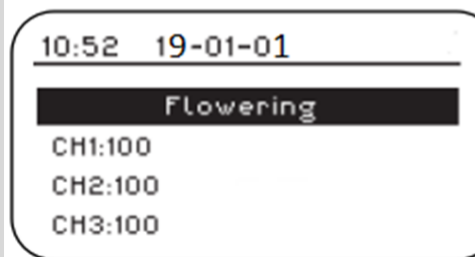
→ Mode Setting
  Adaption   Off
  Flashlighting   Off
  Level 1 Temp.   Off
  Level 1 Bri.   50
  Level 2 Temp.   Off
  Level 2 Bri.   50
  Temp. Unit   C
  Clock Setting
  Lcd Contrast   102
  Factory Default

Step 2: 1. First press menu to enter the mode Setting, then press " ▶ " button to enter Instant mode.

2. Press "▲" "▼" button to select CH1/ CH2/CH3. Press " ▶ " button to add the percent and "◀" button to decrease the percent.

```
10:52   19-01-01

     Flowering

CH1:100
CH2:100
CH3:100
```

Press " ▶ " key

→ Mode   Instant
  CH1   50
  CH2   50
  CH3   50

*You can use the "menu" button to back out of any program screen.
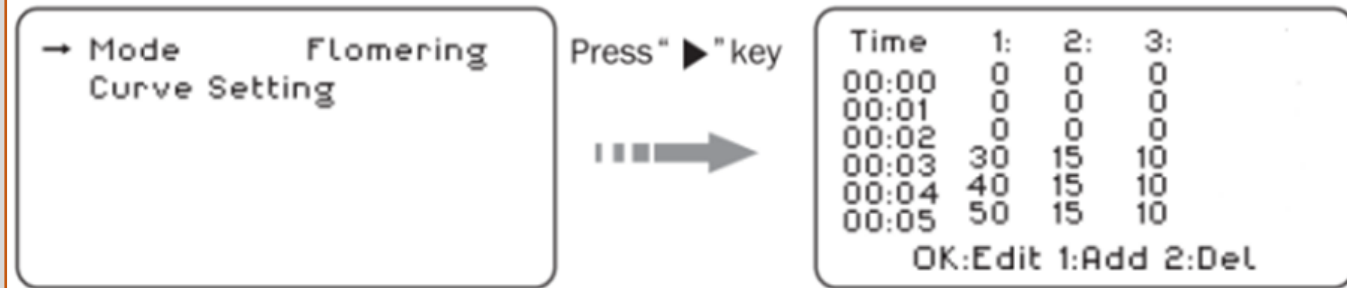*Instant mode does not run a curve setting. It keeps the light constantly on and adjusts to the programmed channel intensity. The light will display this customized spectrum until another mode is selected or spectrum is changed in Instant mode. This program mode cannot be programmed to any time set points and directs the light to output the current spectrum programed.

CONTROLLER OPERATION OF LIGHT

- Use same procedure to cycle through program modes, to set. Stop at desired program to edit, scroll down and press "right arrow" button select curve setting.
- Use the "up/down arrow" button to scroll through time points of curve setting. Use the "OK/EDIT" button to edit any time point.
- Once editable, each time point's time will be highlighted. Use "left/right arrow" buttons to cycle trough time and channels and "up/down arrow" buttonsto adjust each parameter. Press menu to back out.
- You can set up to 24 individual time points using 24 hour clock format.
- You can add and delete time points. Button labelled "1" will add a new time line item and button labelled "2" will delete any selected line item. Set as many time points as desired (up to 24).

Step 3 : Press "▼" button to select Curve Setting item, Press "▶" button to enter set configuration.

```
→ Mode        Flomering        Press "▶" key        Time    1:  2:  3:
  Curve Setting                                      00:00   0   0   0
                                    ▮▮▮➡               00:01   0   0   0
                                                      00:02   0   0   0
                                                      00:03  30  15  10
                                                      00:04  40  15  10
                                                      00:05  50  15  10
                                                           OK:Edit 1:Add 2:Del
```

1. Press OK to enter time area, then press "▲" to add the percent and "▼" button to decrease percent. Press "1" button to add a new time list, the minutes area will be the next minute of the selected time. Press "2" button to delete selected time.

2. First press "OK" button to enter time area, then press "◀" "▶" button to select 1/2/3 , and press "▲" "▼" button to change percent.

3. The first row of the time list is 00:00 (can not be adjusted)

*Prior to setting program, please ensure your clock has been set (see OTHER SETTINGS below). After setting curve time points, your light will adjust to the specific power and spectrum at the specified time. It will follow the time curve of the program set.
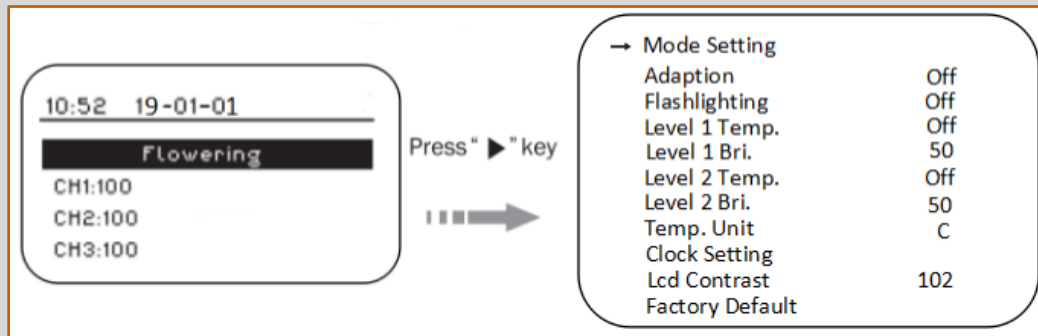
*These instructions are for the standard controller. If you have requested a Sun & Moon controller, please note that power and spectrum will ramp during the time between one time point and the next. It will not instantly change from one setting to the next as with the standard controller.

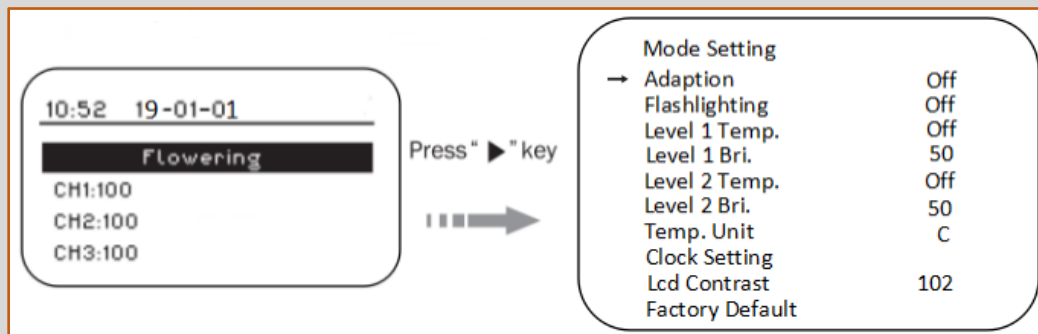*There are 7 programs modes including INSTANT, see diagram at the beginning of this section

THERE ARE SEVERAL OTHER SETTINGS THAT YOU CAN USE TO CUSTOMIZE YOUR GREEN AMBER LED-ONE LIGHT
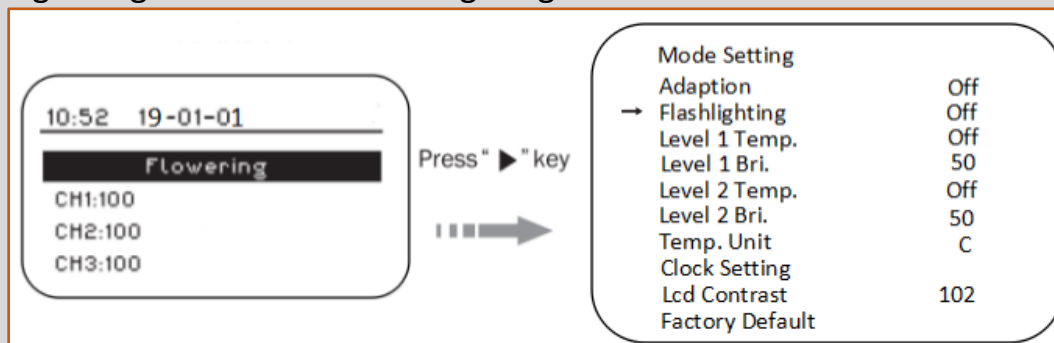**Please familiarize yourself with the following:**

Mode Setting: from main display press "menu" button to enter the main menu screen.

Adaption: Scroll down and press ▶ button to turn on or off. This setting is for a low power usage of light that reduces intensity.
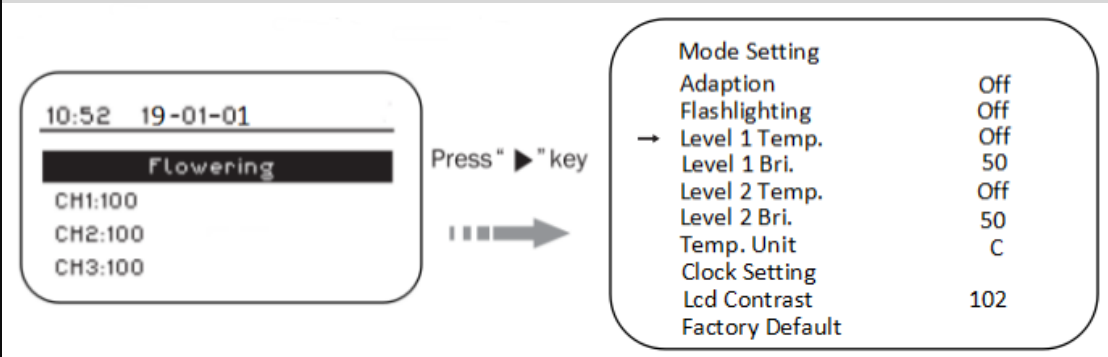

Flashlighting: Scroll down and press ▶ button to turn on or off. Use flashlighting if you are operating in a area where there might be exposure to lightning or similar extreme lighting occurrences.
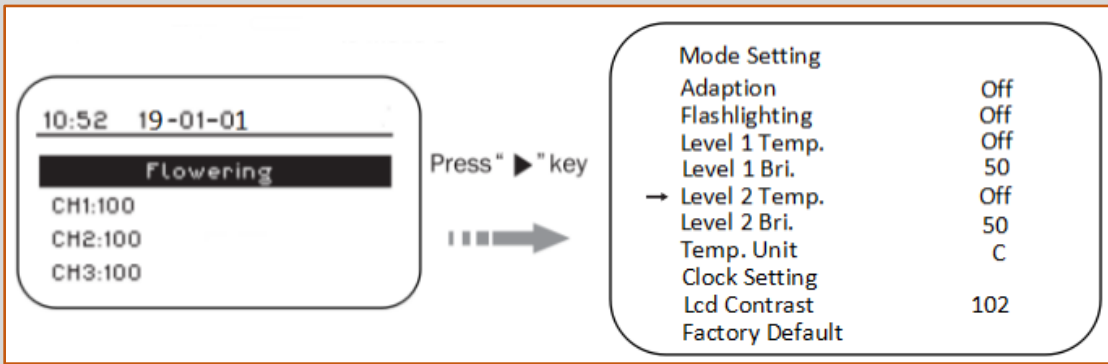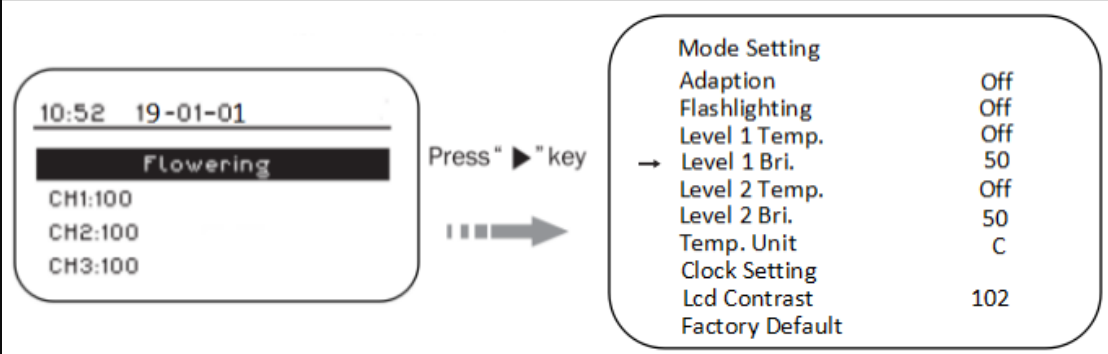
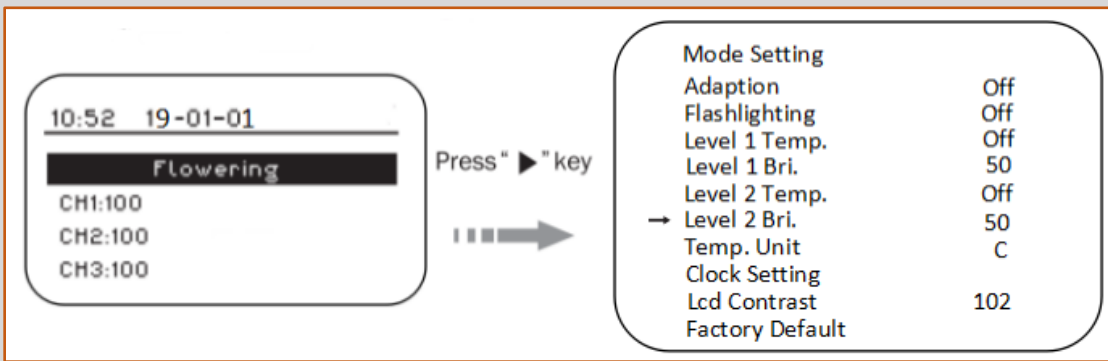Level 1 Temperature.: Press ▶ button to set the temperature you need.

Level 2 Temperature: Press ▶ button to set the temperature you need.

Level 1 Brightness.: Press ▶ button to set the brightness you need.

Level 2 Brightness.: Press ▶ button to set the brightness you need.

THESE FUNCTIONS CAN BE USED TO AS SAFETY FEATURES. If LEVEL 1 is turned "on" and set; if the temperature measured by sensor reaches the set level, light will dim to specified intensity. If LEVEL 2 turned "on" then the light would turn off if the temperature measured by the sensor reaches the set level. LEVEL 1 is the lower temperature level, Level 2 is the upper temperature level. Only use this functionality if you have room temperature concerns, turning on these features *supersedes* any of the program modes if conditions are met.

Temperature Unit: Press ▶ button to set the temperature unit you need


```
10:52   19-01-01
    Flowering
CH1:100
CH2:100
CH3:100
```

Press " ▶ " key

```
Mode Setting
Adaption            Off
Flashlighting       Off
Level 1 Temp.       Off
Level 1 Bri.        50
Level 2 Temp.       Off
Level 2 Bri.        50
→ Temp. Unit        C
Clock Setting
Lcd Contrast        102
Factory Default
```

Clock settings:

Press ▶ button to change the items, press ▲ ▼ button to change the value.


```
Mode Setting
Adaption            Off
Flashlighting       Off
Level 1 Temp.       Off
Level 1 Bri.        50
Level 2 Temp.       Off
Level 2 Bri.        50
Temp. Unit          C
→ Clock Setting
Lcd Contrast        102
Factory Default
```
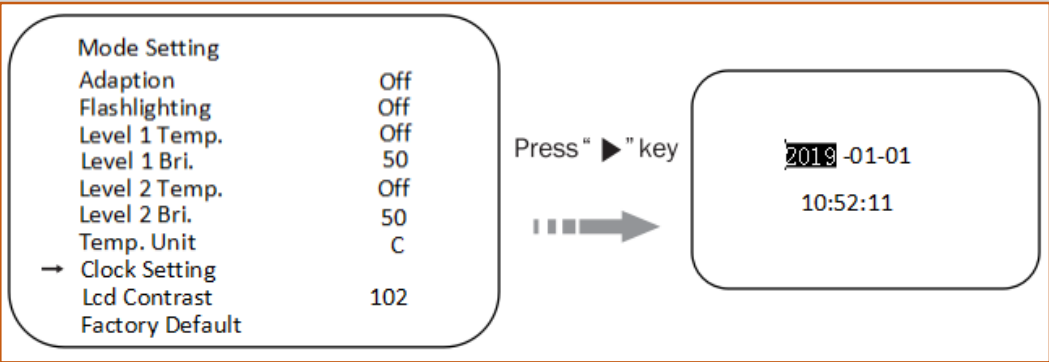
Press " ▶ " key

```
2019 -01-01
   10:52:11
```

To set to Factory default settings: ▲ ▼ to select option


```
Mode Setting
Adaption            Off
Flashlighting       Off
Level 1 Temp.       Off
Level 1 Bri.        50
Level 2 Temp.       Off
Level 2 Bri.        50
Temp. Unit          C
Clock Setting
Lcd Contrast        102
→ Factory Default
```

Press " ▶ " key

```
→ No
  Yes
```

Lcd Contrast: Press ▶ button to add or press ◀ button to decrease.


```
10:52   19-01-01
    Flowering
CH1:100
CH2:100
CH3:100
```

Press " ▶ " key

```
Mode Setting
Adaption            Off
Flashlighting       Off
Level 1 Temp.       Off
Level 1 Bri.        50
Level 2 Temp.       Off
Level 2 Bri.        50
Temp. Unit          C
Clock Setting
→ Lcd Contrast      102
Factory Default
```

6 – Maintenance and Operation

GENERAL: Natural heat convection removes heat generated from light unit away from the unit. This unit does not require cooling mechanisms. In order for the system to not overheat, it is recommended to maintain at least three (3) inches of space between the driver box and any ceiling or mounting surface. This is to allow air to pass through to avoid overheating and shut down of the light unit.

GENERAL: Light bars should always be facing downward for effective light coverage. Ratchet cords on each end should be at equal lengths to ensure the driver box and LED bars stay level for equal coverage of downward light. It is suggested to adjust ratchets using a levelling tool

CLEANING: To ensure optimal operation of your LED-ONE you should routinely check for and remove excess dirt, dust, debris, and material build up on surface, driver box and LED bars. Cleaning should always be done with the fixture unplugged from its power source. The controller and cables should also be disconnected. To clean light safely and effectively it is recommended to unhang light and clean in an open area. Cleaning should be done with low-pressure compressed air or damp rag, being careful not to wet plugs or connecter ends.

CLEANING: When cleaning LED bars, limit the amount of touching to the diodes. Abrasively scrubbing, touching or use of harsh materials may damage the LED bars, components and diodes. Do not use any detergents or solvents to clean the bars.

GENERAL: Do not connect light to any power source that does not have adequate capacity to meet the electrical specifications of your light. Doing so will result in permanent damage to the light and performance malfunctions and will void any warranty. Ensure that all extension cords or other extension units can handle the power load required. Please consult an electrical professional to confirm your safe operation.
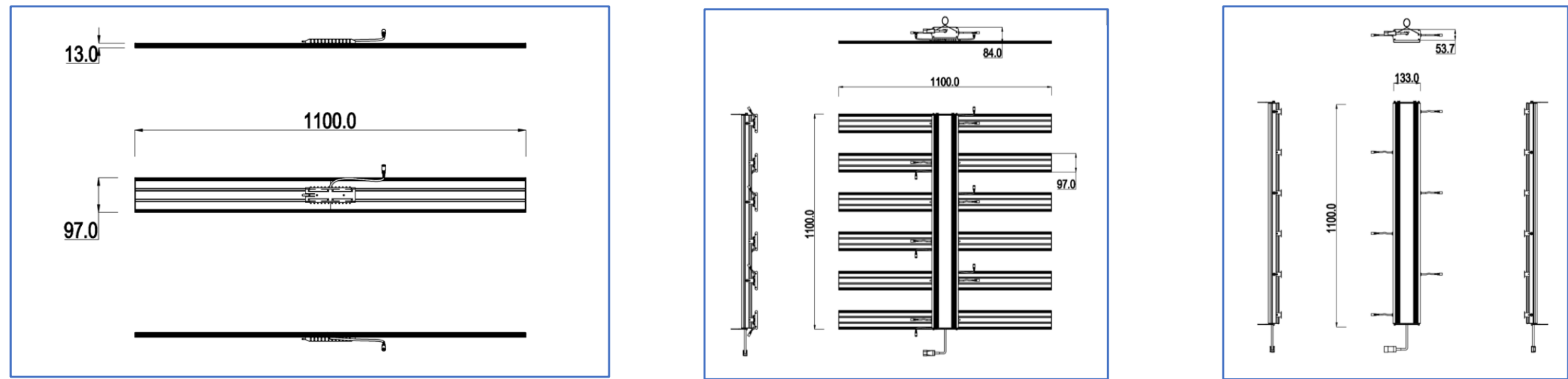
GENERAL: Light is to be used indoors or in greenhouse environments only.

GENERAL: Light is rated IP65. Do not use this device if relative humidity exceeds 90%.

DIMENSIONS: 1110 mm x 1100 mm x 84 mm (44" x 44" x 3.5")

Light Bar 1110 mm x 97 mm x 13 mm (44" x 4" x 0.5"), Driver Box 1110 mm x 113 mm x 53.7mm (44" x 4.5" x 2.1")

COVERAGE AREA: 25- 30 sq.ft.   OPERATING TEMPERATURE: -20 ° C ~ 40 ° C   ILLUMINATION ANGLE: 120 ° degrees   WEIGHT: 20 kg(44 lbs)

INPUT SERVICE POWER	110-220 Volts	220-277 Volts
WATTAGE	760 w	725 w
AMPERAGE DRAW	6.5 A	3.3 A
OPERATIONAL FREQUENCY	50/60 Hz	50/60 Hz

Photosynthetic Photon Flux: 2050 μmol/s PPF

ENERGY EFFICIENCY: 2.8 μmol/J per watt

Storage temperature: -40 ° C ~ 80 ° C   BTU output: 2080   CCT Range (k) 1,000-10,000

Ratings: IP65, UL, CE, RoHS, DLC Listed

*Specifications will vary in customized fixtures. consult with Green Amber for accurate specifications.

8 – Safety Precautions

1. Before putting this device into operation, please read this manual carefully. Consider all safety instructions in order to avoid damage which may be caused by improper use.
2. If any of the use, assembly or installation is conducted by a third party, ensure they receive a copy of these instructions in advance.
3. Do not expose the lights to physical harm such as impact or severe environmental conditions.
4. Ensure when hanging light all hanging points are secure and they can support the 20 kg (44 lbs) weight of the light.
5. There will be no warranty coverage for possible damage due to improper use or incorrect handling.
6. Never allow children or irresponsible people to use electrical appliances without supervision, they will not be able to recognize the dangers associated with improper use.
7. Never try to repair the device yourself. There is a risk of electric shock.
8. In the event of any issues, contact Green Amber directly. Never attempt to repair the light yourself.
9. Do not submerge the device in water or any other liquid.
10. Never get any plugs or connectors wet. Never touch plugs or connectors with wet or damp hands.
11. Avoid damaging any cords by crushing, kinking, or rubbing against sharp edges. Do not use if cord gets cut or broken.
12. When installing the device, ensure that the power outlets are properly grounded and have adequate power capacity. If you are using any extension cords or adaptors, please ensure they meet the electrical specifications of the unit. If you are in doubt, please consult with an electrical professional.
13. Ensure cords are kept where they cannot be interfered with, pulled or tripped over.
14. Do not pull on the power cord to unplug the device. Do not wrap the power cord around the device.
15. If a power cord is damaged, it must be replaced by or on advice of the manufacturer.
16. LED grow lights can cause eye damage. Avoid looking directly at the lights when they are on. Use shielding and light blocking glasses to protect your eyes.
17. If There are any questions with this manual please contact info@greenamber.ca