

# Lighting control

## Easy. Safe. Flexible. Sexy.



## Gavita **Master** controllers

# Are you in

## Gavita Master controllers

Dimmable electronic ballasts have been around for many years now. They offer flexibility when you need lower light intensities, for example during the vegetative phase or when climate conditions are so extreme that a healthy climate is hard to maintain. Moreover they can be boosted to optimise lamp performance and efficacy. Unfortunately it is not always easy to adjust multiple ballasts, or be there at the right moment when you need to dim your lights. Another problem is the high current that ballasts require when switched on at the same time (the inrush current). You need elaborate contactor equipped switchboxes to switch your ballasts on and off.

The Gavita **Master** controllers (in combination with suitable Gavita e-series ballasts) offer a solution for all these issues, even with a cost reduction when you look at larger climate rooms. Our e-series ballasts no longer require a switchboard to be switched on and off, and no longer need their own switch to dim or boost them. Now you can just touch a few buttons on your controller to be in complete control of all your connected ballasts at once. Our Master controllers do this, and much more!

## Functionality overview

### Easy installation

Installing the Master Controller is a breeze: it's a matter of plugging in, setting the dials of the ballasts to EXT (External control) and looping the low voltage control cord from the controller to your ballasts - all plug and play. Easy, safe and flexible.

### Clear interface

The five language interface is intuitive to use with just 5 buttons. In plain text you see all settings, warnings and statuses. For an easy overview we have added LEDs for each output channel, which indicate whether the lights are on, dimming or shut down due to a dangerous high temperature. The indication LEDs are supported by a full text warning on the high quality green OLED display.

### Replaces timers and contactors

You can plug your ballasts directly into mains outlets. You do not need any timers or contactor boxes any more: the ballasts are in stand-by mode and wake up when they get the signal from the controller. This means that you don't have any inrush any more when you switch on your ballasts. Just set the on/off time on the controller and you are good to go.

High quality green OLED display with 2 lines for full text menu, one line per channel.

Green power-on LED blinks to indicate power was interrupted.

Main and Aux output channels to control separate channels 12/12 rooms alternate

5 language menu system (English, French, Spanish, German, Dutch) with full text intuitive interface.

Fast microprocessor core with battery back-up for settings and system time.



### External Contactor Module (15A)

External Contactor Module (15A) with blue indication LED follows **lights-on** for main channel.

ECMs to switch CO<sub>2</sub>, fertigation, heating etc. during lights-on or lights-off cycle.



Cable outputs with female and male connector allow easy connection of accessories.

ECMs can be positioned for the actual access installation.

# Control?

Output: Use both  
to control one room or  
to control two  
alternating.

Blue LEDs indicates lights on.  
Separate LED for Main and Aux.  
Blinks on wiring error/overload.

Red LEDs blink on auto-dim and  
high temperature shutdown.  
Constant on to indicate history.



Durable aluminium housing,  
flush bracket to mount the  
controller to the wall. Scratch  
proof print on front plate.

5 button intuitive control:

- \* Quick-key for output level
- ▼ Down in menu / change value
- Enter Menu / enter
- ▲ Up in menu / change value
- ◀ Back in menu / cancel / reset

## Flexible switching

The EL2 controller offers you a main and an auxiliary channel which follow each other or work alternating. The latter is specifically for when you want to optimise your power utilization in the generative phase, running 2 rooms with the light alternating every 12 hours in two climate rooms. Easy and flexible.

## Dimming and boosting

Once you have connected your ballasts to the controller and set the on/off time you can set the output power centrally by the push of a few buttons. You can choose to have the output power displayed as a percentage or in actual output wattage of your ballasts. We even offer you a sunrise/sunset time setting in which the lamps ramp up or down at the start and end of the cycle.

## Autodim and safety shutdown based on room temperature

The Master controller is equipped with temperature sensors. Though we do not intend for you to use the Master controller as a climate controller, it can help you save your crop when temperatures in your room rise beyond your climate control capabilities. At a set temperature (normally a few degrees above your set ideal climate temperature) the Master controller will automatically dim your lamps, to prevent crop damage. In case of a complete ventilation failure or other calamity, when temperatures rise even more, the Master controller shuts down all connected equipment and activates the alarm contact.

## Switching auxiliary equipment

The Master controller has two outputs for optional External Contactor Modules (ECMs). These industry grade contactor units can switch a load up to 15 amps of accessories during either lights on or lights off period. Using the ECMs you can switch, for example, your humidifier, heating, CO<sub>2</sub> equipment and watering systems. As the ECMs are steered by a low voltage signal you can even locate them close to the accessories themselves, enabling easy installation and optimal flexibility.

## Available models

The Gavita EL controller series currently comprises of two models: The EL1 and EL2. Both feature auto-dim, auto-shutdown, sunrise/sunset and timer. The EL1 has one output channel, while the EL2 has 2 output channels and additional outputs for External Contactor Modules and alarm contacts. For one room without auxiliary equipment or alarm contacts, the EL1 is the best choice for you. If you require switched auxiliary equipment during lights on / off, alarm contacts and/or a 2 room 12/12 setup, the EL2 is most suitable.

Positioned close to  
accessories for easy

Cage clamp connection for  
control cord allows easy  
installation.



External Contactor Module (15A)  
with blue indication LED follows  
**lights-off** for main channel.

Contains industrial contactor,  
suitable to power 15A loads or to  
power trigger input.

## Inputs & Outputs



Low voltage power supply input, universal adapter for 120-240V.

Accurate temperature probe for Main channel, 15' cord. Failure and disconnection detection.

Control cord for **Main** ballasts. Modular jack connection allows plug and play installation.

Cage clamp connectors for **External Contactor Modules**. Safe low voltage connections.

Cage clamp connectors for alarm contacts: both normally open and normally closed.

Accurate temperature probe for Aux channel, 15' cord. Failure and disconnection detection.

Control cord for **Aux** ballasts. Modular jack connection allows plug and play installation.

Controller Specifications	Gavita Master EL1	Gavita Master EL2
24 hour timer (on/off)	✓	✓
Set output level	50-115%	50-115%
Select ballast type	400/600/750/1000W	400/600/750/1000W
Show output as W or %	✓	✓
Auto-dim at set temp	✓	✓
Auto shutdown at set temp	✓	✓
Sunrise / sunset period	✓	✓
Outputs	1 (main)	2 (main/aux)
Temperature sensors	1 (main)	2 (for two rooms 12/12)
Number of ballasts per output	40	40
Total number of ballasts	40	80 (either in one room or 2x40 in 12/12)
Alarm contacts NO/NC	-	✓
External Contactor Modules (ECM)	-	2 optional
Warranty	3 years	3 years

### ECM Specifications

Voltage	120-240V
Current	15A AC3
Switch type	DPST (Double pole, single throw)
AC terminals	Male and female plug (depending on market and voltage), 40 cm / 1' 4" cords
Steering Input	Low voltage from controller, cage clamps
On-indication	Blue LED
Warranty	3 years