

Light Eco® Plus - Installation & User Manual

Mounting

The ecoBright® Light Eco® Plus energy controller can be mounted vertically, horizontally or ceiling mounted.

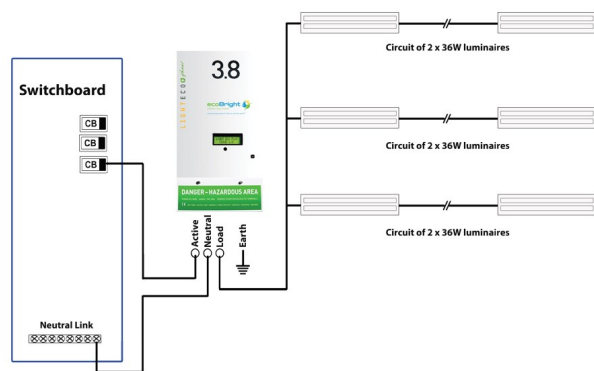
The energy controller must have adequate ventilation and ***should never be mounted upside down.***

When energy controllers are mounted in rows the following ***minimum separation*** between units must be observed:

Horizontal space between units **50mm**

Vertical space between units **100mm**

Typical Connection for well loaded lighting circuits



Operation

The Light Eco® Plus energy controller is fully automatic and requires no user operation to perform its intended task of saving more than 25% of the lighting power on the circuit(s) it is connected to.

Fluorescent lighting requires high power to start up and only a short time to reach optimum temperature and light output. Light Eco® Plus is configured to safely and effectively reduce power to fluorescent lamps, with minimal impact on light performance whilst saving more than 25% of power.

Light Eco® Plus is a microprocessor driven energy controller, that permits lamps to reach optimal temperature and output and when conditions are appropriate, switches to economy mode and automatically reduces power to the lamps.

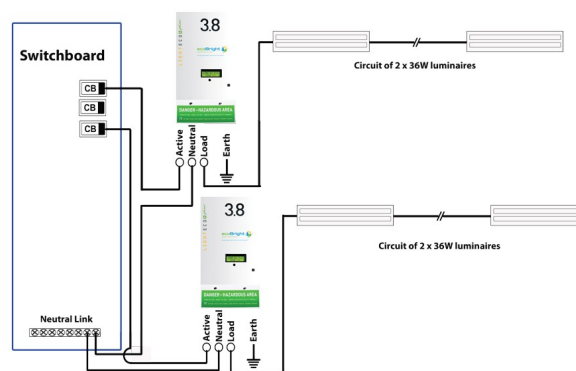
Whilst in economy mode Light Eco® Plus constantly monitors the power and returns to full power mode if required. Full power mode is typically engaged when additional lamps are turned on or if a critical drop in supply power occurs; full power mode can also be engaged manually as required for lamp maintenance tasks.

Electrical Connection

Connections to Light Eco® Plus are made at the terminal block under the small cover at the base of the unit. Any competent Electrical Contractor can connect Light Eco® Plus to lighting circuits, before connecting however, all lighting circuits must be measured for current (Amp) load with all lights operating normally. The maximum load permitted for each Light Eco® Plus unit is:

- Light Eco® Plus 2.4 - 9 (nine) Amps
- Light Eco® Plus 3.8 - 14 (fourteen) Amps
- Light Eco® Plus 4.8 - 18 (eighteen) Amps

Typical Connection for lightly loaded lighting circuits where some circuits can be combined



Technical Information

Input: 220-240VAC 50/60Hz

Output: Full power timer programmable to suit all types of discharge lighting. Set to saving 28% of full power.

Continuously monitors supply voltage. Switches out of economy when main voltage drops by 10%.

Continuously monitors the current. Senses load change, switches out of economy mode when additional load is added to enable easy lamp striking for new load. Min. load required: 1 amp.

Dynamic LCD Display. LCD display shows status of controller and actual savings.

Bypass function. Manual bypass to full power to allow lamp maintenance. Automatic return to economy mode after 60 minutes.

Programmable. Optional USB port allows selected operating parameters to be changed by qualified technicians.

Data store and retrieval. Last 20 operations stored and retrievable through optional USB port.

Overload protection: Bypass to direct mains supply if KVA rating is exceeded.

Environmental Operating Range:
Temperature -15°C to +50°C

Product Identification & Facts:

Light Eco® Plus 2.4

Part No.: 22001240

Load: 2400 VA Weight: 5.5kg (14lbs)
Suggested maximum loadings:

36W	40W	58W	65W
40 lamps	36 lamps	24 lamps	20 lamps

Light Eco® Plus 3.8

Part No.: 22001380

Load: 3800 VA Weight: 7kg (15.6lbs)
Suggested maximum load:

36W	40W	58W	65W
60 lamps	54 lamps	42 lamps	30 lamps

Light Eco® Plus 4.8

Part No.: 22001480

Load: 4800 VA Weight: 7.5kg (19.5lbs)
Suggested maximum load:

36W	40W	58W	65W
80 lamps	70 lamps	56 lamps	40 lamps

Installation & User Manual (Continued)

User Display

The Light Eco® Plus HID-XLR energy controller has an LCD display mounted on the front panel that gives an immediate indication of its operation and energy saving. The following information is a summary of the display output along with information on what each output means:

Condition	Display	Description
Lamps off	Lights Off	Lamps are off and unit is in standby
Lamps switched on New lamp load After bypass or programming	Warm Up 230 V, 11 A, 2.0kW	Lamps have just been switched on and are warming up. Unit is in full power mode. Volts, Amps and Power (in kW) values are displayed.
Economy	Eco Saves 18% 210 V, 9.9 A, 1.7kW	Unit is in economy mode. Volts, Amps and Power (in kW) values are displayed.
Supply voltage too low	Low Mains Voltage	Unit has detected a critical drop in mains voltage. Unit is in full power mode. Volts, Amps and Power (in kW) values are displayed.
Overload	Overload (flashing) 245 V, 21 A, 4.1kW	Unit is in full power safe mode. Circuit breaker on lamps is likely to trip.
Bypass switch activated	Bypass Mode 43 minutes	Unit has been commanded into Bypass Mode for lamp maintenance. Unit is in full power mode. Unit will return to economy mode in 43 minutes.

Bypass Function

The ecoBright® Light Eco® Plus energy controller is fitted with a switch that when operated, commands the unit to full power mode for a preset time period. The main purpose of the bypass feature is to enable lamp maintenance and lamp changing to occur with lamps operating at full power or when full light output is required.

Factory preset time is 60 minutes and a countdown timer is displayed to indicate time remaining. At the end of the time period, Light Eco® Plus checks the lighting system and if operating conditions are suitable, it resumes economy mode.

Should an operator wish to resume economy mode before the countdown timer runs out, pressing the bypass switch a second time will cause the Light Eco® Plus energy controller to commence the 90 second cycle to return to economy mode.

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