

# ECO Spot™ Control Module – User Manual

## Version ES-CM1.b

### Description

The ECO Spot Control Module is an optional module that is designed to add dynamic functionality, such as dimming, blinking, fading, and motion sensing to ECO Spot gobo projectors. The integrated motion sensor (PIR Sensor) can be configured in a wide range of modes. The module connects to line power and to the projectors' LED driver control inputs.

### Functionality:

- **Static mode:** ON, DIM, OFF
- **Dynamic modes:** Fading, Strobing, Flashing
- **Sensor modes:** The motion sensor and AUX input can be programmed to switch from any static or dynamic mode to any other static or dynamic mode.

For a full list of functions, please see the Function Table.

### Supported Projectors:

All ECO Spot projectors with drivers, that have an accessible DIM+/- input, such as:

- ECO Spot PCE-Series 40/60/90/150/300PCE
- ECO Spot Line Projectors EL 80/150
- ECO Spot Exterior 40E/60E/90E/300E
- ECO Spot Interior 90/150/300

**Note:** The DIM+/- input may be optional for some models

### Connections:

**Power:** The included power supply connects to AC power.

**Control Connector:** The module connects to the 1-10V input of select ECO Spot LED drivers via pre-installed connectors.

### AUX Connector:

Besides the Integrated PIR motion sensor, the module has an optional input for an external auxiliary contact. This allows utilizing external motion sensors or switches instead of the internal PIR sensor. Set the manual "**Trigger**" switch to **AUX Input**.

### AUX Connections:

To connect a **potential free** contact or switch, use Pins 1 + 3

To apply an **external voltage**, use Pin 2 (Gnd) and Pin 3 (0-42V).

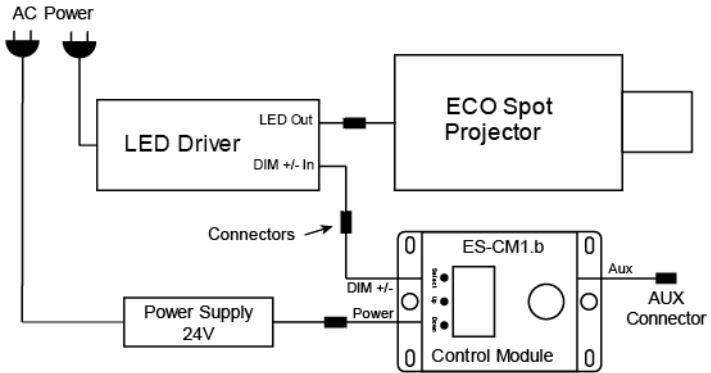
To **power an external sensor**, use Pin 1 (+24V) and Pin 2 (Gnd). Max current: 0.5A.

## Function Table

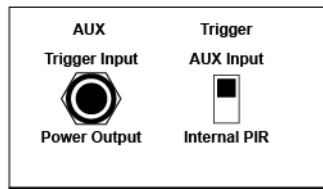
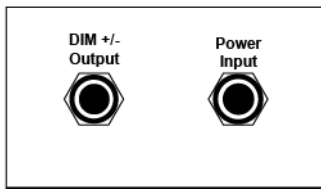
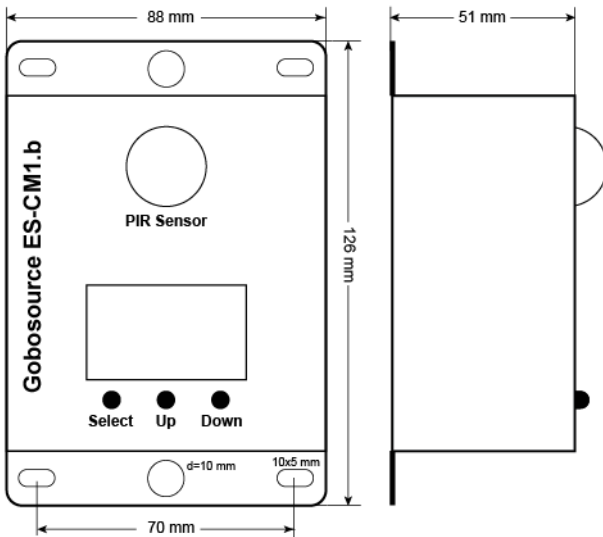
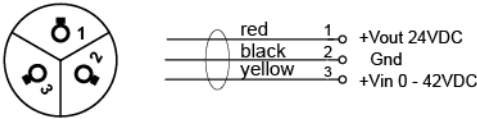
The table shows the functions that can be configured from the control panel.

**When done, move the cursor to a position that determines the operation mode as shown in the 1<sup>st</sup> column).**

Cursor Position	Mode	Display/Range	Function		
Cursor Positions for <b>Preset Mode</b> Only	<b>Preset Mode</b> Set the dynamic default function	PRO 01–03	01: Fade IN/OUT 02: Strobe 03: Blink		
	<b>Mode Speed</b> Set the speed of the dynamic default function	SPD 01–10	01: slowest speed 10: fastest speed		
Cursor Positions for <b>PIR/AUX</b> Contact Modes Only	<b>Motion Sensor/AUX Operation Mode</b> Select the functionality when the sensor and AUX input are enabled	IRM 01–11	<b>Sensor/Contact Status</b>		
			<b>#</b>	<b>not triggered</b>	<b>triggered</b>
			01	OFF	ON
			02	OFF	Preset Mode
			03	OFF	FADE to ON
			04	ON	OFF
			05	ON	Preset Mode
			06	ON	FADE to OFF
			07	DIM	ON
			08	DIM	Preset Mode
			09	DIM	OFF
	10	Preset Mode	ON		
	11	Preset Mode	OFF		
n/a	IRF 01–10	n/a, this setting is ignored			
<b>Sensor/AUX ON Time</b>	IRD 03–60	Time, that the sensor stays triggered in seconds			
<b>Sensor/AUX ON/OFF</b>	IR ON/OFF	IR Sensor and AUX Contact enable/disable			
<b>DIM Only</b>	<b>DIM Level</b> In static or dynamic mode	LUM 0–255	0: OFF – 255: Brightest		
	<b>Backlight ON Time</b>	BLK 03–30	Set the display backlight on-time between 3 and 30 seconds		



**AUX Connector Pinout**



## Functionality

### Control Panel Menu:

- **Cycle** through the functions with the **UP** and **DOWN** buttons.
- **Select** a value with the **SELECT** button.
- Change the value with the **UP** or **DOWN** button. The value is applied immediately.
- Press **SELECT** again to go back.

### Setting the Operation Mode:

Once all parameters are set, move the cursor to a position that determines the operation mode, as shown in the 1<sup>st</sup> column of the Function Table.

## Selecting Function Modes:

### Constant Fade, Strobe, or Blink Function w/o Trigger Input:

- from the Menu, set “**IR**” to “**OFF**”
- Place the cursor in the “**PRO**” position

### Triggered Fade, Strobe, Blink, On/Off Function:

- from the Menu, set “**IR**” to “**ON**”
- Set the Trigger selector switch to either “**Internal PIR**” or “**AUX Input**”
- Place the cursor in the “**IRM**” position

### Dim Mode Only:

- Place the cursor in the “**LUM**” position

If the PIR sensor or AUX contact is triggered, the module enters the status selected in “**Sensor/Contact Status - triggered**” in the Function Table. Once the contact is opened, the module will keep the status for the time specified in “**Sensor ON Time**” and then fall back to the “**Sensor/Contact Status - untriggered**” status.

## Specifications

### Input Voltage:

Power supply (included): 100-240V, 277V, 47-63Hz, 10W  
DC in: 24V, 60mA

### AUX Supply Power:

24VDC, 0.5A (power supply for external sensors)

### AUX Trigger Input:

Potential free switch or 0-42VDC

### Motion Sensor:

Passive infrared (PIR) sensor, approx. range: 24ft, 45deg lens angle. (Use external motion sensor for mission critical applications.)