

# Freelite™

Models: PVB800-BL, PVB850-BL, PVB809-BL, PVB859-BL

## KEA LED Solar Bollard Lights with microwave sensor Installation Instructions



### ENSURE YOU READ THE INSTRUCTIONS FULLY BEFORE COMMENCING INSTALLATION.

These lights offer you control over your lighting preferences boasting 6 different lighting mode options. The light, photovoltaic panel and battery with Energy Management System (EMS) are all in one, with a Remote included to set the lighting modes. Use in areas where light is needed and where you wish to reduce light pollution, or additionally in special habitats where you want to protect wildlife in your area choose the wildlife option.

### LOCATION OF INSTALLATION

For best results your PVP panel should be exposed to as much direct sunlight as possible. When positioning the light, account for objects that may cast shade for example fences and trees. In winter, the sun sits lower, and days are shorter, so ensure the PV panel has clear exposure to maximize battery charge during shorter days.

The microwave sensor detects vibration changes, triggering the light. To avoid unwanted activation, carefully choose the bollards location, avoiding areas near occupied buildings or air conditioning unit motors etc, which may set off the sensor.

## PREPARATION BEFORE INSTALLATION:

Before unpacking the light, prepare a soft, clean surface like cardboard to avoid damage from harsh surfaces like concrete.

Unpack and inspect the contents for damage.

Switch On by pushing the **ON** button on the remote control.

To test, cover the photovoltaic panel with a towel (or similar) or take the bollard into a dark room to activate the light.

### Important:

This product can be charged while powered off. We recommend charging it for at least one full day with good sun exposure prior to activating the lighting function to ensure an optimal initial full charge.

## INSTALLATION:

Fasten the light vertically to a concrete path, a large paving slab, cast concrete plinth or decking using the baseplate provided. If placed in a garden, ensure it is placed in a raised area of the garden so that water does not pool around and damage the paint finish.

The bollards feature concealed mounting holes for theft prevention. They are assembled from three sections—baseplate, post, and lamp head—that are threaded together and secured with concealed tamper-resistant screws.

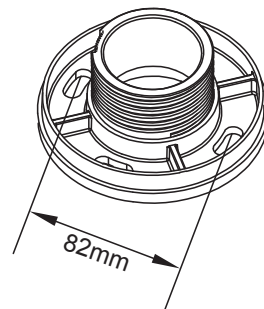
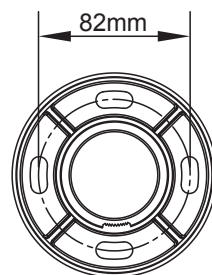
### Important:

Before fixing the bollard in place, position the fully assembled bollard and adjust its orientation to direct the light output as desired. Mark the position by placing a small piece of masking tape on the edge of the mounting base and a corresponding piece on the ground.

To ensure proper installation of the bollard, utilize the above described alignment method to correctly orient the mounting base when fixing it to the concrete with the bollard disassembled. Fasten securely through the 4 holes in the mounting base ensuring it is stable. Use fixings suitable for the substrate the light is being fixed onto.

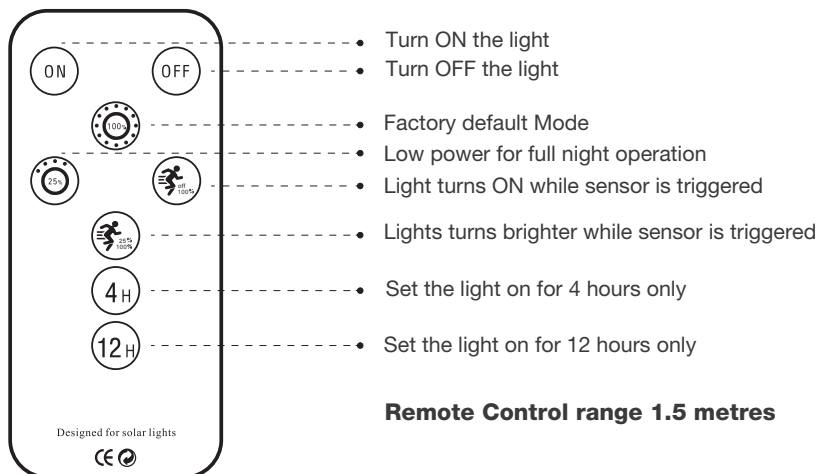
Once the baseplate is secured thread on the post and then the Lamp head to post. Securely lock in place with the small concealed grub screws with the small hexagon Allen key.

Bollard lights can be placed temporarily for checking light coverage but ensure they are stabilised, so they do not fall over and become damaged. For multiple bollards space them about 8 meters apart for continuous lighting.



## OPERATION:

To activate the lighting Function, use the provided remote control



**Remote Control range 1.5 metres**

### Remote control:

Factory default mode: The EMS energy management system gradually steps down the light level during the night to ensure a battery level is retained for subsequent nights with a similar lighting cycle. The EMS ensures the light is running throughout the whole night, it automatically turns the light on at dusk and turns it off at dawn.

### Sensor Modes:

When the microwave sensor detects movement, Light output will be boosted and stay there until there has been no movement for a period of 30 seconds.

### Remote control modes:

- The **ON** and **OFF** buttons are to force the Light ON or OFF
- The **100%** button sets the light to the default mode, on all night with gradual step-down program.
- The **25%** button sets the light to run at the reduced light output all night.
- The **off 100%** button, light is off, when movement is detected light turns on to full brightness.
- The **25% 100%** button, light is on at reduced light output all night, when movement is detected light turns on to full brightness.
- **4H** button 4 hours on, then off
- **12H** button 12 hours on, then off

For good battery autonomy over several days, especially over cloudy and short winter days, using one of the 2 sensor functions is preferable, use **off 100%** or **25% 100%** buttons.

## PRODUCT SPECIFICATIONS:

Model	PVB800 (180°)	PVB850 (360°)	PVB809 (180° wildlife)	PVB859 (360° wildlife)
<b>PVP Voltage</b>	5V Monocrystalline	5V Monocrystalline	5V Monocrystalline	5V Monocrystalline
<b>Battery Voltage</b>	3.2V LiFePO <sub>4</sub>	3.2V LiFePO <sub>4</sub>	3.2V LiFePO <sub>4</sub>	3.2V LiFePO <sub>4</sub>
<b>LED wattage</b>	1.5 Watts high output	1.5 Watts high output	1.5 Watts high output	1.5 Watts high output
<b>PV peak wattage</b>	6.2 Watts	6.2 Watts	6.2 Watts	6.2 Watts
<b>Battery Watt-hours</b>	38.4 Wh	38.4 Wh	38.4 Wh	38.4 Wh
<b>Colour Temperature</b>	2,800K	2,800K	Wildlife LED chip	Wildlife LED chip
<b>Measured Lumens</b>	265 Lm	270 Lm	238 Lm	243 Lm
<b>Battery autonomy</b>	2-3 days of cloud	2-3 days of cloud	2-3 days of cloud	2-3 days of cloud
<b>Dimensions</b>	900mmH x 275mmØ	900mmH x 275mmØ	900mmH x 275mmØ	900mmH x 275mmØ
<b>Microwave Sensor</b>	8M range, 360 degrees	8M range, 360 degrees	8M range, 360 degrees	8M range, 360 degrees
<b>Light beam angle Vertical Axis</b>	130 degrees	77 degrees	130 degrees	77 degrees
<b>Water Ingress Protection</b>	IP65	IP65	IP65	IP65
<b>Materials</b>	Aluminium and UV stabilised polycarbonate	Aluminium and UV stabilised polycarbonate	Aluminium and UV stabilised polycarbonate	Aluminium and UV stabilised polycarbonate
<b>Impact resistance</b>	IK10	IK10	IK10	IK10

## MAINTENANCE.

### Important:

Important: Rain will wash dust off from the PVP however other debris will need cleaning off periodically with soapy water and a soft brush to maintain battery condition.

If this product is not working and is still not working after referring to the info centre guide on [www.alphalighting.co.nz](http://www.alphalighting.co.nz) do not attempt to repair the fitting yourself – please contact Gartner Superlux Ltd for advice.

### Note:

The battery is a recyclable item, at the end of life ensure you dispose of the product responsibly.

Due to continuous design improvement, specifications are subject to change without notice.

**IMPORTANT KEEP INSTRUCTION SHEET  
IN A SAFE PLACE FOR FUTURE REFERENCE**