enLighten Zorro Unplugged

Installation Instructions

The Zorro unplugged is a solar light with an integrated battery and a microwave motion sensor. It can be set to work on a time controlled mode after sunset or activated via motion sensor. It will automatically switch on at dusk and switch off at dawn.

The average sunshine in dthe installation area should be above 4.0h/day to ensure full function of the light fixture. The fitting needs to be mounted in an area that does not have shadows on the solar panel. The fitting has to be recharged manually with a charger every 3 months if stored for longer periods. If the fitting is stored, ensure the battery is fully charged and the fitting is turned off. If two fittings are set to microwave sensor mode they should be mounted >5m apart to avoid microwave sensor interference. The light will dim to 50% when the battery charge is less than 40%.

General

- To ensure optimal working conditions for the light, ensure the solar panel is facing North.
- To allow for self-cleaning of the solar panel, solar panel must be mounted at a minimum angle of 15 degrees.
- Adjust the fixture angle to optimize the solar panel performance (see panel tilt angle section below for details)
- Adjust the LED panel to direct the light to the desired area (see page 2)
- At installation, point the remote at the fitting and press the ON/OFF switch (see picture on right)
- Check LED indicator on fitting during day time

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- Flashing red slowly: Fitting charging normally
 - Solid red: Fitting fully charged
 - Flashing red quickly: Charging problem
 - No indicator light: Battery level too low. Recharge with charger (see page 4)
- To test operation of the light, cover the solar panel (e.g. with a piece of cardboard). The LEDs should switch on within 30s.
- Select the operating mode of the light (see remote control section on page 3 for details)

Panel tilt angle

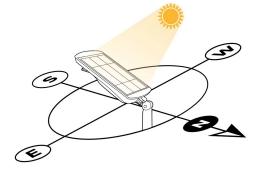
To achieve the best performance of the solar light, the tilt angle of the solar panel should be as close as possible to the following depending on the installation location.



Solar panel orientation

Orientating the solar panel so it faces North will ensure optimal charging.

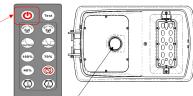
East or West facing solar panel can reduce charging of the battery by up to 30% in winter. The solar panel should not be facing South.



Settings guide

Setting	Application	Winter*	Spring, Summer, Autumn
20 – 80% sensor	Pathways, car parks, campgrounds	OK	OK
40 – 100% sensor	Pathways, car parks, campgrounds	Operates all night when sensor is triggered less than 70 times per night	ОК
Time intelligent mode	Area that has most activity during the first few hours of the evening (e.g. office car park, BBQ area, pathways)	ОК	ОК
Time intelligent mode (morning)	Area that has most activity during the first few hours of the evening and again early morning, e.g. pathways, office car parks	Light might not operate in the early hours of the morning	ОК
Constant 100%		Only with 4hr timer	4hr / 8hr timer recommended
Constant 70%	Where constant light is required	9hrs of light operation	ОК
Constant 40%		OK	OK

* Applies for installations where the solar panel faces North. East or West facing installations can reduce battery charging by up to 30% in Winte



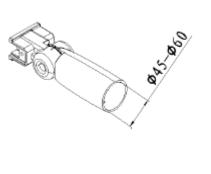
LED indicator

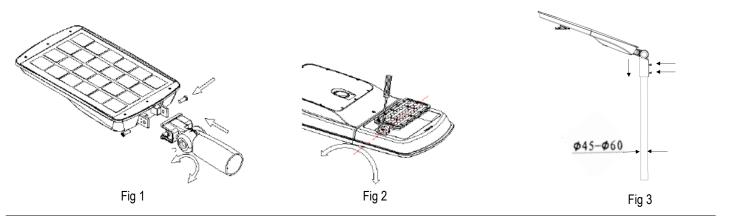




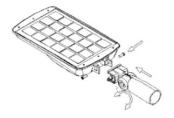
Installation

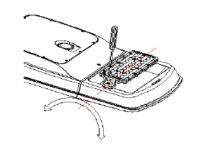
- Slip fitter (included in box) fits 45 60mm round poles
 - 1. Remove bolts from the attachment point of the light (fig. 1)
 - 2. Slide slip fitter over the attachment point on the light (fig. 1)
 - 3. Secure slip fitter to the light with the bolts (fig. 1)
 - 4. Adjust tilt angle of solar panel to achieve maximum solar exposure as mentioned on page 1 (fig. 1)
 - 5. Loosen screw on LED panel and adjust beam angle, then tighten to fix (fig. 2)
 - 6. Slip the slip fitter mount over pole. Tighten screws to secure to pole (fig. 3)





- Trunnion mount (optional extra)
 - * square hoop (part no. SSL-TRSQ, fits round pole 60-100mm diameter or square pole 50-100mm diameter)
 - * round hoop (part no. SSL-TRRD, fits round pole 50 120mm diameter)
 - 1. Attach the slip fitter to the back of the light fitting with the bolts provided (fig 1)
 - 2. Adjust tilt angle to achieve maximum solar expose as mentioned on previous page (fig 1)
 - 3. Loosen screw on LED panel and adjust beam angle, then tighten to fix (fig 2)
 - 4. Secure bracket to pole (fig 3)
 - 5. Alternatively, the bracket can be screwed straight onto a larger square pole (fig5)
 - 6. Slip the fitting over the bracket and tighten bolts to fix to bracket (fig 4 or 5)





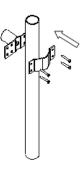


Fig 1

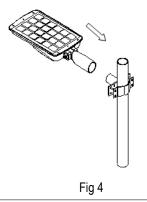
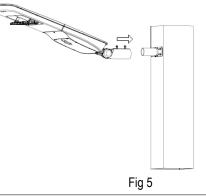


Fig 2

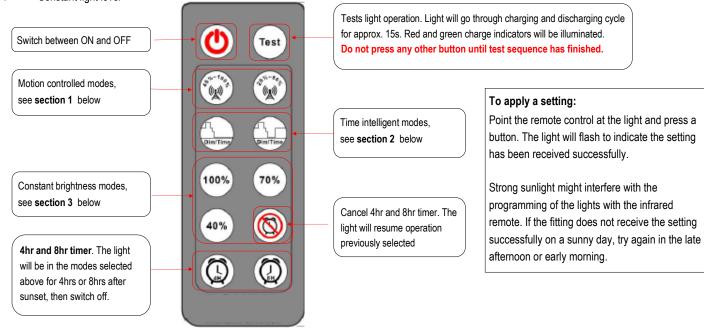




Remote control

The remote control can be used to set the settings on the Zorro Unplugged luminaire. There are 3 main modes available:

- Motion sensor mode
- Time intelligent mode
- Constant light level



1. Integrated microwave motion sensor modes

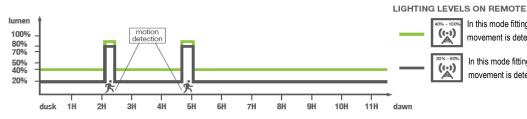
Factory setting: Motion sensor mode with 20% standby and 80% full light

Between dusk and dawn the light will switch on at standby level. When movement is detected, the light will switch to full light mode.

Once movement ceases, the light will dim to standby level. Ideal for pedestrian walkways and car parks.

Two modes are available: 40% standby to 100% brightness OR 20% standby to 80% brightness.

This is the preferred setting as it enables battery storage to be extended across several days to allow for low charging (cloudy) days.

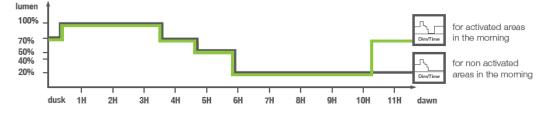


In this mode fitting will stay on 100% brightness for 2min after last movement is detected before dimming to the standby level of 40%.

In this mode fitting will stay on 80% brightness for 2min after last movement is detected before dimming to the standby level of 20%.

2. Pre-programmed time intelligent modes

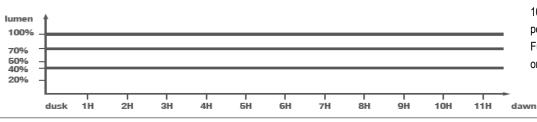
The time intelligent mode will switch the light on at 70% at dusk for the first 30min. The next 3 hrs the light will operate at 100%, then dim down to 70% for the next 1hr, then to 50% for a further 1 hour and then to 20% for the remainder of the night until dawn. It can be set to automatically switch to 70% before dawn to provide light if the area has activity before sunrise.



3. Constant brightness modes*

The light can be set to constant brightness during the night: 100%, 70%, 40%.

*Maintaining constant light levels at 100% throughout the night is only possible if the battery is fully charged. Full charging of the battery is unlikely on cloudy days or non summer periods.



Battery replacement and maintenance

In case of battery failure or end of life, the battery & controller can be replaced by following the steps below:

- Loosen the screws on the battery cover with a security torx screw driver
- Disconnect the inline connector to the solar panel
- Disconnect the inline connector to the LED panel
- Connect new battery & controller to the light by connecting the inline connectors
- Check that the rubber seal around the battery cover is in place
- Tighten screws on the battery cover

Indicators on the light fitting

Green indicator solid:

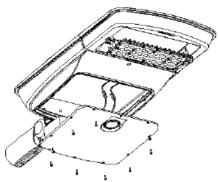
Green indicator flashing:

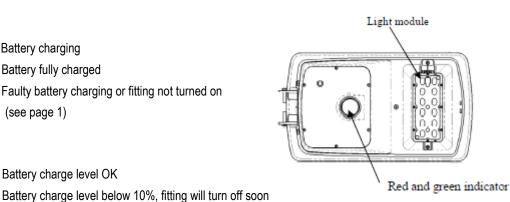
During the day

- Red indicator flashing slowly: Battery charging
- Battery fully charged Red indicator solid:
- Red indicator flashing quickly: Faulty battery charging or fitting not turned on

(see page 1)

Battery charge level OK





Technical data

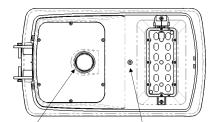
During the night

Model #	Lumen Output (Im)	Dimensions (mm)	Weight (kg)
SSL08-4K-TIII-GRY	1520	518 x 290 x 81	5.3
SSL20-4K-TIII-GRY	3800	680 x 420 x 94	9.8
SSL30-4K-TIII-GRY	5700	918 x 420 x 94	13.5

Charging the fitting manually with the charger

Please note: This is only required if the fitting is stored for longer periods or if the battery is discharged to a very low level

- Turn the fitting on with the ON/OFF button on the remote 1.
- 2. Connect the charger (order no. SSL-Charger) to the charging point on the light.
- 3. Plug charger into mains power
- 4. The red indicator LED will start to flash slowly.
- 5. When the battery is fully charged, the red indicator LED will stay lit.
- 6. Disconnect the charger.
- 7. If the fitting is charged before being stored, ensure to turn the fitting off with the ON/OFF button on the remote



Indicator LED

Charging point, DC 14.6V 4A Only use enLighten LiFePO4 charger

