



ENSA™

Energy Saving Devices

Solar system applications.

Go beyond solar lighting - add CCTV, WiFi, gate control & more.



The sky's the limit with solar power.

Featuring customisable motion detection and dusk/dawn sensors, SSL-B Series Solar Lights can be configured to satisfy a variety of street, area, security and other off-grid outdoor lighting applications. But they're not just useful for lighting.

Achieve more with solar-powered systems.

Being self-sustained and self-sufficient, the solar panel combined with its internal LiFePO₄ battery grants incredible flexibility, allowing the system to double as a 12/24VDC power source at any remote outdoor location with full sun exposure.

Create remote installations that power a wide array of electronic devices, including CCTV cameras, WiFi bridges, motorised gates, security devices and much more.

Applications



Off-Grid Lighting

Solar-powered lighting with motion detection, adjustable for street, area and security applications.



Solar IP CCTV Systems

Add network surveillance to any area of interest, with live viewing & footage playback via mobile app.



WiFi Range Extension

Extend your home/main office WiFi to remote locations, such as sheds, fields, barns, caravans, etc.



Remote Controlled Gates

Install an electronic motorised front gate without worrying about long distance power cables.



Self-sustaining lighting, anywhere.

SSL-B Series Solar LED Lighting with microwave motion detection.

The ENSA™ SSL-B Series solar panel and light is an excellent alternative to traditional, grid-connected lighting. As an entirely self-contained solution, each unit can be installed rapidly without expensive earthmoving equipment (for trench digging) or a licensed electrician (for grid connection).

Operation Modes

Schedule Only

Provide full brightness during a fixed period, eg. from dusk till dawn.



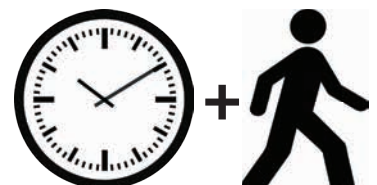
Motion Only

Display zero or reduced brightness normally, then full brightness when motion is detected.



Schedule and Motion

Display full brightness in peak hours (e.g. from dusk for 4hrs), then motion activation until morning.



Comparison to Traditional Lighting

ENSA™ SSL-B Series	Traditional Lighting
Simple pole mount installation	High installation cost (Trenching & 240V cable run)
Functional straight out of the box	Electrical license required for grid-connection
Self-sustained solar power	On-going electrical charges
When using motion detection: Reduce battery usage and increased LED lifetime	Using fixed schedule: Higher energy use and reduced light lifetime

Operational Process

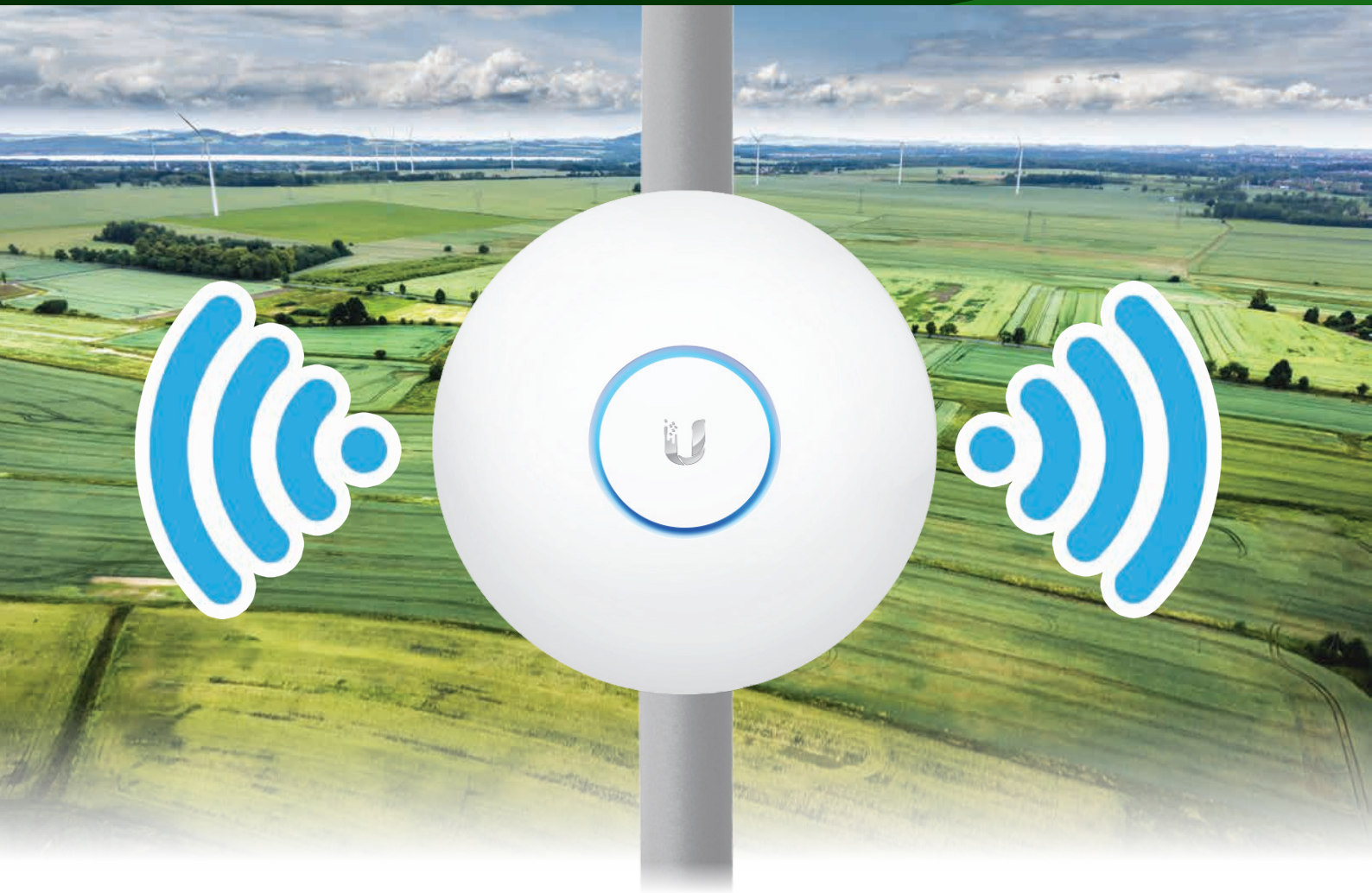
1. During the day, the solar panel charges the battery. The LED light is off.
2. The solar panel detects that the sun has set. The LED light turns on.
3. The light is configured to be at set brightness at different time periods during the night.
4. The light is configured to use the motion sensor to control brightness before & after movement is detected.
5. The solar panel detects that the sun has rise. The LED light turns off.
6. The panel begins charging the battery during the day.
7. The cycle repeats.

Default Configuration

Period	Operation
First	2hrs duration 100% active brightness 30% dimmed brightness
Second	3hrs duration 60% active brightness 20% dimmed brightness
Third	7hrs duration 30% active brightness 10% dimmed brightness
On-time Delay	30 seconds

SSL-B Solar Lighting Range

Model	SSL-B20	SSL-B30	SSL-B50	SSL-B60
Product Image				
Description	20W LED Light 56W Solar Panel 3900lm Light Output 145° x 75° Beam 12VDC	30W LED Light 80W Solar Panel 5500lm Light Output 145° x 75° Beam 12VDC	50W LED Light 120W Solar Panel 9400lm Light Output 145° x 100° Beam 12VDC	60W LED Light 180W Solar Panel 11100lm Light Output 145° x 100° Beam 24VDC



WiFi coverage for your entire property.

Make phone calls and browse the Internet even from black spots with solar WiFi access points.

Using the panel's internal battery, the SSL-B Solar Light can function as a remote WiFi extender, sharing the internet connection from a main building across wide areas and long distances.

Extend WiFi range point-to-point between the main building and the solar light with a 120° Wireless Bridge, then broadcast and spread the connection using 360° Wireless Access Points.



Check the weather, check texts & make/receive calls from the fields.



Extend WiFi access across caravan parks.



Set up off-site buildings or rest areas with internet access.

Components



SSL-B Solar Light

Powers the connected wireless bridge and access point(s).



Outdoor Wireless Bridge

2 x pre-configured point-to-point wireless access points to establish long distance WiFi.



Indoor/Outdoor Wireless Access Points

Spread out the WiFi signal across a wide area, or even further with multiple WAPs.

WiFi Installation Example

This example shows an application for this setup, providing WiFi access to remote areas such as caravans and fields.

1. Using two LiteBeam 120° Wireless Access Points, a wireless bridge is established between the main building and the solar light.
2. The solar panel's LiFePO4 battery provides power to the wireless bridge and access point(s).
3. The wireless bridge is connected to the Dual Band Wireless Access Point, which extends the WiFi signal a wide radius around the device. (Extra WAPs can be added to extend range further.)





Keep peace of mind, wherever you go.

Solar-powered IP surveillance with WiFi & 4G remote view options.

Deliver surveillance to any location with Solar CCTV Surveillance Systems. These remote-view-enabled, standalone surveillance solutions are perfect in areas without network/power infrastructure.

These off-grid surveillance solutions excel in black spot monitoring, on farms, and in temporary CCTV applications such as construction sites or events.



Self-contained CCTV station that can be installed almost anywhere.



Check your CCTV camera at any time with 4G mobile remote view.



Store footage via microSD edge recording - no recorder required.

Components



IP Camera

Fixed, motorised and PTZ network cameras available in a wide range of resolutions & models.



4G Modem Router with WiFi

Makes your camera accessible online via 4G, allowing for remote view via mobile.

*Requires active SIM card, not included.



Wireless Bridge

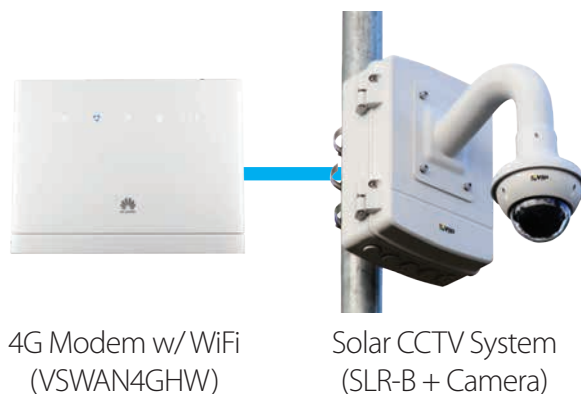
Connects the IP camera to an existing network for local access and remote view.

Solar CCTV Installation Examples

Setup 1 - 4G Modem Router

This setup uses a 4G Modem Router to connect the camera to the internet via 4G network, allowing it to be accessible from anywhere in the world.

Note that this requires an active SIM card, which incurs monthly fees.



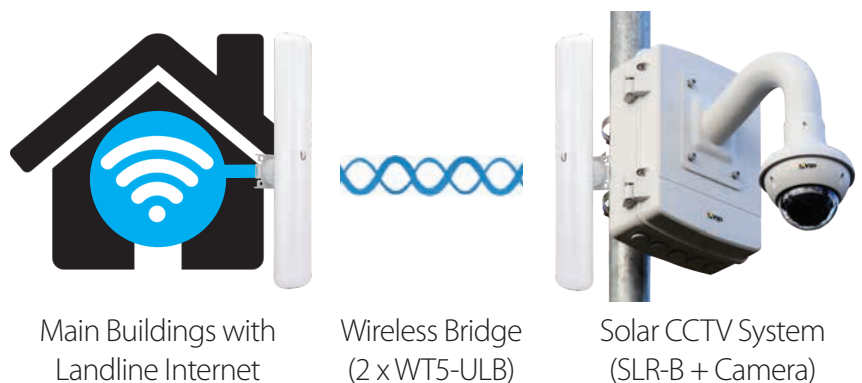
4G Modem w/ WiFi (VSWAN4GHW)

Solar CCTV System (SLR-B + Camera)

Setup 2 - WiFi Access Points

This setup makes a wireless bridge using two Wireless Access Points to connect the IP camera to an existing internet network, allowing for remote access.

This setup requires a nearby property with internet access.



Main Buildings with Landline Internet

Wireless Bridge (2 x WT5-ULB)

Solar CCTV System (SLR-B + Camera)



Solar-powered automation, anywhere.

Motorised swing gate powered by SSL-B Panel and controlled by RXPROR4.

SSL-B Series Solar Lights can be used as both a power and light source for motorised gates, allowing for self-sustained, remote installations away from mains power sources.

This provides the convenience of allowing the owner to enter the property without needing to leave the vehicle to open and close the front gate. In addition, it provides the security and safety of a motion-activated solar light.



Power motorised gates located away from the main electrical grid.



Open the motorised gate with the included remote controls.



Combine with Solar CCTV to monitor the front gate.

Components



SSL-B Solar Light

Powers the connected gate opener motor and receiver/transmitter.



Swing Gate Opener

Electronically opens the gate for 30 seconds when activated.



4 Channel Receiver / Transmitter Set

Adds wireless remote controls to activate the motorised gate.

Solar Automation Installation Example

This example shows a motorised gate located away from the main electrical grid, powered using an SSL-B Series solar panel.

1. The panel provides direct power to the RXPROR4 Receiver/Transmitter and the motorised gate.
2. When the user presses the open button on the remote control, Output 1 on the RXPROR4 is triggered for 30 seconds.
3. Output 1 is connected via a 4-core cable to the input on the motorised gate. The gate swings open while the circuit is closed.
4. After 30 seconds, Output 1 is turned off and the gate swings shut.



ENSA™

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To find out more about solar lighting applications or for any inquiries, contact your local ENSA™ dealer.



Achieve more using less.

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