

eWars - OBL200 LED Single Low Intensity Solar Powered Obstruction Light (Type B)



Description:

The solar powered OBL200-wired obstruction lights including low maintenance and no wiring.

The unit has a high-performance solar panel mounted on the top of light, which maximize solar collection and provide reliable operation in a range of environmental conditions. And it is equipped with an 8Ah NiMH rechargeable battery which could power the light up to 10 days when the weather is cloudy & rainy. The focal plane of the light is designed to provide a vertical divergence of between 0 and 10 degrees, and the user-replaceable battery ensures a service life of up to 7-8 years.

The OBL200 is made from tough, durable UV stabilized LEXAN polycarbonate, and incorporate an internal photodiode for automatic night activation once the ambient light threshold drops sufficiently. OBL200 is also available with an optional on/off switch for storing and protect battery from over-discharging. Robust aluminum body with powder coating provides excellent protection against harsh environments.

The completely self-contained LED lights are designed to suit to mark tall structures such as buildings, towers, masts, cranes, meteorological towers, chimneys and other hazards to aircraft.

Major functions & features

- 8 pcs of ultra-bright LEDs, reliable light source ensures long lifespan
- Integrated high-performance solar panel /battery system
- Integrated MPPT (Maximized Power Point Tracking) for maximizing sunlight collection
- Automatic night activation
- Integrated SBM (Smart Battery Management) for saving energy to extend autonomy
- Fresnel optical lens provides excellent light distribution
- Lens made from durable, UV-stabilized LEXAN polycarbonate
- Aluminum base with powder painted, corrosion-resistant
- Autonomy up to 10 days once fully charged during insufficient sunlight days
- Automatically off after being packed for 18 hours
- Protective vent for expelling battery gas and reduce condensation
- Bird spike against birds landing and nesting
- No regular maintenance
- Excellent shock and vibration resistant
- IP67 ON-OFF switch for protecting the battery from over-discharging
- Stainless steel safety rope protects light head from fall-off during maintenance
- No wiring job, nice & easy installation
- Dip switch for fixed type to flashing changeable
- Both NO and NC dry alarm contacts are available, and it will give an alarm in case of power and light failure(optional).
- Optional GPS synchronization function



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Compliance with

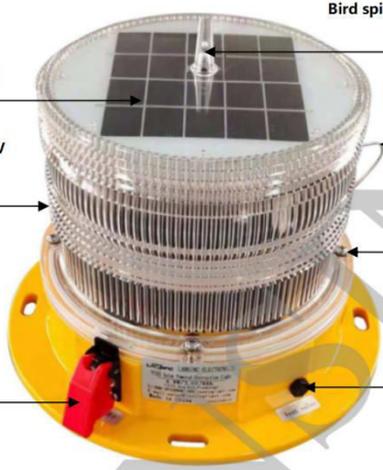
- Australia CASA Mos Part 139
- UK CAP168 Low Intensity Obstacle
- Obstacle Light Low Intensity Type B ICAO Annex 14 Volume I July 2016
- FAA AC No.150/5345 -43F
- DGAC Mexico

Specifications:

Item		OBL200
ELECTRICAL CHARACTERISTIC	Effective Intensity	>32.5 Candela
	Vertical Divergence	10 Degree
	Horizontal Divergence	360 Degree
	LED Color	Red (for obstruction). White, yellow, green and blue are available for other applications
	LED Lifespan	100,000 Hours
OPERATION	Woke mode	Flashing or steady burning
	Flash Pattern(optional)	Flashing: 20/30/40/60FPM; Default: 40FPM;
	Flash duration	670ms
	Photocell sensitivity	70-100 Lux
	Autonomy	10 days(flashing), 3-4 days(steady burning)
	Alarm type:	NO & NC, dry contact relay(optional)
POWER SUPPLY	Solar panel	Solar module, mono-crystalline silicon 5V 4.8W
	Solar Efficiency	14%
	Battery capacity	NIMH, 3.6V/8Ah
	Battery replacement	Replaceable
MECHANICAL STRUCTURE	Lens	Polycarbonate, UV Stabilize
	Body	Aviation yellow powder-coated extruding aluminum
	IP Ingress	IP67
	Weight	2KG(Polycarbonate base) 3KG(Aluminum base)
	Operating Temperature	-30°C ~ +55°C
	Storage Temperature	-40°C ~ +55°C
	Suitable areas:	PSH≥3
	Relative humidity	0-95% RH non-condensing
	Wind speed	Up to 150mph(240kph)
OTHERS	Warranty	5 years for light 2 years for battery 10 years for Solar panel
	Optional	Flashing pattern(20--60FPM) Built-in photocell NO & NC, dry contact relay GPS Synchronization function

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Advantage:



High efficient solar panel (5V4.8W)

Transparent Anti UV PC housing

Water-resistance ON/OFF switch and protective housing

Bird spike

Anti-drop chain

Anti-drop screws

Air Vent valve

Preventive vent for balancing pressure and reducing Condensation

Water-resistance ON/OFF switch

3.6V8AH NIMH Battery

Dip switch for fixed and flashing changeable

NO&NC Dry alarm relay (optional)

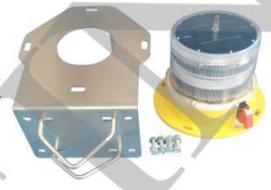
GPS Synchronization Function (optional)



GPS Synchronization Function(Optional)



Brackets(optional)



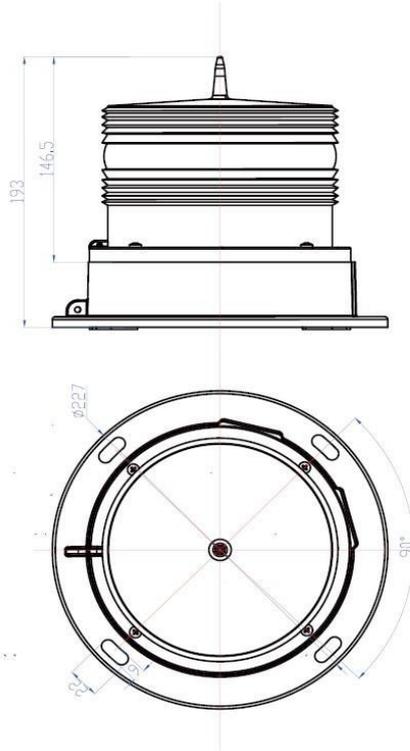
Packing



Packing (including accessories)



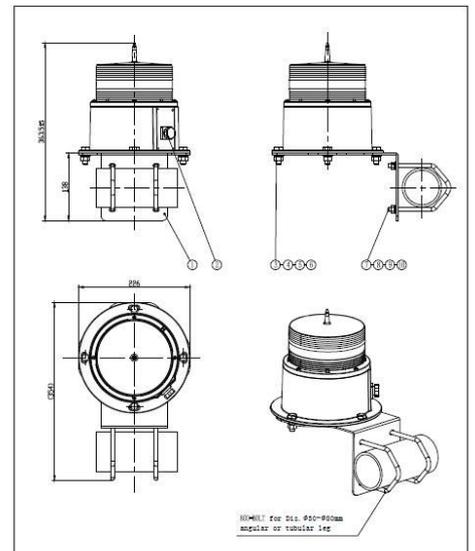
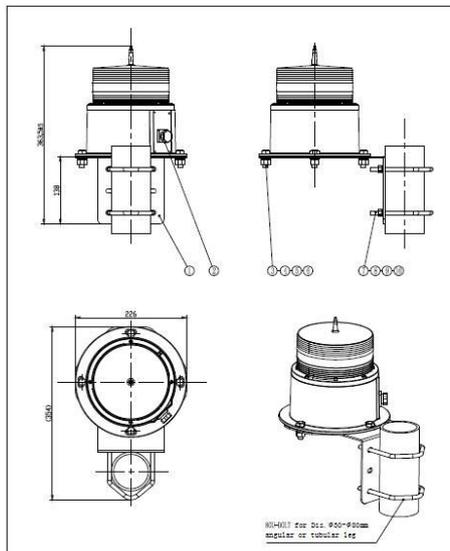
Mounting dimension(mm)



Installation

Option 1

- ① Mount the solar light in the most suitable place such as under direct sunlight, to ensure its continuous operation. if there is no mounting surface, we can customize special mounting bracket as request
- ② When first operation, if the solar does not light up in dark places, please put the light under direct sunlight for approx. 12hrs
- ③ Use our MBP80 Mounting brackets (see above picture) to fix the light on the pole, pipe, telecom tower or any other places required the light.
- ④ Adjust the dip switch on the light base to ON position, the light will start to work(ensure the light is in dark place or use a black cloth to cover the solar panel if in the daytime)



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Option 2:

- ① Mount the solar light in the most suitable place such as under direct sunlight, to ensure its continuous operation. if there is no mounting surface, we can customize special mounting bracket as request
- ② When first operation, if the solar does not light up in dark places, please put the light under direct sunlight for approx. 12hrs
- ③ Use 4XM8 screws to fix the light base on the smooth place
- ④ Adjust the dip switch on the light base to ON position, the light will start to work(ensure the light is in dark place or use a black cloth to cover the solar panel if in the daytime)

Operation:

Steady burning and flashing changeable(optional)

- ① Unfasten the screws between lamp housing the body, and then take off the lamp housing
- ② You can see the PCB board inside the lamp and adjust the red dip switch(see attached picture) on the board



- ③ You can change the light from steady burning mode to flashing mode as your request

Steady burning/flashing mode alternate, and flashing rate setting(optional):

- ① Unfasten the screws between lamp housing the body, and then take off the lamp housing
- ② You can see the PCB board inside the lamp and adjust the red dip switch(see attached picture) on the board



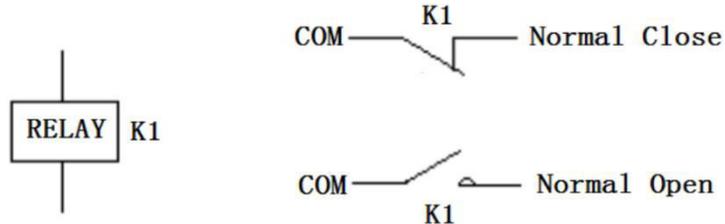
- ③ Adjust two white dip switches to "NO" position, the light will be steady burning mode
- ④ When the two white dip switches in other positions, the light will be in flashing mode from 20FPM, 30FPM, 40 FPM or 60FPM, see below: (FPM =FLASH PER MINUTE)

ON	2	1	FPM
1	0	0	Steady
2	0	1	60
3	1	0	30
4	1	1	20

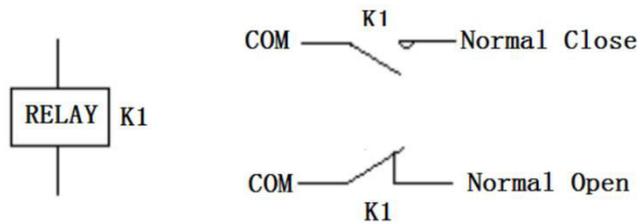
⑤ Adjust the dip switches according to above diagrams based on your request

Fault Alarm Function(optional)

- When the lamp is not receiving a power supply or a lamp failure: The relay has no action, "common terminal" and "normal close terminal" close, as below:



- The lights are connected to the power supply and are working properly: Relay action, "common terminal" and "normal open terminal" close, as below:



If there is no power access, or failure are received "disconnect" signal, the alarm signal line connected to the "common" + "normally open" If the "closed" signal is received when there is no power supply access or fault, the alarm signal line is connected to "common" + "Normal closed"

Note: The LED fault alarm of the light, please inform the lamp manufacturer at the time of purchase

Fault detection function description

- When the light is not operate or When more than 25% of the LED beads are in failure, The lamp will have a fault alarm signal output.

Operation

In daylight, the solar panel charges the battery using the Energy Management System (EMS). The capacity of the battery ensures that even with poor levels of sunlight over an extended period, the lantern has enough reserve power to continue to perform reliably. Stored battery energy then powers the LED during the night.

Storage:

When put the lamp into the warehouse for storage, turn the lamp off. Check the battery state and it is better to charge the battery every 3 months.

Test

- ① Adjust the self-locking switch to "ON" position on the lamp base, the lamp will turn on; and to the "OFF" position, it will turn off when you check the lamp.
- ② Remember to cover solar panels during the day if want the lamp to work.
- ③ If the lamp has GPS function, the fixture need to be kept in an open area outside and the GPS function will work after 5-10 minutes.

Maintenance

Although the Solar Obstruction Light is maintenance-free, if want the lamp to work more efficiently, please use a soft sponge or cloth to clean the solar panel regularly. A mild non-abrasive cleanser can be used for more stubborn residue. Clean more frequently during drier months as dust accumulates more quickly. Check the exterior for cracks, missing or broken hardware.

Recycling

This product may contain substances that could be harmful to the environment or human health if improperly handled at the product's end of life. Check your local municipality for electronics recycles. The batteries are rechargeable Lithium batteries. Consult your local laws for information on recycling

Precautions:

- The part of material of products is PC(like lamp cover and lamp shell), so it cannot direct or indirect touch the organic solvent, such as industrial alcohol, banana oil, isopropyl alcohol, carbon tetrachloride, cyclohexanone and so on, otherwise, the product will be corrosion.
- Please read the instruction manual carefully before operation.
- For protection of batteries during transport and storage, adjust the dip switch on the light base to "OFF" position.
- Built in NiMH battery, after being used 450 times(15 months), the battery capacity is approx. 80% of previous capacities, at this moment, please replace the battery in time.
- Please make sure that the ambient temperature conditions should match this product. Otherwise, it will not work properly.
- Please do not look light horizontally to protect your eyes while the light working.
- The flash rate 40FPM by default. If you need to customize, please inform the lamp manufacturer before purchasing.
- This product is a sealed structure; should not be tampered with by anyone other than professional. Otherwise, the company will not guarantee.

How to charge battery if necessary(see below):

If store the light for more than 3 months in your warehouse, then the light battery needs to be charged, there are total two methods to charge the battery:

- ① Open the box and take out the light, and put the light under the sunlight directly, and open the battery switch, charge the battery by sun energy for more than 10 hrs. Turn off the battery switch after a full charge.
- ② Open the box, take out the battery, use a charger (4.2v-5V) and connect with the battery (note +/-), and charge the battery for 2-3 hrs
- ③ After finishing the charging, assemble the light. Note the seal ring to waterproof.

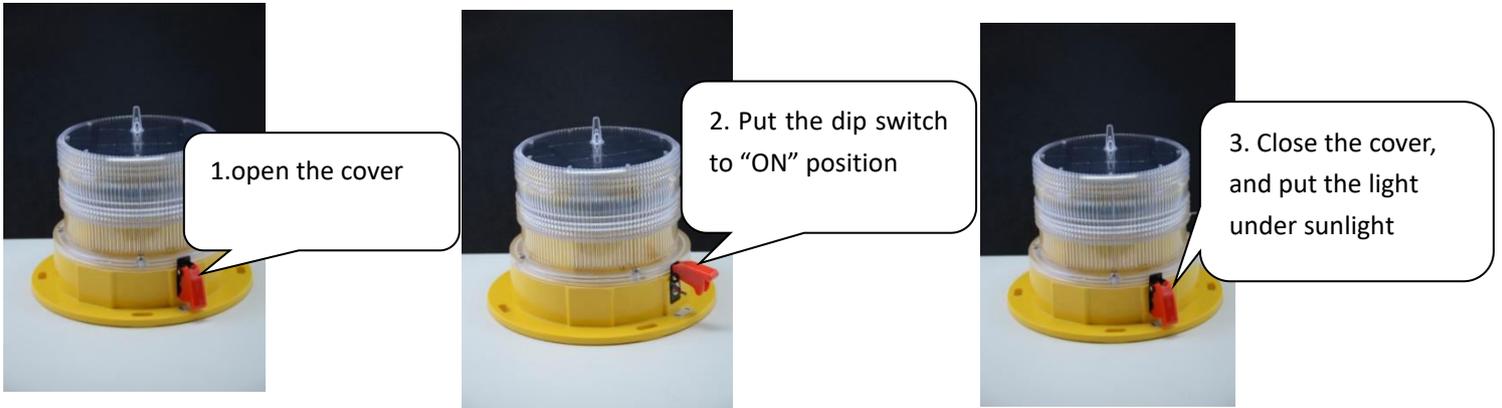
Applications:

- Telecommunication Tower
- TV/Radio Tower
- Transmission Tower
- High-rise building
- Industrial Chimney & Cooling Tower
- Tower Crane
- Bridge
- Wind turbine
- Airfield & helipad
- Storage tank & Water tower
- Oil & Gas offshore platform



BATTERY CHARGING IF NECESSARY:

Option 1: Put the light under sunlight



Option 2: Use a Charger (around 4.2v-5v) such as switching power supply etc

