

## Trouble Shooting

No.	Situation	Trouble shooting steps	Solution
1	No light at night	Check that the lamp can be manually activated.	Refer to "Activation and Installation" section on this user guide and run activation tests.
		Check if the solar panel is blocked from the sunlight by houses, trees and other obstacles.	Clear obstructions or change installation location.
		Check if there is any artificial light source(s) shining on the solar panel during the night.	Remove the artificial light source(s) of interference or change the installation location.
		Examine status of each component based on the repair guide.	Replace the damaged component(s).
2	A serious shortage of working time	Check if the solar panel is blocked from the sunlight by houses, trees and other obstacles.	Clear obstructions or change installation location.
		Check if the surface of the solar panel is dusty or covered.	Clean the surface of solar panels as detailed above.
		Examine if the battery pack is damaged as per the repair guide instructions.	Replace damaged battery.
3	Lighting does not follow the normal operating mode of turning on and off		Replace damaged battery.
4	Lights fail to turn on properly when humans approach	Check if the air temperature close to human body temperature.	When the air temperature is close to human temperature, motion detection may slow down. It will return to normal after the air temperature changes.
		Check if the installation height is too high.	It is out of motion detection range when installation height exceeds 8m. It is recommended to reduce the height or use other operating modes.
			Replace damaged motion sensor or controllers.

## FLY HAWK SERIES

[www.obluesmart.com](http://www.obluesmart.com)



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## FLY HAWK SERIES

## All in One Smart Solar Street Light User Manual

Thank you for choosing the FLY HAWK Series Solar Street Light. For any questions, please email us at [info@obluesmart.com](mailto:info@obluesmart.com).

Please refer to the actual products if the provided diagrams show slight differences.



**Before using the Smart Solar Street Light, carefully read the following precautions to avoid damage or errors.**



## Precautions

### Operating Conditions & Limitations:

This product is rated as IP65 protection grade. Do not exceed the stated operating limits. The operating temperature range is from -20°C to 60°C and the charging temperature limit is within 0 to 60°C. If equipped with heating features, it may be used between -40°C and 60°C. The heavy-duty structure will survive up to a Category 12 typhoon or cyclone. (Storms above Category 12 may cause damages to the product).

### Transportation & Storage:

This product contains lithium batteries. Please follow air transport regulations when shipping. It should be regarded as potentially flammable and explosive, and be isolated from other goods when stored, so as to avoid any damage.

The solar panels of this product should be considered as fragile. There should never be more than 4 layers of boxes when stacked. To avoid damage to the panels, make sure no heavy pressure is applied to the boxes.

Please store the product in temperature between 0°C to 45°C.

If stored for a long period, the product should be recharged every 6 months. Please only use the special charger (purchased from manufacturer) to avoid damage to the battery or device.

### Modification:

It is not on the terms of warranty if clients does modify or refit the light leading to no-proper working without authorization of Bluesmart.

### Product Maintenance:

To ensure effective solar light absorbance, clean the surface of the panels regularly with water and a soft cloth. Do not use chemical solutions or abrasives.

This Solar Street Light operates on a low voltage DC current. Unless customized otherwise, do not connect components or ports to an AC current or any higher rated DC voltage.

Do not replace the original unit with unauthorized third party parts as they may cause serious damage to the product. To order replacement parts or to have them fitted, please visit [www.obluesmart.com](http://www.obluesmart.com) or contact your local distributor.

### Product Recycling:

This product is made from recyclable, high-performance materials. All materials are compliant to the ROHS standard. Do not dispose of this product with other household waste.

Please check your local regulations on collection and disposal of electronic items. Proper disposal of used product helps prevent negative impacts on the environment.



RoHS  
COMPLIANT

IP65



## Product Manual

### Introduction:

The Fly Hawk series is extremely versatile, robust Solar Street Light.

It features all of its components fully integrated within an attractive and compact design. It combines a highly efficient adjustable solar panel with a 'smart' and 'intelligent' charge controller to energize a high capacity lithium-ion battery that supplies power to the Super-Bright Bridgelux LEDs to achieve multiple features such as high luminance, long lifespan, minimal maintenance and easy installation.

By choosing a wireless module and wireless concentrator, user can wirelessly control the light, monitor working status, set custom working mode or review historical charging data. Fly Hawk brings you a easier way to control the outdoor lighting than even before.

### Application:

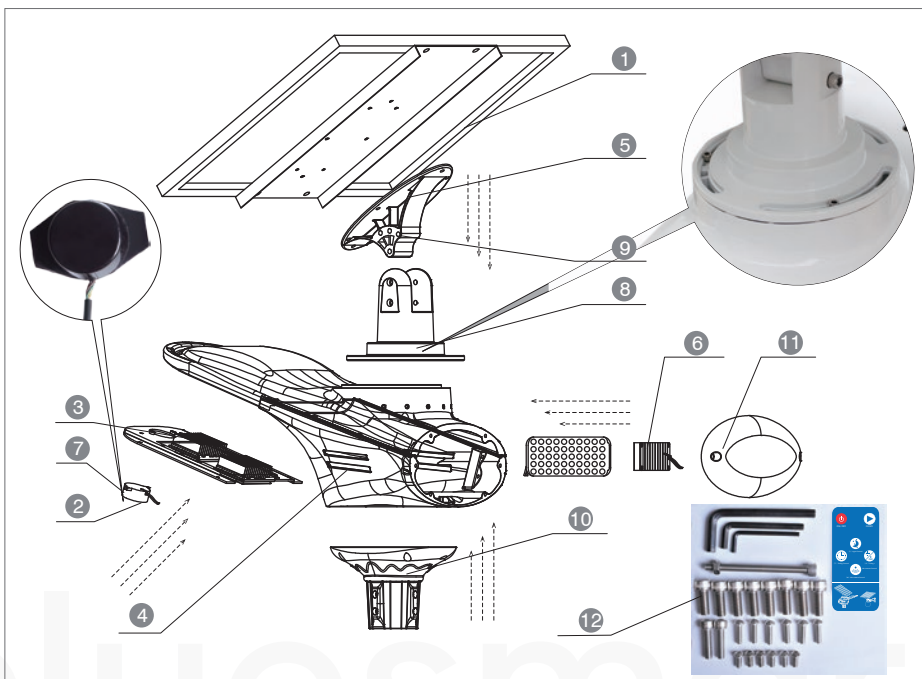
Multi options & wide usage:

From 15w to 100w, all in one solar lighting system can be used for a wide range of area lighting.



- \* Public areas & Parks & campuses
- \* Residential & Community Center
- \* Urban trunk road & Slow lane
- \* Bike trails & Tourist attraction
- \* City stadium & Office district
- \* Parking lots & Entrance Lighting
- \* Island & dock & Coastal
- \* Industry & Mining Security & Perimeter
- \* Refugee camp & Temporary Construction

## Parts & Functions



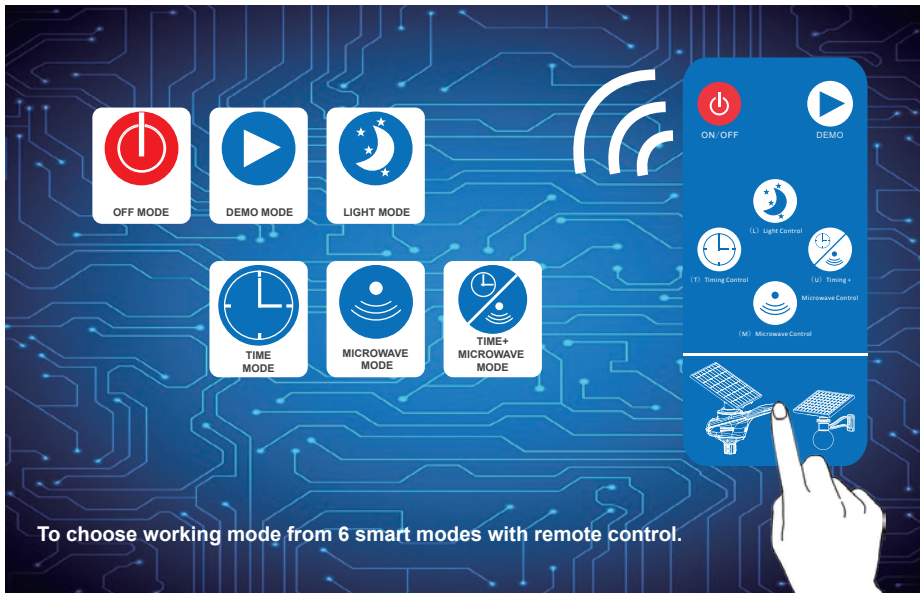
No.	Parts	Functions
1	Solar panel	Absorbs and converts solar energy into electricity
2	Motion sensor	Detects human movement
3	LED light	Lights the area
4	Vents	Heat dissipation
5	Bracket support	For combination with solar panel
6	Smart controller	Battery (charge and discharge) management
7	Monitor	Real time display the battery capacity
8	Rotating Platform	360° adjust the solar panel
9	Multi-angle bracket buckles	Adjust the solar panel up and down via connect 5 hole
10	S Bracket	Fix solar light unit
11	Maintenance channel	Quickly maintain channel
12	M6x20 screws 6pcs, M6x12 screws 6pcs M8x100 screws 1set, M8x30 screws 2pcs M10x25 screws 8pcs, Allen key: 8mm 1pc Allen key: 6mm 1pc, Allen key: 4mm 1pc	fix bracket support, fix rotating platform fix multi-angle supporting seat, fix multi-angle supporting seat fix pole, fix M10x25 screws, fix M8x30 screws and M8x100 screw, fix M6x10 screws and M6x20 screws

## Packing List

When open the package please confirm that all parts are received, the parts are listed below:

Components	15W-100W	Images
Light body	1pc	
Solar panel	1pc	
Multi-angle bracket buckles Rotating Platform	1pc	
Bracket support	1pc	
M8x100 screw	1set	
M8x30 screw	2pcs	
M10x25 screws	8pcs	
M6x20 screws	6pcs	
M6x12 screws	6pcs	
Φ8mm Allen key	1pc	
Φ6mm Allen key	1pc	
Φ4mm Allen key	1pc	
User Manual	1pc	
Remote control	1pc	

## Remote Control Technology



4 working modes can be chosen from:

**DEMO:** Test button ( light "on" for 1 mintue).

**ON/OFF:** On/Off button ( press the button turn on the light, press again turn off the light, no matter day or night ).

**L :** 100%-1hr, 70%-3hrs, 20% till dawn.

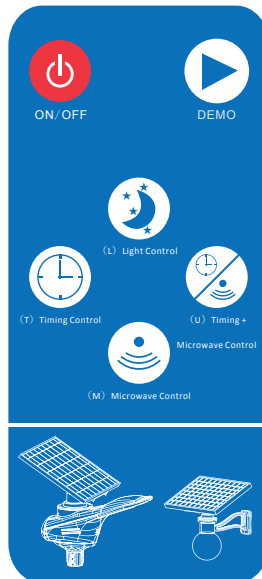
**T:** 100%-2hrs, 70%-2hrs, 50%-2hrs.

**U:** 100%-2hrs, 70%-2hrs, 50%-2hrs, sensor working 50%, if people come close, 20% far away.

**M:** 100% if people come close, 30% far away.

### Remark:

- After connected the cables between solar panel and the lamp, the light will turn on automatically when it detect sunshine (there is no need using remoter to turn on the solar light ).
- Default is M mode, you can choose the best mode according to different sunshine condition.



## Microwave Sensor



### What is microwave sensor?

Microwave sensor works by emitting high frequency electric wave to detect objects' movement, such cases above may result in not working well.

### Why choose microwave for outdoor lighting?

- It can get through glass, wood, plastic and other non-metallic object, so it can be installed inside and there is no influence on lamp's appearance.
- It won't be influenced by airflow, dust, temperature, humidity like PIR.

### What should be noticed when using microwave sensor?

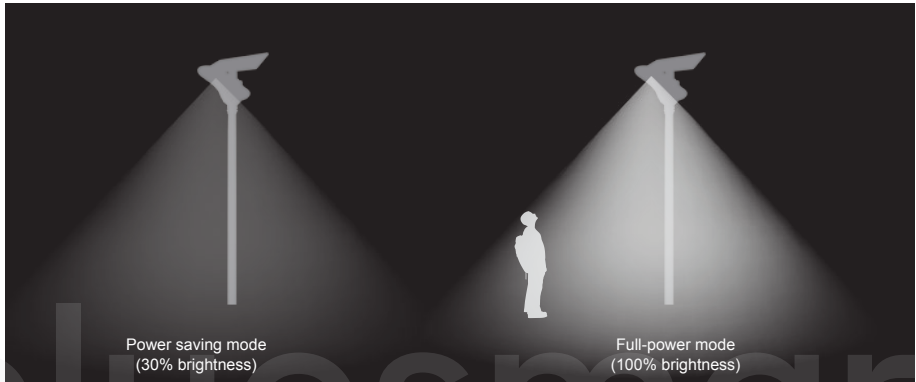
Microwave has been improved a lot compared to PIR, but it is still not perfect. It may be influenced by metallic things and it's very sensitive to some extension, may detect other objects' movement such as leaves' movement.

### The wrong working situations as below:

- Light flickers un-regularly.
- The lamp is too sensitive, so it is always at 100% light, then battery can't last long.
- Sensor does not work, not light when people come close.

Factory settings and motion detection functions:

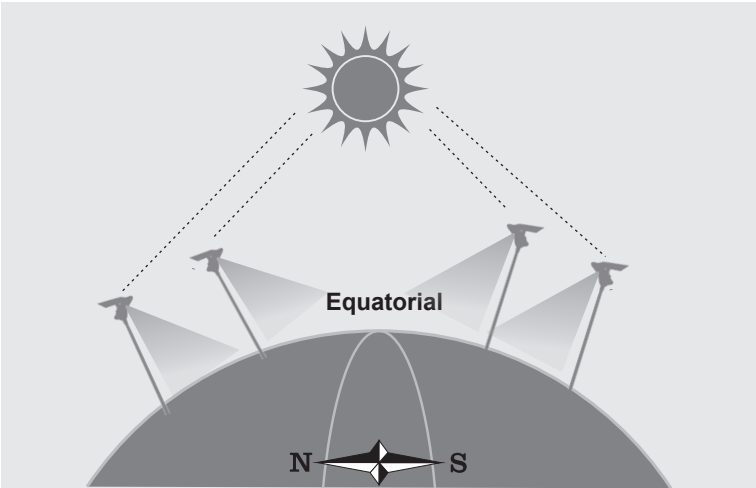
The factory setting of the fly hawk series switch is light-controlled (at a threshold of 30 Lux). The lamp automatically lights up when it is dark and turns off when there is light or at dawn. At night, when no one is around, it operates under power saving mode. When anyone approaches, its brightness increases by a factor of four. If the air temperature is close to human temperature, the motion detection may reduce in sensitivity.



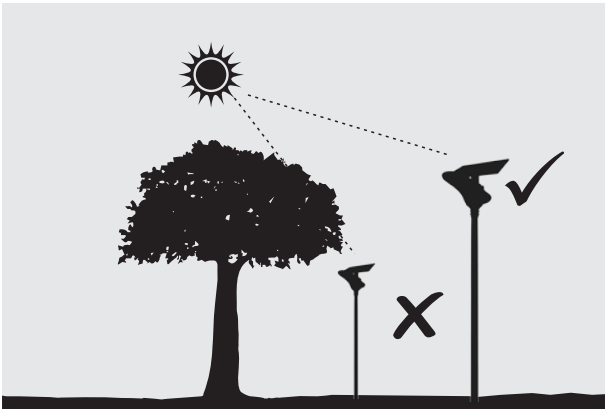
Installation

1. Environment:

- a Please select the appropriate product according to the installation site's sunlight intensity and required operating time. If you are in the northern hemisphere, face the solar panels towards the south as far as possible when installing the fly hawk series; if you are in the southern hemisphere, face the solar panels towards the north.



- b For maximum operation efficiency of the solar panels, make sure the sunlight is not blocked by buildings or trees.



2. Altitude and distance parameters:

Install according to the height and distance (between the lamps) restrictions as set by each respective product type. Consult our product specialists for special lighting requirements.

Power	Bat wing light source		Round beam light source	
	Height of pole	Distance between pole	Height of pole	Distance between pole
15W	3~5m	10~13m	3~5m	8~14m
20W	4~7m	13~16m	4~7m	10~18m
30W	5~8m	16~19m	5~8m	14~20m
40W	6~8m	19~23m	6~8m	15~25m
50W	7~8m	23~27m	7~8m	25~35m
60W	8~9m	27~31m	8~9m	35~40m
80W	8~10m	31~35m	8~10m	40~45m
90W	8~10m	35~40m	8~10m	35~40m
100W	8~10m	35~40m	8~10m	40~45m

## How to turn on our solar street lights ?

**Notice:** Please do not need Press ON button of the small blue remote to turn on the lamp, because our solar lamps have Automatic Activation Function.

### Activation:

Remove the fly hawk light from package box, let the solar panel absorb energy from sun, connect the waterproof cable between solar panel and lamp, then the lighting system can be activated, the fly hawk light will be lighting automatically at night.

**If you want to check whether the fly hawk light are lighting during the daytime:**

- \* Cover the solar panels with shelters, the lamp will be lighting.
- \* Press Demo Button after the lighting system has been activated, the lamp will be lighting for a few mins then turn off automatically.



### Pole:

Recommend use the upper diameter of pole: 60~76 mm. (See Figure 1)

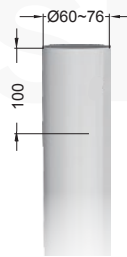


Figure 1

### Installation:

- 1 Install bracket support:** Fix the multi-angle bracket buckles on the solar panel with 6pcs M6x20 screws. Be sure 'up' towards to led light. (See Figure 2)



Figure 2

- 2 Rotating platform:** Use 6pcs M6x12 screws to fix the 360° rotating platform, according to the orientation of the road. (See Figure 3)

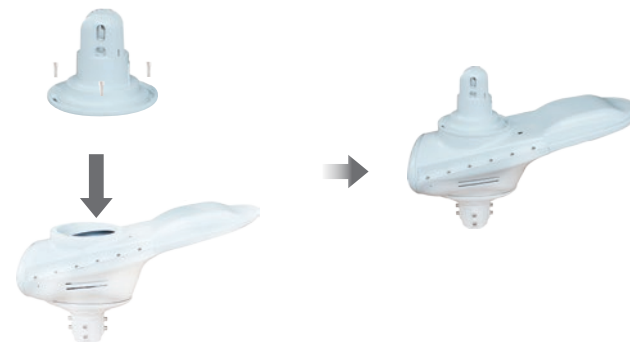


Figure 3

- 3 Combination:** Use 2pcs M8x30 screws and 1set M8x100 screw to fix the multi-angle bracket buckles. Choose the right holes according to the installation position of the sun at 2:00pm. Make sure the solar panel is headed toward the sky and the short end toward the light, or you can not adjust the angel (See Figure 4).

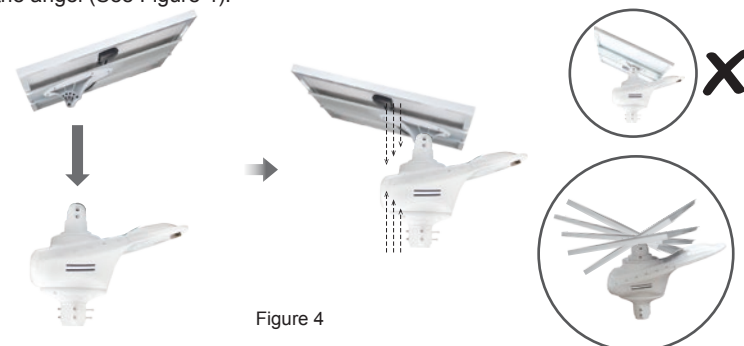


Figure 4

- 4 Install light:** Fix the light unit to the pole with 8pcs M10X25 screws. The maximum torque for those M10X25 bolts is 29Nm. Do not surpass this torque specification. (See Figure 5)



Figure 5