

# Installation Manual



**Before using carefully read the following precautions to avoid damage or errors.**



### Precautions

#### Operating Conditions & Limits:

This product is rated as IP65 protection grade. Do not exceed the stated operating limits. The operating temperature range is from -4°F to 140°F and the charging temperature limit is within 32°F to 140°F. If equipped with heating features, it may be used between -40°F and 140°F.

#### 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 32°F to 113°F.

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 Solarpath.

#### 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.

#### Introduction:

The SPFS 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 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. SPFS Light brings you a easier way to control the outdoor lighting than even before.

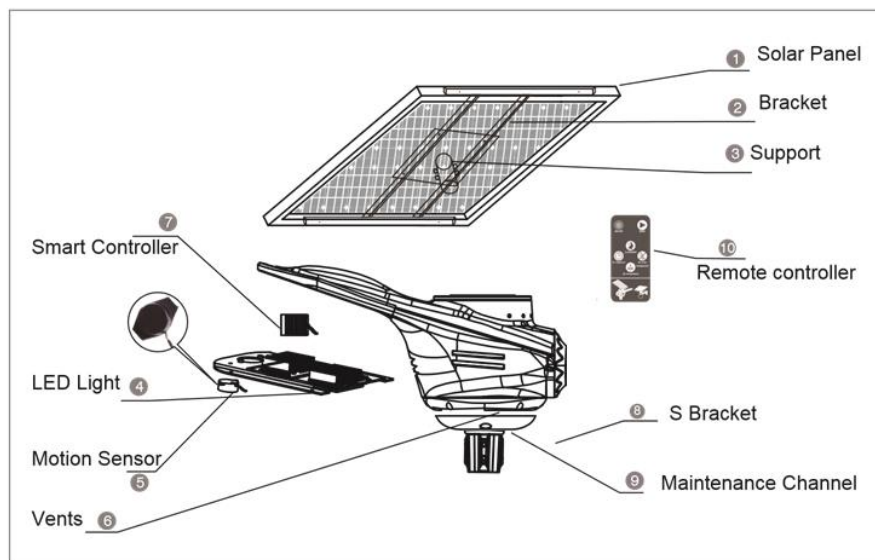
#### Application:

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


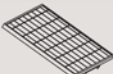






## Parts & Functions



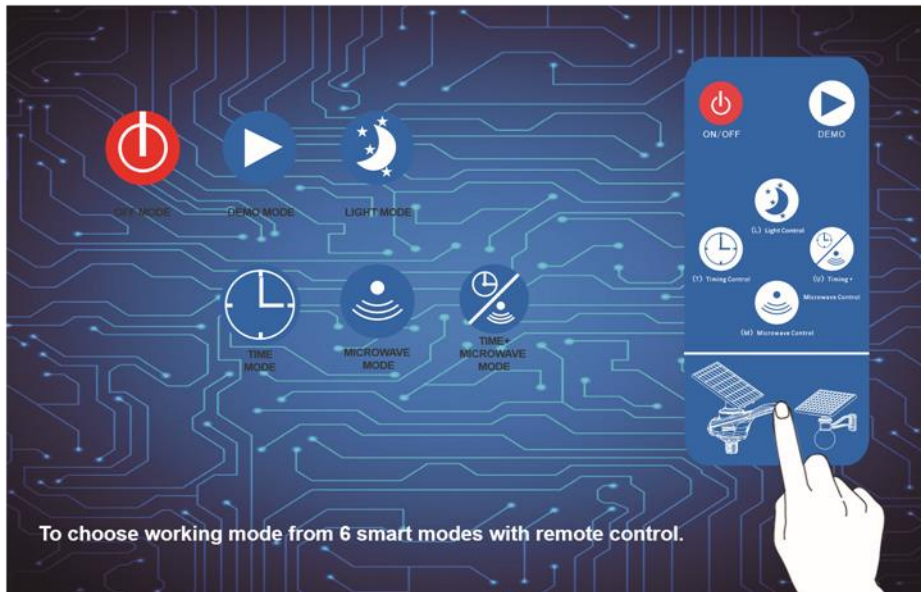
No.	Parts	Functions
1	Solar panel	Absorbs and converts solar energy into electricity
2	Bracket	Fixed the solar panel
3	Support	Connect device between solar panel and pole
4	LED light	Lighting the area
5	Microwave motion sensor	Detects movements
6	Vents	Heat dissipation
7	Smart controller	MPPT solar charge controller
8	S Bracket	Install the arm of pole
9	Maintenance channel	Quickly maintenance channel
10	Remote controller	Switch 4 working modes

## 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	
Bracket	1pc	
Support	1pc	
M8x10 screw	4set	
M6x10 screw	4set	
User Manual	1pc	
Remote control	1pc	

## Remote Control Technology



4 working modes can be chosen from:

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

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.

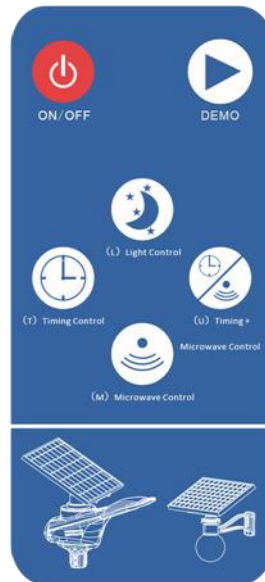
T: 100%-2hrs, 70%-2hrs, 50%-2hrs.

U: 100%-2hrs, 70%-2hrs, 50%-2hrs, 20% dim, 50% when motion trigger

M: 30% dim ,100% when motion trigger

### 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 SPFS 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.

### 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 SPFS 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.

## Pole:

Recommend use the upper diameter of pole: 2.3-2.9 in (see figure 1)



Figure 1

## 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.**

Remove the SPFS 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 SPFS light will be lighting automatically at night.

### If you want to check whether the SPFS 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.



## Installation:

1 Fix the bracket on solar panel with 4pcs M6x10mm screws

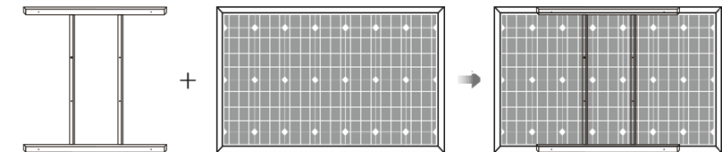


Figure 2

2. Fix the support on bracket with 4pcs M8x10mm screws.

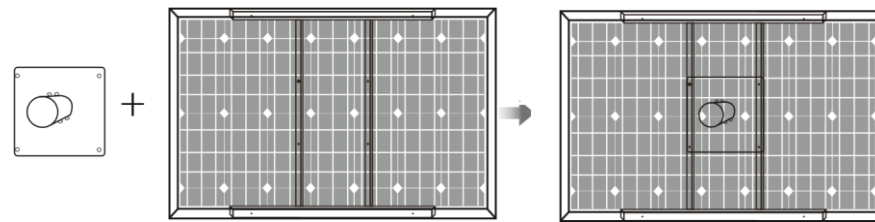


Figure 3

3. Install the solar lamp to the arm of pole, Connect the waterproof connector between solar panel and lamp.

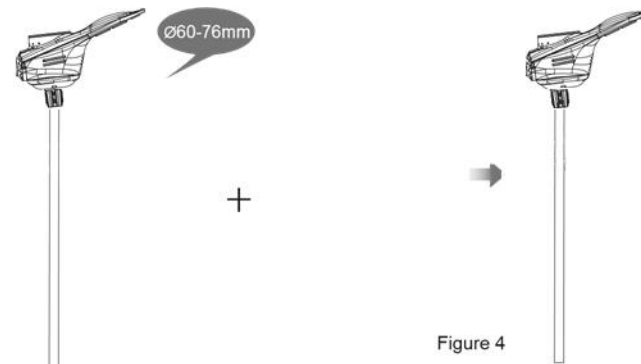


Figure 4

4. Fix the pole with support. ( suggest use 3mm thickness and 65mmdiameter of the pole. )

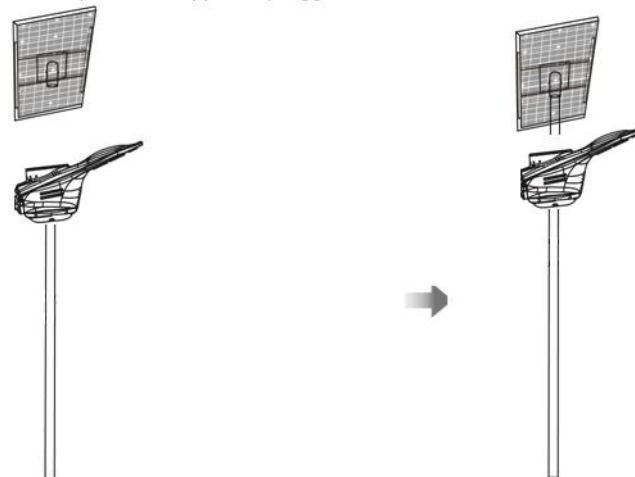


Figure 5



## Trouble Shooting

No.	Situation	Trouble shooting steps	Solution
1	No light at night	Check that the battery have power or not?	Let solar panel charging 6-8 hrs in direct sunshine, check if have indicator light is shining on motion sensor.
		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.