## 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. |

SMART SERIES

# Geric Holdings

SMART SERIES

Smart All In One Solar Street Light
# User Manual

Thank you for choosing the SMART Series Solar Street Light. For any questions, please email us at George.Werner@GericHoldings.co.za.

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

BS-FH-A

**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℃ to 60℃ and the charging temperature limit is within 0 to 60℃. If equipped with heating features, it may be used between -40℃ and 60℃. 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℃ to 45℃.

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 damaging on 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 Geric Holdings.

### 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.gericholdings.co.za 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 SMART 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. SMART Series brings you a easier way to control the outdoor lighting than even before.
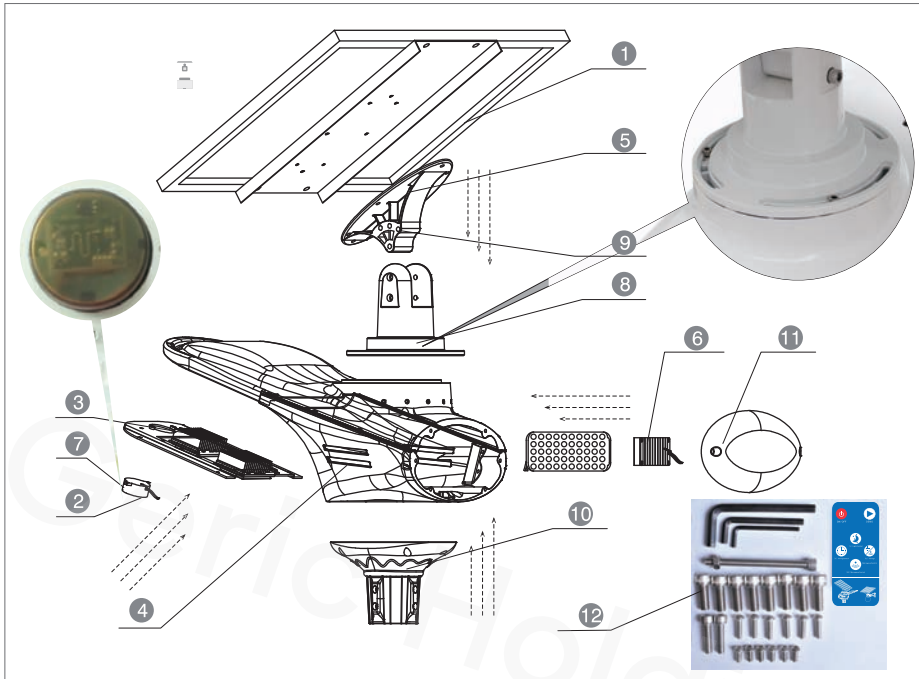
### Application:

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

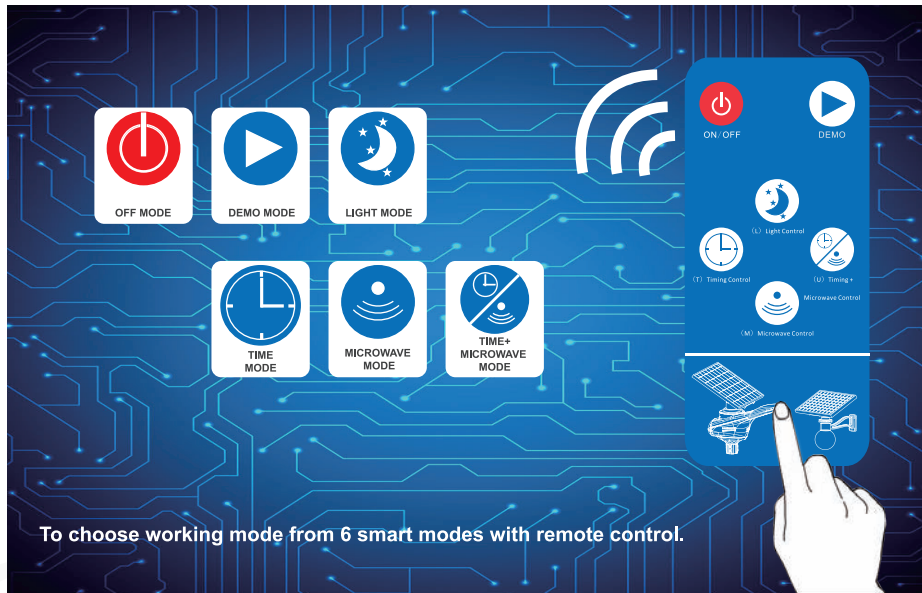\* Refugee camp & Temporary Construction

| No. | Parts | Functions |
|---|---|---|
| 1 | Solar panel | Absorbs and converts solar energy into eletricity |
| 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 | Battert (charge and discharge) management |
| 7 | Monitor | Real time display the battery capacity |
| 8 | Rotating Platform | 360 adjust the solar panel |
| 9 | Multi-angel bracket buckles | Adjust the solar panel up and down in via connect 5 hole |
| 10 | S Bracket | Fix solar light unit |
| 11 | Maintaince channel | Quickly maintaince 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-angel supporting seat, fix multi-angel supporting seat fix pole, fix M10x25 screws, fix M8x30 screws and M8x100 screw, fix M6x10 screws and M6x20 screws |

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-angel 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 | |

OFF MODE    DEMO MODE    LIGHT MODE

TIME MODE    MICROWAVE MODE    TIME+ MICROWAVE MODE

ON/OFF    DEMO
(L) Light Control
(T) Timing Control    (U) Timing +
Microwave Control
(M) Microwave Control

**To choose working mode from 6 smart modes with remote control.**

4 working modes can be chosen from:

DEMO: test button for M.

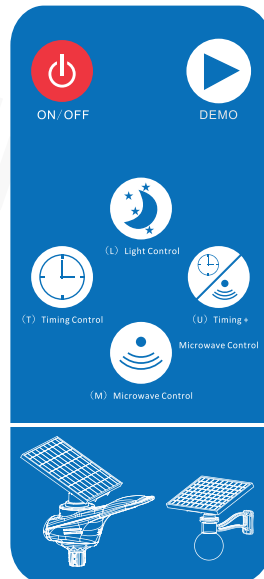OFF: shut down the state, do not light all the day or

all the night.

L: Lighting for 12 hours per night. 100%-1hr, 70%-3hrs,

30% till dawn.

T: Lighting for 6 hours per night. 100%-2hrs, 70%-2hrs,

50%-2hrs.

M: Lighting for 12 hours per night. 100% when people or

things come close, 30% far away.

U: Lighting for 12 hours per night. 100%-2hrs, 70%-2hrs,

50%-2hrs, after Microwave motion sensor working, 50%

when people or things people come close, 20% far away.

50% if people come close, 20% far away.

Remark: Default mode is M, you can choose the best mode

according to the light condition in your place.

ON/OFF    DEMO
(L) Light Control
(T) Timing Control    (U) Timing +
Microwave Control
(M) Microwave Control



| NO METAL | NO TREES | NO magnetic field |
|---|---|---|

## 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?

1. 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.
2. It won`t be influenced by airflow, dust, temperature, humidity like PIR.

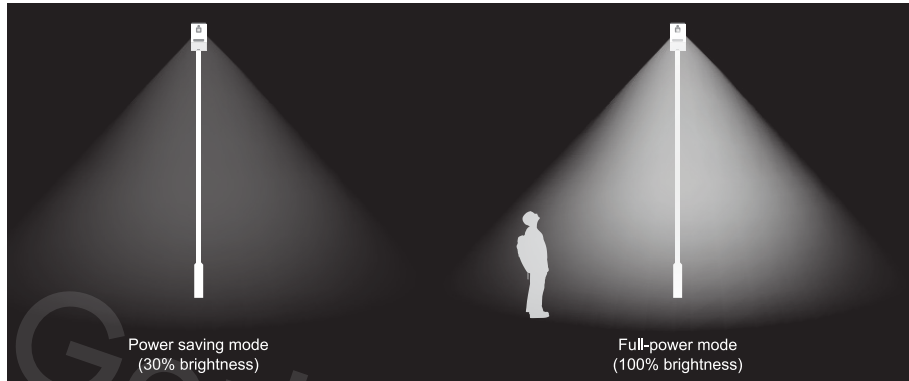## What should be noticed when using microwave sensor?

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:

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

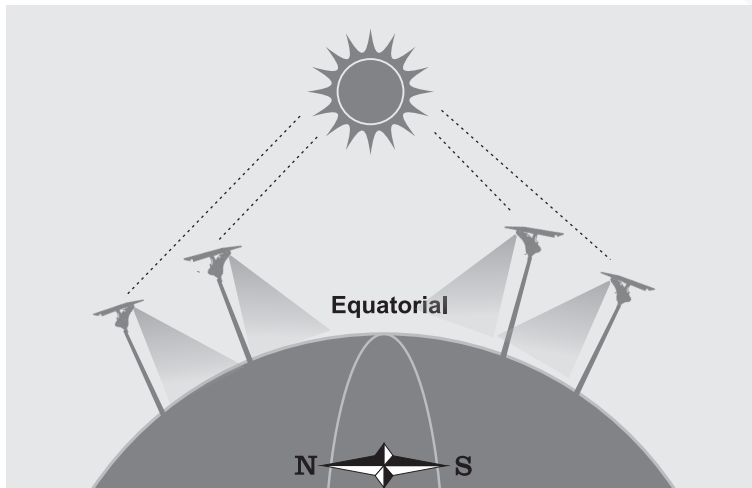**Factory settings and motion detection functions:**

The factory setting of the SMART 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.
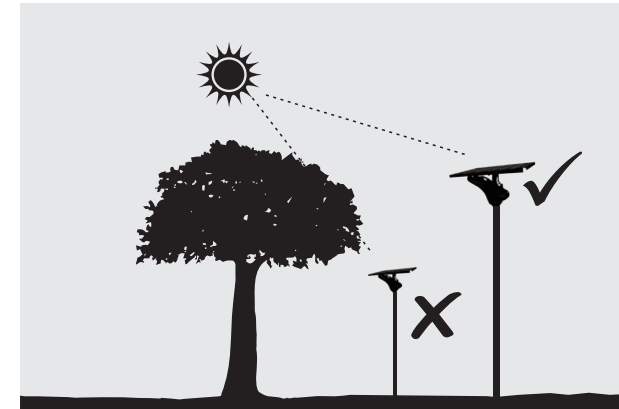
Power saving mode
(30% brightness)

Full-power mode
(100% brightness)

## 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 SMART Series; if you are in the southern hemisphere, face the solar panels towards the north.

Equatorial

N S

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 |

## Activation And Installation

### Activation test:

* **Automatic Daytime Activation:** Remove the SMART Series solar street light from its box. If there is adequate outdoor light, please connect the black connect cable and check the the pilot lamp located on the motion sensor whether it lights, if it lit, this means the system has been successfully activated. (During weak daylight or night time, please refer to  the manual night time activation below).

* **Manual Night time Activation:**   If installing the SMART Series solar street light at night or in a weak light environment,  please connect the black connect cable and check the the pilot lamp located on the motion sensor whether it lights, if it lits and the solar street lights up in 5mins, this indicates the system has been successfully activated.

### Pole:

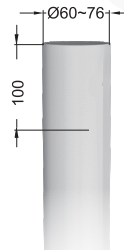Recommend use the upper diameter of pole:60~76 mm. (See Figure 1)

Ø60~76
100

Figure 1

### Installation:

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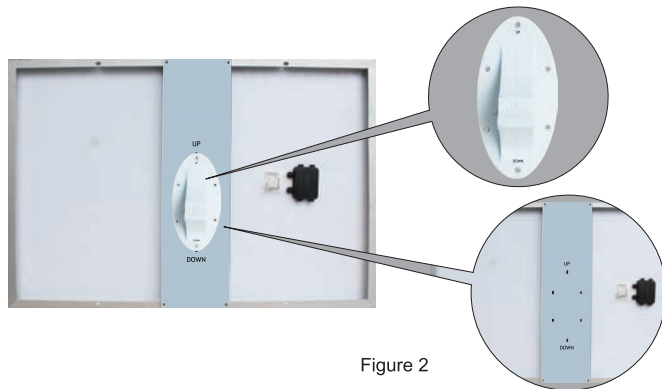
UP
DOWN

UP
DOWN

Figure 2

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

Figure 3

3 **Combination:** Use 2pcs M8x30 screws and 1set M8x100 screw to fix the multi-angle brackrt buckles. Choose the right holes  according to the installation position of the sun at 2:00pm. (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