MAJOR TECH

INSTRUCTION MANUAL

SSL RANGE

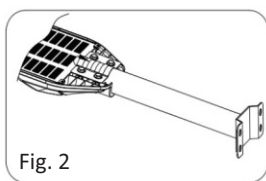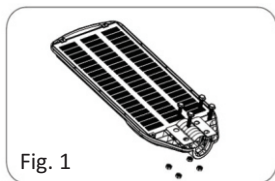# INTEGRATED SOLAR STREET LIGHT

Contents

1. INTRODUCTION

The SSL Integrated Solar Street Light Range offers convenient, reliable and efficient lighting with a high lumen output. Its 6500K colour temperature ensures brilliant, bright, clear illumination. Designed with a durable, UV and weather-resistant ABS housing (IPX4), this Solar Street Light Range is perfect for outdoor use on pathways, parking areas, and residential streets. During the day, the integrated monocrystalline solar panel charges the LiFePO$_4$ battery. When night/low-light conditions are detected, the built-in PIR sensor activates the light when motion is detected within a 120° angle at up to 12 metres. This Street Light Range provides up to 14 hours of illumination after a full 6 hour charge in optimal sunlight. The SSL Range features multiple remote controllable lighting modes, including Time Control, Day/Night Auto, Motion-activated settings and more, ensuring energy-efficient operation tailored to your needs. The robust design, reliable performance and convenient lighting mode settings make this Solar Street Light Range an excellent choice for cost-effective, eco-friendly outdoor lighting.

2. INSTALLATION

If any damage is noticed upon removing the product from the packaging, please return it to Major Tech before attempting installation. These lights must be installed by a competent installer. If the light is incorrectly installed Major Tech reserves the right to refuse the return of the product.

2.1. Lamp Body Installation Steps

1. Thread the Pole Mount Bracket onto the housing with the included bolts and nuts (fig1).
2. With the Pole Mount Bracket threaded onto the housing (solar panel side up), the screws and nuts will hold the bracket securely in place allowing for easy mounting. (fig2)
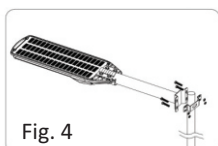

Fig. 1

Fig. 2

Note:
- Position the street light for ideal light distribution, with the solar panel facing up to ensure proper charging during the day.
- Avoid installing the street light where the solar panel is under an overhang or obstacle that will shade the panel during the day or otherwise negatively impact charging of the street light.

2.2. Pole Mounting

1. Fit the bracket over the mounting pole the light is to be installed on and position the fitting as necessary. (fig3)
2. Tighten the bolts and nuts to securely fix the bracket and light onto the pole. (fig4)

Fig. 3

Fig. 4

3. REMOTE CONTROL OPTIONS

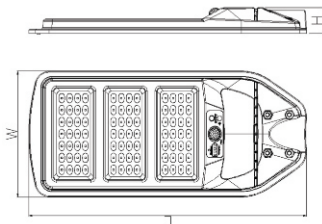| Key	Function	Validity	Valid conditions	Detailed description
ON	On	Once (no memory)	Day and night	100% brightness and slowly decrease brightness, about 12-14 hours of discharge time.
	Permanent Power Off Cancellation	Once (no memory)	Day and night	When the light has been set to permanently Off, press (ON) to switch the light on.
OFF	Off	Once (no memory)	Day and night	Switches the light Off.
	Permanent Power Off Mode	Persistent (with memory)	Day and night	Holding the Off button for 3 seconds, switches the lamp to permanently Off, but it will still charge, Press On button to cancel.
☼	High Power Mode	Once (no memory)	Day and night	Press ☼ when the light is On. Brightness will be set to 165% and will remain at that brightness without decreasing (+- 3 hours discharge time).
•)))	PIR Sensor (Motion) Mode	Persistent (with memory)	Night Only	PIR sensor mode (5% brightness with no motion detected within sensor range, increases to 200% when motion is detected).
3H	3H Time Control Mode	Persistent (with memory)	Night Only	Sets the light to 115% brightness and stays at that brightness (Turns Off after 3 hours.)
4H + •)))	4H Time Control & PIR (Motion) Sensor Mode	Persistent (with memory)	Night Only	Sets the light to 100% and slowly reduces brightness. The lamp enters PIR Sensor Mode after 4 hours (5% brightness with no motion detected within sensor range, increases to 100% brightness when motion is detected)
6H	6H Time Control Mode	Persistent (with memory)	Night Only	Sets the light to 100% brightness and slowly reduces brightness (Turns Off after 6 hours).
AUTO	Day/Night Mode	Persistent (with memory)	Night Only	Sets the light to 100% brightness and slowly reduces brightness (Turns Off after 12-14 hours)

Note:

1. The PIR sensor's time delay is set to 20 seconds. This is how long the light will remain On for once no motion is detected.
2. **Indicator light:**
   - **Red light flashing:** The battery is currently charging.
   - **Red light solid:** The battery is fully charged.
   - **Red light off:** The battery is not currently charging.
   - **Green light off:** The light is set to one of the Time Control Mode
   - **Green light solid:** The light is set to PIR (Motion) Sensor Mode.
   - **Green light flashing:** The light is set to the 4H+ PIR (Motion) Sensor Mode.
3. **Instructions for use:**
   - **Power On:** Once the light is removed from the packaging , press and hold the On button for 2 seconds to turn it on. The default mode is set to the PIR (Motion) Sensor Mode.
   - **Assembly:** Install the light according to the instructions on page 5.
   - **Mode Selection:** Use the remote control to set the street light to the desired mode.
   - **Initial Charging:** Charge the light fully before first use. Insufficient charging may lead to reduced discharge time and brightness during the first use. When fully charged, normal operation, discharge times and brightness can be expected.
   - **Seasonal and Weather Impact:** During autumn, winter, or continuous cloudy and rainy days, the charging efficiency may decrease, leading to shorter discharge times. This is normal and is to be expected in such conditions.

4. MAINTENANCE
- Please do not throw the street light away with normal refuse. It contains a battery which should be recycled.
- This street light must never be placed into a fire, the battery poses an explosion risk.
- Please do not attempt to connect this light to an AC power supply.
- Please install on a secure and stable mount, and securely fasten the bracket and light to prevent injuries resulting from the fitting falling.
- In order for the Solar Panel to continue to work at peak efficiency, please ensure it is cleaned with a damp clothe and water every 3-4 months or as needed.
- Avoid installing this light near air-conditioners, heaters, hot machinery, or high-voltage power grid systems, which could interfere with the PIR Sensor.

5. PROFILE DIAGRAM OF SSL Range Dimensions

For Module specific dimensions please refer to Specifications table below.

6. SPECIFICATIONS

Function	Range		
Model	SSL80C	SSL120C	SSL150C
Lumen Rating	1400 lumen (140lm/W)	1800 lumen (150lm/W)	2250 lumen (150lm/W)
LED Power	100W	120W	150W
Real Power	10W	12W	15W
Solar Panel Power	10W/5V	12W/5V	15W/5V
Battery Specification	3.2V 10000mAh LiFePO₄	3.2V 12000mAh LiFePO₄	3.2V 15000mAh LiFePO₄
Lamp Dimensions	413 x 231 x 47mm	511 x 231 x 47mm	622 x 251 x 47mm
Solar Panel Dimensions	299 x 211 x 4mm	397 x 211 x 4mm	508 x 231 x 4mm
Lamp Weight	1,20kg	1,50kg	2,22kg
LED Type & CCT	SMD5054 · 6500K Cool White		
Charging Time	4-6 hours @>40000 lux (Normal daylight)		
Discharge Time	12-14 hours (typical)		
No. of Charge Cycles	>1200 cycles		
Lighting Modes	Day/Night Auto. Continuous On/Off		
	Pre-set Times, Motion Activation (PIR)		
Day/Night Detection (Auto)	Day>10 Lux / Night <5-10 Lux		
Installation Height	3-6m (Pole mount)		
Detection Distance	Max. 12m @ 25°C		
Detection Beam Angle	120°		
Material			
Lamp Body	ABS (UV Proof)		
Solar Panel	Monocrystalline Silicon & Glass		
Mounting Bracket	Stamped Iron		
IP Rating	IPX4		
Operating Temperature & Humidity	10°C (Discharge), 5°C (Charge) to 40°C @ <95% RH		
Remote Control	2 x AAA 1.5V (Included)		
Warranty	2 Years - Limited		

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