

eLEDing[®] Model EE814WAI User Manual



Built with AI and **CREE** LED SMART Solar Light

IMPORTANT Read this User Manual Before Installing....!!

Included in this package:

- | | | |
|------------------------------------|--|--------------------------------|
| 1 – eLEDing Solar Light Body | 1 – Rechargeable Li-Poly Battery | 1 – Tempered Glass Solar Panel |
| 1 – Wall Mounting Plate w/hardware | 2 – Hardware Package with Screws and Anchors | |

Initial Installation

Get Initial test the Battery and LED illuminator before setting up

1. The battery has been pre-charged and connected to the system, will be ready for use
2. Make sure the main switch is in the **OFF** position
3. Initially check the LED illuminator and battery by moving the main switch to position **ON (SMART)**, it should light up within two seconds, then turn the switch back to **OFF** for installation. In most cases no pre-charge before using is needed. Switch to OFF for 1-2 days charging under good sunny day is recommended if it has been stored over 6 months.

Mounting the Light Body

1. The light body **must only be mounted in a vertical position** and it should be mounted at least 6 to 10 feet above the ground
2. Choose a flat and safe mounting surface. Mark the screw positions through the mounting plate screw holes onto the mounting surface Use 2 or 4 hole mount (Fig. 1-2 & 1-3)
3. For wood, vinyl and metal surfaces mount the back plate directly with provided screws. Drill clearance holes using a 3/16" masonry bit for surface of concrete, brick or stucco, by insert the anchors provided with screws then position the mounting plate and screw the fasteners in securely. **It is mountable on the pole with nylon cable tie through the mounting plate four fixing holes also.**
4. Attach the light body unit to the wall mounting plate by connecting the top hinges. Then secure the light body unit in place by firmly pushing the light body in toward the mounting base where it locks in position (Fig. 1-3)
5. With the light body firmly secured in it's mounting position, the **Pan & Tilt** adjustment features can be used to adjust the direction of the motion detector and the light head for optimal performance and coverage. The direction and angle of the motion detector can be adjusted (Fig. 1-6). The LED light head can also be adjusted horizontally 180°, forward and backward 120° (Fig. 1-7)

Mounting and Connecting the Solar Panel

1. The solar panel must be mounted in a non-obstructed position without any shadow on its top where it will receive an average of at least 4 hours daily of direct sunlight all year round. It should be mounted with a tilt of 35°- 80° degrees (Fig 1-8). A sturdy mounting location such as a wall, roof, on top of patio, under the eaves, secure pole, or floor/ground base. This is required to make sure the solar panel is fastened down properly for all weather conditions
2. For Northern hemisphere installations the solar panel should be mounted with a Southerly facing position and visa-versa for Southern hemisphere installation the solar panel should face to the North (Australia, South Africa, South America e. g.)
3. Attach the hardware mounting bracket to the solar panel. Determine what length of the 10' connecting wire cord is needed to reach the position of the light body and then tie the unused cord behind the solar panel with the plastic zip-tie that is provided (Fig. 1-9)
4. Then mark the screw holes through the mounting bracket and secure the solar panel in position with the provided hardware
5. Firmly plug the solar panel plug into the bottom of the light body. That charging system is activated during a normal sunny, partially sunny or cloudy day (Fig. 1-5). This unit is chargeable either main switch is OFF or ON (SMART) position, If this does not happen please check if the plug is fully plugged into the light body or if there is a problem with the wire or solar panel

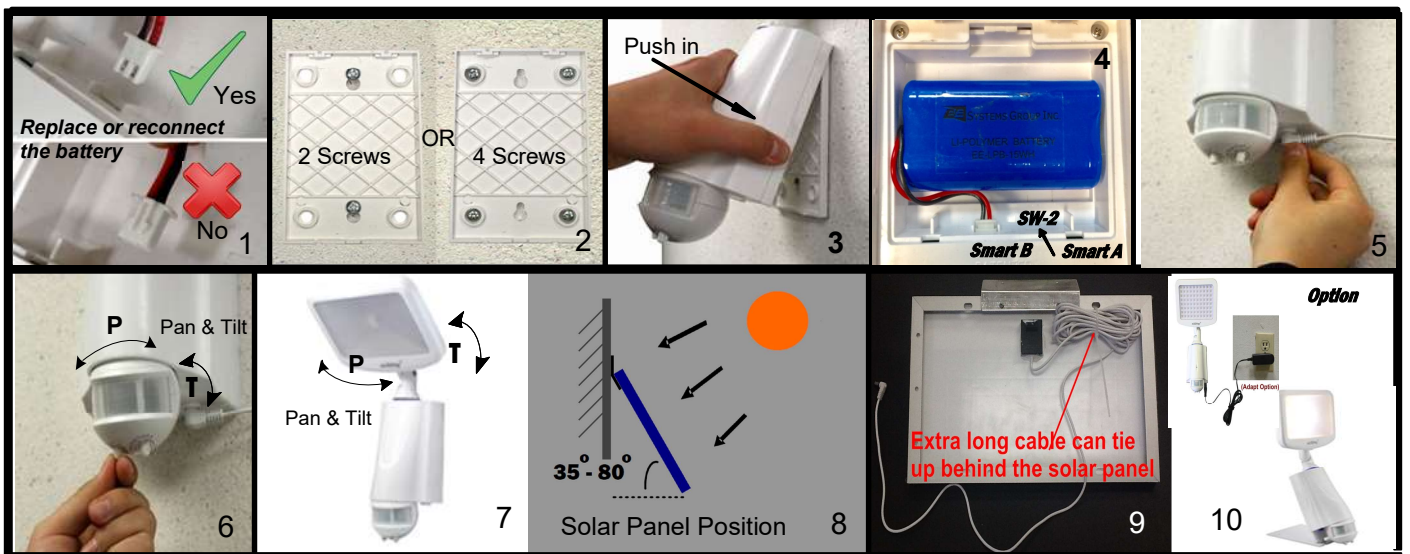


Fig. 1 Installation Steps

Just "One Step" to Begin Using the Light

After the light fixture and solar panel are mounted and connected, you may immediately begin using the light by just moving the main switch to the **ON (SMART)** position. Using the factory pre-set default profile is recommended (Fig. 2). **Note: NO FURTHER ADJUSTMENTS ARE NECESSARY!!**

eLEDing Solar Lights are innovated SMART lights embedded with intelligent microprocessor control processor. The light has two selectable operating modes, **SMART A MODE (AI mode)** as factory default and **SMART B MODE** (Fig. 1-4). Both are SMART modes of operation and utilize stored energy capacity for the most optimum lighting efficiency.

The settings for Sensitivity/Range of motion, AUTO Mode or levels of brightness in dimming control adjustment with SMART B Mode are set only, and controlled with adjustable dials refer by (Fig. 1-4 and Fig. 2)

The family of eLEDing SMART solar lights use an exclusive **Intelligent Power Management (IPM)** embedded feature for managing and optimizing the Lithium based battery for a full range of operation. This optimizes the battery's life cycle to adapt to most environmental conditions allowing both the battery and light to perform for many years.

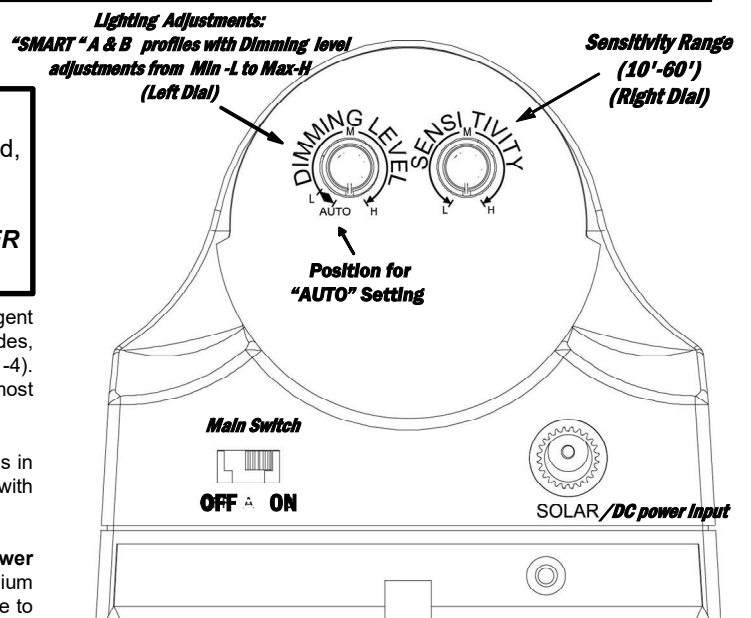


Fig. 2 Light Profiles & Settings

User Tips (video reference: www.eleding.com)

SMART A (default setting) is currently upgraded with **AI SMART Firmware** it will extremely improve the lighting performance for overcoming poor weather condition. When night time/darkness is sensed it will turn on to higher brightness and will stay for the first up to 3 hours regardless of motion sensing, after the 3 hours early evening activities period time past, it will dim to lowest brightness (Moonlight Soft Glow profile: Nice for friendly neighborhood safety environment condition during the night time and prevent light pollution in the residential communities, and match most Dark Sky City Standard). Now for the rest of the night, motion will bring it to full brightness until motion detecting disappears, then dim to lowest brightness. Brightness pot/knob setting has no affect in SMART A mode. This Mode is highly recommend for most locations as factory default setting with **AI SMART** based on seasons and Geographical environment automatically adjustability!

SMART B (selectable as option, refer: Fig 1-4): There is no 3 hours fixed lighting profile and motion activated will bring it to full brightness and it will dim back down to the pot/knob setting level as Moon Light and Safety illuminating profile. This mode is recommend for Dark Sky City Standard or the community requires highly reduced light pollution in all light long.

AUTO Mode (as old-dated lighting profile is unsafe during the area darkness condition and not recommended. selectable only under SMART B mode, refer: Fig 1-4; 2): Set the pot/knob all the way to minimum it will act in AUTO mode and there will be no light until motion detected. It will be full bright for a fixed 60 seconds after motion stops, then turn off.

WALK TEST (initial setup for adjusting with light head and sensor direction, etc.): Fixed 5 minutes as AUTO mode profile only, motion will trigger the light if battery is not low. It will stay on as long as motion detected (led will flicker to indicate motion being detected and light up) and then turn off 12 seconds later. If walk test is done during night time using **SMART A**, then when walk test expires there will be no 3 hours window for that first night. The 3 hours fixed higher lighting window will start on the next night automatically.

LOW BATTERY

RED-LED 3 flashes when it turns on to help indicate it is in low battery status

SUN-LIGHT CHARGING (built-on RED LED indication as advanced features)

- 1 flash to indicate battery is charging
- 2 flashes to indicate battery is close to fully charged
- no flashes mean it is either fully charged, or there is insufficient charge current may caused by solar panel, cable connection issue.
- It can take up to 10 minutes of constant charging before the LED will start to flash.

ADJUSTMENTS (Fig 2)

- Right knob: Sensitivity/Range adjustment is up to 60' with 180 degree coverage. Default set it up with 80-90% of Max in most lighting applications. For disable the ePIR in needed to set it at minimums, by turning it all the way to the left.

- Left knob: Illuminating dimming adjustment is capable setting from 10% to 50% of Max brightness level without motion triggered and AUTO mode when SMART B mode selected. The default setting with 10%/lowest level is recommended, otherwise, it will reduce a lot of discharging performance in winter season based on sunlight and weather condition. The higher of minimum soft glow level is set, the more stored battery energy will be more consumed.

AI SMART Benefit If the **AI** processor detects that the weather is getting critical poor condition and battery does not have enough charging capacity to support the lighting normal profile, it will automatically convert under few steps: reduce fixing 3hrs of high power profile (1-3hrs depends); then to **SMART B** mode; then into **AUTO** profile to provide safety lighting until it receives enough sunlight/recover with good weather to operate the feature correctly with normal and capable of always all night long illumination.

In All Modes if the **IPM** detects that the battery does not have enough capacity to run either profile in critical conditions, it will automatically disable illuminating function leaving only the charger active to protect the battery damage from over discharge. Once enough sunlight is received to charge the battery, the unit will go back to **AUTO; SMART B then SMART A** profile properly.

Installation Special Considerations

1. In order to avoid light self-excited oscillation: reflection to flashing. Not suitable for making a test in a small enclosed room/space, or pressing the light head facing down to directly illuminate to the sensor head (with Jumper 1 open).
2. In front of the motion detector that may affect detecting performance. Avoid installing the unit near air conditioners, central heaters, fan or high voltage systems. Avoid placing the motion detector head towards street traffic or other high movement areas which cause excessive triggers, resulting in shorter battery reserve capacity. If this situation is unavoidable, decrease the sensitivity to achieve optimal balance. Motion detector is more sensitive to motions across the device and less sensitive to motion moving towards or away from it.
3. The solar panel should be mounted where maximum sunlight can be collected. Typically, the solar panel should face south and avoid facing north (for Northern Hemisphere only, opposite way for Southern Hemisphere) with 35°- 80° tilt up direction (Refer to Fig. 1-5) It's fine facing to West or East where sunlight can directly charge the panel for at least 4 hours per day on average without any thing block on top even a small shadow.
4. Clean the solar panel by water once a year, and remove the snow right after snowing weather.

Product Specifications

Patented Technology

Illuminating coverage: Up to 160° angle by CREE LED head	Detecting Range: 180°, up to 60'x 60' (L-10', M-35', H-60+')
Light Head: 5W 3rd Gen CREE-USA COB LED (color 5000K)	Energy Storage: 17WH Li-poly battery
Solar Panel: 14VDC/4W Tempered Glass (with 10' cable)	AI/SMART Mode: 8+hrs max set to 80+hrs Moon bright set
Weight: 1.0 LBs (Light Body, White or Black)	Operation Temp.: -4°F to 125°F, Weatherproof IP64
Brightness: =70W Halogen Lamp/900+Lm (On Peak)	Complies with: FCC Part 15 Class B and ICES-003:2004

Note: Installation with factory default settings is recommended for most applications

Optional Accessories:

AC-DC Power Adapter/charger (EE-DPS-0.8A) : Must be switch type (digital) 12VDC/0.5-1.5A with current limited power supply (Fig. 1-10). Solar panel 15' extension cable (EE-SPEC-15F). Folding Table Stand (EE836DTS): For use as a table reading, camping, party and emergency back-up light (Fig.1-10)

Important Safety Information

Please do not dispose of battery in fire as this may result in an explosion. Do not expose the light to fire or intense heat as the battery may explode. Do not immerse in water. Never look directly into the light or shine it into another person's eyes. Follow proper safety tips to prevent injury such as falling from a ladder during installation. Consult your local Bi-Laws or local safety guide lines for installing the light fixture on a building.

One Year Limited Warranty

EESGI guarantees this product to be free from defects in material & workmanship for (1) year.
This warranty does not apply to damage from misuse or incorrect installation/ connection. This warranty does not cover accessories, bulbs, batteries, accidents, alterations, unauthorized use or repair, neglect, misuse, abuse, damages or defects resulting from normal wear and tear (including chips, fading scratches, abrasions or discoloration due to usage or sun exposure), or failure to follow instructions for care and maintenance, fire, flood, and Acts of God. This warranty does not include liability for incidental or consequential damages. **EESGI** is not responsible for any damages in excess of the retail purchase price of the product under any circumstances. The consumer is responsible for the installation of, removal of, and reinstallation of the product.