eLEDing® Model EE818WDC User Manual

Built with CREE◆ LED Smart Solar Light
LED Lighting

Pure White Illumination

Warm White Illumination

Or

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 Set-up (Refer to Fig. 1)
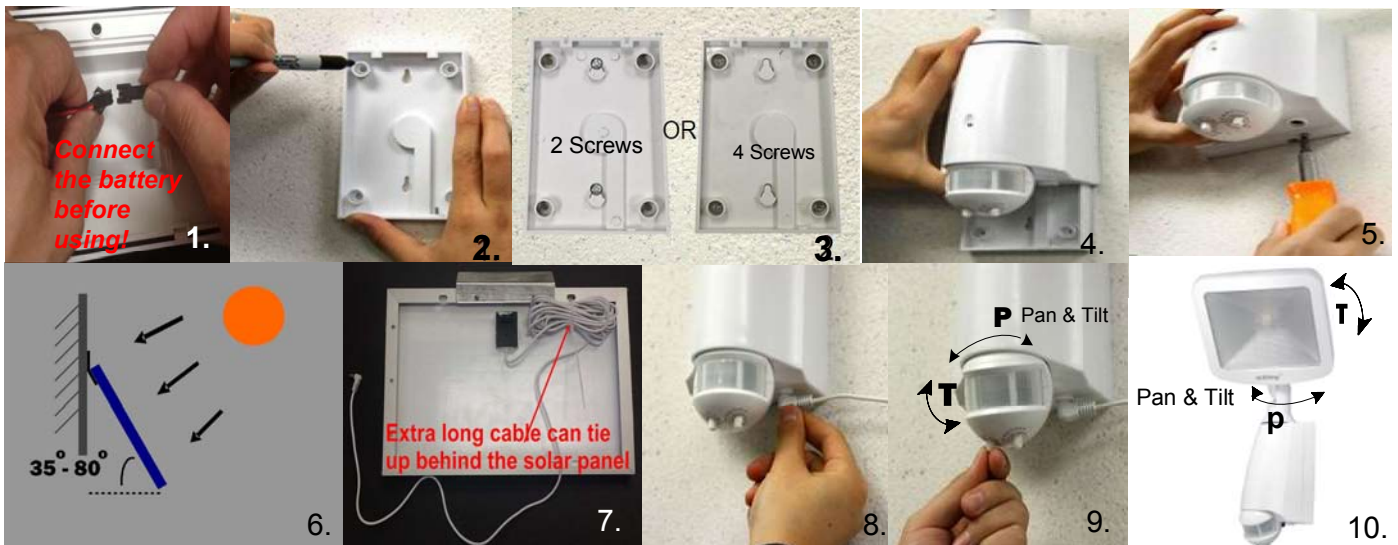
Connecting the Battery before setting up

1. **The battery has been pre-charged before shipping and the light is ready for use**
2. Make sure the main switch is in the *OFF* position
3. Open the battery cover on the back of the light and plug the battery into the connector and carefully make sure the plug position is correct then replace the cover (Fig. 1-1)
4. Initially check the light and battery by moving the switch to *AUTO* then *SMART* (*ON*), it should light up, then turn the switch back to *OFF* for installation

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. Insert the anchors provided with screws then position the mounting plate and screw the fasteners in securely
4. *Attach the light body unit* to the wall mounting plate:
   Slide the whole light body onto the wall mount plate from top going down with the light body "hinged" to the mounting plate (Fig. 1-4) Then secure the mounting with the small securing screw on bottom of the light body (Fig. 1-5)
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 directions for optimal performance and coverage. The direction and angle of the motion detector can be adjusted (Fig. 1-9). The LED light head can also be adjusted horizontally 180º, forward and backward 120º (Fig. 1-10)

Mounting and Connecting the Solar Panel

1. The solar panel must be mounted in a non-obstructed position 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 1-6). 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 fasten 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 should face to the North (Australia, South Africa, South America e. g.)
3. Attach the hardware mounting bracket to the solar panel. Determine how far 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. 1-7)
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 (Fig. 1-8). *The RED-LED indicator (in side the motion ball) will begin to double flash* (Fig. 1-8) indicating that charging status is active during a normal daytime sunny, partially sunny or cloudy day. If this does not happen please check that the plug is fully plugged into the light body or if there is a problem with the wire.

Connect the battery before using! 1. 2. 2 Screws OR 4 Screws 3. 4. 5.

35°-80° 6. *Extra long cable can tie up behind the solar panel* 7. 8. **P** Pan & Tilt **T** 9. **T** Pan & Tilt **p** 10.

A *Set-up/Walk test* is used to establish the motion sensitivity, Delay Time and Brightness level settings for the light. After the *Set-up/Walk test* is completed the main switch can be set to either the *AUTO* lighting profile or the *SMART-ON* (recommended) lighting profile (test is described on pg. 3)

eLEDing SMART Lighting Profiles & Settings

eLEDing Intelligent microprocessor controlled Solar Light offers two principal operating profile modes. The Sensitivity/Range of motion, length of illuminating time, and levels of brightness and dimming are set and controlled with adjustable dials (Fig. 2)

There are two principal operating profiles for the light. These are *AUTO* profile and *SMART-ON* profile.

The family of *eLEDing* 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.

Delay-Time (5"-180") on "Auto" Or Dimming with "SMART-ON" (Left Dial)

Sensitivity Range (10'-60') (Right Dial)

DELAY TIME SENSITIVITY

Solar/DC power Input

Security lock screw

OFF   AUTO   SMART ON

Battery will charge in any of the three switch position including OFF.

Fig. 2 Light Profiles & Settings

eLEDing SMART Light Profiles & Settings

"AUTO" Profile Operation

In AUTO Profile the solar light operates as a motion sensing light and it lights up to full brightness when motion is detected. The motion Sensitivity/Range can be adjusted by the **Right Dial,** the delay illuminating time that the light stays on after activation can be adjusted by the **Left Dial** (Ref. Fig. 2, page 1).

The illuminating **Delay Time** can be set using the **Left Dial** to set the desired length of time for the light to be on after motion is detected. It is adjustable from 5 to 180 seconds. The light on time will be extended as long as motion is continually detected and It will not turn off until the motion has stopped and after the illuminating **Delay Time** has expired. **(When set to AUTO profile the max time of 180 seconds is recommended.)**

The motion **Sensitivity/Range** can be set using the **Right Dial** to set the desired sensitivity/Range for the application. This adjustment has a motion sensing range from Low 10', Med. 35', High 60'+(**For most applications set the dial to between M-H, in warmer temperature conditions set this slightly higher**.)

Cautions: 1) Adjust the **Sensitivity/Range** so that it is not set too sensitive, this will increase false activations and reduce stored battery energy. 2) If the **IPM** feature detects that the battery does not have enough stored energy to operate at full brightness when **AUTO** profile is set then it will automatically reduce the light level to half brightness in order to maintain a level of safe lighting until it again receives enough sunlight in good weather condition to restore it back to normal status.

"SMART-ON" Profile Operation

In **SMART-ON** profile (switch position set to **SMART**) the solar light operates as a true **Dusk to Dawn** light. The unit senses its surrounding ambient light level and will turn on in darkness providing adjustable moonlight soft glow lighting all night long. When motion is detected it lights up to it's maximum brightness or pre-set brightness within the set sensitivity range. In new or if replacing existing AC light applications **SMART-ON** is the recommended profile when used as a outdoor and indoor light for **Security and Safety lighting. It can also be used to enhance CCTV applications to illuminate coverage area of the camera**.
The **SMART-ON** profile has two selectable innovative **SMART Modes (A or B)** to optimize the way the light brightens up or dims down after motion has been detected (Ref. Fig. 3).
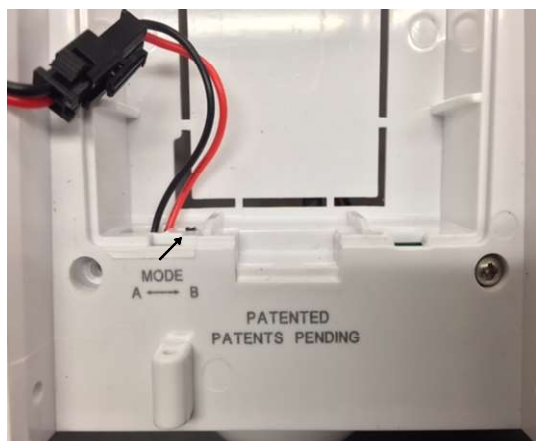

Fig. 3 A & B Mode
Factory default is **Mode A** and
preset with maximum brightness

Fig. 4 Unusual Positions

Light Head must only be mounted **VERTICALLY** only. Do not mount in any unusual positions as shown in Fig.4

A) In **Mode A** maximum brightness is controlled and set by the user. In this mode the dual function **Delay-Time** dial functions as a **Brightness dial** for setting the light level from lowest to maximum brightness (Left Dial). **When motion is detected it will brighten up to the level as pre-set by the Left Dial and when motion stops it will slowly dim down to the lowest factory fixed pre-set moonlight soft glow lighting.**

Caution - The higher the brightness level is set to the more stored battery energy is used when activated by motion. If the **IPM** detects that the battery does not have enough capacity to run this mode it will automatically go into **AUTO** profile (please refer to **AUTO** profile description) to provide safety lighting until it receives enough sunlight to operate the feature correctly.
Mode A also allows the brightness level to be adjustable as a portable or table reading/studying light in low level light conditions.

B) In **Mode B** the minimum soft glow lighting is controlled and set by the user. In this mode the dual function **Delay-Time** dial functions as a minimum dial, setting the dimming level of moonlight soft glow lighting. **When motion is detected the light will brighten up to the pre-set factory fixed max level and then dim back down to the level set by the user, Left Dial.**

Caution - The higher the minimum soft glow level is set to the more stored battery energy is used to provide soft glow lighting. If the **IPM** detects that the battery does not have enough capacity to run this mode it will automatically go into **AUTO** profile to provide safety lighting until it receives enough sunlight to operate the feature correctly.

In both **Modes A&B** If your geographic location has outstanding daytime sunlight conditions all year (California, New Mexico, Florida of USA e.g.) then you can increase the dimming level or brightness level and take advantage of a brighter projection of **Moonlight** soft glow Dusk-to-Dawn lighting. **The Sensitivity/Range adjustment** functions and setting are identically as described for the **AUTO** profile. For **most applications the recommending factory preset is Mode A (default, Fig. 3).**

In both AUTO and SMART-ON profiles if the **IPM** detects that the battery does not have enough capacity to run either profile in critical weather conditions, it will automatically disable illuminating function leaving only the charger active to protect the battery from over discharge causing damage. Once enough sunlight is received to charge the battery, the unit will go back to **AUTO** profile if set in **AUTO. If** set to **SMART-ON** profile then it will first go into **AUTO** profile until it receives enough sunlight energy to operate **SMART-ON** profile properly.

Important Note: The **A&B** Modes only operate in **SMART-ON** profile. They do not function if it is set with **AUTO** profile.

Set Up-Walk Test Procedure and Adjustments

1. To set up **eLEDing** for your applications the unit comes with a **Set-up/Walk** Test mode to ensure proper installation and performance is optimized. To activate this mode move the main switch from **OFF** to **AUTO** position. **This mode can be reactivated at anytime to adjust your settings for your application by sliding the switch to OFF then AUTO in any condition day or night.**

2. When the main switch is set initially to **AUTO from the OFF** position for a period of 10 minutes the Set-up/Test mode will be active allowing the user to adjust the light settings. This mode will work in day or night time conditions. The length of Delay Time for light illumination can be adjusted at this time for your application from 5 seconds minimum to 180 seconds maximum. During this Set-up/Test mode **set this time to 5s for testing purposes once you are satisfied with your set up then set it to your application (180 seconds is recommended).** The Motion Sensitivity/Range can be adjusted at this time for your application from 10' minimum to 60'+ maximum, also in conjunction adjust the motion detector head using the **Pan** and **Tilt** feature for your application during this time.

3. The **Set-up/Walk** Test mode is active as long as motion is seen or will automatically disable if 10 minutes has passed without motion being detected. During this mode, the indicating Red LED light will flash through the motion detection lens providing visual confirmation of motion detection adjustments. When a period of 10 minutes passes without motion detection the unit will automatically switch to normal operation mode and will start illuminating once it senses a change to darkness from daylight ambient light conditions.

4. After the initial **Set-up/Walk** Test is complete the main switch may either be kept in the **AUTO** profile for Security sensing flood lighting or moved to the **SMART-ON** profile for Dusk-to-Dawn security and safety lighting. **SMART-ON is the recommended mode providing both Security and Safety lighting.**

Note: The **Red LED indicator** light inside the ball head flashes for the following reasons: 1) To indicate motion activity during the 10 minutes initial Set up/Walk Test. 2) To indicate the battery is low when the sensor detects motion during darkness. 3) To indicate charging status during normal charging either in Sunny, Partly cloudy and cloudy daytime periods, or when the AC/DC-digital charger (option) is being used for charging in any conditions.

Storage: If this unit has been stored over six months before initial operation then the battery may need to be re-charged. To re-charge the battery after storage turn the main switch to OFF, connect the battery, plug the wire cord from the solar panel to the light and place it in direct sunlight for 1-2 days. Or charge for 2-3 hours using only our **optional accessory AC-DC Digital/Switched Power Adapter (EE-DPS-0.8A).**

User Tips (video reference: youtube.com/watch?v=5eQWsWgFvBA)

Table Light Conversion using optional Table Stand accessory **(EE45/80/18-PBS)**, Fig. 5). This option converts the light to a portable table light for camping, picnics, reading/studying and other indoor or outdoor activities. Use as a Table Light during low light level conditions. Move switch to **SMART-ON** then make sure to select Mode A (Fig. 3), then adjust Left Dial (Dimming) for desired reading light level.

An optional AC-DC digital power adapter (EE-DPS-0.8A,) can be used as a quick charger. Also with this adapter it can be used in either **AUTO** or **SMART-ON** as a standard AC/DC powered motion sensing flood light with battery back-up capability for indoor/outdoor security/safety lighting applications. It can be wall or table mounted, or used as a standard portable/table light (Fig. 5).

Fig.5 Table Stand & DC Power (option)

Avoid placing objects in front of the motion detector that may affect detecting performance. Avoid installing the unit near air conditioners, central heaters, 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 and delay time 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. 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. 1-8) It's fine facing to West or East where sunlight can directly charge the panel for at least 4 hours per day on average. Use a soft wet cloth to periodically (at least once a one year) clean the solar panel to avoid the reduction of energy output due to accumulated dust. Clean accumulated snow as soon as possible during the snowing season.

Product Specifications

Coverage: Up to 180º sensing angle	Detecting Range: 180°, up to 60'x 60' (L-10', M-35', H-60+')
Light Head: 8W Single super bright -LED (**CREE**-USA)	Energy Storage: 23WH Li-poly battery
Solar Panel: 13VDC/8W Tempered Glass (with 10' cable)	Mode: A for 80+hrs continuous; B for 9-80+hrs
Weight: 1.7 LBs (Light Body)	Operation Temp.: -4°F to 125ºF, Weatherproof IP54
Brightness: 100W Halogen Lamp (On Peak), 5/7M color	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 (EE-DPS-0.8A) : Must be switch type (digital) 12VDC/0.5-1.5A with current limited power supply (Fig. 5)
Table Stand (EE45/80/18-PBS) : For use as a table light (Fig. 5). Solar panel 15' extension cable (EE-SPEC-15F).

Important Safety Information

Please unplug the battery when shipping the light or packing for fight traveling. 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.

Customer Service: (877)579-3889, www.eesgi.com

Introduction and Intellectual Property Rights Statement

Thank you for purchasing the *eLEDing* LED Smart Solar Lights. With its effortless setup and lightweight design the *eLEDing* LED Smart Light conforms to all your lighting needs. It was designed and made to provide many years of trouble free service using environmentally friendly Solar-Hybrid-Lithium based energy technologies. Covered under multiple US, European, China and other international patents granted and pending worldwide. All rights reserved.

Introduction eLEDing Technology Related Green Systems

EE814WDC

Solar Powered Ultra-Bright 4W *CREE* LED eMitter Flood, Spot, Building and Parking Lot, Security & Safety Lights, white CCTV illuminator

Specifications

Coverage: Up to 180° sensing angle	Detecting Range: 180°, up to 60'x 60' (L-10', M-35', H-60+')
Light Head: 4W Single super bright -LED (Cree-USA)	Energy Storage: 11WH Li-poly battery
Solar Panel: 12VDC/4W Tempered Glass (with 10' cable)	Mode: A for 80+hrs continuous; B for 9-80+hrs
Weight: 1.0 LBs (Light Body)	Operation Temp.: -4ºF to 125ºF, Weatherproof IP54
Brightness: 60W Halogen Lamp (On Peak), 5/7M color	Complies with: FCC Part 15 Class B and ICES-003:2004

EE815WDC(WW)/(BP)

Solar Powered Ultra-Bright 5W *CREE* LED eMitter Self-Contained Flood, Spot, Building Security & Safety Lights, white CCTV illuminator

Specifications

Coverage: Up to 160° x 120° angle	Detecting Range: 160°, up to 45'x45' (L-10', M-25', H-45+')
Light Head: 4W Single super bright -LED (*CREE-USA*)	Energy Storage: 13WH LiFePO4 battery
Solar Panel: 13VDC/4W Mono-crystalline self-contained	Smart Mode: A for 40+hrs continuous; B for 9-40+hrs
Weight: 2.2 LBs (Light Body), Black/White light fixture	Operation Temp.: -4ºF to 125ºF, Weatherproof IP54
Brightness: 60W Halogen Lamp (On Peak), 4M/7M color	Complies with: FCC Part 15 Class B and ICES-003:2004

eStreet & ePower

EE810-30W/SCLH

EE810-30W/SFLH

EE810-30W/SSLH

EE810W/SPZ

EE840-60W/SPG

EE810-30W/SRLH