

Model EE818WDC User Manual

Built with **CREE** LED Solar Light
LED Lighting



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

Included in this package:

1 – 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)

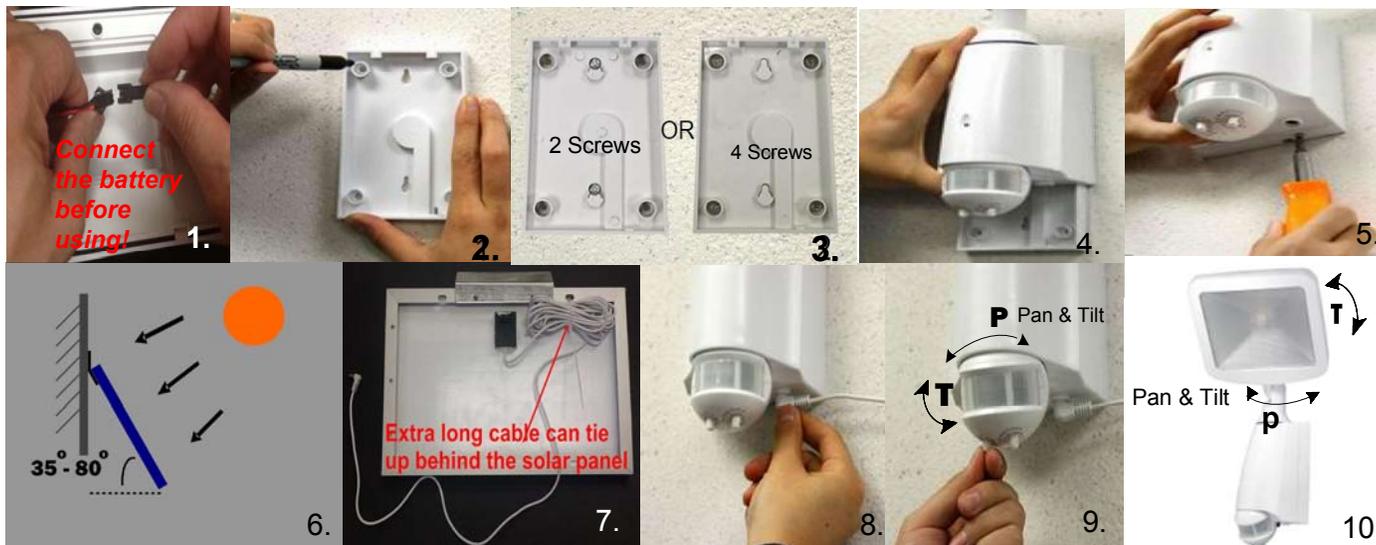
1. The battery has been pre-charged before shipping and the light is ready for use
2. Make sure the main switch is in the **OFF** position
3. Open the battery cover on the back of the light and plug the battery into the connector and carefully make sure the plug position is correct then replace the cover (Fig. 1-1)
4. Initially check the light and battery by moving the switch to **AUTO** then (**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 its 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 180°, forward and backward 120° (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.



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 **ON** (recommended) lighting profile (test is described on pg. 3)

Lighting Profiles & Settings

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 **ON** profile.

The 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.



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

Fig. 2 Light Profiles & Settings

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.

Profile Operation

In **ON** profile 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 **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 **ON** profile has two selectable innovative **Modes (A or B)** to optimize the way the light brightens up or dims down after motion has been detected (Ref. Fig. 3).

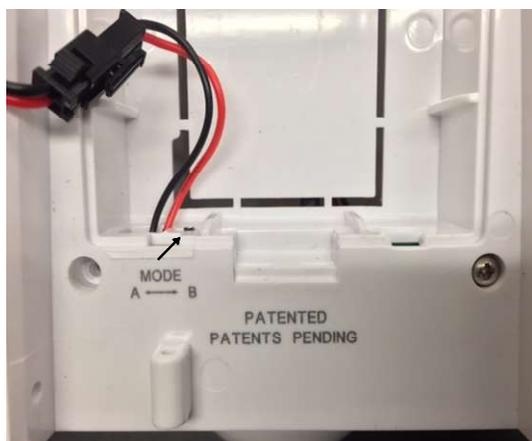


Fig. 3 A & B Mode
Factory default is **Mode A** and preset with maximum brightness



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 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 **ON** profile then it will first go into **AUTO** profile until it receives enough sunlight energy to operate **ON** profile properly.

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