

## 5V Solar Panel



**SOLAR  
POWERED**



**USB-C  
CHARGE**

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AUTOMATE | Solar Panel provides supplemental power to all 5v Li-ion wirefree motors or rechargeable battery packs. The monosilicon/crystal solar panel provides power in varied conditions including low light situations.

### **FEATURES:**

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- Plug n' play for all 5V AUTOMATE Li-ion motors & rechargeable battery packs
- Sleek design allows for unobtrusive placement behind most headrails
- Monosilicon/crystal technology allow for up to 50% more efficiency than standard Solar panel material alternatives
- Low light harvesting technology supports power generation in varied conditions
- Panel charges when partially charged

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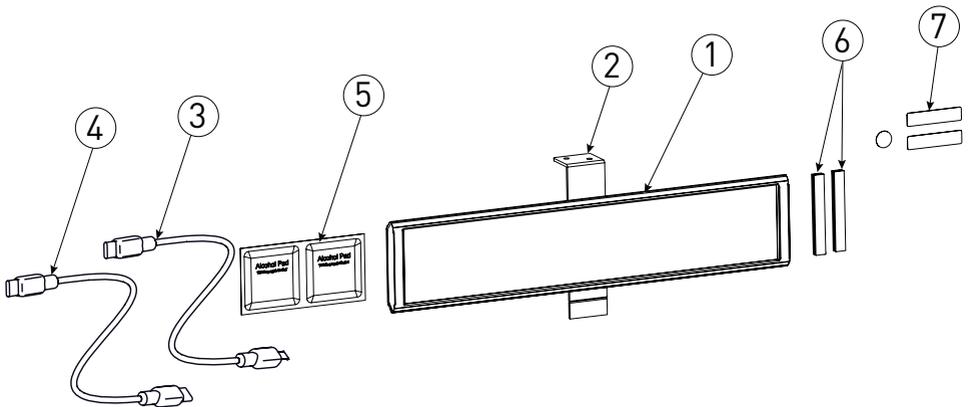
# 1 Compliance Statement

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

# 2 Kit Components

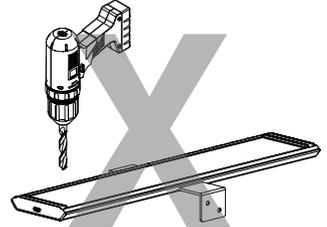
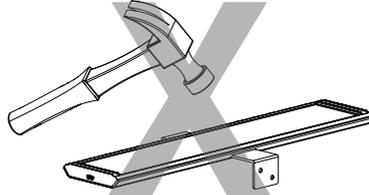
- 1. Solar Panel
- 2. L-Bracket - Aluminium
- 3. Connector Cable: Male USB-C to Male USB-C
- 4. Connector Cable: Male USB-C to Male Micro USB
- 5. Alcohol Wipe Cloths (Twin Pack)
- 6. Dual Lock Type 250 fastener
- 7. Slot & Screw Cover Stickers/Label Set (2+1)



### 3 Safety instructions

#### **WARNING: Important safety instructions to be read before installation.**

- Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
- Incorrect installation can lead to serious injury and will void manufacturer's liability and warranty.



#### **CAUTION**

- Do not expose to moisture or extreme temperatures.
- Do not allow children to play with this device.
- Use or modification outside the scope of this instruction manual will void warranty.
- Installation and programming to be performed by a suitably qualified installer.
- For use with Li-ion Motors and Re-chargeable battery packs only.
- Do not cut power cables.
- Use only Rollease Acmeda hardware.
- NOT suitable for exterior application.
- Do not drill into motor body or Solar panel body.
- The routing of cable through walls shall be protected by isolating bushing or grommets.
- Ensure power cable is clear and protected from moving parts.
- If cable or power connector is damaged do not use.

#### **Important safety instructions to be read prior to operation.**

- It is important for the safety of persons to follow the enclosed instructions. Save these instructions for future reference.
- Persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge should not be allowed to use this product.
- Keep Solar Panel away from children.
- Frequently inspect for improper operation. Do not use if repair or adjustment is necessary.



Do not dispose of in general waste.  
Please recycle batteries and damaged electrical products appro-

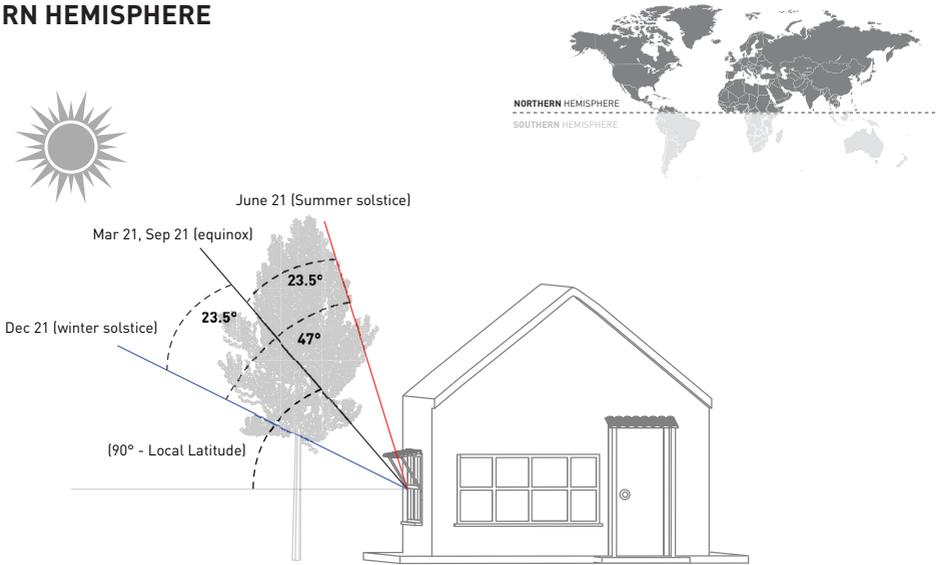


# 4 Solar panel installation location guide

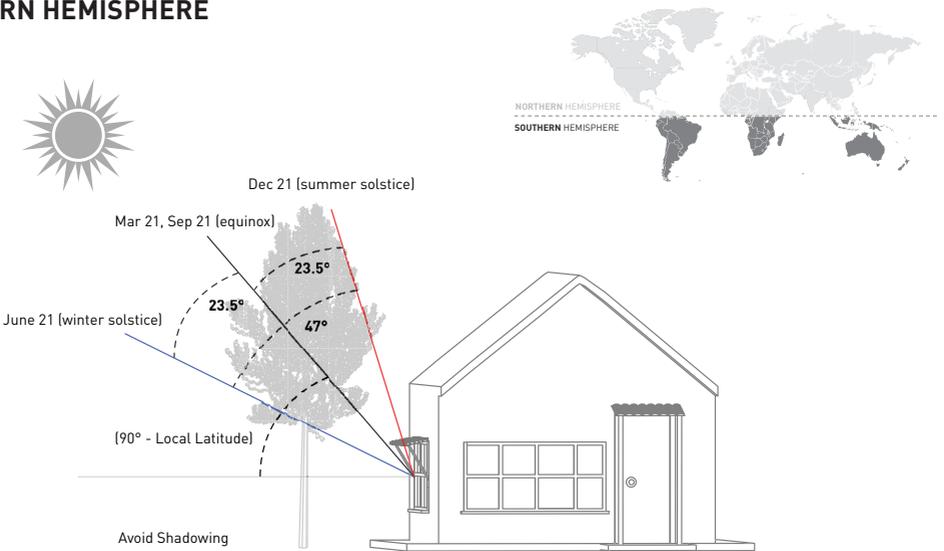
## 4.1 Sun's seasonal declination differences

Take into account the movement of sun throughout the season.

### NORTHERN HEMISPHERE

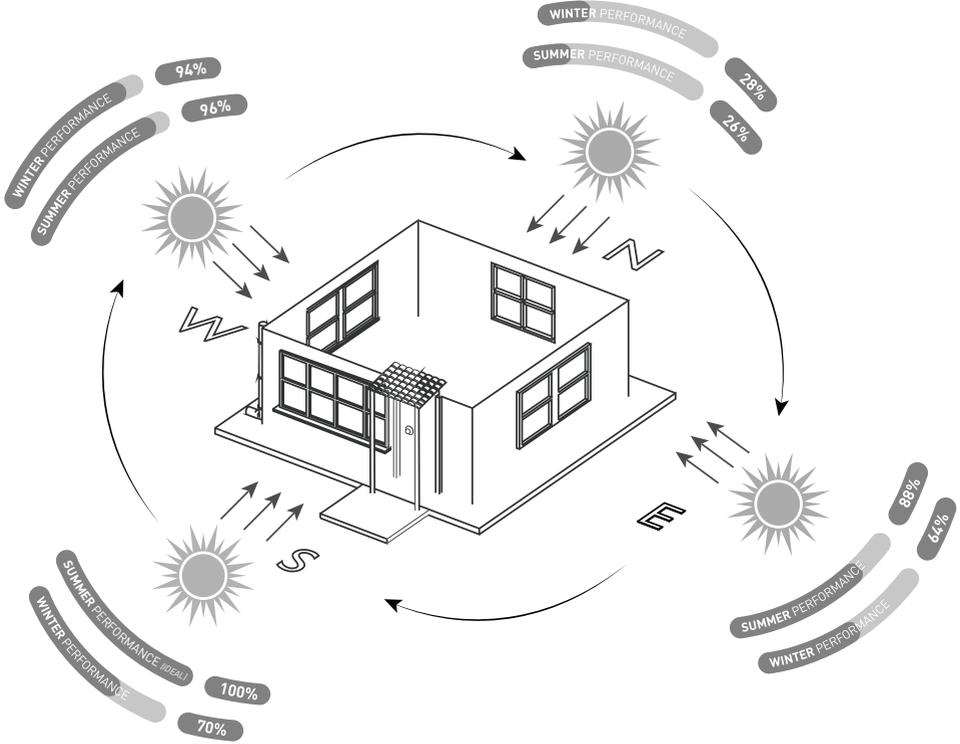


### SOUTHERN HEMISPHERE



## 4.2 Sun's seasonal performance

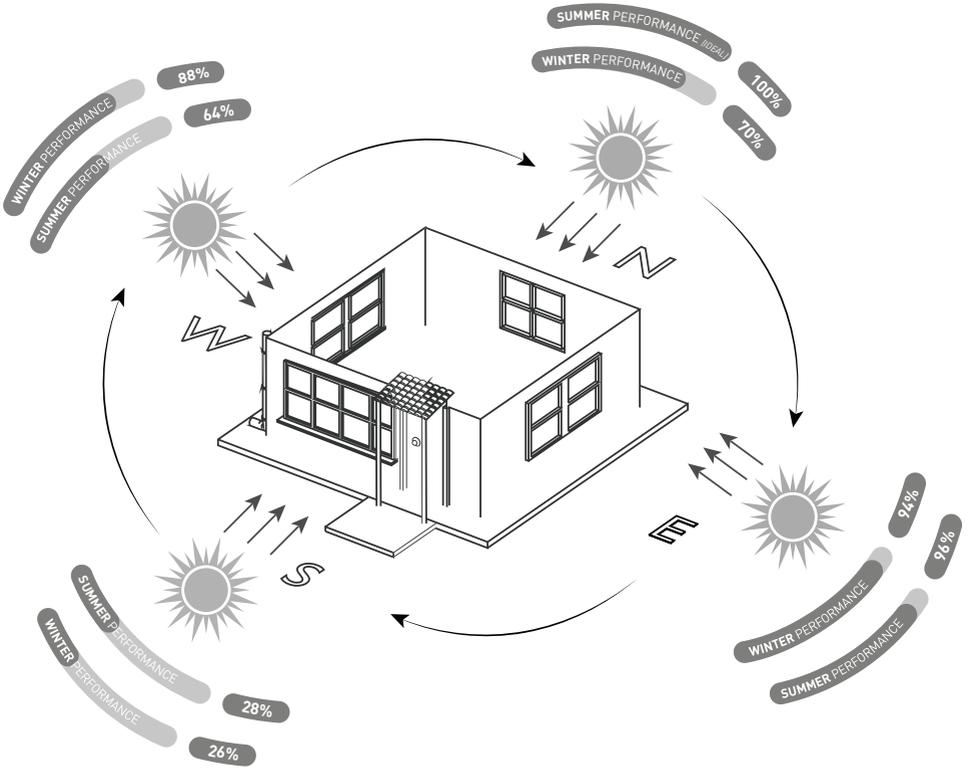
### NORTHERN HEMISPHERE



# SOUTHERN HEMISPHERE



NORTHERN HEMISPHERE  
SOUTHERN HEMISPHERE

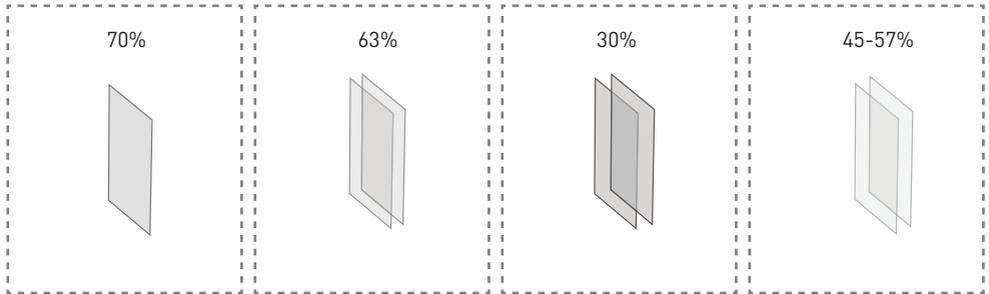


## 4.3 Light Transmission

Light transmission can vary widely with the number of window panes and types of coatings. The type of glass needs to be assessed. Approximate transmission factors are:

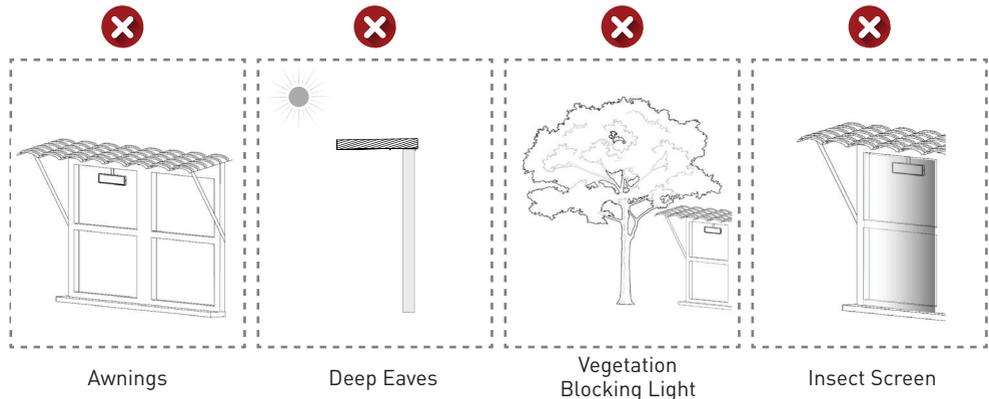
GLASS TYPE	TRANSMISSION FACTORS
Single panel	70%
Double panel	63%
Double panel with bronze tint	30%
Double panel with selective low-e coating	45-57%

Single panel & Double panel options with varying light transmission factors.



### IMPORTANT!

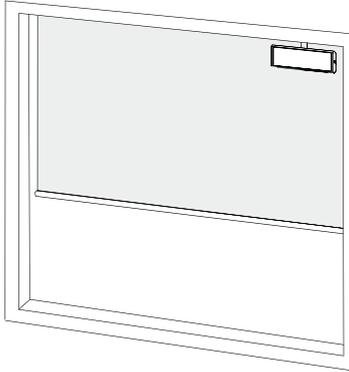
The charging time of a solar panel can be affected by any object or condition situated between the sunlight and the panel, and in certain cases, it may even prevent the use of the solar panel. Overcast weather serves as an instance of an unpredictable and uncontrollable hindrance. Nonetheless, there are other factors to contemplate before the installation of a solar panel, such as:



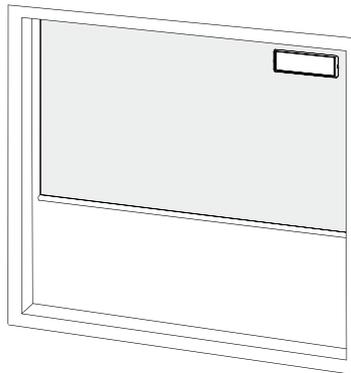
# 5 Installation

## 5.1 Mounting Options

### OPTION A. Attaching Mounting Bracket to Window Frame



### OPTION B. Attaching Solar Panel via Velcro Strip to a Window or surface



## HORIZONTAL ORIENTATION

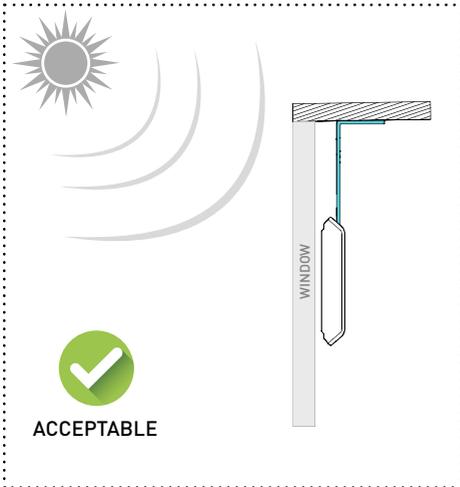


Use velcro strips to stick the bracket on the window (horizontal orientation).

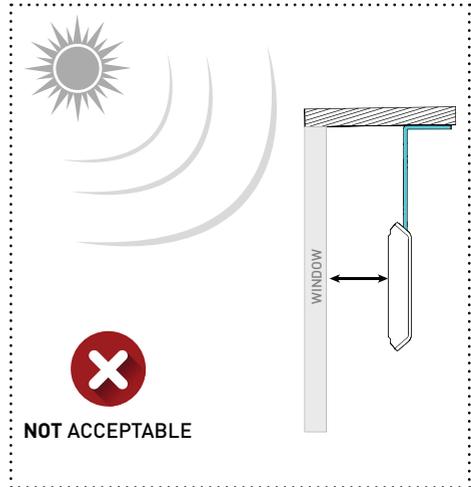
## VERTICAL ORIENTATION



Use velcro strips to stick the bracket on the window (vertical orientation).



Keep the solar panel as close to the window as possible.



Solar panel should not be too far from the window because the performance will be reduced.

## 5.2 Installation Process



### IMPORTANT!

Fully charge the Motor or Battery Pack before beginning Solar Panel installation.

**Step 1.** Locate the optimal position for solar panel in window.

Ensure all components are available for installation scenario.



### IMPORTANT!

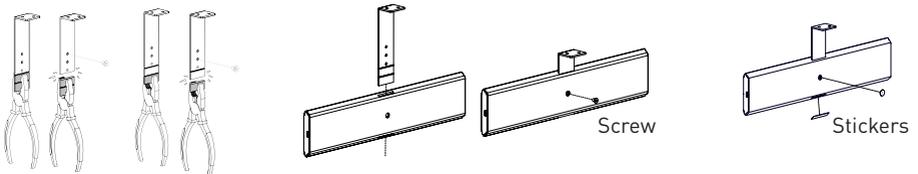
Ensure solar panel has adequate exposure to sunlight.

When selecting a position for solar panel, consider any external obstructions like trees, building, signs, etc. that may limit the amount of sun light reaching onto the solar panel.

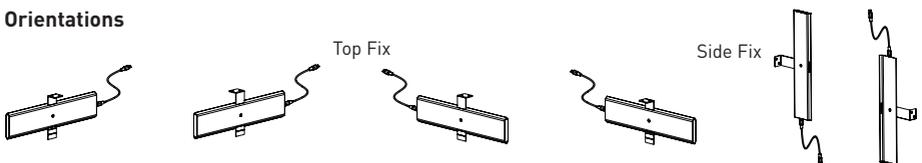
**Step 2.** Installing Solar panel

### OPTION A. Attaching Mounting Bracket to Window Frame

- i. Break off excess bracket length using Pliers (if required).
- ii. Install mounting bracket to wall/mounting point.
- ii. Fix Solar panel to mounting bracket using screw.
- iii. Apply stickers onto the Solar Panel to seal unused mounting holes.



### Possible Orientations



## OPTION B. Attaching Solar Panel via Dual Lock to a Window or surface

- i. Clean Solar panel front surface with alcohol wipe.

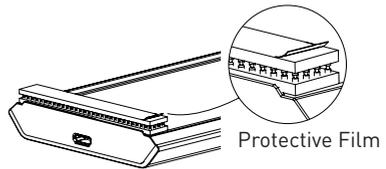
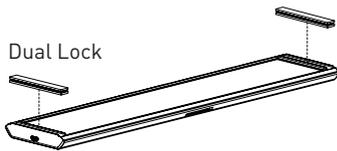
Allow surface to dry.

- ii. Peel protective film off one side of Dual Lock and attach to one end of Solar panel.

Press adhesive tape firmly onto Solar panel surface for 5 seconds to ensure good adhesion.

Ensure that Dual Lock does NOT cover any portion of the Solar panel cells.

Repeat previous steps for attaching adhesive tape to other end of Solar panel.



- iii. Apply stickers onto the Solar Panel to seal unused mounting holes.

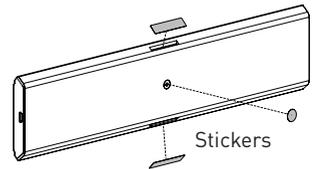
- iv. Clean the window or surface with alcohol wipe.

Allow surface to dry.

Peel protective film off Dual Locks.

Press firmly onto fixing surface.

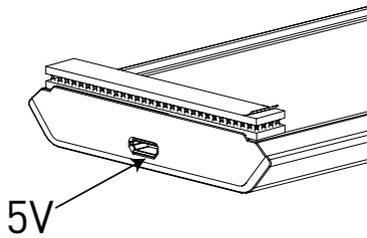
Apply hand pressure for 5 seconds and check if firmly attached.



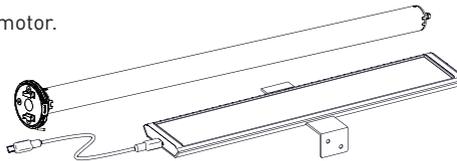
### IMPORTANT!

Any partial or total covering of any solar panel cell will degrade solar panel performance.

### 5.3 Connecting Solar Panel 5V with Motor



Connect Solar Panel with the motor.



5V USB-C Connection



#### **IMPORTANT!**

Ensure any cables are kept clear of fabric at all times.

5V Compatible components:

PARTS	DESCRIPTION
MT03-0302-xxx909 or Equivalent	Male USB-C Connector
MT03-0301-069013	5V USB CHARGING CABLE EXTENDER 48" / 1200MM
MT03-0301-069014	5V USB CHARGING CABLE EXTENDER 8" / 210MM

## 5.4 Solar Panel Assessment Instructions

To ensure the optimal performance of your solar panel and confirm that it charges the motorized shade effectively, follow these steps:

**Step 1: Solar Panel Placement:** Install the solar panel in a window that receives the maximum amount of sunlight to maximize its power output. Refer to the installation options in this manual for guidance.

**Step 2: Connecting the Solar Panel:** Plug the micro-USB end of the provided cable into the USB port on the motor.

**Step 3: Initial Observation:** Wait for a couple of minutes after connecting the solar panel to the motor. Observe the motorhead closely to check for a green LED light near the **P1** button area.

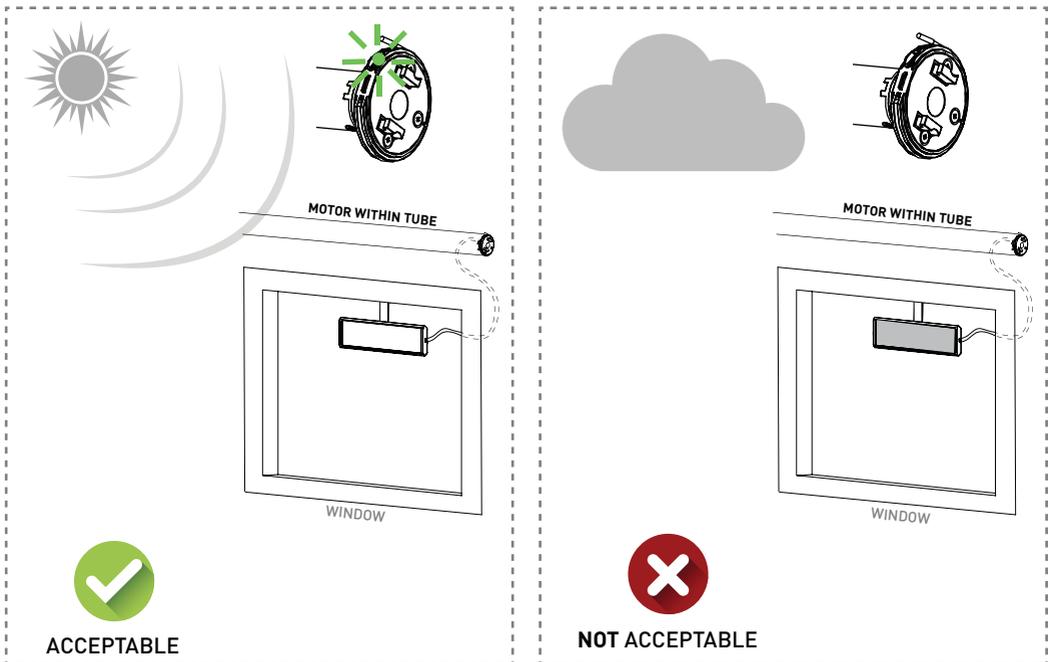
**Step 4: Confirm Solar Charging:** If the LED starts flashing green, this indicates that your solar panel has initiated trickle charging for the shade. This means that the solar panel placement is correct and ideal for the expected performance.

**Step 5: Inadequate Charging Indication:** If the LED does not blink after waiting for a couple of minutes, consider the following:

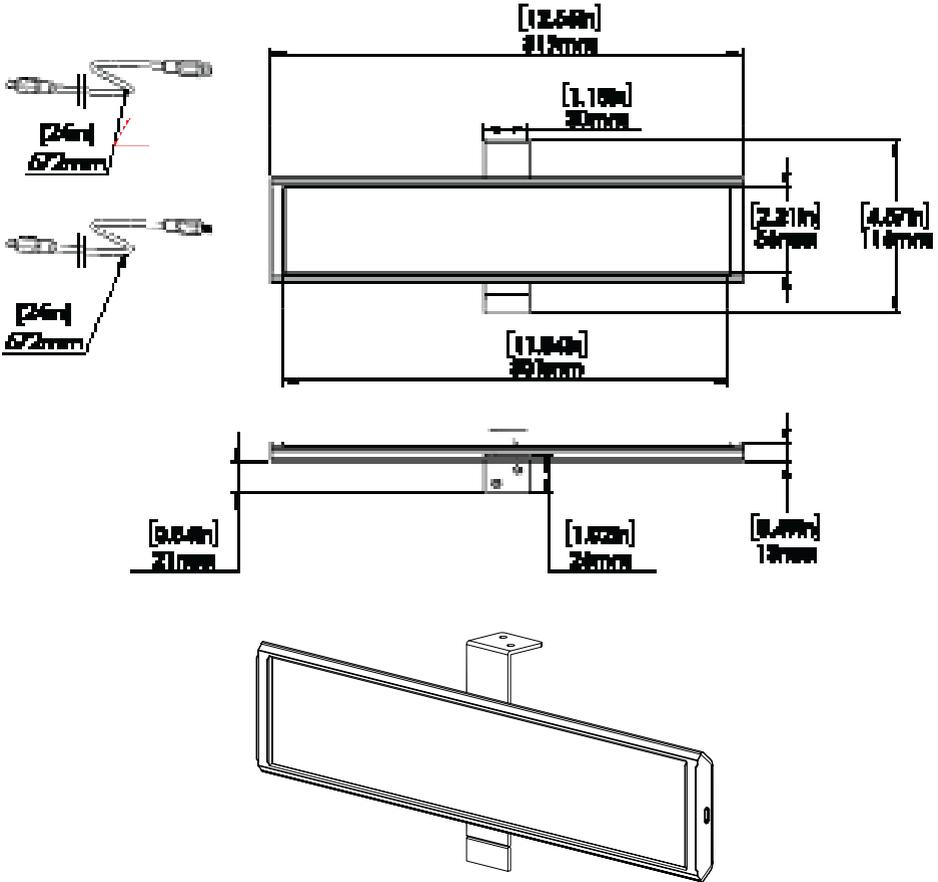
Try relocating the solar panel to a different position in the window with better sunlight exposure.

If, even after relocation, the LED still does not blink, it indicates insufficient sunlight entering the window, and the motor will not be trickle-charged by the panel.

**Step 6: Supplementary Charging:** It's important to note that the solar panel is designed to extend the battery life of the motor. Depending on usage and weather conditions, you may also use a USB charger to directly charge your motor as needed.



## 6 Dimensions



**SPECIFICATION TABLE**

Parameters		Value
Max Output Power (Under 1 SUN - 1000W/m <sup>2</sup> )		3.0W
USB-C Connector	V	5V
	I <sub>max</sub>	600mA
IP Rating		IP40
Temperature Working Range		32°F to 140°F (0°C to 60°C)

## 7 Troubleshooting

Problem	Cause	Remedy
Motor is not responding	Remote control battery is discharged	Replace battery
	Battery is inserted incorrectly into remote control	Check battery polarity
	Radio interference/shielding	Ensure remote is positioned away from metal objects and the antenna on motor is kept straight
	Motor distance is too far from remote control	Move Remote to a closer position
	Battery power depleted	Recharge with AC adapter (Optional)
	Incorrect wiring	Check that motor wiring is connected correctly (refer to motor installation instructions)
Motor beeps 10 times when in use	Battery voltage is low / Solar Panel issue	Check connection and positioning of Solar panel. Ensure sun exposure is adequate
	Solar Panel not providing enough power	Recharge with AC adapter (Optional)
No output of USB-C connector	Not enough light	Adjust the orientation of the Solar Panel for more light energy

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