



SunPal Series

SunPal Large 20 LED



SunPal-Large-20LED

Commercial Solar Sign Light

Installation Manual

Unit Mounting

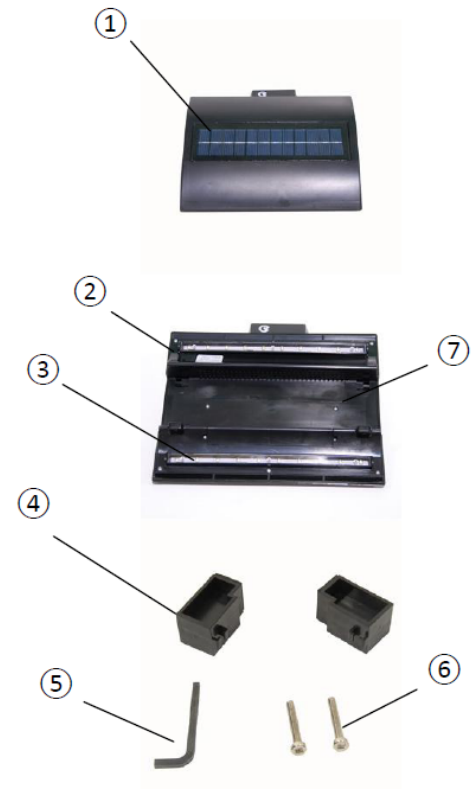
Components & Getting Started

Included Components

- SunPal Lighting Fixture
- 2 Mounting Reducer blocks
- 2 Security Screws
- Security Tool

Labeled Items

1. Solar Panel
2. 4 Position Switch
3. Lighting Track
4. Mounting Reducer Blocks
5. Security Tool
6. Security Screws
7. Mounting Channel



Useful Information

- Can be fit over any sign that is $\frac{1}{2}$ " to $1\frac{1}{2}$ " (using reducer blocks) or $2\frac{5}{16}$ " to $3\frac{1}{2}$ "
- For signs that are smaller than $3\frac{1}{2}$ " wide, the SunPal will not sit perfectly symmetrical on the sign therefore the lighting tracks can be adjusted to properly illuminate on your sign.
- The SunPal can be set to illuminate for 4 hours, 6 hours or continually run until the battery is depleted to 50 percent (amount of hours varies from region to region).
- Battery life and hours of operation are completely dependent on installation area and geographical location. Therefore if the units are placed where shading from trees, buildings and other obstructions will cross over the panel between peak sun hours (10am-4pm) the unit will operate at reduced performance (less hours of operation) and cause premature battery life.
- Security screws are intended to deter theft if installed properly and can only be removed if the security tool is used or a large square head screwdriver is used.
- **We recommend installing the SunPal on your sign as early as possible in the morning in order for the unit to get a full days charge for operation that night.**

Note: The SunPal WILL NOT charge in the off position. The off position is for storage purposes only to preserve battery power when not in use.



Installation Process

Problems: Causes and Solutions

- **My SunPal won't fit on my sign**

- Cause:

- 1) Your sign's width does not fall within the acceptable ranges permitted to be used with the SunPal.
- 2) The security screws may be protruding beyond the threaded hole reducing the mounting channels width.

- Solutions:

- 1) Double check the acceptable ranges permitted by the SunPal.
 - a. If the sign is between the ranges of $\frac{1}{2}$ " to $1\frac{1}{2}$ ", use the reducer blocks.
 - b. If the sign is between the ranges of $2\frac{5}{16}$ " to $3\frac{1}{2}$ ", the reducer blocks cannot be used.
- 2) Unthread the screws so that they do not protrude out of the other side of the screw holes.

- **My SunPal does not turn on at night**

- Cause:

- 1) Switch is not set to an operation mode (Auto, 4 or 6)
- 2) Ambient light source is on the panel "tricking" the unit into thinking its daytime.
- 3) Battery did not receive a proper charge (no power reserve in battery) due to weather conditions or shadow castings during the day.

- Solutions:

- 1) Be sure switch is set to an operation mode and not the off position. Unit will not charge throughout the day or operate at night if the switch is in the off position. Off position should only be used when storing the unit and even then every 2 months the unit should be charged to maintain the battery life.
- 2) Try covering the panel completely with a dense material such as double corrugated cardboard or wood with the switch on and check for operation. If the light operates then a lighting source is affecting your unit at night. Reposition the sign (if a portable sign) to a location with no ambient light source or remove the lighting source.
- 3) Try placing the unit under a 500w halogen bulb (6 to 8 inches away) for one minute with the switch on then covering the panel with a dense material such as double corrugated cardboard or wood and check for operation. If the unit operates then your unit is not receiving a sufficient charge throughout the day. Cloudy/stormy weather can cause this but the number one reason for this is shadow crossings on the panel. Even the smallest bit of shadow will disable the solar panel from operating, providing no charge to the battery reserve.

Installation Process

Unit Installation

1. If your sign's width is between the ½" to 1 ½" range then the Reducer blocks will need to be installed within the mounting channel on the SunPal. To install the reducer blocks, align the reducer block clips with the clip holes within the mounting channel then sliding them in the direction of the arrow indicators to secure them in place. If your sign's width is within the 2 5/16" to 3 ½" range then this does not need to be done
2. Now pre-thread your security screws into the threaded holes located on the mounting channel wall. Do not fully screw in the security screws as this needs to be done in a later step
3. Position the SunPal so the top of the sign is within the mounting channel and the SunPal is as close as possible to center.
4. Tighten your security screws down with the security tool as tight as possible to hold the SunPal in place.
5. Move the switch into your desired position
 - a. Auto: operates until battery is 50% depleted (~8 hours in standard test conditions with new battery)
 - b. 4: Operates for 4 hours
 - c. 6: Operates for 6 hours
6. Allow unit to charge all day and come back later that night to adjust the lighting tracks. The lighting tracks can be rotated to provide the most light coverage on your sign.

