







# DEKOR<sup>®</sup> SAVVY SOLAR<sup>®</sup> POST CAP Guide



Congratulations on your purchase of a new SAVVY SOLAR® LED Post Cap from DEKOR®!

This self-contained system uses sunlight to charge a battery during the day that illuminates your post cap at night, all without an external power source. Through DEKOR<sup>®</sup> innovation we've given you the ability to not only choose what brightness you want but how many hours you want the cap to be on. We're extremely proud of the new SAVVY SOLAR<sup>®</sup> Cap technology that tells you what's going on with the cap. It tells you when the battery is low, it tells you when there is not enough sunlight to charge the battery and when to change the battery, it tells you that the charging system is working correctly and it allows you to turn the cap off completely to protect the battery during cold weather and winter.

#### **Getting Started**

Your DEKOR® SAVVY SOLAR® Post Cap comes assembled and ready to illuminate your project. If you would like the post cap to stay on at full brightness form dusk to dawn each night, you can simply push the ON button and install your cap. However, you can also customize the brightness and duration of your lighting before installation using a small flathead screwdriver tool, see below.

#### **Customizing Your Light Settings**

Inside the post cap, you will see 3 square status Indicator LEDs labeled green, blue, and red with access to three controls: a timer dial, an ON/ OFF button, and a dimmer dial. To make adjustments to the timer and dimmer use a small flathead screwdriver. Below explains the function of each control. The following page explains the status Indicator LEDs.



# **ON/OFF BUTTON**

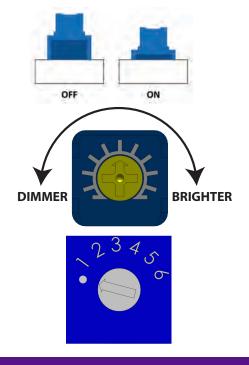
The Solar Post Cap arrives with the button in the OFF position. Before installation press the button until it clicks.

#### **DIMMER DIAL**

The Solar Post Cap arrives with the dial turned all the way to the right, indicating full brightness. Turn the dial to the left to dim the post cap lights.



The LEDs in your Solar Post Cap will turn on automatically at dusk and stay on for the length of time indicated by the timer dial. The left side of the dial is marked with a dot which is dusk to dawn operation. This is the default setting. The run time for each number is as follows: 1-2HR, 2-4HR, 3-6HR, 4-8HR, 5-10HR, and 6-12HR.







# DEKOR<sup>®</sup> SAVVY SOLAR<sup>®</sup> POST CAP Guide

# Normal Operation

The DEKOR® SAVVY SOLAR® Post Cap uses the solar panel to determine when there is adequate light to charge the battery and when it is dark enough to turn on the illumination LEDs.

In addition to the basic operation of the solar panel, there are three status Indicator LEDs on the underside of your post cap that provide you more status information.



- Green LED- This LED will light up green along with the post cap LEDs when it is dark enough.
- Blue LED- This LED will light up blue when the solar panel is exposed to partial or direct sunlight. This LED verifies the charging circuit is on and functional.
- Red LED- This LED will light up red indicating the battery is charging when the following conditions are met;
  - The solar panel is receiving enough light sunlight.
  - The battery is depleted enough and requires charging.
  - The battery temperature is not colder than 32°F(0°C)
  - o If the battery is not at the end of life approximately 1000 cycles ( 3 years).

#### Maintenance

To help ensure the best performance for your solar post cap follow these maintenance tips:

- After rainy weather use a water damped cloth to clean residue of the solar panel.
- If installed near trees or plants, check and clear the solar panel of fallen leaves or debris and use a water damped cloth to clean residue of the solar panel.
- During long periods of cold weather below 32°F(0°C) and snowfall turn the post cap off to preserve the lifespan of the battery.
- After long periods with no snowfall use a water damped cloth to clean residue of the solar panel.

#### FAQ and Troubleshooting

#### Q: Will the Solar Cap work in my climate?

**A:** Factors that will effect the use of the solar post cap are:

- Temperatures- Hot and mild weather are ideal for the battery to run and charge efficient and properly. Cold weather at or below 32°F (0°C) will reduce the runtime by more than half. Example when set to 2HR it may only run for 30MIN-1HR. Charging the battery may require four times as long to achieve the desired run time or may not charge at all if the temperature is below 32°F (0°C). Example the battery may require a charging time of four hours in direct sunlight for a one hour run time. It is for this reason we recommend turning the post cap off if the temperatures remain at or below 32°F (0°C) for several day/nights.
- Adverse weather- Conditions such as constant cloudy overcast, rain, and snow may prevent the battery from charging or reaching a full charge.
- Time of year- As the winter months approach the solar panel may be exposed to less sunlight. This may prevent the battery from charging or reaching a full charge.
- Continental location- The further north or south your location is from the equator, the less direct sunlight you will receive.
  This may prevent the battery eaching a full charge.

NOTE: Construction methods are constantly changing. For the most up-to-date installation instructions visit: www.dekorlighting.com









DEKOR<sup>®</sup> SAVVY SOLAR<sup>®</sup> POST CAP Guide

# FAQ and Troubleshooting (continued)

#### Q: Why don't my post cap LEDs come on as soon as I cover the solar panel?

**A:** The battery has been drained or is at the end of life approximately 1000 cycles ( 3 years). See question below, "what if the blue LED turns on but the red LED does not turn on, even under direct light? "

# Q: What if my post cap LEDs don't turn on at night?

- **A:** 
  - The battery is drained.
    - Check the post caps installation location relative to **direct sunlight.**
    - Check that the solar panel is free of debris and clean.
  - The battery has reached the end of life approximately 1000 cycles ( 3 years).
    - Contact DEKOR to order a new battery.
  - If there is a light source shining directly on the solar panel the post cap may not light.
    - Remove or relocate the light source or relocate the post cap installation.
  - Charging circuit is not functioning properly. See question below, "what if the blue LED turns on but the red LED does not turn on, even under direct light?"

#### Q: What if the blue LED turns on but the red LED does not turn on, even under direct light?

**A:** Take a water dampened cloth and clean the solar panel. If after cleaning the solar panel and exposing it to **direct sunlight** and the red LED does not light up the battery may be too cold or has reached the end of life approximately 1000 cycles (3 years). Warm the post cap up indoors and then reintroduce to direct sun light to see if the red LED turns on or replace the battery.

#### Q: What if the blue and red LED do not turn on, even under direct light?

**A:** Take a water dampened cloth and clean the solar panel. If after cleaning the solar panel and exposing it to **direct sunlight** and the blue and red LED do not light up, check that the on/off button didn't accidentally get turned off. If after checking that the on/off button is turned on and the blue and red LED do not light up when exposed to **direct sunlight**, contact DEKOR for further troubleshooting.

#### Q: What if the blue LED does not turn on but the red LED turns on, even under direct light?

A: Contact DEKOR for further troubleshooting.

# Q: Why are my post cap LEDs on at the same time as the red charging LED?

A: there is a malfunction with the module contact DEKOR for additional troubleshooting.

# Q: Why are my post cap LEDs blinking?

**A:** When it is dark enough for the post cap LEDS to turn on but the battery does not have a full charge, the post cap LEDs (and the green indication LED) will blink 7 times then stay on, but the lights may turn off earlier than scheduled due to the low battery. If this continues to happen over several nights then the battery may not be receiving a full charge or the battery is at the end of life.

**Q:** How do I turn the dials to set the on-time and brightness? **A:** Use a small flat head screwdriver.









DEKOR® SAVVY SOLAR® POST CAP Guide

### FAQ and Troubleshooting (continued)

#### Q: How long will the battery last?

**A:** The battery voltage goes up while it is being charged by the solar panel and down while the post cap LEDs are on. The lifetime of the battery largely depends on how much the battery voltage changes in your normal operation. For example, a configuration that runs the LEDs on full brightness for 12 hours every night will drop the battery to a lower voltage every night than a configuration that runs the LEDs at a dim setting for 4 hours a night. While the system is designed to support full-brightness LEDs for much longer than 12 hours, you will see a decrease in battery performance sooner in this configuration than if you use the battery more 'gently'. As a reminder, turning the cap off completely during the freezing winter months will greatly increase the battery life.

#### Q: How will I know when to replace the battery?

**A:** When your battery has been charged and discharged 1,000 times (roughly 3 years of continuous operation) the red indication LED may not illuminate even when the solar panel is exposed to **direct sunlight.** While the battery may still appear to be operating correctly after 1,000 cycles, the remaining life will degrade fairly quickly, so we recommend replacing the battery before it becomes unusable.

#### Q: How do I replace the battery?

A: When you notice a decrease in battery life, you can easily replace the Solar Post Cap battery. Simply turn off the power using the ON/OFF switch in the middle of the board, unscrew the plastic cover using Philips screwdriver, gently unplug the existing battery, and plug in the new battery. **Caution** the battery connector is notched for polarity, do not force the connection or reverse the polarity as damage may to the solar module can occur. When the battery is in place, replace the plastic cover, reinstall the screws, and turn the Post Cap back on.

Depleted batteries should be disposed of in accordance with your local laws.

#### Q: What is the warranty on the DEKOR® SAVVY SOLAR® Post Cap?

A: We stand behind our solar products with a **LIMITED LIFETIME** warranty on the **post cap lights** and a **3-year** warranty on the solar module and battery. While battery technology has limited most battery warranties to 1 year or less, we are proud to offer the same 3-year warranty on our state of the art lithium ion battery when used correctly in this device.

# Caution: this product contains a Lithium-Ion battery. Do not short the connector pins, puncture or crush the battery as the battery may explode or catch fire.

Do not touch the battery if it displays any signs of physical abnormality.