




Equipment Type	<b>BasicCharge:EV and Classic Marina Pedestal</b>
Model Numbers	All Models
Severity	N/A
Document Code	RTU-EV-012 V1R0
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## Upgrade BasicCharge:EV and Classic Marina Pedestal Lighting with G9 LED Kit

This document describes the procedure to remove and replace the 4 LED amenity lighting bar and LED driver/PSU (power supply unit) and install a pair of, self-contained G9 style LED bulbs.

These instructions apply equally to the BasicCharge electric vehicle charge point family and to the Classic marina pedestal family of products which share a number of common components.

	<b>WARNING: Electrical Power</b> Make sure electrical power to the pedestal is OFF before starting work.
	<b>IMPORTANT:</b> Read and understand the content of this document before performing any work.
<ul style="list-style-type: none"> <li>Work must <b>only</b> be performed by someone who is competent to do so in accordance with the current legislation in force in the geographical location of the installation.</li> <li>Rolec Services Ltd cannot accept any responsibility for issues arising from improper work.</li> </ul>	
	<b>CAUTION: Equipment Damage</b> Do <u>NOT</u> use power tools to remove/install panel fixings. Power tools can damage the fixings, making the panel difficult to remove. Use hand tools <u>ONLY</u> and do not overtighten fasteners.
<b>NOTE:</b> The displayed colour temperature of the G9 bulbs may not be exactly the same as the LEDs it replaces. Differences between manufacturers and age of existing LEDs can influence the light's appearance.	

## About G9 Bulbs

G9 is the designation of a standard 'off-the-shelf' lighting socket and bulb that is available in a number of different wattages, colour temperatures (such as cool white and warm white), and even as defined colours such as red, blue and green.

G9 bulbs are an easy to replace, push fit design and are widely available.

The LED G9 bulbs used in this pedestal and supplied in the upgrade kit are 2 Watts each. Higher or lower wattage bulbs may be used but the light output will be affected and will not be the same as pedestals using different Wattages.

### **CAUTION: Equipment Damage**

Only LED G9 bulbs are to be used.

G9 halogen bulbs must NOT be used. The heat created by halogen bulbs may damage the pedestal.

## Procedure

### Overview

The G9 upgrade removes the LED driver from the body of the enclosure and replaces the 4 x individual LEDs from the lighting head with 2 x G9 LED bulbs, bulb holder and support components.

To perform this upgrade, access to the pedestal's electrical components will be required and part of the lighting head will be removed.

### Kit Contents

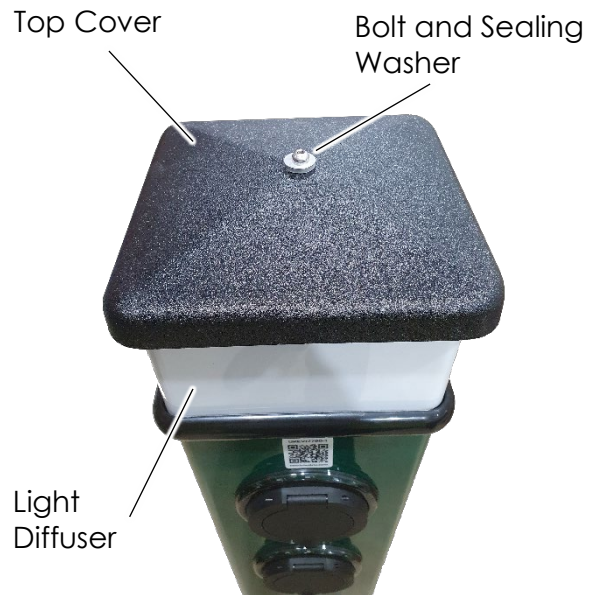
#### **ACLG0495 Classic/BasicCharge Lighting Upgrade Kit | 2x G9 2.3W 6500K LED**

Part Number	Quantity	Component
ACLG0490	2	G9 LED Lamp 2.3W 6500K
ACPI0100	1	Pillar M6 x 30mm
ACPI0130	1	Pillar M6 x 80mm
EFS0096	1	M6 X 40mm Socket Button Head
EFS0097	1	M6 Cup Washer

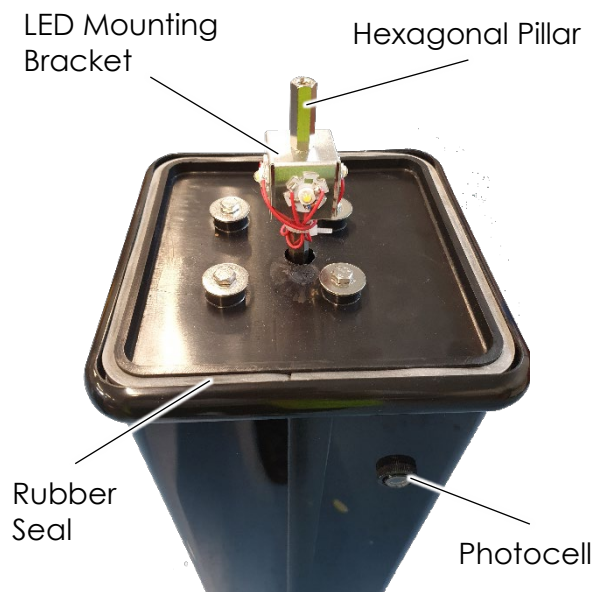
**NOTE:** The majority of components are supplied as a pre-built assembly.

## Remove the Old LED Lighting Components

1. Remove and retain the single bolt and sealing washer from the centre of the lighting unit top cover.
2. Remove the top cover.
3. Remove the light diffuser.



4. Remove any cable ties that may have been used to secure the LED wires.
5. Remove the hexagonal pillar that sits above the LED mounting bracket.
6. Lift the LED mounting bracket from the hexagonal pillar that sits below it.
7. Remove the hexagonal pillar that sat below the LED mounting bracket.

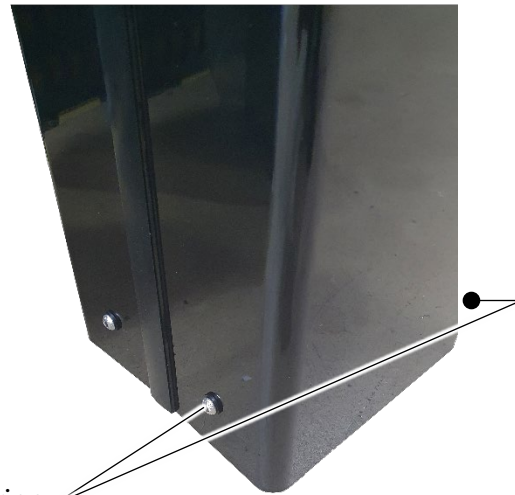


**Figure 1 Previous LED Lighting**

### **CAUTION: Equipment Damage**

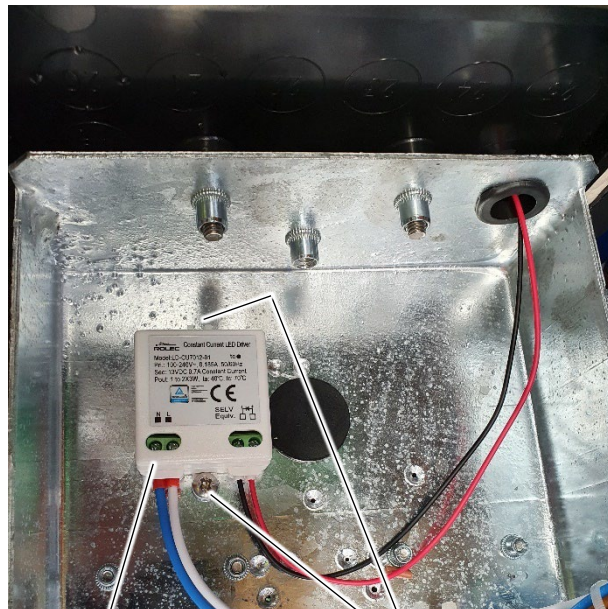
Fascia panels may be connected to the main assembly by electrical cables. Take care not to damage, strain, or disconnect the cables. Make sure all connections are secure before refitting the panel(s).

8. Remove and retain the securing bolt from the bottom of each side of the front fascia panel.
9. Carefully remove the fascia panel from the pedestal.
  - Take care to not strain, damage or disconnect wires and cables that may pass between the panel and the pedestal.



Securing Bolts

10. Locate the PSU/driver toward the top of the pedestal below the lighting head.
11. Disconnect the **blue** and **white** wires from the LED PSU/driver.
12. Disconnect the **red** and **black** wires from the LED PSU/driver.
13. Remove the securing screws from the LED PSU/driver.
14. Remove the LED PSU/driver from the pedestal.
15. Return to the lighting head.
16. Lift the LED mounting bracket and LEDs away from the pedestal.
  - Carefully pull the red and black wires up through the rubber sealing grommet.

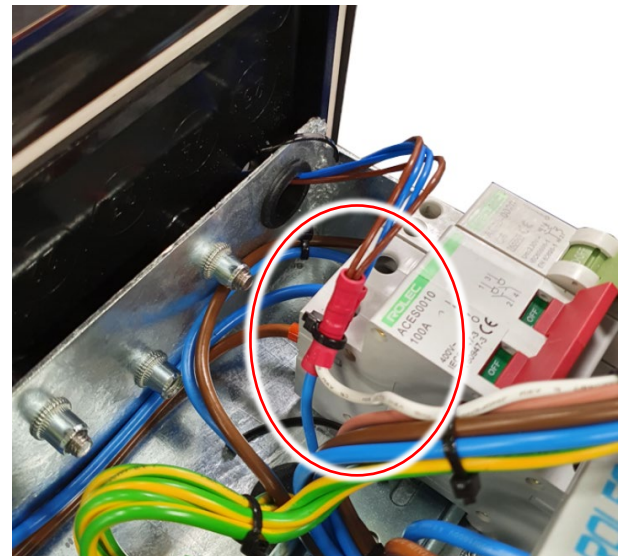
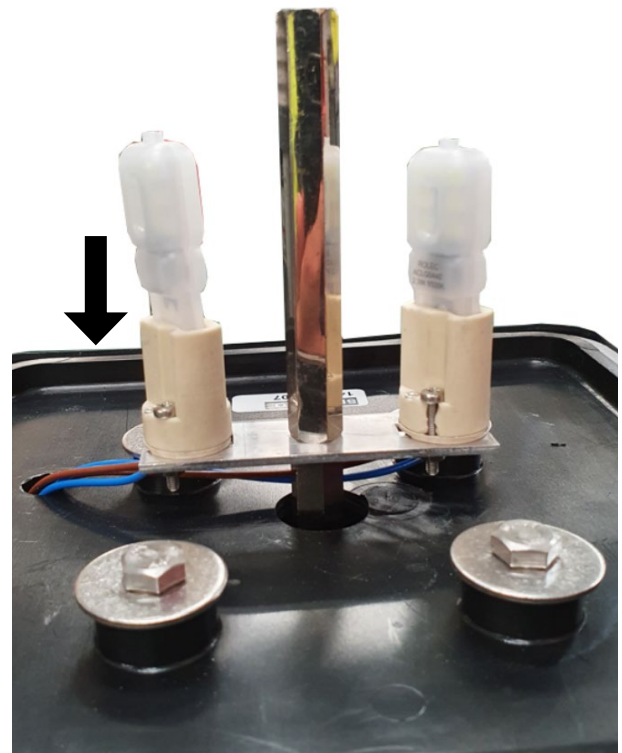


LED PSU/driver

Securing Screws

## Install the New LED Upgrade Components

1. Screw the **small** hexagonal pillar through the washer and into the hole in the lighting base.
2. Place the mounting plate with bulb holders onto the hexagonal pillar that has just been installed.
3. Align the central hole in the plate with the screw hole in the top of the pillar.
4. Secure the mounting plate by screwing the **large** hexagonal pillar through the plate and into the top of the short hexagonal pillar.
5. Orientate the mounting plate to enable easy routing of the wires through the rubber sealing grommet in the lighting base.
6. Make sure the pillars and mounting plate are secure
7. Route the wires from the mounting plate down through the rubber sealing grommet and into the pedestal enclosure.
8. Connect the **blue** LED wires to the **blue** pedestal wire.
9. Connect the **brown** LED wires to the **white** pedestal (photocell) wire.
10. Use cable ties (or similar) to secure the wires.



11. Make sure the chassis enclosure area is free of debris and that all accessible wired connections are secure and have not been disturbed during the upgrade process.
12. Make sure the area of the lighting head is clean and free of debris. Pay particular attention to the rubber seal that runs around the inside edge of the head.
13. Place (push) a G9 LED bulb into each of the bulb holders.
  - The bulbs do not have a polarity.



## Test the New LED Installation

**WARNING:** Electrical Power will be applied to the pedestal while the protective covers are not fitted. Do NOT touch the pedestal while power is applied.

**NOTE:** To prevent flickering in frequently changing light conditions such as headlights or shade from passing vehicles, the lighting system has a built-in delay before it switches on / off.

1. Cover the photocell window with electrical tape to prevent light being detected.
2. Make sure the installation is safe to accept electrical power.
3. Apply electrical power.
4. Wait for a short period of time to allow the pedestal's systems to start and for the photocell to detect the absence of light.
  - The LED bulbs should illuminate.
  - If the bulbs do not illuminate after a delay of a few minutes, remove electrical power and investigate and correct the problem.
5. Make sure electrical power to the pedestal is OFF before continuing to the next stage.

## Complete the Upgrade Installation

1. Remove the electrical tape from the photocell window.
2. Make sure the light diffuser is clean.
3. Place the light diffuser onto the lighting head base.
  - If the diffuser has an internal bead, this side should be placed downwards towards the base.
  - Make sure the bottom of the diffuser sits cleanly and squarely against the rubber seal.
4. Make sure the top cover is clean and free of debris. Pay particular attention to the rubber seal that runs around the inside edge of the cover.
5. Place the top cover onto the light diffuser.
6. Make sure the top of the diffuser sits cleanly and squarely against the rubber seal in the top cover.
7. Secure the top cover to the lighting head with the bolt and sealing washer removed at start of the upgrade process.
  - Make sure the rubber side of the washer sits against the top of the cover.
8. Refit the protective panel (if present) and secure with the fasteners removed earlier in the process.

**NOTE:** If a protective panel was originally installed, it MUST be refitted to comply with UK EV charger regulations.

9. Refit the front fascia panel to the pedestal chassis.
  - Fit the top edge of the panel into the channel on the underside of the lighting head.
  - Carefully ease the sides of the panel into the joining strips on each side of the pedestal until the panel appears to sit correctly.
  - Carefully lift the panel upwards a few millimetres to compress the rubber seal in the channel below the lighting head.
  - With the panel lifted, adjust its position to align the bolt holes at the bottom of the panel with the captive nuts in the chassis.
10. Secure the panel with the two bolts removed earlier in the process.
11. Make sure the installation is safe to accept electrical power.
12. Apply electrical power.
13. Perform a functional test of the pedestal.
14. Dispose of old removed components and packaging in the appropriate manner for the geographical location of the installation.