

DC BOLLARD INSTALLATION GUIDE

Congratulations on purchasing your

SBL2 SERIES DC POWERED BOLLARD LIGHT



POWER SUPPLY OPTIONS

SOLAR BOLLARD LIGHTING “DO NOT” SUPPLY AC/DC CONVERTORS OR SOLAR ENGINES

These will have been included separately by your supplier who will also warrant them independently.

- WARNING -

**Do Not Connect SBL2 Series DC Light Directly to “AC MAINS POWER”
- ELECTROCUTION WILL OCCUR -**

OPTION 1 - AC/DC CONVERTOR CONNECTION

Please ensure only a Constant DC Voltage convertor has been purchased or included by your product supplier.

OPTION 2 - SOLAR ENGINE CONNECTION

Power may also be supplied by using a standalone solar engine included or specified by your product supplier.

WHEN PRODUCT ARRIVES

Your light head & pole have arrived packed separate.

Leave light/s in shipping carton until ready to be attached to pole. This ensures no damage can occur.

Prior to installation you need to decide how you intend to feed the external power supply cables into the pole or mounting bracket for connection to our DC power supply cables.

RED (+) POSITIVE / BLACK (-) NEGATIVE

INSTALL POLE / MOUNTING BRACKET

If drilling an access hole ensure it is clear of any sharp edges or burs so no stripping of the outer cable sheath can occur, use an IP68 Cable Gland preferably.

ATTACH DC BOLLARD LIGHT TO POLE

STEP 1 - Feed external power supply cable into pole.

STEP 2 - Remove DC Bollard Light from shipping carton.

STEP 3 - Connect your wiring depending on power supply source being utilised:

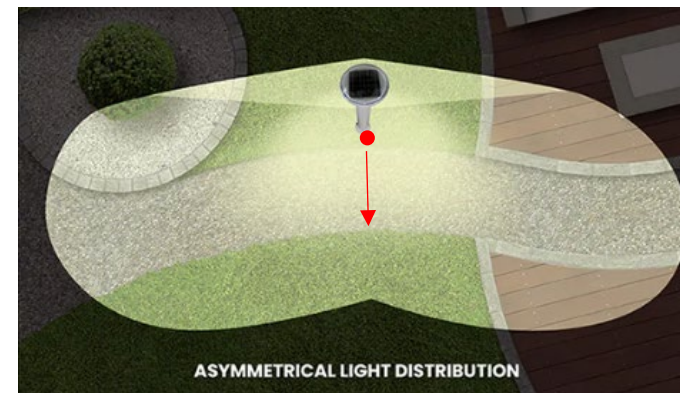
AC/DC CONVERTOR CONNECTION

Connect our **RED (+)** and **BLACK (-)** wires to the DC output side of the AC/DC Convertor only.

SOLAR ENGINE CONNECTION

Connect our **RED (+)** and **BLACK (-)** wires to the power supply cables **RED (+)** and **BLACK (-)**

STEP 4 - Slide light mounting shaft into pole until the Spun Collar is sitting flush with top of the pole edge.



NOTE: If using **ASYMMETRICAL** light distribution a **RED ●** is placed near the threaded brass insert that has to be facing directly across the pathway.

INSTRUCTIONS TO SECURE LIGHT ON NEXT PAGE

STEP 5 - Remove the black shrink wrap from the light head to activate the system. Your Solar Light Bollard is now installed and ready for operation.

SOLAR BOLLARD MOUNTING TYPE INSTALLATION INSTRUCTIONS

DIRECT BURIED

BEFORE YOU INSTALL: DIAL BEFORE YOU DIG

Ensure Anchor Bolts are through pole base/s prior to burying into concrete.

STEP 1 – DIG HOLE - SHOVEL, POST HOLE DIGGER, AUGER.

In [good soil](#) we suggest:

Hole Size Required:

3 x pole diameter $\varnothing 115\text{mm}/4"$ = $\varnothing 345\text{mm}/13.5"$

Hole Depth Required:

Model	Pole in Ground	Hole Depth
-1140DBA	300mm/11.8"	300mm/11.8" + 100mm/4" = 400mm/15.7"
-1790DBA	450mm/17.7"	450mm/17.7" + 100mm/4" = 550mm/21.6"
-2440DBA	600mm/23.6"	600mm/23.6" + 100mm/4" = 700mm/27.5"
-3040DBA	700mm/27.5"	700mm/27.5" + 100mm/4" = 800mm/31.5"
-3640DBA	800mm/31.5"	800mm/31.5" + 100mm/4" = 900mm/35.4"
-4240DBA	900mm/35.4"	900mm/35.4" + 100mm/4" = 1000mm/39.3"
-5040DBA	1200mm/47.2"	1200mm/47.2" + 100mm/4" = 1300mm/47.2"



A **much larger foundation may be required** if soil is poor/sandy to prevent bollards being pushed over or removed/stolen. Try and taper out towards the bottom so the base section of concrete is larger than the top section as per this image

STEP 2 - Pour concrete into the hole

STEP 3 - Insert pole into concrete ensuring the internal of the bottom of the pole is also filled with concrete so it is secure and hard to remove.

STEP 4 - Use spirit level to ensure pole is set correctly and on taller poles use braces to hold in place until concrete sets to ensure it stays plumb/vertical.

STEP 5 - Cure concrete and remove any bracing previously used.

GROUND MOUNT

PREFERRED INSTALLATION

REQUIRED BEFORE YOU INSTALL: (NOT INCLUDED IN KIT)

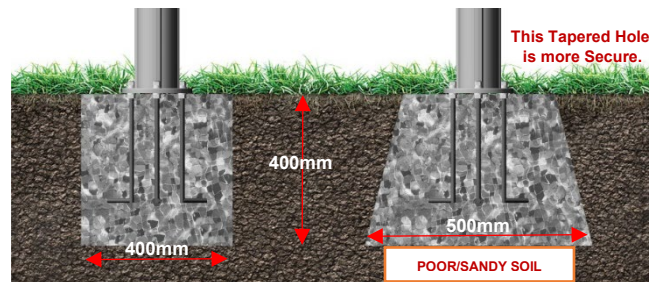
We recommend using **security fasteners** and/or Base Plate Cover.

- 3 x M12 (1/2") x 300mm L-Bolt Anchors (off the shelf)
- 6 x M12 (1/2") x 24mm x 3mm Washers,
- 3 x M12 (1/2") x 22mm Spring Washer or similar
- 6 x M12 (1/2") Nut/s. **Suggest 3 x M12 Nuts be security type**

INSTALL OPTION 1: **NEW CONCRETE BLOCK / PAD**

- Check Soil Type Then Dig Hole Size to Suit (**shown below**)
 - Good Soil:** - 400mm x 400mm x 400mm – 153kg once concrete added.
 - Poor Soil:** - 400mm x 500mm x 400mm – 192kg once concrete added.
- If possible, try and taper out towards the bottom so the base section of concrete is larger than the top section as per this image.

STEP 1 - Attach L-Bolt Anchors to Base Plate, ensure nuts are tight.



STEP 2 - Fill hole with concrete

STEP 3 - Insert pole into concrete using a spirit level to ensure pole is set level checking both sides of pole. Ensure 5mm gap under plate.

STEP 4 - Secure pole in position if required to stop movement to keep perfectly vertical whilst concrete sets.

INSTALL OPTION 2: **IF CONCRETE ALREADY EXISTS**

STEP 1 - Check surface is flat or configure a solution to ensure the solar bollard is perfectly vertical once installed.

STEP 2 - Mark out the 3-hole centre points with base plate in place.

STEP 3 - Drill or core 3 holes to take an M12 (1/2") threaded bar/rod or other securing devices like Sleeve anchors with security nuts.

STEP 4 - When installing the M12 (1/2") threaded bar/rod or other securing device, ensure **35mm (1.4") – 40mm (1.6") maximum** thread bar/rod protrudes above ground level where the base plate will be positioned. **Base Plate is 12.7mm / 0.5"**. Ensure nuts are tight.

NOTE: if using "OPTIONAL BASE PLATE COVER" if luminaire installed. Remove luminaire to slide cover over and down the pole. Once at base push cover over plate outer edge. - USE SUITABLE ADHESIVE ON PLATE EDGE EVENLY SPACED AROUND PLATE IN 4 PLACES TO HOLD COVER ON

WALL/FENCE/PYLON/RAIL MOUNT

BEFORE YOU INSTALL WALL/FENCE/PYLON MOUNT: (NOT INCLUDED IN KIT)

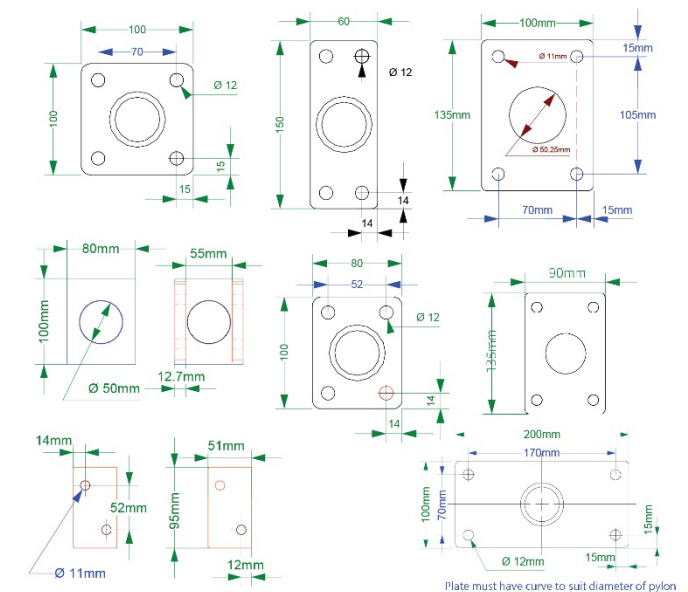
4 x M10 (7/16") Mounting Thread, Washer, Nuts.

We recommend using a security fastener system to prevent theft.

Please Note: All Wall/Pylon mount lights are supplied as *Asymmetrical Light Distribution unless otherwise requested.*

STEP 1 - Check mounting surface is flat or determine how to ensure bollard is vertical.

STEP 2 - Mark out holes to suit below mounting plate/bracket. Here some examples



STEP 3 - Drill holes to take M10 (7/16") threaded bar/rod or other securing device such as Sleeve anchors with security nuts.

STEP 4 - Install threaded bar/rod or other securing device such as Sleeve anchors with security nuts, ensuring sufficient thread protrudes from plate, which is **12.7mm / 0.5"**.

STEP 5 - Place plate over the bolts and secure fasteners

STEP 6 - Remove black wrap to activate system

HOW TO SECURE THE SOLAR LIGHT HEAD LUMINAIRE TO THE POLE

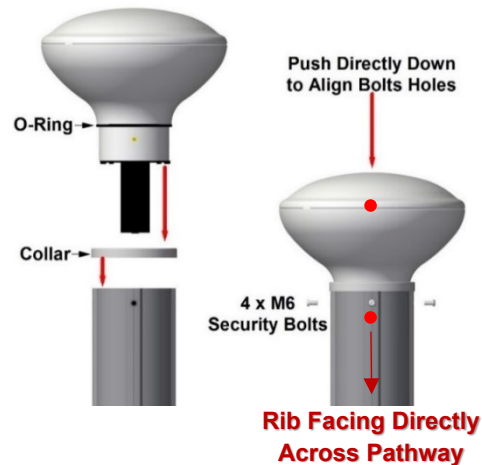
STEP 1 - Install the Solar Light Head into the pole/mount pole section until the Solar Light Head spun collar is sitting flush with the top edge of the pole

STEP 2 - Turn the Solar Light Head until you can see the internal brass threads in the moulding have lined up horizontally with the counter bored holes in the pole

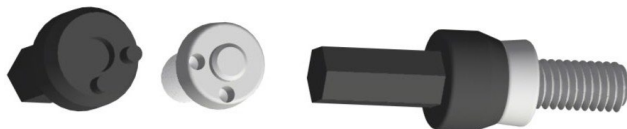
- You will notice the internal brass thread is sitting slight above the top of the counter bored hole

STEP 3 - Apply downward pressure to the top dome section of the Solar Light Head, this will line up the thread vertically now.

This now creates compression on the Spun Collar & O-Ring, creating a watertight seal



**USING 2 PIN SECURITY DRIVER BIT
- MUST SIT FLAT -**



**SECURITY FASTENERS MUST BE TENSIONED
IN THE SAME ORDER 1 2 3 4**

**STEP A - MUST BE COMPLETED BY HAND
TENSION ONLY**

STEP A: Insert the M6 Security Fastener with the Security Driver Tool through the pole into the internal thread and tension until the Security Fastener head is above the external pole outer edge.

- Do this for each Security Fastener in order 1 to 4 as shown

**NOW USING A VARIABLE SPEED TORQUE
GUN FOR STEP B + STEP C**

- SPEED** - Low Speed Only
- TORQUE** - Set to **"13 MAXIMUM"**



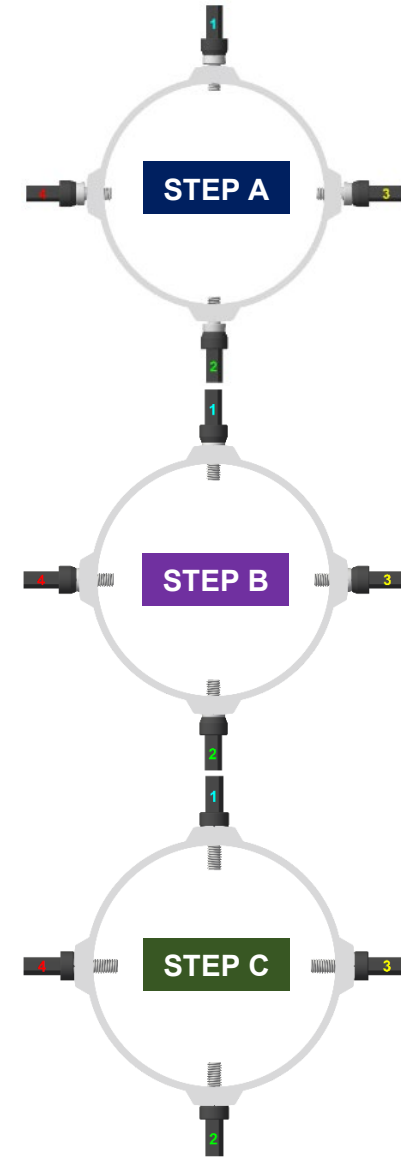
STEP B:

Continue tensioning the Security Fastener in order 1 to 4 until the fastener head section **has just recessed into the counter bored hole.**

This will create pressure down onto the O-Ring Seal

STEP C:

Continue tensioning the Security Fastener in order 1 to 4 until the variable speed torque driver **CLUTCH RELEASES.**

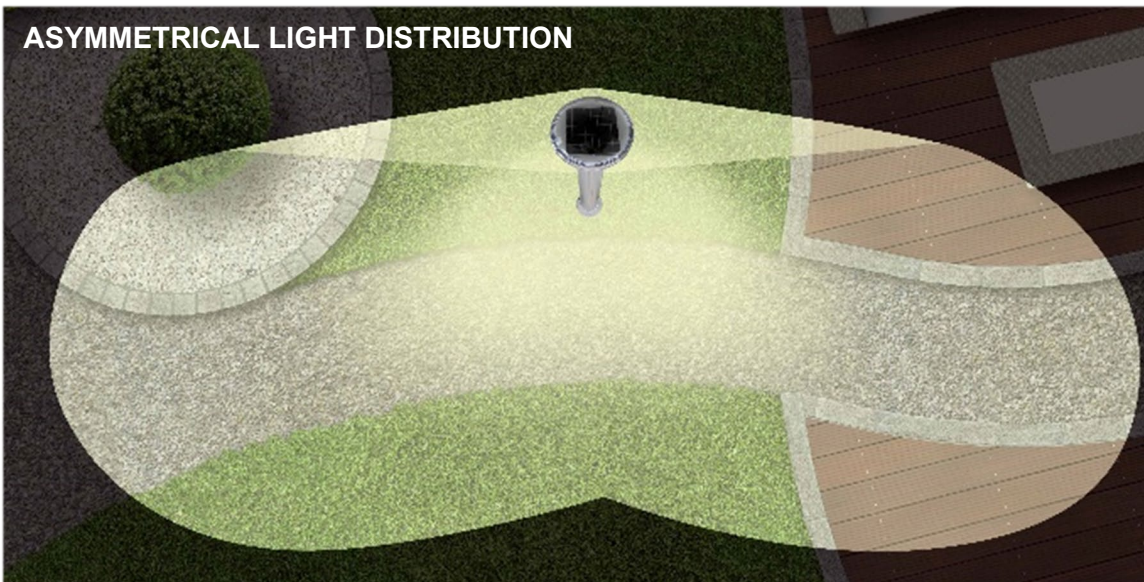


STEP D: ENSURE THIS IS COMPLETED

Then finally check tension by HAND to ensure the Security Fasteners are TIGHT AND FIT

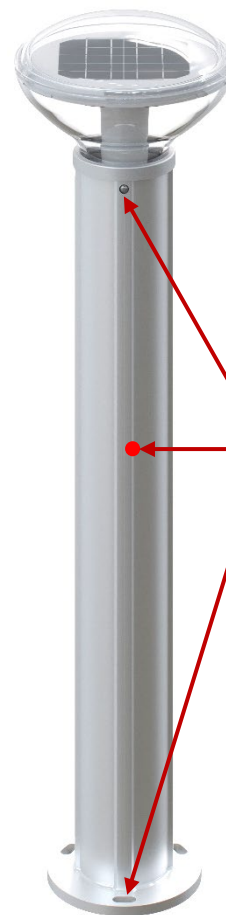
ADDITIONAL INSTALLATION INFORMATION FOR LIGHT DISTRIBUTION REQUIRED

ASYMMETRICAL LIGHT DISTRIBUTION



This image shows the correct direction the pole must be facing for even asymmetrical light distributions when light head is attached correctly with the **RED ●** both being aligned on the same side.

Remove all **RED DOT STICKERS ●** once installed



The pole extrusion strengthening rib that is aligned with the luminaire security bolt and base plate mounting hole, is used as the centre line for asymmetrical light distribution.

Our top dome cover has solarbollardlighting.com moulded into it and should always face left of centre to the surface being illuminated to keep an aesthetic uniformity when installing.

SYMMETRICAL LIGHT DISTRIBUTION

