

Congratulations on purchasing your
Solar Light Bollard

SBL



SBL2



SBL2-SR



IMPORTANT BEFORE YOU INSTALL

Every project must have an initial geographical location and shade assessment completed by a Solar Bollard Lighting® authorized distributor, importer, sales agent who has been trained according to validated Solar Bollard Lighting® protocols.

This assessment applies a 'Power In = Power Out' equation, based on a sunlight profile during the winter solstice, the day of least sun in the specific geographical location.

The highest-powered solar bollard light/s for your location is specified to be installed based on winter solstice month's sun trajectory/angle.

Note: Battery is pre-connected.

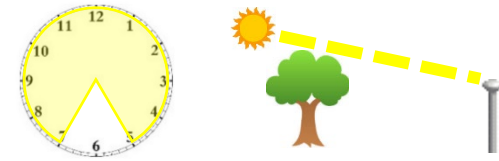
At Installation Site: If shading from trees or other structures are found at the site of installation not discussed prior to delivery of your solar bollard light/s, **please immediately contact your supplier prior to commencing the installation** as lower power model/s maybe required to ensure dusk until dawn operation at full power and as specified in our Warranty T&C's.

Ensure your Solar Bollard Light power model ordered allows for possible future shading issues such trees growing and/or new buildings being possibly erected near the installation site.

AN INCORRECT POWER MODEL SELECTION CAN EFFECT WARRANTY

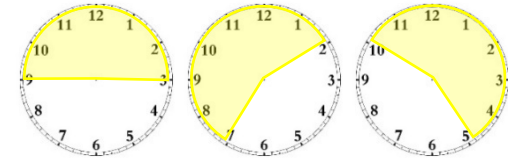
WINTER SOLSTICE SUN SCENARIOS

100% DIRECT SUNLIGHT



75% DIRECT SUNLIGHT

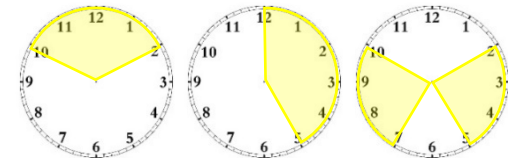
includes between 10am-2pm



Drop down one (1) power level

50% DIRECT SUNLIGHT

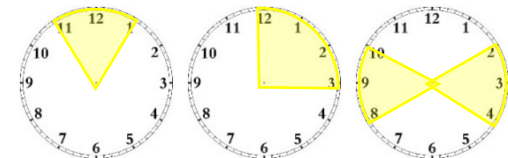
includes between 10am-2pm



Halve Full Sun Power Model

25% DIRECT SUNLIGHT

Does not need to include between 10am-2pm



Reduce Full Sun Power Model by 75%

0% DIRECT SUNLIGHT / FULL SHADE

Default Power Model SBL2-040 (40mA)



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.

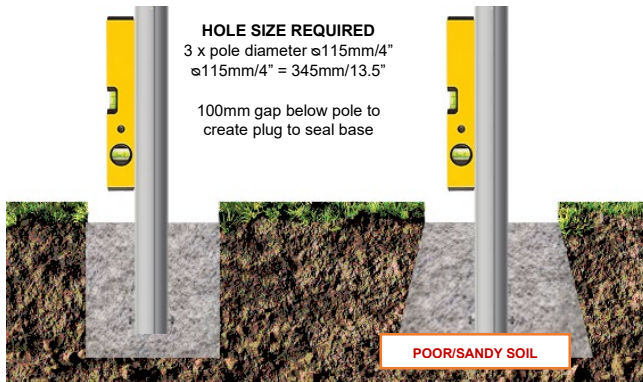
In [good soil](#) we suggest:

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)

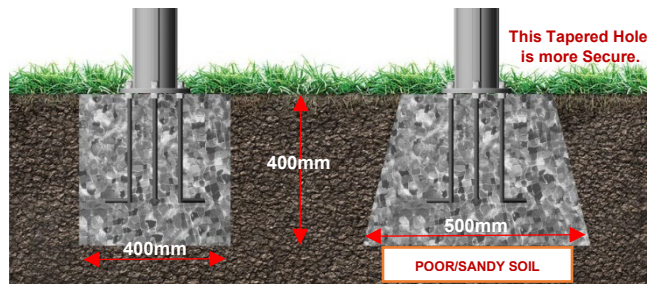
We recommend using **security fasteners** and/or Base Plate Cover.

- 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)

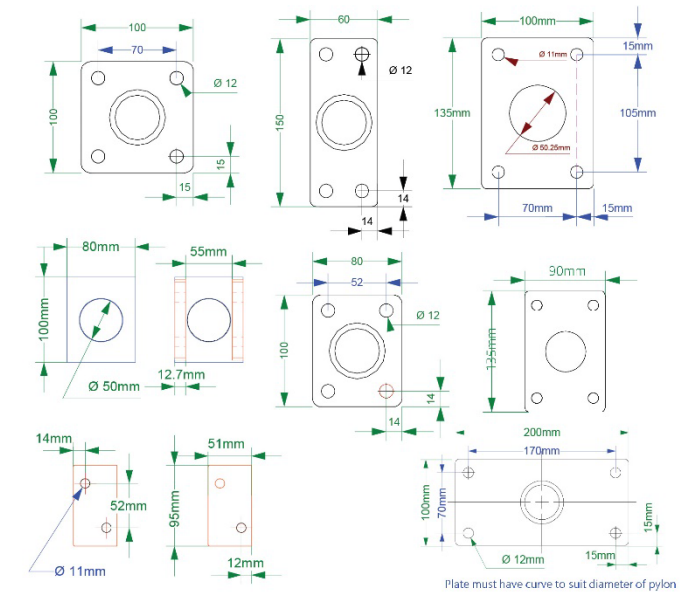
4 x M10 (7/16") Mounting Thread, Washer, Nuts.

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

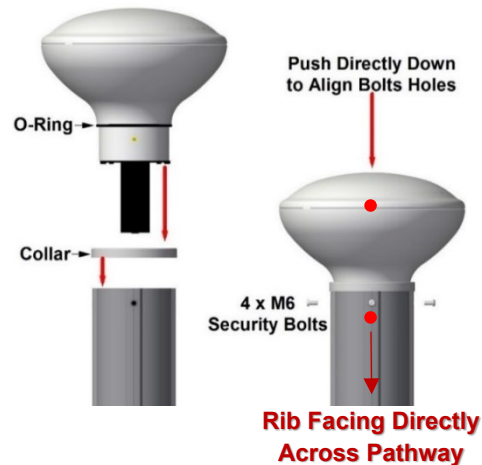
STEP 1 - Install the Solar Light Head into the pole/mount pole section until the Solar Light Head spun collar is sitting flush with the top edge of the pole

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

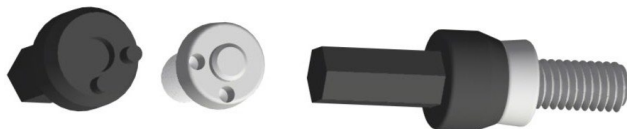
- You will notice the internal brass thread is sitting slight above the top of the counter bored hole

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"**



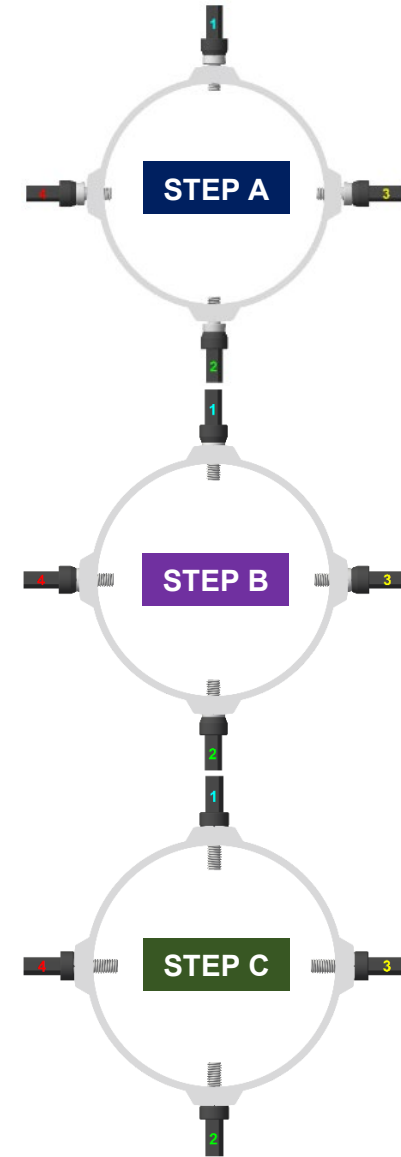
STEP B:

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.**

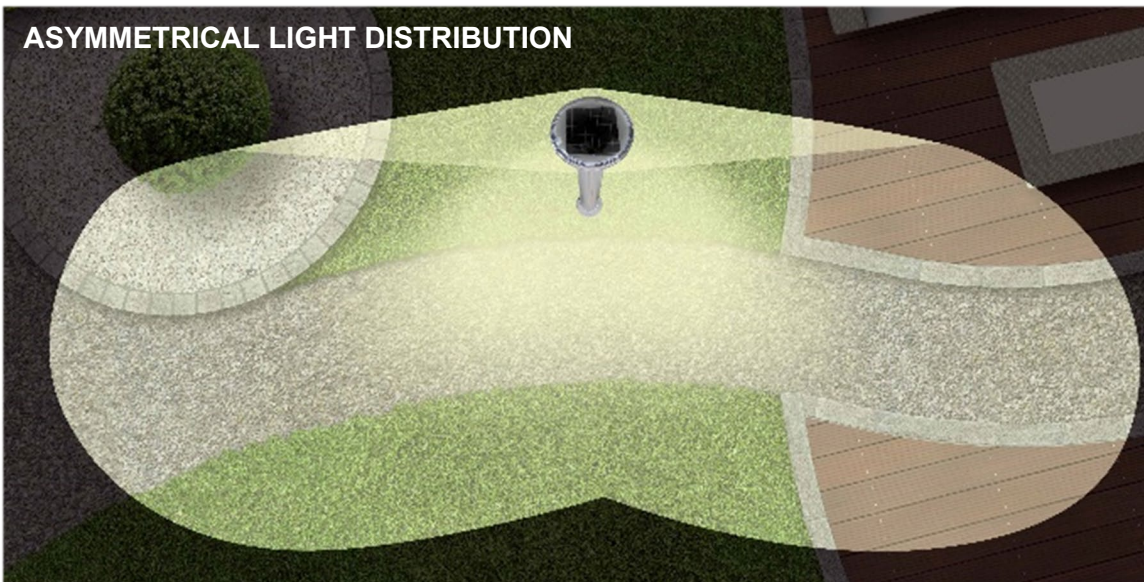


STEP D: ENSURE THIS IS COMPLETED

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

ADDITIONAL INSTALLATION INFORMATION FOR LIGHT DISTRIBUTION REQUIRED

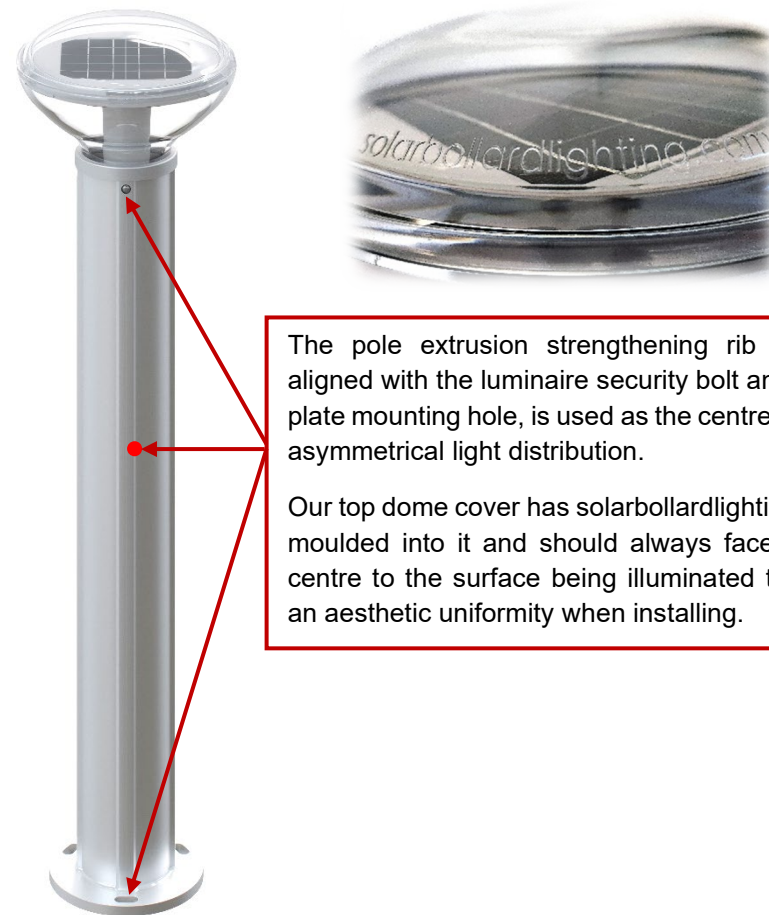
ASYMMETRICAL LIGHT DISTRIBUTION



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

SYMMETRICAL LIGHT DISTRIBUTION



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.