



## SBL Series

### 2016 Model Range Export Catalogue



Vandal  
Resistant



No  
Power Bills



Simple & Low  
Install Cost



Clean Energy  
Lighting



Minimal  
Maintenance



Install  
Yourself

# Solar Bollard *Lighting*

[www.solarbollardlighting.com](http://www.solarbollardlighting.com)

Welcome to Solar Bollard Lighting, home of the SBL Series Range of outdoor commercial grade solar powered LED bollards, designed and manufactured right here in Australia as an ideal choice for architectural, commercial, and landscape lighting applications.

Visual appeal combined with high quality construction and superior solar power performance make the SBL Series an excellent inclusion where VANDAL RESISTANT high quality low level and low maintenance lighting is required.



Standard Model



SR Reflector Model



HR Reflector Model



Hence why Solar Bollard Lighting offer such a diverse range of Vandal Resistant solar powered LED bollards. Our aim is to ensure we satisfy your varying lighting requirements by offering additional reflector designs for light control to pole systems from buried in ground to wall mounted units.

## Key Benefits

- ✓ Superior vandal resistance - proven history
- ✓ No power bills - off grid so no power outages ever
- ✓ SAFE - Extra Low Voltage anyone can install
- ✓ Low installed cost and minimal site impact
- ✓ No trenching, cabling or wiring
- ✓ 8 Years of product design expertise and market history
- ✓ Virtually maintenance free with no on-going costs
- ✓ Deployment anywhere there is some direct sunshine
- ✓ Removable, relocatable and can be temporary
- ✓ Provide a green statement reducing carbon emissions

# Solar Bollard Lighting

[www.solarbollardlighting.com](http://www.solarbollardlighting.com)

With 8 years of actual market presence with our world renowned "Vandal Resistant" solar powered LED bollards, we have proven they can operate continuously 365 days a year in the harshest and most diverse conditions like:

- Alberta Canada where 2 power models the SBL075SW and SBL120SW run daily mid-winter for up to 16.93 hours per night in subzero temperatures and snow covered until 10am each day without dimming or failing.
- Australian and global sea front communities in heavy salt environments where our SBL150SW and SBL210SW units are mostly utilised.
- The extreme climates of Dubai UAE and Central Australia's harsh mining sector with +50°C days where our most powerful unit the SBL210SW is mostly utilised.



## SBL SERIES DESIGNED TO OUTLAST OUR COMPETITORS:

- They are designed and made in Australia for our varying and harsh environmental conditions.
- A curved top dome design using a special blend of impact resistant polycarbonate reducing UV effects, ensures no reduction in daily solar input will occur due to birds utilising the solar bollard as a resting point.
- Are designed to run for up to 19 hours per night using our SBL075SW, with our mid power SBL150SW model designed to run consistently without dimming for 15 hours per night when installed in correct location.
- Have up to 120 hours autonomy based upon our SBL075SW ensuring full power lighting output from dusk until dawn without dimming.
- Has an expected operational life of a minimum 10 years when the correct model for location is installed, backed by a 5 year workmanship warranty. (conditions apply)

## Applications

- ✓ Pathways
- ✓ Bike Ways
- ✓ Driveways
- ✓ Gantry Lighting
- ✓ Perimeter Security Lighting
- ✓ Pontoons & Jetties
- ✓ Marina Walkways
- ✓ Landscaping
- ✓ Playground Lighting
- ✓ Sign Lighting
- ✓ Mine Sites
- ✓ Housing Estates
- ✓ Local Government
- ✓ Defence Bases
- ✓ Hotels and Resort

## SBL SERIES EXAMPLE CLIENT LIST

**Please Note:** This list does not include clients that have purchased through Electrical Wholesalers, or other resellers as many are unknown to us due to this factor.

### AUSTRALIA

#### Councils:

- Alpine Shire Council
- Baw Baw Shire Council
- Cairns Regional Council
- City of Albany
- City of Bayswater
- City of Busselton
- City of Darwin
- City of Fremantle
- City of Greater Dandenong
- City of Ipswich
- City of Mandurah
- City of Onkaparinga
- City of Rockingham
- District Council of Mt Barker
- Gold Coast City Council
- Great Lakes Shire Council
- Kempsey Shire Council
- Kimberley Land Council
- Lane Cove Municipal Council
- Logan City Council
- MacDonnell Range Shire Council
- Mildura Rural City Council
- Mornington Shire Council
- Oberon Council
- Scenic Rim Shire Council
- Shire Of Ashburton
- Shoalhaven City Council
- Singleton Council
- South Burnett Regional Council
- Sunshine Coast Regional Council
- Toowoomba Regional Council
- Town of Port Headland
- Yarra Ranges Council

#### Government Departments

- Australian Dept. of Defence - ACT / NSW / NT
- Armadale Hospital
- HMAS Watson
- TMR Public Pontoons (QLD Transport)
- Q-Rail
- South Australian Water Corporation

#### Education

- Hunter River High School
- Jacobs Well Environmental Education Centre
- Mater Christi College
- Methodist Ladies College – Mallacoota
- Paluma Environmental Education Centre
- St Patrick's College, Gympie
- St Patrick's College
- Willunga Waldorf School

#### Tourist Parks and Attractions

- Advance Town Caravan Park
- BIG4 Walkabout Palms Townsville
- BIG4 Bendigo Marong Holiday Park
- Mandurah Beach Chalets
- Normanton Caravan Park
- Sea World Theme Park
- Strathalbyn Caravan Park

#### Retirement Living

- ECH Inc Retirement Living
- Masonic Retirement Villages
- RSL Care
- Salvation Army Retirement Villages

#### Mining and Other

- BHP Billiton Nickel West - Mount Keith Operation
- FMG Mining
- Ford Motor Company Proving Grounds
- Pilbara Iron Ore Company (RIO TINTO)
- Spotless WA / NSW (Mining and Defence)

### INTERNATIONAL - Examples

- Abu Dhabi Ministry of Education - UAE
- UAE Defence Force
- City of Calgary
- Prolectric United Kingdom
- Four Seasons Resort Maldives
- Google YouTube Campus USA
- Landmark Group - Canada
- IKON Developments Cyprus
- City of Hallandale Florida
- Hong Kong Island
- Honda Malaysia
- New York City Central Park
- Disney World Florida / Universal Studios
- University of PNG
- US Defence Base in Djibouti
- US Naval Base Forest City Hawaii
- US Embassy Baghdad Iraq via FEDBID

### REGIONS EXPORTED TO

- **AMERICAS:** Canada / USA / Mexico / Bahamas / Hawaii
- **EUROPE:** Cyprus / Germany / Italy / UK
- **ASIA:** Hong Kong / Malaysia / Singapore / Japan
- **SOUTH PACIFIC:** PNG / New Zealand / New Caledonia
- **MIDDLE EAST:** Oman / Qatar / Saudi Arabia / UAE / Djibouti / Iraq / Israel / Turkey
- **AFRICAS:** South Africa / Seychelles / Maldives / Mauritius

## Standard SBL Light Head

<b>Dome</b>	SABIC SLX Lexin (special modified formula to our order)
<b>Main Body</b>	SABIC 203R (special modified formula to our order) IP66 when installed to pole (T.B.T)
<b>Reflector</b>	Samsung ASA (internal)
<b>LED Chips</b>	6 x LED Chips initial lm/w 150lm Standard 5200K (White) / Amber for Turtle Friendly
<b>System Voltage</b>	3.2V (ELV intrinsically safe no UL certification required for USA)
<b>Operate Temp</b>	-30°C ~ +60°C (ambient) Can run safely up to 100°C
<b>Operation</b>	Solar Panel Voltage reverse current on/off
<b>Maintenance</b>	Nil (when standard install location for model)
<b>Warranty</b>	5 years (using SBL approved pole and correct installation)
<b>Testing</b>	NATA Photometric - Conforms to EMC
<b>Weight</b>	Net Weight 3kg (6.6lbs)
<b>Reflector</b>	304 Spun Satinless Steel (external)

### Solar Module:

<b>Wattage</b>	4.8w Mono-Crystalline
<b>Vmp (V)</b>	5V
<b>Imp (A)</b>	0.98A
<b>Features</b>	Anti-reflective tempered glass
<b>Design Life</b>	20 Years +

### Power Cell:

<b>Type</b>	3.2VLithium LiFePo4
<b>Cycles</b>	5500 (expected minimum)
<b>Design Life</b>	15 Years +

### PCB:

<b>Design Life</b>	20 Years +
<b>Runtime</b>	Dusk until Dawn full power

## Suggested maximum runtime based on appropriate install location with no dimming

Power Model Autonomy	Nightly Runtime Hours	Battery Autonomy Hours	Battery Autonomy Days	D.D.D*
SBL210SW = 210mA	13.5hrs	47.62	3.52	28.35%
SBL150SW = 150mA	15 hrs	66.67	4.44	22.50%
SBL120SW = 120mA	17 hrs	83.33	4.90	20.40%
SBL095SW = 95mA	18 hrs	105.26	5.85	17.10%

\*D.D.D = Daily Depth of Discharge of battery / Calculations allow for no daily solar input

## Shaded location requirements based upon mid winter conditions

### SBL210SW:

210mA version is for locations where a minimum of 5 direct sunshine hours between 9.30am and 2.30pm for full recharge after 13.5 hour runtime except for :

150mA is to be used where you have 25%-30% of the bollard shaded be it in the morning or late afternoon. Not between 10am and 2pm

120mA is to be used where there is part shading throughout the day and partially between 10am and 2pm

### SBL120SW:

120mA version is for locations where a minimum of 3.4 direct sunshine hours between 9.30am and 2.30pm for full recharge after 17 hour runtime except for :

095mA is to be used where there is part shading throughout the day and partially between 10am and 2pm

### SBL150SW:

150mA version is for locations where a minimum of 5 direct sunshine hours between 9.30am and 2.30pm for full recharge after 13.5 hour runtime except for :

120mA is to be used where you have 25%-30% of the bollard shaded be it in the morning or late afternoon. Not between 10am and 2pm

095mA is to be used where there is part shading throughout the day and partially between 10am and 2pm

### SBL095W:

095mA version is for any locations and requires a minimum of 2.4 direct sunshine hours between 9.30am and 2.30pm for full recharge to achieve 18 hour runtimes.

## Bollard Pole Information

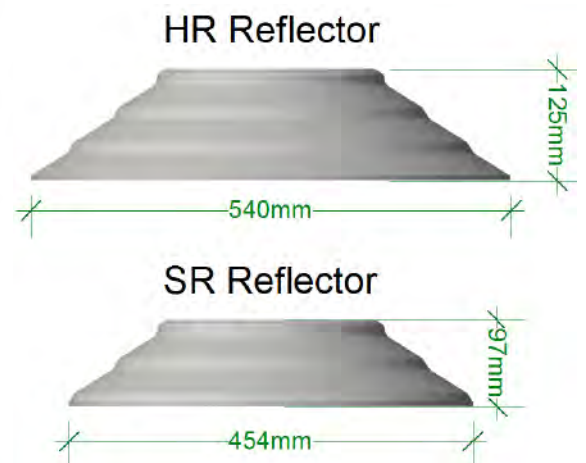
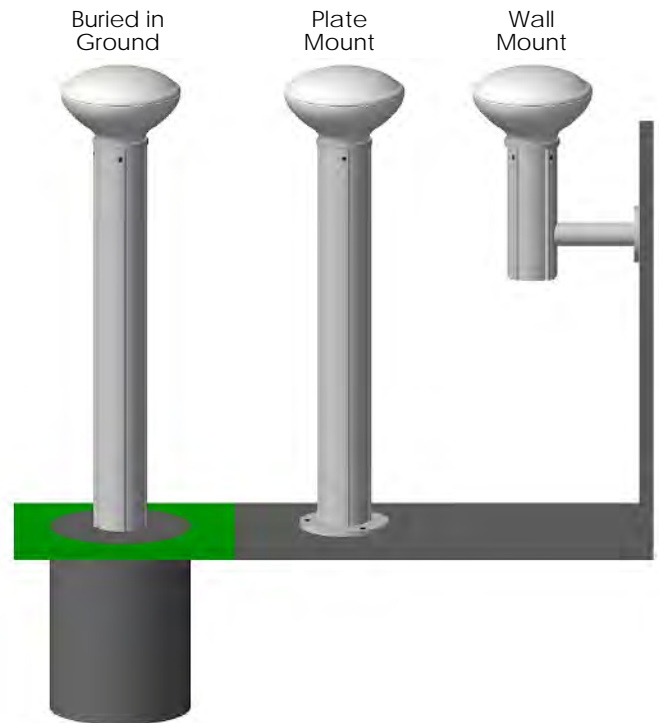
- 6106 T6 Aluminium Structural Marine Grade
- 115mm Diameter
- Clear Anodised or Powder Coated (Satin Black Standard)
- Torx Pin Button Head Security bolts supplied with poles
- High Strength and Light Weight
- High Corrosion Resistance

### Pole heights with SBL solar LED light attached:

#### Standard Pole Range:

- **462mm using:**  
- 290mm + 12mm Ground Mount Plate
- **720mm using:**  
- 828mm Buried in Ground
- **1,000mm using:**  
- 828mm + 12mm Ground Mount Plate or  
- 1140mm Buried in Ground
- **1,312mm using:**  
- 1140mm + 12mm Ground Mount Plate
- **2,500mm using:**  
- 2328mm + 12mm Ground Mount Plate or  
- 2840mm Buried in Ground
- **3,000mm using:**  
- 3640mm Buried in Ground

- Custom pole lengths available at additional cost & minimum quantity



# BURIED IN GROUND INSTALLATION

## BEFORE YOU INSTALL: "Dial before you Dig"

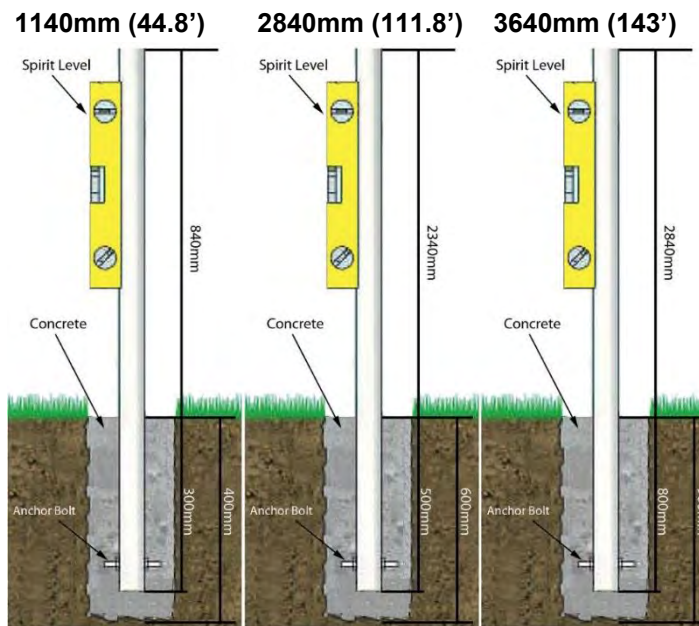
Standard concrete is recommended over Quick Set. If using Quick Set then 100 Micron PVC / PE membrane to be used to separate post from concrete or alkaline soil. Alternatively paint on 2 coats of Dulux Durabuild @ 125 micron thickness.



**STEP 1** - Using a 300 (12') - 350mm (14') auger dig hole to depth specified below for pole length being used. Remove debris from area around the hole.

**STEP 2** - Install Anchor Bolt through pole base. Pour concrete into the hole then insert pole into concrete ensuring the internal of the pole is also filled with concrete.

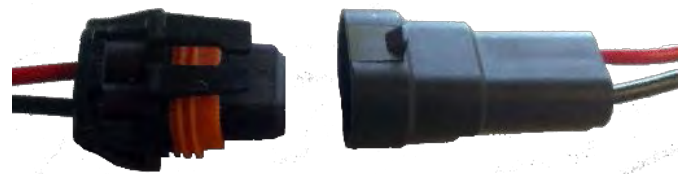
### Pole and Hole Depths for various lengths



**STEP 3** - Cover the top of the pole with plastic or something similar to ensure pole does not fill with water while concrete sets. Make sure that the pole is plumb with a Spirit Level. Wait for the concrete to cure before installing the bollard head.

**STEP 4** - Remove SBL Light head from packaging then pole (if delivered assembled) ensure SS Collar is in place then connect the weatherproof connectors together exactly as shown below to activate power to the unit.

**NOTE: DO NOT PULL HARD ON CONNECTOR FROM LIGHT HEAD AS YOU MAY BREAK SOLDER JOIN**



Disconnected



Connected

**STEP 5** - Attached the SBL Series Light Head by pushing down on light head top dome until threaded holes line up. Then install 4 x M6 bolts supplied with pole kit by hand initially to ensure water tight seal between O-Ring and Collar. Then tighten with Driver tool supplied.



# GROUND MOUNT PLATE INSTALLATION

## BEFORE YOU INSTALL: *(not included in pole kit)*

ChemSet, Dyna Bolts, M12 (7/16) Washer, 4 x M12 (7/16) Nuts and Threaded Rod/Bar are not included in pole kit due to varying lengths required.

### STEP 1 – Drilling Hole



1. Drill or core hole to take an M12 (7/16) thread or other securing device and also to required depth of concrete.

2. Remove dust and debris by brushing and blowing away debris (If hole is wet or flooded remove water with wet/dry vacuum)

### STEP 2 – Installing Threaded Rod or DynaBolts

**PLEASE NOTE:** ensure 30mm (1.2') of actual thread is protruding above concrete for both applications ChemSet and DynaBolts. Base plate thickness of pole is 12mm (0.47').

#### FOR CHEMSET: Refer to supplier instructions

1. Cut Threaded Rod/Bar to length required ensuring 30mm (1.2') is protruding above concrete.

#### FOR DYNA BOLTS:

1. Follow suppliers instructions

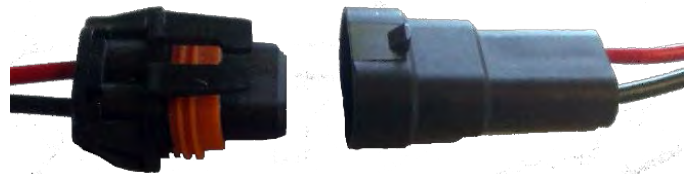
### STEP 3 – Installing Pole

1. Place the pole base plate over the threaded rod or Dynabolts and then tighten down preferably using a M12 Hex Nut-Flanged Serrated.



**STEP 4 –** Remove SBL Light head from packaging then pole (if delivered assembled) ensure SS Collar is in place then connect the weatherproof connectors together exactly as shown below to activate power to the unit.

**NOTE: DO NOT PULL HARD ON CONNECTOR FROM LIGHT HEAD AS YOU MAY BREAK SOLDER JOIN**



Disconnected



Connected

**STEP 5 –** Attached the SBL Series Light Head by push down on light head top dome until threaded holes line up. Then install 4 x M6 bolts supplied with pole kit by hand initially to ensure water tight seal between O-Ring and Collar. Then tighten with Driver tool supplied.





# WALL MOUNT INSTALLATION

**BEFORE YOU INSTALL:** *(not included in kit)*

Dyna Bolts, M12 (7/16) Washer, 4 x M12 (7/16) Nuts are not included in pole kit

## Wall Mount Positions

Please Note: Lower power models can achieve lower mounting positions without full directional sun all day ie SBL075SW or SBL100SW Power Range



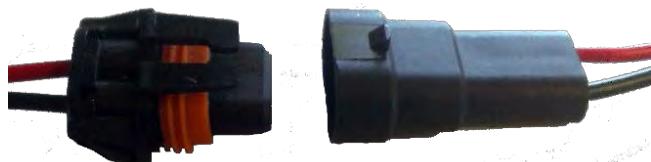
### STEP 3 – Installing Wall Mount

Place the mounting plate over Dynabolts and then tighten down preferably using a M12 Hex Nut-Flanged Serrated.



**STEP 4 –** Remove SBL Light head from packaging then pole (if delivered assembled) ensure SS Collar is in place then connect the weatherproof connectors together exactly as shown below to activate power to the unit.

**NOTE: DO NOT PULL HARD ON CONNECTOR FROM LIGHT HEAD AS YOU MAY BREAK SOLDER JOIN**



**Disconnected**



**Connected**

**STEP 5 –** Attached the SBL Series Light Head by pushing down on light head top dome until threaded holes line up. Then install 4 x M6 bolts supplied with pole kit by hand initially to ensure water tight seal between O-Ring and Collar. Then tighten with Driver tool supplied.

