

### Solar Sign Light System **Supplied With 1-2 Fixtures - Complete System**





- Sold as a complete, easy to install, solar powered sign lighting system with all components necessary for a typical installation.
- Supplied with your choice of one or two, low profile, LED linear light bar fixtures.
- LED linear light bar fixtures can be used for internal or external illumination of various types of signage.
- The nightly illumination time can be dusk to dawn or a single or dual timed mode, as required.
- Choice of 5W (450lm) or 10W (900lm) LED power.

  Choice of warm white (3,000k) or daylight white (5,500k).

- connection to the electrical grid required.

  The solar panel size (wattage) and bttery size (capacity) solar panel size (wattage) and bttery size (capacity) solar power, the geographic location of the cital LED required nightly illumination time.

Lowest Price Guarantee Shipping

.ifetime Tech Support



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### Solar Makes Sense

Using a solar lighting system is often cheaper than trenching cables to remote sites or through parking lots, under roads and sidewalks.



No monthly bills for electric usage, meter fees, or taxes.

Federal and local incentives may be available to offset the cost of the system. View our website for current incentives.



Renewable energy. Use the suns unlimited power as a clean source of renewable energy.

Green Image. Let people know your company or organization is doing its part in reducing its reliance on unclean energy.



# **Purchase with Confidence**



Established in 2002 with offices and warehouse located in Fort Myers, Florida where we store, assemble, ship, and support our products.



We stand behind our systems with a 20 year limited warranty on the solar panels, and a 10 year limited warranty on the system.



Our superior customer service and support is proven with our A+ rating with the Better Business Bureau.



Techincal support is available for life! We'll be here to assist you with support and troubleshooting if the need arises.







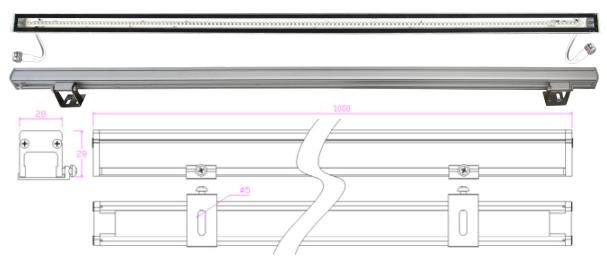




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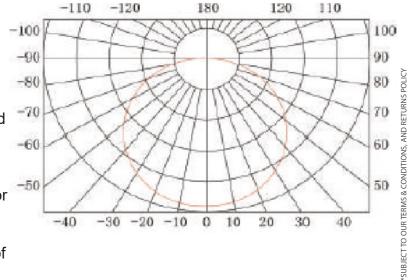
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Specifications			
Dimensions	1" x 1" x 39"	Weather Rating	IP67
Voltage	24V DC	Color Temperature	5000K - 5500K
Wattage	10 Watts	Operating Temperature	-12°F to 120°F
Lumens	900 lm	Beam Angle	120°
CRI:	>80	Construction	Aluminum & Glass

#### **Light Bar Details**

- Can externally illuminate a sign up to 10' x 10'.
- Best results require the light to be mounted between 2' to 6' from the face of the sign.
- Light cable routes back to battery enclosure, for connection to charge controller.
- Cable length between light fixture and battery enclosure is 20'.
- Extension cables available upon request.
- Light fixture support brackets allow for 180° angle adjustment
- Support brackets can be moved and fixed to any position along the back of the light fixture.



Lowest Price Guarantee

Shipping



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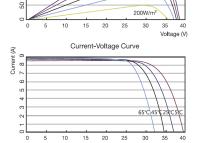
# Solar Sign Light System Supplied With 1-2 Fixtures - Complete System



Systems are supplied with high quality monocrystalline or polycrystalline solar panels with the highest performance and efficiency. They are designed to endure the harshest environments, and are guaranteed to provide power for well over 20 years. Typically manufactured in the USA, Canada, or Germany. The solar panel power is subject to LED consumption, installation location, and illumination period. Please consult with our engineers for specific details and solar power recommendations.

#### **Photovoltaic Module**

- Highly efficient monocrystalline or polycrystalline solar panel with aluminum frame, anti-aging, and encapsulated membrane.
- Anti-reflective and anti-soiling surface that reduces power losses from dirt and dust.
- Certified to withstand high wind loads (340PSI) and snow loads (780PSI); and resistance to high salt and ammonia.
- Manufactured to international standards, verified and certified by independent testing laboratories. (UL, ETL, IEC, MCS, & TUV)
- Assembled to strict quality control standards; international standards ISO 9001 and ISO 14001.
- Range of solar panel power availble from 45W to 140W.
- The solar panel power is subject to LED consumption, installation location, and illumination period. Please consult our engineers for specific solar power requirements.
- Cable length between solar panel and charge controller is 20'.
   Extension cables available upon request.
- Solar panels can be supplied in a single or dual format.
- Typical solar panel life is over 30 years, subject to environmental factors.
- 65W panel dimensions: 34.25" x 20.13" x 1.5"
- 90W panel dimensions: 32.35" x 26.22" x 1.5"
- 100W panel dimensions: 40.25" x 26.25" x 1.5"
- 120W panel dimensions: 47.87" x 26.43" x 1.5"
- 170W panel dimensions: 44" x 38.7" x 1.5" (or may be supplied as two 90W panels).



MC4 Connector

Current-Voltage Curve

Power-Voltage Curve

1000W/m

800W/m

600W/m

400W/m

800W/m<sup>2</sup>

600W/m

400W/m

200W/m<sup>2</sup>

200

150

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Lowest Price Worldwide Shipping









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"EastPenn batteries are engineered and tested to provide reliable, long-lasting power for Photovoltaic (PV) and renewable energy applications where frequent deep cycles are required and minimum maintenance is desirable."











#### **Battery**

- Manufactured by: East Penn Manufacturing Co. Inc.
- 100% made in the USA.
- System supplied standard with two 12 Volt batteries. Batteries are wired in series to make a 24 Volt system.
- Available battery capacities range from 18Ah to 55Ah (per battery).
- Choice of two battery types: Absorbed Glass Mat (AGM) or Gel Cell.
- Please consult our engineers for specific battery capacity requirements.
- Classified as Non-spillable (defined by DOT, ICAO and IATA), NonHAZMAT, and valve regulate.
- Conforms to ISO9001, ISO/TS 16949, and ISO14001 standards.
- Typical battery life is approximately 5 to 7 years, subject to environmental factors.

# VRLA Technology

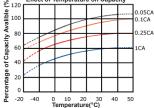
VRLA batteries are maintenance free for life. VRLA stands for Valve Regulated Lead Acid, which means the batteries are sealed. Gas will only escape through the safety valves in the case of overcharging or cell failure.

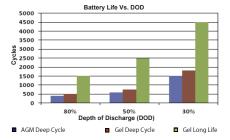
AGM and Gel batteries have exceptional discharge recovery, even after deep or prolonged discharge. However, it should be noted that repetitive deep discharge and prolonged deep discharge have a negative influence on the service life of all lead acid batteries.

Gel batteries in general have a longer service life and better cycle capacity than AGM batteries.

Please Note: The rated capacity of our AGM or gel deep cycle batteries refer to 20 hour discharge rate (i.e. 0.05CA). Most products actually operate near, or at a 100 hour discharge rate (i.e. 0.01CA) and thus actual available battery capacity is slightly higher than the advertised rate.

The total available battery power is measured in watt-hour (Wh) or V\*Ah. When comparing our total battery capacity with competitor's, please note that the battery capacity from a 12V system is not interchangeable with the battery capacity of a 24V system. However, the total battery power (i.e. watt-hours) is always comparable provided the correct system voltage is considered during





Lowest Price Worldwide Guarantee Shipping









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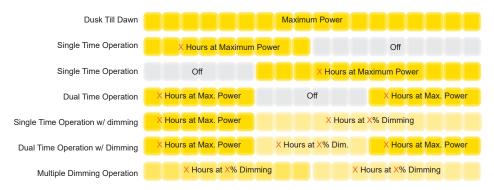
### **Maximum Power Point Tracking**

Supplied standard with the most advanced and sophisticated MPPT charge controller technology. Allowing for full system programmability and light control; including active dimming and intelligent battery management. MPPT technology increases power generation by up to 30% during inclement periods, and intelligent battery management provides extended battery life and extra protection against excessive discharge.

#### **MPPT Control Module**

- The MPPT controller will improve energy harvest by up to 30% compared to PWM charge controllers. Especially in the case of cold cloudy winter weather, when light intensity is changing continuously.
- Offers full programmability of load output: dusk to dawn, multi-timed mode, and integrated diming (all standard features).
- Intelligent battery management software is used to protect the battery from being excessively discharged. The controller will monitor the state of charge on the battery, and if needed, day by day slightly increase the load disconnect level (i. e. disconnect the load earlier) until the harvested solar energy is sufficient to recharge the battery to nearly the full 100% at least once a week. Allowing for the longest life possible from the batteries.
- Controller size and ratings are subject to solar panel and battery specifications.
- \*Supports real time data monitoring, 30 day performance history, and user programmability from Apple or Android smartphones, tablets, etc. Use of this feature requires the optional MPPT Bluetooth Dongle.

The comprehensive light control system allows for extensive configuration, including dynamic activation and optional dimming. Lighting activation is controlled by the charge controller and solar panel. Dimming of the luminaire is adjusted by percentage, i.e 100% is equal to full power, 50% is equal to half power, etc.



\*The lighting control options are variable, and not all options are listed. If you require a specific control operation not listed, please contact one of our engineers to verify feasibility.

\*\*A midnight feature is available as a timed operation parameter. Midnight is determined by calculating the middle of the night and does not necessarily mean 12AM (although it will be close). It also can be adjusted earlier or later by X number of hours.

13.78 V Float

\*Real time data monitoring, 30 day performance history, and user programmability from Apple or Android smartphones.



Lowest Price















# Solar Sign Light System Supplied With 1-2 Fixtures - Complete System

We stock several types of battery enclosures, ranging from various sizes and construction materials. The type of battery enclosure provided will depend on the size of the batteries required, and/or how the battery enclosure needs to be mounted. All battery enclosures are weather rated, designed for interior or exterior installation.

#### **BE02**



#### BE02 Battery Enclosure

- Galvanized steel construction.
- Can accommodate up to two 32Ah batteries.
- Fitted with 4 outlets, and one solar panel input.
- Hinged lockable lid (padlock not included).
- Dimensions: 13" x 9 7/8" x 8 7/8" (330mm x 250mm x 225mm)
- Dimensions including lid over-hang: 9 7/8" x 15 6/8" x 8 7/8" (250mm x 400mm x 225mm)

#### **BE03**



#### **BE03 Battery Enclosure**

- Galvanized steel construction.
- Can accommodate up to two 105Ah batteries.
- Fitted with 8 outlets, and one solar panel input.
- Hinged lockable lid (padlock not included).
- Dimensions: 18 1/8" x 14 3/8" x 11 3/16" (460mm x 365mm x 284mm)
- Dimensions including lid over-hang and side flanges: 21 1/4" x 15 3/8" x 11 3/16" (510mm x 390mm x 284mm)

#### **Optional Battery Enclosure Mounting Hardware**

If you need to mount your battery enclosure to a round post or pole, you can purchase our optional battery enclosure pole mount hardware kits.



#### **SP13**

The SP13 battery enclosure pole mount kit can be used to mount our BE02, or BE03 to a round pole or post. Pole diameter options vary between 2" to 8" diameter.





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Worldwide<sup>\*</sup> Shipping 10 Year System Warranty



Lifetime Tech Support



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www.solarilluminations.com • sales@solarilluminations.com

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# Solar Sign Light System Supplied With 1-2 Fixtures - Complete System



Each solar panel is supplied with a pair of metal mounting triangles. These triangles allow the installer to mount the solar panel at an appropriate angle to a solid vertical or horizontal surface (such as a wall or concrete pad).

The panels can be installed in numerous ways, but note that the solar must be mounted at an appropriate angle (15° plus site latitude), face due south for the northern hemisphere and north for the southern hemisphere, and be in clear view of the sun (with no shading).

If any of these requirements are not possible, please notify us prior to ordering so we can calculate solar panel sizing options.

#### **Optional Solar Panel Mounting Hardware**

Below are solar panel pole mount options that can be purchased as an optional extra.

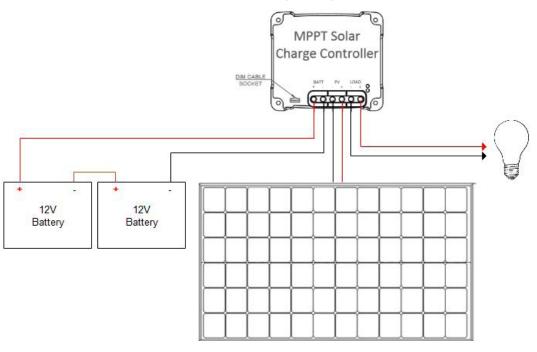


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#### **Wiring Diagram**



### **Installation Examples**









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Worldwide Shipping

10 Year System Warranty

20 Year\* Panel Warranty

Lifetime<sup>\*</sup> Tech Support



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