

# Solar-powered L-810 Aviation Obstruction Light

Use of solar (photovoltaic) systems to power aids to navigation and obstruction lights is now common practice. Automatic Power pioneered solar powered aids to navigation with installations in the Gulf of Mexico since the late 1960s. Having installed over 20,000 solar power systems, these systems have been proven to be more reliable, more cost effective and easier to maintain than conventional power sources.

The system is the key to an effective aid and efficient lighting assembly. System components include a solar array of one or more modules, a battery (to store sun generated energy until required), power conditioning devices to prevent overcharging of the battery and loss of power through the array at nighttime, mounting equipment and battery box, and the lighting equipment. These devices must compliment each other for maximum reliability and economy in the intended application.

Proper selection of components must be accompanied by system sizing experience. Ample sunlight data is available to allow Automatic Power's proven computer programs to calculate array and battery requirements virtually anywhere on earth. Array design includes tilt angle, aim, wiring, and support structure as well as module type and quantity. Our array structures are specially engineered to withstand anticipated site conditions and are available in several configurations:

## L-810 CLASS "C" SYSTEM

The Automatic Power Class "C", single lift, aids to navigation package meets or exceeds FAA requirements for an L-810 Obstruction Light.

### Technical Data:

**Lantern:** OB-249-LED with 155mm clear acrylic lens, 3x4 LED array, solar charge regulator and blocking diode, photocell, and stainless steel leveling bolts.

**Solar Array:** Wattage and Amperage to be determined by site sunlight conditions. Module mounted on a anodized aluminum frame bent to proper tilt angle with adjustments to assure that the solar array can be positioned to point toward the equator.

For location 40N, 113W, steady burn light requires a 60 watt solar panel. Approximate dimensions: 44 x 20 inches angled at 55 degrees.

**Battery:** 12V, 115 amp-hr, AGM Lead Calcium Battery is Maintenance-Free, Valve-Regulated, and Sealed. Battery is leak-proof, spill-proof, operates in any position and never needs water. It is freezing tolerant with low self-discharge and extended partial state of charge operation. It has a long service life with outstanding deep cycle capability.

**Construction:** Aluminum BS-1 lockable Battery Box



and Stanchion System with 22" by 16" mounting plate and four foot stanchion for mounting solar array and lantern. Leveling bolts.

**Weight:** 153 lbs.

**Pharos Marine**  
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