# R247-F
## SOLAR 24-HOUR FLASHING BEACON

24-hour flashing beacon for warning signs and stop signs

- Increase sign compliance and reduce blow-throughs
- Industry-leading light output
- Compact, lightweight design to simplify installation
- Proven technology platform
- Meets and exceeds MUTCD requirements

**Superior Design and Technology**

The R247-F utilizes a self-contained solar engine integrating the Energy Management System (EMS) with an on-board user interface, housed in a compact enclosure together with the batteries and solar panel. A larger solar engine enables the R247-F to work with remote monitoring and operate at higher intensities in challenging environments.

**Easy Installation**

With its highly efficient and compact design, installation is quick and uncomplicated, dramatically reducing installation costs. Retrofitting can be done where existing sign bases are used to enhance existing signs in minutes, and new installations can be completed without the cost of larger poles, new bases, and trenching.

**Advanced User-Interface**

The R247-F comes with an on-board user interface for quick configuration and status monitoring. It allows for simple in-the-field adjustment of flash pattern, duration, intensity, ambient auto adjust, night dimming, and many more. Optional manual override switch for local control.

**Reliable**

Designed with Carmanah's industry-leading solar modeling tools to provide dependable year-after-year operation.

**Trusted**

With thousands of installations, Carmanah's beacons are the benchmark in traffic applications and other transportation applications worldwide.

**WE SIMPLIFY PLANNING.**

Contact us to get your Energy Balance Report and purchase specifications.

☎ 1.844.412.8395

✉ traffic@carmanah.com
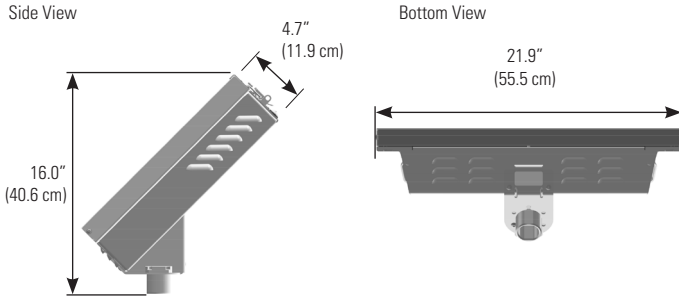
🌐 carmanahtraffic.com

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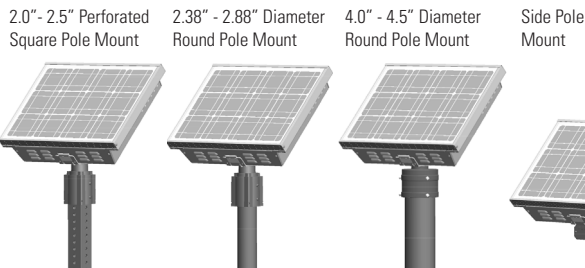
# R247-F
## SOLAR 24-HOUR FLASHING BEACON

carmanah® Traffic

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## DIMENSIONS

Side View

4.7"
(11.9 cm)

16.0"
(40.6 cm)

Bottom View

21.9"
(55.5 cm)



## SOLAR ENGINE MOUNTING

2.0"- 2.5" Perforated Square Pole Mount

2.38" - 2.88" Diameter Round Pole Mount

4.0" - 4.5" Diameter Round Pole Mount

Side Pole Mount



## BEACON MOUNTING

Single – Integrated Engine and Beacon

Single

Dual – Vertical

Dual – Horizontal Back-to-back

Dual – Horizontal

Quad – Horizontal
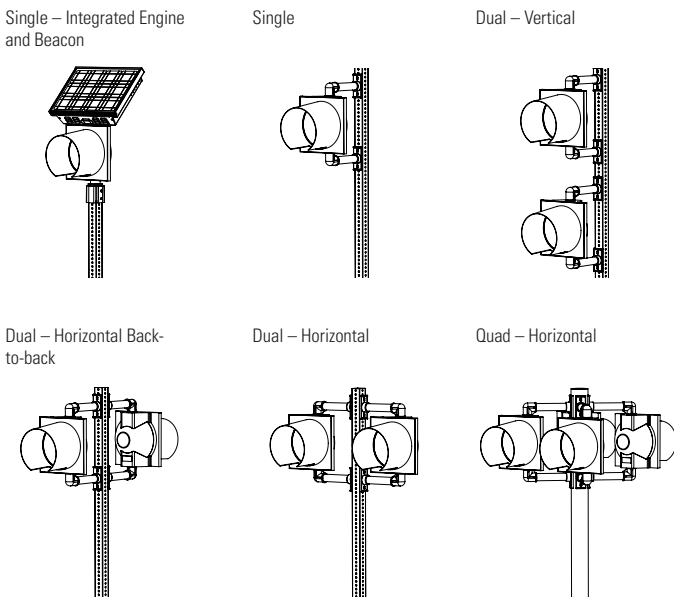


**\* Other solar engine and beacon mounting configurations are available.**



**Specifications subject to local environmental conditions, and may be subject to change.**
All Carmanah products are manufactured in facilities that are certified to ISO quality standards.
US Patent No 6,573,659, Other patents pending.
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|---|---|
| **On-Board User Interface (OBUI)** | Adjustable system settings with auto-scrolling LED display on our latest EMS |
| | **System test, status, and fault detection:** battery, solar, button, beacon, radio, day/night |
| | **Flash patterns:** RFB1 (WW+S), RFB2 (WSDOT), 0.5 sec. alternating (MUTCD), 0.5 sec. unison (MUTCD), 0.1 sec. unison, 0.25 sec. unison, 0.1 sec. x3 quick flashes unison, 0.1 sec. x3 quick flashes alternating |
| | **Input:** momentary for push button activation, normally open switch, normally closed switch |
| | **Flash duration:** 5 sec. to 1 hr. |
| | **Intensity setting:** 20 to 1400 mA for multiple circular beacons, RRFBs, or LED enhanced signs |
| | **Nighttime dimming:** 10 to 100% of daytime intensity |
| | **Ambient Auto Adjust:** increases intensity during bright daytime |
| | **Automatic Light Control:** reduces intensity if the battery is extremely low |
| | **Temperature correction:** yellow or red beacons |
| | **Calendar:** internal time clock function |
| | **Radio settings:** enable/disable, selectable channel from 1 to 14 |
| | **Output:** enabled when beacons flashing daytime and nighttime, or nighttime only |
| | Activation counts and data reporting via OBUI or optional USB connection |
| **Optical** | **MUTCD compliant:** 2009 MUTCD, Chapter 4L, Flashing Beacons, Manual on Uniform Traffic Control Devices (MUTCD) |
| | **ITE VTCSH-LED Circular Signal Supplement compliant:** meets ITE or 1.7x ITE intensity when used as recommended |
| | 12 in (305 mm) or 8 in (203 mm) diameter LED modules, yellow or red |
| | **High-power LEDs:** +90% lumen maintenance (L90) based on IES LM-80 |
| | Yellow, black, or green signal heads in UV-resistant polycarbonate or aluminum |
| **Connectivity** | Optional encrypted, wireless radio with 2.4 GHz mesh technology |
| | Optional radio allows calendar program, manual override switch, or input device from one system to remotely control other systems |
| | User-selectable multiple channels to group different beacons and ensure a robust wireless signal |
| | **Instantaneous wireless activation:** <150 ms |
| | **Wireless range:** 1000 ft (305 m) |
| | Integrated, vandal-proof antenna |
| **Energy Collection** | 30 W high-efficiency photovoltaic solar panel |
| | 45 deg tilt for optimal energy collection |
| | Maximum Power Point Tracking with Temperature Compensation (MPPT-TC) battery charger for optimal energy collection in all solar and battery conditions |
| **Energy Storage** | 12 V 34 Ahr. battery system |
| | Replaceable, recyclable, sealed, maintenance-free, best-in-class AGM batteries offer the widest temperature range and longest life |
| | **Battery design life:** +5 yrs. |
| | Tool-less battery change with quick connect terminals and strapping for easy installation |
| **Solar Engine Construction** | Weatherproof, gasketed enclosure with vents for ambient air transfer (NEMA 3R) |
| | Lockable, hinged lid for access to on-board user interface and batteries |
| | Corrosion-resistant aluminum with stainless steel hardware |
| | Raw aluminum finish or yellow, black, or green powder coated |
| | Prewired to minimize installation time |
| | High-efficiency optics and EMS = the most compact, lightweight system |
| | 39 lb (17.7 kg) including batteries, excluding beacons |
| **Environmental** | -40 to 165° F (-40 to 74° C) system operating temperature |
| | -40 to 140° F (-40 to 60° C) battery operating temperature |
| | 150 mph (241 kph) wind speed as per AASHTO LTS-6 |
| **Activation** | Standard operation is flashing 24 hrs./day |
| | Optional internal time clock for calendar programming |
| | Optional manual override switch allows local control of beacons |
| | **Optional junction box:** lockable, hinged door, corrosion-resistant aluminum enclosure allows easy calendar programming and access to manual override switch |
| **Warranty** | **5-year limited warranty** |