

MODEL

R920 SERIES

RECTANGULAR RAPID FLASHING BEACON

Pedestrian-actuated warning system for uncontrolled marked crosswalks

RRFBs have been found to provide vehicle yielding rates between 72 and 96 percent for crosswalk applications, including 4 lane roadways with average daily traffic (ADT) exceeding 12,000*.

Superior Design and Technology

The R920 utilizes a self-contained solar engine integrating the energy management system with an on-board user interface, housed in a compact enclosure together with the batteries and solar panel. In low light conditions, the ambient auto-adjust option provides over-lighting protection and system efficiency, while still meeting MUTCD light intensity requirements.

Easy Installation

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

Advanced User-Interface

The R920 is the first RRFB with an on-board user interface and display for quick configuration and status monitoring. It allows for simple in-the-field set-up adjustment to flash duration, ambient settings, and night intensity. Settings are broadcasted automatically to all units in the system.

Reliable

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

Trusted

With thousands of installations in the field, Carmanah solar beacons and solar LED lights have become the benchmark in traffic applications and other transportation applications worldwide.

The R920 is the benchmark for Rectangular Rapid Flashing Beacons (RRFBs):

- Ultra-efficient optical and Energy Management System (EMS)
- Compact design to simplify installation
- Proven technology platform
- Exceeds FHWA standards



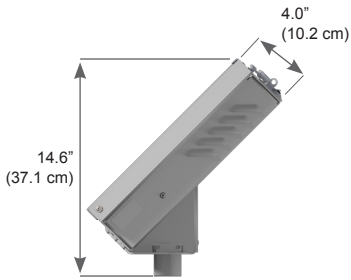
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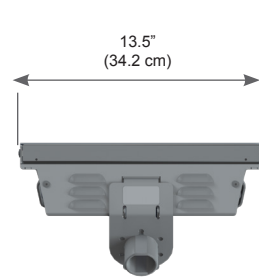
* U.S. Department of Transportation Federal Highways Administration, Publication No. FHWA-HRT-10-043 - "Effects of Yellow Rectangular Rapid-Flashing Beacons on Yielding at Multilane Uncontrolled Crosswalks"

DIMENSIONS

Side View



Bottom View



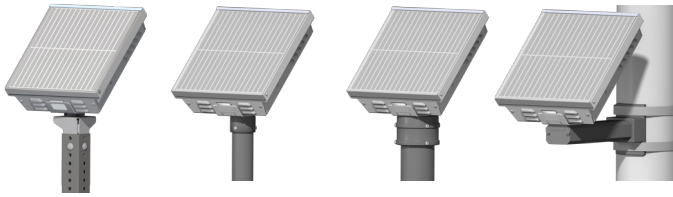
MOUNTING OPTIONS

2.0" - 2.5" Perforated Square Post Mount

2.38" - 2.88" Diameter Round Post Mount

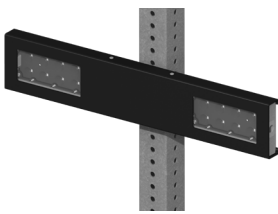
4.0" - 4.5" Diameter Round Post Mount

Side Post Mount

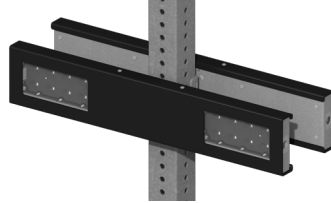


SYSTEM CONFIGURATION

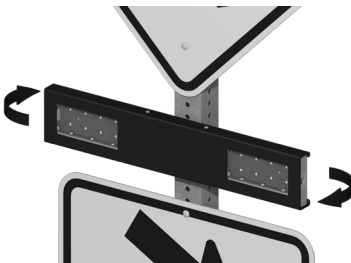
Uni-directional Configuration



Bi-directional Configuration



IN THE FIELD AIMING



Rotate the lightbar towards the incoming vehicle lane, independent of the wire hole location.

RRFB CAPACITY CALCULATOR

Calculate the performance of our Rectangular Rapid Flashing Beacon in your location with our RRFB Capacity Calculator.

carmanah.com/RRFB-calculator



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SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

US Patent No 6,573,659, Other patents pending. "Carmanah" and Carmanah logo are trademarks of Carmanah Technologies Corp.

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RECTANGULAR RAPID FLASHING BEACON

On-Board User Interface (OBU)	Adjustable, auto-scrolling LED display
	Field-configurable flash duration to one second increment
	Ambient auto-adjust configuration
	Night dimming configuration
	Wireless update of configurable settings from any unit to all systems
	Channel selection
	System test, status and fault detection
Optical	Activation data reporting
	MUTCD IA-11 compliant flash pattern
	3" x 7" amber LED indications
	Side emitting pedestrian confirmation lights
	Exceeds SAE J595 class 1 Intensity
Energy Collection	Meets SAE J578 chromaticity
	High-power LEDs meets 90% lumen maintenance (L90) based on IES LM-80
	10 watt high-efficiency photovoltaic cell with blocking diodes
Energy Storage	Maximum power point tracking with temperature compensation (MPPT-TC) for optimal energy collection in all solar conditions
	Replaceable, recyclable best in-class 12V dual battery system (sealed, maintenance-free)
	Designed for minimum 5 year battery life
Solar Engine Construction	Lightweight for ease of handling
	Quick connect terminals and strapping for efficient installation
	Weatherproof, vented solar engine enclosure for ambient air transfer (NEMA 3R)
	Hinged access lid for access to on-board user interface and batteries
	Compact, lightweight aluminum housing
	Top of pole mounting to standard 2" sign posts and 4" poles; side of pole mounting to standard 4" poles
Lightbar Construction	Pre-wired assembly designed to minimize installation time
	Weight: 19.8 lb (9 kg) including batteries, excluding light bars and push button
	Premium, UV-resistant polycarbonate lens
Operating Performance	Two-piece mounting bracket to facilitate mounting back-to-back lightbars
	Horizontal rotation adjustment for in-the-field aiming of lightbar
Warranty	Dimensions: 24" L x 1.5" W x 4.5" H (61.0 cm L x 3.8 cm W x 11.4 cm H)
	Rated for 300, 20 second activations per day, year-round operation with a minimum of 0.94 sun hours
	Wireless activation within 150 mS
	Wireless range of 500 ft (152 m)
	3-year limited warranty