



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.

### 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 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 new benchmark for Rectangular Rapid Flashing Beacons (RRFBs):

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



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- visit us at [www.carmanah.com](http://www.carmanah.com)
- or call +1.250.380.0052 (toll-free US & Canada 1.877.722.8877)

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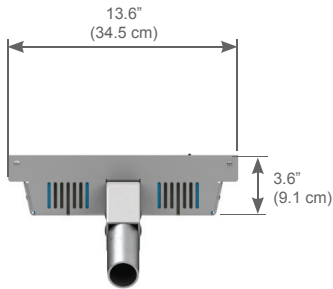
\* U.S. Department of Transportation Federal Highways Administration, Publication No. FHWA-HRT-10-043 - "Effects of Yellow Rectangular Rapid-Flashing Beacons on Yielding at Multilane Uncontrolled Crosswalks"

## DIMENSIONS

Side View

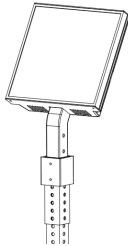


Bottom View



## MOUNTING OPTIONS

2", 2.5" Perforated Square Post Mount



2 3/8" - 2 7/8" Diameter Round Post Mount

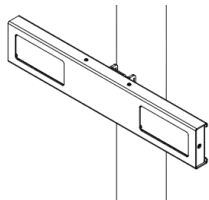


4" - 4 1/2" Diameter Round Post Mount

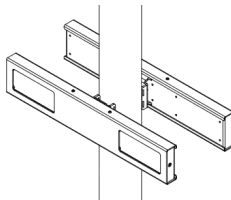


## SYSTEM CONFIGURATION

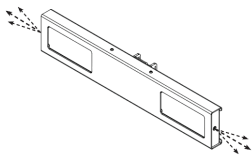
Uni-directional Configuration



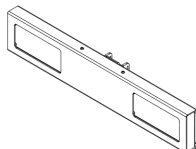
Bi-directional Configuration



## LIGHTBAR OPTIONS

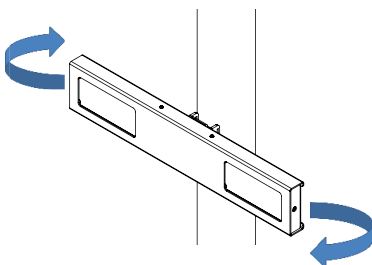


Side-emitting Pedestrian Confirmation Light (Both Ends)



No Side-emitting Pedestrian Confirmation Light

## IN THE FIELD AIMING



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

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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	
	Activation data reporting	
	MUTCD IA-11 compliant flash pattern	
	3" x 7" amber LED Indications	
Optical	Exceeds SAE J595 class 1 Intensity	
	Meets SAE J578 chromaticity	
	High-power LEDs meets 90% lumen maintenance (L90) based on IES LM-80	
Energy Collection	10 watt high-efficiency photovoltaic cell with blocking diodes	
	Maximum power point tracking with temperature compensation (MPPT-TC) for optimal energy collection in all solar conditions	
Energy Storage	Replaceable, recyclable best in-class 12V dual battery system (sealed, maintenance-free)	
	Designed for minimum 5 year battery life	
	Lightweight for ease of handling	
Solar Engine Construction	Quick connect terminals and strapping for efficient installation	
	Weatherproof, vented solar engine enclosure for ambient air transfer	
	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	
	Pre-wired assembly designed to minimize installation time	
	Weight: 19.8 lb (9 kg) including batteries, excluding light bars and pushbutton	
	Lightbar Construction	Premium, UV-resistant polycarbonate lens
		Waterproof LED Indications (NEMA 3R)
		Two-piece mounting bracket to facilitate mounting back-to-back lightbars
Horizontal rotation adjustment for in-the-field aiming of lightbar		
Operating Performance	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	
	Operating Autonomy of 13 days at rated operation	
	Wireless activation within 120 mS	
Warranty	Wireless range of 500 ft (152 m)	
	3-year limited warranty	

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

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