

MODEL

R820 SERIES

SOLAR LED CROSSWALK FLASHING BEACON

Typical Applications:

Pedestrian crosswalks

Improves Safety

- Improves pedestrian safety by increasing driver awareness at uncontrolled crosswalks
- Communicates wirelessly to other beacons using advanced RF communication to eliminate further wiring
- Capable of multiple beacons per system
- Pedestrian-activated push-button

Reliability Assured

- Core energy management system ensures operation; even during periods of cloud cover
- Turn-key system custom configured for optimum performance based on location, solar insolation and desired operation

Cost-Effective Solution

- No trenching, wiring or digging required
- "Plug-and-play" installation for reduced disruption to traffic
- Cabinet-free, sturdy design inhibits vandalism

Easy Installation and Operation

- Installs to existing sign posts within thirty minutes
- Easy to relocate and repurpose to other locations

Quality Ensured

- Manufactured in accordance with ISO 9001:2008
- Designed and assembled in North America
- Backed by a 3-year limited warranty



INSTALLATIONS AND APPLICATIONS



PEDESTRIAN CROSSWALK -
VICTORIA, BC



PEDESTRIAN CROSSWALK -
SANTIAGO, CHILE



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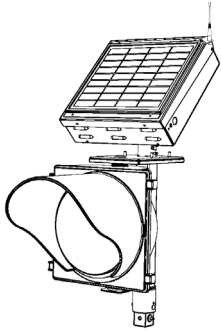
- visit us at www.carmanah.com
- or call +1.250.380.0052 (toll-free US & Canada 1.877.722.8877)

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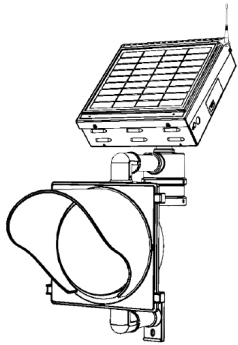
MOUNTING EXAMPLES

SINGLE BEACON (C-Compact)

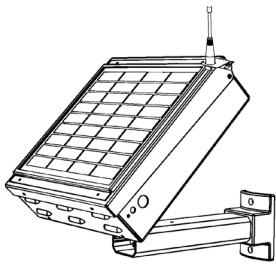
Single - Pole Mount (Square/Round)



Single - Top of Pole Mount

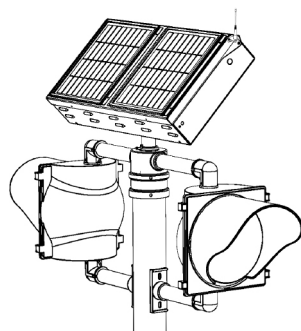


Single or Dual - Side of Pole Mount

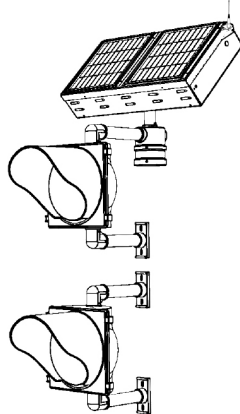


DUAL BEACON

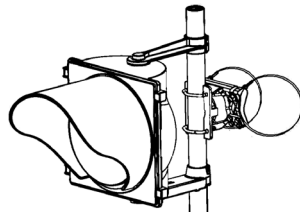
Dual - Horizontal Top Pole Mount



Dual - Vertical Top Pole Mount



Single or Dual - Mast Arm Mount



* OTHER MOUNTING OPTIONS AVAILABLE
PRODUCT MAY NOT BE EXACTLY AS SHOWN

| COMPONENT | DIMENSION | | |
|---------------|-----------------|----------------|----------------|
| | Length | Width | Height |
| Single Beacon | 25.0" (635 mm) | 15.0" (381 mm) | 33.5" (851 mm) |
| 10 W Engine | 15.0" (381 mm) | 14.8" (376 mm) | 4.8" (121 mm) |
| 20 W Engine | 15.75" (401 mm) | 29.3" (743 mm) | 6.0" (151 mm) |

* Dimensions may vary based on pole selection, 45° tilt and beacon configuration.

Performance is tied to solar availability and geographic location.
All specifications are subject to change without notice.



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

MODEL

R820_{SERIES}

SOLAR LED CROSSWALK FLASHING BEACON

OPERATION

| | |
|------------------------------|--|
| Flash pattern and activation | MUTCD* compliant Alternate, unison, and quick-flash |
| Control | Push button |

LED SIGNAL MODULE

| | |
|---------------------|---|
| Standard | ITE VTCSH LED circular signal supplement |
| Size and LED colour | 12" (305 mm) diameter amber or red 8" (203 mm) diameter amber or red |

ENVIRONMENTAL

| | |
|---------------------------------------|------------------------------|
| Operating temperature range | 5 to 122° F (-15 to 50° C) |
| Extended temperature range (optional) | -40 to 122° F (-40 to 50° C) |

ENERGY MANAGEMENT SYSTEM

| | |
|---------------------------------|--|
| Battery lifespan | 3 – 5 years (field replaceable) |
| Capacity without solar charging | Up to 40 days typical (location dependant) |
| Daily operation profile | Up to 12 hours (system configuration dependent) |
| Automatic light control (ALC) | Systems continue to provide useful light during extreme conditions that prevent charging over an extended period of time |

WIRELESS ACTIVATION

| | |
|-----------------|--|
| Activation | Push button activation sends wireless signal to all units |
| Duration | 10 – 60+ second flash duration (adjustable by 5 second increments) |
| Frequency | 902-928 Mhz ISM Band FHSS (frequency hopping spread spectrum) |
| Effective range | 165 ft (50 m) line of sight |

MOUNTING HARDWARE

| | |
|---|---|
| Bracket options for standard sign posts | 1.75" (45 mm) square telspar, 2 3/8" (60 mm) round, 4 1/2" (114 mm) round Pelco traffic signal mounting hardware |
| Colour | Black, yellow or green |
| Wind load rating | 178 km/h (110 mph) ** |

COMPONENTS

| | |
|--------------|--|
| Solar Panel | High-efficiency 10 W (C-Compact) or 20 W panel |
| Battery | Replaceable, recyclable best-in-class battery pack. Sealed, maintenance-free. |
| Light Source | Ultra-bright LEDs featuring innovative optic and lens design for optimum light divergence |
| Construction | Fully self-contained weather, corrosion and vandal-resistant unit with premium-grade UV-resistant head |

QUALITY STANDARDS

| | |
|-----------------------|---|
| Quality certification | ISO 9001:2008 Certified Manufacturer |
| Certification | NCHRP 350, FDOT, system compliant with Buy American Act |

WARRANTY

| | |
|------|---|
| Term | 3-year limited warranty (including batteries) |
|------|---|

* Meets all requirements for design, illumination, and colour of signal sections required by MUTCD, chapter 4D.18. MUTCD: Manual on Uniform Traffic Control.

** 3 second gust as per AASHTO 2001.