

# R829-G

## SOLAR AND AC SCHOOL ZONE FLASHING BEACON



### Schedule-based, solar and AC school zone flashing beacon

- Decreases vehicle speeds by five to seven miles per hour in school zones
- Solar-powered ITE intensity compliant system
- Simple, software-based calendar program or programmable time clock operation
- Solar and AC-powered models sized to meet site-specific demands
- Proven technology platform
- Meets and exceeds MUTCD requirements

#### Superior Design and Technology

The R829-G is a cabinet-based system with a separate, high-power solar panel. This design enables the R829-G to work with third-party time clocks and remote monitoring, as well as operate at higher intensities in challenging environments. MUTCD flash patterns, available ITE intensity, and multiple configurations enable the R829-G to handle all school zone and speed limit sign applications.

#### Easy Installation

All components, including the battery or AC power supply, Energy Management System (EMS) and optional time clocks are housed in a compact, lockable, purpose-built enclosure. It also incorporates a wire routing and termination system, and all components are wired at the factory for an efficient installation.

#### Calendar Operation

Schedule beacon operation with our easy software-based calendar program, or use third-party time clocks for local or remote control.

#### Advanced User Interface

The R829-G 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 wireless connection enables one beacon's calendar settings to control multiple school zone beacons.

#### 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](mailto:traffic@carmanah.com)

 [carmanahtraffic.com](http://carmanahtraffic.com)

REPRESENTED IN YOUR REGION BY:

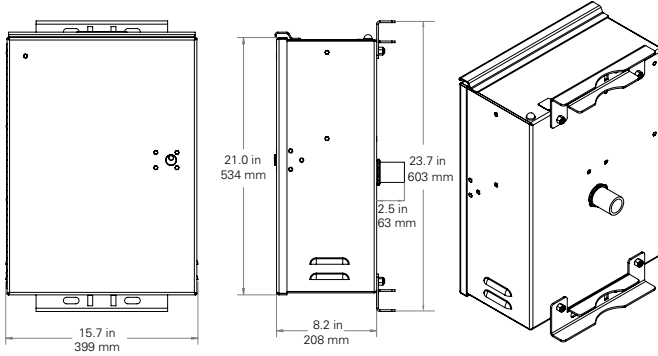
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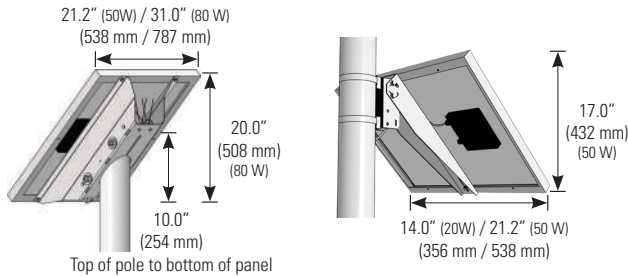
### CABINET DIMENSIONS



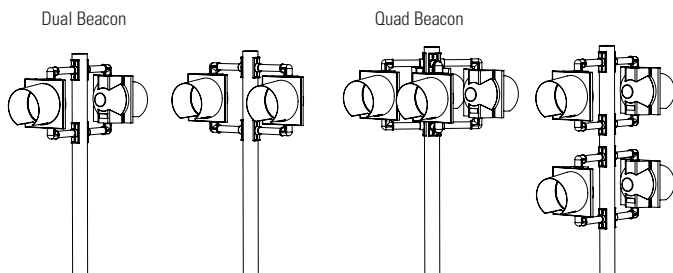
### SOLAR PANEL MOUNTING

4.5" Diameter Round Top of Pole Mount  
(50 W and 80 W panels)

Side of Pole Mount  
(20 W, 50 W, and 80 W panels)



### BEACON MOUNTING



	Adjustable system settings with auto-scrolling LED display on our latest EMS
	<b>System test, status, and fault detection:</b> battery, solar, button, beacon, radio, day/night
	<b>Flash patterns:</b> 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
	<b>Input:</b> momentary for push button activation, normally open switch, normally closed switch
	<b>Flash duration:</b> 5 sec. to 1 hr.
On-Board User Interface (OBU)	<b>Intensity setting:</b> 20 to 1400 mA for multiple circular beacons, RFBs, or LED enhanced signs
	<b>Nighttime dimming:</b> 10 to 100% of daytime intensity
	<b>Ambient Auto Adjust:</b> increases intensity during bright daytime
	<b>Automatic Light Control:</b> reduces intensity if the battery is extremely low
	<b>Temperature correction:</b> yellow or red beacons
	<b>Calendar:</b> internal time clock function
	<b>Radio settings:</b> enable/disable, selectable channel from 1 to 14
	<b>Output:</b> enabled when beacons flashing daytime and nighttime, or nighttime only
	Activation counts and data reporting via OBU or optional USB connection
	<b>MUTCD compliant:</b> 2009 MUTCD, Chapter 4L, Flashing Beacons, Manual on Uniform Traffic Control Devices (MUTCD)
Optical	<b>ITE VTCSH-LED Circular Signal Supplement compliant:</b> meets ITE or 1.7x ITE intensity when used as recommended
	12 in (305 mm) or 8 in (203 mm) diameter LED modules, yellow
	<b>High-power LEDs:</b> +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
	<b>Instantaneous wireless activation:</b> <150 ms
	<b>Wireless range:</b> 1000 ft (305 m)
	Integrated, vandal-proof antenna
Power System	Solar or AC-powered
	<b>AC:</b> 90-264 VAC input, 6-14 AWG
	Replaceable AC-DC power supply, circuit breaker, terminal block wiring
	20, 50, or 80 W high-efficiency photovoltaic solar panel
Energy Collection	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 battery system with multiple sizes: 33, 35, 75, 100 Ahr.
	Replaceable, recyclable, sealed, maintenance-free, best-in-class AGM batteries offer the widest temperature range and longest life
	<b>Battery design life:</b> +5 yrs.
Cabinet Construction	Weatherproof, gasketed enclosure with vents for ambient air transfer (NEMA 3R)
	Lockable, hinged door with #2 lock
	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
Environmental	-40 to 165° F (-40 to 74° C) system operating temperature
	-40 to 162° F (-40 to 72° C) battery operating temperature
	150 mph (241 kph) wind speed as per AASHTO LTS-6
Activation	<b>Internal time clock:</b> calendar programming via our simple software
	Also compatible with 3rd-party time clocks:
	<ul style="list-style-type: none"> <li>Applied Information AI 500-070B</li> <li>Temple FCU 500-071 (FL only)</li> <li>RTC AP21, AP22, CPR2102, and M2M modem</li> <li>Information Display DC-FB</li> </ul>
	Other time clocks may also be compatible.
	<b>Manual override switch:</b> allows local control of beacons
	<b>Junction box:</b> lockable, hinged door, corrosion-resistant aluminum enclosure allows easy calendar programming and access to manual override switch
<b>Warranty</b>	<b>5-year limited warranty</b>



**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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