R247-F-HUB

StreetHub™ Connected 24-Hour Flashing Beacon System

carmanah®

24-hour flashing beacons for warning and stop signs increase compliance and reduce blow-throughs.

- ✔ Highest intensity output in the industry
- ✔ MUTCD and Buy America compliant
- ✔ Compact and lightweight solar engine
- ✔ Energy Balance Report™ (EBR) prepared for every location

Built-in wireless connectivity allows for remote scheduling, data collection and beacon health monitoring, ensuring optimal safety, minimal downtime and fewer service calls and site visits.

- ✔ Monitoring unit upgrades and over-the-air software and security updates included
- ✔ Extended battery warranty matched to connectivity and support plan
- ✔ Backup battery ensures uninterrupted data collection and connectivity
- ✔ Powered by **applied** INFORMATION

SAFETY + CONTROL + INSIGHT

All-in-one System
The R247-F-HUB combines Carmanah's reliable safety beacons with Applied Information's industry-leading intelligent transportation systems (ITS) solutions. An out-of-the-box system, the R247-F-HUB ships ready to install with instant connectivity.

Remote Scheduling and Calendar Control
Every R247-F-HUB includes its own monitoring unit allowing for two-way remote communication and control. Schedule and program adjustments can be made with the cloud-based Glance platform powered by AI, reducing site visits and saving departments time and money.

Timely Alerts
The R247-F-HUB issues system status alerts 24/7 via text or email to reduce service calls, speed response times and improve safety by ensuring systems are working properly.

Automated and On-demand Reports
Connecting to Glance means users can quickly and easily access data and insights that enable accurate treatment analysis and proactive maintenance plans.

TravelSafely Mobile Safety App
TravelSafely is a pioneering smartphone app developed by AI that boosts safety by providing alerts and facilitating better communication between motorists, pedestrians, cyclists and infrastructure.

Trusted for 20+ Years
With thousands of installations, Carmanah's systems are the benchmark in traffic installations and other transportation applications worldwide.
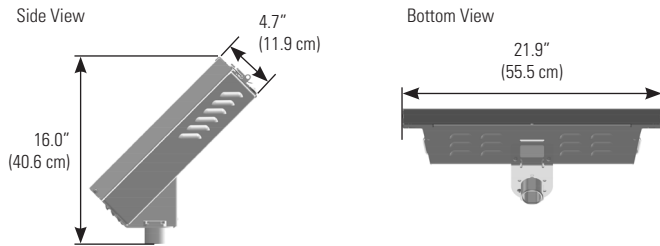
R247-F-HUB

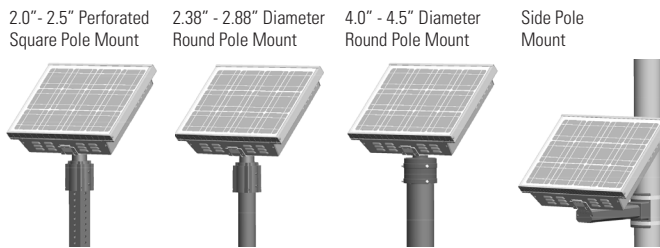**StreetHub™ Connected 24-Hour Flashing Beacon System**

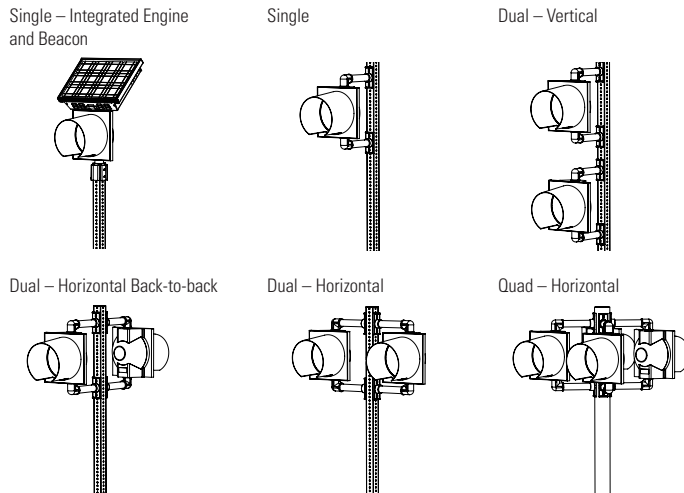1.844.412.8395 | traffic@carmanah.com | carmanahtraffic.com

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SOLAR ENGINE 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.

CELLULAR CONNECTIVITY AND SOFTWARE SPECIFICATIONS

Monitoring Unit	**Applied Information AI-500-070B (AI-500-071 in Florida)** monitoring unit includes cellular modem with GPS, fully integrated and configured from the factory
	LTE wireless broadband network Hardware is upgradeable if service provider changes network requirements
	Prewired inputs and outputs to monitor beacon, solar panel, battery, and system status
	Unit connects to the network every 30 minutes to ensure uptime
	Over-the-air software and security updates
	Non-volatile memory storage and battery backup in case of system power loss
	Meets NEMA TS 8 requirements for Cyber and Physical Security for Intelligent Transportation Systems
Scheduling and Monitoring Platform	**Glance™ cloud-based platform** for remote beacon scheduling and monitoring Compatible with desktop and mobile devices
	Easy-to-use calendar with up to 20 unique schedules and unlimited holidays, scenarios, and overrides
	Stores detailed system data including battery status, solar panel voltage, and more
	Configurable smart alerts through email and/or text of system issues
	Custom reports available
Connectivity and Support	1/2/3/4/5-year connectivity and support plans available

BEACON SPECIFICATIONS

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
Beacon Communication (optional)	Available with 2.4 GHz radio for remote activation of additional systems
	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-resistant antenna
Activation	Standard operation is flashing 24 hrs./day
	Optional calendar programming available through Glance software

SYSTEM SPECIFICATIONS

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
	Radio settings: enable/disable, selectable channel from 1 to 14
	Output: enabled when beacons flashing daytime and nighttime, or nighttime only E.g., for relay control of overhead lighting
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
	41 lb (18.6 kg) including batteries and monitoring unit, excluding beacons
Environmental	-35 to 165° F (-37 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
Warranty	**5-year limited warranty, excluding batteries**
	Battery warranty matches selected connectivity and support plan

ITE | IMSA Your Partner in PUBLIC SAFETY | MUTCD | Buy American Act Compliant | ESTABLISHED IN THE UNITED STATES