



Illinois Department of Transportation

2300 South Dirksen Parkway / Springfield, Illinois / 62764

April 24, 2007

SUBJECT: FAS 836 (CH 35)
Project ACRS-836(113)
Section 05-00188-00-RS
Jefferson County
Contract No. 99291
Item 14
April 27, 2007 Letting
Addendum (A)

TO PROSPECTIVE BIDDERS:

Due to clarify information necessary to revise the following:

Proposal – Added Attachment “A” for Solar Powered Flashing Beacon Assembly.

Prime contractors must utilize the enclosed material when preparing their bid and must include any Schedule of Prices changes in their bidding proposal.

Bidders using computer-generated bids are cautioned to reflect any and all Schedule of Prices changes, if involved, into their computer programs.

Very truly yours,

Eric Harm
Interim Engineer of Design and Environment

A handwritten signature in cursive script, reading 'Ted B. Walschleger' followed by a small 'P.E.' monogram.

By: Ted B. Walschleger
Engineer of Project Development
and Implementation

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Revised 424-07

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Attachment "A"

Also Visit

- ▶ Product Catalog
 - ▶ R409 LED Street Sign
 - ▶ R450 LED Traffic Sign
 - ▶ R247C 24Hr Flasher
 - ▶ R247 24Hr Dual Flasher
 - Specifications
 - Document Download
 - ▶ R820C Pedestrian Flasher
 - ▶ R829C School Zone Flasher
 - ▶ 360° Marking Lights
- ▶ Technology
- ▶ Common Questions
- ▶ Sample Customers
- ▶ Customer Feedback
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24/7 Dual Flashing Beacon

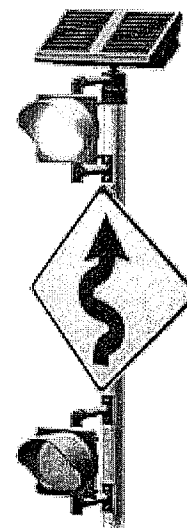
Model R247

The Carmanah Model R247 Dual is a solar-powered LED flashing beacon. Unique in the world of hazard markers and sign enhancers, the R247 Dual flashes 24 hours per day all year round, yet it installs in minutes and requires no maintenance or servicing for up to five years.

INTRODUCTION

Built to rigorous industrial quality standards, the Model R247 Dual is designed for temporary or permanent installation on a post, sign, barricade, etc. Unlike conventional permanent mount 24 hour flashers, it is completely self-contained and does not require electrical wiring or maintenance or frequent battery replacement.

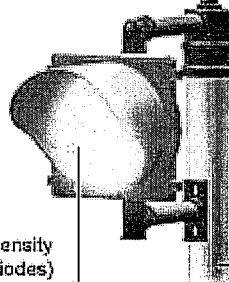
Even in urban areas, the R247 Dual is far more cost-effective than hardwired lighting; it can be installed in minutes without construction, trenching or traffic disturbance, and does not consume any external electricity.



Batteries and electronics are housed in a durable powder-coated aluminum solar housing.



Completely integrated and installs in minutes. No external wiring necessary.



Uses multiple high-intensity LEDs (light emitting diodes) - no bulbs to replace...ever.

Mounts to a variety of posts and poles.

TECHNOLOGY

Utilizing an innovative combination of solar power and LED (light emitting diode) technology, the R247 Dual charges during the day, even under cloudy

3a.

Added 4-24-07

conditions, and emits a constant 55 flashes per minute all year round. User adjustable brightness settings accommodate different applications.

The R247 Dual is extraordinarily robust when compared to other solar-powered lighting products. Its housing is constructed using powder-coated aluminum and its solar panel is encased in a unique polymer, ensuring the unit will withstand even the harshest of environmental conditions.

The R247 Dual also features intelligent electronics that ensure both the batteries and LEDs will last up to five years without any maintenance or servicing.

APPLICATIONS

- Enhancing all types of roadway signs (stop, yield, wildlife, dangerous corners, etc.)
- Marking temporary and permanent road barricade marking
- Flashing flagger
- Enhancing safety at construction and detour zones
- Indicating bridge and tunnel entrances
- Marking hazards and infrastructure at industrial sites

BENEFITS

- Quick installation - no external wiring, cable trenching, etc.
- Flexible design enables any configuration of bi-directional or dual flasher solution
- Minimal capital cost
- Pays for itself within the first year of operation in the form of reduced installation, maintenance and servicing costs
- Self-powering capability means it can be installed anywhere
- Reliable operation 365 days per year at nearly any location on earth

FEATURES

- MUTCD compliant
- ITE Compliant signal head
- Peak intensity of 400 candela
- Available in amber or red color with 8" or 12" lens
- 55 flashes per minute (0.55 seconds on / 0.55 seconds off)
- Designed to operate reliably in harshest of environmental conditions
- Installation takes minutes and requires minimal technical expertise
- Vandal-resistant integrated design
- Will charge under nearly all weather conditions
- Up to 40 days autonomy at 124 candela
- 30-day satisfaction guarantee and three year warranty.

MORE INFO

- Specifications
- Download brochures

PRICE

- Contact Carmanah.
- Ordering
- Volume pricing available. Contact Carmanah for details.

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24/7 Dual Flashing Beacon
Model R247

SPECIFICATIONS

Specification	Value
Light Output	
Peak Intensity (User adjustable) Yellow Output	35-400 Candela
Divergence (Vertical/Horizontal)	20°/30°
Operation	
Required Solar Insolation for Continuous Daily Operation ¹	2 hrs
Minimum Autonomy (Without any Additional Charging) ²	40 days minimum
Lifespan of LEDs	Up to 100,000 hrs
Color Output	Yellow or Red
Dominant Wavelength (Yellow)	590 nm
Flash Pattern (On Time / Off Time)	0.55 s / 0.55 s (MUTCD compliant)
Battery Capacity	400 Watt-hour
Lens	
Colors	Yellow or Red (with matched LEDs)
Material	Polycarbonate, hard coated for abrasion resistance
Size	12" or 8" round
Operating Temperatures	
Optimal Ambient Range	-20° to +25° C (-4° to 77° F)
Maximum Ambient Temperature Range ³	-40° to +80° C (-40° to 176° F)
Storage Temperature ⁴	20° +/-5° C (68° +/-5° F)
Housing	
Head and support structure	Powder coated aluminum. Fits round or square poles.
Signal Housing	Injection molded UV stabilized polycarbonate.
Patents	
Trademarks	Patents pending

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NOTES:

- 1. Total daily solar energy (1.30 kilowatt hours/meter²/day) required on an optimally oriented solar panel, averaged over the month receiving the lowest solar radiation at the installation site.
- 2. Beginning with a fully charged battery. Battery discharge limited to 90% of capacity.
- 3. Consistent ambient temperatures above +25°C (+77°F) may affect overall battery life. Temperatures above +60°C (+140°F) may affect output. Operational times are also reduced below -20°C due to the effects of low temperature on battery performance.
- 4. To prevent deep cycling and ensure maximum battery life, stored units MUST be recharged every 4 to 6 months. See product manual for more details.

All specifications are subject to change without notice.

24/7 Dual Flashing Beacon Specification Request:

To request detailed written product specifications on this product, please use the convenient online form below. A representative from Carmanah will respond to your request within one working day.

Name

Company

E-mail address

Phone number

Comments

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