

# WW200

## Wrong-Way Vehicle Detection and Warning System Data Sheet



A smarter wrong-way detection system that leverages radar technology to trigger high-intensity flashing lights, increasing driver awareness only when a wrong-way incident occurs:

- ✓ Configurable radar settings for detection speed and sensitivity
- ✓ Highest LED intensity output in the industry
- ✓ Mounts to standard poles
- ✓ Scalable design: multiple signs can be added with synchronized flashing
- ✓ Customizable settings and sign sizes
- ✓ Powered by solar or AC
- ✓ Solar Power Report™ (SPR) prepared for every location to ensure battery longevity

Wrong-way vehicle detection systems are up to **80% effective in stopping wrong-way drivers\***.

### Superior Detection Technology

The system monitors highway ramps 24 hours a day for wrong-way vehicles without interfering with other traffic detection systems. When the radar unit detects a wrong-way vehicle, the system activates the LEDs to warn the driver of their error and encourage self-correction.

### Easy Solar Installation

With its highly efficient and compact design, installation is quick and uncomplicated, dramatically reducing installation costs. Existing WRONG WAY signs can be retrofitted in minutes, and new installations can be completed without the cost of larger poles, new bases and trenching.

### Advanced User Interface

The WW200 comes with an on-board user interface for quick LED configuration and system status monitoring. It allows for simple, in-the-field adjustment of flash pattern, duration, intensity, ambient auto adjust, night dimming, and more. The radar is easily programmed using the included PC software, allowing for quick setting configuration for detection speed, sensitivity and more.

### Reliable

Carmanah backs every system with a three-year limited warranty. Every solar-powered model is solar-sized by location to ensure year-after-year operation. Carmanah includes a Solar Power Report to prove sustainability over a 12-month period.



**MUTCD  
compliant**



**Buy America  
compliant**



**3-year limited  
warranty**



**Solar-sized for  
every location**

Nevada DOT, [Wrong Way Driver System](#), preliminary research press release.

# WW200

## Wrong-Way Vehicle Detection and Warning System Data Sheet

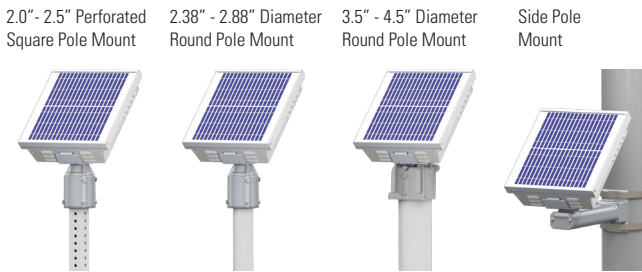
1.844.412.8395 | traffic@carmanah.com | carmanah.com



### SOLAR ENGINES



### SOLAR ENGINE MOUNTING



### LED ENHANCED WRONG WAY SIGN

R5-1a



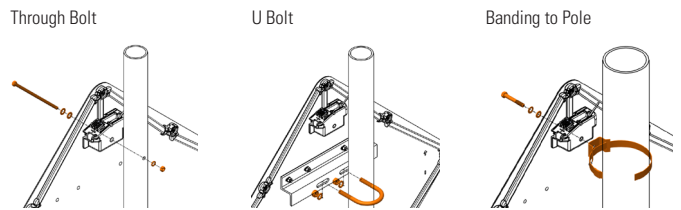
36" x 24"  
(914 mm x 610 mm)



42" x 30"  
(1067 mm x 762 mm)

MUTCD Chapter 2B compliant, R5-1a layout
3M Diamond Grade DG3 retroreflective sheeting, 4092 red
8 red LEDs
36" and 42" sign sizes

### LED SIGN MOUNTING



### SYSTEM SPECIFICATIONS

On-Board User Interface	Adjustable system settings with auto-scrolling LED display
	System test, status, and fault detection: battery, solar, beacon, day/night
	Intensity setting: 20 to 1400 mA for LED enhanced signs
	Radio settings: enable/disable, selectable channel from 1 to 14
	Nighttime dimming: 10 to 100% of daytime intensity
	Ambient Auto Adjust: increases intensity during bright daytime
Connectivity	Automatic Light Control: reduces intensity if the battery is extremely low
	Encrypted, wireless radio with 2.4 GHz mesh technology
	User-selectable multiple channels to group different signs and ensure a robust wireless signal
	Communicates with all nearby WW200 and WW100 wrong-way warning systems
	Instantaneous wireless activation: <150 ms
	Wireless range: 1000 ft (305 m)
Energy Collection	Integrated, vandal-proof antenna
	Solar or AC-powered
	45-degree solar panel tilt for optimal energy collection
Energy Storage	Maximum Power Point Tracking with Temperature Compensation (MPPT-TC) battery charger for optimal energy collection in all solar and battery conditions
	Replaceable, recyclable, sealed, maintenance-free, best-in-class AGM batteries offer the widest temperature range and longest life
	Battery design life: +5 yrs.
Solar Engine Construction	Tool-less battery change with quick connect terminals and strapping for easy installation
	Weatherproof, gasketed enclosure with vents for ambient air transfer (NEMA 3R)
	Lockable, hinged enclosure for access to on-board user interface and batteries
	Corrosion-resistant aluminum with stainless steel hardware
Environmental	Raw aluminum finish or powder coated in yellow or black
	Prewired to minimize installation time
	High-efficiency optics and EMS = the most compact, lightweight system
Warranty	-40 to 165° F (-40 to 74° C) system operating temperature
	-40 to 140° F (-40 to 60° C) battery operating temperature
<b>3-year limited warranty (1-year battery warranty)</b>	

### DETECTOR SPECIFICATIONS

Radar Unit	24 GHz radar unit detects wrong-way vehicle
	Radar technology for accurate detection at night and in adverse weather conditions
	Adjustable radar parameters, such as detection speed, sensitivity, trigger event settings and duration, and others
	3rd-party tested radar detection range to 1000 ft
	Universal bracket mounts to pole with standard banding, through bolts, U-bolts, band clamps, and more

### WARNING LIGHT SPECIFICATIONS

LED Enhanced Sign	MUTCD compliant: 2009 MUTCD, Chapter 2B Signs
	High-power LEDs in waterproof housings
	Aluminum channels protect wiring; includes junction box

**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.

"Carmanah" and Carmanah logo are trademarks of Carmanah Technologies Corp.

© 2023, Carmanah Technologies Corp.

Document: Carmanah\_DATA\_WW200\_RevB