

# WW100

## Wrong-Way 24-Hour Flashing Warning Sign Data Sheet



A cost-effective wrong way warning system with LED enhanced signs or light bars to help focus driver awareness:

- ✓ Highest LED intensity output in the industry
- ✓ Quick, out-of-the-box operation
- ✓ Mounts to standard poles
- ✓ Scalable design: multiple signs can be added with synchronize flashing
- ✓ Customizable settings and sign sizes
- ✓ Powered by solar or AC
- ✓ Solar Power Report™ (SPR) prepared for every location to ensure battery longevity

### Superior Warning Technology

The WW100 flashes 24 hours a day on exit ramps and other areas to deter potential wrong-way entry. Additionally, multiple signs can be installed along the ramp to help attract driver attention before they enter the main roadway. Each sign can be outfitted with a high-intensity LED enhanced sign, rapid-flashing light bars\* or beacons.

### Easy Solar Installation

The WW100 includes a compact enclosure containing the batteries, solar panel and energy management system. This self-contained solar engine speeds up installation, dramatically reducing installation costs. Existing wrong way sign posts can be retrofitted in minutes and new installations can be completed quickly and easily without trenching.

### Simple User Interface

The WW100 comes with an on-board user interface for quick configuration and status monitoring. It allows for easy in-the-field adjustment of flash pattern, duration, intensity, ambient auto adjust, night dimming, and more.

### Long-term Solar Reliability

The WW100's solar engine is sized for your project location using Carmanah's proven solar software simulation. A comprehensive site assessment and report ensures each WW100 system will operate reliably over the long term.



WW100 with LED enhanced wrong way sign

WW100 with red LED light bars



MUTCD compliant



Buy America compliant



3-year limited warranty



Solar-sized for every location

\* Light bars are currently not MUTCD-compliant for this application.

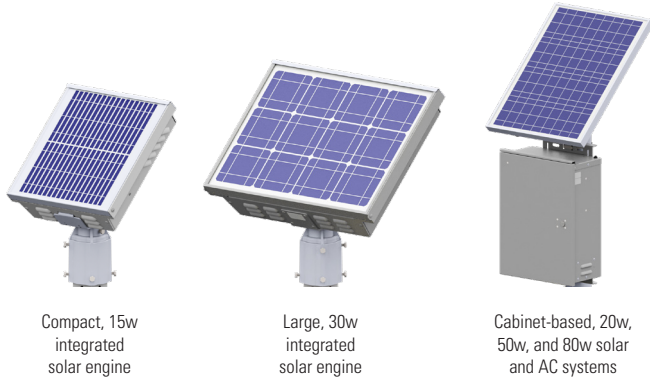
# WW100

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1.844.412.8395 | traffic@carmanah.com | carmanah.com



### SOLAR ENGINES



Compact, 15w integrated solar engine

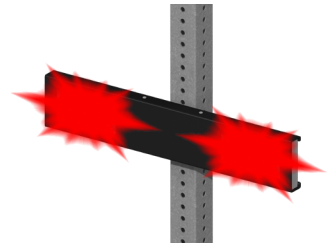
Large, 30w integrated solar engine

Cabinet-based, 20w, 50w, and 80w solar and AC systems

### WARNING LIGHT OPTIONS

LED Enhanced Sign

Light Bar(s)



### SOLAR ENGINE MOUNTING

2.0" - 2.5" Perforated Square Pole Mount    2.38" - 2.88" Diameter Round Pole Mount    3.5" - 4.5" Diameter Round Pole Mount    Side Pole Mount



### 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

### 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 multiple light bars 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
Energy Collection	Solar or AC-powered
	45-degree solar panel 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	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 enclosure for access to on-board user interface and batteries
	Corrosion-resistant aluminum with stainless steel hardware
	Raw aluminum finish or powder coated in yellow or black
	Prewired to minimize installation time
Environmental	High-efficiency optics and EMS = the most compact, lightweight system
	-40 to 165° F (-40 to 74° C) system operating temperature
	-40 to 140° F (-40 to 60° C) battery operating temperature
<b>Warranty</b>	<b>3-year limited warranty (1-year battery warranty)</b>

### 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
Light Bar	Light bar optics = maximum efficiency and no stray light Exceeds SAE J595 class 1 intensity when used as recommended Meets SAE J578 chromaticity
	3" (76 mm) x 7" (178 mm) clear, UV-rated polycarbonate lens with red LEDs
	High-power LEDs: +90% lumen maintenance (L90) based on IES LM-80 Independent, stainless steel mounting brackets make installation simple and enable in-field aiming for maximum effectiveness

**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.

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