

CITY OF CORAL GABLES

--MEMORANDUM--



The City Beautiful

TO: Honorable Mayor and Commissioners

CC: City Manager, Peter Iglesias
Chief of Police, Edward Hudak
Public Works Department

FROM: Commissioner Rhonda Anderson

DATE: March 13, 2023

SUBJECT: Speed Radar Signs

One of the chief complaints among residents regarding traffic is the speed that vehicles attain on the City's residential streets. For those areas that do not qualify for speed tables or other limitations prevent installation of traffic calming devices, speed radar signs may be the best and a cost-effective solution. Residents I have spoken to who are in the category have been receptive to the type of signage that lights up when a car is speeding, and otherwise remains unlit.

One sample of a speed radar sign is attached for your review. Many others exist, some of which can send data regarding speeding incidents and times to the police department so that traffic enforcement officers can be effectively deployed. I have requested staff to research and present information regarding the options available to the full Commission and look forward to discussing this issue with you during our Commission meetings.


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MAKING ROADS SAFER



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 SCAN ME



In 2004, Atlanta-based Radarsign™ established new industry standards for traffic calming solutions with the debut of the **world’s first armored radar speed signs**, which are vandal, weather, and bullet-resistant. Our radar speed signs, the most durable in the industry, are also the most ecological and energy efficient.

Radarsign Brand products are ISO certified, 100% MUTCD-compliant, and utilize recycled aluminum, innovative LED reflector technology, minimal battery power and solar panels to deliver bright, easy-to-read feedback to drivers. And, Radarsign products are scientifically proven to reduce drivers’ speeds.



**Certified Quality System
ISO 9001:2015**



**MUTCD Compliant
Radar Speed Signs**



**Proudly Engineered &
Manufactured in the USA**



**Radarsign is a federally approved
contractor in the SAM database
CAGE CODE: 583U5**



What Our Customers Are Saying About Us

“These signs are totally awesome. We have part time police officers who patrol our roadways, and they tell me the number of tickets has gone down. Everything was great. If we were in the market in the future for additional signs, I wouldn’t hesitate to purchase from Radarsign again.”

- Chris Astrella, Town Clerk/Treasurer | Town of Oakland | Oakland (WI)

“I was looking at the sign’s design and ease of movement around our property, and recommended Radarsign. Everyone who comes on the property notices our sign, and I believe the awareness of their actual speed is why we’ve seen the decrease. It’s serving its role 100 percent to the capacity we expected.”

- Bret Johnson, Lot Manager | Cox Automotive/Manheim | Omaha (NE)

“We like the signs, and being able to access them remotely through the cloud without leaving the office. We also like the support we’ve received from Radarsign. We just like the product and will continue to grow our Radarsign network of traffic safety signs...We share our Streetsmart reports with the police department, and if we see speed abused above the 85th percentile, it can trigger enforcement or patrols. The data is also readily available to the neighborhoods; if they request it, we can provide it at any time.”

Kevin Padgett, Public Works Director | City of Seabrook | Seabrook (TX)

“I was originally looking for a speed trailer. In doing that research, I learned about pole-mounted driver speed signs, which are significantly less expensive and more versatile than trailers. I recommended Radarsign because of price, the ease of getting a quote and the instructional information on the website — particularly the videos of opening the box and hanging the signs, then connecting for data retrieval. We knew exactly what we were getting with Radarsign.”

- Lieutenant Raymond Link | City of Maitland Police Department | Maitland (FL)

“We looked at other vendors. Nobody had anything of substance. Radarsign had everything we were looking for.”

- Ken Hopkins, Chief of Police | City of Brookford Police Department | Hickory (NC)

We looked at several signs and manufacturers, and chose Radarsign because of its customer service responsiveness, the price, and everything that came with the sign for the price...Working with Radarsign has been great. Anytime I’ve had a question, I just email the customer service folks and get a quick response. It’s helped me respond quickly to our council members and citizens.”

- Hannah Driskell, Town Clerk | Town of Magnolia Springs | Magnolia Springs (AL)

“They just work. We don’t have to do anything with them. We don’t have to worry about them. When so many things tend to break, we can count on the signs. They have been a real asset to us.”

- Alex Wilmer | Town of Bridgewater | Bridgewater (VA)

“Our TC-600s have been up and running less than a year, and I’ve seen complaints drop drastically – by 95 percent at least – and speeds decrease 80 percent. The Radarsign brand signs work great.”

Lt. Jim Ward, Traffic Enforcement | Franklin County Sheriff’s Office | Franklin County, (FL)

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Customer Service: Phone 678-965-4814 Ext. 112
 Email customerservice@radarsign.com

Shipping Address: 1220 Kennestone Circle, Suite 130 Marietta, GA 30066

Sales Information: Call 678-965-4814 or email info@radarsign.com



Certified Quality System
 ISO 9001:2015



MUTCD Compliant
 Radar Speed Signs



Proudly Engineered &
Manufactured in the USA

Radarsign, LLC reserves the right to change the specifications without notice.
 Contact our sales department for special applications and configurations.

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Standard Features on All Radarsign Models

LED Display

- Super bright amber LEDs | Life up to 100,000 hours
- Laser cut flat black mask enhances visibility of LED display when illuminated | Ensures completely dark display when LEDs are off
- Display brightness fully automatic or user adjustable

Bashplate™ with Integrated LED Reflector Cones

- Heavy duty aluminum shield over LED display to protect components from abuse or vandalism
- Directional beam technology, Radarsign's proprietary design, includes beveled cones around each LED, magnifying the intensity of the light and providing the highest quality viewable display with minimum energy usage



Polycarbonate Display Cover

- .25" thick protective sheet covers entire display area
- Abrasion, graffiti and shatter resistant | Provides UV protection



Radar Sensor Range

- Detects vehicles up to 1200 feet

Wi-Fi Enabled

- Radar speed sign emits its own Wi-Fi signal | No internet required | Manage sign with smart phone, tablet, or laptop
- Connection range up to 300 feet from sign
- Allows for quick and easy sign operation and data download from most web enabled devices
- Speed is 10x faster and has 10x the range of Bluetooth
- WPA2 encrypted security | Password protected
- OTA software updates (over-the-air) allow the wireless delivery of software updates and upgrades directly to the radar speed sign

Standard Programming

- Setup functions: Easy to follow digital menu | No mechanical switches to operate
- Daily digital timers: Allow 5 on/off timer settings per day (4 timers plus the standard setting), also by day of week | Settings allow for lower speed limits for school zone times
- Stealth mode: Display on/off feature allows traffic data collection to continue even when the display is off
- Possum Switch™: Feature allows the sign to "play dead" for 30 minutes if attacked with force
- Maximum speed cutoff: Feature prevents "racing" of sign at high speeds | Choice of flashing dashes or LED display cutoff

Warranty

- Two year warranty on parts and labor including batteries* (*1 year on TC-400 batteries)
- Exceptions: Does not cover damage from accidents, malicious abuse, theft, vandalism, impact with a foreign object or acts of God, or unauthorized modification of the product
- Optional third year warranty extension available

OPTIONAL Data Reporting and Scheduling Features:

Advanced Scheduler: Date driven program allows pre-programming multiple years and multiple schedules for your radar speed signs | Especially useful for School Zone scheduling or in areas where events occur on a regular basis

Streetsmart Traffic Data Collection & Reporting Software

Lifetime license - One time charge - No recurring fees | Licensed per sign

Download, report, organize, and analyze speed and traffic data that is recorded by the radar speed sign | Generate 35 charts and graphs with Excel™ macro | Traffic Data Storage Capacity: Stores data on 5 million vehicles | Retains data for 12 months in sign before writing over oldest data first

Cloud Service

Cellular modem is cloud accessible from anywhere internet is available. Allows remote management of sign settings for entire network of signs | Uploads daily traffic statistics to Radarsign Cloud server (*requires the purchase of Streetsmart data license*) | Provides alerts if batteries run low, or connection is interrupted | *Cloud service available in the US and Canada | Not available with the TC-400*

Speed, Message, and Strobe Alerts

Standard Speed Alert | Three Flash Rates | All Models



Standard Speed Alerts | TC-600, TC-800, TC-1100 Models

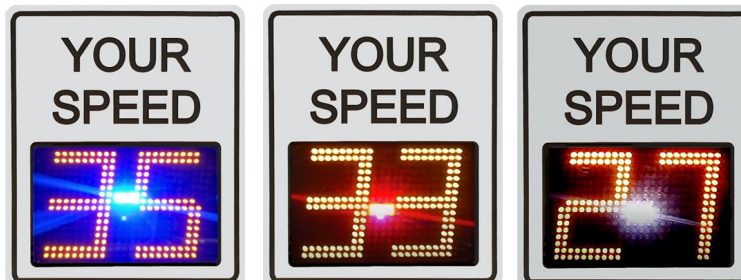


Enhanced font

Optional Message Alerts | TC-600, TC-800, TC-1100 Models



Optional Strobe Alerts | All Models



TC-400 Radar Speed Sign Series

TC-400 Battery Power Model

The battery model has a modular design with a front radar speed sign housing and a rear battery housing that detach from each other so the sign can be easily moved and used in different locations.



Power

- Operates +/- 2 weeks on 2 fully charged batteries | 10 hour recharge period | Field exchangeable
- Power Supply: Dual 12-volt, 20 amp/hour, Lithium iron phosphate (LiFePO4) batteries with 3A charger
- Power Consumption: < 2.0 amps (20w) at maximum intensity
- Idle mode: < 1/2 watt
- Batteries have internal short circuit, over current, under and over voltage protection
- Battery Status: Check battery charge levels via Wi-Fi

LED Display

- 11" tall numbers | 2 digit capable
- Speed digits easily readable up to 400 feet
- Ideal for roads with traffic speeds of 5-55 mph
- Super bright amber LEDs | Life up to 100,000 hours
- Display brightness fully automatic or user adjustable

Speed Violator Alerts

- Standard alerts: SPEED (3 flash rate options)
- Speed display flash rates: MUTCD flash (approx. 55-60 fpm) | slow flash (approx. 90 fpm) | fast flash (approx. 140 fpm)
- Optional strobe alerts - *Choice of one*: alternating red/blue strobe alert (police flash) or white strobe alert (can simulate a camera flash)

YOUR SPEED Faceplate

- 24"W x 21"H YOUR SPEED faceplate with 3" high lettering
- Manufactured with highest grade reflectivity backing
- Available in white | yellow | fluorescent yellow/green | safety orange

Radar

- Type: K Band, single direction Doppler radar | FCC part 15 compliant | No license required
- Sensor Range: Detects vehicles up to 1200 feet
- Beam Width: 12 degrees, +/- 2 degrees
- Operating Frequency: 24.125 GHz, +/- 50 MHz
- Accuracy: +/- 1.0 mph
- Speed Detection Range: 5-127 mph | 8-198 kph

TC-400 AC Power Model

The AC model has a radar speed sign housing only and is wired for an AC power connection | For use in parking decks and indoor warehouse locations.



Power

- Operates 24/7 with AC power supply
- Power Supply: Hard wire to 100V-240V power supply
- Power Consumption: < 2.0 amps (20w) at maximum display intensity
- Idle mode: < 1/2 watt
- Circuit Breaker: Multi-circuit, 10 amp fuse



TC-400 AC power radar speed sign in a warehouse

See page 4 for the list of standard features on all Radarsign brand radar speed signs

TC-400 Radar Speed Sign Series

Electronics

- All power inputs are fused and reverse polarity protected
- All circuit boards are conformally coated for extra protection
- Sign has automatic reset and watch-dog circuitry to return to normal operation without user intervention

Radar Speed Sign Housing

- Dimensions: 16.25"H x 22.75"W x 2.375"D
- Thickness: .185" thick aluminum, silver powder coat finish
- NEMA 3R level compliant | Humidity Maximum: 100%

Battery Housing (TC-400 battery power model only)

- Dimensions: 12.5"H x 17"W x 3.625"D
- Thickness: .185" thick aluminum, silver powder coat finish
- Holds up to two 12-volt batteries

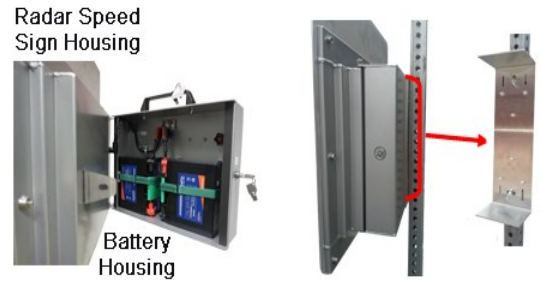
Mounting Bracket

- **TC-400 battery power:** Universal mounting bracket allows strapping, banding, pipe clamps, or bolting to almost any size or style of pole | Sign installation takes less than one minute with pre-installed brackets | NO TOOLS required
- **TC-400 AC power:** Stainless steel universal pivot mounting bracket | Allows 8 degree forward and back tilt | For use in mounting radar speed signs on any pole using bolts or banding

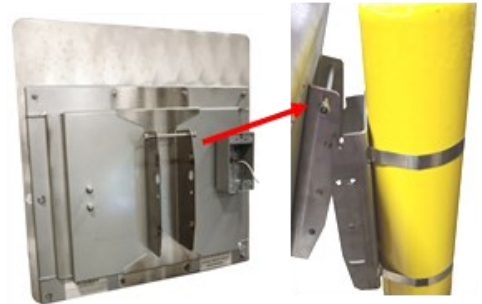
Weights & Operating Temperature

- TC-400 Battery power sign (modular design): Radar speed sign: 19 lbs. | Battery housing 10 lbs. | Battery 6 lbs. each; Total weight when all pieces installed: 41 lbs. (with 2 batteries)
- TC-400A Radar speed sign: 23 lbs.
- Operating Temperature: -40°F to +160°F

TC-400 battery power radar speed sign housing mounts directly to universal mounting bracket



TC-400 AC power radar speed sign mounts on pivot bracket



TC-400 with Speed Alert



TC-400 with Speed Alert and Strobes

Optional Scheduling and Data Reporting Features

Advanced Scheduler: Date driven program allows pre-programming multiple years and multiple schedules for your radar speed signs | Especially useful for School Zone scheduling or in areas where events occur on a regular basis

Streetsmart Traffic Data Collection & Reporting Software

Lifetime license - One time charge - No recurring fees | Licensed per sign

Download, report, organize, and analyze speed and traffic data that is recorded by the radar speed sign |

Generate 35 charts and graphs with Excel™ macro | Traffic Data Storage Capacity: Stores data on 5 million vehicles |

Retains data for 12 months in sign before writing over oldest data first

See page 4 for the list of standard features on all Radarsign brand radar speed signs

TC-600 Radar Speed Sign Series

TC-600 Solar Power

- Operates 24/7 with solar power supply
- Power Supply: Two 12-volt, 18 amp/hour AGM batteries (UL recognized) | Provides up to 14 days of back-up operation on fully charged batteries
- Power Consumption: < 2.0 amps (24w) at maximum display intensity
- Idle mode: < 1/2 watt
- Circuit Breaker: Multi-circuit | 3 x 10 amp fuses
- Battery Status: Check battery charge levels and solar amperage via Wi-Fi | Low battery cut-off feature provides intelligent battery management
- Solar Panel Output: 50 watt standard
- Solar Charger: Fully integrated charge controller with continuous monitoring and data logging of solar output/battery charge status
- Charger and battery characteristics matched to operate within the sign's operating temperature range

LED Display

- 13" tall speed display numbers | 2 digit (mph) or 3 digit (kph) capable display
- Speed digits easily readable up to 600 feet
- Ideal for roads with traffic speeds of 5-70 mph
- Super bright amber LEDs in full matrix design | Life up to 100,000 hours
- Display brightness fully automatic or user adjustable

Speed Violator Alerts (see pg. 5 for examples)

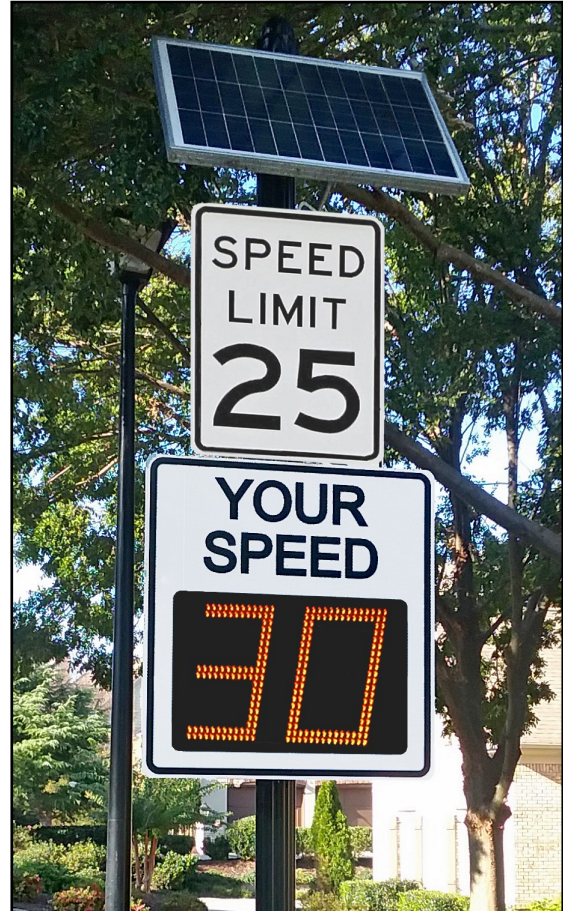
- Standard alerts: SPEED (3 flash rate options) | Enhanced font | SLOW DOWN | TOO FAST
- Speed display flash rates: MUTCD flash (approx. 55-60 fpm) | slow flash (approx. 90 fpm) | fast flash (approx. 140 fpm)
- Optional message alerts: SHARP CURVE | Right or left facing chevrons | SCHOOL ZONE | FINE \$\$\$ | Smiley face | Custom message alert upon request
- Display speed and word message alerts, alternately or individually, based on speed settings
- Optional strobe alerts - *Choice of one*: alternating red/blue strobe alert (police flash) or white strobe alert (can simulate a camera flash)

YOUR SPEED Faceplate

- 28"W x 33"H YOUR SPEED faceplate with 4" high lettering
- Optional oversized 30"W x 36"H YOUR SPEED faceplate available
- Manufactured with highest grade reflectivity backing
- Available in white | yellow | fluorescent yellow/green | safety orange

TC-600 AC Power

- Operates 24/7 with AC power supply
- Power Supply: Hard wire to 100V-240V power supply
- Power Consumption: < 2.0 amp (24w) at maximum display intensity
- Idle mode: < 1/2 watt
- Circuit Breaker: Multi-circuit, 10 amp fuse



See page 4 for the list of standard features on all Radarsign brand radar speed signs

TC-600 Radar Speed Sign Series

Radar

- Type: K Band, single direction Doppler radar | FCC part 15 compliant | No license required
- Sensor Range: Detects vehicles up to 1200 feet
- Beam Width: 12 degrees, +/- 2 degrees
- Operating Frequency: 24.125 GHz, +/- 50 MHz
- Accuracy: +/- 1.0 mph
- Speed Detection Range: 5-127 mph | 8-198kph

Electronics

- All power inputs are fused and reverse polarity protected
- All circuit boards are conformally coated for extra protection
- Sign has automatic reset and watch-dog circuitry to return to normal operation without user intervention

Radar Speed Sign Housing

- Dimensions: 18.5"H x 26.25" W x 5.0"D
- Thickness: .1875" to .25" thick, heavy-duty aluminum
- IP65 compliant | NEMA 4 level compliant
- Humidity Maximum: 100% | Non-sealed and ventilated
- Provides maximum protection from the elements and vandalism
- Single-piece cast aluminum housing design means no separate battery box to mount | Seamless construction with no welding
- Stainless steel mounting hardware included for poles up to 4.5" OD

Weights & Operating Temperature

- TC-600 Solar Power: 67 lbs.
- TC-600 AC Power: 42 lbs.
- Operating Temperature: -40°F to +160°F



Optional Scheduling and Data Reporting Features

Advanced Scheduler: Date driven program allows pre-programming multiple years and multiple schedules for your radar speed signs | Especially useful for School Zone scheduling or in areas where events occur on a regular basis

Streetsmart Traffic Data Collection & Reporting Software

Lifetime license - One time charge - No recurring fees | Licensed per sign

Download, report, organize, and analyze speed and traffic data that is recorded by the radar speed sign |

Generate 35 charts and graphs with Excel™ macro | Traffic Data Storage Capacity: Stores data on 5 million vehicles |

Retains data for 12 months in sign before writing over oldest data first

Cloud Service

Cellular modem is cloud accessible from anywhere internet is available. Allows remote management of sign settings for entire network of signs | Uploads daily traffic statistics to Radarsign Cloud server (*requires the purchase of Streetsmart data license*) | Provides alerts if batteries run low, or connection is interrupted | Available in the US and Canada

See page 4 for the list of standard features on all Radarsign brand radar speed signs

TC-800 Solar Radar Speed Sign

TC-800 Solar Power

Power Source:

- Operates 24/7 with solar power supply
- Solar Panel Output: TC-800 | Standard panel 50 watt
Optional solar panel upgrade - 80 watt
- Low battery cut-off feature provides intelligent battery management
- Battery Status: Check battery charge levels and solar amperage via Wi-Fi
- Power Supply: Two 12-volt, 18 amp/hour AGM batteries (UL recognized)
Provides up to 14 days of back-up operation on fully charged batteries
- Pole mount solar bracket: Side of pole mount with adjustable angle bracket

NEW!
Larger 15" display size
& Cell ready!



TC-800 LED Display

- 15" tall speed display numbers | 2 digit (mph) or 3 digit (kph) capable display
- Speed digits easily readable up to 800 ft.
- Ideal for roads with traffic speeds of 35-80 mph
- Super bright amber LEDs in full matrix design | Life up to 100,000 hours

Speed Violator Alerts (see pg. 5 for examples)

- Standard alerts: SPEED (3 flash rates) | Enhanced SPEED font | SLOW DOWN | TOO FAST
- *Optional* message alerts: SHARP CURVE | right or left facing Chevrons | SCHOOL ZONE | FINE \$\$\$ | Smiley face | Custom message alert upon request
- Optional strobe alerts: red alert | blue alert | alternating red/blue alert (police flash) | white alert (can simulate a camera flash)
- Speed display flash rates: MUTCD flash (approx. 55-60 fpm) | slow flash (approx. 90 fpm) | fast flash (approx. 140 fpm)
- Display speed and word message alerts, alternately or individually, based on speed settings

YOUR SPEED Faceplate

- 30"W x 36"H YOUR SPEED faceplate with 6" high lettering
- Manufactured with highest grade reflectivity backing
- Available in white | yellow | fluorescent yellow/green | safety orange

Radar

- Type: K Band, single direction Doppler radar | FCC part 15 compliant | No license required
- Sensor Range: Detects vehicles up to 1200 feet
- Beam Width: 12 degrees, +/- 2 degrees
- Operating Frequency: 24.125 GHz, +/- 50 MHz
- Accuracy: +/- 1.0 mph
- Speed Detection Range: 5-127 mph | 8-198kph

Electronics

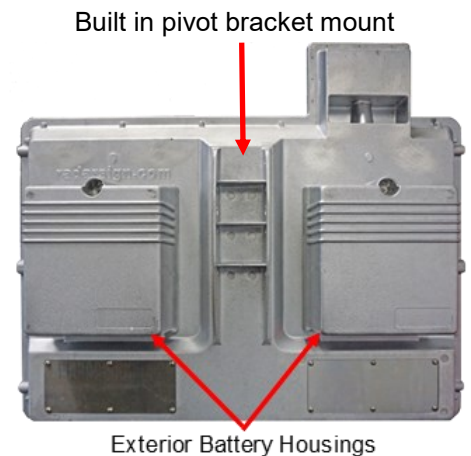
- All power inputs are fused and reverse polarity protected
- All circuit boards are conformally coated for extra protection
- Sign has automatic reset and watch-dog circuitry to return to normal operation without user intervention

Radar Speed Sign Housing

- Dimensions: 20.75"H x 30" W x 3.75"D
- Thickness: .1875" to .25" thick, heavy-duty aluminum
- IP65 compliant | NEMA 4 level compliant
- Humidity Maximum: 100% | Non-sealed and ventilated
- Provides maximum protection from the elements and vandalism
- Single piece cast aluminum housing design | Seamless construction with no welding
- External mounted battery housing configuration allows for easy installation and replacement | Battery housing dimensions: 8.25"H x 8.25"W x 4"D
- Pivot bracket mounting hardware included | Housing bracket built directly into the radar speed sign housing | Only the pole side bracket requires installation

Weight | Operating Temperature

- TC-800 Solar Power: 49 lbs. | 72 lbs. with batteries
- Operating Temperature: -40°F to +160°F



Built in pivot bracket mount

Exterior Battery Housings

See page 4 for the list of standard features on all Radarsign brand radar speed signs

TC-1100 Radar Speed Sign Series

TC-1100 Solar Power

Power Source:

- Operates 24/7 with solar power supply
- Solar Panel Output: TC-1100 | Standard panel 80 watt
Optional solar panel upgrade - 100 or 120 watt
- Low battery cut-off feature provides intelligent battery management
- Battery Status: Check battery charge levels and solar amperage via Wi-Fi
- Power Supply: Two 12-volt, 18 amp/hour AGM batteries (UL recognized)
Provides up to 14 days of back-up operation on fully charged batteries
- Pole mount solar bracket: Side of pole mount with adjustable angle bracket

NEW!
Larger 18" display size
& Cell ready!



TC-1100 LED Display

- 18" tall speed display numbers | 2 digit (mph) or 3 digit (kph) capable display
- Speed digits easily readable up to 1100 ft.
- Ideal for roads with traffic speeds of 45-100 mph
- Super bright amber LEDs in full matrix design | Life up to 100,000 hours

Speed Violator Alerts (see pg. 5 for examples)

- Standard alerts: SPEED (3 flash rates) | Enhanced SPEED font | SLOW DOWN | TOO FAST
- *Optional* message alerts: SHARP CURVE | right or left facing Chevrons | SCHOOL ZONE | FINE \$\$\$ | Smiley face | Custom message alert upon request
- *Optional* Strobe alerts: red alert | blue alert | alternating red/blue alert (police flash) | white alert (can simulate a camera flash)
- Speed display flash rates: MUTCD flash (approx. 55-60 fpm) | slow flash (approx. 90 fpm) | fast flash (approx. 140 fpm)
- Display speed and word message alerts, alternately or individually, based on speed settings

YOUR SPEED Faceplate

- 36"W x 48"H YOUR SPEED faceplate with 7" high lettering
- Manufactured with highest grade reflectivity backing
- Available in white | yellow | fluorescent yellow/green | safety orange

Radar

- Type: K Band, single direction Doppler radar | FCC part 15 compliant | No license required
- Sensor Range: Detects vehicles up to 1200 feet
- Beam Width: 12 degrees, +/- 2 degrees
- Operating Frequency: 24.125 GHz, +/- 50 MHz
- Accuracy: +/- 1.0 mph
- Speed Detection Range: 5-127 mph | 8-198kph

Electronics

- All power inputs are fused and reverse polarity protected
- All circuit boards are conformally coated for extra protection
- Sign has automatic reset and watch-dog circuitry to return to normal operation without user intervention

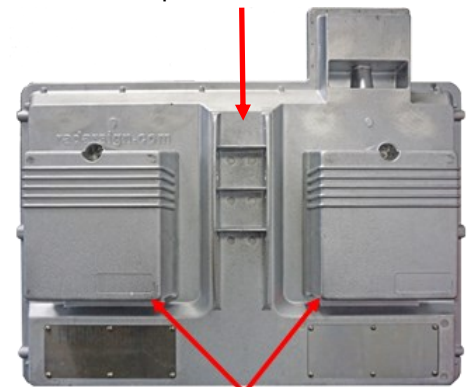
Radar Speed Sign Housing

- Dimensions: 20.75"H x 30" W x 3.75"D
- Thickness: .1875" to .25" thick, heavy-duty aluminum
- IP65 compliant | NEMA 4 level compliant
- Humidity Maximum: 100% | Non-sealed and ventilated
- Provides maximum protection from the elements and vandalism
- Single piece cast aluminum housing design | Seamless construction with no welding
- External mounted battery housing configuration allows for easy installation and replacement | Battery housing dimensions: 8.25"H x 8.25"W x 4"D
- Pivot bracket mounting hardware included | Housing bracket built directly into the radar speed sign housing | Only the pole side bracket requires installation

Weight | Operating Temperature

- TC-1100 Solar Power: 49 lbs. | 72 lbs. with batteries
- Operating Temperature: -40°F to +160°F

Built in pivot bracket mount



Exterior Battery Housings

See page 4 for the list of standard features on all Radarsign brand radar speed signs

Hyper-Alerts™ Compact Flash Technology

Hyper-Alerts™ are compact clusters of LED lights embedded into the YOUR SPEED faceplate of a radar speed sign, delivering a significantly more compact solution than traditional beacons. By clustering the LEDs into a smaller footprint, the same light from a typical flasher becomes an urgent notification for the driver.

Application

Perfect for use in pedestrian-heavy environments such as school zones, business campuses, high density pedestrian areas, or anywhere there is an urgency to slow drivers.

Raised Awareness

The LED clusters deliver the same luminescence as a 12" beacon, but in a more compact surface. This results in an “impossible to ignore alert” even 1000 feet from the sign.

Cost Effective

Instead of having to choose between either flashing beacons or a radar speed sign, now you can have both alerts for slightly more than the price of either one. The LED clusters are built right into the oversized YOUR SPEED faceplate resulting in a more compact system that is far easier to install. This upgrade offers a cost-effective solution for maximum traffic calming.

Design

- Industrial construction with sleek design is in stark contrast to the individual, bulky, piece-meal look of traditional beacons
- Dual high-intensity amber LED clusters
- Meets ITE guidelines for brightness use in school zones
- LED luminosity: 3000 mcd minimum – 12000 mcd maximum
- 68 LEDs per alert, highly viewable at 1000 feet
- Flash patterns: MUTCD standard 60 fpm | Wig-Wag (alternating) | Custom patterns available

Scheduling Flexibility

- Programmable for an entire year in advance, by date and time, using our Advanced Scheduler
- Hyper-Alerts™ can be activated based on time of day, by speed, or by both

Solar Power Output Options with Hyper-Alerts™

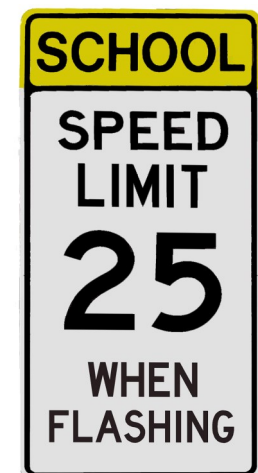
- 50 watt solar panel for maximum 4 hour daily operation
- 80 watt solar panel for maximum 10 hour daily operation
- 100 watt solar panel for 24/7 operation
- 120 watt for high volume traffic and cold temperatures

YOUR SPEED Faceplate Options

- 30" x 36" White YOUR SPEED faceplate with dual 4" cluster beacons
- 30" x 36" Yellow/Green fluorescent YOUR SPEED faceplate with dual 4" cluster beacons

Note:

- Relay Switch for External Devices required with Hyper-Alerts on the TC-600 | Activates Hyper-Alerts from the radar speed sign | Also allows external device to trigger radar speed sign
- The Hyper-Alert™ option is available on a new TC-600 sign, or as a retrofit of an existing TC-600 sign. Existing sign must be returned to Radarsign for the retrofit.



Safety in a Box Bundle

Safety in a Box

Radarsign's Safety in a Box is an all inclusive sign package with everything needed for installation except the shovel and concrete.



All that is required is digging a hole, pouring the concrete, and installing the sign. It's that easy.



Shown with standard aluminum pole and square base



Shown with standard aluminum pole and optional octagonal base and optional Hyper-Alerts



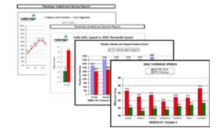
Shown with optional decorative pole and base



Concrete Form Kit



Solar Panel



Streetsmart Traffic Data Collection & Reporting

Safety in a Box Package

Solar radar speed sign model with stainless steel mounting hardware for poles up to 4.5 O.D.	TC-600 13" display	TC-800 15" display	TC-1100 18" display
YOUR SPEED Faceplate Available in white, yellow, fluorescent yellow/green, and safety orange	28"W x 33"H	30"W x 36"H	36"W x 48"H
Universal pivot mounting bracket set & heavy duty lock for bracket	✓	✓	✓
Standard solar panel with mounting bracket	50 watt	50 watt	80 watt
Regulatory speed limit sign with sign extender bracket set	24"W x 30"H	30"W x 36"H	30"W x 36"H
Aluminum pole	12 ft.	13 ft.	16 ft.
Square breakaway pole base and pole cap Crash test certified	✓	✓	✓
Concrete form for the pole base includes mounted anchor bolts and rebar <i>(For use with the standard aluminum pole only)</i>	✓	✓	✓
StreetSmart traffic data reporting software license <i>Lifetime license - Licensed per sign One time charge - No recurring fees (see pgs. 22-23)</i>	✓	✓	✓
2 year warranty on parts & labor, including batteries	✓	✓	✓
Options			
Hyper-Alerts	✓	—	—
Solar panel upgrade	80 watt	80 watt	100 or 120 watt
<i>Optional</i> black decorative pole	✓	✓	✓
<i>Optional</i> octagonal base	✓	✓	✓

SIGN MODEL FEATURES	TC-400 Battery Power
LED Display	11" tall numbers (28 cm) 2 digit capable -
Speed Digits easily readable up to:	400 feet 122 meters
Ideal for roads with speeds of:	5-55 mph 8-90 kph
YOUR SPEED Faceplate Size Manufactured with highest grade reflectivity backing Available in white yellow fluorescent yellow/green safety orange	24"W x 21"H 60.9 cm W x 53.3 cm H ✓
Standard Speed Violator Alert(s) SPEED 3 flash rates Enhanced SPEED font SLOW DOWN TOO FAST	Speed d ✓ -
Optional Alert Choices Message alerts: SHARP CURVE Right or left facing chevrons SCHOOL ZONE FINE \$\$\$ Smiley face Custom message alert upon request Strobe alerts: Alternating red/blue alert (police flash) White alert (can simulate a camera flash)	- Choice of one
Power Source Two 12-volt, 20 amp/hour, lithium iron phosphate (LiFePO4) batteries with 3A charger Two 12-volt, 18 amp/hour AGM batteries	Battery ✓ -
Operation Operates +/-2 weeks on fully charged batteries Operates 24/7 with AC power supply Operates 24/7 with solar power supply Provides up to 14 days of back-up operation on fully charged batteries	✓ - -
STANDARD FEATURES ON A	
Super bright amber LED display Display brightness fully automatic or user adjustable	✓
Bashplate™ with integrated LED reflector cones Heavy duty aluminum shield to protect LED display	✓
Polycarbonate display cover .25" thick protective sheet covers entire display area	✓
Wi-Fi Enabled (radar speed sign emits it's own Wi-Fi signal) No internet required	✓
OTA updates Over the air software updates	✓
Easy to follow digital menu Daily timers allow 5 on/off timer settings per day, also by day of week	✓
Stealth Mode Collect traffic data when the display is off	✓
Possum Switch™ Sign plays dead if attacked with force	✓
Two-Year Warranty Optional 3rd year available	✓
AVAILABLE	
Advanced Scheduler Date driven program allows pre-programming multiple years & multiple schedules	✓
Traffic Data Collection and Reporting StreetSmart Software	✓
Radarsign Cloud™ Remote access via cellular modem	-
Safety in a Box Bundle Turnkey radar speed sign bundle includes pole, base, data reporting, and more	-
Hyper-Alerts™ Flashing LED lights built right into the "YOUR SPEED" faceplate	-
Relay Switch Allows radar sign to trigger operation of external device	-
Mobile Patrol Stand	✓
Trailer Hitch Mount	✓

Comparison Chart

	TC-400 AC Power	TC-600 AC Power	TC-600 Solar Power	TC-800 Solar Power	TC-1100 Solar Power
	11" tall numbers (28 cm)	13" tall numbers (33 cm)	13" tall numbers (33 cm)	15" tall numbers (38 cm)	18" tall numbers (46 cm)
	2 digit capable	2 digit capable (mph) 3 digit capable (kph)	2 digit capable (mph) 3 digit capable (kph)	2 digit capable (mph) 3 digit capable (kph)	2 digit capable (mph) 3 digit capable (kph)
	-	Full Matrix	Full Matrix	Full Matrix	Full Matrix
	400 feet 122 meters	600 feet 183 meters	600 feet 183 meters	800 feet 244 meters	1100 feet 335 meters
	5-55 mph 8-90 kph	5-70 mph 8-115 kph	5-70 mph 8-115 kph	35-80 mph 55-130 kph	45-100 mph 70-160 kph
H	24"W x 21"H 60.9 cm W x 53.3 cm H	28"W x 33"H 71.1 cm W x 83.8 cm H	28"W x 33"H 71.1 cm W x 83.8 cm H	30"W x 36"H 76.2 cm W x 91.4 cm H	36"W x 48"H 91.4 cm W x 121.9 cm H
	✓	✓	✓	✓	✓
Display flash rates: MUTCD flash (approx. 55-60 fpm), slow flash (approx. 90 fpm), fast flash of actual speed (approx. 140 fpm)					
	✓	✓	✓	✓	✓
	-	✓	✓	✓	✓
	-	✓	✓	✓	✓
	Choice of one	Choice of one	Choice of one	✓	✓
	AC	AC	Solar	Solar	Solar
	-	-	-	-	-
	-	-	✓	✓	✓
	-	-	-	-	-
	✓	✓	-	-	-
	-	-	✓	✓	✓
ALL RADARSIGN™ MODELS					
	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓
THE OPTIONS					
	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓
	-	✓	✓	✓	✓
	-	✓	✓	✓	✓
	-	✓	✓	-	-
	-	✓	✓	✓	✓
	-	-	-	-	-
	-	-	-	-	-

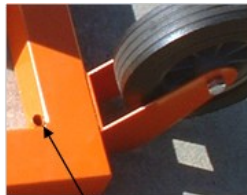
Radars Speed Sign Add-Ons

Mobile Patrol Stand

- Allows radar speed sign to easily be moved to different locations as needed
- Ideal for school crossings, primary facility entrances, controlled campus roads, dock traffic, parking decks, multi-modal terminals, forklift traffic
- Fits into a standard pick-up truck bed
- Powder coated 36"W x 33"D safety orange steel base with four anchor holes ensure stability | 58 lbs.
- Your choice of 3.5 OD aluminum pole | 6 ft. (20.25 lbs.) or 8 ft. (27 lbs.)
- Two long-life 10-inch solid wheels (22.5 lbs. total)
- Optional: Fixed regulatory SPEED LIMIT sign; Interchangeable SPEED LIMIT sign
- Compatible for use with the TC-400 model (*purchased separately*)



One-person operation to tilt and roll to a new location



Anchor holes for extra stability



Angled wheels ensure stability and easy-tilt when ready to move



Interchangeable Speed Limit Display Option

Trailer Hitch Mount Kit

Radars Speed Sign | Trailer Hitch Bundle



Trailer hitch shown with TC-400 radar speed sign (*purchased separately*)

Portable, Lightweight Design

Convenient Folding Hitch Kit with Adjustable Hinge



Adjustable Hitch Hinge

- 38" powder coated 2" x 2" standard steel mast | Measures 45½ inches with radar speed sign
- Stainless steel mounting bracket allows for easy mounting of radar speed sign in about a minute
- Adjustable hinge allows radar speed sign to be lowered without removing the hitch
- For temporary speed display | Ideal for hazard zones, construction sites, and special events
- Compatible for use with the TC-400 battery power model only (*purchased separately*)
- Customer supplies electrical harness for connection to their vehicle's electrical system | Requires 12V supply

Poles and Bases

Poles



Aluminum Pole with Square Base



Aluminum Pole with Octagonal Base



Decorative Black Fluted Pole

Aluminum Pole Kit

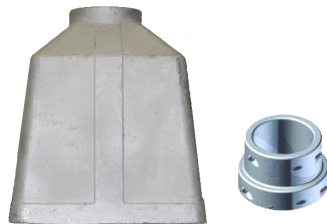
- Includes 4.5 O.D. pole, square breakaway base and pole cap
- Available in 12', 13', 14', 15', and 16' lengths

Black Decorative Fluted Pole

- Includes breakaway base and anchor sleeve, 2" x 2" interior pole for support
- Available in 12' length | 4" O. D.

Bases

Square Pole Base with base collar (standard)



Octagonal Pole Base (optional)



Installation Form Kits

Concrete Form Kit

- Pre-fabricated form guide for pole footing
- Includes rebar and 12" anchor bolts
- Dimensions: 18" diameter | 18" height
- Not compatible with decorative black pole kit



Anchor Bolt Cage Kit

- Pre-fabricated form guide for pole footing installation
- Includes an anchor bolt cage with hardware and 18" x 3/4" J bolts (qty 4)



School Zone Safety Systems and Options

Radarsign Speed Sign with Beacons



School Zone Safety System includes:

- Radar speed sign | AC or solar power
- Flasher assembly cabinet
- 12" yellow beacons* and cap
- Streetsmart traffic data collection and reporting software (see pgs. 22-23)

Solar Powered Radar Sign/Beacons Package

- Provides years of uninterrupted service
- Operates up to 2 weeks on fully charged backup batteries

AC Powered Radar Sign/Beacons Package

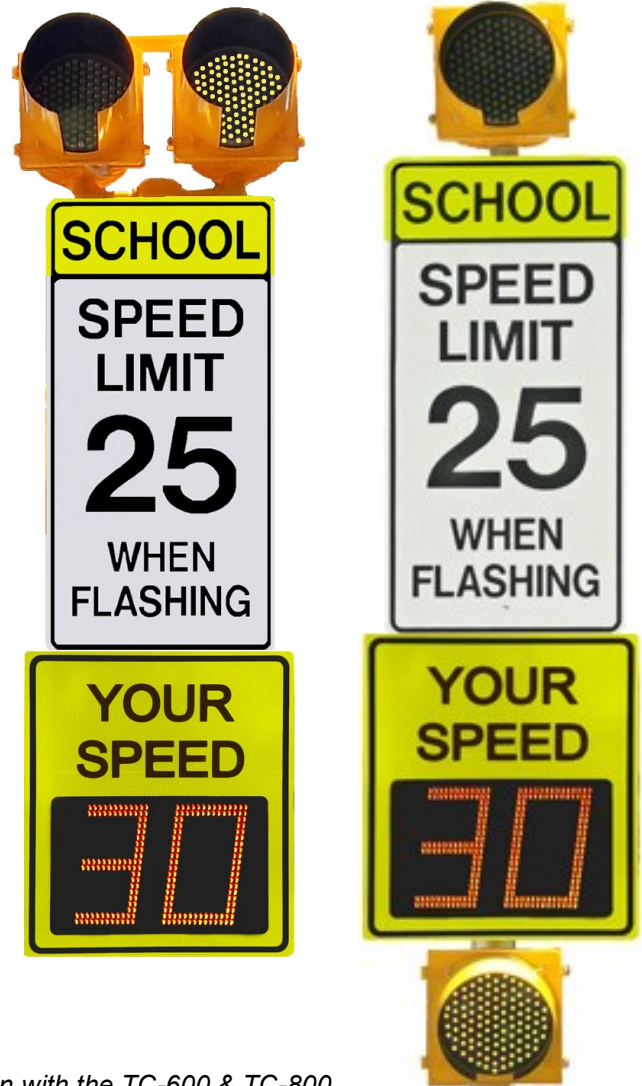
- Operates 24/7 with AC power supply
- Hard wire to 100V-240V power supply

Beacon mounting hardware options:

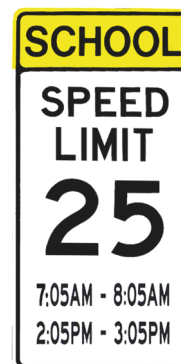
- **Front** of pole mount | Single or dual beacon
- **Top** of pole mount | Dual beacons

*Beacons are also available in black

Beacons systems available with Cloud base connection/operation with the TC-600 & TC-800



Optional School Zone Signs



24"W x 48" School Zone Sign | **"WHEN CHILDREN ARE PRESENT"** | Fluorescent Yellow/Green **SCHOOL** background

24" x 48" School Zone Sign | **"WHEN FLASHING"** | Fluorescent Yellow/Green **SCHOOL** background

24" x 48" School Zone Sign | **"CUSTOM TIMES"** | Fluorescent Yellow/Green **SCHOOL** background

Sign Management , Scheduling, and Operation Options

Sign Management Options

Management Features	Radarsign Cloud™ <i>see pgs. 20-21</i>	Local Advanced Scheduler
Remote Access /Programming ability from a web browser	Yes	Yes
Access method	Cellular modem	Wi-Fi connection to radar speed sign
Access distance	Worldwide	Up to 300 feet
Automatic upload of traffic data every night to cloud	Yes	No, Local downloads via Wi-Fi to smart phone, tabletop, or laptop
Automatic push delivery of software, firmware, & code updates directly to the radar speed sign	Yes	No Local wireless updates available
Pre-program period	Multiple years	Multiple Years
Number of schedules accepted	Up to 24	Up to 24
Number of exception days allowed	Up to 24	Up to 24
Retention of schedule in case of primary power failure or non-communication	30 days	Indefinite
Automatic Daylight Savings timer management	Yes	Yes
Recurring Fees	Yes, small annual access fee	None

Scheduling and Operation Options

Advanced Scheduler

Date driven program allows pre-programming multiple years and multiple schedules for your radar speed sign. Especially useful for School Zone scheduling or in areas where events occur on a regular basis.

- Access radar speed sign via Wi-Fi up to 300 feet from sign | Allows local downloads to smart phone, tablet, or laptop
- Multiple year pre-program periods | Up to 24 schedules accepted | Up to 24 exception days allowed
- Indefinite retention of schedule in case of primary power failure or non-communication
- Automatic daylight savings timer management
- One time charge | No recurring fee

Relay Switch for External Devices

Allows the radar speed sign to trigger external devices* such as cameras, flashing beacons, and audible alarms to deliver additional warnings or messaging, or allows the external device to trigger the radar speed sign | Compatible for use with TC-600, 800, TC-1100 models

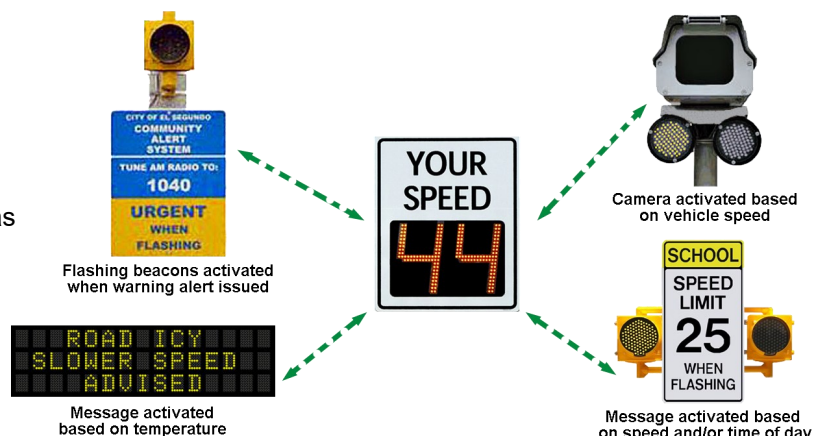
Program to trigger external devices based on:

Time and/or Speed Trigger:

- Allows external devices to be triggered based on time of day and excessive speeds
- Especially useful for school zones or event areas

Temperature Trigger:

- Allows external devices to be triggered based on temperatures
- Especially useful to notify drivers of hazardous road conditions or other weather related warnings



**NOTE: External devices are customer supplied and integrated, and must be separately powered*

Sign Management , Scheduling, and Operation Options

Radarsign Cloud™

Manage your devices anytime, from anywhere

Radarsign Cloud™ is a secure, web-based cloud management system, providing centralized management of your network of devices including sign operation settings, alerts, data access, and data collection from any internet connected device.



Convenient:

- Authorized users have instant access to their network using any internet-ready devices | No software to download
- Provides push delivery of software, firmware, and code updates and upgrades directly to the radar speed sign
- Access your entire network of radar speed signs and other 3rd party devices, like school zone beacons, with GPS mapping
- Update device settings from GPS map zoom-in feature
- Partial day data upload on-demand

Cost and Resource Effective:

- Annual access fee is lowest in the traffic safety industry
- Eliminates the need for resources to be deployed to the field to manage individual signs, saving time, fuel, and training costs
- Ease of operation from web page reduces the re-training time due to employee turnover
- Allows up to 200 users with either full or limited access

Centrally Managed:

- Fully accessible from any internet connected device
- Reduces time and complexity of operating and managing your radar speed signs, school zone beacons, and other devices

Operation of Device:

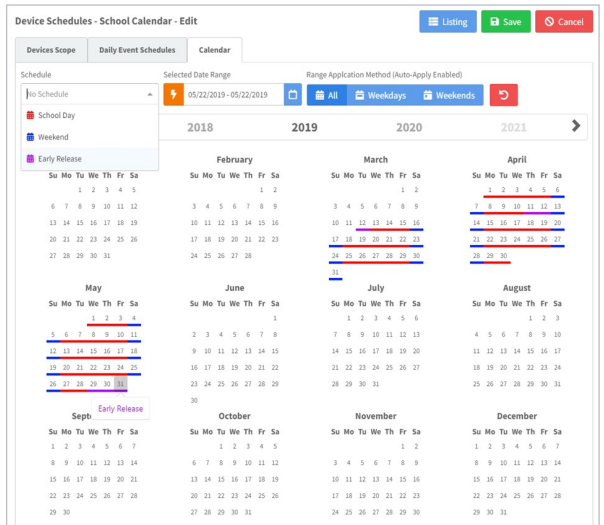
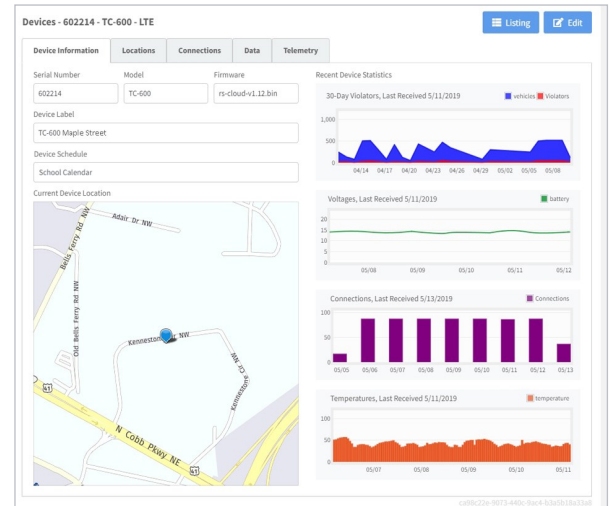
- Radar speed sign will connect to Cloud upon powering up
- Check-in feature connects with Cloud every 15 minutes (96x/day) for any updates
- IT independent, no special work required by network administrators | System works outside customer network
- Cloud data based is managed 100% by Radarsign | No customer input required

Fast and Secure:

- Utilizing cloud-based architecture, Radarsign Cloud™ provides secure and reliable communication between the system server and network controller

User Friendly:

- Access to info for all network devices in one location
- Hover over device icon to see current operating settings and sign status
- Secondary access to Radarsign brand speed signs available via Wi-Fi, using any smart phone, tablet, or laptop, from up to 300 feet from the sign | No special app or internet access is required



The screenshot displays the 'Device Alerts' section. It shows two active alerts: 'May 3, 2019 - Tampering Detected - TC-600 Maple St.' and 'May 3, 2019 - Low Battery - TC-600 Maple St.'. Below the active alerts is a 'Cleared' table with the following data:

Created Date	Cleared Date	Title/Device	Content
May 12, 2019	May 22, 2019	John Smith TC-600 Maple St.	Location Change: Device TC-600 Out Front reported a new location or position
May 7, 2019	May 22, 2019	Robert Marker TC-600 Maple St.	Offline: Device TC-600 Out Front failed to connect with Radarsign Cloud in 24 hours
May 7, 2019	May 22, 2019	Jim Baker TC-600 Maple St.	Disrupted Communications: Device TC-600 Out Front failed to successfully complete a communication cycle with Radarsign Cloud in 24 hours

Sign Management , Scheduling, and Operation Options

Easy Scheduling:

- Advanced scheduling | Continuous multi-year schedule can be pre-programmed
- Multiple devices can share the same schedule
- Program device operation individually or as a group

System Alerts:

- Provides daily diagnosis of device health and battery levels, as well as notification if power drops too low or device fails to communicate with the host
- Receive alerts for low battery level, device off-line, location change, non-normal events, tampering
- Alerts can be sent via email and/or text messages to the preset administrator when triggered

Technical Support

Our technical support department is here to troubleshoot and resolve an issue with your sign remotely, avoiding anyone having to physically go to the sign, saving time and resources

Warranty

- 2-year warranty on the cellular network controller as well as the radar speed sign

Automated Data Collection*

*Requires the purchase of Streetsmart Data Collection and Reporting

- Traffic data uploaded to Cloud server every night
- Data management greatly simplified using easy web-based interface to view data in multiple formats including charts, tables, and graphs
- In case of interruption of Radarsign Cloud™ service, schedule of operation is locally stored on the device for 30 days
- Metrics of temperature and battery usage are recorded daily, for each 15 minutes of the day
- Keeps traffic data for each sign location so even if the sign is moved to another location, the traffic data for each location is available
- If Cloud communication is interrupted, traffic data remains intact in the sign for one year, so 'one-off' uploads for individual days, or groups of days, can be done by administrator

Views of Traffic Data (charts, graphs, tables)

- Speeds by week, day, hour, 1/2 hour, or 15 minutes
- Compare one time period with another
- Data can be exported, printed, or saved as table, chart, or graph
- Vehicle counts by week, day, hour, 1/2 hour, or 15 minutes
- Average speed data, fastest speed data, 50th and 85th percentile speeds
- # of vehicles travelling more than 5 mph overspeed limit, more than 10 mph over, and more than 15 mph over
- Custom reports: great flexibility in allowing you 'create your own' view of the data



Cloud Service Available in US and Canada

Radarsign Cloud is available for use with the TC-600 , TC-800, and TC-1100 models

Traffic Data Collection and Reporting

STREETSMART Traffic Data Collection and Reporting Software

Lifetime license - Licensed per sign | One time charge -No recurring fees

Streetsmart allows you to download, report, organize, and analyze speed and traffic data that is collected by the radar speed sign. Program supports MPH and KPH reporting.

- Generate 35 charts and graphs with Excel™ macro, or from Radarsign Cloud system (*Cloud not available with TC-400 model*)
- Traffic Data Storage Capacity: Stores data on 5 million vehicles
- Retains data for 12 months in sign before writing over oldest data first



StreetSmart Benefits

- Allows the owner to monitor the traffic calming effectiveness of the radar sign on an ongoing basis
- Provides actual data as to how effective the radar sign is at reducing speeds, and lowering the percentage of drivers who speed
- Pinpoints specific speeding times during the day, providing law enforcement the best information about when to patrol
- Provides a baseline of the actual speeding problem when traffic speed data is collected with the LED display off (stealth mode) and compared with data captured with the LED display on

Computer Requirements

- Windows 10 or newer Operating System (emulation/virtual mode not supported)
- Open USB slot (to transfer files if not emailed)
- Microsoft Excel 2010 or newer (no other brand of spreadsheet supported)

Standard Reports Available

Daily Reports

- Number of vehicles & number of violators: 15 minute segments (6 hour view) | 30 minute segments (12 hour view) | 60 minute segments (24 hour view)
- Percentage of speed violators: 15 minute segments (6 hour view) | 30 minute segments (12 hour view) | 60 minute segments (24 hour view)
- Average vehicle speeds: 30 minute segments (12 hour view) | 60 minute segments (24 hour view)
- Vehicle counts by speed bins (user selectable) based on average vehicle speeds
- Percentage of vehicles by speed bins (user selectable) based on average vehicle speeds
- Average vs. peak vehicle speeds, by speed bins (user selectable)
- School zone report : # vehicles | # speeders | average speeds | per 30 minute segments
- Speed summary based on percentages (includes % of vehicles speeding >5 mph | >10 mph | >15 mph over speed limit, based on average and peak speeds)
- Number of vehicles speeding >5 mph | >10 mph | >15 mph over speed limit, based on average and peak speeds

Weekly Summary Reports (can be from 2 to 7 days of data)

- Vehicle and speed violator counts
- Daily average speeds
- Daily average speeds vs. daily 85th percentile speeds
- Percentage of vehicles speeding each day
- Vehicle speed counts by speed bins (user selectable) based on peak vehicle speeds
- Vehicle speed counts by speed bins (user selectable) based on average vehicle speeds
- Percentage of vehicles by speed bins (user selectable) average and peak speed comparison

Extended Trend Charts (up to 30 days of data per chart)

- Number of vehicles and number of violators
- Daily speeds (average speeds and peak vehicle speeds)
- Daily average speeds
- Violator trends: > 5 mph | >10 mph | > 15 mph over speed limit (average and peak speeds)

Comparison Charts (can compare from 2 to 7 days of data)

- Daily average speeds
- Percentage change in average daily speeds (assumes one set of data collected in 'stealth' mode)
- Percentage of vehicles by speed bins (user selectable) based on peak vehicle speeds
- Percentage of vehicles by speed bins (user selectable) based on average vehicle speeds

Traffic Data Collection and Reporting

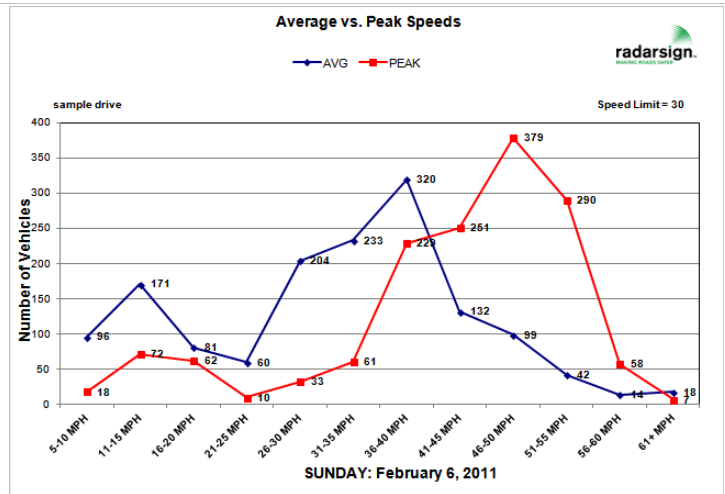
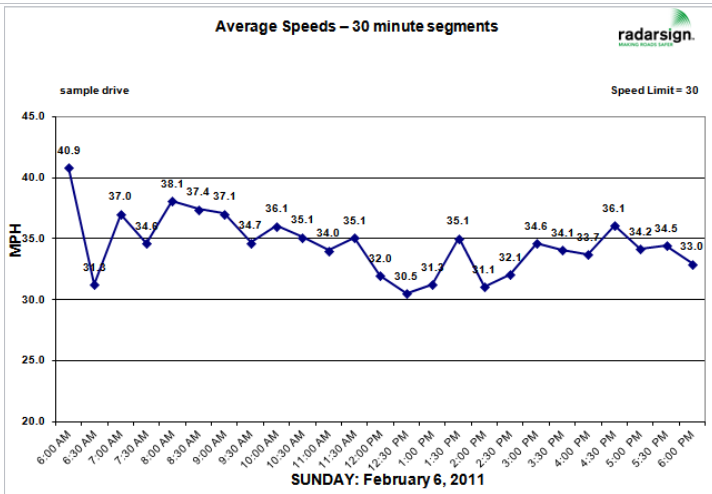
Sample
MASTER DATA
TABLE:
Daily 1/2 (or 1/4)
Hour Segments
Reporting
Available

DAILY 1/2 HOUR SEGMENT RECORDS										
Time	# Vehicles	# Violators	Peak MPH	% Violators	AVG. MPH	MPH Bins	# Veh. AVG	# Veh. PEAK	Daily Summary	Totals
12:00 AM	120	30	53	25.0%	41.4	5-10 MPH	11	6	Start Date	11/9/2017
12:30 AM	89	19	56	21.3%	40.3	11-15 MPH	32	11	Vehicle Count	7122
1:00 AM	59	18	54	30.5%	40.4	16-20 MPH	106	26	# Violations AVG	2180
1:30 AM	51	17	59	33.3%	42.3	21-25 MPH	252	39	% Violations AVG	30.60%
2:00 AM	42	11	55	26.2%	39.7	26-30 MPH	130	95	# Violations PK	4203
2:30 AM	19	4	51	21.1%	39.2	31-35 MPH	300	144	% Violations PK	59.00%
3:00 AM	34	10	55	29.4%	41.2	36-40 MPH	1104	361	% Violators > 5 MPH AVG	5.40%
3:30 AM	23	8	48	34.8%	43.0	41-45 MPH	3007	2237	% Violators > 10 MPH AVG	0.70%
4:00 AM	10	2	43	20.0%	42.2	46-50 MPH	1794	2460	% Violators > 15 MPH AVG	0.20%
4:30 AM	11	2	63	18.2%	39.7	51-55 MPH	335	1463	% Violators > 5 MPH PK	24.50%
5:00 AM	9	1	48	11.1%	35.2	56-60 MPH	39	242	% Violators > 10 MPH PK	3.90%
5:30 AM	9	2	54	22.2%	42.3	61+ MPH	12	38	% Violators > 15 MPH PK	0.50%
6:00 AM	6	2	47	33.3%	44.5				MPH Avg	42.1
6:30 AM	14	8	51	57.1%	38.0				Peak Speed	83
7:00 AM	22	6	56	27.3%	41.4				50th %tile	n/a
7:30 AM	37	22	83	59.5%	46.6				85th %tile	n/a
8:00 AM	61	24	54	39.3%	42.3				# Non-Speeders AVG	4942
8:30 AM	111	55	61	49.5%	43.8				# Non-Speeders PK	2919
9:00 AM	121	52	59	43.0%	43.8				# Speeders > 5 MPH AVG	386
9:30 AM	150	69	52	46.0%	43.8				# Speeders > 10 MPH AVG	51
10:00 AM	162	47	60	29.0%	40.7				# Speeders > 15 MPH AVG	12
10:30 AM	161	58	55	36.0%	41.7				# Speeders > 5 MPH PEAK	1743
11:00 AM	165	66	70	40.0%	42.4				# Speeders > 10 MPH PEAK	280
11:30 AM	192	69	55	35.9%	43.0				# Speeders > 15 MPH PEAK	38
12:00 PM	200	63	51	31.5%	42.3				Calculated Speed Limit	45
12:30 PM	212	78	59	36.8%	42.6				Avg. Daily Totals (ADT)	2374
1:00 PM	225	80	60	35.6%	42.7				Number of Days	3
1:30 PM	228	76	56	33.3%	43.0					

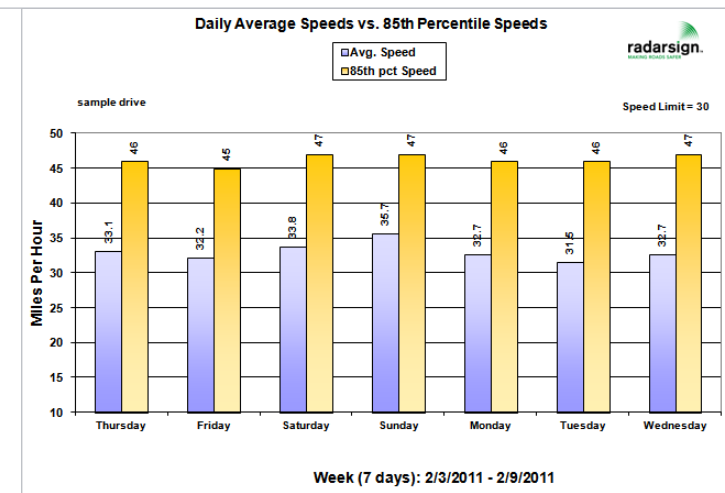
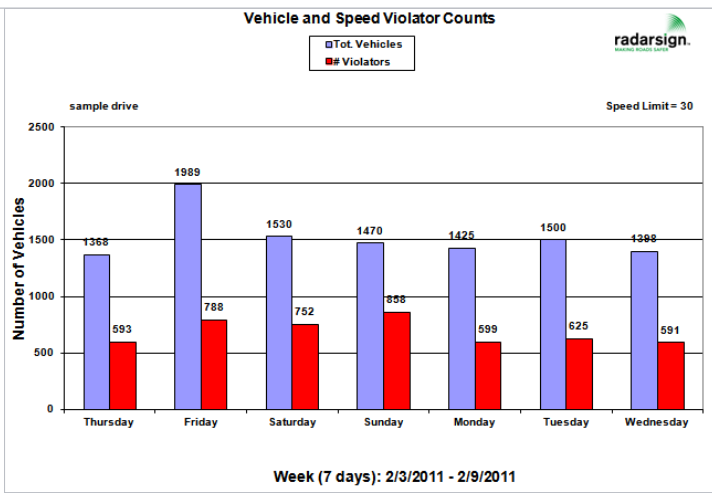
vehicles in speed bin based on AVERAGE speed of vehicle

vehicles in speed bin based on PEAK speed of vehicle

Sample Streetsmart DAILY DATA Reports



Sample Streetsmart WEEKLY DATA Reports

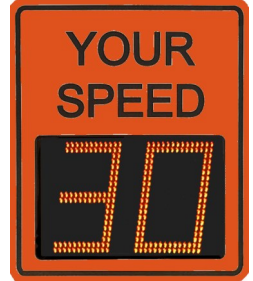
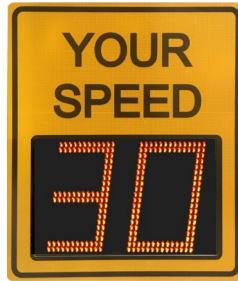


Accessories and Replacement Parts

TC-400 Faceplate
1 line
YOUR SPEED



TC-600 | TC-800 | TC-1100 Faceplate
2 line YOUR SPEED | TC-600 faceplate shown



TC-600 faceplate shown

YOUR SPEED Faceplates

Manufactured with the Highest Grade Reflectivity Backing

Model	Size	White	Yellow	Yellow/Green	Orange
TC-400	24"W x 21"H with 3" lettering	✓	✓	✓	✓
TC-600	28"W x 33"H with 4" lettering	✓	✓	✓	✓
TC-800	30"W x 36"H with 6" lettering	✓	✓	✓	✓
TC-1100	36"W x 48"H with 6" lettering	✓	✓	✓	✓

Regulatory Speed Limit Sign (R2-1)

- Prismatic engineer grade (HIP)
- Available sizes:
24" x 30"
30" x 36"
- Please specify speed limit



Sign Extender Bracket

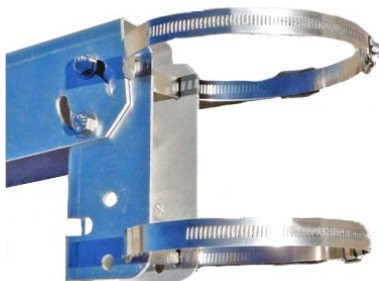
- Allows regulatory speed limit sign to align flush with the front of the YOUR SPEED sign
- Set includes 2 pole clamps and 2 brackets



Pipe Clamps | Stainless Steel

Pipe clamps are used for installation of sign extender brackets or small solar bracket | *Brackets not included*

- Small | Fits 2.5" to 4" diameter poles
- Large | Fits 4" to 6" diameter poles



Interchangeable SPEED LIMIT Sign

- Allows speed limit numbers to be changed as needed
- Size 18"W x 24"H



Accessories and Replacement Parts

TC-400 Battery Power Mounting Bracket

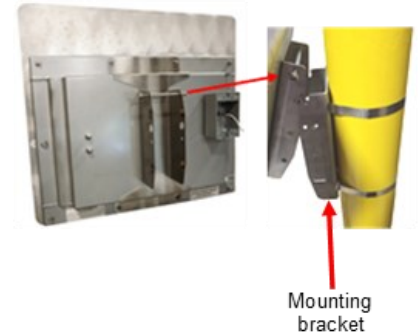
The TC-400 battery power mounting bracket allows the TC-400 to be strapped, banded, bolted or pipe clamped to almost any size or style of pole.

- 12.75"H x 4.5"W x 2.9"D stainless steel pole mount bracket
- Includes hardware for mounting to 'U' channel or 2" x 2" square post



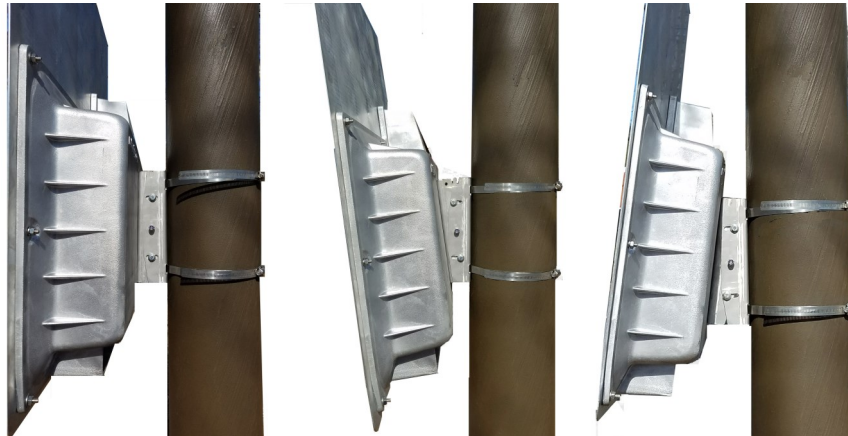
TC-400 AC Power Universal Mounting Bracket

- For use in mounting radar speed sign on any pole using bolts or customer supplied banding
- Allows 8 degree forward and back tilt
- Includes pole mount bracket only
- Front bracket is built into the sign housing



Universal Pivot Mounting Bracket

- For use in mounting radar speed signs on any pole using bolts or customer supplied banding
- Allows 8 degree forward and back tilt
- TC-600 model bracket includes front and back bracket
- TC-800 | TC-1100 models include pole mount bracket only | Front bracket is built into the sign housing



Shown with TC-600 Model

Universal Pivot Mounting Bracket Lock

Unistrut Stainless Steel Mounting Bracket Set
*For use with TC-500 and TC-1000
 Special order for the TC-600*

Size

- Lock inserts through universal pivot mounting bracket and locks for increased security of radar speed sign



2.25" to 2.5" OD poles	2.5"
2.875" to 3" OD poles	3.0"
3.375" to 3.5" OD poles	3.5"
3.875" to 4" OD poles	4.0"
4.25" to 4.5" OD poles	4.5"
6" to 6.5" OD poles	6.0"
8" to 8.5" OD poles	8.0"



Accessories/Replacement Parts

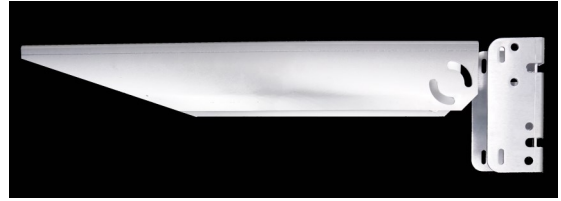
Solar Panels with 8' Conduit (mounting bracket sold separately)



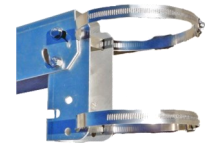
Available Sizes

- 50 watt with 8' conduit
- 80 watt with 8' conduit
- 100 watt with 8' conduit
- 120 watt with 8' conduit
- 120 watt with 13' conduit

Small Solar Panel Mounting Bracket



Square post configuration



Round post configuration

- For use with the 50 watt solar panel
- Accommodates square or round pole

Large Fixed Solar Panel Mounting Bracket

- For use with 80 watt minimum solar panels
- Accommodates square or round pole



Large Adjustable Solar Panel Mounting Bracket

- For use with 90 watt minimum solar panels
- Includes two 4.5" U bolts
- Includes large pipe clamp



12V, 18 A/H Lead Acid AGM Battery



Upgrade for TC-800 or TC-1100

55 A/H Lead acid AGM battery

Upgrade for TC-600 with exterior battery cabinet

55 A/H Lead acid AGM battery

Upgrade for all models with exterior battery cabinet

75 A/H Lead acid AGM battery

100 A/H Lead acid AGM battery

12V 20 amp/hour, Lithium iron phosphate (LiFePO₄) battery

For use with TC-400
model only



TC-400 Battery Charger





Radarsign, LLC provides the following warranty for its traffic calming systems whether sold directly by Radarsign or by an authorized Radarsign distributor.

Limited Warranty Agreement

Radarsign, LLC warrants this product against defects in materials and workmanship to the *original (end user)* purchaser for a period of two (2) years from the date of shipment; This warranty is limited to the repair or replacement of the product.

- Warranty is only valid if the product is installed, operated, and maintained according to the manufacturer's instructions and recommendations.
- Replacement parts are covered by the unexpired warranty of the parts they replace.
- Claims made under this warranty will be honored only if Radarsign, LLC is notified of a failure within the warranty period, reasonable information requested by Radarsign is provided, and Radarsign is allowed to verify the cause of the failure.
- To obtain warranty service, the purchaser must first call Radarsign, LLC for an RMA number; then return the product to Radarsign, LLC for repair or replacement.
- Purchaser shall prepay shipping charges for products returned to Radarsign, LLC.
- Radarsign, LLC will pay for return of the products to purchaser located within North America. Purchasers from a country outside of North America shall pay all shipping charges, duties, and taxes for products returned to Radarsign, LLC for warranty or after warranty repair.
- Radarsign, LLC makes no other warranty of any kind with regard to this product. Radarsign, LLC shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this product.
- Within ninety (90) days of receipt should the product fail for any reason other than damage due to customer negligence, acts of God or vandalism, Radarsign will bear shipping costs for depot service both to and from the repair facility for products sold with a United States shipping address. After 90 days, the customer is responsible for inbound shipping. Radarsign will pay for return shipping to the customer for the entire warranty period if customer is located within North America. Customers from a country outside of North America shall pay all shipping charges, duties, and taxes for products returned to Radarsign, LLC for warranty or after warranty repair.
- Radarsign, LLC warrants that this product is new. Radarsign, LLC makes no other warranty, either expressed or implied, with respect to this product. Radarsign, LLC specifically disclaims the implied warranties of merchantability and fitness for a particular purpose.
- Some states or provinces do not allow limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply to you.
- The remedies provided herein are customer's sole and exclusive remedies. In no event shall Radarsign, LLC be liable for any lost profits, direct, indirect, special, incidental or consequential damages, whether based on contract, tort or any other legal theory.

This warranty does not cover damage from:

- Accidents, malicious abuse, theft, vandalism, impact with a foreign object or acts of God
- Unauthorized modification of the product
- Failure of customer to follow Radarsign's published site selection, installation, transport and/or storage instructions in the Installation Manual for your sign model. The Installation Manual is available in the [Customer Resource Center*](https://www.radarsign.com/customer-resource-center/) (<https://www.radarsign.com/customer-resource-center/>). Password: safety
- Customer's removal or relocation of the sign
- Electrical work external to the unit, virus/hacker activity, and external computer errors
Improper solar panel installation or improper use of battery charging equipment

This warranty is limited to a repair or replacement of the product. To obtain warranty service, the purchaser must first call Radarsign, LLC for an RMA number, then return the product to Radarsign, LLC for repair or replacement.



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