

**Quotation**

Date: 6/8/2022

1220 Kennestone Circle
Suite 130
Marietta, GA 30066**PROPOSED BY:**
Name: Paul Kenney
Phone: (678) 965-4814 Ext. 116 M: (404) 403-9826
Email: pkenney@radarsign.comCloud Admin:
Phone:
Email:**PROPOSED TO / BILL TO:****SHIP TO:**

PROPOSED TO / BILL TO:		SHIP TO:		
Town of Cortland		Town of Cortland		Account
250 S. Halwood Street		250 S. Halwood Street		Address
Cortland, IL 60122		Cortland, IL 60122		City, ST, Zip
815-756-2558		(815) 756-2558		Phone
cortlandchief@cortlandil.org		cortlandchief@cortlandil.org		Email
Chief Lin Dargis		Chief Lin Dargis		Attention

P. O. NUMBER		TERMS			
LINE #	QTY	PART #	DESCRIPTION	PRICE EACH	TOTALS
1	2	TC-400	Modular Battery Power Radar Sign - 11" Display	\$2,995.00	\$5,990.00
			11" LED display area - superbright amber with est. 100,000 hour life	Included	
			RB034 Two 12V 20 amp hour Lithium Iron batteries, provides +/- 14 days operation	Included	
			AA080 AC battery charger (8-10 hours for full charge)	Included	
			K Band radar, meets FCC Part 15 rules, detection range up to 1200 feet	Included	
			RS010 24"w x 21"h YOUR SPEED faceplate with 3" lettering on one line, white reflective	Included	
			Battery Housing (field accessible to swap batteries), holds 2 battery packs, lock included	Included	
			AA044 Universal GoBracket mount accepts bolting, banding or strapping to existing poles	Included	
			Bashplate (provides the ultimate in vandal protection of sign)	Included	
			Standard timers allow up to 5 settings per day	Included	
2	4	RB-034	Additional 20 Amp/Hour battery (provides +/- 7 days of operation on a full charge)	\$245.00	\$980.00
			Optional: StreetSmart Data Collection Lifetime license (per sign) 35 charts, graphs, and tables included. Provides weekly, daily, hourly, and 1/2 hour data on # of vehicles, # of speeders, average speeds, peak speeds, 50th & 85th percentile & more. Extended 30 day charts included for trend analysis. No recurring fees. Required to access traffic data.	\$275.00	\$550.00
3	2	SS002			
4	2	RW002	Two year warranty (includes parts & labor)		
			Turnaround time to repair after receipt, 10 business days	Included	
5	2	SH002	Ground Shipping for TC-400	\$95.00	\$190.00
6	1	-	Customer Discount	(\$366.00)	(\$366.00)

Minimum re-stock fee: 15%

* Quote valid for 30 days. Pricing does not include any international taxes, fees, or duties.

Sales Tax Rate:

Grand Total: \$7,344.00

TOTALS

US State sales tax must be collected unless you provide a sales tax exempt form.

Authorized Signature

Print Name/Title

Date

Certified Quality System
ISO 9001:2015100% MUTCD Compliant
Radar Speed SignsProudly Engineered &
Manufactured in the USA



TC-400 | TC-400A Radar Speed Sign

Display and Radar Specifications

YOUR SPEED Faceplate

- 24"W x 21"H YOUR SPEED faceplate with 3" high lettering
- Ideal for roads with traffic speeds of 5-55 mph
- Manufactured with highest grade reflectivity backing
- Available in white, fluorescent yellow/green, safety orange, and yellow

Speed Violator Alert

- 2 speeds of flashing LEDs to notify drivers that are exceeding the speed limit: slow flash or fast flash of actual speed
- Optional strobe alert choices include alternating red/blue alert, all red alert, all blue alert, or white alert (can flash as a strobe, or simulate a camera flash)
- Speed display flash rates: MUTCD flash (approx. 55-60 fpm), Slow flash (approx. 100 fpm), Fast flash of actual speed (approx. 140 fpm)

LEDs

- 2 digits, 11" high super bright amber LEDs (life up to 100,000 hours)
- Laser cut flat black mask enhances visibility of LED display when illuminated, and ensures completely dark display when LEDs are off
- Easily readable up to 400 feet
- Display brightness control: Automatic intensity adjustment to ambient light conditions

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

Power Specifications

TC-400 | Battery Power

- Dual 12-volt, 20 amp/hour, lithium iron battery packs with 3A charger
- Power Consumption: < 2.5 amps (24w) at maximum intensity; Idle mode < 1/2 watt
- Batteries have internal short circuit, over current, under and over voltage protection
- Field exchangeable battery packs; weight 7 lbs. per pack
- Runs for +/- 2 weeks on two fully charged battery packs; 10 hour recharge period
- Modular design allows the battery packs to be easily swapped in the field for the extended use of the sign in a location
- Battery Status: Check battery charge levels via Wi-Fi

TC-400A | AC Power

- Operates 24/7 with AC power supply
- Power Supply: Hard wire to 100V-240V power supply
- Power Consumption: < 2.0 amps in active mode; Idle mode < 1/2 watt
- Circuit Breaker: Multi-circuit, 10 amp fuse
- For parking decks and indoor warehouse use

Electronics

- All power inputs are infused and reversed assembly 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



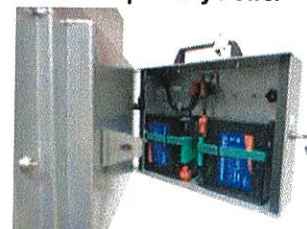
TC-400 with speed alert



TC-400 with speed alert and strobes



TC-400 | Battery Power



TC-400A | AC Power



Certified Quality System
ISO 9001:2015



MUTCD Compliant
Radar Speed Signs



Proudly Engineered &
Manufactured in the USA

Housing Specifications

RADAR SPEED SIGN Housing (TC-400 | TC-400A)

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

TC-400 BATTERY Housing (attaches to radar speed sign housing)

- 12.5"H x 17"W x 3.625"D
- .1875" thick powder-coated aluminum
- Holds up to two 12 volt battery packs (field exchangeable)
- Detachable front and rear cabinet for maximum ease of use/portability; Allows sign to be locked to pole from inside the sign, providing maximum protection from the elements and vandalism.

Mounting Brackets

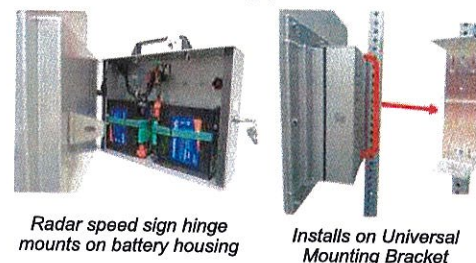
TC-400 Stainless Steel Universal Mounting Bracket

- 12.75"H x 4.5"W x 2.9"D
- Universal design allows strapping, banding, pipe clamps, or bolting to almost any size or style of pole
- When moving the TC-400 from one location to the next, with pre-installed brackets, NO TOOLS are required, and installation takes less than one minute

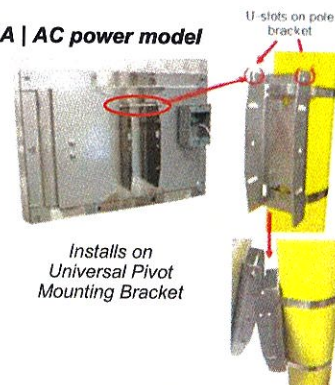
TC-400A Stainless Steel Universal Pivot Mounting Bracket

- For use in mounting radar speed signs on any pole using bolts or banding; Allows 8 degree forward and back tilt

TC-400 | Battery power model



TC-400A | AC power model



Bashplate™ with Integrated LED Reflectors

- Thick aluminum shield over LED display to protect components from abuse or vandalism from abuse and vandalism
- Directional beam technology: Individual holes for each LED focus and reflect light toward the road, 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; UV protection

Weight and Operating Temperature

- Weight: TC-400: Radar speed sign and battery housing: 26 lbs. without batteries; TC-400A: Radar speed sign: 20lbs.
- Operating Temperature: -40°F to +160°F

Standard Features

Standard Programming

- Setup functions: Easy to follow menu, no mechanical switches to operate
- Daily timers: Allow 4 on/off timer settings per day, also by day of week. Settings allow lower speed limits for school zone times and for late night display shutoff. (Optional Advanced Scheduler available with all models)
- Stealth mode: Display on-off feature allows traffic data collection continue even when the display is off
- "Possum Switch" activation feature allows the sign to "play dead" for 30 minutes if attacked with force
- Maximum speed cutoff: Prevents unwanted high speed displays; up to 99 mph; discourages "racing" of sign. Choice of flashing matrix, or LED display cutoff.

Wi-Fi Enabled

- No internet required. Manage your radar speed sign with smart phone, tablet, or laptop.
- Allows for quick and easy sign operation/data download from most web enabled devices
- WPA2 encrypted security; Password protection
- Connection range up to 300 feet from sign
- OTA Software Updates (over-the-air) allows the wireless delivery of software updates and upgrades directly to the radar speed sign

Warranty

- 2 year warranty on parts and labor, 1 year on battery packs. Exceptions: Does not cover malicious abuse, theft, or damage due to unauthorized modification. Optional third year warranty extension available.

Traffic Data Reporting Option

StreetSmart (optional): Traffic data reporting software to report, organize and analyze speed and traffic data.

The information collected by the radar speed sign is loaded into Excel™ ready .csv files, and can generate 35 charts and graphs.

Traffic Data Storage Capacity: Stores data on up to 5 million vehicles; Retains data for retrieval for 12 months.

StreetSmart traffic data reporting software allows you to report, organize and analyze the speed and traffic data gathered from our radar speed signs. With the data conversion tool in StreetSmart, the information collected by the radar speed sign is loaded into Excel™ ready .csv files, and can generate 35 charts and graphs with just a few mouse clicks. Each model of our radar speed signs stores the raw data for 12 months (before writing over the oldest data first), allowing customers to go back in time if need be for a specific day, week, or month of information.

Standard reports available include:

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, and >15 mph, based on average and peak speeds)
- Number of vehicles speeding >5 mph, >10 mph, and >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, and >15 mph over speed limit (average and peak speeds)

StreetSmart Benefits:

- 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 data is collected with the LED display off in "stealth" mode
- Provides actual data as to how effective the radar sign is at reducing speeds, and lowering the percentage of drivers who speed
- Allows the owner to monitor the traffic calming effectiveness of the radar sign on an ongoing basis

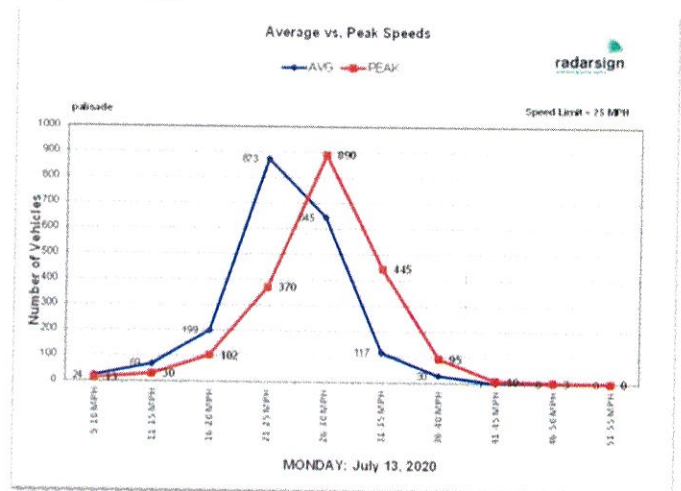
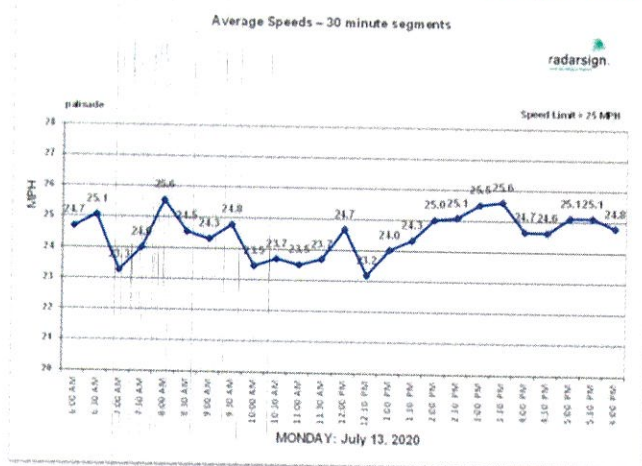
Computer Requirements:

- Windows 7 or newer Operating System (emulation/virtual mode not supported)
- Open USB slot (to transfer files, if not emailed)
- Microsoft Excel 2007 or newer (no other brand of spreadsheet supported)

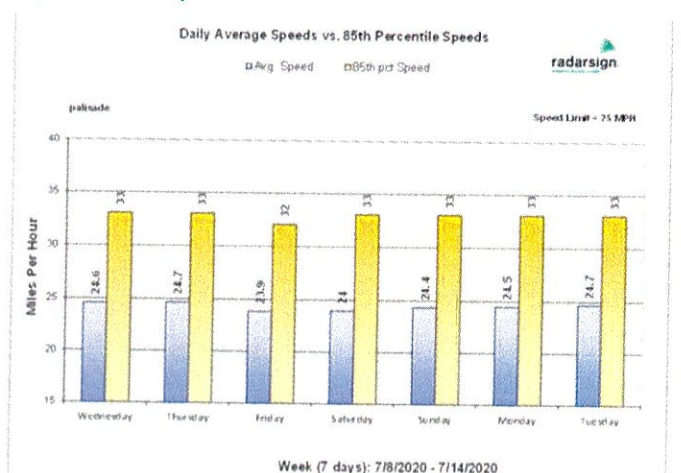
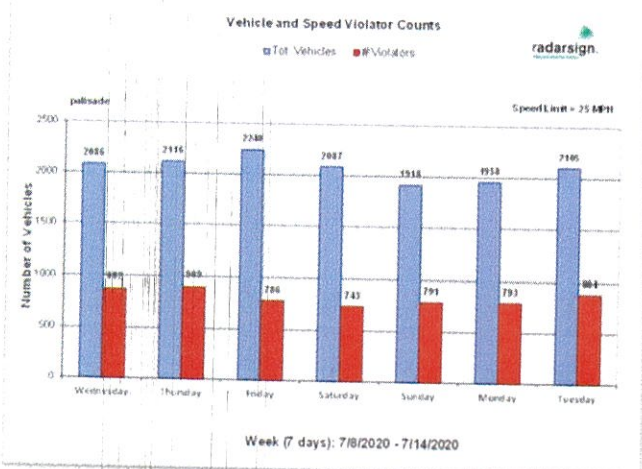
Sample Master Data Table: Daily ½ (or ¼) Hour Segments

DAILY 1/2 HOUR SEGMENT RECORDS						SPEED BIN DATA			SUMMARY DATA		
Time	# Vehicle	# Violato	Peak MPH	% Violati	AVG. MPH	MPH Bins	# Veh. AVG	Veh. PEAK	Daily Summary	Totals	
12:00 AM	6	0	33	0.0%	16.8	5-10 MPH	67	38	Start Date	10/19/2013	
12:30 AM	6	0	26	0.0%	17.8	11-15 MPH	172	110	Vehicle Count	1005	
1:00 AM	2	0	27	0.0%	24.0	16-20 MPH	352	270	# Violations AVG	77	
1:30 AM	0	0	0	0.0%	0.0	21-25 MPH	337	346	% Violations AVG	7.70%	
2:00 AM	1	0	31	0.0%	24.0	26-30 MPH	61	190	# Violations PK	241	
2:30 AM	10	0	28	0.0%	17.3	31-35 MPH	13	43	% Violations PK	24.00%	
3:00 AM	2	0	22	0.0%	17.0	36-40 MPH	3	7	% Violators > 5 MPH AVG	1.60%	
3:30 AM	1	0	25	0.0%	16.0	41-45 MPH	0	1	% Violators > 10 MPH AVG	0.30%	
4:00 AM	0	0	0	0.0%	0.0	46-50 MPH	0	0	% Violators > 15 MPH AVG	0.00%	
4:30 AM	1	0	22	0.0%	16.0	51-55 MPH	0	0	% Violators > 5 MPH PK	5.10%	
5:00 AM	0	0	0	0.0%	0.0	56-60 MPH	0	0	% Violators > 10 MPH PK	0.80%	
5:30 AM	0	0	0	0.0%	0.0	61+ MPH	0	0	% Violators > 15 MPH PK	0.10%	
6:00 AM	4	0	25	0.0%	15.0	<div># vehicles in speed bin based on AVERAGE speed of vehicle</div> <div># vehicles in speed bin based on PEAK speed of vehicle</div>				MPH Avg	19.1
6:30 AM	10	0	27	0.0%	18.4					Peak Speed	42
7:00 AM	15	2	36	13.3%	21.9					50th %tile	n/a
7:30 AM	19	2	37	10.5%	19.9					85th %tile	n/a
8:00 AM	24	7	34	29.2%	20.7					# Non-Speeders AVG	928
8:30 AM	17	2	31	11.8%	21.5					# Non-Speeders PK	764
9:00 AM	35	4	34	11.4%	18.9					# Speeders > 5 MPH AVG	16
9:30 AM	29	3	34	10.3%	19.0					# Speeders > 10 MPH AVG	3
10:00 AM	42	2	36	4.8%	19.1					# Speeders > 15 MPH AVG	0
10:30 AM	38	0	28	0.0%	18.8					# Speeders > 5 MPH PK	51
11:00 AM	36	1	32	2.8%	18.0					# Speeders > 10 MPH PK	8
11:30 AM	42	3	28	7.1%	18.9					# Speeders > 15 MPH PK	1
12:00 PM	29	3	34	10.3%	20.0					Calculated Speed Limit	25
12:30 PM	39	2	31	5.1%	18.3					Avg. Daily Totals (ADT)	144
1:00 PM	60	2	32	3.3%	16.7					Number of Days	7
1:30 PM	52	4	37	7.7%	18.8						

Sample Streetsmart Reports-Daily



Sample Streetsmart Reports-Weekly





What Sets Radarsign Apart

#1. We believe in available and reliable customer service. When you have questions or need technical support, you will speak with a real person. Additionally, our website has Customer Resource Center with software downloads, installation and operation manuals, a troubleshooting guide, repair/upgrade information and forms, product sheets, spec sheets, and more.
<https://www.radarsign.com/customer-resource-center/>

#2. All Radarsign models are Wi-Fi enabled with a range of up to 300 feet, providing a direct connection between our sign and most web enabled devices (Android and iOS | Windows and Apple); Allows for quick and easy sign operation and data download.

All competitive signs are equipped with Bluetooth. Bluetooth is an older technology that requires software or an app to communicate with the sign, has a typical range of only 30 feet, is 10x slower than Wi-Fi, and is not compatible with Apple products.

#2. Our Streetsmart Traffic Data Collection and Reporting software is a LIFETIME license per sign, with a ONE time charge of \$275 with NO recurring fee.

Some of our competitors charge an annual fee for their data collection. With their software, you will pay thousands more data collection and reporting for each sign that you own.

#3. All Radarsign models have a protective aluminum Bashplate™ with integrated LED reflector cones and Lexan shield to protect the sign components from abuse or vandalism. Our signs can be hit with a baseball bat or metal rod without any internal damage to the sign.

With some of our competitors signs you can place your fingertips directly on a "contact lens" style cover for each individual LED light. "Contact lens" LEDs are exposed with no protection from abuse, vandalism, or the weather. If a rock or large object were to damage a single LED cover, that becomes a single point of entry for water to penetrate and do damage to the sign. There are literally hundreds of points of failure in a single sign display

#4. We are the only company with a bullet resistant Bashplate™ inside our signs to help protect the internal components of the sign. Would you rather pay just a few hundred dollars to repair a sign that stopped a bullet vs. having to completely replace a sign because a bullet went through the LED board and CPU board?

#5. We are the only company that has a 'possum mode' security feature that is activated when someone tries to vandalize the sign. The "Possum Switch" activation feature allows the sign to "play dead" for 30 minutes if attacked with force making the sign appear as though it is no longer functioning.

#6. Our signs are proudly engineered and manufactured in the USA. If for any reason your sign needs to be serviced or sent back to us for repair, all repairs will be done at our corporate headquarters in Marietta GA, not shipped out of the country for repair.

#7. QUALITY The first sign Radarsign ever sold was to Michelin in Anderson, South Carolina in 2004. That same sign is still on site at Michelin and is still working today, almost two decades later.

Radarsign is THE industry leader in manufacturing the highest quality radar speed signs on the market today. Our signs are vandal, weather, and bullet resistant, and are simple to operate.