





**JEFFERSON COUNTY**  
**DEPARTMENT OF ADMINISTRATIVE SERVICES**  
729 MAPLE ST / PO BOX 100  
HILLSBORO MO 63050  
WWW.JEFFCOMO.ORG

**Invitation for Bid:** **RADAR SPEED DISPLAY SIGNS**

**Date Issued:** **9-2-15**

BIDS SHALL BE ACCEPTED UNTIL: TUESDAY, OCTOBER 6, 2015, AT 2:00 P.M. LOCAL TIME.

**Specification**

**Contact:**

**KRISTY MOSS**

Department of Public Works

636-797-5569

kmoss@jeffcomo.org

**Contract**

**Contact:**

**VICKIE PRATT**

Department of Administrative Services

636-797-5380

**Mail (3) Three  
Complete Copies  
With Vendor And  
Bid Information As  
Shown In Sample:**

**SAMPLE ENVELOPE**

VENDOR NAME

VENDOR ADDRESS

CONTACT NUMBER

**DEPARTMENT OF THE COUNTY CLERK**

**JEFFERSON COUNTY MISSOURI**

**729 MAPLE ST / PO BOX 100**

**HILLSBORO MO 63050-0100**

SEALED BID: (BID NAME)

**Contract Term:**

UPON APPROVAL OF THE  
COUNTY COUNCIL AND  
COUNTY EXECUTIVE

**Vendor  
Information:**

The undersigned certifies that he/she has the authority to bind this company in an agreement/contract to supply the commodity or service in accordance with all terms, conditions, and pricing specified. This Bid, if accepted, will constitute an Agreement and Contract with Jefferson County, Missouri, upon approval of the County Council and County Executive. Prices are firm during this agreement term, unless agreed upon in writing by the County. The County has the option to renew this agreement at the same terms and conditions as the original agreement for one additional one-year term with the written consent of the successful Bidder. Price increases for renewals are not authorized unless approved in writing by the County.

Minimum Systems

Ken Elder

Company Name

10737 Gateway Lane

Authorized Agent (Print)

Ken Elder

Address

Dallas TX 75242

Signature

perma

City/State/Zip Code

638-519-7021

Title

9-19-15

05-0604431

Telephone #

Date

Tax ID #

sales@minimumsystems.com

E-mail

Fax #

Traffic Data Collection	
Feature	Specification
Data software	License free and upgrades readily available. Software able to generate reports (for example, traffic speed compliance) for use in determining sign effectiveness.
Vehicle data logging capacity	Speed data 90 days (based on 24/ 7 operation) with circular buffer
Programmable display features	Minimum speed, speed limit, over speed, and maximum speed to display
Communications	Bluetooth class 1 connectivity min at 30 feet ( FCC certified); RS232 port App for Android
System Requirements	Operating system: Windows XP, Windows Vista, Windows 7, Windows 10
	Screen resolution: 1024 x 768 or better Communications interfaces: Bluetooth Class 1 or 2 adapters ( capabilities : V1.0, V1.2, V2.0, V2.1 + EDC) Disk Space 16.5 MB min

Proposed Manufacturer: Monitor Systems \_\_\_\_\_

Proposed Model: Prodigy 22L \_\_\_\_\_

Provide any specification sheets for the proposed make and model with the bid submittal.

Include or note any additional shipping or handling charges.

Additional shipping and handling charges (if any): \_\_\_ n/a \_\_\_\_\_

Proposed cost for one (1) full sign assembly: \$ \_\_ 4175.00 \_\_\_\_\_

Full assembly will be sign, brackets, solar panel,, etc necessary for the sign to be fully functional.

Proposed cost for two (2) or more full sign assemblies: \$ \_\_ 8,350.00 \_\_\_\_\_

Comments: Service and training done by local representative: McClain\_Radar services, St Peters MO

Full Matrix, highly visible LED displays with auto Ambient Light Adjustment, Vehicle Speed and Statistical Data Capture, SD card storage, •Bluetooth wireless communication interface •Standard Ethernet interface •26" x 29" x 3" Display\_

The bid request is for the unit (s) only and not for any installation.





## PRODIGY 22L

Easily deployed in school zones, construction areas, high-accident and neighborhoods. Monitor Systems speed signs provide a strong measure of traffic management unmatched by others.



## features

- Display Messages with text or graphics
- Under, over and max speed user settings
- Multi stage on/off scheduler
- Vehicle statistical data

## options

- Video camera
- Solar Panel
- 7 inch LCD Android Tablet Remote
- Other Options Available

## CONTACT US NOW

[sales@monitorsystems.net](mailto:sales@monitorsystems.net) [www.monitorsystems.net](http://www.monitorsystems.net) Dallas, TX

1-888-819-7023





# 22L detailed specs

## CREATE/DISPLAY MESSAGES

- Can display 4 different speed messages with text or graphics
- Under, over and maximum speed user settings
- Multi-stage on/off scheduler
- Includes programming software
- Vehicle statistical data
- Covert vehicle data capture
- Real-time clock
- On-board program storage
- Integrated bluetooth transceiver
- 2 lines of text, 6 characters long
- SD card memory for expandable storage
- 4 LED's per pixel
- Polycarbonate, impact-resistant clear window
- LED pulse width modulation for longer battery life
- Keyed on/off

## DISPLAY

- 24.5"H x 43"L x 3.5"D
- Auto brightness (automatically adjusts for light conditions)
- Aluminium enclosure with graffiti-resistant, powder-coated finish
- Shatter-resistant polycarbonate display window for maximum protection
- Super bright, wide angle amber LED's
- Displays oncoming (approaching) vehicles only
- User selectable kph/mph Speed Displays and adjustable Radar Range/Sensitivity
- Speed violation alert: Messages are user defined, showing either a message or the violaters speed
- Maximum display time end-user defined, can be different text message with speed or blank (blanks display above setting)
- Bluetooth communication or rotary switches for changing speed and maximum display limits
- 12 volt DC power
- Removable rear access panel for servicing
- Lockable access door for easy removal of SD card
- Radar system fully enclosed within display
- PCB's conformal coated for additional moisture protection
- Input Voltage Tolerance: 9.0 - 15.5 volts DC
- Nominal Power 5w

## INTUITIVE USER INTERFACE

- Compatible across wide variety of Windows platforms (XP, Vista, Windows 7, both 32 bit and 64 bit)
- Multiple available communication interfaces : Serial RS-232 connection
- Bluetooth connection
- 10Mbps ethernet connection
- User authorization required for connecting to the Variable Message Sign (VMS)
- Three user privilege levels available, all password protected
- Ethernet connection is protected with 128-bit AES encryption
- Configures all VMS operating parameters: VMS size – number of LED panels, LED dimming – fixed or automatic, automatic LED dimming table
- Ethernet address
- Bluetooth device name
- Scheduler to configure VMS operation times, multiple on/off cycles; hours, days and weeks
- SD card and flash memory
- Integrated image editor for managing VMS images: Allows in-place image editing
- Both static images and animations can be designed
- Image import / export to external image files, images can be grouped in image libraries for easier manipulation
- Arabic right-to-left text support
- Configures display modes (which images/animations will be displayed) for the following situations:
  1. No vehicle on the road
  2. Vehicle detected, at speed below defined limit
  3. Vehicle detected at speed over defined limit
  4. Vehicle detected, at speed over defined maximum speed
- Integrated file browser for remote access to the files stored on SD card
- Vehicle statistics logs
- Vehicle statistics log viewer and data analyzer
- Generates configurable PDF report with the vehicle statistics data



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RUZ Systems, Inc. KENNETH BROWN  
 Company Name Authorized Agent (Print)

2631 W Ogden Rd [Signature]  
 Address Signature

Mesa, AZ 85215 Vice President  
 City/State/Zip Code Title

480-982-2107 25 Sept 15  
 Telephone # Date

kbrown@ruzsystems.com 480-982-5237  
 E-mail Fax #

Traffic Data Collection	
Feature	Specification
Data software	License free and upgrades readily available. Software able to generate reports (for example, traffic speed compliance)for use in determining sign effectiveness.
Vehicle data logging capacity	Speed data 90 days (based on 24/ 7 operation)with circular buffer
Programmable display features	Minimum speed, speed limit, over speed, and maximum speed to display
Communications	Bluetooth class 1 connectivity min at 30 feet ( FCC certified); RS232 port App for Android <b>RF fob for interface / 150' range</b>
System Requirements	Operating system: Windows XP, Windows Vista, Windows 7, Windows 10
	Screen resolution: 1024 x 768 or better Communications interfaces: Bluetooth Class 1 or 2 adapters ( capabilities : V1.0, V1.2, V2.0, V2.1 + EDC) Disk Space 16.5 MB min

Proposed Manufacturer: RU2 Systems, Inc.

Proposed Model: Fast-350

Provide any specification sheets for the proposed make and model with the bid submittal.

Include or note any additional shipping or handling charges.

Additional shipping and handling charges (if any): -0 -

Proposed cost for one (1) full sign assembly: \$ 4,680.00

Full assembly will be sign, brackets, solar panel,, etc necessary for the sign to be fully functional.

Proposed cost for two (2) or more full sign assemblies: \$ 4,590.00

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

The bid request is for the unit (s) only and not for any installation.





# **RU2 Systems, Inc.**

**The Leader in Speed Display Technology**

## **RU2 Fast-350/360 Radar Speed Display Signs**

RU2 Systems has your pole mount traffic calming needs covered with our unique pole mount radar speed display signs. Mounted permanently or semi-permanently, these high intensity LED displays get the attention of oncoming drivers. The signs can be directly hard-wired to your electric service or optionally powered by a solar power system.

Each of these designs feature a full matrix high intensity LED display with 18" characters. This larger 18" character is appropriate for higher posted speeds (40 MPH+) and any longer line-of-sight locations where speeding is a problem.



Several Violator Alerts are available including an embedded "SLOW DOWN" message, our unique flashing Red/Blue bars, particularly effective at night and high intensity white LED strobe.

Optional timing apparatus can be provided to allow for multiple time of day, day of week, month of year timing routines. The 350's operating parameters can be set up with an RF remote control included with each sign.

The closely related RU2 Fast 360 features two and one-half 18" full matrix characters for KPH and racing applications. The leading "One" digit allows for readings up to 199.

For clients operating on International sign standards the Fast-360 can be fit with a traditional "Red Ring" sign overlay conforming to local iconography expectations.

**RU2 Systems: The Industry Leader in Speed Display Technology**

2631 North Ogden Road, Mesa, AZ 85215

[P] 480-982-2107 [F] 480-982-5237

Toll Free 877-982-2107

e-mail: [info@ru2systems.com](mailto:info@ru2systems.com) [www.ru2systems.com](http://www.ru2systems.com)

**RU2 FAST-350/60**





# RU2 Fast-350/360 Pole Mount Radar Speed Display Sign Specifications

## Casework:

- 1/8" thick welded aluminum construction, front access to critical components
- White powder coat paint inside and out - custom colors available
- All stainless steel hardware
- "YOUR SPEED" sign included (MUTCD compliant)
- GE Lexan® shielding with a smoked, non-glare finish for easy reading even in direct sunlight
- Universal mounting brackets included; U-bolt, band or wall mount
- Weight: 53 lbs. incl. mounting hardware - on-grid application (Fast-350)

## Electronics:

- K-band single directional radar unit
- Latest generation AlInGaP high intensity LED's
- 18" Full Matrix (rounded) Characters for quick recognition
- Minimum Speed Display, High Speed Blanking & Flashing Digit Violator Alert
- Automatic intensity adjustment to ambient light conditions
- 12 VDC operation, 12 VDC or 100-277 VAC, 50/60 Hz input
- Power consumption: 5.76W Nominal, 14.88W Peak
- Keyed On/Off switch
- Single cycle ON/OFF clock
- Sign defaults to last settings upon power up
- Built in on-screen diagnostics
- On-board Options & Diagnostics
  - Radar sensitivity
  - LED Operation Diagnostics
  - LED Intensity Diagnostics
  - MPH / KPH operation
  - Battery test
  - And more...



Hitch Mount



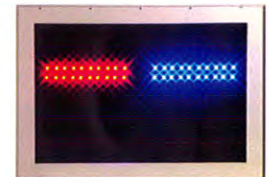
Fast-350 School Zone



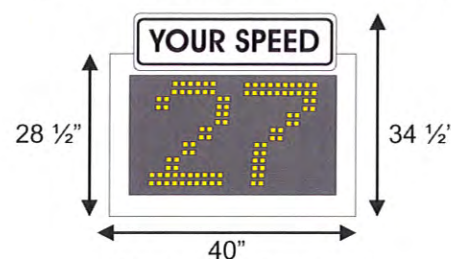
Fast-357 Roof Mount

## Options:

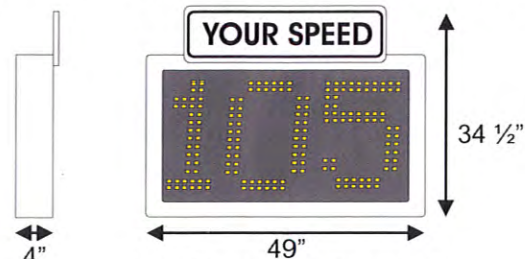
- Solar Panels, 85W typical, with mounting bracket
- Data Collection
- Various Timing Options are available
- Violator alerts\*
  - "SLOW DOWN"
  - Red-Blue Flashing Bars
  - White LED Flashing Strobe



\* Violator alerts may be set in 1 MPH increments in any order of hierarchy or individually disabled.



2 Character Fast-350



2-1/2 Character Fast-360

Technical specifications are subject to change without notice.

## WARRANTY:

RU2 Systems warrants their LED Displays for Five Years. The Radar Gun is warranted for Two years. On-site labor is not included. However, parts are repaired within five business days of receipt, and include ground-shipping expenses. Warranty does not include physical damage from misuse or vandalism.

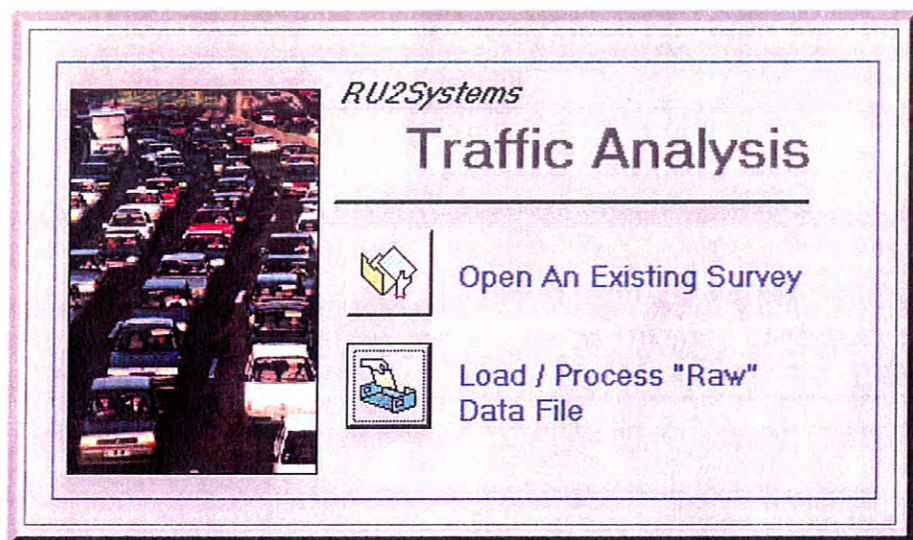




# **RU2 Systems, Inc.**

**The Leader in Speed Display Technology**

## **RU2 Traffic Count Data Acquisition System & Software**



RU2 Systems data collection platform uses non-contact technology so that deployment of pneumatic tubing is not required. The acquisition package utilizes the streaming data acquired from the radar gun. Advanced proprietary algorithms filters and analyzes the radar data stream to determine what is and is not a discrete target. Each oncoming vehicle's speed is recorded with a time/date stamp. This methodology provides moderate to excellent accuracy somewhat dependent on environmental variables as all single-gun systems are. Its best application is for determining peak load times and violation concentrations for complaint verification and scheduling deployment of traffic enforcement officers.

The collected data is saved on a Secure Data (SD) card and can be downloaded to any\* computer with the provided card reader. The data can then be analyzed by RU2's Traffic Count Software package included with the system or software capable of accepting a comma delimited ASCII text file, such as Microsoft® Excel. Tabulated reports and charts include Survey Summary, Vehicle Count, Speed, and Time/date, 85th Percentile, 15 Minute, 1 Hour, Daily and Weekly analysis, etc.

\*Windows 2000 or newer

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Toll Free 877-982-2107

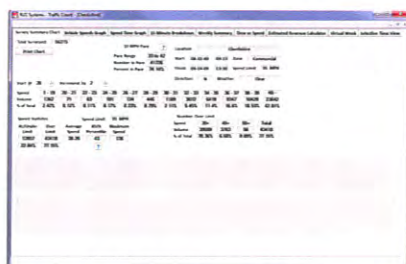
e-mail: [info@ru2systems.com](mailto:info@ru2systems.com) [www.ru2systems.com](http://www.ru2systems.com)

**DATA COLLECTION SYSTEM**





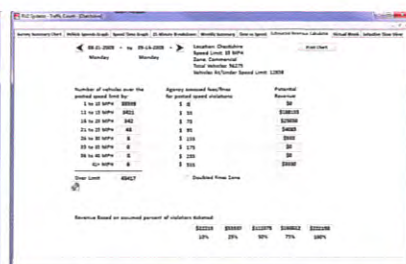
# RU2 Traffic Count Software



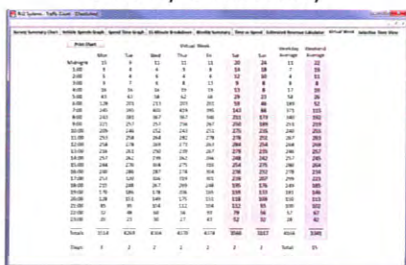
Survey Summary



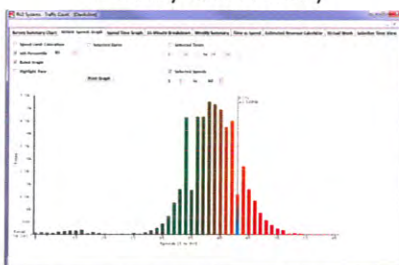
Weekly Summary



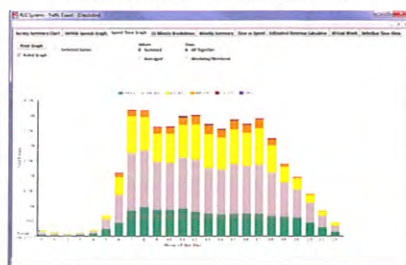
Revenue Calculator



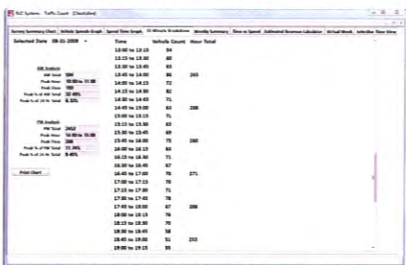
Virtual Week Study



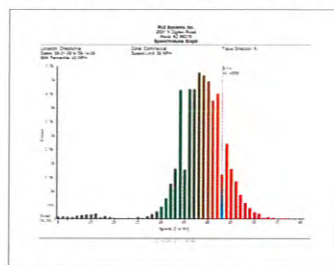
Vehicle Speed Graph



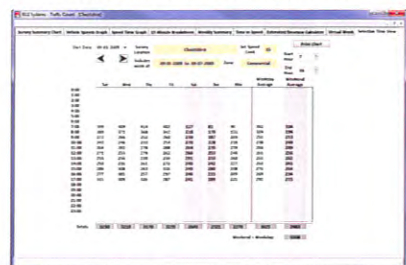
Speed Time Graph



15 Min./Hourly Breakdown



Vehicle Speed Print Out



Select Time View

**Familiar Windows tabbed interface makes Survey Set-Up easy:**

Opportunity to define Variable Display Scheme (upper/lower limits and increment), Reporting Officer, Start Date/Time, End Date/Time, Conditions, Zone Profile, Location, Direction etc.

## Complete Reporting Capabilities

- 1) Survey Summary
  - a. Variable Display Scheme
  - b. Total Surveyed
  - c. Incremental Speed Grid (Speed, Volume, % of Survey)
  - d. Speed Statistics Summary
    - I. Posted Limit
    - II. At/Under Limit Qty. / %
    - III. Over Limit Qty. / %
    - IV. Average Speed
    - V. 85<sup>th</sup> Percentile
    - VI. Maximum Speed
  - e. 10 MPH Pace
    - I. Pace Range
    - II. Number in Pace
    - III. % in Pace
  - f. Number Exceeding Limit (+10, +20, +30..., Number & %)
- 2) Vehicle Speeds Graph
- 3) Daily Volume/Time Graph
- 4) 85<sup>th</sup> Percentile Graph
- 5) 15 Minute Breakdown
  - a. AM/PM Analysis
    - I. Total
    - II. Peak Hour
    - III. Peak Flow
    - IV. Peak % of AM
    - V. Peak % to 24 Hr
- 6) Weekly Summary 4 Week Limit
- 7) Time vs. Speed
  - a. Hourly numeric breakdown
- 8) Comparative Survey Analysis
  - a. Virtual Week
  - b. Dynamic/Survey Week
  - c. Comparative Surveys
  - d. Selective Time View (Time Slice)
- 9) Estimated Revenue Calculator
  - a. Client defined fine schedule x Efficiency over Survey Results

Technical specifications are subject to change without notice.

### How RU2 Systems Licenses "Traffic Count" Traffic Data Analysis software:

The organization is granted with its first "seat" purchase a site license for our software. RU2 does not restrict the number of computers the software is installed on within the organization. Subsequent "seats" do not cost as much as we are not charging repeatedly for the software. So for example, should an organization want 3 units each with data collection they would be charged for one "First Seat" and two "Additional Seats".

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**Vendor  
Information:**

Intuitive Control Systems LLC LLC dba All Traffic Solutions	John William Painter
Company Name	Authorized Agent (Print)
3100 Research Drive	
Address	Signature
State College PA 16801	Director of Strategic Sales
City/State/Zip Code	Title
814 237 9005	25-1887906
Telephone #	Date
jpainter@alltrafficsolutions.com	Tax ID #
E-mail	814 237 9005
	Fax #



Traffic Data Collection	
Feature	Specification
Data software	License free and upgrades readily available. Software able to generate reports (for example, traffic speed compliance) for use in determining sign effectiveness.
Vehicle data logging capacity	Speed data 90 days (based on 24/ 7 operation) with circular buffer
Programmable display features	Minimum speed, speed limit, over speed, and maximum speed to display
Communications	Bluetooth class 1 connectivity min at 30 feet ( FCC certified); RS232 port App for Android
System Requirements	Operating system: Windows XP, Windows Vista, Windows 7, Windows 10
	Screen resolution: 1024 x 768 or better Communications interfaces: Bluetooth Class 1 or 2 adapters ( capabilities : V1.0, V1.2, V2.0, V2.1 + EDC) Disk Space 16.5 MB min

Proposed Manufacturer: All Traffic Solutions

Proposed Model: Shield 15

Provide any specification sheets for the proposed make and model with the bid submittal.

Include or note any additional shipping or handling charges.

Additional shipping and handling charges (if any): included in price below

Proposed cost for one (1) full sign assembly: \$ 4367

Full assembly will be sign, brackets, solar panel,, etc necessary for the sign to be fully functional.

Proposed cost for two (2) or more full sign assemblies: \$ 8734 discount price applied above

Comments: Please see attached Letter

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The bid request is for the unit (s) only and not for any installation.





## Shield Radar Speed Display

Our Shield family of Radar Speed Displays is the ideal choice when portability is paramount. These incredibly compact, lightweight signs can be mounted virtually anywhere. At only 12 lbs., including mount, the Shield 12 is the most durable, portable sign on the market. You'll get better results because you'll use it more often.

**ALL TRAFFIC  
SOLUTIONS**



*A sign of the future.™*

### Product highlights

#### EXTREME PORTABILITY

Built for ease of use, it's the lightest, most portable sign available anywhere...and it still meets the MUTCD minimum 12" digit size.

#### SIMPLE, UNIVERSAL MOUNTING

In less than 30 seconds, one person can mount to U-channel, square channel, round poles, trailers, and hitch mounts using the integrated mounting system.

#### AMAZING BATTERY LIFE

Achieve up to several weeks of run time. A dedicated compartment allows all-weather battery replacement.



#### CLOUD-BASED EASE AND ACCESSIBILITY

Eliminate traffic data file management and instantly share reports over the Internet with others. Our enhanced TraffiCloud™ features (see reverse) and always-current user interface will keep you in contact with our signs and all your traffic management equipment. Make your traffic management system more productive and effective.

#### DURABLE CONSTRUCTION

The welded aluminum enclosure, concealed mounting hardware, shatterproof Lexan and graffiti-resistant powder-coat make it super tough.



### Product specs

#### Product Specs

##### Shield 12

Digit Size: 12" Digits (MUTCD min.)  
Dimension: 13.5" H x 15.5" W x 2.6" D  
Weight: 12 lbs (incl. mount)

##### Shield 15

Digit Size: 15" Digits (3 metric digits)  
Dimension: 17" H x 24" W x 2.6" D  
Weight: 18 lbs (incl. mount)

#### Common Hardware Upgrades

Datalogging, Bluetooth, Violator Alert, Pictures, Metric



# TraffiCloud™

While our best-in-class hardware will help improve your traffic flows, complimenting this equipment with our TraffiCloud™ helps improve your workflows. Leveraging a consistent interface across all your traffic management equipment, TraffiCloud™ provides a new level of awareness while reducing the amount of time needed to manage your equipment and information. In a world of increasing expectations and decreasing resources, TraffiCloud™ helps you achieve better outcomes in less time.

**TraffiCloud™: Traffic Suite** • All the features you need for effective and efficient traffic program management. Traffic Suite features can also be purchased individually.



## MAPPING

Manage your entire program through an intuitive visual interface.

- Interactive map provides a window to all system information



## EQUIPMENT MANAGEMENT

Stop wasting time driving to equipment to update and monitor it.

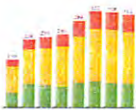
- Check status and change settings from any Internet-connected computer
- Respond immediately to changing situations



## ENFORCEMENT

Automate the collection of lidar captures

- Ensure data accuracy
- Minimize data collection time



## REPORTING

Save time collecting, organizing, compiling and distributing information.

- Automated, daily uploads of new data into a centralized, SAS70-certified environment
- Identify trends to allocate resources and be proactive



## IMAGE MANAGEMENT

Achieve greater awareness, including alarms or request generated images.

- \*Capture images based on speeds, tampering, time intervals or upon request
  - Review, edit and act on useful images
- \* Images can be used to identify vehicle make and color, but are not alpr quality.*



## PREMIERCARE

Get a perpetual warranty, damage insurance and remote diagnostics for duration of subscription

- 50% discount on accidental damage
- Real-time remote diagnostic monitoring



## PARKING

Communicate parking availability more efficiently.

- Send cloud-based parking availability to variable message signs
- Direct vehicles to available parking



## ALERTS

Specify when and whom you'd like notified upon occurrence of certain conditions.

- Receive email or text as events happen
- Be aware of low batteries, high speeds, tampering, congestion and more



## DRIVETIMES

Sensor-free Time to Destination Technology

- Live travel times for custom routes
- Radically reduce the complexity and cost to design and maintain an advanced, dynamic message system

## Trade In. Trade Up! Receive at least 50% Credit

Upgrade your old, used equipment – **regardless of manufacturer or condition** – and get access to the latest features and a perpetual warranty on a new, TraffiCloud™ enabled sign so you'll never have to worry again.

Offer applies to display only. Trailer and power supplies are not included.

- Extreme Portability
- Simpler Operation
- Maximum Awareness
- Cloud-Based Convenience

Contact All Traffic Solutions for more details.



Any manufacturer's speed or message display:



18" SpeedAlert



ATS SpeedSentry (any condition):



12" Shield



ATS SpeedAlert (any condition):

24" SpeedAlert



866-366-6602 • [alltrafficsolutions.com](http://alltrafficsolutions.com)

3100 Research Drive, State College, PA 16801 • fax: 814-237-9006

ALL TRAFFIC SOLUTIONS



A sign of the future.



### Shield Speed Display

- 4 units to cover any application
  - Shield 12: 12" x 6" digits, 112 LED/digit
  - Shield 12s: Shield 12 with reduced range radar
  - Shield 15: 15" x 8" digits, 140 LED/digit
  - SpeedAlert 18: See SpeedAlert Specification
- Size, Weight without battery
  - Shield 12: 15.5" x 13.5" x 3.12", 12 lbs
  - Shield 15: 24" x 17" x 3.12", 18 lbs
- "YOUR SPEED" sign
  - High intensity prismatic reflective background
  - Shield 12: 15.5" x 13.5"
  - Shield 15: 24" x 8"
  - sign stores for compact storage and protects sign face, thumbscrews and tamper proof hardware included
  - 3.5" high MUTCD 'C' letters
- Universal mounting system: attach to pole, trailer or vehicle hitch mount
- LED pixels: Amber 595nm, 30 degree viewing angle, 100,000 hrs, black background, (MUTCD compliant)
- Local web-based management with Bluetooth or USB
- SmartApps Remote Management System with integral active cell modem
- Integral camera for awareness and alert triggered images: 640x480 daylight images
- Power saving circuitry and automatic dimming for ambient light conditions with adjustable dimming range and manual display brightness override
- Power Input, Max:
  - Shield 12: 12 VDC, 1.1 A, 15 W
  - Shield 15: 12 VDC, 1.5 A, 20 W
- K Band radar (24.15 GHz), FCC Certified, no license req'd, +/-1mph accuracy
- Adjustable sensitivity radar, 12 degree square
- Radar pickup range:
  - o Shield 12s: 300 ft., 5-105mph (8-168 kph)
  - o Shield 12 & 15: 1000 ft., 5-105mph (8-168 kph)
- Conformal coating on all circuit boards
- Integral handle
- Weatherproof, NEMA 4, IP65 sealed electronics compartment; Drip proof, vented battery compartments
- 1/4" tinted, non-glare, UV stabilized polycarbonate face
- Entire face removable for service
- Tamper resistant mounting hardware pocket, hardware secured behind enclosure lock
- 14 ga aluminum chassis, white powder coat finish, black powder coat front for maximum contrast for digit visibility
- Protective polycarbonate corners also provide guide for YOUR SPEED sign storage
- Internal real time clock, time maintained with power disconnected

## Product Specification Shield Radar Speed Display



- Set time via wireless PDA, PC or sync with cell signal
- Sign firmware field and remotely upgradeable
- -40 to 160 F operating temperature range, 95% humidity non-condensing (-20F for Bluetooth communication)

### Shield Operation Modes

- Speed Display: Display approaching vehicle's speed and record traffic speed and volume data
- Stealth or Display Off: Collect traffic speed and volume data with no display
- Dependent Message: Send speed data to a linked instALERT Variable Message Sign to display messages tailored to vehicle's speed
- Changeable speed limit sign

### Shield Speed Settings

- Configure the following parameters via wireless PDA, PC or SmartApps Web-Based Management System:
  - Speed limit
  - Maximum speed displayed
  - Display on/off/specific mph activation
  - Violator strobe on/off/specific mph activation
  - Radar sensitivity (range)
- Speed limit sign operation
  - Change speed limit up to six times per day
  - Sign flashes when car passing over speed limit, blanks when car over maximum speed displayed

### Shield Programming Methods

Program and monitor the sign three ways:

- SmartApps Web-Based Management System using integral cell modem for remote management; Traffic Suite includes following apps:
  - Equipment Management: Manage settings, monitor sign online
  - Reporting: Online data retrieval and management, analysis
  - Image Management: Online image retrieval and management of images from internal camera
  - Alerts: Notifications for low battery and tampering, high speed and congestion with optional radar, alerts can include images
  - Mapping: Visually manage equipment and data





- Premier Care: Enhanced warranty and real-time monitoring
- Password protected system with three levels of access
- Web-Based Local Management System using USB or Bluetooth connection between PC and sign:
  - Manage settings
  - Local data retrieval and management
  - Local image retrieval and management from internal camera
- Wireless PDA Programming
  - PDA automatically connects to one sign in range, connection easy to switch between multiple signs
  - locates and identifies sign to which connected
- On-Board Programming
  - Set speed limit and display mode

#### **Scheduling**

- All days: schedule up to 6 different modes for up to 6 different time periods in a 24 hour day, repeats in each 24 hour cycle
- 7 days: schedule up to 6 different modes for up to 6 different time periods in a 24 hour day for each of 7 days, repeats in each 7 day cycle
- all scheduling resides on the sign – no external hardware necessary
- schedules can be saved on the PDA for backup or for different events
- program schedule via SmartApps, wireless PDA or PC
- once enabled, schedule remains in action until disabled, even through a power interruption

#### **Shield Data Logging Option**

- Reporting with Web based local or SmartApps automatic remote data download
- Analyze data with ATS SmartApps Reporting
- Local Management with Web-based interface
  - Download traffic data from sign with wireless PDA or PC, or USB cable to PC
  - 30 days of high volume data minimum with local downloads, Data collection rolls over when memory reaches capacity

##### **Reports:**

- Summary page with average and 85th percentile speed, average daily volume, 10 MPH pace speed, high and low speed, display mode
- Traffic counts by speed range and time of day over selected date range with 5 MPH resolution
- Vehicle counts by time range per day by hour
- Traffic counts by speed range and time of day by individual day
- Data exportable to standard .csv format for further analysis in Excel
- Remote Management with SmartApps Reporting App and cellular link

## **Product Specification Shield Radar Speed Display**

- Daily data retrieval – near real time reporting, memory never full
  - All data in one database, available for analysis including compliance comparisons by location
  - Data visibility location from map
- Reports:**
- Summary page with average and 85th percentile speed, average daily volume, 10 MPH pace speed, high and low speed, display mode
  - Traffic counts by speed range, full day and time of day over selected date range with 5 MPH resolution
  - Vehicle counts by time range per day by hour
  - Traffic counts by speed range and time of day by individual day
  - Review one location or compare two locations for speed limit compliance
  - Enforcement report showing highest speed and volume violators over all or selected locations where data collected

#### **Compatible Shield Power Supplies**

All Shield units can be powered interchangeably with any of the following power options; Unit can be outfitted to be powered by multiple sources selected in the field

- Shield 12, 12s and 15:
  - Capacity for 2 batteries in unit for extended portable use
  - 10.2Ah Lithium LFP Battery with built-in short circuit and reverse polarity protection circuitry, 1.5A 12.8 VDC output, 120VAC input automatic charger; Capacity for up to 2 batteries in unit for extended portable use
  - Solar panel assist: 20W or 40W solar panel and bracket, Solar controller panel w/18Ah or 26Ah lead acid battery, 6A 120VAC automatic charger optional
  - 100-220VAC AC power supply (6A 12VDC) in external NEMA 4 enclosure
- Shield 15 only: 16Ah Li-Ion LFP battery with connector, for longer unattended portable use, Capacity for up to 2 batteries in unit for extended portable use
- Shield 15 on trailer
  - Trailer batteries – 100, 235 or 470 Ah, solar option

#### **Standard Shield System Components**

- Shield Radar Speed Display
- Tamper resistant mounting plate and hardware
- Key
- USB cable
- Web based programming software for PC control

#### **Optional Shield Components and Features**

- SmartApps Web-based Remote Management System
- Padded carrying case
- Violator strobe, 12 white LED flash to alert violators



- Metric display
  - Shield 12: 2 digit KPH display
  - Shield 15: 3 digit KPH display
- Fully compatible with Speed Dependent Messaging option when used with an instALERT Variable Message Sign - see Speed Dependent Message System section
- Bullet resistant face
- Tamper alarm – ATS-5 trailer
- Relay closure
  - 7A, 30VDC or 7A 120VAC max, 100mA 5VDC min, no power supplied, simply a contact closure
  - Trigger relay at specified speed with configurable duration from 1 to 10 seconds per radar event

### Shield Mounting Options

- Pole mount standard with included bracket, hardware
  - NCHRP 350 approved on 4" aluminum pole (SS-135)
- ATS-5 Trailer (Shield 15 only)
- Vehicle Hitch mount
  - Mounts sign 30" to bottom of sign from receiver tube (final height dependent on receiver height)
  - Fits 1 1/4" or 2" receiver, adapter included, 1/2" hitch pin
  - Locking rotation adjustment on 15 degree increments over 180 degrees, +/- 5 degrees tilt
  - White powder coat finish
  - 24 x 30 speed limit sign and digits included for 5-65 mph speed limit signs
- Standard Folding Portable Post: (Sh12 and Sh15)
  - Folds for easy storage and portability
  - Sh12: 60" to bottom, 73" to top, add 13" for upper leg position
  - Sh15: 60" to bottom, 77" to top, add 13" for upper leg position

### Speed Dependent Message System Option

Integrates the instALERT Variable Message Sign with any Shield Radar Speed Display to create a speed dependent messaging system.

- Different messages for each of 5 speed ranges
  - No cars
  - Cars <= speed limit
  - Cars > Speed Limit, < x
  - Cars > x < upper speed
  - Cars > upper speed
- Ranges dependent on speed limit setting only, so no message programming changes required with speed limit change to shift dependent message ranges.
- Independent Maximum Speed Displayed setting
- Speed display can display speed or be set to stealth mode with display blank during operation
- Speed Dependent Messages can be up to 3 screens each, including:
  - 1-3 line messages
    - 1 line: 24" H x 12.5" W characters, 4 per line

## Product Specification

### Shield Radar Speed Display

- 2 lines: 10 1/4" H x 5.75" W characters, 8 per line
- 3 lines: 7" H x 4" W characters, 12 per line
- 2 lines: (1) 7" char, 12 per line, (1) 10 1/4" char, 8 per line
- "YOUR SPEED" screen with 24" vehicle speed display digits and data supplied wirelessly by the speed display
- "SPEED LIMIT" screen with 24" speed limit display digits and speed limit data supplied wirelessly by the speed display
- Wireless Bluetooth communication between Speed Display and instALERT Variable Message Sign. No communications cables run between the units.
- Program system locally or remotely with SmartApps Web based Management System or wireless PDA.
- Speed display and message sign work independently when not connected as a speed dependent message system. Disable communication, turn one unit off or move one unit out of range and units operate independently. No settings have to be changed on either unit to have them work independently.

### Dependent Message System Mounting

- System can be mounted on the ATS-5 trailer, on a pole or hitch mount
- The Shield Speed Display can be removed from the trailer for independent operation on a pole or post using internal batteries
- The instALERT variable message sign is removable from the trailer and can be folded to be placed in the trunk of a police cruiser. It can be used on a portable post or vehicle hitch mount, powered by the vehicle or by an ATS POWERcase

### Warranty

- 1 year warranty (3 months on Li-Ion batteries)
- Premier Care SmartApp
  - Warranty service fully covered
  - Product software upgrades free
  - Vandalism and accidental damage (non-warranty) at 50% off list price

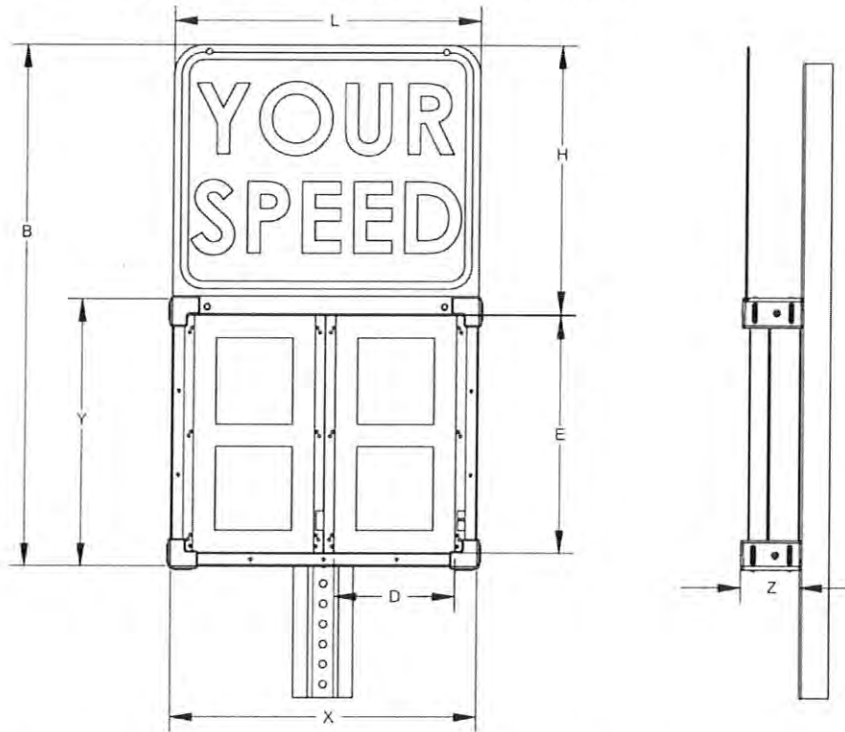
### Made in the United States of America





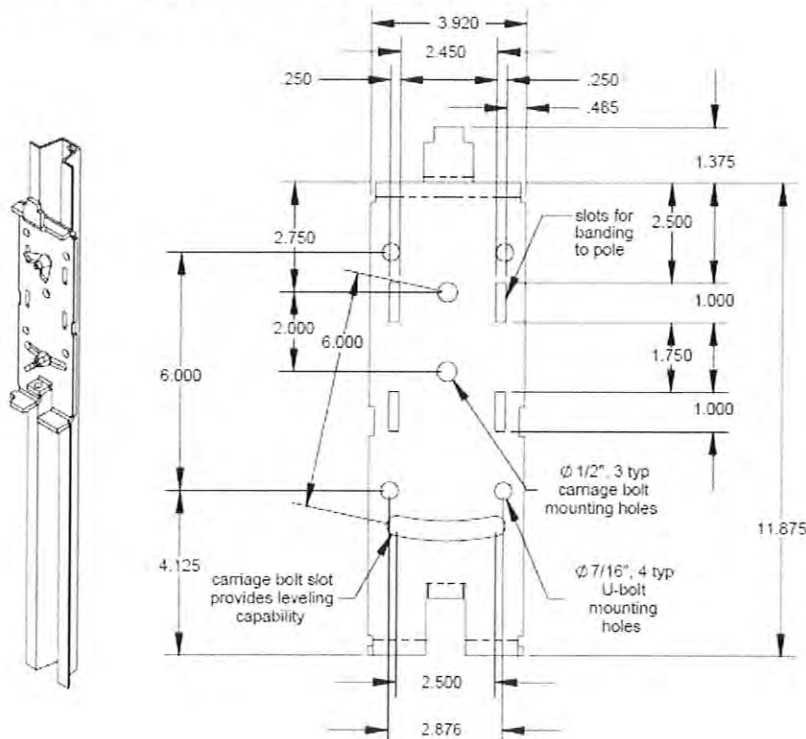
## Product Specification Shield Radar Speed Display

### SPEEDsentry Shield 12, 12s and 15 Dimensions



Dim	Sh12	Sh15
X	15.5	24
Y	13.5	17
Z	3.12	3.12
B	26.3	24.3
D	5.75	8
E	12	15
L	15.5	24
H	13.5	8

### SPEEDsentry Shield 12, 12s and 15 Mounting Bracket





JEFFERSON COUNTY  
DEPARTMENT OF ADMINISTRATIVE SERVICES  
729 MAPLE ST / PO BOX 100  
HILLSBORO MO 63050  
WWW.JEFFCOMO.ORG

Invitation for Bid: **RADAR SPEED DISPLAY SIGNS**

Date Issued: **9-2-15**

BIDS SHALL BE ACCEPTED UNTIL: TUESDAY, OCTOBER 6, 2015, AT 2:00 P.M. LOCAL TIME.

**Specification**

**Contact:**

**KRISTY MOSS**

Department of Public Works

636-797-5569

kmoss@jeffcomo.org

**Contract**

**Contact:**

**VICKIE PRATT**

Department of Administrative Services

636-797-5380

**Mail (3) Three  
Complete Copies  
With Vendor And  
Bid Information As  
Shown In Sample:**

**SAMPLE ENVELOPE**

VENDOR NAME

VENDOR ADDRESS

CONTACT NUMBER

DEPARTMENT OF THE COUNTY CLERK

JEFFERSON COUNTY MISSOURI

729 MAPLE ST / PO BOX 100

HILLSBORO MO 63050-0100

SEALED BID: (BID NAME)

**Contract Term:**

UPON APPROVAL OF THE  
COUNTY COUNCIL AND  
COUNTY EXECUTIVE

**Vendor  
Information:**

The undersigned certifies that he/she has the authority to bind this company in an agreement/contract to supply the commodity or service in accordance with all terms, conditions, and pricing specified. This Bid, if accepted, will constitute an Agreement and Contract with Jefferson County, Missouri, upon approval of the County Council and County Executive. Prices are firm during this agreement term, unless agreed upon in writing by the County. The County has the option to renew this agreement at the same terms and conditions as the original agreement for one additional one-year term with the written consent of the successful Bidder. Price increases for renewals are not authorized unless approved in writing by the County.

K & K Systems Inc.

Company Name

687 Palmetto Rd.

Address

Tupelo, MS 38801

City/State/Zip Code

662-566-2025

Telephone #

tim@k-systems.com

E-mail

*Tim Keith*

Authorized Agent (Print)

*Tim Keith*

Signature

President

Title

10/01/2015 72-1370925

Date Tax ID #

662-566-7123

Fax #



Traffic Data Collection	
Feature	Specification
Data software	License free and upgrades readily available. Software able to generate reports (for example, traffic speed compliance) for use in determining sign effectiveness.
Vehicle data logging capacity	Speed data 90 days (based on 24/ 7 operation) with circular buffer
Programmable display features	Minimum speed, speed limit, over speed, and maximum speed to display
Communications	Bluetooth class 1 connectivity min at 30 feet ( FCC certified); RS232 port App for Android
System Requirements	Operating system: Windows XP, Windows Vista, Windows 7, Windows 10
	Screen resolution: 1024 x 768 or better Communications interfaces: Bluetooth Class 1 or 2 adapters ( capabilities : V1.0, V1.2, V2.0, V2.1 + EDC) Disk Space 16.5 MB min

Proposed Manufacturer: K & K Systems Inc.

Proposed Model: RPM-18

Provide any specification sheets for the proposed make and model with the bid submittal.

Include or note any additional shipping or handling charges.

Additional shipping and handling charges (if any): \$350.00

Proposed cost for one (1) full sign assembly: \$ 3,976.02

Full assembly will be sign, brackets, solar panel,, etc necessary for the sign to be fully functional.

Proposed cost for two (2) or more full sign assemblies: \$ 7,952.04

Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

The bid request is for the unit (s) only and not for any installation.

**MODEL RPM-18 SPECIFICATIONS****18" Character, DC Powered, Radar Speed Monitor Display****Display Frame**

- Frame constructed of extruded aluminum, 6063 alloy with a T5 temper.
  - Length: 34"
  - Height: 29½"
  - Depth: 6"
  - Mounting Studs: constructed of .080 aluminum
  - Back skin: constructed of .063 aluminum
  - Viewing Window: .125 thick polycarbonate with UV matte finish
- Paint: Powder paint, door flat black, balance white
- Salt spray fog: 1,000 hours
- UV Resistance: 500 hours

**Display Module 5 x 7 pixel, 2.85" pitch**

- Specifications:
  - Optical:
    - LED pixel is formed using 4 LED's
    - Pixels are arranged in a 2 digit, 5 wide by 7 tall matrix array.
    - LED pixel spacing is 2.85 inches x 2.85 inches
    - Agilent Amber lamps, 592 NM wavelength, 30 degree viewing angle, bins 4.2 cd to 12 cd
    - LED module is painted a flat black to improve contrast and reduce glare.

**Unit Consumption**

- Draws less than 15 Watts at full brightness

**Photocell Assembly**

- Monitors ambient light conditions and adjusts brightness accordingly

**Standard Violator Alerts**

- Characters flash when over preset threshold
- Display will go blank when over preset threshold

**Radar**

- Operating Band K-Band
- Frequency 24.125 GHz  $\pm 5$ Mhz
- Power Output 5mW
- Antenna Gain 21 dB
- Polarization Linear
- Supply Voltage 9V DC to 18V DC
- Reverse Battery Protected
- Detection Range Typically 500+ feet
- Nominal Current Draw 58 mA (+12V DC)
- Operating Temp. -22°F to +185°F (-30°C to +85°C)
- Weatherproof Yes
- IR Remote Programmable Yes
- Accuracy  $\pm 0.1$  mph
- Speed Range 5 mph to 105 (8 kmph to 168 kmph)
- Detection Range Typically 500+ feet detecting compact cars, longer for larger vehicles

Manufacturer reserves the right to make changes in its products from time to time without incurring any obligation to incorporate such improvements in any products previously sold or in service.

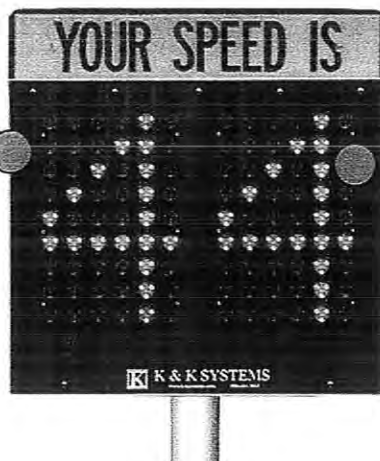


## General Specifications for Model RPM18

The RPM18 along with all other radar displays is designed to keep both pedestrians and vehicular traffic safe by reminding the motorist of their speed and by using its violation alert flashing display to draw extra attention to radar display if the motorist is speeding. Radar displays have been proven to slow motorist down anywhere from at least 5-10 MPH.

### Display Cabinet

**Height:** 29.5"  
**Length:** 34"  
**Depth:** 6"  
**Paint:** Powder coat  
**Paint color:** White with black face  
**Serviceable:** Front  
**Material:** Aluminum  
**Access:** Hinged  
**Protection:** Aluminum face & Lexan reinforcement.



### Display Modules

**Height:** 19.1"  
**Length:** 13.4"  
**# of modules:** 2  
**Matrix size:** 12x9  
**LED's per pixel:** 4  
**Color:** Amber  
**Addressable:** Dipswitches  
**Viewing angle:** 30 Degrees  
**LED module paint:** Flat black



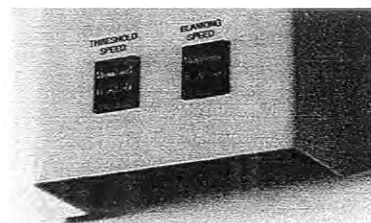
### Radar Gun

**Type:** K Band  
**Frequency:** 24.125 GHZ  
**Power output:** 5mw  
**Antenna gain:** 21db  
**Protection:** Reverse battery  
**Detection range:** 500'  
**Operating temp:** -22°-185°F  
**Accuracy:** +/- 0.1 MPH  
**Speed range:** 5-105 MPH



### Regulator

**Voltage:** 12VDC  
**Rated solar input:** 10A  
**Rated load current:** 10A  
**Equalization voltage:** 14.8  
**Low voltage disconnect:** 11.1v  
**Low voltage reconnect:** 13.1  
**Operating temp:** -35-55°C



### Violation Alerts

**Threshold 1:** Flashing display  
**Threshold 2:** Blanking display  
**Settable:** Push button selection switches

## Options

- Solar powered
- AC powered
- DC powered
- Round aluminum pole kit 11'-20'
- Batteries AGM or wet cell
- Traffic stats
- Speed limit sign
- White or red violator alert strobe
- Portable dolly
- KPH
- Slow down
- Third digit

## Radar Speed Monitors Pole Mounted

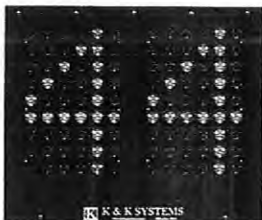
MODEL RPM18

### FEATURES

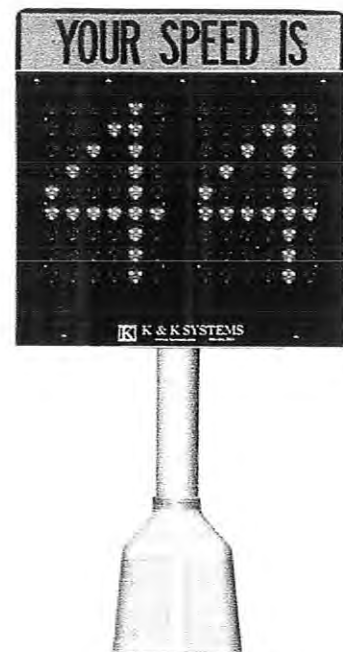
- 18" LED Display
- Easily Adapt to Existing Pole or One of Our Optional Poles
- Radar is FCC pre-approved with CE mark for worldwide deployment
- Lowest power industry standard radar for speed measurement
- All LED Display
- Available in 24.125GHz and 24.200Ghz
- All Aluminum Display Enclosure
- Powder Coat Paint
- Front Serviceable
- Over Speed Flashing Violator Alert
- Over Speed Blanking Violator Alert
- KPH Option available



### PROTECTIVE FRONT DISPLAY PLATE

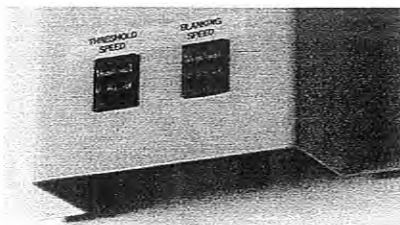


- Aluminum with Lexan Reinforcement
- Black Front to Reduce Glare



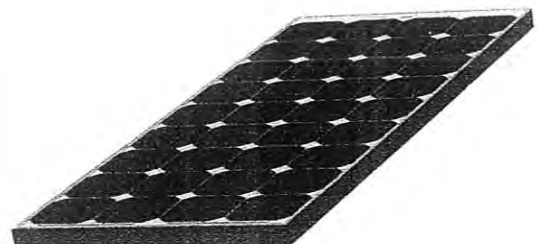
### Quick Selection Switch

With K&K Systems' Quick Speed Display Selection Switch you are able to change your over speed violator alert speed and your blanking violator alert without need of a CPU. This will allow for field workers to have no experience in programming – just push the button to desired speed threshold.



### Optional Solar Package

With K&K Systems optional Solar feature you no longer need to trench or bore electricity to your radar display. No more Power Bill!







**JEFFERSON COUNTY**  
**DEPARTMENT OF ADMINISTRATIVE SERVICES**  
 729 MAPLE ST / PO BOX 100  
 HILLSBORO MO 63050  
 WWW.JEFFCOMO.ORG

**Invitation for Bid: RADAR SPEED DISPLAY SIGNS**

**Date Issued: 9-2-15**

BIDS SHALL BE ACCEPTED UNTIL: TUESDAY, OCTOBER 6, 2015, AT 2:00 P.M. LOCAL TIME.

**Specification  
Contact:**

**KRISTY MOSS**  
 Department of Public Works  
 636-797-5569  
 kmoss@jeffcomo.org

**Contract  
Contact:**

**VICKIE PRATT**  
 Department of Administrative Services  
 636-797-5380

**SAMPLE ENVELOPE**

**Mail (3) Three  
Complete Copies  
With Vendor And  
Bid Information As  
Shown In Sample:**

VENDOR NAME	
VENDOR ADDRESS	
CONTACT NUMBER	DEPARTMENT OF THE COUNTY CLERK
	JEFFERSON COUNTY MISSOURI
	729 MAPLE ST / PO BOX 100
	HILLSBORO MO 63050-0100
SEALED BID: (BID NAME)	

**Contract Term:**  
 UPON APPROVAL OF THE  
 COUNTY COUNCIL AND  
 COUNTY EXECUTIVE

The undersigned certifies that he/she has the authority to bind this company in an agreement/contract to supply the commodity or service in accordance with all terms, conditions, and pricing specified. This Bid, if accepted, will constitute an Agreement and Contract with Jefferson County, Missouri, upon approval of the County Council and County Executive. Prices are firm during this agreement term, unless agreed upon in writing by the County. The County has the option to renew this agreement at the same terms and conditions as the original agreement for one additional one-year term with the written consent of the successful Bidder. Price increases for renewals are not authorized unless approved in writing by the County.

**Vendor  
Information:**

<u>Traffic Parris Inc</u>	<u>Danny Miller</u>	
Company Name	Authorized Agent (Print)	
<u>PO Box 837</u>	<u>Danny Miller</u>	
Address	Signature	
<u>Spring, TX 77383</u>	<u>Regional Sales Manager</u>	
City/State/Zip Code	Title	
<u>800-345-6329</u>	<u>10/1/15</u>	<u>76-0196834</u>
Telephone #	Date	Tax ID #
<u>danny@trafficparris.com</u>	<u>713-490-0755</u>	
E-mail	Fax #	

**COF 17**

Traffic Data Collection	
Feature	Specification
Data software	License free and upgrades readily available. Software able to generate reports (for example, traffic speed compliance) for use in determining sign effectiveness.
Vehicle data logging capacity	Speed data 90 days (based on 24/ 7 operation) with circular buffer
Programmable display features	Minimum speed, speed limit, over speed, and maximum speed to display
Communications	Bluetooth class 1 connectivity min at 30 feet ( FCC certified); RS232 port App for Android
System Requirements	Operating system: Windows XP, Windows Vista, Windows 7, Windows 10
	Screen resolution: 1024 x 768 or better Communications interfaces: Bluetooth Class 1 or 2 adapters ( capabilities : V1.0, V1.2, V2.0, V2.1 + EDC) Disk Space 16.5 MB min

Proposed Manufacturer: Traffic Logic

Proposed Model: SP 450 w/ universal bracket & data software

Provide any specification sheets for the proposed make and model with the bid submittal.

Include or note any additional shipping or handling charges.

Additional shipping and handling charges (if any): Included

Proposed cost for one (1) full sign assembly: \$ 4,780.00

Full assembly will be sign, brackets, solar panel,, etc necessary for the sign to be fully functional.

Proposed cost for two (2) or more full sign assemblies: \$ 4,705.00

Comments: See spec sheets attached.

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The bid request is for the unit (s) only and not for any installation.



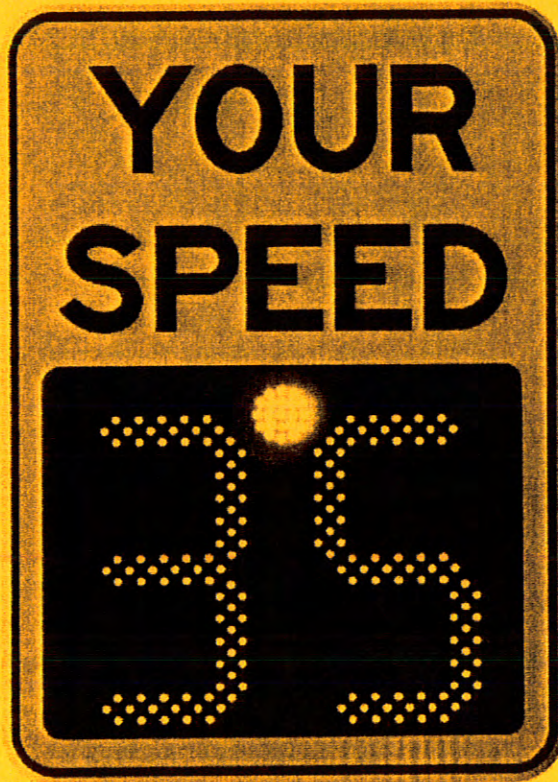
Traffic Logix®

SafePace® 450 (Full & Compact) Radar

Speed Signs

Product Specifications Version 1.4

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\*ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE



Traffic Logix® Corp. | 3 Harriet Lane | Spring Valley, New York 10977  
T (866) 915-6449 F (866)995-6449 | [www.trafficlogix.com](http://www.trafficlogix.com) | [info@trafficlogix.com](mailto:info@trafficlogix.com)  
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Ver. 1.4



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**\*ALL SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE**



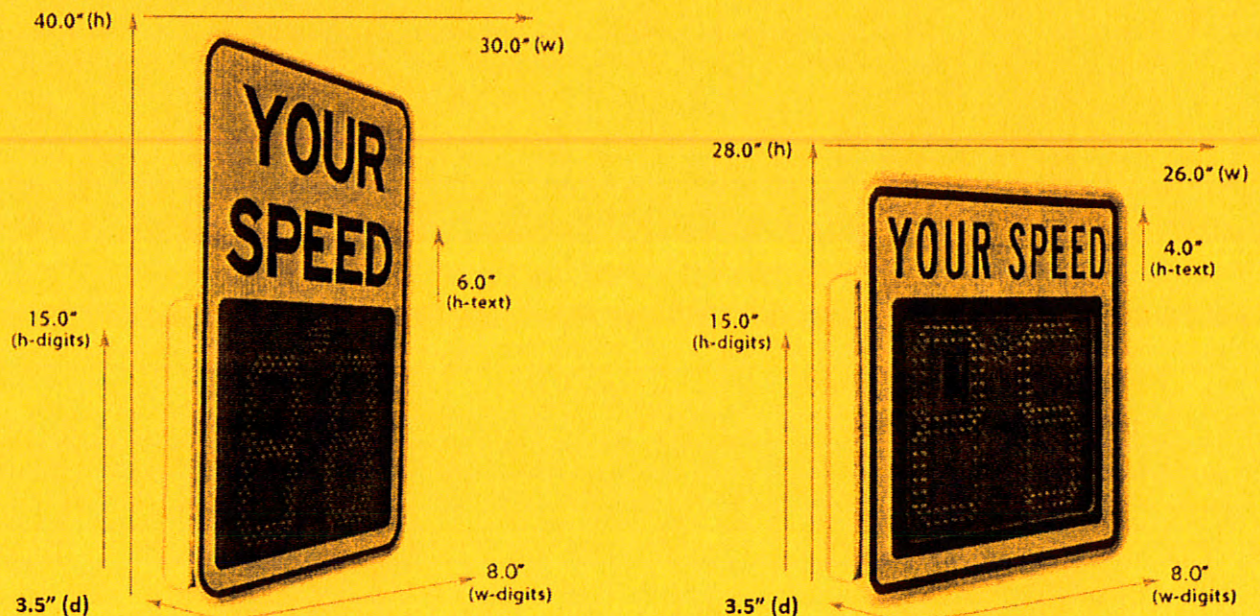
Traffic Logix® Corp. | 3 Harriet Lane | Spring Valley, New York 10977  
T (866) 915-6449 F (866)995-6449 | [www.trafficlogix.com](http://www.trafficlogix.com) | [info@trafficlogix.com](mailto:info@trafficlogix.com)  
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## Dimensions

- Digit: 15.0"(h) x 8.0"(w), 112 LEDs per digit
- Text:
  - Full Size: Letters 6.0"(h) spell "YOUR SPEED" fixed message, 2 lines
  - Compact Size: Letters 4.0" (h) spell "YOUR SPEED" fixed message, 1 line
- Unit alone: 21.5"(h) x 26.0"(w) x 3.5"(d)
- Unit with "YOUR SPEED" sign mounted:
  - Full Size: 40.0"(h) x 30.0"(w) x 3.5"(d)
  - Compact Size: 28.0"(h) x 28.0"(w) x 3.5"(d)
- Sign Weight (unit alone without "YOUR SPEED" sign)
  - AC Powered Model: 18 lbs
  - 4 Cell Battery Powered Model: 22 lbs
  - Solar Powered Model: 20 lbs (does not include solar panel or solar panel bracket)
- Accessories
  - 4 Cell Lithium Ion Battery: 4 lbs
  - Universal Mounting Bracket System
    - Sign Bracket: 2 lbs
    - Pole Bracket: 5 lbs



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## Technical Specifications

- Miles Per Hour (mph) or Kilometers Per Hour (km/h)
- Aluminum protective cover: 0.1875" (d)
- Yellow or white High-Intensity prismatic reflective sheeting on the sign face with black colored text
- MUTCD approved colors and format
- Operating Temperatures F (C): -40° (-40°) to 185° (85°)
- Conformal coating on all circuit boards
- Power
  - Power input:
    - AC 100~240 VAC
    - 12 VDC
    - Built in ambient light sensing and automatic brightness control
    - Wireless battery charge monitor
  - Power Options
    - AC power input: 100~240 VAC
    - DC power input: 12 VDC
    - Solar power: 20 W solar panel
- Radar
  - Internal Radar: Doppler (FCC approved)
  - Radar RF out: 5 mW maximum
  - Radar f-center: 24.125 GHz center +/-25 MHz
  - Pickup distance: Up to 1,200 feet (366 m)
  - Beam angle: 11° x 11°
  - Beam polarization: Linear
- Display
  - LEDs 245:
    - Digits: 224 Amber, 23°, 5 mm, luminous Intensity (5680 – 8200 mcd/LED)
    - Speed Violator Strobe: 21 White, 15°, 5 mm , luminous intensity (28,150 mcd/LED)
  - Optical lenses: 245 lenses
  - Ambient light sensor and automatic brightness adjustment

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- Enclosure
  - 12 gauge aluminum, flat black powder coated front for reduced glare and maximum contrast; light gray powder coated body to minimize heat absorption
  - Weatherproof, NEMA 4X-12, IP65 level compliant
  - Non-sealed and ventilated
- Mounting Options
  - Banding brackets (standard)
  - Universal Mounting Bracket System
    - Universal mounting options: circular, square and telpar poles
    - Theft resistant
    - Promotes sign portability: sign locks into mounting bracket with a turn of a key

## Communication

- Bluetooth 4.0
- Wi-Fi



## Programming

- SafePace® Pro management software
- 24/7 365 day unlimited programming and scheduling
- Display Settings:
  - Display On/Stealth Modes (In Stealth Mode, speed is not displayed but data is collected)
  - Display Minimum Speed, Display Maximum Speed
  - Digit Flashing Speed Threshold (digits flash above selected speed)
  - Speed Violator Strobe (pulsing strobe flashes with digits or alone above Display Maximum Speed)



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## Data Collection and Statistical Analysis & Reporting (optional feature)

- Traffic data collected and stored by location
- Stealth Mode (capture baseline traffic data with speed display off)
- Download through wireless connection
- Statistical Reporting & Charts
  - Summary Reports
  - Weekly Reports
  - Period Comparison Reports
  - Full custom reports and charts
  - Reporting Parameters:
    - Average Vehicle Count
    - Total Vehicle Count
    - Average Speed
    - Average Number of Speed Violations
    - Total Number of Speed Violations
  - Other Features:
    - Minimum and Maximum Speed
    - 85% Speed
    - Counters by Speed Bins
    - 5 MPH Bin Resolution
    - Reports print directly or can be exported into CSV format, MS Excel, Adobe Acrobat PDF and HTML
    - Charts may be printed directly or converted into Adobe Acrobat PDF and picture formats



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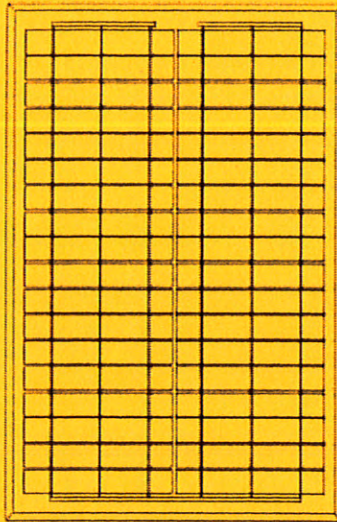
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## SafePace 450 Solar Panel specifications

### 20 WATT Panels Specifications



**Solar cells:** Crystalline solar cells

**Laminate:** Glass /EVA / TPT (tedlar/pet/tedlar) or TPE

**Front Side:** High-transmission 3.2mm tempered glass

**Back Side:** TPT /TPE

**Frame:** Clear anodized aluminum frame

**Output:** Junction box

Module Type	Pm(Wp)±5%	Vmpp(V)	Impp(A)	Voc(V)	Isc(A)	Module size(mm)	NET(kg)
20 WATT PANEL	20	17.1	1.17	21.4	1.3	520*350*18mm 20.5"*13.8"*0.7"	2.0

**Operation Temperature Range:** - 40°C~85°C

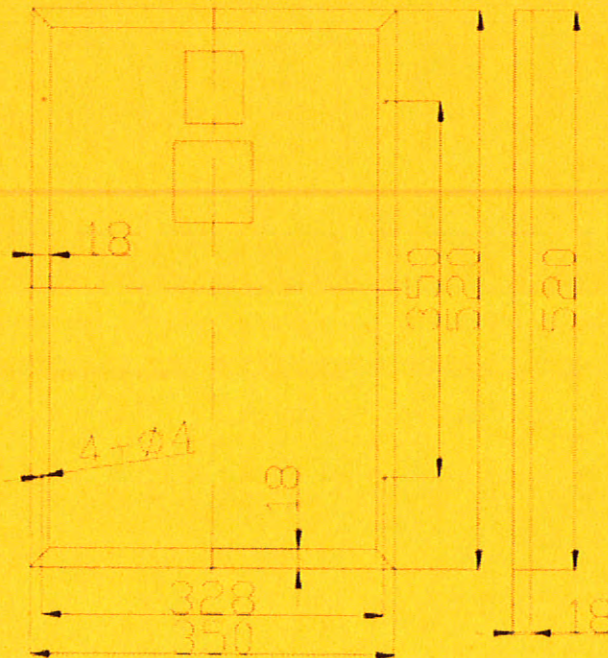
**NOCT:** 48°C±3°C

**Temperature coefficients of Im:** + 0.1 %/°C

**Temperature coefficients of Vm:** - 0.38 %/°C

**Maximum System Voltage:** DC600V

**STC:** 1000W/m<sup>2</sup>, 25°C AM1.5



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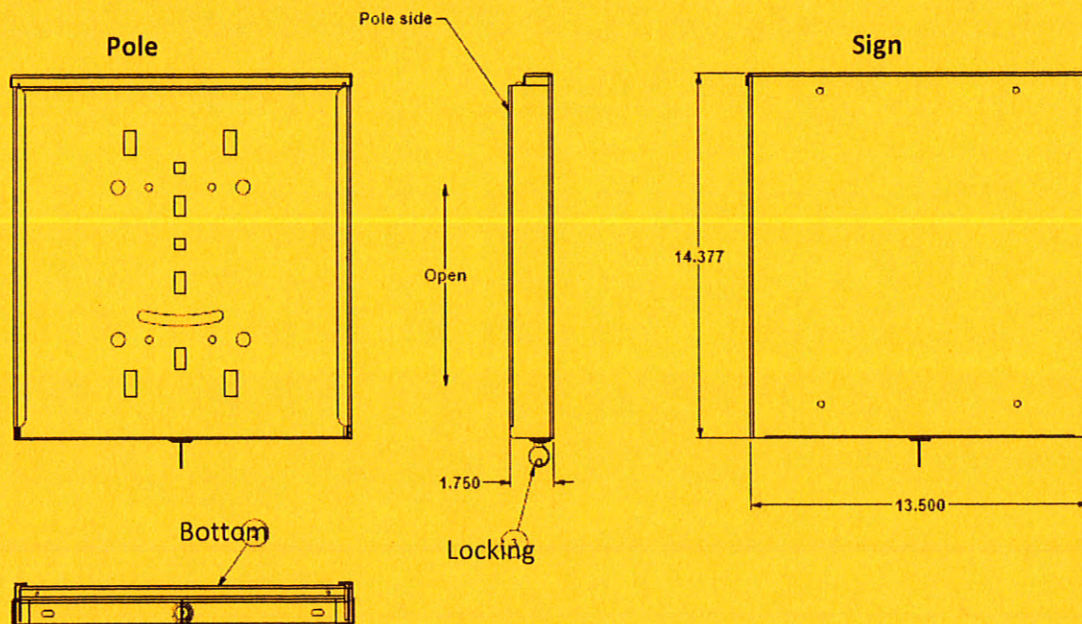


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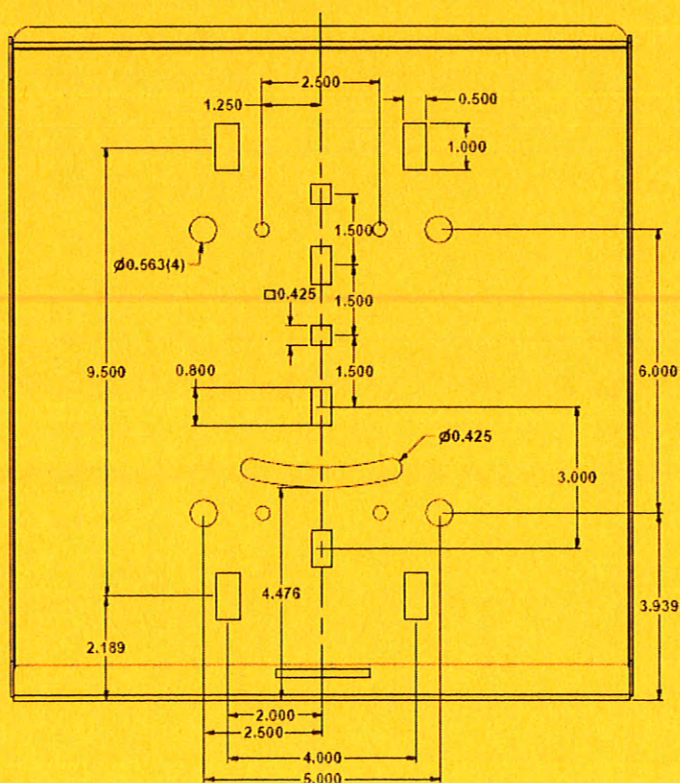
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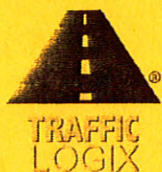
## Universal Mounting Bracket System



### Inside view



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## Warranty

Subject to the following conditions, Traffic Logix Corporation ("Traffic Logix") warrants that the SafePace® 450 Speed sign (the "Product") is free from defects in materials and workmanship. This limited warranty begins on the invoice date of your purchase of the Product and extends:

- For TWO (2) calendar years on the radar sign, and
- For ONE (1) calendar year on the batteries.

This limited warranty extends only to the original purchaser of the Product when purchased either directly through Traffic Logix® or through an authorized Traffic Logix® distributor and is not assignable or transferable to any subsequent purchaser or end-user. Traffic Logix's® obligation and liability under this warranty are expressly limited to repairing or replacing, at Traffic Logix's® option, defective products. In no circumstances shall Traffic Logix's® liability, whether in contract or tort, under any warranty, in negligence, or otherwise, exceed the amount of the purchase price of the product. Traffic Logix® shall not be liable for special, indirect, or consequential damages of any kind. This warranty does not cover damages resulting from normal wear and tear, incorrect installation or operation, use other than for the product's intended purposes, vandalism, and extraordinary environmental circumstances. Traffic Logix® reserves the right to charge for these damages to the product at rates normally charged for repairing such products not covered under this warranty. Damages resulting from any physical changes or alterations made to the product other than Traffic Logix® will render this warranty **VOID**. Using any parts or accessories not supplied or approved by Traffic Logix®, such as battery chargers, will further render the warranty **VOID**.

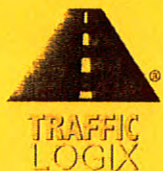
Traffic Logix® neither assumes, nor authorizes any person to assume for it, any other liability in connection with the sale of the Product, and there are no agreements or warranties collateral to or affecting this limited warranty.

**THE LIMITED WARRANTY SET FORTH IN THIS AGREEMENT IS THE EXCLUSIVE AND SOLE WARRANTY APPLICABLE TO THIS PURCHASE. ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO THE IMPLIED WARRANTY OF MERCHANTABILITY AND THE IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED.**

Traffic Logix® does not warrant that any of its products will meet or comply with the requirements of any applicable federal, state or local safety code, law, regulation or ordinance ("Applicable Safety Laws"). Buyer acknowledges that Traffic Logix's® products are to be used only in accordance with the attached Conditional Terms of Use and any Applicable Safety Laws. Buyer agrees that there shall be no coverage or benefits of any kind under this limited warranty if it is determined by Traffic Logix® that the Product was not installed or used in accordance with the Conditional Terms of Use or Applicable Safety

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Laws, or if the Product has been altered in any way by anyone other than Traffic Logix®, or if the Product has been subject to any misuse or accident. In addition, Buyer assumes and agrees to indemnify Traffic Logix® for all risk, liability or expense that results from any installation or use of the Product that is not in accordance with the Conditional Terms of Use or any Applicable Safety Laws.

#### **Warranty Replacement Procedure**

In order to submit a claim for the repair or replacement of the Product under this limited warranty, you must do the following:

- 1) Obtain a Return Materials Authorization number by contacting Customer Support. Do not ship your defective product to Traffic Logix® prior to contacting Customer Support.
- 2) A Customer Support agent will evaluate the Product to determine if it is defective. If the product is defective, then you will need to submit your contact information, and proof of purchase (including the date of purchase), in order to obtain repair or replacement parts.
- 3) The Customer Service Agent will provide you with instructions on how to have defective parts repaired or replaced.

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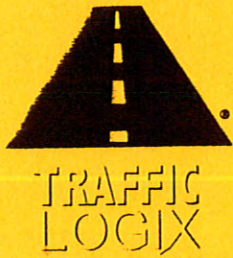
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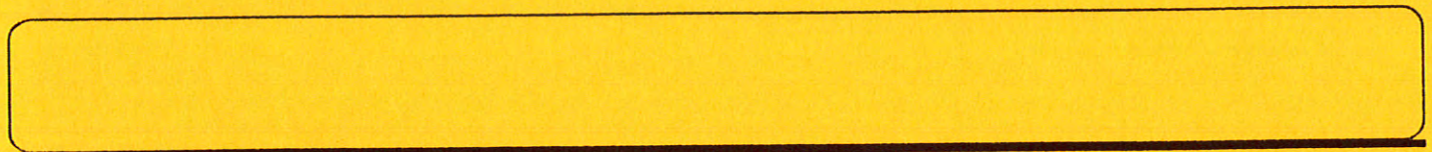
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products services datacollection

## Data Collection



The SafePace® radar sign series includes two easy-to-use software packages:

- **SafePace® 100 Management Software**  
(for use with the SafePace® 100 radar sign)
- **SafePace® Pro**  
(for use with the SafePace® 400, 500, and 600 radar signs)

Both software packages are designed with the user in mind and are easy-to-use, including a wide range of features to help you manage your signs.

### Management and Programming

When using either software package, you will be able to set sign parameters, such as:

- Speed display range
- Digit and strobe flashing threshold speeds
- Detection range
- Operation mode

Settings can either be saved to files and given to other technicians, or used to program other SafePace® signs of similar model.

The SafePace® Pro software offers some additional advanced features that allow you to:

- Program radar sign schedules
- Program school zone beacon schedules (when this option is purchased)
- Adjust digit and strobe flashing frequencies
- View real-time readings (when connected to the sign)



- View sign location(s) via an integrated mapping tool
- Customize messages, graphics, and animations to correlate to driver behaviors, road conditions, and notable events (available only with the SafePace® 600-800 signs).

## Data Collection and Reporting

### *"Traffic Statistics at Your Fingertips"*

Both software packages include an optional Data Collection feature offering extensive and highly precise traffic information. Utilizing the most accurate doppler radar technology available in the market today, traffic data is stored and collected for later analysis:

- Total and average vehicle counts
- Minimum and maximum speeds
- Average and 85<sup>th</sup> percentile speeds
- Total percentage of speed violations

Collected data can be retrieved and downloaded from the sign and viewed in hourly, daily, and weekly increments. Summary reports, weekly reports, and period comparison reports are but just a few of the reports and charts available. All reports can be printed directly or exported in a variety of formats to suit your needs. SafePace® Pro offers advanced statics and reporting which allows you to further customize reports and charts to view more granular traffic data.

## System Requirements

- Windows XP, Vista, or 7
- 1024 x 600 display
- USB Serial Cable or Bluetooth (SafePace 100)
- WiFi or Bluetooth (SafePace 400, 500, 600)
- Less than 14 MB disk space (SafePace 100)
- 15 MB disk space (SafePace 400, 500, 600)



Server ID: 000000011

Version: 0000 03.73

Region: 00000



Logo Annotations



Logo Settings

All Express Mode

Schedule Mode



Custom Messages



Advanced Settings

## Custom Messages

## Library

MAJOR DELAY



Manage Variable Messages

Add

Clear

Add

Clear

Add

Clear

Add

Clear

#1 EXIT NOW  
#2 MAJOR DELAY  
#3 ICE ON ROAD



## Annotations (optional)

MAJOR DELAY

- ☐ Include Custom Message #1
- ☐ Include Custom Message #2
- ☐ Include Custom Message #3
- ☐ Include Custom Message #4

Animation Speed: 1.0x



Load Annotations from File



Save Annotations to File



Load Settings



Load Theme

from



Save to File



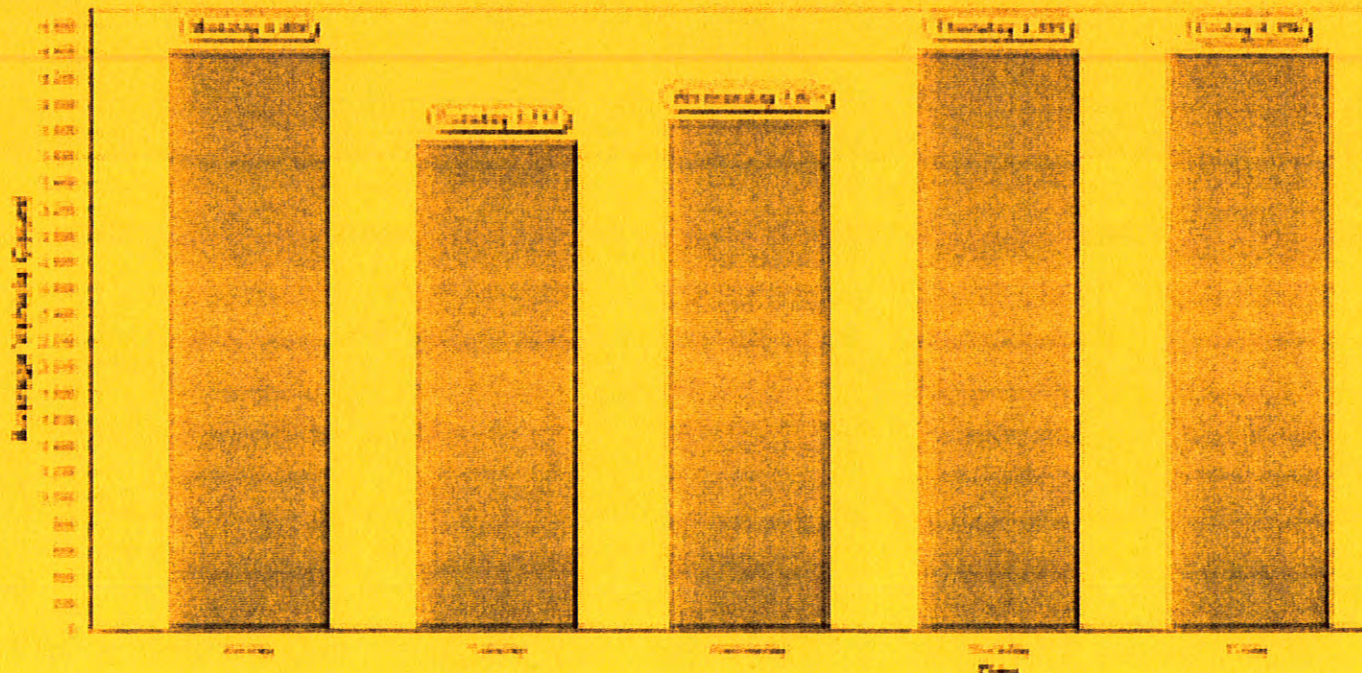
Upload to Logo



Download from Logo



Close

Average Vehicle Count  
Daily ValuesTraffic Logo Corp (3 Market Lane, Spring Valley, NY 10977)  
6/11/2011 to 6/18/2011



Customer: Orange Meadows

Phone: (516) 431-1111

Printer: Logos

Report: 4/1/2011 for 4/1/2011

2 Report: 4/1/2011 for 4/1/2011

Location: Oak Ridge

Parameters:

Average vehicle count

Report: 4/1/2011 for 4/1/2011

From: 4/1/2011 12:00:00 AM

Speed Limit: 25

To: 4/1/2011 11:59:59 PM

Print Report

Monthly Detail Report

Monthly Summary Report

Chart Monthly Violations

Chart Daily Violations

Chart 30 Minute View

Print Summary

Print Data

## Statistics Summary Report

Location: Traffic Logic Corp

Date Range:

From: 4/1/2011

Address: 31 Stewart Lane, Spring Valley, NY, 11477

Report Period:

4/1/2011 for 4/1/2011

Speed Limit: 25

Total Vehicle Count: 21,268

Hour	Total Vehicles	Average Vehicles	Total Violations	% Violations	Min. Speed	Max. Speed	Avg. Speed	80% Speed
00-01	101	13	101	99 %	13	41	17	17
01-02	95	14	95	100 %	14	41	17	17
02-03	17	8	17	97 %	8	31	10	12
03-04	36	9	36	94 %	13	34	17	17
04-05	33	9	33	78 %	8	31	10	17
05-06	98	14	94	74 %	13	31	10	17
06-07	230	17	207	70 %	13	41	10	17
07-08	878	132	787	89 %	8	41	10	17
08-09	1,124	218	1,074	95 %	8	41	17	17
09-10	1,108	219	1,009	90 %	8	41	10	17
10-11	1,492	208	1,173	78 %	13	41	10	17
11-12	1,500	218	1,271	84 %	8	41	10	17
12-13	1,664	237	1,268	75 %	8	41	10	17













**JEFFERSON COUNTY**  
**DEPARTMENT OF ADMINISTRATIVE SERVICES**  
729 MAPLE ST / PO BOX 100  
HILLSBORO MO 63050  
WWW.JEFFCOMO.ORG

**Invitation for Bid:** **RADAR SPEED DISPLAY SIGNS**

**Date Issued:** **9-2-15**

BIDS SHALL BE ACCEPTED UNTIL: TUESDAY, OCTOBER 6, 2015, AT 2:00 P.M. LOCAL TIME.

**Specification  
Contact:**

**KRISTY MOSS**  
Department of Public Works  
636-797-5569  
kmoss@jeffcomo.org

**Contract  
Contact:**

**VICKIE PRATT**  
Department of Administrative Services  
636-797-5380

**Mail (3) Three  
Complete Copies  
With Vendor And  
Bid Information As  
Shown In Sample:**

**SAMPLE ENVELOPE**

*VENDOR NAME*  
*VENDOR ADDRESS*  
*CONTACT NUMBER*      **DEPARTMENT OF THE COUNTY CLERK**  
**JEFFERSON COUNTY MISSOURI**  
**729 MAPLE ST / PO BOX 100**  
**HILLSBORO MO 63050-0100**  
*SEALED BID: (BID NAME)*

**Contract Term:**  
UPON APPROVAL OF THE  
COUNTY COUNCIL AND  
COUNTY EXECUTIVE

The undersigned certifies that he/she has the authority to bind this company in an agreement/contract to supply the commodity or service in accordance with all terms, conditions, and pricing specified. This Bid, if accepted, will constitute an Agreement and Contract with Jefferson County, Missouri, upon approval of the County Council and County Executive. Prices are firm during this agreement term, unless agreed upon in writing by the County. The County has the option to renew this agreement at the same terms and conditions as the original agreement for one additional one-year term with the written consent of the successful Bidder. Price increases for renewals are not authorized unless approved in writing by the County.

**Vendor  
Information:**

Traffic Control Corp. DBA Traffic Systems Corp	Grahm Zieba
Company Name	Authorized Agent (Print)
1728B Westpark Center	
Address	Signature
Fenton, MO 63026	Area Manager
City/State/Zip Code	Title
636-305-8200	10-5-2015 36-2059066
Telephone #	Date Tax ID #
gzieba@trafficcontrolcorp.com	636-305-8201
E-mail	Fax #



Traffic Data Collection	
Feature	Specification
Data software	License free and upgrades readily available. Software able to generate reports (for example, traffic speed compliance)for use in determining sign effectiveness.
Vehicle data logging capacity	Speed data 90 days (based on 24/ 7 operation)with circular buffer
Programmable display features	Minimum speed, speed limit, over speed, and maximum speed to display
Communications	Bluetooth class 1 connectivity min at 30 feet ( FCC certified); RS232 port App for Android
System Requirements	Operating system: Windows XP, Windows Vista, Windows 7, Windows 10
	Screen resolution: 1024 x 768 or better Communications interfaces: Bluetooth Class 1 or 2 adapters ( capabilities : V1.0, V1.2, V2.0, V2.1 + EDC) Disk Space 16.5 MB min

Proposed Manufacturer: Traffic Logix

Proposed Model: SP450 solar with Bluetooth, Data Package and Universal Mounting Bracket

Provide any specification sheets for the proposed make and model with the bid submittal.

Include or note any additional shipping or handling charges.

Additional shipping and handling charges (if any): shipping charges included

Proposed cost for one (1) full sign assembly: \$ \$4925.00

Full assembly will be sign, brackets, solar panel,,. etc necessary for the sign to be fully functional.

Proposed cost for two (2) or more full sign assemblies: \$ \$4925.00

Comments: Price break available for 5 or more units ordered at the same time.

The bid request is for the unit (s) only and not for any installation.