



## Product Specification Shield Speed Display

### Shield Speed Display

- 3 units to cover any application
  - Shield 12: 12" x 5.75" digits, 112 LED/digit
  - Shield 15: 15" x 8" digits, 140 LED/digit
  - Shield 18: 18" x 10" digits, 168 LED/digit
- 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
  - Shield 18: 30" x 20" x 2.74", 22 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 (Shield 12 & 15)
  - Shield 18: 30" x 8", fixed sign
  - 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)
- Power saving circuitry and automatic dimming for ambient light conditions
- Power Input, Max:
  - Shield 12: 12 VDC, 1.1 A, 15 W
  - Shield 15: 12 VDC, 1.5 A, 20 W
  - Shield 18: 12 VDC, 2 A, 24 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 12 & 15: 500+ ft., 5-105mph (8-168 kph)
  - o Shield 18: 1200+ ft., 5-105mph (8-168 kph)
- Conformal coating on all circuit boards
- Integral handle (Shield 12 & 15)
- Weatherproof, NEMA 4, IP65 sealed electronics compartment; Drip proof, vented battery compartment
- 1/4" tinted, non-glare, UV stabilized polycarbonate face
- Entire face removable for service
- Patent pending tamper resistant mounting hardware pocket, hardware secured behind enclosure lock (Shield 12 & 15)
- 14 ga aluminum chassis, white powder coat finish, black powder coat front for maximum contrast for digit visibility (Shield 18: 12 ga aluminum, all black)
- Protective polycarbonate corners also provide guide for YOUR SPEED sign storage (Shield 12 & 15)
- -40 to 160 F operating temperature range, 95% humidity non-condensing (-20F for Bluetooth communication)



### Shield Programming

- Configure the following parameters via wireless PDA or remotely with Web-Based Remote Management:
  - Radar modes: on always, on timer – 2 on/off periods per day, changeable Speed Limit sign
  - Speed limit for zone
  - Maximum speed displayed
  - Display on/off/specific mph activation
  - Violator strobe on/off/specific mph activation
  - Radar sensitivity (range)
  - Data logging on/off
- Configuration via 3 button panel on unit – Power, speed limit and display mode
- Sign returns to last configuration when power applied
- Speed limit sign operation
  - Change speed limit twice per day
  - Sign flashes when car passing over speed limit, blanks when car over maximum speed displayed
- Internal real time clock
- Firmware field upgradeable via wireless PDA or USB Port

### Shield Data Logging Option

- Local Management
  - 30 days of high volume data minimum
  - Summary page with counts per speed range, average and 85<sup>th</sup> percentile speed
  - Display traffic counts by speed range and time of day; speed range by day, 5 MPH resolution
  - Display traffic counts by time range and total cars per day, hourly windows
  - Analyze data on ATS website
  - Data exportable to standard .csv format for further analysis in Excel
  - 85<sup>th</sup> and user selected percentile speeds
- Download methods:
  - USB cable to PC
  - PDA using Bluetooth management (optional)
  - Web-Based Remote Data Management (optional)
- Stops data collection when memory full
- Analysis software is browser based and will work on most browsers with an internet connection



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- Web-Based Remote Management Option
  - Data Management Service
  - Automatic data upload
  - Data analysis from all data collected over time, allows comparisons of multiple locations on multiple format reports
  - Remote configuration of speed display settings
  - Tracking of equipment and status on map
  - Alerts for high speed events, congestion, tampering and low battery
  - Full extended warranty with full remote suite

### 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 and 15:
  - 10.2Ah Li-Ion Battery with built-in short circuit and reverse polarity protection circuitry and 1.5A 12.8 VDC output, 120VAC input automatic charger
  - Solar panel assist: 20W or 40W solar panel and bracket, Solar controller panel w/18Ah lead acid battery, 6A 120VAC automatic charger optional
  - 100-220VAC AC power supply (6A 12VDC) in external NEMA 4 enclosure
- Shield 18
  - 26Ah lead acid battery (1 or 2) combined with a 40W or 60W solar panel and solar controller
  - 100-220VAC AC power supply (6A 12VDC) in fully integrated external NEMA 4 enclosure
  - 6A 120VAC automatic charger optional
- All Shield Sizes
  - Trailer batteries – 100, 235 or 470 Ah, solar option

### Standard SPEEDsentry SHIELD System Components

- Shield Radar Speed Display
- USB cable
- Shield 12 and 15 additional items:
  - 10 Ah Li-Ion LFP battery with connector
  - Automatic charger with battery cable connector, 3A, 120VAC
  - Mounting plate and tamper resistant mounting hardware
  - Padded carrying case
  - Keys

### Optional SPEEDsentry SHIELD Components and Features

- Web-Based Remote Data Management Service (see separate specification)
- Fully compatible with Speed Dependent Messaging option when used with an instALERT Variable Message Sign - see Speed Dependent Messaging section for specifications
- Violator strobe, 12 white LED flash to alert violators
- Metric display
  - Shield 12: 2 digit kph display
  - Shield 15 and 18: 3 digit kph display
- 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 for a specified duration

### SPEEDsentry SHIELD Mounting Options

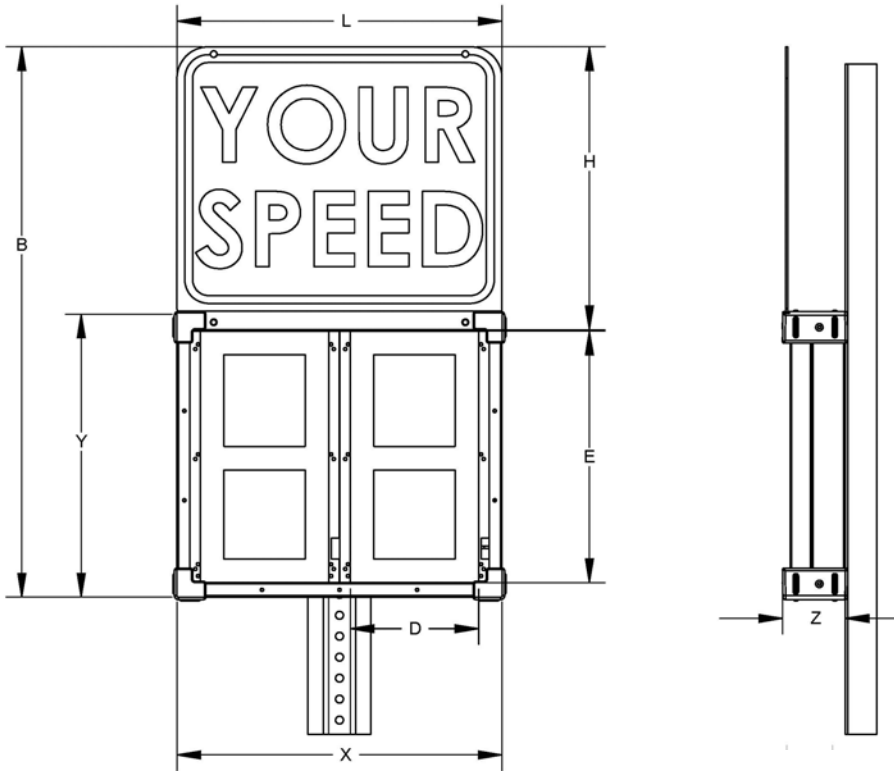
- Pole mount standard with included bracket, hardware
- ATS-5 Trailer
- Vehicle Hitch mount
  - Mounts sign 30" to bottom of sign from receiver tube (final height dependent on receiver height)
  - Fits 1 ¼" or 2" receiver, adapter included, ½" hitch pin
  - Locking rotation adjustment on 15 degree increments 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 Portable Post (Sh12 and Sh15) 45" to bottom, 73" to top depending on leg positions
- Large Portable Post 72" to bottom of sign

### Warranty

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

### Made in the United States of America

**SPEEDsentry Shield 12 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 and 15 Mounting Bracket**

