



# SHIELD 15 RADAR SPEED SIGN

## Features

- 15" x 8" digits, 140 LED/digit
- **Dimensions, weight without battery:** 17" high x 24" wide x 3.12" deep, 18 lb.
- **Universal mounting system:** attach to pole, trailer or vehicle hitch mount
- **Integral camera:** for awareness and alert driven images
  - 640 x 480-pixel daylight images (optional)
- **Radar:** K Band (24.15 GHz), FCC certified, no license required, +/- 1 mph accuracy, 11-degree square pickup area, 5-105 mph
- **Range:** 1200+ ft (12B, 15B range: 400')
- Meets Federal Department of Transportation MUTCD Specifications

## Sign Modes

- **Speed Display:** Displays approaching vehicle's speed and records traffic speed and volume data
- **Display Off:** Collect traffic speed and volume data with no display
- **Speed Limit Sign:** Scheduling feature supports changing sign mode or speed limit on daily or weekly schedules
- Collect traffic data – vehicle volume by speed and time – in all modes
- Sign returns to last configuration on restart

## Configuration

### **On-Board Programming (Standard on all signs):**

- Set speed limit
- Set display mode
- Set radar sensitivity

## ATS PC Sign Manager Local Communication

*(PC control/USB connection: Standard on all signs)*



- PC based client software
- Connect to sign via USB or Bluetooth (optional)

### **ATS Android App Local Communication (Optional):**

- Android OS wireless Bluetooth control local to sign
- Android device can be smartphone or tablet with Bluetooth

### **Local Communication Features:**

- Create and change modes and settings
- Local data retrieval and management
- Local image retrieval and management from internal camera
- Manage all sign settings, automatic sync with TraffiCloud (optional) when power applied
- All traffic data can be saved for online management and backup
  - Retrieve data and save to TraffiCloud, generate limited reports online from hosted data

## TraffiCloud® Cloud-based Portal

- Integrated cell modem for remote management
- Turnkey system. Remote sign connection functional



Optional white compact 'YOUR SPEED' sign and optional violator alert



Optional full-size 'YOUR SPEED' sign wraps

upon ship. Sign connects to the TraffiCloud portal when sign powered

- Fully hosted cloud-based portal
  - Provides access anywhere any Internet-connected computer or smartphone
  - No IT involvement or support necessary. The system bypasses customer network, eliminating access issues
  - Cellular service provided by All Traffic Solutions, no separate cellular charges
  - Hosted database requires no customer setup

## TraffiCloud Features

All features included in TraffiCloud:

- **Remote Equipment Management:** Change messages and settings remotely, monitor sign online
- **Ready-made Reports:** Online data retrieval and management, analysis and enhanced report generation
- **Real-time Alerts:** Notifications via email or text for low battery and tampering, high speed and congestion, alerts can include images
- **Mapping:** Visually manage equipment and data
- **Premier Care Warranty:** Ongoing hardware defect repairs and remote diagnostics

## Speed Programming

- Configure the following parameters via TraffiCloud (subscription required), ATS PC Sign Manager, or ATS Android app:
  - Speed limit
  - Maximum speed displayed
  - Display activated by vehicles as they pass
  - Violator alert display (strobe, flashing) triggered at your defined threshold speed
  - Radar sensitivity (range)
  - Speed limit sign operation
  - Change speed limit up to six (6) times per day
  - Sign flashes when car passing over speed limit, blinks when car over maximum speed displayed
- Set time via PC or sync with cell signal
- Sign firmware upgradeable remotely or in the field

## Scheduling

- **All Days:** Schedule up to six different modes for up to 13 different time periods in a 24-hour day, repeats in each 24-hour cycle
- **Seven Days:** Schedule up to six different modes for up to 13 different time periods in a 24-hour day for each of seven days, repeats in each seven day cycle
- All messages and scheduling reside on the sign – no

- external hardware necessary
- Schedules can be saved for loading on multiple signs
- Program schedule via TrafficCloud, ATS PC Sign Manager or ATS Android app
- Camera activation available in schedule options
- Internal real-time clock, time and schedule maintained with power disconnected

## Data Logging Option

- Traffic data reporting using TrafficCloud (optional)
- Collect data with TrafficCloud automatically or local collection with ATS PC Sign Manager or ATS Android app with data saved to TrafficCloud
- Reports include tables and charts to address all constituents with the most applicable data presentation
- All reports exportable to Excel, CSV and PDF
- Automatic Data Collection - TrafficCloud
  - Data retrieval every three hours- near real-time reporting, memory never full
  - All data in one database, available for analysis, including compliance comparisons, by location

## 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-bin breakdowns over selected date range with 5-mph resolution
- Vehicle counts by time range per day by hour
- Vehicle counts by speed range and time of day
- **TrafficCloud Reporting:**
  - Compliance by speed range with four ranges
  - Enforcement report showing highest speed and volume violators over selected locations where data collected
- **Local Data Collection:** ATS PC Sign Manager or Android app
  - All data collected hosted in online TrafficCloud for access anywhere
  - Download traffic data from sign with USB or Bluetooth connection

- 30 days of high-volume data minimum, data collection overwrites oldest data when memory reaches capacity

## Construction

- Compact 'YOUR SPEED' sign
  - **Dimensions:** 8" high x 24" wide
  - High-intensity yellow prismatic reflective background
  - Sign stores for compact storage and protects sign face, thumbscrews and tamper-proof hardware included
  - Meets MUTCD standard 'D' font and yellow color
  - Optional white color available
- **LED Pixels:** Amber 595 N.m, 30-degree viewing angle, 100,000 hours, black background, (MUTCD compliant)
- 1/4" tinted, non-glare, UV stabilized polycarbonate face
- Entire face removable for service
- Aluminium chassis, 14 ga., 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
- Conformal coating on all circuit boards
- Integral handle
- Tamper-resistant mounting hardware pocket, hardware secured behind enclosure lock
- **Weather Resistance:**
  - Weatherproof, sealed electronics compartment
  - Drip-proof, two vented battery compartments
  - -40 to 160F operating temperature range, 95% humidity non-condensing (-20F for Bluetooth communication, 5F for internal camera)

## Shield Power

- **Power Input, Max:** 12VDC, 1.5A, 20W
- Power saving circuitry and automatic dimming for ambient light conditions, with adjustable dimming range and manual display brightness override
- 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.

- Capacity for two batteries in unit for extended portable use
  - 10.2Ah Lithium LFP battery with built-in short circuit and reverse polarity protection circuitry, 1.5A 12.8VDC output, 120VAC input automatic charger; capacity for up to two batteries in unit for extended portable use
  - **External Solar System:** 50W or 90W solar panel and bracket, solar controller panel w/18Ah or 26Ah lead acid battery, 6A 120VAC automatic charger optional
  - **Integrated Solar System:** SH12 50W or 90W solar panel and bracket, solar controller panel with 11.5Ah Lithium battery
  - SH15 50W or 90W solar panel and bracket, solar controller panel with 16 .5AH lithium battery and option for additional 11.5AH lithium battery
  - 100-220VAC power supply (6A 12VDC) in external enclosure
- **Shield 15 Only:**
  - 16Ah Li-Ion LFP battery, for longer unattended portable use, capacity for up to two batteries in unit for extended portable use
- **Shield 15 on Trailer:**
  - 90W solar panel with integrated solar sign

Trailer batteries – 100 or 235Ah, solar option.  
Auto recovery with solar for low battery

## Standard System Components

- Shield Radar Speed Sign
- Tamper-resistant mounting plate and hardware
- Key
- ATS PC Sign Manger software with USB cable

## Optional Components and Features

- Full-size 'YOUR SPEED' sign wrap
  - **Dimensions:** 36" high x 30" wide
  - Available in white and yellow
  - Meets MUTCD standard 'D' font

- TraffiCloud cloud-based portal
- Padded carrying case
- Extra mounting brackets
- Violator Alert, LED flash to alert violators
  - Available in white, blue, or red
- Metric display: 3-digit KPM display
- **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 one to ten seconds per radar event

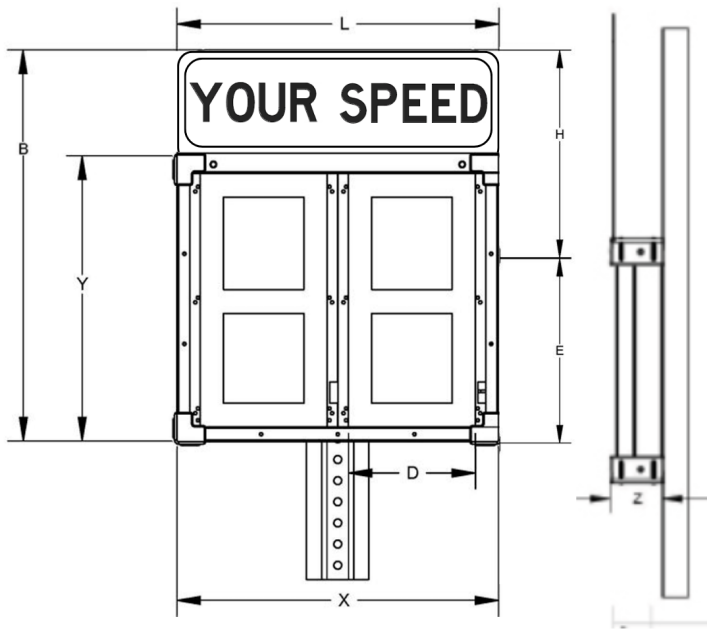
## Shield Mounting Options

- Pole mount standard with included bracket, hardware
  - NCHRP 350 approved on 4" aluminium pole (SS-135)
- **Vehicle Hitch Mount**
  - Mounts 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 Folding Portable Post:**
  - Folds for easy storage and portability
  - 60" to bottom, 77" to top, add 13" for upper leg position

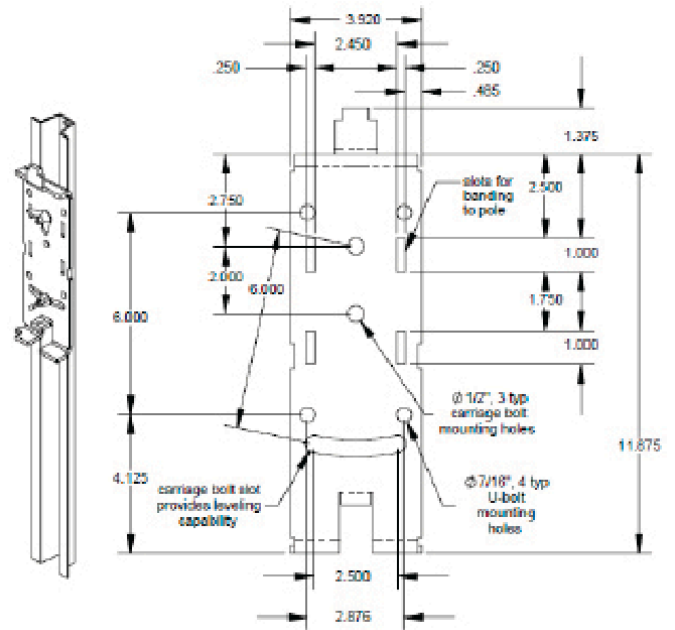
## Premier Care Warranty

- One year warranty (three months on batteries)

### Shield 15 Dimensions



### Shield 15 Mounting Bracket and Mounting Holes



Dim	X	Y	Z	B	D	E	L	H
Sh15	17	24	3.12	24.3	8	15	17	8

For more information visit us online at [AllTrafficSolutions.com](http://AllTrafficSolutions.com)

[sales@alltrafficsolutions.com](mailto:sales@alltrafficsolutions.com) Call us at 866.366.6602

All Traffic Solutions. 14201 Sullyfield Circle, Suite 300, Chantilly, VA 20151

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