

SHIELD RADAR SPEED DISPLAY



Shield Speed Display

- Two units to cover any application
 - **Shield 12:** 30.5 x 15.2 cm digits, 112 LED/digit
 - **Shield 15:** 38.1 x 20.3 cm digits, 140 LED/digit
 - **SpeedAlert 18:** (See SpeedAlert 18 Specification)
- Size, weight without battery
 - **Shield 12:** 39.4 x 34.4 x 7.92 cm, 5.4 kg
 - **Shield 15:** 61 x 43.2 x 7.92 cm, 8.2 kg
- **Universal Mounting System:** attach to pole, trailer or vehicle hitch mount
- Integral camera for awareness and alert driven images
 - 640 x 480 daylight images (optional in Sh12B, Sh15B)
- **Radar:** K Band (24.15 GHz), FCC Certified, no license required, +/-2 kph accuracy, 0.2 rad square pickup area, 8-150 KPH, range: 365+ m (12B, 15B range: 400')
- Meets MUTCD Specifications

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
- Changeable speed limit sign
- **Dependent Message:** Send speed data to an InstAlert variable message sign to display messages tailored to vehicle's speed
- **Schedule:** Change mode or speed limit up to 13 times/day

- Collect traffic data – vehicle volume by speed and time – in all modes
- Sign returns to last configuration when power applied

Shield Programming Methods

On-Board Programming (standard on all units)

- Set speed limit
- Set display mode

All Traffic Solutions PC Sign Manager Local Communication

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

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

All Traffic Solutions Android App Local Communication (Optional):

- Android OS wireless Bluetooth control local to unit
- Android device can be phone or WiFi device 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 unit settings, automatic sync with TrafficCloud when power applied
- Based Management (optional)
- All traffic data can be saved for online management and backup
 - Retrieve data and save to TrafficCloud, generate limited reports online from hosted data

TraffiCloud™ Web-based Management Services using integral cell modem for remote management

(See TraffiCloud specification for more information)

- Turnkey system. Remote sign connection functional upon ship. Unit connects to TraffiCloud system when sign powered
- Fully hosted web-based management system
 - Internet-connected computer with browser provides anywhere access on all browser capable, connected devices
 - No IT involvement or support necessary. System bypasses customer network eliminating access issues
 - Cellular provided by All Traffic Solutions, no separate cellular charges
 - Hosted database requires no setup or maintenance by customer

App

All apps included in Traffic Suite:

- **Equipment Management:** Change messages and settings remotely, monitor sign online
- **Reporting:** Online data retrieval and management, analysis and enhanced report generation
- **Image Management:** Online image retrieval and management of images from internal camera
- **Alerts:** Notifications for low battery and tampering, high speed and congestion, alerts can include images
- **Mapping:** Visually manage equipment and data
- **PremierCare:** Enhanced warranty and real-time monitoring

Shield Speed Programming

- Configure the following parameters via All Traffic Solutions PC Sign Manager, Android App or TraffiCloud Web-Based Management Service (optional):

- Speed limit
- Maximum speed displayed
- Display on/off/specific mph activation
- Violator Alert 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
- Set time via PC or sync with cell signal
- Sign firmware field and remotely upgradeable

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 TraffiCloud, All Traffic Solutions PC Sign Manager or Android App
- Camera activation available in schedule options
- Internal real time clock, time and schedule maintained with power disconnected

Shield Data Logging Option

- Traffic data reporting using TraffiCloud Online Reporting App
- Collect data with TraffiCloud automatic service or local collection with All Traffic Solutions PC Sign Manager or Android App with data saved to the TraffiCloud
- 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 - TraffiCloud

COMPATIBLE WITH THESE ALL TRAFFIC SOLUTIONS PRODUCTS

Engineered and Manufactured in the United States of America



- o Data retrieval at least eight times per day
 - near real time reporting, memory never full
- o All data in one database, available for analysis including compliance comparisons by location
- o Access reports from interactive map view by location

Reports

- o Summary page with average and 85th percentile speed, average daily volume, 16-kph pace speed, high and low speed, display mode
- o Traffic counts by speed range, full day and time of day over selected date range with 8-kph resolution
- o Vehicle counts by time range per day by hour
- o Vehicle counts by speed range and time of day
- o Compliance by speed range with three ranges
- o Enforcement report showing highest speed and volume violators over selected locations where data was collected
- **Local Data Collection:** All Traffic Solutions PC Sign Manager or Android App
 - o All data collected hosted in online TrafficCloud database for anywhere access
 - o Download traffic data from sign with USB or Bluetooth connection

- o 30 days of high volume data minimum, data collection rolls over when memory reaches capacity

Construction

- “YOUR SPEED” sign
 - o High intensity prismatic reflective background
 - o **Shield 12:** 39.4 x 34.3 cm
 - o **Shield 15:** 61 x 20.3 cm
 - o Sign stores for compact storage and protects sign face, thumbscrews and tamper proof hardware included
 - o 8.9 cm high MUTCD ‘C’ letters
- **LED Pixels:** Amber 595nm, 0.52 rad viewing angle, 100,000 hours, black background, (MUTCD compliant)
- Conformal coating on all circuit boards
- Integral handle
- Weatherproof, NEMA 4, IP65 sealed electronics compartment;
- Drip proof, vented battery compartments (2)
- 0.64 cm tinted, non-glare, UV stabilized polycarbonate face
- Entire face removable for service
- Tamper resistant mounting hardware pocket, hardware secured behind enclosure lock

- 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
- -40°C to 71°C operating temperature range, 95% humidity non-condensing (-29°C for Bluetooth communication, -15 °C for internal camera)

Shield Power

- **Power Input, Max:**
 - **Shield 12:** 12 VDC, 1.1 A, 15 W
 - **Shield 15:** 12 VDC, 1.5 A, 20 W
 - 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
- **Shield 12 and 15:** 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 12.8 VDC output, 120VAC input automatic charger; Capacity for up to two batteries in unit for extended portable use
 - Solar panel assist: 40W or 60W 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, for longer unattended portable use, Capacity for up to two batteries in unit for extended portable use
 - **Shield 15 on Trailer**
 - Trailer batteries – 100 or 235 Ah, solar option
 - Auto recovery with solar for low battery

Standard Shield System Components

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

Optional Shield Components & Features

- TraffiCloud Web-Based Remote Management System
- Padded carrying case
- Extra mounting brackets
- Violator Alert, 12 white LED flash to alert violators
- Metric display
 - **Shield 12:** 2-digit KPM display
 - **Shield 15:** 3-digit KPM display
- Fully compatible with Speed Dependent Messaging option when used with an InstAlert Variable Message Sign - see Speed Dependent Message System section
- **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
- Bullet resistant face
- **Tamper alarm:** ATS-5 trailer

Shield Mounting Options

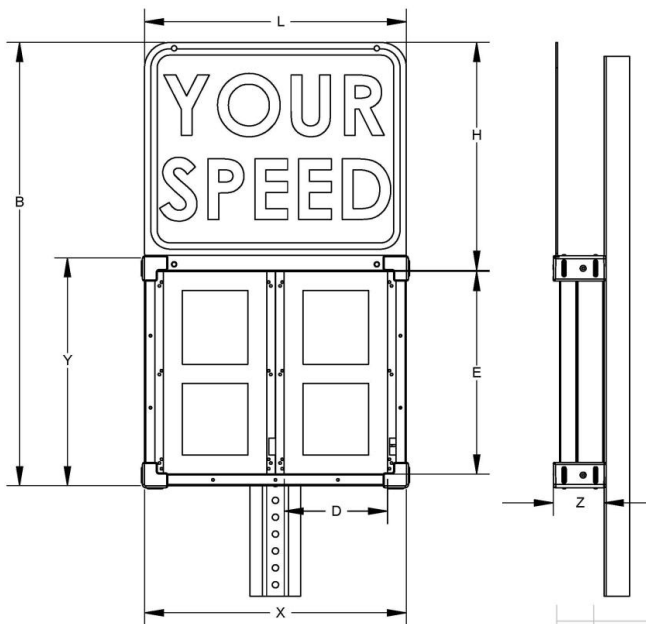
- Pole mount standard with included bracket, hardware
 - NCHRP 350 approved on 10.2 cm aluminium pole (SS-135)
- ATS-5 Trailer (*Shield 15 only, refer to ATS-5 specifications for more info*)
- **Vehicle Hitch Mount**
 - Mounts sign 76.2 cm to bottom of sign from receiver tube (final height dependent on receiver height)
 - Fits 3.2 cm or 5.1 cm receiver, adapter included, 1.3 hitch pin

- Locking rotation adjustment on 0.26 rad increments over 3.14 rad, +/- 0.1 rad tilt
 - White powder coat finish
 - 24 x 30 speed limit sign and digits included for 8-105 kph speed limit signs
- **Standard Folding Portable Post: (Sh12 and Sh15)**
 - Folds for easy storage and portability
 - **Shield 12:** 152.4 cm to bottom, 185.4 cm to top, add 33 cm for upper leg position
 - **Shield 15:** 252.4 cm to bottom, 195.6 cm to top, add 33 cm for upper leg position

Warranty Options

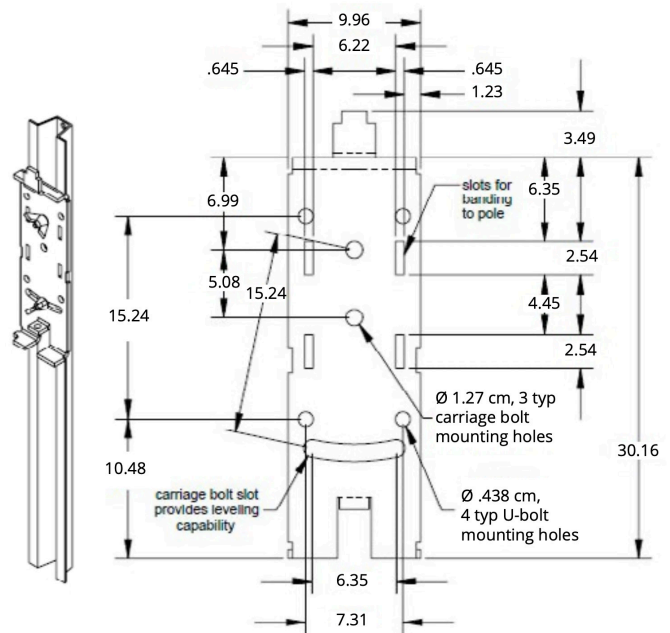
- **Premier Care Perpetual Warranty**
Available with current TraffiCloud subscription. Ask your All Traffic Solutions sales representative for details.
- **All Traffic Solutions 3-year Manufacturer's Warranty**
comes standard on all Shield radar speed displays purchased after January 1, 2019.

SHIELD 12 AND 15 DIMENSIONS



Dim	X	Y	Z	B	D	E	L	H
Sh12	39.4	34.3	7.95	66.8	14.6	30.5	39.4	34.3
Sh15	61	43	7.9	61.8	20.3	38.1	61	20.3

SHIELD 12 AND 15 MOUNTING BRACKET



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REQUEST A QUOTE NOW