



SHIELD 12 RADAR SPEED SIGN

Features

- 12" x 6" digits, 112 LED/digit
- **Dimensions, weight without battery:** 13.5" high x 15.5" wide x 3.12" deep, 12 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 in Sh12B)
- **Radar:** K Band (24.15 GHz), FCC certified, no license required, +/-1 mph accuracy, 12-degree cone 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 when power applied

Configuration

On-Board Programming (Standard on all units):

- 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 TrafficCloud (optional) when power applied
- All traffic data can be saved for online management and backup
 - Retrieve data and save to TrafficCloud, generate limited reports online from hosted data

TrafficCloud® Cloud-based Portal

- Integrated cell modem for remote management

- Turnkey system. Remote sign connection functional upon ship. Sign connects to the TrafficCloud portal when sign powered
- Fully hosted cloud-based portal
 - Provides access anywhere on 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

TrafficCloud Features

All features included in TrafficCloud:

- **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 TrafficCloud (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 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



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

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:** 13.5" high x 15.5" 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)
- ¼" tinted, non-glare, UV stabilized polycarbonate face
- Entire face removable for service



Optional full-size 'YOUR SPEED' sign wraps

- 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, 1.1A, 15W
- Power saving circuitry and automatic dimming for ambient light conditions with adjustable dimming range and manual display brightness override
- All Shield signs can be powered interchangeably with any of the following power options; sign can be outfitted to be powered by multiple sources selected in the field
- Capacity for two batteries in sign 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 sign for extended portable use

- **External Solar System:** 50W or 90W solar panel and bracket, solar controller panel with 18Ah or 26Ah lead acid battery, 6A 120VAC automatic charger optional
- **Integrated Solar System:** 50W or 90W solar panel and bracket, solar controller panel with 11.5Ah Lithium battery
- 100-220VAC power supply (6A 12VDC) in external enclosure

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:** 30" high x 24" 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: 2-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)

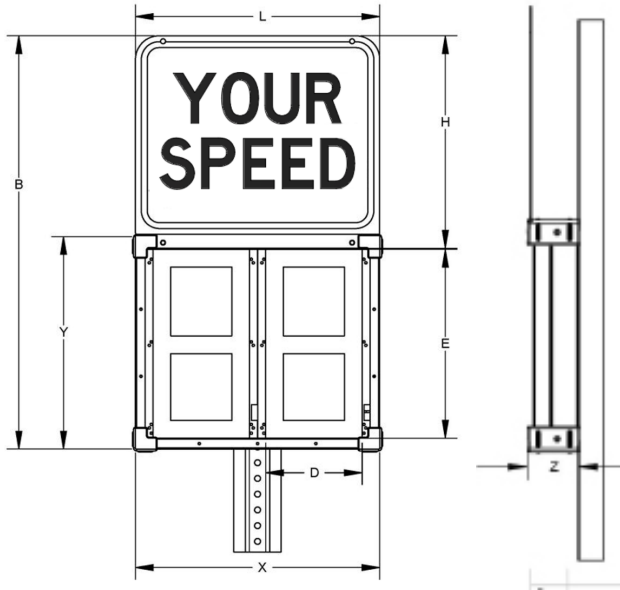
• Vehicle Hitch Mount:

- 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
- Speed Limit sign with interchangeable digits for 5-65 mph
- **Standard Folding Portable Post:**
 - Folds for easy storage and portability
 - 60" to bottom, 73" to top, add 13" for upper leg position

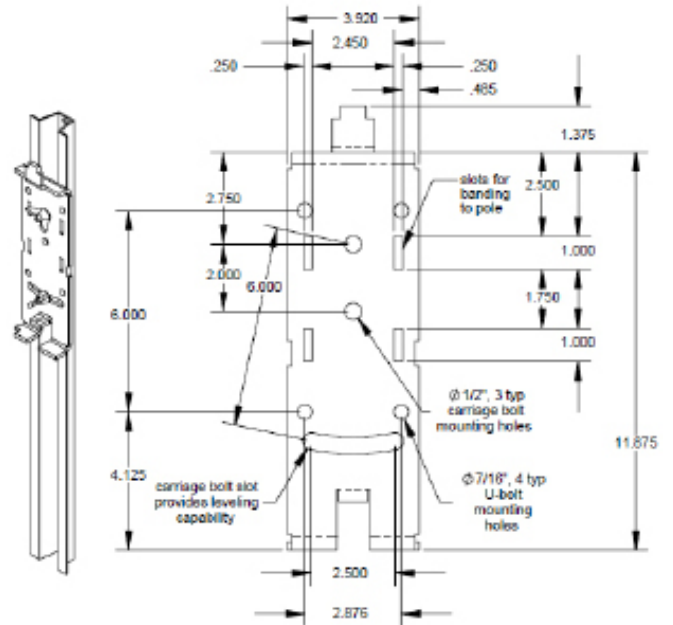
Premier Care Warranty

- One year warranty (three months on batteries)

Shield 12 Dimensions



Shield 12 Mounting Bracket



Dim	X	Y	Z	B	D	E	L	H
Sh12	13.5	15.5	3.13	26.3	5.75	12	13.5	15.5

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