SHIELD 12 RADAR SPEED SIGN

ALL TRAFFIC
S O L U T I O N S

Speed Display

- 12"x6" digits, 112 LED/digit
- Size, weight without battery: 15.5"x13.5"x3.12", 12 lbs
- Universal mounting system: attach to pole, trailer or vehicle hitch mount
- Integral camera for awareness and alert-driven images
  - ₒ 640 480-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 (8-150 KPH)
- 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

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

TraffiCloud® Web-based Management Services

- Integrated cell modem for remote management
- Turnkey system. Remote sign connection functional upon ship. Sign connects to the TraffiCloud system when sign powered
- Fully hosted web-based management system
  - ₒ Provides anywhere access on all your mobile devices with internet access
  - ₒ No IT involvement or support necessary. The system bypasses customer network, eliminating access issues
  - ₒ Cellular service provided by All Traffic Solutions, no separate cellular charges
  - ₒ Hosted database requires no customer setup

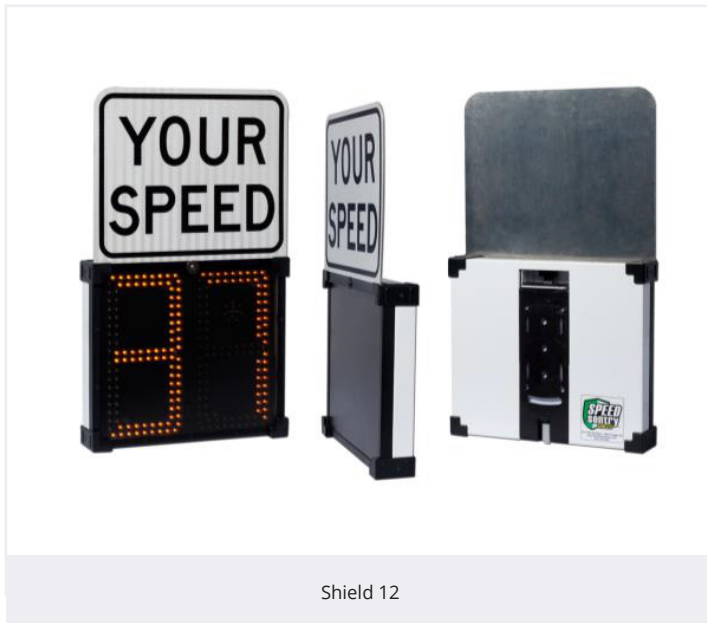## ATS PC Sign Manager Local Communication

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

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

ATS Android App Local Communication (Optional):

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

Engineered and manufactured in the United States of America

Shield 12

Shield 12 with yellow YOUR SPEED wrap

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 web-based management (optional)
- All traffic data can be saved for online management and backup
  - Retrieve data and save to TraffiCloud, generate limited reports online from hosted data

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

Speed Programming

- Configure the following parameters via TraffiCloud web-based remote management (subscription required), ATS Android App, or ATS PC Sign Manager:
  - Speed limit
  - Maximum speed displayed
  - Display on, off, or 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, blanks 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 TraffiCloud, 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 TraffiCloud
- Collect data with TraffiCloud automatically or local collection with ATS PC Sign Manager or ATS Android App with data saved to 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
  - o Data retrieval every three hours– near real time reporting, memory never full
  - o 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 of day 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
- Compliance by speed range with three 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
  - o All data collected hosted in online TraffiCloud 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:** 15.5"x13.5"
  - o Sign stores for compact storage and protects sign face, thumbscrews and tamper proof hardware included
  - o 3.5" high MUTCD 'C' letters
- **LED Pixels:** Amber 595nm, 30-degree 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)
- ¼" 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
- Minus 40 to 160F operating temperature range, 95% humidity non-condensing (-20F for Bluetooth communication, 5F for internal camera)

Power

- **Power Input, Max:**
  - o **Shield 12:** 12VDC, 1.1 A, 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

- **Shield 12:** Capacity for two (2) batteries in sign for extended portable use
  - o 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 (2) batteries in sign for extended portable use
  - o 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
  - o Integrated Solar System: 50W or 90W solar panel and bracket, Solar controller panel w/11.5Ah Lithium battery
  - o 100-220V AC power supply (6A 12VDC) in external NEMA 4 enclosure

Standard System Components

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

Optional Components and Features

- TraffiCloud Web-Based Remote Management System
- Padded carrying case
- Extra mounting brackets
- Violator Alert, 12 white LED flash to alert violators
- Metric display
  - o **Shield 12:** 2-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:**
  - o 7A, 30VDC or 7A 120VAC max, 100mA 5VDC min, no power supplied, simply a contact closure
  - o Trigger relay at specified speed with configurable duration from one to ten seconds per radar event
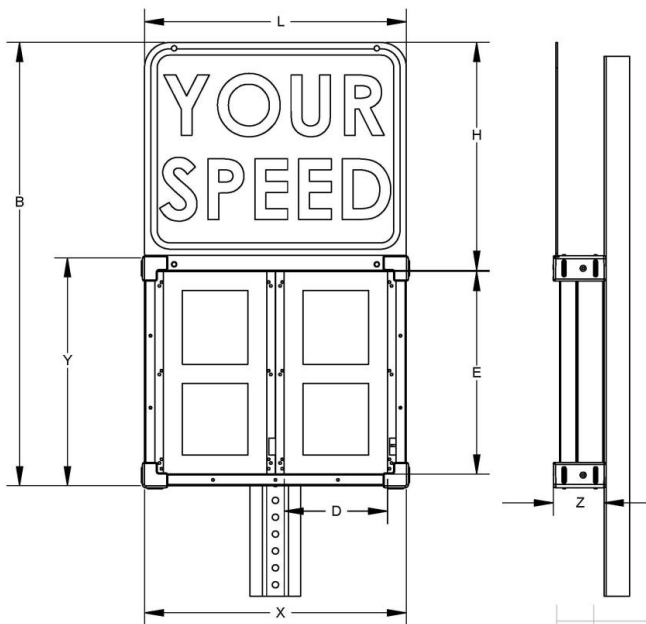- Bullet resistant face
- **Tamper Alarm:** ATS 5 trailer

Mounting Options

- Pole mount standard with included bracket, hardware
  - o NCHRP 350 approved on 4" aluminium pole (SS-135)
- **Vehicle Hitch Mount:**
  - o Mounts 30" to bottom of sign from receiver tube (final height dependent on receiver height)
  - o Fits 1 ¼" or 2" receiver, adapter included, ½" hitch pin
- Locking rotation adjustment on 15-degree increments over 180 degrees, +/- 5 degrees tilt
  - o White powder coat finish
  - o 24 x 30 speed limit sign and digits included for 5-65 mph speed limit signs
- **Standard Folding Portable Post:**
  - o Folds for easy storage and portability
  - o **Shield 12:** 60" to bottom, 73" to top, add 13" for upper leg position
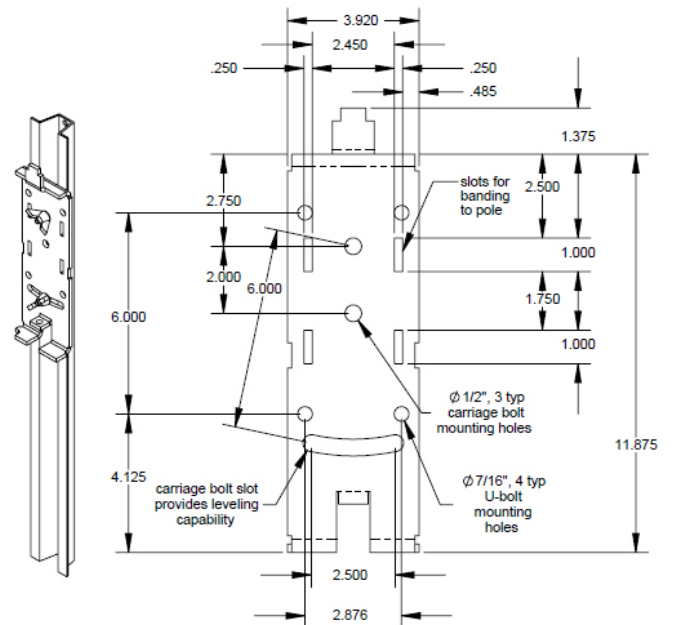
PremierCare Warranty

- 1-year warranty (three months on Li-Ion batteries)
- Available with TraffiCloud subscription
  - o Warranty service fully covered
  - o Product software upgrades free
  - o Vandalism and accidental damage (non- warranty) at 50% off list price

Shield 12 Dimensions

Shield 12 Mounting Bracket

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

For more information visit us online

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