

# SHIELD RADAR SPEED DISPLAY



## Shield Speed Display

- Two units to cover any application
  - **Shield 12:** 12" x 6" digits, 112 LED/digit
  - **Shield 15:** 15" x 8" digits, 140 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
- **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, n license required, +-1 mph accuracy, 11 degree square pickup area, 5-105 mph (8-150 KPH), range: 1200+ ft. (12B, 15B range: 400')
- Meets MUTCD Specification

## 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

## 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 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
- 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 syst 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 ATS, no separate cellular charges
  - Hosted database requires no setup or maintenance by customer

## App

All apps included in Traffic Suit

- **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 ATS PC Sig Manager, ATS Android App or TraffiCloud We Based Management Service (optional):
  - Speed limit

- Maximum speed displayed
- Display on/off/specific mph activati
- Violator Alert on/off/specific mph activati
- 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 upgradeab

## Scheduling

- **All Days:** Schedule up to six different modes for u to 13 different time periods in a 24 hour day repeats in each 24 hour cycle
- **Seven Days:** Schedule up to six different modes fo up to 13 different time periods in a 24 hour day fo 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 Si Manager or ATS 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 On Reporting App
- Collect data with TraffiCloud automatic service local collection with ATS PC Sign Manager or ATS Android App with data saved to the TraffiClo
- 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 - TraffiClo
  - Data retrieval at least eight times per day – near real time reporting, memory never full

## COMPATIBLE WITH THESE ATS PRODUCTS

Engineered and Manufactured in the United States of America



- 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, 10-mph pace speed, high and low speed, display mode
- o Traffic counts by speed range, full day and time day over selected date range with 5-mph 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 collected
- **Local Data Collection:** ATS PC Sign Manager or Android App
  - o All data collected hosted in online TrafficClo database for anywhere access
  - o Download traffic data from sign with USB o 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” x 13.5”
  - o **Shield 15:** 24” x 8”
  - 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)
- 1/4” 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 to 160 F operating temperature range, 95% humidity non-condensing (-20F for Bluetooth communication, 5F 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

- TrafficCloud Web-Based Remote Management System
- Padded carrying case
- Extra mounting brackets
- Violator Alert, 12 white LED flash to alert violator
- 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

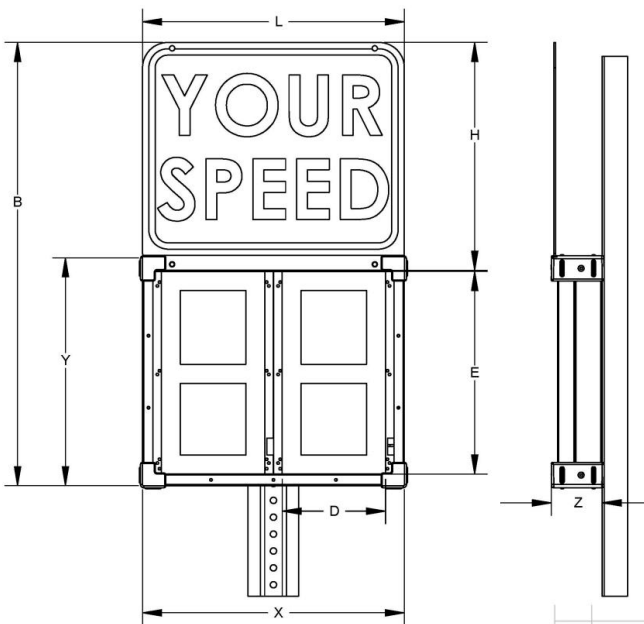
- Pole mount standard with included bracket, hardware
  - NCHRP 350 approved on 4" aluminium pole (SS-135)
- ATS-5 Trailer (*Shield 15 only, refer to ATS-5 specifications for more info*)
- **Vehicle Hitch Mount**
  - Mounts sign 30" to bottom of sign from receiver tube (final height dependent on receiver 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 Folding Portable Post: (Sh12 and Sh15)**
  - Folds for easy storage and portability
  - **Shield 12:** 60" to bottom, 73" to top, add 13" for upper leg position
  - **Shield 15:** 60" to bottom, 77" to top, add 13" for upper leg position

### PremierCare Warranty

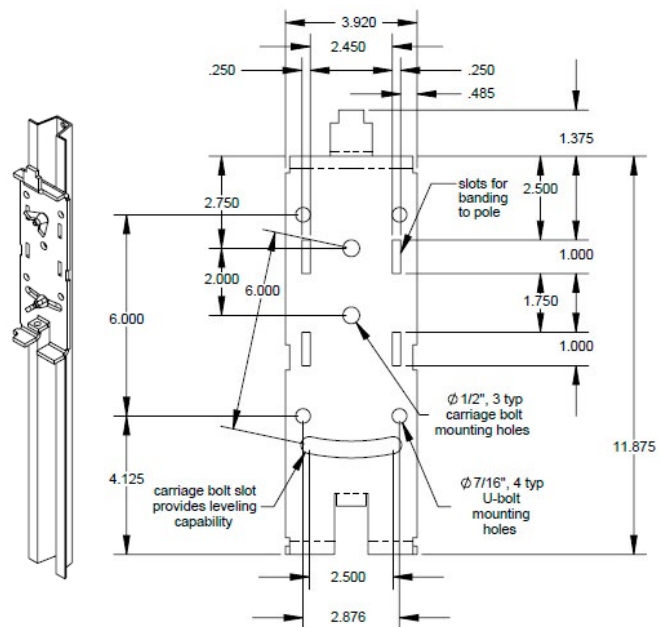
- 1-year warranty (three months on Li-Ion batteries)
- Available with TrafficCloud subscription
  - Warranty service fully covered
  - Product software upgrades free
  - Vandalism and accidental damage (non-warranty) at 50% off list price

### SHIELD 12 AND 15 DIMENSIONS



| 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 |
| Sh15 | 24   | 17   | 3.12 | 24.3 | 8    | 15 | 24   | 8    |

### SHIELD 12 AND 15 MOUNTING BRACKET



**ALL TRAFFIC SOLUTIONS**



**REQUEST A QUOTE NOW**