



PRODUCT SPECIFICATIONS:

SPEEDALERT 18 RADAR MESSAGING SIGN

SpeedAlert Radar Message Sign

- **SpeedAlert 18 (SA18):** 45.7 x 71.1 cm full matrix (*SpeedAlert 24 (SA24)* 61 x 152.4 cm full matrix also available – see separate *SpeedAlert 24 Spec Sheet*)
- Size and weight without battery
 - o 76.2 x 50.8 x 7 cm (without Your Speed sign), 13.2 kg
- Full matrix display
- **Universal mounting system:** Attach to pole, trailer or vehicle hitch mount
- Integral camera for awareness and alert triggered images: 640 x 480 pixel daylight images
- Internal K band radar with adjustable sensitivity
- Meets MUTCD Specifications

SpeedAlert Operation Modes

- **Message Mode:** Display one message, up to 6 screens
- **All Messages:** Sequence all messages in sign memory
- **Speed Display:** Display approaching vehicle's speed
- **Dependent Message:** Display targeted messages based upon vehicle's speed, up to six screens per message
- Changeable speed limit sign
- **Stealth or Display Off:** Collect traffic speed and volume data with no LED display, 'YOUR SPEED' sign easily removed
- **Schedule:** Change message and/or mode up to 13 times/day
- Collect vehicle volume by speed and time data in all modes
- Sign returns to last mode and configuration when power applied

SpeedAlert Programming Methods

On-Board Programming (standard on all units)

- Select operation mode
- Set Speed Limit
- Select message from sign's memory

TraffiCloud™ Web-based Remote Management Services:

Remote Management using integral cell modem
(See *TraffiCloud specification for more information*):

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

Apps – All apps included in Traffic Suite:

- **Equipment Management:** Online sign management - Change messages and settings remotely
- **Reporting:** Online data retrieval, management and analysis, Enhanced report generation
- **Image Management:** Online image retrieval and management of images from sign's internal camera
- **Alerts:** Notifications for low battery and tampering, high speed and congestion; Alerts can include images
- **Mapping:** Visually manage equipment and data
 - o PremierCare perpetual warranty

ATS PC Sign Manager

Local Management using PC with USB connection standard with all signs, Bluetooth optional

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

ATS Android App: Local Management (Optional):

- Android OS wireless Bluetooth control local to unit
- Android device can be phone or WiFi device with Bluetooth

Local Management Features: (PC and Android)

- Create and change messages, modes and settings
- Local data retrieval and management
- Local image retrieval and management from sign's internal camera
- Manage all unit settings, automatic sync with TrafficCloud Web-based Remote Management Service if subscribed
- All traffic data and messages saved for online management and backup
 - Retrieve data and save to TrafficCloud at no cost, generate limited reports online from hosted data. Extended reports available with TrafficCloud subscription
 - Create message and save to TrafficCloud library, messages available on all ATS Android App or PC Sign Manager devices with TrafficCloud subscription

SpeedAlert Messages

- **SA18:** 1-2 line messages
 - **1 line:** 26.4 cm H x 14.6 cm W characters, four per line
 - **2 lines:** 17.8 cm H x 10.2 cm W characters, six per line
- Up to 6 screens per message
- Full graphics capability, each LED individually controllable
- Variable display time, flash and reverse rates for each screen
- Scroll through 25 user defined onboard messages using selector buttons built into sign, no training necessary
- Ability to sequence messages for up to 144 screen animation
- Message power efficiency calculator in software
- Actual sign preview and unlimited message storage using TrafficCloud Web-based Remote Management Service, ATS PC Sign Manager or ATS Android app
- Messages on sign retained when power removed
- Sign returns to last message when power applied
- Conditional Messaging – Accept local or remote data and dynamically display messages driven off data, and/or incorporate into messages

SpeedAlert Programming

Configure the following parameters via TrafficCloud Web-based Management System, ATS Android app or PC Sign Manager

- **Messages**
 - Create and load message using 'Display Now' feature
 - Load 24 messages into sign's memory
 - Scroll messages in sign's memory
 - Display signs stored in TrafficCloud Web, ATS Android app or PC Sign Manager
- **Speeds**
 - Speed limit
 - Maximum speed displayed
 - Display on/off/specific mph activation
 - Radar sensitivity (range)
 - **Speed limit sign operation:** Change speed limit up to 13 times per day schedule
 - Metric capable display with hundreds digit
 - Set time via PC, Android or sync with cell signal (TrafficCloud)
 - Sign firmware field and remotely upgradeable

Speed Dependent Message System

- Different messages for each of five speed ranges
 - No cars
 - Cars <= speed limit
 - Cars > Speed Limit, < x
 - Cars > x < upper speed
 - Cars > upper speed
- Ranges dependent on speed limit setting only, so simple speed limit change adjusts all dependent message ranges
- Independent maximum speed displayed setting
- Speed dependent messages can be any SA18 messages, including:
 - 'YOUR SPEED' screen, 45.7 cm speed display digits
 - 'SPEED LIMIT' screen, 45.7 cm speed limit display digits

Scheduling

- **All Days, Multiple Messages:** Schedule up to 50 different messages or modes for up to 13 different time periods in a 24 hour day, repeats in each 24 hour cycle
- **Seven Day, Multiple Messages:** Schedule different messages or modes for up to 13 different time periods in each 24 hour day for each of seven days, repeats in each seven day cycle; up to 50 different messages can be used over the seven day period

- All messages and scheduling reside on the sign – no external hardware necessary
- Program schedule via TrafficCloud Web, ATS Android app or ATS PC Sign Manager, Save to load onto multiple signs
- Camera activation controlled in schedule windows
- Internal real time clock, time and schedule maintained with power disconnected

SpeedAlert Data Logging Option

- Traffic reports generated using TrafficCloud Web-based Reporting app
- Collect data automatically with TrafficCloud Remote Management or locally with ATS Android app or PC Sign Manager
- 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 Web
 - Data retrieval every 15 minutes – near real time reporting, memory never full
 - All data in one database for analysis filtered by location, date and time
 - Access reports from interactive map view by location
- **Local Data Collection:** ATS Android app or PC Sign Manager
 - All data hosted in online database for anywhere access
 - Download traffic data from sign with USB or Bluetooth connection
 - 30 days of high volume data minimum storage on sign, Data collection rolls over when memory reaches capacity
- **Reports, Local Data Collection:**
 - Summary page with average and 85th percentile speed, average daily volume, 16 kph pace speed, high and low speed, display mode
 - Traffic counts by speed range, full day and time of day over selected date range with 8 kph resolution
 - Vehicle counts by time range per day by hour
 - Vehicle counts by speed range and time of day
- Reports, automatic data collection (TrafficCloud Web-based Management Services)
 - Enhanced Summary with detail charts and graphs
 - Compliance by speed range with 3 ranges

- Enforcement report showing highest speed and volume violators over selected locations
- Effectiveness report showing program performance

Construction

- ‘YOUR SPEED’ sign
 - High intensity prismatic reflective background
 - 61 x 20.3 cm
 - 8.9 cm high MUTCD ‘C’ letters
- **LED Pixels:** Amber 595nm, 0.5 rad viewing angle, 100,000 hours, black background, (MUTCD compliant)
- **LED Density:** 1.5 x 2.5 cm pitch, 18 x 48 pixel matrix
- **Radar:** K Band (24.15 GHz), FCC Certified, no license required, +-2 kph accuracy, 0.2 rad square pickup area, range: 457 m, 8-150 kph
- Conformal coating on all circuit boards
- Integral handle
- Weatherproof, NEMA 4, IP65 sealed
- 0.6 cm Tinted, non-glare, UV stabilized polycarbonate face
- Drip proof, vented battery compartments (2)
- Aluminium chassis, 14 ga, white powder coat finish, black powder coat front for maximum contrast for display visibility
- Tamper resistant mounting hardware system, hardware, controls and battery access secured behind enclosure lock
- -40° to 71°C operating temperature range, 95% humidity non-condensing (-29°C for Bluetooth communication, -15°C for internal camera)

SpeedAlert Power

- **Power Input, Max:** 12 VDC, 3 A max, 36 W max
- Power saving circuitry and automatic dimming for ambient light conditions with adjustable dimming range and manual display brightness override
- **SpeedAlert 18 Power Options:**
 - 16Ah 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 2 batteries in unit for extended portable use
 - Solar panel assist: 40W or 60W solar panel and bracket, Solar controller panel with 26Ah lead acid battery; 6A 120VAC automatic charger optional
 - 100-220VAC AC power supply (6A 12VDC) in external NEMA 4 enclosure

Compatible with these ATS Products

Engineered and manufactured in the United States of America

- 1+2. SpeedAlert 18 Pole Mount
3. SpeedAlert 18 on ATS-5 Trailer
4. SpeedAlert 18 with Full Wrap Your Speed Sign (White or Red)



- o ATS-5 Trailer (batteries with optional solar assist: 235 or 470 Ah battery system, 40 or 60W solar option)
- o ATS-3 Trailer, 100Ah battery and 40W solar option
- Battery level indicator on sign, ATS Android app, ATS PC Sign Manager or TrafficCloud Remote Management
- Auto recovery for battery with solar

Standard SpeedAlert System Components

- SpeedAlert Radar Message Display SA18
- Tamper resistant mounting plate and hardware
- Key
- On-board controls
- ATS PC Sign Manger software with USB cable

Optional SpeedAlert Components and Features

- TrafficCloud Web-Based Remote Management Service
- ATS Android app, Bluetooth connectivity
- Padded carrying case
- Extra mounting brackets
- Speed activated 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 1 to 10 seconds per radar event
- **Tamper Alarm:** ATS-5 or ATS-3 trailer

SpeedAlert Mounting Options

- Pole mount standard with included bracket, hardware
- NCHRP 350 approved on 10.2 cm pole (Letter SS-135)
- ATS-5 Trailer (refer to ATS-5 specifications for more information)

- ATS-3 Trailer (refer to ATS-3 specifications for more info)

• Vehicle Hitch Mount

- o Mounts sign 76.2 cm to bottom of sign from receiver tube (final height dependent on receiver height)
- o Fits 3.2 or 5.1 cm receiver, adapter included, 1.3 cm hitch pin
- o Locking rotation adjustment on 0.3 rad increments over 3.14 rad, +/- 0.1 rad tilt
- o White powder coat finish with rear reflector

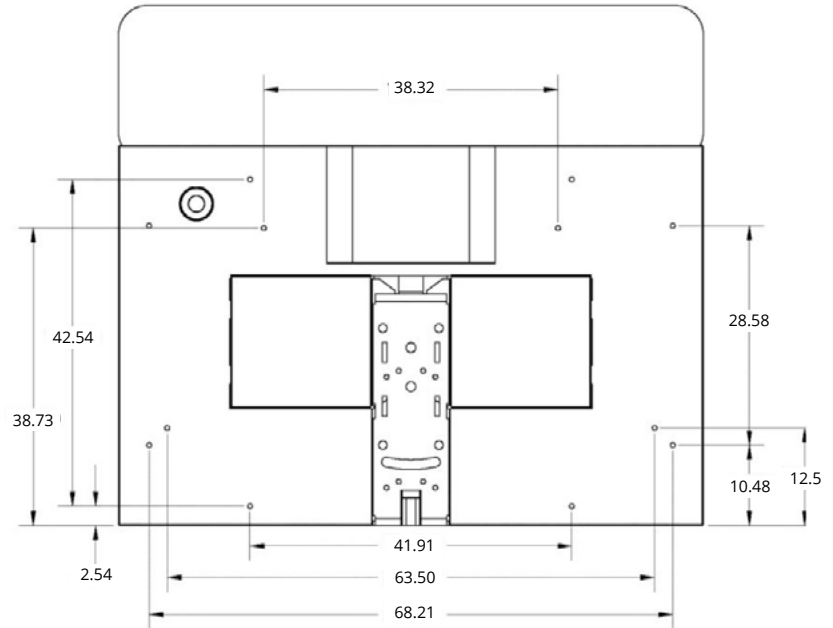
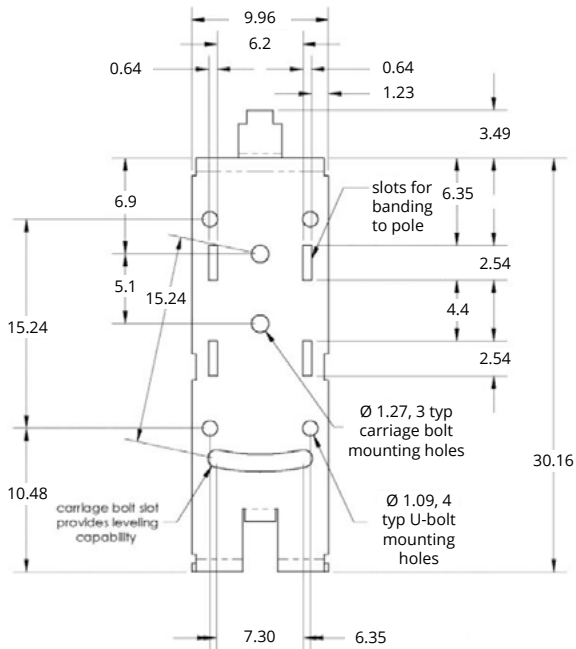
• Standard Folding Portable Post

- o Folds for easy storage and portability
- o **IA18:** 152.4 x 185.4 cm to bottom, 203.2 x 236.2 cm to top of sign depending on leg positions
- Mounting provisions for permanent applications with ¼-20 threaded holes

Warranty

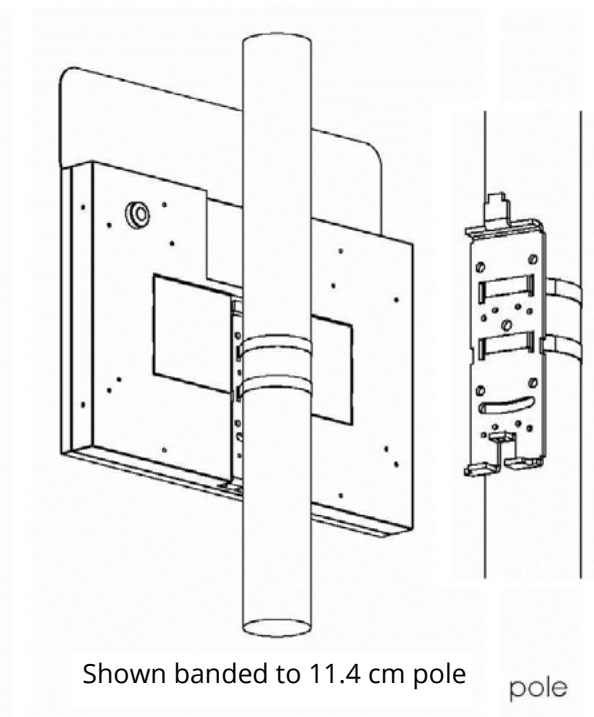
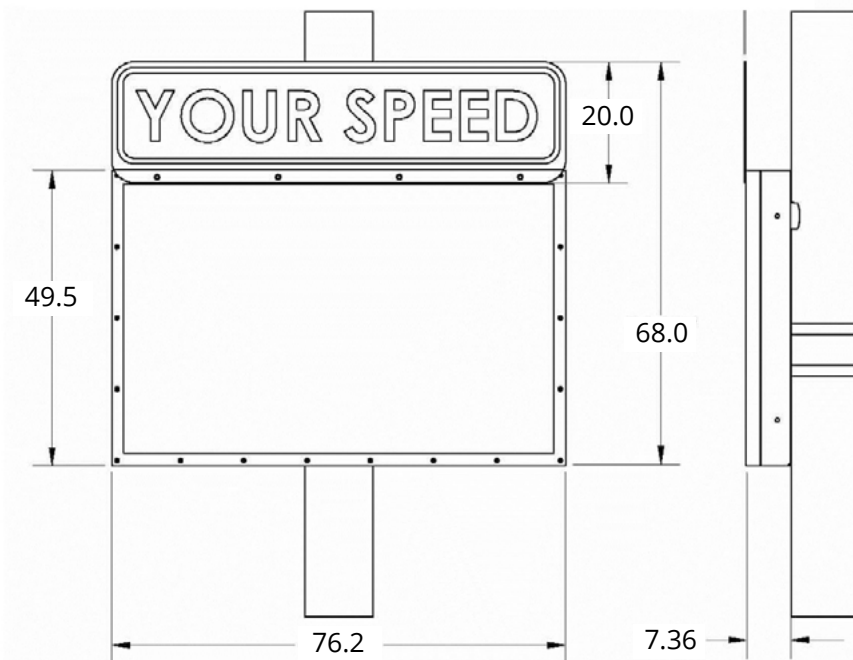
- 1-year warranty (three months on Li-Ion batteries)
 - o Product software upgrades free
- PremierCare, included with TrafficCloud Web Subscription
 - o Perpetual warranty for the duration of subscription
 - o Accessories, vandalism and accidental damage (non-warranty) at 50% off list price

SpeedAlert 18 Mounting Bracket and Mounting Holes



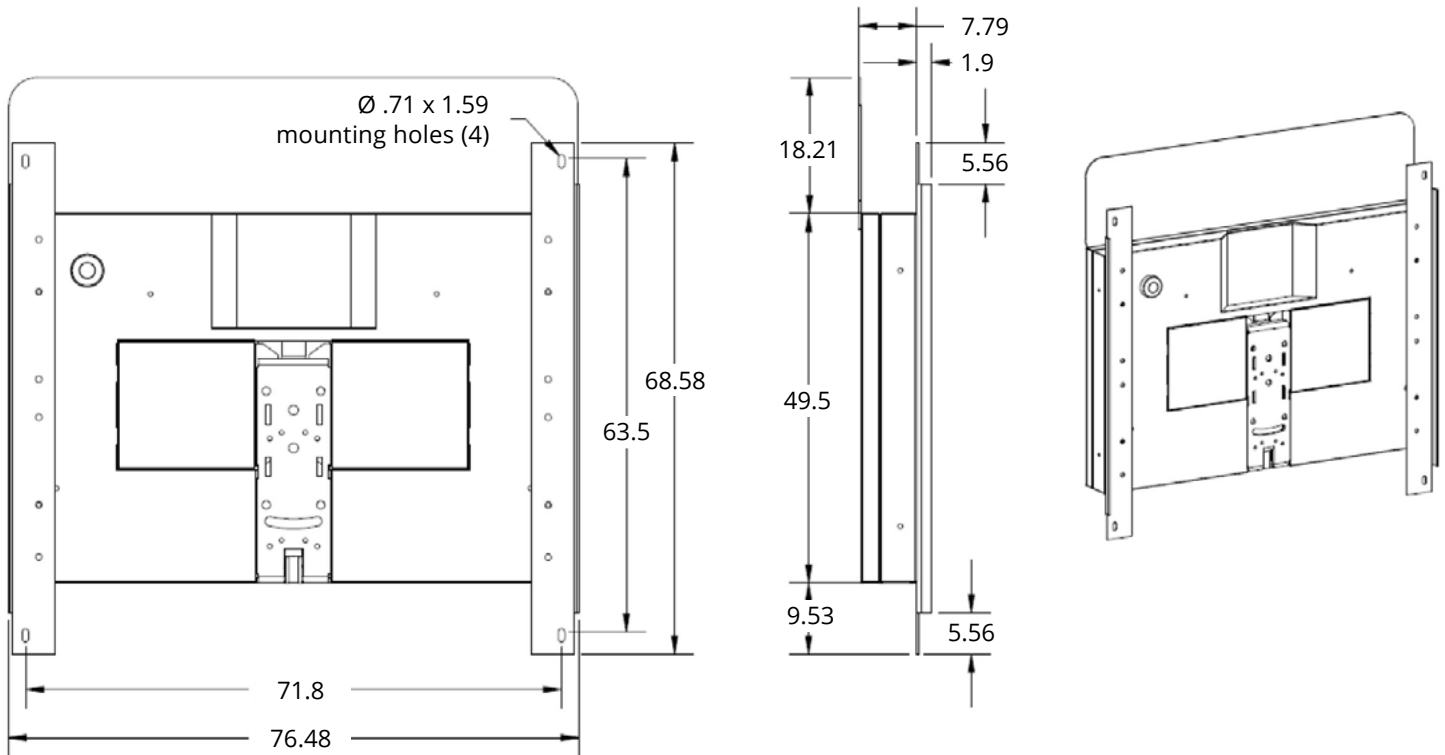
Additional Mounting Provisions:
1/4-20 thread, captive nuts

SpeedAlert 18 Dimensions



Shown banded to 11.4 cm pole pole

SpeedAlert 18 with Trailer Mounting Brackets Installed – for Installation on Existing Trailers for Trade In



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TraffiCloud leverages our patented technology (US Patents 8417442; 8755990; 9070287; 9411893) to deliver unique cloud-based management, features and functionality.



PRODUCT SPECIFICATIONS:

SPEEDALERT 24 RADAR MESSAGING SIGN

SpeedAlert 24 Radar Message Sign

- SpeedAlert 24: (SA24): 61 x 152.4 cm full matrix
- (SpeedAlert 18 (SA18) 45.7 x 71.1 cm full matrix also available – See separate SpeedAlert 18 Spec Sheet)
 - Size, Weight without battery
 - Folds to fit in police cruiser trunk, SUV. 19.5 kg
 - **Open:** 71.1 x 152.4 x 4.1 cm
 - Folded dimensions: 71.1 x 76.2 x 8.3 cm
- Full matrix display
- Universal mounting system: attach to pole, trailer or vehicle hitch mount
- Integral camera for awareness and alert triggered images: 640x480 daylight images
- Internal K band radar with adjustable sensitivity
- Power saving circuitry and automatic dimming for ambient light conditions with adjustable dimming range and manual display brightness override
- Meets MUTCD Specifications

SpeedAlert Operation Modes

- **Message Mode:** Display one message, up to 6 screens
- **All Messages:** Sequence all messages in sign memory
- **Speed Display:** Display approaching vehicle's speed with "YOUR SPEED" LED message
- **Dependent Message:** Display targeted messages based upon approaching vehicle's speed
- Changeable speed limit sign
- **Stealth or Display Off:** Collect traffic speed and volume data with no display
- **Schedule:** Change message and/or mode up to 13 times/day
- Collect vehicle volume by speed and time data in all modes
- Sign returns to last configuration when power applied

SpeedAlert Messages

- SA24: 1-3 line messages
 - **1 line:** 61 cm H x 31.8 cm W characters, 4 per line
 - **2 lines:** 26 cm H x 14.6 cm W characters, 8 per line
 - **3 lines:** 17.8 cm H x 10.2 cm W characters, 12 per line
 - **2 lines:** (1) 17.8 cm char, 12/line, (1) 26 cm char, 8/line
- Up to 6 screens per message
- Full graphics capability, each LED individually controllable
- Variable display time, flash and reverse rates for each screen
- Scroll through 25 user defined onboard messages using selector buttons built into sign, no training necessary
- Ability to sequence messages for up to 144 screen animation
- Message power efficiency calculator in software
- Actual sign preview and unlimited message storage using TrafficCloud™ Web-based Remote Management Service, ATS PC Sign Manager or ATS Android App
- Messages on sign retained when power removed
- Sign returns to last message when power applied
- Conditional Messaging – Accept local or remote data and dynamically display messages driven off data, and/or incorporate into messages

SpeedAlert Programming Methods

On-Board Programming (standard on all units)

- Select message from sign's memory
- Select operation mode and speed limit
- Buttons time out to prevent tampering
- TrafficCloud Web-based Remote Management Services using integral cell modem for remote management (See TrafficCloud Specification for more information):

1. SpeedAlert 24 Folding

Engineered and manufactured in the United States of America



- Turnkey system. Remote connectivity functional upon ship. Unit connects to TrafficCloud Service when sign powered
- Fully hosted web-based management system
 - Internet connected computer with browser provides anywhere access on all connected devices with browser.
 - 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

Apps

All apps included in Traffic Suite:

- **Equipment Management:** Online sign management - Change messages and settings remotely
- **Reporting:** Online data retrieval, management and analysis, Enhanced report generation
- **Image Management:** Online image retrieval and management of images from sign's internal camera
- **Alerts:** Notifications for low battery and tampering, high speed and congestion; Alerts can include images
- **Mapping:** Visually manage equipment and data
- Premier Care Perpetual Warranty

ATS PC Sign Manager

Local Management using PC with USB connection standard with all signs, Bluetooth optional

- PC based client software

- Connect to sign via USB or Bluetooth(optional)
- ATS Android App:** Local Management (Optional):
 - Android OS wireless Bluetooth control local to unit
 - Android device can be phone or WiFi device with Bluetooth

Local Management Features: (PC and Android)

- Create and change messages, modes and settings
- Local data retrieval and management
- Local image retrieval and management from sign's internal camera
- Manage all unit settings, automatic sync with TrafficCloud Web Based Remote Management Service if subscribed
- All traffic data and messages saved for online management and backup with optional Traffic Suite
 - Retrieve data and save to TrafficCloud at no cost, generate limited reports online from hosted data. Extended reports available with TrafficCloud subscription
 - Create message and save to TrafficCloud library, messages available on all ATS Android App or PC Sign Manager devices with TrafficCloud™ subscription

SpeedAlert Programming

Configure the following parameters via TrafficCloud Web-Based Management System, ATS Android App or PC Sign Manager

- **Messages**
 - Create and load message using "Display Now" feature
 - Load 24 messages into sign's memory
 - Scroll messages in sign's memory

- o Display signs stored in TraffiCloud Web, ATS Android App or PC Sign Manager
- **Speeds**
 - o Speed limit
 - o Maximum speed displayed
 - o Display on/off/specific mph activation
 - o Radar sensitivity (range)
 - o **Speed limit sign operation:** Change speed limit up to 13 times per day schedule
 - o Metric capable display with hundreds digit
- Set time via PC, Android or sync with cell signal (TraffiCloud)
- Sign firmware field and remotely upgradeable

Speed Dependent Message System

- Different messages for each of 5 speed ranges
 - o No cars
 - o Cars <= speed limit
 - o Cars > Speed Limit, < x
 - o Cars > x < upper speed
 - o Cars > upper speed
- Ranges dependent on speed limit setting only, so simple speed limit change adjusts all dependent message ranges
- Independent Maximum Speed Displayed setting
- Speed Dependent Messages can be any SA24 messages, including
 - o "YOUR SPEED" screen with 61 cm speed display digits
 - o "SPEED LIMIT" screen with 61 cm speed limit display digits

Scheduling

- All days, multiple messages: schedule up to 50 different messages or modes for up to 13 different time periods in a 24 hour day, repeats in each 24 hour cycle
- 7 day, multiple messages: schedule different messages or modes for up to 13 different time periods in each 24 hour day for each of 7 days, repeats in each 7 day cycle; up to 50 different messages can be used over the 7 day period
- All messages and scheduling reside on the sign – no external hardware necessary
- Program schedule via TraffiCloud Web, ATS Android App or ATS PC Sign Manager, Save to load onto multiple signs

- Camera activation controlled in schedule windows
- Internal real time clock, time and schedule maintained with power disconnected

SpeedAlert Data Logging Option

- Traffic reports generated using TraffiCloud Web-based Reporting App
- Collect data automatically with TraffiCloud Remote Management or locally with ATS Android App or PC Sign Manager
- 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 Web
 - o Data retrieval every 15 minutes – near real time reporting, memory never full
 - o All data in one database for analysis filtered by location, date and time
 - o Access reports from interactive map view by location
- **Local Data Collection:** ATS Android App or PC Sign Manager
 - o All data hosted in online database for anywhere access
 - o Download traffic data from sign with USB or Bluetooth connection
 - o 30 days of high volume data minimum storage on sign, Data collection rolls over when memory reaches capacity
- **Reports, local data collection:**
 - o Summary page with average and 85th percentile speed, average daily volume, 16 KPH pace speed, high and low speed, display mode

Traffic counts by speed range, full day and time of day over selected date range with 8 KPH resolution

Vehicle counts by time range per day by hour

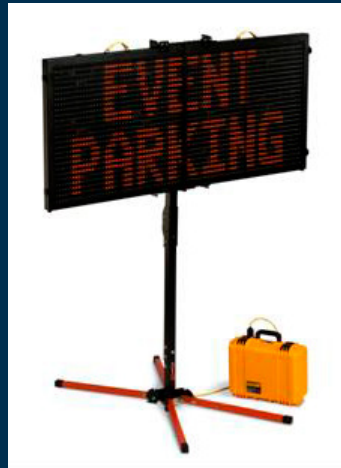
Vehicle counts by speed range and time of day

- **Reports, automatic data collection** (TraffiCloud Web based Management Services)
 - o Enhanced Summary with detail charts and graphs
 - o Compliance by speed range with 3 ranges
 - o Enforcement report showing highest speed and volume violators over selected locations
 - o Effectiveness report showing program performance

Compatible with these ATS Products

Engineered and manufactured in the United States of America

1. SpeedAlert 24 on Portable Post
2. SpeedAlert 24 on Hitch Mount



Construction

- **LED pixels:** Amber 595nm, 0.5 rad viewing angle, 100,000 hrs, black background, (MUTCD compliant)
- **LED Density:** 1.5 x 2.5 cm pitch, 26 x 96 pixel matrix
- **Radar:** K Band (24.15 GHz), FCC Certified, no license req'd, +-2 kph accuracy, 0.21 rad square pickup area, range: 610+ m., 8-150 kph
- Conformal coating on all circuit boards
- Integral handles, two heights
- Weatherproof, NEMA 4, IP65 sealed
- 0.3 cm Tinted, non-glare, UV stabilized polycarbonate face
- Aluminum chassis, 12 ga, black powder coat finish
- Tamper resistant mounting hardware system, hardware secured behind enclosure lock
- -40° to 71°C operating temperature range, 95% humidity non-condensing (-29°C for Bluetooth communication, -15°C for internal camera)

SpeedAlert Power

- **Power Input, Max:**
 - 12VDC, 8A max, 96 W max; 4A, 48W typical
- Power saving circuitry and automatic dimming for ambient light conditions with adjustable dimming range and manual display brightness override
- **SpeedAlert 24 Power:**
 - 12VDC locking plug, 30A capacity: Compatible power supplies include:
 - Vehicles' power port, with optional adapter
 - Trailer wiring adapter for hitch mount
 - POWERcase portable power supply, PC26 or PC36

- 120 or 220 VAC Power supply in NEMA 4 enclosure
- ATS 5 Trailer (batteries with optional solar assist: 235 or 470 Ah, 60W solar option)
- Pole battery box: 156Ah battery with solar assist
- Battery level indicator on sign, ATS Android App, ATS PC Sign Manager or TrafficCloud Remote Management.
- Auto recovery for battery with solar
- Power cable customer replaceable, gold plated connector contacts, high visibility yellow cable

Standard SpeedAlert System Components

- SpeedAlert Radar Message Sign SA24
- ATS PC Sign Manger software with USB cable
- On-Board Controls
- Optional SpeedAlert Components and Features
- TrafficCloud Web-Based Remote Management Service
- ATS Android App, Bluetooth connectivity
- Padded carrying case with accessory pockets, shoulder strap
- **Mounting bracket:**
 - mounts to pole or any surface using any hardware, no tools required
 - tamper resistant hardware compartment
 - rotate bracket for additional 30.5 cm of mounting height
 - aluminum with black powder coat
 - sign can be locked into bracket
 - bolt sign to mounting bracket for additional security
 - Mounting hardware supplied

- **Speed activated 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
- Tamper alarm – ATS-5 or ATS-3 trailer

SpeedAlert Mounting Options

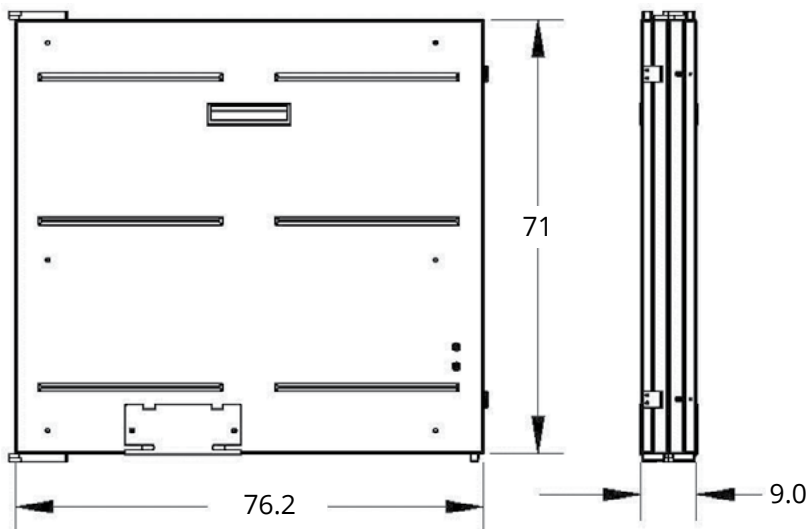
- ATS-5 Trailer (refer to ATS 5 specifications or more info)
- Vehicle Hitch mount
 - Mounts sign 76.2 cm to bottom of sign from receiver tube (final height dependent on receiver height)
 - Fits 3.2 or 5.1 cm receiver, adapter included, 1.3 cm hitch pin
 - Locking rotation adjustment on 0.3 rad increments over 3.14 rad, +/- 0.1 rad tilt
 - White powder coat finish with rear reflector

- **Standard Folding Portable Post**
 - Folds for easy storage and portability
 - 119.4 x 152.4 cm to bottom, 185.4 to 218.4 cm to top depending on leg positions; rotate bracket for additional 30.5 cm height
- Mounting provisions for permanent applications with ¼-20 threaded holes

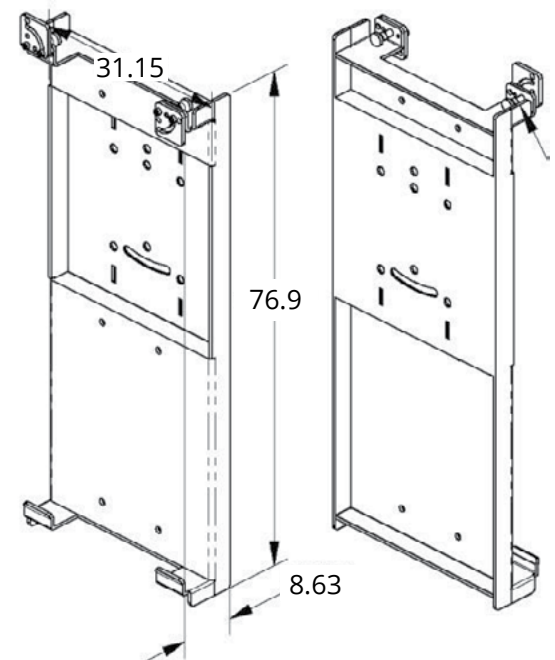
Warranty Options

- **PremierCare Perpetual Warranty** available with current TrafficCloud subscription. Ask your ATS sales representative for details.
- **ATS 3-year Manufacturer’s Warranty** comes standard on all SpeedAlert radar speed displays purchased after January 1, 2019.

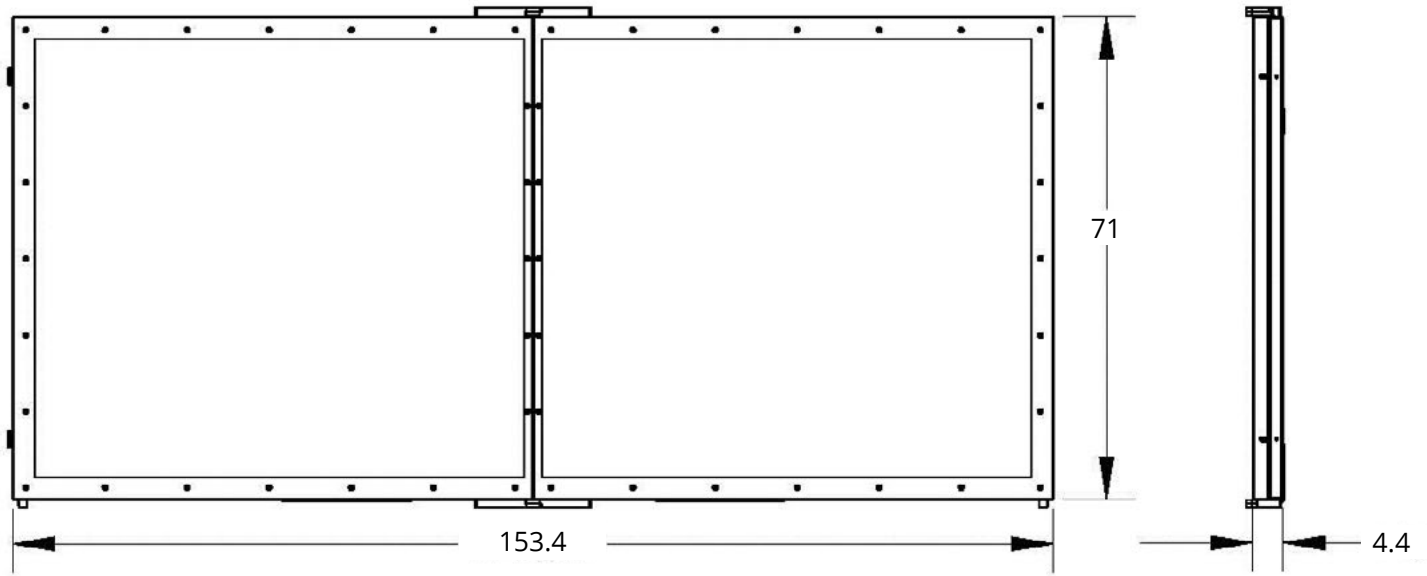
SpeedAlert Dimensions: Folded



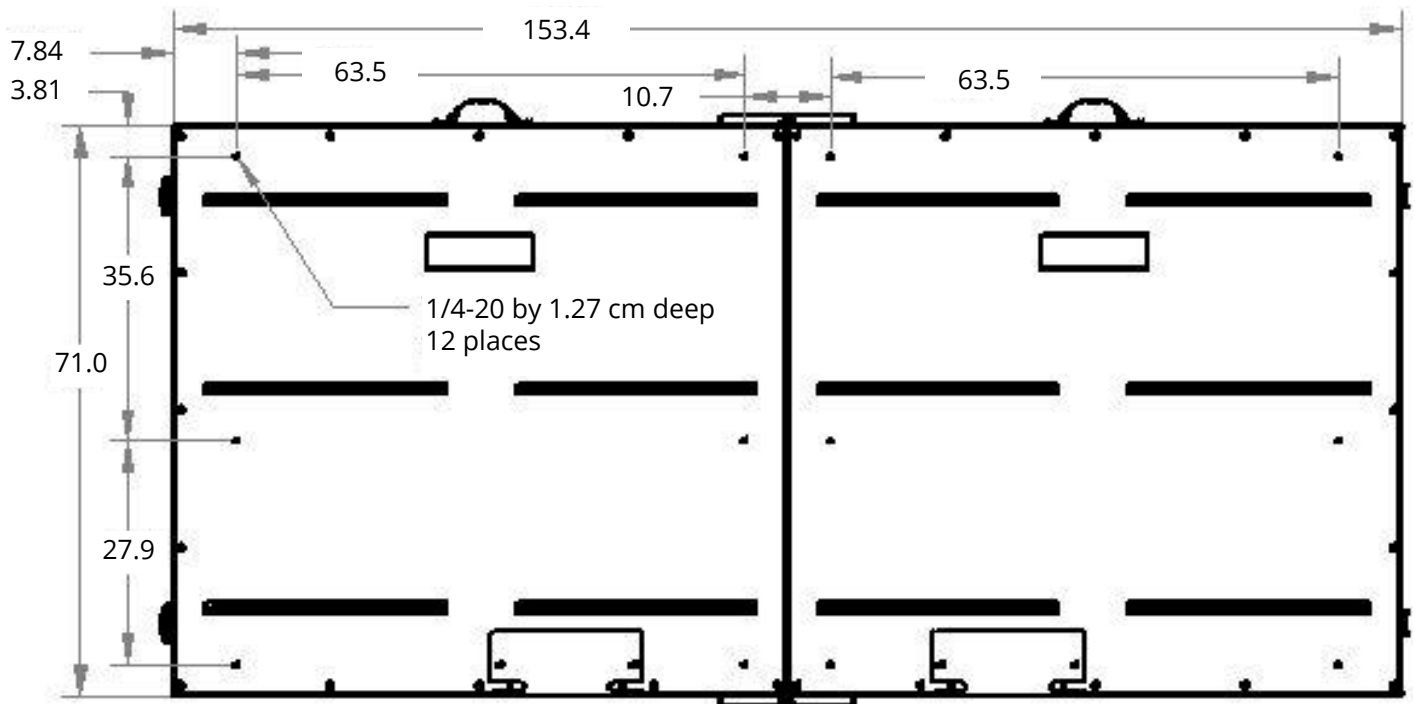
Mounting Plate



SpeedAlert Dimensions: Open



Mounting Hole Positions



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TraffiCloud leverages our patented technology (US Patents 8417442; 8755990; 9070287; 9411893) to deliver unique cloud-based management, features and functionality.