



### instALERT Variable Message Sign

- 2 units to cover any application
  - instALERT 18 (iA18): 18" x 28" full matrix
  - instALERT 24: (iA24): 24" x 60" full matrix
- Size, Weight without battery
  - iA18: 30" x 20" x 2.74", 29 lbs
  - iA24: Folds to fit in police cruiser trunk, SUV. 43 lbs
    - Open: 28" x 60" x 1 5/8"
    - Folded dimensions: 28" x 30" x 3 1/4"
- Full matrix display: 0.6"x1" pitch
  - iA18: 18 x 48 pixels
  - iA24: 26 x 96 pixels
- Universal mounting system: attach to pole, trailer or vehicle hitch mount
- LED pixels: Amber 595nm, 30 degree viewing angle, 100,000 hrs, black background, MUTCD compliant color, universal display modules
- Meets MUTCD Specifications
- Local web-based management with Bluetooth or USB
- SmartApps Remote Management System with integral active cell modem
- Integral camera for awareness and alert triggered images: 640x480 daylight images
- Power saving circuitry and automatic dimming for ambient light conditions with adjustable dimming range and manual display brightness override
- Conformal coating on all circuit boards
- Integral handles
- Weatherproof, NEMA 4, IP65 sealed
- 1/8" tinted, non-glare, UV stabilized polycarbonate face
- Entire face removable for service
- Aluminum chassis, 12 ga., with black powder coat finish
- -40 to 160 F operating temperature range, 95% humidity, non-condensing (-20F for Bluetooth comm.)
- Tamper resistant mounting hardware pocket, hardware secured behind enclosure lock
- Internal real time clock, time maintained with power disconnected
- Set time via wireless PDA, PC or sync with cell signal
- Sign firmware field and remotely upgradeable
- Withstands 70 mph winds

### instALERT Operation Modes

- Message Mode: Display one message up to three screens
- All Messages: Display all messages in sign memory in sequence
- Schedule: Change message and/or mode up to six times per day

With optional radar and data recording (See ATS SpeedAlert Specification):

- Speed Display: Display approaching vehicle's speed and record traffic speed and volume data

## Product Specification instALERT Rapid Messenger Variable Message Sign



- Dependent Message: Display messages tailored to vehicle's speed and collect traffic speed and volume data
- Collect traffic data while any message displaying

### instALERT Messages

- iA18: 1-2 line messages
  - 1 line: 10 1/4" H x 5.75" W characters, 4 per line
  - 2 lines: 7" H x 4" W characters, 6 per line
- iA24: 1-3 line messages
  - 1 line: 24" H x 12.5" W characters, 4 per line
  - 2 lines: 10 1/4" H x 5.75" W characters, 8 per line
  - 3 lines: 7" H x 4" W characters, 12 per line
  - 2 lines: (1) 7" char, 12/line, (1) 10 1/4" char, 8/line
- Up to 3 screens per message
- Message power efficiency calculator in software
- Variable display time, flash and reverse rates for each screen
- Full graphics capability, each LED individually controllable, programmable from PC, PDA or remotely
- Ability to link multiple messages for up to 72 screen animation
- Scroll through 25 user defined onboard messages using selector buttons built into sign, no training necessary; buttons on unit become inactive after timeout to prevent tampering, reactivate by reapplying power
- Unlimited message storage on PC, PDA or SmartApps remote server
- Messages on sign do not get erased when power removed
- Sign returns to last message when power applied
- Actual sign preview on PDA or Web controller
- Collect traffic data while any message displaying

### instALERT Settings

- Configure the following parameters via wireless PDA, PC or SmartApps Web-Based Management System:
  - load instaMESSAGE using "Display Now" feature
  - load 24 messages into sign's memory



- Scroll messages in sign's memory
- Display signs from server or PDA memory

### instALERT Programming Methods

Program and monitor the sign three ways:

- SmartApps Web-Based Management System using integral cell modem for remote management; Traffic Suite includes following apps:
  - Equipment Management: Manage messages and settings, monitor sign online
  - Reporting: Online data retrieval and management, analysis (with optional radar)
  - Image Management: Online image retrieval and management of images from internal camera
  - Alerts: Notifications for low battery and tampering, high speed and congestion with optional radar, alerts can include images
  - Mapping: Visually manage equipment and data
  - Premier Care: Enhanced warranty and real-time monitoring
- Password protected system with three levels of access
- SmartApps Web-Based Management System using USB connection local to sign:
  - Manage messages and settings
  - Local data retrieval and management (with optional radar)
  - Local image retrieval and management from internal camera
- Wireless PDA Programming
  - PDA automatically connects to one sign in range, connection easy to switch between multiple signs
  - locates and identifies sign to which connected
- On-Board Programming
  - Select message from sign's memory
  - Select operation mode
  - Buttons time out to prevent tampering

### Scheduling

- All days, multiple messages: schedule up to 6 different messages or modes for up to 6 different time periods in a 24 hour day, repeats in each 24 hour cycle
- 7 day, multiple messages: schedule up to 6 different messages or modes for up to 6 different time periods in a 24 hour day for each of 7 days, repeats in each 7 day cycle; up to 25 different messages can be used over the 7 day period
- all messages and scheduling reside on the sign – no external hardware necessary
- schedules can be saved on the PDA for backup or for different events
- program schedule via Web or wireless PDA, PC
- once enabled, schedule remains in action until disabled, even through a power interruption

## Product Specification instALERT Rapid Messenger Variable Message Sign

### Data Logging Option for instALERT units with the internal radar option

- Reporting with Web based local or SmartApps automatic remote data download
- Analyze data with ATS SmartApps Reporting
- Local Management with web-based interface
  - Download traffic data from sign with wireless PDA or USB cable to PC
  - 30 days of high volume data minimum with local downloads, Data collection rolls over when memory reaches capacity

#### 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 and time of day over selected date range with 5 MPH resolution
  - Vehicle counts by time range per day by hour
  - Traffic counts by speed range and time of day by individual day
  - Data exportable to standard .csv format for further analysis in Excel
- Remote Management with SmartApps Reporting App and cellular link
    - Daily data retrieval – near real time reporting, memory never full
    - All data in one database, available for analysis and location comparisons
    - Data accessible by location from map
- #### 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
  - Traffic counts by speed range and time of day by individual day
  - Review one location or compare two locations for speed limit compliance
  - Enforcement report showing highest speed and volume violators over all or selected locations where data collected

### instALERT Power Supplies

- Power Input, Max:
  - iA18: 12 VDC, 3 A max, 36 W max
  - iA24: 12VDC, 8A max, 96 W max
- instALERT 18 Power Options:
  - 16Ah Li-Ion 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



## Product Specification instALERT Rapid Messenger Variable Message Sign

- Solar panel assist: 40W or 60W solar panel and bracket, Solar controller panel w/ 26Ah lead acid battery; 6A 120VAC automatic charger optional
- 100-220VAC AC power supply (6A 12VDC) in external NEMA 4 enclosure
- ATS 5 Trailer (batteries with optional solar assist: 235 or 470 Ah, 60W solar option)
- instALERT 24
  - 12VDC locking plug, 30A capacity
  - Compatible Power Supplies include:
    - o Vehicles' power port, with optional adapter
    - o Trailer wiring adapter for hitch mount
    - o POWERcase portable power supply, PC26 or PC36
    - o 120 or 220 VAC Power supply in NEMA 4 enclosure with voltage and 10kA current surge suppression, short circuit protection and isolation transformer
    - o ATS 5 Trailer (batteries with optional solar assist: 235 or 470 Ah, 60W solar option)
    - o Pole battery box: 156Ah battery with solar assist
- Display battery level indicator on sign, PDA and/or Web
- Low battery indicator on sign, auto recovery with solar
- SA24 Power cable customer replaceable, gold plated connector contacts, high visibility yellow cable

### Standard instALERT System Components

- instALERT Variable Message Sign
- Web based programming software for PC control
- USB cable for connection to PC

### instALERT Mounting Options

- ATS 5 Trailer (refer to ATS 5 specifications for more info)

Options using the instALERT mounting bracket

- Hitch mount
  - Sign height: 25" to bottom, 53" to top of sign from receiver tube (final height dependent on receiver height, flip mounting bracket for an additional 12")
  - Fits 1 1/4" or 2" receiver, adapter included
  - 1/2" hitch pin
  - Locking rotation adjustment on 15 degree increments over 180 degrees,
  - +- 5 degrees tilt to adjust LED aim for maximum brightness
  - White powder coat finish with rear reflector
- Telescoping Hitch Mount
  - All features of standard hitch mount, plus
  - Sign height: 53" to bottom, 81" to top of sign from receiver tube (final height dependent on receiver height, flip mounting bracket for an additional 12")
- Standard Folding Portable Post:
  - Folds for easy storage and portability
  - iA 24: 47" to 60" to bottom, 73" to 86" to top of sign depending on leg positions, rotate bracket for additional 12"

- iA18: 60" to 73" to bottom, 80" to 93" to top of sign depending on leg positions
- Mounting provisions for permanent applications, 1/4-20 threaded holes

### Optional instALERT Sign Components and Features

- instALERT 24 mounting bracket
  - single person deployment
  - mounts to pole or any surface using any hardware, no tools required
  - tamper resistant hardware compartment
  - rotate bracket for additional 12" 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
- Padded carrying case with accessory pockets and shoulder strap (iA24 only)
- Internal radar allowing for speed display, speed dependent messaging and speed and volume data collection
  - K Band radar (24.15 GHz), FCC Certified, no license req'd, +-1mph accuracy
  - Adjustable sensitivity radar, 12 degree square
  - Radar pickup range: 1500+ ft., 5-105mph (8-168 kph)
- SmartApps Web-Based Management System using integral cell modem for remote management; Traffic Suite includes following apps:
  - Equipment Management: Manage messages and settings, monitor sign online
  - Image Management: Online image retrieval and management of images from internal camera
  - Mapping: Visually manage equipment and data
  - Premier Care: Enhanced warranty and real-time monitoring
- With internal radar option:
  - Reporting: Online data retrieval and management, analysis
  - Alerts: Notifications for high speed and congestion with optional radar, alerts can include images
- PDA Controller with Pocket ATS software
  - PDA can be stored on board trailer
- Fully compatible with Speed Dependent Messaging System when used with internal radar or a SPEEDsentry or Shield Speed Display - see Speed Dependent Messaging Specifications
- High Density Display with 52 x 116 pixels, 0.5" x 0.5" pitch
  - Chinese Language Programming, with high density display and Chinese entry on PDA or PC. 1, 2 or 3 line display of Mandarin Chinese Characters;



# Product Specification instALERT Rapid Messenger Variable Message Sign

## Speed Dependent Message Option

Integrates the instALERT Variable Message Sign with internal radar option or with any linked SPEEDsentry or Shield Speed Display to create a speed dependent messaging system.

- Different messages for each of 5 speed ranges
  - No cars
  - Cars  $\leq$  speed limit
  - Cars  $>$  Speed Limit,  $< x$
  - Cars  $> x <$  upper speed
  - Cars  $>$  upper speed
- Ranges dependent on speed limit setting only, so no message programming changes required with speed limit change to shift dependent message ranges.
- Independent Maximum Speed Displayed setting
- Speed display can display speed or be set to stealth mode with display blank during operation
- Speed Dependent Messages can be up to 3 screens each, including:
  - 1-3 line messages
    - o 1 line: 24" H x 12.5" W characters, 4 per line
    - o 2 lines: 10 1/4" H x 5.75" W characters, 8 per line
    - o 3 lines: 7" H x 4" W characters, 12 per line
    - o 2 lines: (1) 7" char, 12 per line, (1) 10 1/4" char, 8 per line
  - "YOUR SPEED" screen with 24" vehicle speed display digits and data supplied wirelessly by the speed display
  - "SPEED LIMIT" screen with 24" speed limit display digits and speed limit data supplied wirelessly by the speed display
- Wireless Bluetooth communication between Speed Display and instALERT Variable Message Sign. No communications cables run between the units.
- Program system locally or remotely with SmartApps Web based Management System or wireless PDA.
- Speed display and message sign work independently when not connected as a speed dependent message system. Disable communication, turn one unit off or move one unit out of range and units operate independently. No settings have to be changed on either unit to have them work independently.

## Mounting

- System can be mounted on the ATS-5 trailer, on a pole or hitch mount
- The SPEEDsentry or Shield Speed Display can be removed from the trailer for independent operation on a pole or post using internal batteries
- The instALERT variable message sign is removable from the trailer and can be folded to be placed in the trunk of a police cruiser. It can be used on a portable post or vehicle hitch mount, powered by the vehicle or by an ATS POWERcase

## Warranty

- 1 year warranty (3 months on Li-Ion batteries)
- Premier Care SmartApp
  - Warranty service fully covered
  - Product software upgrades free
  - Vandalism and accidental damage (non-warranty) at 50% off list price

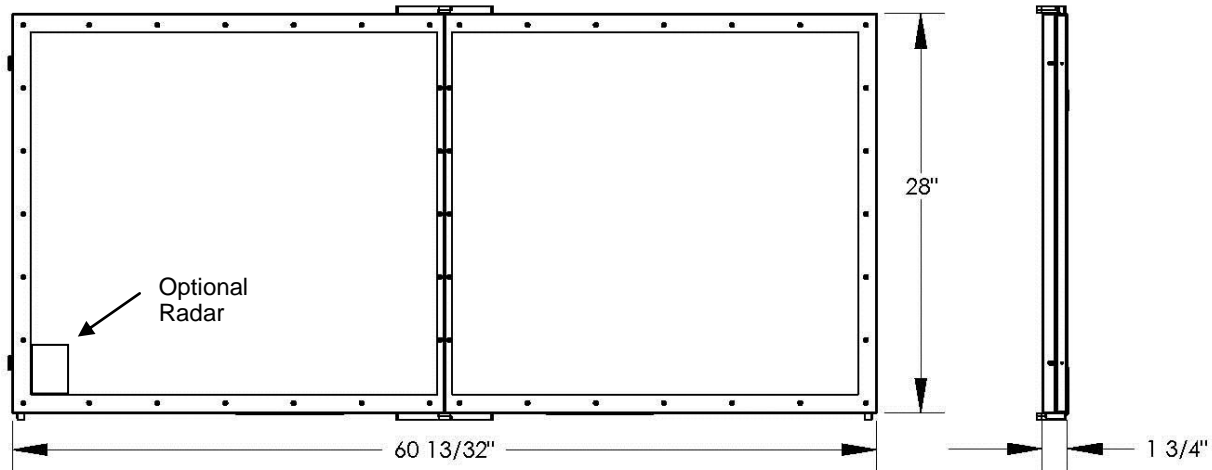
## Made in the United States of America



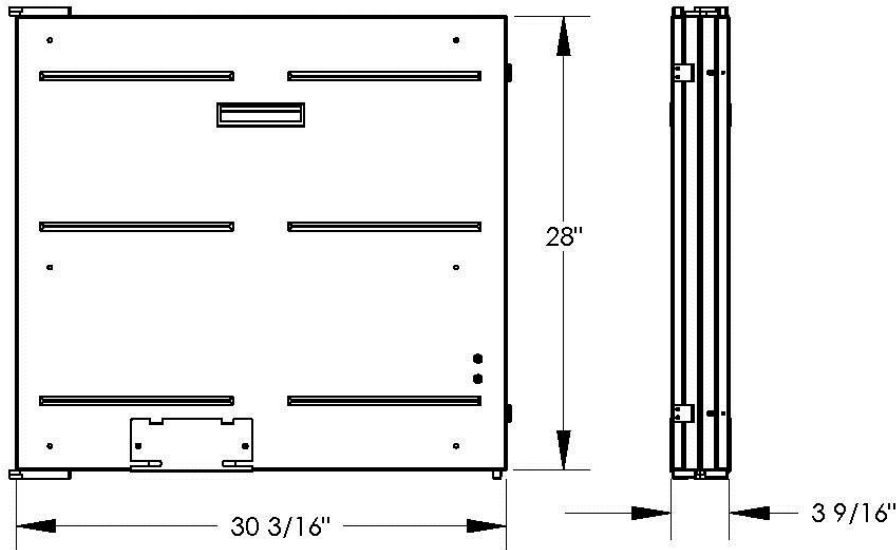
ATS 5 with instALERT Message Sign and Shield 12 Speed Display in Speed Dependent Messaging Configuration



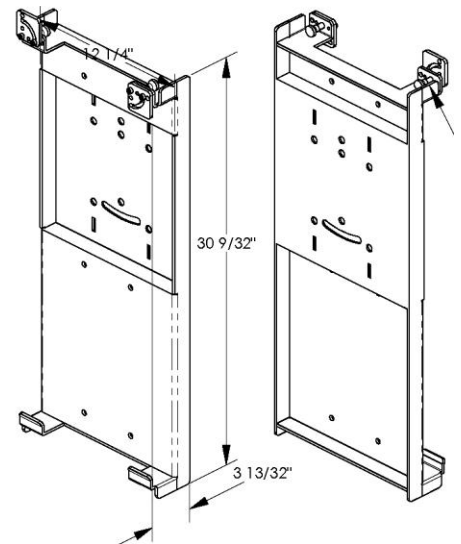
**instALERT Dimensions, Open**



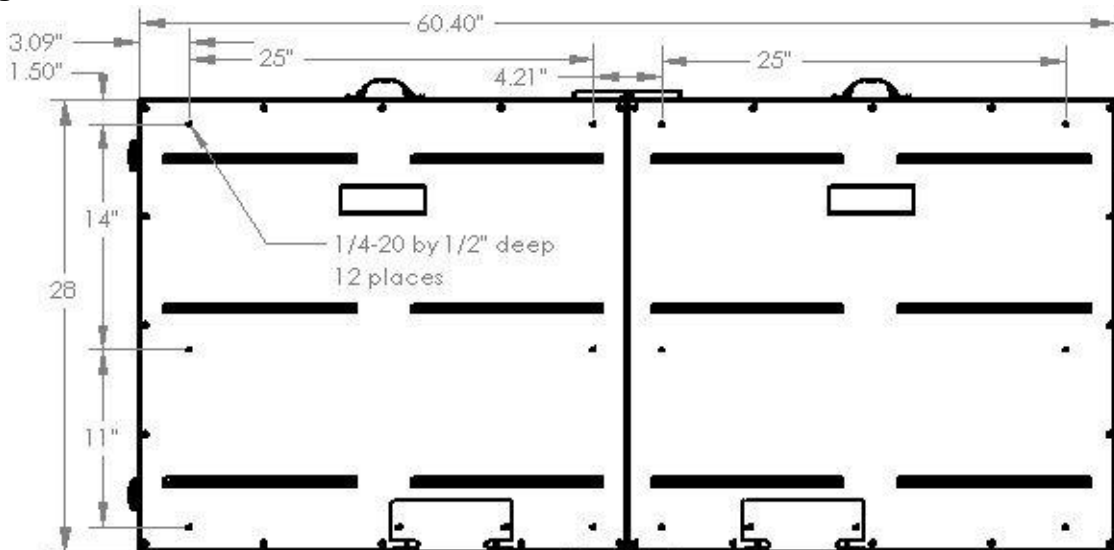
**instALERT Dimensions, Folded**



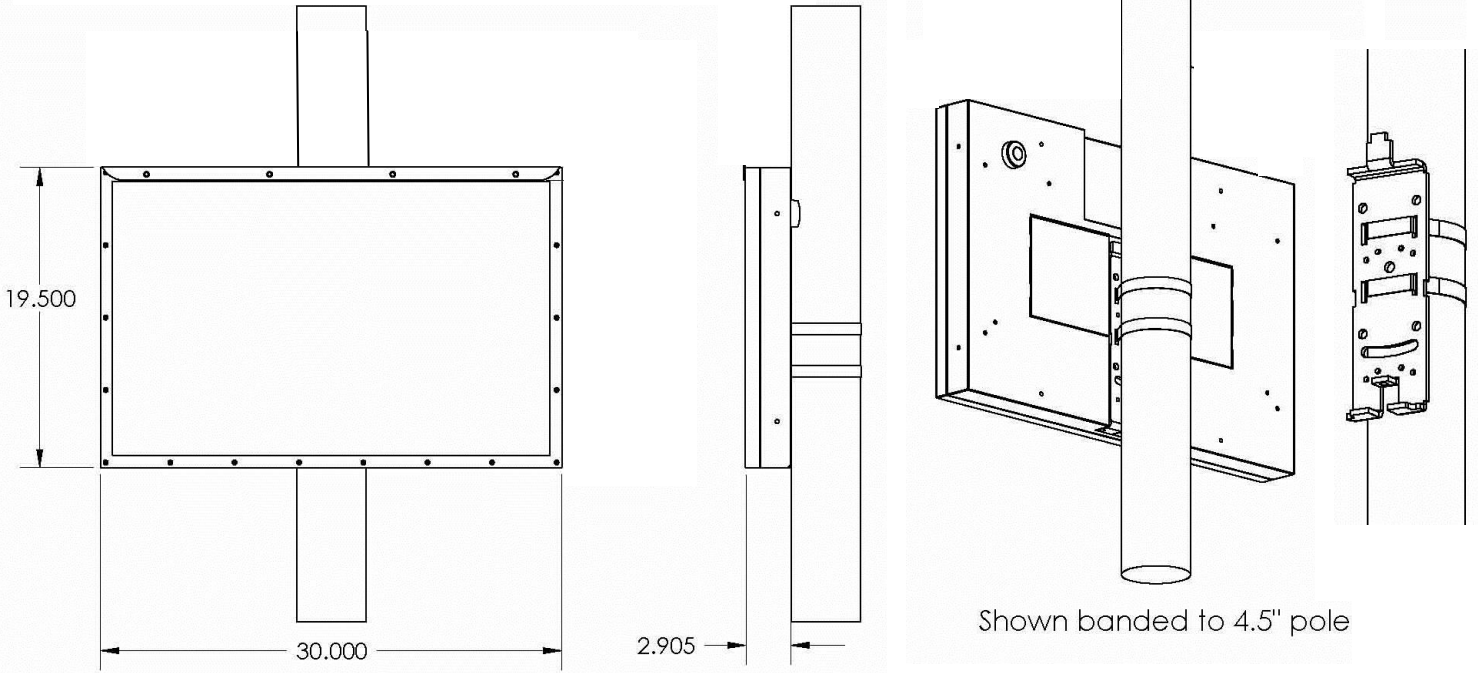
**Mounting Plate Dimensions**



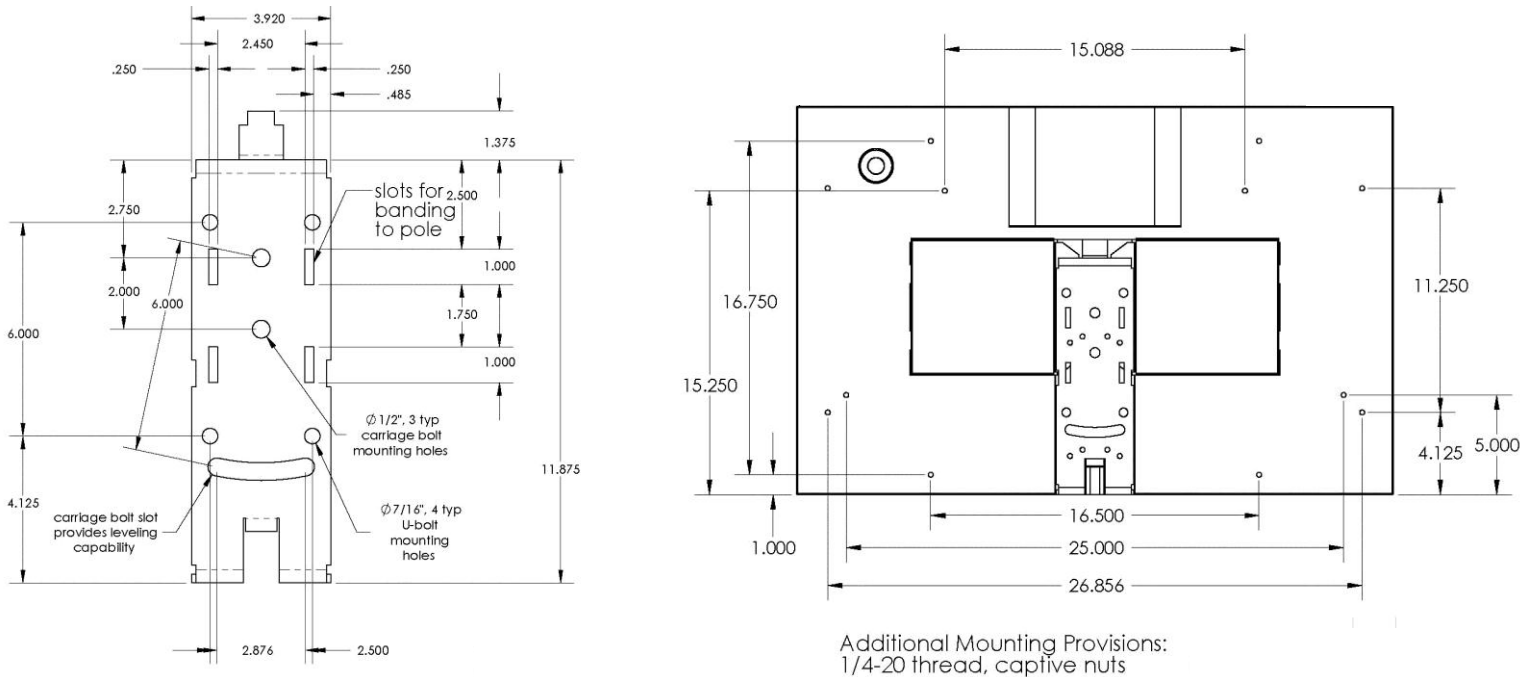
**Mounting Hole Positions**



**instALERT 18 Dimensions**



**instALERT 18 Mounting Bracket and Mounting Holes**



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