

STATTRAK-E QUICK START GUIDE, LOCAL BLUETOOTH ACCESS ONLY

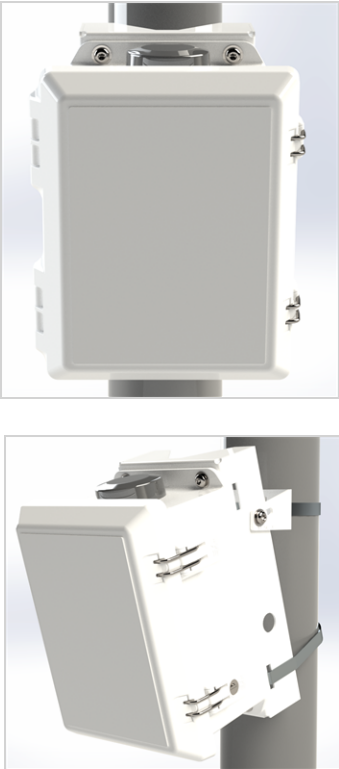


The **StatTrak-E by All Traffic Solutions** is a discreet, wireless traffic data collection device that provides law enforcement authorities and traffic engineers with detailed statistics and reports on vehicle counts and speeds by class of vehicle, and sends alerts for issues such as low battery, tampering, and high speed. For roadside installations, StatTrak-E captures traffic data simultaneously for up to two lanes of traffic, moving in the same or opposite directions. For median installations, StatTrak-E captures up to four lanes of traffic data, bidirectionally. Traffic data collected via Bluetooth is uploaded to TrafficCloud for reporting using the StatTrak-E mobile app.

Initial StatTrak-E setup

Once you receive your StatTrak-E, you'll need to perform the following initial setup:

- Step 1: [Charging the StatTrak-E on the next page](#)
 - Step 2: [Signing in to TrafficCloud for the first time on the next page](#)
 - Step 3: [Choosing a Site for your StatTrak-E on page 3](#)
 - Step 4: [Mounting a solar panel on page 5](#)
 - Step 5: [Installing the mounting brackets on page 6](#)
 - Step 6: [Mounting and aiming the StatTrak-E on page 7](#)
 - Step 7: [Connecting a solar panel to the StatTrak-E on page 9](#)
 - Step 8: [Powering on the StatTrak-E on page 9](#)
 - Step 9: [Setting up the StatTrak-E mobile app on page 10](#)
 - Step 10: [Confirming your installation on page 13](#)
- After deployment, please see:
- [Transferring your data to TrafficCloud on page 13](#)
 - [Generating reports on page 13](#)
 - [Replacing StatTrak-E batteries on page 16](#)



Check the package contents

Upon receiving your new StatTrak-E, check to ensure that you have all of the items ordered. If you notice any damaged or missing items, contact All Traffic Solutions Technical Customer Support immediately. Below is a summary of what's typically included with your StatTrak-E. Also check your packing slip for precise details of your order.

What's included	What you'll need
The StatTrak-E can accommodate up to two 12.8V, 11.5Ah rechargeable lithium batteries and includes a smart battery charger, two adapters, two keys for the ON/OFF switch, and two keys for the enclosure. If you purchased a solar panel, only one battery is included.	A clean workspace and AC power outlet.
A main pole bracket, three stainless steel banding straps, and a custom security bit. See Step 5: Installing the mounting brackets on page 6 .	A nut driver and power screwdriver.
Six 3/4-in. long x 1/4-in. -20 bolts, with 1/4-in -20 nuts and washers.	Two wrenches or nut drivers with 7/16-in. sockets.
An angle bracket, two bolts with washers, a Torx T-30 security bit with 1/4-in. shank, and two pole adapters for roadside use with Telespar-type poles.	An Android mobile device with the StatTrak-E mobile app installed.

STEP 1: CHARGING THE STATTRAK-E

Use this step for initial charging or recharging of the StatTrak-E. After you receive the StatTrak-E, in your shop or workplace, connect the charger to the StatTrak-E through the charger port, as described below.

Dual-use charging port

The StatTrak-E features a dual-use IP68 waterproof charging port, which delivers power to the device from a solar panel (if equipped) and serves as a charging port. You'll use the charging port in this step for initial charging.

Under safety regulations, the StatTrak-E cannot be shipped with fully charged batteries. Therefore, you must charge the StatTrak-E fully before initial use. The supplied smart battery charger is equipped with a charge indicator that shows when the StatTrak-E is fully charged and ready for use.

Do not remove the StatTrak-E battery (or batteries) for charging. The device is shipped with the power turned off. Do not turn it on during charging. You'll only need to turn it on once it's deployed to collect data. See [Step 6: Mounting and aiming the StatTrak-E on page 7](#).



WARNING: RISK OF ELECTRIC SHOCK OR EQUIPMENT DAMAGE Failure to follow these guidelines could result in electric shock and personal injury or damage to the StatTrak-E or its components.

To charge the StatTrak-E:

- A. Place the StatTrak-E on a smooth, non-flammable work surface, sheltered from precipitation or other moisture and with access to an AC power outlet.
- B. Make sure the StatTrak-E is turned off. See [Step 8: Powering on the StatTrak-E on page 9](#).
- C. Connect the supplied smart battery charger to the bottom port of the StatTrak-E as follows:
 - i. Unscrew and remove the small cap from the charger connector port.
 - ii. Align the IP68 connector plug with the dual-use solar power and battery charging port (shown below), and insert it into the port.
 - iii. Twist to tighten the connector plug onto the port.

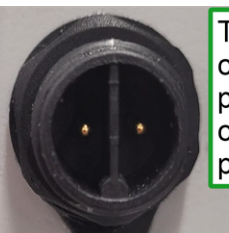
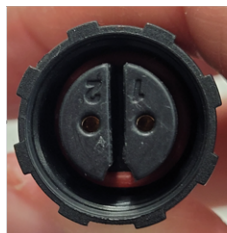
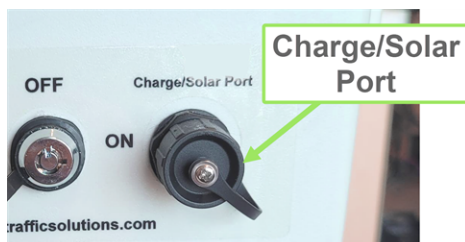


NOTE: To avoid damage from the elements, always keep the port capped when not in use.

Depending on the model of your charger, the LED or charging gauge turns green or shows 100% when charging is complete.



TIP: Follow the steps above if you need to recharge the StatTrak-E after a deployment. If you need to replace batteries, please see [Replacing StatTrak-E batteries on page 16](#).



The IP68
connector
plug and
charging
port



Tighten the
IP68
connector
plug onto
the charging
port

STEP 2: SIGNING IN TO TRAFFICLOUD FOR THE FIRST TIME

Sign in to TrafficCloud so that you can create a Site to store your data and run traffic reports. After you purchase your StatTrak-E, your account administrator sets up TrafficCloud user profiles using the corporate email addresses of planned users, which triggers the sending of a Welcome email with a TrafficCloud portal link and temporary password. Make sure your account administrator has set up a user account for you.

What you'll need

- Login credentials for TraffiCloud
- A computer or mobile device with Internet access

To sign in to TraffiCloud:

- A. In the Welcome email from All Traffic Solutions, click the **Join All Traffic Solutions <your account name> Account** link, or click here:
<https://portal.trafficcloud.com/login>

If you can't locate your Welcome email, check with your account administrator or contact [ATS Technical Customer Support](#) for a new temporary password.

- B. In the **Sign In > Email** box, enter your account email address and temporary password.
- C. Click the **Sign me in** button. You'll then be prompted to create a new password.
- In the **Old Password** box, enter the temporary password (you can copy and paste it, just make sure no trailing space is added).
 - In the **New Password** and **Confirm Password** boxes, enter a new password. Passwords must have a minimum of eight characters, and we recommend including at least one special character, number, uppercase letter, and lowercase letter. Password rules can be defined by your TraffiCloud administrator. You can also let your Web browser suggest and save a secure password.
 - Click the **Change Password** button.
- The TraffiCloud **Dashboard** page opens and confirms that you have successfully changed your password. You can reset your password as needed using **Change Password** on the TraffiCloud **User** menu.

ATS TraffiCloud

Change Password

Old Password

Enter your password

New Password

8 characters minimum

Confirm Password

CANCELCHANGE PASSWORD

STEP 3: CHOOSING A SITE FOR YOUR STATTRAK-E

To set up a location for your StatTrak-E in TraffiCloud, please follow the guidelines and steps in these topics:

- » [Selecting a physical location below.](#)
- » [Creating a Site in TraffiCloud on the next page.](#)

Selecting a physical location

The site you select for the StatTrak-E will vary with your requirements, however you should generally adhere to the following guidelines:

Guideline	What to do
Choose the distance from intersections	Place the StatTrak-E at least 100 ft. (30 m) away from any intersection (avoid locations near stop signs or traffic lights).
Choose a flat location, adjacent to the roadway	Choose a location on a flat straight road section, directly adjacent to the roadway, where the line of sight from the StatTrak-E to the vehicles being counted will be uninterrupted by other traffic lanes, parked vehicles, or sidewalks. Consider how the location may develop with time, such as growth of trees or construction of other new structures that may block the StatTrak-E or solar panel.
Consider Solar	Choose a location where the solar panel can be installed higher up on the pole and will remain unobstructed from sunlight throughout the day.
Choose the distance from the roadway	Ideally, place the StatTrak-E within 12 ft. (3.7 m) of the roadway.

Guideline	What to do
Set the mounting height	Attach the StatTrak-E to the pole at a height anywhere from 5 ft. 6 in. at the bottom of the device to 8 ft. (between 1.7 m and 2.5 m) at the top of the device.
Choose your pole type	You can secure the pole bracket to any type of pole using banding straps, lag screws, or nuts and bolts. The included banding straps are sized to mount the StatTrak-E either to a 2-in. (5-cm) Telespar-type pole, a 4-in.-to 5-in. (10-cm to 13-cm) diameter round metal pole, or a 4-in. x 4-in. (10 cm x 10 cm) wooden pole. For larger poles, you'll need longer banding straps, available from hardware stores.
Avoid stop-and-go traffic	Avoid locations with frequent tailgating or stopped traffic, as data accuracy is significantly impacted by these traffic conditions.
Use a stable structure	Mount the StatTrak-E on a stable and firm structure. Avoid structures that are likely to be affected by wind or rain.

Creating a Site in TraffiCloud

To generate reports you'll need to create at least one Site for each StatTrak-E and then assign your device to it. Sites are the key to generating traffic reports, because TraffiCloud organizes traffic data for reports by Site. You can perform these steps before (recommended) or after you install a device at a physical location.

What you'll need

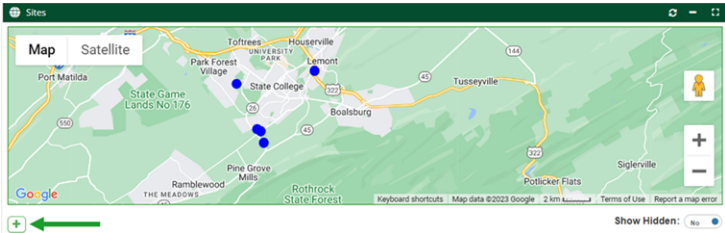
» TraffiCloud access, a computer or mobile device with Internet access, and an authorized StatTrak-E.


To create a Site in TraffiCloud:

- A. Sign in to TraffiCloud. See *Step 2: Signing in to TraffiCloud for the first time on page 2.*
- B. On the navigation menu, click **Sites** and then click the **Plus** sign  under the map.

The **Add Site** window opens.

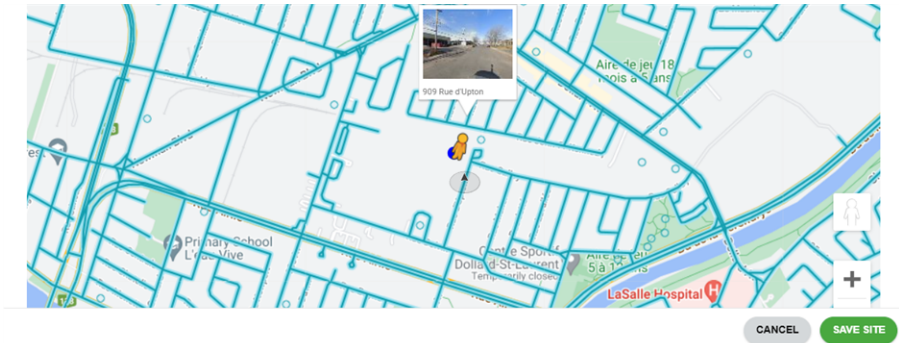
- C. Enter the Site settings. Here are a few detailed descriptions of the fields and what you can do:



Setting	What you can do
Name	Enter a Site name that will identify the location for the StatTrak-E in the Sites list. For example, Whitehall Road.
Description	Optionally, enter a description for the Site.
Speed Limit	Enter the speed limit for the Site.
Primary Direction of Travel	Select the primary direction of travel, where vehicles will be approaching the front of the device: North , South , East , or West . If the street direction is between two primary directions, choose the closest one. Shield signs do not detect bidirectional traffic.  NOTE: Once you have report data for a Site, it's best not to change the direction of travel. Instead, create a new Site for that direction.
	Alternatively, you can zoom the map until you can see street names. To zoom in, Do any of these: <ul style="list-style-type: none">» Roll the middle mouse button forward,» Use the + sign on the bottom right corner of the map, or» Click the keyboard + key. See the Keyboard Shortcuts at the bottom-right corner of the map as well.

Setting	What you can do
	<div>» As you zoom, click and hold the mouse button on the map to drag and reposition your view of the blue dot or status marker.</div> <div>Drag the blue dot to the planned location. The goal is to move the dot to within 100 feet of the Site address.</div>

 **TIP:** You can also use Google Satellite view or drag the Pegman  onto the map to switch to Street view. Drag the Pegman to the blue dot and release the mouse button when you see the street view popup.



- D. Click the **Save Site** button. Your Site will appear in the **Sites** list in the main window. By default, only active Sites show in the list. Click **Show Hidden** to show all Sites, including active and hidden Sites.

Repeat these steps for multiple Sites

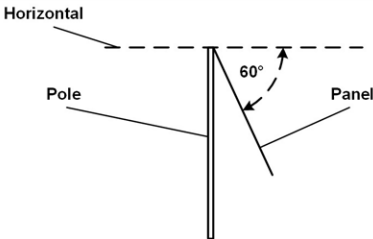
If you'll be using a StatTrak-E at multiple Sites, you can repeat the above steps for those Sites or add them later.

STEP 4: MOUNTING A SOLAR PANEL

If your purchase includes a solar panel, mount it high on the pole out of easy reach of vandals, optimally 10 ft. to 12 ft. (3 m to 3.7 m) above the road surface. Use the supplied solar panel bracket and follow the instructions included in the bracket packaging.



Solar charging is typically strong enough to keep the StatTrak-E battery adequately charged, but battery charge levels can be compromised by lack of direct sunlight – from cloudy or hazy conditions to excessive shade, to snow, leaves, pollen, or dust buildup on the panel. To avoid the need for recharging, locate the panel where you know there will be good sunlight and keep the panel clean. If you do need to recharge the StatTrak-E after deployment, you can remove it from the pole and follow the instructions in [Step 1: Charging the StatTrak-E on page 2](#). If you have spare batteries that are charged or you can't remove the StatTrak-E from the pole, see [Replacing StatTrak-E batteries on page 16](#).




The two-part bracket allows for full adjustment to best position the panel towards the Sun. If your site will be in the northern hemisphere, it's optimal to position your solar panel towards due Solar South (not magnetic South), and if your site will be in the southern hemisphere, it's optimal to position your solar panel towards due Solar North (not magnetic North).

Regardless of whether you are in the northern or southern hemisphere, Solar North/South is the position of the Sun in the sky at exactly the midpoint between sunrise and sunset.

The solar panel should be angled 15 degrees above the latitude of the installation site. For example, if the latitude of the installation site is 45 degrees then the solar panel should be installed at an angle 60 degrees down from horizontal, as shown above.

You can easily obtain the latitude of the installation site from mapping apps or websites, such as by doing an Internet search for "latitude *your_city*" where *your_city* is the name of the city or region where the panel is being installed.

 **NOTE:** For details about assembling, aiming, and mounting a solar panel and bracket, refer to the installation document included with them. See also [Step 7: Connecting a solar panel to the StatTrak-E on page 9](#).

STEP 5: INSTALLING THE MOUNTING BRACKETS

The StatTrak-E comes with a pole mounting bracket that enables you to mount the device securely to virtually any type of pole.

To attach the pole bracket to the StatTrak-E (first-time setup only):

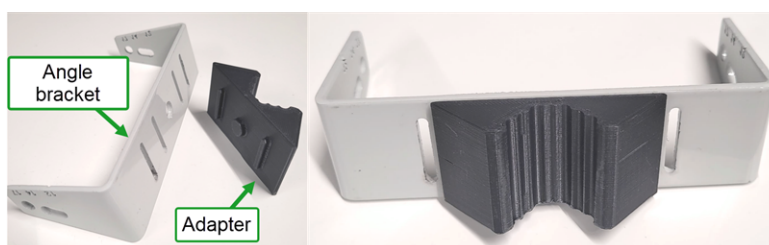
- Attach the bracket to the back side of the StatTrak-E using the included hardware:
 - i. Place the StatTrak-E face down on a workbench or other smooth, flat surface.
 - ii. Place the pole bracket back to back with the StatTrak-E, aligning the top end of the bracket with the top back side of the StatTrak-E. The top end of the bracket has the threaded bolt fittings for attaching the angle bracket, as shown. The top of the StatTrak-E has the round antenna and the bottom has the key slot and charger port.
 - iii. Install the bolts into each of the four bottom, corner holes on the StatTrak-E and the pole bracket, also as shown.



If you'll be installing the StatTrak-E on a Telespar-type pole:

For installations on Telespar-type square poles at the roadside, which require angling the device at 45 degrees to the flow of traffic, install the two included pole adapters as follows:

- A. Plug the larger adapter into the angle bracket by aligning it to the round middle slot and the inner banding strap slots and pressing it into place, as shown.



- B. Slide the metal pole adapter clip onto the bottom notch in the back of the pole bracket, as shown here:



Insert the banding straps for pole mounting the StatTrak-E:

- A. Thread a stainless steel banding strap through the mounting slots on the pole bracket. Ideally, make sure the small buckle on the strap is positioned to secure the loose end of the strap (as shown below right).
- B. Squeeze the second stainless steel banding strap into a narrow loop (as shown below middle) and thread it through the mounting slots on the angle bracket, **being careful not to pinch your finger between the bracket and the banding strap**.



C. Do one of the following:

- For 4-in. (10 cm) poles, thread one of the longer banding straps through the inner bracket slots of the angle bracket and the other longer banding strap through the bottom slots of the pole bracket. You won't need the shorter strap.
- For 2-in. (5 cm) Telespar-style poles, thread the shorter banding strap through the outer slots of the angle bracket and thread the longer banding strap through the bottom of the pole bracket, as shown.

To set the downward mounting angle:

- Install the angle bracket onto the pole bracket, making sure to place the bracket so that the angle numbers are facing up:
 - For roadside installations**, install and tighten the angle bracket into the 17-degree slot.
 - For median installations**, install and tighten the angle bracket into the 12-degree slot.
 - Thread the bolts and washers into the threaded fittings and tighten them with a wrench.



STEP 6: MOUNTING AND AIMING THE STATTRAK-E

Use the steps in this section for help with setup. Like speed-enabled radar signs, the StatTrak-E must be located in close proximity to the traffic being monitored, directly facing the traffic for median installations, or facing the roadway at a 45-degree angle for roadside installations.

Positioning the StatTrak-E

To optimize data capture accuracy, position the StatTrak-E at the roadside or on the median so that the device has an unobstructed line of sight to the traffic lanes you want to measure and detects vehicles when they're about 100 ft. (30 m) feet away. The green LED on the base of the StatTrak-E flashes when it detects a vehicle.

Installing the StatTrak-E on a pole

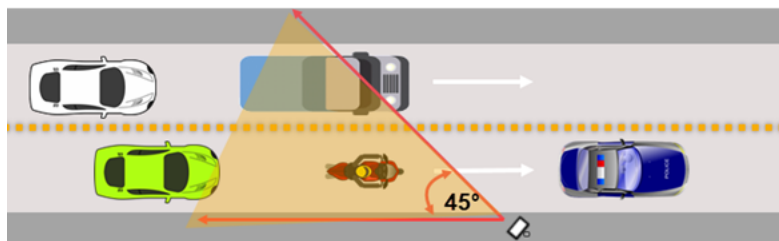
- » Place the StatTrak-E on your selected pole at the planned horizontal angle to the traffic and a height between 5 ft. 6 in. and 8 ft. (1.7 m and 2.5 m). Then, tighten the included banding straps to the pole with a nut driver and power tool.

To install the StatTrak-E on a Telespar-style pole:

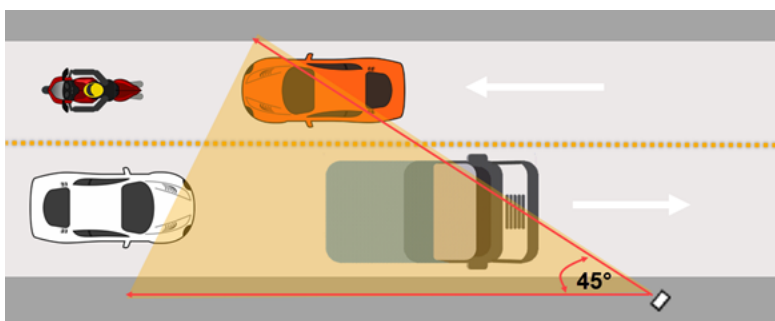
- » Make sure you install the pole bracket and angle bracket adapters (roadside installations only) as shown [on the previous page](#).
- » Set the required horizontal angle to the traffic (directly facing the traffic for median installations or angled at 45 degrees for roadside installations).

Step 6a: Positioning for roadside installations

Use one of the following approaches to set up roadside monitoring. For two-lane traffic moving in the same direction:



For bidirectional traffic:



If you use a smaller horizontal angle than 45 degrees (more directly facing the traffic), speed data will be improved, but vehicle counts will not be as accurate.

These steps apply equally for two-lane traffic moving in the same direction or bidirectionally.

To monitor two lanes of moving traffic:

- Install the StatTrak-E closest to the incoming lane of traffic, as shown above.
- Position the device at a 45-degree angle to the traffic.
- Recheck the downward angle you set [on the previous page](#) to ensure it's at 17 degrees.

Step 6b: Positioning for median installations

For median installations, you'll need to check the lane measurements and use the steps below.



WARNING: RISK OF INJURY OR FATALITY. Exercise caution and follow local traffic regulations when entering roadways. If necessary, estimate the lane measurements.

Lane measurements

If safe to do so, check the following lane measurements at the installation site and enter them in the StatTrak-E mobile app (see [Using the mobile app on page 11](#)). If it's not safe to enter the roadway, do your best to estimate the lane measurements.

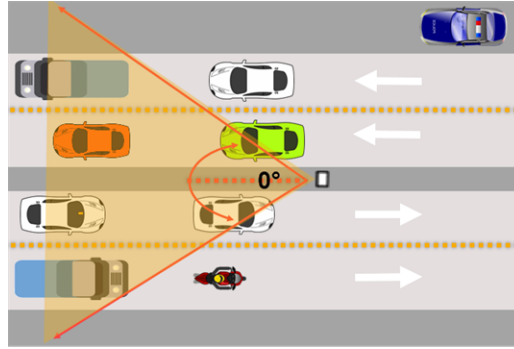
Lane measurement	Default value
Distance to the middle of the first lane	13 ft. (3.6 m)
Distance to the middle of the second lane	23 ft. (7 m)
Lane width	13 ft. (3.6 m)

To set up monitoring for four lanes, bidirectionally:

Use the following setup to monitor four lanes of traffic, with two lanes moving in one direction and the other two lanes moving in the opposite direction. For median installations, traffic must be moving in opposite directions, as shown below.

- Install the StatTrak-E on a pole on the median of the road.
- Position the device directly facing either direction of traffic, parallel to the roadway (a 0-degree angle).
- Recheck the downward angle you set [on the previous page](#) to ensure it's at 12 degrees.

Here is an example StatTrak-E median placement, covering four lanes, with two lanes outgoing and two lanes incoming.



STEP 7: CONNECTING A SOLAR PANEL TO THE STATTRAK-E



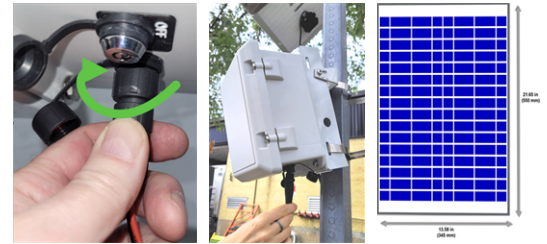
CAUTION: Before doing any maintenance on a StatTrak-E, it is critical that you first turn off the power. This will prevent the risk of electrical shock and damage to electrical components. Also, you should always disconnect the solar panel beforehand if ever you need to change the batteries. See [Replacing StatTrak-E batteries on page 16](#).

Use the instructions in this section to connect the StatTrak-E to the optional solar panel.

The solar panel and StatTrak-E come with IP68 electrical cable connectors for waterproof connection, as shown. The solar panel and smart battery charger use the same port on the bottom of the StatTrak-E.

To connect the solar panel to the StatTrak-E:

- A. Insert the solar panel IP68 connector plug into the StatTrak-E power connectors.
- B. Twist to tighten the connector plug onto the port, as shown.



STEP 8: POWERING ON THE STATTRAK-E

Here's how to power on the StatTrak-E once you're ready to start collecting traffic data.

To power on the StatTrak-E:

- A. Turn the key on the bottom of the StatTrak-E enclosure one quarter turn clockwise to the **ON** position, as shown. After about 30 seconds, the status light on the bottom of the enclosure flashes green to indicate that the device is powered on. The LED turns off after that, and flashes only when traffic is detected or if you cycle the power on and off.
- B. Remove the keys and keep them in a secure location.



NOTE: To conserve battery life, power down the StatTrak-E when not in use. Turn the key to the **OFF** position.

STEP 9: SETTING UP THE STATTRAK-E MOBILE APP

Once the StatTrak-E is installed at your monitoring site, use this section to test and configure it using the StatTrak-E mobile app and to upload data to TrafficCloud.

What you'll need


- » An Android mobile device with the StatTrak-E mobile app and with Bluetooth enabled. To download the app, go to the Google Play Store on your Android device, find StatTrak-E and click **Install**. You can use the following direct link or use the QR code shown at right:

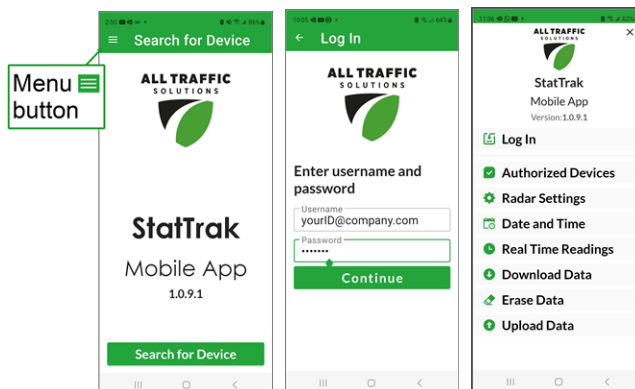
<http://bit.ly/3nbmylL>


- » An authorized StatTrak-E and TrafficCloud account and password.
- » Close range access to your StatTrak-E.



To log in to your StatTrak-E:

- On your mobile device, open the StatTrak-E mobile app and tap the menu button  at the top left of the splash screen, as shown.



- Tap **Log In**, enter the app credentials provided by your administrator, then tap **Continue**.
- Tap the menu button  > **Authorized Devices** > **Update**.


To pair your mobile device with your StatTrak-E:

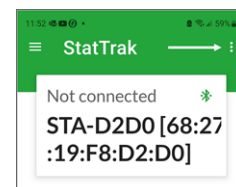
- Go to **Connections > Bluetooth** on your Android mobile device and select the StatTrak-E from the list (for example, STA-D2D0, as shown below). The StatTrak-E name is always a three-letter prefix (STA-) and then four characters from the MAC address of your StatTrak-E.
- Use pairing code "1234" or "ATS" to complete the pairing.



To connect your mobile device to your StatTrak-E:



NOTE: Only one Bluetooth connection is allowed at a time.

- Open the StatTrak-E mobile app and in the app splash screen tap **Search for Device**. The **Nearby Devices Detected** page opens, showing the MAC addresses of detected and available devices.
- If no devices are available, tap the **Refresh** icon .
- Tap **Allow** if your mobile device asks you if you want to give permission to the app to use your location.
- Tap the MAC address of your StatTrak-E (the last four characters are unique). A connection page opens.




- E. Tap **Connect** . The **Connected to** page opens, showing the connection details, including the MAC address of the StatTrak-E, as well as its **Serial Number**, **Firmware Version**, **Network Strength**, **Battery Status**, and **Directional Mode (bidirectional)**.
- F. Tap **Disconnect**  when you're ready to end your session.

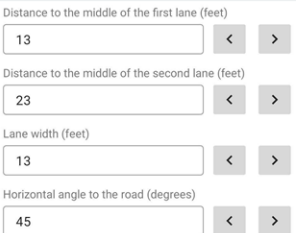
Using the mobile app

With the StatTrak-E mobile app, you can do the following:

- » Enter the lane dimensions you recorded in [Step 6: Mounting and aiming the StatTrak-E on page 7](#). The default dimensions are based on standard lane sizes, but it's important to update them for radar precision.
- » View real time radar readings.
- » Download, upload, and erase app data.
- » View the default radar settings. For most median installations, the default radar settings are all you need, in which case you can leave them as is. However, in some special traffic scenarios such as if the road in front of the StatTrak-E is curved, it may be necessary to decrease the signal level.
- » Synchronize the date and time between your mobile device and StatTrak-E.

To view and configure StatTrak-E settings:

- A. Tap the menu button  at the top left of the splash screen. The menu page opens (see [To log in to your StatTrak-E: on the previous page](#)).
- B. Tap **Date and Time**, and then tap the **Sync** button to synchronize the date and time of StatTrak-E with your mobile device. This is necessary the first time you use StatTrak-E or if it's been turned off for a long time.
- C. From the main menu page, you can view or adjust the app settings, as shown in the following table:

Feature	What you can do	
Radar Settings Direction	Set the app to the direction of the traffic you plan to monitor. <i>For median installations:</i> <ul style="list-style-type: none"> • Bidirectional 	
	<i>For roadside installations:</i> <ul style="list-style-type: none"> • Incoming, Outgoing, or Bidirectional (the default) 	
Type	Sets the type of traffic measurement you'll be using. <i>For median installations:</i> Four lanes, installation in the middle of the road. <i>For roadside installations:</i> <ul style="list-style-type: none"> • One/two lanes incoming, • One/two lanes, outgoing, • First lane is incoming and second lane is outgoing (the default), • First lane is outgoing and second lane is incoming. 	
Distance to the middle of the first lane	Enter the distance to the middle of the first lane (in feet or meters, depending on your account settings). The default value is 13 ft. (4 m).	
Distance to the middle of the second lane	Enter the distance to the middle of the second lane. The default value is 23 ft. (7 m).	
Lane width	Enter the lane width. The default value is 13 ft. (4 m).	

Feature	What you can do
Horizontal angle to the road (degrees)	Enter the horizontal angle to the road, in degrees. The default value is zero degrees for median installations and 45 degrees for roadside installations.
Advanced settings	
Traffic volume/burst	Set the radar sensitivity to adjust for capacity of vehicles and congestion, such as sudden volume increases and vehicles passing simultaneously. The range is from two, where two small vehicles may be interpreted as one larger vehicle, to 10, where small vehicles will be correctly identified but long vehicles may be over-counted. The default setting is six.
Radar sensitivity in percent	Set the radar sensitivity, ranging from least to most sensitive. Radar sensitivity is used to tune the radar system to detect harder to detect vehicles with lower reflectivity, or that are smaller or farther away. If you set the sensitivity value higher, the radar can detect weaker signals from smaller or less reflective objects. The range is from one percent to 100 percent. The default setting is 60 percent.
Radar amplification factor	Radar amplification, when applied to received radar signals, enhances the signal, which can improve vehicle detection when further away or in heavy weather conditions. The range is from one to seven. A setting of one applies minimum amplification, so the radar will primarily detect large vehicles and may skip smaller ones. A setting of seven applies maximum amplification and in addition to detecting large vehicles, will better detect smaller vehicles. The default setting is seven.
Statistics speed	Enable the system to calculate and display vehicle speeds and defines the range of speeds to be recorded. The default range is from three mph to 100 mph (five to 160 km/h).

You can also perform the following functions with the mobile app:

Feature	What you can do
Date and Time	Tap Date and Time , and then tap the Sync button to synchronize the date and time of StatTrak-E with your mobile device. This is necessary the first time you use StatTrak-E or if it's been turned off for a long time. You can also use Date and Time to stage your device for use in another time zone.
Real Time Readings	Display incoming and outgoing traffic volume and speeds, by date and time. Only the last three vehicles detected are shown with full data (date, time, and speed). Flash speed represents how frequently the display updates, in seconds. Click the radio button and enter a number to change it. Click Clear Count to clear the readings.
Download and Erase Data	Display the data downloaded to your mobile device by date. Click Download and Erase to download data to your device and erase it from the app.
Erase Data	Click to erase all existing traffic data downloaded to the StatTrak-E.
Upload Data	Click to upload StatTrak-E traffic data from your mobile device to TrafficCloud.

Real Time Readings	
Traffic	
INCOMING	4
2023-03-17 14:46:04	9 mph
2023-03-17 14:46:02	9 mph

STEP 10: CONFIRMING YOUR INSTALLATION

Use either of the following methods to confirm that the StatTrak-E is working:

First, make sure the device is powered on. See [Step 8: Powering on the StatTrak-E on page 9](#).

- » Check the green LED at the base of the StatTrak-E. The LED flashes 30 seconds after you turn on the device and whenever it detects a passing vehicle.
- » Check for **Real Time Readings** in the StatTrak-E mobile app. See [Using the mobile app on page 11](#).

At this point, your work is complete until the StatTrak-E finishes collecting your traffic data. All Traffic Solutions recommends conducting traffic studies for at least two weeks. The data uploads automatically to TrafficCloud. Bring it in to your shop to recharge and upload the data to TrafficCloud.

TRANSFERRING YOUR DATA TO TRAFFICLOUD


Use the steps below to enable generating Traffic Analysis and Raw Data reports.

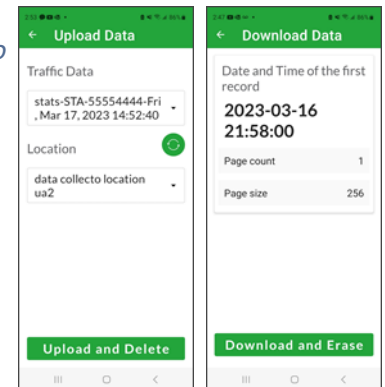
To set StatTrak-E up for the next traffic study, it's necessary to delete the current traffic data from the StatTrak-E and the mobile device.

What you'll need

- Android OS version 7.0 or higher and Bluetooth connection to the StatTrak-E mobile app.
- The StatTrak-E mobile app in [Google Play Store](#). For details, see [Using the mobile app on page 11](#).
- TrafficCloud credentials and an authorized device.

To transfer your data to TrafficCloud:

- A. Tap the menu button  at the top left of the splash screen. The menu page opens (see [To log in to your StatTrak-E: on page 10](#)).
- B. Tap **Log in** to sign in to the StatTrak-E mobile app. See [Step 9: Setting up the StatTrak-E mobile app on page 10](#).
- C. Click the **Download and Erase** button to download your data from the StatTrak-E to your mobile device and erase it from the app. This process will download all data from the StatTrak-E to the current mobile device.
- D. Click the **Upload and Delete** button to upload the data from your mobile device to TrafficCloud.
- E. In the **Location** box, choose the **Site** you created in [Creating a Site in TrafficCloud on page 4](#).



GENERATING REPORTS

All Traffic Solutions StatTrak-E vehicle counting and classification devices collect report-ready data as vehicles pass the device, and classify them by small, medium, and large. These reports include data for compliant versus low-, medium-, and high-risk drivers, 85th percentile speeds, traffic calming effectiveness, and other measures. The **Reports** feature analyzes and presents the data in a variety of useful ways to help with traffic planning and enforcement.

StatTrak-E users with local Bluetooth TrafficCloud access only can generate two **Count & Classify** reports: **Traffic Analysis** reports and **Raw data** reports, and can upload the data to TrafficCloud using the procedure explained in [Transferring your data to TrafficCloud above](#).



TrafficCloud **Reports** pages include a place to select the Site you want reporting on, a calendar to select the date range, options for report selection and configuration, and for setting up and managing report scheduling. See [Configuring reports on page 15](#).

StatTrak-E Using Count & Classify reports

TraffiCloud includes the following specialized traffic reports for StatTrak-E, showing vehicle counts and classifications by small, medium, or large:

Report name	What it does
Overview - Traffic Analysis	Provides an overview of the speeds identified, over one or two lanes, total vehicles and total 85th percentile vehicles, volumes and violators, and then a summary of the number of vehicles by class: small, medium, and large.
Raw Data Export	Tracks date and time, number of lanes, direction, and speed.

To generate reports:

- On the navigation menu, click **Reports**. The **Traffic Reports** page opens. You can stay on the **Traffic**  page, or for reports about equipment status, click **Operational** .
- Click in the **Sites** box and select your Site from the drop-down list. The Site determines the device you'll be collecting data for. You can filter the list by typing Site names and then selecting your Site.
- Select the dates for your report. See [Configuring reports on the facing page](#).
- Under **Report Type**, select **Count & Classify**.
- Click the **Select Report** drop-down list, and select a report type. The figure below shows an **Overview** report selected, with **Violation Threshold** set to the default 10 mph (16 kph) above the speed limit and two lanes selected.

REPORT CONFIGURATION

Report Type: Count & Classify

Select Report: Overview

Violation Threshold: 10

Traffic Reports

Report Category: Single Site

Sites: ATS STATE COLLEGE FACIL...

Date Range: 06/15/2023 - 06/21/2023

REPORT CONFIGURATION

Report Type: Count & Classify

Select Report: Overview

Violation Threshold: 10

DATA FILTERS

Time of Day: 0:00 to 23:59

Days of Week: 7 items selected

Lanes: 2 items selected

Speed: 1 - 150 mph


LAST 7 DAYS **LAST 30 DAYS** **LAST 60 DAYS** **LAST 90 DAYS** **CUSTOM RANGE**

MANAGE SCHEDULED REPORTS **GENERATE** **SCHEDULE**

- In the **Data Filters** section, you can accept the defaults or adjust the settings for **Time of Day**, **Day of Week**, **Lanes**, and **Speed**.
- Click the **Generate** button to create a report for the selected date range. Your report displays below the configuration sections.

Configuring reports

Use the following table for help using the TrafficCloud **Reports** page:

Setting	What you can do
Report Category	In the Report Category box, use the default Single Site option.
Sites	Select a Site or Sites from your list. A report must have at least one Site assigned before you can generate it.
Date Range	<p>Reports also require a date range. You can use the buttons for the last seven, 30, 60, or 90 days, or even enter dates manually, using the format MM/DD/YYYY.</p> <p>To select from the calendar:</p> <ol style="list-style-type: none"> 1. Click the Custom Range button. 2. Click the start date. 3. Move the mouse pointer to the end date. 4. Click the end date. <p>NOTE: To view premium reports, you must select dates if you previously had a full TrafficCloud subscription.</p>
Report Configuration	
Report Type	StatTrak-E and Speedlane devices use the Count & Classify reports.
Select Report	Select one of the available report types: Overview (Traffic Analysis) or Raw reports.
Violation Threshold	Sets the speed in mph (or kph) that will be considered a violation. The default is 10 mph above the speed limit, but you can change it before you generate the report (Premium feature).
Data Filters	
Time of Day	Sets the time span during a given day for the report, with the default being 0:00 to 23:59.
Days of Week	Sets the days of the week for the report to gather data.
Lanes	Sets the number of lanes to be monitored, either 1 or 2.
Speed	Sets the speed range the report should include.
Scheduled reports	
Manage Scheduled Reports	Opens the Manage Scheduled Reports window, where you can adjust existing schedule settings.
View icon 	Opens the Schedule window, where you can create recurring automatic report generation. Give the report a name, select other users on the TrafficCloud account, file type, and time of day and frequency of the report, which can be any or all of the days of the week or month.
Generating reports	
Generate	Generates the report - scroll down on the Reports page to view it.

REPLACING STATTRAK-E BATTERIES

Use this procedure to replace StatTrak-E batteries. No electrical certification is required to complete this procedure.

If you purchased a solar panel with the StatTrak-E, only one battery is included.



CAUTION: Before doing any maintenance on a StatTrak-E, it is critical that you first turn off the power. This will reduce the risk of damage to electrical components or minor electrical shock.

To avoid overloading StatTrak-E circuit boards with electricity from the solar panel (if equipped), ALWAYS disconnect the solar panel before changing batteries.

What you'll need

- » One or two lithium iron phosphate batteries supplied by All Traffic Solutions. Batteries that do not meet All Traffic Solutions specifications are not supported. For details about charging, see [Step 1: Charging the StatTrak-E on page 2](#).
- » The StatTrak-E security key.
- » The smart charger and adapters included with your StatTrak-E batteries.



WARNING: RISK OF ELECTRIC SHOCK OR EQUIPMENT DAMAGE:

Failure to follow these guidelines could result in electric shock and personal injury or damage to the StatTrak-E or its components.

To charge a battery or batteries:



WARNING: RISK OF FIRE The battery charger is designed for use in protected environments only and must not be left unattended during charging. Keep the charger and batteries free of moisture and away from flammable or explosive goods. Place the charger on a flat, non-flammable surface in a well-ventilated environment. Do not cover the charger when charging and ensure that ambient room temperatures do not exceed 104°F (40°C). Do not modify the charger, accessories, or connectors as this may cause a short circuit, fire, or over-heating. All Traffic Solutions is not liable for any damages caused by such changes.

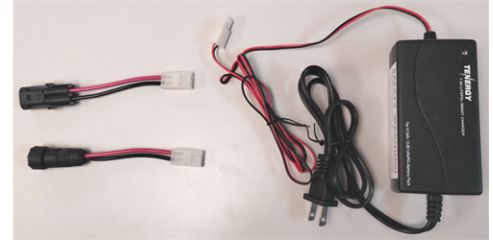
- A. Unpack the battery or batteries, smart charger, and adapters and place them on a smooth, non-flammable work surface sheltered from precipitation or any other moisture. See the warning above for safety guidelines. If you're recharging installed batteries, skip this step and see [Step 1: Charging the StatTrak-E on page 2](#).
- B. Connect the power cable to the charger.
- C. Connect one of the two adapters to the charger power cable.
- D. Connect the charger to one of the new batteries (or battery if you have a solar panel), as shown at right.
- E. Plug the charger into your AC power source.
Depending on the model of your charger, the LED or charging gauge turns green or shows 100% when charging is complete.
- F. Repeat the previous steps to charge the second battery, if applicable.
- G. Unplug the battery charger when you have completed charging the batteries.



CAUTION: Never connect a fully charged battery with a discharged battery.

To replace the StatTrak-E battery or batteries:

- A. Place the StatTrak-E on a smooth, non-flammable work surface sheltered from precipitation or any other moisture. See the **"Warning: RISK OF ELECTRIC SHOCK OR EQUIPMENT DAMAGE"** above for safety guidelines.



- B. Turn off the StatTrak-E by inserting the security key and turning it 1/4 turn counter-clockwise to the OFF position. See [Step 8: Powering on the StatTrak-E on page 9](#).
- C. If your device has a solar panel, unscrew the IP68 connector plug.
- D. Open the StatTrak-E enclosure by unlocking the enclosure and opening the latches on the right side of the cover.
- E. Open the hook and loop fasteners holding the battery or batteries in place.
- F. Detach the battery power connectors (shown at right) from the StatTrak-E to the battery or batteries.
- G. Pull on the black battery straps and pull up on the bottom of the batteries to lift them out of the enclosure one at a time.
- H. Place the new battery or batteries inside the enclosure, positioning the battery harnesses at the top. For the first battery, tilt the top side in first and then press down firmly on the bottom, as shown, until it drops into place.



Unscrew the IP68 connector plug

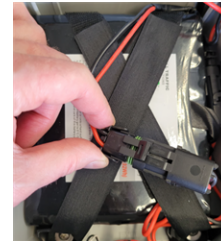


WARNING: Lithium batteries come with a protective outer wrap, which *should never* be removed, as doing so damages the batteries and creates a potential hazard. The lithium batteries supplied with the StatTrak-E are stable and safe when handled and used properly. Do not bend the batteries or attempt to puncture them with sharp objects as this could cause a fire or explosion.

- I. Reconnect the battery power connectors and then tightly reconnect the hook and loop fasteners in a cross-over pattern, as shown.



CAUTION: RISK OF DAMAGE TO EQUIPMENT To avoid damage to internal components caused by loose batteries, be sure to tightly reattach the hook and loop fasteners so that they pass through the buckles and cross over each other, securing the batteries in position.



LEDs on the StatTrak-E circuit boards light up when the device starts receiving power from the new battery or batteries. This is normal, even when the power switch is turned off.

- J. Close the StatTrak-E cover and secure and lock the enclosure latches properly with the included key.



CAUTION: It is vitally important, whenever you close the StatTrak-E, that you secure and lock the enclosure latches properly to avoid water infiltration, as this could damage the product and render your warranty null and void.

- K. Reconnect the solar panel, if applicable. See [Step 7: Connecting a solar panel to the StatTrak-E on page 9](#).
- L. Turn the power back on when you're ready to begin monitoring traffic with the new battery or batteries in place. See [Step 8: Powering on the StatTrak-E on page 9](#)

CONTACTING CUSTOMER SUPPORT

If you have questions or comments regarding this document or about configuring your StatTrak-E, please feel free to contact our Customer Support team (please have your device serial number ready):

- By email: support@alltrafficsolutions.com
- By phone: 1-866-366-6602, Option 2

Standard hours (ET): 8:00 AM to 6:00 PM, M-F

Technical documentation and training

If you have a TrafficCloud subscription, please visit our [ATS Start-Up Guides](#) page for links to the most recent versions of our technical documentation, including the *Getting Started with TrafficCloud* series. If you have local Bluetooth access only, please visit the Technical Customer Support page.

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