

STATTRAK-E QUICK START GUIDE, TRAFFICLOUD SUBSCRIBER EDITION



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 (small, medium, and large). For roadside installations, StatTrak-E captures traffic data simultaneously for up to two lanes of traffic, moving in the same or opposite directions, and for median installations captures up to four lanes bidirectionally. For TrafficCloud subscribers, data uploads automatically to the cloud.

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 page 3*
 - Step 3: Choosing a Site for your StatTrak-E on page 3*
 - Step 4: Mounting a solar panel on page 6*
 - Step 5: Installing the mounting brackets on page 7*
 - Step 6: Mounting and aiming the StatTrak-E on page 8*
 - Step 7: Connecting a solar panel to the StatTrak-E on page 10*
 - Step 8: Powering on the StatTrak-E on page 11*
 - Step 9: Setting up the StatTrak-E mobile app on page 11*
 - Step 10: Confirming your installation on page 14*
- After deployment, please see:
- Replacing StatTrak-E batteries on page 14*



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. Here's 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, and keys for the ON/OFF switch. If you purchased a solar panel, only one battery is included.	A sheltered workspace and electrical power supply.
A main pole bracket, three stainless steel banding straps, and a custom security bit. See <i>Step 5: Installing the mounting brackets on page 7.</i>	A nut driver and power screwdriver or drill.
Six 3/4-in. long x 1/4-in. diameter (7.6-cm x 2.5 cm) -20 size bolts, with 7/16-in. (11 mm) nuts and washers.	Two wrenches or nut drivers with 7/16-in. (11 mm) sockets.
An angle bracket, two bolts with washers, a Torx T-30 security bit with 1/4-in. (6 mm) shank, and two pole adapters for roadside use with Telespar-type poles.	An Android mobile device and the StatTrak-E app.

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. If your StatTrak-E includes a solar panel, you'll need to mount and connect it in [Step 4: Mounting a solar panel on page 6](#) and [Step 7: Connecting a solar panel to the StatTrak-E on page 10](#).

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 an AC 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, **All Traffic Solutions strongly recommends** that you 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 to test during pole mounting. See [Step 6: Mounting and aiming the StatTrak-E on page 8](#).



WARNING: RISK OF ELECTRIC SHOCK OR EQUIPMENT DAMAGE 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). Turn off the power supply before you connect or disconnect the charger and batteries. 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. Failure to follow these guidelines could result in electric shock or damage StatTrak-E, rendering your warranty null and void.

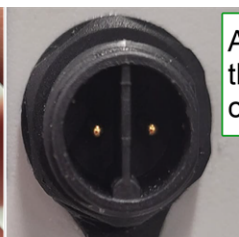
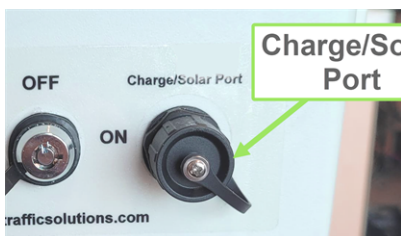
To charge the StatTrak-E:

- 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 11](#).
- 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 charger cable adapter with the dual-use solar power and battery charging port (shown below), and insert it into the port.
 - iii. Twist to tighten the cable adapter onto the port.

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.



Aligning
the cable
connectors



Tighten the
electrical cable
connector 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 and run traffic reports. When you purchase your StatTrak-E, you'll need to provide All Traffic Solutions with the company email addresses of your planned users, and then we'll send them a Welcome email with a temporary password and a link to TrafficCloud. Make sure your account administrator has set up a user account for you.

What you'll need

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

To sign in to TrafficCloud:

- 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 TrafficCloud administrator. You can also let your Web browser suggest and save a secure password.
- Click the **Change Password** button.

The TrafficCloud **Dashboard** page opens and confirms that you have successfully changed your password. You can reset your password as needed using **Change Password** on the TrafficCloud **User** menu.

STEP 3: CHOOSING A SITE FOR YOUR STATTRAK-E

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

- » [Creating a Site in TrafficCloud below.](#)
- » [Selecting a physical location for the StatTrak-E on page 6.](#)


Creating a Site in TrafficCloud

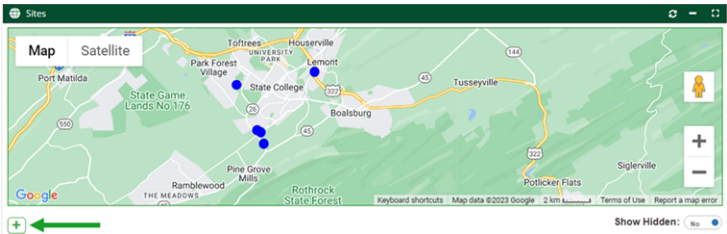
To generate reports you'll need to create at least one Site for each StatTrak-E and then assign your device to it. Sites are the key to generating traffic reports, because TrafficCloud organizes traffic data for reports by Site. You can perform these steps before (recommended) or after you install a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

What you'll need

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

To create a Site in TrafficCloud:

- Sign in to TrafficCloud. See [Step 2: Signing in to TrafficCloud for the first time above.](#)
- On the navigation menu, click **Sites** and then click the **Plus** sign  under the map.



The Add Site window opens.

Add Site

Name

:

Site Name

Description

:

Description

Speed Limit (MPH)

:

Speed Limit

Primary Direction of Travel

:

Show advance options

Q

3100,Research Dr,State College,PA,16801,US

X

Drag pin to required location

Map

Satellite

State College Orthodontics

Nittany Dental Associates

The Learning Station

Autumnwood Park

State College Alliance Church


State College

Research Dr

Enterprise Dr

W Whitehall Rd

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.
Address	Enter an address for the Site using one of the following methods. The blue dot represents the Site for your StatTrak-E on the map. » In the address search box, enter the address or intersection where the StatTrak-E will be located. The address field displays pattern matches for the address as you type. Select the address from the list. You can also copy and paste an address from your address book.

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Selecting a physical location for the StatTrak-E

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

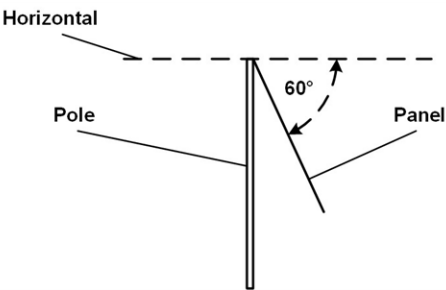
Guideline	What to do
Choose a flat location, adjacent to the roadway	Choose a location on a flat straight road section, directly adjacent to the roadway, where the line of sight from the StatTrak-E to the vehicles being counted will be uninterrupted by other traffic lanes, or parked vehicles or sidewalks. Consider how the location may develop with time, such as trees or other new structures that may block the StatTrak-E or solar panel.
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 the distance from the roadway	Ideally, place the StatTrak-E within 12 ft. (3.7 m) of the roadway.
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 enclosure to 8 ft. (between 1.7 m and 2.5 m) at the top of the enclosure.
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.

STEP 4: MOUNTING A SOLAR PANEL

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, use the instructions in [Replacing StatTrak-E batteries on page 14](#) to ensure optimum battery charge levels, recharging, and storage.



If your purchase does include 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. 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.

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 assembly and mounting of the 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 10.

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):

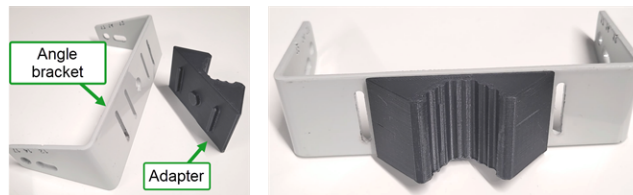
- Attach the bracket to the back side of the StatTrak-E using the included hardware:
 - i. Place the StatTrak-E face down on a workbench or other smooth, flat surface.
 - ii. Place the pole bracket back to back with the StatTrak-E, aligning the top end of the bracket with the top back side of the StatTrak-E. 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, you'll need to 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 accuracy of the data capture, 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

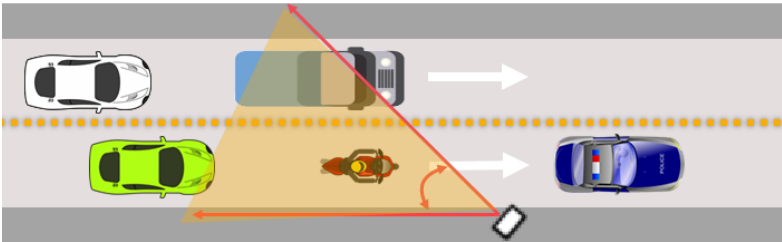
- Place the StatTrak-E on your selected pole at the planned horizontal angle to the traffic and a height between 5 ft. 6 in. and 8 ft. (1.7 m and 2.5 m). Then, tighten the included banding straps to the pole with a nut driver and power tool.

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

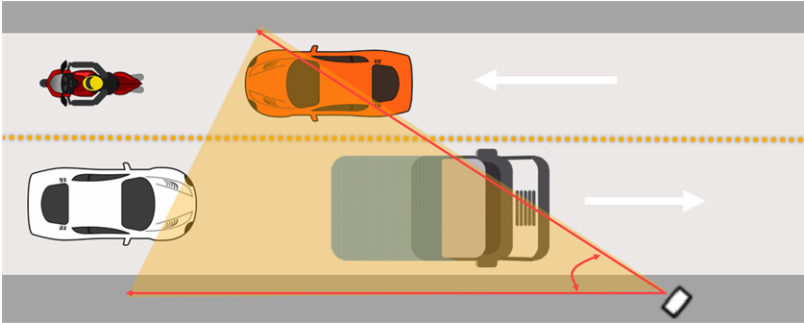
- Make sure you install the pole bracket and angle bracket adapters (roadside installations only) as shown [on the previous page](#).
- Set the required horizontal angle to the traffic (directly facing the traffic for median installations or angled at 45 degrees for roadside installations).

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:

- A. Install the StatTrak-E closest to the incoming lane of traffic, as shown above.
- B. Position the device at a 45-degree angle to the traffic.
- C. 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 to ensure that they correspond with the defaults set in the StatTrak-E mobile app (see [Using the mobile app on page 12](#)). If it's not safe to enter the roadway, do your best to estimate the lane measurements.

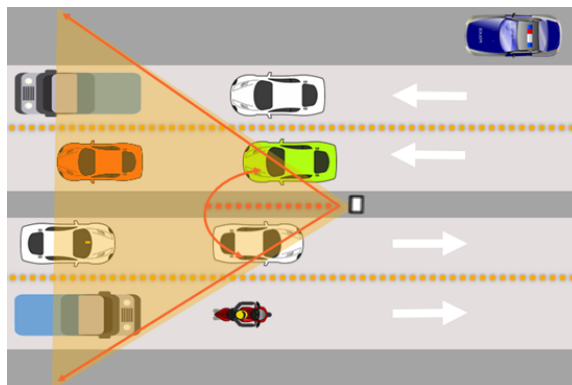
Lane measurement	Default value
Distance to the middle of the first lane	13 ft. (3.6 m)
Distance to the middle of the second lane	23 ft. (7 m)
Lane width	13 ft. (3.6 m)

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 [page 8](#) 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.



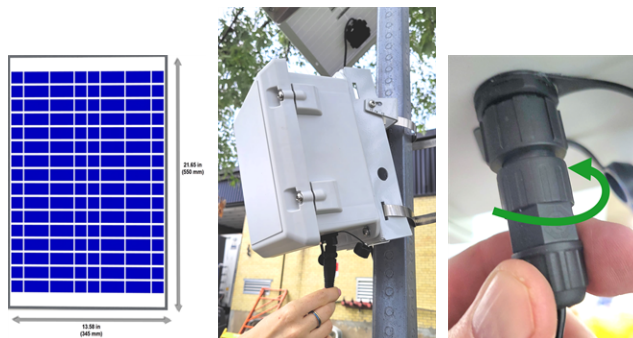
STEP 7: CONNECTING A SOLAR PANEL TO THE STATTRAK-E



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 minor 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 14](#).

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

The solar panel and the 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:

- Insert the solar panel connector into the StatTrak-E power connectors.
- Twist to tighten the waterproof IP68 electrical cable connector 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 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 green 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.



NOTE: Using the app is NOT required for roadside installations, but provides useful information such as real time readings

To achieve higher accuracy for median installations, you must set up and use the StatTrak-E mobile app to enter lane measurements and distance to each lane, among other settings. Advanced radar settings are also useful in some installations.

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:

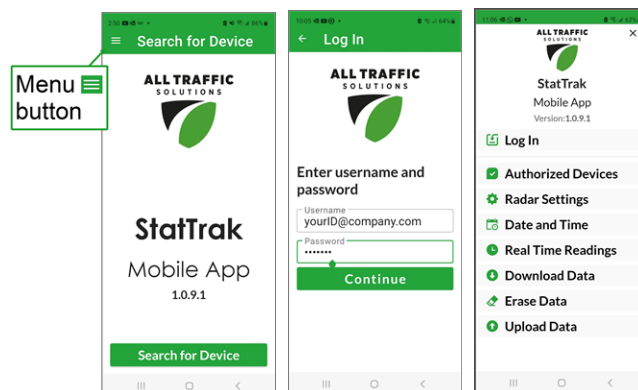
<http://bit.ly/3nbmyLL>

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



To log in to StatTrak-E:

- A. 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.






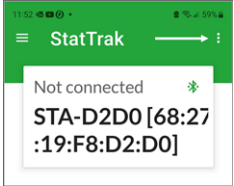
- B. Tap **Log In**, enter the app credentials provided by your administrator, then tap **Continue**.
- C. Tap the menu button  > **Authorized Devices** > **Update**.

To connect your mobile device to your StatTrak-E:



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

- A. 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.
- B. If no devices are available, tap the **Refresh** icon .
- C. Tap **Allow** if your mobile device asks you if you want to give permission to the app to use your location.
- D. 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

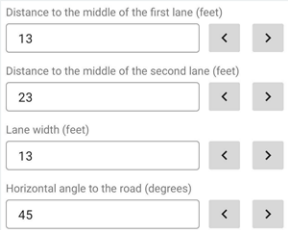
With the StatTrak-E mobile app, you can do the following:

- » Enter the lane dimensions you recorded in [Step 6: Mounting and aiming the StatTrak-E on page 8](#). 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 (necessary for local Bluetooth access users only).
- » 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.

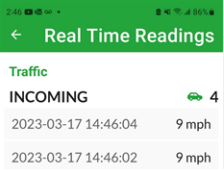

To view and configure StatTrak-E settings:

- A. Tap the menu button  at the top left of the splash screen. The menu page opens (see [To log in to 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

Feature	What you can do	
	<ul style="list-style-type: none">• Outgoing• Bidirectional (the default)	
Type	<p>Sets the type of traffic measurement you'll be using.</p> <p><i>For median installations:</i></p> <p>Four lanes, installation in the middle of the road.</p> <p><i>For roadside installations:</i></p> <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).	
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. <div></div>
 Note: If you have a TrafficCloud subscription, your StatTrak-E also includes a modem, and automatically uploads your data.	
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.

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 11](#).


- » 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 12](#).

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.

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.

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- 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

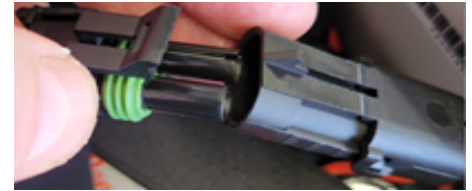
- » One or two fully charged lithium iron phosphate batteries supplied by All Traffic Solutions. Batteries from other vendors are not supported.
- » A Torx T-30 security bit (included with your original shipment), a nut driver, and power screwdriver or drill.
- » The smart charger and adapter included with your new battery purchase.

To charge a new battery or batteries:



WARNING: RISK OF ELECTRIC SHOCK OR EQUIPMENT DAMAGE 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). Turn off the power supply before you connect or disconnect the charger and batteries. 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. Failure to follow these guidelines could result in electric shock or damage StatTrak-E, rendering your warranty null and void.

- A. Unpack the battery or batteries and smart battery charger 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 are simply recharging one or two previously 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 the smart charger to one of the new batteries (or battery if you have a solar panel) using the connectors (as shown at right).
- D. 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.
- E. Repeat the previous steps to charge the second battery if included.
- F. 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 11.
- C. If your device has a solar panel, disconnect the IP68 connector.
- D. Open the StatTrak-E enclosure by removing the two Torx security screws along the right side of the cover, using the included Torx T-30 security bit and a nut driver.
- E. Open the Velcro straps holding the battery or batteries in place.
- F. Detach the battery connectors (shown at right) from the StatTrak-E to the battery or batteries and lift them out of the enclosure one at a time.
- G. Place the new battery or batteries inside the enclosure, positioning the battery harnesses at the top.



Disconnect the IP68 cable connector



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.

- H. Reconnect the battery connectors and then tightly reconnect the Velcro straps in a cross-over pattern, as shown.



CAUTION: RISK OF DAMAGE TO EQUIPMENT Be sure to tightly resecure the Velcro straps holding the batteries inside the enclosure crossing over each other to avoid damage to internal components by loose batteries.

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.

- I. Close the StatTrak-E cover and fasten it tightly with the two security screws.



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

- J. Reconnect the solar panel, if applicable. See [Step 7: Connecting a solar panel to the StatTrak-E](#) on page 10.
- K. Turn the power back on to begin monitoring traffic with the new battery or batteries in place. See [Step 8: Powering on the StatTrak-E](#) on page 11.



CONTACTING TECHNICAL SUPPORT

If you have questions or comments regarding this document or about configuring your StatTrak-E, please feel free to contact our technical support center:

- » 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.

Please contact Technical Customer Support to discuss your TrafficCloud training options. For online training resources, please visit our [TrafficCloud Training Videos Hub](#).