

# Shield Hardware Quick Start Guide



Thank you for purchasing an All Traffic Solutions Shield Radar Speed Sign. This hardware quick start guide will show you how to set up, power, and configure your new sign. For details about using your sign, go to [www.alltrafficsolutions.com/support](http://www.alltrafficsolutions.com/support), where there are complete user manuals that you can use online or download and print.



[Figure 1] Shield 15 Radar Speed Sign

## Unpack the equipment

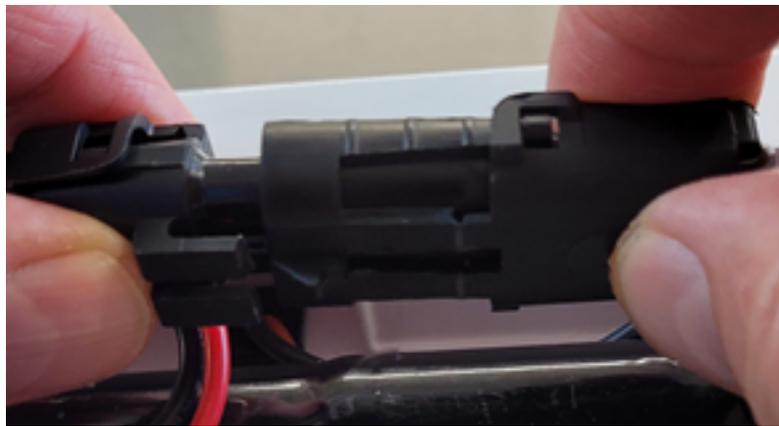
Remove the sign, batteries, charger, and other optional equipment from the boxes. Batteries should be fully charged before deployment. Shield Radar Speed Signs can accommodate up to two batteries internally, though only one is required to operate the sign. The additional battery can be installed to extend the run time of the sign. For all steps involving batteries, repeat for the second battery as necessary.

## Remove the batteries from the sign

1. Place the Shield face down on a flat surface and remove the mounting bracket by unlocking the lock with the supplied key and lifting up on the bottom of the mounting bracket.
2. Next, remove the battery compartment cover by removing the thumb screws. Set the key, bracket, and thumb screws aside.
3. Slide the battery out of the battery compartment, as shown in [Figure 2] below.



[Figure 2] Slide the battery



[Figure 3] Disconnect the battery

4. Disconnect the power connector if connected, as shown in [Figure 3] above.

## Charge the batteries

The Shield arrives with the batteries partially charged and needs to be fully charged before deployment.



**CAUTION:** The charger is not intended for outdoor use. The batteries should only be charged and stored in a controlled environment.

1. Plug the battery into the supplied charger cable.
2. Plug the charger cable into a power outlet. The light on the charger displays red while charging and changes to green when charging is nearly complete. A charge can take up to 7 hours for the 12V 10Ah LFP battery and 11 hours for the 12V 16Ah LFP batteries supplied with the sign.
3. When the indicator on the battery charger turns green, repeat for the second battery if applicable, and then proceed to the next step.

## Install the charged batteries

1. Disconnect the battery from the charger.
2. Place the Shield face down on a flat surface and remove the mounting bracket and battery cover.
3. Connect the battery wiring harness to the connector inside the battery compartment, as shown in *[Figure 3] on the previous page*.
4. Tuck the connector into the space in the top of the battery compartment.
5. Holding the connector in place, slide the battery into the compartment.
6. Replace the cover and fasten it down using the SHORT (3/8"-length) thumb screws.



**CAUTION:** Use only the SHORT (3/8"-length) thumb screws to fasten the battery covers. Do NOT use the longer (3/4"-length) thumb screws supplied for the **Your Speed** faceplate, as they are too long and can cause damage to your sign.

## Install the **Your Speed** faceplate

1. With the supplied T27 torx wrench, remove the two 3/4" torx bolts and washers from the top edge of the **Your Speed** faceplate and set them aside.
2. Slide the faceplate out of the bottom brackets on the front of the Shield and up to the top edge.
3. Align the holes on the bottom edge of the faceplate with the top brackets and bolt holes on the top edge of the Shield.
4. Place a washer over each hole in the sign bracket and push the torx bolts through the holes in the faceplate and the Shield brackets and frame, as shown in the example at right. You can use the 3/4" long thumb screws in place of the torx bolts if there is no concern about tampering.
5. Tighten the bolts to finish installing the faceplate.



## Configure the Shield

When you deploy the Shield to the field, you'll need to power it on using the **Power** button. You can use the other onboard buttons to set the **Speed Limit** and **Display Mode**. TraffiCloud subscribers can configure the sign remotely at any time using the online portal. Alternatively, you can set up your sign while you are on site, either with a USB connection using TraffiCloud Sign Manager for Windows, or the TraffiCloud Mobile app for Android via Bluetooth.



### Complete the following steps to configure the Shield:

1. Turn the sign on by pressing the **Power** button on the back, below the battery compartment. The Shield will display two dashes and will then go through a self-check. Once the LEDs turn off, the sign is fully operational. A green LED on the top-left corner flashes every 10 seconds to indicate when the sign is powered on.
2. **If the sign is NOT preconfigured using TraffiCloud, Sign Manager, or the mobile app:**
  - Set the speed limit by pressing the **Speed Limit** button until the desired speed limit is displayed on the sign. The first press displays the current speed limit.
  - Verify or set the display mode on the Shield. The default is **Constant**. To change the mode, press the **Display Mode** button until the desired mode's letters display on the front of the sign. For details about sign modes, see the table below and the *Getting Started* manual for your sign.

To reduce the risk of tampering, the buttons deactivate five minutes after you power on the sign. To reactivate them, long press the **Power** button again.

Mode letter	Display	Description
c		<b>Constant:</b> The Shield continuously displays vehicle speeds as each vehicle passes, changing the speed display as the vehicle speed changes. Constant is the default (recommended) setting.
cS		<b>Constant with strobe:</b> The same as constant, however any vehicles exceeding the Speed Limit set in the sign by 1 mph (or kph) trigger the Violator Alert strobe (if equipped). TrafficCloud subscribers typically set the strobe option to 10-15 mph above the Speed Limit set in the sign.
b		<b>Blinking:</b> The Shield blinks slowly, displaying changing speeds as the vehicle passes. TrafficCloud subscribers typically set the blink option to 10 mph above the Speed Limit set in the sign.
bS		<b>Blinking with strobe:</b> The Shield blinks constantly, and the Violator Alert strobe (if equipped) flashes when the sign detects a vehicle exceeding the Speed Limit by 1 mph (or kph). TrafficCloud subscribers can set the blinking and strobe options separately, with blinking typically set at 10 mph above the speed limit, and the strobe at 10-15 mph above the Speed Limit set in the sign.
dE		<b>Demo:</b> The Shield displays a simulation of vehicle approach speeds, from higher to lower, temporarily ignoring actual traffic readings.
oF		<b>Display Off:</b> The Shield collects traffic and status data, but the display is turned off. This mode is recommended for performing traffic studies at a Site.

### Install the mounting bracket on the pole

Use either of the methods in this section to install the mount bracket for your Shield on the pole.

1. Install the bracket and sign on the pole so that the center of the sign is about 6 feet (1.83 meters) above the road surface.
2. Do either of the following:
  - If you'll be mounting the sign on a U-shaped pole, bolt the mounting bracket to the pole using the supplied carriage bolts or U bolts, and wing nuts. The wing nuts will be secured inside the back of the sign to prevent tampering.
  - If you'll be mounting the sign on a round pole, thread the banding straps through the mounting bracket, and then tighten the bracket and straps around the pole. Thread the ends of the banding straps together and then tighten them onto the pole. A power-drill or power screwdriver and hex bit work best to tighten the straps.



## Mount the Shield

1. Make sure the sign is powered on and configured properly.
2. Set the top channel on the back of the sign onto the tab at the top of the mounting bracket.
3. Rotate the sign down until it's flush with the bracket.
4. Push the locking pin up to lock the sign into place.



**NOTE:** We are here to help! To speak with a technician, call us at 1 (866) 366-6602, option 2, or send email to [support@alltrafficsolutions.com](mailto:support@alltrafficsolutions.com).

