ATS 3 Trailer with Integrated Solar Sign

Thank you for purchasing an *ATS 3 Trailer with the Integrated Solar Sign Option*. This guide will show you how to set up and install your new trailer and sign. The Integrated Solar Option provides power to the sign using a solar panel and one or more lithium batteries, and is available for *SpeedAlert 18 Radar Message Signs*, *InstAlert 18 Variable Message Signs*, and *Shield 12* or *Shield 15 Radar Speed Signs*. The ATS 3 Trailer is compact and has a low tongue weight, making one-person deployment straightforward.





Before you take to the road

IMPORTANT: Before you take to the road, review the *Safe Trailering Guidelines* on the next page and then perform the following setup steps:

Step 1 Choosing a site, on page 5

Step 2 First-time setup (if necessary), on page 6

Step 3 Hooking up the trailer, on page 7

At the roadside

Step 4 Setting up at the roadside, on page 9

Step 5 Securing the trailer, on page 10

See also:

If you need to recharge the sign, on page 11

Packing up the trailer for redeployment, on page 13



Check over the trailer

Upon receiving your new ATS 3 with Integrated Solar, check to ensure that you have all of the items ordered. If you notice any damage or missing items, contact ATS <u>Customer Support</u> immediately.

What's included What you'll need

The ATS 3 with Integrated Solar, includes the following:

- The mast and solar panel, including the joint bolt and shear nut, with washer and lock washer, and a tube of Vibra-Tite threadlocker,
- » An ATS SpeedAlert 18 Radar Message Sign, InstAlert 18 Variable Message Sign, or Shield 12 or Shield 15 Radar Speed Sign (sold separately).
- » An axle lock bar (padlock not included),
- This setup guide. All setup and quick start guides are also posted to the ATS Customer Support page. If you have a TraffiCloud subscription, you can access the *TraffiCloud User Guide* from the TraffiCloud Help menu.
- » A vehicle equipped with a trailer hitch for towing. See Safe Trailering Guidelines, on the next page.
- » A 15/16" (24 mm) wrench,
- » A 1-1/8" (29 mm) wrench,
- » A partner for trailer hookup and to unfold the mast.

The Integrated Solar Option

All of the components of the solar charging system, with the exception of the solar panel, have been incorporated inside the sign, for a convenient and compact design.

The solar controller and batteries are installed securely inside the battery compartments of the sign, as shown in *Figure 1*, on the next page. The solar controller receives power from the solar panel and conditions it for charging the batteries. The integrated solar option has been designed for use with lithium batteries only and sized appropriately for use with the solar panel provided with your sign.

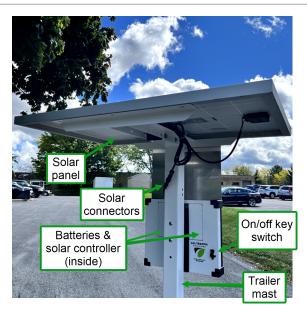


Figure 1, Integrated Solar Sign components

Under normal use, the sign's batteries should be fully maintained by the solar panel. However, if the batteries do become depleted, turn the sign off and leave it in full sun until it's recharged. Otherwise, you'll need to use the external AC charger to recharge the batteries more quickly. See *If you need to recharge the sign*, on page 11.

In the Integrated Solar Option, typically two batteries are connected directly together, forming the equivalent of a single large, balanced battery. In the case of the Shield 12, only one battery is included, and the other compartment is used for the solar controller.

Signs with the integrated solar option feature a keyed ON/OFF switch, which provides secure power control without the need to unmount the sign to access the power push-button located inside the mounting bracket channel. The power button inside the mounting channel is disabled.

Safe Trailering Guidelines

IMPORTANT: Carefully read and follow all instructions marked with warnings and cautions and read and follow all of the instructions in the quick start guides for your sign and trailer *BEFORE* you take your trailer on the road.

Warning symbols



WARNING: Warning symbols draw your attention to serious safety hazards, which can lead to injury, death, or damage to equipment.

Caution symbols



CAUTION: Cautions advise users of specific actions that could result in damage to equipment or loss of data.

Swaying



WARNING: Swaying is a moderate back and forth movement of a trailer behind a tow vehicle and can lead to dangerous whipping unless you slow down.

Whipping



WARNING: Whipping is the violent back and forth movement of a trailer behind a tow vehicle. Whipping can be caused by excessive speed for the driving conditions, turbulence, over-steering, passing vehicles, uneven roadways, or other issues. There is very little time to recover should whipping occur.

Combination disturbance



Warning: A combination disturbance is swaying or whipping of a trailer AND the tow vehicle (the combination), caused by issues such as excessive speed for the driving conditions or load, turbulence, over-steering, passing vehicles, uneven roadways, or other issues.

Flat tire



WARNING: In the event of a flat tire, DO NOT BRAKE. Take your foot off the gas pedal, slow down to below 25 mph (40 kph), and drive to a safe location where you can stop and change the tire. If necessary, you may need to drive on the flat tire until you can stop safely.

Wheel off the roadway



WARNING: If a wheel goes off the roadway, DO NOT BRAKE. Take your foot off the gas pedal, turn on your hazard lights, and slow down to below 25 mph (40 kph). Then slowly steer back onto the roadway when it's safe to do so.

Towing checklist

Go over the following checklist before you go on the road:

Checklist item	What to do		
Your tow vehicle	 Ensure the following: the tow vehicle is equipped with a suitable trailer hitch and properly maintained. Consult you vehicle manufacturer, an authorized repair facility, or hitch installation company. The vehicle has adequate towing capacity for the trailer, with a load capacity of up to 1,000 lb (454 kg) for ATS 3 and ATS 5 trailers, or 1,500 lbs (680 kg) for trailers with two battery boxes:		
	» Consult the vehicle owner's manual for vehicle capacity and any other instructions.» Any modifications to the vehicle are approved for towing by an authorized dealer or inspector.		
Trailer hitch	Ensure that the trailer hitch and ball are securely installed and suited to the tow vehicle. Ensure that the coupler and ball are fastened together securely.		
Safety chains	Ensure that the safety chains are crossed over under the tongue and hitch, securely hooked to the tow vehicle, and not dragging on the pavement.		
	Warning: Pay close attention to safety chain hookup and do not tow the trailer without the safety chains attached. If the trailer tongue becomes detached from the hitch ball while you are driving, properly attached safety chains can prevent a serious accident by supporting the tongue and keeping the trailer attached to your vehicle temporarily until you can come to an emergency stop.		
Electrical harnesses	Ensure that the electrical harnesses are properly connected and the signal, tail, and brake lights are working.		
Tires	Ensure that all tires on the tow vehicle and trailer are properly inflated. Consult the information on the tire sidewalls and your vehicle's door decal for inflation pressures.		

Checklist item	What to do	
Traveling with your sign	For the ATS 5 family of trailers, fold the upper frame and solar panel into the travel position and secured with locking pins and tie downs. For ATS 3 Trailers, turn the solar panel and sign sideways, into the travel position, parallel to the road. See <i>Step 3 Hooking up the trailer</i> , on page 7.	
Loading	Never load cargo on the bed of the trailer.	

Safe driving practices

Use the following checklist for safe driving practices with a trailer:

Checklist item	Best practice	
Speed	Slow down to avoid accidents and drive defensively. Drive slower than you would without a trailer. The maximum recommended speed with a trailer is 55 mph (90 kph).	
	Anticipate slowdowns in traffic and stops and apply your brakes well in advance. Slow down for curves, road hazards, roadwork, and difficult weather conditions.	
	Don't speed with the trailer. Driving at high speeds can result in sway and whipping if hazards are present. See <i>Whipping</i> , on page 2.	
	Your towing vehicle and trailer combination has much higher mass and length than your vehicle by itself. Allow extra distance between your vehicle and vehicles ahead and allow extra distance for braking.	
Assisted driving	Avoid using cruise control, overdrive, and other assisted driving technologies while towing a trailer.	
What to avoid	Never drink or take drugs affecting alertness or sobriety and drive. Never text and drive or allow mobile devices to become distractions while you are driving. Pull over or wait for stops as needed to use them.	
Passing and turning	Remember, your car and trailer combination is longer than your vehicle alone. Allow adequate extra space when passing vehicles or making sharp turns, such as in parking lots or gas stations.	
	Be vigilant when passing or being passed by other vehicles. Passing vehicles can cause turbulence, leading to a combination disturbance.	
For longer trips	Inspect the vehicle and trailer connections at each stop.	
Difficult weather conditions	In difficult weather, adjust your driving for the conditions, allowing additional time and space between vehicles.	
Backing up	If you need to back the trailer into position, practice beforehand, and have a partner assist you if necessary. Backing up with a trailer is a skill that can take time to learn.	

All Traffic Solutions Page 5 Step 1 Choosing a site

Step 1 Choosing a site

Next, you'll need to set up a site for your ATS 3 with Integrated Solar. Here are the basic steps and options you'll need to perform:

- A. **Select a street location**: Carefully consider the physical characteristics of the roadway to ensure optimal performance of the sign and solar panel. See *Selecting a physical location*, below.
- B. Create and assign a Site in TraffiCloud to hold your data:

Option 1: If you have a Traffic Suite Software subscription,

- i. On the TraffiCloud Web portal, click **Sites** and then click the plus sign to create a new Site,
- ii. Assign the site to your device: On the **Equipment** page for your device, go to **General > Assigned Site**.

Option 2: If you have a license to use the TraffiCloud mobile app, on the navigation menu, tap the **Site**.

Management tab and then click the Plus button



Option 3: If you'll be using the TraffiCloud Sign Manager application on your PC, on the TraffiCloud Web portal, click **Sites** and then click the plus sign to create a new Site. Then, assign your data to this Site when you upload it using the application.

For detailed instructions:

- See the video "Creating and Assigning Sites" (select a video based on your sign type) from the <u>TraffiCloud Training Hub.</u>
- If you have the Traffic Suite Software, in the *TraffiCloud User Guide* see "Creating a Site" and "Assigning a Site to your device."

Selecting a physical location

The site you select for the ATS 3 with Integrated Solar 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 ATS 3 with Integrated Solar at least 300 ft. (90 m) away from any intersection (avoid locations near stop signs or traffic lights).	
Choose the optimal surveillance location	Park the ATS 3 with Integrated Solar at a site that gives you the best angle towards the site you'll be monitoring, avoiding glare from the sun or other light sources. Check the documentation included with your camera for site guidelines.	
Choose a flat location	Choose a location on a flat straight road section, directly adjacent to the roadway, where the line of sight from the ATS 3 with Integrated Solar 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 ATS 3 with Integrated Solar or solar panel.	
Ensure appropriate sunlight	Choose a location where the solar panel will remain unobstructed in terms of sunlight throughout the day.	

Guideline	What to do		
Choose the distance from the roadway	Ideally, place the ATS 3 with Integrated Solar within 12 ft. (3.7 m) of the roadway.		
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	Deploy the ATS 3 with Integrated Solar on firm ground. Avoid locations that are likely to be affected by wind or rain.		

Step 2 First-time setup (if necessary)

Use the steps in this section for first-time setup if the trailer has been shipped to you. If the trailer has been delivered by an ATS representative, the mast should already be set upright, and you can skip to *Step 3 Hooking up the trailer*, on the facing page.



Figure 2, Trailer folded view



Figure 3, Unfolding the trailer mast

Unfolding the mast

A. Deploy all three jacks into position, supporting the trailer. The back jacks have spring-loaded latch pins that you pull to release from the stowed position, and then rotate into the vertical position. All of the jacks spin up and down with hand cranks.



WARNING: RISK OF CAPSIZING Before you unfold the mast, stabilize the trailer by rotating the jacks to vertical and lowering them to the ground. Correct deployment of the jacks prevents the trailer from flipping backwards, which could cause injury to personnel or damage to equipment.

- B. Unfold the mast into the upright position, as shown in *Figure 3,* above. Unfolding the mast is best done with a partner.
- C. Insert the bolt (shown in *Figure 4*, below) into the cylinder on the mast joint to hold the mast upright. Once unfolded and assembled, the hinge will be locked in that position. See *Figure 7*, on the facing page.







Figure 5, Vibra-Tite threadlocker



Warning: Vibra-Tite threadlocker contains ethyl 2-cyanoacrylate, ethylene di(acetate), and Methoxy Polyethylene Glycol 1000 Methacrylate, which pose slight to moderate risks to health or can cause fire. Wear appropriate safety gear and avoid contact with the skin and eyes, inhalation, or exposure to open flames or sparks (no smoking). Dispose of the contents and container in accordance with local regulations. For details, see the Vibra-Tite Website.

- D. Put the large washer and then the lock washer (shown above) on the end of the bolt.
- E. Apply a few drops of the supplied Vibra-Tite threadlocker (shown in *Figure 5*, on the previous page) to the bolt where the breakaway nut will be tightened on. At 72 degrees F (22 C), initial curing time is 10-20 minutes and full curing time is 24 hours.
- F. Tighten the 5/8" (16mm) breakaway nut onto the bolt using a 15/16" (24 mm) bolt wrench until the nut shears off.



WARNING: Do not remove the nuts and bolts in the hinge after assembly. Doing so will void the warranty.







Figure 6, Mast joint, folded

Figure 7, Mast joint, unfolded

Figure 8, Speed limit sign

Installing the static speed limit sign (if applicable)

If you have the optional static speed limit sign, use the supplied nuts and bolts to install it on the mast below the digital speed sign. Set the speed limit using the inter-changeable digits. The digits range from 5 through 65 for customers in the United States.

Step 3 Hooking up the trailer



WARNING: RISK OF INJURY OR ACCIDENT Before you transport the trailer and sign after erecting the mast, rotate the mast and sign into the "travel position", parallel to the direction of travel to avoid the risk of accident and injury due to wind drag, whipping, or vehicle-trailer combination disturbance. See Step 3 Hooking up the trailer, above.



WARNING: RISK OF INJURY OR VEHICULAR DAMAGE Follow these instructions carefully, and always ensure correct and safe trailer hookup and driving with your trailer. See Safe Trailering Guidelines.

Rotating the sign

You'll need to rotate the sign in either of two circumstances:

- To place the mast and sign assembly in the travel position (see *Figure 9*, on the next page), so that you can transport it safely between locations after the mast and sign have been raised.
- To angle the trailer correctly toward the traffic lane (see *Figure 10*, on the next page). In the case of hills, you can also use the jacks to angle the sign up or down slightly.



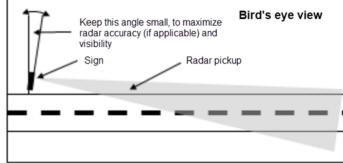


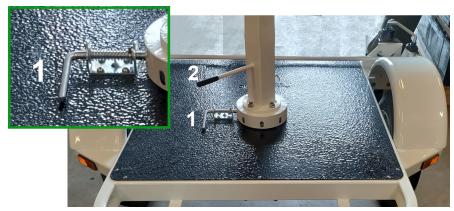
Figure 9, Travel position

Figure 10, Setting the sign angle

To rotate the sign:

- A. Pull the spring-loaded latch pin (1) to unlock the mast base.
- B. Keeping the latch pin retracted, grasp the mast rotation handle (2) and rotate the mast and sign as required. Do either of the following:
 - Rotate the sign for transport:
 To reduce wind resistance, rotate the mast, sign, and solar panel assembly sideways, into travel position, parallel to the roadway (see Figure 9, above).

 The holes around the mast base are 30 degrees apart.



- **Rotate the sign to set the display angle**: Use the same procedure to rotate the sign for optimum display towards traffic (see *Figure 10*, above).
- C. Release the latch pin into the new hole to lock the mast in position.

Moving the vehicle and trailer into position

Use the steps in this section for details about moving the towing vehicle into position and preparing for hookup.

To move the trailer and vehicle into position for hookup:

- A. Move the trailer into position on a flat surface so that you can back your vehicle up to it. Using leverage, the trailer is easy to move around by hand on flat surfaces.
- B. Lower the front jack (1) to securely support the trailer.
- C. Crank the handle to lift the trailer until the coupler (2) is above the height of the hitch ball (3).
- D. Back the vehicle up to the trailer so that the hitch ball (3) is just in front of the coupler (2). If necessary, have a partner guide you or use a backup camera if it provides a clear view. When your vehicle is in position, shift into park, apply the parking brake, and turn off the engine.



Lowering the trailer onto the hitch

Use this section for detailed steps about lowering the trailer onto the hitch.

WARNING: Pay close attention to safety chain hookup and do not tow the trailer without the safety chains attached.

If the trailer tongue becomes detached from the hitch ball while you are driving, the safety chains can prevent a serious accident by supporting the tongue and keeping the trailer attached to your vehicle temporarily until you can come to an emergency stop.

To lower the trailer onto the hitch:

- A. Crank the front jack (1) down to lower the coupler (2) onto the hitch ball.
- B. Close the tongue latch (4) to secure the ball clamp (5) around the ball.



CAUTION: Ensure that the ball clamp is securely wrapped around the ball. If necessary, release the tongue latch and reposition the tongue on the hitch ball, or adjust the ball clamp with a wrench.

- C. Optionally, lock the tongue latch with a padlock (not included).
- D. Crank the jack (1) back up, and secure it in place.
- E. Attach the trailer safety chains to the hitch frame, crossing them under the tongue and looping the S-hooks back onto the chain. Leave enough slack in the chains to allow for cornering, but make sure they don't drag on the roadway.
- F. Connect the wiring harnesses.
- G. Test to ensure that the trailer signal lights, taillights, and brake lights are functioning properly. Work with a partner if necessary.
- H. Inspect the hitch connections to ensure that the trailer hookup is complete, and then proceed to the next step. Once all preparations are completed, you're ready to take to the road.



In this step, we'll explain details for towing the trailer to your location, as well as unhitching and positioning the trailer and turning the sign on.

Towing the trailer to your location



WARNING: RISK OF ACCIDENT, INJURY OR DEATH. Do not obstruct the roadway: Always choose a location for the trailer that is far enough away from moving vehicles so as not to interfere with or distract passing traffic. The trailer should be placed off the shoulder, ideally behind traffic cones or barriers.

- A. Tow the trailer to your chosen location, ensuring that the surface is stable.
- B. **If you need to back up**: Hold one hand on the bottom of the steering wheel, and to turn the trailer to the left, move your hand on the steering wheel to the left. To turn the trailer right, move your hand on the steering wheel to the right. If the trailer turns the wrong way, pull ahead until the vehicle and trailer are in a straight line and start again.
- C. Position the trailer off the shoulder, behind traffic cones or barriers.
- D. Once the trailer is in the desired position, you're ready to disconnect it from the tow vehicle.

Unhitching the trailer

Use these instructions to unhitch the trailer, so that you can safely leave it at the roadside.



To unhitch the trailer:

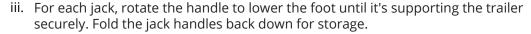
- A. Disconnect the wiring harness.
- B. Disconnect the safety chains and hook them back onto the trailer.
- C. Open the tongue latch (4), as shown on the previous page.
- D. Using the front jack or by hand, lift the trailer off the hitch ball.
- E. Move the tow vehicle away from the trailer.
- F. Let the front jack back down to the desired position and fold down the handle again.

Positioning the trailer and turning the sign on

- A. To enhance accuracy and visibility, position the trailer so that the sign will be visible to motorists, yet the trailer is off the shoulder. You can also adjust the angle of the mast and sign separately.
- B. Lower all three jacks until the trailer is stable and level on the ground. You can raise the tires off the ground. Use a level if necessary.







C. Use the key switch on the back of the sign to turn it on. Lift up the cover and turn the barrel-style key to the ON position.

The sign will go through start-up and self-check sequences. Once the self-check is complete, 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.

Step 5 Securing the trailer

Use the axle lock bar and a padlock (not included) to prevent theft as well as rolling out of position.



Figure 11, The axle lock bar installed

To secure the trailer:

A. Remove the axle lock bar from the back of the trailer.



Figure 12, Axle lock bar stowed (left) and axle padlock (not included)



- B. Thread the axle lock bar through the trailer wheels (as shown in *Figure 11*, on the previous page).
- C. Thread the padlock through the holes at the end of the axle lock bar (as shown in on the previous page) and lock it.





Figure 13, The axle lock bar - T-bar end (left) and locking end (right)

If you need to recharge the sign

Solar charging is typically strong enough to keep sign batteries adequately charged, but battery health 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 sign, use the instructions below to ensure optimum battery health, recharging, and storage.

What you'll need

You'll need the sign, included battery charger (as shown in *Figure 15*, on the next page), and for larger signs mounted on the ATS 3 Trailer, a Torx TR-27 tamper-resistant security bit to remove the sign from the mast cross-member.

Powering down the sign

IMPORTANT: Before recharging the batteries, turn off the sign to discharge the power circuits and to ensure that no current is flowing during the charging process.

To power down the sign:

• Lift the key switch cover, insert the key and turn it to the **OFF** (vertical) position.

Recharging the sign



WARNING: RISK OF ELECTRIC SHOCK AND EQUIPMENT DAMAGE. The charger is not intended for outdoor use. Only charge the system in a sheltered environment, such as a garage.

To recharge the sign:



WARNING: RISK OF FIRE. Do NOT attempt to individually charge the paired batteries included. Never mix unequally charged batteries in the same system.



Note: Charge the sign for 24 hours to return the standard two-battery configuration to a 100% charge. For single-battery configurations, charge for 18 hours.

A. If the connectors are outside the mounting channel, skip to the next step. If the solar connectors are inside the mounting channel, use the key to unlock the sign from the mast and lift the sign down. For larger signs, to unbolt the brace attaching the sign to the mast you'll also need to use a Torx TR-27 tamper-resistant security bit.



Figure 14, Removing the mast brace (if applicable)

- B. Twist to disconnect the solar connectors. See Figure 16, Connecting the charger and sign below.
- C. Plug the two-pronged plug end of the charger cable into a standard 120-VAC electrical outlet.
- D. Connect the solar connector dongle to the charger cable, as shown here. The male and female ends will snap together.



Figure 15, Connecting the charger cable to the solar adapter dongle

E. Twist to connect the solar connector (pigtail) on the sign to the solar connector on the charger, as shown here. **DO NOT** connect the charger to the round port on the bottom half of the sign. The sign begins charging.

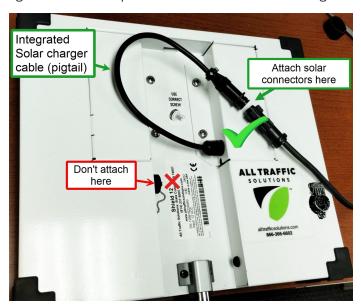


Figure 16, Connecting the charger and sign



Note: The charger may take a couple of minutes to recognize the batteries, due to the presence of the solar controller. Do not be alarmed if it does not start charging immediately.

F. **Charge the sign for 24 hours** to return the standard two-battery configuration to a 100% charge. For single-battery configurations, charge for 18 hours.



Note: In Integrated Solar configurations, the LED on the charger cable cannot be relied on to indicate a full charge. When the LED turns from red to green it only indicates a 50% to 85% charge level.

Packing up the trailer for redeployment

Use the steps in this section for help with packing up the trailer to move it to another location.

To pack up the trailer:

- A. Power down the sign. See *Powering down the sign*, on page 11.
- B. Rotate the sign into the travel position. See *Rotating the sign*, on page 7.
- C. Remove the axle lock bar. See *Step 5 Securing the trailer*, on page 10.
- D. Move the towing vehicle back into position. See *Moving the vehicle and trailer into position*, on page 8.
- E. Lower the trailer onto the hitch. See *Lowering the trailer onto the hitch*, on page 9, including the related safety checks for brakes, signals, and taillights and secure connections.



Contacting Customer Support

For support for your All Traffic Solutions products,

- visit the Customer Support page at https://www.alltrafficsolutions.com/support/,
- send email to support@alltrafficsolutions.com, or
- call 1-866-366-6602, Option 2, anytime between 8:00 a.m. and 6:00 p.m. Eastern Time, Monday to Friday.



Technical documentation and training

To view technical documentation, please click the Help icon? at the top right of the TraffiCloud Web page.

For online training resources, please click or scan the QR code at right to visit our **TraffiCloud Training Videos Hub**. To discuss additional TraffiCloud training options, please contact Customer Support.



ATS PRODUCT WARRANTIES



All Traffic Solutions (ATS) is committed to providing the best value in all our products. To underscore this ongoing commitment, all ATS-manufactured signs purchased on or after January 1, 2019, come standard with a 3-year manufacturer's warranty. Products eligible for the 3-year manufacturer's warranty are Shield 12 and Shield 15 radar speed signs, SpeedAlert 18 and SpeedAlert 24 radar message displays and InstAlert 18 and InstAlert 24 variable message signs.

We also offer the ATS Premier Care Plan with your current ATS TraffiCloud® Remote Management Software subscription.

WARRANTY COMPARISON

ATS Premier Care Plan & ATS 3-Year Manufacturer's Warranty

All sign batteries are discounted under the Premier Care Plan. All accessories are discounted under Premier Care except:

- Trailer-related items
- Laptops and tablets
- Solar panels
- Carrying cases

Feature	Premier Care Plan	ATS 3-Year Manufacturer's Warranty
Hardware defect repair	Entire product lifespan, provided the product has an active Premiere Care subscription	Three years from the date of delivery
Dedicated Customer Support Center	Comprehensive hardware and software troubleshooting support	Troubleshooting to determine hardware defects
Remote diagnostics by ATS Support Team	Remote access to signs for performing comprehensive hardware and software diagnostics	Not included
Software and firmware updates	Included	Not included
Shipping to and from ATS repair center (manufacturer defect repairs only)	No charge	No charge
Shipping to and from ATS repair center (non-manufacturer defect repair)	Customer pays shipping	Customer pays shipping
Damage resulting from misuse, abuse, or using the product in ways it was not intended	Covered at 50% of standard ATS repair rates	Standard ATS repair charges apply
Vandalism	Covered at 50% of standard ATS repair rates	Standard ATS repair charges apply
Battery and accessory discounts	50% off the regular price	No discounts
LFP battery replacement	1 year + 50% off additional or replacement batteries	1 year
SLA battery replacement	1 year + 50% off additional or replacement batteries	3 months
Trailer battery	1 year	6 months
Power case batteries (Must be sent back to ATS for repair)	1 year + 50% off replacement batteries	6 months
Accidents	Covered at 50% of standard ATS repair rates	Standard ATS repair charges apply
Damage due to incorrect installation or operation	Covered at 50% of standard ATS repair rates	Standard ATS repair charges apply
Acts of nature	Covered at 50% of standard ATS repair rates	Standard ATS repair charges apply
Normal wear and tear such as frayed cords or cables, broken connectors, scratched or broken enclosures	Covered at 50% of standard ATS repair rates	Standard ATS repair charges apply