

ALL TRAFFIC SOLUTIONS



ATS-3 Trailer

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ATS-3 Trailer

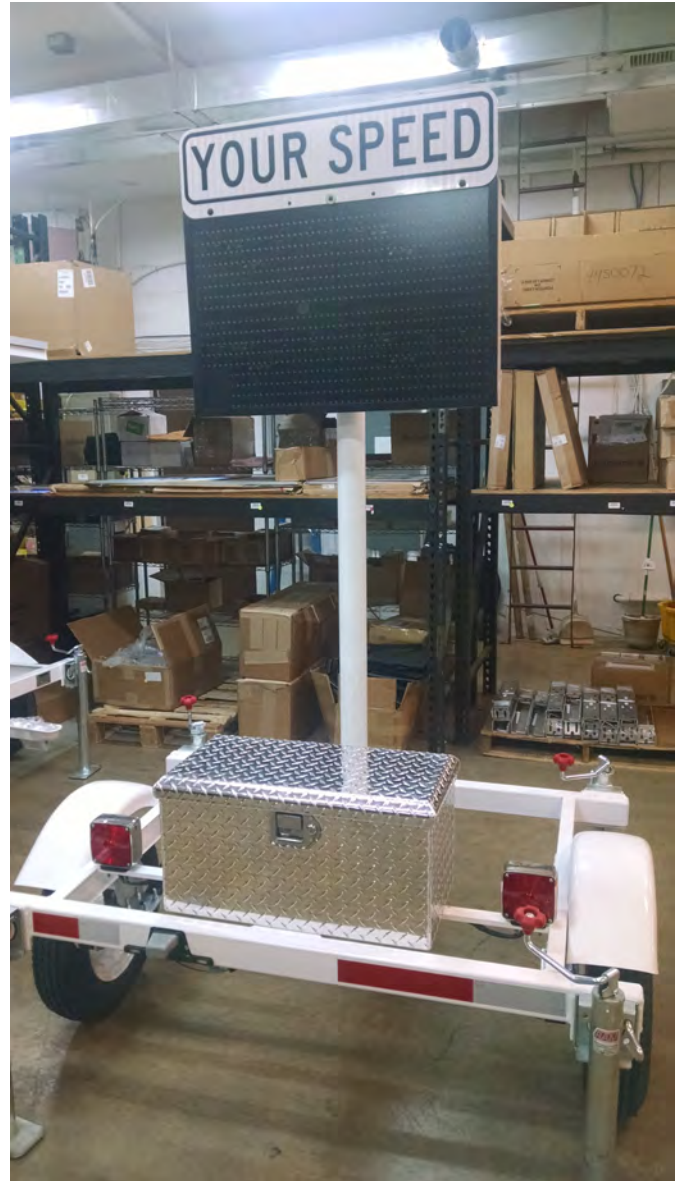
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ATS-3

ATS-3 Trailer

The ATS-3 trailer can be outfitted with the ATS SpeedAlert 18 Radar Message Sign, the Shield 15 Radar Speed Display or the instALERT 18 Variable Message Sign. One person can easily move and set up the trailer. Power comes from batteries and solar charging. There is an onboard AC charger. The compact trailer is has a low tongue weight making one person deployment possible.



Quick Start - ATS-3

This Quick Start shows how to set up an ATS-5 Trailer with any ATS sign.

Unpack the trailer if it arrived in a crate.

Place ATS-3 Trailer in location and lower jacks

Park trailer on a stable surface, rotate all 4 jacks down and stabilize trailer. Aim trailer as directly as possible towards targeted motorists and level with the jacks. **DO NOT RAISE DISPLAY UNTIL ALL 4 JACKS ARE DOWN AND SUPPORTING THE TRAILER.**



Solar Panel

The solar panel on the ATS-3 is always deployed and charging the power system whenever the sun is shining.



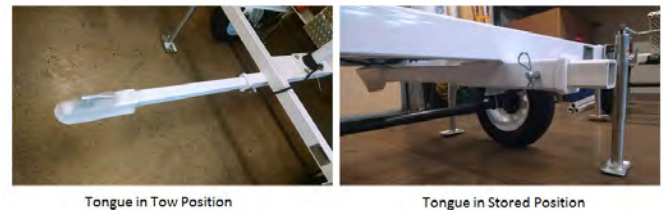
Rotate the Display into Position

Make sure all four jacks are lowered. Rotate the display from the travel position into the display position. Pull out the lock pin, rotate the display and replace the lock pin, There is an additional set of holes for the lock pin to get some fine alignment of the display to the road without moving the trailer base. Select the preferred position and replace the lock pin.



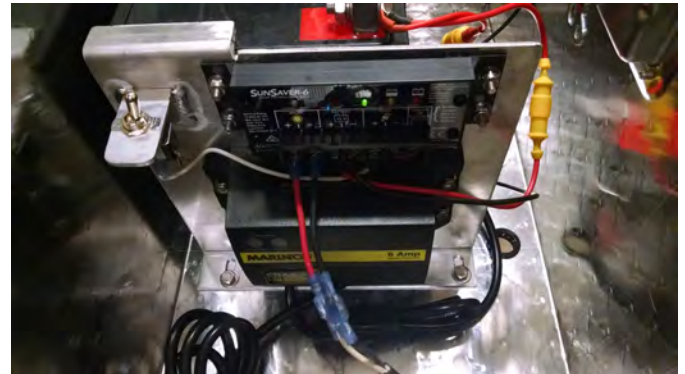
Store Tongue

Once the trailer is positioned, the tongue can be stored by placing it in the trailer receiver backwards and upside down. To prevent tampering, a locking hitch pin (not included) will prevent tongue removal from the storage position.



Power the Display

Turn on the display by turning on the switch in the battery box. You may need to turn on the unit by pushing the *Power* button on the unit if it was turned off using the on-board controls. If the unit is on when the switch in the battery box is shut off, the unit will come on when the switch is turned back on.



ATS-3 Pre-Tow Checklist

Preparing the ATS-3 Trailer for towing

Pre-Tow Check List

When removing from Battery Charge Mode:

- The Battery Charging System power cord is unplugged from the battery box.

CAUTION: Ensure all 4 jacks are down and pinned before raising or lowering Message Display.

When removing from Operational Mode:

- Message Display is rotated 90 degrees from the display position to be parallel with the travel direction.
- Power toggle switch is OFF.

When removing from EITHER Mode:

- Battery box is closed and locked.
- Hitch tongue is properly attached to the tow vehicle and trailer.
- Safety chains are attached to the tow vehicle.
- Trailer wiring harness is attached to the tow vehicle and all light operation is verified.
- **All** Leveling jacks (4) are pivoted, and pinned in the up position.

ATS-3 Trailer Power

Trailer Power system and connecting units to trailer power

Trailer power for Shield 12 or Shield 15

When the Shield or SpeedAlert unit is used on a trailer the power will be supplied through the auxiliary power jack. **It is very important to remove the internal lithium batteries if using trailer power.**

Attach the circular plug on the cord coming from the trailer power to the receptacle on the display. Route the cable towards the top so that it will route through the pole when reattached. When using the auxiliary power connection, the “power” button on the unit is bypassed. As soon as you connect live power the unit will power on and enter the LED start-up routine. It will return to the previous settings in place when power was turned off.



The Shield 15 uses screws to attach the unit directly to the trailer. The mounting bracket is not required. The on-board control buttons for speed and mode time out after 5 minutes of inactivity to prevent tampering. To reactivate control turn the unit off and on again and they will work until inactive for 5 minutes.

Power Switch

The switch in the battery compartment controls power to the display. Turn it on or off as desired. The display will come on to the same state it was in when turned off.

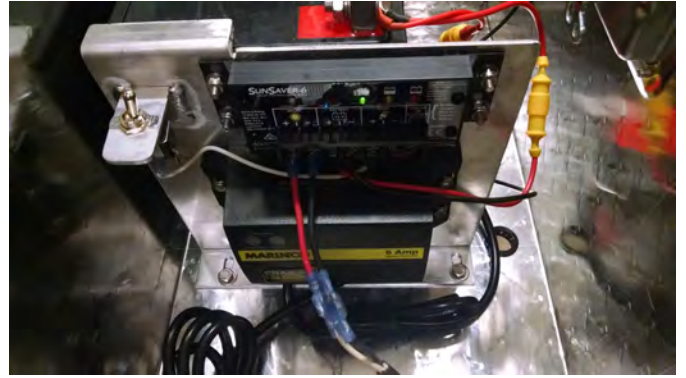
Trailer Batteries

The trailer system voltage is 12VDC. The standard power supply is a 100 Amp Hour sealed deep cycle 12V battery for 12VDC operation. A 20A slow blow fuse is installed between the batteries and the load. Using batteries, cables or chargers not supplied by All Traffic Solutions will void the product warranty. The battery power level can be determined by looking at the power level displayed at message sign start up, on the ATS Android Mobile, ATS PC Sign Manager or using the TraffiCloud either locally or remotely.



Trailer Battery Charging

To charge the trailer batteries, connect a 120VAC supply to the AC plug on the charger. A hole in the battery box allows an extension cord to be brought into the battery compartment through the bottom of the enclosure. The red light on the charger indicates charging in process, and the green light indicates a full charge.



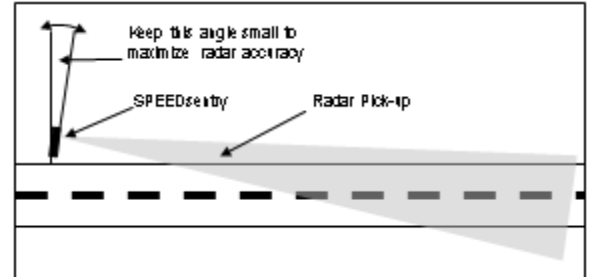
Setup - ATS-3

Deploying the ATS-3 Trailer with a message sign or speed display

Choose location

Choose a location that is far enough away from traveling vehicles to not pose an unnecessary risk to normal traffic. When possible, the trailer should be placed off the shoulder, behind barriers or behind cones.

Tow the trailer to the desired location and disconnect from the tow vehicle. Position the ATS Trailer so that the speed display is visible to the motorist, yet so that the trailer is not in the traffic lane. Where possible, the trailer should be aligned to face oncoming traffic as directly as possible, enhancing accuracy and visibility.



Set stabilizing jacks

Set the stabilizing jacks on all 4 corners, lifting the trailer off the street and getting the trailer approximately level. **Failure to set the stabilizing jacks will cause the trailer to tip backwards when the display is lifted causing possible injury or damage to the sign. Always set stabilizing jacks before raising the sign.**

Solar Panel

The solar panel on the ATS-3 is always deployed and charging the power system whenever the sun is shining.



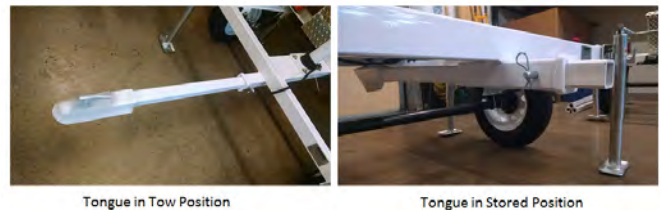
Rotate the Display into Position

Make sure all four jacks are lowered. Rotate the display from the travel position into the display position. Pull out the lock pin, rotate the display and replace the lock pin, There is an additional set of holes for the lock pin to get some fine alignment of the display to the road without moving the trailer base. Select the preferred position and replace the lock pin.



Store Tongue

Once the trailer is positioned, the tongue can be stored by placing it in the trailer receiver backwards and upside down. To prevent tampering, a locking hitch pin (not included) will prevent tongue removal from the storage position.



Trailer deployment checklist

- Trailer is positioned in a safe location as far as possible from approaching traffic
- Leveling jacks are down and trailer is approximately level.
- Display holding pins is fully inserted.
- Solar panel is not shaded
- Hitch tongue is removed and in stowed position, if desired
- Display is facing oncoming traffic and is visible from the desired distance
- Battery box is closed and locked

ATS-3 Trailer Maintenance

Maintenance steps for the ATS-3 Trailer

The trailer should be periodically inspected and maintained in a condition that ensures safe operation and compliance with federal and state regulations.

- Make sure all lights are operational.
- Grease wheel bearings periodically.
- Check tires for wear and optimal air pressure. Follow guidelines on tire.
- Maintain batteries per the recommendations in the Battery Maintenance Section
- Check all electrical connections for wear or damage. Make sure the screw connections on the solar controller are tight. These may loosen over time and the batteries may not have a good connection to the load. **When tightening, be sure not to touch two terminals at once as you will short the batteries and this could cause an explosion.**

Battery Maintenance and Warnings

Battery Maintenance for Lithium Ion and Lead Acid Batteries

Lead Acid Battery Maintenance

Battery maintenance: In order to maximize the life of your batteries and their ability to hold a charge, you should follow several important steps in using and storing lead acid batteries

- Batteries should be placed on charge immediately after use regardless of the discharge status. Failure to do so will shorten the battery's life.
- The less the battery is drained before recharging, the longer the expected life of the battery. Charging the battery more often, with a lower discharge, will extend its life.
- Whenever the batteries are not in use, even if they are mostly charged, it is always recommended to fully charge the battery to maintain the charge and preserve the battery's life. If the batteries are going to be stored for an extended period of time, they should be fully charged before being stored and charged up regularly (at least monthly.) Store the battery in a cool area, not directly on concrete.
- Charge the battery in a cool location. The cooler the battery is, the better it will charge.
- During use, keep the battery as cool as possible. This will extend the battery's charge. If you have a choice between a shaded location and a direct sun location, choose the shade if practical. This is not possible if using a solar panel.
- To recharge the batteries, plug a 120V extension cord into the plug in the side of the battery box. This will charge all the enclosed batteries. The display on the installed battery charger will indicate when the batteries are fully charged. Use of any battery charger other than the unit supplied will void the warranty.
- **In the winter, it is important that the batteries are protected from freezing.** It is best to store the batteries where there is no chance of freezing. If this is not possible, keep the batteries charged while in storage. A fully charged battery can resist freezing better than one with a low charge. If the trailer is to be stored inside and the solar panel will not be able to maintain the charge on the system it is necessary to charge the batteries regularly. **Batteries that are allowed to freeze are not covered under warranty.**
- If your trailer is equipped with a solar panel, the panel should always be connected to the solar controller, which will allow the batteries to remain fully charged whenever the trailer is in transit or in storage outdoors. Keep the solar panel clean for optimal charging.
- If flooded trailer batteries are removed from the battery box, they must be stored upright.
- For flooded trailer batteries, check the battery water level when charging. If it is low, fill **using distilled water only.**
- Clean excessive corrosion on the terminals with a mixture of baking soda and water. Make sure battery terminals are tight.
- To test the charger: Measure the voltage on the batteries. Plug in the charger and the voltage should go higher.
- To test the solar panel: On a sunny day, check the voltage on the solar connection on the solar controller. It should be higher than the voltage on the batteries.

Lead Acid Battery Warnings

Lead based batteries can be dangerous. Note the following precautions:

- Always charge batteries in a ventilated area.
- Never smoke or allow a spark or fire in the vicinity of a charging battery.
- The batteries should only be charged with the provided automatic charger to prevent overcharging. The display on the battery charger will indicate when the batteries are fully charged. Use of any battery charger other than the unit supplied will void the warranty.
- Do not use the charger if any of the cords or electrical connections on the charger or battery are damaged. Contact ATS for replacement of damaged parts.
- Never try to charge a battery with any physical damage.
- Be careful of shorting the terminals of the battery inadvertently with a tool, jewelry or any other conductive item. Shorting the terminals could cause the battery to explode.
- Monitor charger and battery frequently during charging to make sure both are functioning properly.
- Do not allow the batteries to freeze. Batteries that have been frozen are not covered under warranty.
- Never attempt to charge a frozen battery.

Warranty

All Traffic Solutions Warranty

All Traffic Solutions warrants this product to the original purchaser to be free of manufacturing defects for a period of 1 year and ATS reserves the right to repair or replace the warranted part or parts at its sole discretion. The following items are specifically not covered under warranty.

- The warranty does not cover misuse or abuse that includes using the product in ways for which it was not intended and vandalism.
- The warranty does not cover damage to the product due to incorrect installation or operation nor does it cover normal wear and tear such as frayed cords or cables, broken connectors, scratched or broken enclosures.
- This warranty does not cover batteries that are allowed to freeze.
- The warranty is void if any physical changes are made to the product by anyone but an ATS authorized service representative.
- During the warranty period, there will be no charge for parts or labor. If components require factory service, purchaser shall return failed parts to the factory or authorized service location, freight prepaid. ATS will pay to return the parts.
- If damage to the product during the warranty period is determined to be due of a non-warranted nature, ATS reserves the right to charge for damages resulting from abuse or extraordinary environmental damage to the product at rates normally charged for repairing such products not covered under warranty
- ATS is not responsible for any consequential damages and as an expressed warning, the user should be aware that harmful personal contact may be made with the product in the event of violent maneuvers, collisions, or other circumstances even though the device(s) are used according to instructions. ATS specifically disclaims any liability for injury caused by the product in all such circumstances.

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A sign of the future.™

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