



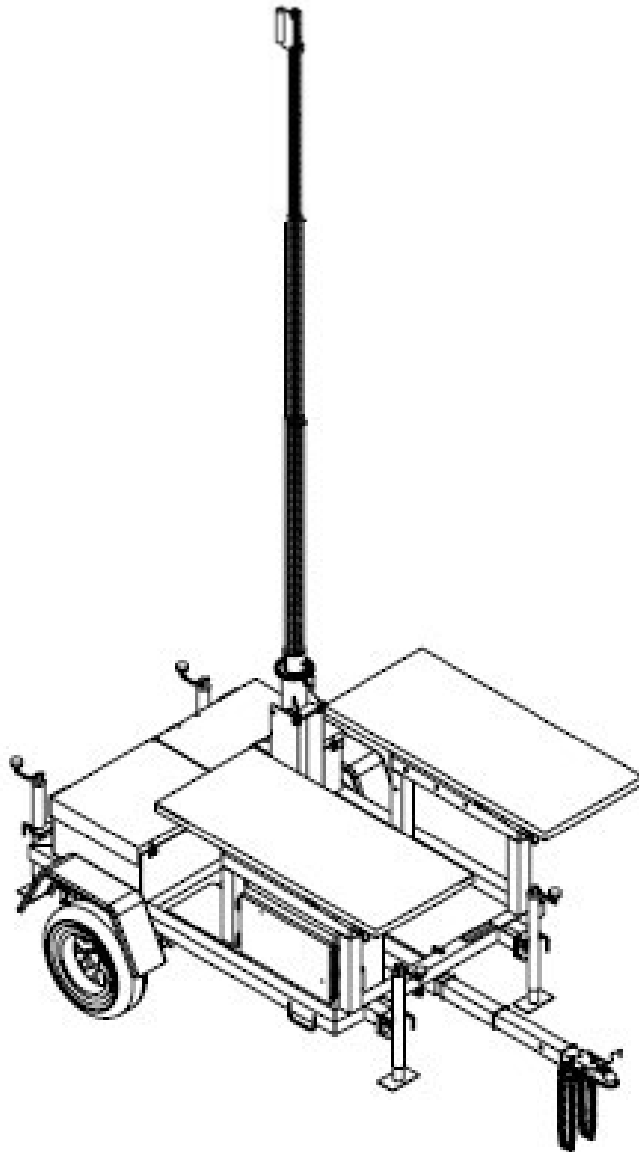
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## **T25 Accessory Trailer**

### **General Purpose Mast with Portable Power Platform**

#### **Product Specifications**





**American Signal Company T25 Accessory Trailer**

*For use with Amsig ITS solutions such as S3C Solution and Broadview 1 camera platform*

**1. SCOPE**

This specification defines the characteristics and features of a portable solar charged trailer with a telescoping mast (T25). This trailer is able to be used in conjunction with American Signal Company’s Changeable Message Sign products in an ITS application of Amsig’s S3C Solution, in a stand-alone capacity, or as the platform for Amsig’s Broadview 1 camera system. This system is capable of monitoring traffic and relaying this data to the ITMS work zone system, used as an individual traffic monitor to record data for analytical use, and as a mobile surveillance application.

**2. 12 VDC POWER SOURCE**

2.1. Description: The 12 VDC power source shall be provided by a 12 VDC lead/acid battery bank as follows:

2.1.1. The trailer-mounted system shall be provided with a dedicated battery pack consisting of the following:

- Battery Type - 6 VDC marine/RV type 4-D deep cycle
- 20° Amp Hour Rating – 210A
- Number of Batteries – 2-12

2.2. Charging: The charging system for the primary power supply shall be as follows:

- Solar system consisting of a photovoltaic array supplying electrical energy to the batteries through a solar regulator.
- The solar panels shall be independently adjustable via a ball-joint mount allowing for tilt in every direction.
- The system shall provide “on demand” charging consistent with battery condition and with the solar luminance at the photovoltaic array.
- The trailer shall also be equipped with a standard 110 VAC receptacle, as well as a temperature stable 110 VAC battery trickle charger and ammeter.
- The 110 VAC charging system shall initiate charging automatically when 110 VAC service is connected, and shall be capable of completely charging the battery pack within a 48 to 72 hour (nominal) time period. The actual charging time will vary depending upon conditions and state of charge/discharge of the batteries. Initiation of 110 VAC charging shall completely disconnect the solar charging capability from the charging circuit.

2.2.1. Trailer Mounted System:

<b>Sign Model</b>	<b>Solar Panel Wattage</b>	<b># of Panels</b>	<b>Amp Rating Max Power Current (Amps)</b>
T25	160-260 Watts	2	9.34



### **3. TRANSPORT VEHICLE**

3.1. The trailer shall meet the following requirements:

#### 3.1.1. Description:

- The trailer shall be nominally 134" in length with the removable tongue in place and 72" in width.
- Trailer length with tongue retracted (storage position) is 102".
- It shall be constructed of 3" x 3" steel tube (ASTM A 500 Grade B) with 1/8" wall thickness and shall be welded in accordance with applicable American Welding Society (AWS) standards.
- The trailer shall have a lockable, weatherproof control cabinet housing the control panel and a lockable battery box for the 12 VDC power source batteries.
- The trailer shall be finished with a two-coat automotive paint process to protect it from weather and road hazards

#### 3.1.2. Rating:

- The axle shall be rated for 2000 pounds, the springs for 1300 pounds each set, and the wheels shall be 13' steel with 5 lugs bolts per wheel and fitted with 175-60-13 C rated tires.
- The removable tongue shall be fitted with a 2" ball coupler rated for 5000 pounds.
- Standard axle is leaf spring, customer may upgrade to a torsion suspension system if required.

#### 3.1.3. Removable Tongue:

- The removable tongue shall be fabricated from 3" x 3" steel tube (ASTM A 500 Grade B) with 3/8" wall thickness, shall be affixed to the body of the trailer with a retaining pin positioned in the floor of the battery box, and shall have safety chains attached.
- The lighting lead shall be affixed permanently to the tongue and shall separate from the trailer wiring harness at a plug connector when the tongue is removed.

#### 3.1.4. Stabilizing Outriggers:

- Each corners of the trailer shall be fitted with screw jacks to stabilize the trailer when in the display position.
- The screw jacks shall pivot to a horizontal position for transport.

### **4. TOWER ASSEMBLY (MAST)**

4.1. The tower assembly, or mast, shall meet the following requirements.

#### 4.1.1. Description:

- Comprised of multiple telescoping square tubes of Telespar, or similar, perforated steel material.
- Raised by using a hand crank winch-and-pulley system. The brake winch shall have a 1,000-pound capacity.
- Total extension of the mast shall be 30' high, measured from ground.
- Can be rotated 360-degrees in 15-degree increments.
- Constructed such that a single operator can deploy the mast safely and properly.

#### 4.1.2. Mast Support System:

- The mast shall be bolted to the trailer.
- The position of the mast shall be such as to provide towing and deployed stability of the trailer.



## 5. OPTIONAL EQUIPMENT

- 5.1. The T25 Accessory Trailer is designed to provide a portable power plant for a wide range of applications. Its functionality is not limited to the common applications listed below.
- 5.2. Side-Fire Radar: Mounted on the T25 to be used in conjunction with Amsig's portable changeable message signs and ITS Cloud Manager software for ITS applications such as Portable Queue Detection, Smart Work Zones, and Real Time Traffic Management (travel time).
- 5.3. Bluetooth and Wi-Fi sniffers: Mounted on the T25 for collecting traffic data and ITS applications.
- 5.4. CCTV: Portable video surveillance for property or work zone security, or to monitor traffic conditions.
- 5.5. Remote Communications: Cellular or radio modems for remote control of installed equipment.
- 5.6. Expanded Power Configurations: The T25 can be outfitted with additional batteries and higher-capacity solar panels.
- 5.7. Various Mast Configurations: American Signal can provide multiple mast types to meet deployed height or weight requirements. Solutions can include various guy wire and grounding solutions.
- 5.6. Miscellaneous: American Signal is able to meet the user's needs for additional hardware items. We are able to provide any hitch type (ball, pintle or lunette eye, bulldog, adjusting height, etc.), axle type, lift requirements, color specifications, alarms, etc.

**Note of Application:** This specification is widely applicable to catalog items AMS30062701, AMS30062711, AMS30205020. Catalog designations and this specification are subject to change without notice.