VELOCITI

Operations Manual

SiteShield

1 Introduction

1.1 Read Before Operating

About this Operations Manual

This Operator's Manual contains the information necessary to safely and efficiently operate your equipment. Before operating this machine, read this manual completely and carefully so that you understand the safety instructions, safety equipment and operation of controls. You must comply with all safety notices. They are for your benefit.

Specific operating instructions and specifications are included to familiarize you (the operator) and the maintenance personnel with the correct and safe procedures necessary to operate and maintain this equipment safely and properly.

If there are any questions about operating or servicing that you believe are not addressed in this manual, please contact **Velociti LLC** prior to operating this equipment

Phone: (855) 233-7210

Email: SiteShield.Support@velociti.com

Additional resources can also be found at: https://www.velociti.com/sunbelt-siteshield-resources

1.2 Models

All standard models of the Velociti SiteShield are covered by this manual. All models are designed and operate similarly, including the construction and materials used on the trailer, the mast, the solar collectors, batteries, battery boxes, control boxes, upper equipment/camera boxes, and the camera heads themselves.

1.3 Product Overview

The Velociti SiteShield is a state-of-the-art solar-powered security trailer designed to monitor job sites and other secure locations efficiently and effectively. This trailer is equipped with advanced solar tracking panels that adjust throughout the day to ensure optimal solar intake. The mobile design allows for easy towing and relocation and has been tested for average national highway speeds.

At the heart of the Velociti SiteShield is a customizable camera head mounted on a mast, capable of housing various camera types to suit the specific needs of any job site. The camera head also features a loudspeaker with two-way communication capabilities and the option to upload audio files for custom alerts.

Advanced AI technology continuously monitors location, detecting any unusual activity such as unauthorized human or vehicle presence after hours. Alerts are sent to dispatchers, who can then notify the police or on-site personnel as required.

1.3.1 Equipment Components

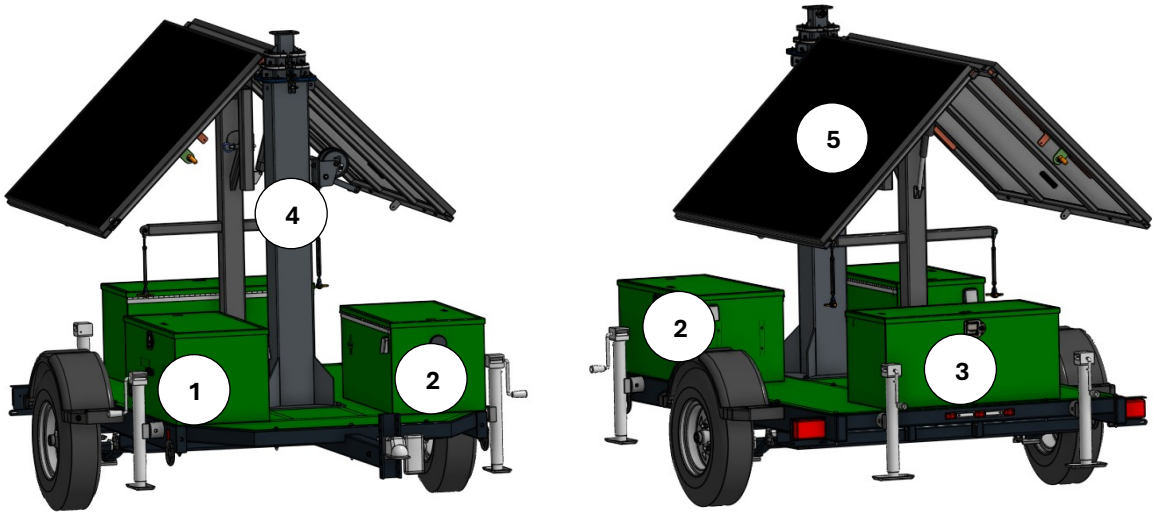


Figure 1 - Component Overview

1. Battery Enclosure
    a. Velociti Energy Modules
    b. Shoreline charger
2. Control Enclosure
    a. Velociti Master Control Unit (MCU)
    b. Velociti Data Collection Module (DCM)
    c. Master Power Switch
    d. MPPT Solar Charger
    e. Solar Tracker Controller
    f. Switch Board
3. Storage Enclosure
4. Camera Mast
5. Solar Mast and Panel

Figure 2 – Master Power Switch

Figure 3 - MPPT Solar Charge Controller

Figure 4 – Solar Tracker Controller

1.3.2 Equipment Orientation

When identifying locations on the trailer, it's crucial to understand the orientation. The front of the trailer features the tongue and hitch coupler, while the rear includes the trailer's taillights. To determine the left and right sides, you should be facing the rear of the trailer

1.3.2.1 Trailer Orientation

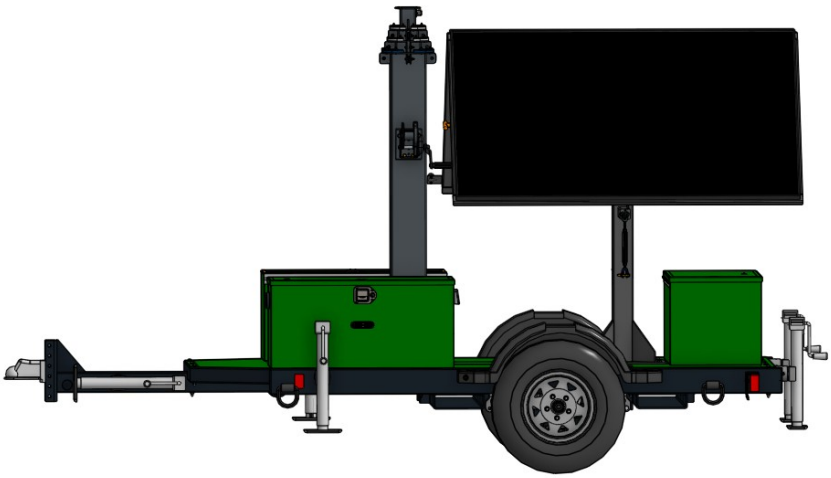


Figure 5 - Left Side View

Figure 6 - Front View

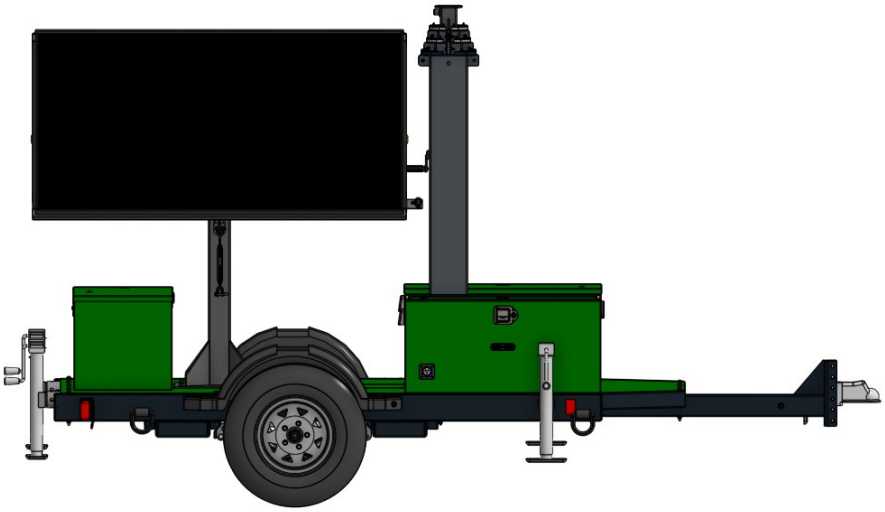
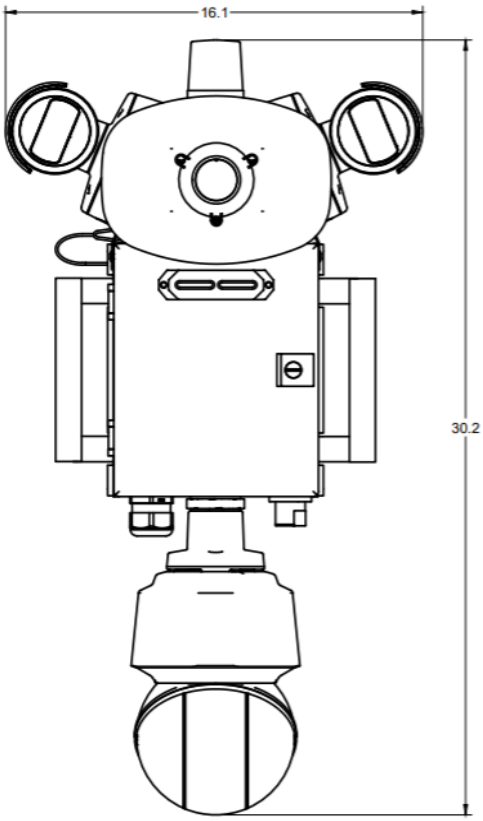
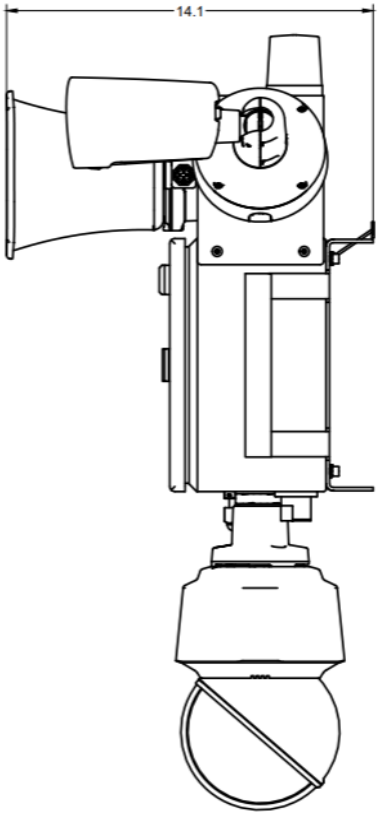


Figure 7 - Right Side View

Figure 8 - Rear View

1.3.2.2 Camera Head Orientation





1.4 Service and Replacement Parts

All service and replacement parts should be requested through Velociti Inc. at (855) 233-7210 or via email at Support.Siteshield@velociti.com

1.5 Site Onboarding

Prior to deployment and operation of the Velociti SiteShield, it is suggested to complete the onboarding form located at the resources page: https://www.velociti.com/sunbelt-siteshield-resources

The onboarding form contains questions regarding your identity, company, site information (name, address, phone number,) trailer and camera head asset numbers, user information, monitoring status, and supporting monitoring data.

Once the onboarding form is completed, users identified should receive login information to the YourSix platform for viewing the camera streams within 24 hours.

If monitoring is enabled, the monitoring service will also reach out to the primary user identified to finalize the alerts and monitoring cadence

2 Safety

2.1 Safety Overview

Safety Information

This manual includes essential safety information to help reduce the risk of personal injury, death, property damage, and equipment damage. It is your responsibility to understand and follow all safety instructions provided. Ignoring these guidelines can result in serious harm or equipment failure

Safety is Everyone's Responsibility

Always work safely, stay alert, and maintain a safe environment for yourself and others. **Velociti Inc.** products are designed for durability, ease of use, and efficiency. If you have questions or need more information, please contact **Velociti Inc.** at (855) 233-7210

2.2 Safety Statements

Common safety scenarios that may be encountered include **lifting, climbing, falling, pinch points**, and **electrocution**. Improper lifting techniques or attempting to move components without appropriate assistance or equipment can result in serious injury. Activities involving climbing or working at elevation, such as accessing mounted components or deployed structures, present a risk of falls and must only be performed using approved access methods and fall-prevention practices.

Pinch points may exist around moving or adjustable components, including panels, enclosures, and mechanical assemblies. Hands, fingers, and loose clothing must be kept clear of these areas during operation and servicing. Additionally, the presence of stored and generated electrical energy introduces the risk of electrocution. Electrical hazards can exist even when the system appears inactive, making strict adherence to lockout/tagout and power-verification procedures essential.

Failure to follow all safety statements, warnings, and instructions provided in this manual may result in injury, equipment damage, or death. Personnel must always use appropriate personal protective equipment (PPE), follow established safety procedures, and exercise caution when working on or near the system.

2.3 California Proposition 65

Batteries and battery components can expose you to lead and lead compounds, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

2.4 Safety Operations

- Do not expose the system to extreme temperatures.
- Do not spray the air intake, ducts, or metal seams directly with water.
- Avoid physical impacts to the battery and other system components to prevent damage.
- Use only the system components provided with your system.
- Do not attempt to disassemble or repair the mobile power system.

2.5 Forklift Safety

This trailer is equipped with structural fork pockets intended for controlled forklift handling only.

Fork requirements:

- Minimum fork spacing: 31 inches
- Maximum fork width: 8.5 inches
- Forks must fully engage the fork pockets

Forklift lifting is permitted only when:

- Camera mast is fully lowered, stowed, and locked
- Solar panels are fully stowed and secured
- Trailer is de-energized
- Trailer is disconnected from external power
- No camera is installed at the top of the mast

Lifting in any deployed configuration is prohibited.

2.6 Lockout/Tagout

To ensure the safety of all personnel performing service, maintenance, or inspection activities on the SiteShield, the system must be fully de-energized prior to work.

Both the battery breaker and the solar breaker shall be placed in the OFF position to eliminate all sources of stored and generated electrical energy. These breakers must be individually verified to confirm they are fully disengaged.

Once both breakers have been confirmed in the OFF position, apply an approved lockout device to the battery storage enclosure to prevent unauthorized access or accidental re-energization. The lockout device must be installed in accordance with established lockout/tagout guidelines and remain in place for the duration of the work.

After the lockout has been applied, verify that no electrical power is present in the system. This verification shall be performed by testing the LED indicator button located inside the control enclosure. The system should show no signs of operation or illumination. If any indication of power is observed, discontinue work immediately and recheck all power isolation points.

Only after proper shutdown, lockout, and zero-energy verification have been successfully completed may servicing or maintenance activities begin.

2.7 Inclement Weather

Your security trailer is designed to withstand outdoor elements, but extreme weather conditions require specific safety precautions to protect both the operator and the equipment.

2.7.1 High Wind

High winds pose the greatest risk to the stability of the trailer, particularly when the telescoping mast is deployed.

- **Know Your Wind Rating:** Check the specific wind rating decal on your trailer's mast. As a general rule, **do not deploy** or keep the mast extended in sustained winds exceeding **45 MPH (72 km/h)** or if wind gusts are predicted to exceed the unit's rated capacity.
- **Stabilization is Mandatory:** Never raise the mast without fully extending and locking all stabilizer jacks/outriggers. The trailer tires should be chocked, and the unit must be level.
- **Action Plan:** If high winds are forecast, **lower the mast immediately**. If the trailer is already in high winds, clear the area around the trailer in case of tipping; do not attempt to lower the mast if it is swaying violently, as this can cause binding or injury.

2.7.2 Lightning & Electrical Storms

The telescoping mast can act as a lightning rod during a storm.

- **Stay Clear:** If you hear thunder or see lightning, **do not touch the trailer or the mast**. Current from a nearby strike can travel through the metal chassis.
- **Preemptive Lowering:** If a storm is approaching, lower the mast **before** the storm arrives.
- **During a Storm:** If the mast is up and a storm is active, **do not** attempt to lower it. Seek shelter in a building or hard-topped vehicle and wait for the storm to pass.

2.7.3 Winter & Solar Panel Maintenance

Snow and ice accumulation on solar panels will block charging and can drain the batteries, causing the system to go offline.

- **Safe Removal:** To clear snow from panels, use a **soft foam-headed snow rake** or a broom with soft bristles.
- **Avoid Damage: Never** use metal shovels, ice scrapers, or abrasive tools on the solar panels. Scratching the glass surface can permanently reduce energy output.
- **Safety First:** Attempt to clear snow from the ground using an extendable pole. Do not climb on the trailer if surfaces are icy or slippery.

2.7.4 Flood & Water

- **Deployment Zone:** Avoid deploying the trailer in low-lying areas prone to flash flooding.
- **Seals & Latches:** Ensure all cabinet doors are tightly closed and latched to maintain the NEMA-rated weather seal. Water ingress can destroy the internal electronics and battery banks.

2.8 Emergency Procedures

These protocols outline emergency procedures for the Velociti SiteShield.

Safety Precautions

- **Safety First**: Always prioritize the safety of yourself and others in any emergency.
- **Evacuation**: In case of a serious emergency, evacuate the immediate area and call emergency services (fire department) immediately.
- **Training:** Review this protocol with all personnel who may operate or maintain the system. Consider additional training on lithium-ion battery safety.

2.8.1 Fire

- Small Fire: If a small fire originates outside the battery enclosure (e.g., surrounding materials), attempt to extinguish it with a Class A fire extinguisher if safe to do so. Evacuate the area if the fire grows or you are unsure about using the extinguisher.
- Battery Fire: If the fire appears to involve the battery enclosure itself, do not attempt to extinguish it yourself. Evacuate immediately and call emergency services. A Class-D fire extinguisher is required for a lithium fire.
- General Actions:
    - If safe to do so, shut down the power from the MPS at the Master Power Switch.
    - Alert others in the vicinity to evacuate.
    - Do not move the system unless absolutely necessary.

2.8.2 Electrical Malfunction

- If the system exhibits sparking, unusual electrical behavior, overheating, or burning odors:
    - Shut down the system using the Master Power Switch
    - Unplug any connected devices.
    - If the problem persists, do not attempt to fix it yourself. Contact Velociti or a qualified technician.

2.8.3 Post-Emergency Actions

After any emergency, do not operate the system until a qualified technician has inspected and cleared it for safe use.

Report the incident to **Velociti Inc.** at (855) 233-7210. and document the details for future reference.

2.8.4 Additional Resources

National Fire Protection Association (NFPA): https://www.nfpa.org/en

3 Operation

3.1 Operation Overview

A typical deployment of any Velociti SiteShield includes the following steps:

1. Preparing the trailer for transportation and operation
2. Transporting the trailer to its destination
3. Deploying the towable trailer which includes:
    a. Locating the safest and most optimal location for the trailer
    b. Positioning the trailer
    c. Leveling the trailer
    d. Set-up and configuration

3.2 Transportation

Attaching trailers to vehicles can be a hazardous endeavor. It's important to know how to transport your equipment as safely as possible and how to maintain safety around other vehicles. Read, understand and obey all the towing vehicles manufacturer's recommendations, warnings and instructions before towing your trailer.

3.2.1 Speed Rating Statement

The Velociti SiteShield has a maximum speed rating of 85 mph when operated at Gross Trailer Weight Rating (GTWR). This speed rating is component-limited by the installed tires and is valid only when the trailer is in full transport configuration.

Conditions required for the 85-mph rating:

- Camera mast fully lowered, stowed, and mechanically locked
- Solar panels fully stowed and secured
- Stabilizer turnbuckles fully tightened
- Leveling jacks fully retracted and secured
- Trailer de-energized and disconnected from external power
- No camera or auxiliary equipment mounted at the top of the mast

Operating the trailer outside these conditions may result in loss of control, structural damage or component failure.

Basis for rating:

- Tire size: ST215/75D14
- Cold inflation pressure: 50 PSI (345 kPa)
- GTWR: 2,990 lb (1,356 kg)

3.2.2 Braking and Tow Vehicle Requirements

This trailer is not equipped with brakes. The towing vehicle must be properly rated to safely stop and control the combined vehicle and trailer mass. Hitch information:

- Coupler type: 2-inch ball
- Coupler rating: 7,000 lb

Only tow vehicles with a tow rating exceeding the trailer GTWR should be used.

3.2.3 Before Towing

- Refer to section 3.4 Shutdown and Storage
- Ensure the trailer coupler is fully seated on the ball and the latch is locked (use a safety pin or padlock). Cross the safety chains under the tongue and secure them to the tow vehicle frame, do not let them drag on the pavement
- Check tire pressure on all trailer tires
- Connect the 7-way (or 4-way) trailer plug and verify that all running lights, brake lights, and turn signals are operational.

3.2.4 During Towing

- Do not tow the trailer with any people, parts, supplies, or additional equipment attached to the trailer or loaded onto it.
- Do not tow additional trailers or other equipment in tandem with the solar trailer.
- The recommended maximum speed for highway towing is 80 mph. For off-road towing, the recommended maximum speed is 15 mph or less, depending on terrain.
- Adhere to applicable transportation department regulations when towing the trailer.
- If whipping or swaying occurs, do not attempt to correct it by turning the steering wheel, do not apply the brakes, and DO NOT speed up. Instead, release the gas pedal and hold the steering wheel in a straight-

ahead position until the whipping or swaying stops. Whipping and swaying can be caused by excessive speed, crosswinds, and many other conditions.

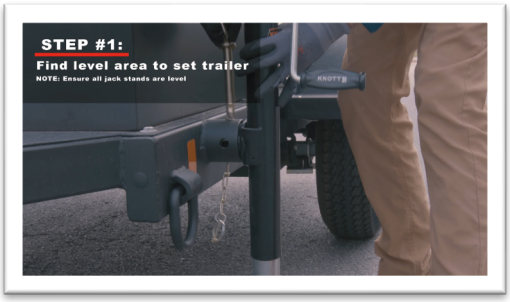
- When entering job sites with uneven ground, drive slowly to prevent the mast or solar array from flexing violently

3.2.5 After Towing

- Identify an ideal location for SiteShield deployment. Ideal locations should be even, level, and free of debris
- Disconnect the tow-chains and taillight plug from the tow vehicle
- Use the jack mounted on the drawbar to lift the drawbar and release it from the vehicle's hitch.
- Move the tow vehicle away from the SiteShield once it is safely detached

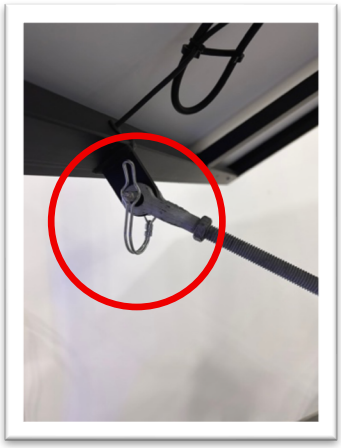
3.3 Deployment

Video: https://www.youtube.com/watch?v=PTq_Q_rhMPE

1) Locate an even surface to deploy the trailer 2) Deploy each jack stand, one at a time. Reference the leveling bubble on the trailer mast.	
3) Locate and remove the pin from the stabilizing arm on the north side of the mast	

4) Locate Camera Head enclosure at rear of trailer and remove camera head. Close the enclosure and place the camera head on top of the Control Enclosure lid.	
5) Step onto platform of trailer first using the grip for stabilization, then lift the camera head and slide onto the hinge pins 6) Close the Camera Head Hinge and Insert Locking Pin to secure	
7) Connect Camera Head Connector Plug into enclosure	
8) Locate Battery Box on Right Side of Trailer 9) Flip Battery Breaker into the "On" Position	

10) Locate Control Panel Box on Left Side of Trailer 11) Flip solar breaker switch to the ON (up) position.	
12) Turn Battery Disconnect Red Switch to the "On" Position 13) Press and hold 'SP Start' button until you hear an audible click (3-8 seconds). a. This will power the Camera Mast 14) Press 'LEDS' button (Optional) a. This will power the LEDs 15) Turn 'Solar Tracking' rocker switch to the ON (up) position a. This will power the Solar Tracker Controller.	
16) Push the green "SET" button on the solar controller 17) Ensure SP Start Button Light Remains On	

18) Locate and Release the Clevis Pins from each Tension Rod on both Left and Right Sides of the Solar Panel	
19) Push and Hold "E" on the Solar Controller to extend panel	
20) Once Panel is fully extended, physically lift up on Right Solar Panel and slide each locking mechanism into place	

21) Push blue "QUIT" button on solar controller to initiate sun tracking	
22) Locate and Scan QR code on front of Camera Head Enclosure to access YourSix Platform 23) Adjust Camera Orientation/Views	
24) Raise Camera Mast with Crank to Desired Height	
25) Close and Secure All Boxes	

3.4 Shutdown and Storage

1) Lower the Camera Mast completely	
2) Remove Camera Power Connector from Enclosure	
3) Remove Locking Pin from Camera Head and Remove Camera Head from Guide Pins/Mast 4) Store Camera Head in Camera Head Storage Enclosure	
5) Lower and Level Solar Panel and secure to the solar mast with the locking arm and pin. a. To lock the solar panels for transport, prior to shutting down the system, use the solar controller to level out the solar panels (parallel to the deck).	

<table>
<tr><td>i. Press the green ‘set’ button to manually move the actuators
ii. DO NOT press the red ‘quit’ button while locking in the support arm, doing so will cause the solar panels to go back to ‘auto-tracking’.</td><td></td></tr>
<tr><td>6) Locate Control Panel Box on Left Side of Trailer
7) Turn Battery Disconnect Red Switch to “OFF” Position</td><td>  </td></tr>
<tr><td>8) Flip solar breaker switch to the OFF (down) position.</td><td>  </td></tr>
</table>

9) Locate Battery Box on Right Side of Trailer 10) Flip Battery Breaker into the "OFF" Position	
11) Ensure all solar panels are secured using appropriate clevis pins and ensure all enclosures are closed and secure	

3.5 YourSix Platform

YourSix is a cloud-native physical security platform that powers the video surveillance and security systems on the SiteShield. Unlike traditional systems that rely on complex on-site recorders, YourSix operates as a "Physical Security as a Service" (PSaaS) solution. This means all video footage, access control, and security alerts are managed securely in the cloud.

To gain access to the YourSix platform, please refer to the onboarding process detailed in 1.5 Site Onboarding

The YourSix platform can be accessed in one of the following ways:

- Scan the QR code on the front of the camera head enclosure
- Navigate to https://platform.yoursix.com
- Using either the Android app or iOS app

Detailed YourSix usage documentation can be found at https://docs.yoursix.com/usage/

4 Maintenance

Repair or replace worn and damaged components immediately. Never use any equipment that is damaged or in need of repair.

All components in the battery box will operate more efficiently and have a longer lifespan if they are free of dirt and dust. Keep the interior of the battery box and components inside the battery box clean. Observe battery safety requirements when working on or around batteries.

When necessary, clean the solar panels with a squeegee, soft cloth, or sponge and a cleaning solution of mild detergent and warm water.

5 Troubleshooting

5.1 No output on an individual load

- Check the Master Power Switch is 'On'.
- Check the Switch for the certain load is 'On' on the Switch Board.
- If still no output, check for blown fuses on the Switch Board.
    - Each load has an independent fuse.
    - e.g. Switch A corresponds to Fuse A.
    - Use a multimeter and check for continuity across the terminals of the fuse.

Switch Board fuses for reference

- If still no output, there is a 50 Amp fuse located inside the Switch Board that powers all combined loads.
    - Checking this fuse will require opening the front panel.

5.2 No output on all loads

- Check the battery voltage. This will be shown on the MPPT Solar Charger LCD screen.
    - If the battery voltage is 12.8V or lower, the system will enter low battery disconnect (LBD).
        - The trailer is still able to use solar energy to charge
        - Wait until the solar input charges up the battery or use shoreline to charge the battery
    - During LBD, no load will have power. This is to protect the battery from draining to an unsafe level.
    - The system will leave LBD when it detects the battery voltage has reached 13.0V.
- If problem persists and the battery voltage has been verified at above the LBD threshold, shut system down according to the Shut Down Guide.
- Restart system according to the Quick Start Guide.

5.3 Unusually Low Solar Energy Charging

- Check Switch E on the Switch Board inside the Control Enclosure is on to ensure the Solar Tracker Controller is on. This will maximize solar charging.
- Check the solar panel for dust or debris

5.4 System Data Not Available in the Dashboard

- Check the Master Power Switch is 'On'.
- Check switch C is 'On'.
- Check there is no Low Battery Disconnect condition.
- Check that the LTE antenna is connected to the Velociti DCM and ensure the antenna is mounted in an exterior location.

6 Parts List

Number	Component	IP
1	Router	192.168.0.1
2	Switch	192.168.0.9
3	Bullet Camera	192.168.0.10
4	Bullet Camera	192.168.0.11
5	PTZ Camera	192.168.0.12
6	Speaker	192.168.0.13
7	Voltage Regulator	NA
8	LED Strobe	NA
9	SFP	NA
10	Antenna	NA
11	Nema Box	
12	Head Unit Mount A	
13	Head Unit Mount B	
14	Head Unit Mount C	
15	Head Unit Mount D	

Figure 9 - Parts List

7 Specifications

7.1 SiteShield

Dimensions:

- **Length**: 8 feet
- **Width**: 4 feet
- **Height**: 18 feet

Weight:

- **Total Weight**: 1700 pounds

Solar Panel Details:

- **Type of Solar Panels**: Monocrystalline
- **Power Output**: 320W
- **Module Efficiency**: 19.2%
- **Open Circuit Voltage (Voc)**: 40.10 V
- **Short Circuit Current (Isc)**: 10.36 A
- **Maximum System Voltage**: 1000 VDC
- **Maximum Series Fuse Rating**: 15 A
- **IP Rating**: IP68 (1m, 1h)
- **Dimensions**: 65.6 x 39.4 x 1.4 inches (1665 x 1002 x 35 mm)
- **Weight**: 39.7 lbs (18 kg)
- **Connectors**: Solar Connectors, Type 2
- **Operating Temperature Range**: -40ºF to +185ºF
- **Nominal Operating Cell Temperature (NOCT)**: 47±2ºC
- **Temperature Coefficient of Pmax**: -0.44%/ºC
- **Temperature Coefficient of Voc**: -0.30%/ºC
- **Temperature Coefficient of Isc**: 0.04%/ºC

7.2 400 W Solar Panel

Solar Panel Capacity & Type

• Module Type: Monocrystalline (or polycrystalline depending on model)

• Model / Power Rating: 400 W (peak, STC)

• Nominal System Voltage: typically 12 V / 24 V system compatible (check module Vmp/Voc)

• Energy Yield: Approximate nominal output at standard test conditions: 400 W × sunlight hours/day (varies by location)

Electrical Specifications

• Peak Power (Pmax): ~ 400 W
• Voltage at Maximum Power (Vmp): e.g., ~ 34 V (varies)
• Current at Maximum Power (Imp): e.g., ~ 11.7 A
• Open Circuit Voltage (Voc): e.g., ~ 40.5 V
• Short Circuit Current (Isc): e.g., ~ 12.6 A
• Module Efficiency: Variable; e.g., ~17% in one generic 400 W spec.
• Power Tolerance: e.g., 0 % to +3% typical for good modules.
• Maximum System Voltage: Often ~1000 V DC (for on-grid modules)

Mechanical / Physical Specs

• Dimensions: Example ~ 1722 × 1134 × 30 mm (67.8" × 44.6" × 1.18")
• Weight: Example ~ 20.5 kg (≈ 45.2 lbs)
• Frame: Anodized aluminium alloy
• Front Glass: Tempered, high-transmission low-iron glass (typically ~3.2 mm)
• Junction Box & Connectors: Typically IP65 or higher rated for outdoor.

Environmental & Temperature Specs

• Operating Temperature Range: Example –40 °C to +85 °C
• Nominal Operating Cell Temperature (NOCT): Example ~ 47 °C ±2 °C
• Degradation: Many modules guarantee ~90% output at 10 years, ~80% at 25 years.
• Mechanical Load Ratings: Example wind + snow loads (IEC 61215 standard) for durability.

Certifications / Compliance

• IEC 61215, IEC 61730 (common PV module certifications)
• CE / ISO9001 etc (depending on manufacturer)

7.3 Battery Charger / Power Converter

Electrical / Output Specifications

- **Nominal Output Voltage (no load): ~ 13.6 V DC (±0.7%)**
- **Output Voltage at Full Load: > 13.4 V DC**
- **Maximum Continuous Output Current: 45 Amps**
- **Maximum Continuous Power Output: ~ 600 W**
- **Ripple & Noise: < 50 mV rms**
- **Line Regulation: ~100 mV rms**

- **Load Regulation: < 1%**
- **Input Voltage Range (AC): 108–132 VAC for standard model**
- **Input Frequency: 47–63 Hz**
- **Maximum AC Current at 108 VAC: ~ 11 A**
- **Inrush Current (single cycle): ~30 Amps**
- **Typical Efficiency: > 80%**

Physical / Mechanical

- **Dimensions: ~ 9.7" × 6.7" × 3.4" (L × W × H)**
- **Weight: ~ 5.0 lbs**
- **Fan: Proportional fan-control (quiet operation)**

Protection / Features

- **Reverse polarity fuse protection (external fuse)**
- **Short circuit protection: Yes**
- **Overload / Current limit protection: >100% overload capability**
- **Thermal protection: Yes**
- **Withstand voltage: 1700/1700/500 VDC (line/line/line-to-chassis)**

Temperature / Environmental

- **Operating Temperature Range: 0 °C to 40 °C**
- **Storage Temperature: -20 °C to +80 °C**

Charging Modes / Additional Notes

- **This unit is a converter/charger — capable of powering 12 V DC loads and charging a 12 V battery bank.**
- **Dual-Voltage Jack: Allows manual selection of a higher charging voltage (e.g., switching from ~13.6 V to ~14.2 V) for faster bulk charging in two-step mode.**
- **Compatible with the optional IQ4 (smart charge controller) module, which upgrades the DLS-45 to four-stage charging (Bulk, Absorption, Float, Equalization) when used.**
- **Switch-mode technology: Provides clean DC output (beneficial when powering sensitive 12 V loads).**

7.4 Battery Capacity and Type

• Battery Type: Sealed Lead Acid, AGM (Absorbent Glass Mat), Valve Regulated (VRLA)

• Model: Interstate SLA1189

• Capacity: 100 Ah (20-hour rate)

• Nominal Voltage: 12.0 V

• Energy: ~1200 Wh (1.2 kWh)

- **Weight: ~64.9 lbs (29.5 kg)**
- **Dimensions: 12.1 x 6.6 x 8.4 inches (L x W x H including terminals)**

Charging Specifications:

- **Recommended Charge Current: Up to 30 A**
- **Maximum Charge Current: 30 A (to avoid shortened lifespan)**
- **Recommended Charge Voltage (Cyclic Use): 14.4 V – 15.0 V**
- **Recommended Charge Voltage (Float/Standby): 13.5 V – 13.8 V**
- **Charge Mode: CC/CV (Constant Current / Constant Voltage)**

Discharge Specifications:

- **Maximum Continuous Discharge Current: ~100 A (typical rating for 100Ah AGM)**
- **Peak Discharge Current (5 sec): ~1200 A**
- **Standard Discharge Current (20-hr rate): 5 A**
- **Cut-off Voltage: 10.5–10.8 V (standard deep-cycle cutoff)**

Efficiency: ~80–85% round-trip (typical AGM efficiency)

Self-Discharge Rate: ~3% per month at 25°C (slower in cooler temps)

Temperature Specifications:

- **Discharge Temperature: -15°C to 50°C (5°F to 122°F)**
- **Charge Temperature: 0°C to 40°C (32°F to 104°F)**
- **Storage Temperature: -20°C to 40°C (-4°F to 104°F); best stored 10°C to 25°C**

7.5 Camera Specifications

7.5.1 Bullet Camera

- **Resolution**: 2 MP
- **Field of View**:
  - 9 mm lens: Horizontal 117˚-37˚, Vertical 59˚-20˚
  - 29 mm lens: Horizontal 29˚-11˚, Vertical 16˚-6˚
- **Minimum Illumination**:
  - 9 mm lens: Color 0.06 lux, B/W 0.01 lux
  - 29 mm lens: Color 0.06 lux, B/W 0.01 lux
- **Features**:
  - Lightfinder 2.0
  - Forensic WDR
  - OptimizedIR
  - Deep learning processing unit for advanced analytics
  - Cybersecurity features like Axis Edge Vault
  - IP66/IP67, NEMA 4X, and IK10-rated casing

7.5.2 Pan-Tilt-Zoom (PTZ) Camera

- **Resolution**: HDTV 1080p
- **Field of View**: Horizontal 58.3˚–2.4˚, Vertical 34.9˚–1.3˚
- **Zoom Capability**: 32x optical, 12x digital, total 384x zoom
- **Range**: Optimized IR up to 250 m (820 ft)
- **Minimum Illumination**:
  - Color: 0.06 lux, B/W: 0.008 lux with IR on
- **Features**:
  - Lightfinder 2.0
  - Autotracking 2 and orientation aid
  - Privacy masking with mosaic
  - Enhanced security features: signed firmware, secure boot, TPM module
  - IP66 and NEMA 4X-rated housing

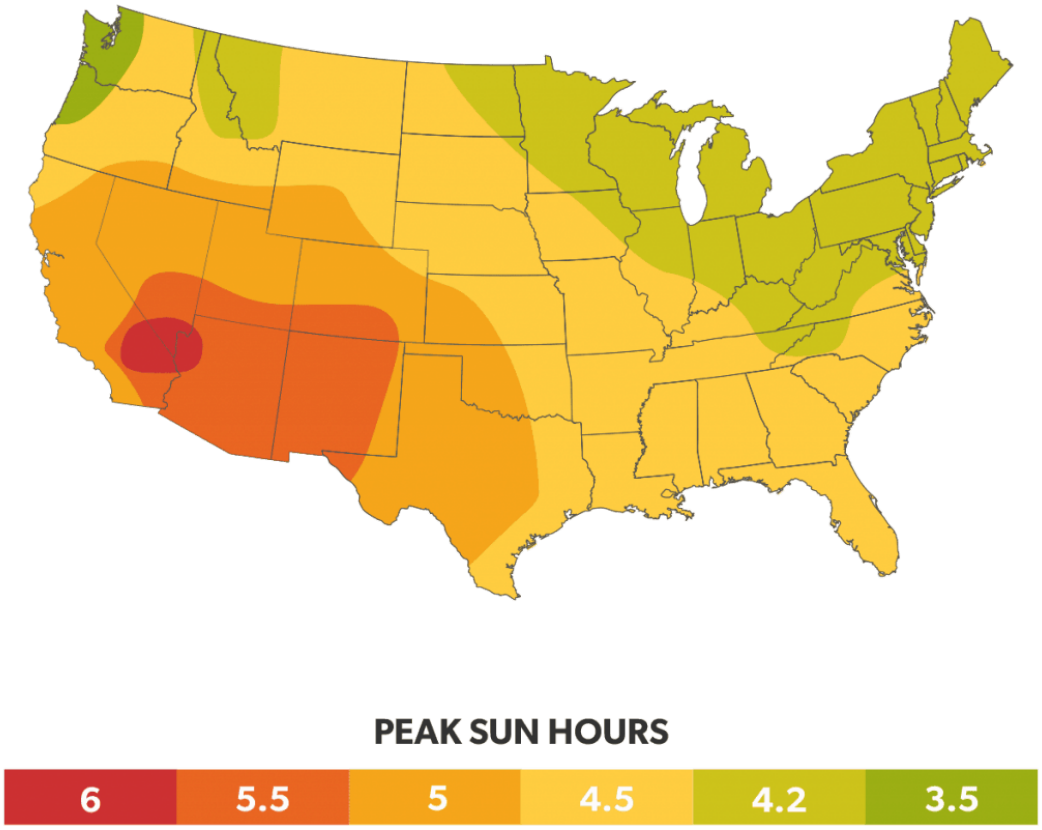
7.6 Additional Components

Two-Way Loudspeaker

Integration: The loudspeaker is integrated with the camera unit to provide real-time communication and audio alerts.

- **Audio Hardware**:
  - Re-entrant horn loudspeaker with compression driver
  - Maximum Sound Pressure Level: >121 dB
  - Frequency Response: 280 Hz - 12.5 kHz
  - Coverage Pattern: 70° horizontal by 100° vertical (at 2 kHz)
- **Amplifier**:
  - Built-in 7 W Class D amplifier
  - Digital Signal Processing (DSP): Built-in and pre-configured
- **Features**:
  - All-in-one speaker system
  - Connects to standard network
  - Simple installation with PoE
  - Remote health testing
  - Scalable and easy to integrate
  - Built-in microphone for remote health testing and 2-way communication
  - Audio streaming: One-way/two-way with optional half-duplex echo cancellation
  - Audio encoding: AAC LC 8/16/32/48 kHz, G.711 PCM 8 kHz, G.726 ADPCM 8 kHz, Axis µ-law 16 kHz, WAV, MP3
  - IP66- and NEMA 4X-rated casing

7.7 Solar Coverage



		100 % Night (full IR)	100% Day (no IR)
Ambient Temperature	-40 to -20 F	34 hours	44 hours
	-20 to 0 F	34 hours	44 hours
	<0 F	34 hours	44 Hours
	0 to 25F	38 hours	48 Hours
	25 to 50F	38 hours	48 Hours
	>50F	38 hours	48 Hours

*X Hours = hours of operation assuming full battery charge and 0 solar

8 Warranty

i. Supplier Warranty. Supplier warrants that the Units furnished under this CTA shall conform in materials respects to the specifications, drawings, samples, or descriptions specified in Schedule 1 and the applicable Purchase Order. All Units shall be new and free from material defects. Supplier warrants that it conveys the Units to Sunbelt with good title, free of any liens or other encumbrances. Supplier's warranty shall extend to Sunbelt and its End Users.

ii. Third-Party Warranties. Supplier's warranty hereunder shall not apply to the extent a warranty is provided by any manufacturer or other third party. All manufacturer and other warranties applicable to the Units are hereby assigned to Sunbelt.

iii. Warranty Period. The warranty provided by Supplier under this Section 3.D) shall be for the following period, in each case measured from the date of departure from the Supplier Warehouse (the "*Warranty Period*"):

Item	*Warranty Period*
Chassis, Axle, Wheels, and Tires	Per Manufacturer
Other Components of the Unit (includes batteries, solar panels, chargers, and controllers)	Per Manufacturer
Camera Heads	5 years
Retrofit and Refurbishment Workmanship	1 year

iv. Warranty Exclusions. Supplier's warranty hereunder shall be limited to the extent the Units are used under normal circumstances and that any defect(s) are not the

result of installation or mobilization methods used by Sunbelt or any End User, abuse or misuse of the Units by any party, or failure to adhere to the applicable instructions concerning the use and operation of the Units. Supplier's warranty hereunder will not apply to any Units that have been reworked or repaired by any party other than Supplier without Supplier's prior written authorization.

v. Supplier Warranty Work. Supplier agrees to repair, replace, or correct errors or defects in, any Units not conforming to the Supplier warranty provided hereunder (the "*Supplier Warranty Work*") promptly and without expense to Sunbelt when notified of such nonconformity by Sunbelt. Supplier's obligation to perform any Supplier Warranty Work shall be subject to Supplier's inspection of the Units to which such claim was made and a reasonable determination that the Supplier Warranty Work is required. All claims made by Sunbelt pursuant to this Section 3(D)(v) shall be void, and Supplier shall have no liability therefor, if such claims are not raised by Sunbelt during the Warranty Period.

vi. Third-Party Warranty Work. Supplier agrees to repair, replace, or correct errors or defects in, any Units not conforming to the manufacturer or other warranties assigned hereunder (the "*Third-Party Warranty Work*") promptly when notified of such nonconformity by Sunbelt. Supplier will undertake commercially reasonable efforts to seek payment for the Third-Party Warranty Work from the applicable warranty provider. If the applicable warranty provider fails to pay Supplier for the Third-Party Warranty Work, the Third-Party Warranty Work shall be treated as Repair Work, and the provisions of Section 3(D)(vii) shall apply.

vii. Repair Work. All other repairs, replacements, and/or enhancements to the Units, including any Third-Party Warranty Work that is not paid for by the applicable warranty provider (collectively, "*Repair Work*") shall be performed by Supplier, at Sunbelt' expense, in accordance with the terms of the Service Agreement and the Telematics CTA.

9 Inspection Checklist

Pre-Inspection:

☐ Perform 3.4 Shutdown and Storage procedures if not already complete

Visual Inspection:

Overall System:

☐ Inspect the entire system for any signs of rust, water damage, or excessive dust accumulation.
☐ Look for any bent, broken, or missing components.

Battery Enclosure:

☐ Look for any signs of distortion, swelling, or bulging in the battery case. This could indicate internal damage or pressure buildup.
☐ Check for cracks, dents, or other physical damage to the enclosure.

Wires and Connections:

☐ Inspect all cables and connections for any signs of fraying, loose connections, or burning marks.
☐ Ensure all connections are secure and properly fastened.

Functional Check:

☐ Power On: Turn on the Master Power Switch as detailed in 3.3 Deployment
☐ Confirm operation of the connected loads.
☐ Confirm system is operational on the Velociti Intelligence Dashboard. Reference the Data Collection Module (DCM) number that appears on the enclosure label.

Documentation:

☐ Record the date of the inspection and any observations in a designated logbook.
☐ Note any potential problems that require further investigation or repair.
☐ Follow internal company protocols for maintenance.

Reporting:

☐ Report any significant findings, such as damage to the battery & inverter enclosures, loose connections, or suspected leaks, to a Velociti Inc. technician immediately.

Additional Notes:

If you are unsure about any aspect of the inspection, consult the system user manual or contact Velociti for further guidance.

- Do not attempt to disassemble or repair the mobile power system yourself. Refer to a qualified technician for any issues.
- By following this safety inspection protocol, you can help ensure the safe and reliable operation of your mobile power system.