



**OSHKOSH
SPECIALTY
VEHICLES**

Operator and Service Manual

Indiana Department of Homeland Security Unit Mobile Incident Command Center 53' x 102W USA Unit



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List of Revisions & Warnings

Revisions

00	New Release	April 2006
01	Updated Company Reference	September 2007

Notice

In accordance with our policy of product development, Oshkosh Specialty Vehicles reserves the right to make changes in the equipment, design, specifications, and materials of the product described herein. If there are any inconsistencies between this manual and the mobile unit that inhibit serviceability, please contact Oshkosh Specialty Vehicles for assistance.

This manual is one of two (2) information documents provided in the mobile unit. The documentation package consists of:

Volume I – Site Guide, Operators Manual, and associated drawings

Volume II – Vendor Information

These volumes should be kept in the mobile unit at all times.

Any problems or questions related to the components or systems covered in this manual may be directed to:

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Warnings & Safety Alert Conventions

The following terms define the various precautions and notices used in this manual:

NOTE: Whenever information exists that requires additional emphasis beyond the standard textual information, the term “NOTE” is used.



Whenever information exists that requires special attention to procedures to ensure proper operation of the equipment or to prevent its possible failure, the term “IMPORTANT” is used.



Whenever potential damage to equipment exists, requiring correct procedures / practices for prevention, the term “CAUTION” is used.



Whenever potential personal injury or death situations exist, requiring correct procedures / practices for prevention, the term “WARNING” is used.



Whenever immediate hazards exist that could result in personal injury or death that cannot be eliminated by design safeguards, the term “DANGER” is used.



This safety alert symbol indicates important safety messages in the manual. When you see this symbol, carefully read the message that follows and be alert to the possibility of personal injury or death.



Electrical, mechanical, pneumatic, and hydraulic safety devices have been installed on this vehicle to help protect against personal injury and / or damage to equipment. Under no circumstances should any attempt be made to disconnect or in any way render any of these devices inoperative. If a malfunction of any safety device is discovered to exist, DO NOT operate the vehicle, and immediately notify appropriate maintenance personnel.

Oshkosh Specialty vehicles shall have no liability with respect to: REPAIRS IMPROPERLY PERFORMED OR REPLACEMENTS IMPROPERLY INSTALLED (or) USE OF REPLACEMENT PARTS OR ACCESSORIES NOT CONFORMING TO Oshkosh SPECIALTY VEHICLE’S SPECIFICATIONS, WHICH ADVERSELY AFFECT PERFORMANCE OR DURABILITY (or) ALTERATIONS OR MODIFICATIONS NOT RECOMMENDED OR APPROVED IN WRITING BY Oshkosh SPECIALTY VEHICLES (or) FOR EQUIPMENT DAMAGE OR PERSONAL INJURY OR DEATH AS A RESULT OF RENDERING ANY SAFETY DEVICE INOPERABLE.

Certain inherent risks are associated with heavy trailers due to the nature of their use. Personnel working in the area of these trailers are subject to certain hazards that cannot be met by mechanical means but only by the exercise of intelligence, care, and common sense. It is therefore essential for the owner of this equipment to have personnel involved in the use and operation of these trailers who are competent, careful, physically and mentally qualified, and trained in the safe operation of this equipment.



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Section 1: Introduction



This manual is intended to instruct and assist personnel already qualified in the proper installation of the mobile unit. This manual is not intended to enable persons unfamiliar with the mobile unit to perform the setup and transport procedures.

This manual contains the basic information needed to setup, transport, and service the mobile unit. This mobile unit was designed to operate within certain limitations and specifications. When performing the setup or transport procedures for the mobile unit, follow the proper logical steps that have been outlined in this manual. The drawings in this manual are representative of this product. In accordance with our program of continued product development designs and specifications are subject to change without notice.

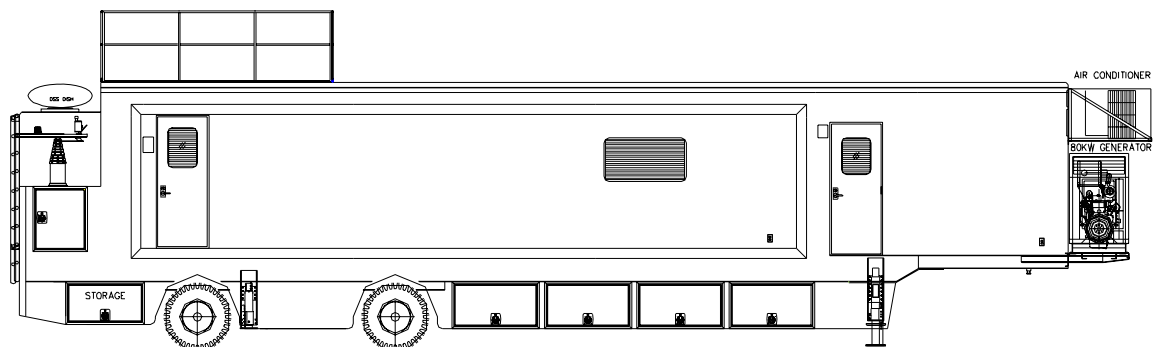


Figure 1: The Indiana Department of Homeland Security Unit



As part of Oshkosh Specialty Vehicles' on-going program to improve its products and service, (and their effectiveness in enhancing safety, reliability, performance, productivity, and the useful service life of the equipment) Oshkosh Specialty Vehicles reserves the right to implement product changes and disseminate changes in design and service information without notice or recourse.

Section 2: Safety Guidelines



Electrical, mechanical, pneumatic, and hydraulic safety devices have been installed on this vehicle to help protect against personal injury and / or damage to equipment. Under no circumstances should any attempt be made to disconnect or in any way render any of these devices inoperative. If a malfunction of any safety device is discovered to exist, **DO NOT** operate the vehicle, and immediately notify appropriate maintenance personnel.



Use and follow the appropriate Lockout/Tagout procedures as required by OSHA Standard 1910.147 when performing maintenance or servicing any electrical, hydraulic or pneumatic systems. See Appendix E for Lockout/Tagout procedures.



It is the operator's responsibility to verify that the shore power receptacle is of the same type and voltage as the connection that is supplied by Oshkosh Specialty Vehicles. Failure to do this can result in injury or death to the operator of the mobile unit as well as irreparable damage to the mobile unit.



Make sure that all electrical parts are serviced only by a certified electrician or qualified personnel. Dangerous voltages are present which could result in injury or death.



Always make sure that eyes are protected while servicing the unit. Wear safety goggles when prying, drilling, grinding, or working with batteries. Wear safety goggles over regular prescription glasses unless the lenses are made of hardened glass and can serve as safety goggles.



Be certain to disconnect the power before working on any of the electrical systems.



When servicing the unit be certain that a first aid kit and fire extinguisher are within reach at all times.

This safety section contains important information in regards to general safety guidelines that should be followed. Before attempting to service the mobile unit, read this safety section as well as all other safety sections found in applicable manufacturers' manuals in the component literature binder.

2.1 Operator's General Safety Precautions

Your safety and the safety of other persons in the area of this vehicle are the result of your correct operation of this vehicle. Know the location, positions, and functions of all the controls. Know the meaning of the various Warning, Caution, Strobe, and Annunciator lights and their associated audible warning sounds.

Read this manual completely and make sure you understand the contents. Make sure you understand, for example, the characteristics of speed, stability, brakes, and steering, etc. of this vehicle. If you have any questions, contact Oshkosh Specialty Vehicles, (800) 839-0630. Always keep a copy of this manual with the vehicle.

The safety information in the manual does not replace any other rules or laws for safety that are used in your area, Know the local rules or laws for safety. Make sure that your vehicle has the correct equipment to operate according to these rules or laws.

All safety hazards that can possibly arise cannot be foreseen and noted in this manual. You must always use common sense and apply the general as well as the specific safety precautions.

Make sure the work area is well ventilated.

Disconnect the electrical power to prevent the possibility of electrical shock when servicing all electrical equipment.

Follow all manufacturers' directions and request material data sheets where applicable.

Always keep tools clean and free of grease.

Do not stand on chairs inside of the mobile unit under any circumstances.

Follow all safety precautions found in the documentation package that is included with the mobile unit.

2.2 Electrical Safety



Use and follow the appropriate Lockout/Tagout procedures as required by OSHA Standard 1910.147 when performing maintenance or servicing any electrical, hydraulic or pneumatic systems. See Appendix E for Lockout/Tagout procedures.



Before connecting or disconnecting from shore power, it is imperative that the shore power main service disconnect lever is moved to the "OFF" position. Failure to do this can result in injury or death to the operator of the mobile unit.



It is the operator's responsibility to verify that the shore power receptacle is of the same type and voltage as the connection that is supplied by Oshkosh Specialty Vehicles. Failure to do this can result in injury or death to the operator of the mobile unit as well as irreparable damage to the mobile unit.



Always inspect the power cable, connectors, and fasteners prior to usage. If during inspection, it is suspected that either internal or external damage has occurred, have a certified electrician inspect and repair the damage before using.

When working with the electrical system for the mobile unit. Follow the warnings and cautions listed above.



2.3 Transportation Safety

Walk around the unit to make certain that all doors are closed and locked, slide-outs are full retracted, masts are fully retracted, roof mounted devices are properly stowed, and stabilizing legs are fully retracted for transport of the vehicle.

- If any of the warning lights are illuminated, do not move the mobile unit.
- Before moving the mobile unit, verify that all marker and running lights are working properly.
- Consult with the local motor vehicle authority to determine if there are any travel restrictions or routes.



Section 3: Safety Systems

This safety section contains important information about the safety systems that have been built into the mobile unit to protect all personnel and equipment. Before attempting to service the mobile unit, read this safety section as well as all other safety sections found in applicable manufacturers' manuals in the component literature binder.

3.1 Emergency Lighting

In the event that the main AC power fails, three dual beam emergency lights are provided in the Communications Room #1 (1), Command Room #2 (1), Command Room #3 (1). These lights will automatically illuminate when the main AC power is lost. The emergency lighting system is wired into a 120V AC electrical system that allows the lights internal circuitry to keep their batteries at 100% charge. The emergency lights will illuminate the exit doors last for approximately 90 minutes.

A travel switch is provided to each emergency light to prevent the battery from draining during transport in the "OFF" position.



Figure 2: Emergency Lighting (Typical)

3.2 Fire Suppression (manual)

Four fire extinguishers (manual) are supplied with the mobile unit. Instructions for operation are clearly printed on the canister of the fire extinguisher. The fire extinguisher meets the following standards.



Figure 3: Fire Extinguisher

- It is a class A/B/C 1211 hand held unit.
- It has a charged weight of 5 lbs.
- It is U.L. listed.
- It meets D.O.T. requirements.
- It is in accordance with N.F.P.A. Standard No. 10, "Portable Fire Extinguisher".

Fire extinguishers are located in the Communication Room #1, Command Room #2, Command Room #3, and Underbody Compartment.

3.3 Fire Detection System

The fire alarm control panel is responsible for monitoring the fire alarm system. Located on the interior of the fire control panel is a brief list of instructions that explain how to use the system control buttons to test, reset, and silence the alarm. Please refer to the product manual located in Volume II of the literature provided by Oshkosh Specialty Vehicles.

The fire detection system works via photoelectric smoke detectors located on the ceiling panels in each room of the mobile unit. In the event of a fire being detected, a horn will sound and a strobe light will flash.

System Operation

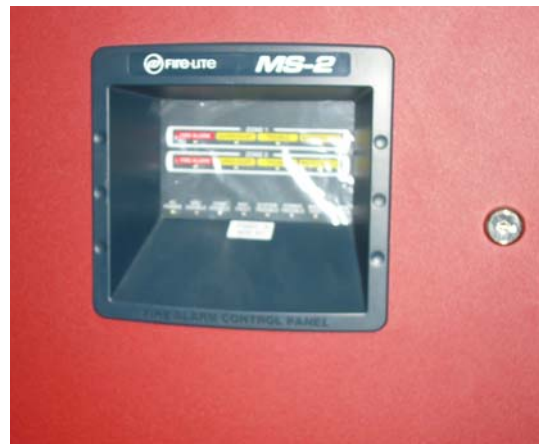
During normal operations, the control unit remains in a supervisory mode. If one smoke detector goes into alarm, it will trigger the following actions.

The fire horn will sound continuously.

A (RED) alarm LED located on the front panel cover of the fire system control panel will illuminate.

The strobe light will flash.

The HVAC units will shut down.



Fire-Lite pull down station.

Ms-2 fire Alarm Control Panel is responsible for monitoring the fire alarm system.

Smoke detector is responsible for detecting smoke.

Figure 4: Smoke Detection System



MS-2 System Operation

During normal operation, the fire detection system control panel remains in a supervisory mode.

If one smoke detector goes into alarm, the following steps will occur.

1. The bell will sound continuously.
2. The red LED marked "Zone 1" or "Zone 2" located on the front cover of the fire detection system control panel will illuminate.
3. The HVAC system will shutdown.
4. The roll door will close (if applicable).
5. The "System Alarm" LED will illuminate.
6. If no other smoke detector goes into alarm, the fire system control panel will remain in alarm condition until the control panel is manually reset. To reset the control panel, open the front cover, and depress the system reset button.
7. If a second smoke detector goes into alarm, the following steps will occur in addition to the previously mentioned steps.
8. Both red LED's marked "Zone 1" and "Zone 2" located on the front cover of the fire detection system control panel will now be illuminated.
9. The horn will pulse (on-off-on-off, etc.).
10. The bell will silence.
11. The strobe light will begin to flash.
12. A 30 second time delay will begin.
13. After 20 seconds have passed.
14. The LED marked "RELEASE" located on the front cover of the fire detection system control panel will illuminate.
15. The medical system will shutdown.
16. The rear service exhaust fan will shutdown.
17. The fire remote contacts located in the remote box in the underbody compartment will state.

Fire-Lite Pull Station

A pull station is located next to the front entry door. When this pull station is activated, the system discharges immediately.

Manual Release

In the event that the control panel is not receiving power, a manual release has been provided on the dispersant tank. To activate, pull the safety pin, and then pull the release flap. If the above steps have been performed, all personnel must vacate the mobile unit as soon as possible.

3.4 Marker Lights

Extra LED type marker and side turn signal lights are installed on the trailer body to assist the driver with maneuvering the mobile unit.



3.5 System Shutdowns

Fire Detection Shutdown

The fire detection system control panel will send an alarm signal to Mobilink System and the Air Conditioning System to shut down the air conditioning, but will not shut down the communications systems in the mobile unit.

3.6 Warning Lights

Please refer to [Section 10: Lighting System](#) for additional information in regards to these systems.



Section 4: Mobile Unit Overview

The components of the mobile unit have been divided into alphabetical order following a brief description of the areas within the unit. With each component a picture, if possible, and description will be found to better illustrate the components of the mobile unit. Additional components of the mobile unit can be found within the remaining chapters.

4.1 Back-up Battery Systems Overall

4D batteries are for communication 12VDC system only.

There is one (2) battery and battery charger located at the back side of the power entry panel that support the exterior scene lights, lower compartment lights, hydraulic leveling system and water pump.



4D Batteries



Battery chargers



Batteries charged by
chargers.

Figure 5: Back-Up Battery Systems Overall

4.2 Equipment Room Overall

The Equipment Room houses the system components that support the Communications Systems. In this room, the electronics racks can be found, along with the system controls, antenna connections, and cabinets for storage. At the right of the Equipment Room are the Power Distribution and circuit breaker panels.

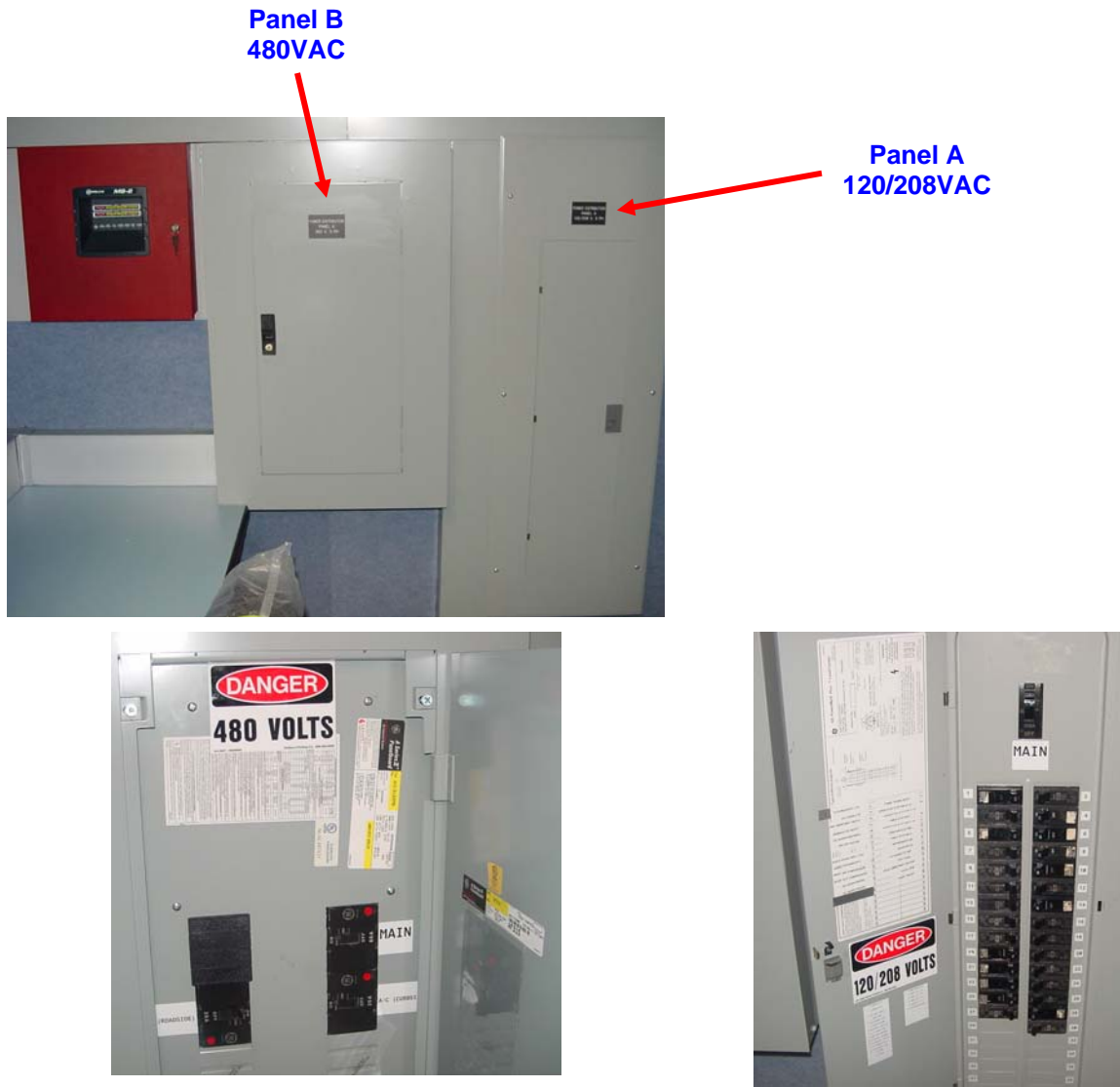
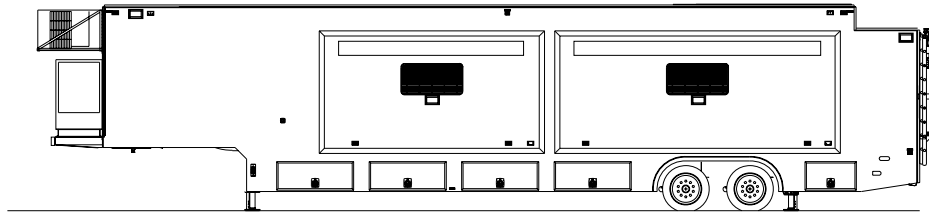
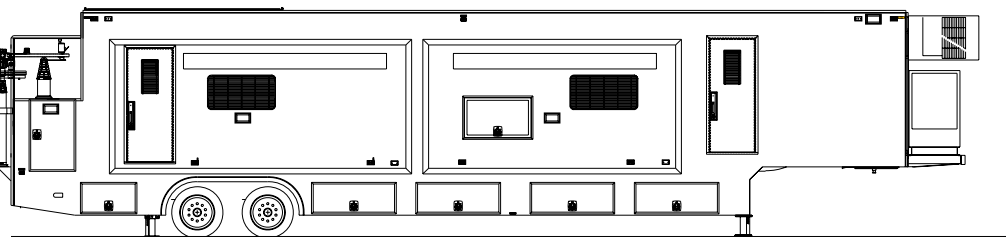


Figure 6: Equipment Room Overall

4.3 Exterior Overall



Left Side



Right Side

Figure 7: Exterior Overall

In these illustrations the entry doors and the air conditioner housings can be seen.



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4.4 Glad-hand Connections

The glad hands are the connection point between the tractor and the mobile unit. All connections must be made before moving the mobile unit. Failure to make all connections can result in damage to the mobile unit.



Figure 8: Glad Hand Connections

Emergency Airline:	Backup airline in the event that the main airline fails.
Service Airline:	The main airline for the mobile unit.
Air Suspension Electrical Connection	Connects the tractor mounted air suspension controls to the trailer
Standard Electrical Connector	Connects the tractor electrical controls to the trailer
Back-Up Light Switch	Controls the trailer mounted Back-Up Lights

4.5 Ladder

The ladder provides a means to climb to the roof of the unit from the outside in order to set up antenna arrays, etc. Prior to using the ladder, ensure that it is properly installed.



Ladder Stored for Transport

Figure 9: Ladder



WARNING

Before using the ladder, it should be inspected for broken or cracked welds, deformed rungs and/or risers, which would render it unsafe to use. Using the ladder in an unsafe condition could result in serious personal injury or death.

4.6 Levels, Digital

The digital levels allow the mobile unit to be leveled both front to back and side to side. It is essential that the unit be leveled prior to use.

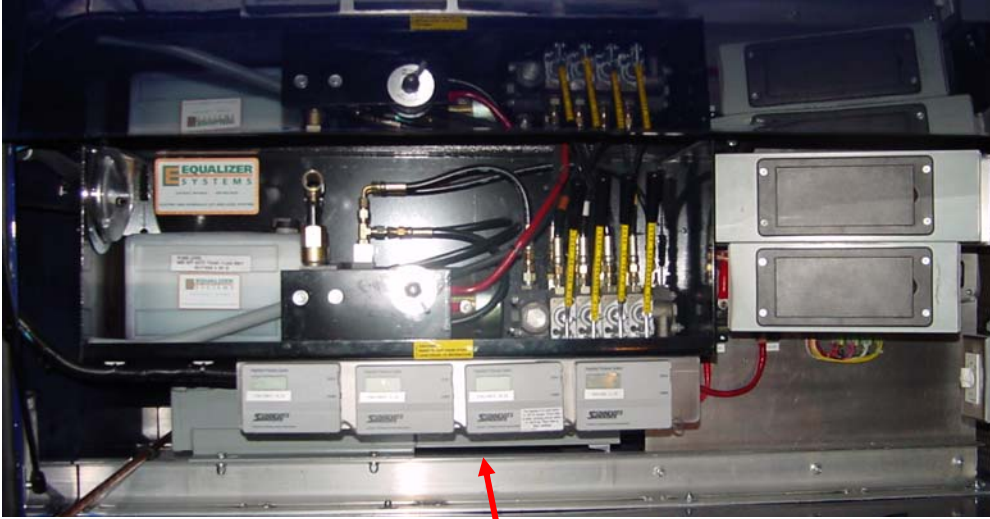


Figure 10: Digital Levels

4.7 Mobile Unit Controls

Located on the walls and panels inside of the mobile unit are the various controls that are used for operating such items as, the interior and exterior lights, fire alarms, and emergency equipment.



Figure 11: Mobile Unit Controls

- | | |
|---------------------------|---|
| Interior Light Switches: | ON / OFF light switch for interior lights. |
| Exterior Light Switches: | ON / OFF light switch for the exterior lights. |
| Dual Digital Thermostats: | Temperature controls for the mobile unit. |
| Diesel Heater Controls: | Starts and Stops the diesel heaters and controls the output temperature of the heaters for cold weather start up. |

4.8 Leveling Legs, Rear

The rear stabilizing stands are extended underneath the rear of the mobile unit when the system is in use. These legs help to level the mobile unit and decrease vibration.



Figure 12: Rear Leveling Legs

4.9 Stabilizing Legs, Front Landing

The Front Landing / Stabilizing legs and auxiliary support legs can be found at front of the mobile unit. They are used in order to level the unit prior to use.

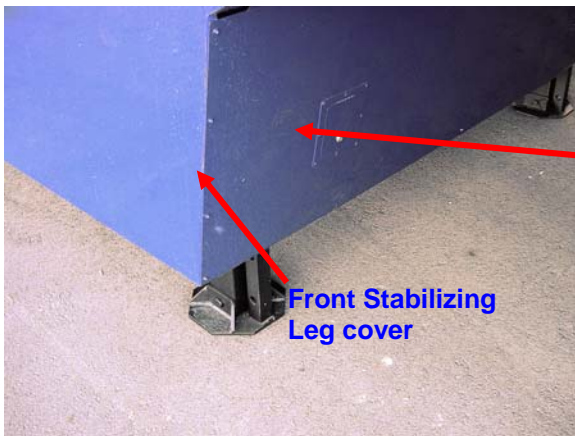


Figure 13: Front Stabilizing Legs W/Cover

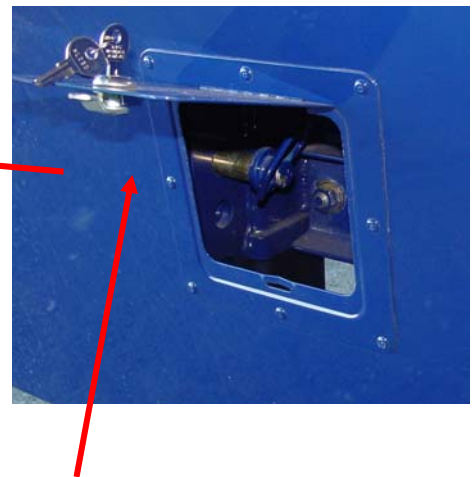


Figure 14: Auxiliary Support Leg Locking Pin

4.10 Expando Restraining Hardware

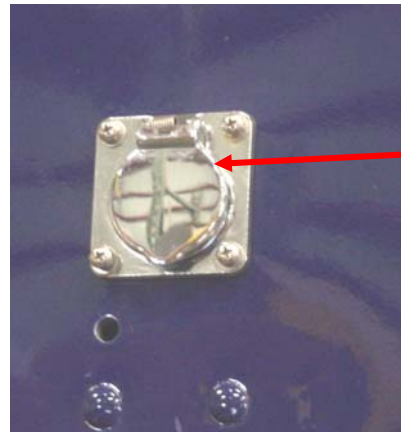
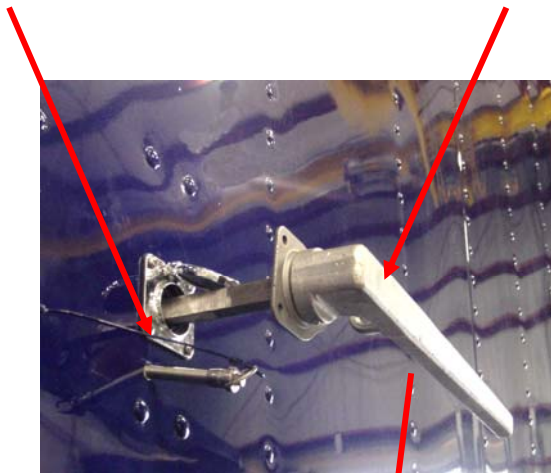
The restraint hardware is used to restrain the expandos during transport. The expandos are secured during transport with four closed locking pins. Use the cam locking crank to unlock the cam locks. The cam locking crank is located in the mast compartment

If the expandos are not properly restrained and hydraulic pressure in the expando system is lost, the expandos could drift open in transport.

The extended expandos lock is used to secure the expandos during set-up. It keeps the expandos from drifting or moving.

**Cam Lock & Pin
Two per expando**

Cam lock crank



**Cam lock
Receptacle**



**Cam Lock Crank
Storage**



**Extended
expando lock**

Figure 15: Expando Restraint Hardware

Reference photo

4.11 Stair and Platform Assembly



Trailer unit



Figure 16: Stair and Platform Assembly

The stairs allow access to the interior of the mobile unit through the front and rear entry doors. The platforms attach directly to the mobile unit. A bolt, mounted on the back side of the each platform, is inserted into a key slot mounting bracket located on the mobile unit as shown.

The stairs are installed into the platform in the same procedure.

Tighten the hardware as required.

Two persons are required for installation of the stair and platform assemblies

Section 5: Mobile Unit Setup Procedure



The stabilizing legs are not to be used to raise the mobile unit off the ground. The legs are meant only to level the unit and place it in a parked position. If the legs are used in an attempt to raise the mobile unit from the ground, serious damage may occur to the mobile unit.



A checklist can be found in Appendix A that may be used as a guideline for the following procedure.

5.1 Park the Mobile Unit

In order to join the mobile unit to the facility, place the unit on the pad per the site-planning guide. Set the trailer parking brake.

5.2 Lower the Front Stabilizing Legs

After the mobile unit has been parked on the pad per the site-planning guide, the front stabilizing legs must be lowered to stabilize the mobile unit before it can be used. Each stabilizing leg is extended and retracted individually. Refer to [Figure 30: Front Stabilizing Leg](#) Assembly for the following procedure.

Lower the stabilizing legs by activating the levers at the stabilizing leg control panel.

The operator must stand in a position that will enable a clear view of the front stabilizing legs.

Extend the legs far until the front of the unit has been raised high enough to clear the fifth wheel.

5.3 Disconnect the Tractor

Once the front stabilizing legs have been lowered, the tractor can be disconnected from the mobile unit, if required.

If the tractor is to be disconnected from the trailer, verify that the mobile unit has been raised high enough to clear the tractor fifth wheel, and then disconnect the tractor from the mobile unit.

5.4 Lower the Rear Leveling Legs



The rear leveling legs and rear suspension are not to be used to raise the mobile unit off the ground. The legs are meant only to level the unit and place it in a parked position. If the legs are used in an attempt to raise the mobile unit from the ground, serious damage may occur to the mobile unit.

After the tractor has pulled from the mobile unit, the rear leveling legs can now be lowered into position. When lowering the rear leveling legs, lower them the minimum amount to level the mobile unit. Each leveling leg is extended and retracted individually.

Lower the rear leveling legs by activating the levers at the stabilizing leg control panel.

The operator must stand in a position that will enable a clear view of the rear leveling legs.

Extend the rear leveling legs enough to level the unit.

5.5 Re-level the Mobile Unit

After the preceding steps have been completed, the mobile unit may no longer be level. Re-level the unit, front to back and side to side, if necessary using the digital levels that have been provided. Refer to [Figure 10: Digital Levels](#) if needed.



5.6 Connect to Shore Power

Refer to [Figure 27: 480V AC Phase Power Monitors](#) for the following procedures.



Before connecting or disconnecting from shore power, it is imperative that the shore power main service disconnect lever is moved to the “OFF” position. Failure to do this can result in injury or death to the operator of the mobile unit.



It is the operator’s responsibility to verify that the shore power receptacle is of the same type and voltage as the connection that is supplied by Oshkosh Specialty Vehicles. Failure to do this can result in injury or death to the operator of the mobile unit as well as irreparable damage to the mobile unit.



Always inspect the power cable, connectors, and fasteners prior to usage. If during inspection, it is suspected that either internal or external damage has occurred, have a certified electrician inspect and repair the damage before using.

Verify that the shore power main service disconnect lever is in the “OFF” position.

1. Open the underbody compartment door and remove the power cables from the underbody compartments of the mobile unit.
2. Insert the Oshkosh Specialty Vehicles supplied connectors into the shore power receptacles.
3. Insert the Oshkosh Specialty Vehicles supplied connectors into the underbody trailer receptacles.
4. Move the shore power main service disconnect lever to the “ON” position.

NOTE: The Phase Power Monitor checks the incoming shore power to ensure that it has the correct phase rotation (ABC) and that all three phases are present. If all three phases are present and in the correct rotation, the 480V AC OK Light, on the monitor, will illuminate.

If any phase is not present or if the phase rotation is not correct, the 480 VAC Fault Indicator Light will illuminate, and a piezo-electric horn will sound. Disconnect shore power immediately and investigate to determine the cause of the fault. See paragraph 7.2.

NOTE: If shore power is not available, the onboard generator may be used or the power cable may be connected to an independent 100KW generator or other source using the interconnection panel and cables provided.

5. Close the underbody compartment door.

5.7 Install the Front and Rear Stair/Platform Assembly

Attach the stairs directly to the mobile unit. The stairs can be setup easier with two people. The instructions are covered below. The platform assemblies can be set-up separately without the stairs.

Platform Assembly

Remove the platform assembly from the underbody compartments.



Figure 17: Stair and Platform Assembly Storage

Insert the bolt end of the platform assembly into the key slot bracket located underneath the door. See [Figure 16: Stair and Platform Assembly](#).

Install and adjust the height of the platform legs as necessary in order to level and secure the platform.



**Platform leg
adjustment pin**

Figure 18: Platform Adjustment Assembly

Install the handrails into their operating position and secure in place with the hardware provided.

Stair Assembly

Remove the stair assembly from the underbody compartments.

Insert the bolt end of the stair assembly into the key slot bracket of the platform

See [Figure 16: Stair and Platform Assembly](#) .

Adjust the height of the stair legs as necessary in order to level and secure the stairs.



[Figure 19: Stair Adjustment & Level Leg](#)

Install the handrails into their operating position and secure in place with the hardware provided.

Close the doors to the underbody compartments.

5.8 Extend the Expandos

After the unit has been leveled and the front stars have been installed, the expandos can be extended. The expandos must be extended as prescribed in the sequence below in order to prevent damage to equipment.

1. Ensure that all underbody compartment doors are closed and there are no obstructions in the path of the expandos.
2. Remove any restraining hardware that is used to prevent the expandos from drifting during transport.
3. Retrieve the expando cam lock crank from the underbody compartment and unlock the cam lock hardware that is being used to hold the expandos in the transport position. Turn the cam lock crank clockwise to unlock the expando. There are two (2) cam locks for each expando. See [Figure 15: Expando Restraint Hardware](#) .
4. Use the remote control Slide-out pendent to extend the expandos. See Figure 20: Slide-Out Pendent Control.
5. Turn on the circuit breaker number 23, located in the equipment room control panel. Turn on the compressor unit. Wait five (5) minuets before extending the expandos.
6. The operator must be in a position to observe the slide-out section being extended.
7. Extend the right expando.
8. Extend the left expando.
9. Secure the expandos in the open position using the extended expando lock or swing clamp at both ends. See [Figure 15: Expando Restraint Hardware](#) .
10. Lower expando hinged floors.
11. Install the removable panels in the proper locations.



Figure 20: Slide-Out Pendent Control



5.9 Remove Restraining Hardware and Position Equipment for Use.

There are two types of restraints that need may need to be removed prior to using the communications systems. They are as follows.

- The first type deals with the restraints that are used by the communications equipment manufacturers. Follow all instructions provided by the communications equipment manufacturer when adding or removing restraints from the communications equipment. These instructions can be found in the system manuals provided by the communications equipment manufacturers.
- The second type deals with the restraints that are used by the mobile unit manufacturer. Various items may be secured while the unit is being transported. These items may consist of chairs, monitors, door, cabinets, tables, and rooftop equipment. Remove all restraining equipment prior to using the systems.
 1. Enter the mobile unit using the right front door.
 2. Unlatch and lower the slide-out floor sections into place.
 3. Remove the restraint devices used to restrain the chairs and other equipment in place for transport. Set up the chairs and other equipment as required for operations.
 4. Set up roof antennae, handrails, lights, cameras, etc.
 5. Deploy the Satellite Dish antenna.
 6. Raise the Light and Camera Masts as required.

5.10 Extend the Masts for Use.

The masts are pneumatically operated and controlled by a remote pendant and control panel. The controls are located in the mast compartment at the right rear side of the unit. The air compressors and control valves for both masts are located in the mast compartment.



Figure 21: Mast Control Pendant



Care must be taken to ensure that the cables do not get snagged while extending or retracting the masts. Failure to do so could result in severe or irreparable damage to equipment.

1. Using the remote control pendant, raise the Light mast following the instructions outlined below:
2. To raise the Light Mast, turn on the “Master Power Switch” located on the control panel behind the Camera Mast. Raise the Light mast using the remote control pendant to extend the mast to the desired height.
3. Once the mast has been extended, leave the switch on the remote control to the “Hold” position.
4. To operate the “Pan & Tilt” functions of the Light Mast, place the “RUN / Auto Stow” switch in the “RUN” position. Return the remote control pendant to its storage location.
5. Using the control panel and remote pendant, raise the Camera mast following the instructions outlined below:
6. To raise the Camera Mast using the control panel, place the “Master Power” switch in the “ON” position.
7. Using the pendant, place and hold the “Mast Up/Down” switch to the “UP” position to extend the mast to the desired height. Release the switch to hold the mast at the desired height.

Section 6: Mobile Unit Transport Procedure



The stabilizing legs are not to be used to raise the mobile unit off the ground. The legs are meant only to level the unit and place it in a parked position. If the legs are used in an attempt to raise the mobile unit from the ground, serious damage may occur to the mobile unit.



Before transporting the mobile unit, check to verify all warning lights as well as all exterior marker lights are working correctly.



A checklist can be found in Appendix A that may be used as a guideline for the following procedure.

6.1 Secure all Equipment



The following procedure must be accomplished prior to transporting this vehicle. If these items are not accomplished, the "Transit Warning Light", located on the left side of the mobile unit will remain illuminated.

Two types of restraints need to be supplied before transporting the mobile unit. They are as follows:

- The first type deals with the restraints that are used by the communications equipment manufacturers. Follow all instructions provided by the communications equipment manufacturers when applying restraints to the communications system. These instructions can be found in the system manuals provided by the communications equipment manufacturers.
- The second type deals with the restraints that are used by the mobile unit manufacturer. Various items must be secured prior to transporting the mobile unit. Such items may consist of chairs, monitors, doors, cabinets, tables, and rooftop equipment. Use the supplied restraining hardware to secure these items before transporting the mobile unit.

6.2 Retract the Satellite Dish Antenna

Remove wireless Vantage Pro Weather station. The dish is operated and controlled by a remote pendant. See [Figure 22: Mast and Dish Retraction](#).



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6.3 Retract the Masts for Transport.

The masts are pneumatically operated and controlled by a remote pendant. The controls are located in the mast compartment at the right rear side of the unit. The air compressors and control valves for both masts are located in the mast compartment. See [Figure 22: Mast and Dish Retraction](#).



Care must be taken to ensure that the cables do not get snagged while extending or retracting the masts. Failure to do so could result in severe or irreparable damage to equipment.

1. Before retracting the Camera Mast, ensure that the camera is level and pointing to the rear of the unit in order to provide the proper clearance for retraction and stowage.
2. Using the control panel and remote pendant, retract the Camera Mast following the instructions outlined below:
3. Open the drain-cock when exhausting the mast pressure to drain off any accumulated water.
4. Using the remote pendant, place the "Mast Up/Down" switch to the "Down" position.
5. Once the mast has been fully retracted, ensure all switches on the control panel are in the "OFF" position.
6. Using the remote control pendant, retract the Light Mast following the instructions outlined below:
7. Using the remote control pendant, turn the "RUN" / AUTOSTOW" switch to the "AUTOSTOW" position.
8. Open the drain-cock when exhausting the mast pressure to drain off any accumulated water.
9. Place the Mast Up switch in the "Down" position.
10. Once the mast has been fully retracted, ensure that the Master Power switch on the control panel is in the "OFF" position.
11. Return the remote control pendant to its storage location.



Figure 22: Mast and Dish Retraction

6.4 Secure all Rooftop Equipment for Transport

1. Fold down all handrails and secure them for transport using the restraining hardware provided. Verify that all equipment is secure and ready for transport.
2. Retract the Satellite Dish antenna to its transport position.
3. Remove the wireless Vantage Pro station and store for transport.
4. Lower the observation deck handrails and secure them for transport.



Figure 23: Observation Deck Secured for Transport

5. Lower the “Quick Raise” light masts for transport.
6. Stow the ladder for transport.
7. Remove the wireless weather station and stow for transport.



6.5 Secure Interior Equipment for Transport

The workstations and the conference tables areas are provided with wall and floor mount tie down rings to restraint chairs. Straps with a ratchet are provided to secure chairs properly in place. Workstations areas are also provided with Velcro straps to hold the slide-outs hinged floor panels in vertical. Refer to [Figure 24: Securing Interior Equipment for Transport](#) for procedures.

1. Secure the interior equipment (chairs, monitors, printers, fax, water bottles, kitchen equipment, all loose equipment, etc.) for transport using the restraining hardware provided. Verify that all equipment has been properly secured and ready for transport.
2. Before closing the slide-outs sections for transport mode the chairs must be stowed properly on designated areas.

Procedures:

1. Chairs secured.
2. Equipment rack storage doors locked
3. Store telephones, etc. into cabinets as applicable.
4. Printer, Refrigerator, etc. secured.
5. Sliding door secured
6. Swing/hinged door secured.
7. Lift up the slide-out hinged floors to the vertical position and use Velcro straps to secure the floors.
8. Lift up the non-hinged floors/panels and stow in the lower compartment on the rear side, adjacent to the stair/platform assembly's storage compartment.
9. Lift panels on top sliding bulkhead.
10. Unlatch slide-outs internal swing clamp lock

Equipment doors secured

Swing clamp lock





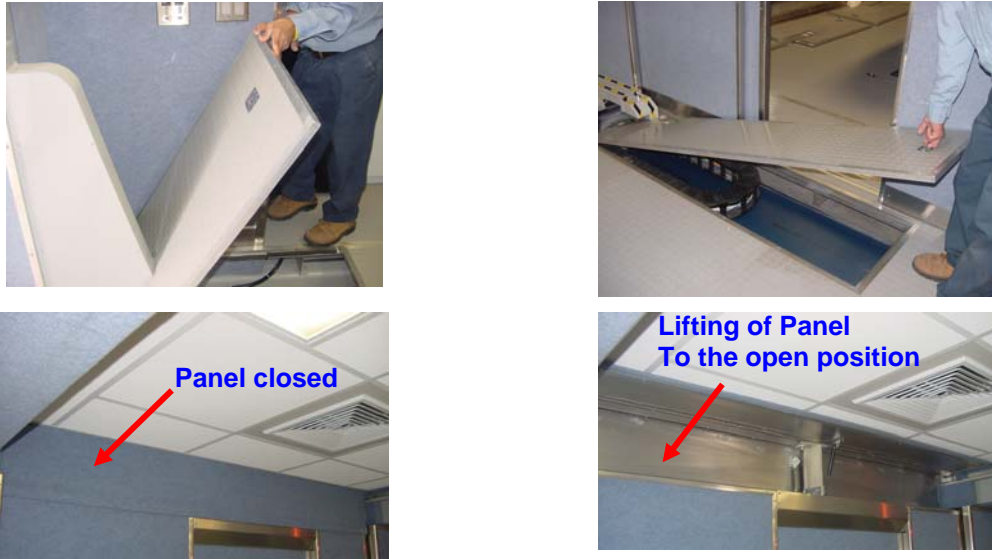


Figure 24: Securing Interior Equipment for Transport

6.6 Remove and Store the Right Rear Stair and Platform Assembly

Before removing the stair assembly, check the interior of the unit one last time to verify that all equipment is secure and ready for transport.

The stair assembly tear down requires two people. The instructions are covered below.

Standard Stair System

Close and lock the door with the key that is provided.

Loosen the hardware holding the handrail in place. Remove the handrail from the stair assembly.

Lift the stair bolt assembly from the platform key lock bracket. Place the stair assembly on the ground. Refer to [Figure 16: Stair and Platform Assembly](#).

Using the sole of your shoe, step on the spring loaded release to retract the adjustable legs on each side of the stair assembly.

Platform Assembly

Loosen the hardware holding the platform handrails in place. Remove the handrails from the platform assembly.

Lift the stair bolt assembly from the platform key lock bracket. Place the stair assembly on the ground. Refer to [Figure 16: Stair and Platform Assembly](#).

Place the platform assembly on the ground and remove the leveling legs. Store the stair and platform assemblies in the underbody for transport. Lock the compartment door.

6.7 Disconnect from Shore Power

If shore power was utilized, move the shore power main service disconnect lever to the "OFF" position.

1. Remove the power cables from the shore receptacle and store in the cable storage compartment.



6.8 Retract the Expandos

After the right rear stair assembly has been removed, the expandos can be retracted.

1. Use the remote slide-out pendent control to retract the expandos.
2. Ensure that all underbody compartment doors are closed and there are no obstructions in the path of the expando.
3. The operator must be in a position to observe the expando section being retracted.
4. Retract the left expando.
5. Retract the right expando. Secure the expandos with the restraint device.

6.9 Connect the Tractor Air and Electrical Lines

In order to remove the rear stabilizing stands, the air and electrical lines must first be connected from the tractor to the mobile unit. Please refer to [Figure 8: Glad Hand Connections](#) and follow the steps outlined below.

1. Back up the tractor to the mobile unit, but do not back under the unit at this time.
2. Attach the air and electrical lines from the tractor to the mobile unit.

6.10 Raise the Rear Leveling Legs

Each leveling leg is extended and retracted individually.

1. The operator must stand in a position that will enable a clear view of the rear stabilizing legs.
2. Retract the rear stabilizing legs completely.

6.11 Connect the Tractor to the Mobile Unit

Before connecting the tractor to the mobile unit, be certain that enough clearance has been left for the fifth wheel. If the fifth wheel cannot fit underneath the mobile unit, the front end must be raised. If it is necessary to raise the front of the mobile unit to clear the fifth wheel, please follow the steps below. Each stabilizing leg is extended and retracted individually. Refer to [Figure 30: Front Stabilizing Leg Assembly](#) for the following procedure.

1. The operator must stand in a position that will enable a clear view of the front stabilizing legs.
2. Extend the legs far until the front of the unit has been raised high enough to clear the fifth wheel.

6.12 Raise the Front Stabilizing Legs

After the tractor has successfully connected to the mobile unit, the front stabilizing legs can be raised. Each stabilizing leg is extended and retracted individually. Refer to [Figure 30: Front Stabilizing Leg Assembly](#) for the following procedure.

1. Remove leg safety pins
2. The hydraulic controls are located in the underbody compartment on the right side.
3. Stand in a position that will enable the operator to have a clear view of the front stabilizing legs.
4. Retract the front stabilizing legs completely.



6.13 Verify that the Mobile Unit is ready for Transport

Before the mobile unit can be transported, a final check of all components is necessary. Please refer to the following when checking the mobile unit.

- Have the chairs, monitors, doors, cabinets, tables, and rooftop equipment been secured? Make sure that all of these items have been secured with the supplied hardware prior to transporting the mobile unit.
- Are all exterior doors closed and locked? If not, make sure that all exterior doors are closed and locked.
- Ensure that the masts, antennae, observation deck hand rails, and ladders are properly stowed and secured for transport.
- Are all running & marker lights working correctly?
- Are any warning lights illuminated? If so, check to find the cause of the warning. Do not move the mobile unit if any warning lights are illuminated. If further assistance is needed, refer to the Oshkosh Specialty Vehicles *General Information* binder for a list of local service representatives or call Oshkosh Specialty Vehicles for further assistance.

Section 7: Electrical System



Electrical, mechanical, and pneumatic safety devices have been installed on this vehicle to help protect against personal injury and / or damage to equipment. Under no circumstances should any attempt be made to disconnect or in any way render any of these devices inoperative. If a malfunction of any safety device is discovered to exist, **DO NOT** operate the vehicle, and immediately notify appropriate maintenance personnel.



Use and follow the appropriate Lockout/Tagout procedures as required by OSHA Standard 1910.147 when performing maintenance or servicing any electrical, hydraulic or pneumatic systems. See Appendix E for Lockout/Tagout procedures.



Before connecting or disconnecting from shore power, it is imperative that the shore power main service disconnect lever is moved to the "OFF" position. Failure to do this can result in injury or death to the operator of the mobile unit.



It is the operator's responsibility to verify that the shore power receptacle is of the same type and voltage as the connection that is supplied by Oshkosh Specialty Vehicles. Failure to do this can result in injury or death to the operator of the mobile unit as well as irreparable damage to the mobile unit.

The entire electrical system is installed in conformance with the National Electric Code.

The system is completely installed in the factory. Service access is gained through the underbody compartments of the mobile unit with thin wall conduit and/or wire-mold sized to accept the required service entrance conductors used throughout the mobile unit.

All electrical materials, devices, appliances, fittings, and other equipment are approved and listed by Underwriters' Laboratories, Inc. (UL).

All required tags, labels and rating nameplates are permanently installed in their proper locations before the mobile unit leaves the factory.

There are two panels used in the electrical system.

The Electrical distribution panel that is located in the Equipment Room in the front of the mobile unit. This panel is responsible for the air conditioning and heating components aboard the mobile unit.

- Panel A is 120/208V AC.
- Panel B is 480V AC.

7.1 AC Electrical Panels

The electrical panels are responsible for the power supplies to the equipment aboard the mobile unit. If a problem exists with the equipment, or the power supply to them, a circuit breaker will trip in order to prevent damage. On the inside of the panel access door, a listing of all the circuit breakers can be found.



Figure 25: 480V and 120/208V AC Electrical Panels



Trailer Underbody Power Connections

Figure 26: Shore Power Connectors

7.2 480V AC Phase Power Monitor



Make sure that all electrical parts are serviced only by a certified electrician or qualified personnel. Dangerous voltages are present which could result in injury or death.

The **Power Monitor** is connected to the Load Side and monitors the 480V AC incoming shore power or generator power to ensure that it has the correct phase rotation (ABC) and that all three phases are present. If all three phases are present and in the correct rotation, the 480 VAC **green OK Light**, on the monitor, will illuminate.

If any phase is not present or if the phase rotation is not correct, the 480 VAC fault indicator **red Warning** light will illuminate, a piezo-electric horn will sound. Disconnect the power immediately and investigate to determine the cause of the fault.



Figure 27: 480V AC Phase Power Monitors



7.3 Facility Power Connection

Although the shore power connection is not an actual physical feature of the mobile unit, it is an integral part of the daily operations.

- Oshkosh Specialty Vehicles Connector: The plug that is provided by Oshkosh Specialty Vehicles for connection to the shore power receptacle.
- Power Cable: The cable that runs between the shore power connections and the 480V AC electrical panel.
- Shore Power Disconnect: The shore power main service disconnect terminates the power to the receptacle. The lever must be in the “OFF” position when connecting to the receptacle.
- Shore Power Receptacle Outlet: The receptacle outlet that the shore facility has installed for use with the Oshkosh Specialty Vehicles connector and power cable.
- Shore Power Unit: The complete shore power assembly.

Circuit Breaker	
Manufacturer:	Facility provided
:	

Receptacle	
Manufacturer:	Leviton
#16R21-B, #16R21-E, #16R21-R, #16R21-W	
Ampere Rating:	200 A

7.4 Power Cable

Descriptions:	Specifications
Service Amps:	200 A
4 Wire:	3 pole plus ground
Power Plug	Leviton 16d22-B, 16d22-E, 16d22-R, 16d31-G 16d22-W
Cable:	200 A, a #1/0-2/0, 600V – 2000V, 90° C, 150'-0" (45.72m) long

Section 8: HVAC System



Figure 28: A/C Units

Two air conditioning units are used to maintain the internal environment of the mobile unit. Both air conditioners come from the factory preset to the specifications required by the communications system manufacturer. Under no circumstances should the factory presets be changed or altered from their factory setting. Irreparable damage can occur to the communications system if this is done.

The HVAC system is designed specifically to maintain only the internal environment of the mobile unit. The HVAC system is not designed to handle areas outside of the mobile unit, such as adjoining corridors or hallways. It is important to keep all exterior doors closed at all times. All interior doors, computer doors, partitions, and damper settings, must be in the intended positions before running the communications equipment. Do not attempt to store any boxes or items in the Equipment Room of the mobile unit, as this will interrupt the intended airflow requirements.

In order to ensure proper operation of the HVAC system at all times, refer to [Section 11: General Maintenance](#) and [Section 12: Specific Maintenance](#).



8.1 System Specifications and Descriptions

The HVAC system is completely designed and installed in full conformance with all applicable codes.

The HVAC system utilizes forced air.

The HVAC utilizes electricity as the source of power.

Heat producing appliances must be approved by Underwriters Laboratories, Inc. (U.L) and installed in accordance with the terms on their listings.

The air ducts are constructed of approved materials and installed in conformance with all applicable codes.

Air conditioning and heating registers are installed in accordance with the approved plans.

Return air is provided as required and is in full conformance with all applicable codes.

All warning and identification labels as required are installed at the factory.

All aspects of the HVAC system such as damper settings, venting, component set points, and sensor placement are adjusted for optimum operation. Under no circumstances should these settings be altered.

Two (2) separate and individually controlled units provide air conditioning and heating for the mobile unit.

The air conditioning ductwork is lined with a sound absorbent material for reduced noise and operator and patient comfort.

8.2 Exterior HVAC Specifications

The HVAC system is designed to work within certain limitations. The ambient exterior temperatures must be within the range of -20°F to 110°F.

Turn the A/C units "ON" or "OFF" using the circuit breakers in the 480V AC Distribution Panel.

8.3 Interior HVAC Specifications

Each air conditioner has a cooling capacity of 120,000 BTUH. The temperature in each room is maintained at approximately 70°F with an acceptable range of 68° to 72°F. Both air conditioned and heated air is distributed through an insulated duct which starts at the discharge side of the air conditioner.

Air is returned to the air conditioner via ceiling vents located throughout the mobile unit. Each duct is strategically placed over the equipment for adequate ventilation. These return air ducts are located in each room and draw air from all rooms.

One 16" x 30" x 1" fiber core air filters are provided at the air return duct of each air conditioning and heating unit. This filter provides dust free air throughout the interior of the mobile unit. The air filter is accessible through an access door on the front of the plenum.

8.4 Thermostats Temperature Setting



The HVAC system is critical to the operation and life of the communications system. The communications system operates within strict specifications regarding temperature and humidity. All aspects of the HVAC system such as damper settings, venting, component set points, and sensor placement are adjusted for optimum operation. Under no circumstances should these settings be altered.

The temperature setting is controlled by the use of two digital thermostat Controls. The controls must not be set outside of the parameters as defined by the communications system manufacturer.

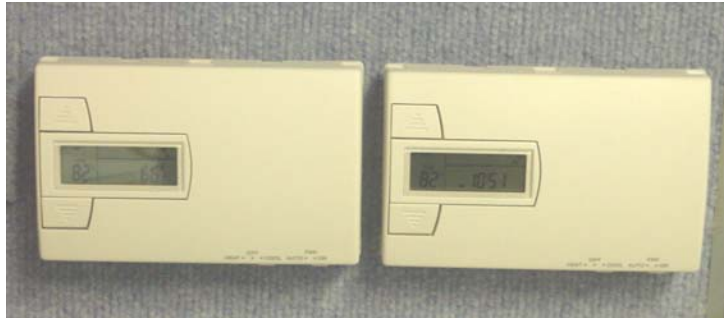


Figure 29: Dual Digital Thermostat Temperature Control



Section 9: Stabilizing Legs



Under no circumstances should the stabilizing legs and the rear air suspension be used to lift the mobile unit from the ground. If any attempt is made to raise the unit from the ground using the only the stabilizing legs and the rear air suspension, serious damage can occur to the suspension system of the mobile unit.

9.1 Front Stabilizing Legs

The front legs are extended beneath the front of the mobile unit and allow the mobile unit to be stabilized for operation on site.

The legs are manually controlled. The stabilizing legs installed on this mobile unit are only for the purpose of parking and stabilizing the mobile unit. Please refer to the product manual located in Volume II of the literature provided by Oshkosh Specialty Vehicles for additional information.



Figure 30: Front Stabilizing Leg Assembly and Auxiliary Support Locking Pin Cover



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Figure 31: Front Stabilizing Leg Assembly w/o Cover

- Stabilizing Leg Control:** The stabilizing legs are controlled by the controlled handles located in the underbody compartment right side, second from the front.
- Stabilizing Leg:** Allows the mobile unit to be parked without the tractor being attached to the unit.
- Digital Levels:** Allows the mobile unit to be leveled both front to back and side to side.
- Sand Shoe:** Helps prevent the stabilizing legs from sinking due to weight.
- The legs are extended and retracted by the control handles located in the Stabilizing Leg Control Panel. See [Figure 33: Stabilizing Leg Control Handles](#).

9.2 Rear Leveling Legs

The rear leveling legs are extended beneath the rear of the mobile unit, and allow the mobile unit to be stabilized for operation on site. The legs are extended and retracted with the same remote handle controls used for the front stabilizing legs.

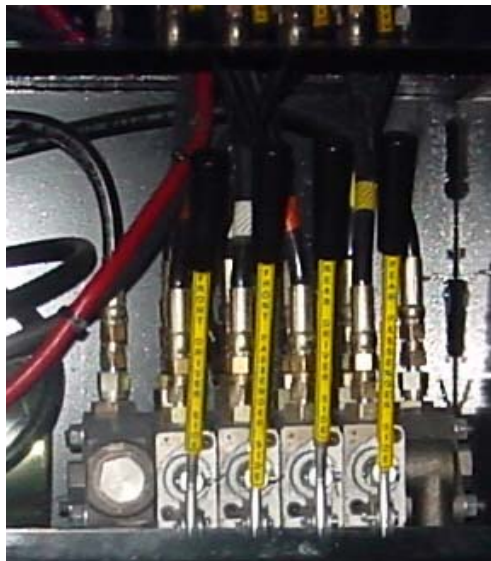


[Figure 32: Rear Leveling Leg Assembly](#)

9.3 Stabilizing and Leveling Control Handles

The Front Stabilizing and Rear leveling legs are controlled by a hydraulic system.

The control panel is located in the left forward underbody compartment.



[Figure 33: Stabilizing Leg Control Handles](#)



Section 10: Lighting System

The lighting provided for the mobile unit can be divided into either interior lighting, or exterior lighting. Listed below are explanations concerning the lighting provided.

10.1 Emergency Lighting

In the event that the main AC power fails, three dual beam emergency lights are provided in the Command room #3 (1), Command room #2 (1), Communications room #1 (1). These lights will automatically illuminate when the main AC power is lost. The emergency lighting system is wired into a 120V AC electrical system that allows the lights internal circuitry to keep their batteries at 100% charge. The emergency lights will illuminate the exit doors last for approximately 90 minutes.



Command Room #3 Emergency light



Communications Room #1 Emergency light



Command Room #2 Emergency light

Figure 34: Emergency Lighting

10.2 Exterior Lighting

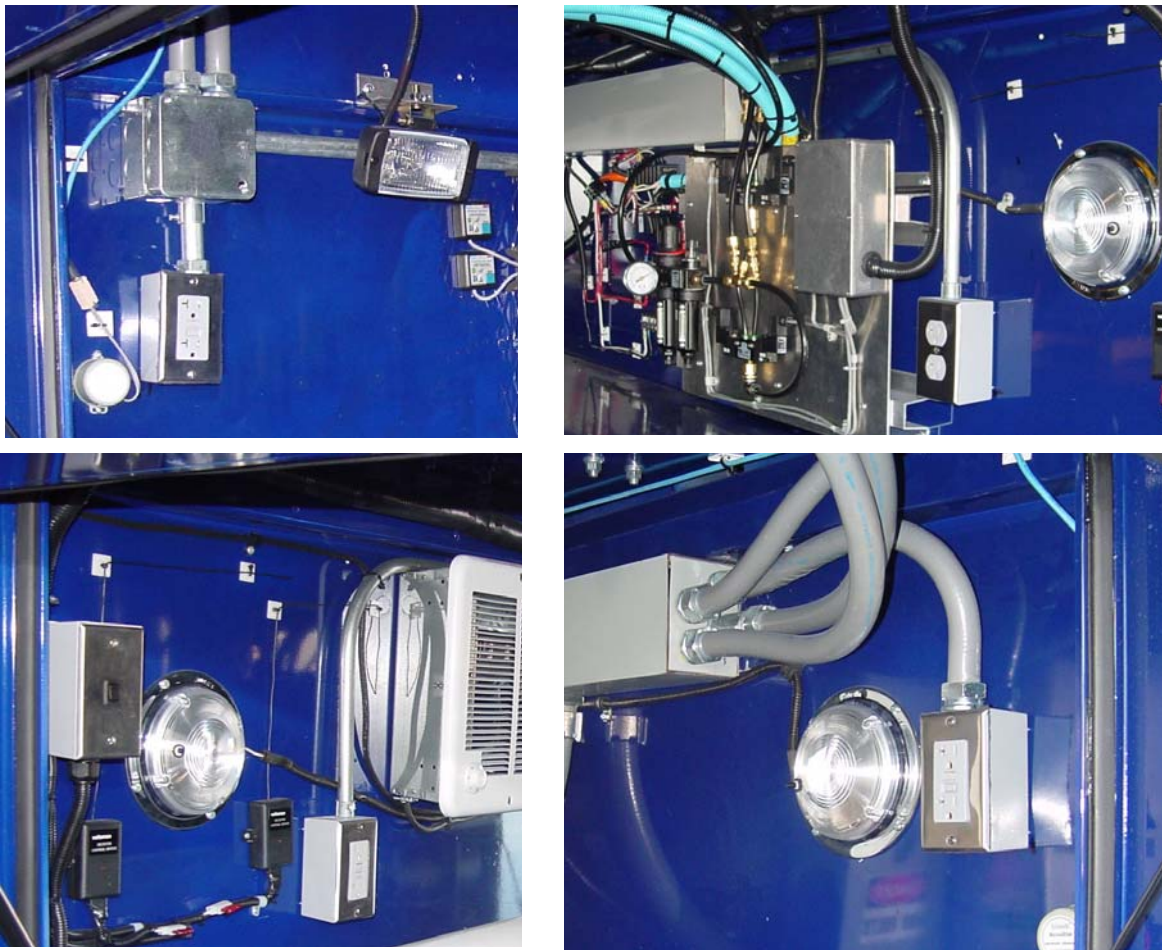
IMPORTANT All warning lights are located on the left side of the mobile unit.

The exterior lighting system can be divided as follows. For additional information of the warning lights Please refer to [Appendix B: Troubleshooting](#).

Underbody Compartment Lighting

Located inside of the underbody compartments there are wall mounted halogen and dome lights connected to door switches. The lights will illuminate when the doors are opened and extinguish when the doors are closed.

The halogen lights are connected to a timer, dome lights are not.



[Figure 35: Compartment Lights](#)

Entrance Door Lighting / Exterior Service Lighting



Figure 36: Entry Door Lighting

A fixture is located next to the front and rear doors, which provides the entrance door lighting.

The switch for this light is located inside of the mobile unit next to the entry door. There are exterior service lights strategically located seven places, three per side and one at the rear of unit.

Marker & Running Lights

When the mobile unit is in transit, federal law requires specific illumination characteristics. The mobile unit meets and exceeds these standards as outlined in Motor Vehicle Safety Standards Guide, Federal Safety Standard No. 108-4.

All lights are 12V DC, and are powered by the tractor. All wiring is run through the underbody wire harnesses. The top marker lights are wired through a 0.5" loom pipe that is run through the sidewalls of the mobile unit. The wires terminate at the glad-hands which are located in the front of the mobile unit for tractor hookup. Two electrical connections are supplied on the glad-hands, one six terminal connection and one seven terminal connection.



Figure 37: Marker and Running Lights

10.3 Interior Lighting

The interior lighting system can be divided into command rooms as follows: Room #1, Room #2, and Room #3

Command Room #3

The light controls for the lighting in Command Area are located just inside the entry door to that leads into the room. Light fixtures are located at the ceiling and wall juncture and have been strategically placed for effective illumination of the equipment both during operation and while being service.



Figure 38: Command Room #3 Overall Lighting

Command Room #2

The light controls for the lighting in Communications Area are located just inside the access door to that leads into the room. Recessed light fixtures are located in the ceiling panels and have been strategically placed for effective illumination of the equipment both during operation and while being service.



Figure 39: Command Room #2 Overall Lighting

Communications Room #1

The light controls for the lighting in Communications room are located just inside the access door to that leads into the room. Recessed light fixtures are located in the ceiling panels and have been strategically placed for effective illumination of the equipment both during operation and while being service.



Figure 40: Communications Room #1 Overall Lighting

10.4 I24v DC Halogen, Gimble lighting

A 24V DC Halogen back-up lighting system has been installed in the mobile unit in order to provide the operators and technicians lighting when the normal power system is not connected to the unit. A rocker switch at the left side of the switch panel next to the entry door controls these lights. The lights may be selected as white or red lights.



Figure 41: 24v Halogen lights and Control



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10.5 Warning Lights



Figure 42: Warning Lights

A transport warning light has been installed on the exterior left side of the mobile unit in order to provide the operator and technician of the status of the mobile unit at all times during transit or while in the parked position. If the warning light is illuminated, please refer to [Appendix B: Troubleshooting](#). Troubleshooting for additional information

AC Power Indicator Light

The AC Power Indicator Light is located on the exterior right side of the mobile unit and will illuminate when the mobile unit is receiving power.

The mobile unit must have power at all times.

Transport Warning Light



If the Transport Warning Light is on, the mobile unit must not be moved. If the mobile unit is moved while this light is on, irreparable damage can occur to the mobile unit.

The Transport Warning Light is located on the exterior driver side of the mobile unit and will illuminate when the following is active: the Mast is up, stabilizing legs are down, or expandos & satellite dish is extended. All the mentioned items must be in the proper position for transport.

Section 11: General Maintenance



Use and follow the appropriate Lockout/Tagout procedures as required by OSHA Standard 1910.147 when performing maintenance or servicing any electrical, hydraulic or pneumatic systems. See Appendix E for Lockout/Tagout procedures.



Make sure that all electrical parts are serviced only by a certified electrician or qualified personnel. Dangerous voltages are present which could result in injury or death.



Always make sure that eyes are protected while servicing the unit. Wear safety goggles when prying, drilling, grinding, or working with batteries. Wear safety goggles over regular prescription glasses unless the lenses are made of hardened glass and can serve as safety goggles.



Be certain to disconnect the power before working on any of the electrical systems.



When servicing the unit be certain that a first aid kit and fire extinguisher are within reach at all times.

11.1 Daily Maintenance

Keep the A/C grills clean and free of debris.

Check and verify that no warning lights are illuminated.

11.2 Weekly Maintenance

Check the A/C filters. Replace if necessary.

Check the electrolyte levels in the DC batteries and fill if necessary using only distilled water.

Check all running lights, marker lights, brake lights, and turn signals.

A qualified technician should check tire pressure and verify that all wheels are at the correct pressure as specified by the tire manufacturer.



11.3 Monthly Maintenance

Put a few drops of 20W oil, or similar graphite oil, on the swivel pin of all door hinges and key openings of all door locks.

Check the operation of the smoke detectors and vacuum internally.

Check the fire extinguisher gauges for safe charges.

Inspect the power cables for any damage.

Check for cut, damaged, or loose wire connections.

Check and verify that all connector bolts are tight and secure.

A qualified A/C technician must check the A/C condensers every month. Refer to the Air Conditioning Owner's Manual for more information.

Lubricate the front and rear stabilizing legs.

11.4 Quarterly Maintenance

Once a year, perform the preventative maintenance on the stabilizing legs. Refer to the accompanying manual for the stabilizing gear system.

Rotate the tires.

Check wheel lug nuts with torque wrench and verify that all inner and outer wheels, both the front and rear, are tightened to 450-500 foot pounds. This must be done after every 500 miles of driving. In accordance with torque procedure, lugs and nuts must be installed dry. Do not use any type of lubricant.

Section 12: Specific Maintenance



Use and follow the appropriate Lockout/Tagout procedures as required by OSHA Standard 1910.147 when performing maintenance or servicing any electrical, hydraulic or pneumatic systems. See Appendix E for Lockout/Tagout procedures.



Make sure that all electrical parts are serviced only by a certified electrician or qualified personnel. Dangerous voltages are present which could result in injury or death.



Always make sure that eyes are protected while servicing the unit. Wear safety goggles when prying, drilling, grinding, or working with batteries. Wear safety goggles over regular prescription glasses unless the lenses are made of hardened glass and can serve as safety goggles.



Be certain to disconnect the power before working on any of the electrical systems.



The HVAC system is critical to the operation and life of the equipment. The communications equipment operates within strict limits regarding temperature and humidity. All aspects of the HVAC system such as baffling, venting, component set points, and sensor placement are adjusted for optimum operation. Under no circumstances should any aspect of the HVAC system be altered from factory specifications.



Image quality can be impaired with improper door closer adjustment.



A power washer should never be used to clean the A/C units. Serious damage to the A/C coils may occur.



When servicing the unit be certain that a first aid kit and fire extinguisher are within reach at all times.

12.1 Door Closer Adjustments

The door closer must be adjusted so that the door does not slam shut. Refer to the door closer component sheet in the component literature manual for proper adjustment. Adjust door closer as required to insure proper non-slamming door action.

12.2 Electrical System

1. Inspect the power cables for any damage.
2. Check the cable tie downs.
3. Check for cut, damaged, or loose wire connections.
4. Check and verify that all connector bolts are tight and secure.

12.3 HVAC System



The HVAC system is critical to the operation and life of the equipment. The communications equipment operates within strict limits regarding temperature and humidity. All aspects of the HVAC system such as baffling, venting, component set points, and sensor placement are adjusted for optimum operation. Under no circumstances should any aspect of the HVAC system be altered from factory specifications.

The HVAC system is designed specifically to maintain only the internal environment of the mobile unit. The HVAC system is not designed to handle areas outside of the mobile unit such as adjoining corridors or hallways.

1. It is important to be sure that the doors, partitions, and baffling are in the intended positions before running the communications system.
2. Do not attempt to store boxes, or any other items near computer system air inlets or in the aisles. Such actions will disrupt the intended airflow requirements.
3. A qualified A/C technician must check the A/C condensers every month. Refer to the Air Conditioning Owner's Manual for more information.

12.4 Stabilizing Legs

1. Once a year, perform the preventative maintenance on the stabilizing legs. Refer to the accompanying manual for the stabilizing gear system.
2. Extend the stabilizing legs and coat lightly with clean grease.
3. Grease the alemite fittings and check the valve on each leg. Use "NGLI" lithium grease with a grade of "00" or "0".
4. Check for loose bolts and nuts. Tighten as necessary.

Appendix A: Mobile Unit Checklist



It is the operator's responsibility to verify that the shore power receptacle is of the same type and voltage as the connection that is supplied by Oshkosh Specialty Vehicles. Failure to do this can result in injury or death to the operator of the mobile unit as well as irreparable damage to the mobile unit.



Before connecting or disconnecting from shore power, it is imperative that the shore power main service disconnect lever is moved to the "OFF" position. Failure to do this can result in injury or death to the operator of the mobile unit.



Make sure that all electrical parts are serviced only by a certified electrician or qualified personnel. Dangerous voltages are present which could result in injury or death.



Always make sure that eyes are protected while servicing the unit. Wear safety goggles when prying, drilling, grinding, or working with batteries. Wear safety goggles over regular prescription glasses unless the lenses are made of hardened glass and can serve as safety goggles.



Be certain to disconnect the power before working on any of the electrical systems.



Always inspect the power cable, connectors, and fasteners prior to usage. If during inspection, it is suspected that either internal or external damage has occurred, have a certified electrician inspect and repair the damage before using.



The stabilizing legs and rear suspension are not to be used to raise the mobile unit off the ground. The legs are meant only to level the unit and place it in a parked position. If the legs are used in an attempt to raise the mobile unit from the ground, serious damage may occur to the mobile unit.



Failure to completely exhaust the suspension before uncoupling the airlines may result in damage to the suspension of the mobile unit.



Before transporting the mobile unit, check to verify all warning lights as well as all exterior marker lights are working correctly.



When servicing the unit be certain that a first aid kit and fire extinguisher are within reach at all times.



Mobile Unit Setup Checklist

1. Park the mobile unit on the pad per the site-planning guide. Set the trailer parking brake.
2. Lower the front stabilizing legs.
3. Disconnect the tractor.
4. Lower the rear leveling legs.
5. Re-level the mobile unit as needed.
6. Verify that the shore power main service disconnect lever is in the "OFF" position and connect to the power cable to the shore power receptacle.
7. Move the shore power main service disconnect lever to the "ON" position.
8. Extend the expandos.
9. Install the platform and stair assemblies.
10. Remove restraining hardware and position equipment for use.
11. Extend the Light Mast and Camera Mast for use.
12. Set up handrails, antennae, and cameras on roof.
13. Install removable wireless Davis weather station.

Mobile Unit Transport Checklist

1. Secure all equipment and moveable objects such as chairs, monitors, doors, cabinets, and tables.
2. Remove wireless Davis weather station and properly stow.
3. Secure all rooftop equipment.
4. Secure the interior equipment for transport.
5. Remove and store all stair assemblies.
6. Move the shore power main service disconnect lever to the "OFF" position and disconnect the power cable from the shore power receptacle.
7. Retract the expandos.
8. Connect the tractor air and electrical lines.
9. Retract the rear leveling legs.
10. Connect the tractor to the mobile unit.
11. Raise the front stabilizing legs.
12. Verify that the mobile unit is ready for transport.
 - a. Has all equipment, including rooftop equipment been secured?
 - b. Are all exterior doors closed and locked?
 - c. Are all running & marker lights working correctly?
 - d. Is the transport warning light illuminated?



Appendix B: Troubleshooting

If any of the following troubleshooting guides do not correct the problem, or if the problem worsens, please contact Oshkosh Specialty Vehicles for service, or refer to the volumes of literature that shipped with the mobile unit. In these volumes you will be able to find individual product manuals, as well as a list of local service representatives.

AC Power Indicator Light is off...

If the AC Power Indicator Light is "OFF" then the mobile unit is not receiving AC power. The mobile unit must have power for normal operation of the systems. If the mobile unit is on site, shore power must be connected or the onboard generator must be operating.

Transport Warning Light is on...



If the Transport Warning Light is "ON", the mobile unit must not be moved. If the mobile unit is moved while this light is on, irreparable damage can occur to the mobile unit.

If the Transport Warning Light is illuminated, the mobile unit is not ready for transport. Before the mobile unit can be transported, this light must be off. Please refer to the following table:

<u>Problem:</u>	<u>Solution:</u>
Antenna Mast out of position.	Make sure the antenna is stow position.
Stabilizing/Leveling legs in down position.	Make sure stabilizing/Leveling legs are in the up position.
Expandos sections not closed properly.	Make sure expandos are closed properly.
Satellite dish antenna not in proper position.	Make sure antenna is in the stow position

Temperature is out of specifications...

If the temperature is out of specifications, either too high or too low, refer to the following table.

Problem:		Check for:	Solution:
The temperature inside of the mobile unit is too warm.	1.	Check for exterior doors left open during warm weather conditions.	The HVAC system can only support the environment of the mobile unit. Unless opened for use, all exterior doors should remain closed all of the time.
	2.	Check for blocked or dirty air vents and/or air conditioner filters.	Clean the air vents and/or change the air conditioner filters. After this has been done, verify that cold air is blowing.
	3.	Check to see if the A/C disconnect is in the "OFF" position.	Turn the A/C disconnect to the "ON" position.
	4.	The Thermostat settings are correct.	Verify that the Thermostat is set at 68°F. Please contact Oshkosh Specialty Vehicles for further assistance.
The temperature inside of the mobile unit is too cold.	1.	Check for open exterior doors left open during cold weather conditions.	The HVAC system can only support the environment of the mobile unit. Unless opened for use, all exterior doors should remain closed all of the time.
	2.	Check for blocked or dirty air vents and/or air conditioner filters.	Clean the air vents and/or change the air conditioner filters. After this has been done, verify that warm air is blowing.
	3.	Check to see if the A/C disconnect is in the "OFF" position.	Turn the A/C disconnect to the "ON" position.
	4.	The Penn Control settings are correct.	Verify that the Penn Control is set at 72°F. Please contact Oshkosh Specialty Vehicles for further assistance.

Appendix C: HVAC Set Points



The HVAC system is critical to the operation and life of the equipment. The communications equipment operates within strict limits regarding temperature and humidity. All aspects of the HVAC system such as baffling, venting, component set points, and sensor placement have been adjusted for optimum operation. Under no circumstances should any aspect of the HVAC system be altered from factory specifications.



Be certain that the HVAC system is operational at all times.

There are two set points for the HVAC system. These points are set at the factory and should not be changed under any circumstances. Altering these points can result in damage to the communications equipment.

Temperature Controller Settings

The temperature setting is factory set at 68°F. The temperature controller works on a $\pm 4^\circ$ differential.

The high temperature sensor is set at 72°F. If the ambient temperature in the mobile unit reaches 72°F, the HVAC system will automatically start in order to cool the unit.

The low temperature sensor is set at 64°F. If the ambient temperature in the mobile unit reaches 64°F, the HVAC system will automatically start in order to warm the unit.





Appendix D: Circuit Malfunction Checklist

Category 1

Visual Checks – Check for the most common occurrences.

Is the circuit breaker, in the 480V AC electrical panel, in the “ON” position?

Is the circuit breaker in the 208V AC electrical panel in the “ON” position?

Category 2

Check the 12V DC Disconnect Switches are they in the “ON” position?

For additional troubleshooting, please contact Oshkosh Specialty Vehicles for assistance.





Appendix E: Lockout/Tagout Procedures

Specific Energy Control Procedures

Machine or Equipment for this Procedure:

Specialty Vehicle Trailer:

Indiana Department of Homeland Security Unit

Control of Hazardous Energy:

Type of Hazardous Energy	When is it Necessary to Lock Out
Electrical 480V AC	When servicing main electrical power line
Electrical 120/208V AC room circuits	When servicing or performing installation inside specific sections of the trailer
Electrical 12V DC	When servicing the following: Satellite Controllers, Lights, Mast Air system Controls, Radio Equipment
Electrical 12V DC From Battery	When servicing the following: Satellite Controllers, Lights, Mast Air system Controls, Radio Equipment

Affected Personnel to notify when the Specialty Vehicles Trailer is to be Locked Out:

Name/Department:	Location:
Production and Maintenance employees	In the vicinity of the trailer



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Shut down specifications for the Specialty Vehicle Trailers:

Energy Type and Rating:	Type of Energy Isolating Device:	Location of Energy Isolating Device:	Lockout Device Used:
Main power feed Electrical 480V AC	Circuit Breaker or Plug	Normally located above the Facility Power Shore	Lock and tag with or without lockout hasp
Light or outlet circuits Electrical 120/208V AC	Wall switch or circuit breaker	Distribution panel for circuit breaker, wall switch for room circuits	Lock and tag with a Universal Wall Switch Lockout, Universal Circuit Breaker Lockout
Electrical 12V DC From Battery	Remove Battery Cables	On battery in Underbody compartments	Lock and tag with a Plug Lockout attachment device
Electrical 12V DC From Batteries or Chargers	Battery Lockout Switch	At disconnect panels in Underbody compartments	Lock and tag with a Universal Wall Switch Lockout, Universal Circuit
Electrical 480V AC	Gang Circuit Breaker	480V AC Panel in Equipment Room	Lock and tag with or without lockout hasp
Air Conditioning System	Circuit Breaker	480V AC Panel in Equipment Room	Lock and tag with or without lockout hasp
Heating System	Air Conditioning Circuit Breaker	480V AC Panel in Equipment Room	Lock and tag with or without lockout hasp

Methods to dissipate energy:

N/A

Method of Verifying the Isolation of the Machine or Equipment:

Voltmeter



Appendix F: Quarterly Maintenance Checklist



PREVENTIVE MAINTENANCE CHECKLIST

Company Performing Preventive Maintenance:

Service Technician:

Trailer ID # :	Date	Date	Date	Date	
HVAC	3M	6M	9M	12M	Comments
Inspect/change filters					
Inspect Thermostats					
Verify heat strip operation					
Inspect/clean evaporator coil					
Clean/inspect condenser coils					
Inspect electrical contactors					
Verify refrigerant pressures					
Inspect refrigeration piping abrasion					
Lubricate fan motors if applicable					
Inspect covers/fasteners					
Verify compressor amp draw					
Verify condensate pans/drains					
Verify Condenser motor operation					
Chiller	3M	6M	9M	12M	Comments
Inspect electrical contactors					
Verify refrigerant pressures					
Inspect refrigeration piping abrasion					
Inspect pump seal					
Lubricate motors					
Clean/replace aluminum filters					
Inspect covers/fasteners					
Verify operating/alarm controls					
Verify CW supply temp 45-75 F					
Inspect/replace glycol filter					
Clean/ inspect condensing coils					
Verify/adjust glycol level					
Verify Condenser motor operation					



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Trailer	3M	6M	9M	12M	Comments
Test/inspect lift gate					
Inspect rails/ pins					
Inspect lift fittings/pivot points					
Clean / lubricate slide rails					
Verify lift switches and remote					
Load test van battery (lift)					
Verify hydraulic fluid level					
Verify van battery charger					
Verify roll door controls					
Inspect roll door mounting bolts					
Inspect roll door clutch/hardware					
Inspect roll door side track rails					
Inspect roll door key way					
Inspect awning					
Inspect bay door shocks/hardware					
Verify bay light operation					
Inspect clean and RF door gasket. Verify RF door operation					
Verify RF door lock and the handle operate correctly					
Check RF door for binding and loose hardware.					
Check door hinges/stops/latches for proper operation					
Inspect Slide outs for operation					
Inspect Slide out compressor					
Empty compressor drain and verify Y-strainer is cleaned out					
Check Fire system Last Inspection Date _____					
Inspect stair mounts					
Inspect interior flooring					
Verify bay heater operation					
Inspect cabinet latches and hinges					
Verify phone/communication lines					
Inspect landing gear					
Inspect locking pins					
Inspect air drive or air/hydraulic					
Inspect air tanks					
Verify hub fluid levels					
Inspect undercarriage/frame					
Inspect airbags/airlines/fittings					
Inspect shocks/bushings					
Inspect Tires / Rotate as needed					
Note hub meter mileage _____					



Generator	3M	6M	9M	12M	Comments
Clean fuel/water separator & replace filter					
Lamp test on control panel					
Inspect fuel lines & injectors					
Change oil/filters- 250 hrs					
Check crankcase breather					
Check hoses/belts					
Verify radiator coolant level					
Verify coolant freeze point & pH					
Verify block heater operation					
Inspect housing mounting bolts					
Inspect muffler/brackets					
Verify battery charging voltage					
Load test battery/clean terminals					
Verify voltage & hertz output					
Record hours run since last P.M. (_____) Recorded Generator Hours					

Electrical	3M	6M	9M	12M	Comments
Inspect breakers and panels					
Inspect lighting and bulbs					
Inspect power cord and plug					
Inspect 110volt outlets					

Humidifier	3M	6M	9M	12M	Comments
Inspect/replace steam tank					
Verify humid control set point					
Inspect/fill water reservoir					
Clean fill and drain valves					
Verify 12 volt pump					

Misc.	3M	6M	9M	12M	Comments
Attach and/or fill out Quarterly Service Record for all major components					

Comment :



Signature of Technician:

Date:
