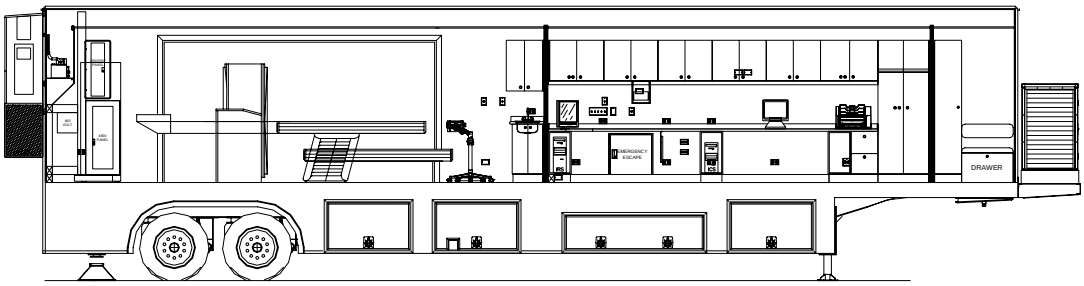
OSHKOSH SPECIALTY VEHICLES

Operator and Service Manual

SIEMENS EMOTION
Mobile CT System
48’ L x 8’-6” W x 13’-6” H USA Unit



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List of Revisions & Warnings

Revisions

00	New Release	August 2006
01	Updated Current Production Design	October 2006
02	Updated Logo & Company reference	October 2006

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:

1. Volume I – Site Guide, Operators/Service Manual, and associated drawings
2. 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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(001) 800.839.0630 (24 hour service)
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OSHKOSH SPECIALTY VEHICLES

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.**

IMPORTANT **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.**

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

WARNING **Whenever potential personal injury or death situations exit, requiring correct procedures / practices for prevention, the term "WARNING" is used.**

DANGER **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.

WARNING **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, but 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.

OSHKOSH SPECIALTY VEHICLES

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OSHKOSH SPECIALTY VEHICLES

Section 1: Introduction

WARNING 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.

IMPORTANT An outside radiation physicist consultant determines the x-ray shielding based upon unit layout that is provided by Oshkosh Specialty Vehicles and scatter patterns provided the medical equipment manufacturer. It is the user's responsibility to ensure proper maintenance of the x-ray shielding. It is the recommendation of Oshkosh Specialty Vehicles that the end user has the x-ray testing completed on an annual basis to ensure that the mobile unit still meets the minimum requirements.

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 Siemens Emotion CT System

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.

For questions regarding the Operation or Service of this unit call Oshkosh Specialty vehicles at 800-839-0630.

Section 2: Safety Guidelines

WARNING 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.

WARNING 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.

WARNING 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.

WARNING 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.

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

IMPORTANT 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 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.

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.

1. Make sure the work area is well ventilated.
2. Disconnect the electrical power to prevent the possibility of electrical shock when servicing all electrical equipment.
3. Follow all manufacturers' directions and request material data sheets where applicable.
4. Always keep tools clean and free of grease.
5. Do not stand on chairs inside of the mobile unit under any circumstances.
6. Follow all safety precautions found in the documentation package that is included with the mobile unit.

2.2 Electrical Safety

WARNING 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.

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

WARNING 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.

WARNING The Power Cable could present a trip hazard that could result in personal injury. Care should be taken to ensure that the cable is routed properly to minimize its potential as a trip hazard.

CAUTION 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

1. Walk around the unit to make certain that all doors are closed and locked.
2. Make certain the platform lift is seated in the retaining cradles, the transport pins are in place, and the Lift Transport Safety Cable is in place and securely connected.
3. Make sure that the stabilizing stands are removed and stored in the underbody compartment.

WARNING Before moving the trailer, the driver must ensure that the rear stabilizing stands have been removed and stored in the underbody compartment. Failure to do so could result in damage to equipment, and/or severe personal injury or death.

4. If any of the warning lights are illuminated or strobe lights are flashing, do not move the mobile unit.

WARNING 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 to the mobile unit, serious injury or death can occur.

WARNING If the Transport Warning Strobe Light is flashing the mobile unit must not be moved. If the mobile unit is moved while this light is flashing, irreparable damage to the mobile unit, serious personal injury or death can occur.

5. Before moving the mobile unit, verify that all marker and running lights are working properly.
6. Consult with the local motor vehicle authority to determine if there are any travel restrictions or routes.

Section 3: Mobile Unit Overview

The components of the mobile unit have been divided into alphabetical order. With each component a picture 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.

3.1 Air Ride Control Switch

CAUTION The air ride Control Switch must be in the normal ride position before the mobile unit can be transported. If the air ride Control Switch is not in the normal ride position, irreparable damage may occur to the mobile unit.

The air ride control switch adjusts the rear air suspension bags. When the mobile unit is being transported, the air ride control switch must be in the normal ride position.

Figure 2: Air Ride Control Switch

3.2 Canopy (optional)

This retractable canopy is positioned above the Platform Lift to provide shelter from the elements. The handle used to deploy the unit is neatly stowed in Equipment Room during transit.

Figure 3: Canopy

3.3 Control Room Overall

Control Room houses the system components that support the medical system.

In this room, the operators console can be found, along with the system controls, cabinets for storage, and all of the associated volumes of literature.

Figure 4: Control Room Overall

3.4 Exterior Overall

In these pictures the Platform Lift, the staff entry door, and the generator housing can be seen.

Passenger Side

Figure 5: Exterior Overall

3.5 Fuel Compartment

The fuel compartment stores the fuel tank and fuel gauge.

The fuel gauge is push button activated and will give an accurate reading of the available fuel supply.

The fuel tank stores and supplies fuel to the generator. The capacity of the fuel tank is 70 US gallons. Only use diesel fuel.

Figure 6: Fuel Compartment

3.6 Gantry Room Overall

Gantry Room houses the following components:

- interior electrical panels
- medical system
- medical system support components
- sink phone emergency stop
- slide out controls
- storage cabinet
- telephone

Figure 7: Gantry Room Overall

3.7 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.

An emergency air line is provided to supply air to release the trailer parking brake and supplies air to the trailer suspension.

A key lock box (not shown in the picture) stores a key to the mobile unit.

The service air line is used for the service brakes only.

A standard electrical connection is provided for use with all marker and running lights aboard the mobile unit.

Located above the glad hand connections are panel doors that can be removed in order to gain access to the generator compartment.

Figure 8: Glad Hand Connections

3.8 Hubbell All Weather Phone Cables

Hubbell all weather phone cables are required for use with the Hubbell all weather phone connections.

Figure 9: Hubbell All Weather Phone Cables

3.9 I.V. Track Rail

A ceiling mounted I.V. track rail has been installed in the Gantry Room.

This I.V. track has been provided for use by the technician only

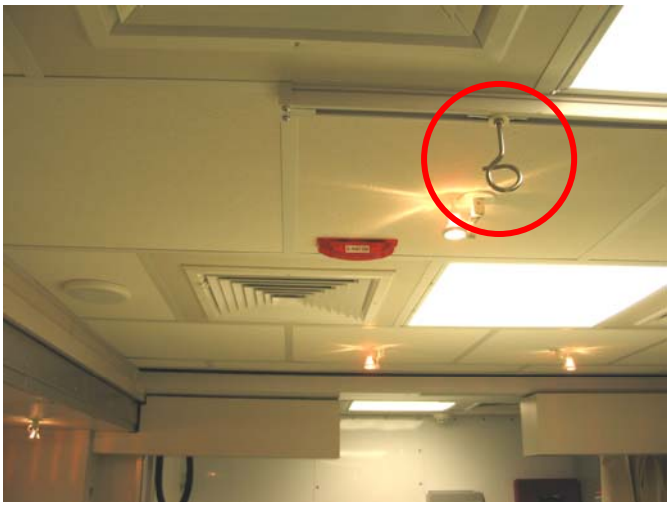

Figure 10: I.V. Track

3.10 Levels

The Digital Levels for the mobile unit are mounted on the Stabilizing Leg Controls. There are three types of adjustments that can be made. They are as follows;

Side to side adjustments for the rear of the mobile unit can be made.

Side to side adjustments for the front of the mobile unit can be made.

Front to rear adjustments can be made.

The mobile unit can be leveled front to back. It is imperative that the unit be leveled prior to use.

Figure 11: Digital Levels

3.11 Mobile Unit Controls

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

Controls at the Operators Console

Staff Entry Door Controls

Figure 12 Mobile Unit Controls

Humidistat:	Humidity information of the mobile unit
Penn Control:	Temperature controls for the mobile unit.
Exterior Light Switch:	ON / OFF light switch for the exterior lights.
Light Switches:	ON / OFF light switch for interior lights.
Roll Door Emergency Release:	The emergency release will allow the Roll Door to be opened or closed manually in the event that power is lost.
Humidifier Water Indicator:	Indicator light for the humidifier water tank. This light will illuminate when the water tank is empty.
Roll Door Power Switch:	Controls the power to the roll door. When the switch is in the “OFF” position, the interior and exterior controls for the roll door will not work.
Platform Lift Indicator:	Indicator light for the roll door. The light will illuminate when the Platform Lift is in the UP position and the roll door can safely be opened.
Platform Lift Controls:	RAISE / LOWER switch for the Platform Lift.
Light Switches:	ON / OFF light switch for interior lights.
E Stop:	Emergency stop button for the medical system.

3.12 Phone & Data Line Connections

The phone and data connections are located in the underbody compartments. The connections are used to connect the mobile unit to the shore facility. The telephone connections utilize a Hubbell all weather connection, while the data lines utilize an RJ-45 connection and CAT-5E cabling.

The Hubbell all weather phone connections are to be used with the provided Hubbell all weather telephone cable.

The data connections that are utilized are RJ-45. The connections utilize CAT-5E cable and can be connected directly to the facility

Figure 13: Phone & Data Line Connections

3.13 Stabilizing Stands

The stabilizing stands are placed underneath the rear of the mobile unit when the medical system is in use. These stands help to level the mobile unit and decrease vibration caused by the medical system. If shims are needed, use only the aluminum shims that have been provided.

Figure 14: Stabilizing Stands

3.14 Front Landing / Stabilizing Legs

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. Since the landing / stabilizing legs are hydraulically controlled, the manual auxiliary legs must also be used as a backup.

Figure 15: Front Stabilizing Legs and Auxiliary Support Legs

3.15 Stair Assembly

The stairs allow access to the interior of the mobile unit through the staff door.

Figure 16: Stair Assembly

Section 4: 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.

4.1 Emergency Lighting

In the event that the main AC power fails, two (2) dual beam emergency lights are provided in Control Room and Gantry Room. The light 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 its batteries at 100% charge. The emergency lights will last for approximately 90 minutes. Refer to **Figure 44: Emergency Dual Beam Lighting**.

4.2 Fire Suppression (manual)

Two fire extinguishers 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.

1. It is a class A/B/C 1211 hand held unit.
2. It has a charged weight of 2 lbs., 8 oz.
3. It is U.L. listed.
4. It meets D.O.T. requirements.
5. It is in accordance with N.F.P.A. Standard No. 10, "Portable Fire Extinguisher".

Figure 17: Fire Extinguisher

4.3 Fire Detection System (optional)

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.

A standard fire detection system is installed in the mobile unit.

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.

The smoke detector is responsible for detecting smoke for use with both the standard fire alarm system as well as the optional fire suppression system.

Figure 18: Smoke Detector

4.4 Platform Lift

There are multiple safety features for the Platform Lift. For a full list of the safety features, please refer to **Section 11: Platform Lift**.

4.5 Marker Lights

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

4.6 System Shutdowns

There are different types of shutdowns that can take place on the mobile unit. Of the different types, both manual and automatic shutdowns exist. All shutdowns refer only to the medical system and not the HVAC system unless otherwise noted.

Control Room

Gantry Room

Figure 19: Emergency Shutdown Buttons

Manual Shutdown (Emergency Stop)

Manual shutdowns are those that require the operating personnel to depress “Emergency OFF” buttons in the event of an emergency. The “Emergency OFF” buttons are located in Control Room and Gantry Room aboard the mobile unit. When these buttons are depressed, only the medical system will be shutdown. The HVAC system will still be operational.

There is one (1) “Emergency Off” button located in Control Room.

There is one (1) “Emergency Off” button located in Gantry Room.

In order to restore power to the medical system, please follow the instructions that have been posted on the Power Distribution Panel.

Phase / Voltage Shutdown

If the incoming Shore power is out of phase or the voltage is out of specification, a power monitor will automatically trip the Shore Power that feeds the unit. If the Shore Power is tripped the medical system will shut down.

4.7 X-ray Precautions

A door interlock system has been incorporated into the mobile unit to ensure that proper scanning can take place.

Figure 20: Interlocks

X-ray Door Interlock

This system provides a constant monitoring of the door that leads into Gantry Room.

If this door is opened, the X-ray will immediately be disabled. The door leading into Gantry Room must be closed for scanning to take place.

X-ray Indicator Light

An X-ray Indicator Light is provided to the left of the staff entry door into the mobile unit to notify all incoming personnel that medical procedures are in progress. A second X-ray Indicator Light is located above the entry door to Gantry Room.

4.8 Warning Lights

Please Refer to **Section 14: Lighting System** or to **Appendix B: Troubleshooting**, for additional information in regards to these systems.

Section 5: Mobile Unit Setup Procedure

CAUTION The medical system requires the HVAC system to be supplied power at all times. Generator power is used while the mobile unit is being transported, and shore power can be used while the mobile unit is in the parked position.

CAUTION 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.

IMPORTANT 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 and set the trailer brakes.

5.2 Lower the Stabilizing Legs

After the mobile unit has been parked on the pad per the site-planning guide, the stabilizing legs must be lowered to stabilize the mobile unit before it can be used. Both air lines must be connected and the trailer brakes applied while lowering the stabilizing legs. Refer to **Figure 41: Stabilizing Leg Assembly** for the following procedure.

1. Move and hold the pump switch in the “Pump ON” position.
2. Pull the levers towards you to extend the landing legs to their extended position.
3. Extend the legs far until the front of the unit has been raised high enough to clear the fifth wheel.
4. Release the pump switch. The switch should automatically retract to the “Pump OFF” position.

5.3 Disconnect the Tractor

After the stabilizing legs have been lowered, the tractor must be removed from the mobile unit.

1. Verify that the mobile unit has been raised high enough to clear the fifth wheel.
2. Leave the air and electrical lines attached and disconnect the tractor from the mobile unit.

5.4 Install the Rear Stabilizing Stands

The rear stabilizing stands must be installed prior to use of the medical system. Refer to **Figure 2: Air Ride Control Switch** and **Figure 14: Stabilizing Stands** for the following procedure.

1. Open the rearmost underbody storage compartments on each side of the mobile unit and remove the rear stabilizing stands.
2. Place that stands underneath the rear of the mobile unit where the structural supports are located.
3. Install the stands under the stand supports.
4. Turn the air suspension control switch to the deflate position, “ON”.
5. Verify that the unit is level by checking the bubble levels that have been provided at the corners of the mobile unit.

5.5 Re-level the Mobile Unit

After the preceding steps have been completed, the mobile unit may no longer be level.

1. Re-level the unit if necessary using the digital levels that have been provided. Refer to **Figure 11: Digital Levels** if needed.
2. Set the trailer brakes.

5.6 Disconnect the Tractor Air and Electrical Lines

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

After the mobile unit has been re-leveled, the tractor air and electrical lines can safely be removed. Refer to **Figure 8: Glad Hand Connections**.

5.7 Lower the Auxiliary Support Legs

After the preceding steps have taken place, the auxiliary support legs can now be lowered. Refer to **Figure 41: Stabilizing Leg Assembly** for the following procedure.

1. Remove the pin that is currently holding the auxiliary leg in the transport position.
2. Lower the auxiliary support leg to within ½” of the sand shoe and insert the pin into the highest available hole to lock the leg in position.

5.8 Install the Stair Assembly

Attach the stairs directly to the mobile unit. The stairs can be setup easier with two people. The instructions are covered below.

1. Remove the stair assembly from the underbody compartments.
2. Install the clip of the stair assembly into the channel located underneath the staff door.
3. Adjust the height of the stair legs as necessary to in order to level and secure the stairs.
4. Install the handrail into its operating position and secure in place with the hardware provided.
5. Close the door to the underbody compartment.

5.9 Platform Lift Deployment

CAUTION Failure to remove the transport pins that holds the Platform Lift in place can result in structural damage to the mobile unit.

After the stair assembly has been installed, the Platform Lift can be deployed for use. Please refer to **Section 11: Platform Lift** for the following procedure.

1. Open the underbody compartment doors beneath the Platform Lift.
2. Remove the handrails and lift pendent, and place them to the side for now.
3. Close the underbody compartment door.
4. The receptacle for the remote control pendent is located next to the staff entry door. Insert the connector from the lift control pendent into the receptacle.
5. Remove the Lift Transport Restraining cable.
6. Remove the transport pins in order for the Platform Lift to be raised from its seated position in the cradles.
7. Using the remote, raise the lift high enough to clear the cradles
8. Using the handle located on the side of the platform, carefully pull down the platform until it is parallel with the ground. A torsion bar is located within the Platform Lift hardware that will enable one person to move the lift into operating position.
9. Using the lift control pendent, lower the platform to the ground.
10. Once the platform has been lowered, install the handrails and secure them with the hardware provided.

5.10 Connect to Shore Power

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

WARNING 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.

CAUTION 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.

1. Verify that the shore power disconnect is in the “OFF” position.
2. Open the underbody compartment door and remove the power cable from the underbody compartments of the mobile unit.
3. Insert the Oshkosh Specialty Vehicles supplied connector into the shore power receptacle.
4. Move the shore power disconnect to the “ON” position.
5. Close the underbody compartment door; making sure that the access flap for the power cable has been released.

WARNING The Power Cable could present a trip hazard that could result in personal injury. Care should be taken to ensure that the cable is routed properly to minimize its potential as a trip hazard.

5.11 Switch from Generator Power to Shore Power

CAUTION When switching from generator power to shore power the 480V AC FAULT" may illuminate and flicker. If the "480V AC FAULT" stays illuminated, reconnect to generator power and call a certified electrician before attempting to reconnect to shore power.

CAUTION When turning the power selector switch for the incoming power, from one position to another, the selector must be paused for a minimum of five seconds, in the "OFF" position, between selections. Failure to do so can result in damage to the equipment.

1. Open the left side center underbody compartment that houses the power source controls.
2. Turn the Unit Power Selector from "GEN" to "OFF" to "LINE". Be certain to pause for five seconds in the "OFF" position between selections.
3. The two indicators on this panel will illuminate according to the power that is received.
    a. If the supply of power is good, the green indicator labeled "480V AC OKAY" will illuminate.
    b. If the supply of power is experiencing problems, such as being out of phase, the indicator labeled "480V AC FAULT" will illuminate.
4. Since minor fluctuations in power are common, the "480V AC FAULT" may briefly flicker. This is to be expected. If the "480V AC FAULT" indicator light stays illuminated, switch back to generator power and contact a qualified electrician before operating the medical system.
5. If the power supply is good, the selector for the generator can be moved to the "STOP" position. Once this has been done, the generator will enter into a cooling phase and continue running for approximately five minutes. Do not continue to move the selector switch during this time, the generator will shut down automatically when this stage has completed.

Figure 21: AC Electrical Power Source Control Panel

5.12 Connect the Phone and Data Lines

The phone and data lines can be found in the underbody storage compartments. Both the phone and data lines can now be connected from the outlets located in the underbody compartments to the receptacles located at the shore site.

The phone lines make use of Hubbell all weather connections. The data lines make use of CAT-5E cable and RJ-45 connections. Refer to **Figure 13: Phone & Data Line Connections**.

5.13 Connect the Water / Waste Hoses

On the left side exterior of the mobile unit there are two connections that need to be made. The first connection will fill the fresh water tank for the mobile unit. The second connection is for draining the either the fresh water tank or the wastewater tank.

1. Remove the cap that covers the fresh water connection.
2. Attach the supplied water hose to this connection.
3. Attach the other end of the hose to facility provided faucet.
4. Turn on the water at the faucet.
5. This will fill the water tank for the mobile unit.
6. In the event that the water tank is overfilled, an overflow drain has been provided that exits outside of the mobile unit.
7. Verify that the facility provided wastewater hose has been attached to the proper connection at the facility.
8. Attach the facility provided wastewater hose to the wastewater connection on the mobile unit. This connection is located on the underside of the mobile unit beneath the same underbody compartment.
9. After the connection has been made at both ends, open the underbody compartment door and open the drainage valve.
10. At this point, either tank can be drained, as needed, either the fresh water tank, or the wastewater tank.

5.14 Extend the Slide-out

After the stair assembly has been deployed the slide-out for the mobile unit can now be extended.

1. Verify that the underbody compartment doors are closed and that no obstacles are in the path of the slide-out.
2. Enter the mobile unit and remove the restraining hardware that is being used to hold the slide-out in the transport position.

WARNING Do not release the floor latch if the slide-out is extended. The floor cylinder is pressurized when the slide-out is extended and releasing the latch could result in severe personal injury.

3. Before extending the slide-out, release the hardware that is being used to hold the slide-out floors in place.
4. Extend the right side slide-out.
5. Verify that the slide-out is in the extended position and that the floors have been completely lowered and that a seal has been made.

IMPORTANT In the unlikely event that a problem occurs while extending or retracting the slide-out, a slide-out emergency stop button is provided and can be pressed to stop the slide-out movement.

5.15 Remove Restraining Hardware

Various items may be secured while the unit is being transported. These items may consist of chairs, monitors, door, cabinets, cameras, and printers. Remove all restraining equipment prior to usage of the medical system.

5.16 Prepare the Medical System per OEM Instructions

The medical system can now be prepared for use. Follow the OEM instructions posted on the wall of the scan room in order to prepare the system.

OSHKOSH SPECIALTY VEHICLES

Section 6: Mobile Unit Transport Procedure

CAUTION If the mobile unit is moved without the rear air suspension functioning properly, irreparable damage can occur to the mobile unit.

CAUTION The medical system requires the HVAC system to be supplied power at all times. Generator power is used while the mobile unit is being transported, and shore power can be used while the mobile unit is in the parked position.

CAUTION The stabilizing legs and rear suspension are not to be used to attempt 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.

CAUTION When turning the power selector switch from one position to another, the selector must be paused for a minimum of five seconds between selections. Failure to do so can result in damage to the equipment.

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

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

6.1 Secure the Medical System per OEM Instructions

The medical system must be secured prior to transporting the mobile unit. Follow the OEM instructions posted on the wall of the scan room in order to secure the medical system prior to transport of the mobile unit.

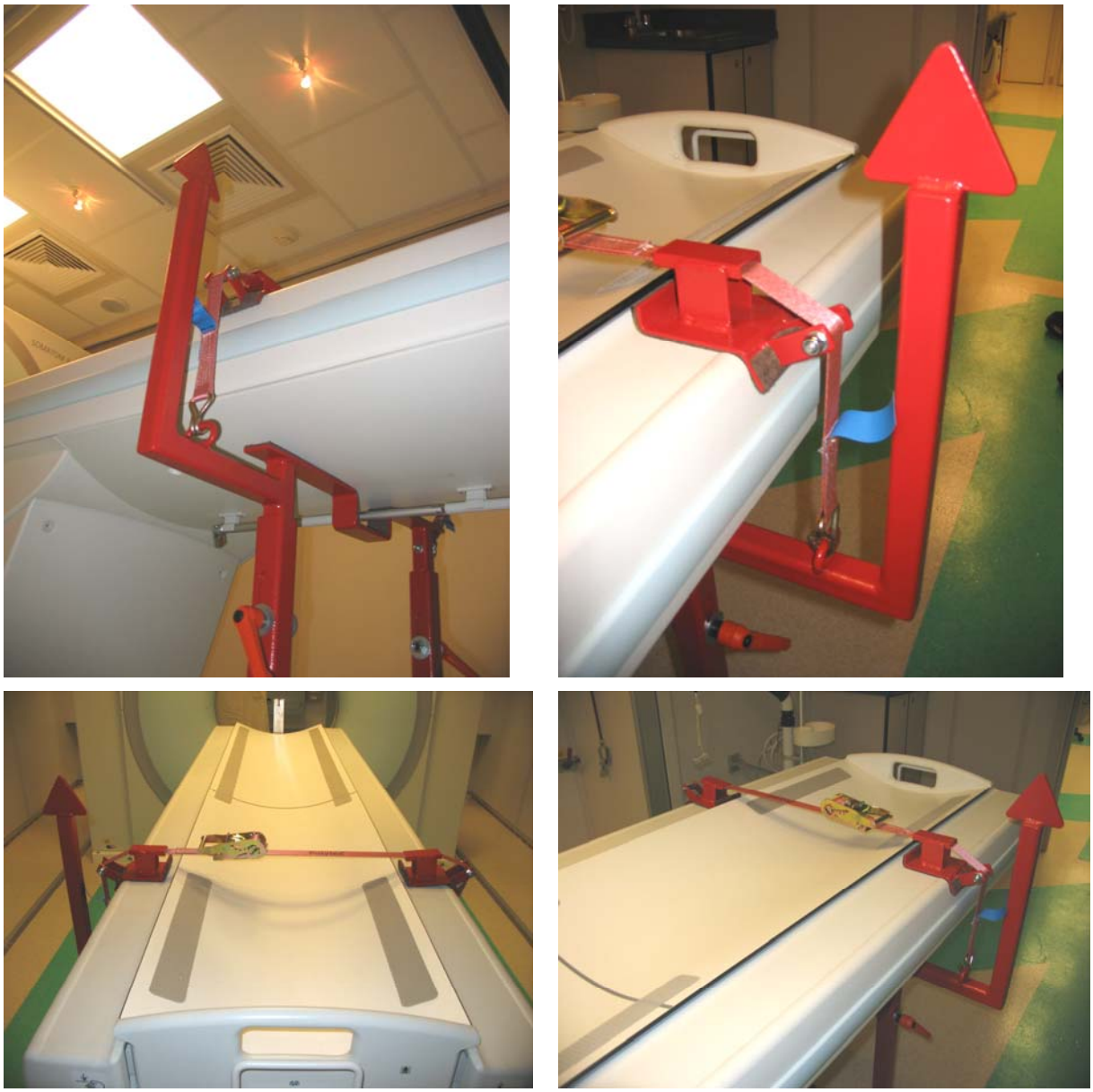

Figure 22: Secure Gantry & Patient Table

6.2 Secure all Equipment

Various items must be secured prior to transporting the mobile unit. Such items may consist of chairs, monitors, doors, cabinets, cameras, and printers. Use the supplied restraining hardware to secure these items before transporting the mobile unit.

6.3 Return the Platform Lift to the Transport Position

Please refer to **Section 11: Platform Lift**, and follow the procedure outlined below.

1. Lower the Platform Lift to the ground.
2. Remove the restraining hardware and handrails and temporarily place them to the side.
3. Raise the lift to roughly waist high and fold upright into a vertical position. A torsion bar is located within the Platform Lift hardware that will enable one person to move the lift into the transport position. Be certain not to stand underneath the Platform Lift.
4. Lower the lift so that it rests securely in the retaining cradles. Make sure that the micro switch is actuated.
5. Insert the transport pins into their transport positions. Make sure that the micro switches are actuated.
6. Remove the remote control pendent from the socket and lock the access door to the Platform Lift controls.
7. Connect the Lift Transport Safety Cable securely in place.
8. Open the underbody compartment door and store the remote control pendent and handrail assembly in the underbody storage compartment.
9. Close the underbody compartment doors.

6.4 Retract Slide-out to Transport Position

After the Platform Lift has been returned to its transport position the slide-out can now be retracted.

1. Verify that the underbody compartment doors are closed and that no obstacles are in the path of the slide-out.
2. Verify that the slide-out is completely extended.

IMPORTANT

Before retracting the slide-out, run the slide-out to the fully extended position. This will ensure that the air cylinders that actuate the floor sections are pressurized and prevent binding of the floor sections.

3. Retract the right side slide-out.
4. Secure the slide-out floors into the transport position with the supplied hardware.
5. Secure the slide-out with the ratcheting strap provided.

IMPORTANT

In the unlikely event that a problem occurs while extending or retracting the slide-out, a slide-out emergency stop button is provided and can be pressed to stop the slide-out movement.

6.5 Switch from Shore Power to Generator Power

CAUTION When turning the power selector switch from one position to another, the selector must be paused for a minimum of five seconds, in the “OFF” position, between selections. Failure to do so can result in damage to the equipment.

Please refer to **Figure 21: AC Electrical Power Source Control Panel**, for the following procedure.

1. Open the left side center underbody compartment that houses the power source controls.
2. Move the Generator Stop / Start selector switch to the “Start” position.
3. Allow the generator to run for approximately five (5) minutes.
4. Move the Unit Power Selector switch to the “GEN” position. Be certain to pause for five seconds in the “OFF” position between selections.
5. Close the cabinet that leads to the power supply controls.

6.6 Remove the Shore Power Connection

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

CAUTION The Siemens medical system requires the HVAC system to be supplied power at all times. During transit of the mobile unit via the generator and when the unit is in the parked position via shore power.

1. At the facility shore power connection, move the shore power disconnect to the “OFF” position.
2. Remove the connector from the receptacle.
3. Return the power cable to the underbody storage compartment.
4. Before closing the compartment door, verify that the power cable access door is closed and latched.

6.7 Remove and Store the Stair 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.

There are two different options for the stair assembly. The first option is to attach the stairs directly to the mobile unit while the second option is to utilize the supplied platform as well. Both options can be taken down easier with two people. The instructions are covered below.

Standard Stair System

1. Close and lock the staff door with the key that is provided.
2. Open the door to the underbody storage compartment.
3. Remove the pins holding the handrails in place. Remove the handrails from the stair assembly.
4. Lift the clip of the stair assembly up and away from the channel that is located underneath the staff door.
5. Place the stair assembly on the ground.
6. Depress the spring-loaded release to retract the adjustable legs on each side of the stair assembly.
7. Place the stair assembly and handrail inside of the underbody storage compartment and close the compartment door.

Stair Assembly with the Platform

1. Open the door to the underbody compartment.
2. Release the handrails from their operating positions by removing the pins. Place the handrails to the side.
3. After the handrails have been removed, the stair assembly can be safely removed from the channel located on the platform.
4. Place the stair assembly to the side.
5. Remove the adjustable legs that were used with the stair assembly.
6. While one person holds the platform in place, another person should remove the adjustable legs that were used to support the platform. Place the adjustable legs to the side.
7. Both people should lift the clip of the platform from the channel located beneath the staff entry door.
8. Place the platform inside of the underbody compartments.
9. Place the stair assembly into the underbody compartments.
10. Place the handrails into the underbody compartments.
11. Close the underbody compartment door.

6.8 Disconnect the Water / Waste Hoses

On the left side exterior of the mobile unit a water connection can be found. This connection is located on an underbody compartment door. Be sure to fill the fresh water tank prior to disconnecting the fresh water supply. The fresh water tank must be filled on a daily basis.

1. Verify that the fresh water tank is full.
2. Turn off the water supply at the facility provided faucet.
3. Disconnect the hose from the faucet.
4. Remove the hose from the connection on the mobile unit.
5. Cover the connection on the mobile unit with the cap provided.
6. Coil the hose and store in the underbody compartments.
7. With the wastewater hose still connected, drain the wastewater tank.
8. After the tank has drained, close the valve located in the underbody compartment above the wastewater connection.
9. Return the wastewater hose to the underbody compartment.

6.9 Disconnect Phone and Data Lines

Please refer to **Figure 13: Phone & Data Line Connections**, for the following procedure.

1. Disconnect any phone and data lines that are currently attached to the shore receptacles.
2. Open the underbody compartment door and disconnect any phone and data lines that are connected inside the underbody storage compartment.
3. Coil and store the phone and data lines in the underbody storage compartment and close the underbody compartment door.

6.10 Raise the Auxiliary Support Legs

Please refer to **Section 13: Stabilizing Legs**, for the following procedure.

1. Remove the pins holding the auxiliary support legs in the locked positions.
2. Lift the auxiliary support legs high enough for the pin to be inserted into the lowest available hole, thereby holding the leg as high as possible.
3. Make sure this has been done for both auxiliary support legs. Failure to do this can damage the stabilizing legs when they are retracted.

6.11 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 it at this time.
2. Attach the air and electrical lines from the tractor to the mobile unit.

6.12 Remove the Rear Stabilizing Stands

Refer to **Figure 14: Stabilizing Stands**, for the following procedure.

1. Open the underbody compartment door to the air ride control switch.
2. Turn the air ride control switch to the normal ride position “OFF”.
3. Remove the stabilizing stands.
4. Store any shims (if applicable) and the rear stabilizing stands in the underbody storage compartments.

CAUTION The air ride control switch must be in the normal ride position before the mobile unit can be transported. If the air ride control switch is not in the normal ride position, irreparable damage may occur to the mobile unit.

5. Close the underbody compartment door.

6.13 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. Please refer to **Section 13: Stabilizing Legs**, for the following procedure.

1. Move and hold the pump switch in the “ON” position.
2. Pull the levers towards you to extend the legs. This will lift the front end of the mobile unit.
3. Extend the legs high enough to clear the fifth wheel only.
4. Release the pump switch. The pump switch should automatically retract to the “Pump OFF” position.

Now that clearance has been increased, please follow the instructions below in order to attach the tractor to the mobile unit.

1. Check to verify that enough room has been made for fifth wheel clearance and proceed with caution to connect the tractor to the mobile unit.
2. Verify that the fifth wheel is locked into position.

6.14 Raise the Stabilizing Legs

After the tractor has successfully connected to the mobile unit, the stabilizing legs can be raised. Refer to **Figure 41: Stabilizing Leg Assembly** for the following procedure.

1. Move and hold the pump switch in the “ON” position.
2. Push the levers away from you to retract the legs. This will lower the front end of the mobile unit.
3. Retract the legs to their transport positions.
4. Release the pump switch. The pump switch should automatically retract to the “Pump OFF” position.

6.15 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.

1. Have the chairs, monitors, doors, cabinets, cameras, and printers been secured? Make sure that all of these items have been secured with the supplied hardware prior to transporting the mobile unit.
2. Are all exterior doors closed and locked? If not, make sure that all exterior doors are closed and locked.
3. Is the Platform Lift in the transport position, fully seated in its retaining cradle? If not, make sure that the Platform Lift is in the transport position, fully seated in the cradle, the transport pins are inserted, and all micro switches are actuated and the Lift Transport Restraining Cable is in place and securely connected.
4. Are all running & marker lights working correctly? If not, replace any bulb that is not working before transporting the mobile unit.
5. Are any warning lights flashing? If so, check to find the cause of the warning. Do not move the mobile unit if any warning lights are flashing. Please refer to the Oshkosh Specialty Vehicles VOL I Service/Operator Manual binder for a list of local service representatives or call Oshkosh Specialty Vehicles for further assistance.
6. Is the fuel tank full? Check the fuel gauge located in the underbody compartment. Fill the fuel tank if necessary.
7. Is the generator running? If not, please refer to **Appendix B: Troubleshooting** for assistance.
8. Verify that the air suspension system is fully inflated and at the proper ride height. The lowest point of the trailer sidewall should be approximately 15” above ground level.

Section 7: Electrical System

WARNING 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.

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

WARNING 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.

CAUTION As power supplies can be subject to fluctuations, it is common for the 480V AC FAULT indicator light to flicker. If this warning light stays illuminated, the power source is outside of the ±5% of 480V AC range. Please refer to the “Troubleshooting” section for additional information if this occurs.

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 three panels used in the electrical system.

1. One 480V AC electrical panel that is located in the underbody compartments of the mobile unit. This panel is responsible for the switching of incoming shore power and generator power.
2. One 480V AC electrical panel that is located in Gantry Room of the mobile unit. This panel is responsible for the distribution of 480 V AC power to components aboard the mobile unit.
3. One 208/120V AC electrical panel that is located in the Gantry Room of the mobile unit. This panel is responsible for the distribution of 208/120V AC power to components aboard the mobile unit.

7.1 480V AC Electrical Panel (underbody)

WARNING 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.

CAUTION When switching from generator power to shore power the “480V AC Warning Light” may illuminate and flicker. If the “480V AC Warning Light” stays illuminated, reconnect to generator power and call a certified electrician before attempting to reconnect to shore power.

CAUTION When turning the power selector switch from one position to another, the selector must be paused for a minimum of five seconds, in the “OFF” position, between selections. Failure to do so can result in damage to the equipment.

480V AC Switching Panel

480V AC – 208/120V AC Transformer and Control Breaker

Figure 23: 480V AC Electrical Panel (underbody)

7.2 480V AC Electrical Panel (interior)

The 480V AC electrical panel is responsible for the power supplies to the equipment aboard the mobile unit.

The 480V AC electrical panel is located in the rear of the mobile unit behind the separating curtain.

If a problem exists with the equipment onboard the mobile unit, or the power supply to the equipment, a circuit breaker will trip. The circuit breaker can be reset if it has tripped.

A listing of all circuit breakers can be found on the inside of the panel access door.

Figure 24: 480V AC Electrical Panel (interior)

7.3 120/208V AC Electrical Panel (interior)

The 120/208V AC electrical panel is responsible for the power supplies to the equipment aboard the mobile unit.

The 120/208V AC electrical panel is located in the rear of the mobile unit behind the separating curtain.

If a problem exists with the equipment onboard the mobile unit, or the power supply to the equipment, a circuit breaker will trip. The circuit breaker can be reset if it has tripped.

A listing of all circuit breakers can be found on the inside of the panel access door.

Figure 25: 120/208V AC Electrical Panel (interior)

7.4 Facility Power Connection

Figure 26: Shore Power Connection

Although the shore power connection in 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 disconnect terminates the power to the receptacle. This 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
Ampere Rating:	150 A disconnect

Receptacle	
Manufacturer:	Russellstoll
Model:	#DF2504FRAB0
Ampere Rating:	200 A

7.5 Power Cable

Descriptions:	Specifications
Service Amps:	150 A
5 Wire:	3 pole plus neutral and ground
Power Plug	Russellstoll # DF2504MP000/DS2032
Cable:	150 A, a #1/0 4 conductor type G, 600V – 2000V, 90° C, 60'-0" long

WARNING The Power Cable could present a trip hazard that could result in personal injury. Care should be taken to ensure that the cable is routed properly to minimize its potential as a trip hazard.

7.6 Phase Monitor

The input power control panel specifically controls the incoming Shore Power to the unit. In the event that the AC power supply becomes unstable, the control panel will trigger and disconnect power to the unit to protect the system from any possible damage and provide a **480V AC FAULT** indicator light.

If the phase rotation and voltages are correct for the unit to operate properly, a **480V OKAY** Light will illuminate indicating that incoming Shore Power is acceptable. The phase monitor **DOES NOT** monitor Generator power.

7.7 Special Ground Note

The unit must have an earth driven ground rod within five (5) feet of the hospitable power receptacle. A grounding cable of a minimum #1/0 AWG must be connected between the grounding rod and the grounding pin of the hospital power receptacle. If required by local codes, another cable, to be kept as short as possible, may also be connected between the ground stud on the Incoming Power Distribution Panel and an earth driven ground rod.

Figure 27: Ground Connection

Section 8: Generator

WARNING 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.

WARNING 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.

WARNING 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.

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

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

WARNING 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.

CAUTION When switching from generator power to shore power the “480V AC FAULT” may illuminate and flicker. If the “480V AC FAULT” stays illuminated, reconnect to generator power and call a certified electrician before attempting to reconnect to shore power.

CAUTION When turning the power selector switch from one position to another, the selector must be paused for a minimum of five seconds between selections. Failure to do so can result in damage to the equipment.

CAUTION 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.

CAUTION The medical system requires the HVAC system to be supplied power at all times. Generator power is used while the mobile unit is being transported, and shore power can be used while the mobile unit is in the parked position.

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

The mobile unit is equipped with a generator that is mounted on the front of the unit in its own housing compartment. The generator supplies power to the unit during transport. Unless the full support generator has been selected, the generator cannot be used for performing medical procedures aboard the mobile unit. The power selector switch is located on the power supply control panel. The control panel can be found in the left side center underbody compartment. See **Figure 21: AC Electrical Power Source Control Panel**.

If the full support generator has been selected, then the generator will also be able to power the medical system so the medical procedures can take place when shore power is unavailable.

The generator oil, as well as the oil filter, air filter, and fuel filter must be changed every 250 hours or six months of service, whichever comes first. The number of hours the generator has been in operation can obtained by checking the microprocessor located on top of the staging unit in the generator compartment.

Once a year the fuel separator should be checked for contamination and accumulation.

For additional information, refer to the Oshkosh Specialty Vehicles Component Literature binder for the product manual.

Figure 28: Generator

120V AC Power Outlet:	An additional outlet has been provided for the operator of the mobile unit to be used if needed.
Air Filter:	The air filter is responsible for removing all contaminants from the generators air supply.
Battery:	The battery is used to start the generator.
Fuel Filter:	The fuel filter is responsible for removing all contaminants from the fuel supply.
Fuel Pump:	Supplies the generator with fuel from the fuel tank.
Generator Motor:	The actual motor of the generator.
Microcomputer:	The microcomputer provides the operator with information that is needed for service purposes.
Oil Filter:	The oil filter is responsible for removing all contaminants form the oil supply.

8.1 Generator Stop / Start Selector

The selector switch that controls the “Stop” and “Start” settings of the generator can be found on the power supply control panel. The control panel can be found in the left side center underbody compartment.

When the generator is to be started, the selector switch must be in the “Start” position. The generator cannot take the full load of the mobile unit until it has been allowed to run briefly. Do not move the Generator / Line selector to the “Generator” position until the generator has run for approximately five (5) minutes.

When the generator is to be stopped, the selector switch must be in the “Stop” position. Once the selector has been moved to the “Stop” position, the generator will enter into a five (5) minute cooling phase. When the phase has completed, the generator will stop. Do not attempt to stop the generator by repeatedly moving the selector to the “Stop” position.

8.2 Unit Power Selector

CAUTION The medical system requires the HVAC system to be supplied power at all times. Generator power is used while the mobile unit is being transported, and shore power can be used while the mobile unit is in the parked position.

CAUTION When turning the selector from one position to another, the selector must be paused for a minimum of five seconds, in the “OFF” position, between selections. Failure to do so can result in damage to the equipment.

The Unit Power Selector is located on the power supply control panel. The control panel can be found in the left side center underbody compartment.

- The selector should be moved to the “LINE” selection when the mobile unit is going to receive power from a shore facility, such as a hospital.
- The “OFF selection should only be used when the mobile unit is being serviced and only by qualified service personnel, as the mobile unit is to have power at all times.
- The selector should be moved to the “GEN” selection when the mobile unit is to receive power from the onboard generator.

8.3 480V AC FAULT Indicator Light

This indicator light is located on the power supply control panel. The control panel can be found in the interior of the mobile unit inside of a cabinet. The “480V AC FAULT” indicator light will illuminate if the incoming shore power source is experiencing any of the following problems:

- The shore power to the mobile unit is out of phase.
- The shore power to the mobile unit is subject to low voltage.
- The shore power of the mobile unit has one or more phase leg problems.
- If the “480V AC FAULT indicator light illuminates, please refer to **Appendix B: Troubleshooting**, for additional information in regards to these systems.

OSHKOSH SPECIALTY VEHICLES

Section 9: Humidity System

CAUTION All settings for the humidity system are preset at the factory. Under no circumstances should factory presets be altered.

CAUTION Proper humidity levels must be maintained to protect sensitive electronic equipment.

The humidifier is responsible for maintaining the humidity levels within the mobile unit. The settings for the humidifier are set to meet the medical system manufacturers' specifications. Under no circumstances should the settings of the humidifier be altered. In order for the humidifier to function properly, the water tank level must be maintained at all times.

Exterior Connection for fresh water:	The facility must provide a fresh water supply for use with the mobile unit. The incoming supply is then attached to the connection.
Exterior Connection for waste water:	The facility must provide a wastewater hose and connection. The hose must be attached to the wastewater drain located underneath the same underbody compartment as the fresh water intake.
Water Tanks:	Two (2) tanks can be found in the underbody compartments. The first tank is used for fresh water and the second tank is used for wastewater.
Humidifier:	The humidifier provides the required humidity to the mobile unit per the medical manufacturers' requirements.
Humidity Controller:	The humidistat is responsible for the internal humidity of the mobile unit. The setting is preset at the factory to comply with the medical system manufacturers requirements.

9.1 System Operation

The humidifier system is capable of producing up to 12 pounds of steam per hour, at 15 amps. A sensor continually monitors the interior of the mobile unit for relative humidity. This sensor is located on the humidifier control box and is programmed to keep the relative humidity at 35%. If the humidity drops below the set point, the humidifier is signaled to emit more steam. The humidifier creates steam when electrodes in the steam cylinder of the humidifier vaporize the supplied water. The steam then travels through a hose to a distribution pipe located in the return air duct of the HVAC system. Since the steam is injected into the return duct of the HVAC system, both A/C units are supplied with humidified air for distribution throughout the interior of the mobile unit. An air pressure switch is located in the HVAC discharge duct that is interlocked to the humidifier. If for any reason the airflow is disrupted, the humidifier will shut down. When the sensor detects that relative humidity has been reached, a signal is sent to the humidifier to stop it from creating more steam.

9.2 Water Supply

Water is supplied to the humidifier by means of a facility provided water supply. Plumbing connections are as follows:

1. One GHT (Garden Hose Thread) ½" IPS faucet for the water supply from the exterior of the mobile unit. (incoming)
2. One 0.75" outer diameter copper drain line from the steam cylinder for automatic drain cycles. The drain penetrates the floor of the mobile unit in order to empty to the exterior. (drainage)

9.3 Humidity Controller

CAUTION All settings for the humidity system are preset at the factory. Under no circumstances should factory presets be altered.

The humidity controller is located in Gantry Room on the plenum wall next to the air filter access door.

The relative humidity setting for the mobile unit is 35%. The humidifier must not be altered from its factory setting.

Figure 29: Humidity Controller

9.4 Humidity Settings

CAUTION All settings for the humidity system are preset at the factory. Under no circumstances should factory presets be altered.

The humidity 1st stage high set point is 40% RH (relative humidity).

The humidity 2nd stage high set point is 45% RH (relative humidity).

9.5 Electrical Connections

Electrical connections at the humidifier are located on a terminal rail behind the cover of the humidifier.

The distribution panel supplies the required 480V AC power via a 15 amp, three-phase breaker.

A humidistat is connected to the humidifier via a controlling transformer cable.

9.6 Instructions

The HVAC system along with the humidifier is set to the required settings per the medical equipment manufacturers' specifications before leaving the factory. Under no circumstances should the settings be altered from their factory specifications.

Please refer to the product manual located in the literature provided by Oshkosh Specialty Vehicles.

Attaching the Fresh Water supply line

1. Remove the cap that covers the fresh water connection. Refer to **Figure 30: Fresh Water Connection**.
2. Attach the supplied water hose to this fresh water connection.
3. Attach the other end of the hose to facility provided fresh water faucet.
4. Turn on the water at the faucet.
5. Open Ball Valve "A". Refer to **Figure 33: Humidifier System Isometric Schematic** for location.
6. This will fill the water tank for the mobile unit. When the tank is full, close Ball Valve "A". If necessary, the fresh water tank can be filled by pouring water directly into the manual fill pipe.
7. In the event that the water tank is overfilled, an overflow drain has been provided that exits outside of the mobile unit.
8. In order to supply fresh water directly from the facility to the sink and humidifier close Ball Valve "A". Refer to **Figure 33: Humidifier System Isometric Schematic** for location.

Figure 30: Fresh Water Connection

Fresh Water System Operation

During normal operation with the supply hose connected to the facility and supplying fresh water, Ball Valve "A" is closed. As demand for water at the humidifier tank is required an internal water level sensor electrically controls Valve "F" (Fill Valve). As the water level in the tank decreases, Valve "F" opens allowing the tank to fill. As it reaches the full limit, the sensor electrically closes Valve "F" stopping the flow to the humidifier tank.

As demand for water at the sink is required, pressure in the hose connection to the facility will provide an adequate supply of fresh water.

During normal operation pumping water from the Fresh Water supply tank, Ball Valve “A” is closed. The water pump is a “Pressure on demand” pump. As a demand is made for water by opening Valve “F” at the humidifier tank, the pump is energized and will supply water as needed. As a demand for water at the sink is made, the pump will supply water from the fresh water storage tank. When the demand is satisfied, the pump senses backpressure in the water lines and it is de-energized. The accumulator at the output side of the pump helps to reduce pressure spikes and keep the lines charged. The water level sensor in the Fresh Water tank protects the pump from cavitations in the event of low water level in the tank.

Figure 31: Fresh & Waste Water Drain Connections

Humidifier Drain / Flush Feature

In order to reduce the build up of mineral deposits in the humidifier tank, a drain and flush cycle has been incorporated into the system. A timer factory set on a 40-hour cycle electrically controls Valve “G” (Drain Valve). Upon activation, Valve “G” opens and begins to drain the surface water and minerals from the tank. As the water level drops, Valve “F” opens to refill the tank. Both valves will remain open for approximately ten minutes flushing the tank. Valve “G” then closes, the tank refills, and Valve “F” closes, completing the drain and flush cycle. The timer resets and the system resumes normal operation.

Figure 32: Fresh Water and Wastewater Compartment

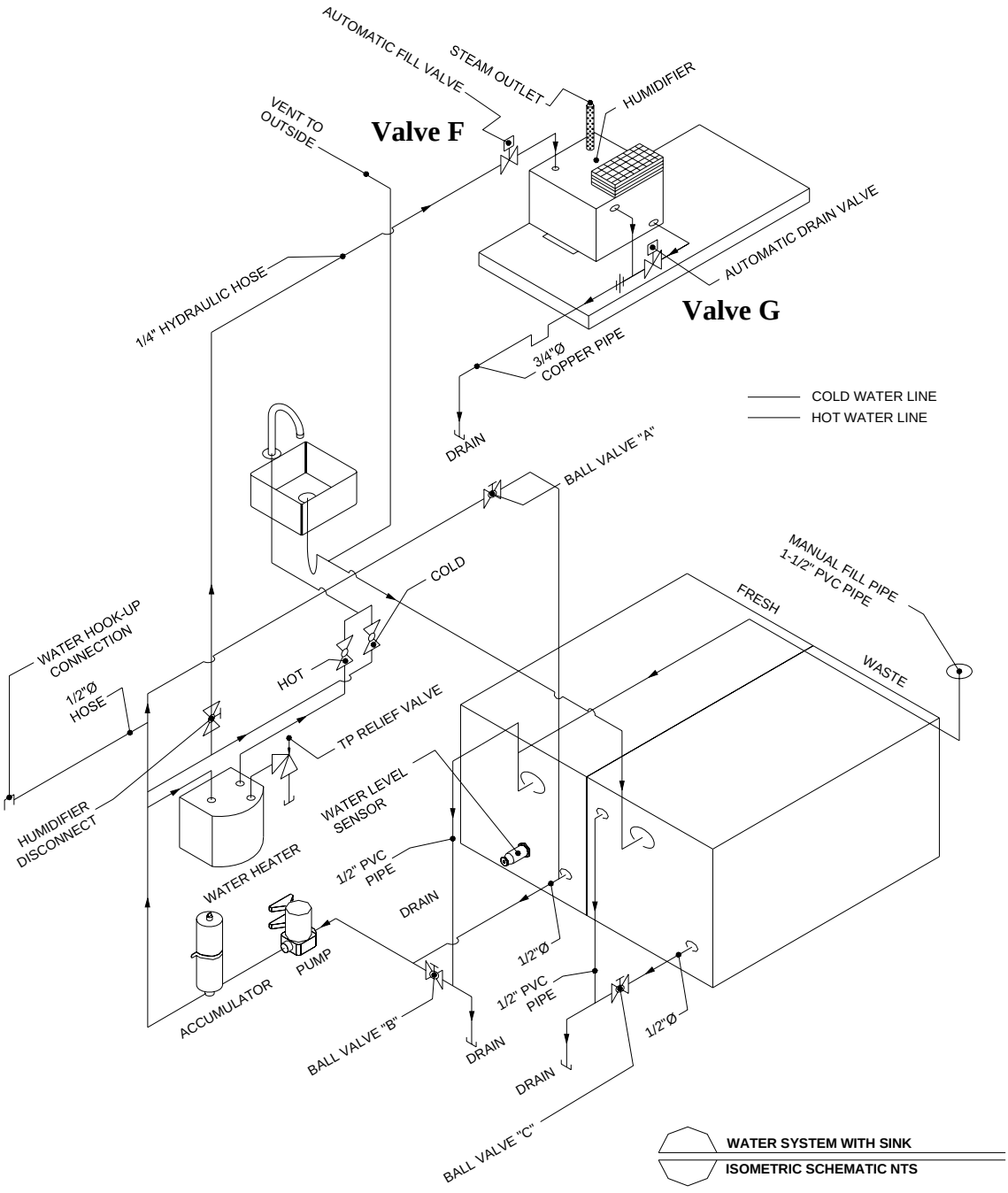

Figure 33: Humidifier System Isometric Schematic

Section 10: HVAC System

CAUTION The HVAC system is critical to the operation and the life of the medical system. The medical 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.

CAUTION The medical system requires the HVAC system to be supplied power at all times. Generator power is used while the mobile unit is being transported, and shore power can be used while the mobile unit is in the parked position.

Figure 34: 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 medical system manufacturer. Under no circumstances should the factory presets be changed or altered from their factory setting. Irreparable damage can occur to the medical 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 medical equipment. Do not attempt to store any boxes or items in 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 16: General Maintenance** and **Section 17: Specific Maintenance**.

10.1 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 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.

10.2 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.

10.3 Interior HVAC Specifications

Each air conditioner has a cooling capacity of 48,000 BTUH. The temperature in each room is maintained at approximately 70°F with an acceptable range of 68°Fto 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.

10.4 Underbody Compartment Heater

Three (3) heaters are located in the underbody compartments. Two (2) heaters are used to heat the general underbody compartment area, while one (1) heater is used specifically for the compartment that stores the water tanks.

These heaters provide 1.5KW of heat each. The compartment heater will activate when the temperature drops below 40°F and will deactivate when the temperature rises above approximately 45°F.

All aspects of the underbody have been insulated for all weather usage.

Figure 35: Heater

10.5 Penn Control Temperature Setting

CAUTION

The HVAC system is critical to the operation and the life of the medical system. The medical 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 the controlled by the use of Penn Controls. The Penn Control must not be set outside of the parameters as defined by the medical system manufacturer.

Figure 36: Penn Control Temperature Control

Section 11: Platform Lift

IMPORTANT These pictures are meant to represent the Platform Lift in different stages and not to accurately reflect the current design of the mobile unit.

The mobile unit contains a Platform Lift that is used to move personnel and equipment from the ground level to the floor level of the mobile unit. The Platform Lift has a maximum capacity of 2000 pounds (907.2 kilograms) and a maximum height of 53” inches.

In the illustrations below, the Platform Lift can be seen in various stages.

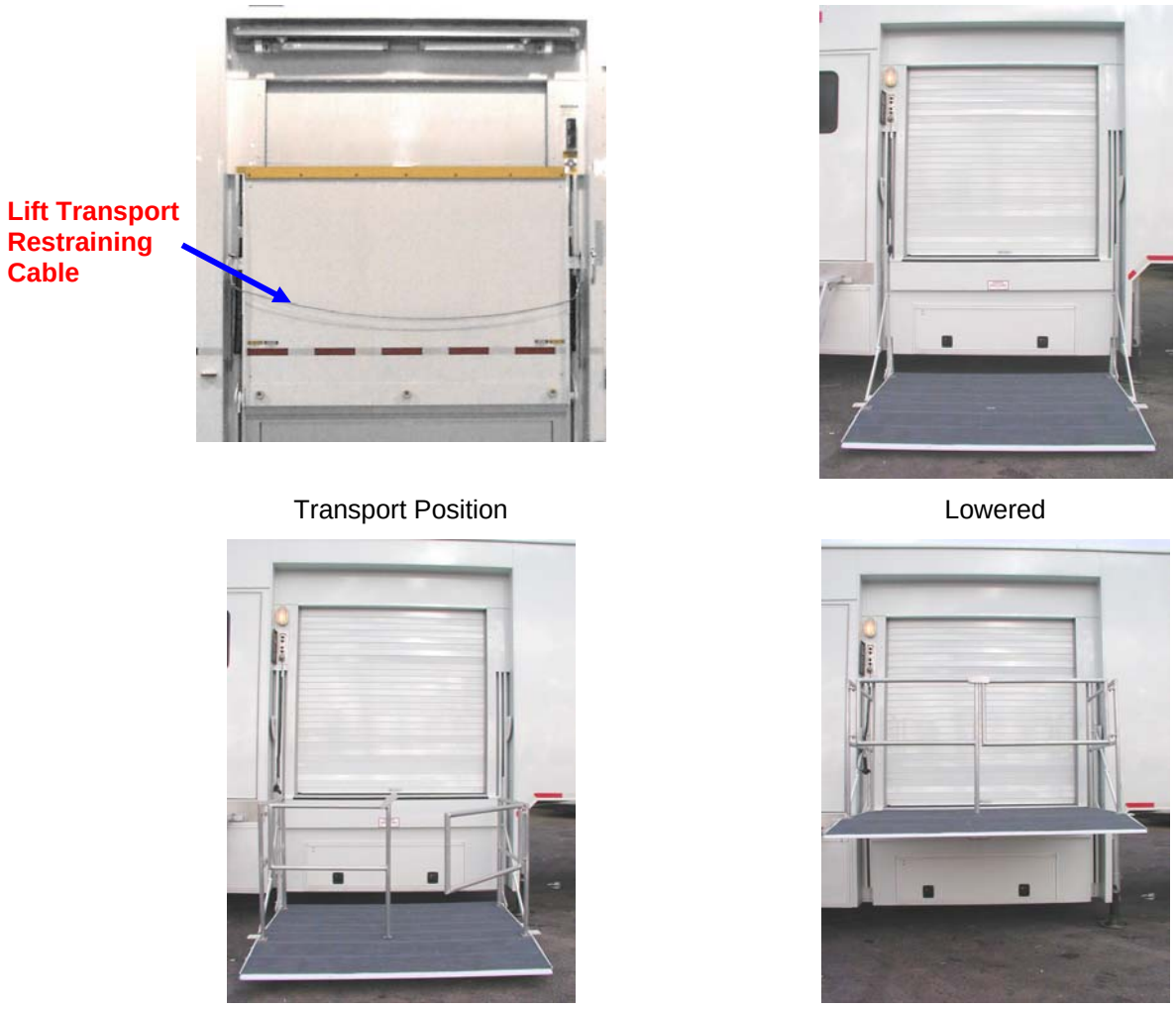

Figure 37: Platform Lift Progression

In the illustrations below, the retaining cradle is shown. In the illustration, the transport pins can also be seen. The transport pins are to be used when transporting the mobile unit. The transport pins will prevent the Platform Lift from leaving the retaining cradles during transport. Failure to use the transport pins can result in damage to the mobile.

In the following illustrations, the lift pocket micro switch can also be seen. The Transport Pin micro switches cannot be seen. The micro switches are connected in series to Control Relay 1 (CR1). If CR1 is not energized the transport warning light will illuminate and a strobe light will flash if emergency air is connected to the trailer. These devices are used to notify the operator of the Platform Lift status during transport. CR1 also removes power from the lift hydraulic system when all three micro switches are actuated.

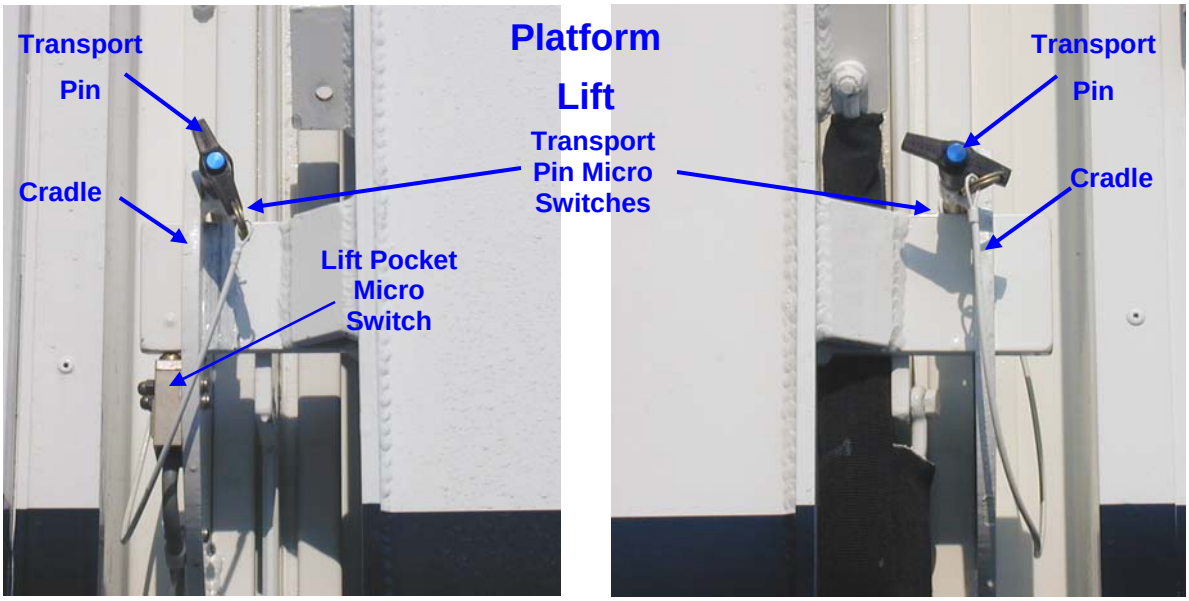

Figure 38: Platform Lift Retaining Cradles

11.1 Safety Features

The platform lift has several built in safety features that are designed to provide worry free operation and transportation.

Transport Pins

CAUTION Failure to release the transport pins for the platform lift can result in structural damage to the mobile unit.

Transport pins have been provided for use with securing the platform lift. These pins must be used when the mobile unit is being transported. Failure to use these pins could result in structural damage to the mobile unit.

Lift Controls

The platform lift controls are located on the exterior of the mobile unit next to the roll door. The lift controls, including the remote control pendent, operate with open contacts. This means that in order for the platform lift to be moved upwards or downwards, the control must be held in the desired position.

Handrails

The platform lift is supplied with handrails designed to provide an additional margin of safety for personnel being raised or lowered by the lift. The handrails must be installed and properly latched in place prior to raising or lowering personnel on the lift.

WARNING It is the Operator's responsibility to ensure that the handrails are properly installed and latched in place prior to raising or lowering personnel on the lift. Failure to do so could result in serious personal injury or death.

Lift Up Indicator Light

On the control panel located inside of the mobile unit, a separate set of controls can be found to operate the roll door. On this panel is a small green indicator light. When the lift is in the raised position the indicator light will illuminate.

WARNING It is the Operator's responsibility to ensure that the roll door is not opened unless the lift is in the raised position. Failure to do so could result in serious personal injury or death.

The roll door should not be opened unless this light is on. This light is designed to prevent the operator or other personnel from inadvertently stepping out of the roll door when the platform lift is not raised.

Remote Control Pendent

A remote control pendent is included for use with the platform lift. The pendent plugs into a jack located between the staff door and the platform lift roll door behind the lift control panel. The pendent has an expandable cord that allows the operator to be on or near the platform lift while it is in operation. The remote control pendent works off the 12V DC power system.

Figure 39: Remote Control Pendent

Transport Warning Light

WARNING 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 to the mobile unit, serious injury or death can occur.

The Transport Warning Light is located on the exterior left side of the mobile unit and will illuminate when the platform lift is not in the proper transport position. It is the Operator's responsibility to ensure that the Transport Warning Light is functioning properly and that the bulb element is in working order. Please refer to the Oshkosh Specialty Vehicles VOL II Vendor Information binder for the product manual, the Oshkosh Specialty Vehicles VOL I Service/Operator Manual binder for a list of local service representatives, or contact Oshkosh Specialty Vehicles for service.

Transport Warning Strobe Light

WARNING If the Transport Warning Strobe Light is flashing the mobile unit must not be moved. If the mobile unit is moved while this light is flashing, irreparable damage to the mobile unit, serious personal injury or death can occur.

The Transport Warning Strobe Light is located on the exterior left side of the mobile unit and will illuminate when the platform lift is not in the proper transport position. It is the Operator's responsibility to ensure that the Transport Warning Light is functioning properly and that the bulb element is in working order. Please refer to the Oshkosh Specialty Vehicles VOL II Vendor Information binder for the product manual, the Oshkosh Specialty Vehicles VOL I Service/Operator Manual binder for a list of local service representatives, or contact Oshkosh Specialty Vehicles for service.

Lift Transport Restraining Cable

The lift Transport Restraining Cable, when installed and connected securely, is designed to provide a stop gap measure to prevent the lift from falling to the horizontal position should the lift be improperly stowed.

11.2 Hydraulic System

An internal hydraulic cylinder controls the movement of the platform lift. The cylinder is located in the compartment below the roll door.

Operation

When the "UP" function has been selected for the platform lift, the pump is activated and fluid is moved from the reservoir through the valve block to the hydraulic cylinder. This causes the lift to move upward. When the "DOWN" function has been selected for the platform lift, the pump is not activated, but the fluid is moved from the hydraulic cylinder through the valve block to the reservoir. This causes the platform lift to descend.

11.3 Platform lift Operation

The platform lift can be operated with the remote control pendent, the exterior lift controls, or the interior lift controls. The lift can be raised or lowered with these controls. In order to deploy the platform lift when setting up the mobile unit, or to place the platform lift in its storage position for transporting the mobile unit, refer to the steps outlined below. This same information can also be found under the setup and transport procedures for the mobile unit.

Deploying the Platform lift for use with the Mobile Unit

CAUTION Failure to remove the transport pins from the platform lift can result in structural damage to the mobile unit.

After the stair assembly has been installed and the slide-outs have been extended, the platform lift can be deployed for use.

1. Open the underbody compartment doors.
2. Remove the handrails and lift pendent, and place them to the side for now.
3. Close the underbody compartment door.
4. Insert the connector from the lift control pendent into the receptacle located next to the staff entry door.
5. Remove the Lift Transport Restraining Cable.
6. Remove the transport pins.
7. Using the remote, raise the lift high enough to clear the cradles.
8. Carefully pull down the platform until it is parallel with the ground. A torsion bar is located within the platform lift hardware that will enable one person to move the lift into operating position.
9. Using the lift control pendent, lower the platform to the ground.
10. Once the platform has been lowered, install the handrails and secure them with the hardware provided.

Storing the Platform lift for Transport of the Mobile Unit

After the slide-outs have been retracted, the platform lift can be stored for transport.

1. Lower the platform lift to the ground.
2. Remove the restraining hardware and handrails and temporarily place them to the side.
3. Raise the lift to a maximum height and fold the lift upwards to a vertical position. A torsion bar is located within the platform lift hardware that will enable one person to move the lift into the transport position.
4. Lower the lift so that it rests securely in the retaining cradles. Make sure that the micro switch is actuated.
5. Insert the transport pins into their transport positions. Make sure that the micro switches are actuated.
6. Connect the Lift Transport Restraining Cable securely in place.
7. Remove the remote control pendent from the socket and lock the access door to the platform lift controls.
8. Open the underbody compartment door and store the remote control pendent and handrail assembly in the underbody storage compartment.

Section 12: Intrusion Alarm (optional)

An optional intrusion alarm is available for the mobile unit. This alarm is designed to divert would be intruders from theft, vandalism, or unauthorized entrance of the mobile unit.

Figure 40: Intrusion Alarm Keypad

12.1 Operation

The alarm is operated via a keypad located by the staff door. When entering the mobile unit, the operator keys in a code to deactivate the alarm. When leaving the mobile unit, the operator keys in a code to activate the alarm. If either the staff entry door or the compartment doors are opened while the alarm is activated, a siren will sound.

For additional information, please refer to the OEM supplied literature. The literature can be found in the product information binders that have been included with the mobile unit.

Section 13: Stabilizing Legs

CAUTION

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.

Both the stabilizing legs and the auxiliary support legs can be found at the front of the unit. The stabilizing legs installed on this mobile unit are only for the purpose of parking and stabilizing the mobile unit. For additional information, please refer to the OEM supplied literature. The literature can be found in the product information binders that have been included with the mobile unit.

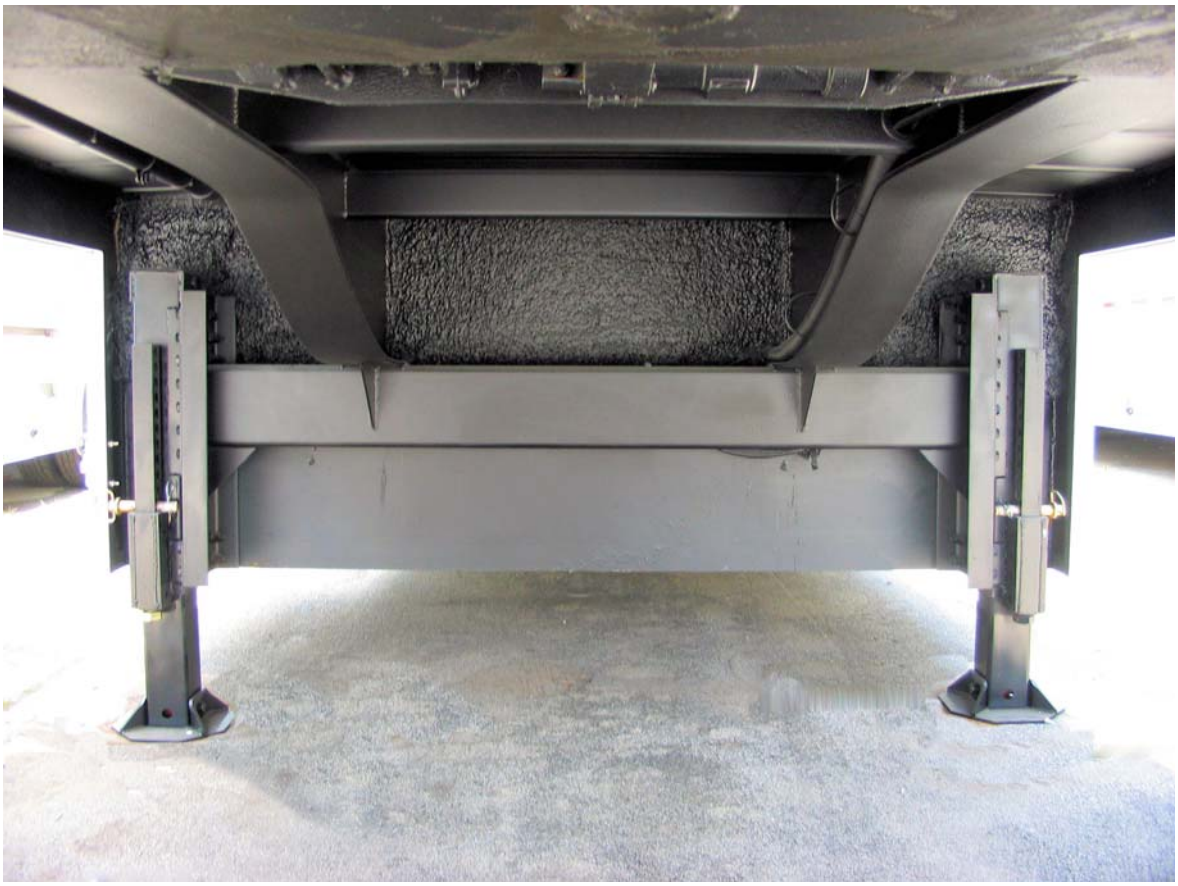

Figure 41: Stabilizing Leg Assembly

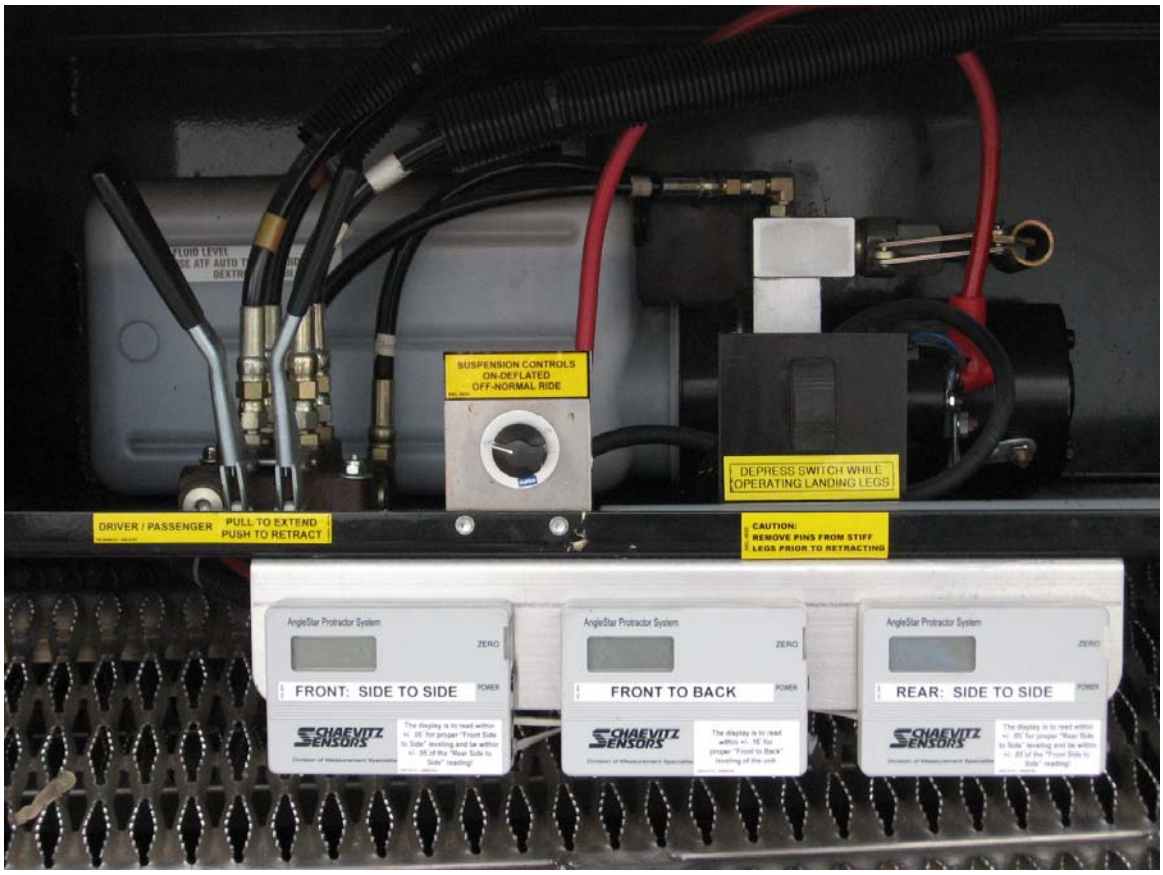

Figure 42: Stabilizing Leg Control Panel

Auxiliary Support Legs:	The auxiliary support legs provide a fixed leg for use as a backup in case the landing / stabilizing legs fail.
Landing / Stabilizing Leg:	Allows the mobile unit to be parked without the tractor being attached to the unit.
Sand Shoe:	Helps prevent the landing / stabilizing legs from sinking due to weight.
Landing / Stabilizing Leg Control Panel:	The control box houses the landing / stabilizing leg controls.
Levels:	Allows the mobile unit to be leveled both front to back and side to side.
Lever left leg:	Front left side leg.
Lever right leg:	Front right side leg.
Pump ON / OFF Switch	The switch must be held in the ON position when extending or retracting the legs.

13.1 Stabilizing Stands

The stabilizing stands are inserted beneath the rear supports of the mobile unit, and allow the mobile unit to be stabilized for all medical procedures. The stands are stored in the rearmost underbody compartments. When in use, the stands must be centered underneath the rear supports of the mobile unit. If shims are needed, use only the aluminum shims provided.

13.2 Rear Air Suspension System Controls

CAUTION If the rear air suspension is not functioning properly the mobile unit must not be moved. If the mobile unit is moved, irreparable damage can occur to the medical system and the mobile unit itself.

The rear air suspension controls are located on the stabilizing leg control box. Locate on this control panel a switch that reads “OFF” to the far left and “ON” to the far right.

The Service and Emergency air lines from the tractor must be attached to the trailer in order to inflate the air suspension.

Place the switch in the “OFF” position for normal ride.

Place the switch in the “ON” position to deflate the air suspension system for set up.

Figure 43: Air Bag Controls

CAUTION The air ride control switch must be in the normal ride position before the mobile unit can be transported. If the air ride control switch is not in the normal ride position, irreparable damage may occur to the mobile unit.

Section 14: 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.

14.1 Emergency Lighting

In the event that the main AC power fails, two (2) dual beam emergency lights are provided. These lights will automatically illuminate when the main AC power is lost.

There is a light in each room. The emergency lighting system is wired into a 120V AC electrical system that allows the lights internal circuitry to keep its batteries at 100% charge.

The emergency lights will illuminate the staff door in Gantry Room and last for approximately 90 minutes.

Figure 44: Emergency Dual Beam Lighting

14.2 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 lights connected to timers. The timers allow the lights to be set for up to 30 minutes before automatically turning off. There is one light provided on each side of the underbody.

In addition, since the fuel compartment is sealed off from the others, a push button dome light has been included in this compartment.

A cord-o-matic drop light with a 50’-0” cable is supplied with the mobile unit, in Control Room. The light is generally used during service applications when additional light is required. The light is plugged into a nearby miscellaneous 120V AC outlet.

Figure 45: Compartment Light

Staff Door Lighting / Exterior Service Lighting

The staff door lighting is provided by a fixture that is located above the staff entry door.

This light is meant to illuminate the staff entry as well as the Platform Lift.

The switch for this light is located inside of the mobile unit next to the staff door.

Figure 46: Staff Door Lighting

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. One electrical connections is supplied on the front, one seven terminal connection.

14.3 Interior Lighting

The interior lighting system can be divided as follows.

Control Room

The controls for the lighting in Control Room are located just inside the access door to that leads into Control Room.

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 serviced.

Gantry Room

The controls for the lighting in Gantry Room are located just inside the access door that leads into Control Room.

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 47: Overall Interior Lighting

14.4 Warning Lights

Warning lights have been installed on the exterior left side of the mobile unit in order to provide the operator and technician with the status of the mobile unit at all times during transit or while in the parked position.

A description of each of the warning lights and their location can be found below.

If the warning lights are illuminated, please refer to **Appendix B: Troubleshooting** for additional information.

"480V AC FAULT" Indicator Light

This indicator light is located on the power supply control panel. The control panel can be found in the interior of the mobile unit inside of a cabinet.

If the "480V AC FAULT" indicator light illuminates while connected to the shore power facility, the operator must switch to generator power until the problem has been corrected.

The "480V AC FAULT" indicator light will illuminate if the incoming shore power source is experiencing any of the following problems:

Figure 48: 480V AC Fault Indicator Light

- The shore power to the mobile unit is out of phase.
- The shore power to the mobile unit is subject to low voltage.
- The shore power of the mobile unit has one or more phase leg problems.

If the problem persists, please contact Oshkosh Specialty Vehicles or refer to the list of local service representatives that has been supplied. This list can be found in the product information binders that have been included with the mobile unit.

Figure 49: Warning Lights

Power Indicator Light

CAUTION The medical system requires the HVAC system to be supplied power at all times. During transit of the mobile unit via the generator and when the unit is in the parked position via shore power.

The green Power Indicator light is located on the left side of the mobile unit. This light will be illuminated when the mobile unit is receiving power from either power source.

The medical system requires the HVAC system to have power at all times, during transit of the mobile unit via the generator and when the unit is in the parked position via shore power.

Transport Warning Light

CAUTION 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 left side of the mobile unit and will illuminate when the Platform Lift is not in the proper transport position.

Rear Suspension Transport Warning Light

CAUTION The rear suspension selector switch must be in the “OFF” position before the mobile unit can be transported. If rear suspension selector switch is not in the normal ride position, irreparable damage may occur to the mobile unit.

The Suspension Transport Warning Light is located on the exterior left side of the unit and will illuminate when the air bags for the rear suspension are either not inflated, or the air pressure is to low. The air bags must be properly inflated prior to transporting the mobile unit. Failure to properly inflate the air bags can result in irreparable damage to the mobile unit.

Lift Transport Warning Strobe Light

The Lift Transport Warning Strobe light is below the transport warning lights on the front wall exterior left side of the mobile unit. This strobe light will flash when the lift is not in the proper transport position and emergency air is connected to the trailer. Placing the lift in the proper transport position will extinguish this strobe.

Figure 50: Lift Transport Warning Strobe

Section 15: Slide-out

WARNING 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.

WARNING 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.

WARNING 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.

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

IMPORTANT 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 must be followed at all times. Before servicing the mobile unit, read the section on safety and all other sections on safety found in any OEM supplied literature. The OEM supplied literature can be found in the product information binders that have been included with the mobile unit.

15.1 Slide-out Controls

The control for the slide-out is located in Gantry Room. One button controls both movements (expand and retract).

An "E-Stop Button", emergency shut off switch, is provided for the slide-out controls to stop the slide-out movement in event of an emergency.

When expanding or retracting the slide-out, please follow the instructions below;

Figure 51: Slide-out Controls

Expanding the Slide-out

1. After the stair assembly has been deployed the slide-out for the mobile unit can now be extended.
2. Verify that the underbody compartment doors are closed and that no obstacles are in the path of the slide-out.
3. Enter the mobile unit and remove the restraining hardware that is being used to hold the slide-out in the transport position.

WARNING

Do not release the floor latch if the slide-out is extended. The floor cylinder is pressurized when the slide-out is extended and releasing the latch could result in severe personal injury.

4. Release the hardware that is being used to hold the slide-out floors in place.
5. Extend the right side slide-out.
6. Verify that the slide-out is in the extended position and that the floors have been completely lowered.

Retracting the Slide-out

After the Platform Lift has been returned to its transport position the slide-out can now be retracted.

1. Verify that the underbody compartment doors are closed and that no obstacles are in the path of the slide-out.
2. Verify that the slide-out is completely extended.

IMPORTANT

Before retracting the slide-out, run the slide-out to the fully extended position. This will ensure that the air cylinders that actuate the floor sections are pressurized and prevent binding of the floor sections.

3. Retract the right side slide-out.
4. Secure the slide-out floors into the transport position with the supplied hardware.
5. Secure the slide-out with the restraint device provided.

Section 16: General Maintenance

WARNING 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.

WARNING 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.

WARNING 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.

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

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

16.1 Daily Maintenance

1. Water tank should be checked for proper water levels.
2. Fuel tank should be checked for proper fuel levels.
3. During cold weather, verify that all underbody heaters are operational.
4. Keep the air intake grills on the computer cabinets for the medical system free and clear of obstructions.
5. Keep the A/C grills clean and free of debris.
6. Check and verify that no warning lights are illuminated.

16.2 Weekly Maintenance

1. Lubricate the Platform Lift side rails and pivot points with an ample amount of Mobil – Mobilmet S-122 multipurpose water-soluble cutting oil.
2. Check the A/C filters. Replace if necessary.
3. Check the oil and water levels in the generator and refill if necessary.
4. Check the electrolyte levels in the DC batteries and fill if necessary using only distilled water.
5. Check all running lights, marker lights, brake lights, and turn signals.
6. A qualified technician should check the tire pressure in accordance pressure recommended by the tire manufacturer.
7. Check the fluid level in the hydraulic reservoir using the site glass. Add fluid if necessary. Use only AWF All Weather Fluid.

16.3 Monthly Maintenance

1. Lubricate the side rails of the roll door with Mobil – Mobilith AW2 heavy-duty multipurpose industrial grease.
2. Lubricate the concealed interlock switch located inside the door track for Gantry Room.
3. Put a few drops of 20W oil, or similar graphite oil, on the swivel pin of all door hinges. Only dry graphite lubricant should be used on key openings of all door locks.
4. Check the operation of the smoke detectors and vacuum internally.
5. Check the fire extinguisher gauges for safe charges.
6. Inspect the power cables for any damage.
7. Check the cable tie downs.
8. Check for cut, damaged, or loose wire connections.
9. Check and verify that all connector bolts are tight and secure.
10. A qualified A/C technician must check the A/C condensers every month. Refer to the Air Conditioning Owner's Manual for more information.
11. Lubricate the front stabilizing legs.
12. 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.
13. The generator oil, as well as the oil filter, air filter, and fuel filter must be changed every 250 hours or six months of service, whichever comes first. The number of hours the generator has been in operation can be obtained by checking the microcomputer controller located on top of the staging unit in the generator bay. Refer to **Figure 28: Generator**.

16.4 Quarterly Maintenance

1. 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.

The following Preventive Maintenance Checklist must be completed each quarter. Oshkosh Specialty Vehicles has included in the Oshkosh Specialty Vehicles VOL I Service/Operation Manual binder, a Preventive Maintenance Checklist and Serial Number Chart in order to assist in organizing records of maintenance performed on your new OSV Vehicle. We believe that with proper maintenance performed on a regular basis, your vehicle will last longer and provide you with more up time.

A copy of your vehicles completed quarterly Preventive Maintenance Checklist may be required for warranty reimbursement.

Oshkosh Specialty Vehicle's Service department has certified technicians, genuine parts and the information technology needed for your assistance. Please call OSV service for you're servicing needs.

Thank you for choosing Oshkosh Specialty Vehicles. If you have any questions call us toll free at 1-800-839-0630. We'll be happy to assist you!!

OSHKOSH SPECIALTY VEHICLES

Preventive Maintenance Checklist

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					

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					
Trailer Continued	**3M**	**6M**	**9M**	**12M**	**Comments**
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					

Section 17: Specific Maintenance

WARNING 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.

WARNING The Power Cable could present a trip hazard that could result in personal injury. Care should be taken to ensure that the cable is routed properly to minimize its potential as a trip hazard.

WARNING 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.

WARNING 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.

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

CAUTION The HVAC system is critical to the operation and life of the equipment. The medical 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.

CAUTION Image quality can be impaired with improper door closer adjustment.

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

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

17.1 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.

17.2 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.

17.3 Generator System

The generator oil, as well as the oil filter, air filter, and fuel filter must be changed every 250 hours or six months of service, whichever comes first. The number of hours the generator has been in operation can be obtained by checking the microcomputer controller located on top of the staging unit in the generator bay. Please refer to refer to **Figure 28: Generator**.

Once a year, check the fuel separator for contamination or debris.

17.4 Humidity System

CAUTION During seasons of low humidity, the humidifier will need to be filled more often.

The fresh water tank supplies the humidifier and sink (if applicable) with water. The water levels must be maintained at all times. Follow the steps outlined below and please refer to **Section 9: Humidity System** if necessary.

1. Check the water tank to determine the water level.
2. Attach one end of a hose to the exterior water tank fill valve and the other end to the shore supply.
3. Turn on the water source to begin filling the tank.
4. After the water tank is full, turn off the water source.
5. Detach the hose at both ends and place in the underbody storage compartments.

17.5 HVAC System

CAUTION The HVAC system is critical to the operation and life of the equipment. The medical 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.

1. 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.
2. It is important to be sure that the doors, partitions, and baffling are in the intended positions before running the medical system.
3. 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.
4. A qualified A/C technician must check the A/C condensers every month. Refer to the Air Conditioning Owner's Manual for more information.

17.6 Platform Lift

Lubricate the Platform Lift side rails and pivot points with an ample amount of Mobil – Mobilmet S-122 multipurpose water-soluble cutting oil.

17.7 Stabilizing Legs

Once a year, perform the preventative maintenance on the stabilizing legs and the stabilizing leg controls. For additional information, please refer to the OEM supplied literature. The literature can be found in the product information binders that have been included with the mobile unit.

1. Change the oil in the stabilizing leg control box and refill with six (6) quarts of PG-AWF or other approved fluid to port level.
2. Add one pint of permanent anti-freeze as necessary.
3. Extend the stabilizing legs and coat lightly with clean grease.
4. Grease the alemite fittings and check the valve on each leg. Use “NGLI” lithium grease with a grade of “00” or “0”.
5. Check the fittings and the hydraulic lines for leaks or worn spots. Replace all defective fittings and lines as necessary.
6. Check for loose bolts and nuts. Tighten as necessary.

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Appendix A: Mobile Unit Checklist

WARNING 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.

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

WARNING The Power Cable could present a trip hazard that could result in personal injury. Care should be taken to ensure that the cable is routed properly to minimize its potential as a trip hazard.

WARNING 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.

WARNING 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.

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

CAUTION The Siemens medical system requires the HVAC system to be supplied power at all times. During transit of the mobile unit via the generator and when the unit is in the parked position via shore power.

CAUTION 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.

CAUTION When switching from generator power to shore power the red "480V AC FAULT" indicator light may illuminate and flicker. If the red "480V AC FAULT" indicator light stays illuminated, reconnect to generator power and call a certified electrician before attempting to reconnect to shore power.

CAUTION When turning the power selector switch from one position to another, the selector must be paused for a minimum of five seconds between selections. Failure to do so can result in damage to the equipment.

CAUTION 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.

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

CAUTION The rear stabilizing stands must be removed prior to the connecting the tractor to the mobile unit. Failure to do this can result in equipment damage

CAUTION The rear suspension must be in the transport position before the mobile unit can be transported. If the rear suspension is not in the normal ride position, irreparable damage may occur to the mobile unit.

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

IMPORTANT If the mobile unit is on uneven ground, the provided aluminum shims can be used to help level the mobile unit. Only use the shims that have been provided by Oshkosh Specialty Vehicles.

IMPORTANT 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.
2. Lower the front stabilizing legs.
3. Disconnect the tractor while leaving the air and electrical lines engaged.
4. Install the rear stabilizing stands.
5. Exhaust the rear suspension by placing the air suspension switch in the “ON” position.
6. Re-level the mobile unit as needed.
7. Disconnect the tractor air and electrical lines.
8. Lower the auxiliary support legs.
9. Install the stair assembly.
10. Remove the Lift Transport Restraining Cable and Transport Pins.
11. Deploy the Platform Lift.
12. Verify that the shore power disconnect is in the “OFF” position and connect to the power cable to the shore power receptacle.
13. Move the shore power disconnect to the “ON” position.
14. Move the power selector switch to the “Line” position and verify that the incoming power supply is good.
15. Move the Generator Stop / Start selector switch to the “Stop” position.
16. Connect the phone and data lines.
17. Connect the water supply and the waster water connections
18. Remove all slide-out restraining hardware.
19. Expand the slide-out.
20. Check for any warning lights.
21. Prepare all medical equipment for use per the OEM provided instructions.

Mobile Unit Transport Checklist

1. Secure the medical system per OEM instructions that are posted on the scan room wall.
2. Secure all moveable objects such as chairs, monitors, doors, cabinets, cameras, and printers.
3. Return the Platform Lift to the transport position.
4. Insert the Transport Pins and connect the Lift Transport Restraining Cable securely in place.
5. First verify the slide-out is fully expanded and then retract the slide-out.
6. Secure the slide-out and slide-out floors with hardware provided.
7. Move the Generator Stop / Start selector switch to the “Start” position. Allow the generator to run for approximately five (5) minutes.
8. Move the Unit Power Selector switch to the “GEN” position.
9. Verify that the shore power disconnect is in the “OFF” position and disconnect the power cable from the shore power receptacle and store it in the underbody compartment.
10. Remove and store the stair assembly.
11. Disconnect the water supply and the waster water connections.
12. Disconnect the phone and data lines.
13. Raise the auxiliary support legs.
14. Connect the tractor air and electrical connections.
15. Return the rear suspension selector switch to the “OFF” position for transport in order to inflate the rear air bags to remove the stabilizing stands.
16. Connect the tractor to the mobile unit.
17. Raise the Stabilizing Legs.
18. Verify that the mobile unit is ready for transport.
    a. Are all exterior doors closed and locked?
    b. Is the Platform Lift in the transport position, fully seated in its retaining cradle?
    c. Is the Lift Transport Restraining Cable securely in place?
    d. Are all running & marker lights working correctly?
    e. Are any warning lights flashing?
    f. Is the fuel tank full?
    g. Is the generator running?
    h. Is the air suspension system is fully inflated and at the proper ride height? The lowest point of the trailer sidewall should be approximately 15” above ground level.

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Appendix B: Troubleshooting

If the following troubleshooting guides do not correct the problem, please refer to the Oshkosh Specialty Vehicles VOL II Vendor Information binder for the product manual, the Oshkosh Specialty Vehicles VOL I Service/Operation Manual binder for a list of local service representatives, or contact Oshkosh Specialty Vehicles for service.

Power Indicator Light is off…

If the Power Indicator Light is "OFF" then the mobile unit is not receiving power. The mobile unit must receive power at all times, either from the on-board generator or from a shore power connection.

If the mobile unit is at a facility and connected to shore power, the unit must be switched to generator power.

If the mobile unit is being transported, shore must be established as soon as possible.

Please refer to the OEM supplied literature, the list of local service representatives, or contact Oshkosh Specialty Vehicles for service. The OEM supplied literature and the list of local service representatives can be found in the product information binders that have been included with the mobile unit.

Generator Power is connected when the Power Indicator light is off…	
1.	Verify that the fuel tank has fuel.
2.	Verify that the power selector has been moved to the "Generator" position.
3.	Verify that the selector switch for the generator has been moved to the "Start" position.

Mobile Unit Transport Warning Light is on…

⚠ CAUTION 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:

Problem:		**Solution:**
The Platform Lift is not in the proper transport position.	1.	Make sure that the Platform Lift is seated in the cradles.
	2.	Make certain that the transport pins have been inserted.
	3.	If Emergency Air from the tractor is connected to the trailer, the Transport Warning Strobe light will also be activated. Ensure that #s 1 & 2 above have been accomplished.

Rear Suspension Transport Indicator Light is illuminated…

CAUTION If the Suspension Transport Indicator Light is on, the mobile unit must not be moved. If the mobile unit is moved without the rear air suspension functioning properly, irreparable damage can occur to the mobile unit.

If the Suspension Transport Indicator Light is on, the rear air bags/suspension of the mobile unit is not ready for transport. This light must be off before the mobile unit can be transported. Check the selector switch for the rear suspension

The selector switch for the rear suspension is located on the stabilizing / leveling leg control box.

If the valve is in the correct position and the light still appears a problem exists within the rear suspension. Please refer to the OEM supplied literature, the list of local service representatives, or contact Oshkosh Specialty Vehicles for service. The OEM supplied literature and the list of local service representatives can be found in the product information binders that have been included with the mobile unit.

Medical System Transport Warning Light is on…

CAUTION If the System 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 System 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:

Problem:		Solution:
The medical system is not in the proper transport position.	1.	Move the medical system into the proper transport position per the manufacturers supplied instructions.

If the medical system is in the proper transport position and the light still appears, a possible problem exists within the medical system. For additional information, please refer to the Oshkosh Specialty Vehicles VOL II Vendor Information binder for the product manual, the Oshkosh Specialty Vehicles VOL I Service/Operation Manual binder for a list of local service representatives, or contact Oshkosh Specialty Vehicles for service.

Hydraulic Lift is inoperable….

Please refer to the Oshkosh Specialty Vehicles VOL II Vendor Information binder for the product manual, the Oshkosh Specialty Vehicles VOL I Service/Operation Manual binder for a list of local service representatives, or contact Oshkosh Specialty Vehicles for service.

480V AC Fault Indicator Light is flashing…

CAUTION Do not attempt to operate the medical system while operating on generator power unless the onboard generator has been sized and configured for the purpose.

The 480V AC Fault indicator light is located inside of the mobile unit on the power supply control. If the 480V AC Fault indicator light is flashing, please refer to the following table.

The 480V AC Fault light indicates that:	What should be done:
The power is out of phase.	Disconnect from the power source that is causing the problem as soon as possible. If the power source is shore power, switch back to generator power Please refer to the OEM supplied literature, the list of local service representatives, or contact Oshkosh Specialty Vehicles for service. The OEM supplied literature and the list of local service representatives can be found in the product information binders that have been included with the mobile unit.
The power supply is subject to voltage that is either too high or too low.	
There are one or more phase problems.	

Humidity is out of specifications…

The humidity setting for the mobile unit is 35% RH (relative humidity). If the mobile unit is experiencing humidity levels outside of this range, either too low or too high, please refer to the following table.

Problem		Check for:	Solution:
The humidity inside of the mobile unit is too high.	1.	Check for exterior doors that have been left open during humid 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, check for any changes to the humidity levels.
	3.	Check to see if the humidifier is constantly running.	Verify that the humidifier is set at 35% RH (relative humidity). If the humidifier is still running constantly, contact Oshkosh Specialty Vehicles for service.
The humidity inside of the mobile unit is too low.	1.	Check for open exterior doors left open during arid 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, check for any changes to the humidity levels.
	3.	Check to see if the A/C disconnect is in the “OFF” position.	Turn the A/C disconnect to the “ON” position.
	4.	Check to see if the humidifier disconnect is in the “ON” position.	Move the humidity disconnect to the “ON” position and verify that the humidifier is set at 35% RH (relative humidity). If the humidifier is running and the humidity level does not change, a problem exists within the humidity system.

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 Penn Control settings are correct.	Verify that the Penn Control is at 72°F. Please contact Oshkosh Specialty Vehicles for further assistance.
Problem:		**Check for:**	**Solution:**
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 at 68°F. Please contact Oshkosh Specialty Vehicles for further assistance.

Appendix C: HVAC Set Points

CAUTION The HVAC system is critical to the operation and life of the equipment. The medical 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.

CAUTION 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 medical equipment.

Temperature Controller Settings

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 68°F. If the ambient temperature in the mobile unit reaches 68°F, the HVAC system will automatically start in order to warm the unit.

Humidity Settings

The humidistat set point is 35% relative humidity.

Appendix D: Circuit Malfunction Checklist

Category 1

Visual Checks – Check for the most common occurrences.

1. Is the mobile unit on shore power or under power via the full support generator?

Category 2

Component Checks – (some tools are required).

1. Check the emergency off button in Control Room. N.O.?
2. Check the emergency off button in Gantry Room. N.O.?

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: ***Siemens Emotion CT System***

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	120V AC room circuits	When servicing or performing installation inside specific sections of the trailer
Electrical	12V DC	When servicing the following: Generator, Slide-out, Platform Lift, Hydraulic Leveling, Digital Levels, Lights
Electrical	12V DC From Battery	When servicing the following: Generator, Platform Lift, Slide-out, Hydraulic Leveling, Digital Levels, Lights

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

Name/Department:	Location:
Production 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 120V AC	Wall switch or circuit breaker	208/120V AC Distribution panel for circuit breaker, wall switch for room circuits	Lock and tag with a Universal Wall Switch Lockout, Universal Circuit Breaker Lockout
Generator Power engaged when main power is lost	Generator Control Switch	Unit Power Control Panel.	Lock and tag with a Circuit Breaker Lockout attachment device
Electrical 12V DC From Converter / Battery Charger	Fuse	12V DC Power Converter / Battery Charger	Remove fuse and tag
Power to Lift Electrical 12V DC From Battery	Remove Battery Cables	On battery	Lock and tag with a Plug Lockout attachment device
Medical System Siemens Emotion CT	Circuit Breaker	480V AC Distribution Panel	Lock and tag with or without lockout hasp
Air Conditioning System	Circuit Breaker	480V AC Distribution Panel	Lock and tag with or without lockout hasp
Heating System	Air Conditioning Circuit Breaker	480V AC Distribution Panel	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 _____					

OSHKOSH SPECIALTY VEHICLES

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: _____