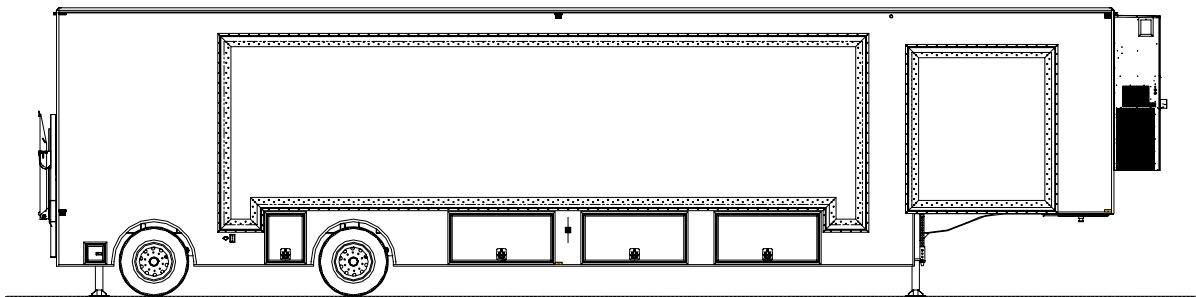


Operator and Service Manual

Royal Clinics Mobile Dental Unit 14'-5" H x 10'-0" W x 53'-0" L USA



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List of Revisions & Warnings

Revisions

00	New Release	August 2007
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Notice

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

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

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

Volume II – Vendor Information

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

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

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Warnings & Safety Alert Conventions

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

NOTE:

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



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



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



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



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



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



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

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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.

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.

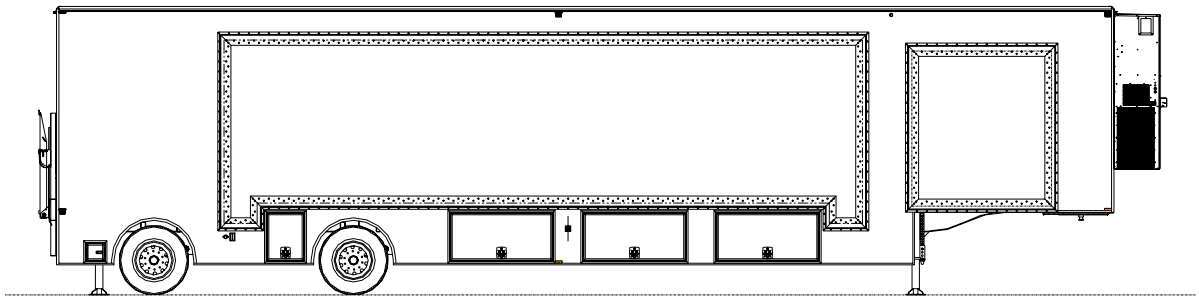


Figure 1: The Royal Clinics Mobile Dental Unit



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

Section 2: Safety Guidelines



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



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



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



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



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



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



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

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

2.1 Operator's General Safety Precautions

- Your safety and the safety of other persons in the area of this vehicle are the result of your correct operation of this vehicle. Know the location, positions, and functions of all the controls. Know the meaning of the various Warning, Caution, Strobe, and Annunciator lights and their associated audible warning sounds.
- Read this manual completely and make sure you understand the contents. Make sure you understand, for example, the characteristics of speed, stability, brakes, and steering, etc. of this vehicle. If you have any questions, contact Oshkosh Specialty Vehicles, (800) 839-0630. Always keep a copy of this manual with the vehicle.
- The safety information in the manual does not replace any other rules or laws for safety that are used in your area, Know the local rules or laws for safety. Make sure that your vehicle has the correct equipment to operate according to these rules or laws.
- All safety hazards that can possibly arise cannot be foreseen and noted in this manual. You must always use common sense and apply the general as well as the specific safety precautions.
- Make sure the work area is well ventilated.
- Disconnect the electrical power to prevent the possibility of electrical shock when servicing all electrical equipment.
- Follow all manufacturers' directions and request material data sheets where applicable.
- Always keep tools clean and free of grease.
- Do not stand on chairs inside of the mobile unit under any circumstances.
- Follow all safety precautions found in the documentation package that is included with the mobile unit.

2.2 Electrical Safety



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



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



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



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

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

2.3 Transportation Safety

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



Section 3: Safety Systems

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

3.1 Emergency Lighting

In the event that the main AC power fails, three dual beam emergency lights are provided in the Dental Operator, Dental Lab, and Soiled Rooms. These lights will automatically illuminate when the main AC power is lost. The emergency lighting system is wired into a 127V AC electrical system that allows the lights internal circuitry to keep their batteries at 100% charge. The emergency lights will illuminate the exit doors last for approximately 90 minutes.



[Figure 2: Emergency Lighting \(Typical\)](#)

3.2 Fire Suppression (manual)

Three 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.



Figure 3: Fire Extinguisher

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

3.3 Marker Lights

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

3.4 Warning Lights

Please Refer to [Section 11: Lighting System](#) for additional information in regards to these systems.

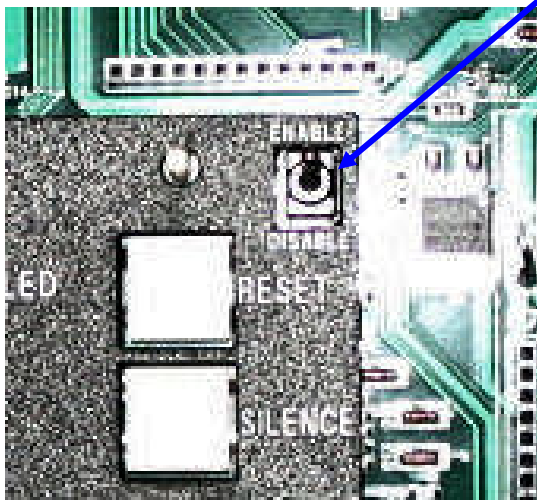
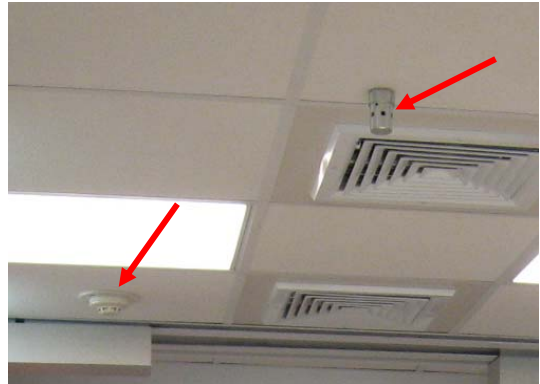
3.5 Fire Suppression System (Optional)

This fire suppression system uses a dispersant to extinguish the fire. The dispersant used is a gas that removes the oxygen from the interior of the mobile unit. Without oxygen, the fire cannot survive. This method provides the means to allow both personnel and property to escape the damage from the fire virtually unharmed. When the fire suppression system has been triggered, it will automatically shut down the medical system, and the HVAC system.



Figure 4: Smoke / Carbon Monoxide Detector

Ecaro 25 Fire Suppression System



Refer to Systems Operation section following the Control Alarms section.

Figure 5: Fire Suppression Components



Manual Release Switch



System Abort Switch

Figure 6: Alarm Controls

3.6 Control Alarms:

Manual Release Switch:

The manual release switch is a dual activation device which provides a means of manually discharging the automatic fire extinguishing system when used in conjunction with the Fike Control Panel.

To operate the Manual Release Switch pull the spring clip safety pin (breaking the seal) and depress the button. The switch will remain engaged until released by unlocking the button with a key.

System Abort Switch:

The System Abort Switch is designed to be used in conjunction with other system equipment. It provides a temporary manual means by which the system actuation circuit may be interrupted, when operated prior to the circuit actuation. The unit employs a momentary contact switch. While depressed, the switch causes the agent release circuit to be manually delayed. Upon release of the System Abort Switch, the release circuit will follow the specific configuration of the system control panel.

System Operation: Typical Alarm Operation

Upon alarm of a first detector, system enters alarm state. Typical response includes:

Piezo:	Chirp (On & Off pattern) until silenced.
Alarm LED:	Flash. After silencing, illuminate steady.
Alarm Relay	Activate.
Alarm Audible :	Activate until silenced.

Upon alarm of a second detector meeting the cross-zone or sequential alarm detection criteria (or alarm of the first SDR detector), system enters pre-discharge state.

Typical response changes to:

Piezo:	Chirp (On & Off pattern) until silenced.
Pre-discharge LED:	After Silencing, illuminates steady.
Pre-discharge Relay:	Activate. Alarm relay also remains active
Alarm Audible:	Activate until silenced.
Pre-discharge Audible:	Activate until silenced.

Upon completion of pre-discharge countdown (or activation of a manual release), system enters release state. (**30 seconds before discharge**)

Typical response changes to:

Piezo:	Chirp (On & Off pattern) until silenced.
Release LED:	After Silencing, illuminates steady.
Pre-discharge LED:	OFF.
Pre-discharge Audible:	Activate (unsilence if silenced)
Release Audible:	Activate until silenced.
Release Circuits:	Activate AgtRel or solenoid circuit.

Upon activation of the Abort Switch, system responds with a trouble condition if it is not a valid abort time.

While activated during a valid abort time, typical system response includes:

Piezo	
Abort LED:	
Abort Relay:	
Count-down timer:	
Pre-discharge Audible:	Unsilenced upon deactivation of Abort Switch, if pertinent.

NOTE: During activation of multiple events, Piezo priority is alarm over supervisory over trouble.

Alarm events are latching and require the operator to reset the panel to clear the event.

Manual Release Switch

The Manual Release Switch is a dual activation device which provides a means of manually discharging the automatic fire extinguishing system used in conjunction with the Fike Control Panel



Figure 7: Manual Release Switch

Manual Release

In the event that the control panel is not receiving power, a manual release has been provided on the dispersant tank. To operate the Manual Release Switch pull the spring clip safety pin (breaking the seal) and depress the button. The switch will remain engaged until released by unlocking the button with a key.

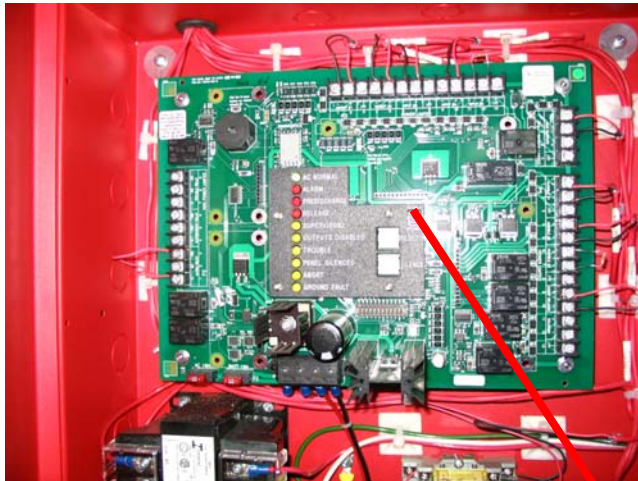
Maintenance Switch

IMPORTANT

After all service work has been completed on the mobile unit, all smoke must be cleared from the mobile unit before arming the system.

IMPORTANT

If the key switch is in the active position and the red LED is illuminated, a trouble condition exists somewhere in the system. Refer to the system control panel for information.



When the maintenance switch is in the active position, the green LED will be illuminated signifying all systems are armed and functioning correctly.

When the maintenance switch is in the inactive position, the red LED will illuminate signifying that the system is unarmed. At this time, maintenance can be performed on the mobile unit as required.

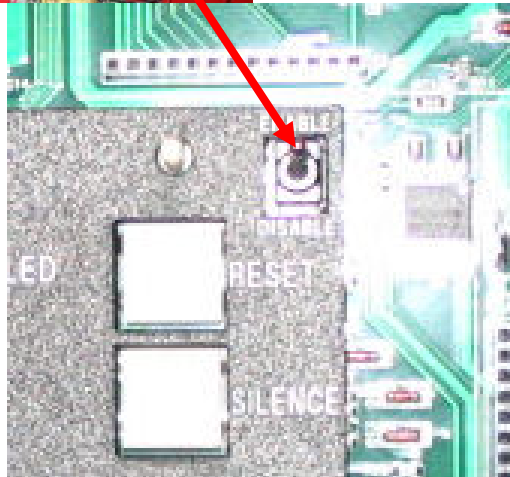


Figure 8: Maintenance Switch



Section 4: Mobile Unit Overview

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

4.1 Air Ride Control Switch



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.

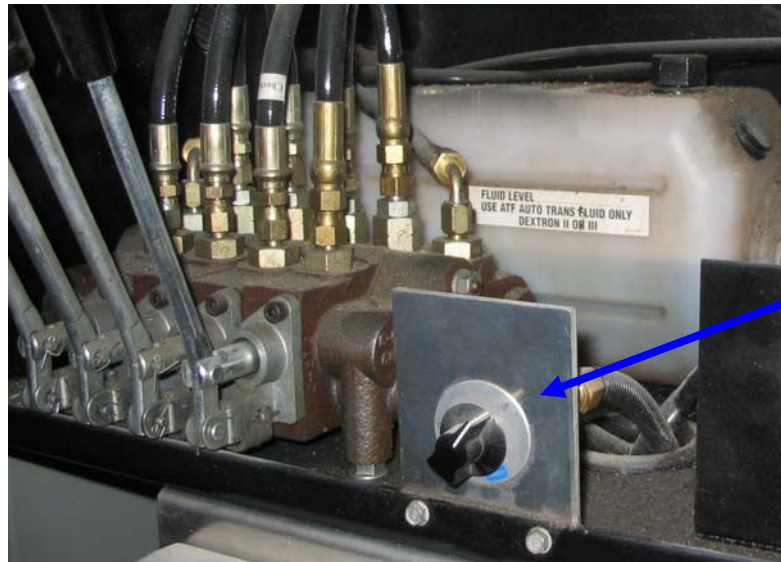


Figure 9: Air Ride Control Switch

4.2 Automatic Transfer Switch (ATS)

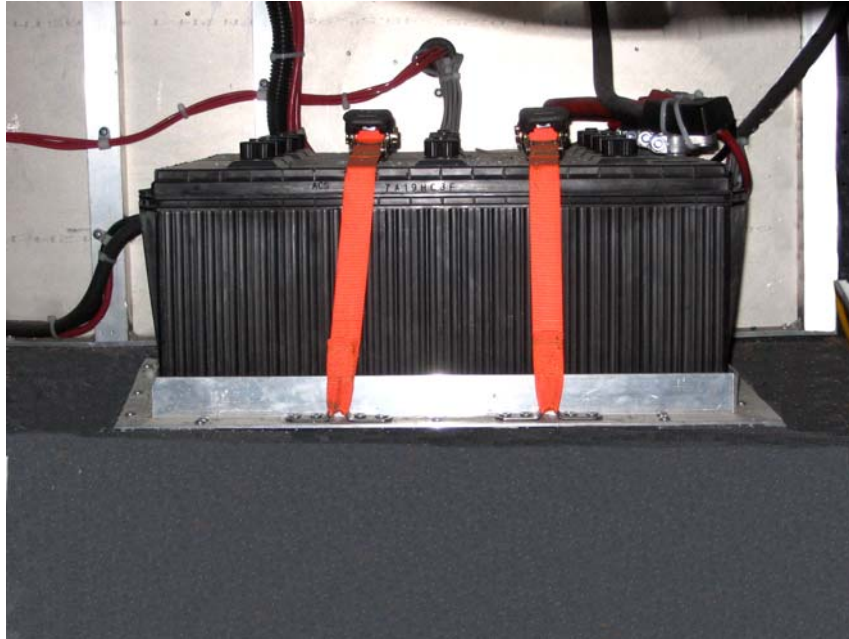
The ATS monitors the incoming power to the Dental Unit. In the event that Facility Power Source or shore power faults, the ATS will automatically disconnect the shore power, start the tractor mounted generator and switch to the tractor mounted generator for power. The shore power must be connected directly into the ATS cam-lock connectors as shown in [Figure 10: Automatic Transfer Switch \(ATS\)](#) below. The tractor mounted generator must also be connected to the unit at the cam-lock connectors at the front of the trailer as shown in [Figure 14: Generator Cam-lock Connectors](#).



Figure 10: Automatic Transfer Switch (ATS)

4.3 Batteries Overall

The right front underbody compartment houses the 12V DC battery system components that support the Hydraulic system. In this compartment, the batteries and battery disconnect can be found.



Batteries

Figure 11: Battery Compartment Overall

4.4 Canopies

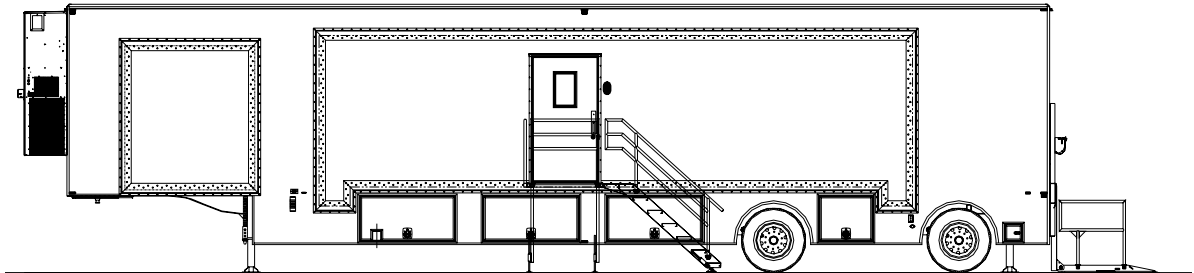
The retractable canopies are positioned above the platform lift and stair platform to provide shelter from the elements. The handle used to deploy the canopy is neatly stowed in Vacuum Closet during transit.



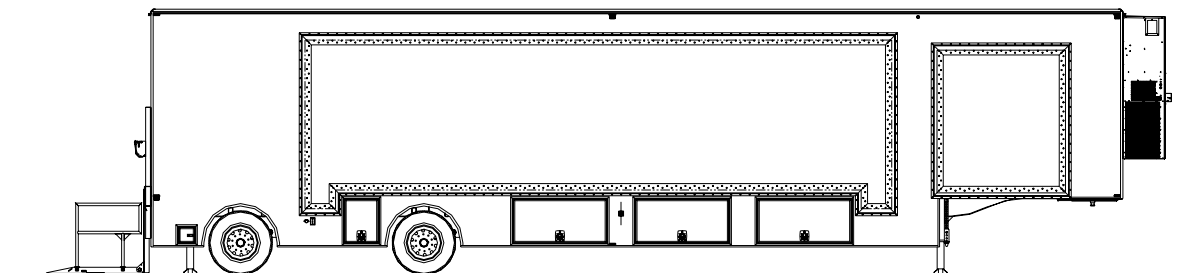
Figure 12: Canopy (Typical)

4.5 Exterior Overall

In these illustrations the storage and maintenance access doors, entry doors, platform lift and the air conditioner housings can be seen.



Left Side



Right Side

Figure 13: Exterior Overall

4.6 Generator Power Connections

The Generator Power Connectors are the electrical power connection point between the tractor generator and the mobile unit. All connections must be made in order for the ATS to function properly when connected to shore power. The Generator Power Cam-lock Connectors are located at the front left side of the trailer as show below.



Figure 14: Generator Cam-lock Connectors

4.7 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.



Figure 15: Glad Hand Connections

Emergency Airline:	Backup airline in the event that the main airline fails.
Service Airline:	The main airline for the mobile unit.
Standard Electrical Connector	Connects the tractor electrical controls to the trailer

4.8 Levels, Digital

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



Figure 16: Digital Levels

4.9 Mechanical Room Overall

The Mechanical Room is located in the front section of the trailer and houses some of the system components that support the Dental Unit. In this room, the Humidifier and Humidistat can be found, along with the Air Conditioning system, and the Ecaro-25 Fire Suppression System Tank. This room also serves as the return air plenum for the HVAC System providing air filter maintenance access.



Figure 17: Mechanical Room Overall

4.10 Mobile Unit Controls

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

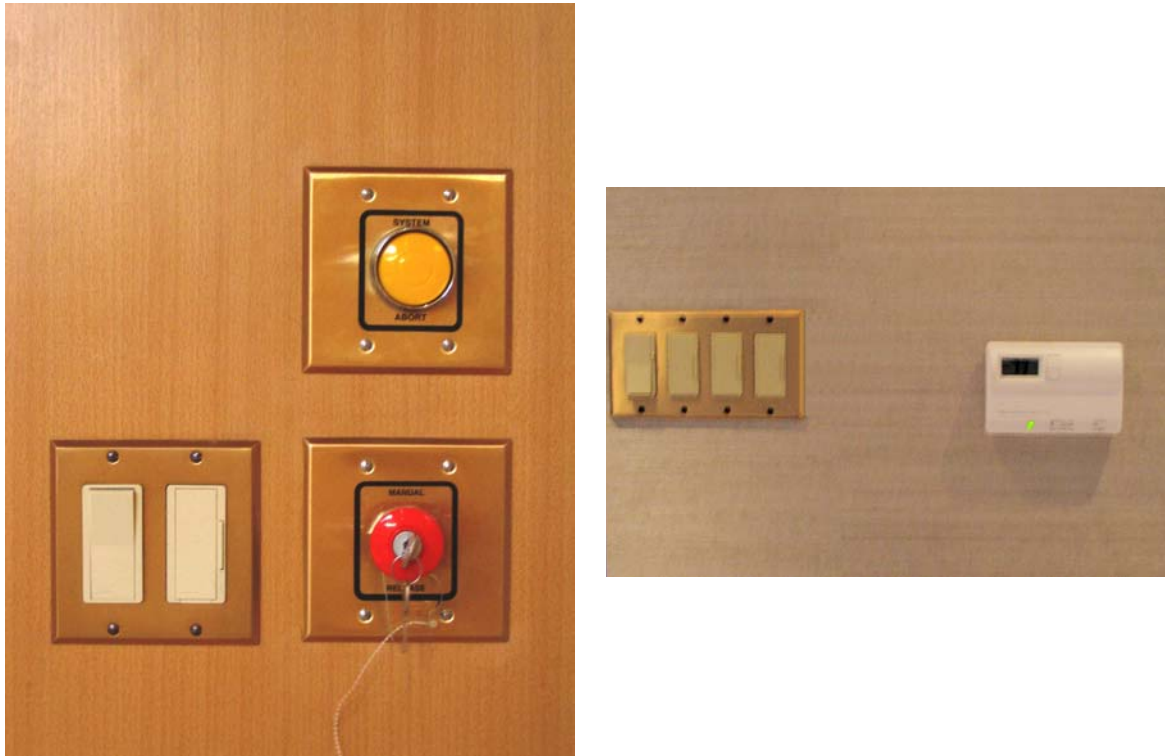


Figure 18 Mobile Unit Controls

Interior Light Switches:	ON / OFF light switch for interior lights.
Exterior Light Switches:	ON / OFF light switch for the exterior lights.
Thermostat	Used to control the temperature inside the unit.
Fire Suppression Abort Switch	Used to temporarily abort the fire suppression system to allow more time for occupants to exit the unit.
Fire Suppression Manual Release Button	Used to immediately discharge the extinguishing agent in the event of an uncontrollable fire.

4.11 Stabilizing Legs, Rear

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



Left Side Safety Leg Pin Access



Right Side Safety Leg Pin Access



Left Side



Right Side

Figure 19: Rear Stabilizing Legs

4.12 Stabilizing Legs, Front Landing

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



[Figure 20: Front Stabilizing Legs](#)

4.13 Stabilizing Leg Control Panel

The Front Landing / Stabilizing legs and Rear Stabilizing legs are controlled by a hydraulic system. The control panel is located in the left forward underbody compartment.



Figure 21: Stabilizing Leg Control Panel

4.14 Stair Assemblies

The stairs allow access to the interior of the mobile unit through the door in the left side slide-out. Access to the trailer is also available from the rear using the Platform Lift.



Left Side Stair Assembly

Figure 22: Stair Assemblies

4.15 Fresh Water Tank

The 50 gallon fresh water storage tank for the Dental Unit and humidifier is located in the right side lower compartment.

The photo at the right shows the Fresh Water Tank and the Hot Water and Cold Water manifolds.

The photo below left shows the water pump, accumulator, 5 micron Filter, and UV Sanitizer.

The photo below right shows the Hot Water Heater.

The fresh water tank must be refilled daily. If the fresh water tank is empty, the fresh water pump power is interrupted.

The waste tank must also be drained daily. If the waste tank is full, the fresh water pump power is interrupted.

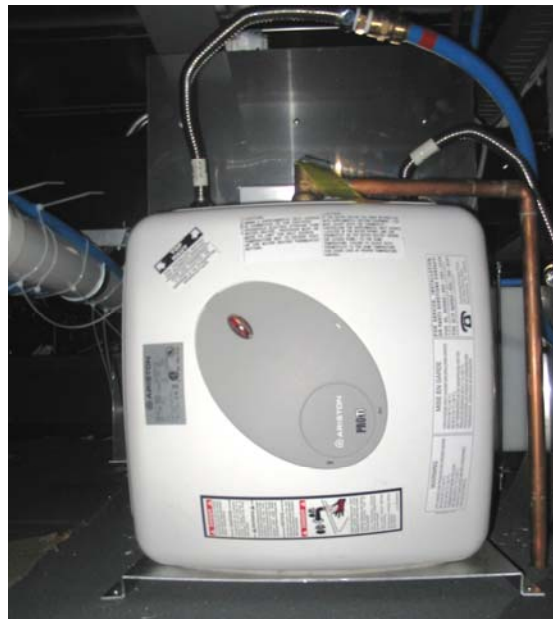


Figure 23: Fresh Water System

4.16 Waste Water Tank

The 70 gallon waste water tank collects all of the waste water from the Dental Unit. It is located in the right side center underbody compartment. The drain connection is located inside the underbody compartment door. The waste tank should be drained into a suitable sewer system drain each time the fresh water tank is refilled.

The fresh water tank must be refilled daily. . If the fresh water tank is empty, the fresh water pump power is interrupted.

The waste tank must also be drained daily. If the waste tank is full, the fresh water pump power is interrupted.

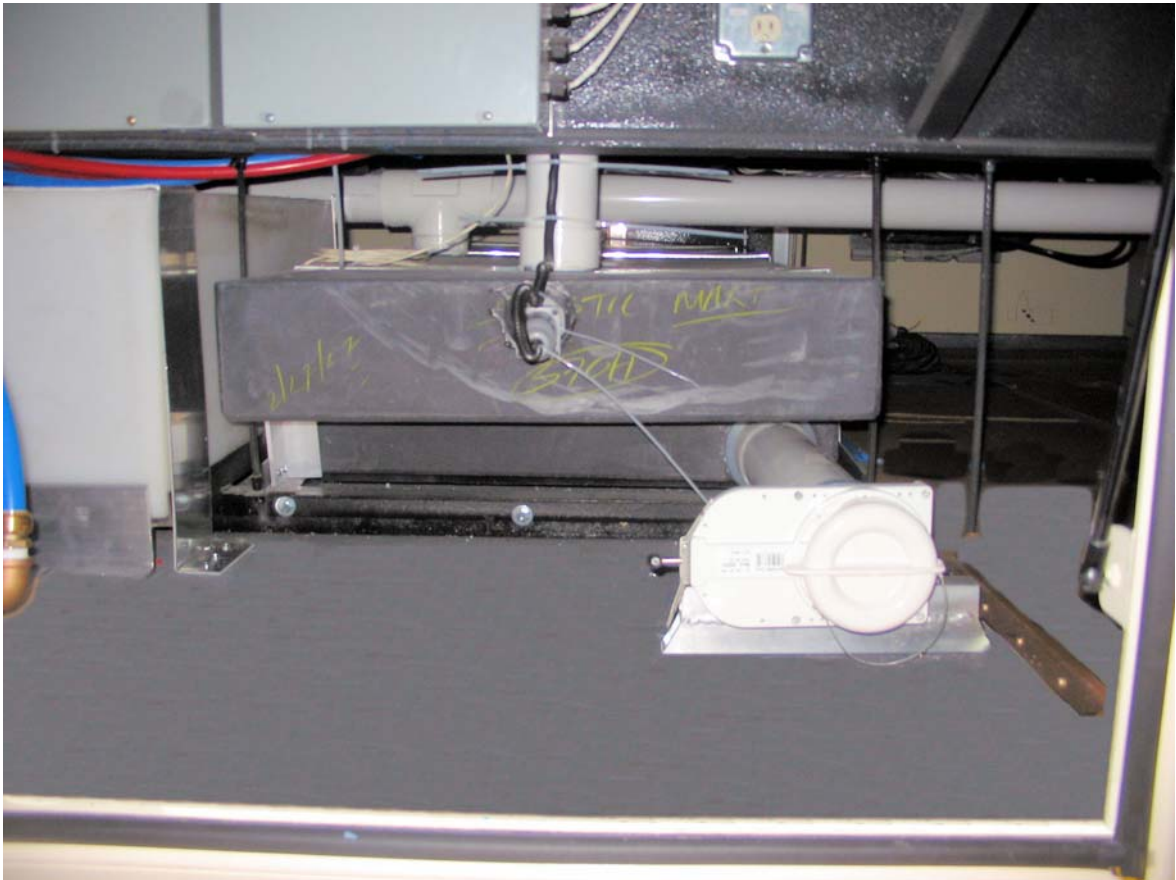


Figure 24: Waste Water Tank



Section 5: Mobile Unit Setup Procedure



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.



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

Place the unit on the pad per the site-planning guide. Set the trailer parking brake.

5.2 Lower the Landing / Stabilizing Legs

After the mobile unit has been parked on the pad per the site-planning guide, the landing / stabilizing legs must be lowered to stabilize the mobile unit before it can be used. Refer to [Figure 35: Front 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 / stabilizing 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 landing / 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 Lower the Rear Stabilizing Legs



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.

After the tractor has pulled from the mobile unit, the rear stabilizing legs can now be lowered into position. When lowering the rear stabilizing legs, lower them the minimum amount to level the mobile unit. Each stabilizing leg is extended and retracted individually. Refer to [Figure 9: Air Ride Control](#) and [Figure 19: Rear Stabilizing Legs](#) for the following procedure.

1. Open the left side front underbody compartment door to gain access to the air ride controls.
2. Turn the switch to the “DOWN” position to deflate the air bags.
3. Extend the rear stabilizing legs enough to level the unit.
4. Verify that the unit is level by checking the levels.

5.5 Re-level the Mobile Unit

After the preceding steps have been completed, the mobile unit may no longer be level. Re-level the unit if necessary using the levels that have been provided. Refer to [Figure 16: Digital Levels](#) if needed. Set the trailer brakes.

5.6 Disconnect the Tractor Air and Electrical Lines



Failure to completely exhaust the suspension before uncoupling the air lines 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 15: 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 35: Front Stabilizing Leg Assembly](#) for the following procedure.

1. Remove the pin that is currently holding the safety 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 Connect Tractor Generator Power Cable

Connect the Tractor Generator Power Cable to the cam-lock receptacles at the front of the trailer.



Figure 25: Generator Power Cable to Trailer Cam-lock Connectors

5.9 Connect to Shore Power (if available)

Refer to [Figure 29: 220V AC Phase Power Monitor](#) for the following procedures.



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.



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



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

1. Verify that the shore power disconnect is in the “OFF” position.
2. Open the right front underbody compartment door and remove the power cable from the underbody compartments of the mobile unit.
3. Connect the Oshkosh Specialty Vehicles supplied cable bare ends to the shore power terminals as required.
4. Insert the Oshkosh Specialty Vehicles supplied connectors into the underbody trailer receptacles at the side of the ATS. See [Figure 10: Automatic Transfer Switch \(ATS\)](#) for location.
5. Move the shore power disconnect to the “ON” position.

Note: The Phase Power Monitor checks the Load Side incoming power to ensure that it has the correct phase rotation (ABC) and that all three phases are present. If all three phases are present and in the correct rotation, the 220 VAC Light, on the monitor, will illuminate.

If any phase is not present or if the phase rotation is not correct, the 220 VAC Fault Light will illuminate, and a piezo-electric horn will sound. Disconnect shore power immediately and investigate to determine the cause of the fault. See paragraph 7.2.

NOTE: If shore power is not available, the power may be switched to the 60KVA generator on the rear of the tractor.

6. Close the underbody compartment doors.

5.10 Extend the Rear Slide-outs

After the trailer has been leveled, the slide-outs for the mobile unit can now be extended. See [Figure 26: Rear Slide-out Remote Control Pendant](#) below.



Figure 26: Rear Slide-out Remote Control Pendant

1. Verify that the underbody compartment doors are closed and that no obstacles are in the path of the slide-outs.
2. Retrieve the slide-out remote control pendant from the left rear lower compartment.
3. Plug the connector into the socket in the side wall at the rear of the slide-out.
4. Press and hold the switch to the "OUT" position to extend the left side slide-out.
 - a. When the slide-out is retracted, the "RED" status light will be illuminated.
 - b. When the "OUT" button is depressed, the "YELLOW" status light will illuminate. This indicates that the slide-out travel clamps are powered and being disengaged from the trailer frame. This takes about ten (10) seconds, then the slide-out will begin to extend.
5. When the slide-out is fully extended, the "GREEN" status light will illuminate indicating that the slide-out is extended.
6. Unplug the remote control pendant and plug it into the socket on the right side wall to the rear of the right slide-out.
7. Extend the right side slide-out following the steps outlined above for the left slide-out.
8. Verify that the slide-outs are in the extended position, "GREEN" light illuminated.

5.11 Extend the Front Slide-outs

After the rear slide-outs have been extended, the front slide-outs for the mobile unit can now be extended. Refer to [Figure 18 Mobile Unit Controls](#) for procedure.

1. Press and hold the "Left Wall Open" rocker switch to extend the left front slide-out.
2. Press and hold the "Right Wall Open" rocker switch to extend the right front slide-out.

5.12 Install the Stair Assembly

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

Left Side Stair Assembly

1. Remove the all stair assemblies from the trailer.
2. Install the clip of the platform assembly platform into the channel located underneath the door and adjust the legs to level the platform.
3. Install the clip of the stair assembly into the channel located on the rear side of the platform.
4. Adjust the height of the stair legs as necessary to in order to level and secure the stairs.
5. Install the handrails into their operating positions and secure it in place with the hardware provided.

5.13 Platform Lift Deployment

After the stair assembly has been installed, the hydraulic platform lift can be deployed for use. Please refer to [Section 9: Platform Lift](#) for the following procedure.

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 that is located on the right side of the platform lift.
5. Remove the Lift Transport Restraining cable.
6. Remove the transport pins from each side of the lift.
7. Raise the lift high enough to clear the cradles, using the remote.
8. Carefully pull down the platform until it is parallel with the ground. A torsion bar is located within the hydraulic platform lift hardware that will enable one person to move the lift into operating position.
9. Lower the platform to the ground, using the lift control pendent.
10. Once the platform has been lowered, install the handrails and secure them with the hardware provided.

5.14 Remove Restraining Hardware and Position Equipment for Use.

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

- The first type deals with the restraints that are used by the Dental equipment manufacturers. Follow all instructions provided by the equipment manufacturers when adding or removing restraints from the equipment. These instructions can be found in the system manuals provided by the equipment manufacturers.
- The second type deals with the restraints that are used by the mobile unit manufacturer. Various items may be secured while the unit is being transported. These items may consist of chairs, monitors, kiosks, tables, and lighting equipment. Remove all restraining equipment prior to using the systems.

5.15 Fill Toilet

To prevent water from splashing out of the toilet tank during transport, the toilet tank was emptied and the water turned off at the toilet tank.

1. Turn "ON" the water feeding the toilet at the valve below the toilet tank.
2. After the tank fills, flush the toilet to ensure that the bowl fills properly.

5.16 Check the Generator Fuel Level.

Check the generator fuel level. Refuel, if required.

5.17 Check the Fresh Water Level.

Check the fresh water level. Refill, if required.

5.18 Close and Lock all Underbody Compartment Doors.

Close and lock all underbody compartment doors for security.

5.19 Canopy Deployment

To deploy the canopy, please follow the instructions below and refer to [Figure 12: Canopy](#).

1. Remove the handle from Vacuum Closet.
2. Insert the hook of the handle into the hole of the canopy crank mechanism.
3. Turn the handle in order to deploy the canopy.
4. After the canopy has been deployed, return the handle to its storage position inside of Vacuum Closet.



Section 6: Mobile Unit Transport Procedure



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



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.



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



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

6.1 Secure all Equipment



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

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

- The first type deals with the restraints that are used by the Dental equipment manufacturer. Follow all instructions provided by the equipment manufacturer when applying restraints to the equipment. These instructions can be found in the system manuals provided by the equipment manufacturer.
- The second type deals with the restraints that are used by the mobile unit manufacturer. Various items must be secured prior to transporting the mobile unit. Such items may consist of chairs, monitors, kiosks, tables, and lighting equipment, stairs, platforms, handrails etc. Use the supplied restraining hardware to secure these items before transporting the mobile unit.
- Relocate all equipment in the slide-out areas to the center of the trailer and secure in place with applicable restraining devices.

6.2 Secure Toilet

To prevent water from splashing out of the toilet tank during transport, the toilet tank should be emptied following the procedures outlined below.

1. Turn off the water feeding the toilet at the valve below the toilet tank.
2. Flush the toilet to empty the toilet tank for transport.

6.3 Canopy Retraction

If the canopy option has been installed on the mobile unit, the canopy can now be retracted. Please follow the instructions below and refer to [Figure 12: Canopy](#).

1. Remove the handle from Vacuum Closet.
2. Insert the hook of the handle into the hole of the canopy crank mechanism.
3. Turn the handle in order to retract the canopy.
4. After the canopy has been retracted, return the handle to its storage position inside of Vacuum Closet.

6.4 Remove and Store the Platform and Stair Assembly

The stair assemblies can be taken down easier with two people. The instructions are covered below.

1. Close and lock the door with the key that is provided.
2. Remove the stair and platform assembly from the trailer.
3. Store the stair and platform in the lower compartment.
4. Store the handrails in the lower compartment.

6.5 Retract the Front Slide-outs

Before the rear slide-outs are retracted, the front slide-outs for the mobile unit must first be retracted. Refer to [Figure 18 Mobile Unit Controls](#) for procedure.

1. Press and hold the "Right Wall Closed" rocker switch to retract the right front slide-out.
2. Press and hold the "Left Wall Closed" rocker switch to retract the left front slide-out.

6.6 Retract the Slide-outs

Before the tractor is connected, the slide-outs for the mobile unit must now be retracted.

1. Verify that the underbody compartment doors are closed and that no obstacles are in the path of the slide-outs.
2. Install the tie down straps used to hold the chairs and other equipment in place for transport.
3. Retrieve the slide-out remote control pendant from the right rear lower compartment.
4. Plug the connector into the socket in the side wall at the rear of the slide-out.
5. Press and hold the switch to the "IN" position to retract the right side slide-out.
 - a. When the slide-out is extended, the "GREEN" status light will be illuminated.
 - b. When the "IN" button is depressed, the "YELLOW" status light will illuminate. The slide-out will immediately start to retract. When the slide-out is fully retracted, the slide-out travel clamps are powered and being reengaged into the trailer frame for transport. This takes about ten (10) seconds then the slide-out is secure and ready for transport.
 - c. When the slide-out is fully retracted, the "RED" status light will illuminate indicating that the slide-out is fully retracted and the travel clamps are engaged.
6. Unplug the remote control pendant and plug it into the socket on the left side wall to the rear of the left slide-out.
7. Retract the left side slide-out following the steps outlined above for the right slide-out.
8. Verify that both slide-outs are in the retracted position, "RED" light illuminated.

6.7 Return the Platform lift to the Transport Position

Please refer to [Section 9: 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 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. Remove the remote control pendent from the socket and lock the access door to the platform lift controls.
7. Connect the Lift Transport Restraining 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.

6.8 Disconnect from Shore Power (if connected)

1. Move the shore power disconnect to the "OFF" position.
2. Remove the power cable from the shore receptacle and store in the cable storage compartment.

NOTE: If the generator is still connected to the trailer, it will start and automatically restore power to the unit.

6.9 Raise the Auxiliary Support Legs

1. Please refer to [Section 10: Stabilizing Legs](#), for the following procedure.
2. Remove the pins holding the front and rear auxiliary support legs in the locked positions.
3. 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.
4. Make sure this has been done for all auxiliary support legs. Failure to do this can damage the stabilizing legs when they are retracted.

6.10 Connect the Tractor Air and Electrical Lines

The air and electrical lines must be connected from the tractor to the mobile unit before the unit can be moved. Please refer to [Figure 15: 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.

6.11 Raise the Rear Stabilizing Legs

Each stabilizing leg is extended and retracted individually.

1. Open the left side front underbody compartment door to gain access to the air ride controls and hydraulic controls.
2. Retract the rear stabilizing legs.
3. Turn the switch "ON" and place the lever in the "UP" position to inflate the air bags.
4. Retract the rear stabilizing legs completely.

6.12 Connect the Tractor to the Mobile Unit

Before connecting the tractor to the mobile unit, be certain that enough clearance has been left for the fifth wheel. If the fifth wheel cannot fit underneath the mobile unit, the front end must be raised. If it is necessary to raise the front of the mobile unit to clear the fifth wheel, please follow the steps below. Each stabilizing leg is extended and retracted individually. Refer to [Figure 35: Front Stabilizing Leg Assembly](#) for the following procedure.

1. Extend both of the front stabilizing legs to their extended position.
2. Extend the legs far until the front of the unit has been raised high enough to clear the fifth wheel.
3. Back the tractor under the unit to connect the fifth wheel.

6.13 Raise the Front Stabilizing Legs

After the tractor has successfully connected to the mobile unit, the stabilizing legs can be raised. Each stabilizing leg is extended and retracted individually. Refer to [Figure 35: Front Stabilizing Leg Assembly](#) for the following procedure.

1. Retract the front stabilizing legs.
2. Move the switch to the "UP" position to inflate the air bags for normal ride.
3. Close the underbody storage compartment door.

6.14 Verify that the Mobile Unit is ready for Transport

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

- Have the chairs, stools, monitors, tables, platforms, handrails, and stairs been secured? Make sure that all of these items have been secured with the supplied hardware prior to transporting the mobile unit.
- Are all exterior doors closed and locked? If not, make sure that all exterior doors are closed and locked.
- Are all running & marker lights working correctly? If not, replace any bulb that is not working before transporting the mobile unit.
- Are any warning lights illuminated? If so, check to find the cause of the warning. Do not move the mobile unit if any warning lights are illuminated. If further assistance is needed, refer to the Oshkosh Specialty Vehicles Vendor Information binder for a list of local service representatives or call Oshkosh Specialty Vehicles for further assistance.
- 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 18" above ground level.



Section 7: Electrical System



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



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



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



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

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

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

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

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

There are several panels used in the electrical system.

One 220V AC electrical distribution panel that is located at the right of the mobile unit in the Mechanical Room. This panel controls power distribution to the air conditioning and heating components and the Air Compressor aboard the mobile unit.

One 220/127V AC distribution panel that is also located at the right side of the Mechanical Room in the mobile unit. This panel controls power distribution to all other AC powered components aboard the mobile.

7.1 220/127V AC Electrical Panels

The 220/127V AC electrical panels are responsible for the power supplies to the equipment aboard the mobile unit. If a problem exists with the equipment, or the power supply to them, a circuit breaker will trip in order to prevent damage. On the inside of the panel access door, a listing of all the circuit breakers can be found.



Figure 27: 220/127V AC Electrical Panels



Trailer Underbody Power Connections

Figure 28: Shore Power Connectors

7.2 220V AC Phase Power Monitor



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

The other Power Monitor is connected to the Load Side and monitors both shore power and generator power to ensure that it has the correct phase rotation (ABC) and that all three phases are present. If all three phases are present and in the correct rotation, the 220 VAC Light, on the monitor, will illuminate.

If any phase is not present or if the phase rotation is not correct, the 220 VAC Fault Light will illuminate, a piezo-electric horn will sound. Disconnect the power immediately and investigate to determine the cause of the fault.



Figure 29: 220V AC Phase Power Monitor

7.3 Facility Power Connection

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

- Oshkosh Specialty Vehicles Connector: The plug that is provided by Oshkosh Specialty Vehicles for connection to the shore power receptacle.
- Power Cable: The cable that runs between the shore power connections and the 220V 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:	200 A disconnect

Receptacle	
Manufacturer:	Leviton
Model:	Ground – #16R21-G, Green, Male L ₁ – Phase "A" – #16R22-E, Black, Female L ₂ – Phase "B" – #16R22-R, Red, Female L ₃ – Phase "C" – #16R22-B, Blue, Female Neutral – #16R21-W, White, Male
Ampere Rating:	200 A

7.4 Power Cable

Descriptions:	Specifications
Service Amps:	200 A
4 Wire:	3 pole plus neutral and ground
Power Plug	Leviton Ground – Leviton #16D31-G, Green, Female L ₁ – Phase "A" – Leviton #16D22-E, Black, Male L ₂ – Phase "B" – Leviton #16D22-R, Red, Male L ₃ – Phase "C" – Leviton #16D22-B, Blue, Male Neutral – Leviton #16D31-W, White, Female
Cable:	200 A, a #1/0-2/0, 600V – 2000V, 90° C, 150'-0" (45.72m) long

7.5 Tractor Mounted Generator



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



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



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



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



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.



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



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



The ATS will automatically transfer to Shore Power when connected to a viable power supply and shut down the generator unit. In the event of a Shore Power fault, the ATS will automatically start the generator unit and transfer power to the generator.



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

The tractor mounted generator is a Kohler 60 KW, 220/127V AC, 3 Phase, 60 Hz, ABC Phase Rotation, 199 Amps Standby, and 181 Amps Prime.

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 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 of dirt and debris.

For additional information, refer to the Oshkosh Specialty Vehicles VOL II Vendor Information binder for the product manual.





Figure 30: Generator

- 127V 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.



Section 8: HVAC System



Figure 31: A/C Unit

The air conditioning unit is used to maintain the internal environment of the mobile unit. The air conditioner comes from the factory preset to the specifications required by the Mobile Dental Unit Printing System manufacturer. Under no circumstances should the factory presets be changed or altered from their factory setting. Irreparable damage can occur to the 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, lower compartment doors, computer doors, partitions, and damper settings, must be in the intended positions before running the Dental equipment.

In order to ensure proper operation of the HVAC system at all times, refer to [Section 12: General Maintenance](#) and [Section 13: Specific Maintenance](#).

8.1 System Specifications and Descriptions

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

The HVAC system utilizes forced air.

The HVAC utilizes electricity as the source of power.

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

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

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

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

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

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

The heating system is an integral part of the air conditioning system.

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

8.2 Exterior HVAC Specifications

The HVAC system is designed to work within certain limitations. The ambient exterior temperatures must be within the range of 0°F to 130°F (-18°C to 54°C).

Turn the A/C unit "ON" or "OFF" using the circuit breakers in the 220V AC Distribution Panel.

8.3 Interior HVAC Specifications

The air conditioners have a combined cooling capacity of 144,000 BTUH. The temperature in the unit is maintained at approximately 70°F with an acceptable range of 68° to 75°F. Both air conditioned and heated air is distributed through an insulated duct which starts at the discharge side of the air conditioner.

A thermostat is provided to help regulate the heat. The controller incorporates a preset sensor, which activates heat strips in the air conditioning unit. The heat will activate when the temperature drops below 68°F. When the temperature rises above this setting, the heat strips will deactivate. The controller is located in the in the return air duct vent.

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

Air Filtration

The first stage of air filtration is a 30% preliminary filter. This stage is designed to filter out large particulates, for example; sand dust, dirt, or leaves. These filters are expendable and accessible at the front of the A/C units for regular replacement. Filter sizes are 18" x 24" x 2" (two required per HVAC unit), four (4) total per trailer.

The second stage or filter is a 60% secondary filter. This stage is designed to filter out smaller particulates. These filters are easily accessible through access doors in the A/C source air plenum inside the front mechanical room. Filter sizes are 12" x 24" x 2" Hi Capacity M11 Pleated, Model 2005.021224.2. One filter per HVAC unit is required, two (2) total per trailer.

Air Flow

The HVAC system is also designed to provide up to 20 air exchanges an hour in the unit. This value exceeds the American Institute of Architects (AIA) guidelines for air flow of 15 exchanges an hour.



Section 9: Platform Lift

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 and a maximum height of 52”.

In the illustrations below, the platform lift can be seen in various stages.

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



Lift Up without Handrails



Lift Lowered without Handrails



Lift Lowered with Handrails



Lift Up with Handrails

Figure 32: Platform lift Progression

In the following illustrations, 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.

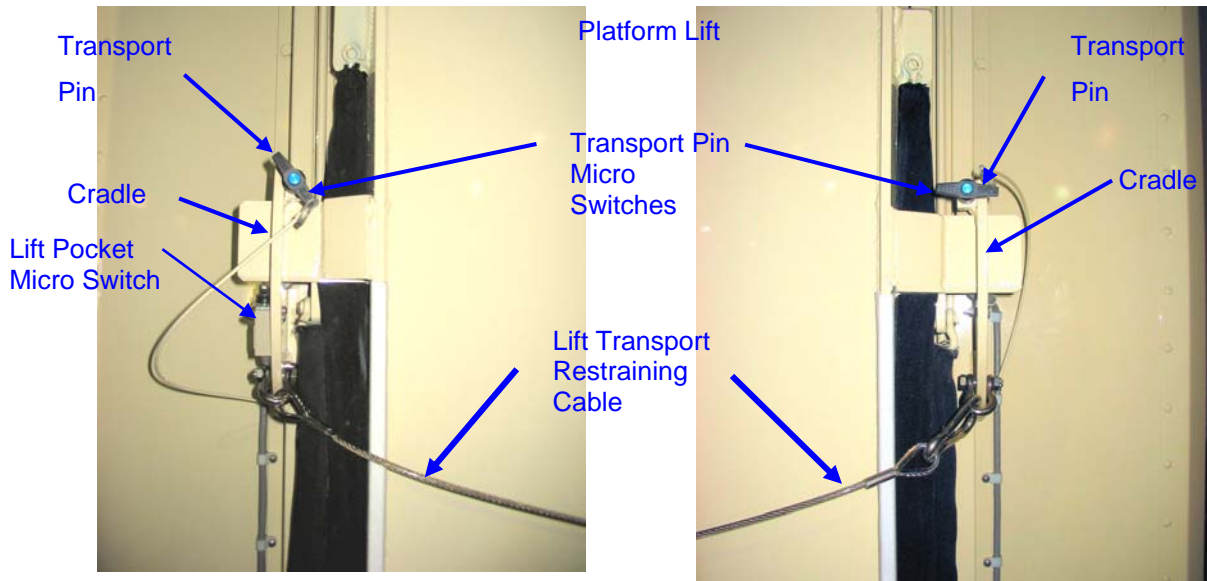


Figure 33: Platform Retaining Cradles

9.1 Safety Features

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

Transport Pins



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.



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.



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 Pendant

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



Figure 34: Remote Control Pendant

Transport Warning Light



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



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.

9.2 Hydraulic System

An internal hydraulic cylinder controls the movement of the platform lift. The cylinder is located in the compartment between the axles.

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.

9.3 Platform lift Operation

The platform lift can be operated with the remote control pendant. The lift can be raised or lowered with this control. 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



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 pendant, and place them to the side for now.
3. Close the underbody compartment door.
4. Insert the connector from the lift control pendant into the receptacle located next to the staff entry door.
5. Remove the Lift Transport Restraining Cable.
6. Remove the transport pins.
7. Raise the lift high enough to clear the cradles, using the remote control pendant.
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. Lower the platform to the ground, using the lift control pendant.
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 10: Stabilizing Legs

10.1 Landing Legs



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

The Landing / Stabilizing Legs can be found at the front and rear of the unit. The legs are hydraulically operated. The stabilizing legs installed on this mobile unit are only for the purpose of parking and stabilizing the mobile unit. Please refer to the product manual located in Volume II of the literature provided by Oshkosh Specialty Vehicles for additional information.



[Figure 35: Front Stabilizing Leg Assembly](#)

10.2 Rear Stabilizing Legs

The rear stabilizing legs are extended beneath the rear of the mobile unit, and allow the mobile unit to be stabilized for operation on site. The legs are extended and retracted manually at each of the stabilizing legs.



Figure 36: Rear Stabilizing Leg Assembly

10.3 Rear Air Suspension System Controls

The air suspension system controls are located in the left front underbody compartment along with the hydraulic controls.

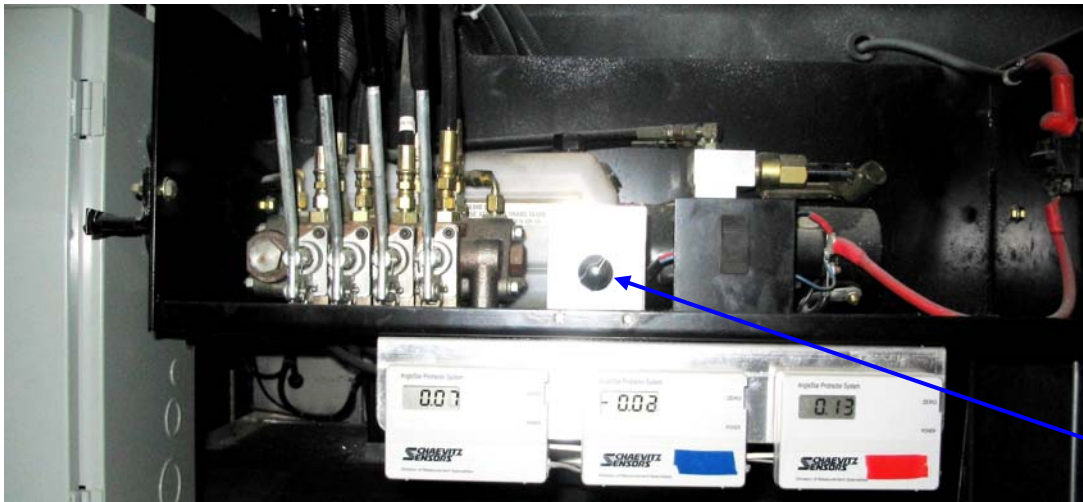


Figure 37: Air Suspension Controls

- | | |
|---------------------------------|---|
| Stabilizing Leg Manual Control: | The stabilizing legs are controlled manually with a crank handle. |
| Stabilizing Leg: | Allows the mobile unit to be parked without the tractor being attached to the unit. |
| Spirit Levels: | Allows the mobile unit to be leveled both front to back and side to side. |
| Air Suspension Control Switch | The air suspension control is mounted in the tractor. |
| Sand Shoe: | Helps prevent the stabilizing legs from sinking due to weight. |

Section 11: 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.

11.1 Emergency Lighting

In the event that the main AC power fails, three emergency lights are provided. These lights will automatically illuminate when the main AC power is lost. The lights are located in the Dental Operatory (1), Dental Lab (1) and Soiled Room (1). The emergency lighting system is wired into a 127V AC electrical system that allows the lights internal circuitry to keep its batteries at 100% charge. The emergency lights will illuminate the exit door and last for approximately 90 minutes.



[Figure 38: Emergency Lighting](#)

11.2 Exterior Lighting

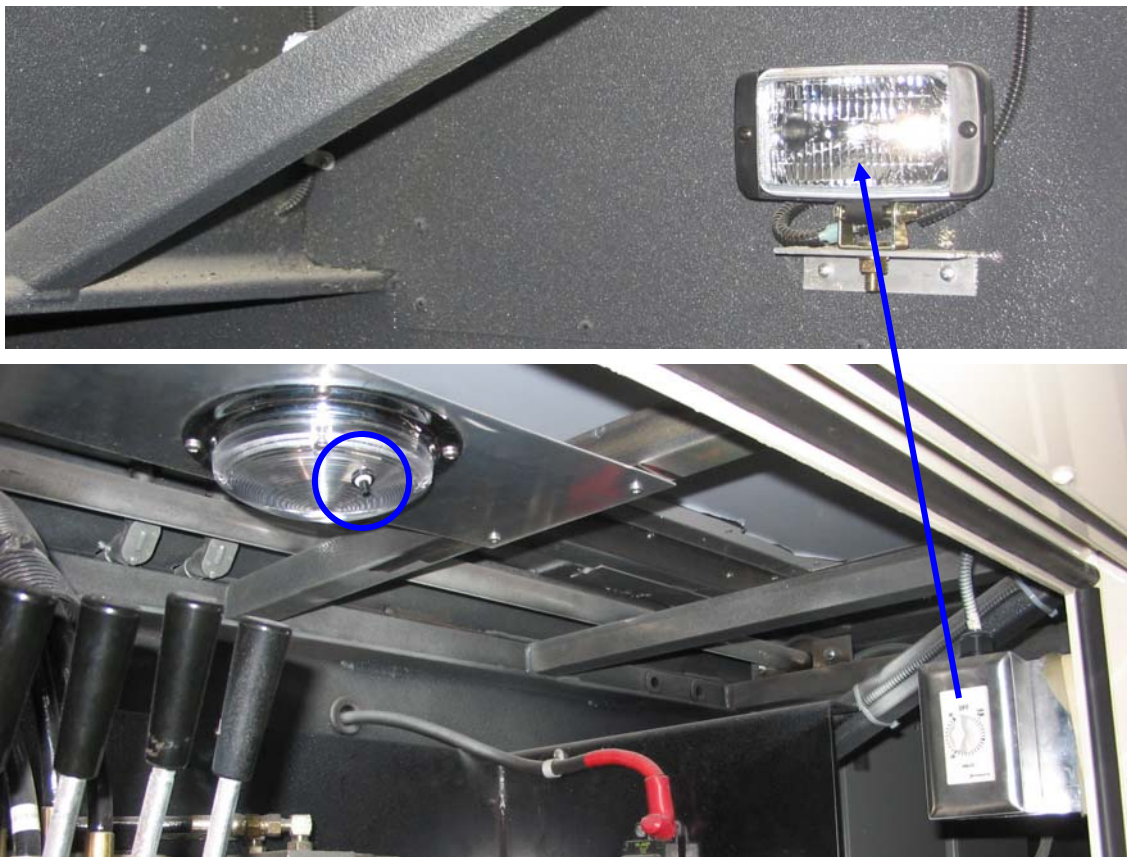
IMPORTANT

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 door switches. There are also lights mounted in the overhead of the lower compartments near each door and are illuminated when the push button on the light is pressed.



[Figure 39: Compartment Light](#)

Entrance Door Lighting

A fixture that is located to the right the door provides the entrance door lighting.

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



Figure 40: Entry 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. The top marker lights are wired through a 0.5" loom pipe that is run through the sidewalls of the mobile unit. The wires terminate at the glad-hands which are located in the front of the mobile unit for tractor hookup. Two electrical connections are supplied on the glad-hands, one six terminal connection and one seven terminal connection.

11.3 Interior Lighting

The interior lighting system can be divided as follows.

Lab Area

The light controls for the lighting in Lab Room are located just inside the internal entry door. Light fixtures are located in the ceiling and have been strategically placed for effective illumination of the equipment both during operation and while being service.



[Figure 41: Interior Overall Lighting](#)

11.4 Warning Lights



Figure 42: Air Suspension Warning Light

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

Suspension Transport Warning Light



The air ride control valves must be in the normal ride position before the mobile unit can be transported. If the air ride control valves are 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 too 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.

11.5 Halogen Lights



Figure 43: Halogen Lights & Controls

The halogen lighting system has been installed in the mobile unit in order to provide the operator with low level and specialty lighting when desired. Three rocker switches at the right side of the interior Mechanical Room door controls these lights.

Section 12: General Maintenance



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



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



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



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



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

12.1 Daily Maintenance

1. Keep the A/C grills clean and free of debris.
2. Check and verify that no warning lights are illuminated.

12.2 Weekly Maintenance

1. Check the A/C filters. Replace if necessary.
2. Check the electrolyte levels in the DC batteries and fill if necessary using only distilled water.
3. Check all running lights, marker lights, brake lights, and turn signals.
4. A qualified technician should check tire pressure and verify that all wheels are at the correct pressure as specified by the tire manufacturer.
5. 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.

12.3 Monthly Maintenance

1. Put a few drops of 20W oil, or similar graphite oil, on the swivel pin of all door hinges and key openings of all door locks.
2. Check the fire extinguisher gauges for safe charges.
3. Inspect the power cables for any damage.
4. Check for cut, damaged, or loose wire connections.
5. Check and verify that all connector bolts are tight and secure.
6. A qualified A/C technician must check the A/C condensers every month. Refer to the Air Conditioning Owner's Manual for more information.
7. Lubricate the front and rear stabilizing legs.
8. 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.

12.4 Quarterly Maintenance

1. Once a year, perform the preventative maintenance on the stabilizing legs. Refer to the accompanying manual for the stabilizing gear system.
2. Rotate the tires.
3. Check wheel lug nuts with torque wrench and verify that all inner and outer wheels, both the front and rear, are tightened to 450-500 foot pounds. This must be done after every 500 miles of driving. In accordance with torque procedure, lugs and nuts must be installed dry. Do not use any type of lubricant.

Section 13: Specific Maintenance



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



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



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



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



Image quality can be impaired with improper door closer adjustment.



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



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

13.1 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.

13.2 HVAC System



The HVAC system is critical to the operation and life of the equipment. The NexPress 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 cell 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.

13.3 Stabilizing Legs

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

Appendix A: Mobile Unit Checklist



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



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



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



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



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



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



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



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



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



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



Mobile Unit Setup Checklist

1. Park the mobile unit on the pad per the site-planning guide. Set the trailer parking brake.
2. Lower the front stabilizing legs.
3. Disconnect the tractor while leaving the air and electrical lines engaged.
4. Exhaust the rear suspension.
5. Lower the rear stabilizing legs.
6. Re-level the mobile unit as needed.
7. Disconnect the tractor air and electrical lines.
8. Lower the auxiliary support legs.
9. Verify that the shore power disconnect is in the "OFF" position and connect to the power cable to the shore power receptacle.
10. Move the shore power disconnect to the "ON" position.
11. Connect the tractor mounted generator power cable to the trailer.
12. Extend the slide-outs.
13. Install the stair assemblies.
14. Deploy platform lift.
15. Remove restraining hardware and position equipment for use.
16. Fill Toilet
17. Check generator fuel level and refuel if necessary.
18. Check fresh water level and refill if required.
19. Close and lock all underbody compartment doors.

Mobile Unit Transport Checklist

1. Secure all equipment and moveable objects such as chairs, kiosks, and tables.
2. Secure toilet.
3. Remove and store all platform and stair assemblies.
4. Retract the slide-outs.
5. Stow platform lift.
6. Move the shore power disconnect to the "OFF" position and disconnect to the power cable from the shore power receptacle.
7. Raise the auxiliary support legs.
8. Connect the tractor air and electrical connections.
9. Retract the rear stabilizing legs.
10. Connect the tractor to the mobile unit.
11. Inflate the rear air bags.
12. Raise the front stabilizing legs.
13. Verify that the mobile unit is ready for transport.
14. Has all equipment been secured?
15. Are all exterior doors closed and locked?
16. Are all running & marker lights working correctly?
17. Are any warning lights illuminated?
18. 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.



Appendix B: Troubleshooting

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

Suspension Transport Indicator Light is Illuminated...



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 are not ready for transport. This light must be off to move the mobile unit. Check the rear air bag suspension control valve buttons. The buttons must be in the "In" position. This is the normal ride position.

If the buttons are in the correct position and the light still appears a problem exists within the rear suspension. Please contact Oshkosh Specialty Vehicles.

Temperature is out of specifications...

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

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

Appendix C: HVAC Set Points



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



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

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

Thermostat 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.



Appendix D: Circuit Malfunction Checklist

Category 1

Visual Checks – Check for the most common occurrences.

Is the circuit breaker, in the 220V AC electrical panel, in the “ON” position?

Category 2

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: **Royal Clinics Dental Unit**

Control of Hazardous Energy:

Type of Hazardous Energy	When is it Necessary to Lock Out
Electrical 220/127V AC	When servicing main electrical power line
Electrical 12V DC	When servicing the following: Overhead TV Mount Controllers, Lights
Electrical 12V DC From Battery	When servicing the following: Overhead TV Mount Controllers, Lights

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

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

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 220V AC	Circuit Breaker or Plug	Normally located above the Facility Power Shore	Lock and tag with or without lockout hasp
Light or outlet circuits, NexPress Equipment Electrical 127V AC	Wall switch or circuit breaker	Distribution panel for circuit breaker, wall switch for room circuits	Lock and tag with a Universal Wall Switch Lockout, Universal Circuit Breaker Lockout
Electrical 12V DC From Battery	Remove Battery Cables	On battery	Lock and tag with a Plug Lockout attachment device
Air Conditioning System 220V AC	Circuit Breaker	220V AC Panel in equipment area	Lock and tag with or without lockout hasp
Heating System	Air Conditioning Circuit Breaker	220V AC Panel in equipment area	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					
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					
Inspect awning					
Inspect bay door shocks/hardware					
Verify bay light operation					
Check door hinges/stops/latches for proper operation					
Inspect Slide outs for operation					
Check Fire system Last Inspection Date _____					
Inspect stair mounts					
Inspect interior flooring					
Verify bay heater operation					
Inspect cabinet latches and hinges					
Verify phone/communication lines					
Inspect landing gear					
Inspect locking pins					
Inspect air drive or air/hydraulic					
Inspect air tanks					
Verify hub fluid levels					
Inspect undercarriage/frame					
Inspect airbags/airlines/fittings					
Inspect shocks/bushings					
Inspect Tires / Rotate as needed					
Note hub meter mileage _____					

Generator	3M	6M	9M	12M	Comments
Clean fuel/water separator & replace filter					
Lamp test on control panel					
Inspect fuel lines & injectors					
Change oil/filters- 250 hrs					
Check crankcase breather					
Check hoses/belts					
Verify radiator coolant level					



Verify coolant freeze point & pH					
Verify block heater operation					
Inspect housing mounting bolts					
Inspect muffler/brackets					
Verify battery charging voltage					
Load test battery/clean terminals					
Verify voltage & hertz output					
Record hours run since last P.M. (_____) Recorded Generator Hours					

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

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

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

Comment :

Signature of Technician: _____

Date: _____

