

USERS MANUAL  
June, 2013

**SHOOK**  
Mobile Technology



*Decontamination Trailer*  
*Shook Model A-24T*

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# General Information & Warnings

***Read all safety and operating instructions, including this manual, and follow these instructions while operating the equipment. Also read all individual manufacturers' manuals for additional information. All of the instructions and manuals should be stored in a convenient place for future reference.***

## TRAILER OPERATIONS

This vehicle is a LONG AND HIGH PROFILE vehicle. While towing the trailer pay special attention to any low clearance areas and to high winds.

Height and Width Restrictions:

Top of Vent Fan Housing(s) = 9 Feet, 10 Inches / 3.00 Meters

Recommend Minimum Clearance = 10 Feet, 6 Inches / 3.2 Meters

Width at widest point= 8 Feet 4 Inches / 2.54 Meters

- This trailer has a propane gas storage compartment with multiple tanks. Care must be taken to ensure that the tanks are properly clamped down and the valves closed before moving the vehicle. Failure to do so can result in an explosion and/or fire.
- This trailer has stabilizing jacks which extend below the vehicle to the ground. These are to level and stabilize the vehicle during operations. Care must be taken that these stabilizers are in the stowed position before moving the trailer. Failure to do so can result in damage to the stabilizers or vehicle.

## POWER SYSTEM OPERATIONS

- All AC powered equipment comes with a 3-wire plug with an integral grounding pin. This plug fits into the standard, grounded power outlets in the vehicle. Do not defeat the safety purpose of the grounded plugs. This is a dangerous shock hazard and can cause serious injury or death.
- The power up routine must be followed to protect both the vehicle and the operators. Improper vehicle powering could cause extensive damage. See the "POWER SYSTEMS" chapter for powering the vehicle correctly.

- Do not start the on board generators while it is connected to a load! Make sure that the main AC breaker, located in the to AC power panel is NOT on before starting generator. Do not place a load on the generator until it has warmed up.
- Inspect each site setup and make sure that the generator exhaust vents are clear of walls, snow banks, or any other obstruction that could prevent exhaust gases from dissipating. Also, DO NOT park in or near high grass or brush that could catch fire.
- Take extreme care not to move the trailer with the power cable connected to the trailer. Moving the trailer while connected to an energized power cable can result in damage to the trailer, the equipment, and possible injury or death. It is the trailer operator's duty to visually check the power cable before transporting the vehicle.

### PROPANE SYSTEMS OPERATION

- The propane bottles are stored in a ventilated compartment on the curb side of the trailer. All bottles should have their main valves turned off when not in use.
- Make sure the bottles are secure in their cradles whenever the trailer is moved.
- Each bottle weighs approximately 175 pounds when full and 70 pounds when empty. At least two people are required for loading and unloading bottles for service.
- Do not attempt to fill the bottles while they are in the trailer.

### AIR VENTS

- The air vents should be opened when the trailer is in operation. This is particularly required of the air vent in the equipment room, as it provides combustion and return air for proper operation of the water heater and/or furnace.
- The air vents should be closed for transport.

### STABILIZER WARNINGS

- The stabilizer jacks are for stabilizing and leveling the vehicle only. They are NOT to be used to lift up the trailer for maintenance, changing of tires, excessive trailer leveling that lifts tires off the ground or any other purpose besides intended use.
- Never crawl under the vehicle while it is supported by the stabilizers.

- DO NOT move the trailer with the stabilizers in the deployed position. Ensure the stabilizers are fully stowed before moving the vehicle. Always perform visually checks of the stabilizers before moving the vehicle.
- Detailed information on stabilizer operations is in the Stabilizer chapter found later in this manual and in the manufactures' operation manual.

### **BAY DOORS**

- This trailer is equipped with four ramp doors. DO NOT attempt to move the trailer with the doors in a deployed position. Ensure the doors are closed and fully latched before moving the vehicle.
- Always use the stabilizing jacks when the bay doors are open. This will help stabilize the vehicle and ensure proper operation of the sump drains.
- Make sure anything stowed in the bays for transport is properly tied down using the supplied tie down locations.

### **WATER INLET AND DRAIN**

- This vehicle is equipped with a series of water valves and inlet/outlet ports in a compartment on the bumper at the rear of the trailer. Ensure that the valves are closed, the ports properly capped off and the bumper cover closed before moving the unit.

# Quick Start Guide

*The following steps provide an outline of the procedure for setting up and operating this trailer. Please refer to the detailed sections, pictures and diagrams that follow for more specific information.*

- 1 Position trailer in the area of operation, close to water and power if applicable.
- 2 Disconnect trailer from tow vehicle using electric tongue jack.
- 3 Level the trailer front to back and side to side using the tongue jack and the hand crank stabilizers located at each corner of the vehicle. Use the bubble levels mounted on the street side corners of the housing as a guide.
- 4 Open the equipment room door and turn on the main DC breaker and the DC breakers for the inside and outside DC lights if applicable.
- 5 Open roof vent and turn on fan if applicable.
- 6 Open the propane compartment(s) and open the valves on each of the propane tanks. Close and latch the compartment door(s).
- 7 With the power source selector switch in the off position, plug in the shore power cable if applicable or start the generator.
- 8 Make sure main AC power breakers are in the off position.
- 9 Turn power source selector switch to the appropriate setting and confirm proper voltage is displayed on the power meter.

- 10 Turn on main AC power breakers and all other required AC and DC breakers.  
NOTE: Be sure the sump pump relay breaker is turned on.
- 11 Make sure water valves on water heater are in the service position. NOTE:  
Both the hot (red) and cold (blue) water valves must be turned on or the mixing valves in the bays will not work.
- 12 Hook up water supply line and lower all bay ramp doors. Remove any stowed items and make sure shower and spray nozzles are turned off.
- 13 Deploy water drain bladder behind trailer and connect to trailer drain port with the supplied drain hose.
- 14 Turn on appropriate water supply valve.
- 15 Turn on water heater and select desired temperature on the control.
- 16 Make sure soap is loaded in the soap dispensers.
- 17 Turn the mixing valves in the bay(s) to the desired setting.

*The trailer is now ready for operation.*

# Power Systems

***This Shook Model A-24T trailer is equipped with a complete power system that includes both AC and DC power. This power system can be fed by either an external city or “Shore” power source or by an on-board 5.5KW propane generator. A power distribution diagram has been provided in Appendix-A.***

## AC POWER SYSTEMS

The trailer is equipped with an AC power system with output power of 120 VAC at 60Hz. There are 2 sources of AC power, “Shore” or City power (either 15A or 30A), or the on-board generator. The power source is selected through the use of a selector switch on the main power panel. This heavy duty switch will route power from either the shore power input plug or the generator to the main AC power panel breakers. A power meter shows the voltage being supplied by the selected source.

NOTE: The 15A shore power input will only provide power to the lights and the battery charger. It is to be used for maintenance purposes and it will not provide enough power for the pumps, furnace, etc. The 30A input should be used for operation of the trailer. The main AC power panel consists of a main 30A input

The main AC power panel consists of a main 30A input breaker and 8 20A distribution breakers.

The AC power is distributed at the distribution panel as follows:

Primary-AC Utility Distribution Panel

Power Leg-1 Breakers

- 1 - 20 Amp - Water Heater
- 2 - 20 Amp - Battery Charger
- 3 - 20 Amp - Interior Outlets
- 4 - 20 Amp – Exterior Outlets
- 5 - 20 Amp – Front Bay Sump Pump
- 6 - 20 Amp – Rear Bay Sump Pump



7 - 20 Amp – Spare

8 - 20 Amp – Spare



Main AC power panel in the vehicle. AC Main at the top, AC Meter, Source Selector and DC Meter in the middle and DC breakers below.

## POWERING FROM CITY POWER

1. City power is connected through the Shore input connector(s) on the streetside. There is a 15A connector for a standard extension cord and a 30A connector for a heavy duty cable. Power input required is 110-vac to 120-vac, Single Phase. The input connector and main breakers are rated at 15, 30 and 30 amps respectively. Input power should not exceed that limit.
2. Be sure the Main Shore Input Breaker on the power panel is placed in the “OFF” position before connection of primary power to the vehicle. Do not connect power with an active load.



Location of Main AC Breaker.



Shore input power connectors on the street side of the trailer.

3. Plug in the shore power cable to the appropriate shore power input connector.  
Turn the source selector switch to the correct setting (15A or 30A) and confirm that the input voltage on the AC voltage meter reads 110-120 volts.



*Input Power meter and source selector switch.*

4. Open the main AC breaker panel and turn on the “AC Main” breaker.
5. Turn on all of the other AC breakers .

## GENERATOR OPERATIONS

The trailer is equipped with an Onan 5.5KW propane fired electric generating system with a remote control panel on the interior power wall. The unit is located in a side compartment housing on the street side. Propane fuel for this unit is supplied from an on board propane tank(s) located in a compartment on the curb side of the trailer. The generator requires a substantial flow of propane to operate (particularly during startup) and may sputter and die before the tank is completely empty. It may also fail to start on a tank that it was previously running on if the fuel level has fallen too low. If this happens you may have to switch or refill tanks.



*Generator compartment on the street side.*

## BEFORE STARTING

1. Inspect the setup and make sure that the generator's exhaust system outlets are clear of walls, snow banks, or any other obstruction that would prevent the exhaust gases from dissipating properly. Also, while running the generator, make sure not to park the trailer in high grass or brush that could catch on fire. The exhaust for the generator comes out under the rear bumper on the street side.

2. Do not start the generator while connected to a load. Place the “AC Main” breaker to the “Off” position and set the source selector switch to “Off”.
3. Check the engine oil levels daily during use. Keep the level near the fill level indicator “full” mark. DO NOT OVERFILL. (The oil and filter needs to be changed after the first 20 hours of operation and every 150 hours or one year after that.)
4. Make certain that the vehicle primary propane tank is selected.

### STARTING THE GENERATOR

1. Place the “AC Main” breaker on the AC Power Panel to the “Off” position. Do not start the generator while it is connected to a load.



AC breaker panel and source selector switch.



*Generator remote on the power wall with hour meter.*

2. Start the generator by pressing and holding the “Start/Stop” button on the remote. The LED of the button should flash. The generator will first prime the engine, and then begin cranking. The generator will start within 5-10 seconds. Release the button when the generator starts.
3. Let the generator warm up at least 2 minutes before switching in the load. During warm up, make sure that the choke has released and that the generator is running smoothly.
4. On the Power Panel, turn the source selector switch to “Generator” and verify that the AC voltage meter reads 110-120 volts. Turn the “AC Main” breaker “On”.
5. Turn on the remaining breakers in the AC panel and allow the equipment to power up and stabilize.

NOTE: There is a circuit breaker on the generator. This breaker should be on at all times, but can be tripped by a surge or short in the system. If for some reason the generator is operating, but no power is on line, check this circuit breaker. Switching it off and on should put the generator back in the system. If it trips again check the system for faults.



*Generator output breaker is behind the removable panel on the generator*

#### **STOPPING THE GENERATOR**

1. To stop the generator, remove the load by turning off all the breakers in the AC breaker panel.
2. Place the “AC Main” source breaker into the “Off” position.
3. Let the unit run with no load from three to five minutes to cool down before stopping the generator engine.
4. Push the toggle switch on the generator remote to the “Stop” side to kill the generator.

NOTE: Regular engine maintenance including oil and filter changes is important for proper operation of the generator. See the owner’s manual for complete instructions.

## DC Power Systems

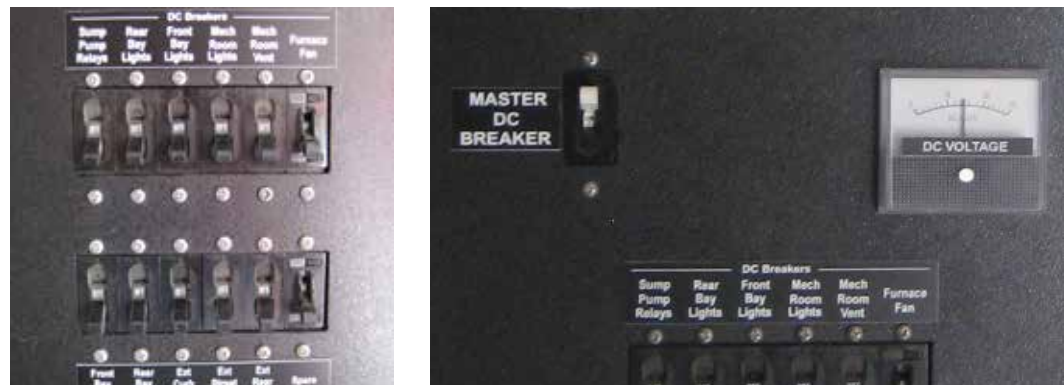
*This A-24T trailer is equipped with a 12 volt DC battery powered system to start the generator and run the trailer's internal and external lights. DC systems consist of an auxiliary battery, the AC to DC converter/charger, and the DC Distribution Breaker Panel.*

*The DC breaker distribution panel is on the interior power wall just below the AC power panel. This battery system is recharged using a Xantrex AC/DC charger located behind the main power panel. Primary AC power to the DC charger must be on for charging to occur and should be on anytime the vehicle is powered. (This AC power comes from a breaker in the AC power panel.) The 12v sealed gel cell battery is located in a compartment on top of the work bench just to the left of the power panel.*

NOTE: Caution should be taken that all DC lighting is used for just a short time when the vehicle is not in operation. If long periods of DC lighting are needed, the vehicle and the DC charger should be powered to operate the lighting.

WARNING: Use caution if servicing the DC Charger or Battery. They are located in areas with exposed AC high voltage wiring and fixtures. Disconnect and turn off all AC power in the trailer before opening and servicing these areas. Extreme hazard for electrical shock or electrocution.

See Appendix "A" for a schematic of the Power System for addition information



The DC Power distribution panel with the Main 60 amp breaker and DC Distribution breakers.



The DC system feeds the following breakers:

- 1 - 60 Amp - DC Main
- 2 - 10 Amp - Sump Pump Relays
- 3 - 10 Amp - Rear Bay Lights
- 4 - 10 Amp - Front Bay Lights
- 5 - 10 Amp - Mechanical Room Lights
- 6 - 10 Amp - Mechanical Room Vent
- 7 - 10 Amp - Furnace Fan
- 8 - 10 Amp - Front Bay Fan
- 9 - 10 Amp - Rear Bay Fan
- 10 - 10 Amp - Exterior Curb Side Work Lights
- 11 - 10 Amp - Exterior Street Side Work Lights
- 12 - 10 Amp - Exterior Rear Work Lights
- 13 - 10 Amp - Spare

NOTE: If a battery is left dead for 2 weeks or more, sulfating begins. A battery should be kept at full charge (13.3 to 14.2 volts are acceptable rates in a temperate climate). If a battery is left on a charger at full charge for 2 to 3 months without being discharged to 12.4 volts or lower in normal use, it will sulfate. When a battery sulfates, internal resistance increases which increases heat and water consumption.

If your vehicle is not used on a regular basis, we recommend the following - every 2 to 3 months, turn off charger and allow battery to discharge to 12.4 volts or less by turning on a DC load. Then, turn off load, reactivate the charger, and recharge battery.

These simple maintenance procedures will lengthen battery life. A book on battery service can be obtained from:

Battery Council International  
401 North Michigan Ave, 24th Floor  
Chicago, Illinois 60611-4267  
[www.batterycouncil.org](http://www.batterycouncil.org)

## Propane System

*This Shook Model A-24T trailer is equipped with two dual bottle propane systems with 2 stage automatic change over regulators. One system provides propane exclusively to the hot water heater and the other system provides propane for the generator and the hot air furnace. Each compartment is labeled to indicate which equipment it serves. All four (4) valves should be open during normal operation.*

WARNING: Make sure all four valves are closed during transport. Failure to do so can result in a fire and/or explosion. Make sure the valve is closed whenever removing a tank from the trailer for re-filling



*Propane compartment with dual bottle propane systems.*

Each set of bottles has a 2 stage auto changeover regulator. This regulator will detect when the primary bottle is empty and automatically switch to the reserve bottle without interrupting gas flow. Both tanks should have their valves open during normal operation.



*Primary and Reserve selector knob with fuel level indicator.*

NOTE: The sight glass/fuel gauge knob points to the Primary tank with the other side marked as "Reserve". This knob DOES NOT change over automatically. When the sight glass turns completely red it means the primary tank is empty and the regulator has switched to the reserve tank. Rotate the knob so that the sight glass points to the full tank, which now becomes the primary tank. The red flag will disappear (assuming the reserve is full), indicating that this is now the primary tank. The empty tank can now be turned off and removed and re-filled. When it is returned to the trailer it becomes the reserve tank. Each tank will always alternate as a Primary then as a Reserve tank during normal operation. The regulator will stay on the selected primary until it detects a loss in pressure (approximately a 5lb differential) and then switch to the reserve tank. You can force a switch by turning the knob from one tank to the other but if you do you may end up with a less-than-full reserve.

Each tank holds 100 pounds (Approx. 23.8 gallons) of propane. Each empty tank weighs approximately 70 pounds.

**WARNING:** The tanks are heavy. At least two people (or mechanical assistance) should be used to remove or replace the tanks.

There are gas valves at each appliance; water heater, furnace and generator. These valves can be left in the on position at all times if desired but the main valves on the tanks must always be closed during transport. If an appliance does not work when the main tank valves are open be sure and confirm that the individual appliance valve is also open.

A propane alarm is provided to give audible alarm if a propane leak is detected. If this alarm sounds, immediately turn off the main propane tank valves and open the doors to the mechanical room. After the room airs out and the alarm shuts off, determine the source of the leak and fix it.



*Propane Alarm.*

## Furnace System

*This unit is equipped with an RV style propane gas furnace for supplying heated air to the decontamination bays during cold weather. The igniter and blower both operate off of the DC power system. Combustion air comes through the intake on the street side of the trailer and the hot exhaust goes out through the center of the same panel. The furnace heats air it draws from the mechanical room and blows it to each of the bays via overhead ducts. Since the bays are basically open, no return air is brought back to the furnace.*



*Furnace intake and exhaust on street side of trailer..*

### SYSTEM OPERATION

1. To operate the furnace switch the “Furnace Fan” DC breaker to the “On” position.
2. Make sure the propane tank(s) valves and the appliance gas valves are in the on position.
3. Make sure the mechanical room roof vent is open.
4. Turn the thermostat heat to the on position and set the temperature to the desired setting.

The furnace will start after the igniter heats up and it will continue to blow hot air until it is turned off or the temperature in the mechanical room meets or exceeds the thermostat setting.

NOTE: There are no ducts in to the mechanical room itself but it will heat up during operation because of radiant heat produced by the water heater, furnace and generator. The temperature on the thermostat may have to be set high in order for hot air to continue in to the bays.



Heater control thermostat.



*Roof vent and fan*

*See the manufacture's manual for additional information, advanced operations, maintenance and troubleshooting.*

## HOT WATER SYSTEM

*Hot water is supplied by a 199,000 Btu propane fired instant hot water heater. Combustion air comes from the mechanical room and exhaust air goes out through a roof vent. The remote and the control circuit board are powered by 120v AC power.*



*Water Heater and Remote*



## SYSTEM OPERATION

1. Make sure the water heater circuit breaker in the AC power panel is switched on.
2. Make sure water is supplied to the trailer and that all water valves are open.
3. Make sure the main propane tank(s) valve is open and the appliance gas valve is open.
4. Press the on/off button on the remote to turn the system on.
5. Use the up/down arrows to set the desired water temperature.



*Water and gas valves*

*See the manufacture's manual for additional information, advanced operations, maintenance and troubleshooting.*

## STABILIZERS

**The A-24T is equipped with 4 manually operated stabilizer jacks to help stabilize and level the trailer while in the field. All four jacks are scissor type units, with one located at each corner of the trailer.**

**WARNING:** These jacks are for stabilizing and leveling the vehicle only. They are NOT to be used to pick up the vehicle for the maintenance, changing of tires, excessive vehicle leveling which lift the tire off the ground or any other purpose besides intended use. Never crawl under the vehicle while it is supported by the stabilizers.



*Trailer tongue jack*



*Corner Stabilizing Jack*



### LEVELING PROCEDURE

1. Make sure there is nothing under or above the vehicle that could be damaged or cause damage to the vehicle while leveling the trailer.
2. Lower the adjustable foot on the tongue jack until it can be pinned just above the ground. Remove the safety chains, and unplug the trailer from the tow vehicle. Unlatch the trailer hitch and raise the trailer with the tongue jack until it comes free of the ball.
3. With the unit unhitched from the tow vehicle, block the wheels securely. Use a large wood block under each stabilizer footpad if parked on soft soil or asphalt

to distribute out the weight over a larger surface area.

4. Determine the low end of the trailer, front or back, by checking the bubble level(s) on the street side of the trailer. Using the electric tongue jack, raise or lower the trailer tongue until the bubble levels indicate it is level. Observe the bubble levels on the front and back of the trailer to check for side to side leveling. Lower the front and back scissor jacks on the low side of the trailer, extending them by turning the hex screw on the end of the jack CW. Extend the jacks to touch the ground and then alternate 1 or 2 turns front and back until the low side is raised enough to make the trailer level from side to side.
5. With the unit level, go to the opposite set of jacks and extend to the ground. Add an extra 1 or 2 cranks to load the jack a little. Check level again and adjust if necessary.



Tongue Jack controls

## RETRACTING PROCEDURE

1. Make sure there is nothing under the vehicle that could be damaged or cause damage to the vehicle.
2. With the tongue jack extended, reverse the order in which the scissor jacks were extended and crank CCW to retract each jack to the fully stowed position.
3. Keep the trailer wheels blocked until connected to the tow vehicle. Once the hitch is secure, fully retract the tongue jack (including the adjustable foot pad) and remove any wheel blocking.
4. Inspect all 4 corner jacks to ensure they are fully retracted and stowed.

WARNING: Moving the vehicle while the jacks aren't fully retracted is dangerous and can cause damage to the stabilizers, the vehicle or both.

*See the manufacture's manual for additional information, advanced operations maintenance and troubleshooting.*

## WATER SUPPLY AND DRAIN

*This A-24T is designed to be supplied by water from an outside source. There is no provision for carrying on board water or waste water. All outside hookups are located at the rear of the trailer in a central compartment.*



*Water Inlet and Outlet ports.*

Supply water can come from a garden hose or from a 2" fire hose or other supply line. Each water input port has its own valve. Only the line in use should have its valve open during operation. The 2" line has a built in pressure regulator that is set to 50psi.



*Water regulator on 2" line*

There is also a “hose bib” line out on the left side of the valve assembly. This is so a hose can be hooked up for external use if necessary but, with the use of an adapter, it can allow a second hose to be hooked up to the trailer to boost input supply volume.

The 1 1/2 PVC line on the right is the outflow drain from the sump pumps. The cap from this must be removed before operating the sump pumps. A waste hose is supplied to connect this drain port to the waste water bladder.



*2" input line and 1 1/2" outflow line*

Once the water supply is hooked up to the trailer and the valve is opened it is necessary to confirm that both water valves feeding the water heater are open.



*Water heater water valves*

NOTE: If both water valves are not open, the pressure balancing valves in the bays will not work and no water will come out of the shower head or hand spray nozzles.

## BAY WASH AND DRAIN SYSTEM

Each decontamination bay has a wash system consisting of a temperature mixing valve, a clean water hand spray nozzle, a soapy water hand spray nozzle, and a shower head that can spray clean or soapy water.



Shower System



Valve Detail



Temperature Mixing valve



The temperature mixing valve sets the temperature for all three spray nozzles, the temperature can not be controlled individually. The valve has an off position, with the handle pointing straight down. If this valve is in the off position none of the sprays will work. At any other position on the temperature scale, all of the sprays will work.

### SOAP SYSTEM

Soap is delivered to the soap hand spray nozzle through a soap injector valve. Using the valve just above the hand spray nozzle, soap can be diverted to the shower head.



*Mechanical room view of bay valves and soap system*

The rate of soap mixed in to the water stream can be adjusted by turning the set screws on the soap injector valve. To increase the rate at which soap is added to the water, turn the larger screw in top of the valve to the right (CW). Fine tuning can be achieved by turning the smaller screw at the bottom of the valve.



*Soap injector valve with adjustment screws*

The soap reservoir holds up to 5 quarts of soap and the injector valve can reliably mix liquids with a viscosity ranging from 1 to 200.

## SUMP PUMP AND DRAIN SYSTEM

Each bay has a sloped floor with an integral drain next to the mechanical room wall. Water falls through the Dri-Deck flooring material and flows towards the drain in the floor and in to the sump pan under the trailer. The sump pan extends past the mechanical room wall so that the sump pump can be accessed from within the mechanical room. Each bay has its own sump pan and pump. It is important that the trailer be level for the proper operation of this system.

The design of this system is such that a standard manual sump pump (no built in float), available from almost any hardware store, can be used in the event of an equipment failure. The pump, float assembly, electrical outlet, sump pan and drain are easily accessed for service or cleaning by removing the aluminum protective cover(s). These covers are held in place with hook and loop fasteners to allow for quick access. Screw holes are also provided for a more secure attachment if desired.



*Sump pump assembly cover*



*Sump pump assembly in place*



*Sump pump just sits in cage for easy removal.*

## SUMP PUMP OPERATION

The sump pumps sit on the bottom of the sump pan and cycle to remove waste water, pumping it out the back of the trailer to the waste bladder. Each sump pump drain line has a check valve to prevent waste water from flowing back in to the sump pump and pan from either the other pump or the bladder.

The pumps are controlled by a remote float and a time delay relay(s). The time delay relays are located behind the electric panel. For these relays to function properly, the DC breaker for the sump pump relays must be turned on.

When the water in the sump pan rises approximately 2 inches the float assembly triggers the sump pump power relay, which then turns on power to the electric outlet the pump is plugged in to. Since the float is elevated in the sump pan, the relay is a “delay off” relay. This means that even after the water level falls below the float level, the pump will continue to run. This is an adjustable delay and is currently set at about 30 seconds. They should not require further adjustment. This function allows the pump to drain out the maximum amount of water but also keeps it from running dry for long periods of time.

NOTE: The sump pumps, by design, will not remove 100% of the waste water from the sump pan. They sit up from the bottom slightly which means that there will be approximately 1/2” of water left in the sump pan that the pump is unable to remove. This means that to remove 100% of the water the cover will have to be removed and the remaining water vacuumed or pumped out by other means.

If standing water appears in the bay, first check to make sure the floor drain grate is not blocked. Next, make certain there is power to the trailer and that the DC sump pump relay is turned on. Next, remove the protective cover from the sump drain assembly and make sure the pump is plugged in to the electric outlet. If the pump is running but the water level is not going down there is a blockage in the waste water line or the waste bladder is full. If the pump is not running, unplug it from the relay controlled outlet and plug it in to the electric outlet located below the power panel on the side of the counter. If the pump still does not run it may be defective. If the pump runs then the relay may have failed and an electrician will have to diagnose the problem.