

Winterization Procedure Must be Completed by a Licensed Plumber

Failure to properly winterize unit can result in thousands of dollars in damage.

60x11 S/C Washroom Trailer AL12-643

General Information

The 60x11 Washroom trailer is designed to be used as a self-reliant washroom trailer. Used as Self-Contained meaning that the 650 gal water tank would need to be filled by a water truck and have the 650 gal sewer tank pumped out by septic truck. Alternatively, the trailer is hooked up with municipal services or an onsite water source and septic tank/field.

The washroom trailer is equipped with a Duplex Liberty sewage Sump Pit with 2 Grinder Pumps and two ½ HP water pumps. Only one of the water pumps are to be used at any one time. The other water pump is for back up only. Please note there is a water pump power supply control box above the pressure tank on the wall to switch power between the two water pumps or to run on municipal services.

Notes:

- Washroom trailers need to be completely level in order for plumbing to function properly
- 650gal water tank, 650gal sewer tank and Hot Water Heater must be drained prior to moving trailer

Water System Operating Instructions

Fill 650 Gallon Water Tank

- Fill pipe is located outside the mechanical door with a sign indicating its use
- Remove protective cover off 2" male camlock
- Connect 2" female camlock to fill pipe
- Ensure 1" water tank drain valve (#3) inside trailer mechanical room has been closed
- Pump water into water tank
- Alternatively, a garden hose can be used by removing 650 gal water tank cover to fill the water tank
- Once water flows out of 3" overflow pipe at rear and top of trailer the 650-gallon water tank is full
- Reconnect protective cover over water fill pipe

Note: While the water tank is filling, the supply can be monitored by going into mechanical room and seeing water level thru the sight glass on side of the water tank. There is a low-level float switch that activates when the water tank is empty and the alarm (located outside of mech. Room) will sound and a red light will turn on. Turn OFF water alarm breaker at electrical panel to stop alarm until water is refilled. Turn breaker back on afterward refilling the water tank.

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VALVE GUIDE FOR USING SELF CONTAINED WATER & SEWER TANKS

NOTE: BELOW IS VALVE INSTRUCTIONS FOR USING SEWAGE PITS & PRIMARY WATER PUMP. SEE INSTRUCTION BELOW IF ONE FAILS. WATER SUPPLY CONTROL BOX SELECTOR SHOULD BE SET TO EITHER PUMP 1 OR PUMP 2.

- VALVE 1. CLOSED (MAIN SEWER DRAIN)
- VALVE 2. OPEN (SEWER TO STORAGE TANK)
- VALVE 3. CLOSED (WATER TANK DRAIN)
- VALVE 4. OPEN (WATER FEED FROM TANK)
- VALVE 5. CLOSED (MUNICIPAL FEED)
- VALVE 6. OPEN (FEED LINE FROM PUMP & PRESSURE TANK)
- VALVE 7. OPEN (PRESSURE TANK SHUT OFF)
- VALVE 8. CLOSED (WATER LINE DRAIN)
- VALVE 9. CLOSED (HOT WATER DRAIN)
- VALVE 10. CLOSED (TAP FOR PUMP OR MUNICIPAL)
- VALVE 11. CLOSED (MUNICIPAL USE)
- VALVE 12. CLOSED (SWITCH)
- VALVE 13. OPEN (HOT WATER TANK OUTLET)
- VALVE 14. CLOSED (BYPASS FOR HOT WATER)
- VALVE 15. OPEN (HOT WATER TANK COLD INLET)
- VALVE 16. CLOSED (PUMP 1 DRAIN)
- VALVE 17. OPEN (TO FEED WATER PUMP 1)
- VALVE 18. OPEN (TO FEED WATER LINE FROM PUMP 1)
- VALVE 19. CLOSED (PUMP 2 DRAIN)
- VALVE 20. CLOSED (TO FEED WATER PUMP 2)
- VALVE 21. CLOSED (TO FEED WATER LINE FROM PUMP 2)
- VALVE 22. CLOSED (WINTERIZING)
- VALVE 23. CLOSED (MUNICIPAL USE)
- VALVE 24. OPEN (EXPANSION TANK)
- VALVE 25. CLOSED (DRAIN LAUNDRY SINK)
- VALVE 26. CLOSED (DRAIN LAUNDRY SINK)
- VALVE 27. CLOSED (DRAIN MALE WR UNDER SINK)
- VALVE 28. CLOSED (DRAIN MALE WR UNDER SINK)
- VALVE 29. CLOSED (DRAIN FEMALE WR UNDER SINK)
- VALVE 30. CLOSED (DRAIN FEMALE WR UNDER SINK)

****IF WATER PUMP 1 FAILS MOVE SWITCH ON WATER PUMP SUPPLY TO PUMP 2, CLOSE VALVE 17&18 AND OPEN VALVE 20&21**

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Instructions to Pressurize Water Supply When Using Water Tank and Pumps:

There are 2 water pumps and only one is to be used at any one time as the other pump is for backup only. Please see the water pump power supply box on back wall to switch power between the two pumps. See Valve Guide Instructions for using Self-Contained Water and Septic Tanks (Page2)

- OPEN water supply valve (#4) at bottom of water tank to feed water pump. Please note that Pump may have to be primed. Ensure hot water heater drain valve (#9) is closed.
- Ensure water pump to be used is plugged in, the power box (grey box on wall) switch is positioned for the appropriate pump and the breaker in the electrical panel is in the ON position.
- If using pump #1 have valves #17 & #18 **OPEN** while valves 20 & 21 are **CLOSED**.
- If using pump #2 have valves #20 & #21 **OPEN** while valves 17 & 18 are **CLOSED**.
- Ensure valve (#15) feeding hot water heater is CLOSED to pressurize system.
- To prime pump lift low-pressure valve lever on side of water pump until water pressures exceed 25Psi and water pump operates on its own. Then, Release low-pressure valve lever and pump should continue running until 50 psi is obtained at which time pump will shut off.
- Once water line is pressurized then open valve (#15) to fill hot water heater and pressurize hot water lines.

VALVE GUIDE FOR USING MUNICIPAL WATER SERVICE

NOTE: If a water source is available then it can be connected to the trailer instead of using the water tank. See Valve Guide below for using Municipal Service. On-site water supply is connected to a water pipe protruding under the trailer near the water tank. Be sure to wrap the water supply pipe with heat tape to prevent freezing. There is a plug under the trailer to plug heat tape into. **The Power supply Box must be switched to Municipal for this system to Operate.**

- VALVE 1. CLOSED (MAIN SEWER DRAIN)
- VALVE 2. OPEN (SEWER TO STORAGE TANK)
- VALVE 3. CLOSED (WATER TANK DRAIN)
- VALVE 4. CLOSED (WATER FEED FROM TANK)
- VALVE 5. OPEN (MUNICIPAL FEED)
- VALVE 6. CLOSED (FEED LINE FROM PUMP)
- VALVE 7. CLOSED (PRESSURE TANK SHUT OFF)
- VALVE 8. CLOSED (WATER LINE DRAIN)
- VALVE 9. CLOSED (HOT WATER DRAIN)
- VALVE 10. CLOSED (TAP FOR PUMP OR MUNICIPAL)
- VALVE 11. CLOSED (TAP FOR PUMP OR MUNICIPAL)
- VALVE 12. OPEN (SWITCH)
- VALVE 13. OPEN (HOT WATER TANK OUTLET)
- VALVE 14. CLOSED (BYPASS FOR HOT WATER)
- VALVE 15. OPEN (HOT WATER TANK COLD INLET)
- VALVE 16. CLOSED (PUMP 1 DRAIN)
- VALVE 17. CLOSED (TO FEED WATER PUMP 1)

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- VALVE 18. CLOSED (TO FEED WATER LINE FROM PUMP 1)
- VALVE 19. CLOSED (PUMP 2 DRAIN)
- VALVE 20. CLOSED (TO FEED WATER PUMP 2)
- VALVE 21. CLOSED (TO FEED WATER LINE FROM PUMP 2)
- VALVE 22. CLOSED (WINTERIZING)
- VALVE 23. OPEN (SHUT OFF BETWEEN PUMP + MUNICIPAL)
- VALVE 24. OPEN (EXPANSION TANK)
- VALVE 25. CLOSED (DRAIN LAUNDRY SINK)
- VALVE 26. CLOSED (DRAIN LAUNDRY SINK)
- VALVE 27. CLOSED (DRAIN MALE WR UNDER SINK)
- VALVE 28. CLOSED (DRAIN MALE WR UNDER SINK)
- VALVE 29. CLOSED (DRAIN FEMALE WR UNDER SINK)
- VALVE 30. CLOSED (DRAIN FEMALE WR UNDER SINK)
- VALVE 31. OPEN (BY-PASS)
- VALVE 32. OPEN (BY-PASS)

Liberty Sewage Pit Operation

The Liberty sewage sump pit is equipped with a high-level alarm that will sound when sump pit is over full. If the tank is not full this may be a sign that there is something clogging the pump or pumps have failed. If the alarm continues to sound please disconnect power, remove top access cover of the pit (grey cover with 6 bolts) and clear the debris before using again. The alarm will automatically reset once level goes down. Ensure valve (#2) leading to sewage pit is open. If the problem persists please call for assistance.

650 Gal Sewer Tank Operation

The 650 gal sewer tank is equipped with two floats. One high-level alarm float to let you know that the tank is almost full and needs to be drained. If not drained the second float will trip a contactor to turn the power off to the water pump when the tank reaches its capacity to prevent it from overflowing. The alarm is located on the right side of the center exterior door. To restore power to the water pump and stop alarm follow instructions to drain sewer tanks see below.

Instructions for Draining the Sewer Tanks

- Located near the center exterior door there is a 3" female camlock which is the drain pipe for the sewage tanks and has a protective spill cover.
- Remove the spill cover and connect a 3" male camlock with a sewage hose from the vacuum truck to the 3" female camlock drain line on the trailer.
- Open sewage release valve (#1) inside mechanical room to allow sewage to flow.
- Once sewage tank is empty close sewage valve (#1) and unhook the hose and reconnect protective cover into camlock connection.

If you are Draining into a municipal sewer line use adapter located inside mechanical room. The adapter fastens to the camlock on exterior of the unit. Once everything is connected open valve 1.

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INSTRUCTIONS FOR DRAINING & WINTERIZING

Note: All ball valves not charged with antifreeze need to be in the half-open position once winterizing is complete. If the valve is fully open or fully closed damage to the valve may occur and will need to be replaced.

To winterize you will need about 40 gallons of antifreeze.

First Run the laundry sink long enough to clear the sewer sump pit of sewage or about 5 minutes by allowing sewage pump to cycle several times.

Turn off the hot water heater electrical disconnect and drain the hot water heater (Valve #9) and CLOSE the valve feeding the hot water heater (Valve #13, 15) so no antifreeze will be pumped into the hot water heater.

OPEN the valve (#3) at the bottom of the 650-gallon water tank to drain it.

Close the valves feeding each toilet and then flush the toilets to get rid of the water in the bowl and tank.

There is about a 5 ft long x 1 ¼ " clear tube hose near the water pump (Valve #22) that is used to pump plumbers antifreeze thru the cold and hot water lines. Stick one end of this clear hose into a pail of antifreeze and OPEN valve (#22) so that the water pump draws from this pail of antifreeze. Keep adding antifreeze to this pail as required. OPEN valve (#14) at the top of the hot water heater to crossfeed antifreeze from the cold water line to the hot water line downstream of the hot water heater.

With the hot and cold water lines charged with plumber antifreeze run all laundry and each of the vanity sinks hot and cold water taps until antifreeze comes out. Run enough to fill the vanity sink p traps with antifreeze. Run antifreeze thru each water pump by OPENING valve (#20, 21 or #17, 18) of the pump not being used.

Open the valves of the toilets just enough to allow the antifreeze into the toilet tank and bowl. Pour antifreeze into the standpipe in the toilet tank to get antifreeze into the toilet P trap. Sponge out or use a shop vac to clear any water out of the toilet bowl and tank then add 4" of plumber antifreeze in toilet bowls.

Hold the flush valves on each of the urinals open until the antifreeze flows through the valve into the bowl and enough to fill the urinal p trap.

To winterize liberty sewer sump pit and pumps press the "Pump Run" button on the pump controller (located on the back wall between tanks) to pump out the water in the sump pit. Next, ensure sewage pump power is unplugged and remove the small access cover on the sewage sump pit (6 bolts). Use a shop vac to suck the remaining water out of the sewer sump pit or dump 10 gallons of antifreeze into the sewage sump. Reinstall the sewer sump pit cover. Have the 650 gal sewage tank drained as per instructions on page 4.