

20'x11' B.F. Self-Contained Washroom Trailer

Winterization Procedure **MUST** be Completed by a Licensed Plumber.

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

For a video tutorial, visit our official Youtube channel: <https://www.youtube.com/watch?v=zJ5Mwmi4FXI>

Water System Winterizing Instructions

Self-Contained System

Note: All drain valves (#3, 4, 5, 8, 9, 16, 19, 25, 26, 27, 28) should be OPEN to drain the trailer, then CLOSED prior to winterizing the unit.

All ball valves **NOT** charged with antifreeze need to be in the half **OPEN** position once winterizing is complete. If valve is fully **CLOSED** to hold pressure, **OPEN** and **CLOSE** that valve twice to allow any trapped water to be displaced. Failure to do so may cause damage to the valve and will need to be replaced. To winterize you will need about 30 gallons of antifreeze.

- 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 (HWH) electrical disconnect and drain the HWH (**OPEN** Valve #9) and **CLOSE** the valves feeding the HWH (Valve #13, 15) so no antifreeze will be pumped into the HWH. **OPEN** valve (#14) at the top of the HWH to cross feed antifreeze from the cold water line to the hot water line downstream of the HWH.
- **OPEN** the valve (#3) at the bottom of the 600 gallon water tank to drain it.
- **CLOSE** the valves feeding each toilet and then flush the toilets to remove the water in the bowl and tank.
- If unit has urinals, **CLOSE** the flush valve at the urinal. To **CLOSE** valve, insert a flat head screw driver into the bottom of the valve and turn to the right. The flush valve is located to the far left of the lever handle on the water line. A black cap may need to be removed to access valve shut off. Repeat for each urinal.
- There is 5 foot long x 1 ¼ " clear hose near the water pump (Valve #22) that is used to pump plumbers antifreeze thru the cold and hot water lines. Insert the end of this clear hose into a pail of antifreeze and **OPEN** valve (#22) so that the water pump draws from the pail. Keep adding antifreeze to the pail as required.
- With the hot and cold water lines charged with plumber's antifreeze use all the sinks water taps until antifreeze appears. Run enough to fill all the P-traps with antifreeze. Also, run antifreeze thru each water pump. **OPEN** 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 stand pipe in the toilet tank. 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.
- If unit has urinals, **OPEN** the flush valves (turn to the left) on each of the urinals slowly while pulling down on lever handle at the same time until the antifreeze is visible 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 back wall between tanks) to pump out the water in the sump pit. Next,

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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 600 gal sewage tank drained as per instructions on Page 4.

Valve Position Guide for Winterizing a Self-Contained System

Note: Valve position guide is for winterizing using pump 1. If using pump 2, **CLOSE** valve #17, 18 and **OPEN** valve #20, 21. Please ensure both pumps contain antifreeze before finishing winterizing.

- 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. CLOSED (MUNICIPAL FEED)
- VALVE 6. OPEN (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. CLOSED (SOLENOID VALVE)
- VALVE 13. CLOSED (HOT WATER TANK OUTLET)
- VALVE 14. OPEN (BYPASS FOR HOT WATER)
- VALVE 15. CLOSED (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. OPEN (WINTERIZING)
- VALVE 23. CLOSED (SHUT OFF BETWEEN PUMP + MUNICIPAL)
- VALVE 24. CLOSED (EXPANSION TANK)
- VALVE 25. CLOSED (DRAIN LAUNDRY SINK)
- VALVE 26. CLOSED (DRAIN LAUNDRY SINK)
- VALVE 27. CLOSED (DRAIN)
- VALVE 28. CLOSED (DRAIN)

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Municipal System

Note: All drain valves (#3, 4, 5, 8, 9, 16, 19, 25, 26, 27, 28) should be **OPEN** to drain the trailer, then **CLOSED** prior to winterizing the unit.

All ball valves **NOT** charged with antifreeze need to be in the half **OPEN** position once winterizing is complete. If valve is fully **CLOSED** to hold pressure, **OPEN** and close that valve twice to allow any trapped water to be displaced. Failure to do so may cause damage to the valve and will need to be replaced. To winterize you will need about 30 gallons of antifreeze.

Note: Prior to winterizing, ensure crossover hose is hooked up between valve #10 and valve #11. When winterizing is complete the crossover hose should be disconnected and stored behind the pressure tank.

- Disconnect external water source from trailer
- Run the laundry sink water 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 (HWH) electrical disconnect and drain the HWH (**OPEN** Valve #9) and **CLOSE** the valves feeding the HWH (Valve #13, 15) so no antifreeze will be pumped into the HWH.
- **OPEN** valve (#14) at the top of the HWH to cross feed antifreeze from the cold water line to the hot water line downstream of the HWH.
- **CLOSE** the valves feeding each toilet and then flush the toilets to remove the water in the bowl and tank.
- **CLOSE** the flush valve at the urinal. To **CLOSE** valve insert a flat head screw driver into the bottom of the valve and turn to the right. The flush valve is located to the far left of the lever handle on the water line. A black cap may need to be removed to access valve shut off. Repeat for each urinal.
- There is 5-foot-long x 1 ¼" clear hose near the water pump (Valve #22) that is used to pump plumber's antifreeze thru the cold and hot water lines. Insert the end of this clear hose into a pail of antifreeze and **OPEN** valve (#22) so that the water pump draws from the pail. Keep adding antifreeze to the pail as required.
- With the hot and cold water lines charged with plumber's antifreeze use all the sinks hot and cold water taps until antifreeze appears. Run enough to fill all the p-traps with antifreeze. Also, run antifreeze thru each water pump. **OPEN** 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 stand pipe in the toilet tank. 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.
- **OPEN** the flush valves (turn to the left) on each of the urinals slowly while pulling down on lever handle at the same time until the antifreeze is visible 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 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 600 gal sewage tank drained as per instructions on Page 4.

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Valve Position Guide for Winterizing a Municipal System

Note: Valve position guide is for winterizing using pump 1. If using pump 2, **CLOSE** valve #17, 18 and **OPEN** valve #20, 21. Please ensure both pumps contain antifreeze before finishing winterizing.

- 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. CLOSED (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. OPEN (TAP FOR PUMP OR MUNICIPAL)
- VALVE 11. OPEN (TAP FOR PUMP OR MUNICIPAL)
- VALVE 12. OPEN (SOLENOID VALVE)
- VALVE 13. CLOSED (HOT WATER TANK OUTLET)
- VALVE 14. OPEN (BYPASS FOR HOT WATER)
- VALVE 15. CLOSED (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. OPEN (WINTERIZING)
- VALVE 23. OPEN (SHUT OFF BETWEEN PUMP + MUNICIPAL)
- VALVE 24. CLOSED (EXPANSION TANK)
- VALVE 25. CLOSED (DRAIN LAUNDRY SINK)
- VALVE 26. CLOSED (DRAIN LAUNDRY SINK)
- VALVE 27. CLOSED (DRAIN)
- VALVE 28. CLOSED (DRAIN)

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Septic System Operating Instructions

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 alarm continues please disconnect power, remove top cover of pit 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 problem persists please call for assistance.

600 Gal Sewer Tank Operation

The 600 gal sewer tank is equipped 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 power off to the water pump when the tank reaches its capacity to prevent it from over flowing. The alarm is located on the right side of the center exterior door. To restore power to water pump and stop alarm, follow instructions to drain sewer tanks.

Instructions for Draining the Sewer Tanks

- Located on the right side of trailer near the center exterior door there is a 3" female camlock which is the drain pipe for the sewage tanks, which has a protective spill cover.
- Remove the protective 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) located to the right inside of the center exterior door 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.

Note: 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.