When storing your trailer in temperatures below freezing temperatures, it's extremely important that you have your trailer winterized before exposure to prevent future repairs. The best way to accomplish this, is to flush your lines with RV specific antifreeze.

Before you get started, there are a few items you will need to have that can be found in RV parts stores or through internet suppliers:

- Non-Toxic RV Antifreeze (The amount depends on the layout and length of your plumbing lines. Two to three gallons will normally do)
- A water heater by-pass kit, if not already installed.
- A water pump converter kit, or a <u>hand pump</u> to connect to the city water garden hose fitting
- A wand to clean out holding tanks thru the RV toilets (if you want to clean the waste tanks)
- Basic hand tools

## Follow the steps below that apply to your Trailer.

- Drain the fresh water holding tank.
- Drain and flush waste holding tanks. If necessary, clean the waste tanks out with a wand placed down the RV toilets. Lubricate the termination valves with WD 40. (An alternative method is to add about 30 gallons of fresh water to the waste tank along with RV tank treatment and drive around to break up the solids)
- Relieve the water pressure by opening a faucet.
- <u>Tank type water heater</u>, If your water heater has an electric heating element make sure it is turned off until spring after filling it with water again otherwise the element will burn up if turned on when dry. Drain the water heater. Remove the drain plug and open the pressure relief valve. CAUTION <u>never drain the water heater when it is hot or under pressure</u>. <u>By-pass the water heater</u>. If you do not have a by-pass kit installed the water heater will fill up with antifreeze before it goes through the water lines, using a few extra gallons of antifreeze.
- Install a water pump converter kit, or disconnect the inlet side of the water pump (the line coming from the fresh water holding tank). Connect a piece of clear tubing to the inlet side of the pump and put the other end into a gallon container of non-toxic RV antifreeze. Otherwise connect the hand pump to the city water garden hose inlet fitting.
- Turn the water pump on to pressurize the system. Or if using a hand pump, have someone pump to keep pressure up while flushing out each fixture.

- Starting with the closest fixture, slowly open the hot and then cold valves until antifreeze appears.
- Repeat this process on all fixtures (toilets, faucets, showers...) from the closest to the furthest away.
- Turn the water pump off and open a faucet to release the pressure.
- For an extra level of protection, you could hookup low air pressure, less than 50psi, to the water line and blow them out by opening each fixture again to push out the antifreeze.
- <u>Tankless Propane water heaters</u>: On the bottom of the unit, remove the black water inlet filter from the cold water inlet and remove the drain plug from the hot water outlet. Use paper towels to catch the water that drains and be careful not to lose the O-rings. Reinstall these fittings <u>Hand Tight Only</u>, these have O-rings and don't need to be very tight to seal.
- Wipe out any residual antifreeze from all the showers, sinks and toilets as it can leave a stain.
- If you didn't use the on-board water pump on the trailer to pump the antifreeze then you will need to get the water out of the pump head to keep it from freezing and cracking. Disconnect the lines from both ends of the pump and run the pump for a few seconds into some paper towels.
- Consult your owner manuals for winterizing other special fixtures like washing machines, shower pumps, and electric pump toilets.