

SANITIZING YOUR FRESHWATER TANK

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Your RV's Potable Water System requires periodic maintenance (sanitizing) to keep components working correctly and to deliver a safe, consistent flow of fresh water. This maintenance should only be done when the RV is connected to a City Water Source.

Sanitizing is recommended before placing any RV into storage, after removing any RV from storage, and/or any time the tank or plumbing system has been opened or contaminated. If you are Full-Timing, I strongly recommend once every three months.

Step 1. Drain any water stored in the freshwater tank, then close the drain valve. NOTE: Check your Vehicle Owner's Manual for specific instructions. Also, by-pass any filters or remove filter cartridges – especially from a filter system installed under a (kitchen) sink.

Step 2. Determine how much ordinary household bleach you need to sanitize your freshwater tank. Typically, 2 ounces of bleach for every 15 gallons of tank capacity. So, for a total tank capacity of 75 gallons, use the following calculations: $75 \div 15 = 5$, then 5×2 ounces = 10 ounces. That means you will need 1-1/4 cups of bleach.

Step 3. Determine how you will get the bleach into the freshwater tank:

- A. If you have a filling system that requires you to put water into your tank via a hatch opening on the side of your RV, use a long neck funnel and carefully pour the bleach into the filler line first. Afterward, add fresh water via the filler line until the tank is full.
- B. If you have a whole RV filter system (possibly portable and positioned next to the RV or near the city water source, or if it is hard plumbed in a basement compartment close to the RV's city water connection) with a removable filter, remove the filter and pour the bleach into the empty housing. Then, carefully reconnect the housing. When you turn the water "ON," the incoming water will mix with the bleach and deliver it to the freshwater tank.
- C. You may have to use your freshwater hose if you don't have examples A or B above. Disconnect both ends of your freshwater hose (if the RV is already connected to city water, make sure you turn the City Water Source "OFF" first!). Drain the hose completely. Reconnect the "male" end to the RV's City Water Connection. While using a long neck funnel, slowly pour the bleach into the unconnected, "female" end of the empty hose. When completed, connect the hose to the City Water Source and turn the water "ON."

In all cases above, you'll know the freshwater tank is full when water starts draining onto the ground - somewhere under the RV, below the tank. (Yes, there is an overflow drain line – it may or may not have a shut-off valve. If it does have one, ensure it is "open" to allow the air in the tank to bleed off. If you don't open it, the tank will bulge like a balloon and possibly rupture.)

Step 4. After the tank is full: A. Cap the filler line and close the hatch door; or B. Install a new filter in the whole RV filter system housing and reconnect; if you used one, don't forget to return your flow valve from the "Tank Fill" to the "Normal Flow" position.

Step 5. Let the bleach water "sit" in the freshwater tank for 24 hours.

NOTE: For the following steps, you should by-pass the water heater (if you do not have a by-pass system – you will need to drain, flush, and refill the water heater tank as necessary – more information about this process can be found in my book titled, *Understanding Your RV's "APPLIANCES"*).

Step 6. Shut "OFF" the city water source and turn "ON" your onboard water pump.

Step 7. (NOTE: You must accomplish this step to help sanitize each plumbing line (Cold and Hot) from the tank to the applicable faucet.) Open any faucet's Cold-Water Valve in the RV (I usually start in the bathroom and work my way toward the RV's entry door) and allow the water to flow until you can smell the pungent odor of bleach. Then, shut the valve "OFF." REPEAT this step for all the Cold-Water Valves in the RV before doing the same action (in the same faucet order) with the Hot-Water Valves! This sequence will allow the smell of the bleach to dissipate before opening any faucet's other/opposite valve.

Step 8. Turn "OFF" the water pump. (CAUTION: Do NOT reopen any faucet valves until the following step(s) is/are completed!

Step 9. Drain the freshwater tank. Reclose the drain valve when done.

If you are putting your RV into storage, you are done. All you should do now is "winterize" the plumbing system if necessary. If you are taking your RV out of storage or living in it full-time, continue with the following steps:

Step 10. Refill your tank with fresh water from the City Water Connection. (Double-check your overflow drain valve.)

Step 11. Repeat the previous step of Opening/Closing the faucet valves, only this time letting the water run until the smell of bleach is gone.

CAUTION: After you have rinsed out each plumbing line (Cold and Hot) from the City Water Connection to all the faucets, don't forget to reopen the water heater by-pass!

Step 12. Now, you want to let the rinse water "sit" in the freshwater tank for 24 hours. This will ensure that any residual bleach is absorbed into the rinse water.

Step 13. Drain and refill the freshwater tank one last time at the end of the "rinse" period. After filling, you will have a sanitized water tank and a safe supply of stored water for human consumption (aka Potable).

But wait! You have one final step to accomplish before using this "safe" water.

Step 14. Turn "OFF" the City Water Supply and turn "ON" your water pump. Open the cold water valve on the faucet closest to your water pump connection. Let the water run for approximately one (1) minute. This will rinse out the suction line from the tank to the water pump and the water pump as well. (NOTE: After this step is completed, you can, finally, reinstall or replace the filter in the "under the sink" filter system.)

(COMMENT: I realize this sounds like a lot to do when you first read it, but it progresses rather quickly once you start the process. Remember, correctly sanitizing your freshwater tank is extremely important for your health and well-being and the RV's freshwater tank and plumbing system.)