

## Water Heater Bypass Installation

A water heater by-pass kit can save you money in two ways. It saves you from using an extra six or ten gallons of non-toxic RV antifreeze when it's time to winterize your RV, and a bypass kit also prevents costly damage like ruptured water lines or a water heater tank. If water is left in the lines or tank they can freeze and expand, splitting the lines or tank. With a bypass kit you simply drain the water heater, put it in the by-pass mode and the antifreeze bypasses the tank and goes directly into the water lines.

If your RV water heater doesn't have a bypass kit they are easy to install. The first step is to make sure any water supply coming into the RV is turned off; this includes the 12 volt water pump. Release any pressure on the water system by opening a hot and cold water faucet. Now you can drain the water heater. **Never drain the water heater tank when it is hot or under pressure.** There are a couple of different types of bypass kits available. The bypass kit I used in the demonstration is by Valterra Products, and is common type of kit. It includes two brass valves, a bypass hose and Teflon tape. When the water heater is installed in your RV there is a cold water supply line connected to the cold water inlet at the bottom of the tank and a hot water line connected at the top where the hot water leaves the tank and goes out to the RV. The first step to installing the bypass kit is to remove the hot and cold water lines and the existing fittings. You may want to mark the water lines so there is no confusion when you reconnect them. Now wrap the male threads, with Teflon tape, on the ends of the brass fittings that will go into the water heater tank. Install the valves in the water tank and tighten them. The male threads for the bypass water line should be facing each other when they are tight. These threads don't require any Teflon tape. Install the water bypass hose and tighten the fittings one half turn past finger tight. Re-install the fittings you removed earlier and reconnect the hot and cold water lines. Fill the tank with water and pressurize the system to check it for leaks. Now when it's time to winterize the RV you drain the water heater tank, turn the valves so they are inline with the hose and the tank is bypassed saving you six or ten gallons of non-toxic RV antifreeze, and preventing any damage to the water heater tank.

Happy Camping,

Mark J. Polk

[www.rveducation101.com](http://www.rveducation101.com)