

# How To Guide

## RangerRT



# HOW TO: Water System Winterizing

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## Do you really need to winterize?



If your Roadtrek is going to remain heated to comfortable temperatures, and the temperatures during the day are well above freezing (above 40 deg. F or above 4 deg. C) and the forecast is for temperatures just below freezing for a few hours at night with calm winds, then you don't need to winterize. The heat in your Roadtrek is enough to keep the lines from freezing.



If the forecast is for extended cold periods, with daytime temperatures at or below freezing, if you're not heating your Roadtrek, or if you expect sustained winds and the roads and ground is already frozen, you need to winterize.



As always, you are final judge and you need to do what is comfortable and makes you feel good. If you are not comfortable with leaving water in your lines when it gets cold, and you will sleep better, go ahead and winterize.

## How to winterize using anti-freeze

- Get three gallons of RV antifreeze.

**✗ DO NOT** use automotive antifreeze. RV antifreeze is non-toxic and safe for potable water lines.

- Buy three gallons of pink RV/marine antifreeze.
- Take your Ranger to a dump site and drain the gray and black water tanks.
- Turn off the water pump.



Typical RV anti-freeze



Compartment lid screw

- To access the water heater bypass valves, remove the cushion from the driver's side rear seat and undo the Robertson screw securing the compartment lid. Lift the lid and locate the three bypass valves with black handles on the water lines. The third valve is hidden behind the water pump. Turn each valve 90 degrees - in the winterized position all three valve handles are horizontal - the handles are across the two vertical lines, and in line with the horizontal line beneath the water pump. Put the valves in the winterized position, and close the compartment lid.



First two water heater bypass valves



Third water heater bypass valve



Water heater fittings



Fresh tank drain



Water pump filter

- To remove and drain the water heater, open the wardrobe to the left of the galley counter. Turn off and unplug the water heater, and loosen the two water line fittings on the left side of the top of the water heater. These are plastic fittings-unscrew them counterclockwise by hand if possible, or gently use a pair of pliers cushioned with a cloth rag. **DO NOT APPLY EXCESSIVE PRESSURE TO THESE FITTINGS.** After you loosen the intake (blue) and outlet (red) lines, move them over to the left side of the wardrobe wall and lift the entire water heater up. The large pipe on top is an overflow line which goes down through a hole in the floor and is not fastened to the body - it will pull right out.
- Take the water heater unit outside and invert it for approximately 30 minutes to drain. Shake and tilt it as necessary to remove all water. Once it is drained, either plug the intake and outlet holes and store it in a secure location, or return it to its position inside the wardrobe and reattach the water lines. Make sure it remains unplugged and turned off while drained of water. Operating the water heater while drained will damage the unit.
- Look for the drain underneath the driver's door for the fresh water tank drain. Open the valve and allow the tank to drain until empty. Close the drain valve, open the driver's door, remove the orange plug in the fresh water tank gravity fill, and pour in 2 1/2 of the three gallons of pink antifreeze, saving a half gallon for the drains. Replace the orange plug.
- Turn the water pump on.
- Open the galley sink faucet, both hot and cold sides, until you see undiluted pink antifreeze come out. Do the same with the bathroom sink. Flush the toilet until you see pink antifreeze coming down into the bowl. Open both outside shower faucets until you see undiluted antifreeze coming out of them.
- Divide the remaining half gallon of antifreeze between the three drains - shower, bathroom sink, and galley sink - and the toilet.
- Open the fresh water drain valve and allow a small amount of antifreeze to leak out.
- Remove water pump filter if so equipped. Replace water pump filter lid.