

How To Guide

2016 CS Adventurous



HOW TO: Water System Winterizing

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

This procedure can be done in less an hour with no specialized tools. You will need a funnel and your Robertson head screwdriver that came with your Roadtrek.

- Get 2-3 gallons of RV antifreeze.



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

- Drain the fresh water tank by opening the fresh water tank drain valve, located under the passenger front door step. It may take as long as 30 minutes to drain the tank. Close the drain for the exterior tank.
- Run the galley faucet until it sputters to empty as much water as possible.
- Turn off the water pump.
- Dump and rinse the gray and black tanks.
- Open your single lever galley faucet, putting it in the middle halfway between the hot and cold settings.

! If you have the standard Alde hydronic hot water/heating system, continue on through these steps. If you have the optional Webasto diesel-fueled hot water system, skip steps the dealing with the Alde system water heater and its bypass valves, go to the bottom of this article and perform the steps pertinent to your unit.



Typical non-toxic RV antifreeze



Freshwater tank drain valve

Alde bypass instructions

- Lift the cushions and stowed rear table off the driver's side bench behind the wardrobe and loosen the screw securing the hinged cover.
- Lift the cover up to expose the three bypass valves on the water lines, and the Alde frost protection valve.
- Turn the three black plastic handled valves so that they are all pointing toward the side of the Roadtrek. See photo above.



Bypass valves in normal position - all black handles horizontal



Valves turned to bypass position - all black handles vertical



Location of Alde frost valve



Alde frost protection normal position - blue handle is pointing parallel to the water line, blue button at base (see arrow) is in



Frost protection valves turned to dump position - blue handle pointing toward water line, blue button at base is out

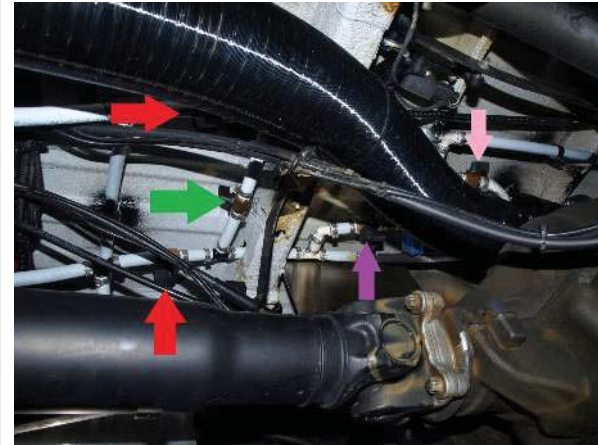
- Turn the frost protection valve on the Alde unit so that the handle is across the line. The system will drain the water in the unit to ground, which might take 15 minutes or more. Go back to the middle of the winterization procedure and complete steps 10 through 19.

Webasto bypass Instructions

- Locate the Webasto unit control on the cabinet face behind the television. Turn the left knob to the dump position (all the way counterclockwise). Open the galley sink hot water faucet to allow air into the hot water system. It will take approximately 10 to 15 minutes for the unit to drain completely. The Webasto unit will reset after 90 minutes to close the dump valve.



Webasto control

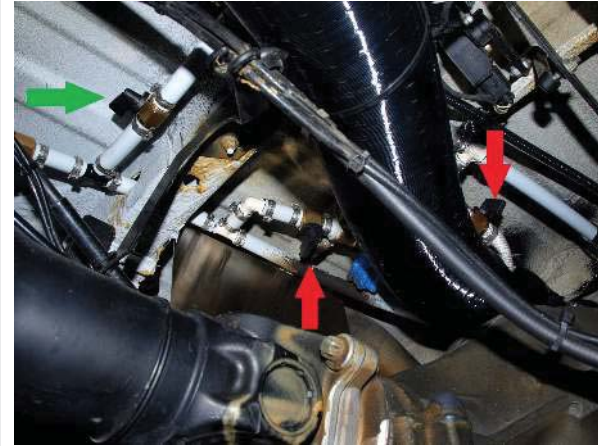


Valves at red arrows should be left alone (always open). Green arrow points to shunt valve; pink and purple arrows point to hot and cold supply lines for Webasto

- Locate the diesel-fueled hot water unit underneath the vehicle. It is immediately behind the center of the rear axle (the differential). There are two air ducts on the front side of the unit, near the top. There are also two white water lines coming back from the front of the Roadtrek, one on each side of the chassis centerline. Just before these lines get to the Webasto unit, there is a transverse white hose connecting them, with a valve on it. This is the shunt valve. To winterize, you open the shunt valve, and close the two valves on the hot and cold lines going into the Webasto **BETWEEN THE SHUNT (TRANSVERSE) LINE AND THE UNIT**. There may be other valves on the hot and cold lines forward of the transverse white hose connecting the two water lines - **DO NOT TURN THESE VALVES**. (see photos above and below). If your outside shower quits working, you turned the wrong valves.



Shunt and Webasto supply line valves in normal position (shunt closed, supply valves open)



Shunt and Webasto supply line valves in bypass position (shunt open, supply valves closed))

- From the passenger side of the differential you will see two valves. The one on the transverse line is the shunt valve, and the one on the line between the transverse line and the Webasto unit leading to the blue overpressure relief valve is the cold side supply valve. Turn each 90 degrees so the shunt valve is parallel to the water line (open) and the cold side supply valve is across the line (closed).
- Now go around to the other side (driver's side) of the differential, and look for the hot water line. It will be white and may have a piece of red tape on it. Look on this line for a valve BETWEEN THE SHUNT (TRANSVERSE) LINE AND THE WEBASTO UNIT which is open in normal operating mode. Turn it so that the black plastic handle is across the line (closed). There may be other valves on the hot water line forward of the transverse (shunt) line - DO NOT TURN THESE VALVES. If your outside shower quits working, you turned the wrong valves.

Complete the winterization

- Check to be sure that the drain on the fresh water tank and the black and gray waste water tank valves are all closed. Move the single lever galley faucet all the way to the cold side, and leave it open.
- Add 2 gallons of non-toxic RV approved antifreeze to the fresh water tank gravity fill using a spout or funnel, and wash any spillage off the paint.
- Turn the water pump on and allow to prime. Close cold galley sink faucet once you see pink antifreeze coming out.
- Run antifreeze from all fixtures.
 - Move the single lever galley faucet to the hot side, and run until you see pink antifreeze come out.
 - Open both hot and cold faucets in the bathroom sink
 - Flush the toilet.
 - Open the hot and cold faucets on the outside shower
 - Press and hold the cold handle on the instant hot water dispenser until undiluted pink RV antifreeze emerges from the faucet. Then do the same thing with the hot handle. You will be filling the hot water reservoir with antifreeze, which takes approximately a gallon, so this may take some time.
 - In the cabinet under the convection oven there is a water filter for the instant hot water dispenser. After running antifreeze through the system, twist and remove this filter, pour the antifreeze in the filter down the galley sink, and reinstall the old filter. Buy a new filter to have on hand for dewinterizing in the spring, but do NOT install the new filter until you have purged all the antifreeze from the system. This filter should be replaced annually, so it's most convenient to replace it at the time of dewinterizing.
- Ensure antifreeze flows into all P-traps (galley sink, washroom sink, and shower drain). Add any extra antifreeze to the galley, bathroom sink, and shower drains.
- If the water pump loses its prime in this process, add more antifreeze to the fresh water tank.
- Open the grey and black waste tank valves, and operate the waste water discharge pump for about 10 seconds. You should see pink antifreeze coming out of the waste water discharge hose.



Access to the city water valve, side door



Screws holding plastic radiator cover on



City water valve in open, along-the-line position

- Open the city water valve. To do this, loosen the Robertson head screws holding the plastic radiator cover on the side door step. Remove the plastic cover, and the city valve is inside the exposed opening on the left side of the side door step. Turn the handle horizontally to the parallel-to-the-line position (see photos above). The water pump will operate. Allow it to run about 20 seconds. Turn city water valve off (black plastic handle will be vertical).



Water pump access inside passenger side bench enclosure



Water pump filter

- Turn the water pump off and open a galley sink faucet to release back pressure.
- Open the fresh water tank drain line under the passenger front door briefly until antifreeze flows out.
- Remove and clean the water pump filter if so equipped. To access the water pump filter, loosen the screw on the lid of the passenger side bench just behind the bathroom, and lift the lid. Replace water pump filter.



Only dump at approved dump stations or collect the macerator discharge into a bucket and dump into a toilet. Do not dump into storm sewers.

- Run the macerator until you see pink antifreeze.

Winterizing using compressed air

Roadtrek recommends against using compressed air for winterizing.

Other methods of winterizing

Roadtrek only recommends the winterizing method outlined above using RV antifreeze.