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Model(s): Pando / Expedition (2026+)

Equipment: Truma AquaGo

Date Issued: October 14, 2025

Approved By: Off Grid Engineering

Purpose:

The purpose of this instruction is to provide clear, step-by-step procedures for (de-)winterizing the trailer's fresh water and plumbing system.

Tools Required:

- Phillips screwdriver (#2 / #3) — (Expedition only)

Items Required:

- Non-toxic RV line antifreeze (pink) – 1-2 gallons
- Sponge or cloths

WINTERIZING

1. SAFETY / PRECAUTIONS

- Use only non-toxic RV/marine antifreeze. **Do not use automotive antifreeze.**
- Ensure the water heater is cool before servicing.
- Turn off all power sources (12V and 120V) and unplug from shore power before starting.
- Turn propane supply off.
- Label the plumbing system “Winterized — Do Not Use” after completion.
- Clean any spilled antifreeze immediately.

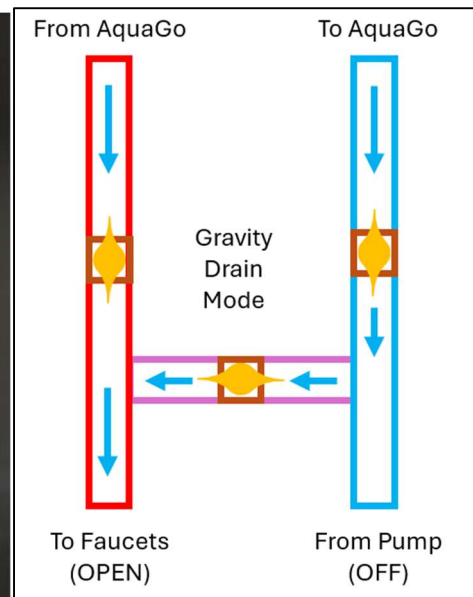
2. Preparation

- Turn off all power sources (12V and 120V) and unplug shore power.
- Turn off propane supply.
- Confirm the water heater is cool to the touch.

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3. Drain the Water System

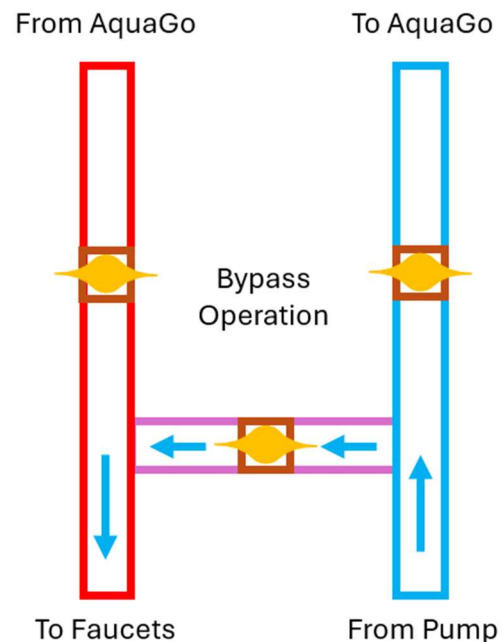
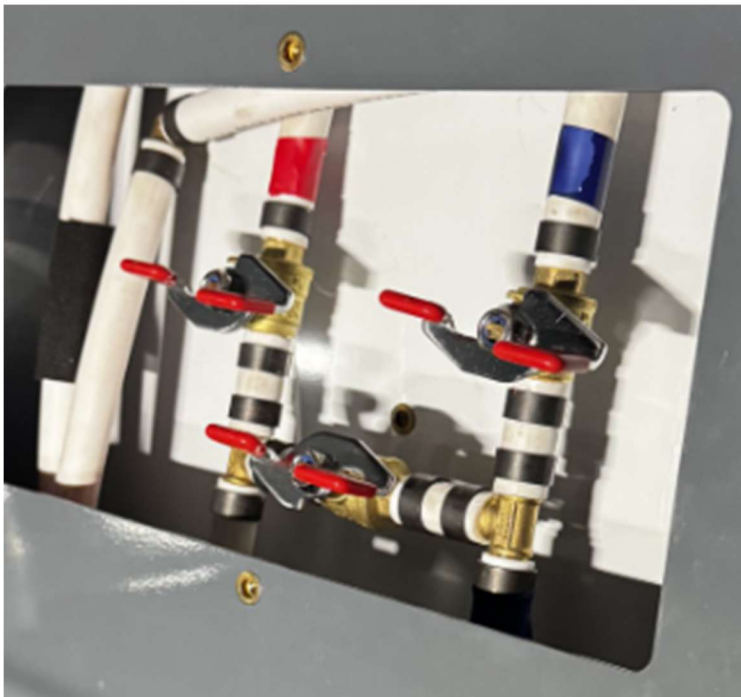
- Drain the freshwater tank using the drain valve(s) located below the trailer.
- Switch bypass valves into “Gravity Drain” mode. This is located inside the cabinetry behind a panel with 6 thumb screws. See photos below.
- Open all faucets and shower knobs (both hot and cold or set fully to “warm”) to allow air into the system and aid draining.
- Remove the water heater filter and stow it in a dry place. A good location for this is inside the water heater on the right-hand side, there is a perfectly sized void where the filter fits.
- Allow the system to gravity drain completely through the shower head and sink faucet.
- Once drained, close all faucets and shower knobs.



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4. Set Valves for Winterization

- Water heater bypass valves switch each to the bypass/winterize position. (see photo below)
- Pump suction valve: switch to the winterize position so the valve knob points to the loose suction hose. This valve is in the rear well below the shelving in the Expedition, or near the tank switching valve in the Pando.



5. Pump Antifreeze Through the Lines

- Insert the loose suction hose into a jug containing RV antifreeze.
- Turn the water pump ON.
- Open the sink faucet — cold. When pink antifreeze appears from the faucet, close the faucet.
- Open the sink faucet — hot. When pink antifreeze appears, close the faucet.
- Open the shower — cold. When pink antifreeze appears, close the shower knob.
- Open the shower — hot. When pink antifreeze appears, close the shower knob.
- Turn the water pump OFF.

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6. Finalize and Clean Up

- Wipe down surfaces and fittings to remove spilled antifreeze.
- (Optional) Insert a small piece of sponge or cloth into the suction hose (or squeeze into hose end) to reduce drips from residual liquid. Do not push the sponge or cloth too far in.
- Verify all valves remain in winterize positions and all faucets are closed.

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DE-WINTERIZING

Model(s): Pando / Expedition (2026+)

Equipment: Truma AquaGo

Date Issued: October 14, 2025

Approved By: Off Grid Engineering

Purpose:

The purpose of this instruction is to provide detailed steps for **de-winterizing and sanitizing** the trailer's fresh water and plumbing system, ensuring safe and clean water operation at the start of the camping season.

Tools Required:

- Phillips screwdriver (#2 / #3) — (Expedition only)
- Towel or cloth for spills

Items Required:

- Unscented household chlorine bleach
- Fresh water hose
- Sponge or cloth (optional)
- Measuring cup or graduated container

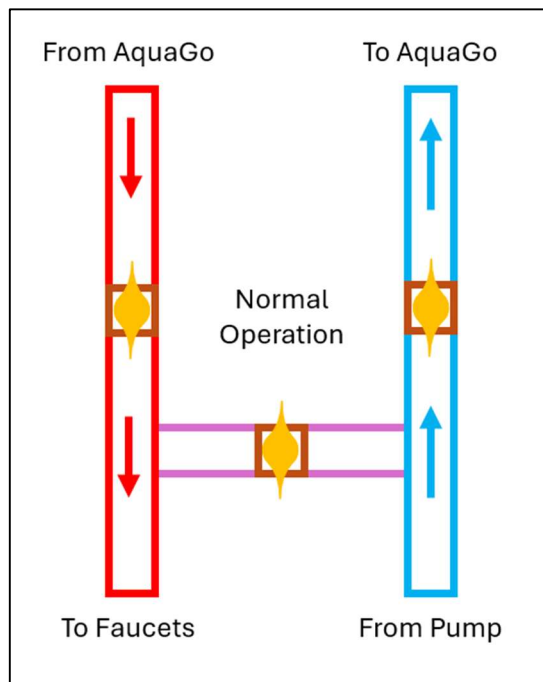
1. Drain Antifreeze and Prepare System

- Turn off all power sources (12V and 120V) and unplug from shore power.
- Turn off propane supply.
- Open all faucets and shower knobs (hot & cold) to allow RV antifreeze to drain from the plumbing.

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2. Return Valves to Normal Operation

- Locate the water heater bypass valves and switch them to the Normal Position. See photos below.
- Ensure the pump suction valve is switched back to the freshwater tank position.
- Verify the loose suction hose is capped or stowed securely.



3. Prepare Sanitizing Solution

- Mix a chlorine bleach solution using this ratio:
 - $\frac{1}{4}$ cup of chlorine bleach + 1 gal of water for every 15 gal of water tank capacity.
 - *Example:* For a 30-gallon freshwater tank, mix $\frac{1}{2}$ cup of bleach with 2 gal of water, then add the solution to the tank and fill the remainder (~28 gal) with fresh water.
- Gently shake or rock the trailer to mix the bleach and water.

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4. Circulate Sanitizing Solution

- Turn ON the water pump.
- Open each faucet and shower (hot and cold) until a chlorine bleach smell is present.
 - NOTE: Set the water heater for full water flow, **but do not turn the heater ON**.
- Once the smell is evident at all fixtures, close all faucets and allow the solution to sit in the system for at least 4 hours to sanitize. Recommended to let sit for 24 hours to ensure sanitization.

5. Flush and Finalize

- Drain the freshwater system completely using the water pump and all faucets.
- Refill the freshwater tank with clean water.
- Turn the pump ON and open all faucets (hot & cold) and the shower to flush the system.
- Repeat this process until no chlorine bleach odor remains. Recommended to flush a minimum of two full tanks of clean fresh water regardless of odor.
- Inspect all fittings, valves, and the water heater for leaks.
- Verify all valves are returned to normal operation and that hot and cold water flow correctly.