



RV500 OPERATING INSTRUCTIONS

The RV-500 is designed to give a continuous flow of hot water as long as required and maintain temperature within the capacity of the heater (90°F temperature rise at one GPM). The temperature on your water heater has been factory set to approximately 120°F. It is not recommended that you change this setting. Doing so could result in dangerously hot temperatures that could result in severe injury. If it is necessary to change the setting refer to the Service Manual or call PrecisionTemp.

The heater is dormant until a hot water tap is opened. The heater will not fire at very low flows; i.e., under 0.5 GPM. During normal operation the RV500 will have a steady flashing green LED light on the front of the electronics drawer. A red flashing LED indicates a trouble code; refer to the Service Manual or call PrecisionTemp for assistance. When adjusting water temperature it is best to start with hot only and slowly add cold into the mix until the desired temperature is reached.

NOTE: When using an "on/off" button on a shower head or an outside wash down box, always turn off the hot and cold water valves when finished. Not doing so will result in cold water bleeding into the hot water system. This will either cause the water heater not to ignite or result in alternating warm and cold water.

Dry Camping

RV showerheads are designed to drip when turned off and will allow the hot water line to be filled with cold water. When showering it is recommended that you leave the water running as you would at home. You will not run out of hot water and you will not waste additional water waiting for the cold water to purge from the water line every time the water is turned back on.

Winter Operation

When operating the RV500 in cold climate conditions the flow of water may have to be slightly restricted or slowed at the faucet to maintain the set temperature of 120 degrees. **NOTE:** If your RV500 is equipped with the Cold Weather Protection Package the 12vdc power and propane must be left on to protect the RV500 from freezing in cold climate conditions. **The Cold weather protection switch, located on the bottom of the electronics drawer, must be turned on prior to experiencing freezing temperatures to protect against freezing. Models built prior to 9/2011 do not have a switch.**

Winter Driving Instructions: Under no circumstances should you travel in freezing conditions without first draining water from the unit. Follow the winter driving draining instructions prior to driving in freezing temperatures. Freezing is not covered under the product warranty.

RV500 Water Heater

Winter Driving Draining Instructions

1. Turn off water supply.
2. Open all hot water faucets.
3. Open the shut off valve on the **Red** sewer bay drain line.
4. Remove the RV500 door and open the Pressure Relief Valve by moving the lever to the open position.
5. The water lines and the RV500 will now drain.
6. Inspect the Flowmeter sight glass to insure all water is drained from the water heater.
7. When all water is drained from the hot water lines and the Rv500 Flowmeter is empty reinstall the water heater door. Leave the Pressure Relief Valve and hot water faucets open while driving.
8. The heater is now safe to drive in freezing temperatures.
9. Once your destination is reached close the RV500 Pressure Relief Valve and close the sewer bay drain valve. Turn on water supply and close all hot water faucets once air is purged from the lines.



Routine Maintenance

All faucet aerators and showerhead screens should be cleaned regularly. It is recommended that the RV-500 be inspected by a qualified service technician at least once a year. Particular attention should be paid to the following:

1. Inspect the air inlet openings and flue area to be clear of any debris or obstructions, (leaves, bug nests, spider webs, etc.)
2. Check that the heater mounting is secure to the coach and there are no areas for potential water leaks.
3. Open the cover of the heater and inspect for debris or obstructions under the burner or in flue hood.
4. Visually inspect wiring. Be sure there is no chafing of the insulation. Be sure that the direct spark ignition cable (yellow) wire is secured to the electrode under the burner and that the connector is not touching anything.
5. Check for soot around the flue. Soot is a sign of incomplete combustion. If you find soot a qualified service technician should be notified to correct the problem.
6. The pressure relief valve should be manually activated once a year by moving the lever on the top of the valve 90° while power is turned off. Never perform this operation while the burner is operating or scalding could occur. Never plug the pressure relief valve. If the valve is actuating too frequently contact PrecisionTemp or replace valve.
7. Unplug all connectors and reconnect with power turned off. Inspect and clean corrosion from the ignition cable/spark probe connection and the ground wire connection.

NOTE: Should overheating occur or the gas supply fails to shut off, turn off gas valve at the supply tank. Immediately call a qualified service technician

WARNING: Always turn off the 12-volt power supply to the heater while the vehicle is moving and during any fueling operations. Operating this water heater or any other ignition source during fueling could cause a fire or explosion, which could result in serious injury or death. Trying to produce hot water while driving or moving may damage the RV500 electrical components and cause a fire.

IMPORTANT COLD WEATHER PROTECTION INFORMATION

WARNING: Prior to seasonal freezing temperatures occurring turn on the cold weather protection switch. The cold weather protection switch is located on the bottom of the electronics drawer.

Do not disconnect the electrical supply or turn off the propane supply when temperatures are near or below freezing. The RV500 freeze protection system will not work if the electrical power source or propane is disconnected. For complete cold weather protection your heater must be equipped with the cold weather protection package (call PrecisionTemp for details).

WARNING: Under no circumstances should you travel during freezing conditions without first draining water from the RV500.

WINTERIZING

Draining

1. Turn off the power and gas supply to the RV500.
2. Turn off main water supply.
3. Open all hot water taps. (bath room, kitchen, laundry, etc.)
4. Drain all water from plumbing lines.
5. Open pressure relief valve to drain remaining water from the RV500 heat exchanger.
6. After completely draining the system it can be winterized like any other RV by purging remaining water out of water lines with compressed air or pumping RV antifreeze solution through the hot and cold water system; no bypass valve is required.

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