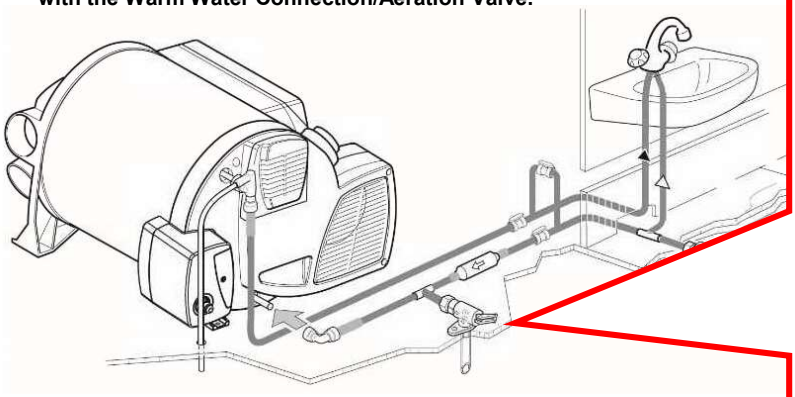
Combi Winterization

The Combi furnace does not have a frost protection function. The water container must be drained if the RV will not be used whenever there is a risk of frost as severe damage to the plumbing components and the Combi could occur due to freezing. Damage due to freezing or an unsuitable winterizing fluid is not covered by warranty.

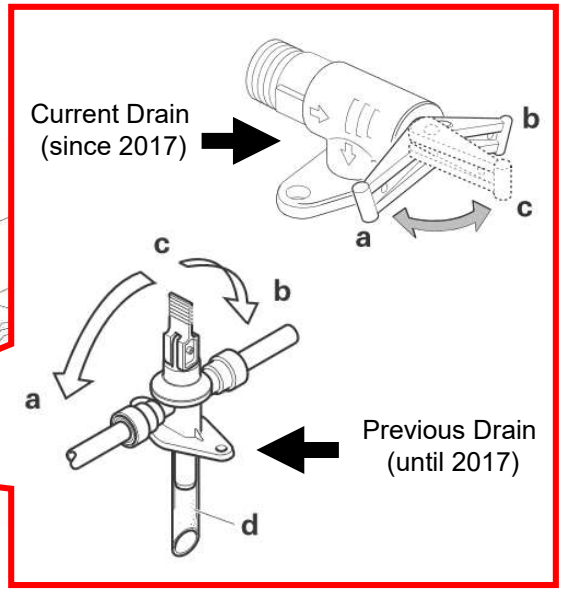
To make sure that all the water drains properly from the water container, place a big enough vessel underneath the drainage socket of the pressure relief/drain valve (>2.64 gallons/10 liters).

1. Use the main switch or pump switch to switch OFF the power to the water pump assembly.
2. Turn OFF or disconnect the city water connection, if present.
3. OPEN all water release points, e.g. cold and hot water faucets, etc.
4. OPEN the drain valve by moving the lever to position C (see illustration).

Once all the water is removed, the Combi is winterized.
A Combi that does not completely drain could be evidence of an issue with the Warm Water Connection/Aeration Valve.



Drain Valve

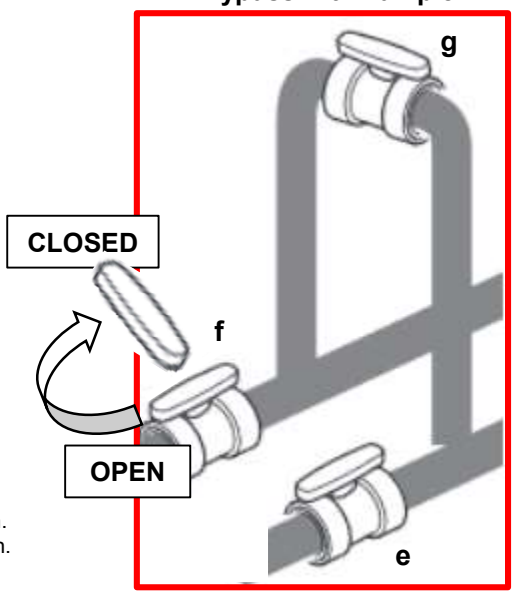


Winterizing the RV with Winterizing Fluid

Winterizing the RV with a winterizing fluid is only possible with an installed bypass kit (see example illustration), which is not in the scope of supply, refer to the RV manual.

1. Drain the water container (as detailed in Winterization instructions above).
2. Turn the valves of the bypass kit according to the supplier's or RV manufacturer's guidelines.
3. Flush the water system with a suitable winterizing fluid according to the supplier's or RV manufacturer's guidelines.

Bypass Kit Example



Bypass Kit Example

NOTE: The illustration to the right is an <u>example</u> of a bypass kit. Bypass kits are not included with Truma systems and is therefore the decision of the installer as to whether a bypass kit is installed in the RV's plumbing system, as well as how it is designed and configured. Always refer to supplier's or RV manufacturer's guidelines to determine proper operation of bypass kit.

To isolate the Truma Combi from the RV plumbing system via Bypass Kit Example once drained:

e. CLOSE cold water inlet valve by turning valve perpendicular to piping direction.
f. CLOSE hot water outlet valve by turning valve perpendicular to piping direction.
g. OPEN bypass valve by turning valve perpendicular to piping direction.

– There may be a variation between the temperature delivered from the Combi furnace and the temperature at the faucet due to water conditions or the length of pipe from the Combi furnace.
– The presence of a flow restrictor in the hot water line may limit the water flow.

6. If using hot water:
   – Use the CP plus control panel to select the desired water temperature level.
   – To obtain the desired water temperature at the faucet or in the shower, mix cold and hot water.
   – Make sure that the water temperature has stabilized before any person or animal enters the shower.

⚠ WARNING

Scalding injuries caused by hot air!
Ventilation air can reach 250 °F (121 °C) at the warm air outlet and it can cause severe burns or scalding and in extreme cases even death.

- Always check the air temperature before varying the air throttle position (Fig. 1 – H).

7. If using hot air:
   – Use the CP plus control panel to set the desired room temperature.

Shutdown

Switching off the furnace

1. Switch off the Combi furnace using the CP plus control panel. Due to internal processes, it may take some time until the furnace is completely shut down.

2. If the Combi furnace and any other gas-powered device is not needed anymore, turn off the LP gas supply.

3. Switch off the Combi furnace's electrical power supply.

   If you intend to put the RV into storage or if you switch off the Combi furnace during freezing temperatures, refer to "Winterizing" on page 14.

Draining the water container

NOTICE Damage to the Combi furnace caused by freezing!

- The Combi furnace does not have a frost-protection function. The water container must be drained if the recreational vehicle (RV) will not be used whenever there is a risk of frost. **No warranty claims for frost damage are accepted.**

  To make sure that all water drains properly from the water container, place a big enough vessel underneath the drainage socket of the pressure relief/drain valve (> 2.64 gallons (10 liters)).

1. Use the main switch or pump switch to switch off the power to the water-pump assembly.

2. Turn off or disconnect the city water connection, if present.

3. Open all water release points, e.g. cold and hot water faucets, showers, toilets.

4. Open the pressure relief/drain valve (refer to "Opening the Truma pressure relief/drain valve" on page 11).

The water container will drain via the drainage socket of the pressure relief/drain valve.

Winterizing

NOTICE Severe damage to the plumbing components and the Combi furnace!
Damage due to freezing or an unsuitable winterizing fluid is not covered by warranty.

- Follow the recommendations below if the Combi furnace will be stored under freezing conditions or for an extended period of time.
- Winterize the Combi furnace at the start of the winter season or before traveling to a location where freezing conditions are likely.

For winterizing, drain the Combi furnace, refer to "Draining the water container" on page 13.

After draining the water, the Combi furnace is protected against freezing conditions.

Optional: Winterizing the RV with a winterizing fluid

Winterizing the RV with a winterizing fluid is only possible with an installed bypass kit (not in scope of supply), refer to the RV manual.

1. Drain the water container (refer to "Draining the water container" on page 13).

2. Turn the valves of the bypass kit according to the supplier's or RV manufacturer's guidelines.

3. Flush the water system with a suitable winterizing fluid according to the supplier's or RV manufacturer's guidelines.

   Before using the Combi furnace again in hot water mode, remove the winterizing fluid and flush the water system with potable water.

Winter operation

To operate the Combi furnace in potentially freezing conditions, the following requirements must be ensured:

- There must be sufficient LP gas (propane; fuel inlet pressure 11 – 13 in. wc (27.4 – 32.4 mbar)) in the tank.

- In addition, the Combi eco plus and Combi comfort plus models require a supply voltage of 120 V if they are to be operated in electric or mixed mode.

- For hot water operation, the water container must be filled (refer to "Filling the water container" on page 12). You must leave the furnace powered ON whenever freezing might occur.

Winter operation will not protect the RV's entire plumbing system. The RV must be designed for freezing conditions.