

## WINTERISING

If water is allowed to freeze in the system, it can expand causing pipework and appliances to split, crack or burst.

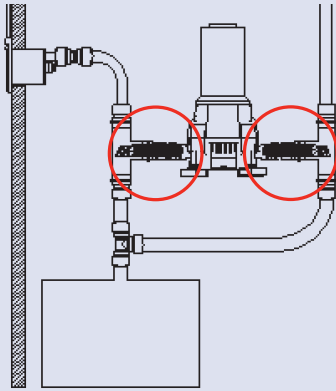
To best avoid this damage, completely drain the water system using the guideline below. Ideally carry out this procedure prior to moving the caravan / motorhome to its winter location. The movement of the vehicle will encourage residual water to drain from the system.

Ideally position the caravan/motorhome so the drain valves are at the lowest point i.e. tilt the caravan/motorhome or park on a slope.

Turn the pump off, open all taps/mixers in the mid position, including the external shower (if fitted)

Remove shower handset (including the external shower, if fitted) and shake water out.

Position manual valve handles as shown below:



Open the water heater and on board tank drain valve (if present) and leave open.

Where grey waste tanks are fitted, remove all sink plugs and open any other drain points (if present), and leave open.

External water components – shake water out of pump/ AquaSource/Aquasmart filter assembly and store inside the van.

Internal pump – turn on and allow to run to expel additional water for 2 minutes.

**User Tip** If internal pump is accessible, disconnect outlet pipe and turn on pump to purge water into an adequate basin. Only reconnect the pump with water system is to be used.

## VIBRATIONS

Higher powered onboard pumps naturally tend to be more noisy than smaller, external pumps. However, some steps can be taken to minimise this, as follows:

Regularly replace the submersible carbon filter (WF3000) at least twice a season, as excessive restrictions in the system can cause the pump to work harder.

Air in the system can cause additional noise. Refill the water tank regularly to avoid pumping air through the system, and ensure the o-rings and joints on the suction side of the system are in good condition

Ensure pipework does not vibrate against the floor or walls by moving it clear. Grey pipe insulation can sometimes be used to achieve this.

Earlier pumps were fitted with black (hard) rubber feet, grey (softer) feet which absorb the vibrations more effectively, are available as a replacement free of charge. Please contact Whale Support for details (contact details overleaf).

## PRIMING YOUR SYSTEM

To maximise the performance of your pump, follow these guidelines of how to re-prime your pump every time the water supply is reconnected:

Open one hot tap (e.g kitchen sink).

Place AquaSmart carbon filter (WF3000) into the water container.

Insert plug into wall socket and close lid to lock plug in place.

Switch on 12v d.c. supply to pump

When water is flowing smoothly close hot tap and open cold tap to expel remaining air.

Repeat for all other hot and cold taps.

**User Tip** It is important that the o-rings on the suction side of the pump are kept in good condition and well lubricated. This will make the connection of the plug to socket easier, and will help keep the water system in good working order. To lubricate the o-rings, use a water-based lubricant such as silicone grease. DO NOT use Vaseline or cooking oil, as this will corrode the rubber.

## SERVICING

On Board Pressure Pumps are robust products that experience few failures. Most problems that occur can be cured by following the trouble shooting instructions below which may help you diagnose the fault and provide a solution:

Fault	Cause	Solution
Pump does not run	No power to pump	Check power supply Attach leads/clean connections
	Fuse has blown	Replace fuse - Do not exceed recommended fuse size of 5 Amp automotive
	Blockage in pipework	Check pipework for kinks
Pump runs but no water appears	No water getting to pump	Check that water tank is not empty Check strainer is not blocked Check all connections from tank to inlet of pump are secure - any air leaks will prevent prime.
	Water leaking at outlet side of pump	Check pipework/fittings for leaks and repair
Pump runs but will not switch off	Water leaking at outlet side of pump	Check pipework/fittings for leaks and repair Check system drain plugs are closed
	No water	Check water supply level
Pump cycles on and off periodically when all the taps are closed. (Normal with a partially opened tap)	Water leaking at outlet side of pump	Check pipework/fittings for leaks and repair Check system drain plugs are closed
	Leak Back	Possibly caused by dirt particles in the valves. This may be cleared by flushing through with clean water. Alternatively, the pump head can be disassembled and the valves carefully cleaned.
Pump cycles on and off excessively when tap/s are open	Excessive back pressure	Check pipework for kinks and filters etc. are clear Check shower rose/taps for blockage and repair
Noisy operation	Pump drawing air	See cause 'No water getting to pump' (see above)
	Noise created by vibration	See overleaf
Low flow	Bore of pipework connection too small	8.5mm minimum bore recommended Check for kinks in pipework Check pipework is not blocked
	Power supply to the pump	Check power supply to pump uses correct gauge wire (2.5mm <sup>2</sup> /AWG 13) to give full voltage at pump. Check battery is not discharged
	Pipework / connections crushed	Replace damaged connections due to overtightened jubilee clips
	Pump too far from water tank	Pump should be situated beside water tank
	Water leaking at outlet side of pump	Check pipework/fittings for leaks and repair Check system drain plugs are closed
	Pump strainer clogged	Remove clear lid, rinse and replace to main strainer body (retain strainer mesh to lid)

### User Tip

#### Service Kits

There are three serviceable components for the Smartflo:

1. AK1318 - Full Head Assembly Replacement
2. AK1317 - Microswitch Replacement
3. AK1320 - Inlet Strainer Replacement



## Whale Support

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**Call us directly for product and installation advice**

### User Tip

#### Using and Changing Your Water Filter (WF3000)

It is recommended that you replace your water filter twice a season, after 30 days of continuous use or 3000 litres of water.



Simply twist off to change the filter. When fitting your filter to your water inlet socket the carbon container should always be placed into the water before pushing connection into the socket. This minimizes the risk of trapped air when fitting.

After fitting a new filter, elements of carbon may appear in your water, run a generous amount of water through the system until the water runs clear.



Whale's policy is one of continuous improvement and we reserve the right to change specifications without prior notice.

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Please note, these tips are included as a guide only. For servicing and product advice for your specific vehicle please contact Whale Support.