



Rainman Autoflush Instructions

(Appendix 3 of General Instruction Manual)

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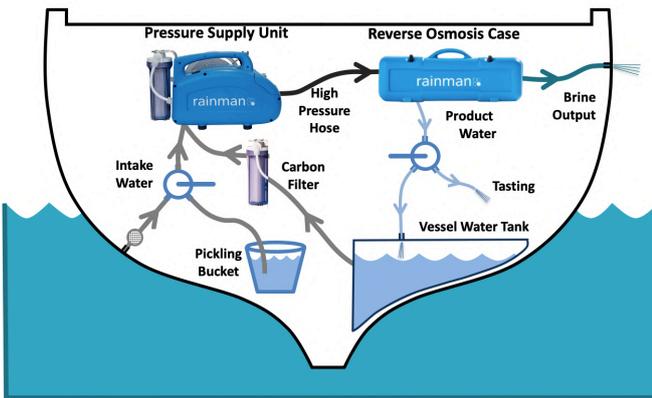
Version 1.3

Introduction

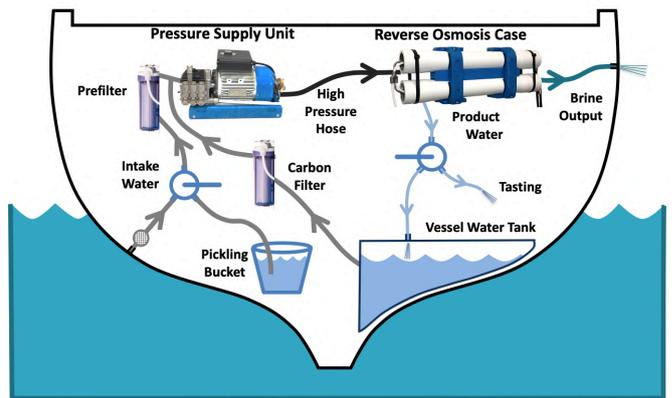
The Rainman autoflush kit is an optional accessory for customers that have installed their Rainman watermaker. It is designed so that owners do not need to pickle their system, but instead pumps fresh water through the watermaker every seven days. This prevents fouling of the reverse osmosis membranes.

The system utilises the boat's main water pump, a Rainman flush timer box, a motorised valve, and an activated carbon filter (neutralises chlorine that may be in your water tank) to force fresh water through your watermaker for several minutes every seven days. The flush timer has a simple one button programmable capability for ease of use. Below are conceptual schematics of how the system might look when installed.

Rainman Case Installed – Autoflush



Rainman Naked Installed – Autoflush



Included Parts

The following image shows the parts that are included in your Rainman Autoflush kit.



Operation

On initial power up, the Rainman flush timer will run a power up and system check and flash the blue LED six times over fifteen seconds. The motorised valve will return to the closed position if not already closed. The Rainman flush timer will then initiate a flush cycle and open the motorised valve. During the flush cycle the blue LED will remain on. At the end of the flush cycle the motorised valve will close. The flush duration may be set for 2, 4, 6, or 8 minutes. See below for programming instructions. The timer will wait seven days and then initiate the next flushing sequence. While in countdown mode the blue LED will flash a number of times, indicating how many days until the next flush cycle.

Pressing the button will trigger a flush cycle, and reset the seven day counter. If the button is pressed during the flush cycle, the flush will be cancelled and the counter reset to seven days.

While the Rainman flush timer is idle, a blue LED will flash a count of days left before the next flush cycle. For example, if there are three days before the next flush, the blue LED will flash three times then pause, and repeat. This informs the user that the flush timer is powered and counting down the seven day period before the next flushing cycle. When the system is actively flushing, the blue LED will be constantly on.

Warning: Avoid running the watermaker when the flush cycle initiates. If the blue LED is showing single flashes, the flush cycle will start within one day. Press the flush timer button twice to initiate and then cancel a flush cycle, resetting the cycle for seven days. This ensures the flush cycle will not initiate while making water.

On resumption after power cut, the timer will wait fifteen seconds, initiate a flush cycle, then restart the seven day count down.

Warning: If leaving your boat for a period of time with the Rainman Autoflush system activated, ensure there is sufficient water in the tank. There is no built in protection in this system if the tank runs dry. If leaving your system for extended periods, Rainman recommends pickling your system to ensure the tank does not empty.

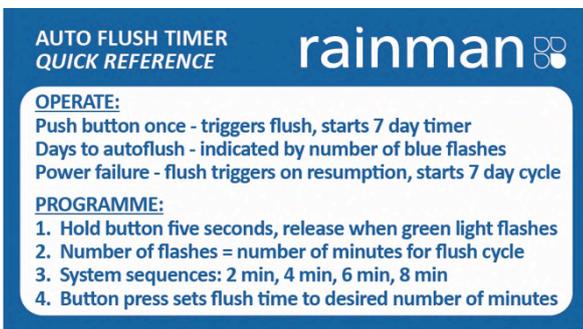
A good practice would be to trigger a flush cycle after you have completed a water making cycle. This will flush your watermaker and start the seven day autoflush cycle.

Programming Flush Time

The flushing time is adjustable from two to eight minutes in two minute increments. To adjust the time press and hold the button for 2.5 seconds then release. This will activate the flush time adjustment program. A green LED will quickly flash sequence for one second then turn off for one second, and the blue LED will be OFF during this setup. The green LED will then flash twice for two minute flush time, four times for four minutes, six times for six minutes and eight times for eight minutes. While the green LED is flashing 2, 4, 6, or 8 times, pressing the button will select this flush time. The flush time selector sequence will repeat three times; then will revert to the wait time countdown sequence.

You will want approximately ten litres (~2.5 gallons) of water to be pushed through on each flush cycle. The best way to determine this is by measuring the brine discharge during a flush cycle and programme the timer accordingly.

A quick reference card summarising these instructions is attached to the Rainman flush timer.



Example: To set a four minute flush time

1. Long press the flush timer button for 2.5 seconds.
2. The green LED will quickly flicker for one second, then off for one second.
3. The green LED will start its flashing sequence, wait for the four flashes to appear, press the trigger button.
4. The green LED will again quickly flicker for one second, then off for one second.
5. The flush timer will respond by flashing the green LED four times, then a pause, then flash four times again. This allows the operator to verify the new setting is correct.
6. The Rainman flush timer will now switch back to normal operation, and the seven day counter is not reset.
7. To test the new flush time, press the push button again to activate a cycle. This will then reset the seven day timer.