

SPECIFICATION, INSTALLATION AND OPERATION MANUAL

READ ALL INSTRUCTIONS BEFORE USE

REVERSE OSMOSIS (RO) SYSTEM SPWA.PCRO1



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1.1 Your New Stoddart Product

Thank you for choosing this quality Stoddart product.

All Stoddart products are designed and manufactured to meet the needs of food service professionals. By caring for and maintaining this new Stoddart product in accordance with these instructions, will provide many years of reliable service.

Stoddart is a wholly Australian owned company, which manufactures and/or distributes a comprehensive range of food service equipment for kitchens, food preparation and presentation. Stoddart products are manufactured and engineered to provide excellent results whilst offering value-for-money, ease-of-use and reliability.

Carefully read this instruction booklet, as it contains important advice for safe installation, operation and maintenance. Keep this booklet on hand in a safe place for future reference by other operators or users.

Disclaimer

The manufacturer/distributor cannot be held responsible or liable for any injuries or damages of any kind that occur to persons, units or others, due to abuse and misuse of this unit in regards to installation, removal, operation, servicing or maintenance, or lack of conformity with the instructions indicated in this documentation.

All units made by the manufacturer/distributor are delivered assembled, where possible, and ready to install. Any installation, removal, servicing, maintenance and access or removal of any parts, panels or safety barriers that is not permitted, does not comply in accordance to this documentation, or not performed by a **TRAINED AND AUTHORISED SPECIALIST** will result in the **IMMEDIATE LOSS OF THE WARRANTY.**

The manufacturer/distributor cannot be held responsible or liable for any unauthorised modifications or repairs. All modifications or repairs must be approved by the manufacturer/distributor in writing before initiating. All modifications or repairs performed to this unit must be performed at all times by a **TRAINED AND AUTHORISED SPECIALIST.**

**Stoddart design, manufacture & distribute Food Service Equipment (appliances) exclusively for the commercial market.
This appliance is not designed nor intended for household or domestic use and must not be used for this purpose.**

This product is intended for commercial use, and in line with Australian electrical safety standards the following warnings are provided:

- This product is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the product by a person responsible for their safety. Children should be supervised to ensure that they do not play with the product
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard



Warranty & Registration

1.2 Australia and New Zealand Warranty

1.2.1 Warranty Period

All Stoddart manufactured and distributed products are covered by Stoddart's standard Australia and New Zealand Product Warranty (minimum 12 month on-site parts and labour, terms and conditions apply). Further to this standard warranty, certain products have access to an extended warranty. Full terms, conditions and exclusions can be found using the below Link/QR code.

1.2.2 Warranty Registration

To register your new product, Follow the below Link/QR code.



Australia

www.stoddart.com.au/warranty-information

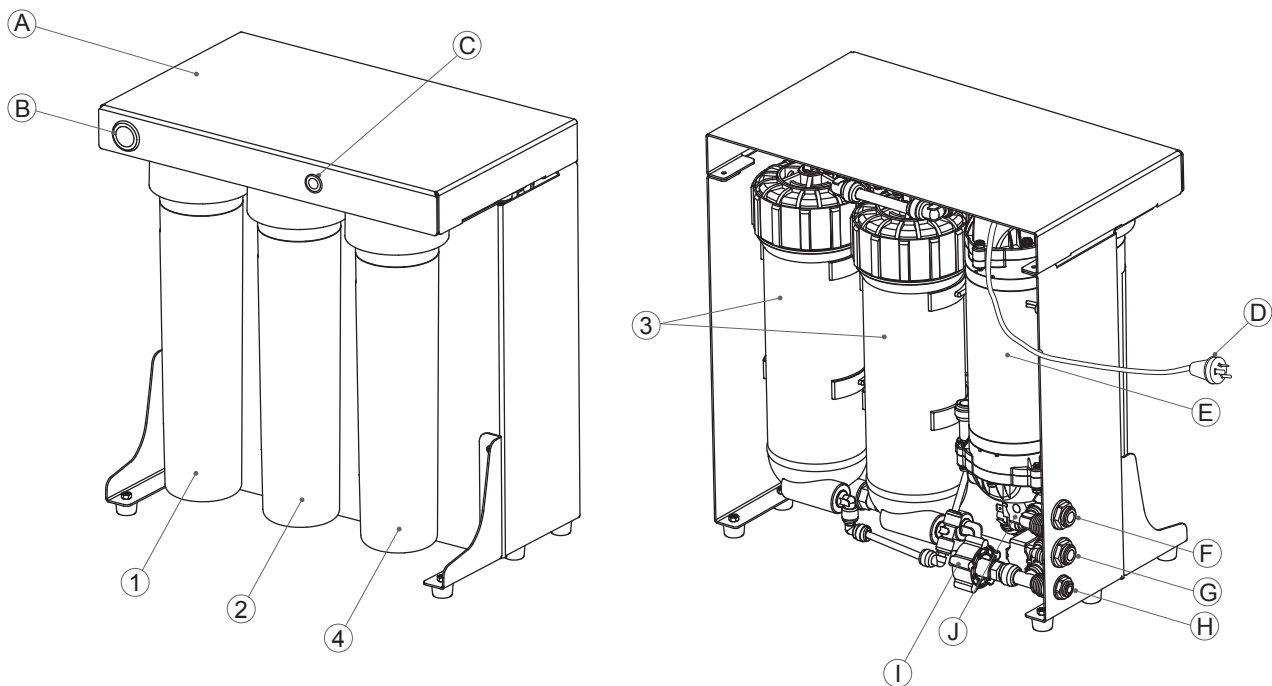


New Zealand

<https://stoddart.co.nz/warranty-information>

2.1 Product Overview

2.1.2 Components



A	Mounting Bracket
B	Pressure Gauge
C	Power Switch
D	Power Lead
E	Booster Pump


F	Filtered Water Outlet
G	Water Inlet
H	Drain Outlet
I	High Pressure Switch
J	Self Piercing Solenoid

1	1st Stage: FG82 - 5 Micron High Capacity
2	2nd Stage: FG92 - 5 Micron Carbon Block
3	3rd Stage: 600GPD RO Membrane x 2
4	4th Stage : FG92 - 5 Micron Carbon Block

2.1.2 Operating Specifications

Model	SPWA.PCRO1
W x D x H (mm)	380 x 248 x 445
Weight	20kg
Power	240VAC / 50-60Hz / 7A 10A plug & lead
Temperature	4-40°C (Cold Water Only)
Pressure	206 - 413 kPa
Total Dissolved Solids	<800 ppm maximum
Maximum Hardness	250 ppm
RO Output	4540 LPD / 3.1 LPM

3.1 Electrical Connection

	WARNING
	<p>This unit must be installed in accordance with AS/NZS 60335.1</p> <p>Some procedures in this manual require the power to the equipment to be turned off and isolated. Turn the power OFF at the power point and unplug the power supply lead by the plug body. If the power point is not readily accessible turn the equipment off at the isolation switch or the circuit breaker in the switchboard. Attach a yellow "CAUTION-DO NOT OPERATE" tag. This must be performed where relevant unless the procedures specify otherwise.</p> <p>FAILURE TO DO SO MAY RESULT IN ELECTRIC SHOCK.</p>

Single Phase Units:

- Supplied and fitted with an appropriately rated plug and lead, indicated as:
 - 10amp transformer with lead and plug

Notes:

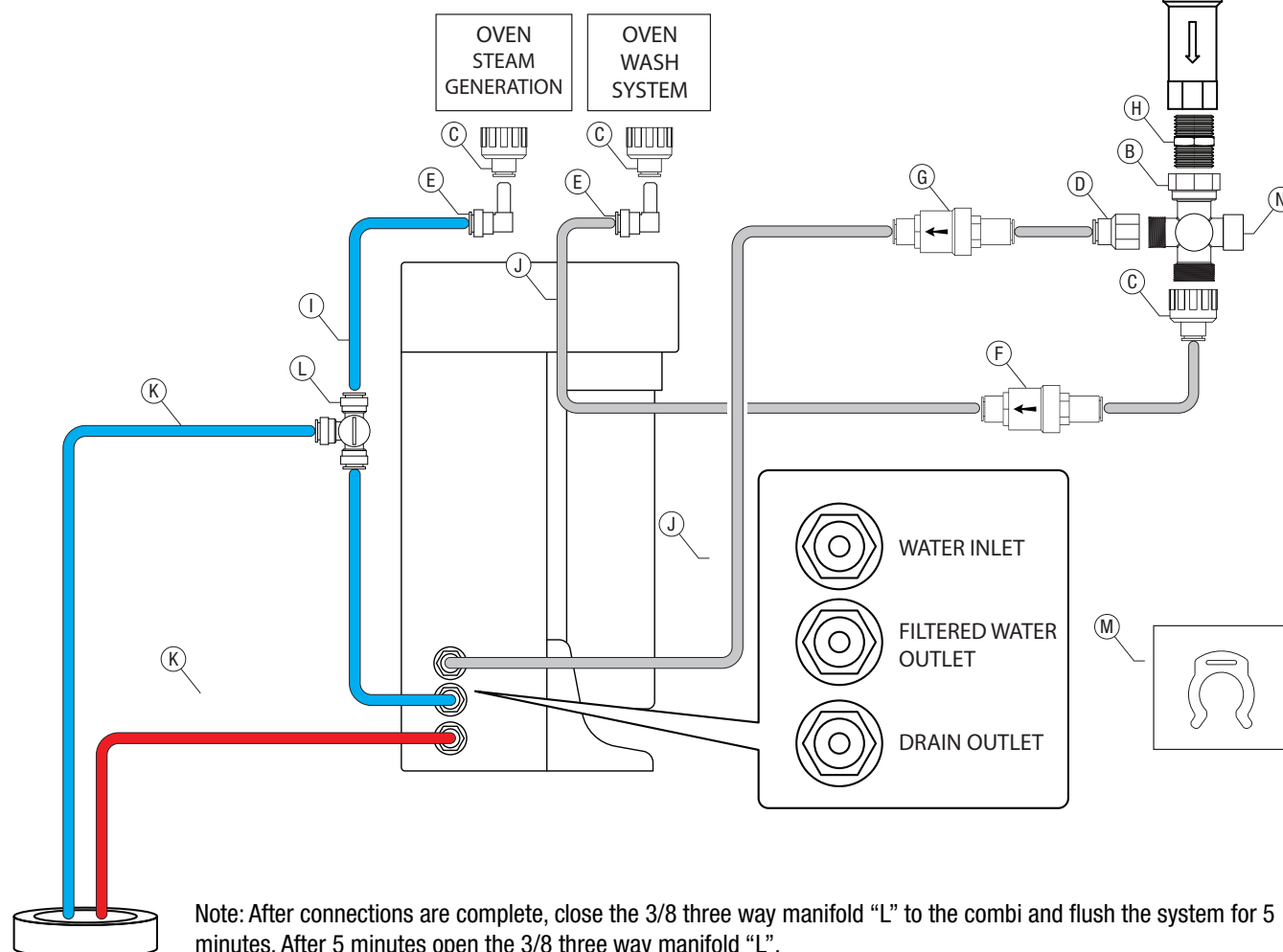
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard. Please contact Stoddart for parts and we will advise how to do this in order to avoid any electrical hazard
- The power cable should be dry and/or isolated from moisture or water

3.2 Water Connection

	IMPORTANT
	<p>This unit must be installed in accordance with AS/NZS 3500.1</p> <p>The unit must be installed with the supplied Water Filters and Pressure Limiting Valve</p>

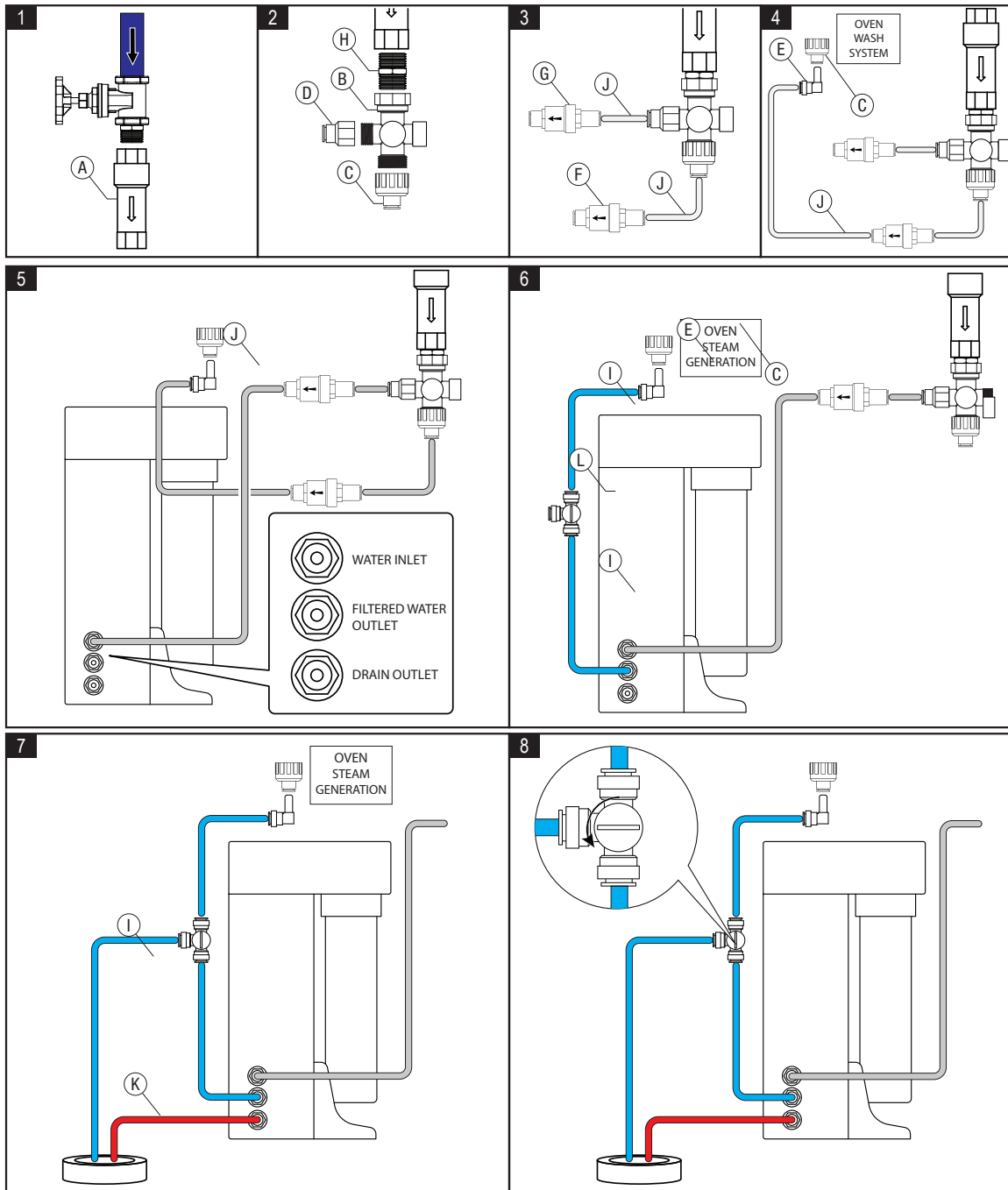
The RO unit is to be installed using the supplied fittings and combi oven plumbing kit.

Item	Description	Supplied with Oven	Supplied with RO Kit	Total Qty.
A	Dual Check Valve	1	---	1
B	Four Way Manifold	1	---	1
C	3/4" Bsp To 3/8" Tube Connector	---	3	3
D	1/2" Bsp To 3/8" Tube Connector	---	1	1
E	3/8" John Guest Stem Elbow	---	2	2
F	Pressure Limiting Valve 300-350 Kpa	---	1	1
G	Pressure Limiting Valve 350-600 Kpa	---	1	1
H	Nipple, 3/4" Male	1	---	1
I	Blue 3/8 Tube 'Filtered Water' (to be cut to length)	---	1	1
J	White 3/8 Tube 'Unfiltered Water' (to be cut to length)	---	1	1
K	Red 1/4 Tube 'Drain' (to be cut to length)	---	1	1
L	3/8" John Guest Three Way Manifold (For filter flushing)	---	1	1
M	John Guest Locking Clip	---	12	12
M	Spare outlet (Hand Shower)	---	---	---



3.3 Installation

1. Connect the dual check valve to the cold water supply
2. Attach four way manifold and two connectors to the dual check valve
3. Connect the two PLV's to the connectors on manifold
4. Connect to the oven wash system with 3/8 white tube, John guest elbow and connector
5. Attach 3/8 white tube to the PLV and connect to the water supply connection on the RO
6. Attach 3/8 blue tube to the COMBI connection on the RO. Attach the three way manifold to the tube then run tube to the oven steam generation connection using a John guest elbow and connector
7. Connect the 1/4 red tube to the DRAIN connection on the RO and run to the tundish. Connect 3/8 blue tube to the third connection on the three way manifold and run to the tundish (this is used as the flush hose)
8. Close the three way manifold "L" to the combi and flush the system for 5 minutes. After 5 minutes open the manifold



4.1 Filters

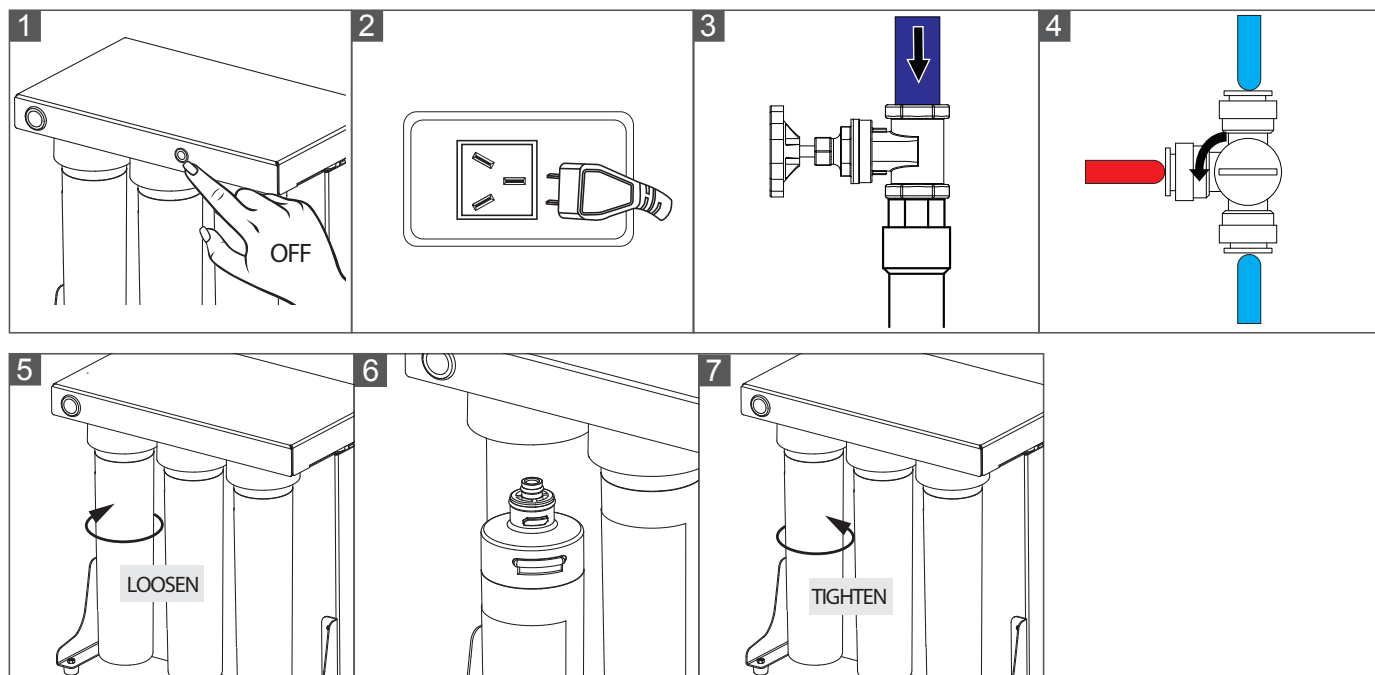
4.1.1 Filter Life

Note: The life of the cartridges depend on the water volume used and the substances in the water. The following is a general guide.
Replacement cartridge part numbers for Re-Ordering through appliance dealer or Stoddart customer service.

Part No.	Filter Stage	Description	Replacement
SPWA.PFG82	1st Stage	FG82 - 5 Micron High Capacity	6 - 12 Months / 12,000 L
SPWA.PFG92	2nd Stage	FG92 - 5 Micron Carbon Block	6 - 12 Months / 12,000 L
SPWA.PFR0	3rd Stage	600GPD RO Membrane x 2	12 - 24 Months
SPWA.PFG92	4th Stage	FG92 - 5 Micron Carbon Block	6 - 12 Months / 12,000 L

4.1.2 Filter Replacement (for 1st, 2nd and 5th Stage)

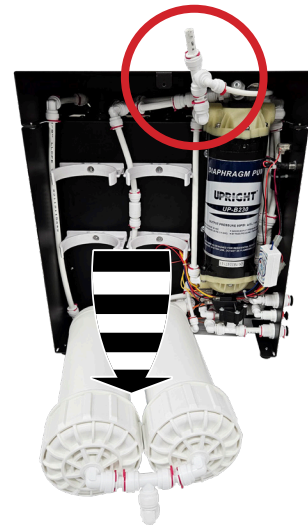
1. Isolate from power supply
2. Unplug
3. Turn off water supply to the RO
4. Close the 3/8 three way manifold "L" to the combi
5. Unscrew the filter to be replaced
6. Replace with new filter
7. Screw new filter into position



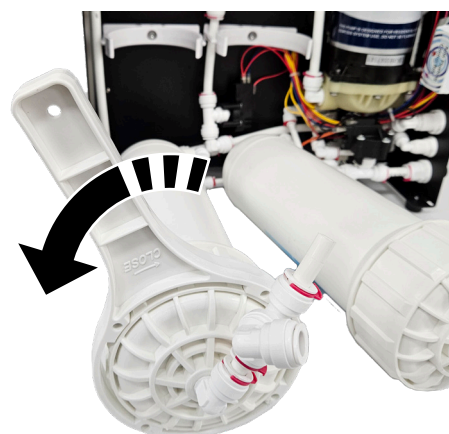
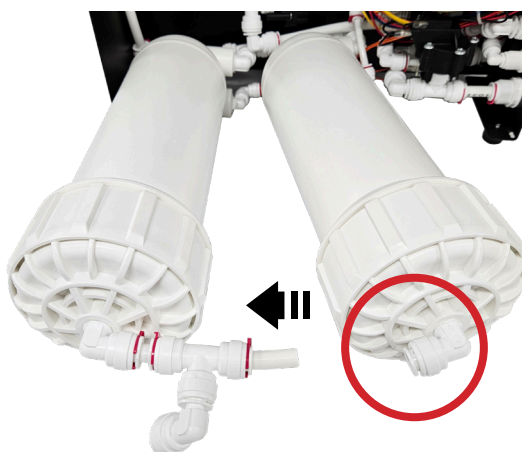
Note: After changing a filter, close the 3/8 three way manifold "L" to the combi and flush the system for 5 minutes. After 5 minutes open the 3/8 three way manifold "L".

4.1.3 RO Membrane Replacement

1. Unscrew and remove the back cover
2. Remove the highlighted John Guest Clamp and disconnect the PE hose from the fitting
3. Rotate the highlight fitting up and pull the two RO membranes out of the bracket, allow them to rest on the bench



4. Remove the highlighted John Guest Clamp and disconnect the PE hose from the fitting
5. Using the supplied tool unscrew the RO housing cap (two people may be required)



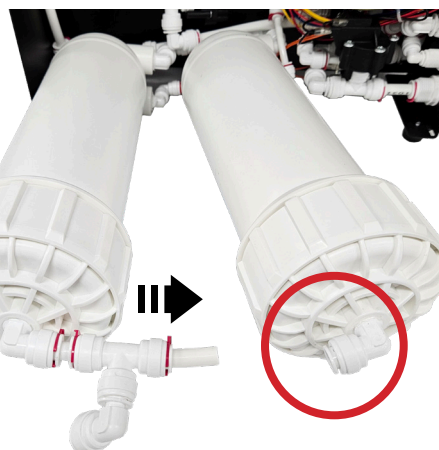
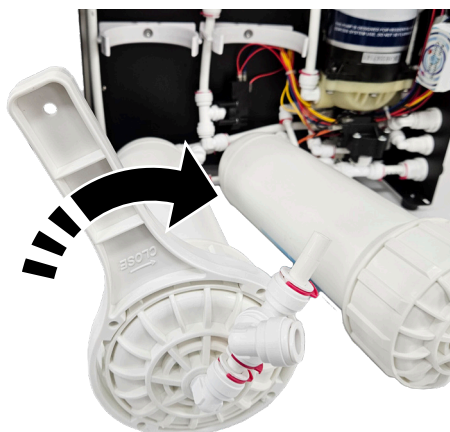
6. Using a small shaft screwdriver remove the RO membrane. Once removed clean the housing



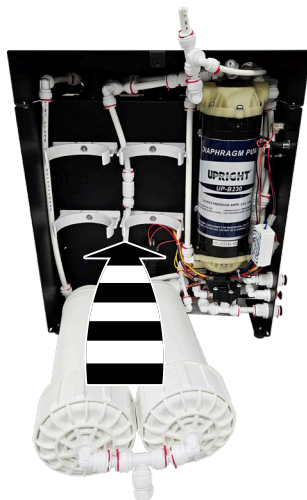
7. Place the new RO membrane into the housing



8. Re-install the RO housing cap and tighten using the supplied tool
9. Reconnect the PE tube and re-install the John Guest clamp



10. Push the RO filters back into the bracket
11. Reconnect the PE tube and re-install the John Guest clamp
12. Re-install the back cover



Note: After changing the RO membrane, close the 3/8 three way manifold "L" to the combi and flush the system for 5 minutes. After 5 minutes open the 3/8 three way manifold "L".

4.2 Troubleshooting

Problem	Possible Cause	Solution
Pump not working	No power supply	Check the power supply
	Transformer is burnt out	Replace transformer (A possible reason is a pump leak causing the bearing to jam, so the transformer burns out. The pump and the transformer should be checked at the same time)
	Pump bearing jammed	Replace pump
	Bad wire connection	Check wire connection
	Bad electrical connection inside pump	Replace pump
	High / low pressure switch is damaged	Replace high/ low pressure switch
Pump switches on and off repeatedly	Low pressure switch switches on and off repeatedly because of low feed water pressure	Increase feed water pressure. (If you are sure of a consistent feed water pressure, a short circuit around the low pressure switch could be made)
	Bad electrical connection inside pump	Replace pump
	Bad wire connection	Check all wire connection
Pump keeps running	Air in the tubes causes the pump to not reach sufficient pressure to shut off the pump	Disconnect the outlet tube of the pump to discharge air and reconnect to run with water in the tube
	The torque of the pump has decreased, so sufficient pressure cannot be reached to turn off the high pressure switch	Replace pump
	High pressure switch is damaged	Replace high pressure switch
	The check valve cannot close properly, thus pressure cannot reach shut off point	Replace check valve
Pump is leaking	Diaphragm seal is worn or split	Replace pump
	Feed water pressure is too high (> 40psi)	Install a pressure regulator or shut off pump to allow the system to run at natural feed water pressure
Pump is noisy	RO membrane or post is clogged	Replace RO membrane or post filter
	Pump bearing is worn	Replace pump
TDS value of permeated water is rising (rejection rate is lower than 90%)	Working pressure is lower than 40 psi: Air in the tubes pre-vents pump from reaching sufficient pressure to permeate properly	Disconnect the outlet tube of the pump to discharge air and reconnect to run with water in the tube
	Working pressure is lower than 40 psi: RO membrane or post filter is clogged	Replace RO membrane or post filter
	The ratio of permeate water to drain water is less than 1:3	Flow restrictor is clogged. Clean it, or replace it
	RO membrane is worn	Replace RO membrane
Output of permeate water decreases	RO membrane is clogged	Replace RO membrane. (If clogging is frequent, increase the drainage ratio of the flow-restrictor or install a softener to extend the lifespan of the RO membrane)
	Pump is worn, decreasing the working pressure	Replace pump
No permeate or drain water is produced	The solenoid valve coil is burnt out	Replace solenoid valve
	Bad electrical connection in solenoid valve	Replace solenoid valve
	Solenoid valve is clogged inside, thus unable to turn on	Replace solenoid valve
	Shut-off valve is worn	Replace shut-off valve
System drains at full tank when pump is not running	Feed water pressure is too high to turn off the shut-off valve	Install a pressure regulator
	The shut-off valve or solenoid valve is clogged.	Clean the valve or replace it
	Check valve is worn and causes permeate water in the storage tank to reverse flow to drain	Replace check valve
Solenoid valve is noisy	The solenoid valve coil is not in place	Fix the coil in its place
	Feed water pressure is too low, causing the low pressure switch and the solenoid valve to turn on and off repeatedly	Increase inlet water pressure. (If you are sure of a consistent feed water pressure, a short circuit around the low pressure switch could be made)
System does not run	High / low pressure switch is worn	Replace high / low pressure switch
	Feed water pressure is lower than 5 psi	(If you are sure of a consistent feed water pressure, a short circuit around the low pressure switch could be made)
	No power	Check power source
	Pump or transformer is worn	See trouble shooting for pump
System runs at full tank when faucet is turned off	Check valve is worn and- causes permeate water in the storage tank to reverse flow to the drain. The high pressure switch senses pressure decrease and turns on	Replace check valve
	High pressure switch is worn	Replace high pressure switch

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Australia

Australian Business Number: 16009690251

Service / Spare Parts

<https://customerservice.stoddart.com.au>

Sales

Tel: 1300 79 1954

Email: sales@stoddart.com.au

Web: www.stoddart.com.au



Customer
Service Portal

New Zealand

New Zealand Business Number: 6837694

Service / Spare Parts

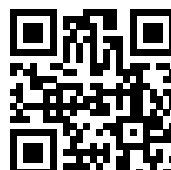
<https://customerservice.stoddart.com.au>

Sales

Tel: 0800 79 1954

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Web: www.stoddart.co.nz



Customer
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