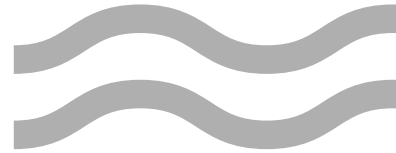




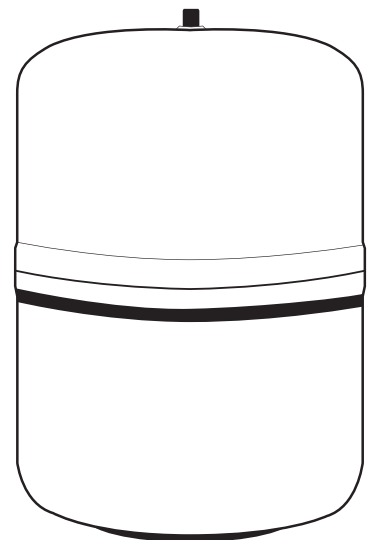
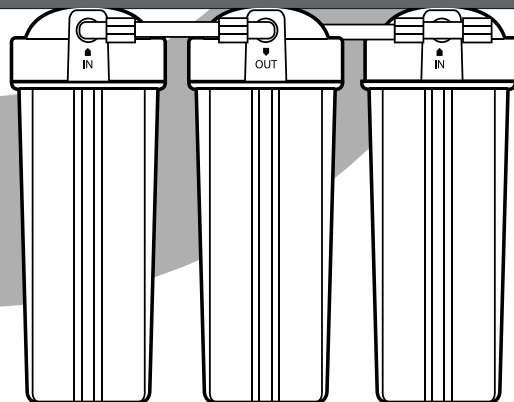
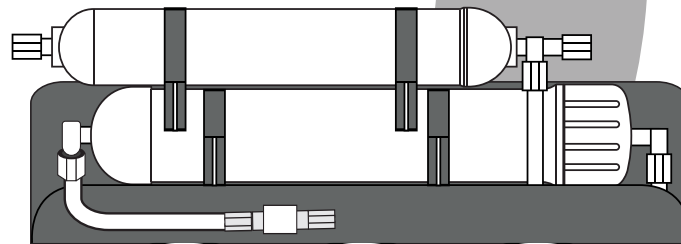
AquaWave™

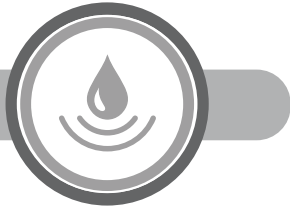
Classic 75GPD

Installation, Operation & Maintenance Manual



Reverse
Osmosis (RO)
System





INTRODUCTION AND WARNINGS

AquaWave™ Classic Reverse Osmosis System

INTRODUCTION

Congratulations on your purchase of the AquaWave™ Classic Reverse Osmosis System.

The AquaWave Classic Reverse Osmosis System is designed with advanced filtration technology and utilizes a 5-stage filtration process to purify and deliver fresh-tasting water. This system is designed exclusively for municipal water systems and will remove volatile organic chemicals, chlorine, odor, sediment, suspended impurities, metals, and other harmful contaminants from your water.

This instruction manual illustrates the AquaWave Classic Reverse Osmosis System installation and operation. Please be sure to read the contents of this manual before installation.

The system should be installed by a qualified professional installer or licensed plumber. Installation must be in accordance with local and state plumbing codes.

WARNINGS & PRECAUTIONS

- **WARNING:** Do not use water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
- **WARNING:** The system may at no point be exposed to pressures above the rated pressure, as this may cause system damage!
- **WARNING:** A qualified installer shall install protective devices if the system pressure may at any time exceed the rated maximum pressure due to pressure surges or water hammer, or other excessive pressure events to ensure that the maximum operating pressure of the system will not be exceeded!
- **CAUTION:** Water pressure must not exceed 4 bar | 60 psi. Minimum water pressure should not be lower than 1.4 bar | 20 psi.
- **CAUTION:** Protect the system against freezing. Freezing can cause system damage and result in water leakage!
- **CAUTION:** Install the system in a sheltered or covered location and protect it from excessive heat!
- **CAUTION:** Do not install where the system will be exposed to direct sunlight!
- **CAUTION:** The system is intended for use with tap water and should not be installed for use with other water sources, such as mountain spring water or groundwater.
- **CAUTION:** System must be installed on the cold-water piping line. Do not install on hot water piping. Inlet water temperature should not exceed 100°F | 38°C.
- **CAUTION:** Avoid ambient temperatures over 100°F | 38°C
- **CAUTION:** System contains replaceable sediment and activated carbon filters, as well as a replaceable reverse osmosis membrane which is critical for the effective reduction of TDS (Total Dissolved Solids). Water purified by this system should be tested periodically to confirm the system is operating properly.
- **CAUTION:** Filters must be installed according to labeling and with the designated inlet water flow direction.
- **CAUTION:** Pay attention to safety when drilling close to the wires and plumbing parts of the installation.

OTHER IMPORTANT INFORMATION

- Please note that the lifetime of the filters, as well as their replacement interval strongly depends on the inlet water quality, the amount of water consumed, the sediment and chlorine content, etc.

System should be isolated from water supply and disconnected from power if not used for more than 1 week. If not used for a period of 1 month or more RO water storage tank should be emptied.

REPLACEMENT FILTERS AND PARTS

- Filters are consumables and are not covered by the warranty.
- Only use GWS approved replacement filters. Product warranty is void if non-GWS approved replacement filters are used.
- Only use GWS approved spare parts. In the case of any failure of the pump, electric adapter or any other replaceable part of the system, the replacement product must be approved by Global Water Solutions or an authorized GWS distributor. Product warranty is void if non-GWS approved spare parts are used.

SPECIFICATIONS

Model	AquaWave™ Classic
Dimensions	37 x 27 x 47 cm 14.6 x 10.6 x 18.5 in
Weight	9.5 kg / 21 lb
Tube Size	1/4"
Operation Pressure	4 bar 60 psi
Maximum Pump Pressure	6.9 bar 100 psi
Power Input	AC 220V~240V 50/60Hz
Recommended Water Temperature	5 - 38°C / 41 - 100°F
Maximum TDS	1000 ppm
Maximum Hardness	290 ppm (17 grains per gallon)
Maximum Chlorine	1.0 ppm
Maximum Iron	0.3 ppm
Maximum Manganese	0.05 ppm
Maximum Turbidity	2 NTU
PH	6.0~8.5

This system is designed to purify. It should not be installed on other water sources, such as mountain spring water or ground water.

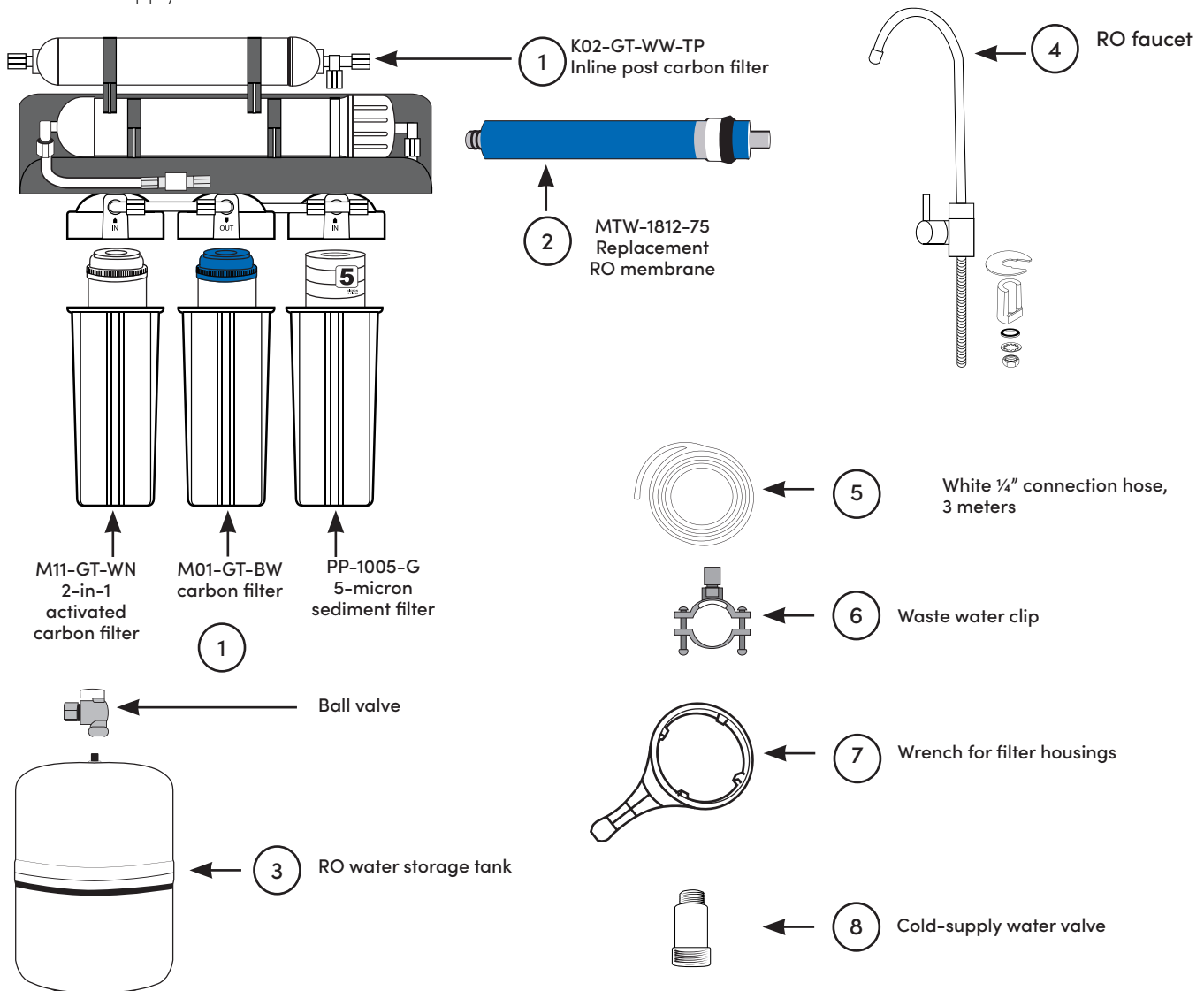


INSTALLATION & DIAGRAM

AquaWave™ Classic Reverse Osmosis System

COMPONENTS

- #1 PP-1005-G: 5-micron sediment filter, M01-GT-BW: carbon filter, M11-GT-WN:2-in-1 activated carbon filter, K02-GT-WW-TP: inline post carbon filter
- #2 MTW-1812-75: Replacement RO Membrane
- #3 RO water storage tank and ball valve
- #4 RO faucet
- #5 White ¼" connection hose, 3 meters
- #6 Waste water clip
- #7 Wrench for filter housings
- #8 Cold-supply water valve

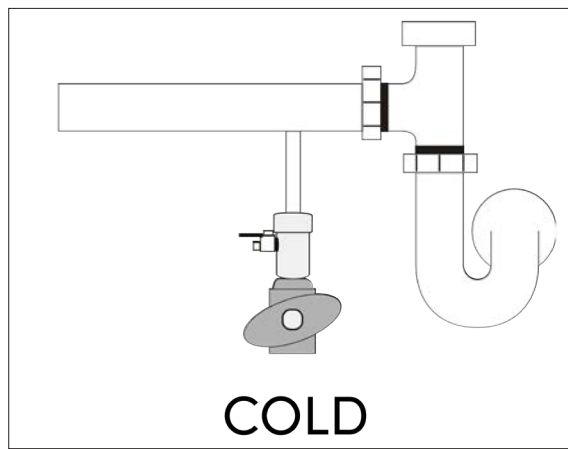


INSTALLATION INSTRUCTIONS

If inlet water pressure is 60 psi / 4 bar, a pressure regulator must be installed and set at 60 psi / 4 bar. You must check and comply with all local plumbing codes.

1. Install water supply valve.

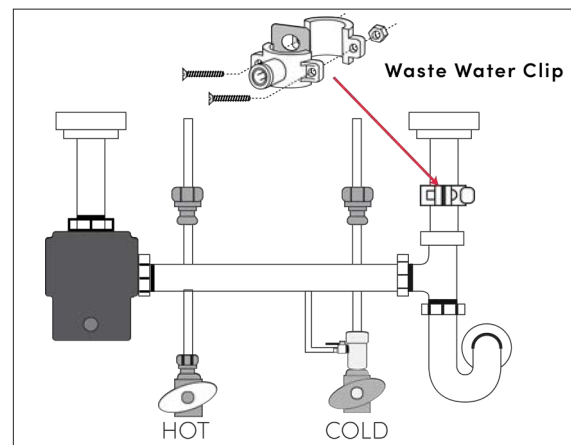
Fig. 1



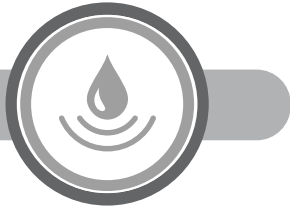
- Identify the cold water supply line under the sink cabinet. Shut the cold-water supply valve.
- Turn on the cold-water tap to release pressure from the lines until water flow stops.
- Disconnect the cold-water line from the angle stop valve and identify if it is a 1/2" or 3/8" connection and select appropriate water supply adapter.
- Assemble the 1/4" water supply valve into the appropriate diameter water supply adapter using Teflon tape on male threads before insertion.
- Wrap threads of water supply adapter and angle stop valve 2-3 times with Teflon tape.
- Screw the water supply adapter to angle stop valve and tighten with adjustable wrench.
- Screw the cold-water supply line to threads of water supply adapter and tighten with adjustable wrench.

2. Install waste water clip

Fig. 2



- Identify the drain outlet location. Make sure that it is away from the garbage disposal See Fig.2.
- Knock out center hole on foam seal.
- Use the hole in foam seal as a template to locate your drilling position above the drain trap, mark exact location with a pencil.
- At the marked location, drill 1/4" (6.35mm) hole through the wall of the drain-pipe. Be sure not to penetrate opposite side of the pipe.
- Remove protective cover from the back of foam seal and attach it to the front plate drain connector in alignment with drain tube hole.
- Begin to position the drain connector on sink drain-pipe with screws and nuts, using your pencil in the drain connector tube hole to guide your location over your drilled hole as you securely tighten nuts and screws.



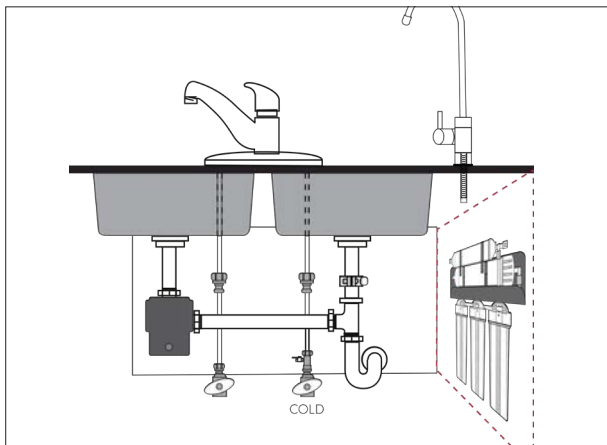
INSTALLATION MANUAL

AquaWave™ Classic Reverse Osmosis System

INSTALLATION INSTRUCTIONS

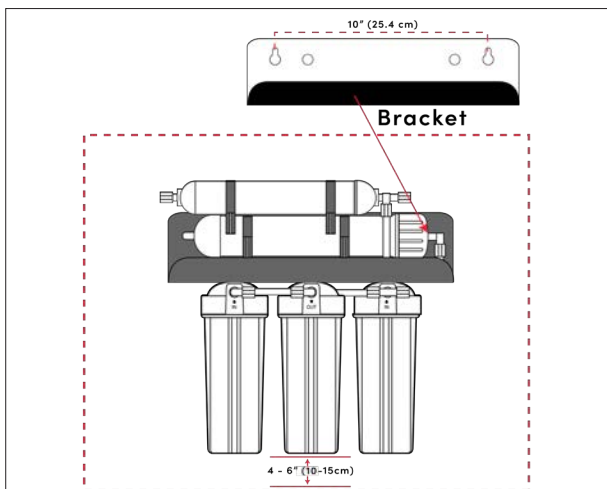
3. Prepare RO system for installation

Fig. 3



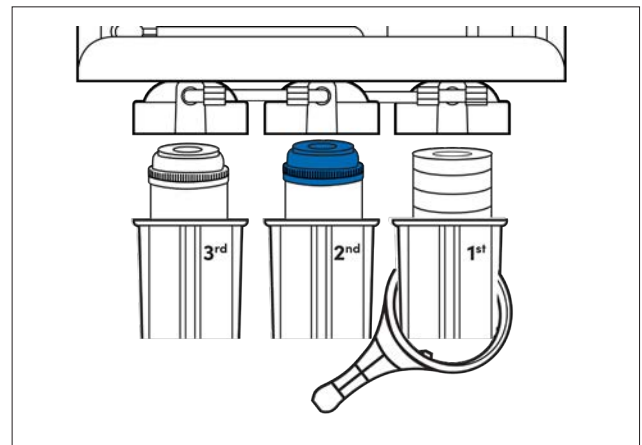
- Map out installation under the sink. Identify an easily accessible area to mount the RO system and determine the location for the RO storage tank. See Fig.3.
- Mark holes for mounting screws 10" (25.4cm) apart center to center. The screws should be high enough to allow 4-6" (10-15cm) clearance from the bottom of the RO system to the floor if possible. This is to provide space for filter changes. See Fig. 3.1
- Hang the RO system on the mounting screws.
- NOTE: The filters come with a protective wrap that needs to be removed before operation.

Fig. 3.1



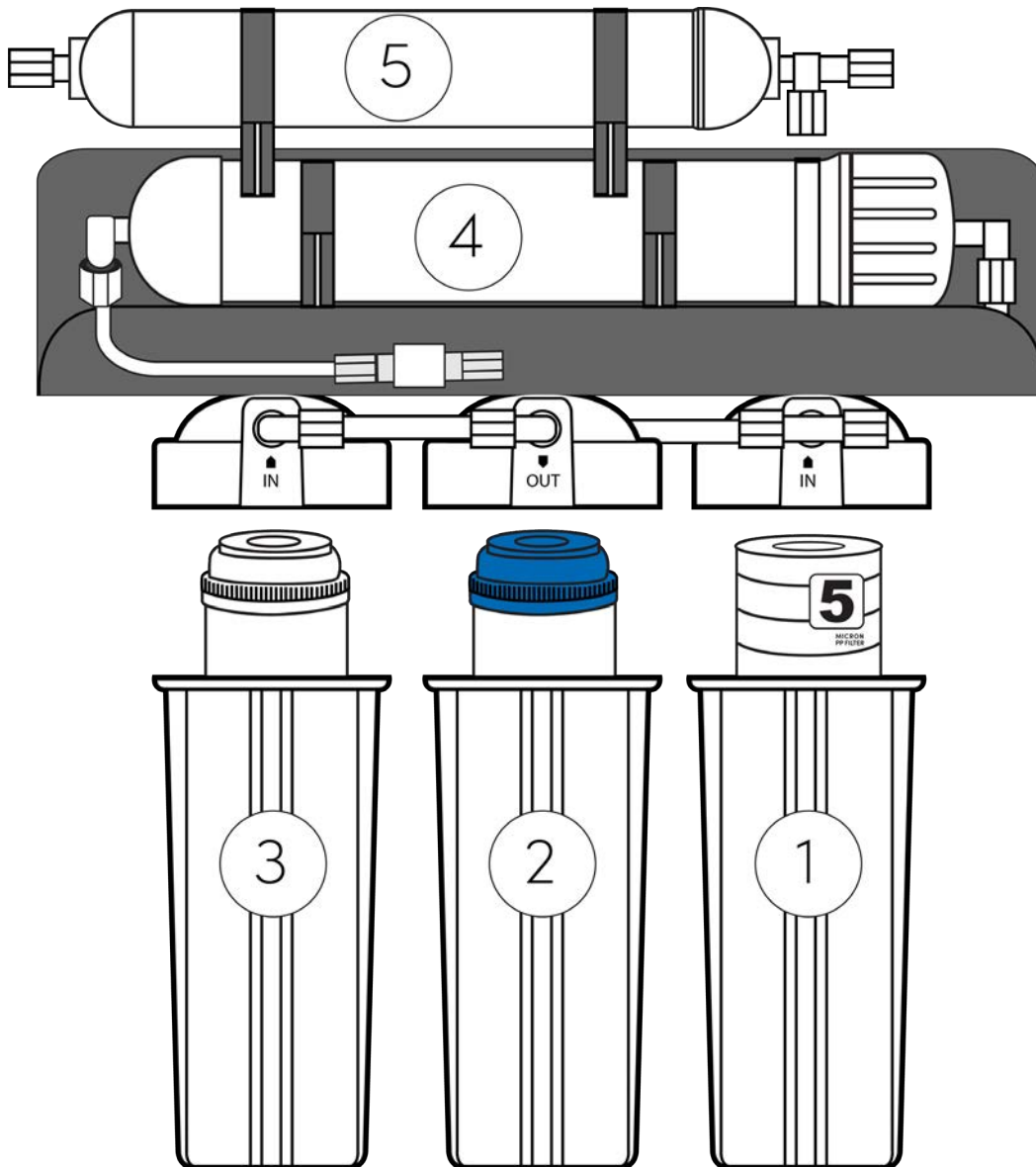
4. Unwrap and re-install filters #1, #2, #3 into the system

Fig. 4

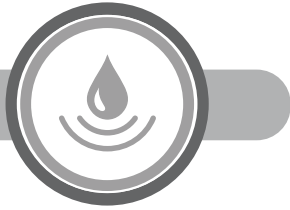


- Unscrew the filter housing using the wrench and turning it counterclockwise. See Fig.4.
- Remove filter from housing, take off and discard the plastic wrapping.
- Re-install the filter into the housing and ensure the top part of the filter fits onto the locator tab in the housing cap.
- Check to make sure that the O-ring is seated correctly in the groove of the top of the sump as otherwise leaks can occur. Screw the sump back into the cap by turning clockwise and using the wrench to tighten. DO NOT OVERTIGHTEN.

FILTER IDENTIFIERS & TYPE



- #1 PP-1005-G: 5-micron sediment filter
- #2 M01-GT-BW: carbon filter
- #3 M11-GT-WN: 2-in-1 activated carbon filter
- #4 MTW-1812-75: Replacement RO Membrane
- #5 K02-GT-WW-TP: inline post carbon filter



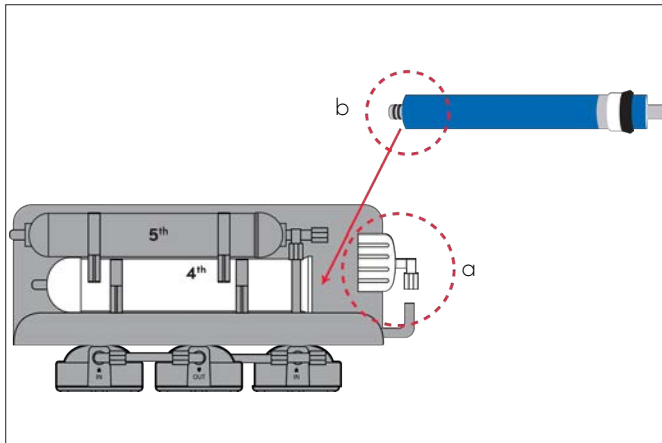
INSTALLATION MANUAL

AquaWave™ Classic Reverse Osmosis System

INSTALLATION INSTRUCTIONS

5. Prepare RO system for installation - continued

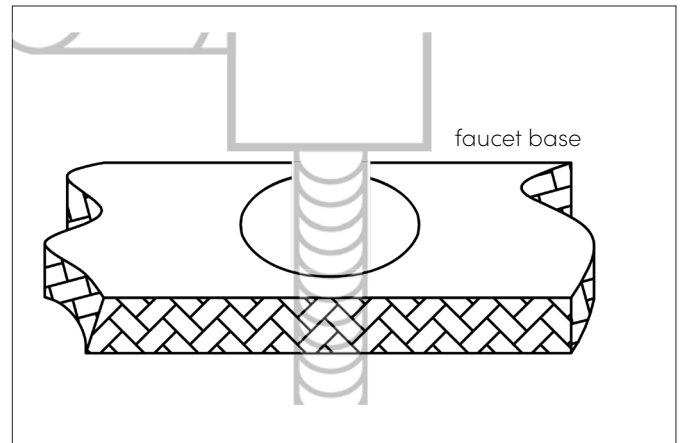
Fig. 5



- Disconnect the 1/4" tube connection going into the membrane cap by unscrewing the plastic nut counter-clockwise. As shown on Fig. 5 (a)
- Remove the blue membrane (#4) from its packaging.
- Insert the membrane end with the two O-rings into the housing until it clicks in place. As show on Fig. 5 (b)
- Do not force the membrane to seat.
- Re-install the membrane housing cap by screwing it clockwise until firmly in place, being careful to not overtighten. Re-install the 1/4" tube connection by screwing the plastic nut clockwise until tight.

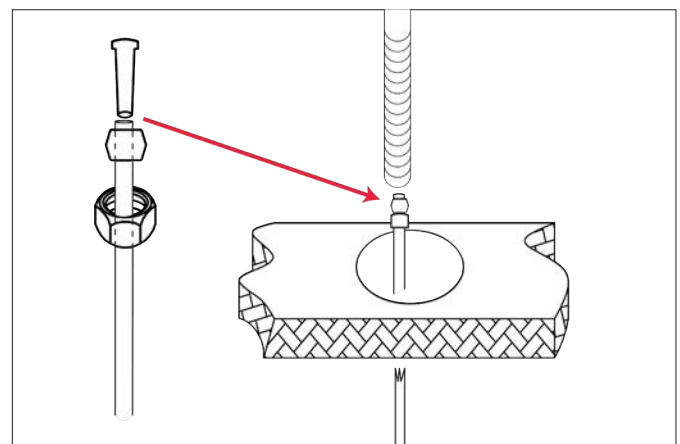
6. Install RO faucet

Fig. 6



- Remove the faucet base from the package and ensure it can mount flat against the surface before drilling an 7/8" (22mm) hole to house the faucet.
- NOTE: Drilling holes into solid surfaces or surfaces made of stone should only be performed by a qualified installer.
- Assemble the faucet by inserting the spigot into the top threaded hole of the handle section and tighten the nut to lock it in place.
- NOTE: Make sure all tubing cuts are done squarely and evenly to ensure proper sealing.

Fig. 6.1



INSTALLATION INSTRUCTIONS

- Connect this 1/4" white tube to compression fitting components as shown in Fig. 6.1 (a)
- Insert compression fitting assembly into base of threaded stem of faucet as shown in Fig. 6.1 (b)
- Take the faucet base and snake it over the tubing and threaded stem until it sits against the bottom of the faucet handle section. See Fig. 6.2 Insert tubing and threaded stem through drilled hole until the faucet base is flush against the countertop
- Assemble remaining faucet components below the countertop. Tighten completely once faucet is in correct position over the sink. See Fig. 6.3

Fig. 6.2

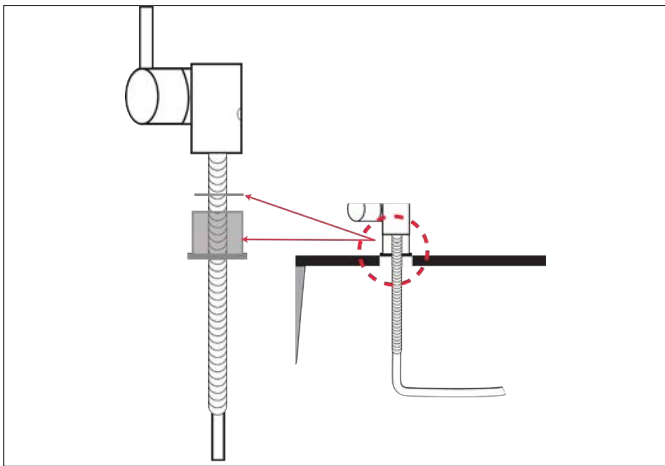
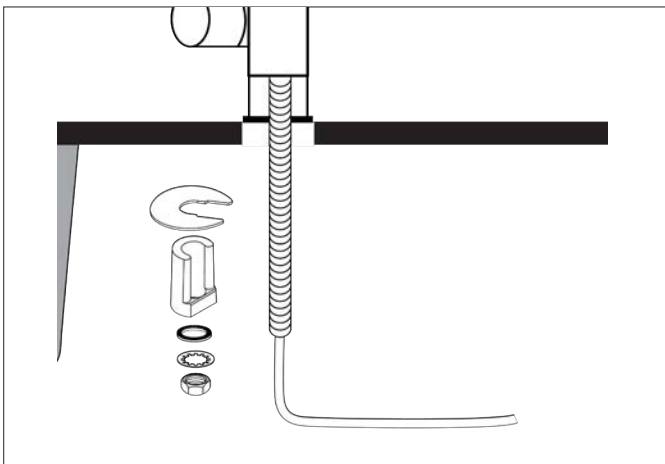
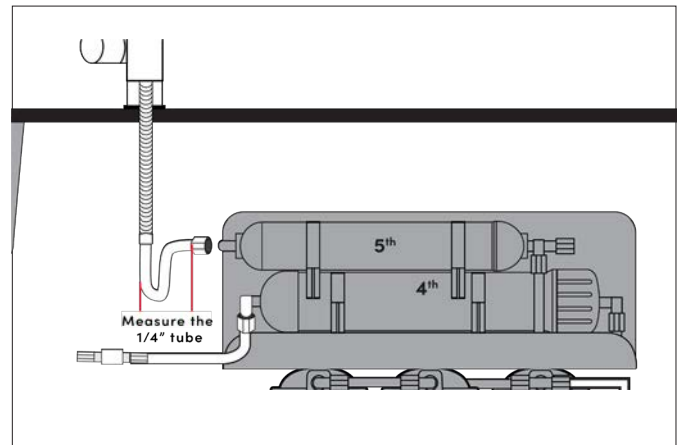


Fig. 6.3



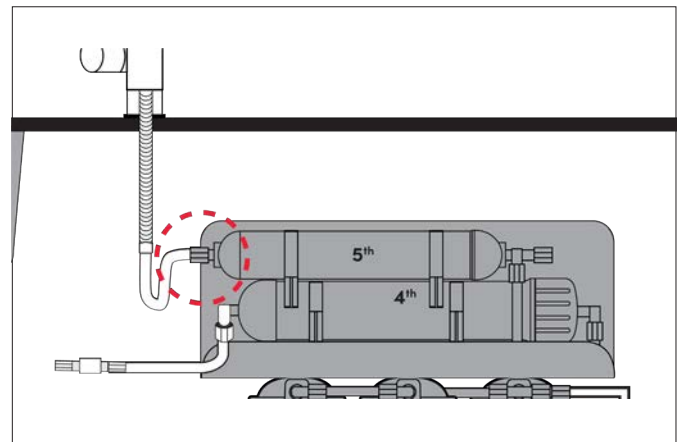
7. Prepare RO system for installation - continued

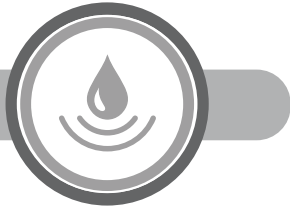
Fig. 7



- Measure length of 1/4" white tubing required to connect base of threaded stem of faucet to the (#5) post-carbon polishing filter outlet (#5) and cut tube accordingly. See Fig. 7
- Connect 1/4" white tube from bottom of faucet threaded stem to outlet of post-carbon polishing filter by unscrewing the plastic nut, inserting the tube and screwing back fingertight. As shown on Fig. 7.1

Fig. 7.1





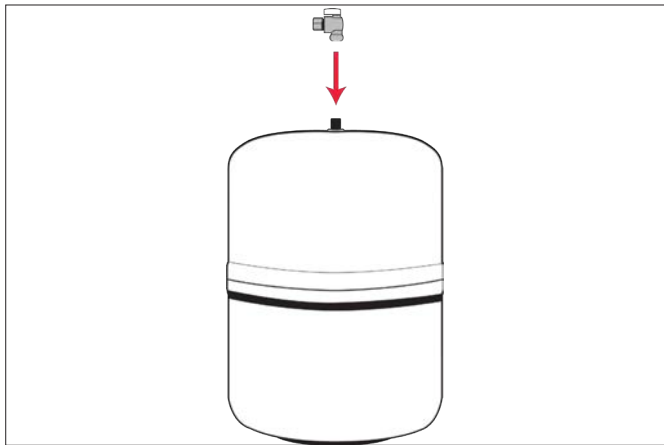
INSTALLATION MANUAL

AquaWave™ Classic Reverse Osmosis System

INSTALLATION INSTRUCTIONS

8. Install RO storage tank

Fig. 8



- Wrap stainless steel thread connection on top of storage tank with Teflon tape.
- Hand-tighten the tank ball valve to the stainless steel connection as shown in Fig. 8.
- Place tank in vertical position in the cabinet.
- Cut RO tubing to required length and insert one end of tube into 1/4" compression fitting of ball valve, gently tugging to ensure it is in place. See Fig. 8.1.
- Connect other end of tube to the fitting attached to inlet of post-carbon polishing filter. See Fig. 8.2.

Fig. 8.1

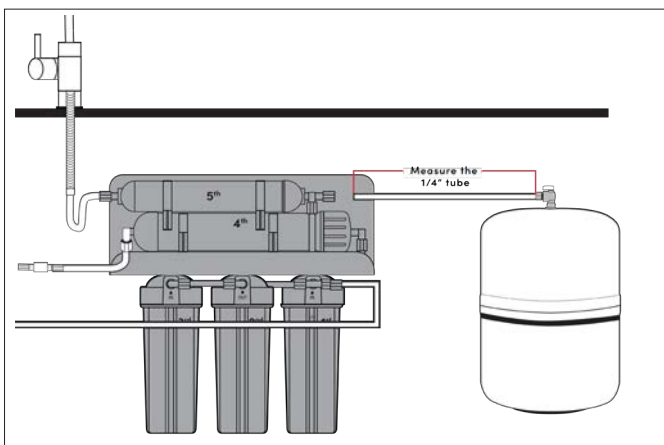
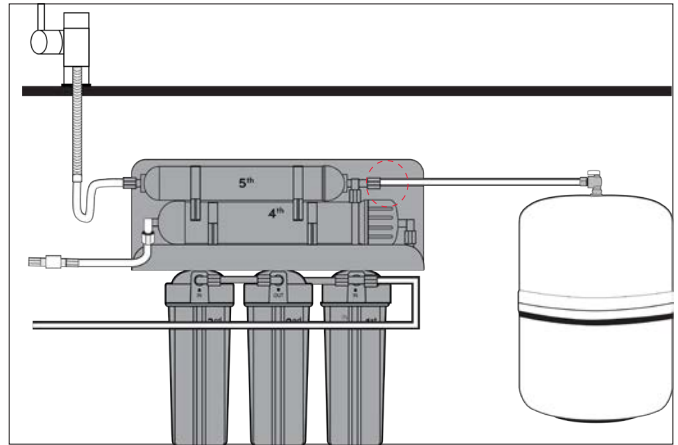
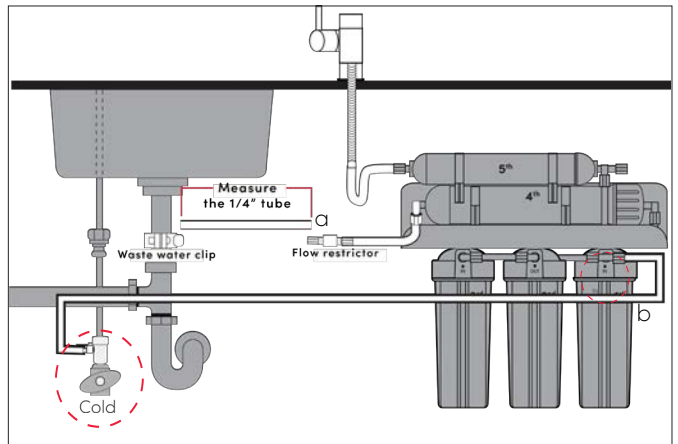


Fig. 8.2



9. Connect tubing to RO system

Fig. 9



- Connect 1/4" white tube from outlet of flow restrictor to drain connection on waste water clip. See Fig. 9 (a)
- Connect 1/4" white tube from main water supply to inlet of 1st stage (marked "IN"). See Fig. 9 (b)

INSTALLATION INSTRUCTIONS

9. System start-up

- Ensure RO faucet is turned off/closed.
- Turn on main cold water supply valve and ensure that the 1/4" water supply valve to the RO system is in open position.
- Ensure ball valve on top of tank is in open position.
- First purge air from the system, by slowly opening the RO faucet until water runs smoothly, then close faucet off.
- Over the next two hours, the pressure in the system will increase as water fills the system and RO storage tank. During this time, monitor the system for any leaks at connections or fittings.
- If leaks are present, fix by ensuring all tubing is cut squarely, fully inserted and/or by adding more wraps of Teflon tape. Confirm there are no notches, scratches, or dents in any of the tubing. If found, replace tubing, or cut approximately 1" off from damaged area and re-assemble as length permits.
- If the system exhibits no leaks, then allow the system to fill the tank.
- DO NOT USE OR DRINK THE FIRST TANK OF RO WATER
- Turn off the 1/4" water supply valve.
- Empty first tank of water by turning on the RO faucet, letting it run until the water stops flowing.
- Turn on the 1/4" water supply valve.
- Allow the tank to fill a second time (approximately 1-2 hours) and then enjoy clean, great tasting water from your new RO system!

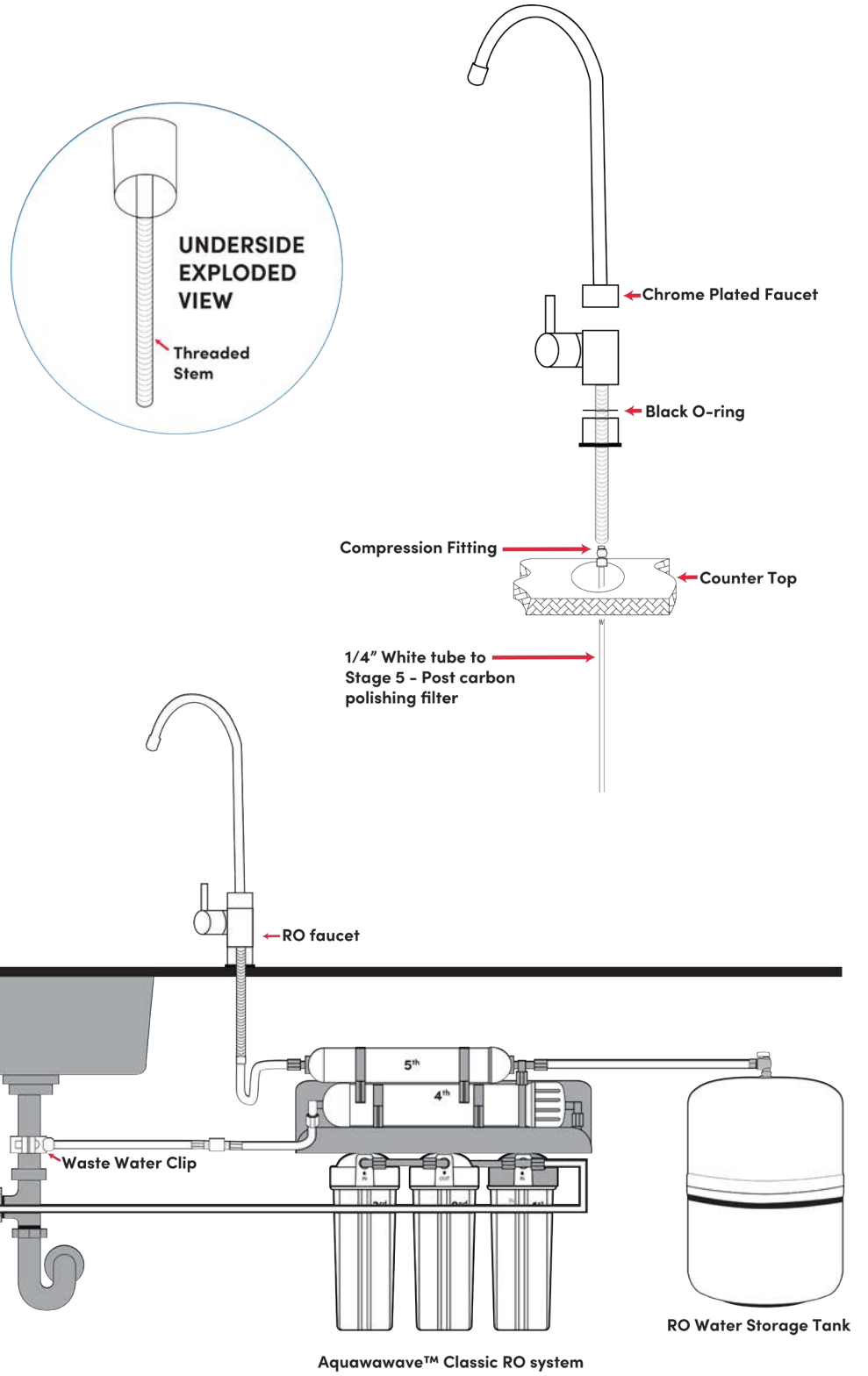




INSTALLATION MANUAL

AquaWave™ Classic Reverse Osmosis System

THE RO SYSTEM FULL CONFIGURATION



FILTER REPLACEMENT PROCEDURE

Your RO system is treating the inlet water in 5 different stages as described below. In order to maintain a steady water quality, we are using only our own high-quality certified filters of the Purefer™ series for our RO systems.

5 FILTRATION STAGES

Stage 1

- 5-micron polypropylene (PP) filter that holds particles such as sediment, dust, rust etc.

Stage 2

- Granular Activated Carbon (GAC) filter that reduces unwanted tastes, disagreeable odours, chlorine and volatile organic compounds.

Stage 3

- GAC filter with an integrated 5 micron PP filter that prevents the passage of carbon fines and further reduces taste, odour and contaminants.

Stage 4

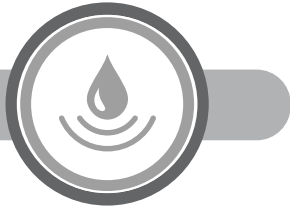
- RO membrane removes all contaminants including bacteria and viruses as well as heavy metals such as lead, copper etc.

Stage 5

- GAC post-filter gives the RO water a “final polish” and pleasant taste by adjusting the pH factor, before making its way to the the RO faucet.

Important Information

1. Please note that the lifetime of the filters as well as their replacement interval strongly depends on the inlet water quality, the amount of water consumed, the sediment and chlorine content etc.
2. The filters are consumables and are not covered by the warranty.
3. Please note that the product warranty is void if non-original replacement filters are used.



TECHNICAL DATA AND COMPONENTS

AquaWave™ Classic Reverse Osmosis System

BEFORE CHANGING THE FILTERS OF YOUR RO SYSTEM

- Unplug the electricity plug of the pump and make sure no electricity is flowing into the system.
- Turn off the 1/4" water supply valve.
- Close the RO tank ball valve..
- Turn the RO faucet on so the water runs out of the system. Wait until there is no more water running.
- Water may spill during the filter changing process. Therefore we suggest performing the filter changes over a towel or bucket to catch the spilling water.

A NOTE TO THE HOMEOWNER

Stage 1 - PP1005

- Use the wrench to unscrew the Stage 1 housing.
- Remove the PP filter from inside the housing and dispose of it. Wash and rinse out the housing with regular water.
- Place the new PP filter into the housing and screw the housing back to its cap. Hand tighten until snug then use wrench to turn one additional 1/4 turn. Do not overtighten.

Stage 2 - M01-GT-BW

- Same as Stage 1

Stage 3 - M11-GT-WN

- Same as Stage 1 and 2

Stage 4 - MTW-1812-75

Open the RO membrane housing by unscrewing the membrane housing and remove the RO membrane using pliers. Dispose of the RO membrane.

- Unpack the new replacement RO membrane from its packaging and insert the membrane end with the two O-rings into the housing until it clicks into place. Do not force the membrane to seat.
- Replace the RO membrane housing cap and hand tighten.

Stage 5 - K02-GT-WW-TP

- Remove the used GAC post-filter from the RO unit by unscrewing the T-piece on one side and the L-piece on the other side and taking it out of its holding clips. Dispose of the GAC post filter.
- Put your new GAC post-filter into the holding clips. Make sure to check the arrow on the GAC post-filter and install it in the correct direction (same direction as old GAC post-filter).
- Screw the L-piece connection to the exit side (tip of the arrow) of the GAC post-filter using Teflon tape (same direction as old GAC post-filter).
- Screw the T-piece connection into the GAC post-filter (same direction as old GAC post-filter).

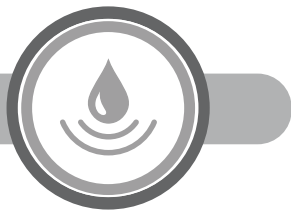
AFTER CHANGING THE FILTERS OF YOUR RO SYSTEM

- Turn on the 1/4" water supply valve.
- Put the 1/4" water supply valve in "ON" position.
- If the RO faucet was turned off, turn it back on. Water should begin to trickle out of the RO faucet.
- Let the RO water run like this for about 1 hour. It is now flushed and ready for use.
- Turn off the RO faucet and open the RO tank ball valve so that RO water can enter the tank.

FILTER CHANGE INTERVAL

The suggested filter change interval is a non-binding recommendation based on years of experience. It represents the use of the RO system with an average inlet water quality and hence does not necessarily reflect the optimal filter change interval plan based on your water quality. For more information please visit our website at www.globalwatersolutions.com, send us an email to watertreatment@globalwatersolutions.com, contact our authorized responsible local distributor or the company from which you bought your system.

Filtration stage	Filter type	Change interval
Stage 1	PP1005: 5-micron PP (polypropylene)	every 3 months
Stage 2	M01-GT-BW: Granular Activated Carbon (GAC)	every 3 to 6 months
Stage 3	M11-GT-WN: GAC + 5-micron PP	every 3 to 6 months
Stage 4	MTW-1812-75: Replacement RO Membrane	every 12 months
Stage 5	K02-GT-WW-TP: Post-RO GAC	every 3 to 6 months



TROUBLESHOOTING

RO water looks “foamy” or “milky white”.

- Possible Cause: There is air in the system.
- Possible Solution: Air intake in the system is normal after the first installation. From time-to-time air might enter the systems through the network. This condition will return to normal after a while. There is no harm in using this water.

The RO unit is giving only little water.

- Possible Cause: There is not enough water mains pressure and the pump is not working.
- Possible Cause: Check to ensure inlet water pressure is sufficient and check that system is plugged in and powered.
- Possible Cause: The white ¼” connection hose might be twisted somewhere along the line.
- Possible Solution: Find and fix the twisted connection hose piece.
- Possible Cause: One or more of the pre-filters (Stage 1-3) is clogged and blocks the water.
- Possible Solution: Change clogged filter or all pre-filters (Stage 1-3).

Although the storage tank is full (heavy), no water comes from the RO faucet.

- Possible Cause: The air pre-charge of the RO water storage tank is too low or completely gone.
- Possible Solution: Empty the tank and recharge it to 6-7psi/0.4bar through the air valve using a suitable air pump/compressor and pressure gauge.

The pump is running continuously.

- Possible Cause: Low-pressure Switch is defective.
- Possible Solution: Turn off the inlet water to the system. Change the low-pressure switch. Call your GWS representative or licensed service technician.
- Possible Cause: Check-valve, shutoff valve or pump may be defective.
- Possible Solution: Turn off the inlet water to the system. Change the defective part. Call your GWS representative or licensed service technician.

The RO unit makes loud noise.

- Possible Cause: The waste water connection hose may be blocked or twisted.
- Possible Solution: Find and fix the twisted connection hose piece.

5 Stage Reverse Osmosis System

WARRANTY

Global Water Solutions ("GWS") warrants the product will be free of defects in material and workmanship under normal usage conditions beginning on the date of manufacture and continuing for a warranty coverage period of 1 year.

Warranty applies only when the product is used for its intended purpose and does not apply if a defect is due to improper use of the product, result of accident, misuse, or abuse. If the product was improperly installed or altered in any way, not specifically authorized in writing by the factory, the warranty is void.

The warranty set forth in this paragraph is made expressly in lieu of all other warranties expressed, or implied, including but not limited to merchantability or fitness for a particular purpose.

In no event shall GWS be liable for cost of processing, lost profits, goodwill or any other consequential or incidental damage of any kind resulting from the order or use of the product whether arriving from breach of warranty, nonconformity to ordered specifications, delay in delivery, or any loss sustained by the buyer nor will GWS be liable for labor and expenses necessary to remove and reinstall replacement product.

To obtain service under this warranty, the consumer must deliver alleged defective product, freight prepaid, to an authorized GWS distributor or OEM partner. GWS will either issue credit or at its option, repair or replace defective product freight prepaid to the distributor. GWS reserves the right to make changes in construction, which, in its judgment, constitutes a product improvement. All warranty is subject to verifiable proper installation, operation and maintenance as recommended in this installation manual.



Have questions or need assistance?

www.gwsusa.com