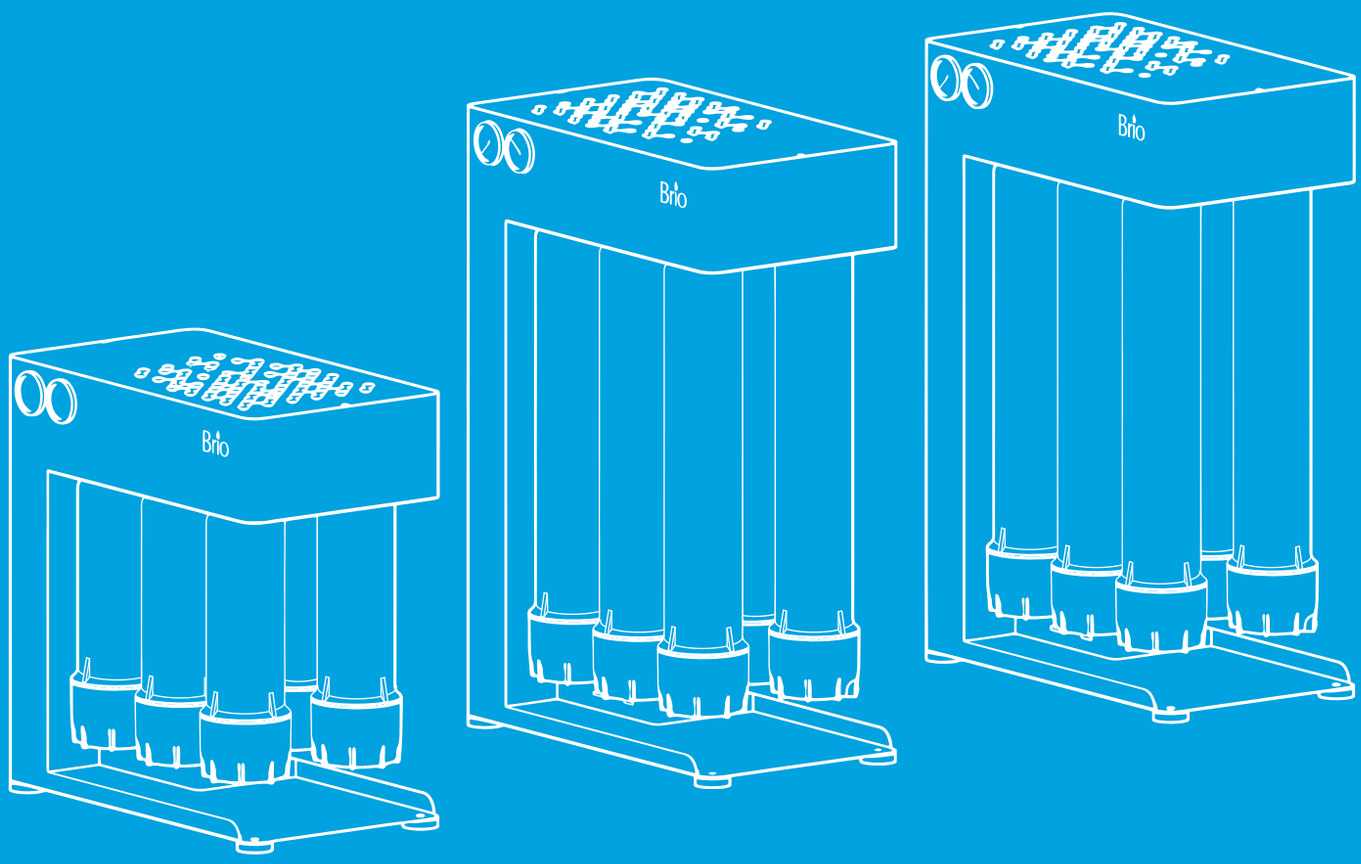
Brio



5-Stage Quick Change Reverse Osmosis Filtration System

User Manual for Model Nos.:
UROLC500, UROLC1000, UROLC2000

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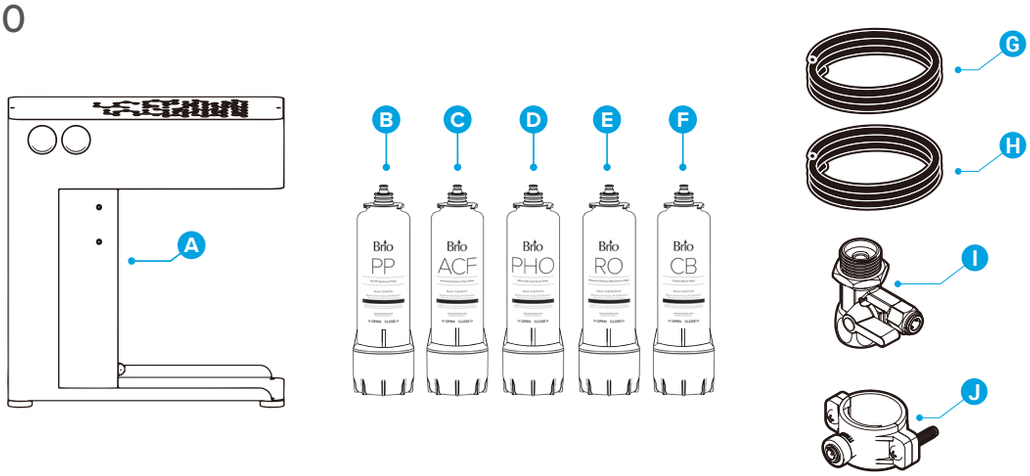
Safety Information

WARNING: To reduce risk of injury and property damage, you must read this entire guide before assembling, installing, and operating this filtration system.

- This RO water filtration system 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 use of the appliance by a person responsible for their safety.
- This RO water filtration system requires a dedicated GFCI outlet. If you do not have one, consult a professional electrician to have one installed.
- DO NOT use system if power cord is damaged. Contact customer service immediately for a replacement. When unplugging power cord ALWAYS grasp plug firmly to remove. DO NOT pull on power cord itself as this may cause damage or electrical shock.
- DO NOT expose filtration system to direct sunlight as this may cause damage.
- DO NOT store or expose system to temperatures lower than 32°F (0°C).
- DO NOT install filtration system near heat sources, open flames, or combustible substances.
- DO NOT place heavy objects on top of system.
- DO NOT allow children near system without adult supervision.

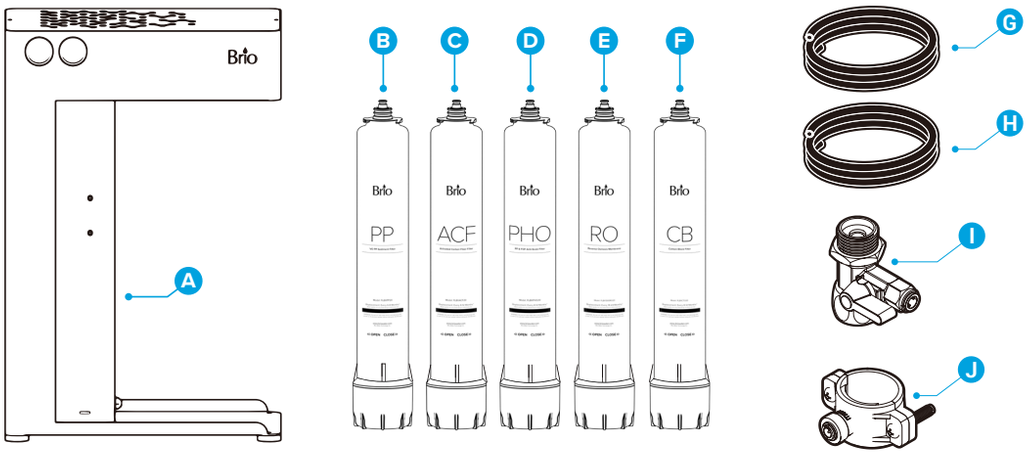
Package Contents

UROLC500



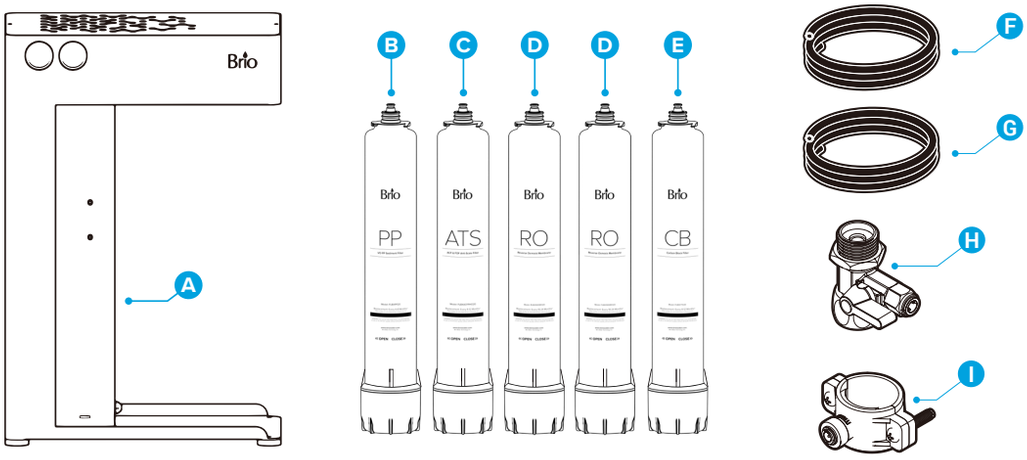
Part	Description	Quantity	Part	Description	Quantity
A	RO System Frame	1	F	Carbon Block Filter	1
B	VO PP Sediment Filter	1	G	3/8" PE Tubing	1
C	Activated Carbon Fiber Filter	1	H	1/4" PE Tubing	3
D	PP & FOF Composite Filter	1	I	3/8" Feedwater Adapter	1
E	500 GPD RO Membrane	1	J	1/4" Drain Saddle	1

UROLC1000



Part	Description	Quantity	Part	Description	Quantity
A	RO System Frame	1	F	Carbon Block Filter	1
B	VO PP Sediment Filter	1	G	3/8" PE Tubing	2
C	Activated Carbon Fiber Filter	1	H	1/4" PE Tubing	2
D	PP & FOF Composite Filter	1	I	3/8" Feedwater Adapter	1
E	1000 GPD RO Membrane	1	J	1/4" Drain Saddle	1

UROLC2000

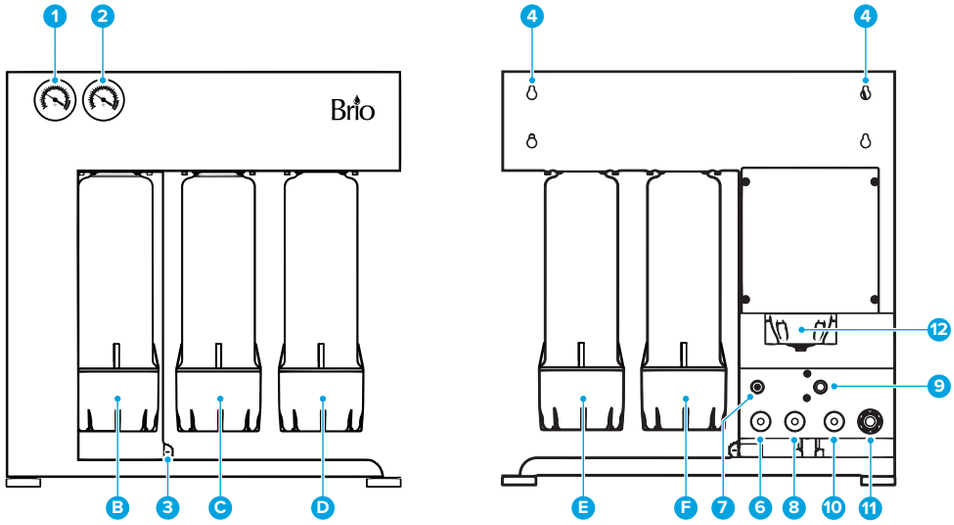


Part	Description	Quantity
A	RO System Frame	1
B	VO PP Sediment Filter	1
C	ACF & FOF Composite Filter	1
D	1000 GPD RO Membrane	2
E	Carbon Block	1

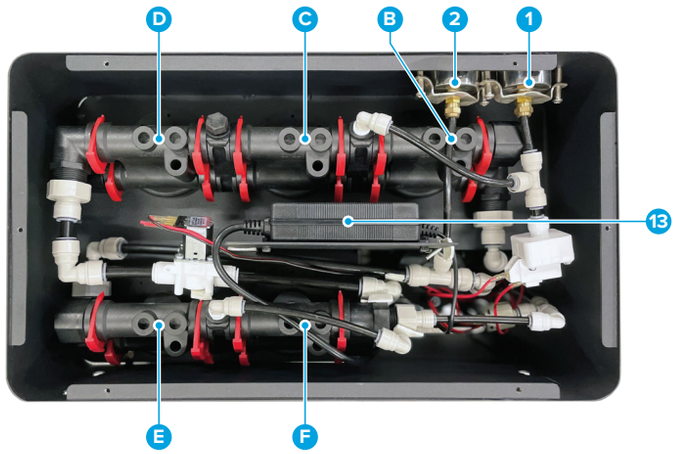
Part	Description	Quantity
F	1/2" PE Tubing	2
G	3/8" PE Tubing	2
H	1/2" Feedwater Adapter	1
I	3/8" Drain Saddle	1

Product Features

UROLC500

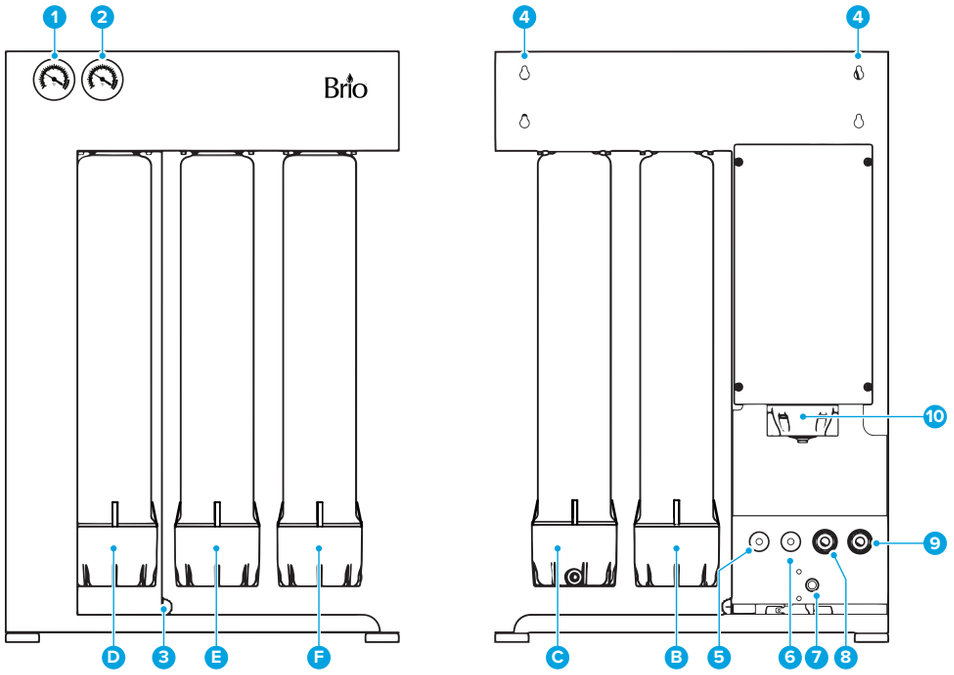


Part	Description	Part	Description
1	Pressure After Prefilters Gauge	F	Carbon Block Filter
2	Pressure After Pump Gauge	6	RO Drain outlet
B	VO PP Sediment Filter	7	Adapter Power Outlet
3	RO Membrane Connection Port	8	Pressure Tank Outlet
C	Activated Carbon Fiber Filter	9	Drain Valve
D	PP & FOF Composite Filter	10	Permeate Water Outlet
4	Mounting Holes	11	Water Inlet
E	500 GPD RO Membrane	12	RO Booster Pump

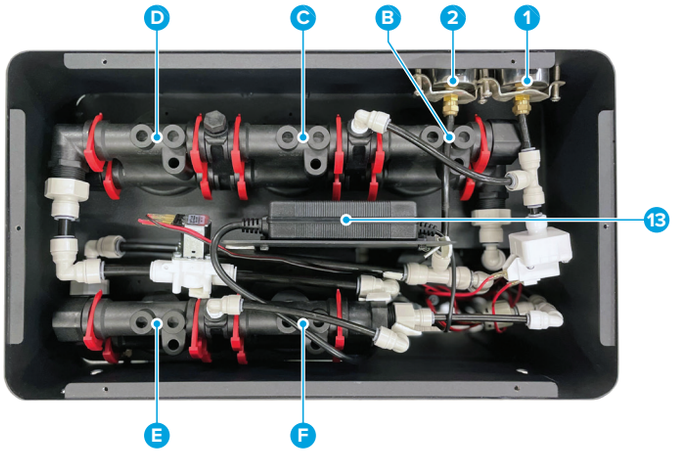


Part	Description	Part	Description
B	VO PP Sediment Filter	1	Pressure After Prefilters Gauge
C	Activated Carbon Fiber Filter	E	500 GPD RO Membrane
D	PP & FOF Composite Filter	F	Carbon Block Filter
2	Pressure After Pump Gauge	13	Power Adapter

UROLC1000

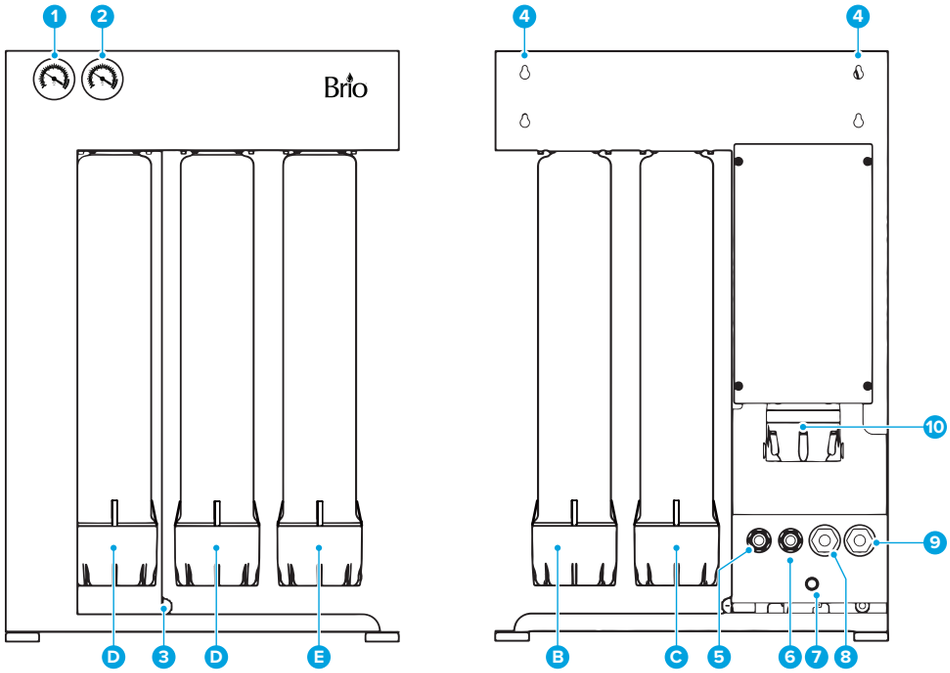


Part	Description	Part	Description
1	Pressure After Prefilters Gauge	D	VO PP Sediment Filter
2	Pressure After Pump Gauge	5	RO Drain Outlet
F	PP & FOF Composite Filter	6	Pressure Tank Outlet
3	RO Membrane Connection Port	7	Drain Valve
C	1000 GPD RO Membrane	8	Permeate Water Outlet
B	Carbon Block Filter	9	Water Inlet
4	Mounting Holes	10	RO Booster Pump
E	Activated Carbon Fiber Filter		

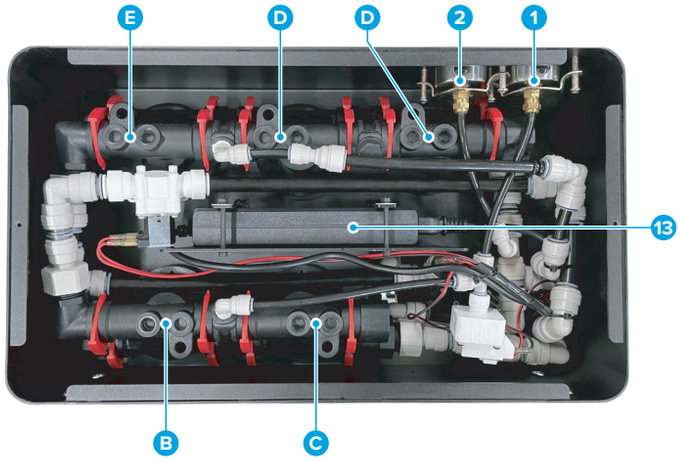


Part	Description	Part	Description
B	VO PP Sediment Filter	1	Pressure After Prefilters Gauge
C	Activated Carbon Fiber Filter	E	1000 GPD RO Membrane
D	PP & FOF Composite Filter	F	Carbon Block Filter
2	Pressure After Pump Gauge	13	Power Adapter

UROLC2000



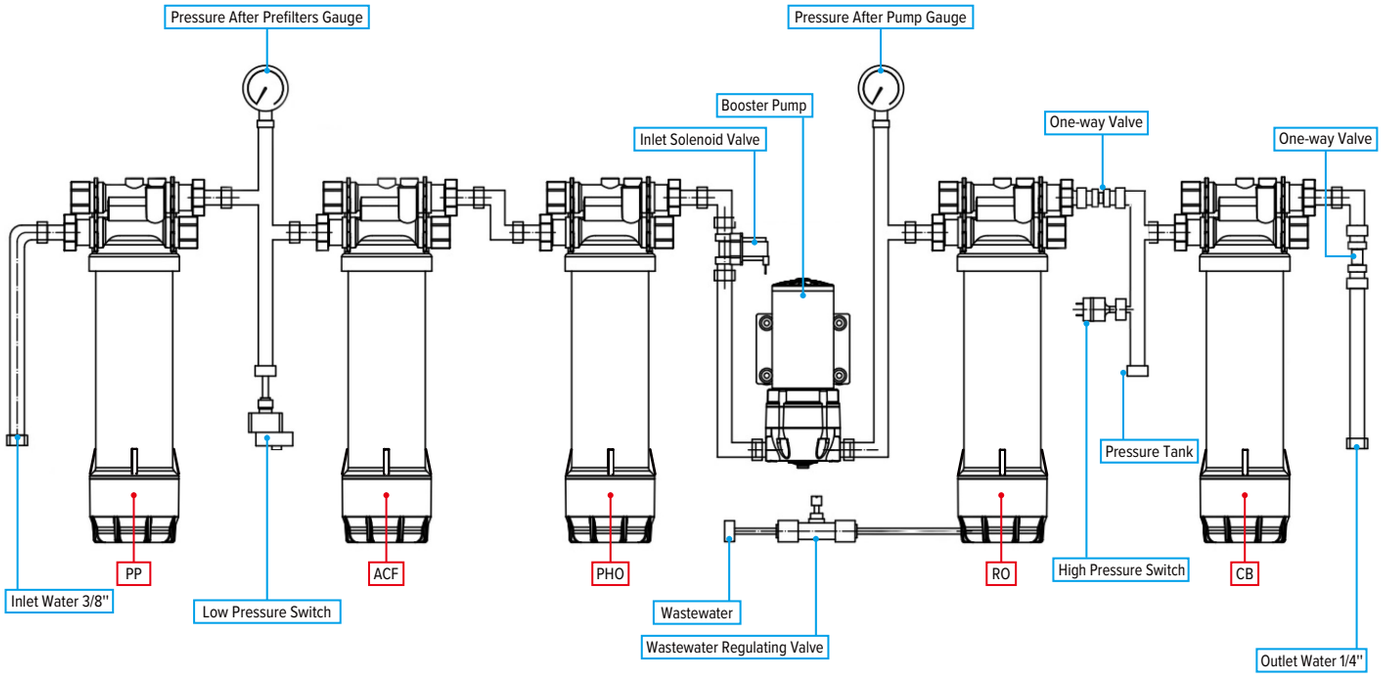
Part	Description	Part	Description
1	Pressure After Prefilters Gauge	B	VO PP Sediment Filter
2	Pressure After Pump Gauge	5	RO Drain Outlet
D	1000 GPD RO Membrane	6	Pressure Tank Outlet
3	RO Membrane Connection Port	7	Drain Valve
D	1000 GPD RO Membrane Port	8	Permeate Water Outlet
E	Carbon Block Filter	9	Water Inlet
4	Mounting Holes	10	RO Booster Pump
C	ACF & FOF Composite Filter		



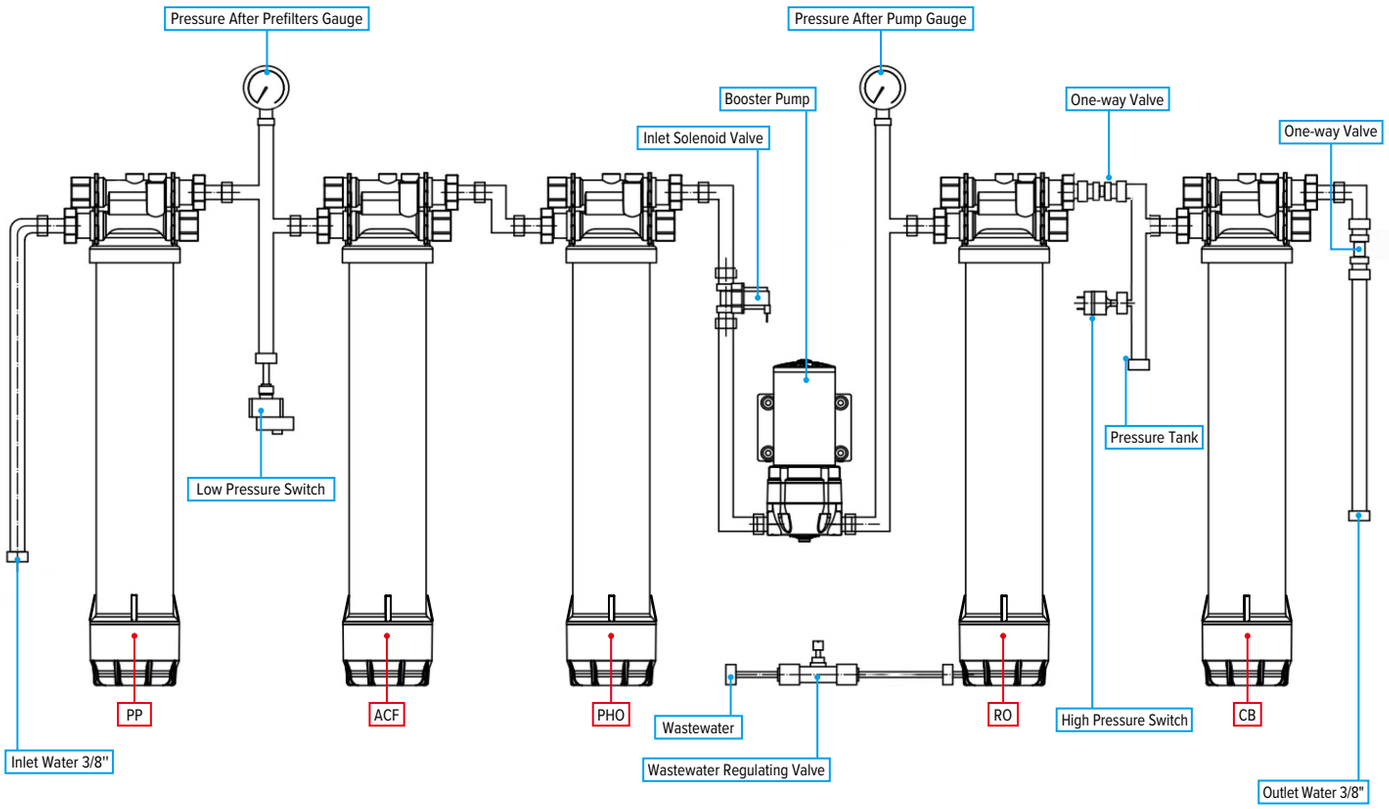
Part	Description	Part	Description
E	Carbon Block Filter	1	Pressure After Prefilters Gauge
D	1000 GPD RO Membrane	C	ACF & FOF Composite Filter
D	1000 GPD RO Membrane	B	VO PP Sediment Filter
2	Pressure After Pump Gauge	13	Power Adapter

Piping and Instrumentation Diagrams

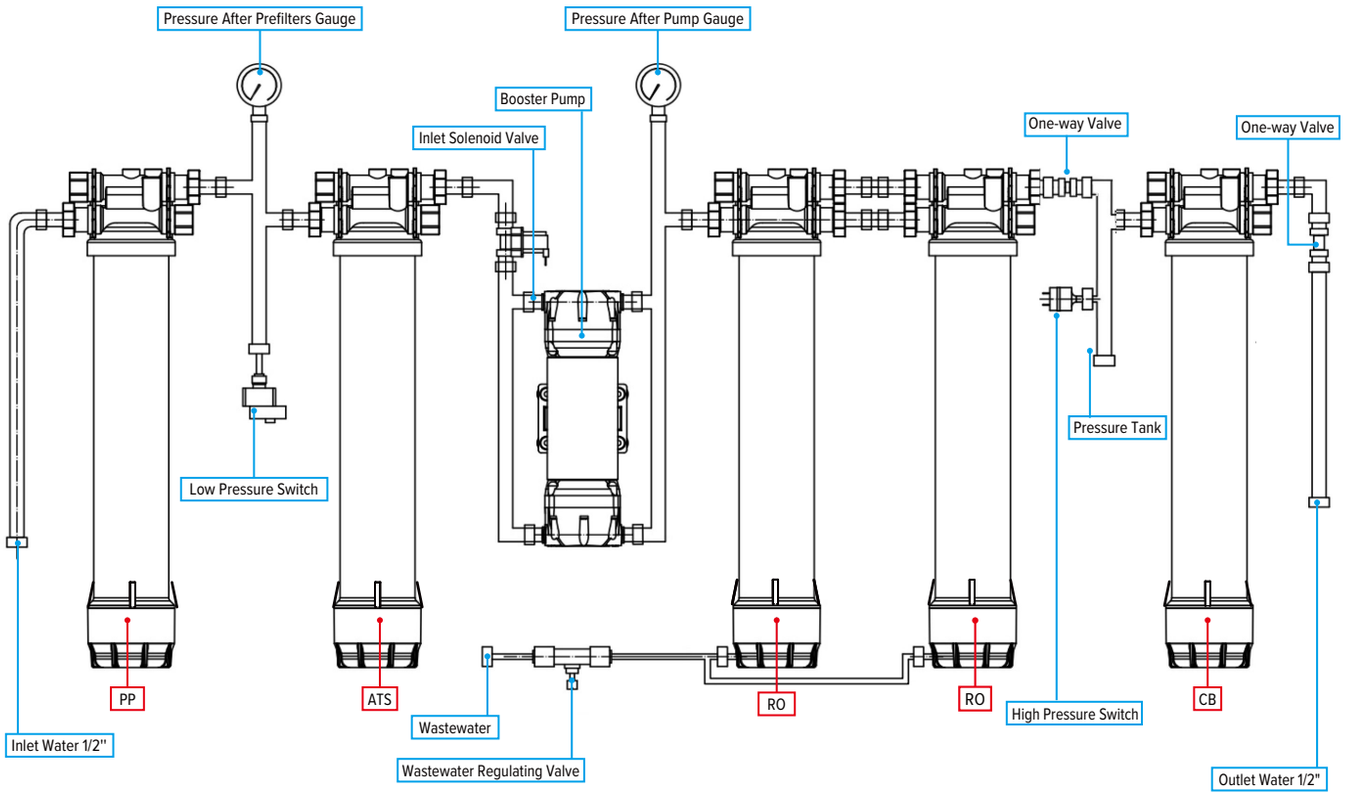
UROLC500



UROLC1000


Pressure After Prefilters Gauge
Pressure After Pump Gauge
Booster Pump
Inlet Solenoid Valve
One-way Valve
One-way Valve
Low Pressure Switch
Pressure Tank
PP
ACF
PHO
RO
CB
Inlet Water 3/8"
Wastewater
Wastewater Regulating Valve
High Pressure Switch
Outlet Water 3/8"

UROLC2000


Pressure After Prefilters Gauge
Pressure After Pump Gauge
Booster Pump
Inlet Solenoid Valve
One-way Valve
One-way Valve
Pressure Tank
Low Pressure Switch
PP
ATS
Wastewater
Wastewater Regulating Valve
RO
RO
High Pressure Switch
CB
Inlet Water 1/2"
Outlet Water 1/2"

Specifications

Operational Specifications

Model No.	UROLC500	UROLC1000	UROLC2000
Pump Input	AC 100-240V (50/60 Hz)	AC 100-240V (50/60 Hz)	AC 100-240V (50/60 Hz)
Pump Output	DC 24V 2.75A	DC 24V 5A	DC 36V 7A
Feedwater Pressure	14.5–58 psi	14.5–58 psi	14.5–58 psi
Operating Pressure	72.52–101.5 psi	72.52–101.5 psi	72.52–101.5 psi
Feedwater Temperature	41–100.4°F (5–38°C)	41–100.4°F (5–38°C)	41–100.4°F (5–38°C)
Operating Ambient Temperature	39.2–104°F (4–40°C)	39.2–104°F (4–40°C)	39.2–104°F (4–40°C)
Operating Ambient Humidity	≤90% (77°F/25°C)	≤90% (77°F/25°C)	≤90% (77°F/25°C)
Product Dimensions (WxHxD)	10.2”x18.5”x17.7” (26x47x45 cm)	10.2”x26.6”x17.7” (67.5x26x45 cm)	10.2”x26.6”x17.7” (67.5x26x45 cm)
Net Weight	48.5 lb (22 kg)	66.1 lb (30 kg)	79.4 lb (36kg)
Water Inlet	3/8”	3/8”	1/2”
Water Outlet	1/4”	3/8”	1/2"
Wastewater	1/4”	1/4”	3/8”
Pressure Tank*	1/4"	1/4"	3/8”
System Recovery Rate	60%	60%	60%

*Pressure tank purchased separately

Technical Specifications

Model No.	UROLC500	UROLC1000	UROLC2000
Filtration	0.0001 microns	0.0001 microns	0.0001 microns
Gallons Per Day	500	1000	2000
Flow Rate	0.40-0.53 GPM	0.53-0.66 GPM	1.19-1.32 GPM

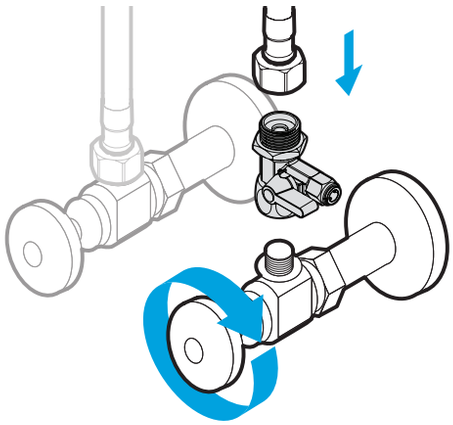
Installation

1. Materials Needed

- Variable speed drill
- 1/4" Drill bit for UROLC500 and UROLC1000 systems; 3/8" drill bit for UROLC2000 system
- Adjustable wrench
- Screwdriver
- Flashlight or headlamp
- Goggles or protective glasses
- Towel

2. Connect to the Cold Water Supply

CAUTION: DO NOT CONNECT THIS WATER LINE TO A HOT WATER SUPPLY LINE. The water supply to the unit MUST be from the COLD WATER LINE. Using HOT WATER will severely damage your filters.

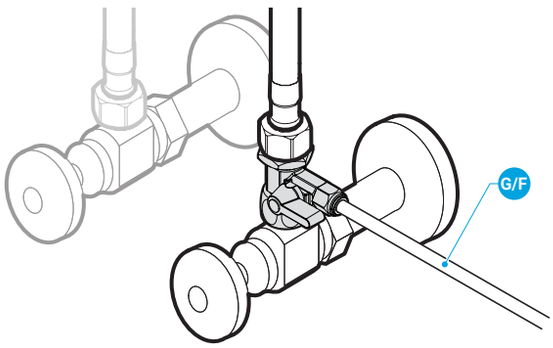


A. Turn off cold water supply. Open faucet and drain any remaining water in pipes.

B. Using an adjustable wrench, disconnect cold water pipe from cold water supply line.

C. Twist feedwater adapter onto cold water supply line, then attach cold water pipe to the top of the feedwater adapter.

NOTE: In the event the cold water pipe has a 3/8-in. diameter, a 3/8-in. adapter nut is attached to the base of the feedwater adapter. Unscrew from base and twist on to top.



D. For UROLC500 and UROLC1000 systems, connect one end of 3/8" tubing (G) to feedwater adapter. Gently tug tubing to ensure a secure fit.

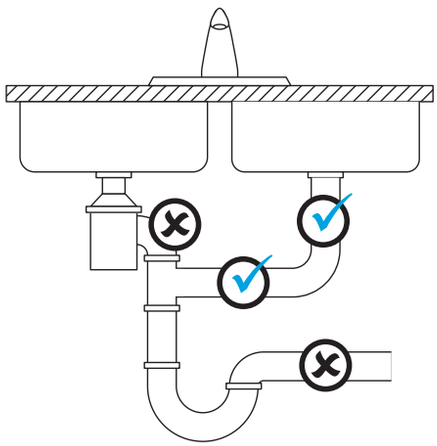
E. For UROLC2000 system, connect one end of 1/2" tubing (F) to feedwater adapter. Gently tug tubing to ensure a secure fit.

3. Install Drain Saddle and Connect RO Drain Tube

The drain saddle is designed to fit around a standard 1.5 in. OD (outer diameter) drain pipe.

Always install the drain saddle before the P-trap and on a straight vertical or horizontal section of the pipe.

To avoid clogging the drain line with debris, do not install the drain saddle after the drain pipe meets a garbage disposal or dishwasher drain.



Determine location for drain saddle. To guide drilling, make a mark on the pipe for opening (1).

A. For the UROLC500 and UROLC1000 systems, drill a 1/4" hole in the pipe. For the UROLC2000 system, drill a 3/8" hole. Drill hole in one side of pipe ONLY.

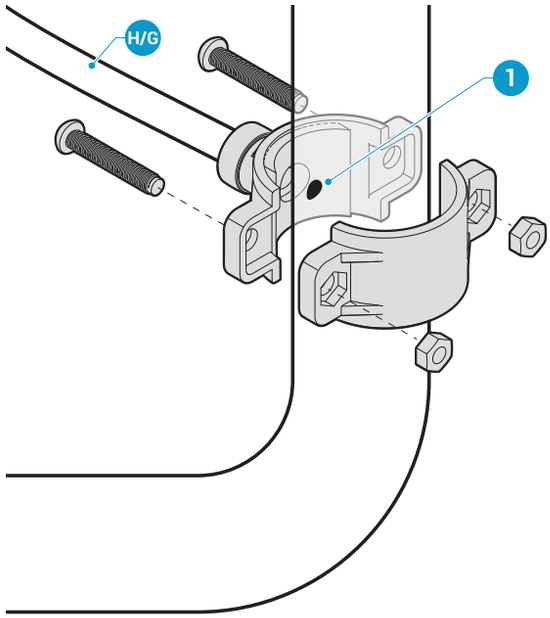
B. Remove the backing from the foam gasket. Align the adhesive side of it over the hole on the inside of the drain saddle. Press in place, ensuring a clean opening.

C. Position both halves of the drain saddle around the drain pipe, aligning the opening in the drain saddle directly over the drilled hole in the drain pipe. Insert the drill bit through both holes to ensure proper alignment.

D. Secure the drain saddle to the drain pipe using the provided nuts and bolts. DO NOT overtighten.

E. For UROLC500 and UROLC1000 systems, insert one end of 1/4" tubing (H) into quick connect of drain saddle. Gently tug on tube to ensure a secure fit.

F. For UROLC2000, insert one end of remaining 3/8" tubing (G) into quick connect of drain saddle. Gently tug on tube to ensure a secure fit.



Drain Valve Adjustment Instructions

Adjust the drain valve to achieve a target system recovery rate of 60%.

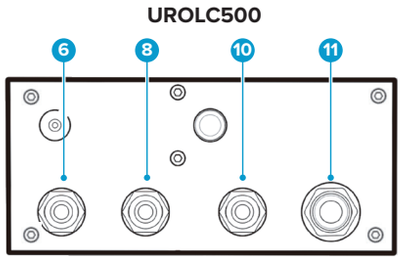
- If the recovery rate is below 60%, turn the drain valve clockwise.
- If the recovery rate is above 60%, turn the drain valve counterclockwise.

4. Complete the Installation

IMPORTANT: The filtration system has been fitted with protective plugs to ensure system ports are not damaged during shipping. Plugs MUST BE removed before connecting tubing. To remove plugs, press down on gray collar to release the plug. DO NOT attempt to remove plugs by pulling them up without first releasing them. This may severely damage ports and cause water leakage.

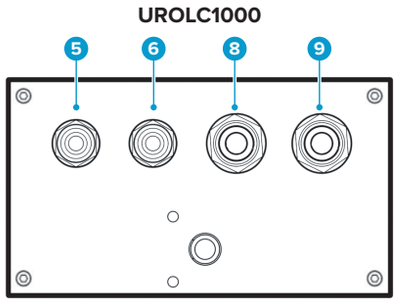
For the UROLC500 system:

- Connect 3/8" tubing from feedwater adapter to water inlet (11) on RO system frame.
- Connect second 1/4" tubing to permeate water outlet (10) on RO system frame.
- Connect 1/4" tubing from drain saddle to RO drain outlet (6) on RO system frame.
- If using a pressurized tank, connect remaining 1/4" tubing to pressure tank outlet (8).



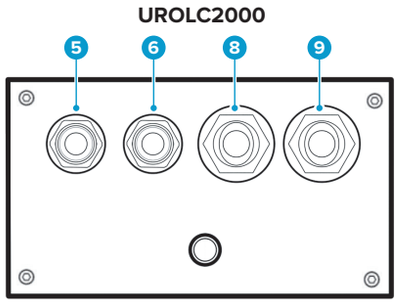
For the UROLC1000 system:

- Connect 3/8" tubing from feedwater adapter to water inlet (9) on RO system frame.
- Connect second 3/8" tubing to permeate water outlet (8) on RO system frame.
- Connect 1/4" tubing from drain saddle to RO drain outlet (5) on RO system frame.
- If using a pressurized tank, connect remaining 1/4" tubing to pressure tank outlet (6).



For the UROLC2000 system:

- Connect 1/2" tubing from feedwater adapter to water inlet (9) on RO system frame.
- Connect second 1/2" tubing to permeate water outlet (8) on RO system frame.
- Connect 3/8" tubing from drain saddle to RO drain outlet (5) on RO system frame.
- If using a pressurized tank, connect remaining 3/8" tubing to pressure tank outlet (6).



For the pressurized tank:

- The start/stop pressure of the pressure tank is factory-set and cannot be manually adjusted. The pressure settings correspond to those of the high-pressure switch on the system:

  Function of the High-Pressure Switch: The high-pressure switch monitors the pressure on the RO permeate side. When the pressure reaches the OFF set-point, the system stops water production. When the pressure drops to the ON set-point, the system automatically restarts water production.

  As the pressure tank fills, the internal tank pressure gradually increases, causing the line pressure to rise accordingly. Once the pressure reaches the OFF set-point of the high-pressure switch, the system automatically stops water production and stops supplying water to the pressure tank. When water is drawn from the tank, the line pressure decreases. Once the pressure drops to the ON set-point of the high-pressure switch, the system automatically restarts water production and refills the pressure tank.

- High-Pressure Switch Settings:
  - ON set-point: 14.5 psi (0.1 MPa)
  - OFF set-point: 36.3 psi (0.25 MPa)

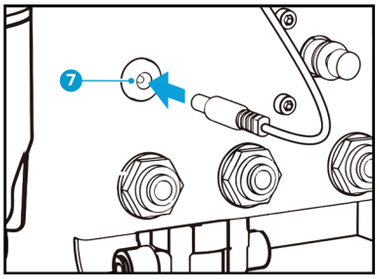
- Recommended Pressure Tank Capacity:
  NSF-certified pressure tanks are recommended.
  - 500G system: 6-gallon pressure tank
  - 1000G system: 11-gallon pressure tank
  - 2000G system: 20-gallon pressure tank

Operation

1. Start Up the System

After confirming all connections are correct and secure, open handle on the feedwater valve and turn on the cold water supply.

For UROLC500, ensure the electric adapter cord is plugged in to its outlet (7) on the RO system frame.



Plug the system power cord into the GFCI outlet.

The high-pressure pump will start working and water will begin entering the filtration system. Route the free end of the permeate water outlet tube into a container or sink. A small amount of white preservative liquid will be discharged. To flush the filters, allow the system to run for 3 to 10 minutes, or until water runs clear. Discard this water.

Care and Maintenance

- Keep the system in a cool, dry place away from direct sunshine.
- Use a clean, soft cloth to remove dust buildup. DO NOT use soap, detergent, or harsh abrasives.
- Never lay the water filtration system on its side or back. It should always be operated and stored in an upright position.
- If the cold water inlet temperature drops to 32°F (0°C), there is a risk the tubes could crack, and damaging leaking could occur. To prevent this, turn off the shut-off valve on the the main water supply to the system and drain any remaining water.

1. Filter Replacement Schedule

To ensure optimal performance of the reverse osmosis system, filters must be replaced in a timely manner.

Filter Type	Model No.	Replacement Schedule
VO PP Sediment (10”)	FLBXPP10	3 to 6 months
Activated Carbon Fiber (10”)	FLBXACF10	8 to 12 months
PP & FOF Composite (10”)	FLBXPHO10	6 to 8 months
500 GPD RO Membrane (10”)	FLBX500RO10	18 to 24 months
Carbon Block (10”)	FLBXCTO10	8 to 12 months
VO PP Sediment (20”)	FLBXPP20	3 to 6 months
Activated Carbon Fiber (20”)	FLBXACF20	8 to 12 months
ACF & FOF Composite (20”)	FLBXACFPHO20	8 to 12 months
PP & FOF Composite (20”)	FLBXPHO20	6 to 8 months
1000 GPD RO Membrane (20”)	FLBX1000RO20	18 to 24 months
Carbon Block (20”)	FLBXCTO20	8 to 12 months

2. Replacing Filters

The filters have been designed for easy removal and replacement. To replace filters:

- Unplug the system from main power supply.
- Turn off cold water supply.
- Remove expired filters by rotating to the left (counterclockwise).
- To install new filters, insert new filter into its corresponding housing. Press up then rotate to the right (clockwise) until the filter is locked securely into position.
- Turn the cold water supply back on and plug the system in.
- Flush filters as described in “Start Up the System” section.
- Discard old filters responsibly.

Troubleshooting

Problem	Probable cause	Solution
The system will not switch on	• The system is not plugged in • The outlet is non-functioning • Insufficient inlet water; feedwater or main water valve is closed • Low pressure switch failure • High pressure switch fails to reset • Abnormal voltage in power adapter	• Plug in the system • Replace outlet • Ensure water pressure is higher than 35.5 psi; open all water valves on supply pipes and tubing; check for clogs • Verify proper electrical contact. Replace low pressure switch if necessary • Measure resistance after releasing the pressure and replace the high pressure switch if necessary • Measure output voltage and replace power adapter if necessary
The system will not switch off	• High pressure switch failure • Tubing inside system does not have sufficient pressure	• Verify proper electrical contact. Replace high pressure switch if necessary • Inspect tubing for leaks
The booster pump works normally but cannot produce water	• Booster pump pressure loss • Water inlet solenoid valve is malfunctioning, stopping water inflow (pure and waste) • RO membrane is blocked, causing continuous discharge of wastewater with no pure water production • Prefilters are blocked	• Measure pump outlet pressure and replace pump if pressure is below 65.25 psi • Replace inlet water solenoid valve • Flush or replace RO membrane • Observe ratio of pure to waste and replace prefilters if necessary
The system keeps switching on and off and will not stop	• Insufficient inlet water	• Test water pressure, ensuring that it's higher than 35.5 psi; inspect prefilters for blockage
Pressure tank is full but no water flows out	• Pressure tank has lost pressure • The post filter is blocked	• Inflate pressure until it reaches 7 - 10 psi • Replace the post filter

Warranty

Brio ("Vendor") warrants to the original purchaser of the Brio Water Filtration System (the "Product"), and to no other person, that if the Product is assembled and operated in accordance with the printed instructions accompanying it, then for a period of one (1) year from the date of purchase, all parts in the Product shall be free from defects in material and workmanship. This Limited Warranty shall be limited to repair or replacement of parts, which prove defective under normal use and service and which Vendor shall determine in its reasonable discretion upon examination to be defective. To take advantage of this Limited Warranty, please follow these steps:

1. Please retain your sales slip or invoice, as Vendor may require reasonable proof of your date of purchase.
2. Contact Vendor's Customer Service Department using the contact information listed below.
3. Return parts to Vendor, per Vendor's instructions, at your cost and expense.
4. Upon receipt by Vendor, Vendor shall advise you in writing whether a defect covered by this Limited Warranty exists in any returned part and whether your claim has been approved or denied.
5. Upon Vendor's approval of your claim, Vendor will replace such defective part without charge to you.

WHAT THIS LIMITED WARRANTY DOES NOT COVER: This Limited Warranty does not cover any failures or operating difficulties of the Product due to accident, abuse, misuse, alteration, misapplication, improper installation or improper maintenance or service by you or any third party, or failure to perform normal and routine maintenance on the Product, as set out in the User's Manual. In addition, this Limited Warranty does not cover damages to the finish, such as scratches, dents, discoloration or rust after purchase.

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