



F-SERIES F2100 & F2200 2-STAGE FILTRATION SYSTEM USER'S MANUAL

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1. PRECAUTIONS AND GENERAL NOTES

CAUTION

Please read this instruction manual carefully before installing and using this product. If you encounter any problems that are not addressed in this manual, please contact your local Pentair's distributor.

⚠WARNING:

- Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.
- Do not disassemble or modify the water filtration system.
- Before installation, please ensure that the equipment is turned off and that the cold water supply valve is closed.
- Before using the water filtration system, make sure that the cold water valve is open, and that there is water pressure in the pipe network (water supply available).
- Do not put anything on top of the machine as the object or cover might prevent heat from dissipating and result in equipment damage or cause a fire.
- If the pressure exceeds 50PSI, a pressure reduction device must be installed.
- Avoid installing this product to pipelines with water hammer effects for extended period of time. Otherwise, an additional pressure control valve must be installed.
- Do not place the product under direct sunlight, or in places with high temperature or outdoors.
- The installation and maintenance of this product must be carried out by professional plumber designated by an authorized Pentair's distributor.
- For cold water use only.
- Make certain that installation complies with all state and local laws and regulations.
- The system must be maintained according to manufacturer's recommendations, including replacement of filter cartridges. The contaminants or other substances removed or reduced by the selected cartridge are not necessarily in your water. Ask your local water municipality for a copy of their water analysis, or have your water tested by reputable water testing lab.
- After prolonged periods of non-use (such as during a vacation) it is recommended that the system be flushed thoroughly. Let water run for 5-6 minutes before using.
- The filter cartridges used with this system have a limited service life. Changes in taste, odour, and/or flow of the filtered water being filtered indicate the cartridge should be replaced.
- It is normal small amount of carbon particles may occasionally appear after installation or filter replacement, Flush the system until the carbon particles are cleared.
- During installation, consider the convenience of use and the room for movement during maintenance
- If you have any questions after installation, please contact your local Pentair authorized distributor.

2. PARTS INCLUDED

See checklist below for the components included with your system.

No	DESCRIPTION	UNIT	QUANTITY
1	Main Filtration System	Set	1
2	Main System Cover	Piece	1
3	Faucet	Piece	1
4	Accessory Pack	Set	1

3. PRODUCT INFORMATION

3.1. Product Features

The high quality of the 2-stage filtration system is a result of the strict material selection and superior performance design of each component. Two stage filtration technology ensures water produced is safe to drink and good for taste.

Model	Stage	Cartridge Name	Reduces
F2100	1	Polypropylene Polyspun Cartridge (PP)	Sediments, particulates, dirt
	2	FibreDyne™ Carbon Block Cartridge	Chlorine, chemicals, odour & taste and color
F2200	1	Polypropylene Polyspun Cartridge (PP)	Sediments, particulates, dirt
	2	Advanced FibreDyne™ Carbon Block Cartridge	Chlorine, cysts, lead, chemicals, odour & taste and color

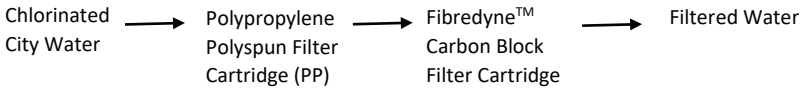
3.2. Product Specification

PARAMETER	F2100	F2200
Inlet Water Condition	Chlorinated City Water Supply	
Inlet Water Pressure Range	20 – 50 PSI	
Inlet Water Temperature Range	5 – 38 °C	
Dimension	206 mm (L) X 320 mm (H) X 131 mm (W)	
Capacity	3000L	5678L
Filtered Water Flowrate	2.2 L/Min	2.5 L/Min
System Cover	White	
Filter Lifespan Indicator	Timer (Optional)	

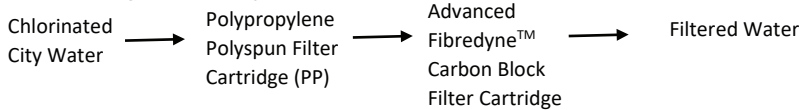
- NOTE:** 1. Due to continuous product improvement, technical specification subject to change without notice. Please refer to the product label.
2. The filtered water flow rate is measured at an ambient temperature of 25±2 °C, water temperature of 25±1 °C and water pressure of 30 PSI.

3.3. Water Treatment Process

F2100 Two-stage Filtration System:



F2200 Two-stage Filtration System:



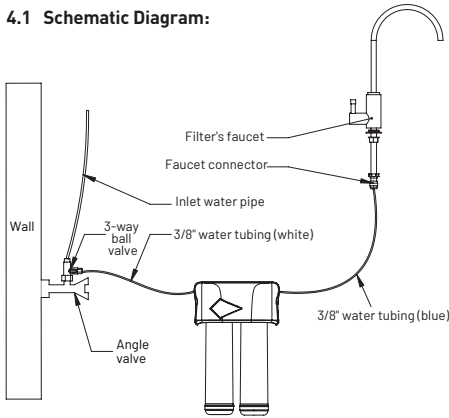
3.4. Introduction to Main Parts

COMPONENT NAME	MATERIAL	SPECIFICATIONS	QUANTITY	ESTIMATE USEFUL LIFESPAN	BRAND
Polypropylene Polyspun Filter Cartridge (PP)	Housing: Polypropylene	Diameter: 90mm Length: 305mm	1pc	3-6 months	PENTAIR
	Filter Element: Polypropylene Polyspun	Micron Rating: 5 microns Diameter: 40.6mm Length: 248mm			
Fibredyne™ / Advanced Fibredyne™ Carbon Block Filter Cartridge	Housing: Polypropylene	Diameter: 90mm Length: 305mm	1pc	6-12 months	PENTAIR
	Filter Element: Activated Carbon	Micron Rating: 0.5 microns Diameter: 58mm Length: 269mm			
Inlet/Outlet Filter Assembly	Material: Polypropylene	Water inlet/outlet diameter: 15.5mm	1 unit	5 years	PENTAIR
Metal Faucet	Material: Brass + Stainless Steel pipe	Diameter: 12mm	1 unit	5 years	PENTAIR

*Note: It is recommended to replace the components when the useful lifespan has reached. The useful lifespan of the filter elements varies according to the actual water usage conditions and the quality of the local tap water, and may be shorter.

4. INSTALLATION AND COMMISSIONING

4.1 Schematic Diagram:

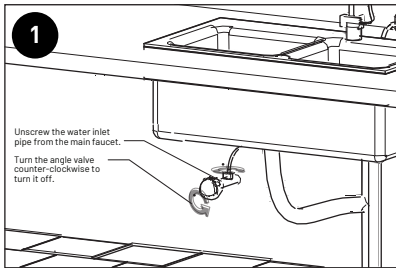


4.2 Tools and materials:

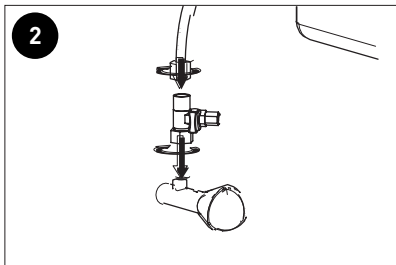
Adjustable wrench, teflon tape, pipe cutter (or utility knife), Phillips head screwdriver (for wall mounting), pencil, drill and measuring tape.

4.3 Installation steps:

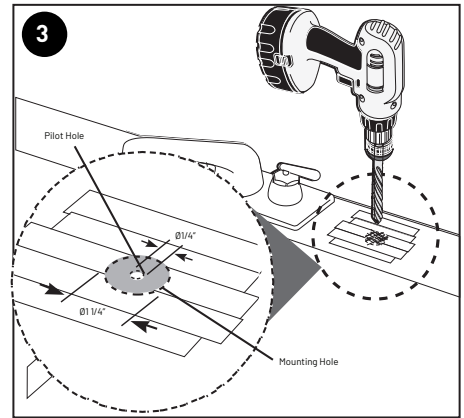
1. Switch off the cold water supply, disconnect the cold water pipe, and open the tap to drain the water from the pipe.



2. Connect the three-way ball valve with the angle valve and the water supply pipe.



3. Selecting the Filter's Faucet Location.



4. Drill hole for filter faucet installation

NOTE:

The drinking water faucet should be positioned with function, convenience, and appearance in mind. An adequate flat area is required to allow faucet base to rest securely. The faucet fits through a 1/4" hole. Most sinks have pre-drilled 1-3/8" or 1-1/2" diameter holes that may be used for faucet installation. If these predrilled holes cannot be used or are in an inconvenient location, it will be necessary to drill a 1/4" hole in the sink to accommodate the faucet.

CAUTION

This procedure may generate dust which can cause severe irritation if inhaled or come in contact with the eyes. The use of safety glasses and respirator for this procedure is recommended.

CAUTION

DO NOT ATTEMPT CAUTION TO DRILL THROUGH AN ALL-PORCELAIN SINK. If you have an all-porcelain sink, mount the faucet in pre-drilled sprayer hole or drill through countertop next to sink.

CAUTION

When drilling through a countertop, make sure the area below the drilled area is free of wiring and piping. Make certain you have ample room to make the proper connections to the bottom of the faucet.

CAUTION

Do not drill through a countertop that is more than **T** thick.

CAUTION

Do not attempt to drill through a tiled, marble, granite or similar countertop. Consult a plumber or the countertop manufacturer for advice or assistance.

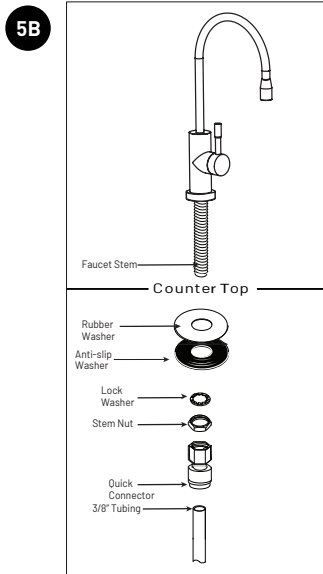
- A. Line bottom of sink with newspaper to prevent metal shavings, parts, or tools from falling down the drain.
- B. Place masking tape over the area to be drilled to prevent scratches if drill bit slips.
- C. Mark hole with center punch. Use a 1/4" drill bit to drill pilot hole.
- D. Use a 3/4" drill bit and drill a hole completely through sink.
- E. Smooth rough edges with a file.

INSTALLATION CONTINUED...

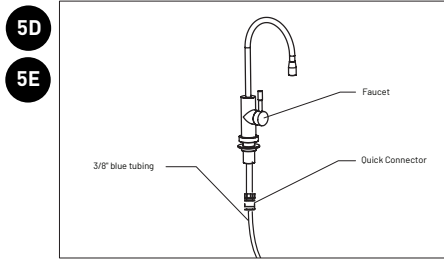
5. Mounting the Faucet.

- A. Holding the faucet, slot in the base of the faucet, place the faucet stem through the hole on the sink or counter top. Position the faucet handle at a desired location.
- B. Assemble faucet as shown in Figure 5B.
- C. Center the faucet and fittings between the bottom of the counter top or sink. Tighten the stem nut with a wrench until it is tight.
- D. Screw quick connector onto threaded end of faucet stem.
- E. Place a mark 2cm from one end of the blue tubing. Wet the end of the 3/8" tube and push into bottom of connector. The 2cm mark should be flush with the collar of the connector.

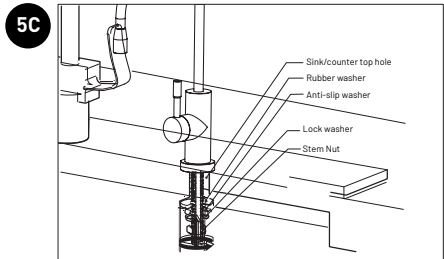
NOTE: To remove the tube, push on the fittings' collar and pull the tube out.



Connect the 3/8" blue tubing to the faucet.



Install the faucet on the small hole reserved in the sink.



6. Mounting the System

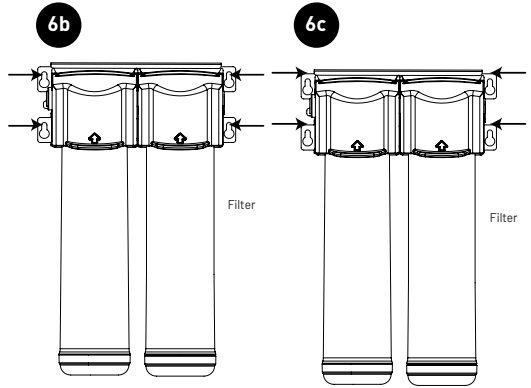
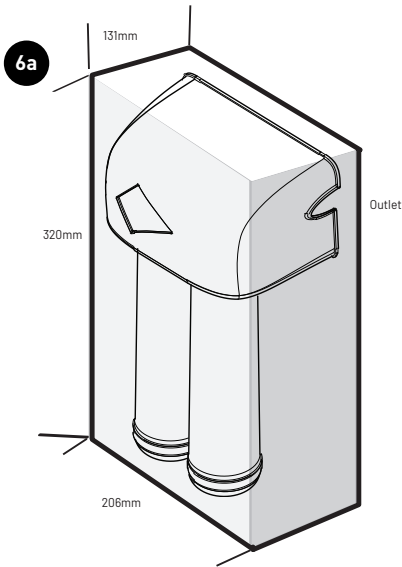
- A. Select a location under the sink, or other suitable area where the system will be installed.

Space required: please choose an appropriate location for installation, according to the actual size of the water filtration system, leaving a space of about 20cm around the filter for easy filter replacement.

NOTE: The system carton can be used to determine the operational footprint required for installation of the system and replacement cartridges. (Figure 6a)

- B. Mount the system vertically. Ensure mounting is level. Place a pencil mark in the upper slots of the bracket mounting holes. (Figure 6b). Alternate mounting option: If mounting the system near the floor, place the pencil marks above each of the mounting holes on the bracket to ensure enough space resides below the cartridge and the floor for cartridge replacement (Figure 6c). Use the 3/32" drill bit to create pilot holes for mounting.

INSTALLATION CONTINUED...



⚠ WARNING:

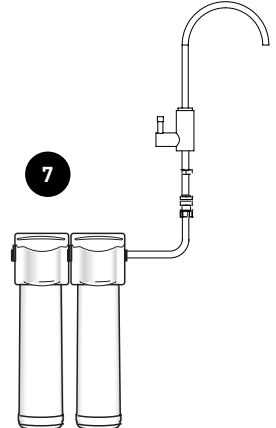
The system should be mounted to a firm, solid surface that is able to support the weight of the system.

7. Connecting the Faucet to the System.

- A. Determine the length of plastic blue tubing needed to connect to the outlet (right) side of the filter from the faucet. Be sure to allow enough tubing to prevent kinking and cut the tubing squarely. Use a marker to mark one end of the tubing 2cm from the end (Figure 7). Wet the end of the 3/8" tube and push into the outlet (right) connection of the system up to the mark.

CAUTION Do not bend or crimp tube inserting.

- B. Gently pull back on the tube to ensure it is connected

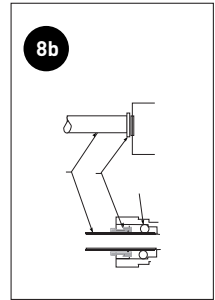
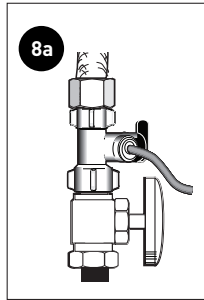
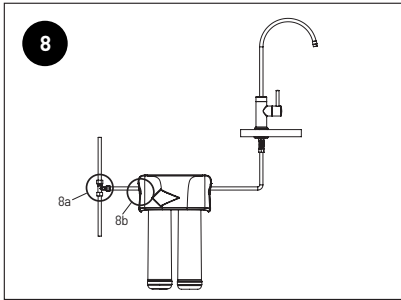


INSTALLATION CONTINUED...

8. Connecting the 3/8" white tubing to the three-way ball valve and to the system

- A. Determine the length of plastic white tubing needed to connect the inlet (left) side of the filter with the supply three-way ball valve installed on the cold water supply line. Be sure to allow enough tubing to prevent kinking and cut the tubing squarely. Place a mark 2cm from one end of the tubing. Wet the end of the tubing. Insert the end of the tubing into the 3/8" fitting of the inlet supply three-way valve. The 2cm mark should be flush with the collar of the fitting located on the inlet supply three-way valve (Figure 8a).
- B. Mark the remaining end of the tubing. Use a marker to mark 2cm from the end. Wet the end of the tube. Insert the end into the feed connection on the inlet side (left) of the system. The tube should go in up to the mark. (Figure 8b).

NOTE: Ensure that the point of connection between the white tubing and the three-way ball valve is flat and uniform. When installing, ensure that the white tubing is on the same axis with the three-way ball valve and not askew. Otherwise, the white tubing may break and cause a leakage in the system.

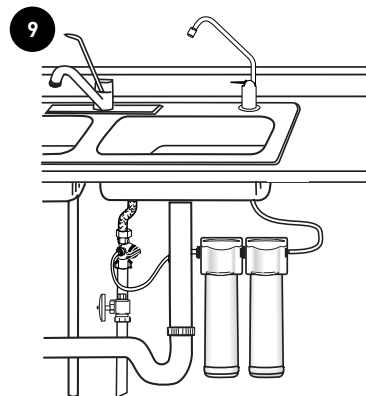


9. Placing the System into Operation

- A. Slowly turn on the cold water supply. Ensure that the supply three-way ball adapter valve is slowly open.
- B. Open faucet and flush filter for 10-30 minutes. Discard water.
- C. Check for leaks at all fittings before leaving installation. If leaks appear, see Troubleshooting.

NOTE: A drinking water cartridge may contain carbon fines (very fine black powder). If carbon fines appear in the water, discard water. More flushing is required if carbon fines are present.

NOTE: Initially, filtered water may appear cloudy. If cloudiness in a glass of water disappears from the bottom; fine air bubbles are present. This air within the water will disappear within a few weeks after installation.



INSTALLATION IS NOW COMPLETE.

NOTE: Actual faucet may vary from image.

5. FILTER CARTRIDGE REPLACEMENT

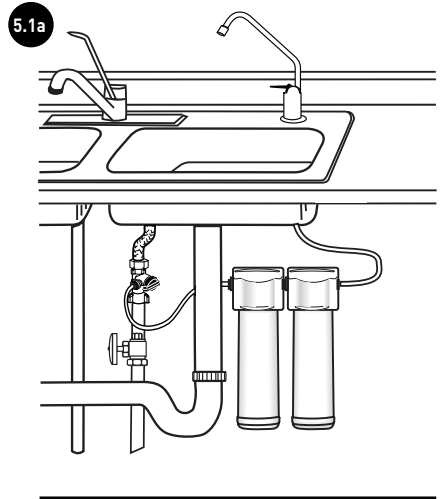
NOTE: The life of the filter cartridges depends on water volume filtered and the quality of the feed water. It is recommended that the filter cartridges be replaced every regularly, or when there is noticeable change in taste, odour, or flow of filtered water.

Ensure the correct replacement cartridge model (Refer to cartridge part number on the cartridge label) are purchased for the system

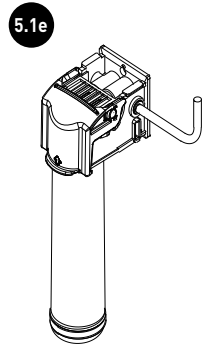
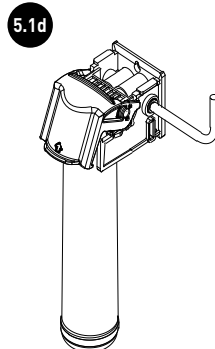
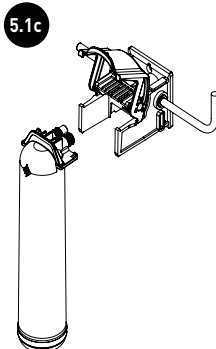
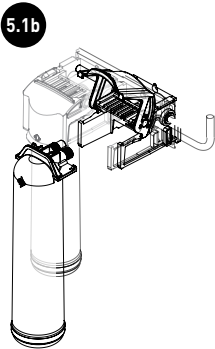
5.1 Cartridge Replacement

- A. Relieve pressure by turning off the water supply to the system and opening a faucet until water flow stops. Place a bucket or towel under the system to catch any water drips (Figure 5.1a).
- B. Remove the cover and lift the locking bar upward until the filter cartridge disengages from the filter head assembly (Figure 5.1b).
- C. Pull the cartridge away from the filter head assembly (Figure 5.1c).
- D. Ensure the locking bar is fully in the up position (Figure 5.1c).
- E. Align the posts on the filter cartridge with the ports in the filter head assembly. Slide the cartridge filter towards into the filter head assembly engaging with the locking bar, causing it to drop forward and down (Figure 5.1d).
- F. Pull down the locking bar until it snaps into place (Figure 5.1e)
- G. Install cover.

NOTE: See section 4.3 - 9, Placing the System into Operation section for remaining steps.

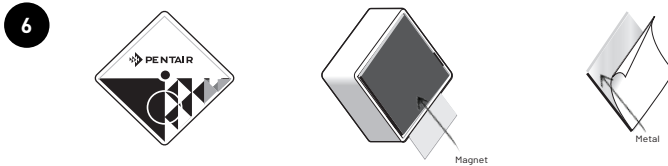


NOTE: Actual faucet may vary from image.



6. FILTER CARTRIDGE TIMER (OPTIONAL ACCESSORY)

The filter cartridge timer can be installed to the systems decorative cover by peeling away the adhesive backing on the metal plate included with the cartridge timer. The timer can also be attached to a metal magnetic surface using the magnet that is factory installed on cartridge timer.



6.1 Installation and Activation

Once the installation location has been selected, activate the timer by pulling the plastic tab out from the side of the timer. Press and release the key to verify the battery is operational. The light will blink green three times. (Figure 6.1)

NOTE: The timer operates on 12 month schedule. The timer uses a coin cell type 2023 battery.

6.2 The Filter Cartridge Timer is Operational

1. Green light on the timer indicates normal working condition. The timer will begin to blink red once every three minutes after 11 months, and will blink red three times every three minutes after 12 months. (Figure 6.2)

NOTE: Timer status of the cartridge life can also be viewed immediately by pressing and releasing the key.

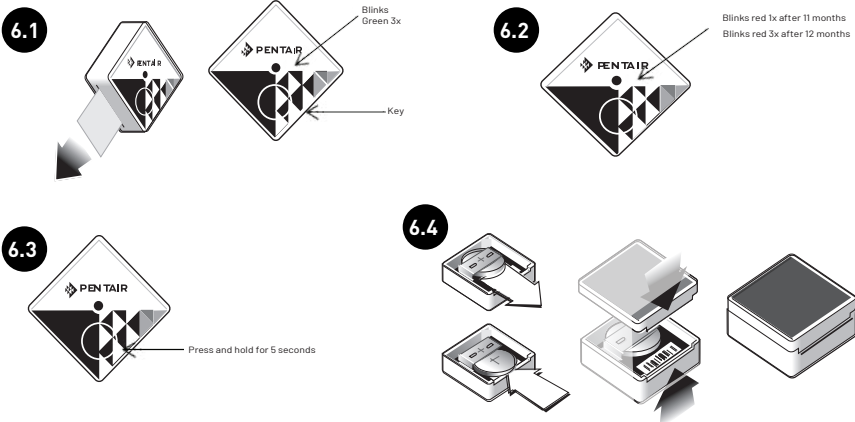
6.3 Reset Timer

1. To reset the timer after filter cartridge replacement, press the key and hold for 5 seconds. The timer is now reset to 12 months (Figure 6.3)

6.4 Battery Replacement

1. Replace the battery every 12 months. To replace the battery, locate the slot on the side of the timer body and carefully remove the front of the timer. The battery is now accessible (Figure 6.4).

2. Slide the new battery under the battery retention bracket with the positive + side of the battery facing up towards the battery retention bracket. Align the tab on the timer back to the slot on the timer front and press and snap both timer halves together. Battery replacement will not reset the 12month timer. If reset is required, press and hold key for 5 seconds.



7. TROUBLESHOOTING

No.	Problem	Solution
1.	Leaks from three-way ball valve	<ol style="list-style-type: none"> 1. Relieve line pressure by turning off the water supply to the system then opening faucet until water flow stops. Place a bucket or towel under the system to catch any water drips. 2. Check and make sure that the rubber seal of the three-way ball valve is properly seated. 3. Re-install and tighten three-way ball valve as required. Place system into operation and check for leaks. If leaks persist, turn off the water supply and contact Pentair's authorized distributor.
2.	Leaks at the connection point to the quick connector	<ol style="list-style-type: none"> 1. Relieve line pressure by turning off the water supply to the system then opening faucet until water flow stops. Place a bucket or towel under the system to catch any water drips. 2. Cut off 2cm from the part of the tubing that is leaking, and re-inserts it fully. 3. Place system into operation and check for leaks. If leaks persist, turn off the water supply and contact Pentair's authorized distributor.
3.	Reduced flow or change in taste of filtered water	<p>Replace the filter cartridge. Refer to Section 5 - Filter Cartridge Replacement of the manual.</p>
4.	Leaks between filter head assembly and filter cartridge	<ol style="list-style-type: none"> 1. Relieve line pressure by turning off the water supply to the system then opening faucet until water flow stops. Place a bucket or towel under the system to catch any water drips. 2. Remove cartridge and inspect o-rings to make sure they are seated and clean. 3. Install filter cartridge. Place system into operation and check for leaks. If leaks persist, turn off the water supply and contact Pentair's authorized distributor.
5.	Leaks from tubing fittings	<ol style="list-style-type: none"> 1. Relieve line pressure by turning off the water supply to the system then opening faucet until water flow stops. Place a bucket or towel under the system to catch any water drips. 2. Depress collet on system or inlet supply adapter tubing fittings and pull tubing from fitting. Inspect surface of tubing for scratches or debris. Clean or cut back tubing to access clean surface. 3. Wet the end of the inlet tubing and press into the inlet fitting of the system. Ensure the tubing is fully pushed past the fittings o-rings. Place system into operation and check for leaks. If leaks persist, turn off the water supply and contact Pentair's authorized distributor.

8. TERMS AND CONDITIONS OF WARRANTY

- (1) The warranty period is 1 year from the date of purchase. During the warranty period, Pentair (Company) is responsible for providing free warranty for faults arising from normal operation and use according to the installation manual and user's manual. Pentair will charge repair and maintenance fees after the warranty expires.
- (2) The user should keep valid purchase invoice, which serve as the basis for after-sales service.
- (3) Installation, maintenance and repair services will be provided by Pentair's authorized distributors. In the event that the user is unable to present the warranty card or valid purchase invoice, Pentair will deem the warranty to have expired and charge the relevant fees.
- (4) Warranty will be void in the following conditions:
 - Installation by personnel who are not authorized by the Pentair;
 - Product malfunction or damage resulted from the user's failure to follow the instructions described in the user's manual to operate the system;
 - Error or damage caused by the user's self-repair or modification of the equipment;
 - Error or damage caused by major force (including but not limited to natural disasters such as fires, floods, earthquakes, lightning strikes, etc.);
 - Error or damage caused by human factors (including but not limited to drop, knock, etc.);
 - Where the user is unable to present the warranty card or purchase invoice, or the content of the invoice has been altered;
 - Any problems caused by using parts that are not approved by Pentair.
- (5) The repair parts replaced during the warranty period are owned by Pentair.
- (6) Warranty does not cover for all consumables, such as filter element and materials, in water treatment equipment.
- (7) Pentair reserves the right to charge a certain service fee for maintenance or repair service provided on-site in remote areas.

9. MAINTENANCE RECORDS

Date	Cause of Error	Replacement Part	Maintenance Personnel
Remarks			

Distribution and Service by:

(Distributor Stamp Here)

Date of Purchase:



371 He Shan Road | New District Suzhou | Jiangsu 215011 | China | pentair.com

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