



ENDURANCE® HIGH-FLOW FILTRATION SYSTEMS

INSTALLATION, OPERATION & MAINTENANCE GUIDE

EV943730 TWIN SYSTEM



EV943730 Twin System

EV943731 TRIPLE SYSTEM



EV943731 Triple System

EV943732 QUAD SYSTEM



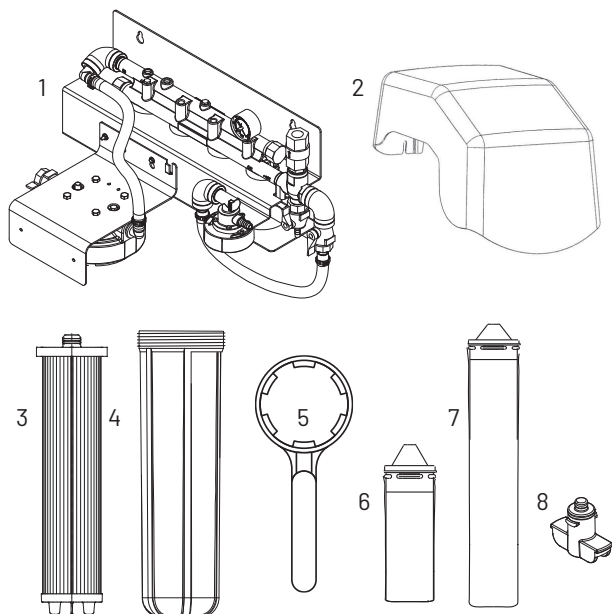
EV943732 Quad System

INTRODUCTION

The Pentair® Everpure® Endurance High-Flow filtration systems are designed to treat up to 200,000 gallons of water per SEN cartridge change cycle. These systems use a pretreatment Hollow Fiber Ultrafilter (HFUF), 2, 3 or 4 fine filter cartridges and a 2SR-BW scale inhibiting cartridge.

INSPECTION

Before mounting the Pentair Everpure Endurance High-Flow system, use the below table and illustration to verify the parts and quantities. If any parts are missing, contact Customer Service at 630.307.3000 (Main) / 800.942.1153 (US only) or email us at cseverpure@pentair.com.



Parts	Twin	Triple	Quad
1. Manifold with Bracket	1	1	1
2. Shroud	1	1	1
3. Pleated Endurance HF Cartridge	1	1	1
4. Pretreatment Housing	1	1	1
5. Housing Wrench	1	1	1
6. 2SR-BW Cartridge	1	1	1
7. SEN Cartridge	2	3	4
8. Port Plug	2	1	0

MOUNTING & CONNECTION CONSIDERATIONS

The location selected for system installation should allow for:

- Adequate space for “in” and “out” water line connections.
- Mounting screws should anchor into a solid structure.
- The frame is designed to mount on 16" centers (wall studs).
- Allow five (5) inches below the cartridges for removal.
- The pretreatment housing can be removed from the frame and mounted separately. Be certain to use adequate lengths of opaque 3/4" beverage tubing.

- Give consideration to the weight of the system when filled with water. Operating weights of the **Everpure Endurance High-Flow** systems are:

- **Endurance High-Flow Twin** - 58.4 lbs. (26.5 kg)
- **Endurance High-Flow Triple** - 63.8 lbs. (28.9 kg)
- **Endurance High-Flow Quad** - 69.1 lbs. (31.3 kg)

OPERATING SPECIFICATIONS

- Temperature Limits: 35-100°F (2-38°C)
- Pressure Limits: 10-100 psi (0.689-6.9 bar)
- For cold water use only.
- Rated Service Flow:

Endurance® High Flow Twin system - 7.5 gpm (28.4 lpm)

Endurance High Flow Triple system - 11.25 gpm (42.6 lpm)

Endurance High Flow Quad system - 15 gpm (56.8 lpm)

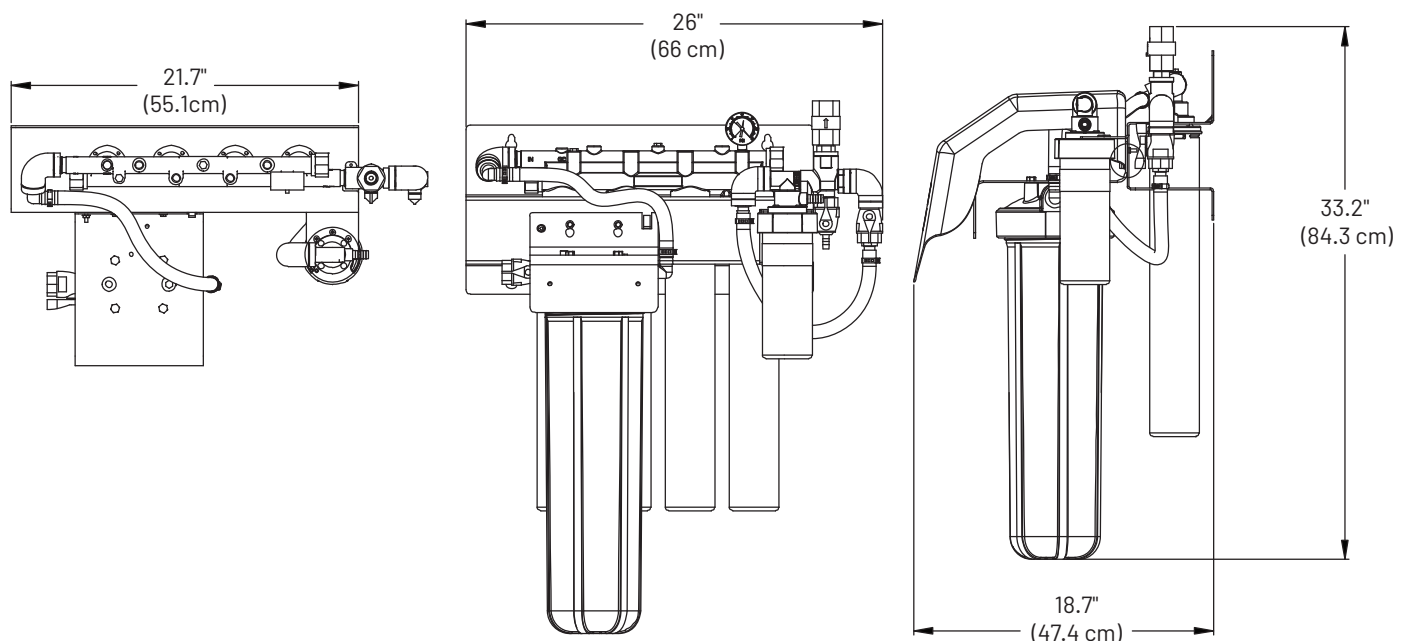
- Service Life Between Cartridge Changes:

Endurance High Flow Twin system -
100,000 gal (378,541 liters) or 1 year

Endurance High Flow Triple system -
150,000 gal (567,812 liters) or 1 year

Endurance High Flow Quad system -
200,000 gal (757,082 liters) or 1 year

DIMENSIONS



INSTALLATION PROCEDURE

NOTE: For installations in Australia and New Zealand, product must be installed with a backflow prevention device in accordance with AS/NZS 3500 and AS/NZS 2845.1.

1. The predrilled mounting holes in the bracket can be used as a guide. The holes are on 16" centers. Mark and insert anchors or screws in the wall.

NOTE: The large pretreatment cartridge can be removed from the bracket and mounted separately.

2. Follow steps 3-6 only if the pretreatment cartridge (Pleated Endurance HF) is going to be mounted separately. Otherwise, proceed to Step 7.
3. Disconnect the hose between the pretreatment head and the manifold.
4. Unscrew the two screws that hold the pretreatment bracket to the main bracket.

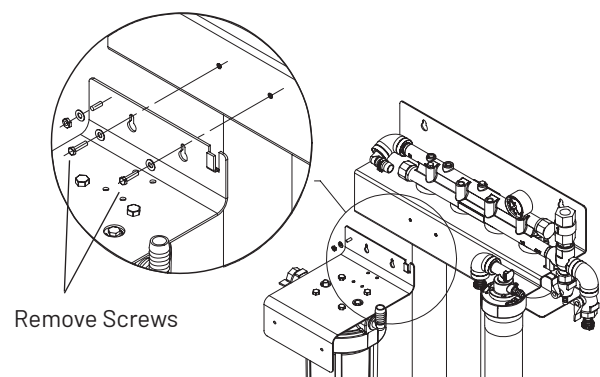


Figure 1

5. Secure the pretreatment bracket with the head to the desired location. Use the screw holes from the previous step for mounting.
6. Use a section of 3/4" I.D. tubing to reconnect the pretreatment outlet to the inlet of the manifold. The pretreatment outlet cannot be more than 25 feet from the manifold. The tubing should have clamps at each end with no sharp bends or kinks.

NOTE: Use tubing that is opaque and suitable for use with beverages.

7. Mount the manifold using four (4) screws in the bracket mounting holes.
8. Connect the treated water outlet port to the equipment being served (Figure 2).

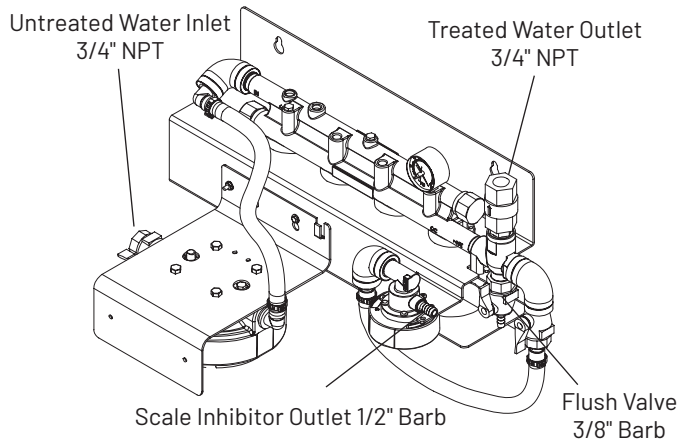


Figure 2

9. Connect the untreated water to the inlet fitting on the pretreatment head (Figure 2).
10. Attach 3/8" I.D. tubing to the flush valve fitting (Figure 2). Run the other end of the tubing to a drain.

NOTE: Some plumbing codes require an air gap at the drain termination.

11. The 2SR-BW does not have a shut off valve. Attach 1/2" I.D. tubing to the outlet barb of the 2SR-BW head. Route the other end of the tubing to the equipment being served. Both ends of the tubing should be clamped to the hose barb.
12. Turn off the flow valves for the inlet, flush and scale inhibitor cartridge (2SR-BW) (Figure 2).
13. Check to be sure the O-ring on the pretreatment housing is sufficiently lubricated. Use a good grade of silicone lubricant, if needed. Unwrap the pretreatment cartridge. Position the pretreatment cartridge on guide seat in the bottom of the bowl. Then thread the bowl into the head by hand. Use a sump wrench to lightly tighten the bowl onto the head. This bowl can be tightened further if leaks occur later. The two O-rings at the top of the cartridge will fit snugly into the head.

NOTE: To install the carbon filter and scale inhibitor cartridges, align the cartridge lug with the label, push upward and rotate to the right (cw) until rotation stops.

14. Install only genuine Pentair Everpure carbon filter cartridge(s) into the filter head(s) following directions on the SEN cartridge label or as shown in the Cartridge Change Procedure illustrations. Install the scale inhibitor cartridge (2SR-BW).
- CAUTION:** Unused manifold ports must be plugged. Any ports that are not plugged will leak.
15. Open the flush valve then turn on the inlet water. Open the valve on the pretreatment head. Water will flush to the drain at full force. Allow the system to flush for five (5) minutes. This will set the filtering media and purge any air.
16. After flushing, close the flushing valve. The pressure gauge will show the system pressure when the cartridges are new.
17. Open the valve for the scale inhibitor cartridge. The Endurance High Flow system is now ready for use.

FLUSHING

For maximum life, all carbon filter cartridges must be flushed for five minutes at full flow before use. **FLUSH ALL CARTRIDGES AFTER EACH CARTRIDGE CHANGE.**

If the new cartridges have been adequately flushed and the pressure gauge needle registers inadequate pressure; you may be

experiencing insufficient water pressure or some restriction may exist in the inlet water line. In either case, the water pressure needs to be improved to achieve optimum filter life.

If the system is switched off for more than 48 hours, flush for at least two (2) minutes.

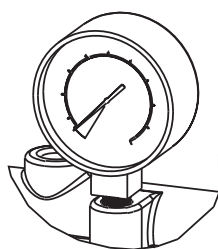
CARTRIDGE CHANGE DETERMINATION

Replace all filter cartridges annually, when capacity is reached or when water pressure or flow to equipment becomes inadequate. All cartridges on multiple cartridge systems should be changed at the same time.

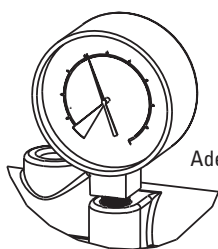
The system pressure gauge provides a quick, simple means of determining when the filter cartridge(s) should be checked. It is installed on the system outlet manifold. The gauge can be used to monitor both dynamic (flowing) and static (line) pressure. The cartridge(s) should be changed when the pressure gauge is in the

red area while the equipment is in operation, and the needle shows adequate line pressure between cycles. Observe the needle during the next equipment on cycle. If the needle registers adequate pressure, it can be assumed that the temporary low-pressure condition was caused by a brief power failure or other incoming pressure disruption. If the low pressure condition is not due to an external condition, check/change the pretreatment filter first. If the low pressure condition is still not corrected, change the SEN carbon filter cartridges.

PRESSURE GAUGES



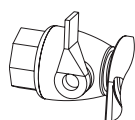
Low Outlet Pressure



Adequate Outlet Pressure

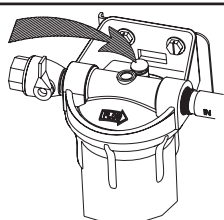
CARTRIDGE REPLACEMENT

When removing the cartridges, place a pan below the cartridges to catch any water. Make sure Inlet water is turned off.

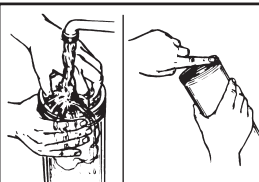


Pretreatment Cartridge Change

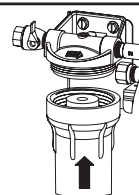
1. Shut off inlet water ahead of system.



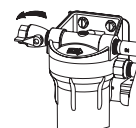
2. Remove shroud.
3. Push the red pressure-relief button. Unscrew bowl. Remove pretreatment filter cartridge.



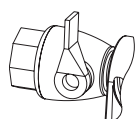
4. Clean bowl with filtered water only; NO SPECIAL CLEANERS.
5. Feel head O-ring. If dry, lubricate with high quality silicone lubricant.



6. Install new pretreatment filter cartridge in bowl. Hand-tighten bowl onto head.

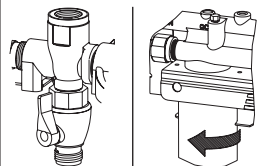


7. With flushing valve fully open, open inlet water at full force for five (5) minutes. Close flushing valve.

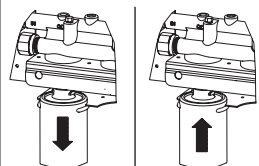


Everpure SEN Carbon Filter and 2SR-BW Scale Inhibitor Cartridge Change

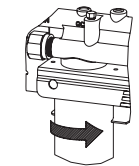
1. Shut off inlet water ahead of system.



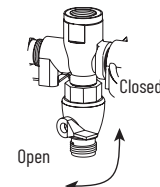
2. Open flushing valve to relieve pressure.
3. Hold head firmly and push upward. Turn cartridge to left until it stops.



4. Pull cartridge downward and out of head.
5. Hold head firmly. Align cartridge lug with label. Insert new cartridge firmly into head.



6. Turn cartridge right 90° until rotation stops.
7. Repeat steps 3-6 for remaining cartridges.



Flushing

8. With flushing valve fully open, open inlet water at full force for five minutes. Close flushing valve.

For installations in Massachusetts, the Commonwealth of Massachusetts Plumbing Code 248 CMR shall be adhered to. Consult your licensed plumber for installation of the system. This system and its installation must comply with state and local regulations.



System Tested and Certified by NSF International against NSF/ANSI Standards 42 and 53 for the reduction of the claims specified on the Performance Data Sheet and at www.nsf.org.



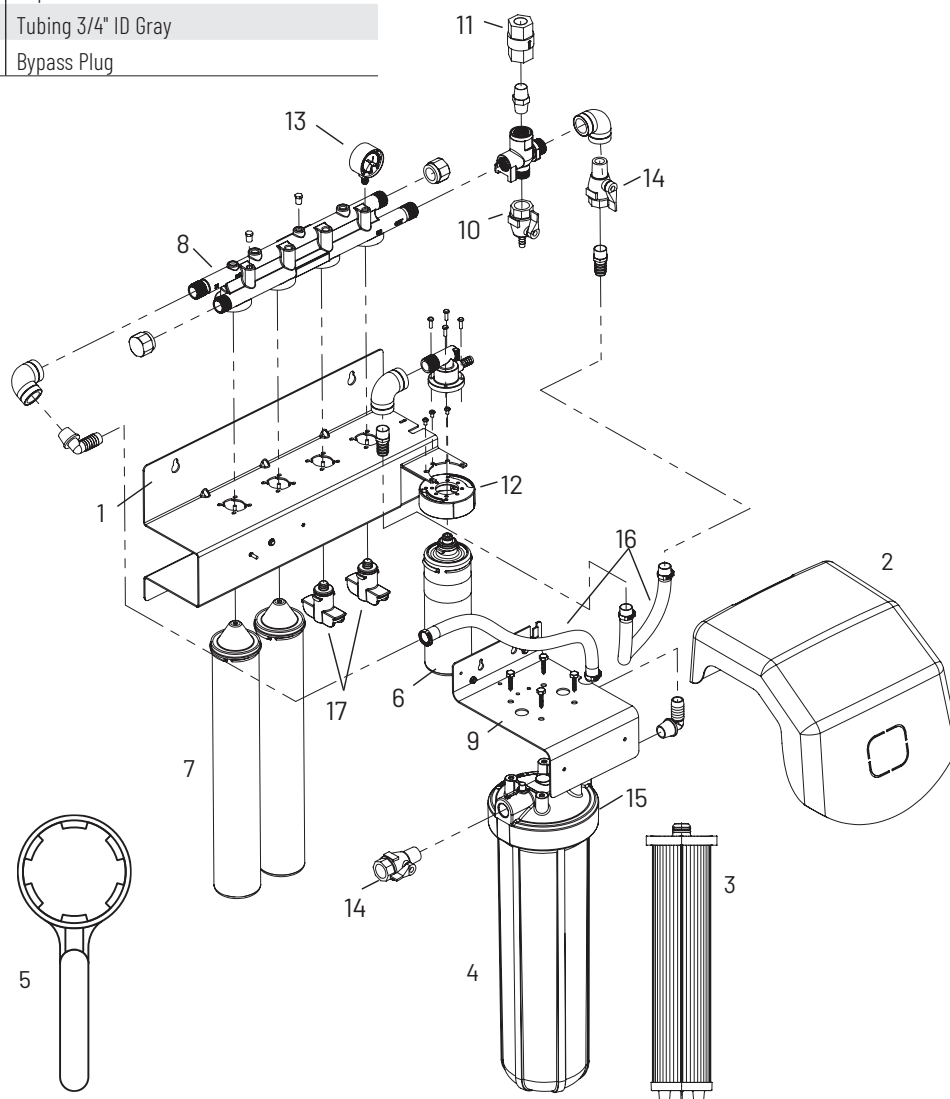
REPLACEMENT PARTS

Contact your local Pentair Everpure dealer for system replacement parts.

Number	Part Number	Description
1	EV313657	Bracket, Quad
2	EV313659	Shroud
3	—	Pleated Endurance HF Cartridge*
4	153087	Pretreatment Housing
5	144368	Housing Wrench
6	EV962714	2SR-BW Cartridge
7	—	SEN Cartridge *
8	EV311135	Manifold
9	EV313658	Bracket, Pretreatment
10	EV312248	Valve, Ball, 3/4 FNPT x 3/8 Barb
11	EV311450	Valve, Check, 3/4 NPT Female
12	EV313470	Head BW, 3/4 MNPT x 1/2 Barb
13	EV311409	Pressure Gauge 160 PSI
14	EV311407	Valve, Ball 3/4 FNPT x 3/4 MNPT
15	154198	Cap BB WH HFPP 3/4" PR MILL
16	EV313686	Tubing 3/4" ID Gray
17	EV310876	Bypass Plug

Kit/PN	Description	Cartridge		
		HFUF Pretreatment	SEN	2SR-BW
EV962870	Twin Endurance Cartridge Kit	1	2	1
EV962871	Triple Endurance Cartridge Kit	1	3	1
EV962872	Quad Endurance Cartridge Kit	1	4	1

*Only available in replacement kits.



NOTES

Not for residential use. For food service applications only.

Check for compliance with state and local laws and regulations.

Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

Systems certified for cyst reduction may be used on disinfected waters that may contain filterable cysts.

The term "bacteriostatic" indicates that the system limits the passage or growth of bacteria that may already exist in the incoming water. It does not mean that the water leaving the system is safer to drink than the water entering the system.

WARNING: FOR CORRECT OPERATION OF THIS APPLIANCE IT IS ESSENTIAL TO OBSERVE THE MANUFACTURER'S INSTRUCTIONS.

NSF/ANSI Standard 53 certified to reduce cysts such as *Cryptosporidium* and *Giardia* by mechanical means.

Proprietary Micro-Pure II filtration media effectively inhibits the growth of bacteria on the filter media that can decrease product life.

EPA Est. No. 002623-IL-002

For Pentair Everpure Product Warranties visit:
<http://pentair.com/assets/foodservice-warranty>



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