

Stainless Steel Ultra Filter Housing Retrofit Instructions

(P/N 7002139, 7002140, 7002141, 7002142, 7002143)

AFFECTED PRODUCTS: 400-Series VZN and UFL systems with plastic UF housing.

TOOLS AND SUPPLIES: Adjustable Wrench, Socket Wrenches, Pliers, Screw Drivers, Bucket, Chlorine, Bleach / Sanitizer, PTFE Pipe Thread / Pipe Thread Sealant, Food-Grade Silicon O-Ring Lube

PARTS INCLUDED:

1 VZN-42X H RETROFIT KIT (P/N 7002139)

- 1 Housing Assy (P/N 0014571)
- 2 Rubber Spacers/Tape (P/N 2120286/2140192)
- 2 Gaskets (P/N 0200476)
- 4 Hex Head Screws (P/N 3250195)
- 2 PEX Tubing Pieces (P/N 2010247)
- 1 Solenoid Drain Fitting (P/N 2190307)

OR

1 VZN-44X V Retrofit Kit (P/N 7002140)

- 1 Housing Assy (P/N 0014572)
- 2 Rubber Spacers/ Tape (P/N 2120286/2140192)
- 2 Gaskets (P/N 0200476)
- 4 Hex Head Screws (P/N 3250195)
- 1 PEX Tubing Pieces (P/N 2010243)
- 1 Solenoid Drain Fitting (P/N 2190307)

OR

1 VZN-441VE Retrofit Kit (P/N 7002141)

- 1 Housing Assy (P/N 0014573)
- 2 Rubber Spacers/ Tape (P/N 2120286/2140192)
- 2 Gaskets (P/N 0200476)
- 4 Hex Head Screws (P/N 3250195)
- 1 PEX Tubing Pieces (P/N 2010243)
- 1 Solenoid Drain Fitting (P/N 2190307)

OR

1 VZN-44X H Retrofit Kit (P/N 7002142)

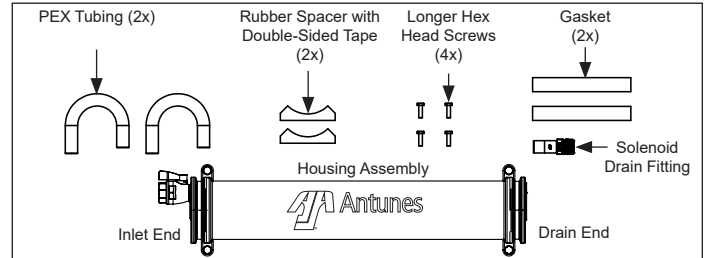
- 1 Housing Assy (P/N 0014574)
- 2 Rubber Spacers/Tape (P/N 2120286/2140192)
- 2 Gaskets (P/N 0200476)
- 4 Hex Head Screws (P/N 3250195)
- 1 PEX Tubing Pieces (P/N 2010242)
- 1 Solenoid Drain Fitting (P/N 2190307)

OR

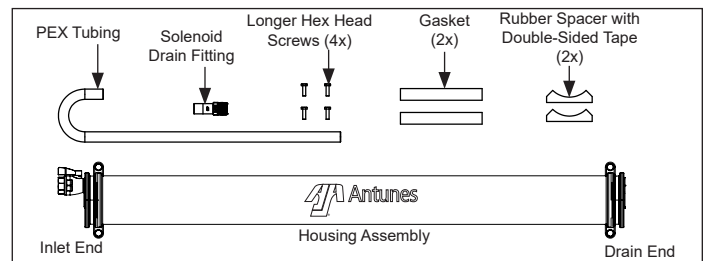
1 VZN-411V Retrofit Kit (P/N 7002143)

- 1 Housing Assy (P/N 0014575)
- 2 Rubber Spacers/Tape (P/N 2120286/ 2140192)
- 2 Gaskets (P/N 0200476)
- 4 Hex Head Screws (P/N 3250195)
- 1 Solenoid Drain Fitting (P/N 2190307)

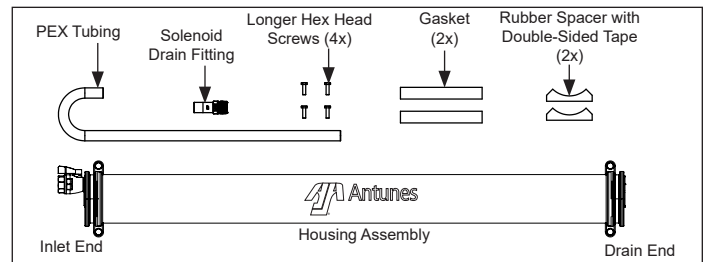
1 Instruction Sheet (P/N 1011576)



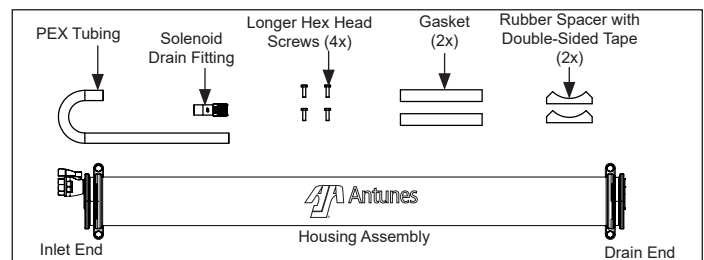
Kit 7002139



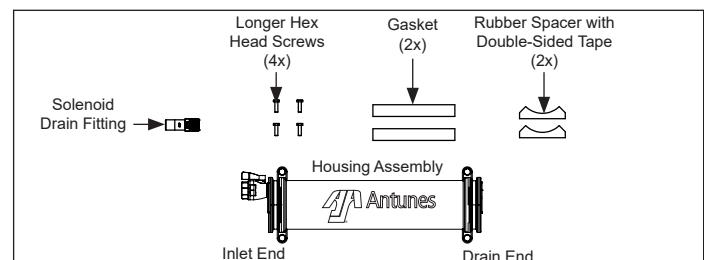
Kit 7002140



Kit 7002141



Kit 7002142



Kit 7002143

Figure 1. Retrofit Kit Components

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General

NOTE: Inlet water plumbing and flush valve drain plumbing will need to be rerouted to accommodate the UltraFilter (UF) housing retrofit. Plan your work ahead of time to accommodate this.

NOTE: Retain all components until installation is finished, as components may be reused in Retrofit Kits.

1. Turn off the water on the main plumbing line ahead of the filter system inlet. This could mean water may need to be shut off to the entire store/building.
2. Turn off the outlet water valve.
3. Drain the system by opening the rinse valve. Allow water to flow out of the system to drain. Make sure the system tank is empty before proceeding.
4. Disconnect the inlet water connection at the UF housing inlet. Position a bucket under the UF housing inlet and press the manual flush button on the controller. Allow water to drain from the UF housing inlet. Continue pressing the manual flush button until water flow out the housing inlet stops.
5. Disconnect the flush solenoid valve drain plumbing.
6. Unplug the solenoid valve cord from the Universal Pulse Controller (UPC) or remove the connector from the solenoid valve.
7. Remove the white PEX tubing from each end of the UF housing. This is done by pushing the collet of the tube fitting in towards the fitting and holding it in while pulling the PEX tubing out of the fitting. It may be easier to remove the PEX tubing from the system fitting first, before removing it from the end cap. Retain the PEX tubing, as it may be reused in the retrofit.
8. Remove the gray housing clamps that hold the UF housing to the back plate. Each clamp is held to the back plate by two hex head screws. Retain the screws and washers, as they may be reused in the retrofit.
9. Remove the UF housing from the back plate and set aside. The UF cartridge will be reused in the retrofit unless a replacement cartridge has been selected.
10. Remove the new retrofit housing from the packaging and locate the drain end cap and inlet end cap. The inlet end cap has the 3/4" NPT black ball valve already installed in the inlet.
11. Remove the existing solenoid valve from the pipe nipple on the old housing.
12. Attach the existing solenoid valve to the new supplied fitting. Note the directional arrow on the valve and attach the threads to the inlet port of the valve. Make sure to use the PTFE tape and/or other approved pipe sealant on the threads.

NOTE: Tighten finger tight plus no more than one turn with a wrench. Do not overtighten.

NOTE: Remove the collet clip from each collet of the retrofit assembly before installing fitting or tubing into collet. Pull clip straight out to remove.

13. Apply lubricant to the fitting before attaching to the end cap. Removed clip and press the fitting with solenoid valve into the drain end cap, making sure to press it into the port near the edge of the cap, not the center port. The fitting must be pressed in fully to avoid leakage. Reinstall collet clip. Clip snaps into place when fully installed.
14. Remove the UF cartridge from the old housing and install it in the new housing. Make sure all o-rings are lubricated before installing end caps to cartridge or housing. Tighten the new housing end cap clamps. Make sure to line up the inlet ball valve, and the drain solenoid valve, as shown in the drawing.
15. Locate the gray housing clamp mounting holes on the back plate. Attach a rubber spacer between each set of holes using the supplied double-sided tape applied to the rubber spacer.
16. Attach a new supplied gasket to the inside of each of the previously removed gray housing clamps. Locate the new housing such that the inlet ball valve and drain solenoid valve are positioned properly as shown in the drawing.
17. Install the new housing to the back plate using the new longer hex head screws (supplied with kit) and existing washers. Make sure the housing rests smoothly in the rubber spacers. Do not tighten screws yet. The screws will be tightened after the PEX tubing on both ends has been attached fully.
18. Locate the new PEX tubing as shown in the drawing. Apply lubricant to the outside ends of each piece of tubing. Remove clip and press tubing into the end cap center port and appropriate system fitting. Make sure to press each end of tubing fully into each fitting to avoid leakage. The tubing should go into each fitting approximately 7/8" deep. Reinstall collet clip. Clip snaps into place when fully installed.
19. When all PEX tubing has been fully installed, tighten the gray housing clamp hex head screws.
20. Reconnect the solenoid valve cord to the UPC controller or reattach the connector to the solenoid valve. If the solenoid valve cord does not reach from the UPC controller to the newly-positioned solenoid valve, you may need to relocate the UPC controller.
21. Reattach the drain plumbing to the newly located solenoid valve.
22. Reconnect the inlet water connection at the newly located UF housing inlet ball valve.
23. Make sure the rinse valve at the system outlet is open and the system inlet ball valve is closed. Turn on the main plumbing line water ahead of the filter system inlet.

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24. Open the system inlet ball valve and press the manual flush button on the system UPC controller. Repeat until air has been removed from the new housing in the water flow out the flush valve.
25. If a new UF cartridge was installed, follow the Rinsing the UF Cartridge instructions. The system is now ready for sanitizing.
26. After sanitizing, turn on the outlet water valve. Water will now be available for use.
27. For future reference, note manufacturing number and serial number from the spec label mounted to the stainless housing. Record date of retrofit on this instruction sheet and keep with the system.

Date Installed: _____

Manufacturing Number: _____

Serial Number: _____

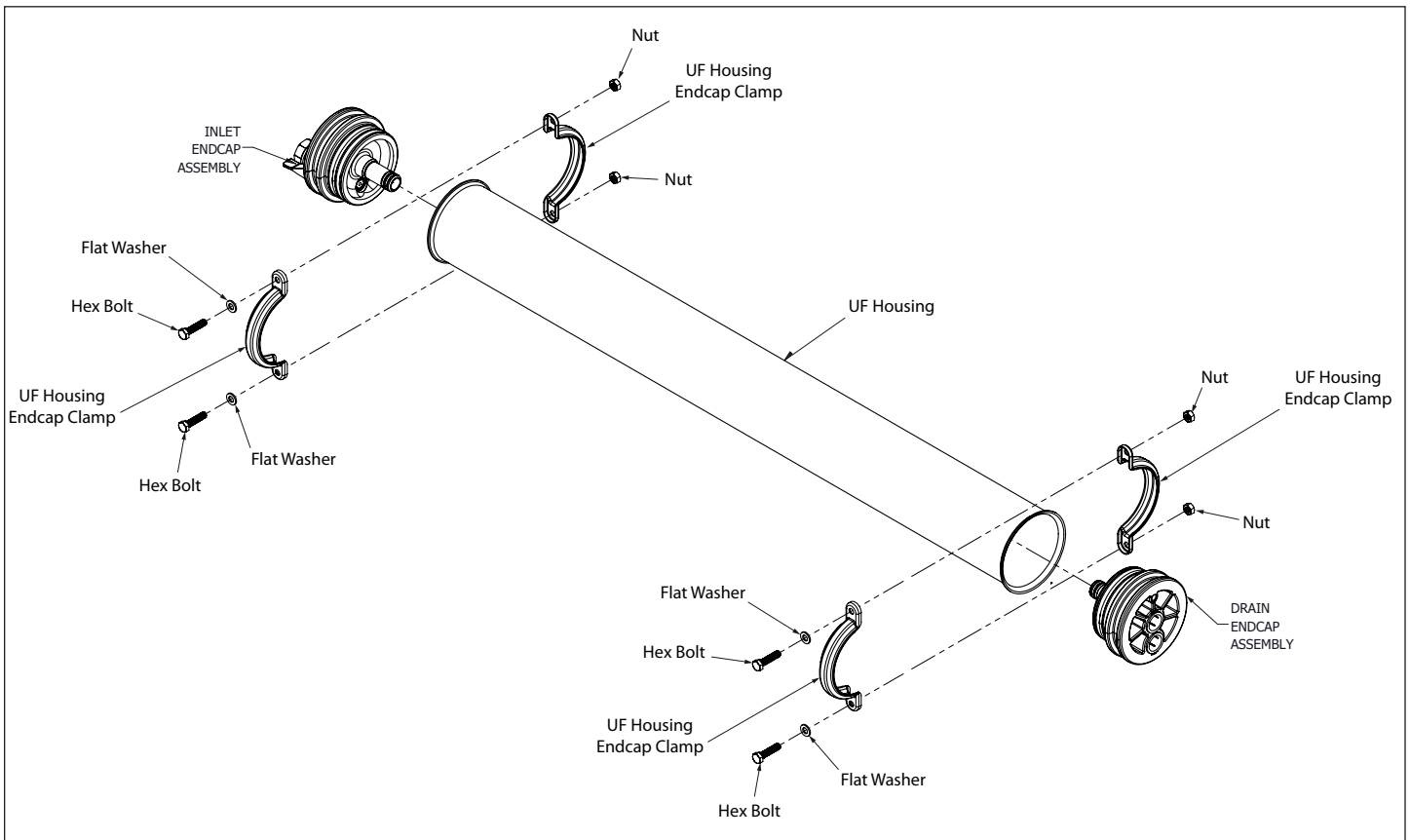


Figure 2. Housing Components

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Rinsing the Ultra Filter Cartridge

The Ultra Filter Cartridge comes pre-installed in the VZN system. The Ultra Filter Cartridge must be rinsed before the system is used to remove any air and protective solution.

NOTE: Ultra Filter Cartridge must be rinsed to drain before use. Rinsing to drain removes storage solution and air. **DO NOT** rinse into carbon if present. Carbon life and/or performance may be affected.

NOTE: Make sure the Carbon Element and TAC Cartridge, if present, are **NOT** installed. These should only be installed after the Ultra Filter Cartridge has been rinsed.

NOTE: **DO NOT** consume water used during this process.

1. Direct water from the Rinse Ball Valve to a drain.
2. Close the Outlet Ball Valve.
3. Close the Inlet Ball Valve.
4. Open the Rinse Ball Valve.
5. Slowly turn on the water supply to the system.
6. Slowly open the Inlet Ball Valve. Air and water will come out of the Rinse Ball Valve.
7. Press the **FLUSH** button. The Drain Valve will open and air and water will come out of the drain line. Repeat step 7 six times to ensure all air and storage solution are flushed out of the Ultra Filter Cartridge.
8. Continue to allow water to run at full flow out of the Rinse Ball Valve for at least 15 minutes.
9. After 15 minutes, close the Rinse Ball Valve and allow the system to sit for 15 minutes without any water flow to release any trapped air from the Ultra Filter Cartridge.
10. Inspect the unit for any leaks, repairing as needed.
11. After 15 minutes, open the Rinse Ball Valve and wait for 15 more minutes to flush out any remaining air.
12. Close the Rinse Ball Valve and disconnect the garden hose.
13. Press the **FLUSH** button to open the Drain Valve. Repeat this step six times to ensure any remaining air is flushed out of the system.
14. Open the closest downstream tap or faucet.
15. Slowly open the Outlet Ball Valve and allow water to run through the system and out the faucet for five minutes.

Sanitizing the System and Lines

The plumbing must be sanitized to eliminate possible contamination that may have occurred during the installation process.

One ounce (30 ml) of liquid chlorine bleach (regular bleach, unscented 5.25 % - 6 % sodium hypochlorite) or Kay-5 sanitizer solution (Sodium Dichloro-s-Triazinetrione Dihydrate, 6%) or equivalent can be used to sanitize the plumbing. However, the amount needed depends on the system and plumbing downstream of the system.

The Kay-5 sanitizer solution is made by dissolving a 1 oz. packet of Kay-5 powder in 2 oz. (60 ml) of clean warm water. This can be done by removing 1 inch from the top of the Kay-5 packet and adding the 2 oz. of warm water to the packet. Mix with a coffee stirrer to dissolve. When added to the system, this will create a 60-100 ppm chlorine solution.

NOTE: Follow the handling and safety instructions supplied with the sanitizer.

NOTE: **DO NOT** consume water used during this process.

Before sanitizing, follow the steps in the *Rinsing the Ultra Filter Cartridge* section in this instruction sheet.

1. Turn off the water to the system.
2. Open the faucet or tap closest downstream to the system.
3. Close the Inlet Water Valve and allow the system to depressurize.
4. Place a bucket under the "T" or cross fitting at the inlet connection to the system. Open the Inlet Drain Valve or unscrew the cap to drain the system.
5. When the water flow out of the Inlet fitting stops, close the Inlet Drain Valve and pour liquid bleach or sanitizer solution into the inlet connection fitting. Be careful not to spill bleach onto clothing or skin. You may want to add the liquid with a cup or funnel. Reattach the cap on the fitting.
6. Slowly open the Inlet Water Valve and allow water to flow out of the system until the smell of bleach is present.
7. Immediately close the tap and let the system stand with no water flow for at least 15 minutes to allow the bleach to sanitize the pipes.
8. After 15 minutes without water flow, open the tap and flush until the presence of bleach is gone. All other taps should be opened to flush any bleach from the system. Close the taps.
9. Press the **FLUSH** button to complete the flushing process. Repeat this step six times.