

## Ultra Filter Cartridge Replacement Instructions

(P/N 7001915, 7001916, 7001917)

**AFFECTED PRODUCTS:** VZN and UFL systems with stainless steel housing.

**PARTS INCLUDED:**

- 1 L-410 Cartridge Replacement Kit (P/N 7001915)
  - 1 L-410 Filter Cartridge (P/N 2090179)
  - 1 O-ring Replacement Kit (P/N 7001914)
    - 4 O-ring, End Cap (P/N 0200432)
    - 4 O-ring, Cartridge (P/N 0200236)
  - 1 Lubricant (P/N 2140153)

Or

- 1 L-420 Cartridge Replacement Kit (P/N 7001917)
  - 1 L-420 Filter Cartridge (P/N 2090156)
  - 1 O-ring Replacement Kit (P/N 7001914)
    - 4 O-ring, End Cap (P/N 0200432)
    - 4 O-ring, Cartridge (P/N 0200236)
  - 1 Lubricant (P/N 2140153)

Or

- 1 L-440 Cartridge Replacement Kit (P/N 7001916)
  - 1 L-440 Filter Cartridge (P/N 2090157)
  - 1 O-ring Replacement Kit (P/N 7001914)
    - 4 O-ring, End Cap (P/N 0200432)
    - 4 O-ring, Cartridge (P/N 0200236)
  - 1 Lubricant (P/N 2140153)
- 1 Instruction Sheet (P/N 1011509)

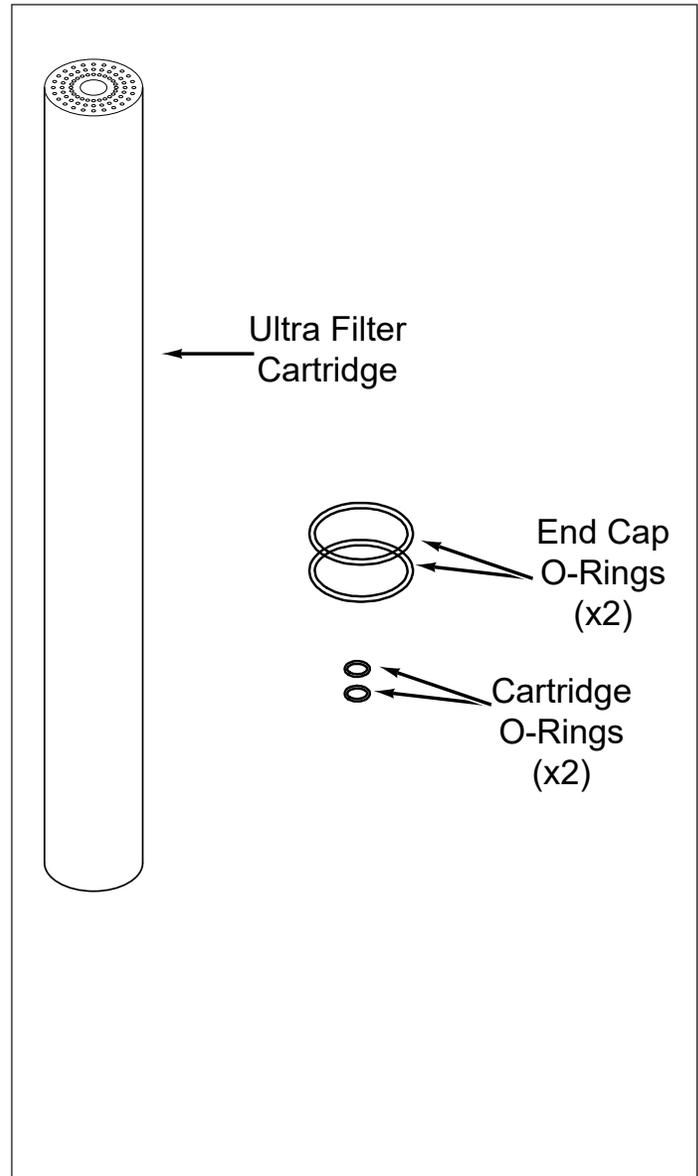
**TOOLS:** Adjustable Wrenches, Pliers, Bucket

### General

When this cartridge is used in Antunes systems certified by NSF International or WQA, the system conforms to NSF/ANSI 42 for Particulate Class I Reduction and NSF/ANSI 53 for turbidity and cyst reduction.

When this cartridge is used in Antunes systems certified by WQA, the system conforms to NSF/ANSI 372.

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



**Figure 1. UFL Cartridge Kit Components**

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### Replacing the Ultra Filter Cartridge

**NOTE: Always install new Carbon Element and new TAC Cartridge Element after replacing the Ultra Filter Cartridge.**

1. Turn off water to the system by closing the Inlet Valve.
2. Press the FLUSH button to flush the system and relieve pressure. Repeat several times to ensure the permeate tank is empty. Open the rinse valve (if present) to help drain the system.
3. Remove the Carbon Element and remove the TAC Cartridge Element if present.
4. Place a bucket under the "T" or cross fitting at the inlet connection to the system. Unscrew the plug to drain the system.
5. Close the inlet drain valve or reattach the plug on the "T" fitting when the water flow stops.
6. Locate the hooked tubing at the end cap you want to remove. Disconnect the long end from the Tee by pushing the collet on the Tee squarely against the face of the fitting.
7. With the collet pushed in place, pull the tubing from the fitting.

**NOTE: Water may drain from the tubing as it is removed.**

**NOTE: Make sure there is enough room next to or above the system to remove the cartridge.**

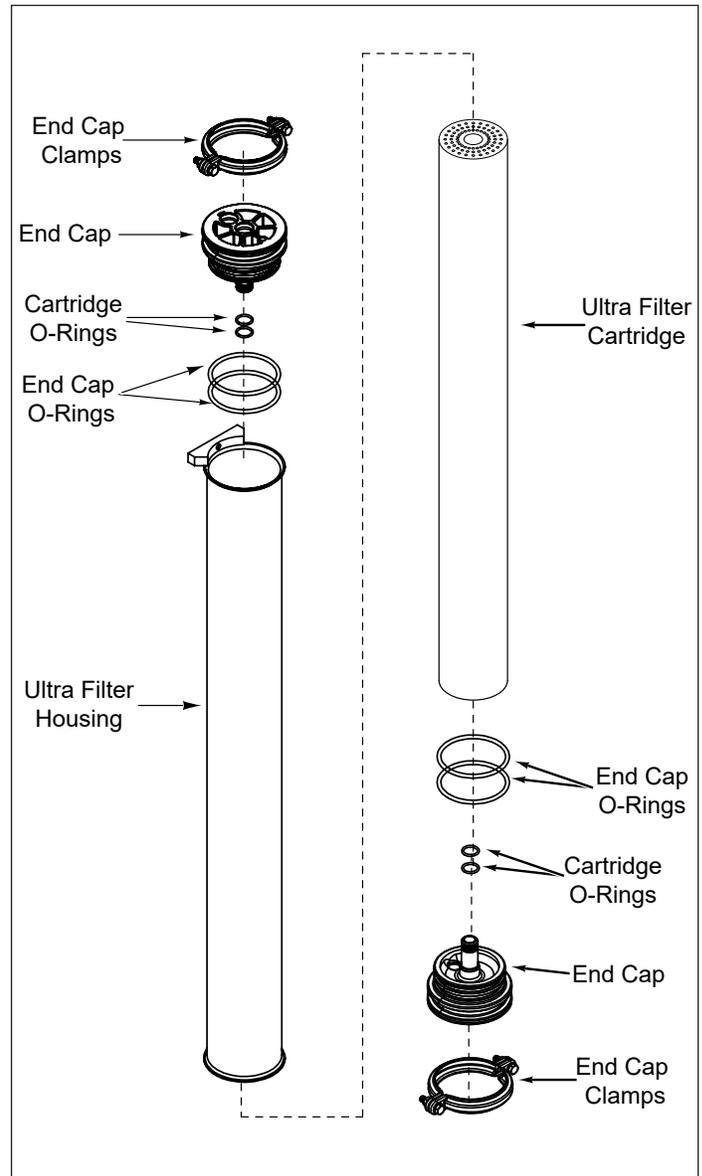
8. Remove the clamp from the Ultra Filter Housing.
9. Remove the End Cap, End Cap O-ring, and Cartridge from the housing. (Figure 2)

**NOTE: If the cartridge does not easily come out of the Housing, remove the opposite End Cap for assistance.**

10. Inspect the cartridge O-rings and End Cap O-ring for nicks or cuts. Replace as needed.
11. Lubricate all O-rings with the supplied food-grade silicone lubricant. Apply a light coating of lubricant to the inside center tube at both ends of the new Cartridge.

12. Record the serial number of the new cartridge. The cartridge serial number is engraved on one end of the outer tube (for example: 05K 12013).
13. Install the End Cap O-rings on the End Cap and insert the End Cap into the end of the new Cartridge.
14. Position the new cartridge and End Cap below the Housing and gently insert into the Housing.
15. Press the End Cap into position until it is fully seated
16. Install the clamp over the End Cap and housing. Tighten both bolts on the clamp evenly.

**NOTE: Make sure that the Clamp is fully seated before turning the water on.**



**Figure 2. Replacing the Ultra Filter Cartridge**

17. Reattach the tubing that was removed in steps 6 and 7. Be sure the tubing is pushed past the O-ring in the fitting.

**NOTE: Make sure the tubing is completely inserted onto the fitting past the O-ring. A loose connection results in leaking at the point of connection.**

18. Rinse the new Ultra Filter Cartridge before placing the system back into operation. Follow the **Rinsing the Ultra Filter Cartridge** and **Sanitizing the System and Lines** procedures to complete the cartridge change.
19. When rinsing is complete, repressurize the system.

## Ultra Filter Cartridge Replacement Instructions

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### Rinsing the Ultra Filter Cartridge

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 are NOT installed. The Carbon Element and TAC Cartridge should only be installed after the Ultra Filter Cartridge has been rinsed.**

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 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 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.**

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

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 the 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 6 times.