

# ULTRA FILTER CARTRIDGE REPLACEMENT INSTRUCTIONS

## PARTS INCLUDED:

- 1 L-440 Filter Cartridge
- 2 O-Ring, End Cap
- 4 O-Ring, Cartridge
- 1 Lubricant
- 1 Instruction Sheet

**TOOLS:** Pliers may be required, Bucket

## General

When this cartridge is used in 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.

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

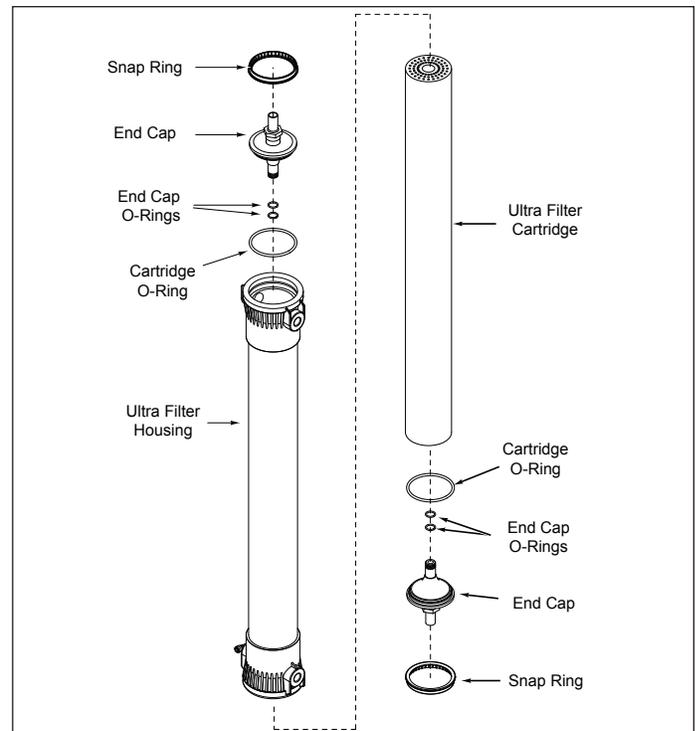
## Changing the Cartridge

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

1. Turn off water to the system by closing the Inlet Ball Valve.
2. Press the FLUSH button to flush the system and relieve pressure. Repeat several times to ensure permeate tank is empty.
3. Locate the long hooked tubing on the end where you want to remove the Ultra Filter Cartridge. Disconnect the long end from the tee by pushing the collet squarely against the face of the fitting.
4. With the collet pushed in place, pull the tubing from the fitting with your right hand.

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

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



**Figure 1. Ultra Filter Components**

5. Remove the Snap Ring (Figure 1) from the Ultra Filter Housing. Grab the raised lug with a pair of pliers and pull towards the center of the End Cap and away. The Snap Ring should lift out of its groove.
6. Remove the End Cap, End Cap O-Ring, and Cartridge (Figure 1) from the housing.

**NOTE:** If the Cartridge does not easily come out of the Housing, remove the opposite End Cap for assistance during Step 5.

7. Inspect the Large End Cap O-rings and End Cap O-ring for nicks or cuts. Replace as needed.
8. Lubricate all O-rings with a food-grade silicone lubricant. Apply a light coating of lubricant to the inside center tube at both ends of the new cartridge.
9. 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).
10. Install the End Cap O-ring on the End Cap and insert the Large End Cap into the end of the new cartridge.

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11. Position the new cartridge and End Cap at the housing and gently insert into the housing.
12. Press the End Cap into position until it is fully seated and the Snap Ring groove is visible.
13. Install the Snap Ring by guiding the non-lugged end into the groove first, pushing outward and working around the ring until it snaps into place.

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

14. Reattach the tubing that was removed in Steps 3 and 4. Be sure the tubing is pushed past the O-ring.

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

## Rinsing the 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 NOT installed. The Carbon Element should only be installed after the Ultra Filter Cartridge has been rinsed.**

1. Direct water from the System Outlet 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.

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## 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.

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: If installed, remove the Carbon Element from the system BEFORE Sanitizing.**

1. Turn off the water to the system.
2. Open the faucet or tap closest downstream to the system.
3. Allow the system and plumbing to drain.

4. Remove the plug installed in the sanitizing "T" fitting at the inlet of the system. Allow the water to drain out of the system.
5. Pour the sanitizer into the inlet sanitation fitting using a cup or funnel. Be careful not to spill the sanitizer onto clothing or skin.
6. Reattach the plug on the sanitation fitting.
7. Slowly turn on the water supply to the system.
8. Allow water to flow through the system and out of the open faucet or tap until the smell of sanitizer is present.
9. Close the faucet or tap.
10. Let the system stand without water flow for at least 15 minutes to allow the sanitizer to sanitize the pipes.
11. After 15 minutes without water flow, open the faucet or tap.
12. Allow water to flow through the system until the presence of sanitizer is gone.
13. Open all other faucets and taps in line with the system to flush any remaining sanitizer from the plumbing.
14. Close all faucets and taps