

ULTRA FILTER CARTRIDGE REPLACEMENT INSTRUCTIONS (P/N 7000411 & 7000412)

AFFECTED PRODUCTS: All CAP, GAP, TAP, VZN and UFL systems.

PARTS INCLUDED:

- 1 L-420 Cartridge Replacement Kit (P/N 7000411)
 - 1 L-420 Filter Cartridge
 - 1 O-Ring Replacement Kit (P/N 7000413)
 - 2 O-Ring, End Cap (P/N 0200235)
 - 4 O-Ring, Cartridge (P/N 0200236)
 - 1 Lubricant (P/N 2140153)

 or
 - 1 L-440 Cartridge Replacement Kit (P/N 7000412)
 - 1 L-440 Filter Cartridge
 - 1 O-Ring Replacement Kit (P/N 7000413)
 - 2 O-Ring, End Cap (P/N 0200235)
 - 4 O-Ring, Cartridge (P/N 0200236)
 - 1 Lubricant (P/N 2140153)

- 1 Instruction Sheet (P/N 1010865)

TOOLS: Pliers may be required, Bucket

General

When this cartridge is used in A.J. Antunes & Co. 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 A.J. Antunes & Co. 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.

Changing the Cartridge (UFL Systems only)

NOTE: Do NOT operate the system without the Flow Regulator Assembly or the unit will be damaged, physical injury may occur, and the warranty will be voided.

1. Open the faucet or tap closest downstream to the filtration system.
2. Close the Inlet Water Valve and allow the system to depressurize.
3. Place a bucket under the "T" or cross fitting at the inlet connection to the system. Open the valve or unscrew the cap to drain the system.

4. **UFL SYSTEMS WITH PULSE CONTROLLER:**
Press the **FLUSH** button several times to flush the system and relieve pressure.

UFL SYSTEMS WITHOUT PULSE CONTROLLER:
Press and hold the **PROGRAM** button to drain the system.

5. Close the inlet drain valve or reattach the cap on the "T" fitting when the water flow stops.
6. Unplug the power cord.

NOTE: Make sure there is enough room below the housing to remove the cartridge.

7. Remove the white plastic Lock Ring on the end of the housing. Grab the raised lug with your fingers or a pair of pliers and pull towards the center of the End Cap and away. The Lock Ring should lift out of its groove.
8. The End Cap, End Cap O-Ring, and Cartridge should easily drop down out of the housing. If not, pull gently on the End Cap to remove.

NOTE: It is possible to remove the Cartridge from the top or the bottom of the unit as long as enough room is provided for access.

9. Set aside the old Cartridge and O-Rings.
10. Lubricate the new 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.
11. Place the End Cap O-Ring on the End Cap and insert the End Cap into the end of the new Cartridge.
12. Position the new Cartridge and End Cap below the Housing and gently insert into the Housing. Press the End Cap into position until it is fully seated and the Lock Ring groove is visible.
13. Install the white plastic Lock 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 Lock Ring is fully seated before turning the water on.

14. Flush the system and sanitize the lines to complete the cartridge change.

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Rinsing the Cartridge (UFL Systems Only)

To ensure that the highest quality water is produced from the system, the cartridge must be rinsed to remove air and the shipping/storage solution. For maximum quality, the permeate water produced during the flushing procedure must be discarded. Direct this permeate water to drain.

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.

1. Plug the power cord into the appropriate electrical outlet.
2. Open the tap or faucet closest downstream to the filter system.
3. Slowly open the Inlet Water Valve and allow water to enter the system.
4. **UFL SYSTEMS WITH PULSE CONTROLLER:**
Press the **FLUSH** button. The Drain Valve will open and air and water will come out of the drain line. Repeat six times.

UFL SYSTEMS WITHOUT PULSE CONTROLLER:
Press and hold the **PROGRAM** button. After 6-7 seconds, the drain valve will open and **F1** will appear on the display. Hold the **PROGRAM** button for 60 seconds.

5. Allow water to flow out of the tap for at least 15 minutes at maximum flow rate.
6. Inspect the unit for any leaks and repair as needed.
7. Close the tap and let the system stand without water flow for 15 minutes to allow any trapped air to come out of the hollow fibers.
8. After 15 minutes without water flow, open the tap for 15 more minutes to allow any trapped air to be flushed out.
9. Close the tap or faucet.

10. UFL SYSTEMS WITH PULSE CONTROLLER:
Press the **FLUSH** button to open the Drain Valve. Repeat six times to ensure any remaining air is flushed out of the system.

UFL SYSTEMS WITHOUT PULSE CONTROLLER:
Press and hold the **PROGRAM** button for at least 60 seconds to flush out any remaining air from the system.

Sanitizing the System and Lines (UFL Systems Only)

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 6% sodium hypochlorite) can be used to sanitize the plumbing. However, the amount of bleach needed depends on the system and plumbing downstream of the system.

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. **UFL SYSTEMS WITH PULSE CONTROLLER:**
Press the **FLUSH** button to help drain the system.

UFL SYSTEMS WITHOUT PULSE CONTROLLER:
Press and hold the **PROGRAM** button to help drain the system.

6. When the water flow out of the inlet fitting stops, close the Inlet Drain Valve and pour the liquid bleach into the inlet connection fitting. Be careful not to spill bleach onto clothing or skin. You may want to add the bleach with a cup. Reattach the cap on the fitting.
7. Slowly open the Inlet Water Valve and allow water to flow out of the tap until the smell of bleach is present.
8. 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.
9. 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 plumbing. Close the taps.
10. **UFL SYSTEMS WITH PULSE CONTROLLER:**
Press the **FLUSH** button to complete the flushing process. Repeat six times.

UFL SYSTEMS WITHOUT PULSE CONTROLLER:
Press and hold the **PROGRAM** button for at least 60 seconds to complete the flushing process.

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Changing the Cartridge (TAP Systems Only)

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

1. Simultaneously press the **VIEW** and **▲** buttons. The red system LED illuminates and the system displays “--” on the display. Use the **▲** and **▼** buttons to scroll to **07** and press the **FLUSH** button.

The system performs the **07** program, which consists of the following stages:

- **d1** (Close Inlet Valve stage)
- **d2** (Open Drain Valve stage)
- **d3** (Close Permeate Valve stage)

2. When the **07** program completes, place a bucket under the Ultra Filter Cartridge Housing.
3. **TAP SYSTEMS WITH CURVED TUBING:** Locate the TAP Pressure Differential housing. Remove the 1/4" bottom tubing from the quick connect fitting located on the bottom of the pressure sensor box. Water will drain into the bucket. When the water is completely drained, disconnect the large bent bottom tubing from the quick connect fitting by the TAP water meter. Leave the tubing attached to the bottom end cap so it can be used to pull the end cap from the housing.

TAP SYSTEMS WITH ELBOW TUBING: Locate the elbow fitting on the bottom tubing of the cartridge and push the collet squarely in against the face of the fitting. With the collet held in this position, the fitting can be removed from the tubing. Water will drain into the bucket. When the water is completely drained, push the fitting back onto the tubing until it comes into contact with the internal tubing stop. Rotating the fitting slightly during installation helps make the connection slide past the O-ring seal.

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.

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

3. Remove the Snap Ring on the bottom end of 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 ring should lift out of its groove.
4. The lower End Cap, End Cap O-ring, and Cartridge should easily drop down out of the housing. If not, pull gently on the end cap to remove the cartridge.

NOTE: If the cartridge does not easily come out of the housing, the top End Cap can also be removed for assistance during Step 4.

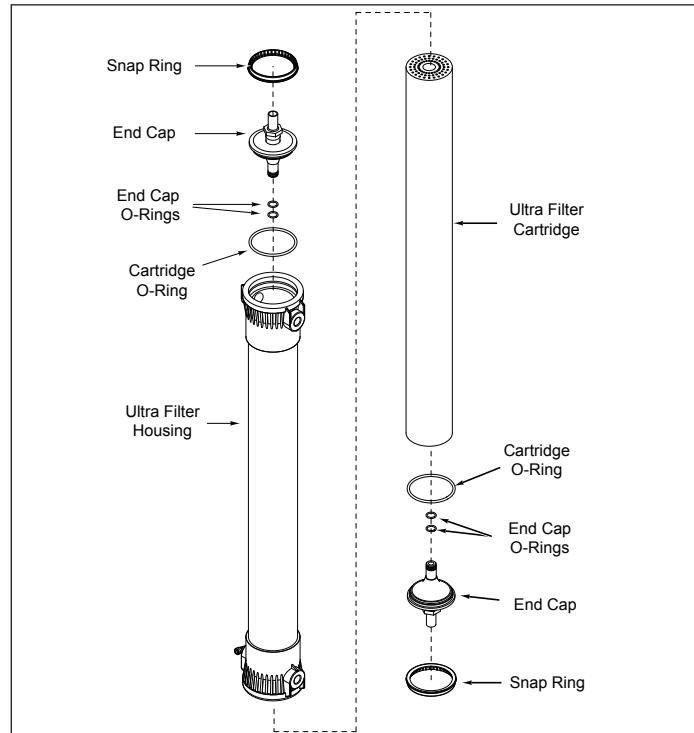


Figure 1. Ultra Filter Components

5. Inspect the cartridge O-rings and End Cap O-ring for nicks or cuts. Replace as needed.
6. 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.
7. 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).
8. Install the End Cap O-ring on the End Cap and insert the End Cap into the end of the new cartridge.
9. Position the new cartridge and End Cap below the housing and gently insert into the housing.
10. Press the End Cap into position until it is fully seated and the Snap Ring groove is visible.
11. 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.**
12. The cartridge must be rinsed before operation.

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Rinsing the Cartridge (TAP Systems Only)

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.

1. Close the Inlet Ball Valve.
2. Make sure a drain hose is connected to the Rinse Ball Valve. Direct this hose to a drain.
3. Manually open the Rinse Ball Valve.
4. Enter the **06** program. Press and hold (in order) the **VIEW**, and **▲** buttons until the red **SYSTEM** LED illuminates and “ -- ” appears on the display.
5. Use the **▲** button to scroll up to “**06**” and press the **FLUSH** button to start the rinse program. The system displays **d1** and begins to depressurize. Wait until the system beeps and flashes **d3**.
6. Manually open the Inlet Ball Valve. Press the **FLUSH** button to start the **r1** stage.
7. Wait until the display flashes **r1** (approximately 1 minute) and the system beeps.
8. Press the **FLUSH** button. The system starts the **r2** stage.
9. Wait until the display flashes **r2** (approximately 15 minutes) and the system beeps.
10. Manually close the Rinse Ball Valve.
11. Press the **FLUSH** button to start the **r3** stage.
12. Wait until the display flashes **r3** (approximately 15 minutes) and the system beeps.
13. Manually open the Rinse Ball Valve.
14. Press the **FLUSH** button to start the **r4** stage (Rinse Flow stage).
15. Wait until the display flashes **r4** (approximately 5 minutes) and the system beeps.
16. **Manually** close the Rinse Ball Valve.
17. Press the **FLUSH** button to start the **r5** stage.
18. Wait for 1 minute. Water flows through the UFL housing and out of the Drain Solenoid Valve.
19. The system begins the **r6** stage. The system completes depressurization and displays **d3**.
20. Repressurize the system using the **08** program. Press and hold the **VIEW** and **▲** buttons until the red **SYSTEM** LED illuminates and “ -- ” appears on the display.
21. Use the **▲** button to scroll up to “**08**”.
22. Press the **FLUSH** button to start the Pressurize System program.

Sanitizing the System and Lines (TAP Systems Only)

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

Liquid chlorine bleach (regular bleach, unscented 6 % sodium hypochlorite) can be used to sanitize the plumbing. The amount of bleach to use depends on the system installed and the amount of plumbing downstream of the TAP system. Generally, one ounce (30 ml) of bleach is sufficient to sanitize the system and associated plumbing. Follow all handling or safety instructions supplied with the bleach.

NOTE: When sanitizing a system with carbon elements, make sure the carbon elements are removed from their housings before sanitizing.

1. Shut off the water to the TAP system and open the faucet closest downstream to the system. Allow the system and plumbing to depressurize and drain. If an inlet sanitation fitting is installed, remove the plug or disconnect the water line at the inlet of the system. Allow the water to drain out of the system.
2. Pour the bleach into the inlet sanitation fitting or inlet water line using a cup or funnel. Be careful not to spill bleach onto clothing or skin.
3. Reattach the plug on the sanitation fitting or inlet water line.
4. Slowly turn on the water supply and pressurize the system. Allow water to flow out of the open tap until the smell of bleach is present.
5. Close the tap and let the system stand without water flow for at least 15 minutes to allow the bleach to sanitize the pipes.
6. After 15 minutes without water flow, open the tap and flush until the presence of bleach is gone. Open all other taps in line with the system to flush any bleach from the plumbing.
7. Close the taps and depressurize the system. Reinstall the carbon elements or install new carbon elements. Repressurize the system.
8. Press the **FLUSH** button to remove any trapped air or any remaining bleach.
9. Sanitation is complete.

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Changing the Cartridge (CAP, GAP and VZN Systems)

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.

5. Remove the Snap Ring (Figure 8) 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 8) 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.

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.

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Rinsing the Cartridge (CAP, GAP, and VZN Systems)

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 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 (CAP, GAP, and VZN Systems)

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 6% sodium hypochlorite) can be used to sanitize the plumbing. The amount of bleach needed depends on the system and the amount of plumbing downstream of the system.

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

NOTE: If installed, remove the Carbon Element and TAC Cartridge 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. If an inlet sanitation fitting is installed, remove the plug or disconnect the water line at the inlet of the system. Allow the water to drain out of the system.
5. Pour the bleach into the inlet sanitation fitting or inlet water line using a cup or funnel. Be careful not to spill bleach onto clothing or skin.
6. Reattach the plug on the sanitation fitting or inlet water line.
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 bleach is present.
9. Close the faucet or tap.

10. Let the system stand without water flow for at least 15 minutes to allow the bleach 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 bleach is gone.
13. Open all other faucets and taps in line with the system to flush any remaining bleach from the plumbing.
14. Close all faucets and taps.

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