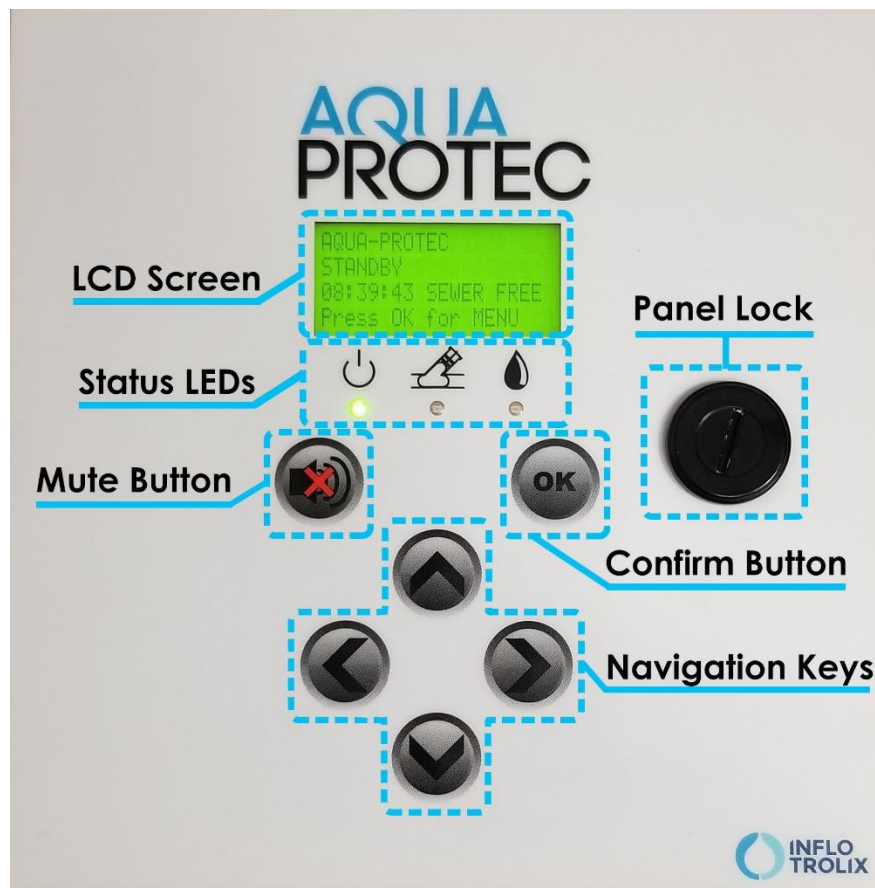


How to do the maintenance on an Aqua-Protec system

Control panel



Steps to complete for the maintenance

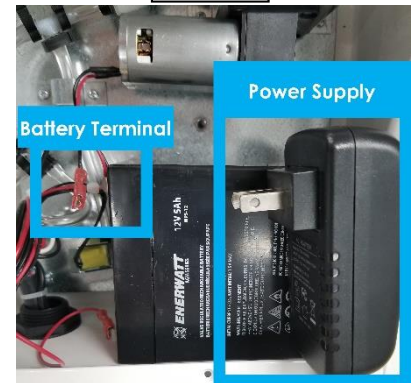
1. Remove & clean the Aqua-Protec balloon
2. Visual inspection of the balloon and the pipe
3. Installation of the Aqua-Protec balloon
4. Full system test
5. Partial test

Step 1 – Remove & clean the Aqua-Protec bladder

Attention: Before beginning bladder removal, make sure the system is not running its weekly auto-test.
Prepare a clean surface close to the work area on which to place the removed bladder.

1. Turn off the power
 - a. Unplug the power supply from the power outlet
 - b. Disconnect one terminal of the battery.
2. Loosen the cable gland nut on the clean-out cap.
3. Loosen and remove clean-out cap from the clean-out
4. Keeping the anchor ring attached, carefully pull on the installation rod and the steel extraction cables until the bladder is retracted out of the clean-out. Lubricate with water and soap as required.
5. Place the bladder on a clean surface. During installation, the bladder was covered with a silicone lubricant to ensure easy positioning and sealing. Accumulated residue on the bladder may affect the ease of repositioning of the bladder into the clean-out.

Step 1



Step 2



Step 3



Step 4



Step 4.5



Step 5



Step 2 – Visual inspection of the balloon and the pipe

1. Once the balloon is removed, take a wet towel and clean the balloon of all kinds of residues that could be stuck on it. Pay particular attention to the sensors and all around them
2. Inspect visually the balloon by checking those points:
 - a. The gold sensors are present and gold
 - b. The balloon is not deformed or having any unusual lumps
 - c. The water sensor connections are well attached to their wires
3. Inspect visually the pipe
 - a. Make sure the pipe is clean and there is no accumulation of waste in it
 - b. Flush a toilet and make sure the water evacuates properly
 - c. For iron cast only – make sure the interior surface of the pipe is smooth and doesn't present any metal parts that could damage the balloon

Step 3 - Installation of the Aqua-Protec balloon

1. Disconnect the black connector on the PCB where it's written "pump" on the right
2. Power the system

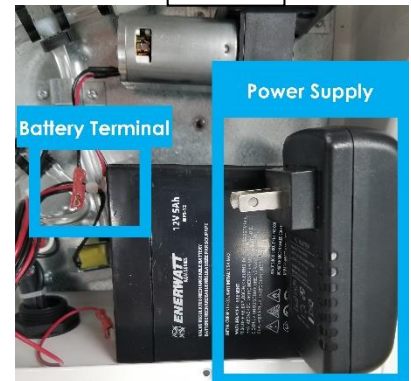
- a. Connect the battery terminal
- b. Plug the power supply into the electrical outlet.

3. Test the bladder sensors by touching two probes with a metal tool. The yellow light should be on when you touch them. **DO NOT TOUCH THEM MORE THAN 5 SECONDS AS IT WOULD START THE INFLATION**
4. Insert the bladder into the clean-out, taking care to direct probe sensors in same direction as the flow in the sewer.
5. Make sure steel wires are going through the anchor ring.
6. Using the positioning rod, slide the bladder until the anchor ring sit at the bottom of clean-out cap threads.

Note: To ease the way down back into the clean-out, silicone lubricant can be used on the bladder. Do not use any other lubricant type. Bladder sensors must remain clean.

7. Put back the steel wires into the middle of the anchoring ring
8. Tighten clean-out cap in place. Hand tightening is enough to seal the cap.
9. Tighten cable gland nut to insure water tightness. Hand tightening is enough to seal the cable gland.
10. Reconnect the black connector on the PCB where it's written "pump" on the right

Step 2



Step 3



Step 4



Step 5



Step 7



Step 8



Step 9



Step 4 – Full system test

1. Press twice on « **Check / Ok** » to go to the main menu.
2. Press on the down arrow until you reach « **Technician** » in the menu
3. Once you are on « **Technician** », Press on the right arrow to go in the technician menu
4. Enter the passcode to enter the **technician** menu
 - a. Passcode: **0084022**
5. Press on the right arrow to access the technician menu
6. Press on the down arrow to go to full test
7. Press on the right arrow once on full test to start the full test
8. Press on the mute button on the panel to stop the noise
9. Wait 12 minutes so the test completes, and the result will be available on the screen

Once the full test is complete, you will get a result

- OK – the system passed its test
- Error code – The code associated with the issue. Please refer to the error code table situated on the next page
- Press on the left arrow 4 times to come back to the main menu

Step 5 – Partial test

1. Press twice on « **Check / Ok** » to go to the main menu.
2. Press on the down arrow until you reach « **Technician** » in the menu
3. Once you are on « **Technician** », Press on the right arrow to go in the technician menu
4. Enter the passcode to enter the **technician** menu
 - a. Passcode: **0084022**
5. Press on the right arrow to access the technician menu
6. Press on the down arrow to go to partial test
7. Press on the right arrow once on partial test to start the partial test
8. Press on the mute button on the panel to stop the noise
9. Wait 12 minutes so the test completes, and the result will be available on the screen

Once the full test is complete, you will get a result

- OK – the system passed its test
- Error code – The code associated with the issue. Please refer to the error code table situated on the next page
- Press on the left arrow 4 times to come back to the main menu

Aqua-Protac error codes

Aqua-Protac Error Codes Definitions

ERROR CODE	MODE	DESCRIPTION	SHOWN ON SCREEN
ID0	SLEEP	The system has warned the user to change the bladder.	Warning : RPSM needs to be replaced
ID1	GENERAL	The measured pressure is higher than the vacuum limit pressure.	Error : RPSM does not deflate. Maintenance Required
ID6	GENERAL	The bladder did not reach its maximum pressure within the specified time.	Error : RPSM swelling failure
ID7	GENERAL	The bladder inflated for more than 1 min and did not reach its minimum pressure.	Error : RPSM swelling failure
ID8	ALERT MODE	The bladder's pressure has dropped below the minimum specified for backflow. The pump inflates it to its maximum pressure.	Warning : Automatic swelling
ID9	ALERT MODE	The pressure of the bladder fell below its minimum before 10min. The problem is stored in memory and waits for the end of the ALERT MODE.	Error : Air circuit leakage
ID16	FULL SYSTEM TEST	The bladder pressure dropped below the limit pressure in less than 10min. The system enters TROUBLE MODE.	Error : Full system test. Maintenance Required
ID20	PARTIAL TEST	The specified pressure was not reached within the specified time.	Error : RPSM Swelling. Maintenance Required
ID21	PARTIAL TEST	The internal pressure of the bladder fell below the limit pressure within the required time.	Error : RPSM Leaking. Maintenance Required
ID53	GENERAL	The bladder has reached the maximum of allowed inflations	Warning : RPSM replacement required (number of inflation)
ID54	GENERAL	The bladder has reached the maximum inflated time allowed.	Warning : RPSM replacement required (Swelling time)
ID58	SLEEP	The bladder has reached the warranty expiry date.	Warning : RPSM replacement required (Expiry Date)
ID59		The battery is disconnected.	Warning : Disconnected battery
ID60		The internal resistance of the battery is too high, it is necessary to change the battery	Warning : Battery replacement required
ID63		Loss of mains power	Warning : Lowv of power supply
ID66	FULL SYSTEM TEST AND PARTIAL TEST	The system has reached its target pressure immediately	Error : The pneumatic system is blocked
ID67	FULL SYSTEM TEST	The system has reached its target pressure too quickly	Error : RPSM may be improperly installed