



Water Filter System Troubleshooting Guide

Pre-Job Preparation

1. Information Collection

- **System Size and Brand:** Note the specific model and manufacturer.
- **System Age:** Determine the age of the system as it may impact function and parts availability.
- **Bypass Check:**
 - Check if the customer was asked to verify the position of the bypass valve. An open bypass can often be a simple fix that avoids unnecessary service calls.

Upon Arrival

1. Equipment Verification

- Confirm the system size, brand, and age as previously noted.

2. Identifying the Issue

- Ask the customer: What is the problem? When did it start? How long has it been ongoing?
- Specific symptoms to inquire about:
 - Leaking
 - Discolored or sediment-filled water (constant or occasional)
 - Poor water pressure
 - Odd noises (banging, whistling)
 - Unusual taste or odor

3. Initial Testing

- Test the water and compare results to the original water test if available.

Filter Inspection

1. Visual Inspection

- Check for water on the floor, signs of dripping or running water, mold, or condensation on the tank.

2. Bypass and Valve Check

- Verify the bypass is closed.
- Check the valve for power supply and any error codes displayed.



3. Drain and Backwash System

- Inspect the drain for clogs or continuous running, which might indicate a piston or internal valve issue.
- Ensure the filter beds expand by at least 40% as required for proper backwashing (confirm manufacturer's specs).
- If the drain is clogged or restricted, the backwash rate may be insufficient.
- Assess if there is enough water volume to lift the bed during backwash:
 - Perform a bucket test or use a flow test kit to verify flow rate.
 - Check if the raw water intake pressure is strong enough for backwashing.
 - Inspect the well tank and pump to ensure they are not waterlogged and are powerful enough to maintain pressure.

Water Chemistry and System Design

1. Chemistry Checks

- pH Levels: Verify if the pH is conducive for optimal oxidation-reduction processes.
- Oxidation Fuel: Ensure there is an adequate supply of oxidizing agents (peroxide, chlorine, etc.) and that the chemical feed pump and solution tank are operational.
- Check if the air induction or ozone induction system is clogged.

2. System Configuration

- Confirm the system is sized correctly and has the appropriate drain and valve setup.
- Softener valves are inadequate for filter systems due to insufficient drain port size, which can prevent adequate backwash flow.
- Twin Tank Systems:
 - Note the operation mode (alternating twins, twin parallel) and check the function of the clean water backwash system.



Troubleshooting Common Problems

1. Error Codes and Timer Issues

- Address any error codes by referring to the manufacturer's troubleshooting guidelines.
- Check timer settings for accuracy and functionality.

Conclusion and Follow-Up

1. Customer Briefing

- Discuss findings with the customer, suggest necessary repairs or adjustments, and provide an overview of the system's condition.

2. Documentation

- Record all observations, test results, and customer interactions for future reference and billing.

Disclaimer for Water Treatment System Site Survey

1. **Purpose of the Survey:** This site survey is conducted to evaluate the current conditions and requirements for the installation or maintenance of water treatment systems. The recommendations provided are based on observations and tests conducted during the survey and reflect the status of the system at the time of the survey.
2. **Limitation of Liability:** While every effort is made to ensure the accuracy and thoroughness of the information provided in this survey, Urban Aqua LLC disclaims all liability for any errors or omissions, or for the results obtained from the use of this information. All information in this survey is provided "as is", with no guarantee of completeness, accuracy, timeliness, or of the results obtained from the use of this information.
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4. **Dependence on Client Information:** The recommendations and conclusions drawn from this survey are contingent upon the accuracy and completeness of the information provided by the client prior to and during the survey. Urban Aqua LLC is not responsible for any discrepancies between the client-provided information and the actual conditions.
5. **Scope of Survey:** This survey does not cover all possible issues or potential problems with the water treatment system. The survey focuses on observable and testable aspects of the system at the time of the survey. Subsequent changes in conditions or operations are outside the scope of this report.
6. **No Warranty on Future Performance:** The recommendations provided do not guarantee future performance of the water treatment system. Changes in water quality, system usage, or maintenance practices may affect the performance of the system.
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