

UV Water Treatment System Buying Checklist

What to Verify Before Buying a UV Water Purification System

Check each box only when you have an answer in writing. Use the comparison worksheet on page 3 to evaluate two offers.

01**Start with the source and treatment goal**☐

Record municipal supply or private well, and whole-house or single-tap use. Review the utility water-quality report where applicable. Choose treatment for an identified concern; a UV unit may be unnecessary if the water already meets your needs. [1]

02**Get appropriate water tests first**☐

For wells, use a state-certified lab. CDC recommends annual testing for total coliforms, nitrate, total dissolved solids and pH; ask the health department about local risks and additional testing. UV does not remove dissolved chemicals such as nitrate or arsenic. [1, 2]

03**Size for peak simultaneous flow**☐

List fixtures likely to run together and ask the installer to establish peak flow in gallons per minute (gpm). The selected unit must meet that flow at its stated treatment rating. Ask whether a flow restrictor is needed to prevent exceeding it. [4]

04**Verify dose and performance conditions**☐

Request the rated UV dose in mJ/cm², maximum rated flow and supporting validation or certification. Check the water-quality conditions behind the rating and allowance for lamp aging. Lamp watts alone are not a treatment-performance rating. [4]

05**Confirm UV transmittance (UVT)**☐

Ask for the minimum allowable UVT and its measurement basis, commonly percent transmission at 254 nm through a 1 cm sample. Compare a water test with the supplier limit; water that looks clear can still absorb UV. [4]

Before you commit

06

Specify pretreatment, not just a UV chamber



Compare test results with the manufacturer limits for turbidity, hardness, iron and manganese. Request the required filters or other pretreatment and their service costs. Particles and sleeve deposits can interfere with UV treatment. [1, 4]

07

Check the exact NSF/ANSI 55 listing



Class A addresses microbiologically contaminated water within the standard's scope and system limits. Class B supplements treatment of already disinfected or otherwise acceptable drinking water; it is not a choice for unsafe water. Verify the exact model and class in the certifier's listing. [3]

08

Decide what happens when treatment fails



Ask what is monitored: lamp status, intensity or delivered dose. Confirm alarms, low-UV response, automatic shutoff if fitted, and behavior during power failure. Get written instructions for restoring service and an alternative safe-water plan. [4]

09

Plan installation and maintenance access



Confirm pressure and temperature limits, electrical supply, orientation and clearance for lamp and sleeve removal. Ask who commissions the system, disinfects downstream plumbing where required, and defines follow-up testing with your local health authority.

10

Budget for the entire treatment train



Request lamp replacement interval and price, sleeve cleaning and replacement costs, filter costs, sensor servicing, electricity and labor. Compare equipment and installation separately. Get warranty terms and keep a dated maintenance log.

SOURCE NOTES

1. CDC - About home water treatment systems
2. CDC - Guidelines for testing well water
3. NSF - Standards for water treatment systems
4. EPA - UV treatment toolkit (engineering principles)

Sources accessed October 11, 2026. Links open the supporting references. This is a buying aid, not a site-specific design or a product endorsement.

System comparison worksheet

Print this page. Ask both suppliers to quote the same operating conditions and scope.

Project / property: _____ Date: _____

COMPARE IN WRITING	SYSTEM / SUPPLIER A	SYSTEM / SUPPLIER B
Supplier / manufacturer / model		
Source / treatment objective		
Peak flow / dose / minimum UVT		
NSF/ANSI 55 class / listing		
Pretreatment / water-quality limits		
Monitoring / failure response		
Installation / maintenance needs		
Lamp / sleeve / filter costs		
Purchase + installation / warranty		
Notes / unresolved questions		

MAKE THE DECISION ON EVIDENCE

Unanswered items to resolve before ordering: _____
