



Re-Circulating Synthetic Filter

**UV
Installation and
Maintenance
Guide**



Models bearing the NSF mark are certified Class I
to one or more of the following standards:

NSF/ANSI 40
NSF/ANSI 245
NSF/ANSI 350

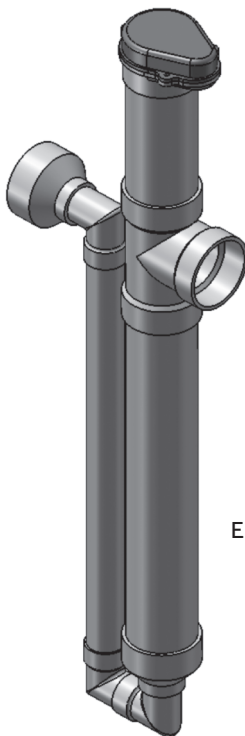
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1.0 UV Light System Installation

The E-Z Set UV system is shipped as three components, the UV housing, the UV lamps and the UV lamp control panel

1. The PVC inlet and outlet on the dual bulb UV housing are reversible, allowing flow in either direction. The inlet of the single bulb configuration is the 4" hub and the outlet is the 2" hub. The inlet and outlet will accept any Schedule 40 or Schedule 80 PVC pipe or locally approved water tight pipe connection. The housing must be installed so the UV lamps are in the vertical position.
2. UV lamp control panel can be installed indoors or outdoors. The panel must be secured in a manner that is consistent with local regulations. The UV lamp control requires a dedicated 120 volt power source that complies with local electrical codes.
3. The UV lamps should be wiped clean in accordance with the cleaning instructions and inspected for cracks or chips prior to installing the lamps into the UV housing.
4. Once the inlet and outlet connections to the UV housing are complete, insert the UV lamp assemblies into the UV housing. **Caution:** UV lamp housing connections should be **hand-tightened. DO NOT** use wrenches, pliers, or other tools to tighten.
5. Fill UV housing with water/effluent before applying power to the UV lamps.
6. Turn power "ON" to the UV system.



E-Z Treat UV System

Table 1
NSF Testing Performance Summary

Parameter	Effluent, Avg
BOD ₅	2 mg/l
TSS	2 mg/l
DO	3.3 mg/l
Turbidity	2 NTU
E. coli *	2 MPN/100ml
pH	6.8 – 7.5
Total Nitrogen Reduction	64%

*with optional UV disinfection

2.0 UV Light System Maintenance

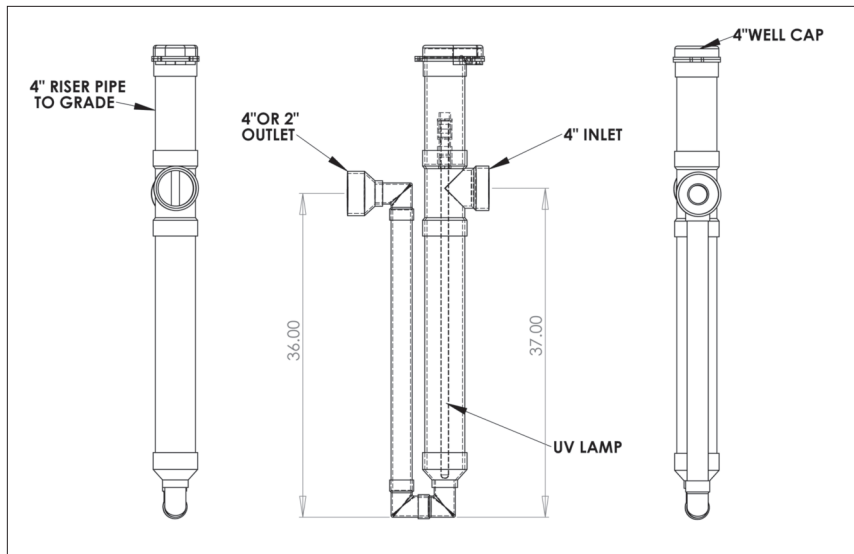
The UV lamps quartz tubes (housing the lamps) must be cleaned at a minimum frequency of every 12 months.

Caution: Do not run UV lamps dry. Fill UV housing with water/effluent before turning on power.

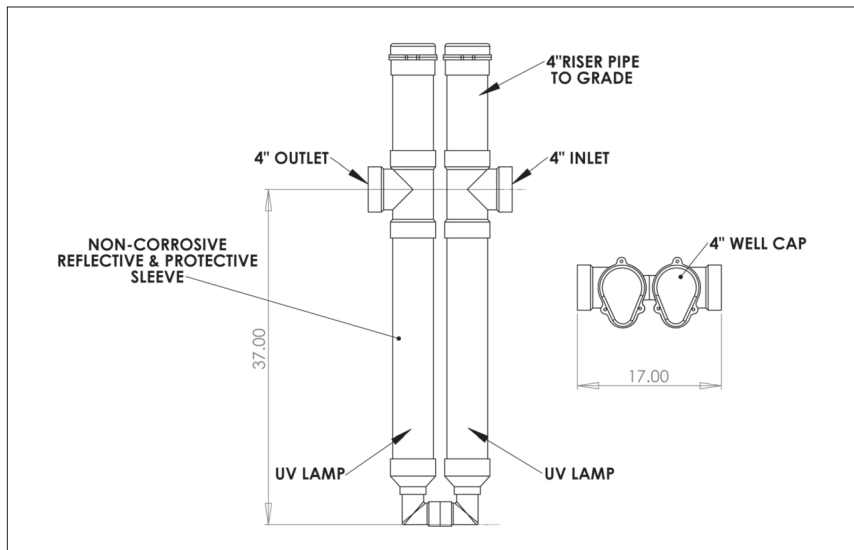
Caution: Always turn off the power to the UV system before any maintenance is performed. Use extreme care when handling the fragile UV lamp assembly.

- Step 1:** Turn power "OFF" to the UV system!
- Step 2:** Unscrew the fitting holding the UV lamp and quartz sleeve.
- Step 3:** Lift the UV lamp assembly upward until it is clear of the housing.
- Step 4:** Using a clean, damp sponge or clean, soft cloth, wipe all residue from the quartz tube. Clean stubborn, dirty areas with a liquid glass cleaning product.
Caution: DO NOT scrape or use scouring pads. This may scratch the quartz tube and alter the performance of the UV system.
- Step 5:** Visually inspect each quartz tube for cracks or breaks; replace any UV lamp assembly that is cracked, scratched, or broken.
- Step 6:** Re-insert the UV lamp assembly into the housing and tighten the fitting that holds the UV lamp and quartz sleeve. **Caution: (Hand-Tighten Only)** **DO NOT** use wrenches, pliers, or other tools to tighten.
- Step 7:** Turn power "ON" to the UV system.

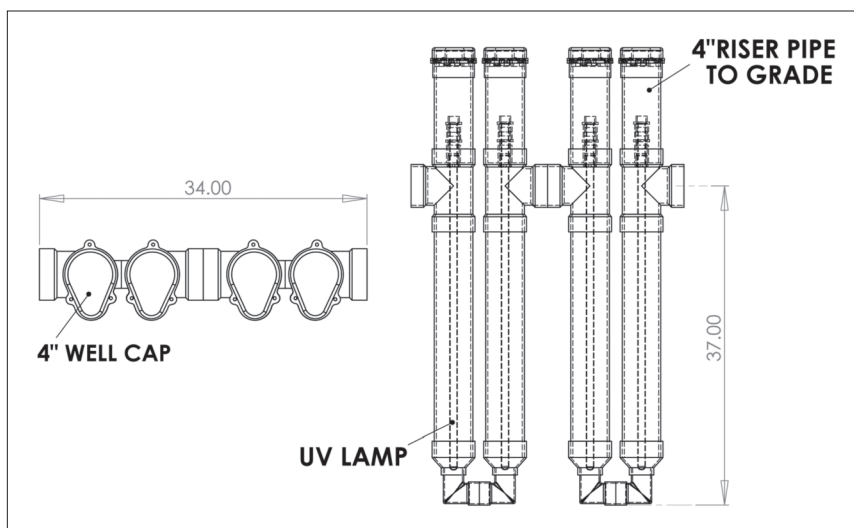
Appendix 1 E-Z Treat UV System Configurations



Model 101
Single Lamp



Model 102
Dual Lamp



Model 404
Two Dual Lamps in Series

Appendix 2 NSF Test Data

Table 2
NSF Testing Pathogen Performance Testing

Date	Influent E. coli	Effluent E. coli	
		Avg <14	Max <240
10/21/13	980,000	< 1.1	
10/23/13	687,000	< 1.0	
10/25/13	1,610,000	< 1.1	
10/28/13	5,840,000	< 1.1	
10/30/13	1,720,000	< 1.0	
11/1/13	816,000	< 1.0	
11/4/13	435,000	< 1.0	
11/6/13	816,000	< 1.0	
11/8/13	921,000	< 1.0	
11/11/13	816,000	< 1.1	
11/13/13	770,000	< 1.0	
11/15/13	579,000	< 1.0	
11/18/13	1,990,000	3.1	
11/20/13	1,050,000	1.0	
11/22/13	1,550,000	1.0	
11/25/13	770,000	< 1.1	
11/26/13	411,000	< 1.0	
11/27/13	613,000	< 1.0	
12/2/13	461,000	< 1.0	
12/4/13	1,300,000	< 1.0	
12/11/13	411,000	< 1.0	
12/13/13	517,000	< 1.0	
12/16/13	687,000	< 1.1	
12/18/13	387,000	< 1.0	
12/20/13	548,000	1.0	
12/23/13	579,000	< 1.0	
12/27/13	517,000	< 1.0	
12/30/13	387,000	< 1.0	
1/1/14	260,000	< 1.0	
1/3/14	1,200,000	< 1.0	
1/6/14	127,000	< 1.0	
1/8/14	387,000	< 1.0	
1/10/14	156,000	< 1.0	
1/13/14	345,000	1.0	
1/15/14	210,000	2.0	
1/17/14	102,000	< 1.0	
1/20/14	62,700	< 1.0	
1/22/14	158,000	< 1.0	
1/24/14	81,600	< 1.0	
1/27/14	161,000	< 1.0	
1/29/14	326,000	< 1.0	
1/31/14	866,000	< 1.0	
2/3/14	4,880,000	< 1.0	
2/5/14	461,000	4.1	
2/10/14	397,000	< 1.0	
2/12/14	461,000	< 1.0	
2/14/14	411,000	< 1.0	

Table 3
NSF Testing Pathogen Performance Summary

Date	Influent E. coli	Effluent E. coli
Median	517,000	1.0
Min	62,700	1.0
Max	5,840,000	4.1
Avg	834,474	1.0
Std Dev	1,066,222	1.0



PO Box 176
Haymarket, Virginia 20168

T 703.753.4770

F 571.248.8837

eztreat.net