



# Ultraviolet Systems

*Envirogen Ultraviolet (UV) systems are used to disinfect water without the use of heat and chemicals by utilizing germicidal ultraviolet lamps that produce short wave radiation lethal to bacteria, viruses and other microorganisms. UV Systems can be used independently or in combination with other purification techniques, to meet various standards in industrial, healthcare and pharmaceutical applications.*

## Why use Envirogen UV Systems

- Effective Disinfection - Virtually all microorganisms are susceptible to ultraviolet disinfection
- Economical - Hundreds of gallons are purified for each penny of operating cost
- Safe - No danger of overdosing, no addition of chemicals
- Fast - Water is ready for use as soon as it leaves the purifier with no further contact time required
- Easy - Simple installation and maintenance and require minimum space
- Automatic - Provides continuous disinfection without special attention or measurement
- Chemical Free -No chlorine taste or corrosion problems
- Versatile - Capacities available from 3 to 416 gallons per minute (GPM)



## System Features and Benefits

- Commercial and Industrial systems feature a modular design to address flow requirement.
- Single lamp chamber design enables separate output monitoring of each ultraviolet lamp.
- Reserve chambers permit shutdown or replacement of individual components without interruption of service.
- Special Configurations for TOC and ozone reduction
- Clear Quartz Sleeve Ensures optimum lamp output at normal potable water temperatures.
- The wiper segments induce turbulence in the flowing liquid to assure uniform exposure of suspended microorganisms the lethal ultraviolet rays.
- Translucent sight port provides positive indication of germicidal lamp operation.
- The wiper assembly facilitates periodic cleaning of the quartz sleeve without any disassembly or interruption of purifier operation.
- Sight Port Plug reveals a visible glow, confirming germicidal lamp operation.
- Easily removable end cap allows fast and effortless lamp change without shutdown of water pressure or drainage of tank. No tools required.
- Removable Flanged Head for complete disassembly of unit if repairs are necessary
- Dual action wiper mechanism facilitates periodic cleaning of quartz sleeve without interruption of purifier operation. No disassembly required. Complies with U.S Public Health Guidelines.
- Electropolished and passivated 316 Stainless Steel construction of chamber, head, and clamp

## UV Lamp Features and Benefits

- Industry leading, name brand lamps used in all Envirogen UV systems
- Germicidal Lamps are shortwave, low pressure mercury vapor discharge tubes that produce ultraviolet wavelengths lethal to microorganisms
- Instant start and preheat required lamps are available
- Typical lamp life of 10,000 hrs

## Maximum Feed Water Specifications\*

Turbidity	<5 NTU
Suspended solids	10 mg/l
Iron	0.3 mg/l
Manganese	0.05 mg/l
pH	6.5-9.5
Hardness	6 gpg

*\*Note: For source water exceeding these limits, pretreatment may be advised.*

## Ordering Information

### Single Lamp Systems

Model	GPM	GPH	Inlet/Outlet NPT inch (mm)	Replacement Lamps	Power Consumption (watts)	Dimensions inches (mm)			Gross Ship Wt (lbs)
						Length	Width	Height	
E17	3	180	3/4 (19)	05-1098-R	18	17 3/8 (441)	4 5/16 (110)	8 3/16 (208)	11
E23	6	360	3/4 (19)	05-1097-R	25	23 3/8 (594)	4 5/16 (110)	8 3/16 (208)	13
E37*	12	720	1 (25)	05-1343-R	48	37 3/8 (949)	5 11/16 (144)	9 1/2 (241)	25
E50*	20	1200	1.5 (38)	05-1334-R	65	50 3/8 (1280)	5 11/16 (144)	9 1/2 (241)	34
E2400C	40	2400	2 (51)	05-1311-R	140	52 1/8 (1324)	6 5/8 (168)	11 1/8 (283)	40

\*Certified to NSF/ANSI 61 & 372. E2400C units used to construct multi lamp systems below.

### Multi Lamp Modular Systems

Model	GPM	GPH	Inlet/Outlet NPT	Qty of Replacement Lamps - Style 05-1311-R	Power Consumption (watts)	Dimensions inches (mm)			Gross Ship Wt (lbs)
						Length	Width	Height	
E5000	83	5,000	2" (51mm)	2	280	52 1/8 (1324)	17 (432)	15 (381)	116
E10000	166	10,000	2" (51mm)	4	560	52 1/8 (1324)	21 1/8 (537)	34 3/4 (883)	267
E15000	250	15,000	2" (51mm)	6	840	52 1/8 (1324)	21 1/8 (537)	53 3/4 (1365)	400
E20000	333	20,000	2" (51mm)	8	1120	52 1/8 (1324)	21 1/8 (537)	71 3/4 (1822)	534
E25000	416	25,000	2" (51mm)	10	1400	52 1/8 (1324)	21 1/8 (537)	90 3/4 (2305)	670

## Optional Accessories

**Ultraviolet Monitor\***: Visually indicates the level of germicidal ultraviolet energy that penetrates the quartz sleeve and the water within the water purifier. The ultraviolet monitor will detect reduction of ultraviolet levels

**Safety Sensor**: Indicators provide constant visual monitoring of normal operation. In the event of ballast or lamp failure the safety sensor indicates an alarm condition.

**Lamp Status Alarm**: Produces a high pitched, pulsed tone when the water purifier is no longer functioning

**Flow Control Valve\***: Limits water flow to the rated capacity of the purifier.

**Audio Alarm\***: Activated by the Ultraviolet Monitor or Safety Sensor, alerts the user to any malfunction detected.

**Solenoid Valve\***: Operated in conjunction with the Ultraviolet Monitor, Safety Sensor or Time Delay Mechanism, this valve prevents water flow through the water purifier when an abnormal condition is detected or in the event of power failure.

**Elapsed Time Indicator**: A non-resettable display of the water purifier operating hours. Useful for scheduling and recording maintenance and lamp replacement.

**Time Delay Mechanism\***: Provides a 2-minute warm up period during which the ultraviolet lamp achieves its full germicidal output before the water is allowed to flow through the water purifier.

**Wall Mount Kit**: Stainless steel wall brackets provide quick and easy installation and professional finish. Pre-drilled and ready to install. Optimizes free air circulation to cool ballast housing.

**Thermal Optimizer**: Thermal relief valve used to help regulate the water temperature inside the water purifier's disinfection chamber to keep the lamp's temperature within the peak output temperature range.

**Safety Goggles**: Safety eye wear should be used as general-purpose safety protection and for additional shielding from ultraviolet rays.

**Face Shield**: Adjustable headgear and lightweight visor provides eye and face protection from germicidal ultraviolet rays.

\* Use of this option is recommended by U.S. Public Health Service "Criteria for Acceptability of an Ultraviolet Disinfection Unit."

*Replacement lamps, parts and accessories, and ongoing  
service plans are available.*

UV-NA-0218



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