

The Standard of Excellence In Ultraviolet







Manufacturers / Engineers / Sales / Service – Germicidal Ultraviolet - Equipment & Lamps





Model S2400C 40 GPM

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SINCE 1963 ATLANTIC UULTRAVIOLET **CORPORATION®**

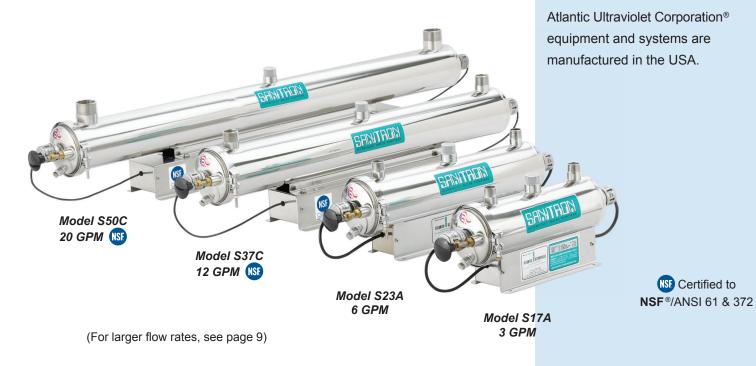
ABOUT US

Since 1963, Atlantic Ultraviolet Corporation[®] has pioneered the discovery and development of beneficial uses of ultraviolet energy. Over the years,

these efforts have led to the

development of valuable, cost effective, and environmentally sound techniques and products now known and respected throughout the world.

The UV Application Specialists at Atlantic Ultraviolet Corporation® assist customers in the selection of germicidal lamps and equipment. Their specialized knowledge is a valuable resource in formulating effective and cost-conscious ultraviolet solutions. Extensive inventories and a dedicated staff enable Atlantic Ultraviolet Corporation® to fulfill its commitment to provide fast deliveries and responsive customer service.



GERMICIDAL ULTRAVIOLET

or chemicals.

Ultraviolet water purification is a unique and rapid method of water

disinfection without the use of heat

SANITRON® Ultraviolet Purifiers utilize germicidal ultraviolet lamps

that produce short wave radiation

lethal to bacteria, viruses and other microorganisms present in water.

Through the years ultraviolet

technology has become well

for effective and economical

SANITRON® Ultraviolet Water Purifiers are the ideal solution for

an ever growing range of water

treatment applications.

water disinfection.

established as a method of choice

COMPARISON OF ATLANTIC ULTRAVIOLET WATER PURIFIERS

Chamber Material (Stainless Steel Type) STER-L-RAY® Germicidal Ultraviolet Lamp with 10,000 Hours Rated Effective Life	316 S	304	304			
Ultraviolet Lamp with 10,000 Hours Rated	S		004	316	316	316
		S	S	S	S	S
Quick Lamp Change with the EASY-OFF ™ End Cap	S	S	-	s	S	S
CRYSTAL CLEAR [™] Quartz Sleeve	S	S	S	S	S	S
Lamp Out Indicator Light(s)	S	S	-	-	-	S
Sight Port to View Lamp Operation	-	-	S	S	S	S
Drain Fitting	-	-	-	S	S	S
Dual Action Wiper Mechanism	-	-	-	-	Manual	Manual or Automatic
Suggested Mount Installation	Horizontal	Horizontal	Vertical	Horizontal	Horizontal	Horizontal
Removable or Rotatable Heads	S	-	-	-	S	S
Alternate Inlet/Outlet Fittings	-	-	-	-	0	0
Sediment and Carbon Filter	S	-	-	-	-	-
Promate [™] Mounting Kit / Bracket	S	S	S	0	0 ①	-
GUARDIAN [™] Ultraviolet Monitor	-	-	-	0	0	S
GUARDIAN [™] ASSIST Monitor Ext.	-	-	-	0	0	0
SENTRY [™] Safety Sensor	0	0	-	0	0	-
Promate™ Audio Alarm	S	S	S	0	0	-
Promate [™] Solenoid Valve	-	0	-	0	0	-
SureFLO [™] Flow Control Valve	-	0	S	0	0	-
Promate [™] Elapsed Time Indicator	0	0	-	0	0	S
Promate [™] Time Delay Mechanism	-	0	-	0	0	-
Residential Use	Х	х	х	Х	Х	-
Commercial Use	-	-	-	Х	Х	Х
Industrial Use	-	_	-	-	Х	Х
NSF Certified Models	-	-	-	X ②	X ③	-

(1) SANITRON® Model S10,000C through S25,000C come equipped with mounting rack. ② MIGHTY*PURE® MP36C and MP49C are available with NSF®/ANSI 55 for Disinfection Performance, Class B. 3 SANITRON® Models S37C, S50C, and S2400C are certified to NSF®/ANSI 61 & 372. Model S2400C is used in modular form to build larger models.

· When used as directed to disinfect clear water, Atlantic Ultraviolet Corporation® water purifiers provide an ultraviolet dosage in excess of 30,000 micro-watt seconds per square centimeter (µWSec/cm2).

This list depicts options for 120v 50/60Hz operation. Consult factory for options with other power requirements.



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COMMERCIAL & INDUSTRIAL

APPLICATIONS

Amusement / Water Parks

Resorts / Hotels / Motels

• Fountains / Lakes / Ponds

Hospitals / Veterinary Clinics

• RV Parks / Campgrounds

Ships / Yachts / Boats

Apartment Complex

Swimming Pools

Nursing Homes

City / Well Water

Laundry

Schools

Laboratories

Medical Facilities

Rainwater / Cisterns

Universities / Schools

Fish Farms / Hatcheries

Food / Dairy Processing

Bottling Facilities

· Pharmaceutical Mfg.

 Electronic Production Cosmetic Production

TOC Reduction

Ozone Reduction

Animal Husbandry / Farms / Ranches

Laboratories

Burn Centers

Water Vending

Cooling Tower

Restaurants

ADVANTAGES

PRINCIPLE OF OPERATION

Effective

Virtually all microorganisms are susceptible to SANITRON® 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 - no further contact time required

Easy

Simple installation and maintenance—Compact models require minimum space

Automatic

Provides continuous disinfection without special attention or measurement

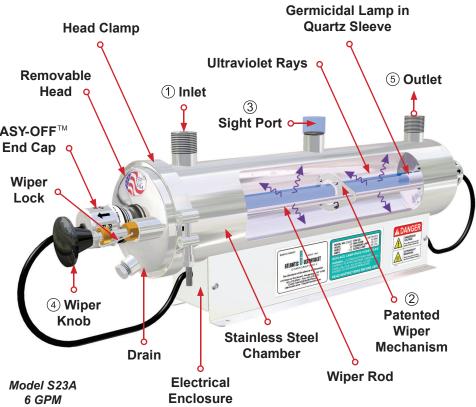
Chemical Free

Versatile

Capacities available from 3 to 416 gallons per minute (GPM)

EASY-OFF[™]

Wiper Lock



Model S10,000C — 166 GPM Shown with supplied Interconnect Piping, optional

GUARDIAN™ Digital Ultraviolet Monitors. Solenoid Valves, Flow Control Valves and customer supplied manifolds, piping, unions and shut-off valves.





élan Water Filters

Filters outperform conventional filters available for use with the SANITRON® S2400C and larger models.

Call factory for more information



Plus countless other facilities

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- Water / Beer / Wine / Juices / Soft Drinks
 - No chlorine taste or corrosion problems

1 The water enters the purifier and flows into the annular space between the quartz sleeve and the chamber wall.

② The wiper segments induce turbulence in the flowing liquid to assure uniform exposure of suspended microorganisms to the lethal ultraviolet rays.

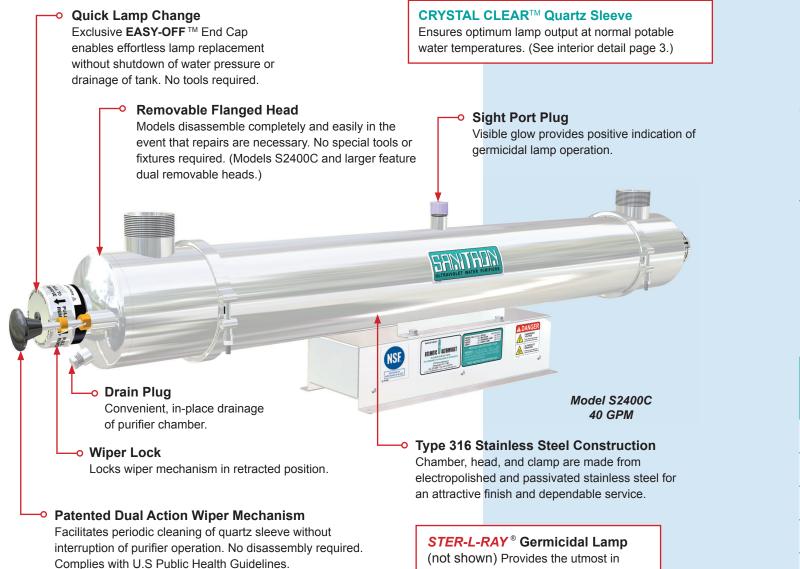
③ Translucent sight port provides positive indication of germicidal lamp operation.

④ The wiper assembly facilitates periodic cleaning of the quartz sleeve without any disassembly or interruption of purifier operation.

(5) Water leaving the purifier is instantly ready for use.

SPECIAL FEATURES

COMMERCIAL & INDUSTRIAL



INSTALLATION & MAINTENANCE

The purifier is installed horizontally as close as possible to the point of use. Connection of the inlet and outlet to water supply and insertion of power plug into 3-wire GFCI grounded outlet is all that is required.

Ordinary maintenance consists of cleaning the quartz sleeve with the manual wiper once monthly or more frequently where conditions dictate. Lamp replacement is recommended every 10,000 hours of operation (approximately 14 months of continuous service).

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quaility, sustained output, and longevity.

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Flexibility

System components are readily reconfigured to meet changing flow and process requirements.

Independent Monitoring

Single lamp chamber design enables separate output monitoring of each ultraviolet lamp.

Standby Capacity

Reserve chambers permit shutdown or replacement of individual components without interruption of service.

Special Options

- Sanitary and Custom Fittings for system compatibility (Use of Sanitary Fittings does not mean High-Purity Standards are met)
- Special Configurations for TOC and ozone reduction

Model	Gallons C Per		Inlet and Outlet	Replacement	Power Consumption	Dimensions (Inches)			Shipping Data (lbs.)	
	Minute	Hour	6	Lamps		Length	Width	Height	Gross Wt.	Net Wt.
S5,000C ①	83	5,000	2" (51mm) NPT	05-1311-R (2)	280 Watts	52-1/8 (1324 mm)	17 (432 mm)	15 (381 mm)	116	85
S10,000C 2	166	10,000	2" (51mm) NPT	05-1311-R (4)	560 Watts	52-1/8 (1324 mm)	21-1/8 (537 mm)	34¾ (883 mm)	267	188
S15,000C ③	250	15,000	2" (51mm) NPT	05-1311-R (6)	840 Watts	52-1/8 (1324 mm)	21-1/8 (537 mm)	53¾ 1365 mm)	400	263
S20,000C ④	333	20,000	2" (51mm) NPT	05-1311-R (8)	1120 Watts	52-1/8 (1324 mm)	21-1/8 (537 mm)	71¾ (1822mm)	534	396
S25,000C (5)	416	25,000	2" (51mm) NPT	05-1311-R (10)	1400 Watts	52-1/8 (1324 mm)	21-1/8 (537 mm)	90¾ (2305mm)	670	520

Note: When used as directed to disinfect clear water, SANITRON® Water Purifiers provide an ultraviolet dosage in excess of 30,000 microwatt seconds per square centimeter (µWSec/cm2).

1 Two S2400C's connected in series, 1 inlet and 1 outlet.

- (2) Two S5,000C's connected in parallel, 2 inlets and 2 outlets.
- ③ Three S5,000C's connected in parallel, 3 inlets and 3 outlets.
- (4) Four S5,000C's connected in parallel, 4 inlets and 4 outlets.
- (5) Five S5,000C's connected in parallel, 5 inlets and 5 outlets.

6 All inlets and outlets are male pipe threads.

Total power consumption including ballast loss.

4

(For larger capacities please refer to our **MEGATRON®** Ultraviolet Water Disinfection catalog.)



Model S5.000C 83 GPM

Shown with supplied Interconnect piping, optional **GUARDIAN™** Digital Ultraviolet Monitors, Promate[™] Solenoid Valve, SureFLO[™] Flow Control Valve and customer supplied piping, union and shut-off valve.

> Maximum recommended operating pressure for all purifiers is 100 PSI. Pressure drop at maximum recommended flow rate is less than 5 PSI.

• Flow rates are based on Maximum Concentration Levels, shown on page 8.

• 120 Volt and 220 Volt models are standard.

• **SANITRON**[®] is available for operation on public power supplied throughout the world.

Consult factory with specific power requirements.

Models S2400C through S25,000C are available with alternate inlet/outlet fittings.



Our S2400C water purifiers are certified to NSF ®/ANSI Standard 61 & 372. They are used in modular form to build each of the models shown above.



WATER QUALITY RECOMMENDATIONS

Maximum Concentration Levels Before Ultraviolet

Turbidity	5 NTU
Suspended Solids	10 mg/L
Color	None
Iron	0.3 mg/L
Manganese	0.05 mg/L
рH	6.5 – 9.5
Hardness	6 gpg

Effectively treating water with higher concentration levels than listed above can be accomplished, but may require added measures to improve water quality to treatable levels.

Model	Gallons Per	Gallons Per	Inlet and Outlet	Replacement	Power Consumption	Dimensions (Inches)			Shipping Data (lbs.)		
		Minute	Hour	1	Lamps	2	Length	Width	Height	Gross Wt.	Net Wt.
	S17A	3	180	3/4" (19mm) NPT	05-1098-R	18 Watts	17-3/8 (441mm)	4-5/16 110 mm)	8-3/16 (208 mm)	11	8
	S23A	6	360	3/4" (19mm) NPT	05-1097-R	25 Watts	23-3/8 (594mm)	4-5/16 (110 mm)	8-3/16 (208 mm)	13	12
NSF	S37C	12	720	1" (25mm) NPT	05-1343-R	48 Watts	37-3/8 (949 mm)	5-11/16 (144 mm)	9-1/2 (241mm)	25	25
NSF	S50C	20	1,200	1-1/2" (38mm) NPT	05-1334-R	65 Watts	50-3/8 (1280mm)	5-11/16 (144 mm)	9-1/2 (241mm)	34	29
NSF	S2400C	40	2,400	2" (51mm) NPT	05-1311-R	140 Watts	52-1/8 (1324 mm)	6-5/8 (168 mm)	11-1/8 (283mm)	40	36

Note: When used as directed to disinfect clear water, SANITRON® Water Purifiers provide an ultraviolet dosage in excess of 30.000 microwatt seconds per square centimeter (µWSec/cm2).

1 All inlets and outlets are male pipe threads. 2 Total power consumption including ballast loss.

NSE Certified to NSF ®/ANSI 61 & 372

- Maximum recommended operating pressure for all purifiers is 100 PSI.
- Pressure drop at maximum recommended flow rate is less than 5 PSI.
- Flow rates are based on Maximum Concentration Levels.
- 120 Volt and 220 Volt models are standard.
- 12 and 24 Volt models are also available for S17A, S23A and S37C
- **SANITRON**[®] is available for operation on public power supplied throughout the world.
- Consult factory with specific power requirements.
- Model S2400C is available with alternate inlet/outlet fittings

OPTIONAL ACCESSORIES

MONITORING OPTIONS

Promate[™] Audio Alarm Activated by the SENTRY[™] or **GUARDIAN™** and alerts user to any malfunction detected

Promate™ **Elapsed Time Indicator** Real-time, non-resettable display of accumulated operating hours

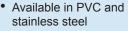
Promate[™] Solenoid Valve Operates with the **GUARDIAN**[™]

or **SENTRY**[™] and prevents flow during detected malfunctions

Promate[™] Time Delay Mechanism Operates with **GUARDIAN**[™] or SENTRY[™] and Promate[™] solenoid valve to provide a 2-minute warm-up period for lamp to achieve full germicidal output

SureFLO[™] Flow Control Valve

• Limits water flow to rated capacities



Promate[™] Wall Mounting Kit

- · Stainless steel material provides professional finish
- Pre-drilled and ready for quick and easy mounting of water purifier
- Optimizes free air circulation to cool ballast housing

QUANTUM[™] Thermal Optimizer

Used to help regulate the water temperature inside the purifier's chamber

Promate[™] Safety Glasses

Safety eyewear should be used as general-purpose safety protection and for additional shielding from germicidal ultraviolet rays.

Promate[™] Face Shield

Lightweight visor with adjustable headqear provides eve and face protection from germicidal ultraviolet ravs.





Options may either be obtained when purchase of SANITRON® Ultraviolet Water Purifier is made, or added at a later date. For further details, visit Ultraviolet.com and BuyUltraviolet.com.

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The **GUARDIAN™** Ultraviolet Monitors are available in three models: Analog. Digital, and Digital Remote, and can either be purchased and installed with a UV water purifier, or at a later date for an existing installation.

The **GUARDIAN**[™] Ultraviolet Monitor visually indicates the level of germicidal ultraviolet energy that penetrates the quartz sleeve and water within the water purifier. The use of an ultraviolet monitor is recommended by the United States Public Health Service in "Criteria for the Acceptability of an Ultraviolet Disinfection Unit."

GUARDIAN™ Ultraviolet Monitors will detect reduction of ultraviolet levels due to:

 Fouling or deposits on the quartz sleeve.

- Poor ultraviolet transmission through the water. Color, turbidity, and organic or other impurities in the water can reduce or interfere with the transmission of ultraviolet rays.
- · Lamp outage or ballast failure.
- · Depreciation of the lamp output due to usage or other cause. Lamp output gradually depreciates with use. Lamp replacement is recommended once a year or every 10,000 hours.

All **GUARDIAN**[™] Ultraviolet Monitors provide outputs to control the operation of an optional Promate[™] Solenoid Valve and/or optional Promate[™] Remote Audio Alarm.

Analog - Direct Mount GUARDIAN[™] Ultraviolet Monitor is available in two voltage configurations: 120v 50/60Hz and 220-240v 50/60Hz, and can be mounted directly to the water purifier using a standard guartz probe.

Digital - Direct Mount GUARDIAN[™] Ultraviolet Monitor is available in two Low Voltage Models: a 12v Model, and a 110/220v Model which uses a multi-plug configuration 12v adapter to operate. This model also provides several outputs for remote monitoring of the water purifier operation:

• 4-20mA Output: Provides current for remote display of ultraviolet intensity.

• Dry Contacts: Provide contacts for remote indication of ultraviolet trip levels.

12v DC Output: Provides power for a low-voltage external audio alarm.

RJ45 Modular Jack Adapter and RJ45 Modular Cable

Digital Remote - Remote Mount GUARDIAN™ Ultraviolet Monitor is intended for use in locations away from the water purifier it is monitoring. In all other respects, the remote monitor operates in the same manner as the standard Digital **GUARDIAN™** Ultraviolet

GUARDIAN™ ASSIST Ultraviolet Monitor Extension - Designed to remotely indicate the intensity level displayed on the **GUARDIAN**[™] Ultraviolet Monitor.

The STERALERT[™] Lamp Status Alarm monitors visible light emitted through the sight port plug of the water purifier and activates an audible alarm when visible light fails.

• Easy installation, no tools required

- Mounts on the sight port plug
- · Operates on a 9v battery
- Monitors the visible light emitted by the ultraviolet lamp (does not monitor the
- ultraviolet intensity)

· Available with Dry Contact for connection to PLC

· Produces a high frequency tone, pulsed at

· Optional Remote Sounder available

two to three cycles per second

 Optional 120v 60Hz Power Adapter available

• Warns of lamp or power failure

The SENTRY[™] Safety Sensor provides constant monitoring of the water purifier's ballast and germicidal lamp operation to give an indication of ballast and germicidal lamp status. The SENTRY[™] Safety Sensor is capable of operating an optional Promate[™] Audio Alarm and/or Promate[™] Solenoid Valve.

• Easy installation - Plug SENTRY[™] into an electrical outlet, and then plug water purifier into SENTRY™

 Operates optional **Promate**[™] Solenoid Valve and/or **Promate**[™] Audio Alarm • Warns of lamp failure and is easily adaptable for use with other water purifier brands Available for 120v 50/60Hz and 220v 50/60Hz water purifiers operating with electronic ballasts

ULTRAVIOLET DOSAGE

Germicidal lamps provide effective protection against microorganisms. A small cross-section is shown below.

ORGANISM	ALTERNATE NAME	TYPE	DISEASE	DOSE*
Bacillus subtilis spores	B. subtilis	Bacteria		22,000
Bacteriophage	Phage	Virus		6,600
Coxsackie virus		Virus	Intestinal infection	6,300
Shigella spores		Bacteria	Bacterial Dysentery	4,200
Escherichia coli	E. coli	Bacteria	Food poisoning	6,600
Fecal coliform		Bacteria	Intestinal infection	6,600
Hepatitis A virus	Infectious Hepatitis virus	Virus	Hepatitis of the liver	8,000
Influenza virus	Flu virus	Virus	Influenza	6,600
Legionella pneumophila		Bacteria	Legionnaires' Disease	12,300
Salmonella typhi		Bacteria	Typhoid Fever	7,000
Staphylococcus aureus	Staph	Bacteria	Food poisoning, Toxic Shock Syndrome, etc.	6,600
Streptococcus spores	Strep	Bacteria	Strep throat	3,800

When used as directed to disinfect clear water, SANITRON® Water Purifiers provide an ultraviolet dosage in excess of 30,000 microwatt seconds per square centimeter (µWSec/cm²).

* Nominal Ultraviolet dosage (µWSec/cm²) necessary to inactivate better than 99% of specific microorganism. Consult factory for more complete listing.

250

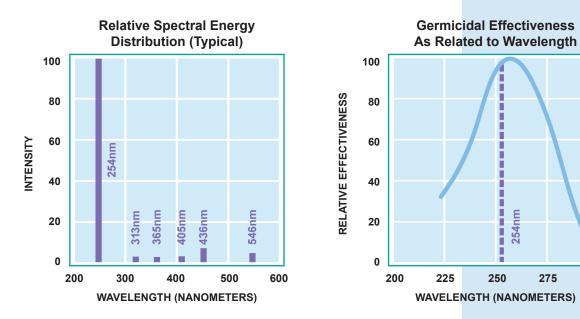
275

300

ATLANTIC U ULTRAVIOLEI **CORPORATION**[®]

SINCE 1963

OPERATING CHARACTERISTICS



Approximately 95% of the ultraviolet energy emitted from STER-L-RAY® germicidal lamps is at 254 nanometers, the region of germicidal effectiveness most destructive to bacteria, mold and virus.

GENUINE STER-L-RAY® GERMICIDAL LAMPS

STER-L-RAY[®] Germicidal Lamps are shortwave, low pressure tubes that produce ultraviolet wavelengths lethal to microorganisms.

STER-L-RAY® Germicidal Lamps are well suited to applications requiring high ultraviolet intensity such as water purification.

STER-L-RAY® Instant Start Germicidal Lamps are instant starting and utilize a coil filament on each end which operates hot. Lamp life is governed by the life of the electrodes and is affected by the frequency of starting.

STER-L-RAY® Preheat Germicidal Lamps are operated by a preheat-start circuit that employs an economical ballast. The preheat circuit requires four electrical connections per lamp and a slight to moderate delay is needed to start the lamp.

STER-L-RAY® GX Germicidal Lamps yield up to 2/3 more ultraviolet output than standard lamps of the same length.

STER-L-RAY[®] and the STER-L-RAY[®] logo are trademarks of Atlantic Ultraviolet Corporation[®].

CAUTION: Exposure to direct or reflected germicidal ultraviolet rays will cause painful eye irritation and reddening of the skin. Persons subject to such exposure must wear suitable face shield, gloves and protective clothing.

Hg - LAMP CONTAINS MERCURY, manage in accord with disposal laws, see: LampRecycle.org.

GERMICIDAL LAMP DATA

Lamp Number	Purifier Model No.	Nominal Lamp Length	Power Consumption 1	Ultraviolet Output ②	Rated Effective Life
05-1098-R	S17A	117/ ₈ " (302mm)	14 Watts	4.0 Watts	10,000 Hrs
05-1097-R	S23A	17 ³/ ₄ " (451mm)	21 Watts	7.3 Watts	10,000 Hrs
05-1343-R	S37C	33 ⁷ / ₈ " (860mm)	41 Watts	15.0 Watts	10,000 Hrs
05-1334-R	S50C	45 ⁷ / ₈ " (1165mm)	55 Watts	21.0 Watts	10,000 Hrs
05-1311-R ③	S2400C & Larger	46 ¹ / ₄ " (1175mm)	110 Watts	48.0 Watts	10,000 Hrs

① Wattage is lamp watts only and does not include ballast loss (approximate).

(2) Maximum rated output at 254 nanometers.

3 Patented by Atlantic Ultraviolet Corporation[®].

The lamps listed above have been especially developed and are recommended for use with SANITRON® Water Purifiers.

In addition, has advantage of high efficiency and low power requirements.

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- All STER-L-RAY® lamps used in SANITRON® models are low pressure type which afford the maximum efficiency in producing the required germicidal rays.