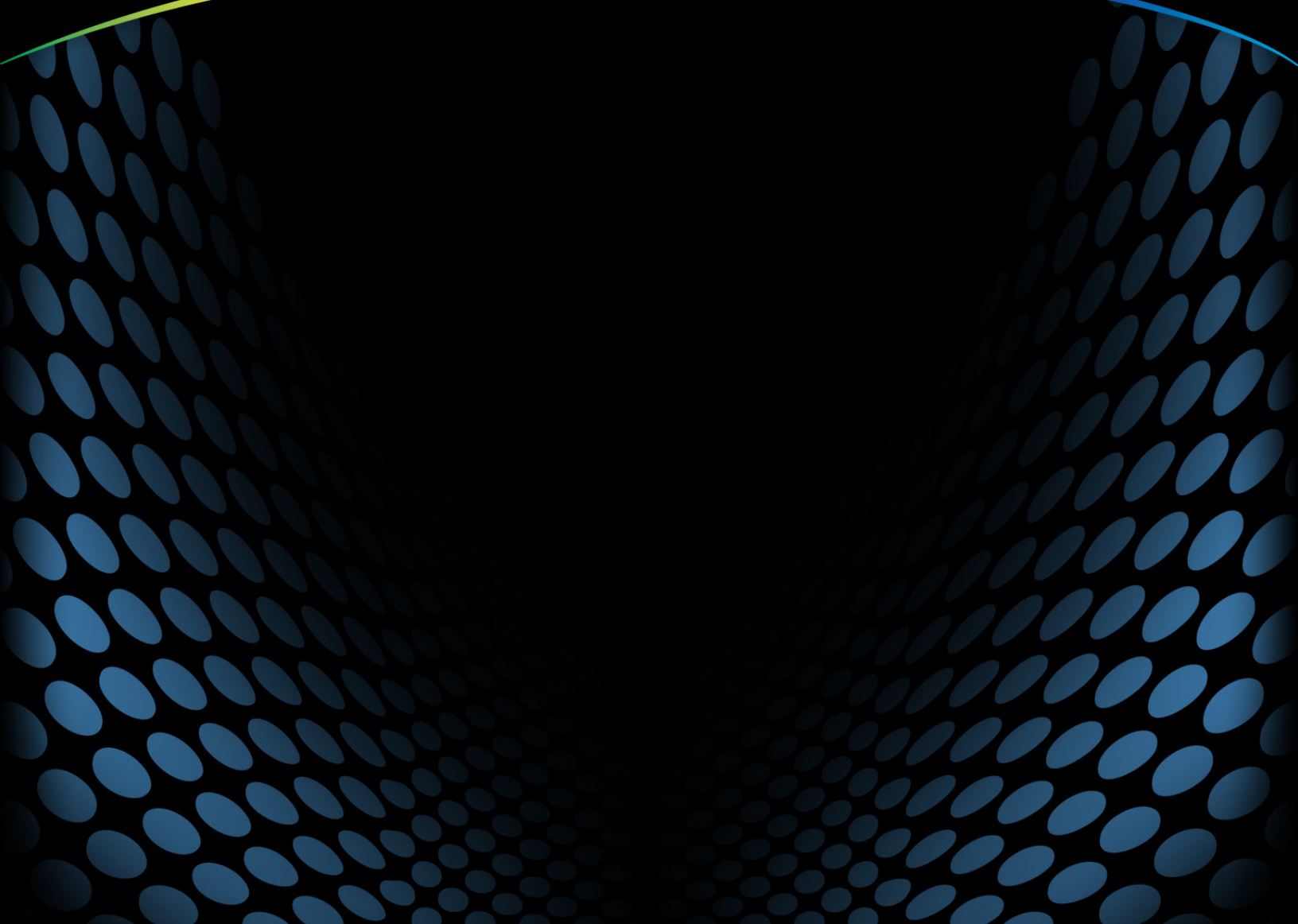




**POLARIS**<sup>TM</sup>

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**SCIENTIFIC | UV**



# POLARIS™

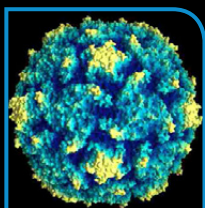
## SCIENTIFIC | UV



Bacillus



Cyanobacteria



Polio



Cryptosporidium



E. Coli



Shigella

Eliminating microorganisms in your water\*

\* These microorganisms may/may not exist in your household water. It is important that you have your water tested to identify microorganisms and/or contaminants, if any.

### SAFE

- No need to handle toxic or corrosive chemicals or by-products
- Microbiologically free water without the use of potentially dangerous chemicals
- UV imparts no change in taste, odor, pH or conductivity
- No trihalomethanes (THM's) formation

### SIMPLE

- Fast and simple installation with three connections (two water and one electrical).
- Maintenance involves annual lamp replacement (provided water quality parameters are met) with no need to turn off water flow.
- Automatic, unattended and user friendly operation.

### EFFICIENT

- Compact units with 304 or 316 (upon request) stainless steel reactor chamber, polished for laboratory and medical use, require minimum space.
- Microorganisms are inactivated within seconds; eliminates the need for long retention times or retention tanks.
- Very low power consumption; less than 40-watt bulb to effectively treat from 1 to 100 gallons per minute.
- High output low pressure mercury vapor lamps with high isolation pin.
- Little change in water temperature even after prolonged periods of no water flow.
- Open end high quality quartz sleeve and stainless steel gland units.

### ECONOMICAL

- No moving parts to wear out or break.
- Lower capital investment when compared to chlorine or ozone systems.



# POLARIS™

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## SCIENTIFIC | UV

**Polaris Scientific Ultraviolet Systems** have a sleek, compact design and provide cost effective ultraviolet water sterilization for low to medium flow applications. Polaris Scientific UV's are perfect for residential and light commercial reverse osmosis systems, water vending machines, food industry, laboratory, final electronic component rinsing and recirculation loops to name a few.

**Polaris Scientific Ultraviolet Systems** produce little change in water temperature even after prolonged periods of no water flow, making them ideal for many application requirements.



Your **best** choice in Ultraviolet Sterilization

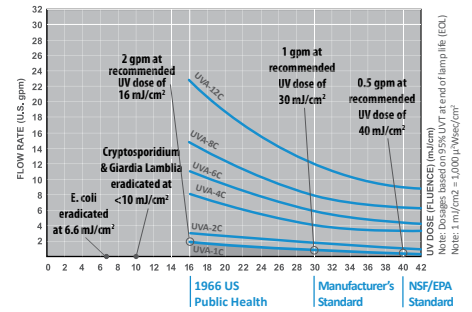
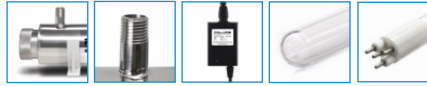
**POLARIS SCIENTIFIC UVA-1C**

**PARTS & ACCESSORIES**

Electronic Ballast	Quartz Sleeve	Lamp
BEB-1024	QS10	GL10PP
Additional Accessories Specific to Your UV System		
UV-NUT-1	UV-SEAL	UV-WASHER



UVA-1C



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
1	9,000	10W	110V/220V	LED	BUZZER	1	1/4" MNPT	STAINLESS 304	10.47"	2"	125 PSI	35°F- 104°F	254 nm	30 ml/cm²

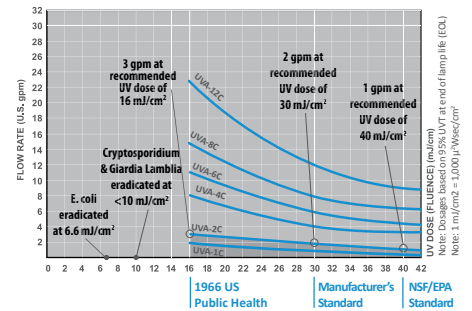
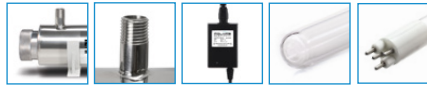
**POLARIS SCIENTIFIC UVA-2C**

**PARTS & ACCESSORIES**

Electronic Ballast	Quartz Sleeve	Lamp
BEB-1024	QS14	GL14PP
Additional Accessories Specific to Your UV System		
UV-NUT-1	UV-SEAL	UV-WASHER



UVA-2C



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
2	9,000	14W	110V/220V	LED	BUZZER	1	1/4" MNPT	STAINLESS 304	13.74"	2.5"	125 PSI	35°F- 104°F	254 nm	30 ml/cm²

**POLARIS SCIENTIFIC UVA-4C**

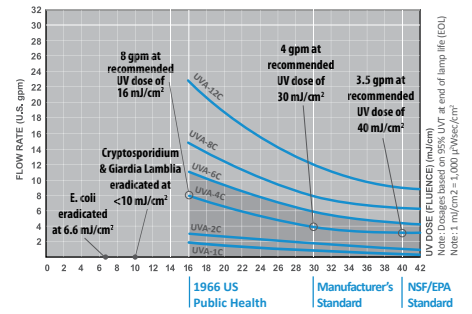
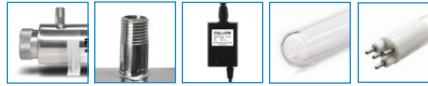
**PARTS & ACCESSORIES**

Electronic Ballast	Quartz Sleeve	Lamp
BEB-1024	QS17	GL17PP

Additional Accessories Specific to Your UV System		
UV-NUT-1	UV-SEAL	UV-WASHER



UVA-4C



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Length	Width	Maximum Pressure	Working Temp.	Wave-length	Microjoules
4	9,000	17W	110V/220V	LED	BUZZER	1	1/2" MNPT	STAINLESS 304	15.50"	2.5"	125 PSI	35°F- 104°F	254 nm	30 mJ/cm²

**POLARIS SCIENTIFIC UVA-6C**

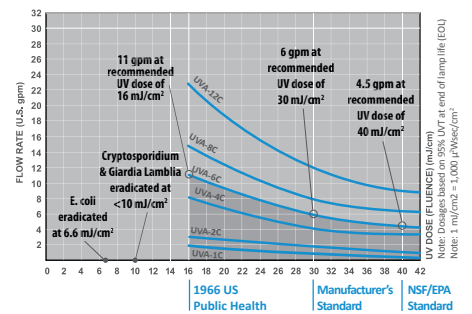
**PARTS & ACCESSORIES**

Electronic Ballast	Quartz Sleeve	Lamp
BEB-2439	QS24	GL24PP

Additional Accessories Specific to Your UV System			
UV-NUT-1 / UV-NUT-2	UV-SEAL	UV-WASHER	UV-PLUG



UVA-6C



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
6	9,000	24W	110V/220V	LED	INDICATOR W/ ALARM	1	1/2" MNPT	STAINLESS 304	23.23"	2.5"	125 PSI	35°F- 104°F	254 nm	30 mJ/cm²

**POLARIS SCIENTIFIC UVA-8C**

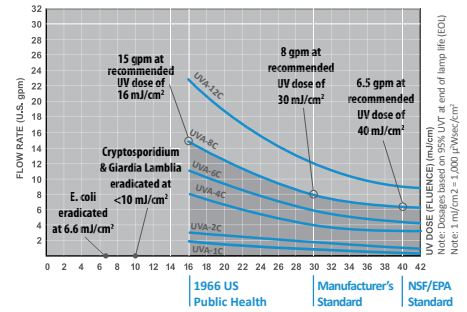
**PARTS & ACCESSORIES**

Electronic Ballast	Quartz Sleeve	Lamp
BEB-2439	QS32	GL32PP

Additional Accessories Specific to Your UV System		
UV-NUT-1 / UV-NUT-2	UV-32SPRING	UV-SEAL
UV-WASHER	UV-PLUG	



UVA-8C



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
8	9,000	32W	110V/220V	LED	INDICATOR W/ALARM	1	3/4" MNPT	STAINLESS 304	27.87"	2.5"	125 PSI	35°F- 104°F	254 nm	30 mJ/cm <sup>2</sup>

**POLARIS SCIENTIFIC UVA-12C**

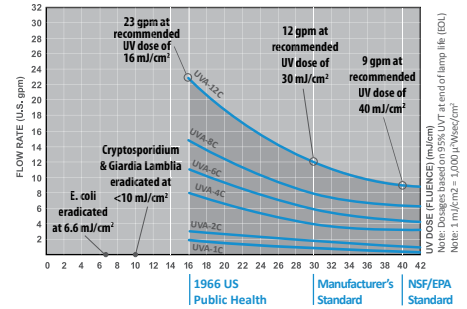
**PARTS & ACCESSORIES**

Electronic Ballast	Quartz Sleeve	Lamp
BEB-2439	QS39	GL39PP

Additional Accessories Specific to Your UV System		
UV-NUT-1 / UV-NUT-2	UV-39SPRING	UV-SEAL
UV-WASHER	UV-PLUG	



UVA-12C



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
12	9,000	39W	110V/220V	LED	INDICATOR W/ALARM	1	3/4" MNPT	STAINLESS 304	36.81"	2.5"	125 PSI	35°F- 104°F	254 nm	30 mJ/cm <sup>2</sup>

**POLARIS SCIENTIFIC UVA-24B**

**PARTS & ACCESSORIES**

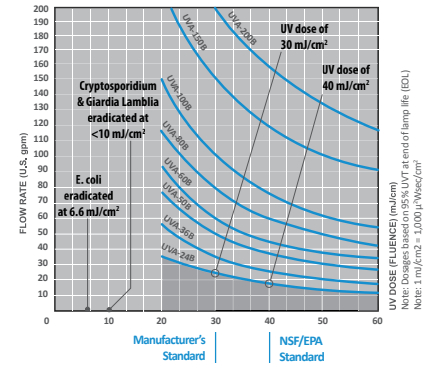
Electronic Ballast	Quartz Sleeve	Lamp
ZEB-2439	QS39	GL39PP

**Additional Accessories Specific to Your UV System**

UV-NUT-1 / UV-NUT-2	UV-39SPRING	UV-SEAL
UV-WASHER	UV-PLUG	UV-TIMER



UVA-24B



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Timer	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
24	9,000	39W	110V/220V	LED	INDICATOR W/ALARM	2	1" MNPT	STAINLESS 304	✓	36.93"	3.5"	125 PSI	35°F - 104°F	254 nm	30 mJ/cm²

**POLARIS SCIENTIFIC UVA-36B**

**PARTS & ACCESSORIES**

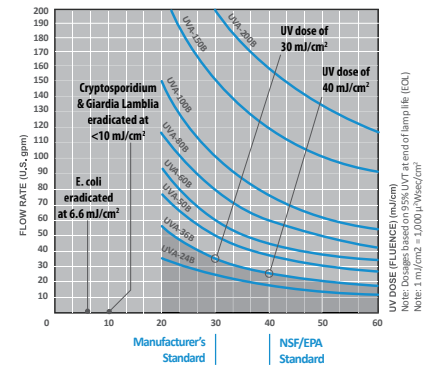
Electronic Ballast	Quartz Sleeve	Lamp
ZEB-2439	QS39	GL39PP

**Additional Accessories Specific to Your UV System**

UV-NUT-1 / UV-NUT-2	UV-39SPRING	UV-SEAL
UV-WASHER	UV-PLUG	UV-TIMER



UVA-36B



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Timer	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
36	9,000	39W	110V/220V	LED	INDICATOR W/ ALARM	3	1.5"	STAINLESS 304	✓	36.93"	5.5"	125 PSI	35°F - 104°F	254 nm	30 mJ/cm²

NOTE: Flanges available upon request.

**POLARIS SCIENTIFIC UVA-50B**

**PARTS & ACCESSORIES**

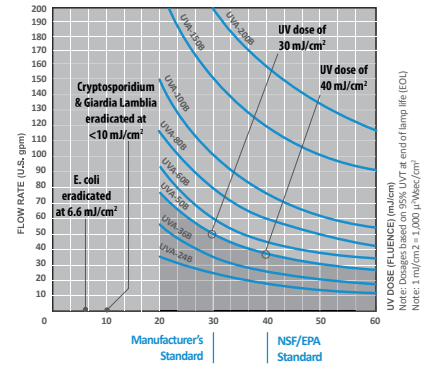
Electronic Ballast	Quartz Sleeve	Lamp
ZEB-2439	QS39	GL39PP

**Additional Accessories Specific to Your UV System**

UV-NUT-1 / UV-NUT-2	UV-39SPRING	UV-SEAL
UV-WASHER	UV-PLUG	UV-TIMER



UVA-50B



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Timer	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
50	9,000	39W	110V/220V	LED	INDICATOR W/ALARM	4	1.5"	STAINLESS 304	✓	36.93"	5.5"	125 PSI	35°F- 104°F	254 nm	30 mJ/cm²

NOTE: Flanges available upon request.

**POLARIS SCIENTIFIC UVA-60B**

**PARTS & ACCESSORIES**

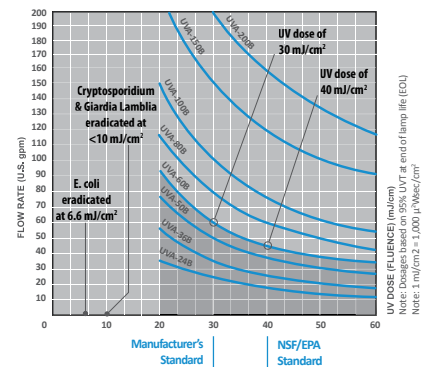
Electronic Ballast	Quartz Sleeve	Lamp
ZEB-2439	QS39	GL39PP

**Additional Accessories Specific to Your UV System**

UV-NUT-1 / UV-NUT-2	UV-39SPRING	UV-SEAL
UV-WASHER	UV-PLUG	UV-TIMER



UVA-60B



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Timer	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
60	9,000	39W	110V/220V	LED	INDICATOR W/ ALARM	5	2" or 2.5" FLANGE	STAINLESS 304	✓	36.93"	5.5"	125 PSI	35°F- 104°F	254 nm	30 mJ/cm²



**POLARIS SCIENTIFIC UVA-80B**

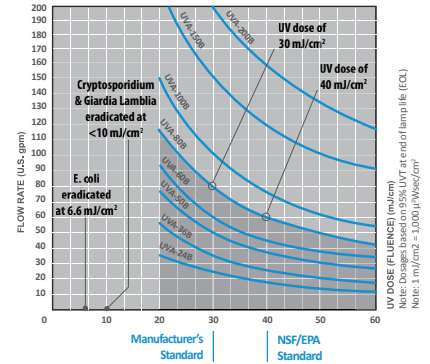
**PARTS & ACCESSORIES**

Electronic Ballast	Quartz Sleeve	Lamp
ZEB-2439	QS39	GL39PP

Additional Accessories Specific to Your UV System		
UV-NUT-1 / UV-NUT-2	UV-39SPRING	UV-SEAL
UV-WASHER	UV-PLUG	UV-TIMER



UVA-80B



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Timer	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
80	9,000	39W	110V/220V	LED	INDICATOR W/ALARM	6	2" or 2.5" FLANGE	STAINLESS 304	✓	36.93"	6.26"	125 PSI	35°F- 104°F	254 nm	30 mJ/cm <sup>2</sup>

**POLARIS SCIENTIFIC UVA-100B**

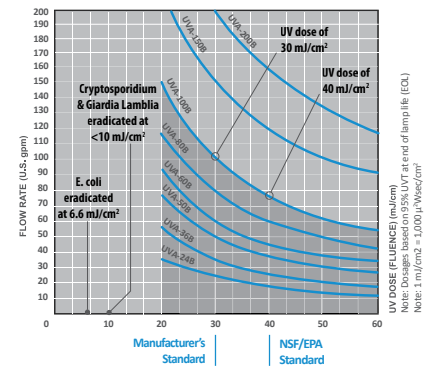
**PARTS & ACCESSORIES**

Electronic Ballast	Quartz Sleeve	Lamp
ZEB-2439	QS39	GL39PP

Additional Accessories Specific to Your UV System		
UV-NUT-1 / UV-NUT-2	UV-39SPRING	UV-SEAL
UV-WASHER	UV-PLUG	UV-TIMER



UVA-100B



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Timer	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
100	9,000	39W	110V/220V	LED	INDICATOR W/ALARM	8	2" or 2.5" FLANGE	STAINLESS 304	✓	36.93"	8.62"	125 PSI	35°F- 104°F	254 nm	30 mJ/cm <sup>2</sup>

**POLARIS SCIENTIFIC UVA-150B**

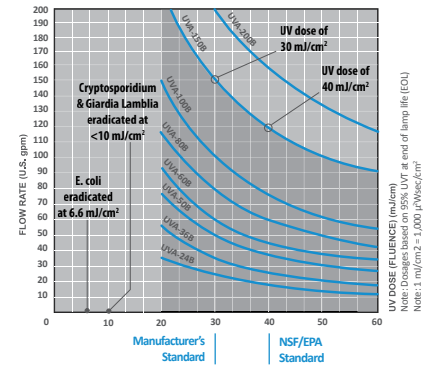
**PARTS & ACCESSORIES**

Electronic Ballast	Quartz Sleeve	Lamp
ZEB-55155	QS39	GL87PP

Additional Accessories Specific to Your UV System		
UV-NUT-1 / UV-NUT-2	UV-39SPRING	UV-SEAL
UV-WASHER	UV-PLUG	UV-TIMER



UVA-150B



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Timer	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
150	9,000	87W	110V/220V	LED	INDICATOR W/ALARM	6	3" FLANGE	STAINLESS 304	✓	36.93"	8.62"	125 PSI	35°F - 104°F	254 nm	30 mJ/cm <sup>2</sup>

**POLARIS SCIENTIFIC UVA-200B**

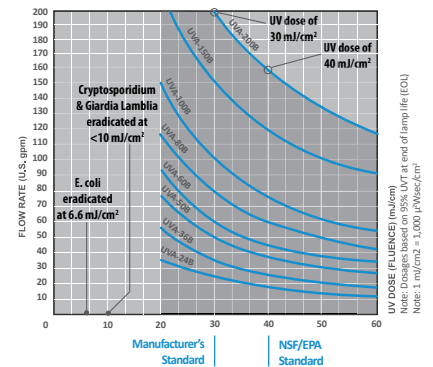
**PARTS & ACCESSORIES**

Electronic Ballast	Quartz Sleeve	Lamp
ZEB-55155	QS39	GL87PP

Additional Accessories Specific to Your UV System		
UV-NUT-1 / UV-NUT-2	UV-39SPRING	UV-SEAL
UV-WASHER	UV-PLUG	UV-TIMER



UVA-200B



GPM	Rated Life (hours)	Lamp Watts	Voltage @ 50/60HZ	Visual Warning	Audible Warning	Number of Lamps	Port Size Inlet/Outlet	Water Chamber	Timer	Length	Width	Maximum Pressure	Working Temp.	Wavelength	Microjoules
200	9,000	87W	110V/220V	LED	INDICATOR W/ALARM	8	4" FLANGE	STAINLESS 304	✓	36.93"	8.62"	125 PSI	35°F - 104°F	254 nm	30 mJ/cm <sup>2</sup>



**UV-NUT-1**  
Aluminum Long Nut  
for Wire Connection  
for Models UVA-1C – UVA-200B



**UV-NUT-2**  
Aluminum Short Nut  
with End Plug  
for Models UVA-6C – UVA-200B



**UV-PLUG**  
Plastic Plug for Nuts  
for Models  
UVA-6C – UVA-200B



**UV-SEAL**  
Seal for Sleeve and Nut  
for Models  
UVA-1C – UVA-200B



**UV-WASHER**  
Washer for Sleeve and Nut  
for Models  
UVA-1C – UVA-200B



**UV-TIMER**  
Counter/Timer  
for Models UVA-24B – UVA-200B



**UV-32SPRING**  
Stainless Steel Spring  
for Model  
UVA-8C



**UV-39SPRING**  
Stainless Steel Spring  
for Models  
UVA-12C – UVA-200B



**BEB-1024**  
Ballast for  
10W-17W 110V/220V  
for Models UVA-1C – UVA-4C



**BEB-2439**  
Ballast for  
24W-39W 110V/220V  
for Models UVA-6C – UVA-12C



**ZEB-2439**  
Ballast no cup expose wires  
for 24W-39W 110V/220V  
for Models UVA-24B – UVA-100B



**ZEB-55155**  
Ballast for  
87W 110V/220V  
for Models UVA-150B – UVA-200B



**QS10**  
Quartz Sleeve 245mm  
for 10W UV Lamp  
for Model UVA-1C

**QS17**  
Quartz Sleeve 338mm  
for 17W UV Lamp  
for Model UVA-4C

**QS32**  
Quartz Sleeve 665mm  
for 32W UV Lamp  
for Model UVA-8C

**QS14**  
Quartz Sleeve 331mm  
for 14W UV Lamp  
for Model UVA-2C

**QS24**  
Quartz Sleeve 535mm  
for 24W UV Lamp  
for Model UVA-6C

**QS39**  
Quartz Sleeve 890mm  
for 39W UV Lamp  
for Models UVA-12C – UVA-200B



**GL10PP**  
10W 212mm Germicidal Lamp  
Single End Patented 4 Pin 254nm  
for Models UVA-1C

**GL14PP**  
14W 287mm Germicidal Lamp  
Single End Patented 4 Pin 254nm  
for Model UVA-2C

**GL24PP**  
24W 436mm Germicidal Lamp  
Single End Patented 4 Pin 254nm  
for Model UVA-6C

**GL32PP**  
32W 645mm Germicidal Lamp  
Single End Patented 4 Pin 254nm  
for Model UVA-8C

**GL39PP**  
39W 843mm Germicidal Lamp  
Single End Patented 4 Pin 254nm  
for Models UVA-12C – UVA-100B

**GL87PP**  
87W 843mm Germicidal Lamp  
Single End Patented 4 Pin 254nm  
for Models UVA-150B – UVA-200B

### U.S. Patent Number: D751506

*Polaris Scientific UV and the Polaris Scientific UV logo design are registered Trademarks in the United States and certain other countries.*

*The Polaris Scientific UV Germicidal Lamp Pin Design is patented under United States Patent Number; D751506, and is protected by U.S. Patent and Trademark laws.*

**Polaris Scientific UV™** Sterilization Systems utilize a natural quartz sleeve to protect the lamp and allow the maximum amount of UV rays to penetrate and disinfect the water.

**Polaris Scientific UV™** Sterilization Systems germicidal lamps are specially designed UV radiation lamps which produce a rated wave length of 254nm.

**Polaris Scientific UV™** Sterilization Systems are your best choice in UV sterilization. With its durable construction, high quality quartz sleeve and performance lamps, *you can't go wrong.*

### FEATURES

- ✓ Audible ballast with LED lamp out indicator.
- ✓ High output low pressure mercury vapor lamps with high isolation pin design.
- ✓ Open end quartz sleeve and stainless steel gland units.
- ✓ Operating temperature and sealing efficiency.
- ✓ Limited 5-year warranty on stainless steel housing.
- ✓ Limited 1-year warranty on electronics.

**POLARIS**<sup>™</sup>  
SCIENTIFIC | UV



**5-YEAR LIMITED WARRANTY  
FOR POLARIS ULTRAVIOLET UV CHAMBER**

POLARIS Ultraviolet warrants the UV chamber on the POLARIS Ultraviolet product to be free from defects in material and workmanship for a period of five (5) years from the date of purchase. During this time, we will repair or replace, at its option, any defective POLARIS Ultraviolet chamber. Please return the defective part to the POLARIS Ultraviolet dealer you purchased your system from, who will return it to POLARIS Ultraviolet. We will either make the necessary repairs or, if it is determined that a replacement is required, we will provide a replacement part. We will then return the part to the dealer. This warranty does not include shipping and handling charges which will be collected from you by the dealer. Parts repaired or replaced under this five (5) year warranty will be covered under warranty to the end of the original five (5) year warranty period. This warranty is also subject to the conditions and limitations outlined under the heading "General Conditions and Limitations" below.

**ONE-YEAR LIMITED PRO-RATED WARRANTY  
FOR STRUCTURAL, HARDWARE AND ELECTRICAL COMPONENTS**

POLARIS Ultraviolet warrants the structural, hardware, and electrical components to be free from defects in material and workmanship for a period of one (1) year pro-rated from the date of purchase. During this time, we will repair or replace, at its option, any defective parts covered by the warranty. Defective part(s) should be returned to a POLARIS Ultraviolet dealer, who will return it to POLARIS Ultraviolet. We will either make the necessary repairs or, if it is determined that a replacement is required, we will provide a replacement part. We will then return the part to the dealer. This warranty does not include shipping and handling charges which will be collected from you by the dealer. Parts repaired or replaced under this one (1) year pro-rated warranty will be covered under warranty to the end of the original one (1) year pro-rated warranty period. This warranty is also subject to the conditions and limitations outlined under the heading

"General Conditions and Limitations" below.

**ONE-YEAR LIMITED WARRANTY FOR LAMPS, SLEEVES AND UV SENSORS**  
POLARIS Ultraviolet warrants original lamps, sleeves and UV sensors to be free from defects in material and workmanship for a period of one (1) year from the date of purchase. During this time, we will repair or replace, at its option, any defective parts covered by the warranty. The warranty period for lamps and sleeves may be verified using date codes in addition to purchase receipts and POLARIS Ultraviolet's database of serial number sales date. We will advise you whether the defective item needs to be returned to the POLARIS Ultraviolet dealer you purchased the equipment from for failure analysis. Replacement lamps and sleeves provided under warranty will be sent to your POLARIS Ultraviolet dealer. If the UV sensor experiences a problem which POLARIS Ultraviolet confirms is covered by warranty, please return the sensor to a POLARIS Ultraviolet dealer you purchased the equipment from who will return it to us. We will either repair or replace the sensor and return the sensor to your dealer. This warranty on lamps, sleeves and sensors does not include shipping and handling charges which will be collected from you by the dealer. Parts replaced under this one (1) year warranty will be covered under warranty to the end of the original one (1) year warranty period. This warranty is also subject to the conditions and limitations outlined under the heading "General Conditions and Limitations" below.

**GENERAL CONDITIONS AND LIMITATIONS**

None of the above warranties cover damage caused by improper use or maintenance, accidents, acts of God or minor scratches or imperfections that do not materially impair the operation of the product. The warranties also do not cover products that are not installed as outlined in the applicable Owner's Manual. POLARIS Ultraviolet System warranty will be deemed null and void if any of the product labels are removed, including the pressure sensitive hologram serial number. The limited warranties described above are the only warranties applicable to the POLARIS Ultraviolet

products listed in the "Specific Warranty Coverage" section. These limited warranties outline the exclusive remedy for all claims whether based on contract, tort (including negligence), strict liability or otherwise. Disclaimer of warranties. Except as expressly warranted in writing by POLARIS Ultraviolet, the goods sold by POLARIS Ultraviolet are purchased by the buyer "as is." POLARIS Ultraviolet does not warrant that the goods are of merchantable quality or that they can be used for any particular purpose. Except as expressly warranted in writing by POLARIS Ultraviolet, POLARIS Ultraviolet makes no representation or warranty of any kind with respect to the products.

**Limitation of liability.** In no event shall POLARIS Ultraviolet be liable to the purchaser or any other entity for more than the invoice price received by POLARIS Ultraviolet for any non-conforming products. POLARIS Ultraviolet shall not be liable to the purchaser or any other entity for personal injury, property damage, or any direct, indirect, special, incidental, consequential, punitive, exemplary, or other damages of any kind, including without limitation the cost of procurement of substitute goods, the loss of profits, products, or production, or the interruption of business, however caused and on any theory of liability, and whether or not POLARIS Ultraviolet has been advised of the possibility of such damages. The essential purpose of this provision is to limit the liability of POLARIS Ultraviolet arising out of the sale of products to the purchaser whether for breach of contract, negligence, or otherwise. These limitations shall apply notwithstanding any failure of essential purpose of any limited remedy and notwithstanding the provisions of any other agreement between POLARIS Ultraviolet and the purchaser.

**For complete Terms & Conditions see reverse side**

or in writing, shall constitute acceptance of this offer. If the Buyer, however, then accepts the terms and conditions herein, the Buyer's offer unless such contains variances in the description, quantity, price, or delivery schedule of the items.

#### 1. Terms and Conditions of Sale.

All descriptions, quotations, proposals, offers, acknowledgments, acceptances and sales of the Seller's products are subject to and shall be governed exclusively by the terms and conditions stated herein (the "Agreement"). The Buyer's acceptance of any offer to sell is limited to the terms and conditions in the Agreement. Any terms or conditions in addition to or inconsistent with those stated in the Agreement, proposed by the Buyer in any acceptance of an offer by the Seller, are hereby rejected. No such additional, different or inconsistent terms and conditions shall become part of the agreement between the Buyer and the Seller unless expressly accepted in writing by the Seller. The Seller's acceptance of any offer to purchase by the Buyer is expressly conditioned upon the Buyer's assent to all the terms and conditions in this Agreement, irrespective of any terms in addition to, or inconsistent with those contained in the Buyer's offer. Acceptance of the Seller's products shall in all events constitute such assent.

#### 2. Documents.

Unless provided otherwise in the Agreement, all catalog descriptions, illustrations, drawings and literature or independently submitted estimates of performance, weights and measurements or other specifications provided by the Seller are mere approximations and the Seller reserves the right to alter or amend them at any time. The Seller reserves the right to correct clerical or technical errors in the contract documents. The Buyer shall furnish with his order all necessary specifications and information. The Seller takes no responsibility for goods manufactured, priced or delivered not in accordance with the order or the specifications unless the Buyer's order and specifications are clear and correct.

#### 3. Prices.

Unless otherwise provided, all prices contained in our quotations and written acceptances are ex-works and do not include the cost of packing. All orders are accepted on the condition that all such prices are subject to revision by the Seller at any time before the goods are dispatched to take account of any price change. In the event that the Buyer does not place the entire order quoted by the Seller for the Buyer, the Seller reserves the right to revise its prices. The Seller also reserves the right to revise its prices if the Buyer modifies the specification or quantity of the goods or the delivery requirements after the order has been accepted by the Seller.

#### 4. Advice.

All advice given in connection with the Seller's goods is provided without charge to the Buyer. ANY ADVICE AND ASSISTANCE GIVEN BY THE SELLER TO THE BUYER IS GIVEN AT THE BUYER'S RISK, AND THE SELLER SHALL NOT BE LIABLE FOR ANY LOSS, DAMAGE OR CLAIM ARISING THEREFROM.

#### 5. Payment.

(a) Unless otherwise provided in the Agreement, or explicitly agreed upon in writing by the Seller, payment is due in full 30 days from date of shipment of the items purchased herein under. (b) In the case of an installment contract, deliveries or parts, payment for each installment delivery or part shall be made under sub-clause (a) as if the same constituted a separate agreement. (c) Amounts not timely paid shall bear interest at the rate of 2-1/2% above the Seller's bank's prime rate from time to time in force. (d) In the event that the Buyer fails within one calendar month of the date for payment to effect any payment which may be due under the Agreement or any agreement with the Seller, or if the Buyer commits any breach of the Agreement, or if the Buyer becomes insolvent or commits any act of bankruptcy or contemplation of liquidation, the Seller will be entitled, without prejudice to the Seller's other rights, to terminate the Agreement or any unfulfilled part thereof, or at the Seller's option to make partial deliveries.

#### 6. Modifications and Cancellations.

This Agreement is not subject to oral modification or cancellation. A Buyer's request for modification or cancellation will not be incorporated into the Agreement unless the request is accepted by the Seller in a writing that amends the Agreement. Acceptance of any such requested modification or cancellation shall be at the Seller's discretion and shall be upon such terms and conditions as the Seller may require.

#### 7. Handling Charge.

Goods supplied in accordance with the Buyer's order may later be returned to the Seller at the Seller's discretion provided the return is pre-authorized in writing, and the merchandise is unused, in original packages, unaltered, clean and no older than 60 days from the date of shipment by the Seller. The Buyer will be required to pay to the Seller a handling charge of 25% of the purchase price of the returned goods. A copy of the original invoice for the merchandise must accompany all returns.

#### 8. Delivery.

(a) Any delivery dates quoted are approximate only and the Seller shall have no liability for any delays in delivery. (b) Unless provided otherwise, delivery of the goods shall be made when the Seller has notified the Buyer that the goods are ready for dispatch. Regardless of the method of delivery, delivery shall be made F.O.B. Seller's plant, where the risk of loss shall thereupon pass to the Buyer upon the Seller's delivery to a carrier. Notwithstanding that the Seller's prices are ex-works, the Seller is prepared by special contract to procure carriage or freight and insurance on behalf of the Buyer and at Buyer's cost in which event the Seller shall be under no liability for damage in transit or loss or damage to the goods beyond the point at which the Seller contracts to deliver the same. (c) The Seller will not make drop shipments.

#### 9. Inspection and Rejection.

(a) The following provisions shall apply in relation to all deliveries of goods: the Seller shall not be held liable for any claims of damage in transit, shortage of delivery or loss of goods, unless in the case of shortage of delivery, a separate notice in writing is given to the carrier concerned and to the Seller within three (3) days of the receipt of the goods, followed by a complete claim in writing within five (5) days of receipt of the goods and in the case of loss of goods, a separate notice in writing is given to the carrier concerned and to the Seller and a complete claim in writing made within thirty (30) days of the date of consignment. The Buyer must inspect the goods on arrival from the carrier; however, where goods are accepted from the carrier concerned without being inspected, the delivery book of the carrier concerned must be signed "not examined". The Seller shall have the right to inspect the goods at the Buyer's premises in respect to any such claims made by the Buyer and the Buyer shall retain such goods until the Seller has inspected such goods or until the Seller has notified the Buyer that the Seller does not wish to inspect such goods. Any breach of these conditions in this provision shall serve as a waiver to any claim brought by the buyer. (b) Without prejudice to the Seller's other rights, should the Buyer fail for any reason to send the Seller forwarding instructions within ninety (90) days after the date of the Seller's notification that the goods are ready for dispatch or to accept delivery of the goods, the Seller shall be entitled at the Buyer's risk and expense to store the goods and/or to procure or effect storage of the goods elsewhere. Goods so stored shall be paid for as if they had been dispatched and/or accepted.

#### 10. Special Tooling.

Where it is necessary for the Seller to manufacture or to purchase special tooling, including without limitation tools, dies, jigs, mandrills, fixtures, molds, and patterns, in order to execute a contract, the Buyer will be charged with all or a proportion of the cost of such special tools. Such special tooling shall be and remain the Seller's property notwithstanding payment of any charges made by the Buyer. In no event will the Buyer acquire any interest in apparatus belonging to the Seller which is utilized in the manufacture of the items sold hereunder, even if such apparatus has been specially converted or adopted for such manufacture and notwithstanding any charges paid by the Buyer therefor. Unless otherwise agreed, the Seller shall have the right to alter, discard or otherwise dispose of any special tooling or other property in its sole discretion at any time.

#### 11. Test and Performance.

(a) The Seller's goods are, where practicable, submitted to the Seller's standard test before delivery. If special tests are required, these shall be made at the Buyer's premises unless otherwise agreed, and will be subject to an extra charge. (b) The Seller accepts no liability for failure to attain any performance figures quoted by the Seller unless the Seller specifically has guaranteed them with an agreed sum as liquidation damages and the Buyer has suffered actual loss by reason of the failure to attain the figures quoted. (c) Any particulars of weights and measurements, power and consumption, power output or performance relating to the goods and like matters furnished by the Seller to the Buyer in the Seller's catalogs, literature or otherwise, are approximate and are intended only to present a general idea of the goods to be supplied and unless previously agreed specifically in writing shall not form part of the Agreement.

#### 12. Buyer's Property.

Any designs, tools, patterns, materials, drawings, confidential information or equipment furnished to the Seller by the Buyer, or any other items which become the Buyer's property, may be considered obsolete and may be destroyed by the Seller after two (2) consecutive years have elapsed without the Buyer placing an order for the items which are manufactured using such property. The Seller shall not be responsible for any loss or damage to such property while it is in the Seller's possession or control.

#### 13. Taxes.

Unless otherwise indicated, all prices and charges are exclusive of excise, sales, use, property, occupational or like taxes which may be imposed by any taxing authority upon the manufacture, sale or delivery of the items sold hereunder. If any such taxes must be paid by the Seller, or if the Seller is liable for the collection of such tax, the amount thereof shall be in addition to the amounts for the item sold. The Buyer agrees to pay all such taxes or to reimburse the Seller therefor upon receipt of its invoice. If the Buyer claims exemption from any sales, use or other tax

EXCEPT AS EXPRESSLY WARRANTED IN WRITING BY THE SELLER, THE SELLER MAKES NO REPRESENTATION OR WARRANTY OF ANY KIND WITH RESPECT TO THE PRODUCTS.

(a) The Seller warrants that the items sold hereunder shall be free from defects in material or workmanship at the time of shipment by the Seller. The Seller warrants that if within 12 months of delivery of the goods to the Buyer the Buyer returns immediately to the Seller's premises any of the said goods which the Buyer believes to be defective, carrier paid, properly packed and clearly marked with the Buyer's full name and address and any other information such as serial numbers which may be necessary to enable the goods to be identified, together with a complete description of the alleged defect, they will be repaired or new goods will be supplied in exchange and the goods so repaired or such new goods will be delivered to the Buyer free of charge at the Seller's premises; provided, however, that the foregoing warranty shall be applicable only if upon demand by the Seller, the Buyer proves to the Seller's satisfaction: (i) that the defect was due solely to defective workmanship; (ii) that no alterations or repairs have been made to the goods except with the Seller's written consent; (iii) that the defect was not caused by any act of the Buyer or its agents; and (iv) that the defect was not caused by any matter beyond the reasonable control of the Seller, including, without limitation, accident or normal wear and tear. (b) THIS WARRANTY DOES NOT APPLY UNLESS THE SELLER'S PRODUCTS ARE: (i) USED IN DOMESTIC PLUMBING APPLICATIONS; (ii) INSTALLED BY A LICENSED CONTRACTOR, PLUMBER OR QUALIFIED EQUIPMENT INSTALLATION PROFESSIONAL; AND (iii) INSTALLED AND OPERATED IN ACCORDANCE WITH PUBLISHED HYDROFIT / HYDRONUX WATER TECHNOLOGY SPECIFICATIONS. (c) All costs and expenses, including freight charges, customs duties, and insurance incurred in returning the goods to the Seller's premises in accordance with this provision shall be paid by the Buyer. The benefit of this warranty shall not be assignable by the Buyer. (d) THIS WARRANTY DOES NOT EXTEND TO ANY GOODS NOT MANUFACTURED BY THE SELLER EVEN THOUGH SUPPLIED BY THE SELLER NOR DOES IT EXTEND TO ANY SECOND-HAND OR RECONDITIONED GOODS NOR DOES IT EXTEND TO COMPONENTS MANUFACTURED BY THE SELLER BUT INSTALLED, ATTACHED OR WELDED BY THE BUYER OR HIS CUSTOMER ON EQUIPMENT NOT MANUFACTURED BY THE SELLER. GOODS NOT MANUFACTURED BY THE SELLER CARRY ONLY THE WARRANTY (IF ANY) OF THEIR MAKERS AND THE BUYER IS ENTITLED TO THE BENEFIT THEREOF ONLY SO FAR AS THE SELLER HAS THE POWER TO TRANSFER IT. (E) THIS WARRANTY COMPRISES THE SOLE AND ENTIRE WARRANTY PERTAINING TO ITEMS PROVIDED HEREUNDER; THE SELLER MAKES NO OTHER WARRANTY, GUARANTEE, OR REPRESENTATION OF ANY KIND WHATSOEVER. ALL OTHER WARRANTIES, INCLUDING BUT NOT LIMITED TO MERCHANTABILITY AND FITNESS FOR PURPOSE, WHETHER EXPRESSED OR IMPLIED, OR ARISING BY OPERATION OF LAW, TRADE USAGE, OR COURSE OF DEALING, ARE HEREBY DISCLAIMED. (f) NOTWITHSTANDING THE FOREGOING, THERE ARE NO WARRANTIES WHATSOEVER ON ITEMS BUILT OR ACQUIRED WHOLLY OR PARTIALLY TO THE BUYER'S DESIGNS OR SPECIFICATIONS.

#### 15. Limited Remedy.

THE SELLER'S LIABILITY ARISING FROM OR IN ANY WAY CONNECTED WITH THE ITEMS SOLD OR THIS AGREEMENT SHALL BE LIMITED EXCLUSIVELY TO REPAIR OR REPLACEMENT OF THE ITEMS SOLD. IN NO EVENT SHALL THE SELLER BE LIABLE TO THE BUYER OR ANY THIRD PARTY FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES OF ANY KIND OR NATURE WHATSOEVER, INCLUDING BUT NOT LIMITED TO LOST PROFITS ARISING FROM OR IN ANY WAY CONNECTED WITH THIS AGREEMENT OR ANY ITEMS SOLD, WHETHER ALLEGED TO ARISE FROM BREACH OF CONTRACT, EXPRESS OR IMPLIED WARRANTY, OR IN TORT, INCLUDING WITHOUT LIMITATION, NEGLIGENCE, FAILURE TO WARN OR STRICT LIABILITY. IN NO EVENT SHALL THE SELLER BE LIABLE TO THE BUYER OR ANY OTHER ENTITY FOR MORE THAN THE INVOICE PRICE RECEIVED BY THE SELLER FOR ANY NON-CONFORMING PRODUCTS. THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR ANY OTHER ENTITY FOR PERSONAL INJURY, PROPERTY DAMAGE, OR ANY DIRECT, INDIRECT, SPECIAL, INCIDENTAL, CONSEQUENTIAL, PUNITIVE, EXEMPLARY, SPECIAL, OR OTHER DAMAGES OF ANY KIND, INCLUDING WITHOUT LIMITATION THE COST OF PROCUREMENT OF SUBSTITUTE GOODS, THE LOSS OF PROFITS, PRODUCTS, OR PRODUCTION, OR THE INTERRUPTION OF BUSINESS, HOWEVER CAUSED. THE SELLER SHALL NOT BE LIABLE TO THE BUYER OR ANY OTHER ENTITY ON ANY THEORY OF LIABILITY INCLUDING WITHOUT LIMITATION BREACH OF CONTRACT OR EXPRESS OR IMPLIED WARRANTY, TORT, NEGLIGENCE, FAILURE TO WARN, OR STRICT LIABILITY, AND WHETHER OR NOT THE SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE ESSENTIAL PURPOSE OF THIS PROVISION IS TO LIMIT THE LIABILITY OF THE SELLER ARISING OUT OF THE SALE OF PRODUCTS TO THE BUYER WHETHER FOR BREACH OF CONTRACT, NEGLIGENCE, OR ANY OTHER THEORY OF LIABILITY. THESE LIMITATIONS SHALL APPLY NOTWITHSTANDING ANY FAILURE OF ESSENTIAL PURPOSE OF ANY LIMITED REMEDY AND NOTWITHSTANDING THE PROVISIONS OF ANY OTHER AGREEMENT BETWEEN THE SELLER AND THE BUYER.

#### 16. Indemnity for Infringement of Intellectual Property Rights.

(a) The Buyer shall defend and indemnify the Seller against all actions, claims, demands, penalties and costs by third parties in tort, or for infringement, or alleged infringement, of patents, trademarks, copyrights, trade dress, trade secret or other rights of any third party resulting from the goods manufactured in accordance with the Buyer's specifications or based on any information provided by the Buyer. The Buyer will defend any action against the Seller for title, patent, trademark, copyright infringement, or other claimed by a third party at the Buyer's sole cost and expense. (b) The Seller shall have no liability for infringement of any patents, trademarks, copyrights, trade dress, trade secrets or similar rights except as provided in this provision. The Seller will defend and indemnify the Buyer against allegations of infringement of patents, trademarks, copyrights, trade dress and trade secrets ("Intellectual Property Rights"). The Seller will defend at its expense and will pay the cost of any settlement or damages awarded in an action brought against the Buyer based on an allegation that an item sold pursuant to this contract infringes the Intellectual Property Rights of a third party. The Seller's obligation to defend and indemnify the Buyer is contingent on the Buyer notifying the Seller within 10 days after sole control over the defense of any allegations or actions, including all negotiations for settlement or compromise. If an item sold hereunder is subject to a claim that it infringes the Intellectual Property Rights of a third party, the Seller may, at its sole expense and option, procure for the Buyer the right to continue using said item, replace or modify said item so as to make it non-infringing, or offer to accept return of said item and return the purchase price less a reasonable allowance for depreciation. Notwithstanding the foregoing, the Seller shall have no liability for claims of infringement based on information provided by Buyer, or directed to items delivered hereunder for which the designs are specified in combination or use in a system of any item sold hereunder. The foregoing in this provision shall constitute the Seller's sole and exclusive liability and the Buyer's sole and exclusive remedy for infringement of Intellectual Property Rights.

#### 17. Lien.

In addition to any right of lien to which the Seller may by law be entitled, the Seller shall have a general lien on all goods of the Buyer in the Seller's possession (although such goods or some of them may have been paid for) for the unpaid price of any other goods sold and delivered to the Buyer by the Seller under the same or other contracts.

#### 18. Waiver.

The Seller's rights shall not be affected or restricted by any indulgence or forbearance granted to the Buyer. No waiver by the Seller of any breach shall operate as a waiver of any later breach.

#### 19. Force Majeure.

The Seller shall be excused from performing any of its obligations under this Agreement which are prevented or delayed by any occurrence not within the reasonable control of the Seller, including but not limited to, accidents, acts of God, destruction or damage to the goods or the Seller's manufacturing plant, delays or failures in delivery of carriers or suppliers, shortages of materials, strikes or other labor matters, floods, earthquakes, fire, riots, explosions, or any regulations, rules, ordinances or orders of any governmental authority, federal, state or local, whether such cause exists at the date of the order or not.

#### 20. Buyer's Representation of Solvency.

The Buyer hereby represents that as of the signing of this Agreement it was not insolvent within the meaning of the Uniform Commercial Code or any Bankruptcy Laws.

#### 21. Assignment and Delegation.

The rights and obligations of the parties under this Agreement may not be assigned or delegated, except on the express written consent of the other party to the assignment or delegation.

#### 22. Integration.

The rights and obligations of the parties and the terms and conditions set forth herein, together with any amendments, modifications and any different terms and conditions expressly accepted by the Seller in writing, shall constitute a complete and exclusive statement of the terms of this Agreement. This Agreement supersedes not only all prior agreements, but also oral agreements made contemporaneously with the execution of this Agreement. All such materials may not be used to supplement, explain, or contradict the terms of this Agreement.

#### 23. Severability.

If any of these conditions or any part thereof purports to exclude or restrict or limit any liability and such exclusion or restriction or limitation is prohibited or rendered void or unenforceable by any legislation to which it is subject, or is itself prohibited or rendered void or unenforceable by any legislation to which it is subject, then the exclusion, restriction or limitation on the condition or part thereof in question shall be so prohibited or rendered void or unenforceable and the validity or enforceability of any other part of these provisions shall not thereby be affected.

#### 24. Governing Law/Limitation on Actions.

The terms, conditions, rights, and obligations under this Agreement shall be construed under the laws of the State of California, without regard to principles of conflicts of laws. No actions arising out of the sale of the items sold hereunder or this Agreement may be brought by the Buyer more than two (2) years after such cause of action accrues.

↑  
Glue Area

## Specifications

Part Number	GPM (LPM)	Rated Life (hrs)	Lamp Watts	Voltage at 50/60HZ	Visual Warning	Audible Warning	# of Lamps	Port Size I/O	Water Chamber	Timer	Length	Width	Max. Pressure	Working Temp.	Wavelength	Microjoules
UVA-1C	1 (3.8)	9,000	10W	110V/220V	LED	BUZZER	1	1/4" MNPT (635 cm)	STAINLESS 304	-	10.47" (26.594 cm)	2" (5.080 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-2C	2 (7.57)	9,000	14W	110V/220V	LED	BUZZER	1	1/4" MNPT (635 cm)	STAINLESS 304	-	13.74" (34.900 cm)	2.5" (6.350 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-4C	4 (15.14)	9,000	17W	110V/220V	LED	BUZZER	1	1/2" MNPT (1.270 cm)	STAINLESS 304	-	15.50" (39.37 cm)	2.5" (6.350 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-6C	6 (22.71)	9,000	24W	110V/220V	LED	INDICATOR W/ ALARM	1	1/2" MNPT (1.270 cm)	STAINLESS 304	-	23.23" (59.00 cm)	2.5" (6.35 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-8C	8 (30.28)	9,000	32W	110V/220V	LED	INDICATOR W/ ALARM	1	3/4" MNPT (1.905 cm)	STAINLESS 304	-	27.87" (70.79 cm)	2.5" (6.35 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-12C	12 (45.42)	9,000	39W	110V/220V	LED	INDICATOR W/ ALARM	1	3/4" MNPT (1.905 cm)	STAINLESS 304	-	36.81" (93.50 cm)	2.5" (6.35 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-24B	24 (90.85)	9,000	39W	110V/220V	LED	INDICATOR W/ ALARM	2	1" MNPT (2.540 cm)	STAINLESS 304	✓	36.93" (93.80 cm)	3.5" (8.89 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-36B	36 (136.27)	9,000	39W	110V/220V	LED	INDICATOR W/ ALARM	3	1.5" MNPT (3.810 cm)	STAINLESS 304	✓	36.93" (93.80 cm)	5.5" (13.97 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-50B	50 (189.27)	9,000	39W	110V/220V	LED	INDICATOR W/ ALARM	4	1.5" MNPT (3.810 cm)	STAINLESS 304	✓	36.93" (93.80 cm)	5.5" (13.97 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-60B	60 (227.12)	9,000	39W	110V/220V	LED	INDICATOR W/ ALARM	5	2" or 2.5" (5.080 or 6.350 cm) FLANGE	STAINLESS 304	✓	36.93" (93.80 cm)	5.5" (13.97 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-80B	80 (302.83)	9,000	39W	110V/220V	LED	INDICATOR W/ ALARM	6	2" or 2.5" MNPT (5.080 or 6.350 cm) FLANGE	STAINLESS 304	✓	36.93" (93.80 cm)	6.26" (15.90 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-100B	100 (378.54)	9,000	39W	110V/220V	LED	INDICATOR W/ ALARM	8	2" or 2.5" MNPT (5.080 or 6.350 cm) FLANGE	STAINLESS 304	✓	36.93" (93.80 cm)	8.62" (21.90 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-150B	150 (567.81)	9,000	87W	110V/220V	LED	INDICATOR W/ ALARM	6	3" MNPT (7.62 cm) FLANGE	STAINLESS 304	✓	36.93" (93.80 cm)	8.62" (21.90 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>
UVA-200B	200 (757.08)	9,000	87W	110V/220V	LED	INDICATOR W/ ALARM	8	4" MNPT (10.16 cm) FLANGE	STAINLESS 304	✓	36.93" (93.80 cm)	8.62" (21.90 cm)	125 PSI 8.79 kgF/cm <sup>2</sup>	35°F - 104°F (1.67°C - 40°C)	254 nm	30 mJ/cm <sup>2</sup>

## Parts & Accessories

Part Number	Lamp	Quartz Sleeve	Electronic Ballast	Additional Accessories Specific to Your UV System					
UVA-1C	GL10PP	QS10	BEB-1024	UV-NUT-1	-	-	UV-SEAL	UV-WASHER	-
UVA-2C	GL14PP	QS14	BEB-1024	UV-NUT-1	-	-	UV-SEAL	UV-WASHER	-
UVA-4C	GL17PP	QS17	BEB-1024	UV-NUT-1	-	-	UV-SEAL	UV-WASHER	-
UVA-6C	GL24PP	QS24	BEB-2439	UV-NUT-1/ UV-NUT-2	-	-	UV-SEAL	UV-WASHER	UV-PLUG
UVA-8C	GL32PP	QS32	BEB-2439	UV-NUT-1/ UV-NUT-2	UV-32 SPRING	-	UV-SEAL	UV-WASHER	UV-PLUG
UVA-12C	GL39PP	QS39	BEB-2439	UV-NUT-1/ UV-NUT-2	UV-39 SPRING	-	UV-SEAL	UV-WASHER	UV-PLUG
UVA-24B	GL39PP	QS39	ZEB-2439	UV-NUT-1/ UV-NUT-2	UV-39 SPRING	UV-TIMER	UV-SEAL	UV-WASHER	UV-PLUG
UVA-36B	GL39PP	QS39	ZEB-2439	UV-NUT-1/ UV-NUT-2	UV-39 SPRING	UV-TIMER	UV-SEAL	UV-WASHER	UV-PLUG
UVA-50B	GL39PP	QS39	ZEB-2439	UV-NUT-1/ UV-NUT-2	UV-39 SPRING	UV-TIMER	UV-SEAL	UV-WASHER	UV-PLUG
UVA-60B	GL39PP	QS39	ZEB-2439	UV-NUT-1/ UV-NUT-2	UV-39 SPRING	UV-TIMER	UV-SEAL	UV-WASHER	UV-PLUG
UVA-80B	GL39PP	QS39	ZEB-2439	UV-NUT-1/ UV-NUT-2	UV-39 SPRING	UV-TIMER	UV-SEAL	UV-WASHER	UV-PLUG
UVA-100B	GL39PP	QS39	ZEB-2439	UV-NUT-1/ UV-NUT-2	UV-39 SPRING	UV-TIMER	UV-SEAL	UV-WASHER	UV-PLUG
UVA-150B	GL87PP	QS39	ZEB-55155	UV-NUT-1/ UV-NUT-2	UV-39 SPRING	UV-TIMER	UV-SEAL	UV-WASHER	UV-PLUG
UVA-200B	GL87PP	QS39	ZEB-55155	UV-NUT-1/ UV-NUT-2	UV-39 SPRING	UV-TIMER	UV-SEAL	UV-WASHER	UV-PLUG

### Water Quality

Water quality plays a major role in the transmission of germicidal ultraviolet rays. It is recommended that the water does not exceed the following maximum concentration levels.

#### Maximum Concentration Levels

Iron	< 0.3 ppm (0.3 mg/L)
Hardness	< 7 ppm (120 mg/L)
Turbidity	< 1 NTU
Manganese	< 0.05 ppm (0.05 mg/L)
Tannins	< 0.1 ppm (0.1 mg/L)
UV Transmittance	> 75%

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.

### UV Dose

The units generate a UV dosage of at least 30,000 microwatt-seconds per square centimeter ( $\mu\text{W-s/cm}^2$ ), even at the end-of-lamp life (EOL), which is more than sufficient to destroy most waterborne microorganisms, such as bacteria, yeasts, algae, etc.

UV disinfection is affected by many factors and the following should be looked at prior to the installation of the UV system; UV Transmission (transmittance) deals with the effectiveness in which the 2537 Angstrom units (254 nanometers) wavelength of the ultraviolet light is transmitted through the water. The higher the transparency of the water, the more effective the UV system becomes. This optical clarity is evaluated by performing a test which passes through a 1 cm depth.

The basic design of the units has taken into account a typical transmission at the desired wavelength. In practical terms this means that a system designed to flow at 24 gallons per minute, at a typical transmissibility could actually have a higher flow rate in liquids with a higher transmissibility. As a general guideline, the following are some typical **UV transmission rates (UVT)**:

City water supplies	85-98%
Deionized or RO water	95-98%
Surface waters (lakes, rivers, etc)	70-90%
Ground water (wells)	90-95%
Other liquids	1-99%

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#### Product Ratings



#### Warranty Information

- Limited 5-year warranty on stainless steel housing
- Limited 1-year warranty on electronics

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