

ChlorKing® Sentry UV

**SENTRY AQUA GUARD
LOW PRESSURE HIGH OUTPUT
AMALGAM UV LIGHT SYSTEM**

**Installation, Operation, and
Maintenance Manual**

FOR ALL SUPPLEMENTAL SAG MODELS



Manufacturer:

ChlorKing-Sentry UV
2935 Northeast Parkway
Atlanta, GA 30360

1-800-536-8180

CERTIFICATIONS: The SAG CR series is certified for indoor installation.

NSF Standard 50
UL Standard 1081
CSA Standard C22.2 #218.1

This manual is subject to change at any time based on system improvements, design changes, authorized modifications, or new information. Please consult ChlorKing-Sentry UV for the latest revision.

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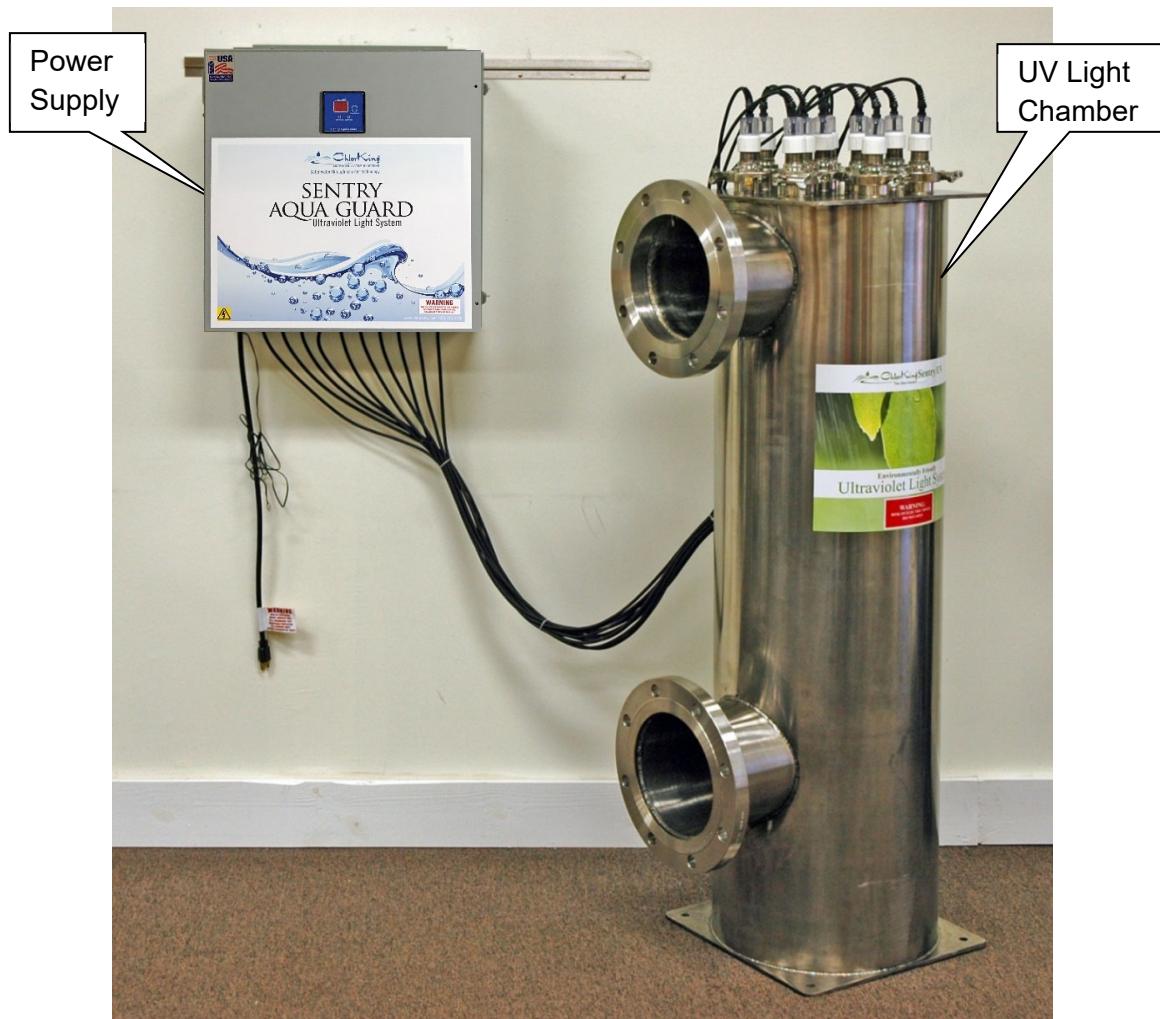
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DESCRIPTION OF EQUIPMENT

GENERAL INFORMATION

The Sentry Aqua Guard system is a low pressure, high output amalgam, ultraviolet light sterilizer designed for commercial swimming pool applications. The Sentry Aqua Guard is capable of sterilizing and oxidizing up to 1141 gallons per minute of water. The system operates at light wavelengths of 254nm for sterilizing and 185nm for oxidizing. The Sentry Aqua Guard is designed for commercial service and can be run 24 hours a day. The Sentry Aqua Guard components are outlined in **Figure 1**:

Figure 1



PRINCIPALS OF OPERATION

UV Light Chamber (See Figure 1)

The UV Light Chamber is made from highly polished 316L stainless steel or 316L stainless steel lined PVC. Quartz sleeves separate the low pressure, high output amalgam germicidal lamps from the water. The water to be treated flows into the bottom of the chamber. Once in the chamber, the germicidal bulbs produce a minimum 3-log reduction in pathogens. The water is then returned to the source.

Power Supply (See Figure 1)

The power supply provides the current to start and maintain the germicidal lamps. A visual indication of bulb output is displayed on the face of the power supply and a counter is located in the power supply to display hours of operation.

GENERAL SPECIFICATIONS AND SIZING GUIDELINES

Sentry Aqua Guard UV has demonstrated an ability to provide three log inactivation of *Enterococcus faecium* and *Pseudomonas aeruginosa*. This unit has not demonstrated an ability to provide three log kill or inactivation of *Cryptosporidium parvum*. This product is designed for supplementary disinfection and is intended for use with appropriate residual levels of EPA registered disinfecting chemicals. Specific residual levels of EPA registered disinfecting chemicals may be required by the regulatory agency having authority.

MODEL NUMBERS AND DESCRIPTION:

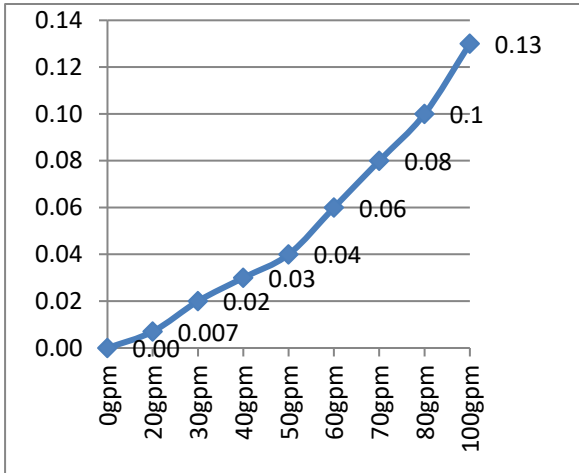
SAG120A120 – Sentry Aqua Guard 120A 120
SAG120A230 – Sentry Aqua Guard 120A 230
SAG120A120PVC – Sentry Aqua Guard 120A 120 PVC
SAG240A120 – Sentry Aqua Guard 240A 120
SAG240A230 – Sentry Aqua Guard 240A 230
SAG240A120PVC – Sentry Aqua Guard 120A 120 PVC
SAG480A120 – Sentry Aqua Guard 480A 120
SAG480A230 – Sentry Aqua Guard 480A 230
SAG480A120PVC – Sentry Aqua Guard 480A 120 PVC
SAG720A120 – Sentry Aqua Guard 720A 120
SAG720A230 – Sentry Aqua Guard 720A 230
SAG960A120 – Sentry Aqua Guard 960A 120
SAG960A230 – Sentry Aqua Guard 960A 230
SAG1200A120 – Sentry Aqua Guard 1200A 120
SAG1200A230 – Sentry Aqua Guard 1200A 230

FLOW, PRESSURE, AND CHAMBER SPECIFICATIONS:

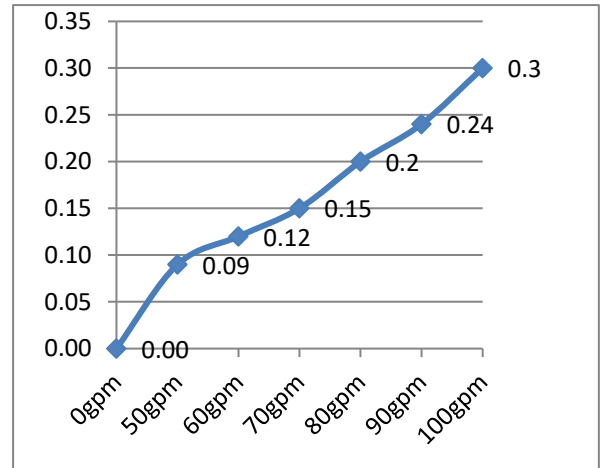
Model #	Rated Pressure (psi)	Max Rated Flow (gpm)	Rated Power (KW)	Number of Bulbs	Volume of Chamber (Gallons)	Length and Diameter of Chamber
SAG120A120	50	up to 46	120	1	2.16	45" L x 4.5" D
SAG120A230	50	up to 46	120	1	2.16	45" L x 4.5" D
SAG120A120PVC	50	up to 61	120	1	4.85	45.625" L x 6" D
SAG240A120	50	up to 119	240	2	4.85	45" L x 6.625" D
SAG240A230	50	up to 119	240	2	4.85	45" L x 6.625" D
SAG240A120PVC	50	up to 150	240	2	8.6	47.375" L x 8" D
SAG480A120	50	up to 352	480	4	13.48	49.5" L x 10.75" D
SAG480A230	50	up to 352	480	4	13.48	49.5" L x 10.75" D
SAG480A120PVC	50	up to 352	480	4	12.9	47.4" L x 10.75" D
SAG720A120	50	up to 620	720	6	23.55	53.5" L x 12.75" D
SAG720A230	50	up to 620	720	6	23.55	53.5" L x 12.75" D
SAG960A120	50	up to 770	960	8	23.55	53.5" L x 12.75" D
SAG960A230	50	up to 770	960	8	23.55	53.5" L x 12.75" D
SAG1200A120	50	up to 1141	1200	10	42	53.5" L x 16" D
SAG1200A230	50	up to 1141	1200	10	42	53.5" L x 16" D

HEAD LOSS DATA in ft of H2O:

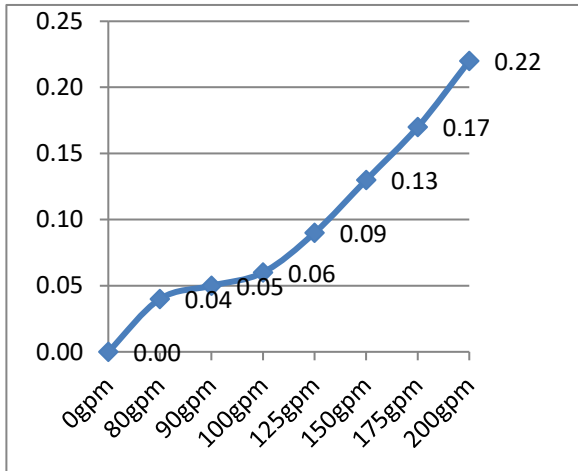
SAG120A120 and SAG120A230



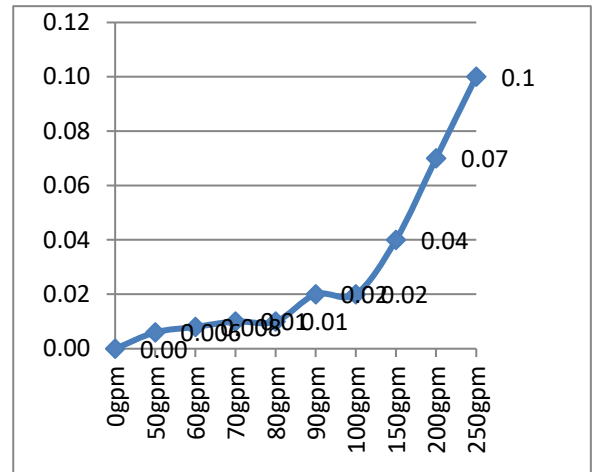
SAG120A120PVC



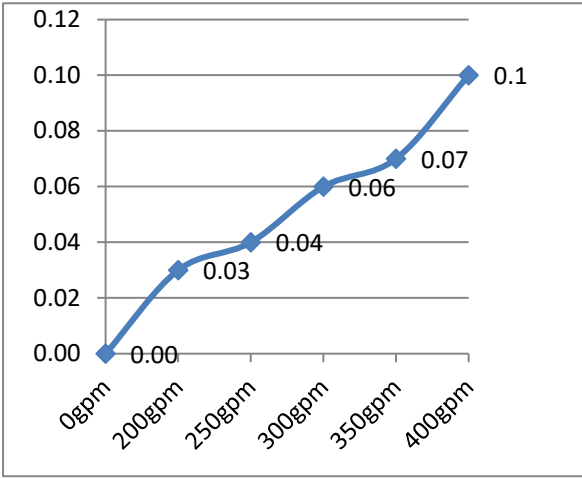
SAG240A120 and SAG240A230



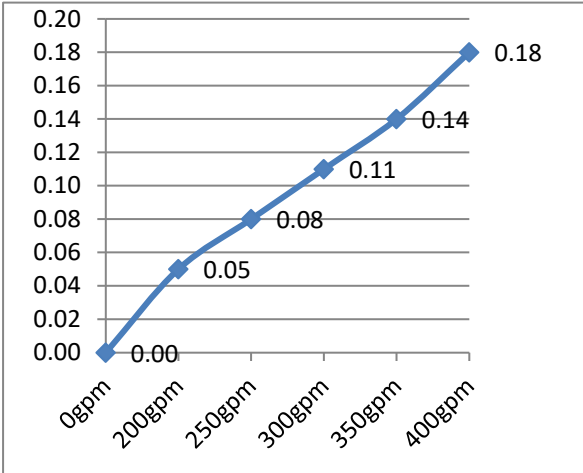
SAG240A120PVC



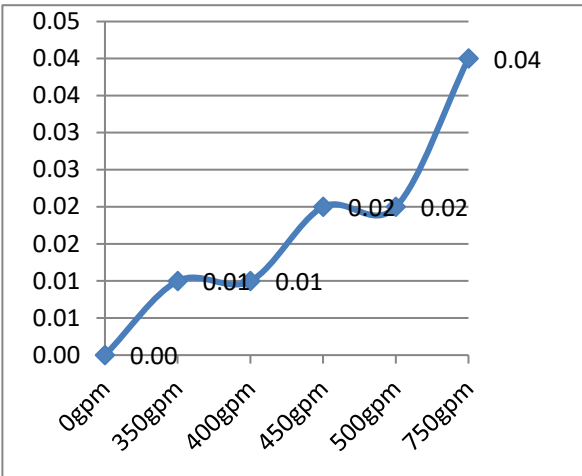
SAG480A120 and SAG480A230



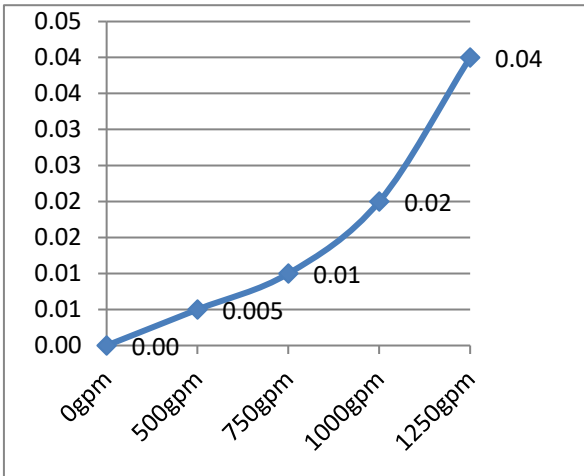
SAG480A120PVC



SAG720A120, SAG720A230,
SAG960A120, SAG920A230



SAG1200A120 and SAG1200A230



LAMP LIFE:

13,000 hours of operation

ELECTRICAL SPECIFICATIONS:

Model #	Rated Voltage (AC)	Rated Amps	Fuse	Amp Draw
SAG120A120	120	1.5	GSA2	1.2
SAG120A120PVC	120	1.5	GSA2	1.2
SAG240A120	120	3	GSA4	2.4
SAG240A120PVC	120	3	GSA4	2.4
SAG480A120	120	6	GSA8	4.8
SAG480A120PVC	120	6	GSA8	4.8
SAG720A120	120	9	GSA12	7.2
SAG960A120	120	10.5	GSA15	9.6
SAG1200A120	120	12.5	GSA15	12

SIZING GUIDELINES

Sentry Aqua Guard UV Sterilizers will effectively treat water up to the maximum rated flow for each size unit (END of lamp life). See flow calculator on the next page.

UV sizing must comply with local codes. Please contact your local health department for specific requirements or contact your local ChlorKing representative for assistance.

The chart and temperature compensation formula below are used to determine the maximum system flow rate for satisfactory system performance.

Select the chart for your UV model and a flow rate from the chart based on the % Transmittance (%T) of the pool. If you are unsure of the %T, use 95%. The flow rate must then be compensated for temperatures less than 88°F. Determine the average pool temperature and use the formula below to determine the maximum flow rate.

avT = Average Pool Temperature

$$\text{Max GPM} = ((100 - (88^\circ - \text{avT})) / 100) \times \text{GPM}$$

Example for model SAG120A120PVC, 95%T and average pool temperature of 84°:

$$((100 - (88^\circ - 84^\circ)) / 100) \times 61$$

$$((100 - 4) / 100) \times 61$$

$$(96 / 100) \times 61$$

$$0.96 \times 61$$

Max GPM = 58.56 GPM

SAG120A120PVC	
%T	GPM
100	75
99	73
97	67
96	64
95	61
94	60
93	58
92	56
91	54
90	53
85	44
80	37
75	31

SAG120A120	
%T	GPM
100	52
99	51
97	48
96	47
95	46
94	45
93	44
92	43
91	42
90	41
85	35
80	31
75	27

SAG240A120PVC	
%T	GPM
100	154
99	150
97	141
96	137
95	133
94	129
93	125
92	121
91	117
90	109
85	92
80	79
75	67

SAG240A120	
%T	GPM
100	138
99	135
97	127
96	123
95	119
94	115
93	111
92	107
91	103
90	99
85	80
80	67
75	56

SAG480 ALL	
%T	GPM
100	426
99	411
97	381
96	367
95	352
94	337
93	322
92	307
91	293
90	278
85	204
80	164
75	131

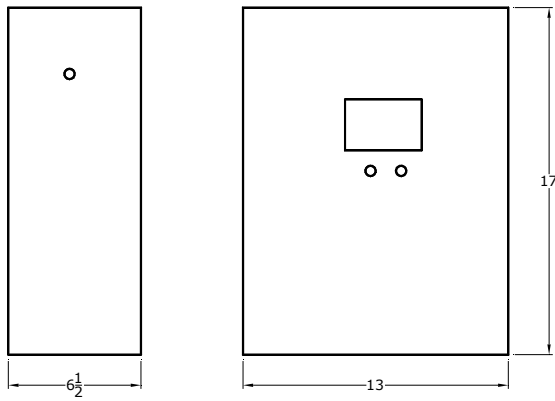
SAG720A120	
%T	GPM
100	762
99	734
97	677
96	649
95	620
94	592
93	564
92	535
91	507
90	479
85	337
80	264
75	208

SAG960A120	
%T	GPM
100	945
99	910
97	840
96	805
95	770
94	735
93	700
92	665
91	630
90	595
85	420
80	330
75	262

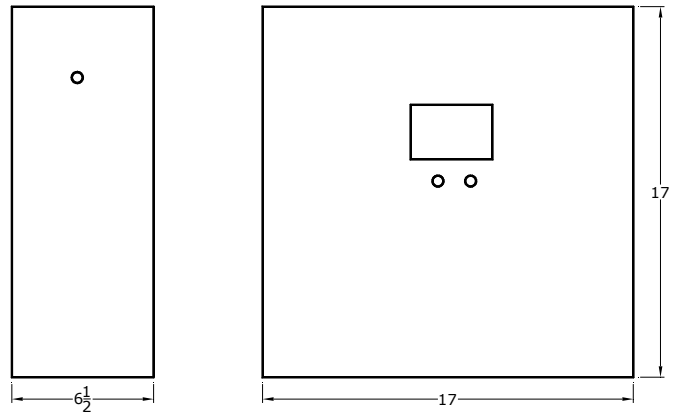
SAG1200A120	
%T	GPM
100	1423
99	1367
97	1254
96	1197
95	1141
94	1084
93	1028
92	971
91	915
90	858
85	576
80	442
75	346

DIMENSIONS:

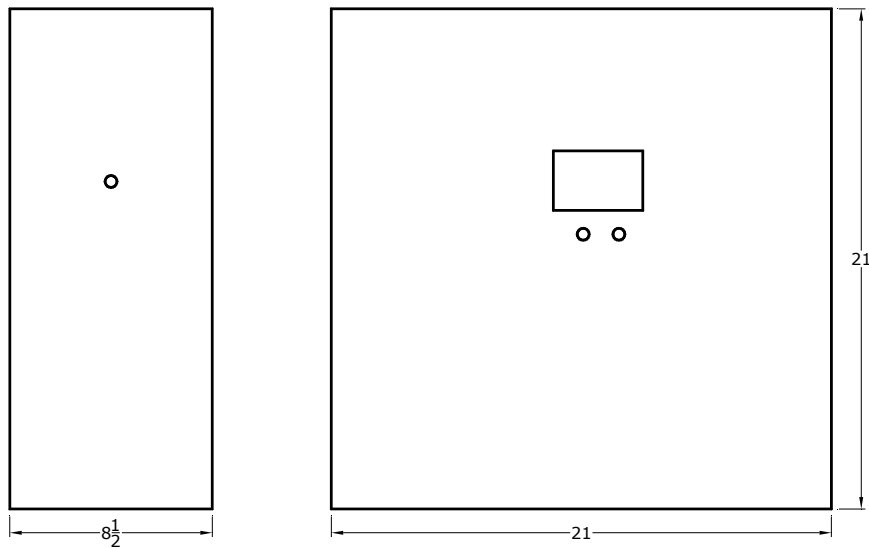
120W and 240W Power Supply



480W and 720W Power Supply

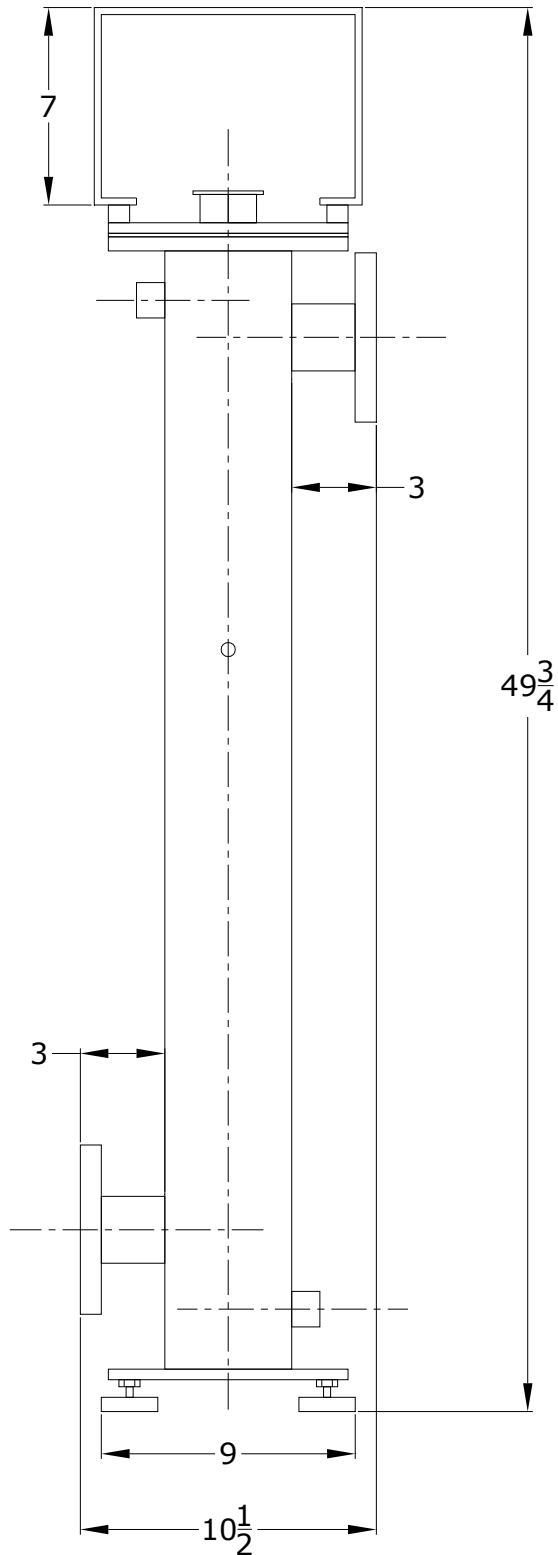


960W and 1200W Power Supply

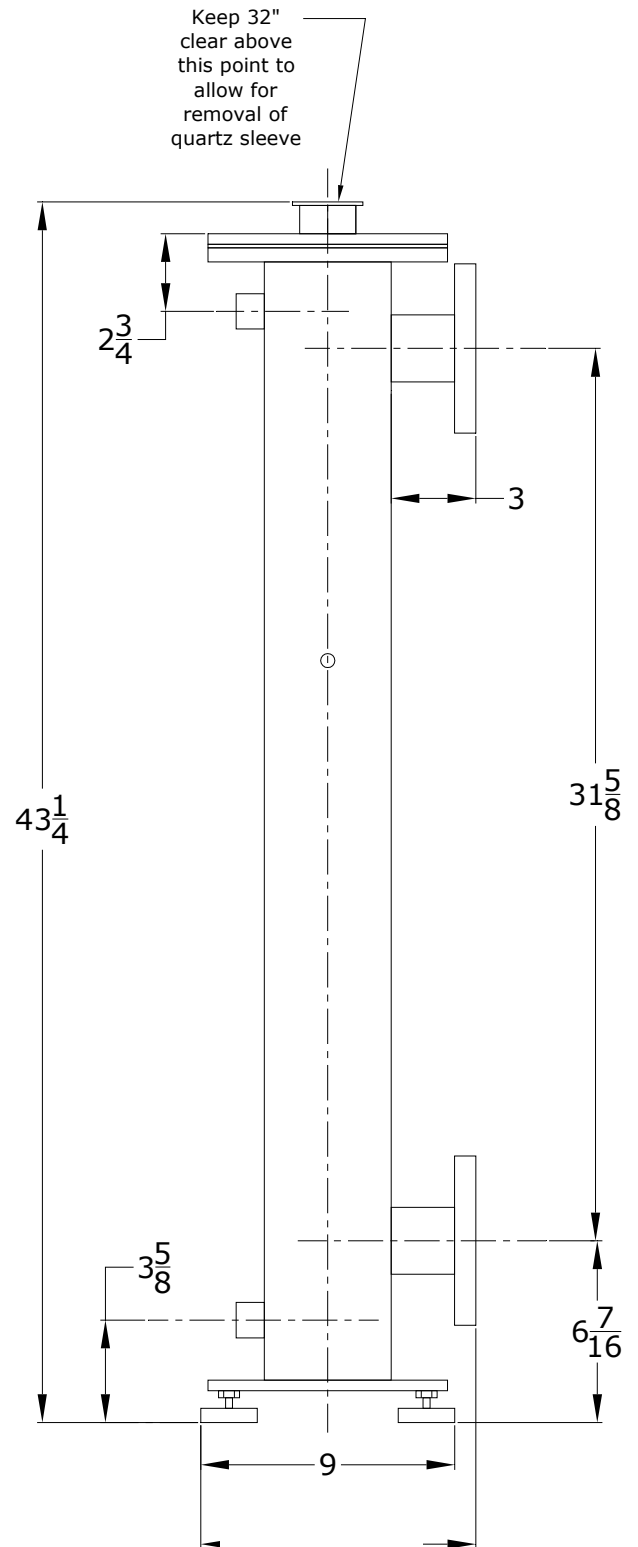


120 Watt Chamber Installation Dimensions 2" Flanges

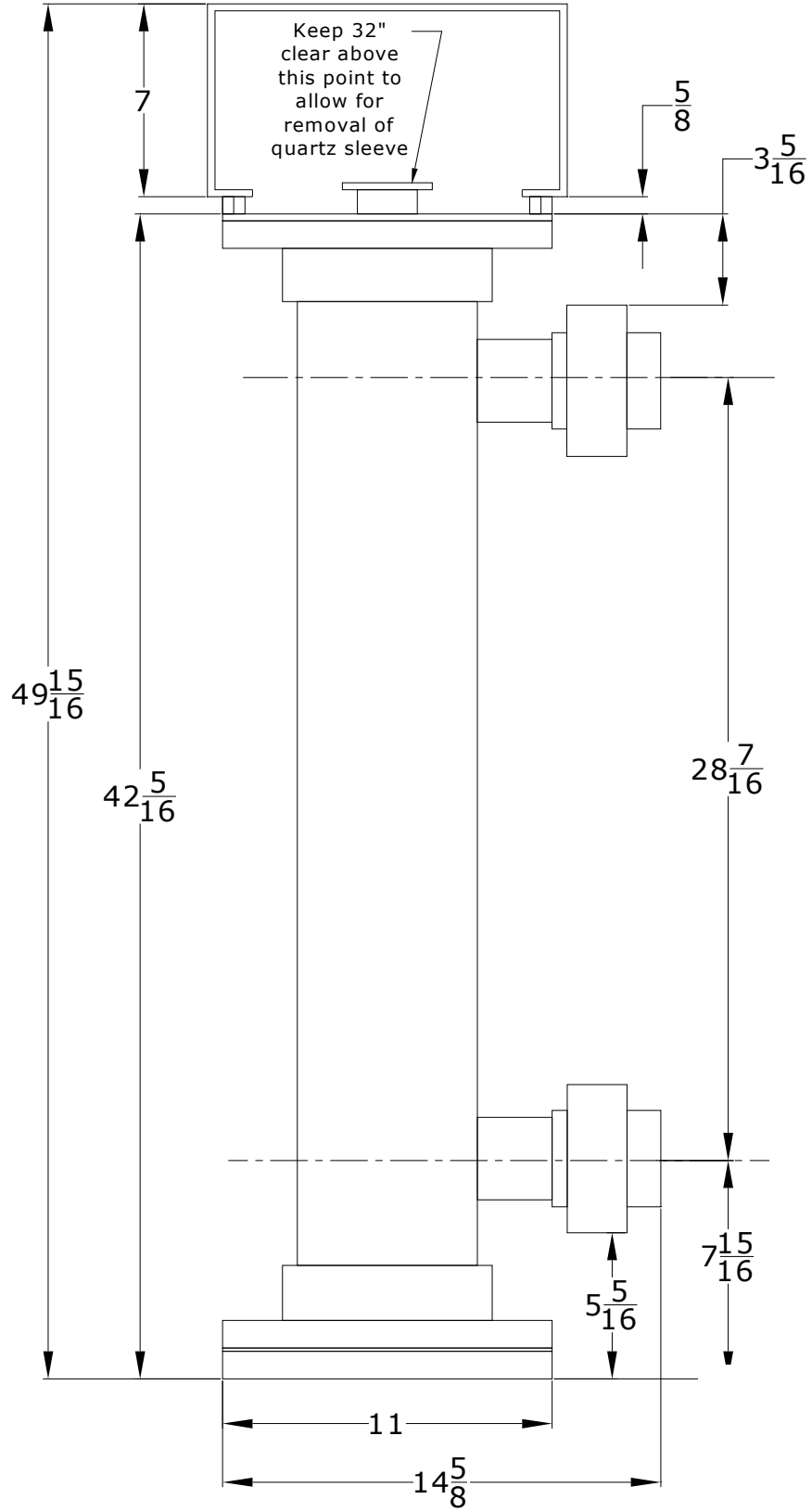
Flanges Opposed



Flanges Same Side

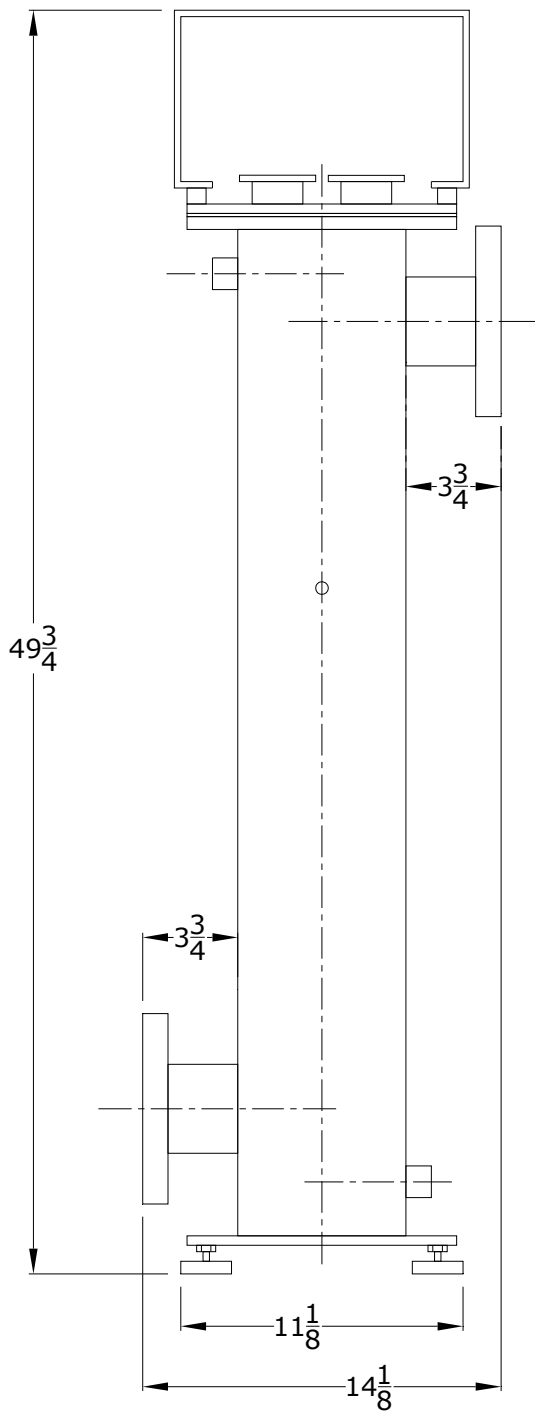


120 Watt PVC Chamber R1

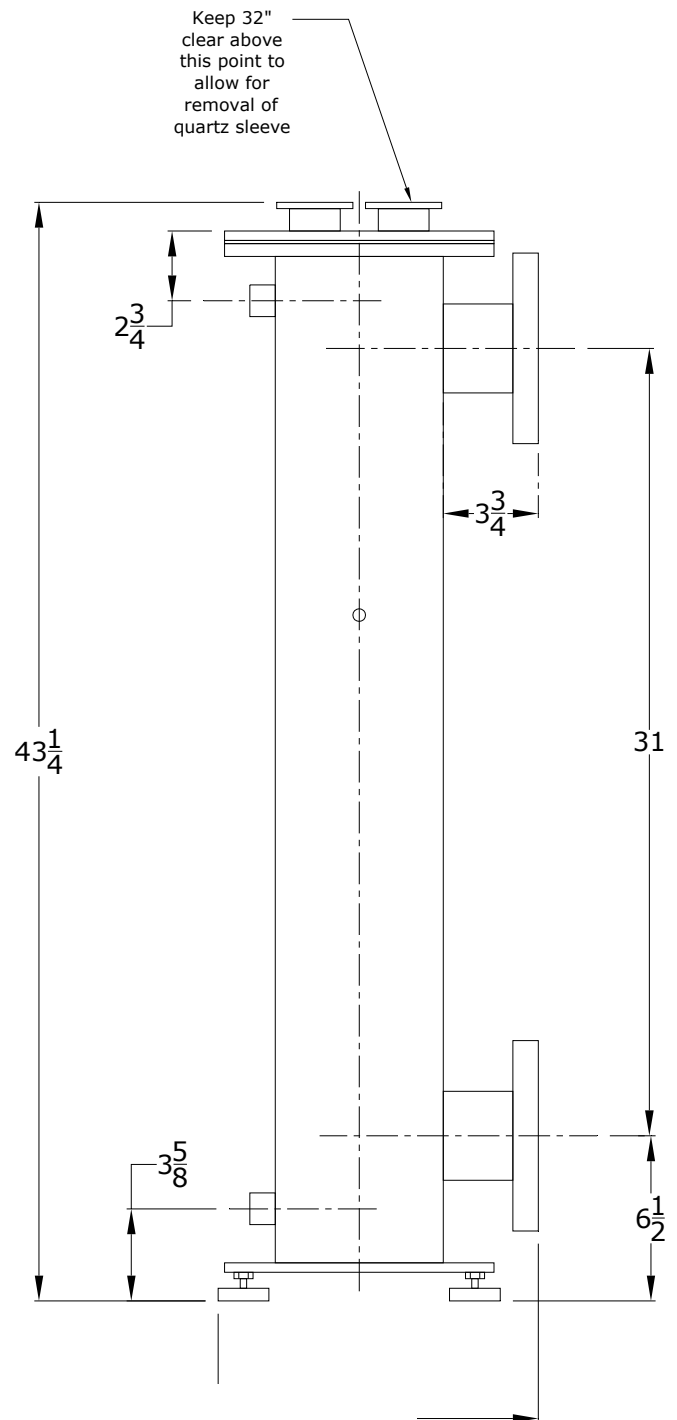


240 Watt Chamber Installation Dimensions (Rev 2) 3" Flanges

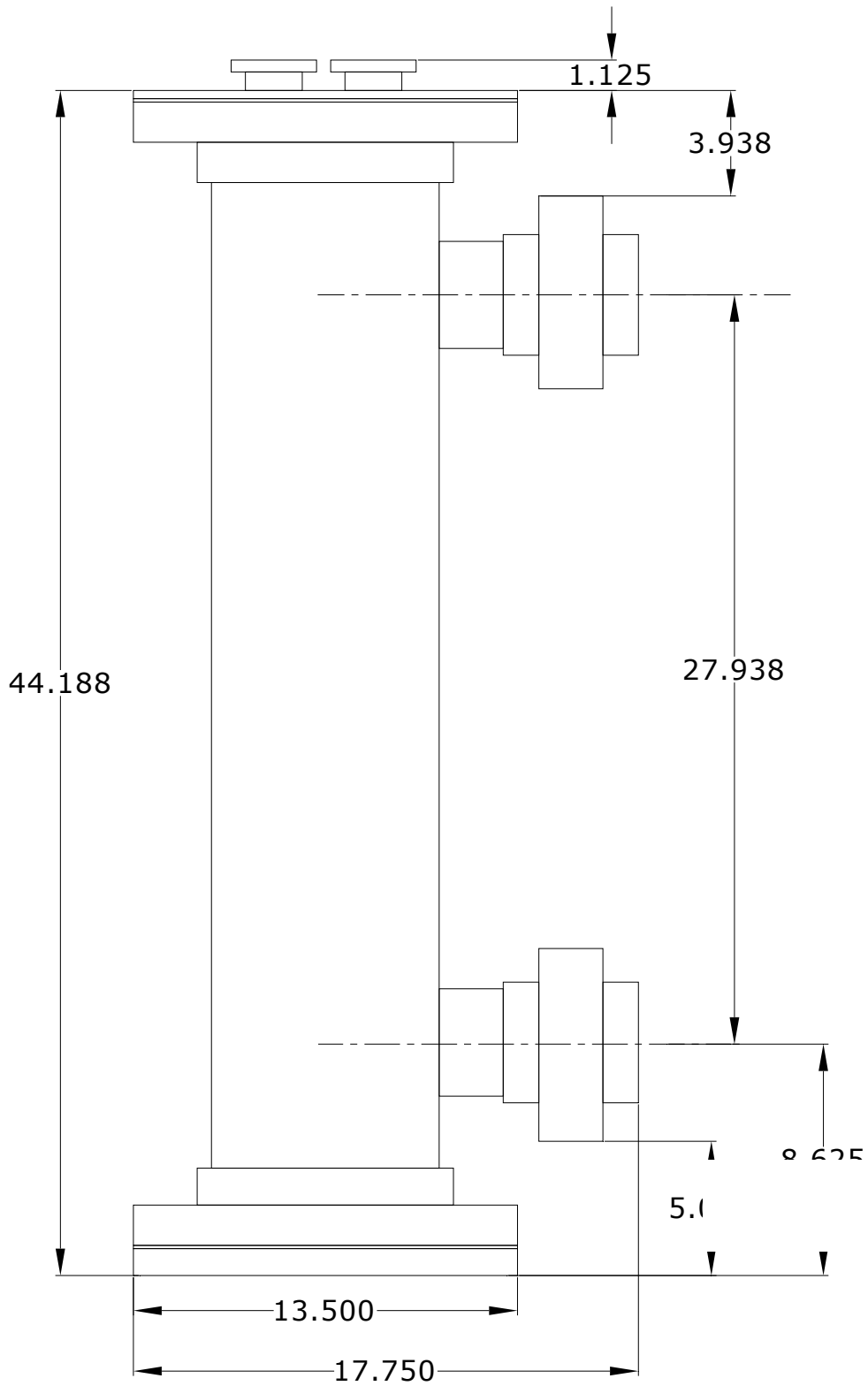
Flanges Opposed



Flanges Same Side

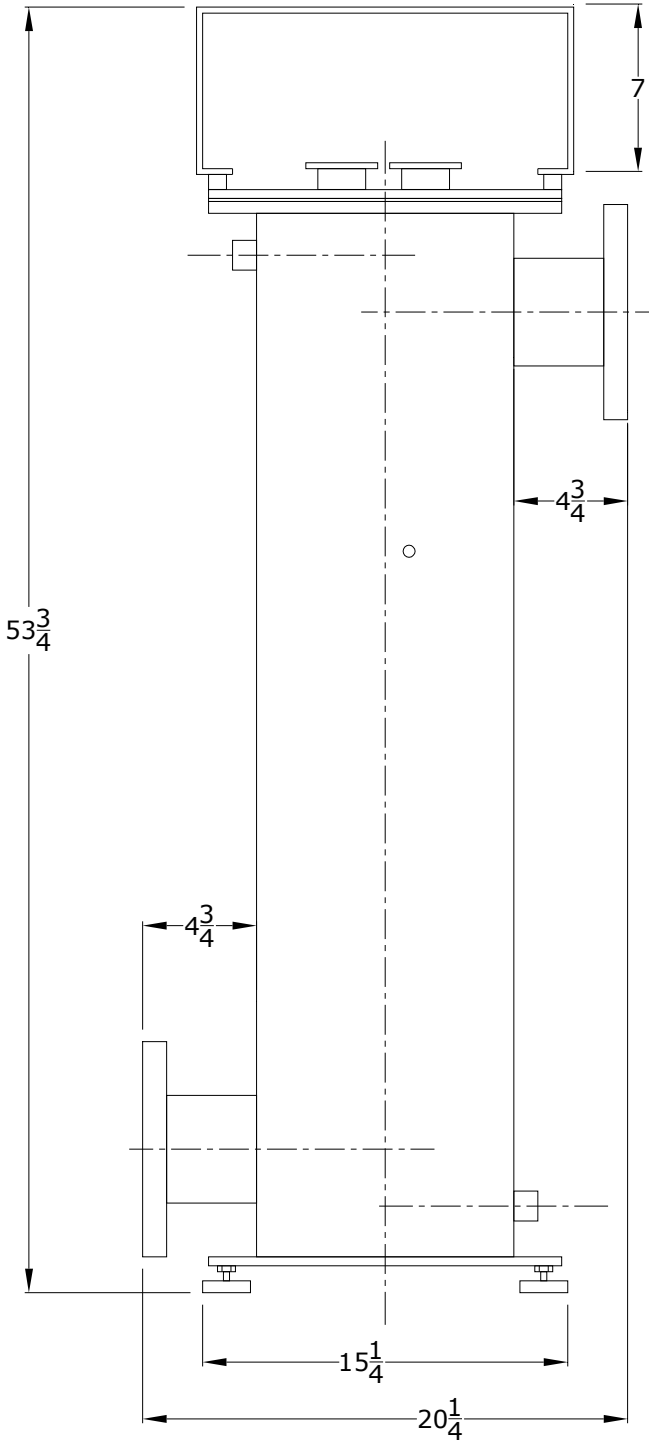


240 Watt PVC Chamber R1

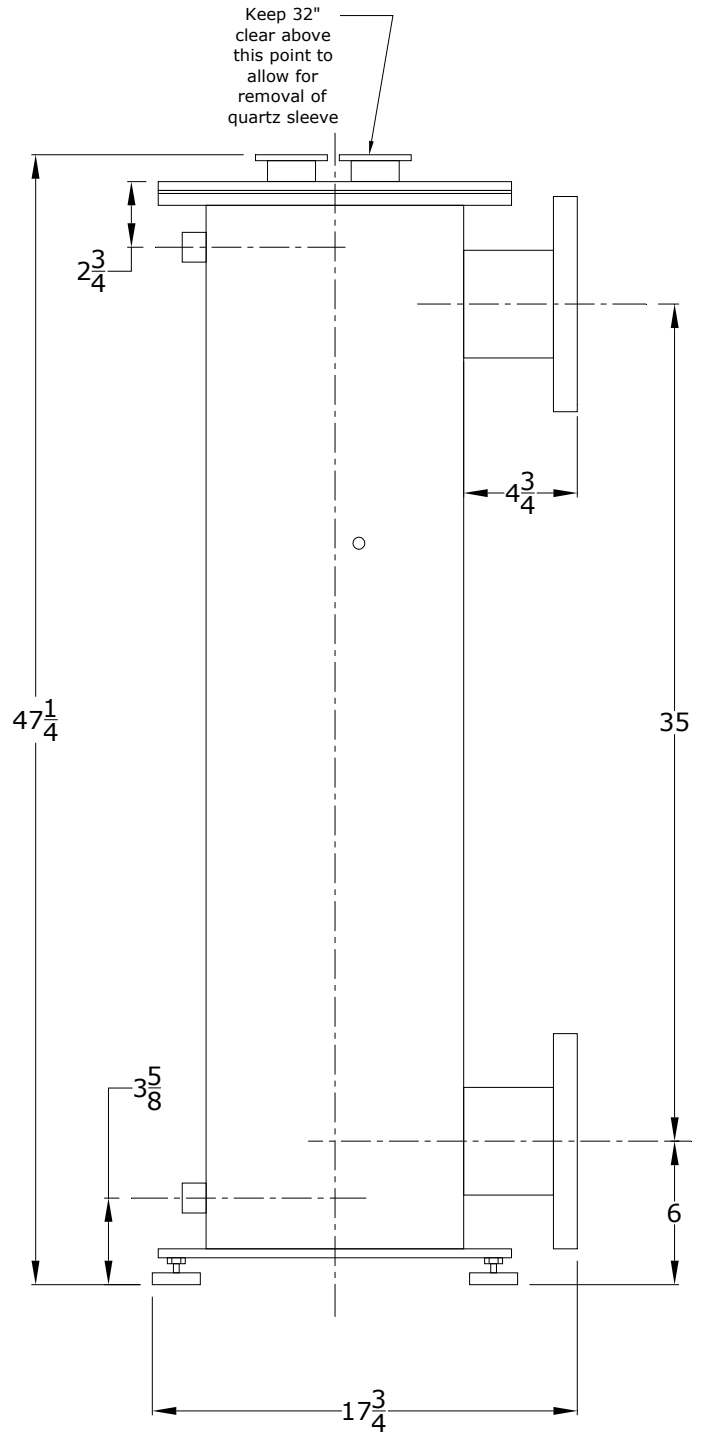


480 Watt Chamber Installation Dimensions (Rev 2) 4" Flanges

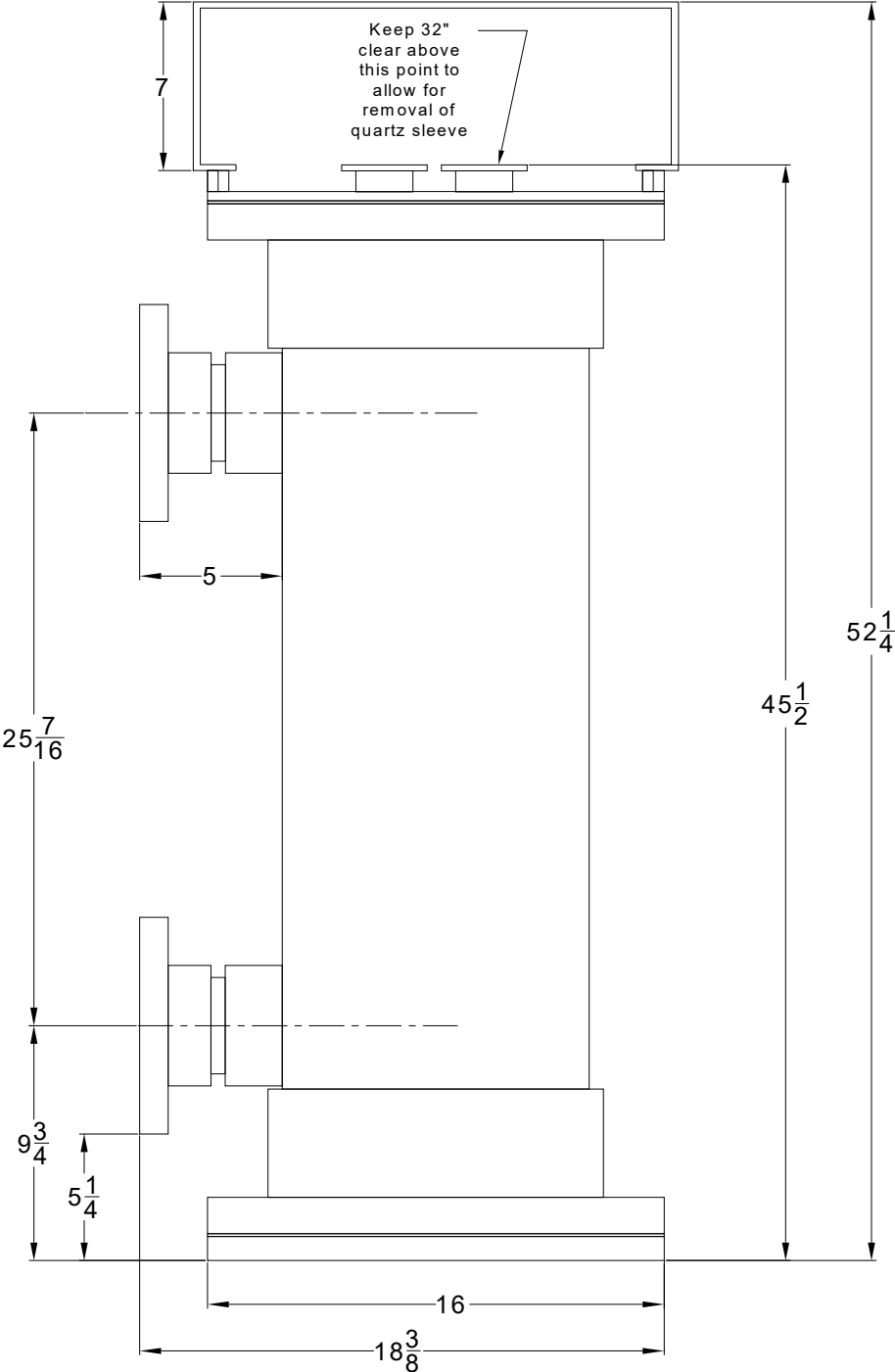
Flanges Opposed



Flanges Same Side

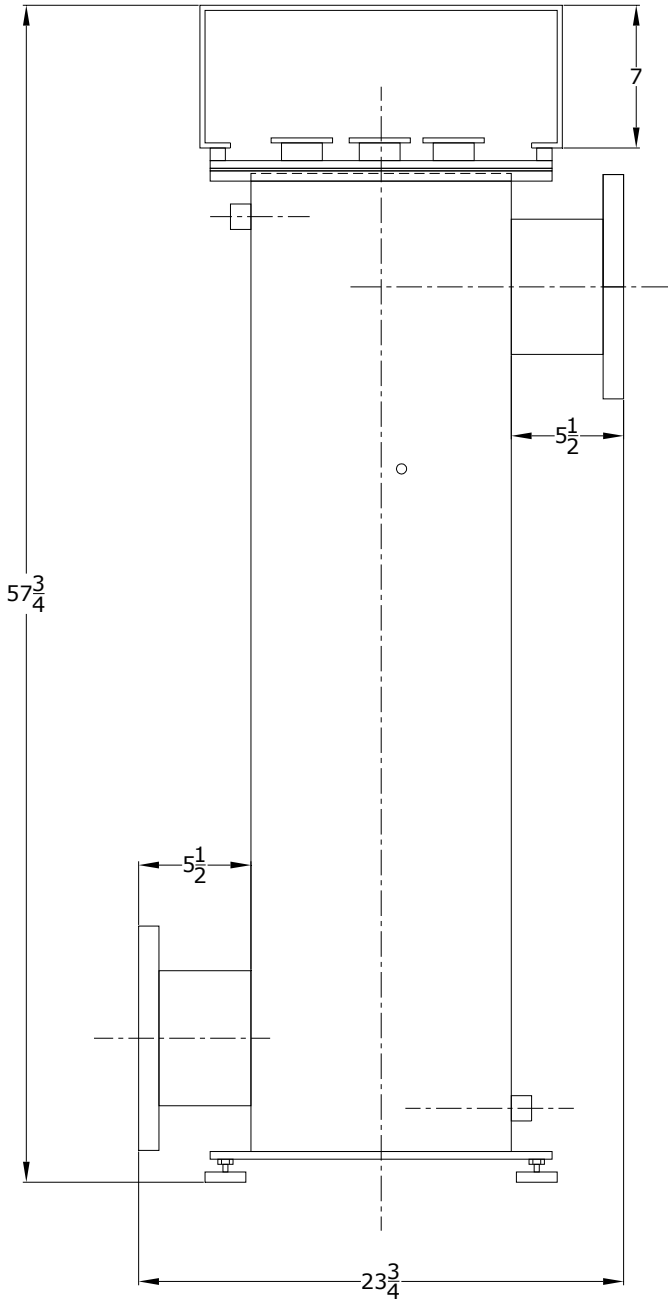


480 Watt PVC Chamber

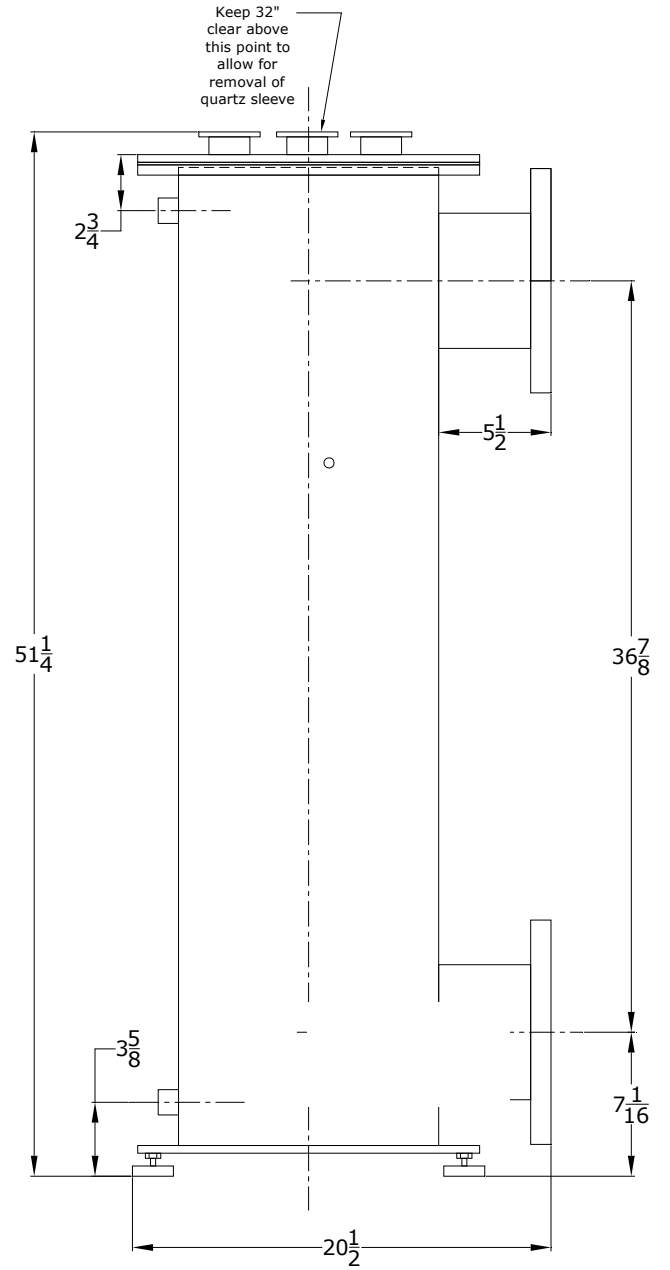


720 Watt & 960 Watt Chamber Installation Dimensions
6" Flanges

Flanges Opposed

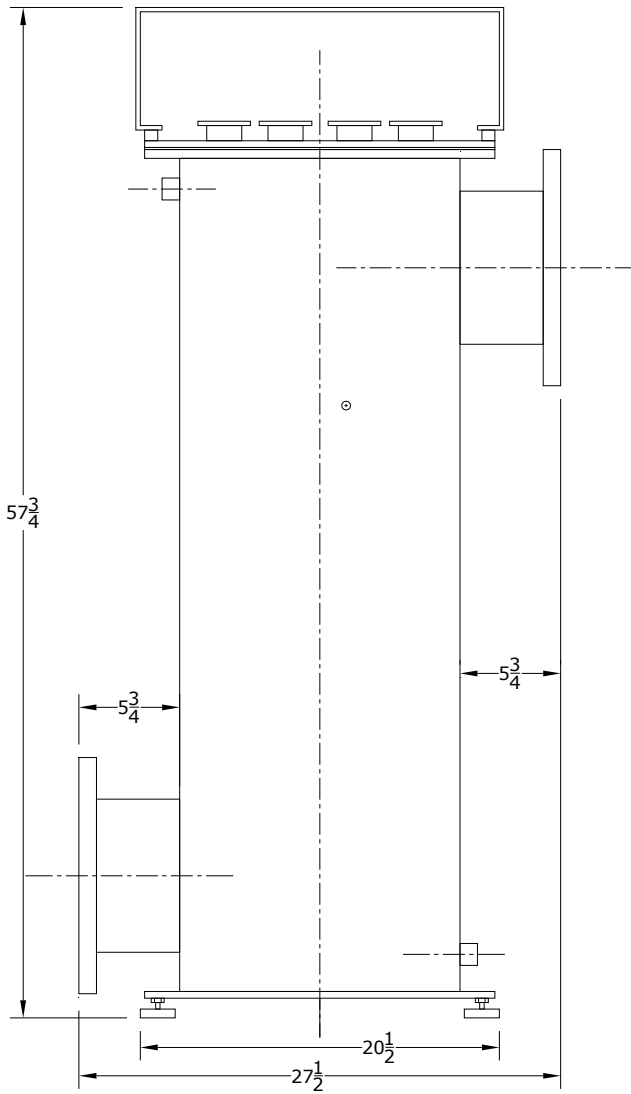


Flanges Same Side

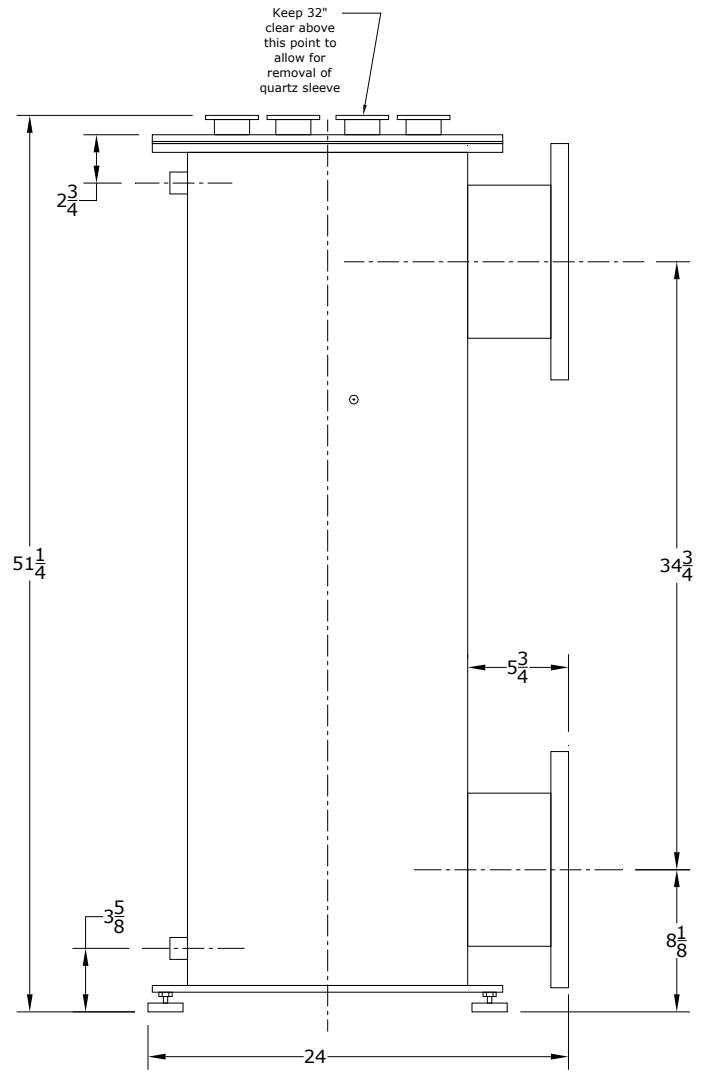


1200 Watt Chamber Installation Dimensions (Rev 2) 8" Flanges

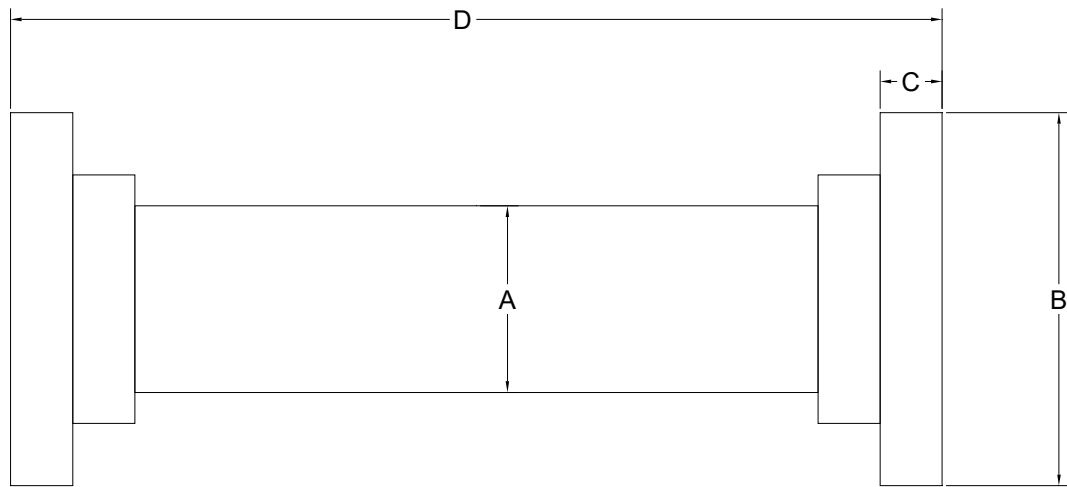
Flanges Opposed



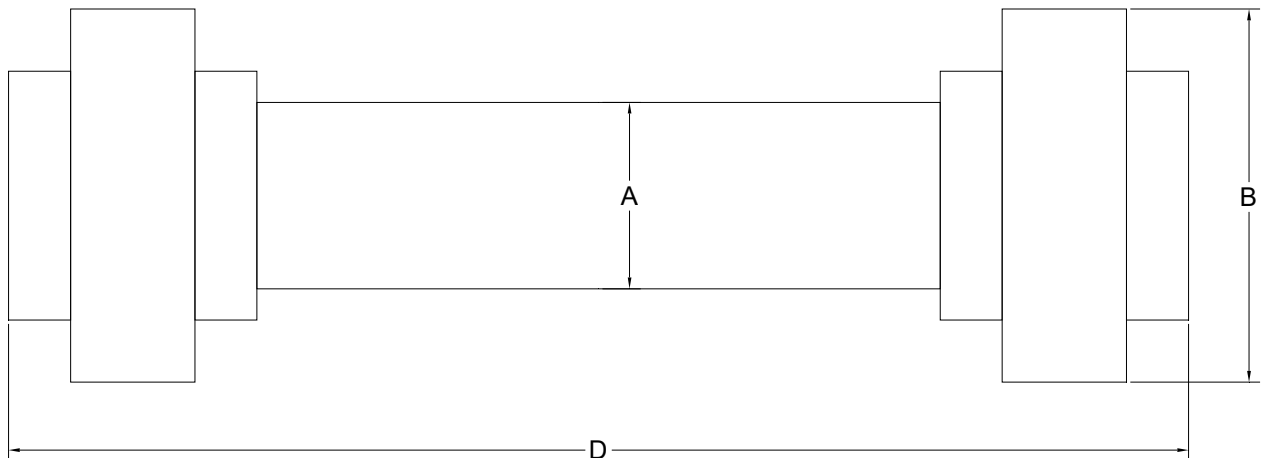
Flanges Same Side



Strainer Spool Dimensions (Flanged)				
Nominal Pipe Size	Pipe OD (A)	Flange OD (B)	Flange Thickness (C)	Overall length (D)
2	2 1/2	6	3/4	15 1/2
3	3 1/2	7 1/2	1	16 1/4
4	4 1/2	9	1	17 1/4
6	6 1/2	11	1 1/4	17 1/4
8	8 1/2	13 1/2	1 3/8	18 1/2
10	10 3/4	15 3/4	1 3/4	18 3/4



Strainer Spool Dimensions (Union)				
Nominal Pipe Size	Pipe OD (A)	Union OD (B)		Overall length (D)
2	2 1/2	5 1/4		20 1/2
3	3 1/2	7 1/8		21 3/4



INSTALLATION

UNPACKING

Units are shipped from the factory. In the event of damages during shipping, it is the responsibility of the customer to notify the carrier immediately and to file a damage claim. Open the crate carefully and examine all material inside.

Contents include UV Power Supply, Chamber, UV Lamp, Sleeve, Disconnect Gasket, Quick Disconnect Clamp, Valve for Air Bleed, 90 for Air Bleed, Post Chamber Strainer, Flow Switch, and Safety Cover.

STORAGE

When storing units, use the original packaging and store under a shelter to protect the contents from weather.

SAFETY CONSIDERATIONS

IMPORTANT SAFETY INSTRUCTIONS

READ AND FOLLOW ALL INSTRUCTIONS

SAVE THESE INSTRUCTIONS

WHEN INSTALLING, OPERATING, AND MAINTAINING THIS EQUIPMENT, KEEP SAFETY CONSIDERATIONS FOREMOST. USE PROPER TOOLS, PROTECTIVE CLOTHING, AND EYE PROTECTION WHEN WORKING ON OR INSTALLING THE EQUIPMENT. FOLLOW THE INSTRUCTIONS IN THIS MANUAL AND TAKE ANY ADDITIONAL SAFETY MEASURES APPROPRIATE. BE EXTREMELY CAREFUL IN THE PRESENCE OF HAZARDOUS SUBSTANCES.

THE PERSONNEL RESPONSIBLE FOR INSTALLATION, OPERATION, AND MAINTENANCE OF THIS EQUIPMENT MUST BE FULLY FAMILIAR WITH THE CONTENTS OF THIS MANUAL.

ANY SERVICING OF THIS EQUIPMENT MUST BE DONE WITH THE UNIT FULLY OFF AND DISCONNECTED FROM THE POWER SOURCE AND ALL PRESSURE BLED FROM THE LIQUID LINES.

WARNING

- CONNECT THE EQUIPMENT ASSEMBLY TO A CIRCUIT PROTECTED BY A GROUND-FAULT CIRCUIT-INTERRUPTER.
- ONLY A CERTIFIED TECHNICIAN MAY INSTALL AND SERVICE THE **CHLORKING®** SENTRY AQUA GUARD SYSTEM.
- MODIFYING THE **CHLORKING®** SENTRY AQUA GUARD SYSTEM IN ANY WAY MAY CAUSE BODILY INJURY AND WILL VOID THE WARRANTY.
- DO NOT ALLOW CHILDREN TO OPERATE THE **CHLORKING®** SENTRY AQUA GUARD SYSTEM.
- ONLY REPLACE COMPONENTS WITH THOSE SPECIFIED BY THE MANUFACTURER.
- WHEN INSTALLING THE SYSTEM, ENSURE THAT POWER IS LINKED TO THE MAIN PUMP POWER SOURCE FOR THE POOL TO ENSURE THAT THE **CHLORKING®** SENTRY AQUA GUARD SYSTEM NEVER OPERATES WHEN THE PUMPS ARE OFF.
- ALL BOXES ON THE **CHLORKING®** SENTRY AQUA GUARD SYSTEM CONTAIN HIGH VOLTAGE COMPONENTS. NEVER OPEN ANY BOX WHILE THE POWER IS ON.
- NEVER OPEN THE **CHLORKING®** SENTRY AQUA GUARD SYSTEM OR LOOK DIRECTLY AT THE UV LAMP WHEN IT IS OPERATING. DIRECT OR INDIRECT EXPOSURE TO THE LIGHT EMITTED BY THE LAMP WILL CAUSE SERIOUS EYE DAMAGE AND SEVERELY BURN UNPROTECTED SKIN.
- THE **CHLORKING®** SENTRY AQUA GUARD SYSTEM IS DESIGNED FOR SUPPLEMENTAL DISINFECTION AND SHOULD BE USED WITH EPA REGISTERED OR APPROVED DISINFECTION CHEMICALS TO IMPART RESIDUAL CONCENTRATIONS.
- REPLACE DAMAGED CORDS IMMEDIATELY.

CONSIGNES DE SÉCURITÉ IMPORTANTES

LISEZ ET SUIVEZ TOUTES LES INSTRUCTIONS

CONSERVEZ CES INSTRUCTIONS

LORS DE L'INSTALLATION, DE FONCTIONNEMENT ET L'ENTRETIEN DE CET ÉQUIPEMENT, GARDEZ LES CONSIDÉRATIONS SUR LA SÉCURITÉ AVANT TOUT. UTILISER DES OUTILS APPROPRIÉS, DES VÊTEMENTS DE PROTECTION ET LUNETTES DE PROTECTION LORSQU'ILS TRAVAILLENT SUR OU À

L'INSTALLATION. SUIVEZ LES INSTRUCTIONS DE CE MANUEL ET PREND LES MESURES DE SÉCURITÉ SUPPLÉMENTAIRES APPROPRIÉES. SOYEZ VIGILANTS EN PRÉSENCE DE SUBSTANCES DANGEREUSES. LE PERSONNEL CHARGÉ DE L'INSTALLATION, DE FONCTIONNEMENT ET D'ENTRETIEN DE CE MATÉRIEL DOIT ÊTRE PARFAITEMENT FAMILIARISÉ AVEC LE CONTENU DE CE MANUEL. AUCUNE OPÉRATION DE MAINTENANCE DE CET ÉQUIPEMENT DOIT ÊTRE FAITE AVEC L'UNITÉ ENTIÈREMENT ÉTEINT ET DÉBRANCHÉE DE L'ÉLECTRICITÉ ET TOUTE LA PRESSON SAIGNÉ À PARTIR DES LIGNES DE LIQUIDES.

MISE EN GARDE

CONNECTER LE MONTAGE DE L'ÉQUIPEMENT SUR UN CIRCUIT PROTÉGÉ PAR UN DISJONCTEUR DE FUITE À LA TERRE.

- SEUL un TECHNICIEN CERTIFIÉ PEUT INSTALLER ET ENTREtenir LE SYSTÈME de GARDE AQUA SENTRY **CHLORKING®** .
- MODIFIER LE SYSTÈME de GARDE AQUA SENTRY **CHLORKING®** EN QUELQUE SORTE PEUT CAUSER DES LÉSIONS CORPORELLES ET LA GARANTIE ANNULATION.
- NE LAISSEZ PAS les ENFANTS à EXPLOITER LE SYSTÈME de GARDE AQUA SENTRY **CHLORKING®** .
- REMPLACEZ UNIQUEMENT LES COMPOSANTS AVEC CELLES SPÉCIFIÉES PAR LE FABRICANT.
- LORSQUE VOUS INSTALLEZ LE SYSTÈME, s'ASSURER QUE la PUISSANCE EST LIÉE à LA SOURCE D'ALIMENTATION de POMPE à MAIN POUR LA PISCINE POUR VOUS ASSURER QUE LE SYSTÈME de GARDE AQUA **CHLORKING®** DÉTECTEUR FONCTIONNE JAMAIS QUAND LES POMPES SONT hors SERVICE.
- Toutes LES CASES SUR LE SYSTÈME de GARDE AQUA SENTRY **CHLORKING®** CONTIENNENT DES COMPOSANTS HAUTE TENSION. NE JAMAIS OUVRIR N'IMPORTE QUELLE BOÎTE TANDIS QUE L'APPAREIL EST ALLUMÉ.
- N'OUVREZ JAMAIS LE **CHLORKING®** SENTINELLE GARDE AQUA SYSTEM OU REGARDER DIRECTEMENT LA LAMPE UV LORSQU'IL FONCTIONNE. UNE EXPOSITION DIRECTE OU INDIRECTE À LA LUMIÈRE ÉMISE PAR LA LAMPE VA PROVOQUER DES LÉSIONS OCULAIRES GRAVES ET BRÛLER GRAVEMENT LA PEAU NON PROTÉGÉE.
- LE SYSTÈME de GARDE AQUA SENTRY **CHLORKING®** EST CONÇU POUR DISENFECTION SUPPLÉMENTAIRE ET DOIT ÊTRE UTILISÉ AVEC EPA ENREGISTRÉS OU AGRÉÉS de produits CHIMIQUES de DÉSINFECTION POUR RÉPANDRE des CONCENTRATIONS RÉSIDUELLES.
- REMPLACER LES CORDONS ENDOMMAGÉS IMMÉDIATEMENT.

PLAN AHEAD

Almost every pump room encountered is different. It is imperative to have prior knowledge of the facility in which the unit is to be installed and to evaluate what type of tools, wall anchors, etc. will be needed to make the installation as problem free as possible. Installations not done in accordance with this manual may not be covered under warranty.

POWER SUPPLY INSTALLATION (See Figure 2)

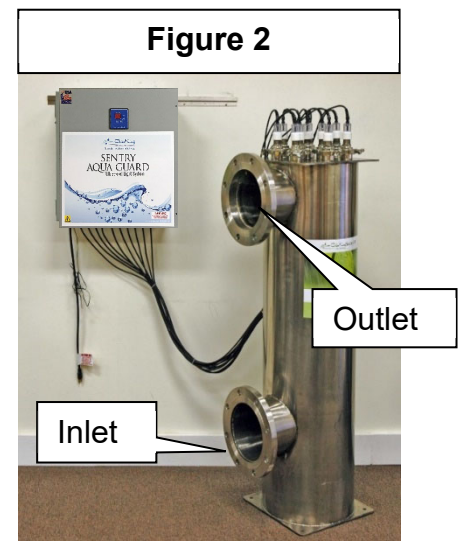
CAUTION

THE POWER SUPPLY MAY CAUSE INTERFERENCE WITH SENSITIVE ELECTRONICS. AVOID INSTALLING THE POWER SUPPLY AND LAMP LEAD WIRE NEAR SENSITIVE ELECTRONICS.

Locate a space on the wall, in the pump room, that will accommodate the dimensions of the power supply. The power supply must mount within 5 feet of the UV chamber to ensure that the cables can easily reach the chamber and within 3 feet of a 120 volt, 15-amp wall outlet protected by a GFCI breaker. On a drywall installation, locate studs to hold the weight of the power supply. Use concrete anchors for installations into concrete walls. Install in an easy to access location. Some installations may require a mounting stand be fabricated based on chamber access.

UV CHAMBER INSTALLATION (See Figure 2)

Place the UV Chamber on a level surface within 5 feet of the power supply. The chamber may be installed in a vertical or horizontal position. Ensure that the unit is accessible for service by leaving at least 3 feet of open space above or beside the chamber to allow for lamp and sleeve removal. U shaped horizontal installations require that the water is plumbed going down into the inlet of the chamber and coming out in the up direction from the outlet of the chamber. Z shaped horizontal installations should be plumbed so the water is flowing up into the chamber and up out of the chamber. Vertical installations require that the water is plumbed going into the inlet of the chamber (bottom) and out of the outlet of the chamber (top). Secure the chamber with suitable hardware. Ensure the plumbing is adequately supported to prevent strain on the chamber inlet and outlet. Damage resulting from unsupported plumbing will not be covered under warranty.



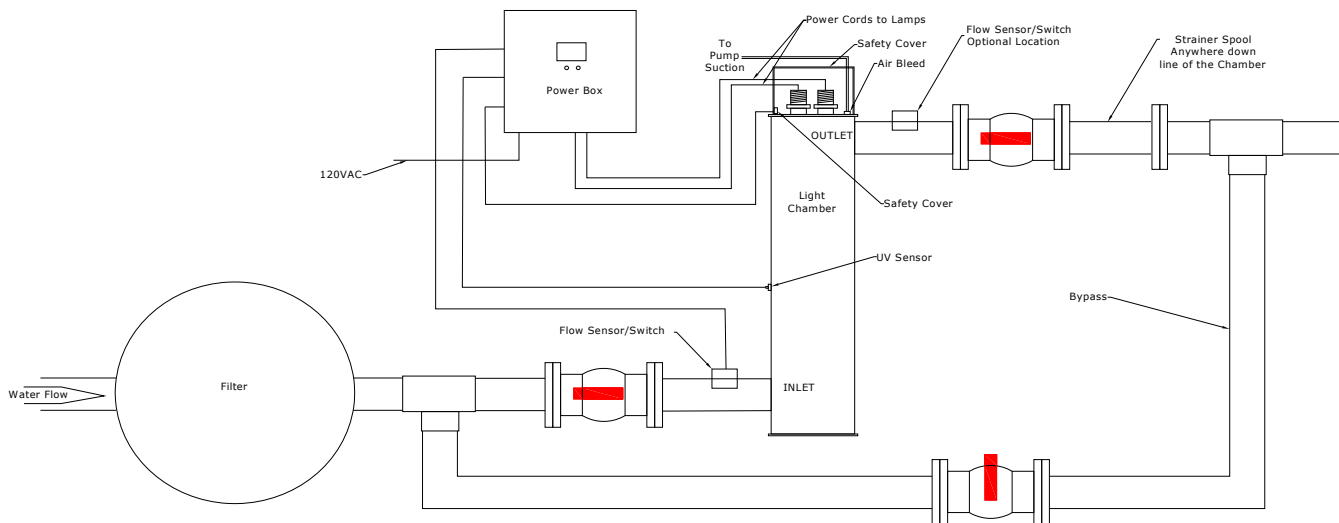
PLUMBING THE UV CHAMBER

WARNING

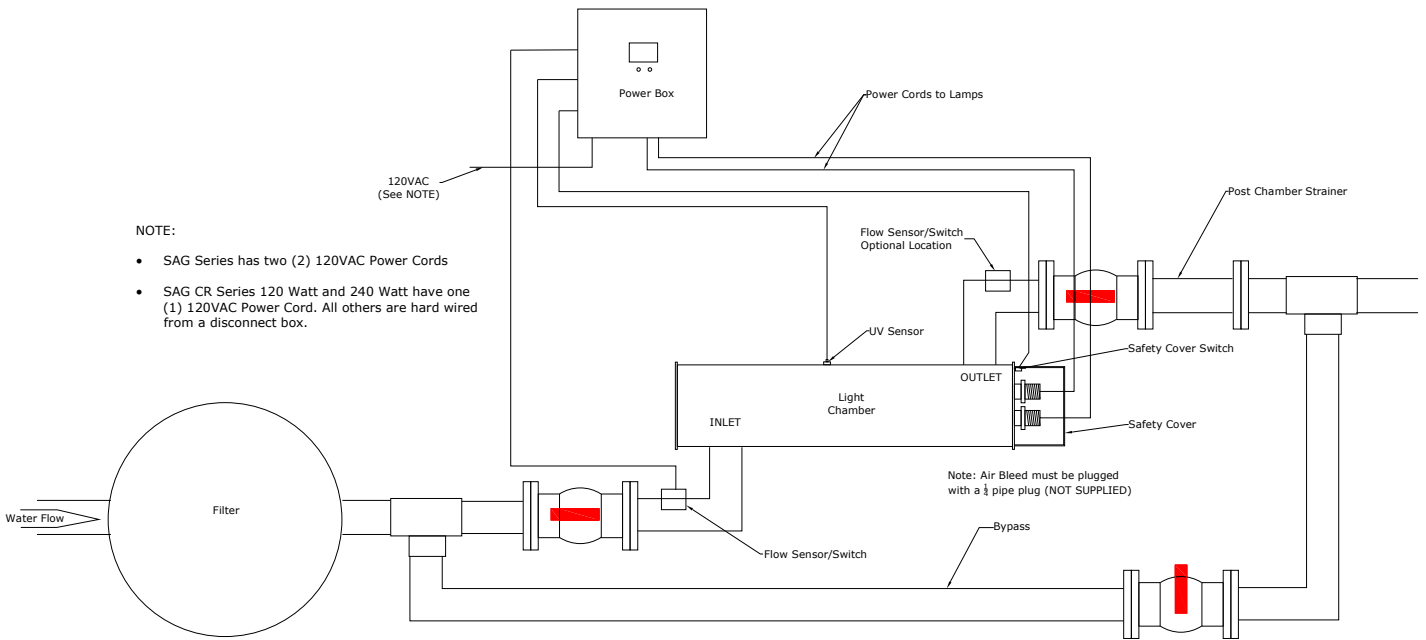
THE ENTIRE WATER VOLUME OF THE CIRCULATION SYSTEM SHOULD PASS THROUGH THE CHAMBER. INSTALLATION WITHIN A BYPASS IS RECOMMENDED FOR CHAMBER SERVICE.

NOTE FOR SPRAY PAD APPLICATION: SPRAY PADS NEED TO BE INSTALLED WITH THE PLUMBING BACK TO THE RESEVIOR FOR LOW SPEED PUMPS TO CONTINUE CIRCULATION THROUGH THE CHAMBER, ALLOWING CONTINUOUS OPERATION OF THE UV SYSTEM. ENSURE THE PLUMBING IS ADEQUATELY SUPPORTED TO PREVENT STRAIN ON THE CHAMBER INLET AND OUTLET. DAMAGE RESULTING FROM UNSUPPORTED PLUMBING WILL NOT BE COVERED UNDER WARRANTY.

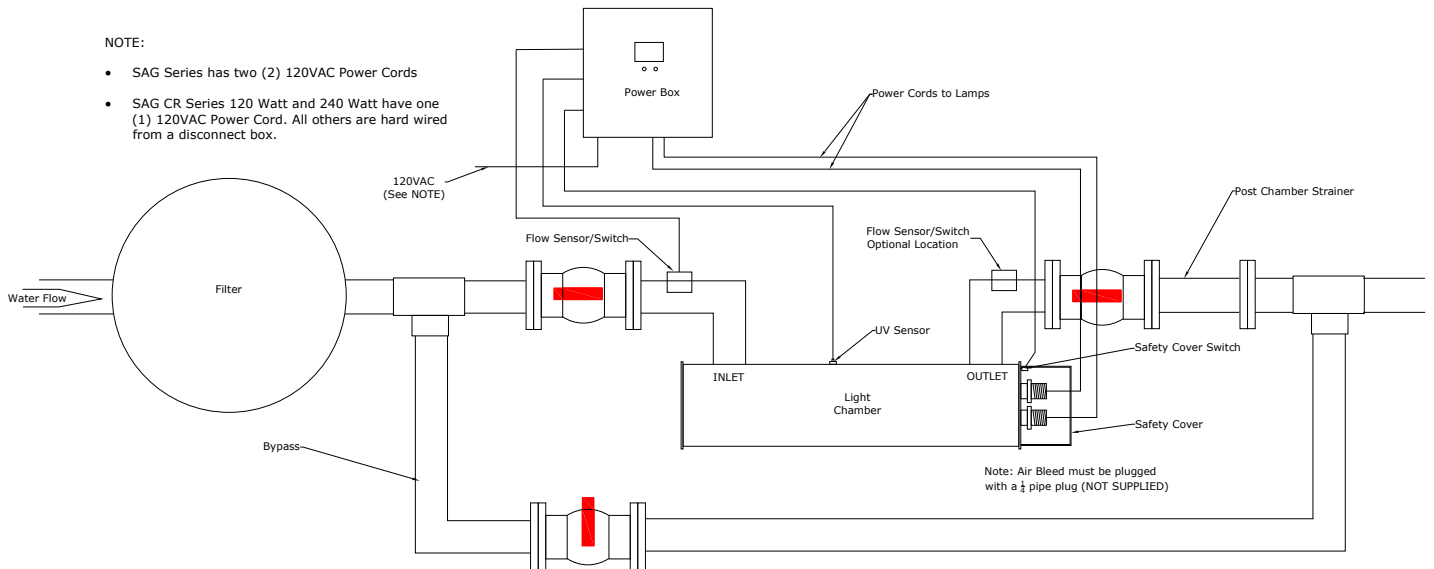
UV system installation diagram



UV system installation diagram Horizontal "Z"



UV system installation diagram Horizontal "U"



The entire water volume of the circulation system should pass through the UV chamber. Plumb the inlet of the UV chamber as close to the outlet of the pool filter as possible. Plumb a bypass around the UV chamber to facilitate service. Use valves for isolating the chamber from the circulation system.

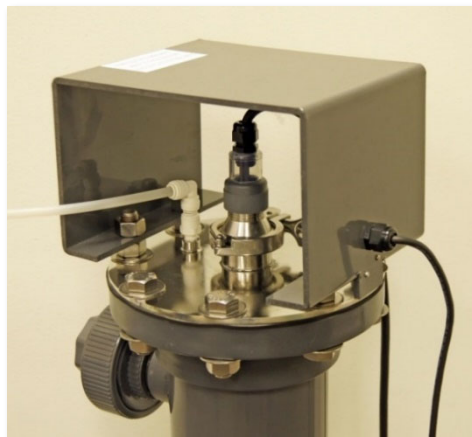
PLUMBING THE STRAINER

The strainer is installed on outlet side of the UV chamber plumbing. The strainer can be installed anywhere in the return line plumbing that is downstream of the UV chamber outlet. Please note that the UV Strainer is flow directional.

PLUMBING THE FLOW SWITCH

Tap the ½ inch NPT flow switch into the Chamber inlet or outlet. The flow switch must be installed within the isolation valves. The flow switch cannot be installed in downward flow. Connect the flow switch wire to the connection on the side of the power supply marked FLOW.

PLUMBING THE AIR BLEED ON VERTICAL MOUNT CHAMBERS



NOTE: Horizontal installations do not need an air bleed. Plug the hole with a ¼ NPT pipe plug (not supplied) or by installing and closing the supplied valve.

1. Insert 3/8" elbow into the 3/8" female adapter (shown in figure 1) on top of the UV chamber.
2. Tap 3/8" NPT valve (shown in figure 2) into the pump suction plumbing.
3. Connect the two points with 3/8" tubing.

4. Turn on the pool pump then open the 3/8" valve.



Figure 1



Figure 2

QUARTZ SLEEVE INSTALLATION

CAUTION

LAMPS AND QUARTZ SLEEVES ARE MADE OF GLASS AND ARE EXTREMELY DELICATE. TAKE CARE WHEN HANDLING OR REPLACING THESE COMPONENTS. WEAR COTTON GLOVES WHEN HANDLING LAMPS. HOLD LAMPS BY THE ENDS ONLY. NEVER TOUCH THE GLASS WITH BARE HANDS. WIPE ANY FINGERPRINTS FROM LAMPS WITH ALCOHOL.

QUARTZ SLEEVES ARE SHIPPED WITH SMALL RUBBER STOPS INSIDE THE BOTTOM OF THE SLEEVE. THIS RUBBER STOP MUST REMAIN IN PLACE TO PREVENT DAMAGE FROM LAMP INSTALLATION.

Place a gasket on the quartz sleeve quick disconnect flange. Carefully lower the quartz sleeve assembly into the chamber. On stainless chambers for SAG480 through SAG1200, the quartz sleeves sit on top of spring assemblies (**See Figure 3**). Quartz sleeves must be carefully lined up with the spring or damage to the sleeve may occur. When the quartz sleeve is properly located in the spring assembly the quick disconnect quartz sleeve assembly will rest about 1/4" to 1/2" above the 2" gasket. Gently press the quick disconnect quartz sleeve assembly into place and install the quick disconnect clamp to secure the sleeve in place.

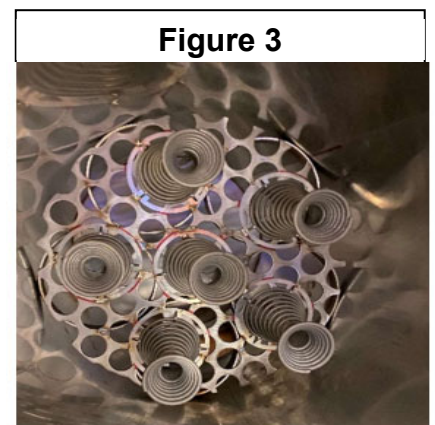


Figure 3

LAMP INSTALLATION

CAUTION

THE WIRING CONNECTOR FOR THE LAMP MUST BE INSTALLED ON THE LAMP BEFORE THE LAMP IS LOWERED INTO THE QUARTZ SLEEVE OR DAMAGE TO THE LAMP OR QUARTZ SLEEVE MAY OCCUR.

Place the connector onto the lamp and lower the lamp all the way to the bottom of the quartz sleeve. Screw the viewing cap onto the quick disconnect quartz sleeve assembly. Push the lamp lead wire through the viewing cap until the lamp is against the rubber cushion at the bottom of the quartz sleeve and tighten the liquid tight gland.



SYSTEM WIRING

WARNING

THE EARTH TERMINALS AND THE EQUIPMENT BONDING WIRE MUST BE CONNECTED. THE ELECTRICAL SUPPLY MUST MATCH THE SYSTEM RATED VOLTAGE AND CURRENT. ENSURE THAT POWER IS LINKED TO THE MAIN PUMP POWER SOURCE FOR THE POOL TO ENSURE THAT THE SYSTEM NEVER OPERATES WHEN THE POOL PUMPS ARE OFF.

All systems must be wired so that when the pool circulation pump is off the power to the ChlorKing® Sentry UV System is off with the exception of spray pads that may have bypass flow through the chamber when the main pumps are off.

120-VOLT SYSTEMS: These units are cord connected at the factory with two standard plugs for a 15-amp wall outlet. Connect both power cords to a 120V electrical outlet protected by a GFCI breaker.

230-VOLT SYSTEMS: These units are permanently wired to the electrical service in the pump room through a disconnect box. A Certified Electrician must do the permanent wiring. Connect the red and black wires to the appropriate wire nuts at the top of the contactor. (Labeled lines with wire nuts are provided.) Connect the ground wire at the wire nut provided. All units are equipped with a black control cord that plugs into a standard wall outlet protected by a GFCI breaker.

SAFETY COVER IINSTALLATION

Place the safety cover on top of the UV chamber and attach with the supplied nuts. Be sure the micro-switch is depressed when the cover is installed. Plug the safety cover 2-pin connector into the power supply panel marked SAFETY COVER.

UV SENSOR INSTALLATION

Sensor comes pre-wired from factory for installation into the sidewall of the chamber. Install the UV sensor in the following order-ring, quartz window, and UV sensor into the sensor boss. Hand tighten the UV sensor nut.

BONDING THE SYSTEM

All ChlorKing® Sentry UV System systems require bonding. Bonding is accomplished by connecting a minimum 8 AWG bonding wire from the bonding grid in the equipment room to the UV system power supply and the UV system chamber. The bonding lugs on the power supply and chamber are clearly marked with a decal that reads “Bonding Lugs”.

OPERATION

START-UP PROCEDURES

Open the chamber isolation valves and close any bypass valves. Allow the chamber to fill with water. Turn the system on with the switch located on the power supply. Operate the system for 10 minutes to allow the lamps to warm up to full power. After 10 minutes the UV monitor will read 60mj/cm² and the green led will be illuminated.

CHEMISTRY

Your pool water should be balanced in the following range before turning your ChlorKing® Sentry UV system on. Water chemistry outside of the following parameters may void warranty.

Chlorine: 2 – 5 ppm

Ph: 7.2 – 7.6

Alkalinity: 80 – 120

Hardness: 180 – 280 ppm

Salt: 3500 – 7000 ppm

Cyanuric acid: 20 – 50 ppm (Outdoor Pools only)

Phosphates: Less than 100 ppb

UV METER OPERATION

The UV meter displays the UV dose in mj/cm². An adequate dose is 40mj/cm² to 60mj/cm². When the display is initially powered on, a mj dose will appear with both the green and yellow LED off. After 10 minutes of operation the display will show 60mj/cm² and the green LED will be illuminated. The display will automatically calibrate with no input required. When the UV dose falls to 39mj/cm² the green LED will go out and the yellow LED will illuminate. This indicates the need for quartz sleeve and sensor window service or lamp replacement. If the yellow LED is ignored and dose drops to 30mj/cm², the yellow LED will begin to flash. This indicates that service is critical.

WINTERIZATION

The Sentry UV is designed to operate in temperatures above freezing to 104F. To winterize the Sentry UV Chamber, drain the water by removing the drain plug or anode at the base of the chamber.

Note: Operating below calculated operational temperatures will impact the dose. Refer to General Specifications and Sizing Guidelines.

MAINTENANCE

ROUTINE MAINTENANCE

Daily Check

Check the UV meter and LED lights on the power supply daily. Under normal operating conditions, the UV meter will indicate a value over 40mJ/cm² and the green LED will be illuminated. If the UV meter falls below 40mJ/cm², the green LED will go out and the yellow LED will illuminate. A meter display of less than 40mJ/cm² with a yellow LED is an indication that maintenance or repairs are needed. The most common cause is dirty quartz sleeves and sensor window.

60 MONTH MAINTENANCE PLAN

See following pages for suggested maintenance. Use QR resources for visual support.



SENTRY UV MAINTENANCE SCHEDULE: 60 MONTH

	Location
	Model
	Serial Number

Suggested Maintenance Items	Date																				
	3 month	6 month	9 month	12 month	15 month	18 month	21 month	24 month	27 month	30 month	33 month	36 month	39 month	42 month	45 month	48 month	51 month	54 month	57 month	60 month	
1 Wipe down the UV chamber	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
2 Address any leaks	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
3 Clean sleeves*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
4 Clean sensor window*	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
5 Inspect electrical connections	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
6 Inspect chamber anode				X																	X
7 Order replacement lamps**				X																	X
8 Replace lamps					X										X						X
9 Order replacement sleeves**																			X		
10 Replace sleeves										X											X
11 Confirm AC AMP Draw***				X						X										X	
12 Calibrate										X											X

* Indicates As Needed, may be required more often

** See Parts Guide in Section 6 of this manual

***See Electrical Specifications or Contact Technical Support

For troubleshooting support please see Technical Guide or contact ChlorKing at 800.536.8180

1. Record Dose Displayed on Screen

The Sentry UV displays dose on screen. An adequate dose is 40mj/cm² to 60mj/cm². When the UV dose falls to 39mj/cm² the green LED will go out and the yellow LED will illuminate. This indicates the need for quartz sleeve and sensor window service or lamp replacement. If the yellow LED is ignored and dose drops to 30mj/cm², the yellow LED will begin to flash. This indicates that service is critical. If no display is present, pls see Troubleshooting Section.



2. Wipe Down the UV Chamber

The Sentry UV chamber should be wiped down to prevent premature or unnecessary component failure or degradation. Using a lint free cloth and a mild soap solution, wipe the chamber down from top to bottom. This will also assist the operator with any leak identification addressed in the next maintenance item.

3. Identify and Address Any Leaks

The UV chamber has threaded and gasketed connections that should be inspected. Addressing leaks immediately will avoid unnecessary damage and is an essential part of proactive maintenance.

If a leak is observed, the connection is leaking and should be addressed by isolating the machine, draining the chamber as needed, and cleaning the impacted area. Fresh thread tape or a replacement gasket should be applied, and the fitting resecured. If a cracked or faulty component is the cause of the leak, refer to the UV Parts Guide and contact ChlorKing Sentry for assistance.



4. Clean the Sleeves

Overtime, mineral deposits will coat the UV sleeve and prevent UV light from effectively penetrating through this build up. Sleeves should be cleaned quarterly or as dose on screen drops. Reference QR code for video instruction.

5. Clean the Sensor

The UV sensor monitors light intensity within the chamber. Deposits can coat the quartz window and prevent accurate readings. Reference QR code for video instruction on cleaning the sensor window.



6. Inspect Electrical Connections

With all incoming power disconnected, inspect all electrical connections for any discoloration or damage. Check the tightness of all screw connections. Ensure all wire nut connections are tight.

7. Order Replacement Lamps

UV lamps have a useful life of 13,000 hours of operation. They should be proactively replaced every 1.5 years. Reference Parts Guide and contact an authorized Chlorking with the unit serial number to place an order.

8. Replace UV Lamps

Reference QR code for video instruction on replacing the sleeves. Guidance on proper methods of handling broken fluorescent lamps or disposal is available from the US EPA and from many state agencies and local health and environmental authorities. The EPA guidelines can be found at [Mercury | US EPA](#).

9. Order Replacement Sleeves

UV Sleeves can become etched with mineral deposits and will be required to replace once they no longer become clean following service. Reference Parts Guide and contact an authorized Chlorking dealer with the unit serial number to place order.

10. Replace Sleeves

Reference QR code for video instruction on replacing the sleeves.

11. Confirm Incoming AC AMPS

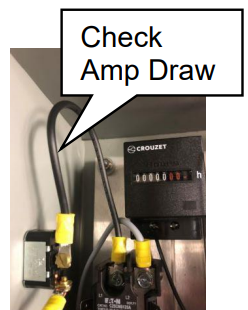
Using a voltmeter set to AC AMPS, clamp meter around wire in the upper left corner of power supply. Expected AMP draw listed under ELECTRICAL SPECIFICATIONS for the specific model. If expected AMPS are not displayed, contact technical support for instruction.

12. Calibrate the UV Power Supply

Calibrate the UV Power Supply only when the lamps and sleeves are replaced together, and AC AMPS are confirmed. Calibration of the UV Power Supply at any other time will provide false reading on screen. Calibration is complete by pressing the Calibrate button on the display for 31 seconds.



UV VIDEOS



Cleaning the Quartz Sleeve and UV Sensor Window Manually

CAUTION

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QUARTZ SLEEVES ARE SHIPPED WITH SMALL RUBBER STOPS AT THE BOTTOM OF THE SLEEVE. THIS RUBBER STOP MUST REMAIN IN PLACE TO PREVENT DAMAGE FROM LAMP INSTALLATION.

Unplug the unit from the power source to prevent the risk of electric shock or system damage. Isolate the chamber from the pool circulation system by opening the bypass valve and closing the inlet and outlet valves and the air bleed if installed. Drain the chamber. Remove the safety cover. Loosen the liquid tight gland and remove the viewing cap. Lift the lamp out of the quartz sleeve without disconnecting it from the wiring harness. Once the lamp is completely free of the quartz sleeve it can be safely disconnected from the wiring harness. Remove the quick disconnect clamp and remove the sleeve from the chamber.

NOTE: If the power supply is within 5 feet of the UV chamber, the quartz sleeve may be removed without disconnecting or removing the lamp.

WARNING

Read all cautions and directions provided with the muriatic acid used. Always add acid to water. Use only with adequate ventilation. If strong odor is noticed, STOP, ventilation is inadequate. Leave area immediately. If the work area is not well ventilated, you MUST use a properly fitted and maintained NIOSH approved respirator for acid fumes.

Clean the quartz sleeve by wiping with a clean cotton cloth and a standard glass cleaner. Sleeves with calcium accumulation will require cleaning with a 5:1 water and muriatic acid solution.

Inspect the gasket on the quartz sleeve quick disconnect flange and replace if flattened. Carefully lower the quartz sleeve assembly into the chamber. Sleeve must be kept in a vertical position to avoid cracking. On stainless chambers for SAG480 through SAG1200 the quartz sleeves sit on top of spring assemblies. Quartz sleeves must be carefully lined up with the spring or damage to the sleeve may occur (**See Figure 2.1**). Gently press the quartz sleeve into place and install the quick disconnect clamp to secure the sleeve in place.

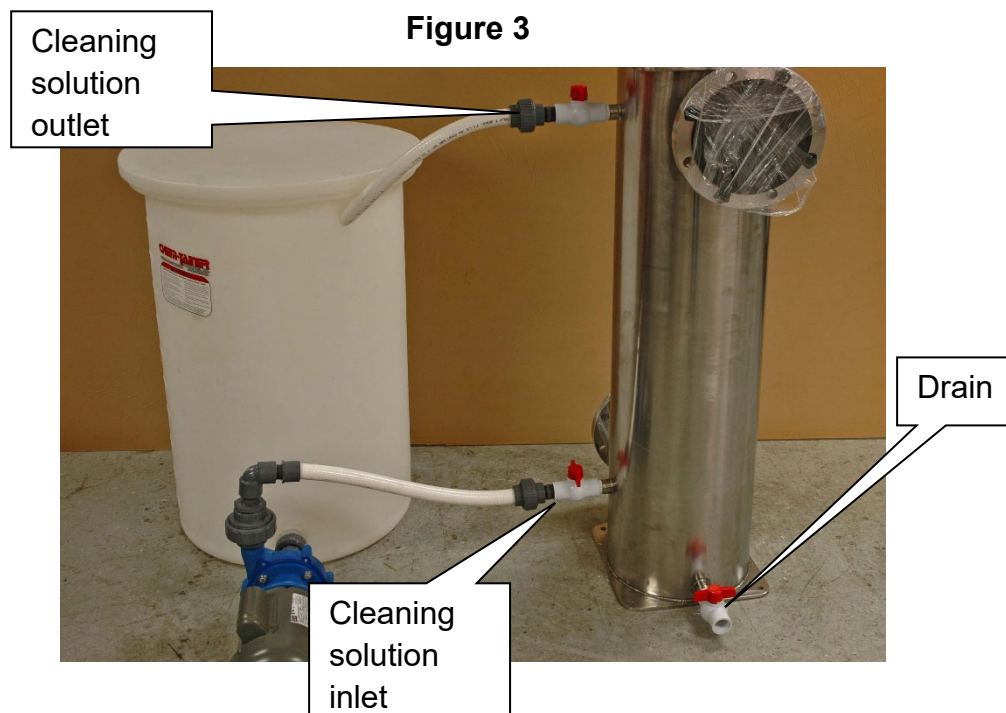
Remove the UV sensor from the chamber and carefully remove the quartz window. Clean the quartz window by wiping with a clean cotton cloth and standard glass cleaner. Windows with calcium accumulation will require cleaning with a 5:1 water and muriatic acid solution.

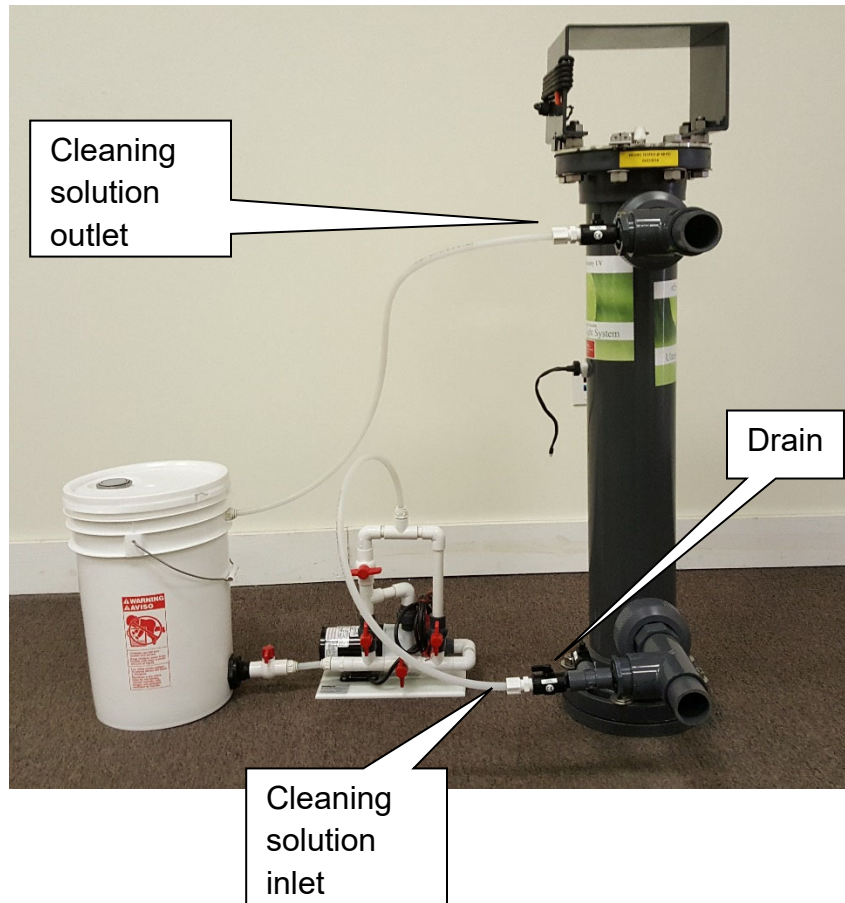
Inspect sensor o-ring and replace if flattened. Reinstall the o-ring, window, and sensor in that order. On models without the quartz window, clean the quartz on the face of the monitor.

See Parts Guide for exploded diagram.

Cleaning Quartz Sleeve and UV Monitor Window Chemically

Unplug the unit from the power source to prevent the risk of electric shock or system damage. Isolate the chamber from the pool circulation system by opening the bypass valve and closing the inlet and outlet valves. Drain the chamber. Connect a ChlorKing Acid Washer or other suitable cleaning setup to the chamber. See examples in **Figure 3**. Water and muriatic acid are mixed in the cleaning solution tank at a ratio of 5:1. Five parts water to one part muriatic acid. Flush the chamber for 2 to 5 minutes with cleaning solution. Drain the cleaning solution from the chamber. When using the ChlorKing Acid Wash System the solution is pumped back into the cleaning solution tank for reuse. Remove the cleaning solution hoses from the chamber and close the cleaning solution valves. Open the inlet and outlet valves to restore pool circulation to the chamber.





Lamp Replacement

Lamps are designed to provide a useful service life of 13,000 hours. After that time, the lamps will need replacing.

CAUTION

LAMPS AND QUARTZ SLEEVES ARE MADE OF GLASS AND ARE EXTREMELY DELICATE. CARE SHOULD BE TAKEN WHEN HANDLING OR REPLACING THESE COMPONENTS. WEAR COTTON GLOVES WHEN HANDLING LAMPS. HOLD LAMPS BY THE ENDS ONLY. NEVER TOUCH THE GLASS WITH BARE HANDS. WIPE ANY FINGERPRINTS FROM LAMPS WITH ALCOHOL.

Unplug the unit from the power source to prevent the risk of electric shock or system damage. Loosen the liquid tight gland and remove the viewing cap. Lift the lamp out of the quartz sleeve without disconnecting it from the wiring harness. Once the lamp is completely free of the quartz sleeve it can be safely disconnected from the wiring harness.

CAUTION

THE WIRING CONNECTOR FOR THE LAMP MUST BE INSTALLED ON THE LAMP BEFORE THE LAMP IS LOWERED INTO THE QUARTZ SLEEVE OR DAMAGE TO THE LAMP AND SLEEVE MAY OCCUR.

Place the connector onto the lamp and lower the lamp all the way to the bottom of the quartz sleeve. Screw the viewing cap onto the quick disconnect quartz sleeve assembly (see page 25) and tighten the liquid tight gland.

RECOMMENDED BROKEN LAMP HANDLING PRACTICES

Guidance on proper methods of handling broken fluorescent lamps is available from the US EPA and from many state agencies and local health and environmental authorities. The EPA guidelines can be found at <http://www.epa.gov/mercury/spills/index.htm>.

TROUBLESHOOTING

CONTACT TECHNICAL SUPPORT

Technical resources can be found at www.chlorking.com/tech or call 1-800-536-8180. Select Technical Support option for assistance.

A customer service ticket can be submitted by using the Customer Service Form at www.chlorking.com/contact-us or by sending an email to techsupport@chlorking.com.

Technical support will need the system model number and system serial number to assist you. Please have these ready when you call. The model number and serial number are located on the data plate. The data plate is located on the left side of the power box and shown below.

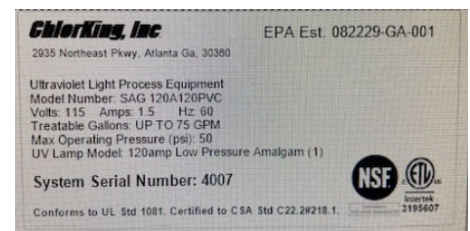
ORDERING PARTS

Parts can be ordered through an authorized ChlorKing dealer. Please contact ChlorKing at www.chlorking.com/replacement-parts, by emailing service@chlorking.com, or by calling 1-800-536-8180 to be connected with a dealer in your area.

You will need the system model number and system serial number to order parts. Please have these ready when you call. The model number and serial number are located on the data plate. The data plate is located on the left side of the power box and shown below.

TROUBLESHOOTING INSTALLATION

See next page.



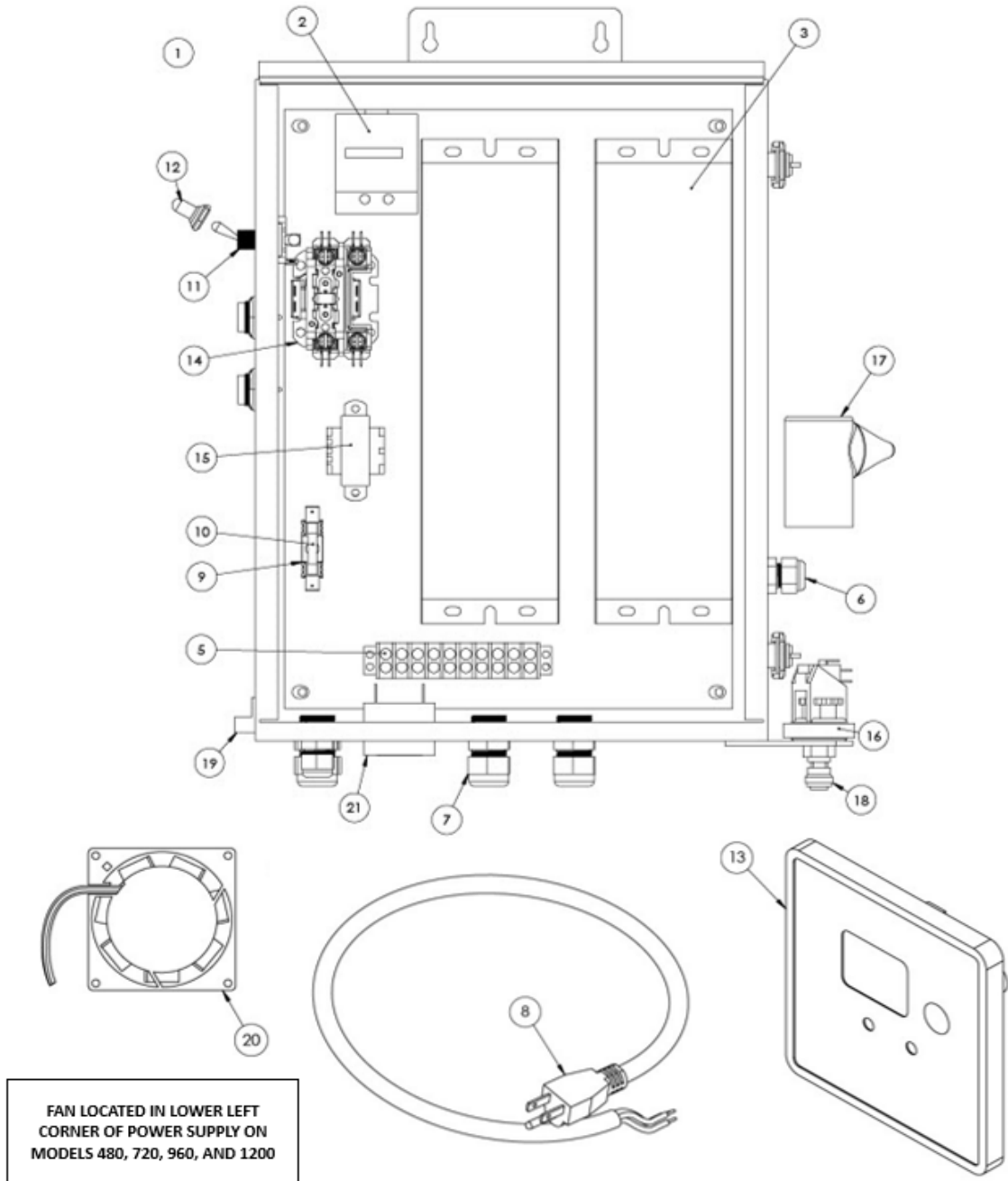
TROUBLESHOOTING SENTRY UV

SCENERIO	POSSIBLE CAUSE	SUGGESTED ACTION
The Sentry UV Power Supply showing no display.	Confirm 120v Power	Confirm both cords are plugged into a live 120v outlet.
	Toggle Switch ON	Confirm the toggle switch on the left side of the UV power supply is in the UP position.
	Check the Safety Cover Switch	Check that the UV Safety Cover mirco switch is depressed and plugged in to the correct port on the side of the power supply.
		Unplug the Safety Cover Switch and check for continuity.
	Check the Flow Switch	Check the UV flow switch is installed in the correct flow pattern and plugged in to the side of the power supply, section 2.11
Confirm the UV chamber and flow switch plumbing are not in bypass.		
Unplug the Flow Switch from the power supply and check for continuity.		
00 or low dose on the UV power supply display	Dirty Sleeves and Sensor Window	Clean the quartz sleeves and the UV monitor head.
	Aged lamp or lamp out	Replace lamps that are greater than 12 months.
		Confirm system amp draw to ensure lamps and ballasts are operational.
	Bad ballast within the power supply	Test ACV across each ballast. See video resources.
	Low water temerature	Refer to Sizing Guidelines in Section 1
	Low water transmittance	Correct chemistry or replace water.
Blown Fuse	Bad ballast within the power supply	Gather fuses per ballasts and contact technical support. Refer to Electrical Specifications.

For additional assistance contact ChlorKing Technical Support

PARTS GUIDE

UV POWER SUPPLY

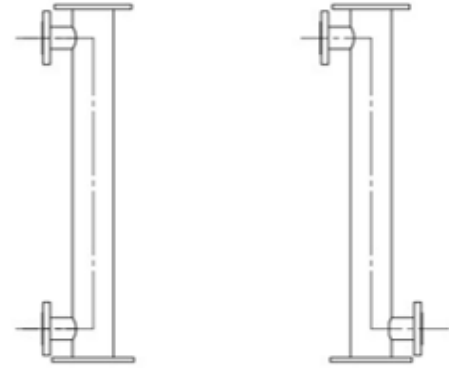
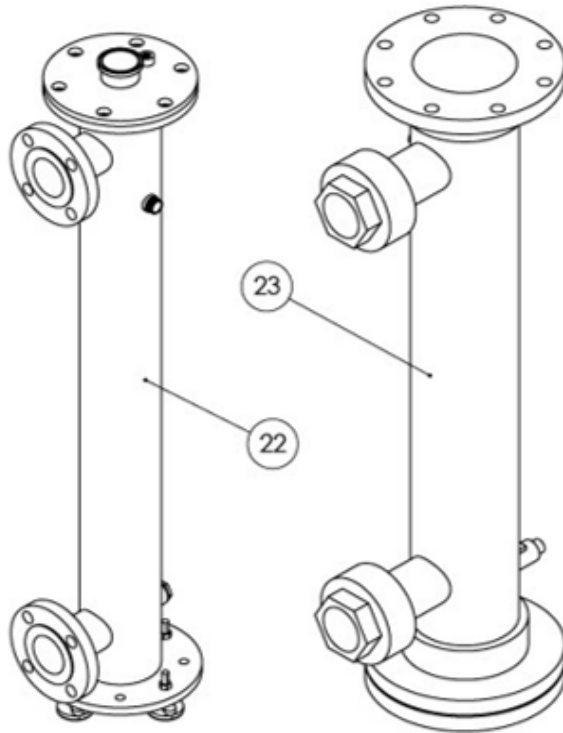


ITEM NO.	PART NO.						DESCRIPTION	MODEL	QTY
1A	KITSAG120A120S	KITSAG240A120S	KITSAG480A120S	KITSAG720A120S	KITSAG960A120S	KITSAG1200A120S	POWER SUPPLY	N/A	1
1B	PS120A120	PS240A120	PS480A120	PS720A120	PS960A120	PS1200A120	PANEL	N/A	1
2A	99772715						HOUR METER	ALL	1
2B*	26546845						METER SOCKET	ALL	1
3	WH7-120-H						BALLAST	120: 1 240: 2 480: 4 720: 6 960: 8 1200: 10	VARIES
4*	TB100-05SP						5 TERMINAL BLOCK	120, 720	1
5	TB100-10SP						10 TERMINAL BLOCK	240: 1 480 & 720: 2 960 & 1200: 4	VARIES
6A	3228						3/8 FITTING	ALL	VARIES
6B*	8461						3/8 LOCKNUT	ALL	VARIES
7A	3231						1/2 FITTING	ALL	VARIES
7B*	8463						1/2 LOCKNUT	ALL	VARIES
8	123MSJTOW4						POWER CORD	ALL	1
9	354801GY						FUSE HOLDER	ALL	1
10A	GSA2						GLASS FUSE	120	1
10B	GSA4						GLASS FUSE	240	1
10C	GSA8						GLASS FUSE	480	1
10D	GSA12						GLASS FUSE	720	1
10E	GSA15						GLASS FUSE	960, 1200	1
11	2FAA04-73-XCK1						TOGGLE SWITCH	ALL	1
12	C1131/27						SWITCH BOOT	ALL	1
13	S-MCLD						LEGACY DISPLAY	ALL	1
14	C25CNB125A						CONTACTOR	ALL	1
15	VPL12-400						TRANSFORMER	ALL	1
16	800120-3						PRESSURE SWITCH	OPTIONAL	1
17	182010						PRESSURE SWITCH BOOT	OPTIONAL	1
18	PP450821W						FEMALE ADAPTER	OPTIONAL	1
19	ADR6						BONDING LUG	ALL	2
20	UF80B12-BWHR						FAN	480, 720, 960, 1200	1
21**	SC110NJ						ALARM	OPTIONAL	1

*NOT SHOWN IN DIAGRAM

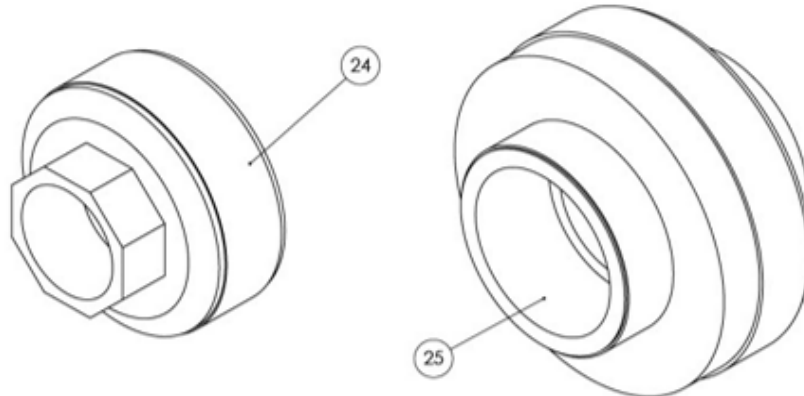
**REQUIRED IN SOME STATES

CHAMBER BODY



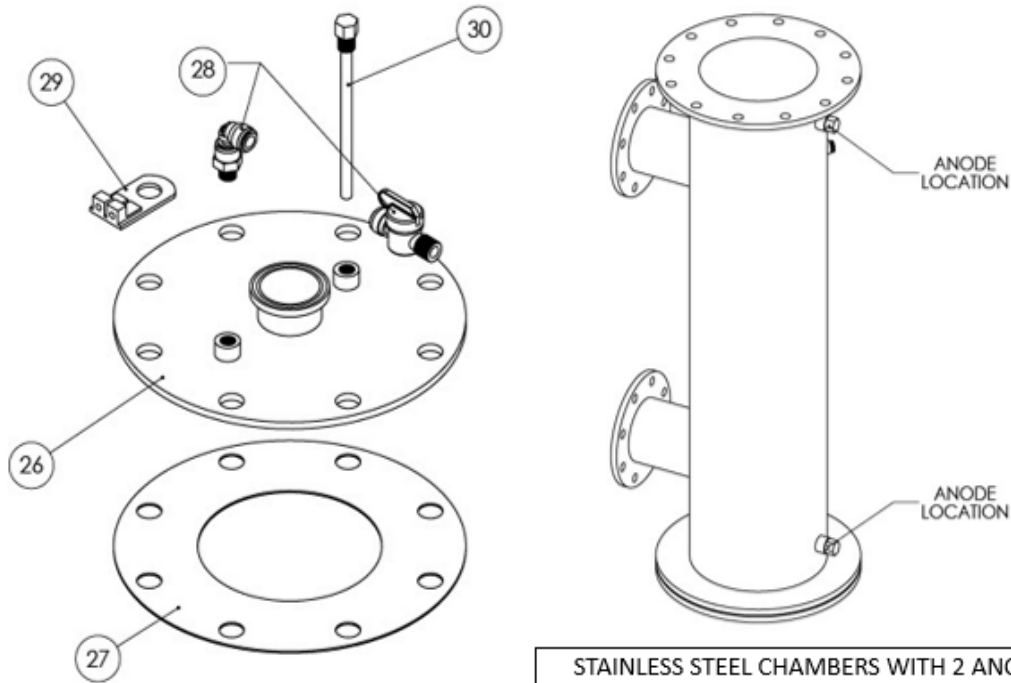
"U" CHAMBER "Z" CHAMBER
ONLY APPLICABLE FOR STAINLESS CHAMBERS

ITEM NO.	PART NO.	DESCRIPTION	NUMBER OF LAMPS
22A	CH120WSS	REPLACEMENT 120 SS CHAMBER	1
22B	CH240WSS	REPLACEMENT 240 SS CHAMBER	2
22C	CH480WSS	REPLACEMENT 480 SS CHAMBER	4
22D	CH720WSS	REPLACEMENT 720 SS CHAMBER	6
22E	CH960WSS	REPLACEMENT 960 SS CHAMBER	8
22F	CH1200WSS	REPLACEMENT 1200 SS CHAMBER	10
23A	KITCH120APVCS	REPLACEMENT 120 PVC CHAMBER WITHOUT TOP FLANGE	1
23B	KITCH240APVCS	REPLACEMENT 240 PVC CHAMBER WITHOUT TOP FLANGE	2
23C	KITCH480APVCS	REPLACEMENT 480 PVC CHAMBER WITHOUT TOP FLANGE	4



ITEM NO.	PART NO.	DESCRIPTION	MODEL	QTY
24	897-020	PVC UNION 2"	120 PVC	1
25	897-030	PVC UNION 3"	240 PVC	1

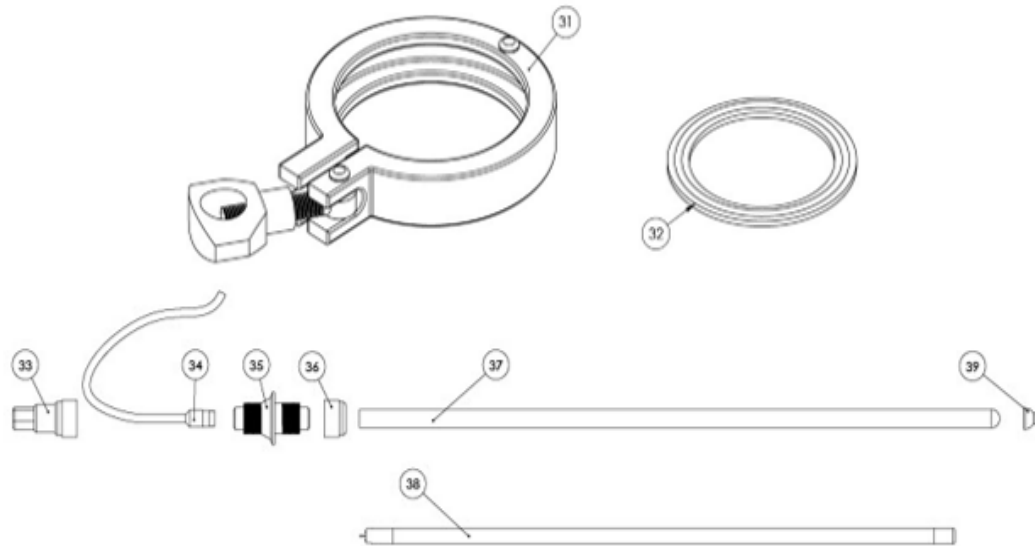
CHAMBER TOP



STAINLESS STEEL CHAMBERS WITH 2 ANODES

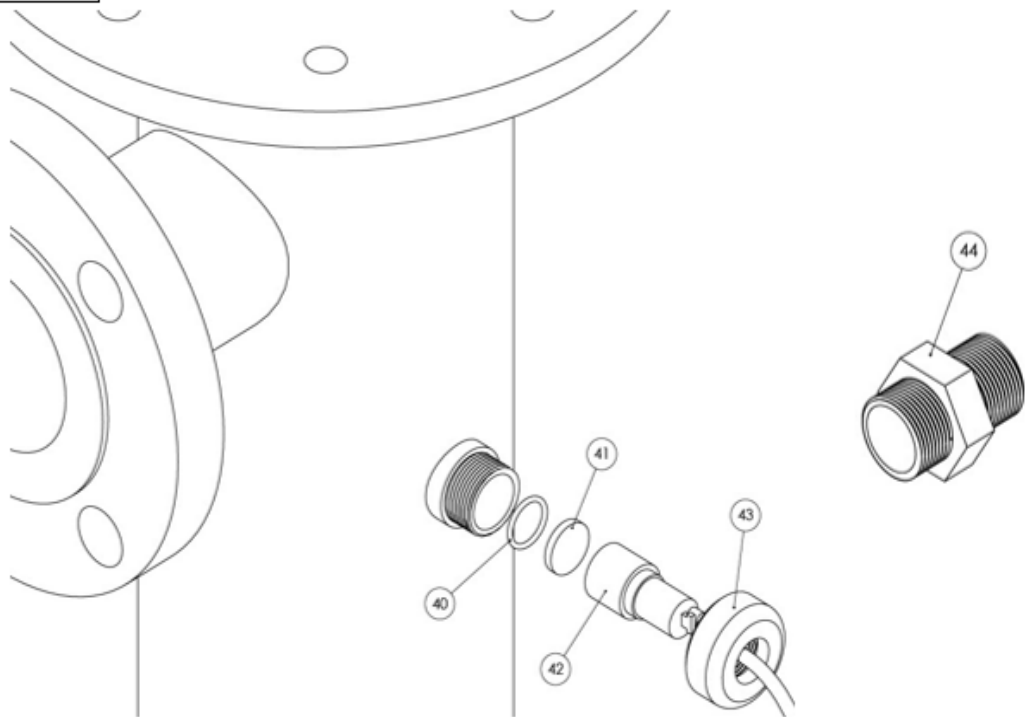
ITEM NO.	PART NO.	DESCRIPTION	MODEL	QTY
26A	SSFLANGE120SA	REPLACEMENT TOP FLANGE 120	120 SS	1
26B	SSFLANGE6A	REPLACEMENT TOP FLANGE 120 PVC	120 PVC	1
26C	SSFLANGE240SA	REPLACEMENT TOP FLANGE 240	240 SS	1
26D	SSFLANGE8A	REPLACEMENT TOP FLANGE 240 PVC	240 PVC	1
26E	SSFLANGE480SA	REPLACEMENT TOP FLANGE 480	480 SS	1
26F	SSFLANGE10A	REPLACEMENT TOP FLANGE 480 PVC	480 PVC	1
26G	SSFLANGE720SA	REPLACEMENT TOP FLANGE 720	720	1
26H	SSFLANGE960SA	REPLACEMENT TOP FLANGE 960	960	1
26I	SSFLANGE1200SA	REPLACEMENT TOP FLANGE 1200	1200	1
27A	EP4CFG	REPLACEMENT GASKET 4"	120 SS	1
27B	NR201-060	REPLACEMENT GASKET 6"	120 PVC	1
27C	EP6CFG	REPLACEMENT GASKET 6"	240 SS	1
27D	NR201-080	REPLACEMENT GASKET 8"	240 PVC	1
27E	EP10CFG	REPLACEMENT GASKET 10"	480 SS	1
27F	NR201-100	REPLACEMENT GASKET 10"	480 PVC	1
27G	EP12CFG	REPLACEMENT GASKET 12"	720, 960	1
27H	EP16CFG	REPLACEMENT GASKET 16"	1200	1
28	KITAIRBLEED	AIR BLEED KIT	ALL	1
29	KITBLA	BONDING LUG ASSEMBLY KIT	ALL	1
30A	KITSZA3B	SACRIFICIAL ANODE 3/8"	ALL PVC	1
30B	KITSZA34	SACRIFICIAL ANODE 3/4"	120 SS & 240 SS: 1 480 SS: 2	VARIES
30C	KITSZA1	SACRIFICIAL ANODE 1"	720, 960, 1200	2

SLEEVE AND LAMP ASSEMBLY



ITEM NO.	PART NO.	DESCRIPTION	MODEL	QTY
31	QDCL2	QUICK DISCONNECT CLAMP	ALL	1
32	QDGK2	QUICK DISCONNECT GASKET	ALL	1
33	CAPVCOMP1LG	VIEWING COMPRESSION CAP	ALL	1
34A	KITPSLW8.25LG	POWER SUPPLY LEAD WIRE 8.25 4 PIN	ALL (USED THROUGH 7/31/2014)	1
34B	KITPSLW8.25LGSP	POWER SUPPLY LEAD WIRE 8.25 SENTRY PIN	ALL (USED FROM 8/1/2014)	1
35	QDC316	QUICK DISCONNECT SLEEVE W/ GASKETS	ALL	1
36	QDCAP1PVC	QUICK DISCONNECT COMPRESSION CAP	ALL	1
37A	KITQSSTD	QUARTZ SLEEVE W/ RUBBER COMPRESSION GASKETS	120 PVC & SS, 240 PVC & SS, 480 PVC	1
37B	KITQSSTDG	QUARTZ SLEEVE W/ GASKETS & CAP SPRING GUIDE	480 SS, 720, 960, 1200	1
38A	LA120W185	LAMP 120W AMALGAM	ALL (USED THROUGH 7/31/2014)	1
38B	LA120W185SP	LAMP 120W AMALGAM SENTRY PIN	ALL (USED FROM 8/1/2014)	1
39	CAPQSP5G	CAP SPRING GUIDE	480 SS, 720, 960, 1200	1

SENSOR BOSS

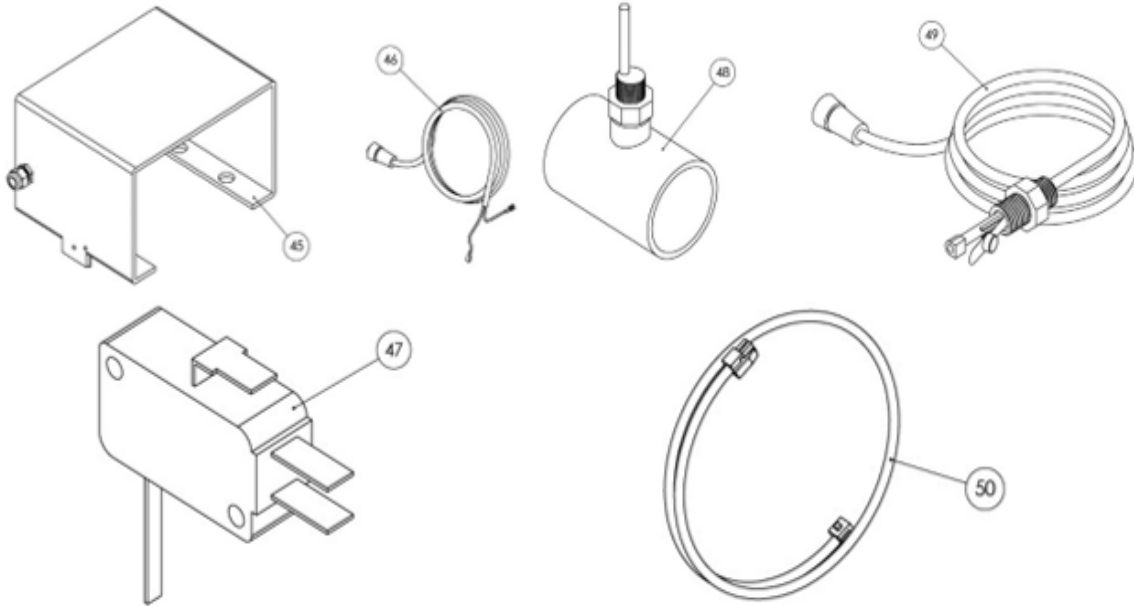


ITEM NO.	PART NO.	DESCRIPTION	QTY
40	C-MO	QUARTZ WINDOW O-RING	1
41	C-W	SENSOR QUARTZ WINDOW	1
42A	KITUVLSPVC	INCLUDES SENSOR, WINDOW, O-RING, & SENSOR BOSS FOR PVC CHAMBERS	1
42B	KITUVLSS	INCLUDES SENSOR, WINDOW, & O-RING FOR STAINLESS CHAMBERS	1
42C*	KITUVMCLD	INCLUDES SENSOR, DISPLAY, TRANSFORMER, WINDOW, & O-RING	1
42D*	KITUVMCLDAL	INCLUDES SENSOR, DISPLAY, TRANSFORMER, WINDOW, O-RING, & WIRE FOR ALARM CONNECTION**	1
43	C-BMC	MONITOR CAP	1
44	C-TB	SENSOR BOSS FOR PVC CHAMBER	1

*C-TB MUST BE PURCHASED WITH KIT IF UPGRADING TO NEW DISPLAY AND IS A PVC UNIT

**AUDIBLE ALARM REQUIRED IN SOME STATES

SAFETY AND EXTENSIONS



ITEM NO.	PART NO.	DESCRIPTION	MODEL	QTY
45A*	SUVSC120TF	SAFETY COVER 120 TOP FLANGE GR	120 SS	1
45B	SUVSC120PVC6	SAFETY COVER 6 PVC	120 PVC	1
45C*	SUVSC240TF	SAFETY COVER 240 TOP FLANGE GR	240 SS	1
45D	SUVSC240PVC8	SAFETY COVER 8 PVC	240 PVC	1
45E*	SUVSC480TF	SAFETY COVER 480 TOP FLANGE GR	480 SS	1
45F	SUVSC480PVC10	SAFETY COVER 10 PVC	480 PVC	1
45G*	SUVSC720TF	SAFETY COVER 720 TOP FLANGE GR	720 SS	1
45H*	SUVSC960TF	SAFETY COVER 960 TOP FLANGE GR	960 SS	1
45I*	SUVSC1200TF	SAFETY COVER 1200 TOP FLANGE GR	1200 SS	1
46	KITSCLW10	SAFETY COVER LEAD WIRE WITH SWITCH	ALL	1
47	V7-1B1908-022	MICRO SWITCH REPLACEMENT	ALL	1
48	FSKHARWIL2MSC	FLOW SWITCH KIT W/ TEE	120	1
49	FSKHARWIL2MSCNOT	FLOW SWITCH KIT W/O TEE	240, 480, 720, 960, 1200	1
50A	S-MHE3	MONITOR HEAD / UV SENSOR EXTENSION 3' LEGACY INSIDE BOX	ALL	1
50B	KITS-MHE4.5L	KIT MONITOR HEAD / UV SENSOR EXTENSION 4.5' LEGACY THROUGH BOX	ALL	1

*IF SAFETY COVER IS WHITE, DROP 'TF' FROM THE PART NUMBER

7. ACCESSORIES

PART NUMBER	COMPONENT	DESCRIPTION
KITDCB240-30	Pump Control	The Sentry UV Pump Control Box is designed to disable the pool circulation pump if the Sentry UV system is not operating or is operating below a set output.
KITAA	Audible Alarm	The Sentry Aqua Guard External Visual and Audible Alarm is used to alert staff in the event the Sentry Aqua Guard UV system has a fault.
KITFSTL	Delay Box	a flow switch delay to prevent rapid lamp cycling on SAG supplemental UV systems

To see additional ChlorKing products, visit www.chlorking.com



8. WARRANTY INFORMATION

HOW TO OBTAIN HELP

To get help under this warranty, visit your local dealer or contact ChlorKing® - Sentry UV at 1-800-536-8180 or by email at www.sentryuv.com or www.chlorking.com. Please have available the model number, the system serial number, the date of purchase, the name of the dealer from whom you purchased your ChlorKing® - Sentry UV product, as well as a description of the problem that you are experiencing. A ChlorKing® - Sentry UV technician will help you troubleshoot the problem and locate the defective part.

RETURNING A CHLORKING® - SENTRY UV PRODUCT

To return a ChlorKing® - Sentry UV product, you must first call a ChlorKing® - Sentry UV technician at the number above and discuss the problem you are experiencing. The technician will then determine your warranty status and will let you know whether you need to send the unit back for further observation and testing.

If so, ChlorKing® - Sentry UV will issue you a Return Authorization (RA) number that must be prominently displayed on all sides of the packaging. The unit must be properly packed in bubble wrap, placed in a cardboard box, then placed in another larger cardboard box filled with packing (Styrofoam) “peanuts” or bolted onto a secured pallet with side walls and shipped to the following address: (Insurance on the package is also required.)

Sentry UV, Inc.
Return Service Department
2935 Northeast Parkway
Atlanta, GA 30360

Warranty will be based on the ChlorKing® - Sentry UV technician’s opinion as to whether the defect was originated at the time of manufacture. Removing the unit from its current installed position, as well as the return shipping charges to ChlorKing® - Sentry UV shall be at customer’s expense. This warranty does not include shipping and handling charges, which must be paid before package is shipped. Once the unit is received, evaluated, and the problem determined to be due to an error in manufacturing, the repairs/adjustments will be made, and the unit will be shipped back to customer at ChlorKing® - Sentry UV’s expense. However, should ChlorKing® - Sentry UV determine that problem is NOT caused because of manufacturer error, ChlorKing® - Sentry UV will call customer to discuss findings and options. If the item in question is no longer under warranty, ChlorKing® - Sentry UV will provide an estimate of cost to repair. Your authorization and a valid credit card will be required prior to making any repairs.

WARRANTY CLAIM

To validate this warranty, establish proof of purchase, and make a warranty claim you must complete and return the Owner Registration for Warranty Form. Submit a copy of the original receipt clearly showing the date and place of purchase.

WARRANTIES FOR CHAMBER, PARTS, LAMPS, AND BALLASTS

ChlorKing® - Sentry UV will, to the original purchaser, warranty the Stainless-Steel UV Light Product from defects in material and workmanship for 12 months or one (1) year from the original date of purchase as validated by the proof of purchase or receipt. During this time, ChlorKing® - Sentry UV will repair or replace, at its option, any defective parts covered by the warranty:

Chamber. The stainless chamber carries a **three-year** warranty. You may be required to return item for inspection. The PVC chamber carries a **one-year** warranty.

PVC Parts. All PVC parts carry a **one-year** warranty. You may be required to return item(s) for inspection.

Lamps. All lamps carry a **90-day** only warranty, and only for its intended electrical use. If there is a manufacturer's defect found with the lamp within the 90 days, ChlorKing® - Sentry UV will replace it.

WARRANTIES FOR QUARTZ SLEEVE

ChlorKing® - Sentry UV does not warranty the quartz sleeve, because it is made entirely of glass and is easily broken.

GENERAL CONDITIONS AND LIMITATIONS

None of the above warranties cover damage caused by improper use, maintenance, accidents, or acts of God. Minor scratches or imperfections that do not materially impair the operation of the product are not covered. Nor do the warranties cover products not installed as outlined in this document.

The warranty on lamps, ballasts, housings, or the unit in its entirety does not include shipping and handling charges, which will be collected at the time of shipment.

Parts replaced under the warranties above are covered to the end of the ORIGINAL warranty period.

Warranty is void if unit is not connected to a GFCI 120V/240V breaker.

The following also void warranty:
If product labels are defaced or removed.

If housing has been painted.

If product has been improperly installed or maintained by user. Product must be serviced by ChlorKing® - Sentry UV or authorized personnel only.

If product has been abused, misused or damaged by the user.

If product has been damaged by electrical surges, electrical spikes, electrical brownouts, or improper voltage.

We have set forth recommendations and certain installation requirements in this document. Provided they are followed, and the unit is operated in the environment and manner intended, we will repair or replace a defective part within the 12-month period from the time of purchase.

Any damage to the unit because of improper installation, shipping, packing, and/or handling is not covered by this warranty. Any implied warranty other than written herein is not part of this warranty. This warranty gives you specific rights. You may have other rights, which will vary from state to state. This warranty cannot be transferred. Any attempt to make repairs through any source other than ChlorKing® - Sentry UV or authorized person will void the warranty.

ChlorKing® - Sentry UV does not assume any liability for personal injury or property damage caused by the use or misuse of any of the above products. ChlorKing® - Sentry UV shall not in any event be liable for special, incidental, indirect, or consequential damages. ChlorKing® - Sentry UV's liability shall, in all instances, be limited to repair or replacement of the defective product or part and this liability will terminate upon expiration of the application warranty period.

Warranty Registration Card

Please complete and return to activate ChlorKing® warranty
Please mail or fax to ChlorKing® inc. P.O. Box 80823, Atlanta, GA, 30366 Fax: 770-685-6576

Dealer Name: _____

Address: _____ City: _____

State: _____ Zip: _____ Tel: _____

Installation site of equipment: _____

Address: _____ City: _____

State: _____ Zip: _____

Date of purchase: _____ Serial number: _____

1. Pool size: _____ 2. Pool finish: _____

3. Indoor / Outdoor: _____ 4. Heated: Yes / no

5. Filter Type: _____ 6. Pool Age: _____

7. New or existing pool: _____ 7. Controller installed: Yes / No

8. If controller installed, what make and model: _____

