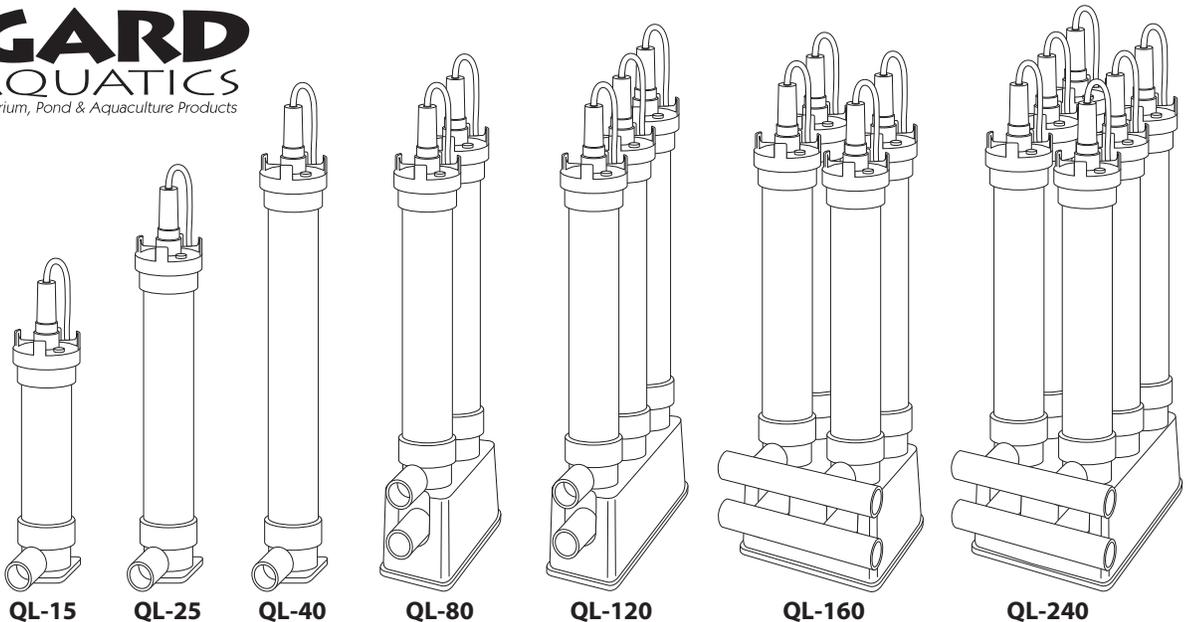


Ultraviolet Sterilizer Instructions



CAUTION: DO NOT OPERATE BULB OUTSIDE HOUSING. EVEN BRIEF EXPOSURE TO ULTRAVIOLET RADIATION CAN CAUSE TEMPORARY REDDENING AND IRRITATION OF EYES AND SKIN.



Congratulations on the purchase of your LIFEGARD Ultraviolet Sterilizer. The radiation from the ultraviolet light at 2537 angstroms provided inside the LIFEGARD Ultraviolet Sterilizer exerts a lethal effect on micro-organisms. This sterilizer, when installed and used properly, is the most efficient and effective method of disease control available.

A. WHERE TO INSTALL

The modular design of the Lifeguard sterilizer allows it to be easily added to an existing Lifeguard filter system (Figure A). In addition, the unit can also be installed on the outlet side of most canister filters sold in the aquarium industry today (Figure B). In every case, the sterilizer is most effective in clear filtered water and should be installed as the final stage in your filtration system.

B. UNPACKING, ASSEMBLY, AND INSTALLATION

NOTE: Instructions refer to item numbers of exploded view parts break down PAGE 3.

- Carefully unpack the quartz sleeve (#1), quartz bulb (#2), ballast assembly (#3), cap (#4), and housing. Make sure all packing material is removed from inside housing.
- Unscrew compression coupling from cap (#4), remove rubber gasket (#5).
- Insert quartz sleeve (#1) through cap (#4) leaving the open end of the quartz sleeve protruding about 2" from top of cap.

- Slide gasket (#5) over the open end of quartz sleeve until entire gasket is about 1/4" past end of quartz sleeve. Gasket must remain entirely past open end of quartz sleeve to achieve and maintain a proper seal (Figure C).

NOTE: Failure to install quartz sleeve properly will result in damage to bulb and ballast.

- Screw small compression coupling onto cap (#4). The compression coupling will push the quartz sleeve into the proper position. Hand tighten only.
- Carefully insert quartz sleeve into bottom receptacle inside the center of the housing and tighten cap (#4). Hand tighten only.
- Repeat steps #2 - 6 for each chamber in the commercial sterilizers (QL-80, QL-120, QL-160, QL-240).

- Attach ultraviolet sterilizer so it is "LAST" in the filtration system (Figure A or Figure B). The ultraviolet sterilizer is most effective in clear filtered water. Make sure proper inlet and outlet ports are utilized (Figure D for QL-15, QL-25, QL-40; Figure E for QL-80, QL-120, QL-160, QL-240).

- Carefully match pins of male 4-pin connector [top of quartz bulb (#2)] to female 4-pin connector (#6) of ballast assembly (#3) and push fully into place.

- Apply small amount of Lifeguard Silicone lubricant (R172036X) on rubber insert at the top of splash boot to allow cord to slide easily. Gently pull cord above splash boot (#7) and guide electrical connection until it bottoms out into narrow neck of splash boot. Do not pull fragile wires connecting the male 4-pin connector to the quartz bulb (#2) as this will damage the bulb.

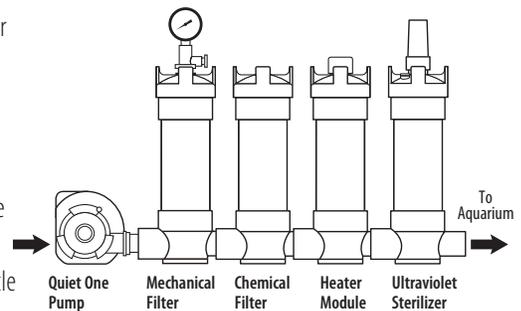


Figure A

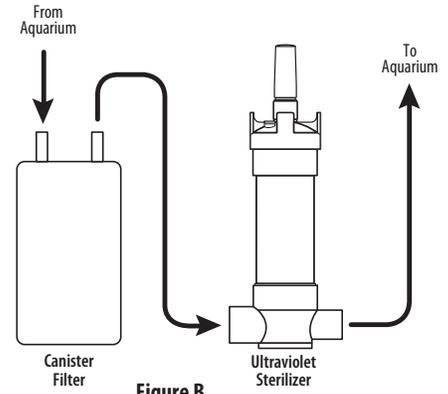


Figure B

11. Gently slide quartz bulb (#2) with ballast assembly (#3) attached inside quartz sleeve until it reaches bottom. Do not drop bulb into quartz sleeve. Screw splash boot (#7) on to compression coupling on cap (#4). This will prevent water that accidentally spills on UV sterilizer from entering quartz sleeve and wetting the bulb.

12. Place ballast (#3) where there is no chance of water contact, a normal precaution for electrical devices near water environments. Water contact with ballast will damage ballast and possibly create an electrical hazard.

13. Repeat steps #9 - #12 for each chamber in the commercial sterilizers (QL-80, QL-120, QL-160, QL-240.)

14. Turn on pump / filter system.

15. Plug in ballast(s), (#3)

Reducing Bushings

QL-15, QL-25 and QL-40 have option of connection to 3/4" MPT or 1" MPT using reducer bushings included in package. 1 1/4"x 3/4", 1 1/4"x 1", 1 1/2"x 3/4" or 1 1/2"x 1". Bushing of your choice should be glued using a PVC/ABS compatible glue. All commercial UV Sterilizers QL-80, QL-120, QL-160 and QL-240 are supplied with a 2" Slip inlet/outlet port. Customer has the option to glue the fitting of their choice for a convenient installation.

NOTE: The beneficial nitrifying bacterial in your biological filter will not be affected by the ultraviolet radiation due to their sessile nature. These beneficial bacteria adhere to all types of surfaces and are not free to pass through the sterilizer.

C. HOW TO REPLACE INTERNAL PROTECTIVE SLEEVE AND 3/4" OVERFLOW PIPE

The internal protective sleeve (#9) and 3/4" overflow pipe (#10) must be replaced on a yearly basis in order to maintain the integrity of the external housing. Yearly replacement of these items will substantially prolong the life of your sterilizer housing.

1. Turn off pump / filter system.

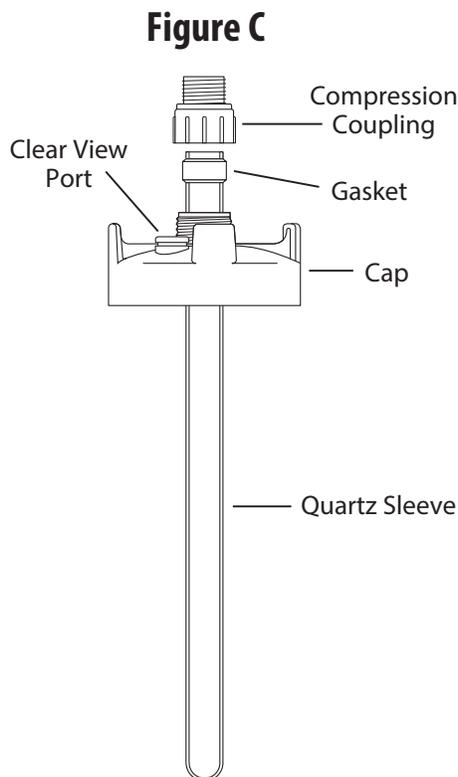
2. Shut off inlet and outlet valves.

3. Unplug ballast assembly (#3)

4. Pull out quartz bulb (#2) and ballast assembly (#3) together as one unit. Carefully place bulb and ballast assembly to the side.

5. Unscrew cap (#4) with quartz sleeve (#1) attached. Carefully place cap and quartz sleeve assembly to the side.

6. Remove the 3/4" overflow pipe (#10) by pulling the pipe straight up using your hands and/or small pliers. The overflow pipe is not glued in place. Pulling upward will dislodge it from the stub at the base of the housing (Fig. F). Wiggle back and forth if necessary to loosen.



7. Remove the protective sleeve (#9) by pulling the sleeve straight up using your hands. The sleeve is not glued in place and will slide out of the housing (Fig. G).

8. Place new 3/4" overflow pipe (#10) over stub at the base of the unit. Push firmly into place (Fig. H).

9. Slide new protective sleeve (#9) into housing with stabilizer clip (#9) at top of sleeve. Push the sleeve into the housing with slotted side of sleeve positioned around 3/4" overflow pipe (#10) inside the stabilizer clip (#9) so that the overflow pipe rests along the inside edge of the housing (Fig. J). **NOTE:** All overflow pipes are equipped with a 1/8" air bleed tube which must be positioned so that the tip of 1/8" tube is at top of chamber when mounted horizontally. When positioned correctly, the tube will be exactly opposite horizontal stand. (Fig. J).

11. Carefully insert quartz sleeve into bottom receptacle inside the center of the housing and tighten cap (#4). Hand tighten only.

12. Place quartz bulb (#2) into quartz sleeve (#1) by repeating steps #11- #12 in section (B).

13. Repeat steps #3 - 12 for each chamber in the commercial sterilizers (QL-80, QL-120, QL-160, QL-240).

14. Open inlet and outlet valves.

15. Turn on pump/filter system.

16. Plug in ballast(s), (#3)

D. HOW TO CHANGE THE QUARTZ BULB

1. Unplug the ballast assembly (#3).

2. Unscrew splash boot (#7) from compression coupling on cap (#4) and carefully remove bulb (#2) and ballast assembly (#3) from quartz sleeve (#1).

3. Replace the old bulb by following steps #9 - 12 of section (B).

4. Plug in ballast(s), assembly (#3).

5. Repeat steps #1-5 for each chamber in the commercial sterilizers (QL-80, QL-120, QL-160, QL-240).

E. HOW TO CLEAN THE QUARTZ SLEEVE

1. Unplug ballast assembly (#3).

2. Turn off pump/filter system.

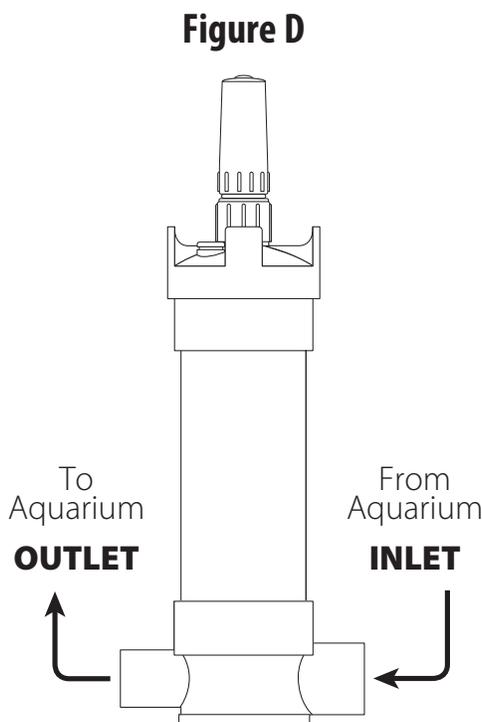
3. Shut off inlet and outlet valves.

4. Unscrew splash boot from compression coupling on cap (#4) and carefully remove bulb (#2) and ballast assembly (#3) from quartz sleeve (#1). Carefully place bulb and ballast assembly to the side.

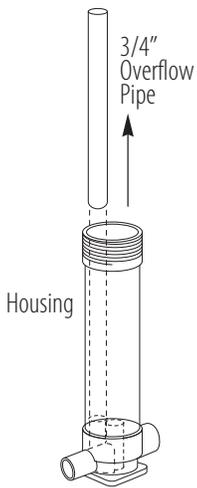
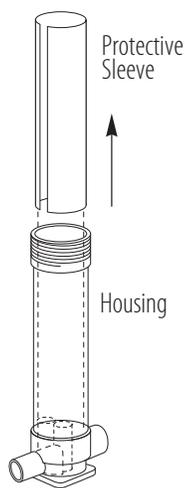
5. Unscrew cap (#4) with quartz sleeve (#1) attached.

6. Lift off cap (#4) and quartz sleeve (#1) assembly.

7. Wipe off quartz sleeve (#1) with rubbing alcohol.



The QL-15, QL-25, and QL-40 must be plumbed as shown above.

Figure F**Figure G**

8. Carefully insert quartz sleeve (#1) into bottom receptacle inside the center of the housing and screw on cap (#4). Make sure all threads on cap and housing are free of dirt. Lubricate "O" ring (#8) with Lifegard silicone lubricant. (R172036X)

9. Place quartz bulb (#2) into quartz sleeve (#1) by repeating steps #11-12 in section (B).

10. Repeat steps #4-9 for each chamber in the commercial sterilizers (QL-80, QL-120, QL-160, QL-240).

11. Open inlet and outlet valves.

12. Turn on pump/filter system.

13. Plug in ballast(s), (#3).

14. Make sure system is water tight.

F. MAINTENANCE SCHEDULE

All of the following maintenance procedures can be conveniently scheduled at the same time every year.

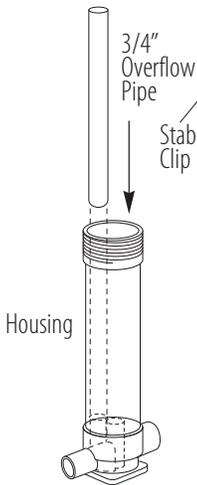
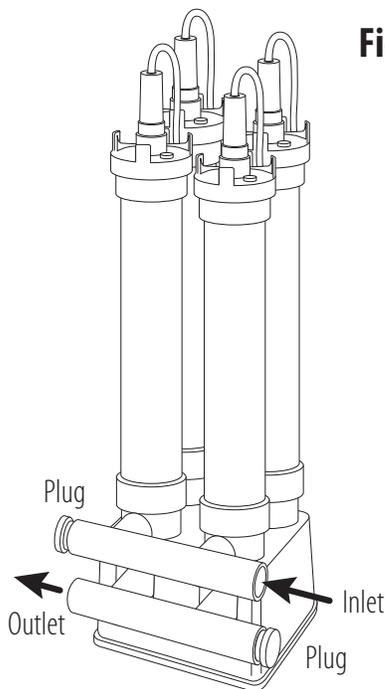
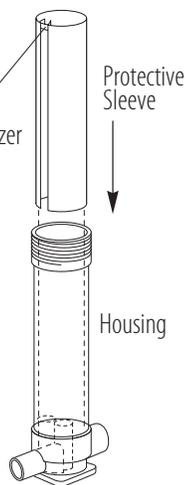
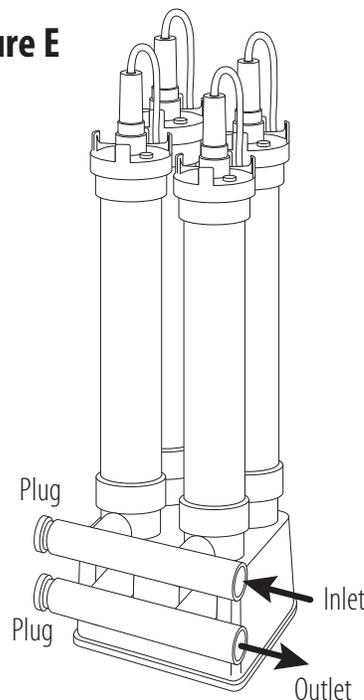
1. Quartz Bulb (#2) The quartz bulb must be replaced on a yearly basis. The characteristic visible blue glow emitted by the bulb is not an indication of the amount of invisible ultraviolet radiation being produced. The blue glow will still be seen when the ultraviolet output is zero.

2. Protective Sleeve (#9) and 3/4" Overflow Pipe (#10) The protective sleeve and overflow pipe must be replaced on a yearly basis. This replacement will substantially prolong the life of your sterilizer housing.

3. "O" Ring (#8) The "O" ring on the cap (#4) should be replaced on a yearly basis. The "O" ring must be cleaned of any debris and lubricated with Lifegard silicone lubricant (R172036X) before inserting into clear cap.

4. Gasket (#5) The gasket must be replaced on a yearly basis. Failure to replace the gasket may result in a water leak into the quartz sleeve (#1).

5. Quartz Sleeve (#7) The quartz sleeve must be cleaned once a year with rubbing alcohol to remove any build up of dirt or slime.

Figure H**Figure I****Figure E**

Commercial ultraviolet sterilizers (QL-80, QL-120, QL-160, QL-240) can be plumbed two different ways depending on installation requirements.

WARRANTY POLICY

- ◆ Warranty period starts from date of purchase and must be validated with copy of original purchase receipt.
 - ◆ Warranty requests by phone will not be honored.
 - ◆ Warranty items returned without copy of original purchase receipt will not be honored.
 - ◆ Products purchased from eBay, Craig's List, etc. cannot be honored for warranty unless returned by original purchaser with proof of purchase.
 - ◆ All items must first be returned to Lifegard Aquatics for inspection, evaluation, and processing to determine if product qualifies for warranty replacement or repair. No warranty (repair, replacement, or credit) will be issued prior to inspection of product.
- Please contact us first for warranty assistance.**

Many times the product can be repaired without the cost and time involved in sending it back to us.

If absolutely necessary, return product **freight prepaid** to the following address for warranty evaluation and processing.

One year warranty from date of purchase on all UV sterilizers.

60 day warranty from date of purchase on all ultraviolet bulbs.

Lifegard Aquatics

Cerritos, CA
Tel (562)404-4129
Fax (562)404-4159
Email: info@lifegardaquatics.com

ULTRAVIOLET STERILIZER PARTS BREAK DOWN

QL-15, QL-25, QL-40, QL-80, QL-120, QL-160, QL-240

ITEM	MODEL	PART #	DESCRIPTION
1	QL-15	R175060	Quartz sleeve
1A	QL-25	R175233	Quartz sleeve
1B	QL-40 to QL-240	R175234	Quartz sleeve
2	QL-15	R175229DP	Quartz bulb
2A	QL-25	R175230DP	Quartz bulb
2B	QL-40 to QL-240	R175231DP	Quartz bulb
3	QL-15/25/40	R175267	15/25/40Watt ballast for QL-40, 80, 120, 160, 240
3A	QL-15/25/40	R175278	15/25/40Watt 230V, 50Hz, ballast for QL-40, 80, 120, 160, 240
4	QL-15 to QL-240	R175109	Cap w/coupling
5	QL-15 to QL-240	R175022X	Gasket
6	QL-15 to QL-240	R175232	Female 4 pin connector
7	QL-15 to QL-240	R175235	Splash boot
8	QL-15 to QL-240	220001	"O" ring
9	QL-15	R177333	Protective sleeve
9A	QL-25	R177334	Protective sleeve
9B	QL-40	R177335	Protective sleeve
9C	QL-80 to QL-240	R177336	Protective sleeve
10	QL-15	R177338	3/4" overflow pipe
10A	QL-25	R177340	3/4" overflow pipe
10B	QL-40	R177342	3/4" overflow pipe
10C	QL-80 to QL-240	R177344	3/4" overflow pipe
11	QL-15, QL-25, QL-40	R174000	1 1/4" x 3/4" Lifeguard Reducer Bushing
11A	QL-15, QL-25, QL-40	R174001	1 1/4" x 1" Lifeguard Reducer Bushing
11B	QL-15, QL-25, QL-40	R174002	1 1/2" x 3/4" Lifeguard Reducer Bushing
11C	QL-15, QL-25, QL-40	R174003	1 1/2" x 1" Lifeguard Reducer Bushing
12	QL-15, QL-25, QL-40	R270313	3/4" Close Nipple
12A	QL-15, QL-25, QL-40	R270484	1" Close Nipple

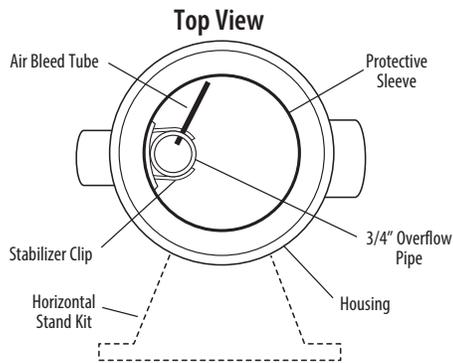
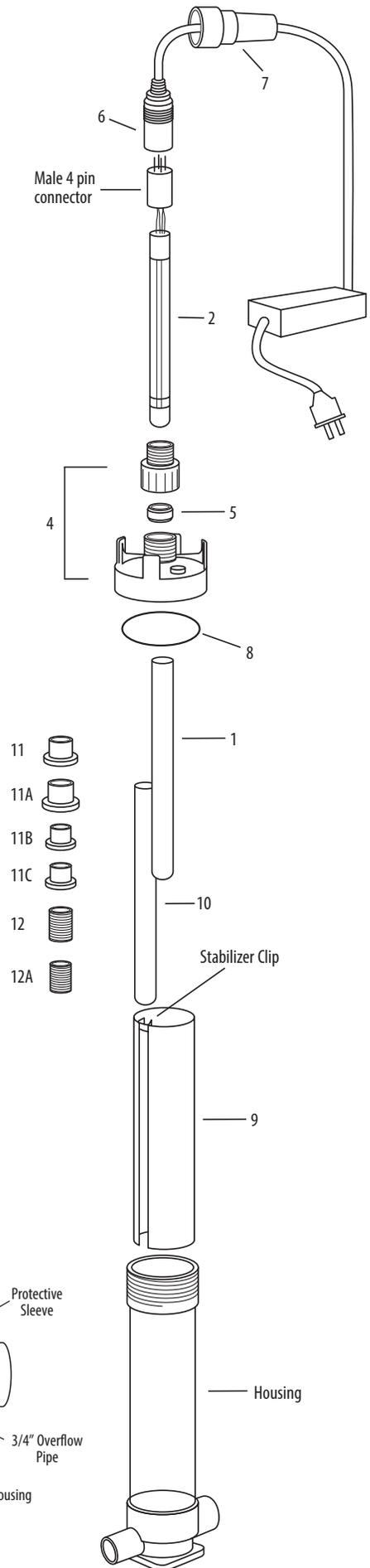


Figure J

