

CLEARRAY® BULB REPLACEMENT AND QUARTZ TUBE MAINTENANCE

Important: It is **MANDATORY** that the UV bulb is replaced and the quartz tube be cleaned every 12 months to maintain optimum performance.

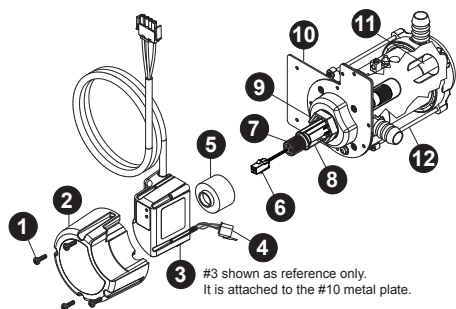


Figure 1



WARNINGS:

- Do not operate the UV-C emitter when it is removed from the appliance enclosure.
- This appliance contains a UV-C emitter.
- Unintended use of the appliance or damage to the housing may result in the escape of dangerous UV-C radiation. UV-C radiation may, even in little doses, cause harm to the eyes and skin.
- Appliances that are obviously damaged must not be operated.
- Read the maintenance instructions before opening the appliance.



DANGER: TURN THE SPA BREAKER TO THE OFF POSITION!



WARNING: DRAIN THE SPA IF YOU ARE REPLACING OR CLEANING THE QUARTZ TUBE!



WARNING: ALLOW BULB TO COOL DOWN PRIOR TO REMOVING FROM QUARTZ TUBE.



DANGER: NEVER LOOK AT THE LIT BULB. THIS CAN CAUSE SEVERE EYE DAMAGE OR BLINDNESS.

UV bulb replacement and quartz tube maintenance:

Note: Location of CLEARARRAY System and connection may vary by model.



DANGER: NEVER REMOVE COVER WITHOUT FIRST TURNING OFF AT POWER SOURCE AND DRAINING THE SPA.

1. Turn the breaker to the spa OFF. DRAIN YOUR SPA.

Note: If you are only replacing the UV bulb then the spa does not have to be drained. You will need to drain it if you are replacing or cleaning the quartz tube.

2. Once the UV bulb has cooled off remove the CLEARARRAY System enclosure cover (2) by removing the four screws (1). This will expose the UV bulb and connections, Figure 2.
3. Disconnect UV bulb socket (6) from the power cord socket (4), Figure 3.
4. Slowly remove the UV bulb (7) out of the quartz tube, Figure 4.
5. Remove the quartz seal compression nut (9) by turning it **counterclockwise**, Figure 5. Use a pair of channel-lock pliers if needed, Figure 6.
6. Now you are ready to clean or replace the quartz tube (8). For cleaning the quartz tube, follow steps 7 and 8 then proceed from step 9. For replacing quartz tube, skip steps 7 and 8 and proceed from step 9.
7. **Cleaning quartz tube:** Clean the quartz tube by wiping, until clear, using a paper towel or a dry cotton cloth. If needed, a household tub and shower lime removal product can be used.

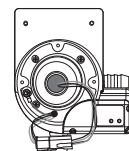


Figure 2

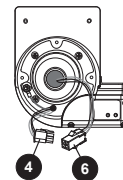


Figure 3

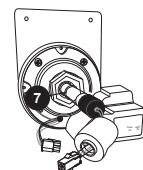


Figure 4

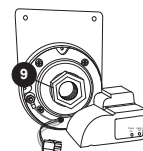


Figure 5

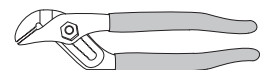


Figure 6



WARNING: Do not use abrasive cleaners as they can scratch the quartz tube surface.

8. Rinse the quartz tube with clean water to completely remove any cleaning products that were used in step 7.
9. **Replacing quartz tube:** Remove the black o-ring from the quartz tube and place it on the new tube. Place the new quartz tube (8) into the water chamber (12) with the domed end first making sure it is inserted and seated inside the quartz end holder (11).
10. Reinstall and hand tighten the quartz seal compression nut (9) by turning it **clockwise**.
11. Refill your spa.
12. **System Test 1:** Assure there is no water dripping from the seal compression nut (9). If water is visible, STOP and tighten the compression nut (9) using a pair of channel lock pliers to a maximum of 1/4 turn. If that does not fix the leak, then repeat quartz tube maintenance process from step 1 through step 11. Make sure there is no water leaking before proceeding to step 13.
13. **System Test 2:** Reconnect the CLEARARRAY unit to the controller. Turn breaker back ON. Turn on the pump to circulate the water through the CLEARARRAY System. Wait for 5 minutes and assure no water is dripping. If water is visible, STOP, fix the leak by repeating quartz tube maintenance process from step 1 through step 12. **Make sure there is no water visible. Turn the pump and breaker OFF BEFORE proceeding to step 14.**
14. Reconnect the UV bulb socket (6) to the power cord socket (4) make sure you use the latex glove provided when handling the UV bulb.



WARNING: DO NOT TOUCH THE NEW UV BULB WITH YOUR BARE HAND. Oil on your skin will cause hot spot on the UV bulb and shorten the life of your UV bulb. Use the provided latex glove to handle the UV bulb.

15. Slide the new UV bulb (7) back inside the quartz tube.
16. Reinstall the black bulb boot (5) back over the quartz seal compression nut (9).
17. Reinstall the enclosure cover (2) and secure with the screws.
18. Properly dispose of the old UV bulb.



WARNING: This CLEARARRAY System includes a UV bulb, which contains mercury. Dispose of the bulb in accordance with disposal laws. See www.lamprecycle.org.

19. Once power is activated you can check the ballast, Figure 7, to see if the CLEARARRAY System is functioning. The power on (red) light indicates that the CLEARARRAY System is being provided power and should always be on. The lamp on (green) light indicates that UV bulb is activated.

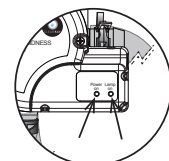


Figure 7