



Oxyzone International Pty. Ltd.

23 / 218 Wisemans Ferry Rd.,

Somersby NSW 2250

Ph +61 2 4340 1801

Maintenance and Repair of Oxyzone Ozone Cells

Maintenance and repair of the Oxyzone Cells

Periodic maintenance

The only maintenance required is the periodic cleaning of the cells. This will be dependent on the cleanliness of the oxygen or air supply. Make the first clean at 6 on air and 12 months on oxygen and adjust the time as required.

You will require a small bath of methylated spirits, a stainless steel scouring pad and a stainless steel bottle brush to carry out the cleaning, plus it's advisable to use plastic gloves to protect your hands. Oxyzone brush kit - P/N 49200

Oxyzone has a cell maintenance kits available – Brush Kit P/N 49200 – Single Cell P/N 49201 – 2 Cell P/N 49202

Ozone Cell parts



Firstly, disconnect all power to the unit.

Open the outer door and the power supply door to allow access to the cells.

Note the position of the pipework to facilitate reassembly. Remove the high voltage connections at the top of the cells. The high voltage red top cap plug & silicon insulated cable are removed first by grasping the red coloured plug & pulling it straight off. It should not need to be rotated to be removed. The red 'bullet' connector must be a firm fit on the M4 threaded stainless steel rod at the top of the cell. Rapid heat damage can occur to the connector if it is loose. Please ensure a firm fit before reconnecting the cable to the top of the cell!

Remove the silicon pipe from the ozone cells, if it is tight then cut it off instead. **Do not force it as the Teflon cap cannot withstand high mechanical stress.** It may be secured to the stainless steel hosetail of the cell by a cable zip tie. The hose will be easier to remove if this cable tie is cut first, but care must be taken not to cut into the hose. The hose is then just pulled off. The top of the cell may need to be held while doing this if the hose is very tight. Also, if the hose is 'stuck' to the hosetail, it may be rotated back & forth a couple of times to break the seal. The hosetail may need to be re-tightened into the large white Teflon cap a little, after this.



Take great care not to overtighten the hosetail, as the threads inside the Teflon cap are quite soft & can be damaged easily. A safe way to retighten the hosetail is to start with the hosetail loosened slightly. Then slowly tighten until you can feel the underside of the shoulder of the hosetail just touch the mating surface of the top cap, & then tighten it ONLY 1 complete turn more, then stop. That should then have the hosetail tightened to a point where it does not leak, & its thread inside the top cap is not damaged.

Using pipe grips; loosen the union at the base of the cell and remove the complete assembly from the cabinet. A pair of multigrip pliers or a large adjustable spanner can be used to undo the union. The large stainless steel outer nut is rotated anti-clockwise to loosen the union. Be very careful not to lose the white Teflon washer inside the union as the union comes free from its mounting on the ozone manifold.

There are older model ozone generators which do not have a Teflon washer inside the union. These types of cells have a tapered base, & often have a large viton washer instead of a Teflon washer. The same loosening method applies. Other ozone machines may have no union at all on their cells, & just screw down onto a nipple on the ozone manifold & sealed with thread tape. This type of cell must be gripped by the black heatsinks & the whole cell rotated anti-clockwise to be removed.

Whichever model of cell unions your ozone generator has, you should now be able to remove the cell free from the machine. Repeat for the other cells.

Loosen the plastic nut at the top of the cell.

Holding the body of the cell securely, unscrew the white Teflon cap in an anticlockwise direction and gently extract the inner quartz assembly. If it sticks then manoeuvre by gripping low down on the assembly as there is too much leverage when holding only at the end.

Remove the plastic nut and remove the large Teflon cap.

Clean the quartz assembly in methylated spirits using the stainless steel pad.

Remove the 2 black heatsinks and the Viton o-ring from the stainless steel tube.

Wipe of the white heatsink compound with a tissue or cloth. Old or stubborn heatsink compound can be removed by a cloth or tissue moistened with mineral turps or white spirit. The threaded tube is best cleaned using the custom designed stainless steel bottle brush supplied in the Oxyzone cell cleaning kit, and methylated spirits, with a battery drill on low speed. Dry with a cloth or blow dry with compressed air or a warm air source.

Reassemble the black heatsinks after lightly coating the tube with white heatsink compound. The thinnest, most uniform coating of the compound is all that is required.



Adjust the large stainless steel nut to give a 2mm section of unthreaded stainless steel tube to be visible above the heatsink. This will provide for some compression of the large upper o-ring, & better sealing.



This picture shows the 2mm gap that has been adjusted using the large stainless steel nut. The 2mm gap should be set to the minimum thread gap. You can see a step down to where the thread stops. Set the 2mm gap here.

Carefully reassemble the complete cell. Again hold the quartz cell well down near the threaded tube end to give better control during assembly. It's also helpful to leave the plastic nut slightly loose so that the quartz cell does not spin all the way into the tube causing wear on the small end cap. If a quartz cell is dropped or cracked then fit a new one, they are not repairable or expensive.

A large viton o-ring goes on next, over the threaded tube where the 2mm gap has been made.



Do not over tighten the Teflon end cap, just a firm grip and slight twist. It has o-rings for sealing and does not require a lot of pressure. Repeat for the other cells

Check & replace if necessary the Teflon washer, or the viton o-ring in the unions at the base of the cell prior to fitting.



Reconnect the silicon tube and the high voltage leads. If they feel loose then look down the end and give a small squeeze across the metal connector tube with pliers.

Wipe clean the inside of the cabinet before final assembly and running.

Note: Please ensure the SS union nut is extremely tight so as to compress the Teflon washer and it is essential to use some soapy water to perform a leak check.