

BIOZONE SCIENTIFIC

MINI POWERZONE

GUIDE FOR HOUSEKEEPING



Apart from visible dirt, the cleaning of odours, bacteria, viruses and mould make up a large part of getting a hotel room clean. Speed of cleaning and thoroughness whilst under a short time frame increases the need for items such as the BioZone Mini PowerZone (MPZ).

Developed over years of working with housekeeping staff and managers in small to large hotels, the Mini PowerZone (MPZ) is a powerful tool and very safe and effective when used properly. This guide will explain the features and how the best results can be achieved with its use.

TECHNOLOGY

Ozonators have long been used throughout the cleaning industry and have been successful to a point. Filling a room with O₃ molecules can reduce odours. BioZone technology takes it a lot further with increased effectiveness and speed.

Plasma lamps inside the MPZ break apart water and oxygen in the air to create a mixture of airborne charged particles. These particles known as plasma are the same components of what lightning, stars, sun and fire is made of.

A combination of these superoxides consist of oxygen singlets, hydrogen peroxide, negative ions, some ozone, which is 200 times more effective than ozone alone, 1000 times more effective than chlorine. This enables a MPZ to thoroughly clean air and surfaces with extreme efficiency but no chemical residue.

PROBLEM

Odours come from a source, whether it be volatile organic compounds or bacteria etc. These can be on surfaces and embedded into curtains, carpets, bedding, ventilation etc. The same applies to bacteria, viruses and mould. Killing or removing these sources is imperative for a clean safe healthy fresh room.

Fragrances are sometimes used to hide these problems, and whilst the perception is the perfume is pleasant, the health of this mix of airborne and surface bacteria problems is far from the truth. Ozonators can produce high levels of ozone to attack the problems but at risk of both staff and physical assets.

Some Ozonators using what is known as corona discharge (a spark from an electrode) and these react with nitrogen in the air to create toxic nitric oxide. BioZone's use of plasma requires much lower and safer levels of ozone that are not as hazardous to the walls and furniture. Also the reaction time can mean it's more effective in a shorter time.

USING THE MINI POWERZONE

As explained with the source of problems that are embedded on surfaces and in the materials of bedding, curtains and furniture plus inside air conditioning, using a Mini PowerZone can be done two ways.

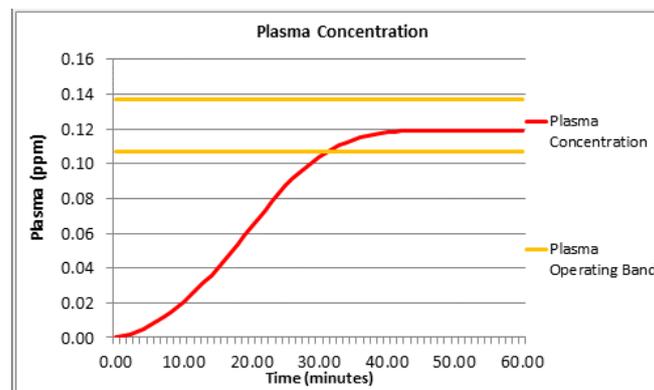
Sometimes when the source of the problem is easily identified, the lightweight MPZ can be placed with the outlet to disperse the plasma to cover and clean the problem area. Where possible removing the visible source and ensuring the area is dry.

When the entire room is contaminated then a broader way is to fill the room with plasma. This means closing off the room and run a MPZ for a period of time to allow the levels to react with and clean fabrics and surface.

A major problem can be that the source of the odour can be in ventilation ducts, therefore the option is to run the air-conditioning on high and fill room until the ventilation draws in the plasma, cleaning all the ducting. Mould spores can be much harder to kill, but plasma can do the job quicker if the MPZ can be placed inside the return vent or aimed into the vent with a ladder or hooked under the vent somehow.

Plasma is 2 times heavier than air and for this reason an MPZ can achieve much better results when placed high as possible on top of shelf, ladder, cupboard, fridge etc. This also enables the plasma to float around a room and clean every corner and surface quicker.

Here is a graph showing how long it can take to fill a room... Taking 30 minutes before it reaches its true cleaning ability.... Then it can need 10, 20, 30 minutes depending on contamination.. e.g. smoke, food odours etc.



Note this is for a 5m x 4m room.....Smaller or larger rooms take different times . Contact BioZone office for assistance

OPERATION

The MPZ comes with the carry strap for easy transport and also offers a way of hanging higher in a room on shelf or hook.

On top of the unit is a digital display with 3 buttons. One button turns the unit on or off. Buttons Up and Down increase the timer in periods of 10 minutes, starting at 10 minutes up to 12 hours and 50 minutes.

The timer allows the user to set the treatment time, start the treatment, and return after the area has been treated.

Setting the Mini PowerZone Timer

Plug unit into a 10amp power point

Fig:1



Press the Up Arrow (Fig: 1) once to increase time by 10 minute steps.

Press and hold the Up Arrow to rapidly increase the time. Press and hold the Up Arrow until the display shows: "C: _: _ _ _" to operate the unit continuously.

Fig:2



Press and hold the Down Arrow (Fig: 2) to rapidly decrease time.

Press and hold the Down Arrow until the display shows: "10.00.0" to set the minimum time of 10 minutes.

Fig:3



Start the Mini PowerZone timer and Mini PowerZone II operation by pressing the ON/OFF button (Fig: 3). Pause the MPZ timer and stop the Mini PowerZone II operation by

pressing the ON/OFF button while the unit is running.

Note: *When the Mini PowerZone is plugged in, the timer remembers the previously used time setting.*

After this the unit enters continuous mode indicated by C_ _ _ _ _

The MPZ can be set to run for a length of time deemed necessary to treat a problem spot or fill a room. In the interest of eliminating and health risks to individuals especially with any asthma or other lung problems, it is recommended that the operation be in such a way that the area is unoccupied and the timer set so that the MPZ will switch off, 10 minutes prior to someone returning.

This is purely a precaution to eliminate any level of ozone exposure, which can cause headache or shortness of breath. When the unit is running the LED will display and the circular light will shine blue indicating the lamps are in operation.

MAINTENANCE

The MPZ is virtually maintenance free. Simply keeping free inlet and outlet of obstructions and dirt .

These lamps are rated for 8000 hours of use. To check how long the lamps have been used, press and hold the up and down arrows. This will then show on the LED screen

Hourly Lamp data available on display



Press the up and down arrows (Fig:4) simultaneously for 5 seconds to show the number of hours of operation (dXXXX) and the number of on/off cycles (CXXXX).

Eg. (d 1245 , C 896) = 1245 hours of operation, 896 on/off cycles.

Please contact BioZone Scientific for replacement lamps and instructions. To reset these indicators, put the end of a paperclip into the small hole of 3 seconds.

TIPS

To deal with odours quickly.

Identify and remove source as much as possible then aim the outlet of the MPZ at the odour source xxx for 10-30 minutes based on judgment of contamination, longer or repeat if necessary

For Room Contamination

Turn air-conditioning on high speed, place MPZ near inlet or inside. This will circulate plasma into the vents. Alternatively place on shelf or ladder and run MPZ for a duration of 30-60 minutes, longer if contaminant is high.

Mould spores can take between 10-30 minutes to kill at plasma level, thus it can be between 20-30 minutes to obtain a sufficient level of plasma in the room , so a total of 30 to 60 minutes minimum

Take note that repeated treatments will be necessary if the level is not reached and the fibers of curtains and other materials in the room are not cleaned.

Call BioZone Scientific on 1300 070 040 for further assistance