



MP-5000 (220V) Ozone Generator

Operating Manual

Produced for and Distributed by:
A2Z Ozone, Inc
523 East Broadway
Louisville, KY 40202 USA
1+502-499-4977

EPA Est.: 95432-KY-1

Active Ingredient: Ozone.
Warning: Do Not Inhale Ozone.
Keep Out of Reach of Children.

Produced by:
Bluegrass Water Technology Shenzhen
Co., Ltd.
Shenzhen, Guangdong

Made in China
EPA Est.: 95432-CHN-1



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WARNING: Do Not Inhale Ozone. Ozone Can Damage Lungs if Inhaled. Remove Immediately to Fresh Air if exposed. Keep Out of Reach of Children. Hazards to Humans and Domestic Animals--Do Not Expose Children, People, Pets, Plants or Valuables to Ozone. Ozone Health Information--If exposed to ozone, get to fresh air immediately. Seek doctor's advice if exposed to ozone.

WARNING: The use of a degasifier and an ozone destructor is necessary to ensure excessive ozone is safely removed from the application. Leave the area while the application is in operation. In case of accidental leakage, keep the Ozone generator in a well-ventilated area. NOTE: The water tank requires an exhaust to the outside of the building with ozone destructor to remove excessive ozone.

HIGH VOLTAGE! Perform service on ozone generator by certified technicians only! For your safety, do not store or use gasoline, chemicals or other flammable liquids or vapors near this or any other appliance. NOTE: Use Only As Directed. Follow All Instructions Provided in the Manual. Buyer will assume all responsibility for installation, running and use not in accordance with direction.

Important Safety Information

READ AND FOLLOW ALL INSTRUCTIONS

ELECTRICAL PRECAUTIONS DURING OPERATION:

- Follow all electrical codes.
- Turn power off and disconnect from power source before any service work is performed. Failure to do so could result in serious injury or death.
- Electric shock hazard. Use the power cable provided to connect the MP-5000 to a properly rated and grounded receptacle.
- If the MP-5000 will be used where water is present, a ground fault circuit interrupter must protect the circuit.

PLEASE SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCE

Use ozone test strips or dissolved ozone monitor to acquire your desired level of ozone.

CAUTION: In case of accidental leakage, install the ozone generator in a well-ventilated area.

In accordance with California Regulations, this ozone generator is solely for industrial use and must be installed by a professional. Potential Health Hazard: Emits Ozone.

Technical Specifications

Items Included:

- MP-5000 (220V) Ozone Generator
- MP-5000 (220V) Ozone Generator operation manual
- 8 feet of flexible tubing included
- 8 feet of PTFE tubing
- Two 2" oblong diffuser stones included
- Spare fuse included
- Fan filter replacement

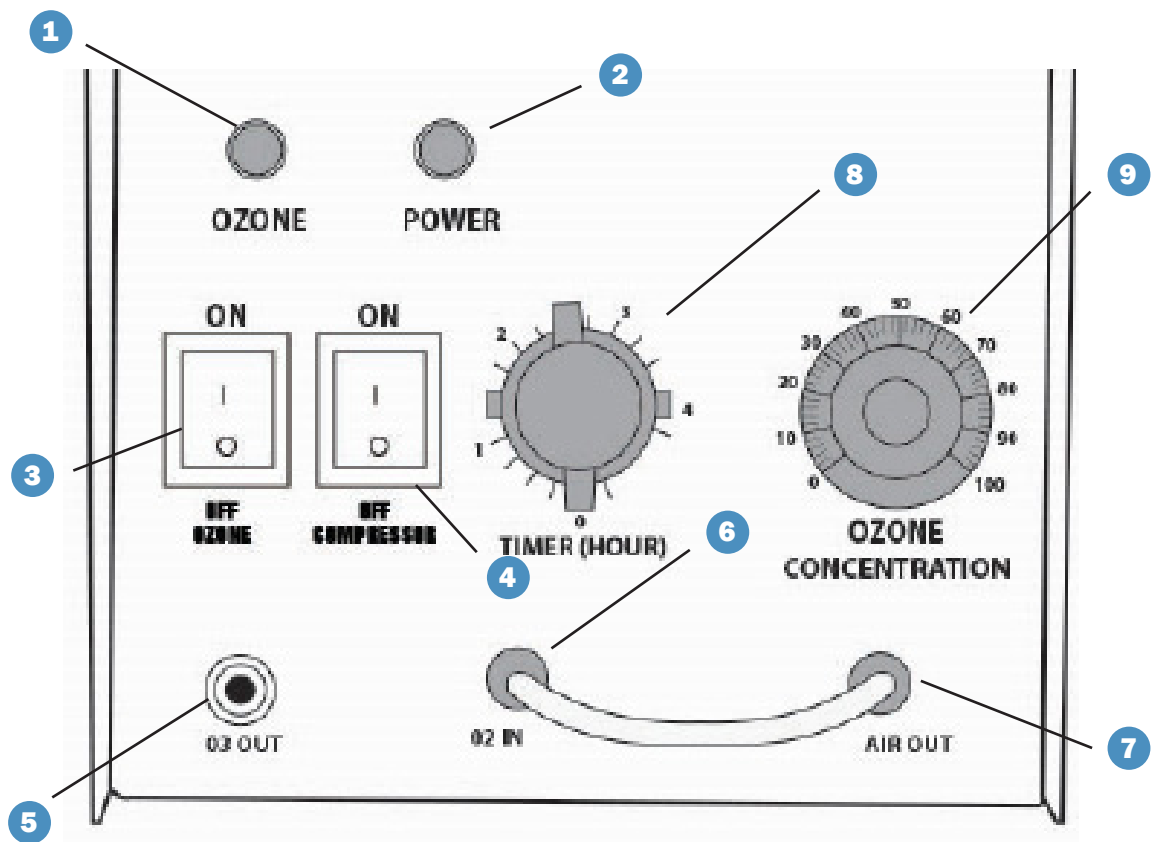
Special Features:

- Corona Discharge Technology
- A Continuous Option
- 15-Minute to 4-Hour Adjustable Timer
- Stainless Steel Handle for Easy Portability
- Optional Oxygen Feed Hookup
- Internal Air Compressor

Model	Ozone Capacity		Oxygen Feed Gas Flow Rate	Dimensions	Energy Usage	Concentration	Unit Weight	
	lbs/day	g/hr	LPM	H x W x D	V/W	mg/L	lbs	KG
MP-5000	0.260	5	3 O ₂ or dry air	8 x 15 x 10	220/135	45 @ 2 LPM w/ O ₂ input 5 w/ internal pump	15	7

Features

1	Ozone Light	Indicates ozone is functioning. If the LED is illuminated, the unit is working properly.
2	Power Light	Indicates when there is power to the unit. If the power is supplied, the light will remain illuminated.
3	O₃ Switch	Used to control ozone power within the unit.
4	Air Pump Switch	Used to power on the small internal air compressor built into the unit. If using oxygen supply, DO NOT turn on air pump switch.
5	O₃ Out Port	Ozone produced by the unit exits through this port.
6	O₂ In Port	Optional hook up port for an external oxygen source. This can be used to produce a more pure ozone. 3 psi & 2-4 LPM flow rate.
7	Air Out Port	Air outlet port for the air compressor (loops into O ₂ In Port for ambient air use).
8	Timer (Hour)	Sets a time limit for the unit to produce ozone. The unit timer needs to be engaged for ozone production.
9	Ozone Concentration Knob	Controls the percentage of ozone produced by the unit.



MP-5000

Timer Functions

The MP-5000 (220V) Ozone Generator is equipped with timer functions. The hourly timer knob adjusts between 15 minutes and 4 hours, and any time interval in between.

- 15 minutes to 4 hours
 - To operate this timer, turn the knob clockwise to the desired set position.

Continuous Timer

- A continuous option is available for the MP-5000 (220V) Ozone Generator.
 - To operate this timer, turn the knob counterclockwise.

Note: You can control the MP-5000 (220V) Ozone Generator with a garden timer. Just turn on all switches and position timer to “ON”. Plug the unit to the timer (15 AMP) and set the timer to run the unit. Be sure to set the timer to cool down the unit at least 2 hours between each runtime.

Installation Instructions

Ozone Generator Placement

- Install ozone generator in a clean, dry area with good ventilation.
- The MP-5000 (220V) Ozone Generator should be placed above any water tank level.
- If pressure is lost in the venturi injector vacuum and the unit is below water tank level, gravity will cause water to travel down the ozone output hose and enter into the ozone generator.
- Place stone no more than 18 inches deep.

NOTE: Place the ozone generator in room temperatures below 130° F, 54 ° C. Prolonged exposure to extreme temperatures will void the warranty.

Venturi Installation

- Install the venturi injector with the bypass valve on water recirculation pipeline.
- **Point the arrow on venturi injector in the same direction as the water flow.**
- Turn water pump on and close the bypass valve until a vacuum is created at the venturi injector input.

NOTE: Use a gauge to check vacuum -2 to -3 PSI (-0.14 to -0.21 bars) or place finger over end of venturi injector valve to feel the vacuum. At this point, the air is injected into the waterline. This can be observed as air bubbles inside the water tank.

NOTE: The water tank requires an exhaust to the outside of the building with ozone destructor to remove excessive ozone.

Main Power

- Use the power cable provided to connect the MP-5000 (220V) Ozone Generator to a properly rated and grounded receptacle.
- **If the MP-5000 will be used where water is present, a ground fault circuit interrupter must protect the circuit.**

Operating Instructions

- Plug your power cord into the back of the unit and the wall socket.
- Remove the bulkhead nut on O₃ out port.
- Then insert the bulkhead onto the tubing.
- Slide tubing onto the O₃ outlet barb.
- Screw the nut back onto the O₃ out port.
- Attach the diffuser stone of your choosing to the opposite end of the tubing, or connect other end to the venturi injector suction port.

NOTE: Be sure to set the unit above water level. For added security, use of a check valve to help prevent water from back-flowing into the unit.

For Oxygen Input:

- Disconnect the small tubing from the O₂ in port.
- Connect the oxygen source to the O₂ in port with appropriate tubing. You may use the provided flexible tubing.
- Adjust the flow rate of the oxygen source to a maximum of 2-4 L/minute, and a maximum of 5 PSI.

NOTE: Ensure that the air compressor switch is in the OFF position when using an oxygen source.

For Ambient Air:

- Turn on both air compressor switch and the ozone switch, in that order.
- Keep in mind, the unit will NOT power up until the timer is set.
- Turn the power button on – it is located on the back of the unit by the power cord.
- Turn the ozone concentration knob to 100 percent or desired concentration for the given application.

CAUTION: If ozone concentration is below 20 percent, the unit will not power up unless external oxygen is attached. The dial can be adjusted after starting, but avoid dialing up and down continually, as this action may harm the control board.

- Set the unit timer for the desired application duration.
- The timer can be dialed counterclockwise to allow for an “Always On” function.
- Keep in mind, this function is not recommended for oxygen air.
- At this point, the MP-5000 (220V) Ozone Generator is powered up.

To turn the unit off:

- For Ambient Air:
 - Turn off the ozone switch.
 - Wait 10 seconds before continuing.
 - Turn off the air compressor switch.
- For Oxygen Air:
 - Turn off the ozone switch.
 - Wait 10 seconds before continuing.
 - Turn off the oxygen source.

Tube Connection and Start Up

An oxygen tank or oxygen generator can be used.

Using Oxygen Bottle/Tank:

- Connect oxygen bottle/tank to ozone generator (Oxygen In Port).
- Connect MP-5000 (220V) Ozone Generator (Ozone Out Port) to venturi injector.
- Install a check valve 10 inches after ozone outlet tube fitting. This can be done by cutting the tube ten inches after ozone outlet fitting.
- Connect both ends of cut tubes to the check valve. Please direct the arrow on the check valve toward venturi injector.
- Set tank gas flow meter at 2-4 liters per minute and 5 PSI maximum.
- First, open the oxygen valve. Then turn on the main ozone power switch on the front panel of the MP-5000. The internal air compressor switch stays OFF. The ozone light and fan should turn on.
- Increase power to the cells by turning the ozone concentration knob clockwise. Please remember to make a full rotation clockwise.
- Prior to shutting off the feed gas to the unit, turn off the switch and allow the unit to purge for about 1 minute. Then, turn the flow of oxygen gas off.

NOTE: Do not turn the air pump switch ON when using an oxygen generator, oxygen bottle or tank.

Using Oxygen Generator:

- Connect oxygen generator (Oxygen Out Port) to ozone generator (O₂ In Port).
- Connect MP-5000 (220V) Ozone Generator's (Ozone Out Port) to the venturi injector.
- Install a check valve 10 inches after ozone outlet tube fitting. This can be done by cutting a tube ten inches after ozone outlet fitting.
- Connect both ends of cut tubes to the check valve.

- Please direct the arrow on the check valve toward the venturi injector.
- Turn the oxygen generator ON first and then the ozone ON switch (**O₃ Switch**). The air pump stays OFF.
- Turn timer knob clockwise to the amount of time needed.
- To run continually, turn the timer knob counterclockwise.
- The ozone light and fan will turn on.
- Increase power to the cells by turning the ozone control knob clockwise.
- Prior to shutting off the oxygen generator feed gas to the MP-5000 (220V) Ozone Generator, first turn off the ozone generator switch and allow the unit to purge with oxygen for about 1 minute.
- Then, turn off the oxygen generator.

Using Internal Air Compressor: This unit comes with a small air compressor built inside the ozone generator

- Connect the air out of the unit with the O₂ In using the supplied oxygen tubing, located on the front panel on the ozone generator side.
- Connect ozone generator (Ozone Out) to the venturi injector.
- Install a check valve 10 inches after ozone outlet tube fitting.
- You may do this by cutting the tube ten inches after ozone outlet fitting.
- Connect both ends of cut tubes to the check valve.
- Please direct the arrow on the check valve toward the venturi injector.
- Turn ON/OFF both the main power and air compressor switch located on the front panel.
- To power down, flip the ozone switch and wait 30 seconds. Then flip the air pump switch.

Using External Air Compressor:

- Install air dryer after the air compressor. Use an oil-less air compressor only.
- Connect air dryer outlet to ozone generator (Oxygen In).
- Set air inflow rate at 2-4 liters per minute.
- Connect ozone generator (Ozone Out) to venturi injector.
- Install a check valve 10 inches after ozone outlet tube fitting. This can be done by cutting a tube ten inches after ozone outlet fitting.
- Connect both ends of cut tubes to the check valve. Please direct the arrow on the check valve toward venturi injector.
- Turn ON/OFF main power and air compressor switch at the same time. To turn off, flip off the ozone power switch and wait 30 seconds. Then turn off external air pump.

NOTE: Do not turn ON the air compressor switch on the front panel when using oxygen generator, oxygen bottle or tank.

Maintenance

Clean Fan Screen

Clean fan screen every 2 to 4 weeks as needed. If ozone generator is installed in poor air quality area with dust, the screen must be cleaned as needed in order for air to pass through the unit and cool the parts inside the generator.

- Turn the ozone generator off and unplug the unit
- Remove the back fan guard and screen. To do this, pull out the corner
- Clean sponge screen with soap and water
- Rinse
- Dry sponge screen thoroughly with a clean towel
- Reinstall the screen and fan guard
- Plug the unit in and turn the ozone generator on
- Be sure the screen does not touch the fan blade

Changing Fuse

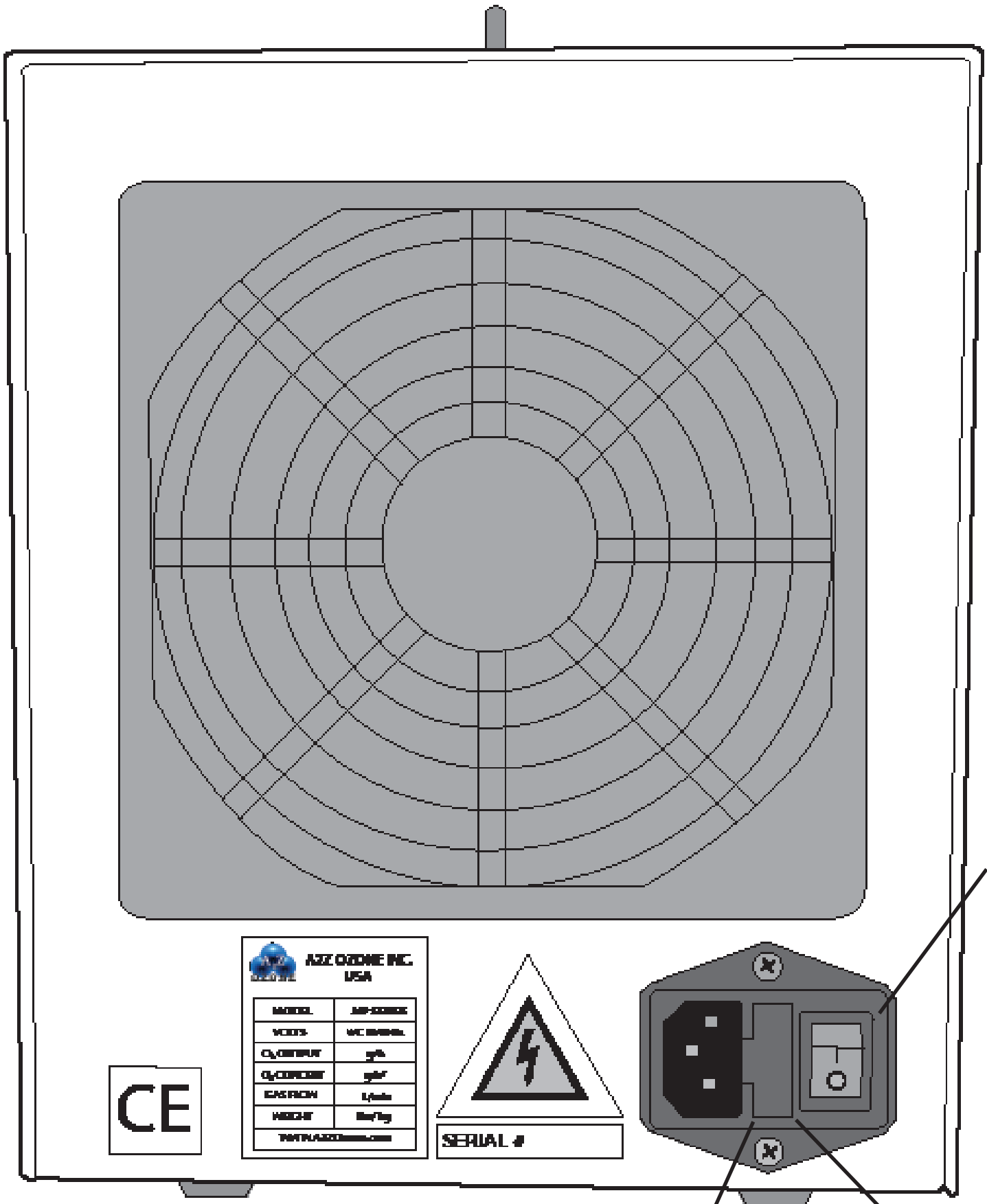
The outside fuse is located near the back rocker switch. The ozone board fuse is located on the back left of the board.

See the table below for details:

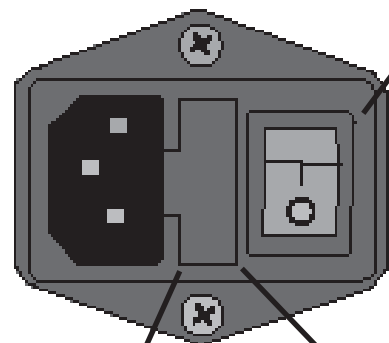
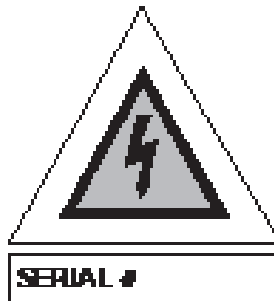
Unit	Outside Fuse (AMPs)	Ozone Board Fuse (AMPs)
MP-5000	3A	5A

Troubleshooting

Problem	Possible Cause	What to Do
No Ozone (Ozone LED is not illuminated, but pump is working)	Bad ozone board	Normally the fuse on the back of the unit will blow or the ozone light won't light up. Contact us for a replacement board.
	No air flow	Make sure the air loop is in the correct position if using ambient air. Make sure O ₂ generator is functioning and O ₂ is flowing.
	Broken ozone switch	If the ozone power switch is broken then there won't be power to the exhaust fan and ozone board. Contact us for a replacement.
No Power	Check fuses	There are two fuses. Usually the back rocker will blow. The other fuse is on the ozone board.
	Check the timer knob	If the timer knob isn't engaged then the unit won't power on.
	Back switch	If there is no power entering the unit then there is something wrong with the back rocker switch.
No Ozone	Broken fuse	Check the fuse on the ozone board. Ensure this is the correct AMP (see chart on pg 11)
Internal Air Pump Not Working	Bad air pump switch	Replace air pump switch
	Air pump does not work	Replace air pump



 AZZ ORONE INC. USA	
MODEL	MP-20000
VOLTS	100-240VAC
CLAMPING	1/2"
CLAMPING	1/2"
CLAMPING	1/2"
WEIGHT	1.5kg
WEIGHT	1.5kg
WWW.AZZORONE.COM	



The test method for failure of the MP Series:

- Check the power input for correct voltage (220V).
- If the unit is on but no ozone is being produced, this could be due to:
 - Overheating of the unit
 - Water back flow to the ozone generator
- Turn off ozone generator and let air flow through the unit for five to ten minutes.
- Check the fuse, change if needed.
 - The MP-5000 uses a 3 AMP fuse for the back rocker switch and a 5 AMP fuse in the ozone board.
- Check the air compressor line or oxygen input
- If the generator is taking in oxygen, please check the tube inside the machine for kinks.
- If the machine can produce some air, but the air is not ozone please check the following:
 - The ozone power indication lamp is lit
 - Check ozone control knob is set above 20%

If you are still experiencing problems, please contact A2Z Ozone at (502) 499-4977 or service@a2zozone.com for more information.

1	Main Power Switch	Powers the whole unit. If there is no power to the unit, check here first.
2	Main Fuse	If no power to the unit, check the Main Power Switch first, then check this fuse.
3	Spare Fuse	Holds spare 3A fuse.

Warranty

A2Z Ozone Systems Inc. - ONE YEAR LIMITED WARRANTY

The limited warranty set forth below applies to products manufactured by A2Z Ozone Systems Inc. - and sold by A2Z Ozone Systems or its authorized dealers. This limited warranty is given only to the first retail purchaser of such products and is not transferable to any subsequent owners or purchasers of such products. A2Z Ozone warrants that it or its authorized dealers will repair or replace, at its option, any part of such products proven to be defective in materials or workmanship within ONE (1) year from the date of retail purchase of such products. (All parts) ANY REPAIR OR REPLACEMENT WILL BE WARRANTED ONLY FOR THE BALANCE OF THE ORIGINAL WARRANTY PERIOD. NOTE: USE ONLY A2Z Ozone AUTHORIZED REPLACEMENT PARTS. USE OF ANY OTHER PART(S) WILL AUTOMATICALLY VOID THIS WARRANTY. THIS LIMITED WARRANTY DOES NOT INCLUDE ANY OF THE FOLLOWING:

- (a) Any labor charges for troubleshooting, removal, or installation of such parts;
- (b) any repair or replacement of such parts necessitated by faulty installation, improper maintenance, improper operation, misuse, abuse, negligence, accident, fire, repair material, and/or unauthorized accessories;
- (c) Any such products installed without regard to required local codes and accepted trade practices;
- (d) ANY IMPLIED WARRANTY OF MERCHANTABILITY OR IMPLIED WARRANTY OF FITNESS FOR PARTICULAR PURPOSE, AND SUCH WARRANTIES ARE HEREBY DISCLAIMED: AND
- (e) A2Z Ozone SHALL NOT BE LIABLE UNDER ANY CIRCUMSTANCES FOR LOSS OF USE OF SUCH PRODUCTS, LOST PROFITS, DIRECT DAMAGES, INDIRECT DAMAGES, CONSEQUENTIAL DAMAGES AND/OR INCIDENTAL DAMAGES.

TO OBTAIN WARRANTY SERVICE

Contact A2Z Ozone, 523 East Broadway, Louisville, KY 40202, USA

Customer Service Number: +1 502-499-4977.

When filing a claim, you must provide:

- 1) Your name, mailing address and telephone number
- 2) The selling dealer's name
- 3) Proof of date of purchase
- 4) The date of failure
- 5) A description of the failure.

After this information is provided, A2Z Ozone will release a RETURN GOODS AUTHORIZATION (RAN) NUMBER. After receiving the RAN number the part in question must be returned to A2Z Ozone, freight prepaid, with the RAN number clearly marked on the outside of the package. All preauthorized defective parts must be returned to A2Z Ozone within thirty (30) days. Under no circumstances may any product be returned to A2Z Ozone without prior authorization. You must call or write prior to returning product or your returned goods shipment will be refused. Upon receipt of preauthorized returned goods, A2Z Ozone will repair or replace, at its option, the defective product(s) and return them (shipping is prepaid for units under warranty for USA customers only). Buyer's acceptance of the product and use thereof constitutes acceptance of these terms.

A2Z Ozone WARRANTY REGISTRATION CARD

This information can be also be sent by EMAIL to us. Please provide ALL pertinent information and send within twenty (20) days to: service@a2zozone.com

Otherwise, please fill out completely and return to A2Z Ozone by post within twenty (20) days of purchase.

Customer Info:

Name_____

Address_____

City_____State_____Zip_____

Phone (____) _____

Dealer Info:

Dealer Name_____

Dealer Address_____

City_____State_____Zip_____

Phone () _____

Purchase/Product Info:

Purchased Date: _____Date Installed_____

Product Purchased: _____

Comments / Questions:

DO NOT FORGET TO CUT OUT, PLACE IN ENVELOPE AND MAIL TO THE FOLLOWING ADDRESS FOR INSTANT WARRANTY COVERAGE!

A2Z Ozone Systems Inc.
ATTN: Warranty Dept.
523 East Broadway
Louisville, KY 40202, USA