

OWNERS MANUAL

CORONA DISCHARGE OZONE GENERATOR



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INTRODUCTION

Congratulations for purchasing the PO3-Series Corona Discharge ozonator. These ozonators use the very best technology that provides you with the highest ozone production in its class.

These products are made with great care and will give you many years of excellent service, but like all mechanical systems, require attention to proper installation and maintenance.

Please keep this manual along with your invoice as a permanent record of your purchase. All Pure Aquatics ozonators carry a full one year "return-to base" warranty if maintained according to this manual.

This document provides installation and start-up guidance. Further information on our range of ozonators and other related products can be found on our website at www.pureaquatics.com.au

GENERAL DESCRIPTION

The Pure Aquatics™ Corona Discharge (CD) ozone generator described in this manual is designed to provide the benefits of ozonated water in an environmentally safe and effective manner.

The machine is a compact ozone generator with state of the art ceramic ozone generation cells. The feed gas should be oxygen or dry air. Never supply 'ambient' air as it will foul the ozone producing cells rapidly.

Its high quality, specially engineered components ensure efficient ozone output and reliable performance.

This ozone generator produces a high concentration and proper off-gassing techniques should be observed.

FREIGHT INSPECTION & UNPACKING

All equipment should be thoroughly inspected immediately upon delivery. If any damage is noticed, promptly notify the freight company and follow their instructions.

IMPORTANT SAFETY INSTRUCTIONS

- Read this manual completely before attempting installation.
- Install in accordance with the installation instructions.
- Connect to a 3-pin earth leakage protected power outlet only.
- Follow all applicable electrical codes.
- Electric shock hazard. Be sure to turn power OFF and disconnect power cord before any service work is performed. Failure to do so could result in serious injury or death.
- Warning Short term inhalation of high concentrations of ozone and long term inhalation of low concentrations of ozone can cause serious harmful physiological effects. DO NOT inhale ozone gas produced by this machine.

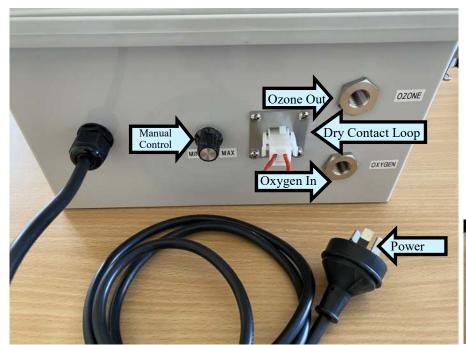
INSTALLATION

-LOCATION and OPERATING ENVIRONMENT

Installation should be carried out using sound trade practice and in according with local statutory requirements. The ozonator is *not weather proof and is intended for indoor use only*. **NEVER** allow water to get near or in the unit!

Choose a location, preferably ABOVE the water line, that is well-ventilated, dry, chemical-free, dust-free, insect-free and shielded form excessive heat, as close as possible to the ozone injector system and power outlet.

Allow sufficient access for maintenance of hoses and electrical wires.





- OZONATOR MOUNTING

The ozonator must be wall mounted in a vertical position. Allow at least 200mm space above and around the unit for the fan air to circulate.

- OZONATOR ELECTRICAL

The machine is supplied with a standard AUS/NZ 3-pin power cord. Connect the power cord to a 10A switched and earth leakage protected mains power outlet.

- OZONATOR CONTROL ON-OFF

The machine is supplied with a "Molex" plug and link which can be used as an interlock or remote on/off control. An ORP or DO3 monitor/controller with a potential free contact may be used to control the ozonation around a setpoint.



<u>PA ORP Controller</u> ORP-CONT-DCVF

- OZONATOR MANUAL CONTROL

The machine is supplied with a manual control. This adjusts the ozone production from 20 to 100%.

PREVENTATIVE MAINTENANCE SCHEDULE

The Pure Aquatics Corona Discharge ozone system requires little maintenance beyond general housekeeping practices.

DAILY:

- 1. Check ozone generator for proper operation.
 - Make sure the blue power indicator light is illuminated.
- 2. Check for water backflow in the ozone delivery hose

MONTHLY:

- 1. Shut off ozone generator.
- 2. Remove and clean fan air filter (see Figure 1).
 - Insert a small screw driver in the slot to remove filter cover.
 - Rinse filter in warm, soapy water and blow dry.
 - Replace filter.
- 3. Perform general cleaning of cabinet interior/ exterior.

ANNUALLY:

1. Replace check valve(s)

BI-ANNUALLY:

- 1. Service CD ozone generating modules, replace seals.
- 2. Replace Check valve(s)
- 3. Practice normal mechanical maintenance.
- 4. Replace Ozone tubing/ fittings as required

TROUBLE SHOOTING

SYMPTOM	PROBABLE CAUSE	REMEDY			
DOMED : 1: 1	No power at power socket	Check power supply at outlet			
POWER indicator off	Fuse blown	Replace fuse with 5A Slow, size 5x20			
	Earth leakage tripped	Reset breaker. Check power cord, water ingress. If breaker continues to trip after reset call for technical assistance			
Fan not operating	Clogged fan filter	Clean fan filter and internals			
	Fan faulty	Replace fan			
	Fan filter cover too tight	Re-fit filter cover			
Unit trips Earth Leakage Protection	Water ingress	Return unit for service or disassemble and dry / clean internals			
	Internal fault	Return unit for service			
Water in unit or ozone delivery hose	Check valve(s) leaking No backflow preventor device fitted	Replace check valve(s). Install backflow preventor below ozonator if installed below the waterline.			
Ozone smell present in room	Loose internal fittings	Inspect and tighten fittings			
	Positive system pressure	Adjust system vacuum			

Service Spare Parts

Product Description	Product Code			
1/4"FNPT x 1/4"FNPT Check valve w Viton Seals	22256			
1/4"FNPT x 1/4"Barb PVC Check Valve w Viton Seals	22255			
1/4"OD PTFE Ozone Compatible Tubing Per M	AFE-014			
1/4"Male NPT x 1/4"Compression Kynar	JS38			
1/4"Male NPT / 1/4" Compression 90°elbow Kynar	JS31			
1/4"Barbed Kynar Check Valve	64174			
3/16"Barbed Kynar Check Valve	64108			
1/4"Compression x 1/4"Female BSP Kynar	JS39			
1/4"Compression Union Kynar	JS48			

Technical Specifications

Model	PO3-5GM	PO3-10GM	PO3-15GM	PO3-20GM	PO3-30GM	PO3-40GM
Ozone production (g/hr)						
on air	3	8	11	16	22	24
Ozone production (g/hr)						
on O2	5	10	15	20	30	40
0 51 (150.4)	_	_	_		40	40
Oxygen Flow (LPM)	5	5	5	9	10	12
		0°C to +40°C	0°C to +40°C	0°C to +40°C	0°C to +40°C	0°C to +40°C
		@ 75%	@ 75%	@ 75%	@ 75%	@ 75%
	0°C to +40°C @ 75%	Relative	Relative	Relative	Relative	Relative
Ambient temperature	Relative Humidity	Humidity	Humidity	Humidity	Humidity	Humidity
Ingress protection	IP20	IP20	IP20	IP20	IP20	IP20
Oxygen/Air-in	Constitution design	6mm barbed	6mm barbed	6mm barbed	6mm barbed	6mm barbed
connection	6mm barbed inlet	inlet	inlet	inlet	inlet	inlet
		1/4	1/4	1/4	1/4	1/4
	1/4 Compression	Compression	Compression	Compression	Compression	Compression
	fitting w/ check	fitting w/	fitting w/	fitting w/	fitting w/	fitting w/
Ozone-out connection	valve	check valve	check valve	check valve	check valve	check valve
		150 CFM,			150 CFM,	150 CFM,
		220-240Vac	150 CFM,	150 CFM,	220-240Vac	220-240Vac
	150 CFM, 220-	c/w	220-240Vac	220-240Vac	c/w	c/w
	240Vac c/w	washable	c/w washable	c/w washable	washable	washable
Famo	washable	insect/dust	insect/dust	insect/dust	insect/dust	insect/dust
Fans	insect/dust filters	filters	filters	filters	filters	filters
		Pulse	Pulse	Dulco inicoted	Pulse	Pulse
	Pulse injected	injected Corona	injected Corona	Pulse injected Corona	injected Corona	injected Corona
Ozone Cell	Corona discharge	discharge	discharge	discharge	discharge	discharge
	22.0	5			5.100.101 BC	5

WARRANTY

Pure Aquatics Ltd makes every effort to assure that its products meet high quality and durability standards and warrants its products against defects in materials and workmanship for a period of one year from date of purchase, under normal use as outlined in this manual.

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.

Product is covered by a 'Return to Base Parts and Labour Warranty. This means the customer is responsible for delivering the defective product to the factory for repair or replacement. If, after the product is evaluated by

Pure Aquatics Ltd, it proves to be defective under warranty, Pure Aquatics Ltd will at its election repair or replace the defective product/part and will return ship prepaid to you. If upon inspection, it is determined that there is no defect or that the damage to the product/part resulted from causes not within the scope of this limited warranty, then you must bear he cost of repair or replacement of the damaged product/part including labour and all return freight charges.

This warranty does not cover dealer labour cost for removing and reinstalling the machine for repair nor for any expendable parts that readily replaced in normal use nor damage which may occur during shipping nor failure to meet the installation, operation and service requirements as outlined in this manual nor service and/or repair not authorized by Pure Aquatics.

It explicitly <u>excludes</u> damage caused by water backflow (check valve failure and/or failure to fit a backflow preventor device).

The sole responsibility of Pure Aquatics Ltd under this warranty shall be limited to repair of this product, or replacement thereof, at the sole discretion of Pure Aquatics Ltd.

To obtain warranty service, contact or email us at **sales@pureaquatics.com.au** or simply return the product/part to us accompanied by:

- Your full contact and return shipping details
- Copy of the sales invoice
- Description of the failure



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