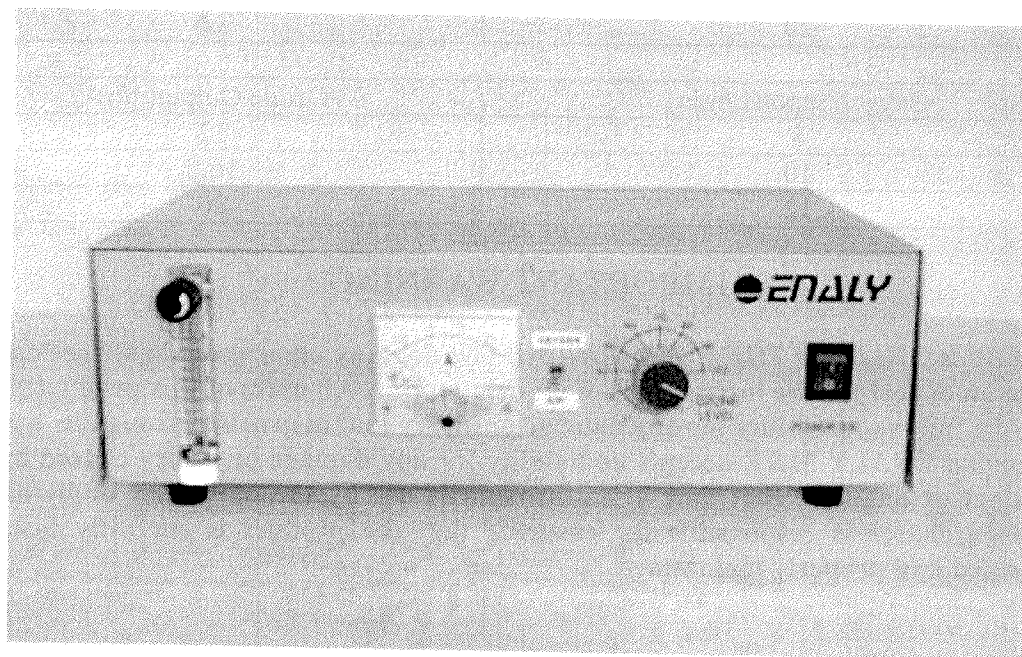




5000BF Ozone Generator



**Shanghai ENALY M&E Thank You
For Purchasing Our Products**

5000BF Ozone Generator

With proper care and maintenance, this device should give you years of trouble-free service.

*Please take the time to read this manual so that you may safely operate your ozone generator
and utilise the unique properties of ozone.*

SPECIFICATIONS

Ozone output: See charts
Adjustable between 10-100% of rated output
Maximum pressure 3psi = 2.0 metres of water
Inlet and outlet port dimensions: 6 millimetres
Voltage: 110Vac 60Hz / 220Vac 50Hz
Fuse: 3 Amp 250Vac
Power Consumption: 80 Watts
Weight: 7 kilograms

Ozone Output Charts:

Test Temperature: 25°C

Air Pump Input(L/min)	Ozone Output(g/h)
8	2.8
16	4
20	3.6

Oxygen Input(L/min)	Ozone Output(g/h)
8	12
10	16.8
12	20

IMPORTANT WARNING

1. 5000BF is **ONLY** for *THE COMMERICAL USERS*. Any other user should seek advice from an expert for the instructions of applying ozone. All users of this product should assume full responsibility for any damage or injury that may arise through its use.
2. Shanghai ENALY M&E accepts no liability for any damage or injury caused by this product or damages that may arise through its use by the purchaser or by others. The purchaser is responsible for ensuring that the product is correctly installed, operated and properly maintained.

SAFETY WARNINGS

HEALTH HAZARD WARNING:

1. Permissible Exposure Limits:

The following limits accepted in USA, UK and other parts of Europe:

- 8 hour per day/5 days per week (occupational exposure limit) - 0.1 ppm
- 15 minute (short term exposure limit) - 0.3 ppm

The 5000BF ozone generator is capable of delivering up to 5 gram of ozone per hour. In an enclosed space, the ozone concentration generated by the 5000BF quickly exceeds the 15-minute exposure limit of 0.3 parts per million.

2. Toxicology of ozone:

Above the exposure limit there is risk of inflammation to the respiratory system. Ozone has been shown to induce asthma attacks. **People with history of asthma episodes should not enter a newly ozonized area until all the residual ozone has fully dispersed and the area well ventilated with fresh air.**

Ozone has a distinctive sharp odor and is detectable by smell even at concentrations well below the 15-minute exposure limit. Most people can detect the smell of ozone at concentrations around 1/10th of the 15-minute exposure limit. A strong smell of ozone normally indicates an ozone concentration that exceeds the 15-minute exposure limit.

WARNING:

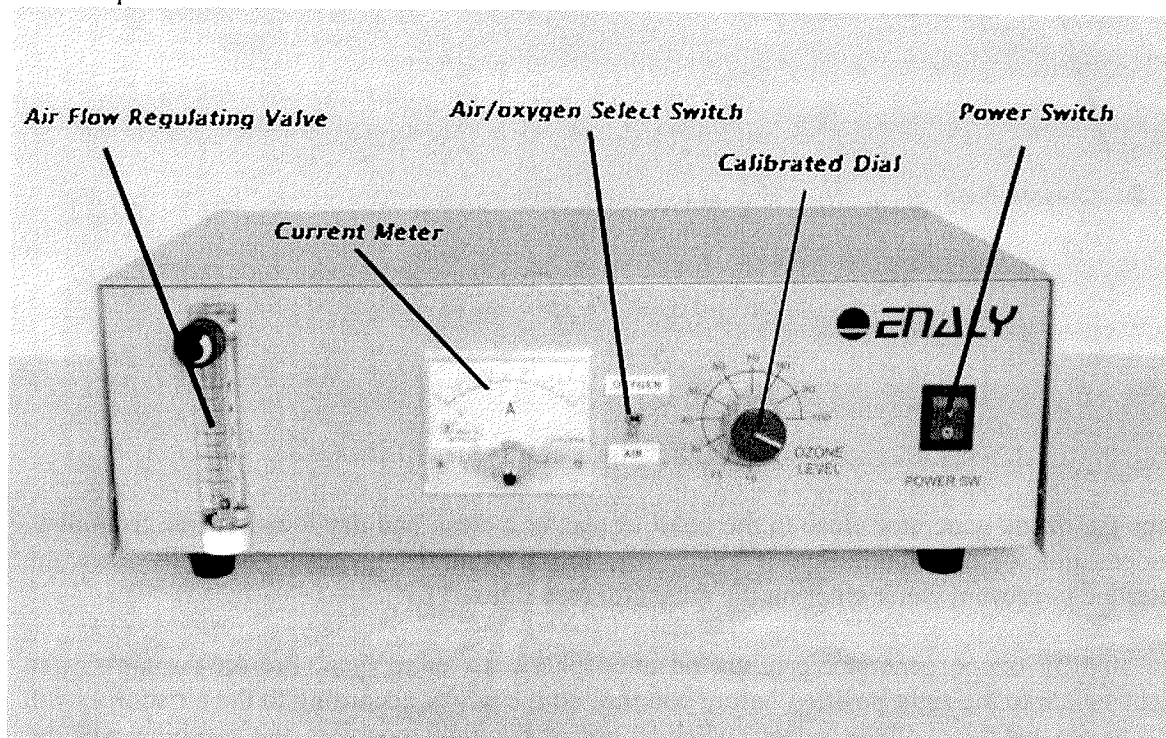
- People with smell disorder should not operate this equipment.
- Don't attempt to confirm ozone production by directly smelling the ozone coming out of the unit.
- Short-term inhalation of high concentrations of ozone and long-term inhalation of low concentrations of ozone can cause serious harmful physiological effects. Do not directly inhale ozone gas produced by this device.

GENERAL SAFETY WARNINGS:

1. The unit is not waterproof, for indoor uses only.
2. DO NOT open, temper or try to repair the unit. The unit utilizes very high voltages that can result in injury. Do not touch an opened or tempered unit, while it is working.
3. DO NOT operate the unit in humid conditions (Humidity > 95%).
4. Unplug when you no longer need it.
5. DO NOT use unit within an environment with flammable gases or explosive materials.
6. DO NOT touch the machine with wet or damp hands.
7. Ensure that the cooling system is working properly for extended long period of usage.
8. Avoid using the unit repeatedly in the warehouse of metals and lactoprene materials.
9. Use only ozone compatible hoses between the ozone generator and the injection point. Failure to use the correct materials could result in an undesirable leakage of ozone into the surrounding airspace.
10. DO NOT lubricate fittings or hoses with mineral oil or grease.

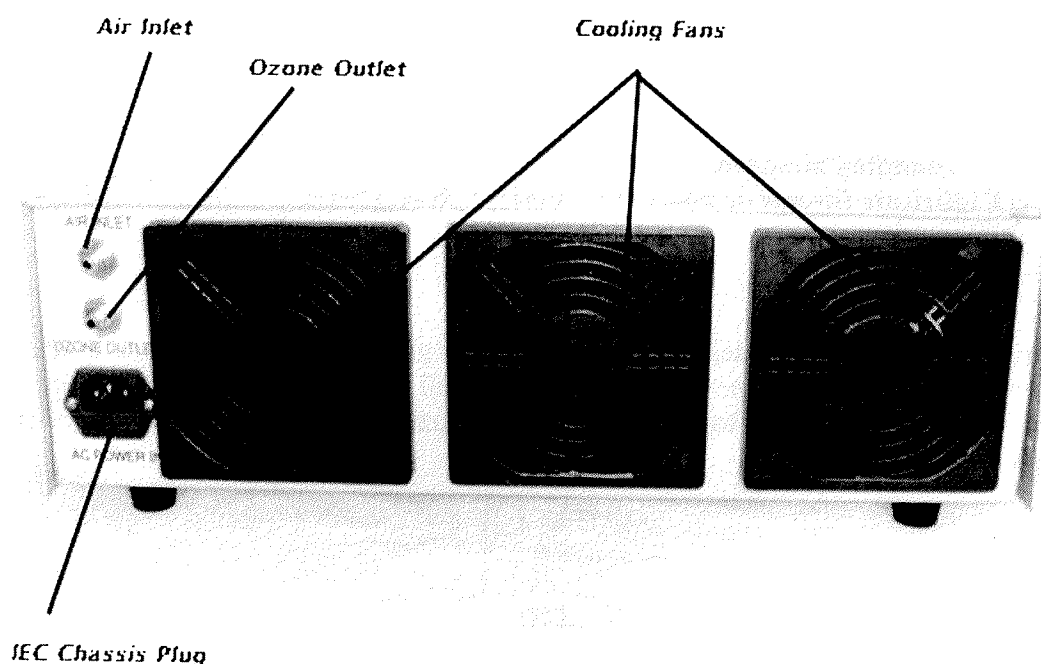
DESCRIPTION

The 5000BF ozone generator is designed to continuously generate ozone by corona discharge. The conversion of oxygen to ozone occurs in a reaction cell excited by a high-voltage potential. A control circuit allows the user to manually adjust the ozone output between 10-100% of its rated output.



The ozone generator has four controls located on the front panel: A power switch to turn the unit on, a calibrated dial that to regulate the ozone output and an air flow regulating value to regulate the air flow rate. An oxygen or air feeding select switch to fit the different feeds of input air/oxygen.

There is air inlet; ozone outlet and IEC chassis plug as well as 3 cooling fans on the rear panel. Ensure that the power lead fully engages the chassis plug before turning on the generator. Cooling fans are mounted on the rear panels to dissipate heat normally generated by the reaction cell. Ozone production rapidly declines as the temperature of the reaction cell increases, therefore keep the area around the generator free from obstructions to maximise air movement.

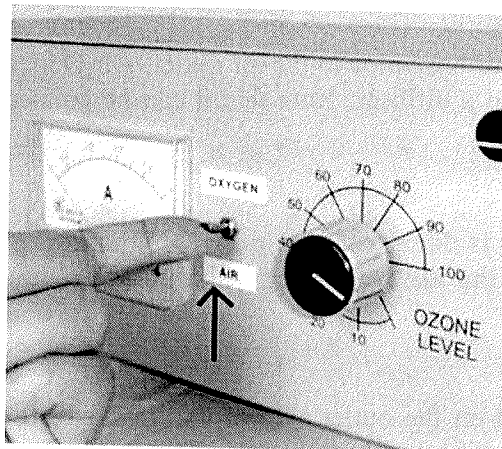


OPERATION

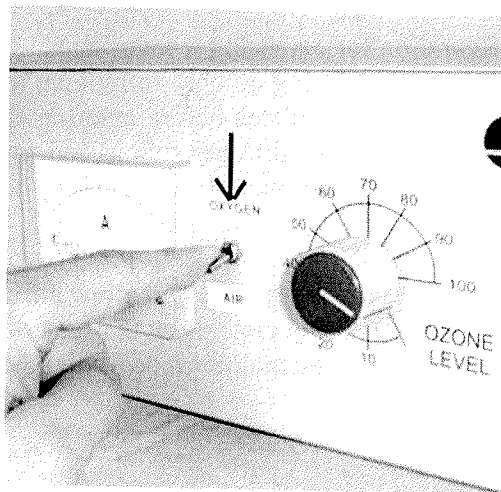
Place the ozone generator close to the point of use, in a clean and dry location free from dew, condensation or high humidity. If applicable, locate your ozone generator well above the waterline to prevent water entering the generator (see figure 1).

The 5000BF ozone generator can run on atmospheric air or oxygen. Pre-set the air/oxygen select switch to the right position before you turn on the power according to the air sources you feed to the machine. If the select switch is not at the right position, the machine will not working properly and you can not get the expected ozone outputs.

IMPORTANT:



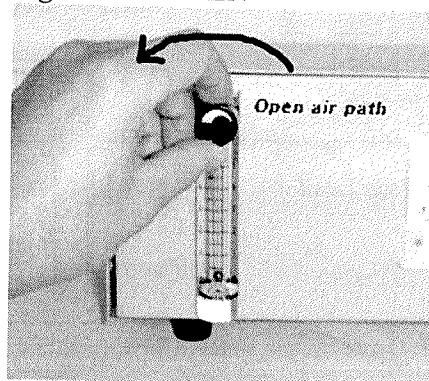
Pull the air/oxygen switch UP when you use oxygen



Push the air/oxygen switch DOWN when you use air

Pre-set the air/oxygen select switch to the right position before you turn on the power switch!

Confirm the air flow regulating valve is OPEN



Turning it against the clock direction to set it OPEN.

Connect an air hose/pipe to the air inlet (Air inlet outer Dim: 6 mm) and the other end of the hose/pipe to an air supply system, such as an air pump or an oxygen tank.

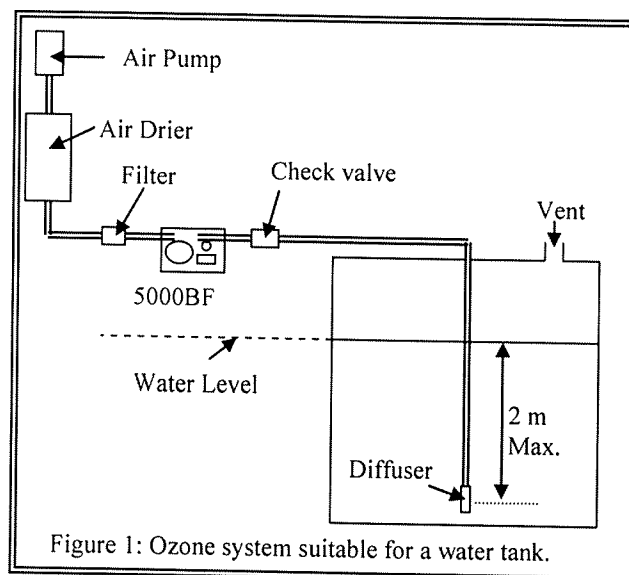
Connect an ozone-resistant air hose/pipe to the air outlet (Air Outlet outer Dim: 6 mm) and the other end of the hose/pipe to a diffuser. Note that it can be connected to a venturi instead of diffuser for ozone injection.

After all above pre-setting is done, you can push ON the power switch; adjust the ozone calibrated dial as well as the air regulating valve to your desired setting based on the ozone outputs you need.

If a check-valve is required on the outlet side of the generator, ensure that it is made from ozone compatible materials. Check valves that are not ozone compatible must be placed on the air inlet side of the generator.

Figure 1 shows a typical configuration for ozonising a water tank. A wall-mounted diaphragm pump supplies air to a self-regenerative drying column to remove moisture from the air. The dry air is then filtered to remove fine particulates before entering the 5000BF. The ozonised air is discharged through a check-valve and diffuser submerged to a maximum depth of 2.0 metres. Check all connections for leaks and make sure that there is sufficient airflow passing through the diffuser before switching on your ozone generator.

A suitable tank vent must be fitted to release pressure and allow a free exchange of air between the tank contents and the atmosphere. Vents also allow the tank water to continually adsorb oxygen from the air, which is essential for the maintenance of good water quality.



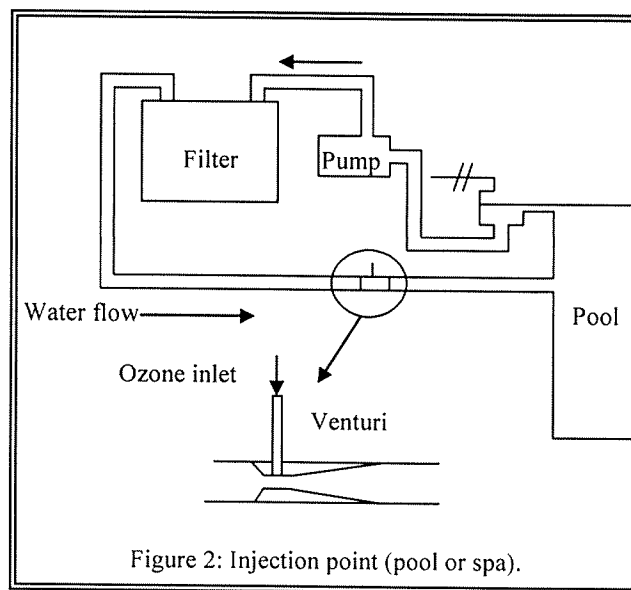


Figure 2 shows a suitable ozone injection point for pools or spas using a venturi. It is normally fitted before the water outlet(s). A venturi inlet is often used to aerate spa water and may be obtained from pool and spa suppliers in a range of sizes to accommodate different flow rates and pipe diameters. When correctly installed, the flow of water through the venturi creates a partial vacuum causing air to be drawn into the water flow. This vacuum may provide enough suction to pull sufficient air through the ozone generator and eliminate the need for a separate airpump. Ensure that a suitable check valve is fitted between the ozone generator and the injection point.

MAINTENACE

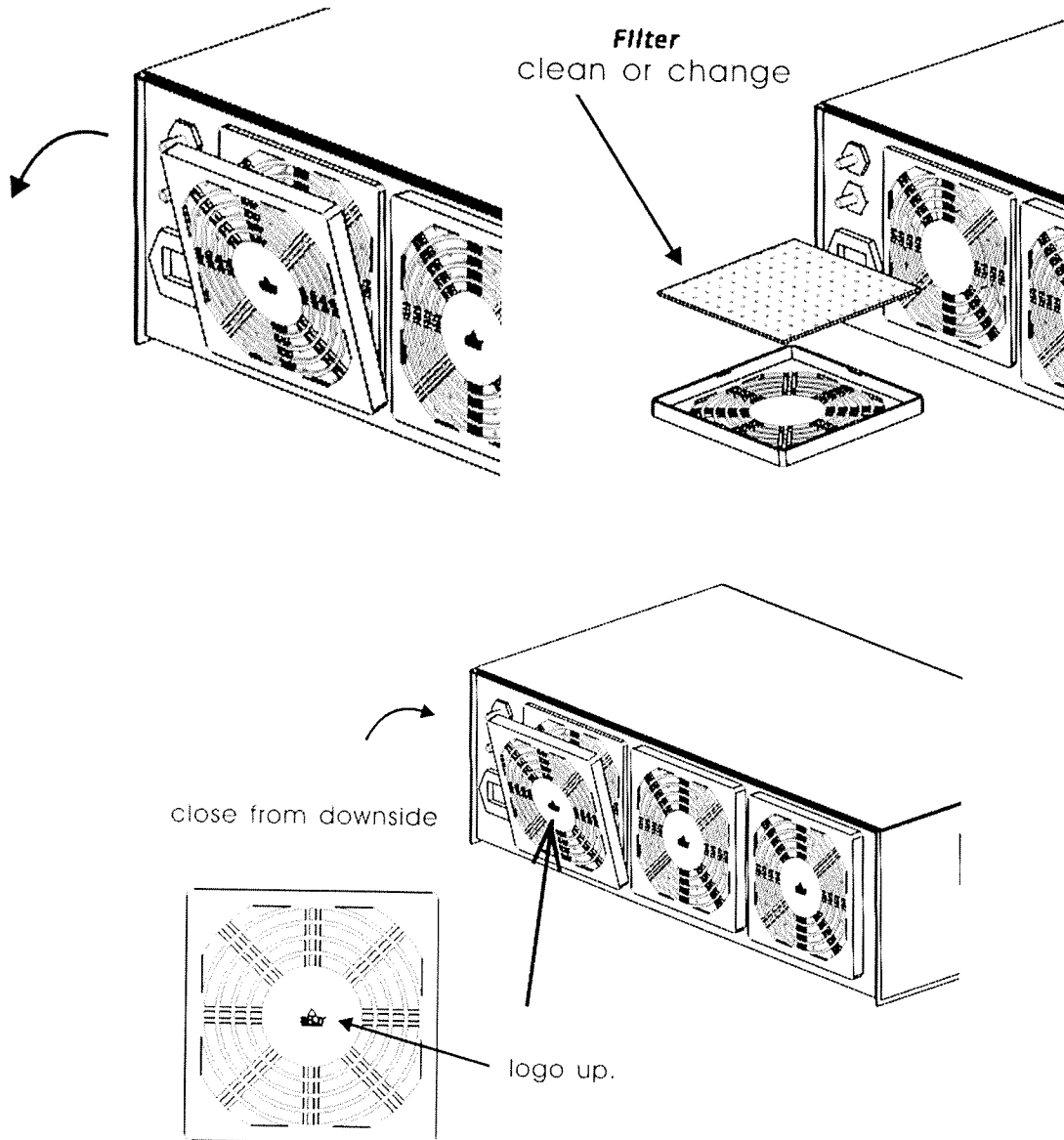
If you only use your ozone generator intermittently, you should store the device in a dry place when not in use and protect it from dust with a plastic bag.

If you choose to use an automated ozone delivery system, carry out regular inspections to ensure that your system is working effectively.

- Examine all tubing and connections for leaks or damage.
- Check air-pump flow rates.
- Examine check-valves for effectiveness.
- Replace dirty particulate filters.
- If you are using a regenerative adsorbent to remove water vapour, check its efficiency.
- Check the diffuser for an efficient bubble-pattern or if using a Venturi inlet, check for the presence of a vacuum.

Note: Continuous exposure to ozone will damage the rubber diaphragms of air pumps.

Steps of filter exchange or cleaning



ONE YEAR LIMITED WARRANTY

Shanghai ENALY M&E Ltd. warrants each new product sold by Shanghai ENALY M&E Ltd. and its authorized resellers against defects in materials and workmanship for ONE (1) YEAR from the date of original purchase of the product. This warranty applies only to the first retail purchaser of the product and is not transferable to any subsequent owners or purchasers of such products. If a defect exists, at its sole discretion Shanghai ENALY M&E Ltd. will repair or replace the product. Any repair or replacement will assume the remaining warranty period of the original product.

One Year Limited Warranty Does Not Apply:

- (1) to damage caused by accident, abuse, misuse, misapplication, or any other product(s);
- (2) to a product or any part(s) that is modified, tampered with, altered, converted or repaired in anyway by anybody other than Shanghai ENALY M&E staff or Shanghai ENALY M&E authorized reseller,
- (3) to a product or any part(s) such as ozone cell (including ozone plate, ozone tube or ozone lamp) that is consumable or expendable (Shanghai ENALY M&E Ltd. reserves the right to amend the list of consumables without prior notice),
- (4) to an optional unit or any other accessories used in connection with the product such as air stones, tubing, air filters or air dryers. (Shanghai ENALY M&E Ltd. reserves the right to amend the list of optional units and accessories without prior notice).
- (5) if any serial or lot number has been removed or defaced.

THE WARRANTY AND REMEDIES SET FORTH ABOVE ARE EXCLUSIVE AND IN LIEU OF ALL OTHER WARRANTIES, REMEDIES AND CONDITIONS, WHETHER ORAL OR WRITTEN, EXPRESSED OR IMPLIED AND WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEARBY DISCLAIMED. IF SHANGHAI ENALY M&E LTD. CANNOT LAWFULLY DISCLAIM IMPLIED WARRANTIES UNDER THIS LIMITED WARRANTY, ALL SUCH WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE DURATION OF THE WARRANTY. No Shanghai ENALY M&E reseller, agent, or employee is authorized to make any modification, extension, or addition to this warranty.

SHANGHAI ENALY M&E LTD. SHALL NOT BE LIABLE UNDER ANY CIRCUMSTANCES FOR LOSS OF USE OF SUCH PRODUCT, LOST PROFITS, DIRECT DAMAGES, INDIRECT DAMAGES, CONSEQUENTIAL DAMAGES AND/OR INCIDENTAL DAMAGES. This warranty gives you specific legal rights. You may also have other rights which vary from country to country.

Obtaining Warranty Service

Contact Shanghai ENALY M&E Ltd. authorized reseller in the country where you purchased the product or us. You will be asked to furnish

- (1) your name, address, telephone number ,
- (2) the selling reseller's name,
- (3) proof of the original purchase containing a description of the product(s), purchase date, and the appropriate Enaly serial and/or lot number;
- (4) the description of failure.

You will be advised by the authorized reseller or us, if you need to return the unit for servicing. You will be responsible for all return shipping costs. Shanghai ENALY M&E Ltd. or the reseller is not responsible for incoming freight costs.

PLEASE MAKE NOTES FOR YOUR OWN REFERENCES
PURCHASED FROM:
PURCHASED DATE:
LOT NO.

Authorized Reseller:

Shanghai ENALY M&E Ltd.

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