



EcoHazer

User Manual

Version 1 – March 2015



Contents

Safety Information	3
Operational Guidance	4
Fluid Use.....	5
Dimensions.....	6
Product Overview	7
Product Description	7
Features	7
Specification.....	7
Operation	8
Getting Started.....	8
Control Panel.....	8
Manual Operation.....	9
DMX Operation	9
Setting DMX Address	9
DMX Control.....	9
Output Direction	9
Set-Up	10
Priming the EcoHazer.....	10
Shut Down.....	10
Maintenance	10
External Fluid Filter	10
Heat Exchanger	11
Contact Details.....	12
UK:.....	12
USA:.....	12
Warranty	13

Safety Information

This information should be read and thoroughly understood before use of the EcoHazer.

It is the responsibility of the user to be fully aware of all potential consequences and actions when using this machine.

The machine should only be operated by or under the instruction of trained personnel. The manufacturer cannot be held responsible for events occurring due to use of this machine by unqualified or untrained personnel.

- **Warning:** All directions in the manual should be read thoroughly and completely understood before any attempt to use the machine.

Any maintenance of the machine should only be carried out by the manufacturer or after the manufacturer's strict approval.

Should there be any doubt as to the safety of operation of the machine under any circumstances, the machine should be taken out of service immediately.

- Users should make themselves aware of any national or local restrictions to the use of these types of machines in applications involving public venues or areas.

Take note of all warning labels displayed on the machine.

Ensure the correct supply voltage is used with this machine. The voltage setting is displayed on the rear panel of the machine.

The machine should be electrically earthed, and should never be connected to an unsafe supply.

The machine should not be connected to a 'noisy' or spike laden power supply.

Exit nozzles will be very hot and capable of causing burns. Do not touch or obstruct these nozzles.

Under adverse conditions, small particles of hot fluid could issue close to the machine. Never aim at persons and maintain a 3m safety clearance.

Spilled fluid or splashed fluid droplets can be a slip hazard. Comply with regulations when clearing or disposing of fluid.

Take note of any warning/advice notices displayed on fluid containers.

Do not operate the machine with any covers removed.

Operational Guidance

- **Warning:** Operating this machine under adverse conditions may reduce the machine's lifespan and adversely affect the haze produced.

Unsuitable conditions include:

Excessive temperature

Excessive moisture or humidity

Excessive vibrations

Unstable surfaces

Excessive dust and/or dirt

Poor ventilation

Flammable surroundings

- **Warning:** Do not allow the ventilation holes at the rear of the machine to be covered or obstructed.

- **Warning:** Do not allow the fan inlet holes on the side of the machine to be covered. Allow enough air space for these fans to operate effectively.

Fluid Use

- **Please note:** The fluid used with the EcoHazer hazer is not like any other fluid typically used in smoke or haze machines. It is a high concentration fluid, which other manufacturers' machines are unable to process without incurring damage.
- **Warning:** Do not attempt to water down the haze fluid. This will lead to inefficient conversion and produce hot fluid particle emission.
- **Warning:** Use Only Le Maitre Ltd PureHaze Fluid:

UK:

Product code 2948 PureHaze Fluid (4 x 2.5l)

Product code 2908 PureHaze Fluid (4 x 5l)

Product code 2916 PureHaze Fluid (200l)

USA:

Product code: 2908D PureHaze Fluid (204l)

Product code: 2908L PureHaze Fluid (20l)

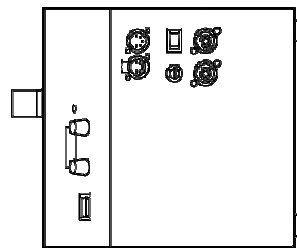
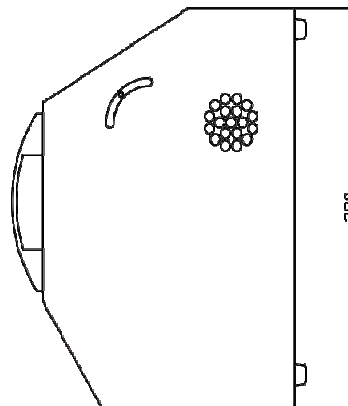
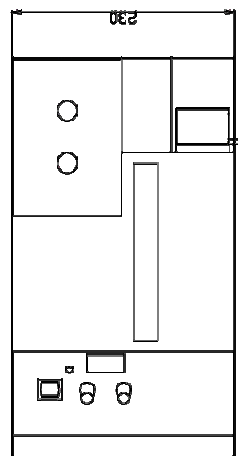
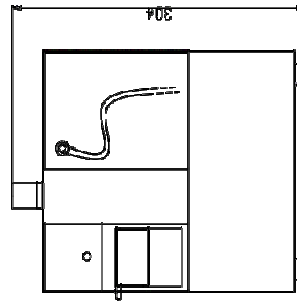
Product code: 2908M PureHaze Fluid (1 x 4l)

Product code: 2908S PureHaze Fluid (1 x 2l)

Product code: 2908MC PureHaze Fluid (4 x 4l)

Product code: 2908SC PureHaze Fluid (4 x 2l)

Dimensions



All dimensions are in millimetres.

Product Overview

Product Description

The EcoHazer is an incredibly efficient and environmentally friendly hazer from Le Maitre Ltd.

Developed from innovations made in the design of the Le Maitre HazeMaster, the EcoHazer is the ideal compact hazer for clubs and small theatre spaces. A power consumption of just 150W in normal operation makes it the perfect companion to low-power LED lighting rigs.

Le Maitre’s high-concentration haze fluid creates a very fine atmospheric haze with excellent hang time. In addition, the sugar-based active ingredient is completely safe and environmentally neutral.

Details of the full range of Le Maitre products are available online at:

www.lemaitreltd.com and www.lemaitreusa.com

Features

- High efficiency, low power consumption.
- Intuitive manual control system.
- Intelligent DMX detection.
- Fully variable haze output and fan speed.
- Haze output direction is manually variable from 0-90°.
- High efficiency, self-regulating ceramic heating element.
- Uses the unique Le Maitre PureHaze fluid.

Specification

Power Requirements (EU): (US):	230VAC, 50Hz, 150W 120VAC, 60Hz, 150W
External Fusing (EU): (US):	2AT 6.3AT
Fluid Capacity:	2.5l, internal bottle holder
Output:	2cc/hr – 50cc/hr
Control:	Manual, DMX (2 Channel)
Dimensions (mm):	380(L) x 230(W) x 304(H)
Weight:	8kg (without fluid)

Operation

Getting Started

Remove the machine from all packaging and place on a flat, stable surface.

Prior to use, the EcoHazer should be inspected for damage. If the unit is found to be damaged, it should be removed from service immediately, and referred to Le Maitre for servicing and repair.

Connect a bottle of Le Maitre hazer fluid to the machine by inserting the fluid feed pipe into the fluid bottle and securing the cap on the feed pipe to the bottle.

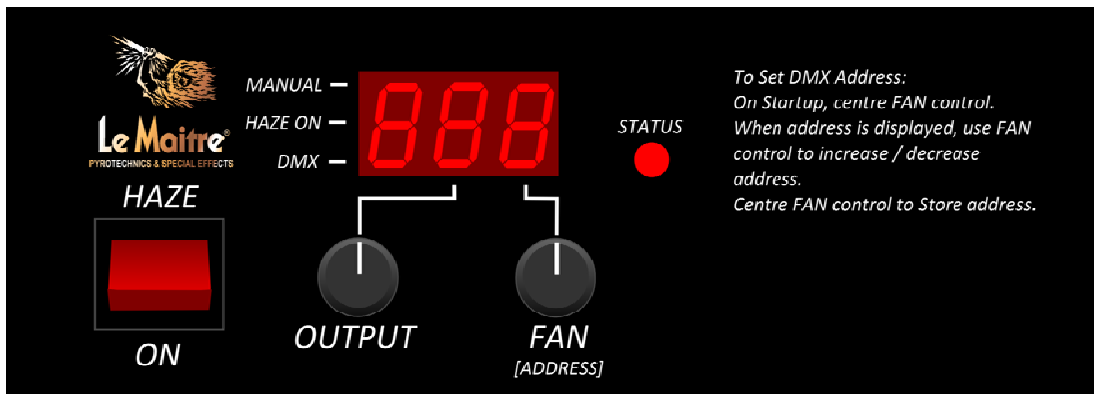
Connect the machine to a suitable power supply using the supplied lead.

- **Please note:** The blue Powercon must only ever be used as a mains input, and the white Powercon must only ever be used as a mains through / output.
- **Please note:** Electrically, the EcoHazer's fuse and power switch are located after the mains through socket. This means the mains through socket will always be live while the EcoHazer is connected to a live mains supply, even if the unit is switched off, or the fuse has blown.

Set the power switch on the machine to the ON position.

The machine will begin a brief heating cycle. During this time, *PrE HEAt* will scroll across the display. The heating cycle will last for approximately 5 minutes. When *PrE HEAt* is no longer displayed, the unit is ready for use.

Control Panel



Manual Operation

The EcoHazer is operated through 2 rotary controls and a 2-position switch. The switch turns the haze on / off, and the rotary controls set the haze (output) level and the fan speed.

In manual mode, the top bar of the first display segment will be lit. When haze is turned on, the centre bar of the first display segment will light. Haze output and fan speed can be adjusted from 0-9 with the appropriate rotary control.

- **Please note:** When haze is switched on, it may take up to 45 seconds for haze output to begin as fluid passes through the heat exchanger. This is normal behaviour for the EcoHazer.

DMX Operation

The EcoHazer can be operated through DMX-512. 2 channels are required – haze output and fan speed. The EcoHazer will switch to DMX mode automatically when a valid DMX signal is received.

Setting DMX Address

DMX address is set at power-on.

First, the FAN [ADDRESS] control must be set to the centre. Now, turn the EcoHazer power on. A few moments after the EcoHazer is switched on, *Add* will flash on the display, followed by the current address.

While the address is displayed, it can be adjusted with the FAN [ADDRESS] control. Setting the control clockwise from centre will set the address increasing. Setting the control anti-clockwise from centre will set the address decreasing.

When the desired address value is reached, turn the FAN [ADDRESS] control back to centre. The address will be stored.

DMX Control

To control the EcoHazer by DMX, plug a DMX cable into the DMX IN socket on the EcoHazer, and then turn on the DMX desk/controller. The EcoHazer will automatically detect the DMX signal and switch into DMX mode.

The bottom bar of the first display segment will light up, and the top bar will turn off, indicating a valid signal is being received.

The stored DMX channel can now be used to control the haze output. The immediately subsequent channel can be used to control the fan speed.

Output Direction

The EcoHazer's haze output can be manually set from 0-90° through the built in fan-guide. The direction can simply be set through adjusting the silver knob on the side of the unit above the fan intake.

Set-Up

Priming the EcoHazer

The EcoHazer will automatically self-prime. This process may take 5-10 minutes if there is no fluid in the uptake pipe.

If the unit must be primed more rapidly, turn the haze switch on. Rotate the haze control from 0 to 1 repeatedly to trigger the pump.

- **Warning:** Over-priming the unit may result in an excess of fluid in the heat exchanger. This can cause hot fluid to spit from the unit. It is recommended that the EcoHazer is left to self-prime when necessary.

Shut Down

To ensure the continued performance of the heat exchanger, turn haze off three minutes before turning off power. This will allow the unit to purge excess fluid from the heat exchanger.

- **Warning:** Failure to follow correct shut down procedure may result in the unit 'spitting' hot fluid when it is next powered on, and adversely affect the performance of the heat exchanger.

Maintenance

- **Please note:** The maintenance procedures described in this section should only be performed by qualified personnel. The manufacturer cannot be held responsible for events occurring due to incorrect maintenance of this machine.
- **Please note:** All the procedures described in this section should be performed after the unit has cooled, with the unit isolated from any power supply.

External Fluid Filter

This unit fits externally in the fluid supply line, and will normally not require any attention. However, it is possible for the filter to become clogged with debris. If this occurs, the performance of the EcoHazer will be reduced.

Should this occur, detach the filter and wash in warm soapy water, flush with clean water and re-attach to the silicon supply tubing.

Heat Exchanger

It is recommended that the heat-exchanger is inspected every 100 hours of operation. The heat exchanger can be accessed by removing the service panel above the fan. It is held in place by 2 screws.

If a drop in performance is encountered, or an excess of residue or debris is present around the haze output tube, a syringe can be used to clear any residue from inside the system.

The syringe should be fitted over the output tube with a rubber tube adapter, and suction should be used to draw any debris from the heat exchanger.

Note for service technicians:

The EcoHazer heat exchanger is based on Le Maitre's patented flat tube technology and incorporates individual tube sections connected by special high temperature tubing. This tubing can be removed to clean the individual sections, should this ever be required. A spare set of connection tubes will be found inside the machine.

- **Warning:** To ensure optimal heat transfer, the haze output tube is thin-walled aluminium. Care must be taken not to bend or damage the tube during the cleaning process.

Contact Details

UK:

Le Maitre Ltd,
6 Forval Close, Wandle Way,
Mitcham,
Surrey CR4 4NE,
England

Tel: +44 (0)20 8646 2222

Fax: +44 (0)20 8646 1955

Email: info@lemaitreltd.com

USA:

Le Maitre USA, LLC

Mailing Address:

PO Box 365077

Las Vegas, NV 89036

USA

Shipping Address:

13975 Grand Valley Parkway

Las Vegas, NV 89165

USA

Tel: +1 (702)-843-5080

Fax: +1 (702)-843-5070

Email: info@lemaitreusa.com

Warranty

The Le Maitre EcoHazer is sold with a one year's warranty, which includes parts and labour from the date of purchase. This warranty covers manufacturing defects, providing that the unit has been regularly serviced by an authorized agent and has only used genuine Le Maitre Fluid.

Le Maitre Ltd considers all of its products to be safe for use in the application it was intended. Le Maitre Ltd takes no responsibility for misuse or incorrect use. Always refer to the equipment owner's manual for proper use, and be aware of local legislation governing the products use.