

Magnum 1000

user manual

Internet Version

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section 1

INTRODUCTION

The Magnum 1000 is a compact and efficient smoke machine that utilizes a water-based fluid with an aluminum and copper heat exchanger to create a white fog for entertainment and theatrical use. Quality materials and innovative design combine to give ease of use and long service life.

Please read this manual thoroughly before operating the machine.

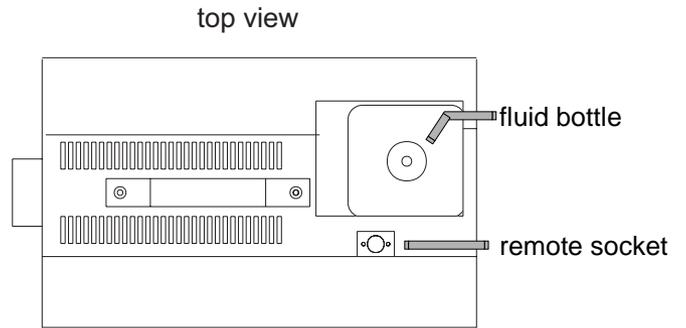
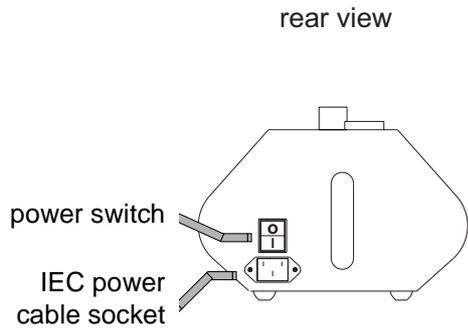
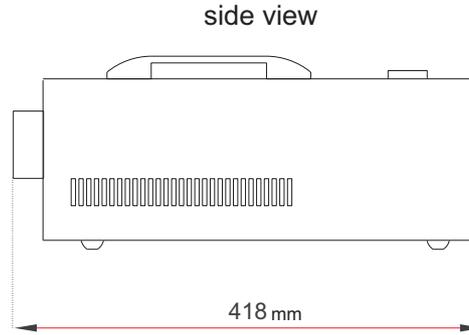
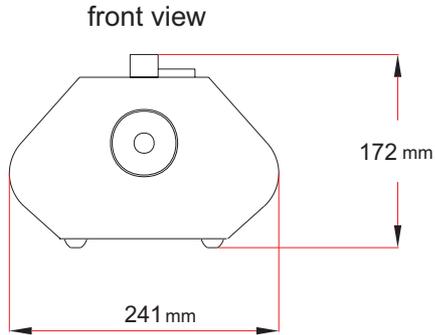
The Magnum 1000 features

- 1 liter fluid container
- 750 W heating element
- Long-life copper and aluminum heat exchanger
- Electronic pump control for maximum run times
- Remote control with variable timer and output controls
- 5 meter remote cable
- Fail-safe overheating protection with manual reset
- Compact size and light weight
- Power ON/OFF switch

Using the smoke machine safely

- Do not install the smoke machine above people's heads.
- Do not restrict the ventilation on the machine.
- Operating the machine in areas with poor ventilation may lead to condensation forming on surfaces and floors - THIS CAN BE DANGEROUS.
- Keep the output of the machine at least 60 cm (2 feet) away from people and surfaces.
- Do not point the machine into people's faces.
- Never remove the cover without first disconnecting the machine from the power supply.
- The output nozzle at the front of the machine is very hot and must not be touched.
- Observe the warnings printed on the machine.
- Do not use the machine if it is in poor or unsafe condition, e.g., if the power cable is damaged.
- Always use genuine Martin fluid in the machine, other fluids may be dangerous.
- Never run the smoke machine unattended.
- Never replace the fuse with one of a higher rating.
- Never operate the machine with the overheating protection disabled.

section 2 INSTALLATION



Included with the Magnum 1000

The smoke machine is delivered with:

- remote control
- I.E.C. power cable
- 1 liter fluid bottle (empty)
- user manual

Installing the fluid bottle

WARNING

Use Martin fog fluid only. This fluid is manufactured specially for Martin smoke machines. Other fluids may clog the heating element or cause the machine to spit hot liquid from the nozzle!

Disconnect the machine from AC power before installing the fluid bottle!

1. Place the bottle of Martin fluid into the fluid compartment and screw on the cap with fluid pipe. Make sure the pipe reaches the bottom of the bottle.
2. Remove the fluid bottle from the machine when refilling.
3. If the machine has not been used recently or has been run dry, it may be necessary to prime the pump. Set the level control on the remote to 10 and press the fog button for 10 - 15 seconds when the machine is at operating temperature.

Connecting to the power supply

WARNING

This machine must be grounded!

The Magnum 1000 is delivered from the factory without a plug on the power cable. A suitable plug (one that fits your local wall outlet) must be installed before you can connect the machine to the AC power supply.

Connect the wires to the plug as follows:

1. Connect the green/yellow wire to the ground (earth) connection.
2. Connect the blue wire to the neutral connection.
3. Connect the brown wire to the live (phase) connection.

IMPORTANT

Check the rating label on the machine to make sure that the rated voltage and frequency match the local supply!

Plug the power cable into the power inlet on the back of the smoke machine and then into the wall outlet.

Placing the smoke machine

Place the Magnum 1000 with the rubber feet down, in contact with the floor or a level and stable surface. Place the smoke machine at least 60 cm (2 feet) out of people's reach. Do not tilt or stand the smoke machine, or rig it in the air above people's heads.

Plugging in the remote control

The remote must be plugged into the smoke machine in order for it to operate. Locate the 5-pin DIN socket on top of the smoke machine and plug in the remote control cable.

section 3

OPERATION

Switching the smoke machine on and off

1. Before switching the machine on, set the timer control on the remote to the off position. Make sure there is fluid in the bottle.
2. With the smoke machine plugged in, set the power switch on the back of the smoke machine to "1." The *HEATING* LED on the remote will light up.
3. The machine will take approximately 10 minutes to reach operating temperature, at which point the *READY* LED will light up.
4. To turn off the machine, switch the power switch to the "O" position.
5. Set the timer control to the off position.

Making fog manually

When the *READY* LED is lit, press the *FOG* button on the remote control to make fog. The output level may be adjusted using the level control. During longer runs, output decreases automatically as the heat exchanger cools.

Making fog automatically

Fog output may be automatically controlled using the built-in timer.

1. Turn on the machine and wait for the *READY* LED to light up.
2. To turn on the timer, rotate the timer control clockwise until the green *TIMER* LED lights up.
3. Adjust the pulse rate. The rate is highest when the timer control is set to 10.
4. Adjust the output level. The level is highest when the level control is set to 10.
5. Periodically check the fog fluid level.

IMPORTANT!

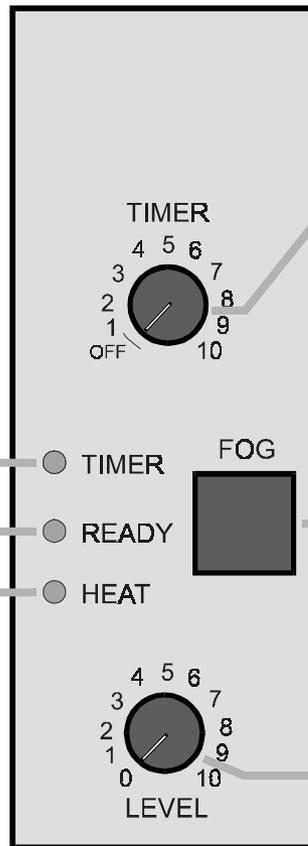
**Avoid operating the smoke machine without fog fluid
as this can cause damage to the seals.**

Using the remote control

TIMER LED
When lit, the timer is on and the smoke machine makes fog at regular intervals.

READY LED
When lit, the smoke machine is at operating temperature.

HEAT LED
When lit, the machine is heating up. The LED goes off when the operating temperature is reached.



TIMER Control
Turn clockwise until the *TIMER* LED lights up to turn on the timer. Turn off for manual operation. Pulse rate highest when set to 10.

FOG Button
Press to make fog manually. (The *READY* LED must be lit.)

LEVEL Control
Adjust fog output level. Output is highest when set to 10.

section 4

MAINTENANCE

WARNING

Always unplug the machine from the power supply and allow it to cool completely before opening the machine or performing any maintenance!

REGULAR MAINTENANCE

- If fluid is spilled onto the machine, clean it with a damp cloth.
- Do not use solvents to clean the machine as this may remove the silk screen printing.
- Keep the cables in good condition.

ACCESSING THE FUSE AND THERMO-SWITCH

1. Allow the smoke machine to cool completely and disconnect the smoke machine from the power supply.
2. Remove the fluid bottle.
3. Remove 4 Philips-head screws from each end of the case.
4. Slide the cover forward off the machine.

REPLACING THE FUSE

1. Disconnect the machine and remove the cover as described above.
2. Locate the fuse on the printed circuit board.
3. Replace the fuse with one of the same size and rating. See specifications.
4. Replace the cover.

RESETTING THE THERMO-SWITCH

1. Disconnect the machine and remove the cover as described above.
2. Locate the thermo-switch. It is placed above the heat exchanger, towards the front of the machine.
3. Press the thermo-switch to reset.
4. Replace the cover.

section 5
TROUBLESHOOTING

WARNING

Always disconnect the machine from the power supply and allow it to cool before removing the cover!

Symptom	Probable Cause	Remedy
No LEDs come on when power is applied to the machine	Remote control not connected	Connect remote to the DIN socket on the top of the machine
	Main power switch is off	Switch on
	Main fuse blown	Replace fuse
	Thermo-switch open	Reset thermo-switch
The machine never reaches operating temperature (<i>READY</i> LED never lights)	A failure has occurred in the heating system	Refer the problem to a qualified technician
	The remote control or its connections are faulty	Replace the remote control
No smoke is produced when the Fog button is pressed	No fluid in the bottle	Replace or refill the bottle with Martin fog fluid.
	The pump system is not primed	Set the output level control to maximum and hold down the Fog button for 15 seconds
	The output control is not set high enough	Increase the output level setting
	An electronic failure has occurred	Refer the problem to a qualified technician
The fuse continually blows or the thermo-switch continually trips	An electronic failure has occurred	Refer the problem to a qualified technician

appendix

SPECIFICATIONS

HEAT EXCHANGER

- Power consumption UK/Europe 750 W@ 240 V
- Power consumption USA 750 W@ 120 V
- ConstructionCopper vaporizing coil in cast aluminum with integral heater
- Operating temperature300° C maximum
- Overheating protection Direct contact thermo-switch with manual reset

FUSE

- UK/Europe 5 A time-delay (T) 5 mm x 20 mm
- USA..... 10 A time-delay (T) 5 mm x 20 mm

ELECTRICAL

- Input power UK/Europe 730 W@ 230 V
- Input power USA..... 730 W@ 115 V

CONTROL SYSTEM

- Type Electronic
- Temperature sensor..... Thermocouple

OPERATING ENVIRONMENT

- Ambient temperature range 0° to 40° C

DIMENSIONS

- Length x Width x Height 418 x 241 x 172 mm (16.5 x 9.5 x 7.4 in)
- Weight with 1 liter fluid..... 6 kg (13.2 lb)

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