



WGF-2000 Water Ground Fog 2000

Fog Machine

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1 General information

This document contains important instructions for the safe operation of the product. Read and follow the safety instructions and all other instructions. Keep the document for future reference. Make sure that it is available to all those using the product. If you sell the product to another user, be sure that they also receive this document.

Our products and documentation are subject to a process of continuous development. They are therefore subject to change. Please refer to the latest version of the documentation, which is ready for download under www.thomann.de.

1.1 Symbols and signal words

In this section you will find an overview of the meaning of symbols and signal words that are used in this document.

Signal word	Meaning
DANGER!	This combination of symbol and signal word indicates an immediate dangerous situation that will result in death or serious injury if it is not avoided.
WARNING!	This combination of symbol and signal word indicates a possible dangerous situation that can result in death or serious injury if it is not avoided.
CAUTION!	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.
NOTICE!	This combination of symbol and signal word indicates a possible dangerous situation that can result in material and environmental damage if it is not avoided.
Warning signs	Type of danger
	Warning – high-voltage.
	Warning – flammable substances.

Warning signs	Type of danger
	Warning – hot surface.
	Warning - slip hazard.
	Warning – harmful or irritating substances.
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended for generating artificial fog by evaporating the fog fluid in combination with water. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damage resulting from improper use.

This device may be used only by persons with sufficient physical, sensory, and intellectual abilities and the necessary knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety



DANGER!

Risk of injury and choking hazard for children!

Children can suffocate on packaging material and small parts. Children can injure themselves when handling the device. Never allow children to play with the packaging material and the device. Always store packaging material out of the reach of babies and small children. Always dispose of packaging material properly when it is not in use. Never allow children to use the device without supervision. Keep small parts away from children and make sure that the device does not shed any small parts (such knobs) that children could play with.



DANGER!

Danger to life due to electric current!

Within the device there are areas where high voltages may be present. Never remove any covers. There are no user-serviceable parts inside. Do not use the device when covers, safety equipment or optical components are missing or damaged.

**DANGER!****Danger to life due to electric current!**

A short circuit could lead to a fire hazard and risk of death. Always use proper ready-made insulated triple-core mains cable with a safety plug. Do not modify the mains cable or the plug. In case of isolation damage, disconnect immediately the power supply and arrange repair. If in doubt, seek advice from a qualified electrician.

**WARNING!****Risk of burns from flammable liquids!**

The use of flammable liquids in the device may cause severe burns and damage to property. Use only approved fog fluids. Never fill flammable liquids into the tank of the device.

**WARNING!****Risk of burns on the hot fog nozzle!**

The fog generated on the fog nozzle is hot. Occasionally hot fluid drops may escape from the nozzle. The fog nozzle may be hot for several hours after switching off the device. Skin contact with hot fog and drops of hot liquid can lead to burns. Ensure a minimum distance of 50 cm to persons and objects during operation. Do not touch the fog nozzle during and immediately after operation. Before touching the device, always ensure that all surfaces have cooled down sufficiently.

**WARNING!****Slip hazard due to dripping condensate!**

Condensation can drip down around the device. People can slip and injure themselves on pools of condensate. Check regularly that floors and other accessible surfaces around the device can be walked on without a risk of slipping. If necessary, remove any pools of condensate.

**WARNING!****Health hazard when handling fog fluid!**

Fog fluid contains glycols. There is a health risk in case of eye contact and if fluid is swallowed. Keep fog fluid in a safe place and out of the reach of children. Never ingest fog fluid and avoid contact with eyes. In case of accidental ingestion of or eye contact with fog fluid: Do not induce vomiting if swallowed. Thoroughly rinse the eyes with water upon contact. Get immediate medical attention.



CAUTION!

Possible respiratory problems due to fog fluid!

Fog fluid can lead to respiratory problems in case of prolonged exposure and in certain people. Using unsuitable fluids can generate toxic gases. Do not use any fog fluids other than the ones approved for the device. Any claims for compensation for damages caused by using non-approved fluids are excluded. Do not let the device produce fog in poorly ventilated areas. Do not expose people with health problems (e.g. allergy-related respiratory symptoms, asthma) to artificial fog.



NOTICE!

Risk of fire due to covered vents and neighbouring heat sources!

If the vents of the device are covered or the device is operated in the immediate vicinity of other heat sources, the device can over-heat and burst into flames. Never cover the device or the vents. Do not install the device in the immediate vicinity of other heat sources. Never operate the device in the immediate vicinity of naked flames.



NOTICE!

Damage to the device if operated in unsuitable ambient conditions!

The device can be damaged if it is operated in unsuitable ambient conditions. Only operate the device indoors within the ambient conditions specified in the "Technical specifications" chapter of this user manual. Avoid operating it in environments with direct sunlight, heavy dirt and strong vibrations. Avoid operating it in environments with strong temperature fluctuations. If temperature fluctuations cannot be avoided (for example after transport in low outside temperatures), do not switch on the device immediately. Never subject the device to liquids or moisture. Never move the device to another location while it is in operation. In environments with increased dirt levels (for example due to dust, smoke, nicotine or mist): Have the device cleaned by qualified specialists at regular intervals to prevent damage due to overheating and other malfunctions.



NOTICE!

Damage to the device due to high voltages!

The device can be damaged if it is operated with the incorrect voltage or if high voltage peaks occur. In the worst case, excess voltages can also cause a risk of injury and fires. Make sure that the voltage specification on the device matches the local power grid before plugging in the device. Only operate the device from professionally installed mains sockets that are protected by a residual current circuit breaker (FI). As a precaution, disconnect the device from the power grid when storms are approaching or if the device will not be used for a longer period.

**NOTICE!****Risk of fire due to installation of a wrong fuse!**

Using fuses of a different type than compatible with the device may cause a fire and seriously damage the device. Only use fuses of the same type. Observe the labelling on the device casing and the information in the "Technical data" chapter.

**NOTICE!****Possible staining due to plasticiser in rubber feet!**

The plasticiser contained in the rubber feet of this product may react with the coating of the floor and cause permanent dark stains after some time. If necessary, use a suitable mat or felt slide to prevent direct contact between the device's rubber feet and the floor.

General information about how to safely operate fog machines and hazers

The device was designed for use in professional event technology and works reliably when used properly. Observe the following information:

- Follow all warnings in these operating instructions.
- Never leave the device running without supervision.
- The device is not suitable for use in private households or as a child's toy.
- Place the device on a stable, fire-proof basis that is at least twice as large as the device.
- Maintain a safety distance of 1 m to flammable materials.
- The device is not intended for suspended assembly (the so-called "flying operation").
- During operation, ensure that the visibility in the room does not fall below 2 m so that everyone in the room can still orient themselves safely.
- The fog or haze generated by the device may trigger smoke alarms.

3 Features

This fog machine is suitable for use in clubs, bars, discotheques and on stages.

Special features of the device:

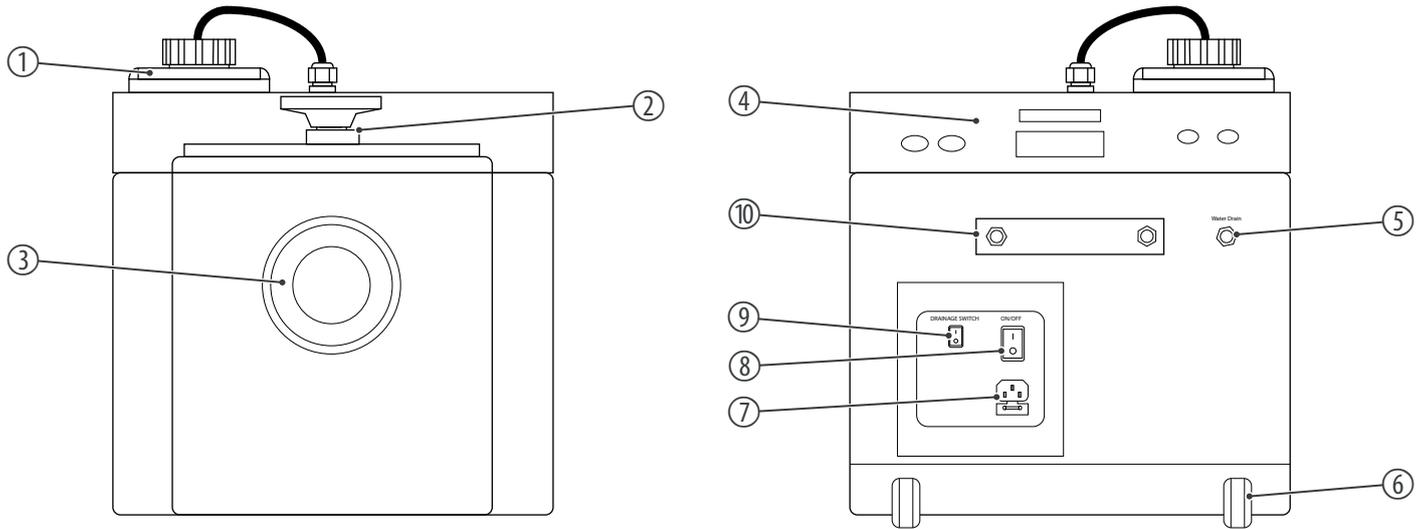
- Water based floor fog machine
- Control via DMX (three channels) as well as via buttons and display on the unit
- Operation with water and fog fluid
- Fog fluid tank capacity: 1.2 litre
- Water tank capacity: 8 litre
- Fog volume and blower power adjustable
- Up to one hour continuous output

4 Installation

Unpack and check carefully there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the product against vibration, dust and moisture during transportation or storage use the original packaging or your own packaging material suitable for transport or storage, respectively.

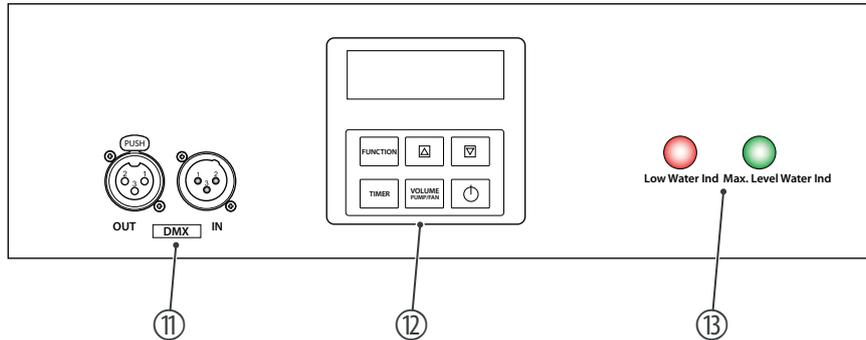
Place the device on a stable, fire-proof basis that is at least twice as large as the device. The device requires 20 cm clearance at the sides and above. The unit should be installed horizontally, a maximum deviation of 15° is allowed.

5 Connections and controls



1	Fluid tank (fill level indicator on the side)
2	Water tank
3	Fog nozzle
4	Control panel
5	[<i>Water Drain</i>] Valve for fully emptying the device, for example before transport.
6	Transport casters
7	Rubber panel plug with fuse holder for the power supply
8	[<i>ON/OFF</i>] Main switch for turning the device on and off
9	[<i>DRAINAGE SWITCH</i>] On/off switch for the water pump
10	Carrying handle

Control panel



11 [DMX IN] | DMX input for controlling the device via DMX

[DMX OUT] | DMX output for connecting additional DMX devices in a DMX universe

12 LC display and function buttons

[FUNCTION] | Button for selecting the operating mode and various settings

▲ | Increases the displayed value by one and selects menu items.

▼ | Decreases the displayed value by one and selects menu items.

[TIMER] | Button for the time-controlled triggering of fog blast with the previously specified settings

[VOLUME - PUMP/FAN] | Button for the manual triggering of a fog blast with the previously specified settings

⊘ | Button for exiting the open menu and for turning off the fog blast in manual or time-controlled operation.

13 Water level indicator

[Low Water Ind.] | This LED lights up red when the level in the water tank drops below 5 litres. The display simultaneously shows the message 'Beware: No Water!'. Fill the water tank until the LED goes out.

If the LED remains on even when the fill level is sufficient, switch the device off and on again.

[Max. Water Level Ind.] | This LED lights up green when the maximum filling level of the water tank is reached during refilling.

6 Operating

Filling the device



NOTICE!

Damage to the device due to the use of unsuitable fog fluids!

Fog fluids not approved by the manufacturer may permanently damage the unit.

Only use the fog fluids listed on www.thomann.de and follow their instructions for use.



NOTICE!

Damage to the device due calcareous or dirty water.

Too hard of water or dirty water can damage the device.

Use only very soft water or, if in doubt, distilled water.

First, make sure the device is switched off.

Open the screw cap on the fog fluid tank and fill in the fog fluid. Make sure that no fog fluid is spilled or gets into the device. The easiest way to do so is to use a funnel. The fog fluid container capacity is 1.2 litres.

Open the screw cap on the water tank and fill in clean water. Make sure that no water is spilled or gets into the device. The easiest way to do so is to use a funnel. The water tank capacity is 8 litres.

Screw the caps of both tanks firmly back on.

Operation

Operation with empty water and fluid containers can lead to overheating and permanently damage the pump. When operating the device, always ensure that there is sufficient fog fluid and water in the fluid containers to avoid running it without fluid.

Switching on the device



NOTICE!

Risk of undetected fires in the absence of supervision!

There is a general risk of fire when operating the device. If the appliance is left unattended, fires can go undetected and cause great damage.

Never operate the device unattended.

Connect the device to the mains power grid and turn it on with the main switch. When the device is switched on, the display shows the current software version in the 'version Vx.x' format.

The display shows the status from '0%' to '100%' during the heating process (three to four minutes). As soon as the required operating temperature is reached (display shows '100%'), the message 'Machine Ready' appears on the display. The device is operational.

Select the required operating mode.

Selecting the operating mode

Press *[FUNCTION]*. The display shows *'Effect Option'*. Now use ▲ or ▼ to select the required operating mode:

- For operation with fog fluid, select the option *'Effect Option: Heavy Mode'*.
In this mode, the device generates fog on the basis of water and fog fluid. Both the blast volume and distance can be adjusted. We recommend this operating mode for a long device service life.
- For operation with water, select the option *'Effect Option: Light Mode'*.
In this mode, the device generates fog on the basis of water. Only the blast distance can be adjusted. This operating mode is not recommended.

Specify the remaining device settings and start the operation manually or via a connected DMX controller.

Decommissioning the device

Only turn off the device with the main switch after fog output has stopped. Do not transport the device before it has cooled down completely. To avoid leaking water or fog fluid during transport, you should transport the device only with empty fluid containers.



NOTICE!

Possible mould formation in case of storage with residual moisture

Residual moisture in the device can cause mould formation during storage.

Empty the water tank completely after repeated use and before storage and clean and dry it.

Make sure that the device is well ventilated at the storage location.

Check the device during storage regularly for contamination and moisture. Residual water in the drainage system of the device returns back into the water tank over time.

6.1 Device settings

Waiting time between fog blasts

Press *[FUNCTION]* repeatedly until the display shows 'Wait Time Set Mode: xxS'. Now use ▲ or ▼ to set the waiting time between two fog blasts in a range from 1 ... 600 seconds.

Blast duration

Press *[FUNCTION]* repeatedly until the display shows 'Start Time Set Mode: xxS'. Now use ▲ or ▼ to set the fog blast duration in a range from 1 ... 600 seconds.

Amount of fog

This setting is only relevant when the device is in Heavy Mode (operation with fog fluid).

Press *[FUNCTION]* repeatedly until the display shows *'Timer Smoke Volume Out: xxx%'*. Now use ▲ or ▼ to set the fog volume per fog blast in a range from 1 ... 100%.

Fan power

Press *[FUNCTION]* repeatedly until the display shows *'Fan Adjusting Volume: xxx%'*. Now use ▲ or ▼ to set the fan power in a range from 1 ... 100%.

6.2 DMX operation

DMX address

Press *[FUNCTION]* repeatedly until the display shows *'The DMX device address set: xxx'*. Now use ▲ or ▼ to assign a DMX address in a range from 1 ... 510 (highest possible address in three-channel operation).

Tab. 1: DMX assignment in the Heavy Mode operating mode (operation with fog fluid)

Channel	Value	Function
1	Setting the fog volume	
	0...255	No fog output (0%) to maximum fog output (100%)
2	Setting the fan power	
	0...255	Fan off (0%) to maximum fan power (100%)
3	0...127	Selecting the Heavy Mode operating mode

Tab. 2: DMX assignment in the Light Mode operating mode (operation with water)

Channel	Value	Function
1	Setting the fog volume	
	0...255	No fog output (0%) to maximum fog output (100%)
2	Setting the fan power	
	0...255	Fan off (0%) to maximum fan power (100%)
3	128...255	Selecting the Light Mode operating mode

7 Technical specifications

Heater power	1835 W ($\pm 10\%$)	
Warm-up time	approx. 4 min	
Water tank capacity	8 l	
Fluid tank capacity	1.2 kg	
Fluid consumption	19 ml/min	
Fog blast duration, max.	Continuous, up to 1 hour	
Input connections	Power supply	C14 rubber panel plug
	DMX control	XLR panel plug, 3-pin
Output connections	DMX control	XLR panel socket, 3-pin
Power consumption	1310 W ($\pm 10\%$)	
Supply voltage	230 V \sim 50 Hz	
Fuse	5 mm \times 20 mm, 10 A, 250 V, fast blow	
International Protection Rating	IP20	
Dimensions (W \times H \times D)	345 mm \times 360 mm \times 785 mm	
Weight	24 kg	

Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	20%...80% (non-condensing)

Further information

Recommended fluids	Stairville Fast Fog Fluid (item no. 209054)
	Stairville E-M Fluid (item no. 121307)
	Stairville E Fluid (item no. 105454)
	Stairville E-C Fluid (item no. 105455)
Timer remote control included	no
Radio remote control included	no
Battery operation	no
With mounting bracket	no
On/Off remote control included	no
Light effect included	no
Suitable hose with outlet	Item no. 443239 (available as an option)

8 Troubleshooting



NOTICE!

Data transfer errors due to improper wiring!

If the DMX connections are wired incorrectly, this can cause errors during the data transfer.

Do not connect the DMX input and output to audio devices, e.g. mixers or amplifiers.

Use special DMX cables for the wiring instead of normal microphone cables.

In the following we list a few common problems that may occur during operation. We give you some suggestions for easy troubleshooting:

Symptom	Remedy
The device is not working, no fog blast	1. Check the mains connection and the main fuse.
	2. Check that the fog fluid container and/or water container is sufficiently filled.
	3. Check the hose connections of the fog fluid container and the water container.
No response to the DMX controller	1. Check the DMX connections and cables for proper connection
	2. Check the address settings and the DMX polarity.
	3. Try using another DMX controller.
	4. Check whether the DMX cables run near or parallel to high-voltage cables that may cause damage or interference to a DMX interface circuit.
Even though the water container is sufficiently filled, the [Low Water Ind.] indicator lights up and the display shows 'Beware: No Water!'.	Switch the device off and on again.

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at www.thomann.de.

9 Cleaning



NOTICE!

Possible damages caused by unsuitable cleaning agents

Cleaners not approved by the manufacturer may permanently damage the unit.

Only use the fog machine cleaners listed on www.thomann.de and follow their instructions for use.

Clean the appliance after every 30 operating hours, or if it was not in use for a longer period of time.

Procedure

1. ➤ Make sure that the device is turned off, disconnected from the mains and completely cooled down.
2. ➤ Position the unit in a well ventilated place.
3. ➤ Insert the suction hose of the fog machine into the bottle with the fog machine cleaner.
4. ➤ Connect the device to the mains power grid and turn it on with the main switch.
5. ➤ Wait until the unit has reached the required operating temperature.
6. ➤ Change to continuous operation and let the device produce fog for about 20 seconds.
7. ➤ Insert the suction hose of the fog machine back into the fog fluid container and let the device again produce fog for about 20 seconds. This will rinse the lines.
 - ⇒ The cleaning is completed.

Fan grids

The fan grids of the device must be cleaned of any contamination, such as dust, etc. on a regular basis. Before cleaning, switch off the device and disconnect mains-operated devices from the mains. Only use pH-neutral, solvent-free and non-abrasive cleaning agents. Clean the unit with a slightly damp lint-free cloth.

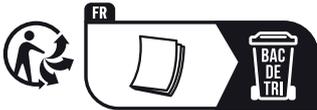
10 Protecting the environment

Disposal of the packing material



Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

Do not dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the instructions and markings on the packaging.



Observe the disposal note regarding documentation in France.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) as amended.

Do not dispose of your old device with your normal household waste; instead, deliver it for controlled disposal by an approved waste disposal firm or through your local waste facility. When disposing of the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste management facility. Proper disposal protects the environment as well as the health of your fellow human beings.

Also note that waste avoidance is a valuable contribution to environmental protection. Repairing a device or passing it on to another user is an ecologically valuable alternative to disposal.

You can return your old device to Thomann GmbH at no charge. Check the current conditions on www.thomann.de.

If your old device contains personal data, delete those data before disposing of it.

