STAIRVILLE

HF-900 Haze Fogger

hazer

user manual

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HF-900 Haze Fogger

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1 General information

This user manual contains important information on the safe operation of the device. Read and follow all safety notes and all instructions. Save this manual for future reference. Make sure that it is available to all persons using this device. If you sell the device to another user, be sure that they also receive this manual.

Our products and user manuals are subject to a process of continuous development. We therefore reserve the right to make changes without notice. Please refer to the latest version of the user manual which is ready for download under *www.thomann.de*.

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1.1 Further information

On our website (*www.thomann.de)* you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

Texts and values displayed on the device are marked by quotation marks and italics.

Examples: *'24ch'* , *'OFF'* .

1.3 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 manual.

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 signs	Type of danger
	Warning – flammable substances.
	Warning – suspended load.
	Warning – harmful or irritating substances.
	Warning – danger zone.

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2   Safety instructions

Intended use

This device is intended to be used to produce fine haze by vaporising fog or hazer fluid. 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 damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding 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!**
>
> **Danger for children**
>
> Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard!
>
> Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke!
>
> Never let children unattended use electrical devices.

> **DANGER!**
> **Electric shock caused by high voltages inside**
>
> 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 if covers, protectors or optical components are missing or damaged.

> **DANGER!**
> **Electric shock caused by short-circuit**
>
> Always use proper ready-made insulated mains cabling (power cord) with a protective contact plug. Do not modify the mains cable or the plug. Failure to do so could result in electric shock/death or fire. If in doubt, seek advice from a registered electrician.

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> **WARNING!**
> **Risk of burns from flammable liquids**
> The use of flammable liquids in this appliance can cause serious burns and property damages.
>
> Use only approved fluids. Never fill flammable liquids into the container of the device.

> **WARNING!**
> **Danger of slipping from condensate**
> Haze machines can produce condensate. Do not direct the fog to floors. Floors and surfaces can become slippery by condensed fog.
>
> Check regularly that all floors can be accessed without slipping hazard and remove any condensate, if necessary.

WARNING!

Health hazard when handling hazer fluid

Hazer fluid contains glycols, which meet the requirements for food products. Nevertheless, fluid is harmful if swallowed.

Do not induce vomiting. Get immediate medical attention. Keep hazer fluid in a safe place. Rinse the eyes upon contact with hazer fluid thoroughly with water.

CAUTION!

Possible respiratory problems

The device can only be operated safely when using approved fluids. Using other fluids can generate toxic gases. Any claims for compensation for damages caused by using non-approved fluids are excluded.

Do not let the device produce haze in poorly ventilated areas.

Do not expose people with health problems (such as allergy-related respiratory symptoms, asthma) to artificial haze.

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NOTICE!
Risk of fire
Do not block areas of ventilation. Do not install the device near any direct heat source. Keep the device away from naked flames.

> **!**
>
> **NOTICE!**
>
> **Operating conditions**
>
> This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.
>
> Only operate the device within the ambient conditions specified in the chapter 'Technical specifications' of this user manual. Avoid heavy temperature fluctuations and do not switch the device on immediately after it was exposed to temperature fluctuations (for example after transport at low outside temperatures).
>
> Dust and dirt inside can damage the unit. When operated in harmful ambient conditions (dust, smoke, nicotine, fog, etc.), the unit should be maintained by qualified service personnel at regular intervals to prevent overheating and other malfunction.

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NOTICE!

Power supply

Before connecting the device, ensure that the input voltage (AC outlet) matches the voltage rating of the device and that the AC outlet is protected by a residual current circuit breaker. Failure to do so could result in damage to the device and possibly injure the user.

Unplug the device before electrical storms occur and when it is unused for long periods of time to reduce the risk of electric shock or fire.

!

NOTICE!

Possible damage due to installation of a wrong fuse

The use of different types of fuses can cause serious damage to the unit. Fire hazard!

Only fuses of the same type may be used.

> **!** **NOTICE!**
> **Possible staining**
>
> The plasticiser contained in the rubber feet of this product may possibly react with the coating of your parquet, linoleum, laminate or PVC floor and after some time cause permanent dark stains.
>
> In case of doubt, do not put the rubber feet directly on the floor, but use felt-pad floor protectors or a carpet.

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.
- Maintain a safety distance of 1 m to flammable materials.
- 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 haze or mist generated by the device may trigger smoke alarms.

3 Features

The Stairville HF-900 Haze Fogger combines fog machine and hazer in one unit.

- Control via buttons and display on the device or via DMX
- 800 watt heating power
- Built-in fan
- Heating-up time about 3 minutes
- Tank capacity 2 litres

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.

> **WARNING!**
> **Risk of injury caused by falling objects**
> Make sure that the installation complies with the standards and rules that apply in your country. Always secure the device with a secondary safety attachment, such as a safety cable or a safety chain.

You can install the device on the wall, the ceiling or on the floor. The device must never be operated in a more than 15° tilted position. The device requires 20 cm clearance at the sides and above.

5 Starting up

Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

NOTICE!

Possible data transmission errors

For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

Never connect the DMX input or output to audio devices such as mixers or amplifiers.

Connections in DMX mode

Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor (110 Ω, ¼ W).

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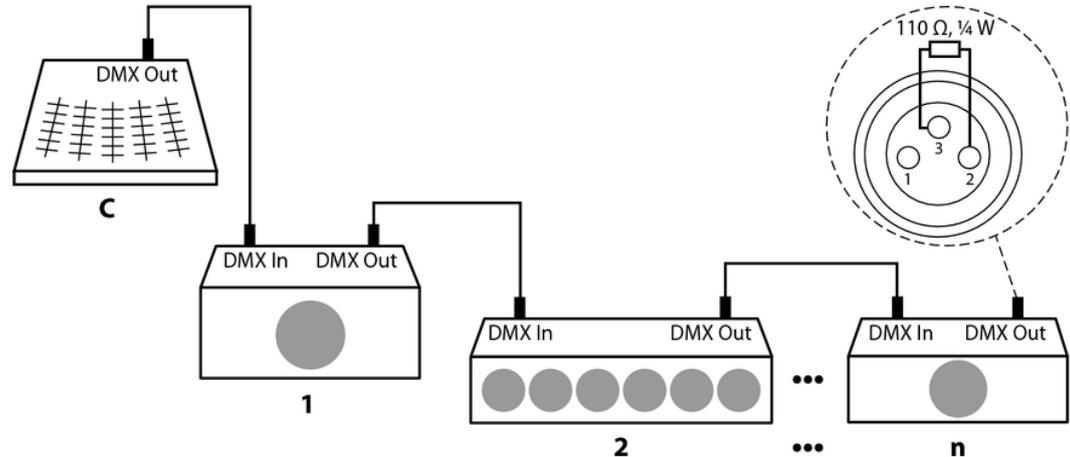
6 Connections and controls

Front and rear side
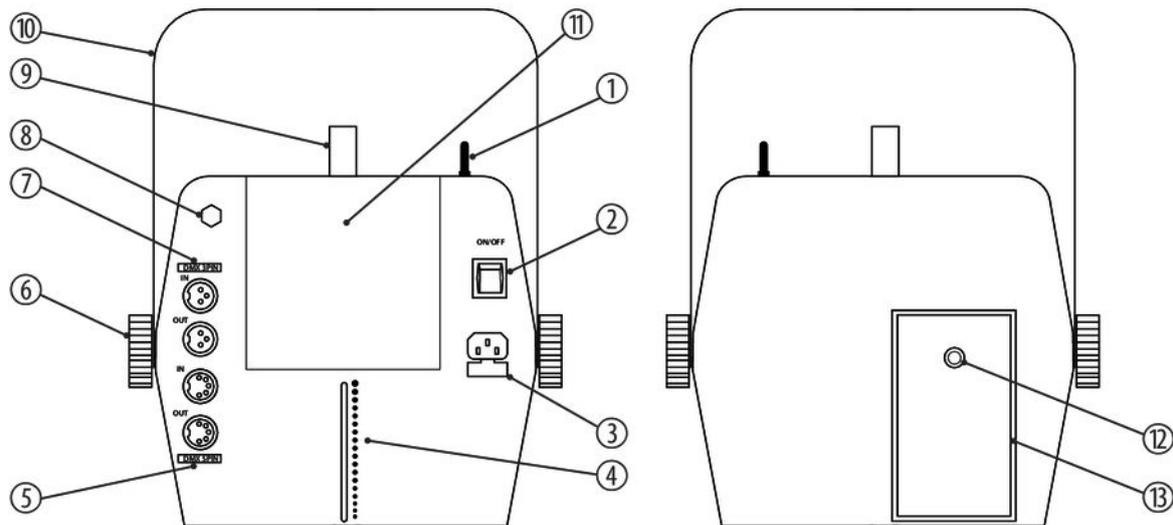
|	
1	Safety cable eyelet
2	*[ON/OFF]* Main switch to turn the device on and off.
3	IEC chassis plug with fuse holder
4	Liquid level indicator.
5	*[DMX 5PIN]* 5-pin DMX input socket and 5-pin DMX output socket
6	Locking screws for the mounting bracket
7	*[DMX 3PIN]* 3-pin DMX input socket and 3-pin DMX output socket
8	Connection for the supply hose from the fluid container
9	Carrying handle
10	Mounting bracket
11	Slide-in compartment for the fluid container

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12	Haze / fog nozzle
13	Adjustable flap for controlling the output angle

Display with function buttons
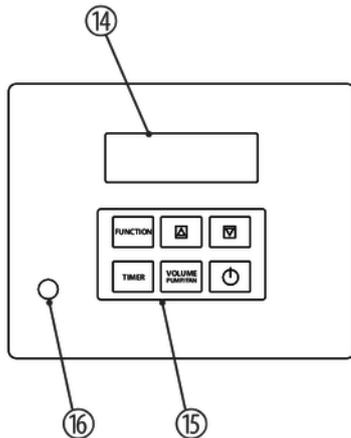
14	Display
15	*[FUNCTION]* Opens the main menu, selecting functions.
	▲ Increases the output volume or the displayed value.
	▼ Decreases the output volume or the displayed value.
	[TIMER] Start of timer-controlled operation. After the set waiting time has elapsed, the device emits the fixed haze volume.
	[VOLUME - PUMP/FAN] Manual output. The unit generates haze as long as you hold down the button.

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	⏻ Exit button Keep this button pressed for one second to turn off the device.
16	Button to switch between hazer and fogger operation

7 Operating

Filling the unit

> ! **NOTICE!**
> **Possible damages caused by unsuitable hazer fluid**
>
> Hazer fluids not approved by the manufacturer may permanently damage the unit.
>
> Only use the hazer fluids listed on *www.thomann.de* and follow their instructions for use.

First, make sure the unit is disconnected from the mains.

Open the screw-cap of the liquid container and fill in the fluid. Make sure that no fluid is spilled or gets into the device. The easiest way is using a funnel. Fill the fluid container not exceeding the upper limit of the level indicator.

Screw the cap firmly back on.

Turning the unit on

> **!**
> **NOTICE!**
> **Fire hazard**
> Do not operate the machine unattended.

Connect the device to the mains and switch the device on with the main switch. The appliance heats up within about three minutes, the status is displayed in percent (0 … 100) on the display of the unit.

As soon as the value *'HF-900 Machine Ready'* is displayed, the device has reached the required operating temperature and is ready for use.

Operation

Operation with an empty fluid container can lead to overheating and permanent damage of the pump. When operating, always ensure that there is sufficient fog fluid in the liquid container to avoid no-load running.

Fill the machine with the fluid permissible for the desired operating mode:

- Stairville FAST-FOG (item no. 209054)
- Stairville E-M fluid (item no. 121307)
- Stairville E fluid (item no. 105454)
- Stairville E-C fluid (item no. 105455)
- Stairville E-HD heavy fluid (item no. 105456)
- Stairville PHF Pro Haze fluid (item no. 260572)

The use of other fluids is not permitted!

Operating mode

Use the red function button to select the desired operating mode *'HAZE MACHINE'* or *'FOG MACHINE'* .

For hazer operation, the button must not be pressed (button is not lit).

For fog machine operation, the button must be pressed (button lit).

Turning the unit off

Disconnect the device from the mains. Transport the device only when it is completely cooled down. To avoid leaking fluid during transport, you should transport the device only with empty fluid container.

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7.1 Manual control

In manual operation, the device functions are controlled by the function buttons of the control panel and the display.

Press *[FUNCTION]* to open the main menu. The display shows *'Start Time Set Mode: xx s'*. Use the two arrow buttons to set the waiting time for the timer function in a range of 1 … 600 seconds.

Press *[FUNCTION]* again. The display shows *'Start Time Set Mode: xx s'*. Use the two arrow buttons to set the time period during which the device will continuously produce haze after the waiting time of the timer function or after pressing the button *[VOLUME]* (1 … 600 seconds).

Press *[FUNCTION]* again. The display shows *'Timer Smoke Volume Out: xx %'*. Use the two arrow buttons to set the haze output volume in a range 1 … 100 %.

Press *[FUNCTION]* again. The display shows *'Fan Adjusting Volume: xxx %'*. Use the two arrow buttons to set the haze output intensity in a range 1 … 100 %.

7.2 Operating mode 'DMX'

Press *[FUNCTION]* repeatedly until the display shows *'The DMX device address set: 1'*. Use both arrow buttons to select a DMX address in a range from 1 … 510.

DMX functions

Channel	Value	Display	Function
1	0…255	*'PMP xxx %'*	Haze volume 0-100 %, if channel 3 = 0…127
2	0…255	*'FAN xxx %'*	Fan speed 0-100 %, if channel 3 = 0…127
3	Operating mode selection		
	0…127	Hazer operation	
	128…255	Fogger operation	

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8 Technical specifications

Heater power	800 W	
Warm-up time	approx. 3 min	
Fluid container capacity	2 l	
Fluid consumption	Fog: 30 ml/min at 100 % Haze: 6.5 ml/min at 100 %	
Fog burst duration, max.	60 s at 100 %	
Charging time between fog bursts	6 s	
Fog burst reach	3 m	
Input connections	Power supply	IEC chassis plug C14
	DMX control	XLR chassis plug, 3-pin, 5-pin
Output connections	DMX control	XLR chassis socket, 3-pin, 5-pin
Power consumption	750 W	

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Supply voltage	230 V ∼ 50 Hz	
Fuse	5 mm × 20 mm, 5 A, 250 V, fast-acting	
Degree of protection	IP20	
Dimensions (W × H × D)	280 mm × 461 mm × 253 mm	
Weight	10 kg	
Ambient conditions	Temperature range	0 ℃…40 ℃
	Relative humidity	50 %…55 %, non-condensing

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Further information

Burst direction	variable
Timer remote control	Yes
ON/OFF remote control	Yes
Radio remote control	No
Light effect	No
battery-powered	No
With suspension bracket	Yes

9 Plug and connection assignment

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment so that a perfect light experience is guaranteed.

Please take our tips, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into a socket, the result of an incorrect connection may be a destroyed DMX controller, a short circuit or 'just' a not working light show!

DMX connections

The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.

Pin	Configuration
1	Ground, shielding
2	Signal inverted (DMX–, 'cold signal')
3	Signal (DMX+, 'hot signal')

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DMX connections

A five-pin XLR socket serves as DMX output, a five-pin XLR plug serves as DMX input. The drawing below and the table show the pin assignment of a matching coupling.

Pin	Assignment
1	Ground (shielding)
2	Signal inverted (DMX–, 'cold')
3	Signal (DMX+, 'hot')
4	unused / second connection (DMX–)
5	unused / second connection (DMX+)

10 Troubleshooting

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 unit does not work	Check the mains connection and the main fuse.
No haze output	1. Check the filling level of the fluid.
	2. Switch the device off and check the hose that leads into the fluid container for flow.
No response to the DMX controller	1. Check the address settings and the DMX polarity.
	2. Try to use another DMX controller.
	3. Check whether the DMX cables run near or parallel to high-voltage cables that may cause damage or interference to a DMX interface circuit.
The display shows *'Temperature is too HIGH'*	Please send the device to our Service Center for inspection.

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

11 Cleaning

> ! **NOTICE!**
> **Possible damages caused by unsuitable cleaning agents**
> Cleaners not approved by the manufacturer may permanently damage the unit.
>
> Only use the cleaning agents 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 device into the bottle containing the cleaning agent.

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.

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6. ▸ Switch the unit to continuous operation and let it produce fog / haze for about 20 seconds.

7. ▸ Insert the suction hose of the device back into the fluid container and let the device again produce fog / haze 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.

12 Protecting the environment

Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

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

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) in its currently valid version. Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

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