



HZ-1500 Pro Touring Hazer DMX

Hazer

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4 HZ-1500 Pro Touring Hazer DMX
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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 - slip hazard. |
|  | Warning – harmful or irritating substances. |
|  | Warning – danger zone. |

2 Safety instructions

Intended use

This device is intended to be used to produce fine haze by vaporising 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!

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 hazer fluids. Never fill flammable liquids into the tank of the device.



WARNING!

Slip hazard due to condensate pools!

The haze generated by the hazer can condense on floors and surfaces. People can slip and injure themselves on pools of condensate. Do not point the haze on floors or other surfaces that may be stepped on. Regularly check all floors and other surfaces that can be accessed for slipping hazards. If necessary, remove any pools of condensate.



WARNING!

Health hazard when handling hazer fluid!

Hazer fluid contains glycols. There is a health risk in case of eye contact and if fluid is swallowed. Keep hazer fluid in a safe place and out of the reach of children. Never ingest hazer fluid and avoid contact with eyes. In case of accidental ingestion or eye contact with hazer 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 hazer fluid!

Hazer 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 hazer 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 haze in poorly ventilated areas. Do not expose people with health problems (e.g. allergy-related respiratory symptoms, asthma) to artificial haze.



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.

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 hazer is suitable to be used in clubs, bars, discotheques and on stages.

Special features of the device:

- Control via DMX-512 and via the buttons and display on the device
- Short heating time
- Continuous haze output without reheating up to an output of 50%
- Precise regulation of the haze output
- Compact design
- Specifically designed for touring use
- Fixed in a sturdy flight case
- 3 l fluid container for hazer fluid (Stairville PHF Fluid, item no. 260572)

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.

The device requires a 20 cm clearance on the sides and above. Place the device on a flat, stable surface. The device must never be operated at a tilt of more than 15°.

The device is delivered in a sturdy flight case. Do not remove the device from the flight case, there are no serviceable parts inside. Always have repairs performed by a specialist repair shop.

Make sure that the ventilation opening of the flight case and the haze nozzle are never covered during operation.



The device may only be operated with Stairville PHF Fluid (item no. 260572).

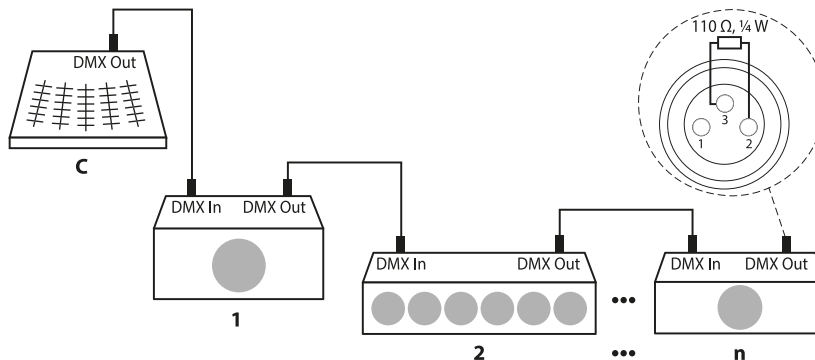
5 Starting up

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.

Make sure that the hose for the hazer fluid is firmly connected to the device and to the fluid container.

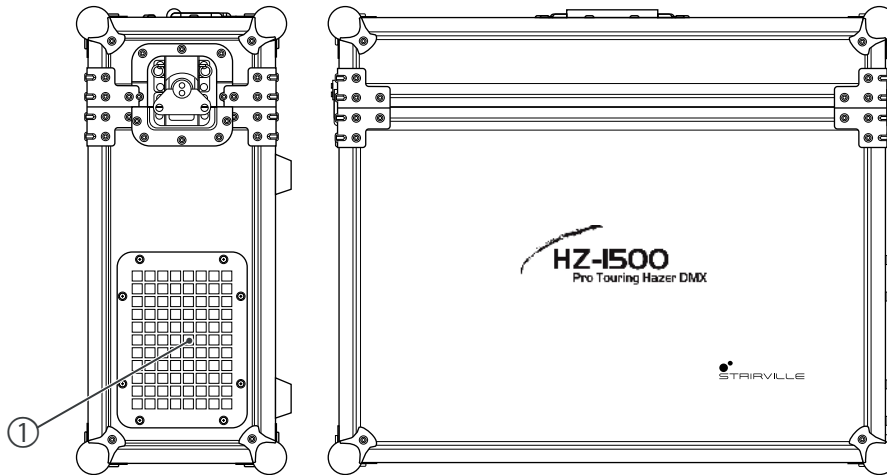
Connections in DMX mode

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 ($110\ \Omega$, $\frac{1}{4}\text{ W}$).



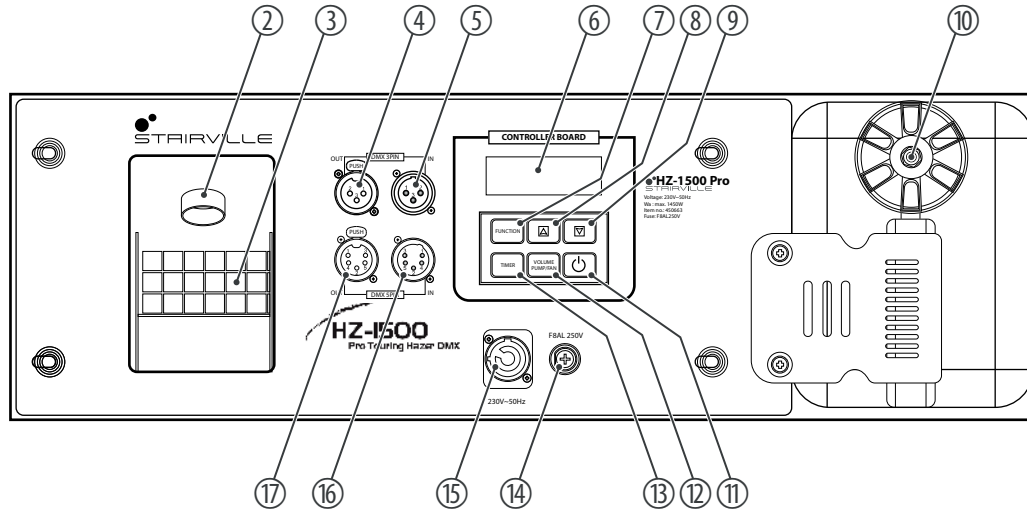
6 Connections and controls

Flight case



1 Ventilation opening

Control panel



2 Mounting connection for the hazer fluid hose

3 Haze nozzle

4 [DMX 3PIN OUT] | DMX output, 3-pin

| | |
|----|--|
| 5 | [DMX 3PIN IN] DMX input, 3-pin |
| 6 | Display |
| 7 | [FUNCTION] Opens the settings menu. |
| 8 | ▲ Increases the displayed value by one and selects menu items. During operation: Increases the amount of haze. |
| 9 | ▼ Decreases the displayed value by one and selects menu items. During operation: Decreases the amount of haze. |
| 10 | Fluid container with quick release fastener |
| 11 | ⓘ Main switch. Turns the device on and off. Press and hold for 1 second: The current function of the device is stopped. Press 2 times: The device performs a self-cleaning (duration approx. 5 minutes); once it is complete, the display shows 'Please power off'. Switch off the device. |
| 12 | [VOLUME PUMP/FAN] Activates the haze output in continuous operation. |
| 13 | [TIMER] Activates the haze output in interval operation. |
| 14 | Fuse holder |
| 15 | Lockable input socket (Power Twist) for the power supply of the device |
| 16 | [DMX 5PIN IN] DMX input, 5-pin |
| 17 | [DMX 5PIN OUT] DMX output, 5-pin |

7 Operating

Filling the device



NOTICE!

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

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 device is switched off.

Open the screw-cap of the fluid container and fill in the hazer fluid. Make sure that no hazer fluid is spilled or gets into the device. The easiest way to do so is to use a funnel. The container capacity is 3 litres.

Screw the cap firmly back on.

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. The display shows the software version (display shows *'HZ-1500 version V0.1'*).

During the heat-up time of approx. 50 seconds, the display shows the status of the heating process in alternation with the software version (display shows *'HZ-1500 heating 0%' ... 'HZ-1500 heating 100%'*). When the heat-up process is completed, the display changes to *'HZ-1500 Pro Machine Ready'*, alternating with the software version. The device is now operational.

Main menu

When the device is ready, you can access the menu functions and set the required values of the functions.

1. ➤ Press *[FUNCTION]* repeatedly until the required submenu is displayed.
2. ➤ Use *[UP]* or *[DOWN]* to select the required value.
 - ⇒ The required value is applied automatically.

Interval between two haze blasts

1. ➤ Press *[FUNCTION]* repeatedly until the display shows *'Interval time set: 10S'*.
2. ➤ Use *[Up]* or *[DOWN]* to select a value between 1 and 600 seconds (display *'1S...600S'*).
⇒ The required value is applied.

Haze blast duration

1. ➤ Press *[FUNCTION]* repeatedly until the display shows *'Duration time set: 10S'*.
2. ➤ Use *[UP]* or *[DOWN]* to select a value between 1 and 600 seconds (display *'1S...600S'*).
⇒ The required value is applied.

Haze amount

1. ➤ Press *[FUNCTION]* repeatedly until the display shows *'Timer Smoke Volume Out: 50%'*.
2. ➤ Use *[UP]* or *[DOWN]* to select a value between 1 and 100 percent (display *'1%...100%'*).
⇒ The required value is applied.

Fan power

1. ➤ Press *[FUNCTION]* repeatedly until the display shows 'Fan Adjusting speed: 100%'.
2. ➤ Use *[UP]* or *[DOWN]* to select a value between 1 and 100 percent (display '1%...100%').
⇒ The required value is applied.

"DMX" operating mode

1. ➤ Press *[FUNCTION]* repeatedly until the display shows 'DMX address set: 1'.
2. ➤ Use *[UP]* or *[DOWN]* to select a DMX address between 1 and 511.
⇒ The required value is applied.

Make sure that the DMX address matches the configuration of your DMX controller.

DMX assignment

| Channel | Value | Function |
|---------|----------------------------|--|
| 1 | Setting the amount of haze | |
| | 0...255 | No haze output (1%) to maximum haze output (100%) |
| 2 | Setting the fan power | |
| | 0...255 | Minimum fan power (0%) to maximum fan power (100%) |

Haze output in continuous operation

1. ➤ Press \odot until the display shows '*HZ-1500 Pro Machine Ready*'.
2. ➤ Press [*VOLUME PUMP/FAN*] to activate continuous haze output.
 - ⇒ The display shows the values set in the menu for the haze amount (display shows '*Haze 1%...100%*') and fan power (display shows '*Fan 1%...100%*'). The haze output is activated with the preset values. Use [*FUNCTION*] to switch between '*Haze*' and '*Fan*', and use [*UP*] and [*DOWN*] to increase or decrease the selected value accordingly.
3. ➤ Press \odot to end the function.

Haze output in interval operation

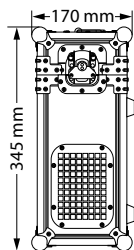
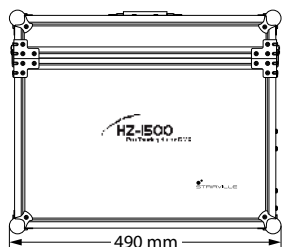
1. ➤ Press \odot until the display shows '*HZ-1500 Pro Machine Ready*'.
2. ➤ Press [*TIMER*] to activate the haze output in interval operation.
 - ⇒ The display shows the values set in the menu for the interval between two haze blasts (display shows '*Interval: 1...600*') and the duration of a haze blast (display '*Duration: 1...600*'). The haze output is activated with the preset values.
3. ➤ Press \odot to end the function.

Decommissioning the device

- 1.** ▶ Press \odot to end all functions and put the device in standby mode.
 - ⇒ The device performs a self-cleaning to rid the hose and nozzle of fluid residues. This process takes about 5 minutes. Do not interrupt this process.
- 2.** ▶ When the cleaning process is completed, the display shows the message *'Please power off'*.
 - ⇒ You can now disconnect the device from the power supply.

Do not transport the device before it has cooled down completely. To avoid leaking hazer fluid during transport, you should transport the device only with an empty fluid container.

8 Technical specifications



| | | |
|-----------------------------------|--|--|
| Heater power | 1450 W ($\pm 10\%$) | |
| Warm-up time | approx. 50 s (± 20 s) | |
| Fluid container capacity | 3 l | |
| Fluid consumption | 12 ml/min at 100% emission | |
| Haze blast duration, max. | Continuously at max. 50% output volume, adjustable from 1...100% | |
| Charging time between haze blasts | Continuous | |
| Input connections | Power supply | Lockable input socket (Power Twist) |
| | DMX control | XLR panel plug, 3-pin XLR panel plug, 5-pin |
| Output connections | DMX control | XLR panel socket, 3-pin XLR panel socket, 5-pin |
| | Power consumption | 1420 W ($\pm 10\%$) |
| Supply voltage | 230 V \sim 50 Hz | |
| Fuse | 5 mm \times 20 mm, 8 A, 250 V, fast blow | |

| | | |
|---------------------------------|--------------------------|----------------------------|
| International Protection Rating | IP20 | |
| Dimensions (W × H × D) | 490 mm × 345 mm × 170 mm | |
| Weight | 16.45 kg (without fluid) | |
| Ambient conditions | Temperature range | 0 °C...40 °C |
| | Relative humidity | 20%...80% (non-condensing) |

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!

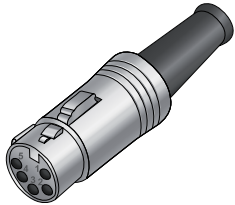
DMX connections

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') |

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 main fuse. |
| No haze output | <ol style="list-style-type: none"> 1. Check the fluid level of the hazer fluid. 2. Switch the device off and check the hose that leads into the fluid container for flow. 3. Check that the quick connector closes completely and sits securely in the locking system. |
| No response to the DMX controller | <ol style="list-style-type: none"> 1. Check the address settings and the DMX polarity. 2. Try using 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 the message <i>'Beware: No Liquid!'</i> | <ol style="list-style-type: none"> 1. Disconnect the unit from the power supply. 2. Fill in suitable hazer fluid. |

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.
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.

Regularly unscrew the ventilation grille and clean the filter behind it under running clear water. Allow the filter to dry and reinsert it before next use. Now screw on the ventilation grille again.

12 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.

