



MH-100 Beam 36x3 LED

Moving Head

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27.09.2023, ID: 325876 (V4)

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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 – dangerous optical radiation.

Warning signs	Type of danger
	Warning – suspended load.
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended for use as a freely moving multifunctional spotlight. The device is designed for professional use and is not suitable for use in households. 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.



Extend the operating life of the device by regular breaks and by avoiding frequent switching on and off. The device is not suitable for continuous operation.

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 as 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 eye damage caused by high light intensity!

The device generates highly intense light radiation. Looking directly into the light source can damage the eyes. Never look directly into the light source.



WARNING!

Risk of epileptic fit due to flashing lights!

The device emits flashing lights (strobe effects). Flashing lights can trigger epileptic fits in specific people. If you are at risk of epilepsy, avoid spending longer periods of time subjected to flashing lights and looking into strobing light.



WARNING!

Risk of injury caused by falling due to unsuitable trusses and other fixtures!

If trusses or other fixtures are not designed for the weight of the intended number of moving heads, falling can cause severe injury and considerable damage. Before mounting, ensure that the load capacity of trusses and other fixtures is sufficient for the intended number of devices. Take into account any additional load that affects the load bearing parts due to the movement of the head. When installing and operating, make sure to follow the standards and regulations that apply in your country. Always secure devices with a secondary safety attachment, such as a safety cable or a safety chain.



CAUTION!

Risk of injury due to unexpected movements of the device!

The device head may perform fast movements and generate very bright light. This is the case immediately after the device is switched on, in automatic or remote operation, and when a connected DMX controller is switched off. Persons who are in the immediate vicinity of the device may be injured or frightened by this. Make sure that there are no obstacles within the movement range of the mirror, and that no persons are in the immediate vicinity of the head before switching it on and during its operation. Switch off the device before any work is performed in the movement range or immediate vicinity of the device, or if unauthorised persons are in that area.



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 overheat 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 by exceeding the maximum current

The device can supply power to other devices of identical design and connected in series. If too many devices are connected, the power consumption can exceed the maximum permitted power consumption, which can cause the device to overheat and burst into flames. Only connect devices of identical design to the device. When deciding how many devices you can connect in series, make sure that the maximum permitted power consumption as stated on the device is not exceeded. Also refer to the specifications in the technical specifications for the device. Only use power cords with a cable cross-section designed for the required current intensity when connecting the devices in series.



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.



NOTICE!

Risk of overheating and fire due to inadequate distance and bad ventilation!

If the distance between the light source and the illuminated surface is too short or the device is badly ventilated, the device can overheat and cause fires. Make sure that illuminated surfaces are more than 2 m away. Do not operate the device in ambient temperatures above 40 °C. Always ensure sufficient ventilation at the operating location.



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.

3 Features

The moving head is particularly suitable for professional lighting tasks, for example at events, on rock stages, in theatres and musicals or in night clubs.

Special features of the device:

- 36 × 3 W LEDs (8 × red, 10 × green, 10 × blue, 8 × white)
- Control via DMX (9 or 14 channels) as well as buttons and display on the unit
- Preprogrammed automatic show programmes
- Sound control
- Master / slave mode
- Strobe effect
- Electronic dimmer
- Robust housing with two integrated carrying handles
- Omega Bracket with quick locks included

For technological reasons, the light output of LEDs decreases over their lifetime. This effect increases with higher operating temperature. You can extend the service life of the illuminants by providing adequate ventilation and operating the LEDs with the lowest possible brightness.

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.

Lift the device only at the base. When lifted at the rotatable mounting, the device may be damaged.

You can install the device standing or hanging. When in use, the device must be mounted at a solid surface or clamped to an approved truss.

Work from a stable platform whenever you install or move the device or when you perform any kind of maintenance. Block access under the work area.

**WARNING!****Risk of injury caused by falling due to unsuitable trusses and other fixtures!**

If trusses or other fixtures are not designed for the weight of the intended number of moving heads, falling can cause severe injury and considerable damage.

Before mounting, ensure that the load capacity of trusses and other fixtures is sufficient for the intended number of devices. Take into account any additional load that affects the load bearing parts due to the movement of the head.

When installing and operating, make sure to follow the standards and regulations that apply in your country.

Always secure devices with a secondary safety attachment, such as a safety cable or a safety chain.

**NOTICE!****Risk of overheating and fire due to inadequate distance and bad ventilation!**

If the distance between the light source and the illuminated surface is too short or the device is badly ventilated, the device can overheat and cause fires.

Make sure that illuminated surfaces are more than 2 m away.

Do not operate the device in ambient temperatures above 40 °C.

Always ensure sufficient ventilation at the operating location.



NOTICE!


Data transfer errors due to improper wiring!

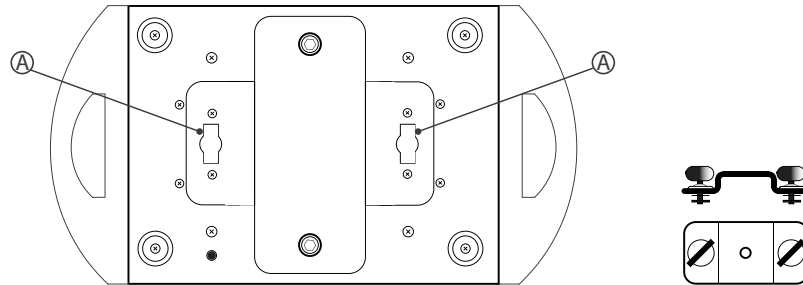
If the DMX connections are wired incorrectly, this can cause errors during the data transfer.

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.

Mounting options

The quick lock openings on the housing bottom are used for secure attachment of Omega brackets. These are used to attach the flight adapters (half coupler, trigger clamps, C-hooks, etc.). The safety cable must be routed through the safety cable eyelet on the back of the device ( Chapter 6 'Connections and operating elements' on page 20).



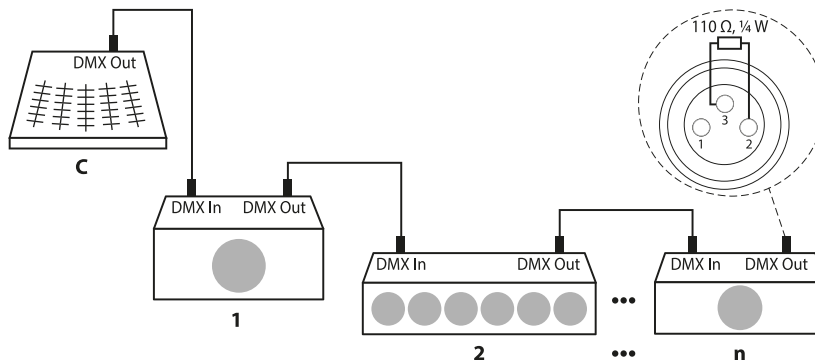
A Quick lock openings for Omega brackets

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.

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

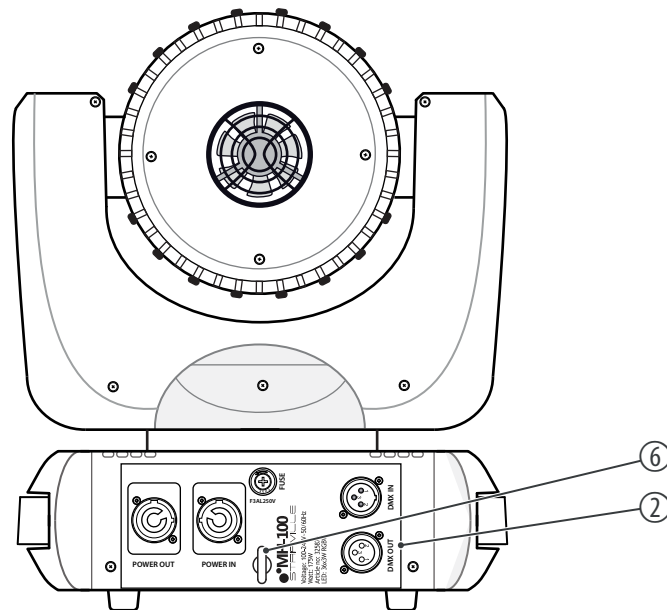
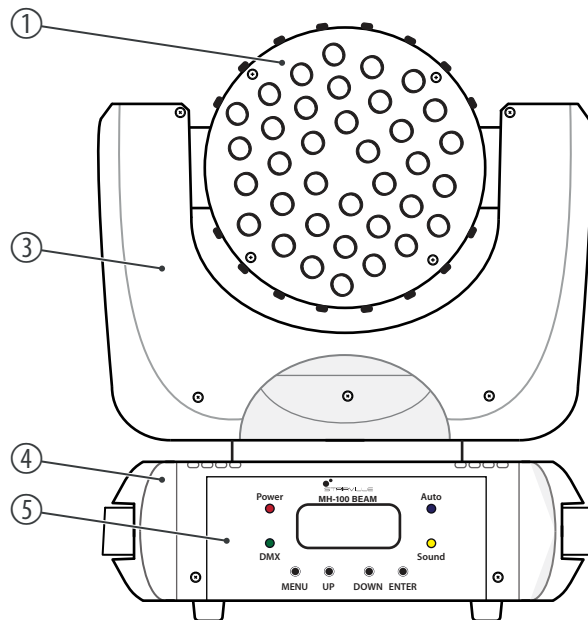


The flashing 'DMX' LED indicates an incoming DMX signal.

Connections in master/slave mode

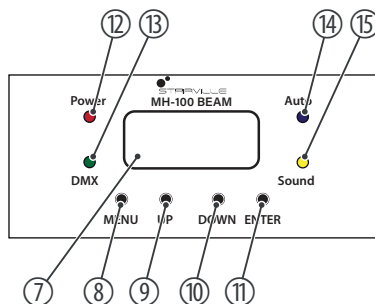
When you configure a group of devices in master/slave mode, the first unit will control the other units for an automatic, sound-activated, synchronized show. This function is ideal when you want to start a show immediately. Connect the DMX output of the master device to the DMX input of the first slave device. Then connect the DMX output of the first slave device to the DMX input of the second slave device and so on.

6 Connections and operating elements



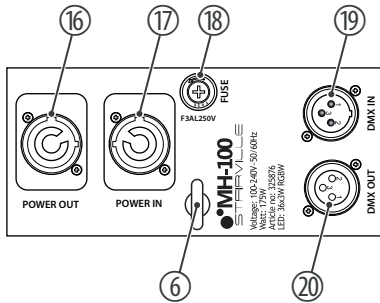
1	Spotlight head with LEDs
2	Connections
3	Rotating mounting
4	Device base
5	Operating elements
6	Safety cable eyelet

Operating elements



- | | |
|----|--|
| 7 | Display When the main menu is activated, the display shows the current menu item and the set option. When the main menu is closed, it shows the current operating mode. The display is dimmed a few seconds after the last keystroke. |
| 8 | [MENU] Activates the main menu and toggles between menu items. Closes an open submenu without saving the changes. |
| 9 | [DOWN] Decreases the displayed value by one. |
| 10 | [UP] Increases the displayed value by one. |
| 11 | [ENTER] Selects an option of the respective operating mode. |
| 12 | [Power] The LED indicates that the device is connected to the power grid. |
| 13 | [DMX] The LED flashes when a DMX signal is received. |
| 14 | [Auto] The LED indicates that the automatic show is running. |
| 15 | [Sound] The LED lights up when the sound-controlled automatic show is running. The briefly flashing LED indicates an incoming signal from the microphone during the sound-controlled automatic show. |

Connections



6 Safety cable eyelet

16 [POWER OUT] | Lockable output socket (Power Twist) for the power supply cable to the next device

17 [POWER IN] | Lockable input socket (Power Twist) for power supply

18 [FUSE] | Fuse holder

19 [DMX IN] | DMX input

20 [DMX OUT] | DMX output

7 Operation

7.1 Starting the device



CAUTION!

Risk of injury due to unexpected movements of the device!

The device head may perform fast movements and generate very bright light. This is the case immediately after the device is switched on, in automatic or remote operation, and when a connected DMX controller is switched off. Persons who are in the immediate vicinity of the device may be injured or frightened by this.

Make sure that there are no obstacles within the movement range of the mirror, and that no persons are in the immediate vicinity of the head before switching it on and during its operation.

Switch off the device before any work is performed in the movement range or immediate vicinity of the device, or if unauthorised persons are in that area.

Connect the device to the power supply to start operation. After a few seconds, the fans start to work, the head moves to the home positions for rotation (pan) and inclination (tilt), the screen displays a start message. After a few more seconds, the device operates in the most recently set mode.

7.2 Main menu

Press **[MENU]** to activate the main menu. Use the **[UP]** or **[DOWN]** buttons to select a submenu. When the display shows the required submenu, press **[ENTER]** to open it. To close the main menu, press **[Menu]** or wait five seconds.



As soon as you activate the main menu, the DMX control and a currently running automatic show are being interrupted. The moving head of the unit moves to its home position.

If you close the main menu without making changes, the device continues to operate with the previous settings.

All previous settings are retained even when you disconnect the device from the power grid. To restart with the default values, use the 'System Reset' function (↶ 'Default settings' on page 29).

DMX address

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows 'DMX Address'. Press *[ENTER]*. The display starts to flash. Now you can set the number of the first DMX channel to be used by the device (DMX address). Use the *[UP]* and *[DOWN]* buttons to select a value between 1 and 512.

Once the display shows the desired option, press *[ENTER]* to confirm your setting and to close the submenu. To close the submenu and the main menu without making changes, press *[MENU]* or wait five seconds.

Make sure that the DMX address matches the configuration of your DMX controller. The following table shows the highest possible DMX address for the various DMX modes.

Mode	Highest possible DMX address
9-channel	504
14-channel	499

"DMX" operating mode

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows 'Control Mode'. Press *[ENTER]*. The display starts to flash. Use the *[UP]* or *[DOWN]* buttons to choose one of the following DMX operating modes: 9-channel or 14-channel. This setting is only relevant when the device is controlled via DMX.

Once the display shows the desired option, press *[ENTER]* to confirm your setting and to close the submenu. To close the submenu and the main menu without making changes, press *[MENU]* or wait five seconds.

“Master” or “Slave” operating mode

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows ‘*Slave Mode*’. Press *[ENTER]*. The display starts to flash. You can now choose an operating mode with the *[UP]* and *[DOWN]* buttons:

- ‘*Slave*’: The device is controlled by another device, which is configured as master.
- ‘*Master*’: The master device specifies the movements and light effects that are copied by the devices configured as slaves.

Once the display shows the desired option, press *[ENTER]* to confirm your setting and to close the submenu. To close the submenu and the main menu without making changes, press *[MENU]* or wait five seconds.

This setting is only relevant if the device is not controlled via DMX.

Automatic show

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows ‘*Auto Sound*’. Press *[ENTER]*. The display starts to flash. You can now use the *[UP]* and *[DOWN]* buttons to choose between ‘*Auto*’ (automatic show) and ‘*Sound*’ (sound-controlled automatic show).

Automatic operation can only be activated when the unit is operating in stand-alone mode or as master in a master/slave combination. This setting is only relevant if the device is not controlled via DMX.

Press *[ENTER]* to save the setting and close the submenu. To close the submenu and the main menu without making changes, press *[MENU]* or wait five seconds.

Pan inversion

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows '*Pan Inverse*'. Press *[ENTER]*. The display starts to flash. You can now use the *[UP]* and *[DOWN]* buttons to choose between '*No*' (normal rotation direction) and '*Yes*' (inverted rotation direction).

Press *[ENTER]* to save the setting and close the submenu. To close the submenu and the main menu without making changes, press *[MENU]* or wait five seconds.

Tilt inversion

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows '*Tilt Inverse*'. Press *[ENTER]*. The display starts to flash. You can now use the *[UP]* and *[DOWN]* buttons to choose between '*No*' (normal tilt direction) and '*Yes*' (inverted tilt direction).

Once the display shows the desired option, press *[ENTER]* to confirm your setting and to close the submenu. To close the submenu and the main menu without making changes, press *[MENU]* or wait five seconds.

Dimmer speed

You can use this function to adjust how the electronic dimmer conducts lighting changes.

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows '*Dimmer Speed*'. Press *[ENTER]*. The display starts to flash. You can now use the *[UP]* and *[DOWN]* buttons to choose between '*Fast*' (fast lighting change) and '*Smooth*' (gradual lighting change).

Once the display shows the desired option, press *[ENTER]* to confirm your setting and to close the submenu. To close the submenu and the main menu without making changes, press *[MENU]* or wait five seconds.

Operating hours display

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows '*Power On Hours*'. Press *[ENTER]*. The display shows how long the device has been in operation.

To exit the operating hours display, press *[ENTER]* and wait five seconds.

Temperature display

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows '*Fixture Temp*'. Press *[ENTER]*. The display alternates between the temperature of the LEDs ('*LED Temp*') and the temperature of the electronics inside the device ('*Main PCB*').

To exit the temperature display, press *[ENTER]* and wait five seconds.

Self test

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows '*Auto Test*'. Press *[ENTER]*. The device now performs a self test.

To exit the self test, press *[ENTER]* and wait five seconds.

Software version

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows '*Firmware Version*'. Press *[ENTER]*. The software version of the device appears on the display.

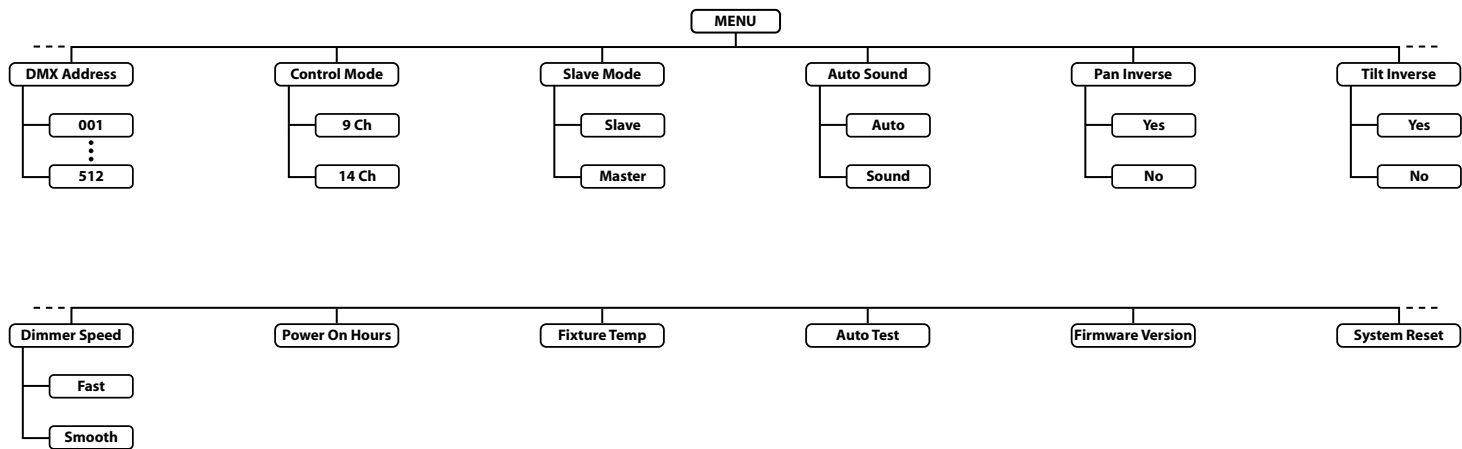
To exit the software version display, press *[ENTER]* and wait five seconds.

Default settings

With this function, you can reset the device to factory default settings.

Press *[MENU]*, then *[UP]* or *[DOWN]* until the display shows '*System Reset*'. Press *[ENTER]*. The device performs a reset.

Overview



7.3 Functions in 9-channel DMX mode

Channel	Value	Function
1	0...255	Rotation (pan) (0° to 630°)
2	0...255	Inclination (tilt) (0° to 220°)
3	0...255	Speed of rotation (pan) and inclination (tilt), fast to slow
4	0...255	Dimmer (0% to 100%)
5	0...255	Red intensity (0% to 100%)
6	0...255	Green intensity (0% to 100%)
7	0...255	Blue intensity (0% to 100%)
8	0...255	White intensity (0% to 100%)
9	Strobe effect	
	0...9	Strobe effect off
	10...140	Strobe effect, increasing speed
	141...255	Strobe effect, random speed

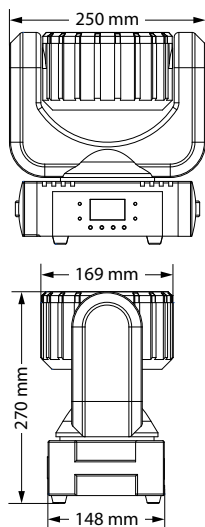
7.4 Functions in 14-channel DMX mode

Channel	Value	Function
1	0...255	Rotation (pan) (0° to 630°)
2	0...255	Fine adjustment for rotation (pan)
3	0...255	Inclination (tilt) (0° to 220°)
4	0...255	Fine adjustment for inclination (tilt)
5	0...255	Speed of rotation (pan) and inclination (tilt), fast to slow
6	0...255	Dimmer (0% to 100%)
7	0...255	Red intensity (0% to 100%)
8	0...255	Green intensity (0% to 100%)
9	0...255	Blue intensity (0% to 100%)
10	0...255	White intensity (0% to 100%)
11	White with full intensity and adjustable colour temperature	
	0...35	Dark, all LEDs off
	36...55	Colour temperature 3200 K
	56...75	Colour temperature 3400 K

Channel	Value	Function
	76...95	Colour temperature 4200 K
	96...115	Colour temperature 4900 K
	116...135	Colour temperature 5600 K
	136...175	Colour temperature 6500 K
	176...195	Colour temperature 7200 K
	196...215	Colour temperature 8000 K
	216...235	Colour temperature 8500 K
	236...255	Colour temperature 10000 K
12	Constant colour	
	0...14	Dark, all LEDs off
	15...255	One of 28 pre-programmed colours
13	Strobe effect	
	0...9	Strobe effect off
	10...140	Strobe effect, increasing speed
	141...255	Strobe effect, random speed
14	Special functions	

Channel	Value	Function
	0...99	No function
	100...199	Automatic sound controlled show
	200...255	Reset if the value is transmitted for at least five seconds

8 Technical specifications



Light source		36 × 3W LEDs (8 × red, 10 × green, 10 × blue, 8 × white)
Optical properties	Beam angle	8°
	Maximum rotation angle (pan)	630°
	Maximum inclination angle (tilt)	220°
Dimmer		electronic, 0 ... 100%
Control		DMX
		Buttons and display on the device
Number of DMX channels		9 or 14
Input connections	Power supply	Lockable input socket (Power Twist)
	DMX control	XLR chassis plug, 3-pin
Output connections	Power supply	Lockable output socket (Power Twist)
	DMX control	XLR chassis socket, 3-pin
Power consumption		175 W

Supply voltage		100 - 240 V ~ 50/60 Hz
Fuse		5 mm × 20 mm, 3.0 A, 250 V, fast blow
International Protection Rating		IP20
Mounting options		Hanging, standing
Dimensions (W × H × D)		250 mm × 270 mm × 169 mm
Weight		4.9 kg
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	20%...80% (non-condensing)

Further information

Light output	108 W
Colour mix	RGBW
Gobo wheel	No
Prism	No
Motorised focus	No
Motorised zoom	No

9 Plug and connection assignments

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’)

10 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 light, the fan is not running	Check the mains connection and the fuse.
No response to the DMX controller	<ol style="list-style-type: none"> 1. The "DMX" LED should flash while data are being transmitted. If not, check that the DMX connections and cables are properly connected 2. If the "DMX" LED lights up and there is no response, 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.

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

Optical lenses

Clean the optical lenses, that are accessible from the outside, regularly in order to optimize the light output. The frequency of cleaning depends on the operating environment: wet, smoky or particularly dirty surroundings can cause more accumulation of dirt on the optics of the device.

- Clean with a soft cloth using our lamp and lens cleaner (item no. 280122).
- Always dry the parts carefully.

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.

