




STAIRVILLE

MH-x30 LED Spot moving head

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1 General notes

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.

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'*.

Text input




Text inputs that are carried out on the device are indicated by typewriter font.

Example: 2323

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 – suspended load.
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended to be used as moving-head 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.

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.



WARNING!

Eye damage caused by high light intensity

Never look directly into the light source.



WARNING!

Risk of epileptic shock

Strobe lighting can trigger seizures in photosensitive epilepsy. Sensitive persons should avoid looking at strobe lights.



WARNING!

Risk of injury by falling off

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.

The carrying capacity of the truss or other mounting must be sufficient for the intended number of devices. Note that the movement of the head may additionally stress the load-bearing structures.



CAUTION!

Risk of injury due to movements of the device

The head of the device can move quickly (pan, tilt) and can produce very bright light. This is also valid immediately after you turn on the device, when the device operates in automatic mode or under remote control and when you turn off a DMX controller that is connected to the device. Persons staying near the device could be injured or frightened.

Before you turn on the device and during the operation, always ensure that nobody stays close to the device. If work has to be performed in the area of movement or in the near vicinity of the device, it must remain turned off.



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.

The device must not be moved while it is in use.



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 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.

3 Features

Special features of the device:

- White light LED (30 W)
- Control via DMX (9 or 12 channels) as well as buttons and display on the unit
- Preprogrammed automatic show programmes
- Sound control
- Master / Slave mode
- Strobe effect
- Electronic dimmer
- Colour wheel with seven colours, split colours and white (open)
- Gobo wheel with seven static gobos plus open
- Electronic focus
- Robust housing with two integrated carrying handles
- Omega bracket with quick release fasteners and powerCON cable included

4 Installation

Unpack and carefully check that there is no transportation damage before using the unit. Keep the equipment packaging. To fully protect the device 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 by falling off**

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.

The carrying capacity of the truss or other mounting must be sufficient for the intended number of devices. Note that the movement of the head may additionally stress the load-bearing structures.

**NOTICE!****Risk of overheating**

Always ensure sufficient ventilation.

The ambient temperature must always be below 40 °C (104 °F).



NOTICE!

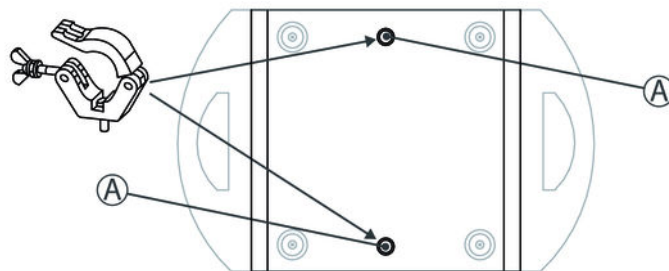
Possible data transmission errors

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.

Mounting options

The quick-lock openings on the housing bottom are used for secure attachment of the included omega bracket. There, you can fasten truss adapters (half couplers, trigger clamps, c-hooks etc.). The safety cable must be routed through the safety eyelet on the bottom of the device.



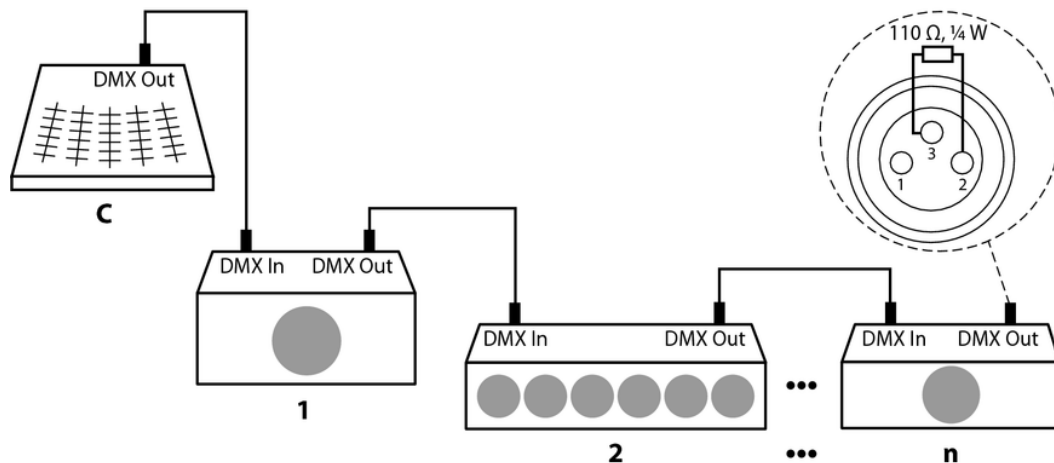
A Quick lock openings for Omega brackets

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



DMX indicator

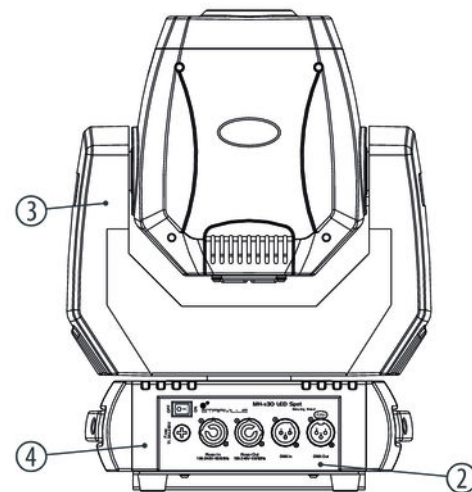
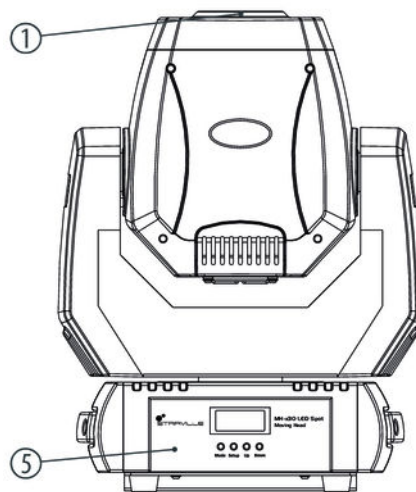
If the device is correctly connected to a switched-on DMX controller, a flashing star appears in the lower row of the display in 'DMX' mode. If the device does not receive a valid DMX signal, the error message 'DMX Fail' is displayed.

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 controls

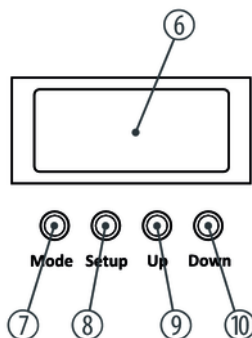
Overview



MH-x30 LED Spot

1	Spotlight head with LED.
2	Connections
3	Rotatable mounting
4	Device base
5	Operating elements

Operating elements



6 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.

7 [Mode]

Activates the main menu and toggles between menu items. Closes an open sub menu without saving any changes.

8 [Setup]

Selects an option of the respective operating mode.

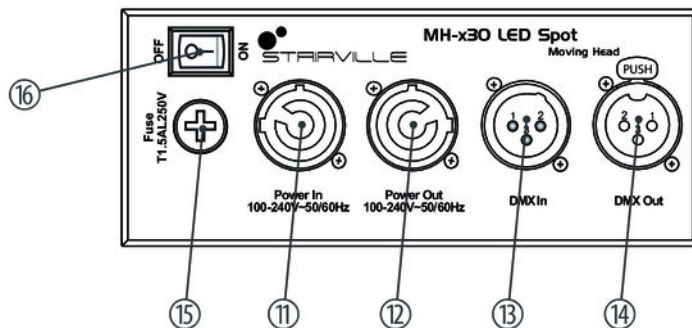
9 [Up]

Increases the displayed value by one.

10 [Down]

Decreases the displayed value by one.

Connections



11 [POWER In]

Lockable input socket (Power Twist) for power supply.

12 [POWER Out]

Lockable output socket (Power Twist) to supply further units.

13	<i>[DMX In]</i> DMX input
14	<i>[DMX Out]</i> DMX output
15	<i>[Fuse]</i> Fuse holder. If the fuse blows, replace it with a new fuse of the same type. You must first disconnect the device from the power supply.
16	<i>[ON] [OFF]</i> Main switch. Turns the device on and off.

7 Operating

7.1 Starting the device



CAUTION!

Risk of injury due to movements of the device

The head of the device can move quickly (pan, tilt) and can produce very bright light. This is also valid immediately after you turn on the device, when the device operates in automatic mode or under remote control and when you turn off a DMX controller that is connected to the device. Persons staying near the device could be injured or frightened.

Before you turn on the device and during the operation, always ensure that nobody stays close to the device. If work has to be performed in the area of movement or in the near vicinity of the device, it must remain turned off.

Connect the device to the power grid and turn it on with the main switch to start operation.

After a few seconds, the fans start to work, the spotlight 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 last set mode.

7.2 Main menu

Press *[Mode]* to activate the main menu. Use *[Mode]* to select a sub menu. When the display shows the desired sub menu, press *[Setup]* to open it. To close the main menu, press *[Mode]* or wait 20 seconds.



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

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

All previously made settings are retained even when you disconnect the device from the power grid. To restart with default values, use the 'System-Reset' function.

DMX address

Press *[Mode]* repeatedly until the display shows '*DMX address*'. Press *[Setup]*. Now you can set the number of the first DMX channel to be used by the device (DMX address). Use *[UP]* or *[DOWN]* to select a value between 1 and 512.

Once the display shows the desired value, press *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

Operating mode 'DMX'

Press *[Mode]* repeatedly until the display shows '*Channel Mode*'. Press *[Setup]*. Press *[Up]* or *[Down]* to choose between the following DMX operating modes:

'9Ch' (9 channels) or '12Ch' (12 channels)

This setting is only relevant when the device is controlled via DMX.

Once the display shows the desired value, press *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

Automatic show

Press *[Mode]* repeatedly until the display shows 'Show Mode'. Press *[Setup]*. Press *[Up]* or *[Down]* to select an auto show from 'Show 01' to 'Show 08'.

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 *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

Operating mode 'Slave'

Press *[Mode]* repeatedly until the display shows 'Slave Mode'. Press *[Setup]*. Press *[UP]* or *[DOWN]* to select an operating mode:

- 'Slave1': The device is controlled by another device, which is configured as master. It exactly follows the movements and light effects of the master.
- 'Slave2': It follows the movements and light effects of the master in reverse direction.

Once the display shows the desired value, press *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

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

Sound control

Press *[Mode]* repeatedly until the display shows '*Sound State*'. Press *[Setup]*. Press *[Up]* or *[Down]* to turn the sound control on ('*On*'), off ('*Off*') or to adjust the sensitivity of the built-in microphone ('*Sens*').

Once the display shows the desired value, press *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

Sound control 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.

Operating mode 'Manual control'

Press *[Mode]* repeatedly until the display shows 'Manual Control'. Press *[Setup]*. Press *[Up]* or *[Down]* to choose between the following parameters:

- 'Pan': Rotation
- 'Tilt': Inclination
- 'Dimmer': Brightness
- 'Strobe': Strobe effect
- 'Color': Colour wheel position
- 'Gobo': Gobo wheel position
- 'Goboz': Gobo wheel rotation
- 'Focus': focussing

After selecting a parameter, press *[Setup]* and select a value between '0' and '255'.

Once the display shows the desired value, press *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

The 'Manual control' mode can only be activated when the device is operating stand-alone or is the master in a master/slave configuration. This setting is only relevant if the device is not controlled via DMX.

Pan inversion

Press *[Mode]* repeatedly until the display shows '*Setting*'. Press *[Setup]*. Press *[Up]* or *[Down]* to select the option '*Pan Invert*' and press *[Setup]*. Now you can press *[Up]* or *[Down]* to select between '*No*' (normal rotation direction) and '*Yes*' (inverted rotation direction).

Press *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

Tilt inversion

Press *[Mode]* repeatedly until the display shows '*Settings*'. Press *[Setup]*. Press *[Up]* or *[Down]* to select the option '*Tilt Invert*' and press *[Setup]*. Now you can press *[Up]* or *[Down]* to select between '*No*' (normal tilt direction) and '*Yes*' (inverted tilt direction).

Once the display shows the desired value, press *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

Dimmer curve

Press *[Mode]* repeatedly until the display shows 'Settings'. Press *[Setup]*. Press *[Up]* or *[Down]* to select the option 'Dimmer Curve' and press *[Setup]*. Now you can press *[Up]* or *[Down]* to select between the following dimmer curves:

Display	Description
'Square'	Inverted square curve with a steep profile at the beginning and flat profile at the end
'Linear'	Linear (proportional) course
'S-Curve'	Non-linear curve with a distinctive flat profile at the beginning and end
'InSquare'	Inverted quadratic curve with a steep profile at the beginning and flat profile at the end

Once the display shows the desired value, press *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

Behaviour on DMX errors

Press *[Mode]* repeatedly until the display shows 'Settings'. Press *[Setup]*. Press *[Up]* or *[Down]* to select the option 'DMX Fail' and press *[Setup]*. Now you can press *[Up]* or *[Down]* to select between 'Off' (blackout on DMX errors) and 'Hold' (retaining the current settings on DMX errors).

Once the display shows the desired value, press *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

Display illumination

Press *[Mode]* repeatedly until the display shows 'Settings'. Press *[Setup]*. Press *[Up]* or *[Down]* to select the option 'Back Light' and press *[Setup]*. Now you can press *[Up]* or *[Down]* to select between 'On' (display constantly lit), 'Off' (display turns off 15 seconds after the last keystroke) or 'Adjust' (to select the display brightness between 0 and 10).

Once the display shows the desired value, press *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

System reset

Press *[Mode]* repeatedly until the display shows 'Settings'. Press *[Setup]*. Press *[Up]* or *[Down]* to select the option 'Reset' and press *[Setup]*. Select 'Yes' and press *[Setup]* to reset all movable axes to their home positions.

Reset to factory defaults

Press *[Mode]* repeatedly until the display shows 'Settings'. Press *[Setup]*. Press *[Up]* or *[Down]* to select the option 'Factory Sets' and press *[Setup]*. Select 'Yes' and press *[Setup]* to reset all settings to default.

Calibration

Press *[Mode]* repeatedly until the display shows 'Calibrations'. Press *[Setup]*. Use *[UP]* or *[DOWN]* to enter the device password 088. Press *[Setup]*.

Press *[Up]* or *[Down]* to choose between the following parameters for calibration:

- 'Pan': Pan home position
- 'Tilt': Tilt home position
- 'Gobo': Gobo wheel start position
- 'Color': Colour wheel start position
- 'Focus': Focus home position
- 'Default': Sets all parameters to default value 127

After selecting a parameter, press *[Setup]* and select a value between '0' and '255'.

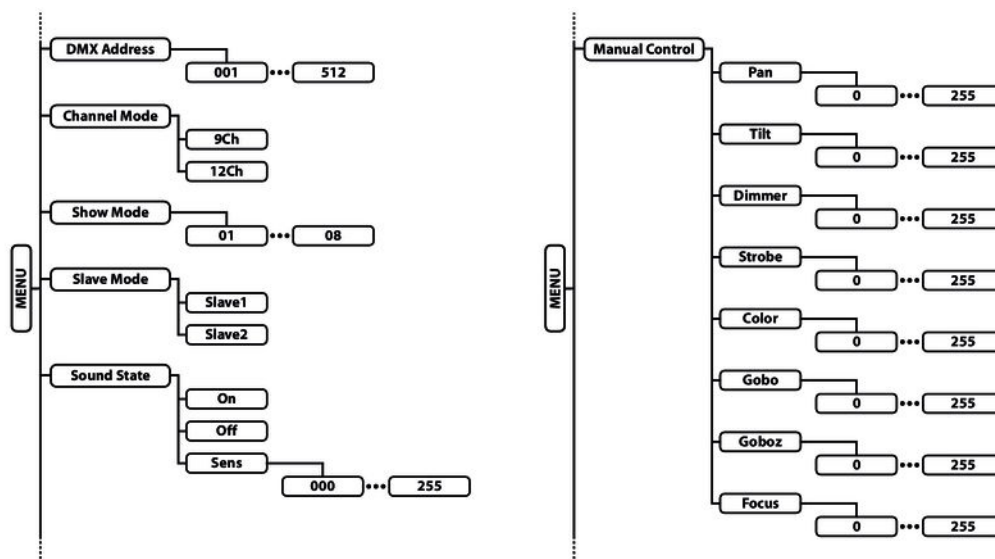
Once the display shows the desired value, press *[Setup]* to save this setting and to close the sub menu. To close the sub menu and the main menu without making changes, press *[Mode]* or wait for 20 seconds.

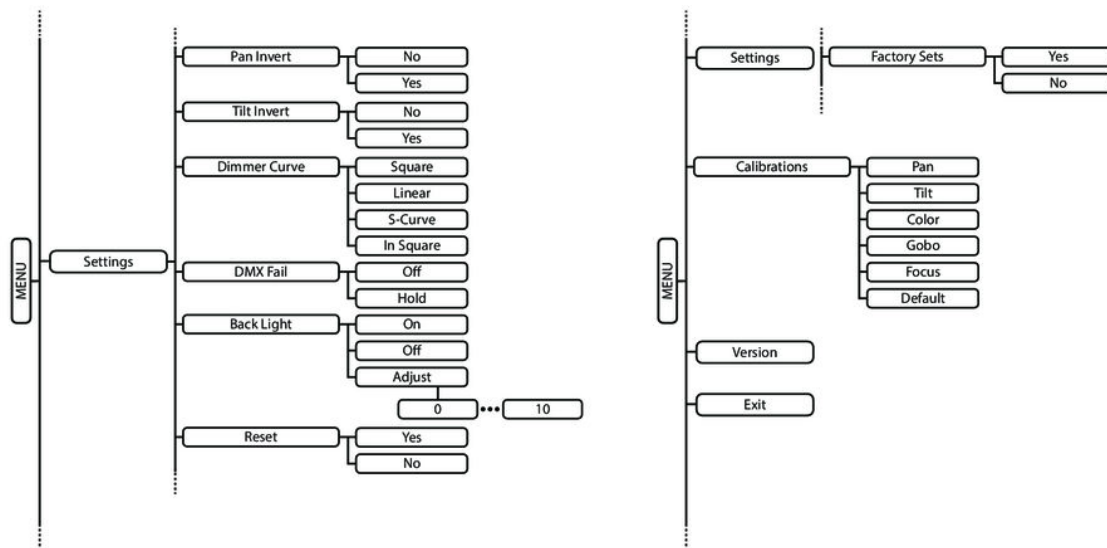
Software version

Press *[Mode]* repeatedly until the display shows '*Settings*'. Press *[Setup]*. The software version of the device will appear on the display.

To cancel the display of the software version, press *[Setup]* or wait for 20 seconds.

7.3 Menu overview





7.4 Functions in 9-channel DMX mode

Channel	Value	Function
1	0...255	Rotation (pan) (0° to 540°)
2	0...255	Inclination (tilt) (0° to 200°)
3	0...255	Speed of rotation (pan) and inclination (tilt), fast to slow
4	0...255	Dimmer (0 % to 100 %)
5	Strobe effect	
	0...10	Strobe effect off
	11...128	Random Strobe effect, increasing speed
	129...255	Strobe effect, increasing speed
6	Colour wheel	
	0...11	White
	12...23	Red

Channel	Value	Function
	24...35	Green
	36...47	Light blue
	48...59	Purple
	60...71	Light yellow
	72...83	Blue
	84...95	Yellow
	96...107	White + red
	108...119	Red + green
	120...131	Green + light blue
	132...143	Light blue + purple
	144...155	Light yellow + purple
	156...167	Blue + light yellow
	168...179	Yellow + blue

Channel	Value	Function
	180...191	Yellow + white
	192...223	Rainbow effect (gobo wheel rotation) in positive rotation direction, decreasing speed
	224...255	Rainbow effect (gobo wheel rotation) in negative rotation direction, increasing speed
7	Gobo wheel	
	0...11	Open
	12...23	Gobo 1
	24...35	Gobo 2
	36...47	Gobo 3
	48...59	Gobo 4
	60...71	Gobo 5
	72...83	Gobo 6
	84...95	Gobo 7
	96...107	Gobo 1 shake with increasing speed

Channel	Value	Function
	108...119	Gobo 2 shake, increasing speed
	120...131	Gobo 3 shake, increasing speed
	132...143	Gobo 4 shake, increasing speed
	144...155	Gobo 5 shake, increasing speed
	156...167	Gobo 6 shake, increasing speed
	168...179	Gobo 7 shake, increasing speed
	180...191	Open
	192...223	Rainbow effect (gobo wheel rotation) in positive rotation direction, decreasing speed
	224...255	Rainbow effect (gobo wheel rotation) in negative rotation direction, increasing speed
8	Gobo rotation	
	0...127	Rotation to a fixed position
	128...191	Positive rotation direction with increasing speed

Channel	Value	Function
	192...255	Negative rotation direction with increasing speed
9	0...255	Focus

7.5 Functions in 12-channel DMX mode

Channel	Value	Function
1	0...255	Rotation (pan) (0° to 540°)
2	0...255	Fine adjustment for rotation (pan)
3	0...255	Inclination (tilt) (0° to 200°)
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 %)

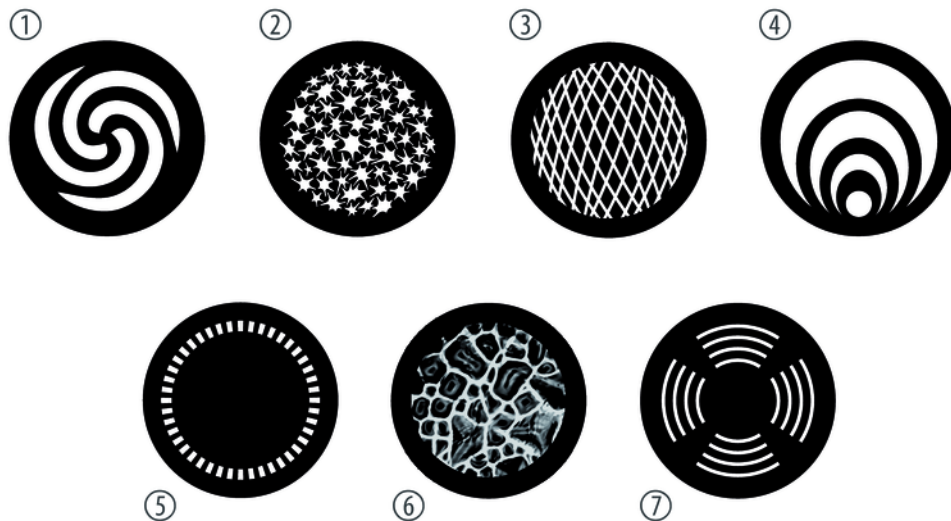
Channel	Value	Function
7	Strobe effect	
	0...10	Strobe effect off
	11...128	Random Strobe effect, increasing speed
	129...255	Strobe effect, increasing speed
8	Colour wheel	
	0...11	White
	12...23	Red
	24...35	Green
	36...47	Light blue
	48...59	Purple
	60...71	Light yellow
	72...83	Blue
	84...95	Yellow

Channel	Value	Function
	96...107	White + red
	108...119	Red + green
	120...131	Green + light blue
	132...143	Light blue + purple
	144...155	Light yellow + purple
	156...167	Blue + light yellow
	168...179	Yellow + blue
	180...191	Yellow + white
	192...223	Rainbow effect (gobo wheel rotation) in positive rotation direction, decreasing speed
	224...255	Rainbow effect (gobo wheel rotation) in negative rotation direction, increasing speed
9	Gobo wheel	
	0...11	Open
	12...23	Gobo 1

Channel	Value	Function
	24...35	Gobo 2
	36...47	Gobo 3
	48...59	Gobo 4
	60...71	Gobo 5
	72...83	Gobo 6
	84...95	Gobo 7
	96...107	Gobo 1 shake with increasing speed
	108...119	Gobo 2 shake, increasing speed
	120...131	Gobo 3 shake, increasing speed
	132...143	Gobo 4 shake, increasing speed
	144...155	Gobo 5 shake, increasing speed
	156...167	Gobo 6 shake, increasing speed
	168...179	Gobo 7 shake, increasing speed

Channel	Value	Function
	180...191	Open
	192...223	Rainbow effect (gobo wheel rotation) in positive rotation direction, decreasing speed
	224...255	Rainbow effect (gobo wheel rotation) in negative rotation direction, increasing speed
10	Gobo rotation	
	0...127	Rotation to a fixed position
	128...191	Positive rotation direction with increasing speed
	192...255	Negative rotation direction with increasing speed
11	0...255	Focus
12	Special settings	
	0...9	Without function
	10...20	Reset after five seconds
	21...255	Without function

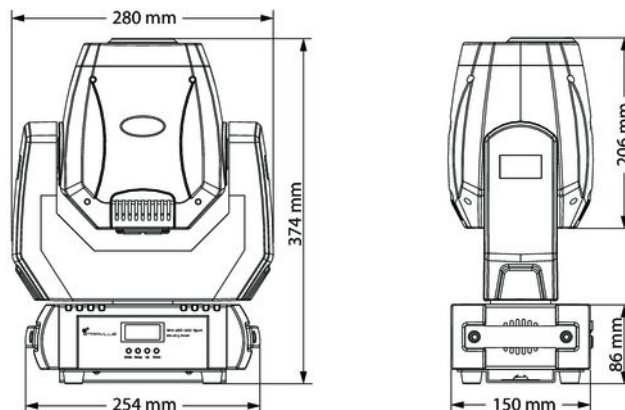
Gobos



8 Technical specifications

Number of DMX channels	9 or 12, depending on operating mode
Illuminant	White light LED (30 W)
Colour temperature	6000 K
Beam angle	14°
Maximum rotation angle (pan)	540°
Maximum inclination angle (tilt)	200°
Dimmer	electronic, 0 ... 100 %
Strobe effect	0 ... 20 Hz
Operating supply voltage	AC 100 – 240 V ~ 50/60 Hz
Power consumption	94 W
Fuse	5 mm × 20 mm, 1.5 A, 250 V, slow-blow

Dimensions (W × H × D)	280 mm × 374 mm × 150 mm
Weight	5.8 kg



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!

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.

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, no light, the fan does not run	Check the mains connection and the main fuse.
No response to the DMX controller	1. A flashing star should appear in the display on data transmission. If not, check the DMX connectors and cables to see if they are properly linked.
	2. If a flashing star appears in the display 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 on a regular basis to remove dust and dirt. Before cleaning, switch off the device and disconnect AC-powered devices from the mains. Use a lint-free damp cloth for cleaning. Never use solvents or alcohol for cleaning.

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). 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.



