



# B1R Beam moving head



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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](http://www.thomann.de).

## 1.1 Further information

On our website ([www.thomann.de](http://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'.

**Instructions**

The individual steps of an instruction are numbered consecutively. The result of a step is indented and highlighted by an arrow.





**Example:**



1. ➤ Switch on the device.
2. ➤ Press *[Auto]*.  
 ⇒ Automatic operation is started.
3. ➤ Switch off the device.

**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
<b>DANGER!</b>	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.
<b>WARNING!</b>	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.
<b>CAUTION!</b>	This combination of symbol and signal word indicates a possible dangerous situation that can result in minor injury if it is not avoided.
<b>NOTICE!</b>	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 – hot surface.
	Warning – dangerous optical radiation.
	Warning – suspended load.

Warning signs	Type of danger
	Warning – toxic substances.
	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!****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 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.

The load capacity of trusses or other fixtures must be sufficient for the intended number of devices. Note that the movement of the head places additional loads on the load-bearing parts.



**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!**

**Fire and overheating hazard**

The distance between the light source and flammable materials must be greater than 12 m. The distance to non-inflammable materials must be greater than 2 m.

Always ensure sufficient ventilation.

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



**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.

The device must not be moved during 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 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.

### 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:

- Extremely sharp and narrow beam of light
- Beam angle: 3°
- Control via DMX (12 channels) and via buttons and display on the unit
- Operating modes: Stand-alone, sound-control, master / slave, DMX
- Rotation (pan): 540°
- Inclination (tilt): 220°
- Pan and tilt speed adjustable
- Very quiet step motors with 16-bit resolution
- Colour wheel with 14 colours plus white
- Gobo wheel with 15 static gobos plus open
- Effects wheel with rotatable eightfold prism
- Mechanical shutter
- Omega brackets included

## 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 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.

The load capacity of trusses or other fixtures must be sufficient for the intended number of devices. Note that the movement of the head places additional loads on the load-bearing parts.



### **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!****Fire and overheating hazard**

The distance between the light source and flammable materials must be greater than 12 m. The distance to non-flammable materials must be greater than 2 m.

Always ensure sufficient ventilation.

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

**NOTICE!****Possible damage caused by movements of the device**

Always ensure that enough space is free around the device for the movements of the head (pan, tilt).

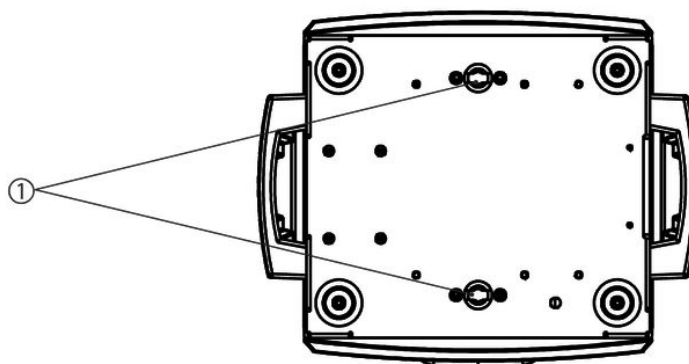
**NOTICE!****Possible data transmission errors**

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 Omega brackets. Here you can connect flight adapters (such as C-hooks). The safety cable must be threaded through the carrying handles.



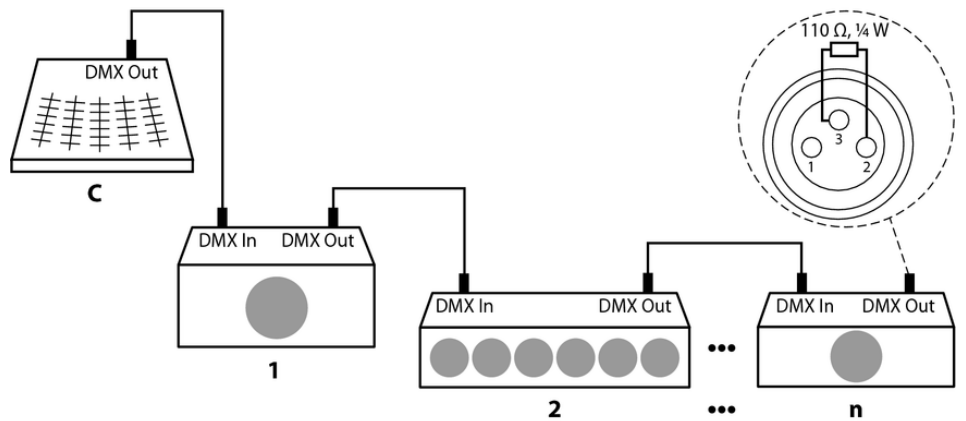
1 Quick lock openings for Omega brackets

## 5 Starting up

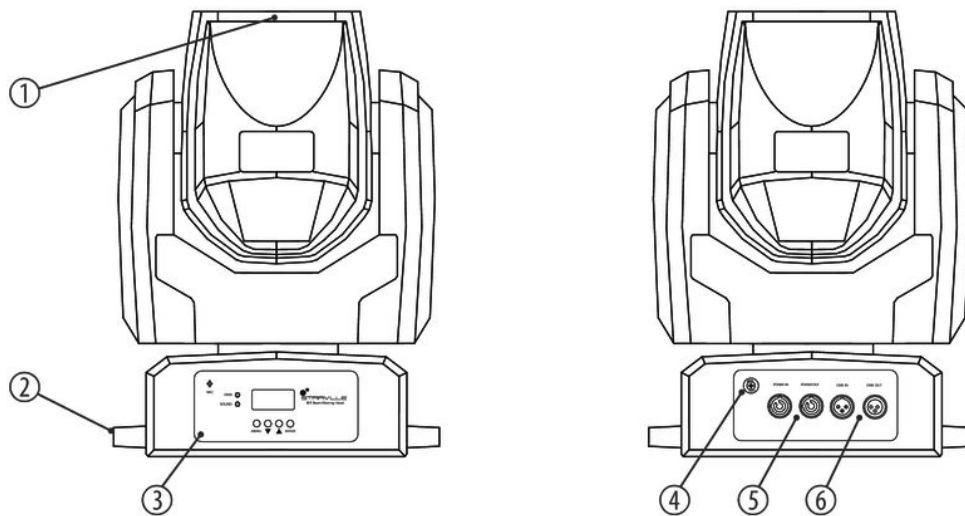
Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

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



## 6 Connections and controls



1	Light aperture
2	Carrying handles.
3	Display
	<i>[MIC]</i> Built-in microphone for sound-control.
	<i>[DMX]</i> Indicator LED. This LED lights up on incoming signal.
	<i>[SOUND]</i> Indicator LED. This LED is lit when the sound-controlled operation is activated.
	<i>[MENU]</i> Activates the main menu and toggles between menu items. Closes an opened submenu.
	▲ Increases the displayed value by one.
	▼ Decreases the displayed value by one.
	<i>[ENTER]</i> Selects an option of the respective operating mode, confirms the set value.
4	Fuse holder

5 *[POWER IN]*  
Lockable Power Twist input socket for power supply.  
*[POWER OUT]*  
Lockable Power Twist output socket to supply further devices.

6 *[DMX IN]*  
DMX input to control the device via DMX.  
*[DMX OUT]*  
DMX output for connecting additional DMX units in a DMX universe.



## 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 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). After a few more seconds, the device operates in the last set mode. The last set DMX address appears in the display. About one minute after turning on the illuminant lights with full brightness.

### 7.2 Operating modes

#### DMX mode, setting the DMX address

Press *[MENU]* to open the main menu. Use ▼ or ▲ to select the menu item 'DMX Address' and confirm with *[ENTER]*.

Use ▼ or ▲ to specify a DMX address between '1' ... '501' (highest possible DMX address for operation with twelve channels).

Confirm with *[ENTER]* to save the setting. Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

#### Operating mode SHOW

Use ▼ or ▲ to select the menu item 'DMX State' and confirm with *[ENTER]*. Use ▼ or ▲ to select the 'Master' option and confirm with *[ENTER]*.

Press *[MENU]* to open the main menu. Use ▼ or ▲ to select the menu item 'Show Mode' and confirm with *[ENTER]*.

Use ▼ or ▲ to select one of the four available show programmes 'Show 1' ... 'Show 4'.

Confirm with *[ENTER]* to save the setting. Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

## Operating mode SLAVE

Press *[MENU]* to open the main menu. Use ▼ or ▲ to select the menu item 'Slave Mode' and confirm with *[ENTER]*.

Use ▼ or ▲ to select one of the available 'Master' options (master operation), 'Slave 1' (normal slave function) or 'Slave 2' (slave function with its own show).

Confirm with *[ENTER]* to save the setting. Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

## Operating mode SOUND

Use ▼ or ▲ to select the menu item 'DMX State' and confirm with *[ENTER]*. Use ▼ or ▲ to select the 'Master' option and confirm with *[ENTER]*.

Press *[MENU]* to open the main menu. Use ▼ or ▲ to select the menu item 'Slave Mode' and confirm with *[ENTER]*. Press *[MENU]* briefly to return to the main menu.

Use ▼ or ▲ to select the 'Master' option. Confirm with *[ENTER]*. Press *[MENU]* briefly to return to the main menu.

Use ▼ or ▲ to select the menu item 'Show Mode' and confirm with *[ENTER]*. Use ▼ or ▲ to select one of the available options 'Show 1', 'Show 2', 'Show 3' or 'Show 4' and confirm with *[ENTER]*. Press *[MENU]* briefly to return to the main menu.

Use ▼ or ▲ to select the menu item 'Sound State' and confirm with *[ENTER]*. Use ▼ or ▲ to select one of the available options 'On' (sound control on) or 'Off' (sound control off) and confirm with *[ENTER]*. Press *[MENU]* briefly to return to the main menu.

Use ▼ or ▲ to select the menu item 'Sound Sense' and confirm with *[ENTER]*. Use ▼ or ▲ to select a value between '0' and '100' to specify the sensitivity of the built-in microphone. Confirm with *[ENTER]*. Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

## 7.3 System settings

In this menu, you have the option to set various device parameters.

### DMX failure

Use ▼ or ▲ to select the menu item 'DMX State' and confirm with *[ENTER]*. Now use ▼ or ▲ to determine the device's behaviour on a DMX failure:

- 'Master': the unit automatically switches to the master mode.
- 'Hold': the device continues to operate in the current mode with the last active DMX values until the signal returns.
- 'Blackout': lamp turns off.

Confirm with *[ENTER]* to save the setting. Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

**Microphone sensitivity**

Use ▼ or ▲ to select the menu item 'Sound Sense' and confirm with [ENTER]. Use ▼ or ▲ to set the sensitivity of the built-in microphone in a range from '0' to '100'.

Confirm with [ENTER] to save the setting. Press [MENU] briefly to return to the main menu. Press and hold [MENU] for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

**Pan inversion**

Press [MENU] to open the main menu. Use ▼ or ▲ to select the menu item 'Pan Inverse' and confirm with [ENTER].

Use ▼ or ▲ to select one of the available options 'Yes' (reversed direction of rotation) or 'No' (normal direction of rotation).

Confirm with [ENTER] to save the setting. Press [MENU] briefly to return to the main menu. Press and hold [MENU] for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

**Tilt inversion**

Press [MENU] to open the main menu. Use ▼ or ▲ to select the menu item 'Tilt Inverse' and confirm with [ENTER].

Use ▼ or ▲ to select one of the available options 'Yes' (reversed direction of rotation) or 'No' (normal direction of rotation).

Confirm with [ENTER] to save the setting. Press [MENU] briefly to return to the main menu. Press and hold [MENU] for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

**Display backlight**

Press [MENU] to open the main menu. Use ▼ or ▲ to select the menu item 'Back Light' and confirm with [ENTER].

Use ▼ or ▲ to select one of the available options 'On' (backlight always on) or 'Off' (automatic turn off of the backlight).

Confirm with [ENTER] to save the setting. Press [MENU] briefly to return to the main menu. Press and hold [MENU] for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

**Self test**

Press [MENU] to open the main menu. Use ▼ or ▲ to select the menu item 'Auto Test' and confirm with [ENTER].

The device performs a selftest.

Then press [MENU] briefly to return to the main menu. Press and hold [MENU] for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

## Lamp ignition

Press *[MENU]* to open the main menu. Use ▼ or ▲ to select the menu item 'Lamp On' and confirm with *[ENTER]*.

Use ▼ or ▲ to select one of the available options 'On' (lamp on) or 'Off' (lamp off).

Confirm with *[ENTER]* to save the setting. Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

## Lamp ignition when the unit is switched on

Press *[MENU]* to open the main menu. Use ▼ or ▲ to select the menu item 'Lamp Power On' and confirm with *[ENTER]*.

Use ▼ or ▲ to select one of the available options 'On' (turning lamp on with the unit) or 'Off' (no automatic lamp ignition when turning on the unit).

Confirm with *[ENTER]* to save the setting. Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

## 7.4 Device info, reset

### Operating hours device

Press *[MENU]* to open the main menu. Use ▼ or ▲ to select the menu item 'Fixture Time' and confirm with *[ENTER]*.

The display now shows the number of operating hours of the device.

Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

### Operating hours lamp

Press *[MENU]* to open the main menu. Use ▼ or ▲ to select the menu item 'Lamp Time' and confirm with *[ENTER]*.

The display now shows the number of operating hours of the lamp.

Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

### Firmware version

Press *[MENU]* to open the main menu. Use ▼ or ▲ to select the menu item 'Firmware-Version' and confirm with *[ENTER]*.

The unit's current firmware version appears on the display.

Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

**Resetting user settings**

Press *[MENU]* to open the main menu. Use ▼ or ▲ to select the menu item 'Defaults' and confirm with *[ENTER]*.

Use ▼ or ▲ to select one of the options 'Yes' (resets all user settings) or 'No' (cancel) and confirm with *[ENTER]*.

Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

**Reset to factory defaults**

Press *[MENU]* to open the main menu. Use ▼ or ▲ to select the menu item 'Reset' and confirm with *[ENTER]*.

Use ▼ or ▲ to select one of the options 'Yes' (resets all user settings) or 'No' (cancel) and confirm with *[ENTER]*.

Press *[MENU]* briefly to return to the main menu. Press and hold *[MENU]* for three seconds to exit the main menu. If you do not press any button for one minute, the menu will be closed automatically.

**7.5 Default settings**

The basic settings of the device motors can be adjusted in this menu. To open the menu, first press and hold *[MENU]* for three seconds. Then press and hold *[ENTER]* for five seconds. Then use ▼ or ▲ to select the desired menu item.

**Setting the Pan zero point**

Open the basic settings menu, use ▼ or ▲ to select the menu item 'Pan Offset' and confirm with *[ENTER]*.

Use ▼ or ▲ to determine the zero point for Pan movement in a range of '-127' to '127' and confirm with *[ENTER]*.

Press *[MENU]* briefly to return to the basic settings menu.

**Setting the Tilt zero point**

Open the basic settings menu, use ▼ or ▲ to select the menu item 'Tilt Offset' and confirm with *[ENTER]*.

Use ▼ or ▲ to determine the zero point for Tilt movement in a range of '-127' to '127' and confirm with *[ENTER]*.

Press *[MENU]* briefly to return to the basic settings menu.

**Setting the Dimmer zero point**

Open the basic settings menu, use ▼ or ▲ to select the menu item 'Dimmer Offset' and confirm with *[ENTER]*.

Use ▼ or ▲ to determine the zero point for the Dimmer in a range of '0' to '255' and confirm with *[ENTER]*.

Press *[MENU]* briefly to return to the basic settings menu.

**Setting the Colour wheel zero point**

Open the basic settings menu, use ▼ or ▲ to select the menu item 'Color Offset' and confirm with [ENTER].

Use ▼ or ▲ to determine the zero point for the Colour wheel in a range of '-127' to '127' and confirm with [ENTER].

Press [MENU] briefly to return to the basic settings menu.

**Setting the Gobo wheel zero point**

Open the basic settings menu, use ▼ or ▲ to select the menu item 'Gobo Offset' and confirm with [ENTER].

Use ▼ or ▲ to determine the zero point for the Gobo wheel in a range of '-127' to '127' and confirm with [ENTER].

Press [MENU] briefly to return to the basic settings menu.

**Setting the Prism zero point**

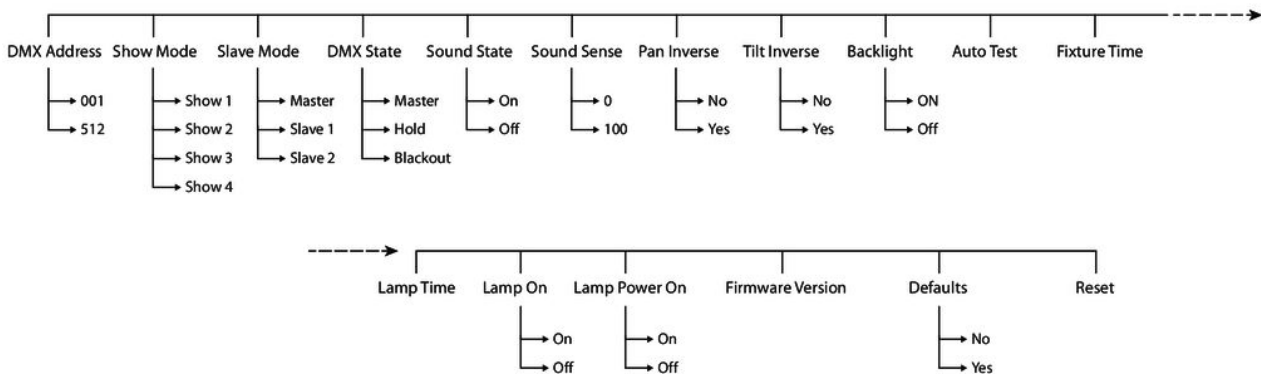
Open the basic settings menu, use ▼ or ▲ to select the menu item 'Prism Offset' and confirm with [ENTER].

Use ▼ or ▲ to determine the zero point for the Prism in a range of '-127' to '127' and confirm with [ENTER].

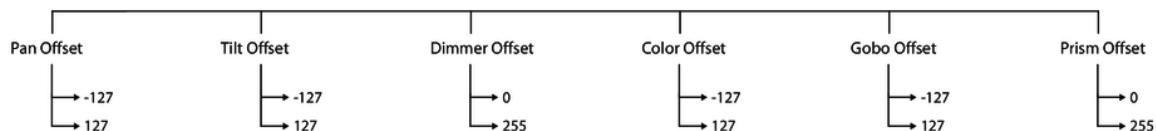
Press [MENU] briefly to return to the basic settings menu.

**7.6 Menu overview**

**Main menu**



**Basic Settings menu**



**7.7 Functions in 12-channel DMX mode**

Channel	Value	Function
1	0...255	Rotation (pan)
2	0...255	Fine adjustment rotation (pan)
3	0...255	Inclination (tilt)
4	0...255	Fine adjustment inclination (tilt)
5	0...255	Rotation and inclination speed
6	0...255	Dimmer (0 ... 100 %)
7	Strobe effect	
	0...7	Stand-by
	8...15	Open
	16...131	Strobe effect, increasing speed
	132...139	Open
	140...181	Strobe effect, quickly close, slowly open
	182...189	Open
	190...231	Strobe effect, quickly open, slowly close
	232...239	Open
	240...247	Random strobe effect
	248...255	Open

Channel	Value	Function
8	Colour wheel	
	0...8	Open
	9...16	Colour 1
	17...25	Colour 2
	26...33	Colour 3
	34...42	Colour 4
	43...50	Colour 5
	51...59	Colour 6
	60...67	Colour 7
	86...76	Colour 8
	77...84	Colour 9
	85...93	Colour 10
	94...101	Colour 11
	102...110	Colour 12
	111...118	Colour 13
	119...127	Colour 14
	128...189	Colour wheel rotation, decreasing speed
190...193	Stop colour wheel	
194...255	Colour wheel rotation, increasing speed	
9	Gobos	
	0...3	Open gobo
	4...7	Gobo 1
	8...11	Gobo 2
	12...15	Gobo 3
	16...19	Gobo 4
	20...23	Gobo 5
	24...27	Gobo 6
	28...31	Gobo 7
	32...35	Gobo 8
	36...39	Gobo 9
	40...43	Gobo 10
	44...47	Gobo 11



Channel	Value	Function
	48...51	Gobo 12
	52...55	Gobo 13
	56...59	Gobo 14
	60...63	Gobo 15
	64...67	Gobo 15 shake
	68...71	Gobo 14 shake
	72...75	Gobo 13 shake
	76...79	Gobo 12 shake
	80...83	Gobo 11 shake
	84...87	Gobo 10 shake
	88...91	Gobo 9 shake
	92...95	Gobo 8 shake
	96...99	Gobo 7 shake
	100...103	Gobo 6 shake
	104...107	Gobo 5 shake
	108...111	Gobo 4 shake
	112...115	Gobo 3 shake
	116...119	Gobo 2 shake
	120...123	Gobo 1 shake
	124...127	Gobo open shake
	128...189	Gobo wheel rotation, decreasing speed
	190...193	Stop gobo wheel
	194...255	Gobo wheel rotation, increasing speed
10	Prism	
	0...7	Prism off
	8...255	Prism on
11	Prism rotation	
	0...127	Index 0 ... 360°
	128...189	Rotation, decreasing speed
	190...193	Stop
	194...255	Rotation, increasing speed
12	Device functions	

Channel	Value	Function
	0...79	No function
	80...84	Resetting Pan / Tilt motors
	85...89	Resetting colour wheel motor
	90...94	Resetting gobo wheel motor
	95...99	Resetting shutter, dimmer and prism
	100...109	Release blackout on Pan / Tilt movement
	110...119	Release blackout on colour change
	120...129	Release blackout on gobo change
	130...139	Turning on lamp
	140...199	No function
	200...209	All reset
	210...229	No function
	230...239	Turning off lamp
	240...249	No function
	250...255	Automatic show

## 8 Maintenance

### 8.1 Installing / replacing the illuminant

**DANGER!****Electric shock caused by high voltages inside**

Within the device there are areas where high voltages may be present.

Completely disconnect the device from the power supply before you open or remove covers. Mount all covers and attach them firmly before connecting the device again.

Do not use the device if covers, protectors or optical components are missing or damaged.

**WARNING!****Risk of burns at the surface and inside of the device**

The surface and the inner parts of the device can become very hot during operation.

After switching off the device wait for at least 15 minutes before you start any maintenance activities.

**WARNING!****Danger of burns in case of inappropriate handling of the illuminant**

The light source used in this device is under high pressure, especially when heated, and can explode if handled inappropriately.

Allow the illuminant to cool down for at least two hours before starting any maintenance or replacement. Always wear suitable protective gloves and safety glasses when handling the illuminant.

**WARNING!****Danger of poisoning on lamp breakage**

When discharge lamps break, small amounts of harmful substances (e.g. mercury) are released.

When a discharge lamp breaks within a closed room: Vacate the room immediately and ventilate adequately.

To remove the remnants of broken discharge lamps wear Nitrile protective gloves, breathing and mouth protection.

Dispose of broken or worn discharge lamps as hazardous waste according to legal regulations in a tightly closed container.

**WARNING!****Danger of burns and eye injuries caused by high light intensity**

The light source used in this device produces visible and invisible light beams of high intensity.

Never look directly into the light source.

Do not use the device when covers, shieldings, lenses or other optical components are missing or damaged. In particular, avoid prolonged direct exposure of the skin during maintenance without adequate cover of the light source.

**CAUTION!****Danger of injury in case of inappropriate handling of the illuminant**

After the specified lifetime of the used illuminant there is an increased risk of explosion.

Replace the illuminant in time, latest at the end of rated average lifetime.

When replacing the illuminant, all safety instructions for handling light sources must be observed and wear suitable protective gloves and safety glasses.

**NOTICE!****Possible damages due to dirt or finger prints**

Due to the high temperatures, even smallest pieces of dirt on the bulb can destroy the lamp when it is turned on.

Do not touch the lamp directly with your fingers. Use clean gloves or a clean lint-free tissue.

**NOTICE!****Possible damages due to wrong type of lamp**

Any attempt to use the device with a lamp other than those specified in this manual can result in severe damages to the device.

Only use a lamp of the specified type.

**Notes on the illuminant**

The device may only be operated with an illuminant of the type 'Osram Sirius HRI 132W' for use in stage and theatre area. Observe the safety instructions of the illuminant manufacturer.

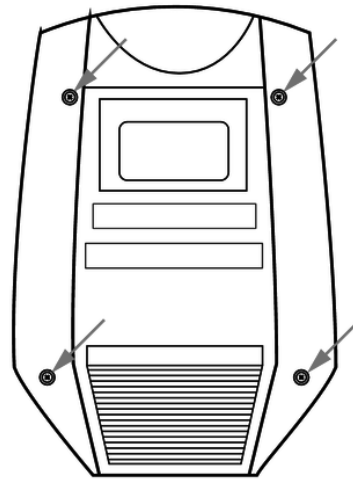
**Required tools**

Phillips screwdriver size PH2

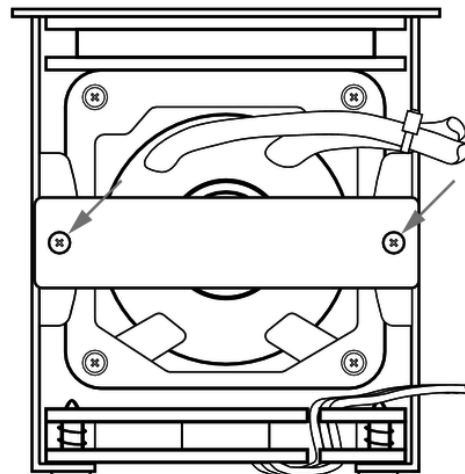
**Requirements**

Make sure that the device is turned off, disconnected from the mains and completely cooled down.

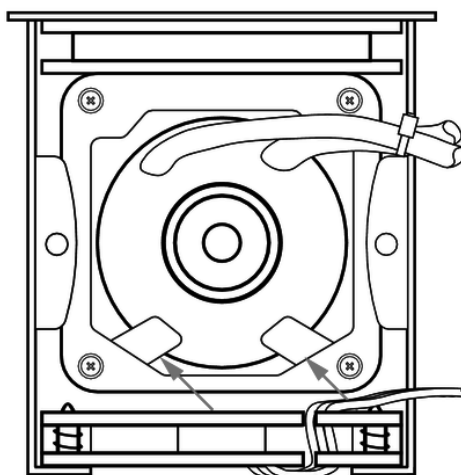
## Procedure



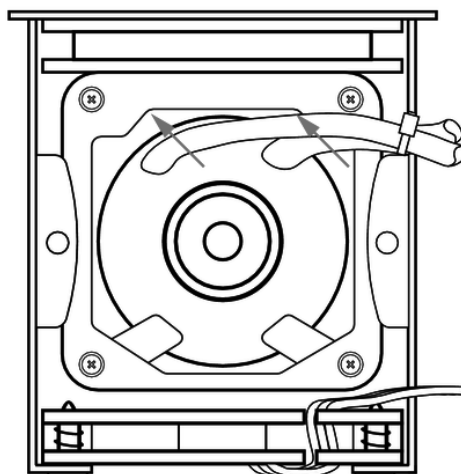
1. ➤ Remove one of the covers from the head of the unit. To do this, loosen the four cross-head screws using a suitable screwdriver. Then carefully remove the cover from the unit.
2. ➤ Tilt the head to the opposite side. Loosen the four Phillips screws and remove this cover also.



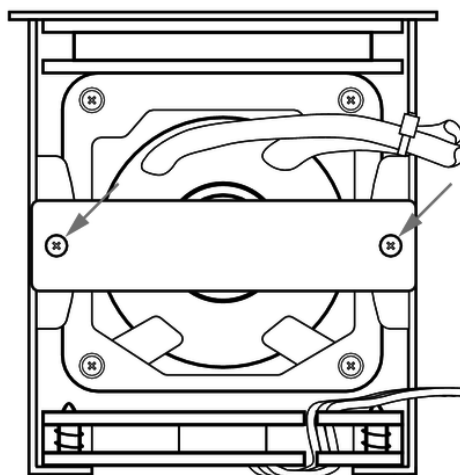
3. ➤ Remove the small metal plate on the back by unscrewing the two screws.



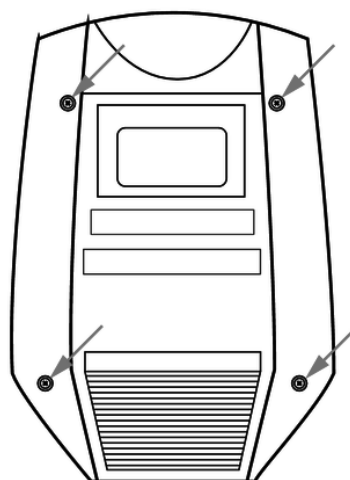
4. ▶ Align the head of the unit so that the metal brackets of the illuminant are aligned as shown in the figure.
5. ▶ Carefully press down on the illuminant from above, so that the retainers slightly bend back. Tilt the illuminant slightly towards you to release it from the bracket.
6. ▶ Carefully guide the illuminant upwards out of the bracket. Unscrew the power supply cables from the old illuminant and connect the power cables to the new illuminant. When installing the new illuminant, make sure that the sensitive front part is not touching the housing.



7. ▶ Re-insert the illuminant into the retainers. Be sure to keep the illuminant at the corners under the bracket.



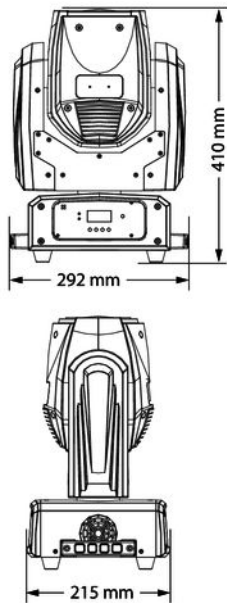
- 8.** ➤ Fasten the small metal plate with the two screws on the back.



- 9.** ➤ Close the housing with the two covers and secure them with four cross-head screws each.



## 9 Technical specifications



Light source	Discharge lamp type Osram Sirius HRI 100 W	
Light source properties	Colour temperature	9000 K
Optical properties	Beam angle	3°
Rotation angle (pan), max.	540°	
Inclination angle (tilt), max.	220°	
Control	DMX, buttons and display on the unit	
Dimmer	0 ... 100 %, linear	
Shutter	0.5 ... 9 Hz	
Number of DMX channels	12	
Input connections	Power supply	Lockable input socket (Power Twist)
	DMX control	XLR chassis socket, 3-pin
Output connections	Power supply	Lockable output socket (Power Twist)
	DMX control	XLR chassis socket, 3-pin
Power consumption	190 W	
Supply voltage	100 – 240 V ~ 50/60 Hz	
Fuse	5 mm × 20 mm, 4 A, 250 V, fast-acting	
Degree of protection	IP20	
Mounting options	Hanging, standing	
Dimensions (W × H × D)	292 mm × 410 mm × 215 mm	
Weight	9.2 kg	
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	50 %, non-condensing

### Further information

Colour mixture	Colour wheel
Gobo wheel	Yes
Prism	Yes
Motorized focus	No
Motorized zoom	No

## 10 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')

## 11 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. The set DMX address should appear continuously in the display. If the address flashes in the display, check the DMX connectors and cables for correct connection.
	2. If the set DMX address is displayed continuously but there is still no response, check the address settings and 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](http://www.thomann.de).

## 11.1 List of device error messages

Error messages	Meaning	
'Lamp Startup Fail'	No illuminant inserted or wire breakage.	Insert lamp or check for wire breakage.
'Temperature Sense Error'	Temperature sensor defective.	Check temperature sensor and replace if necessary.
'Lamp Too Hot Power Off'	Device temperature exceeds 110° C.	Allow device to cool.
'Lamp Too Hot Low Power'	Device temperature exceeds 105° C, output power is automatically reduced.	Allow device to cool.
'Maintenance Fixture'	Maintenance is due.	Service the device.
'Lamp On Over 700 Hour'	Illuminant exceeds 700 operating hours.	Replace illuminant.
'Memory Initial Fail'	Device memory error.	Check device memory and replace if necessary.
'CPU-B Error', 'CPU-C Error', 'CPU-D Error'	PCB defect or wire breakage.	Check PCB and replace if necessary.

## 12 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.

## 13 Protecting the environment

### Disposal of the packaging material



For the 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.

### Dispose of discharge lamps

Dispose of broken or worn discharge lamps as hazardous waste according to legal regulations in a tightly closed container.



