



LED Theatre Spot 120 FC

LED Spotlight

Thomann GmbH
Hans-Thomann-Straße 1
96138 Burgebrach
Germany
Telephone: +49 (0) 9546 9223-0
Internet: www.thomann.de

07.03.2025, ID: 543403 (V2)

Table of contents

1	General information.....	5
1.1	Symbols and signal words.....	5
2	Safety instructions.....	8
3	Features.....	12
4	Installation.....	13
5	Starting up.....	16
6	Connections and controls.....	18
7	Operating.....	20
7.1	Menu overview.....	28
7.2	Functions in 4-channel DMX mode.....	29
7.3	Functions in 6-channel DMX mode.....	29
7.4	Functions in 8-channel DMX mode.....	30
8	Technical specifications.....	33
9	Plug and connection assignments.....	35
10	Troubleshooting.....	36
11	Cleaning.....	38
12	Protecting the environment.....	39



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.
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 – suspended load.

Warning signs	Type of danger
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended for use as an electronic lighting effect by means of LED technology. The device is designed for professional use only 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 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.



NOTICE!

Risk of fire due to covered vents and neighbouring heat sources!

If the vents of the device are covered or the device is operated in the immediate vicinity of other heat sources, the device can over-heat and burst into flames. Never cover the device or the vents. Do not install the device in the immediate vicinity of other heat sources. Never operate the device in the immediate vicinity of naked flames.



NOTICE!

Risk of overheating and risk of fire when operated with closed barn doors!

If the spotlight is operated with the barn doors closed, there is a risk of overheating and fire. In addition, even short-term operation with the barn doors closed can reduce the service life of the LEDs. Operate the device only with open barn doors.



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). Ensure that the power cord plug is easily accessible at all times if it is the only device to safely disconnect the device from the mains supply. 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 maximum permitted power consumption can be exceeded, 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 output current specified on the device and in the "Technical specifications" chapter of the user manual is not exceeded. Only use power cords with a cable cross-section designed for the required current intensity when connecting the devices in series.

**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 led theatre headlight replaces conventional stepped lens headlights of the class 500 W...650 W.

Special features of the device:

- 1 × COB-LED, 120 W
- Fresnel lens
- RGBWW colour mix
- Colour temperature adjustable between 2.800 K and 12.000 K
- Colour rendering index: 95
- Manually adjustable beam angle from 15° to 45°
- Operation in stand-alone or DMX mode (4, 6 or 8 channels, depending on operating mode)
- Operation via the buttons and display on the device
- Very quiet temperature-controlled fan for quiet operation
- Ideal for use in theatres

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.



WARNING!

Risk of injury from falling spotlights and barn doors that were inadequately secured!

If spotlights and barn doors are not properly secured when mounted, they can cause severe injury and considerable damage by falling.

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

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

Always secure the barn door with a safety cable on the spotlight. The safety cable must run outside the barn door to not interfere with the light emission.



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!

Potential property damage due to unsuitable stands!

If the device is mounted on an unsuitable stand, there is a risk that the stand will fall over and cause damage.

Only use stands whose maximum bearing capacity is at least as high as the weight of the device. Always ensure that the stand is stable.



Comply with regulations

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



Please note that this device must not be connected to a dimmer.

Mounting options

You can install the device in hanging or standing positions. When in use, the device must always be attached to a solid surface or an approved mount. Use the openings provided on the bracket for attaching.

Always work from a stable platform whenever installing, moving or servicing the device. While you do this, the area underneath the device must be cordoned off.

The safety cable must be attached to the safety eyelet.

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



NOTICE!

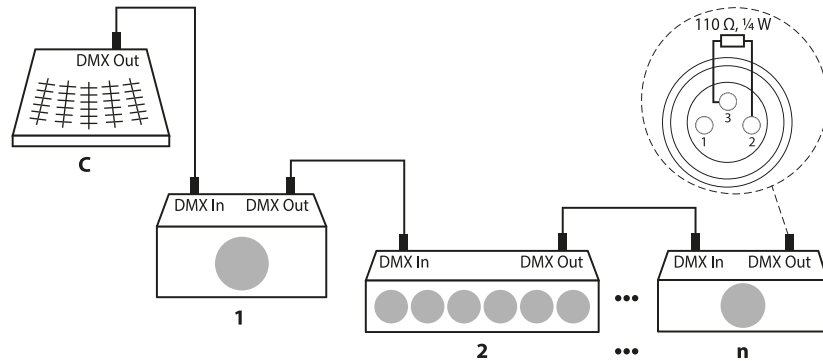
Data transfer errors due to improper wiring!

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.

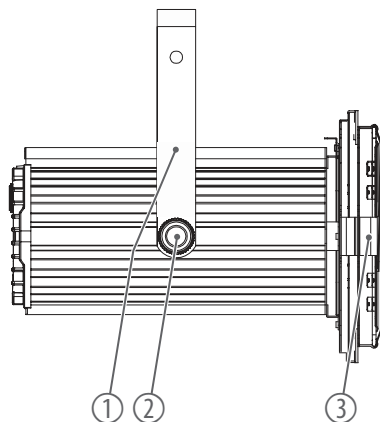
Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one and so on, to form a series connection. Make sure that the output of the last DMX device in the chain is terminated by a resistor (110 Ω , ¼ W).



Connections in master/slave mode

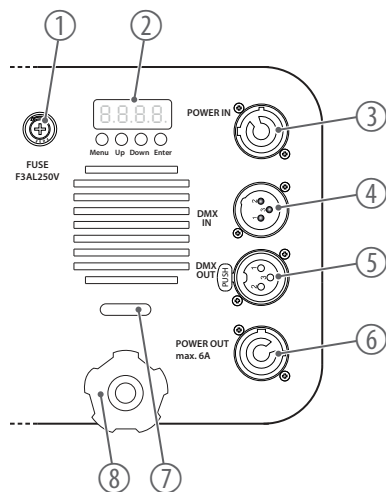
When you configure a group of devices in master/slave mode, the first unit will control the other units for an automatic, sound-activated, synchronized show. This function is ideal when you want to start a show immediately. Connect the DMX output of the master device to the DMX input of the first slave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



- | | |
|---|--------------------------------------|
| 1 | Mounting bracket |
| 2 | Locking screw for mounting bracket |
| 3 | Front side with barn door attachment |

Rear panel



- | | |
|---|--|
| 1 | Fuse holder |
| 2 | Display with function buttons
The display flashes when a valid DMX signal is present.
<i>[Menu]</i> Activates the main menu or a submenu.
<i>[Up]</i> , <i>[Down]</i> Increases or decreases the displayed value by one.
<i>[Setup]</i> Confirms a selected value. |
| 3 | Power Twist connector for the power supply of the device |
| 4 | <i>[DMX IN]</i> DMX input |
| 5 | <i>[DMX OUT]</i> DMX output |
| 6 | Power Twist connector for the power supply of a further device |
| 7 | Safety cable eyelet |
| 8 | Focus control
Adjusts the beam angle in a range from 15° to 45°. |

7 Operating

Starting the device

- Connect the device to the power grid.
 - ⇒ The device is operational and runs in the most recently active mode with the most recently selected settings.

Using the main menu

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* to select the required parameter or change the displayed value.
 - ⇒ The display shows the required parameter or value.
3. ➤ Press *[Enter]* to enter the respective submenu or confirm a new value.
4. ➤ To return to the previous menu level without changes, press *[Menu]*.

If you do not press any button for 60 seconds, the display will automatically turn off. Any changes you made are not applied.

Setting the DMX address

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* until the display shows 'Addr'.

3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'AXXX'.
4. ➤ Use *[Up]* or *[Down]* to select a value between 'A001' and 'A512' for the DMX address of the first DMX channel used by the device.
5. ➤ Make sure the number matches the configuration of your DMX controller. The following table shows the highest possible DMX address for the different DMX modes.

Mode	Highest possible DMX address
4-channel	509
6-channel	507
8-channel	505

6. ➤ Confirm with *[Enter]*.
To return to the previous menu level without changes, press *[Menu]*.

Setting the red dimmer

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* until the display shows 'rL--'.
3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'rLXX'.

4. ➤ Use *[Up]* or *[Down]* to select the dimmer function in a range from 'rL00' (dark) to 'rL15' (bright).
5. ➤ Confirm with *[Enter]*.
To return to the previous menu level without changes, press *[Menu]*.

Setting the green dimmer

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* until the display shows 'gL--'.
3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'gLXX'.
4. ➤ Use *[Up]* or *[Down]* to select the dimmer function in a range from 'gL00' (dark) to 'gL15' (bright).
5. ➤ Confirm with *[Enter]*.
To return to the previous menu level without changes, press *[Menu]*.

Setting the blue dimmer

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* until the display shows 'bL--'.

3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'bLXX'.
4. ➤ Use *[Up]* or *[Down]* to select the dimmer function in a range from 'bL00' (dark) to 'bL15' (bright).
5. ➤ Confirm with *[Enter]*.
To return to the previous menu level without changes, press *[Menu]*.

Setting the white dimmer

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* until the display shows 'oL--'.
3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'oLXX'.
4. ➤ Use *[Up]* or *[Down]* to select the dimmer function in a range from 'oL00' (dark) to 'oL15' (bright).
5. ➤ Confirm with *[Enter]*.
To return to the previous menu level without changes, press *[Menu]*.

Setting RGB flash

1. ➤ Press *[Menu]*.
2. ➤ Press *[up]* or *[down]* until the display shows 'FLAS'.
3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'FLXX'.
4. ➤ Use *[Up]* or *[Down]* to select the speed of the RGB flash function in a range from 'FL00' (slow) to 'FL15' (fast).
5. ➤ Confirm with *[Enter]*.
To return to the previous menu level without changes, press *[Menu]*.

Setting the 7-fold colour change

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* until the display shows 'ASC-'.
3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'ASXX'.
4. ➤ Use *[Up]* or *[Down]* to select the speed of the 7-fold colour change in a range from 'AS00' (slow) to 'AS15' (fast).
5. ➤ Confirm with *[Enter]*.
To return to the previous menu level without changes, press *[Menu]*.

Setting the colour pattern

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* until the display shows 'CE--'.
3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'CEXX'.
4. ➤ Use *[Up]* or *[Down]* to select a random colour pattern (chaser) between 'CE00' and 'CE15'.
5. ➤ Confirm with *[Enter]*.

To return to the previous menu level without changes, press *[Menu]*.

Adjusting the colour temperature

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* until the display shows 'CT--'.
3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'CTXX'.
4. ➤ Use *[Up]* or *[Down]* to adjust the default colour temperature between 'CT00' (2,800 K) and 'CT15' (21,000 K).
5. ➤ Confirm with *[Enter]*.

To return to the previous menu level without changes, press *[Menu]*.

Adjusting the fade

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* until the display shows 'FADE'.
3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'FAXX'.
4. ➤ Use *[Up]* or *[Down]* to select the speed for soft fading of colours (fade in/out) from 'FA00' (slow) to 'FA15' (fast).
5. ➤ Confirm with *[Enter]*.
To return to the previous menu level without changes, press *[Menu]*.

Setting the display rotation

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* until the display shows 'Led-'.
3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'LedX'.
4. ➤ Use *[Up]* or *[Down]* to select the required display rotation 'Led0' (normal) or 'Led1' (rotated 180°).
5. ➤ Confirm with *[Enter]*.
To return to the previous menu level without changes, press *[Menu]*.

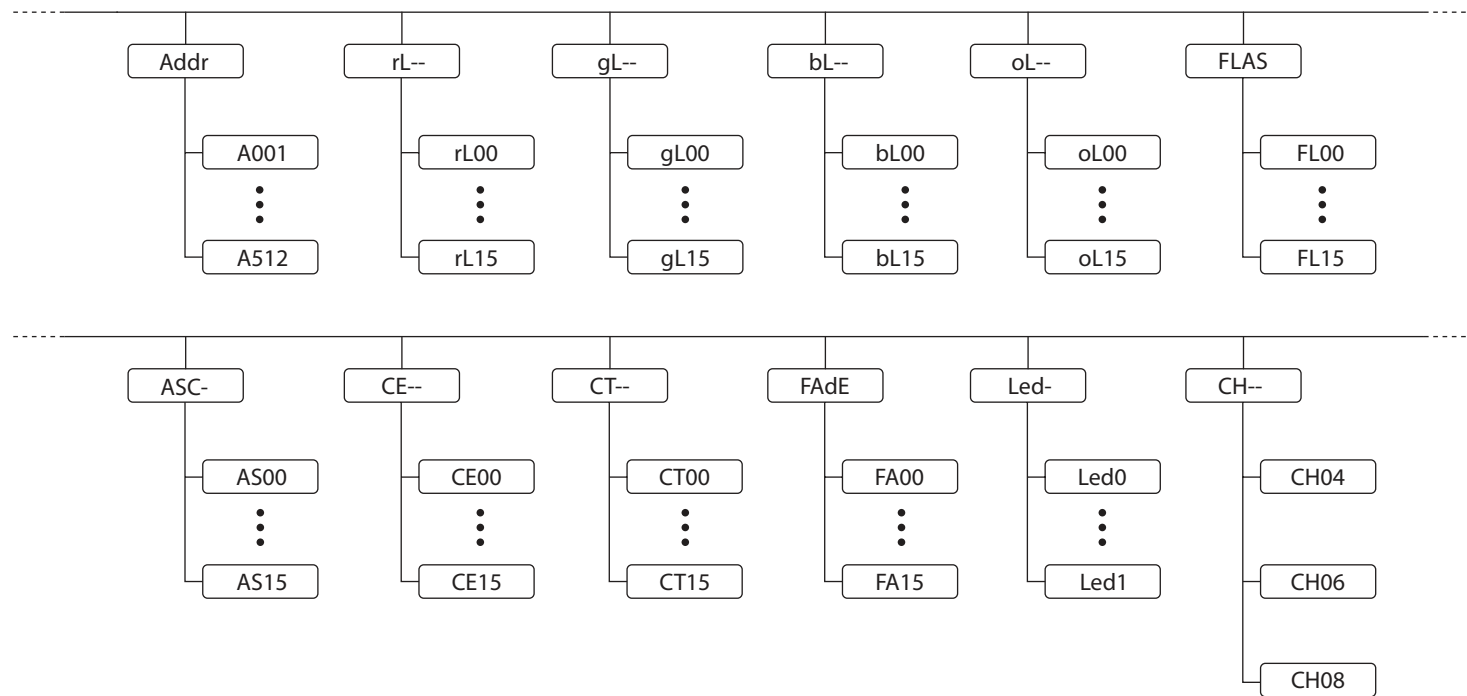
Setting the DMX mode

1. ➤ Press *[Menu]*.
2. ➤ Press *[Up]* or *[Down]* until the display shows 'CH--'.
3. ➤ Confirm with *[Enter]*.
⇒ The display shows 'LedX'.
4. ➤ Use *[Up]* or *[Down]* to select DMX mode 'CH04' (4-channel mode), 'CH06' (6-channel mode) or 'CH08' (8-channel mode).
5. ➤ Confirm with *[Enter]*.
To return to the previous menu level without changes, press *[Menu]*.

Using "slave" mode

- Connect the device to a master device via a suitable DMX cable.
⇒ The device precisely follows the operation of the master it is connected to.

7.1 Menu overview



7.2 Functions in 4-channel DMX mode

Channel	Value	Function
1	0...255	Dimmer red (0% to 100%)
2	0...255	Dimmer green (0% to 100%)
3	0...255	Dimmer blue (0% to 100%)
4	0...255	Dimmer white (0% to 100%)

7.3 Functions in 6-channel DMX mode

Channel	Value	Function
1	0...255	Master dimmer (0% to 100%)
2	0...255	Dimmer red (0% to 100%)
3	0...255	Dimmer green (0% to 100%)
4	0...255	Dimmer blue (0% to 100%)

Channel	Value	Function
5	0...255	Dimmer white (0% to 100%)
6	0...255	Strobe effect (0% to 100%)

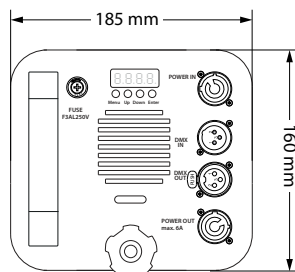
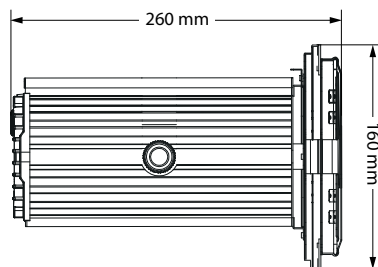
7.4 Functions in 8-channel DMX mode

Channel	Value	Function
1	0...255	Master dimmer (0% to 100%)
2	0...255	Dimmer red (0% to 100%)
3	0...255	Dimmer green (0% to 100%)
4	0...255	Dimmer blue (0% to 100%)
5	0...255	Dimmer white (0% to 100%)
6	1...14	Cold white
	15...29	White
	30...44	Light blue
	45...59	Blue

Channel	Value	Function
	60...74	Purple
	75...89	Bluish violet
	90...104	Reddish violet
	105...119	Peach blossom
	120...134	Pink
	135...149	Red
	150...164	Orange
	165...179	Yellow
	180...194	Lime
	195...209	Light green
	210...224	Green
	225...239	Bluish green
	240...254	Turquoise
7	0...255	Strobe effect from slow to fast Shades of grey are set by channels 1 to 6.
8	6...240	Gradual speed change from slow to fast

Channel	Value	Function
	241...254	Automatic colour changes
	255	Off

8 Technical specifications



Light source	1 × COB-LED, 120 W	
Properties of the light source	Colour temperature	2,800 K...12,000 K
	Colour rendering index	95
Optical properties	Beam angle	15°...45°
	LED refresh rate	10 kHz
Control	DMX, buttons and display on the device	
Number of DMX channels	4, 6 or 8	
Input connections	Power supply	Lockable input socket (Power Twist)
	DMX control	XLR panel plug, 3-pin
Output connections	Power supply for further devices	Lockable output socket (Power Twist) Output current, max.: 6 A
	DMX control	XLR panel socket, 3-pin
Power consumption	Max. 135 W	
Supply voltage	100 - 240 V ~ 50/60 Hz	

Fuse	5 mm × 20 mm, 3 A, 250 V, fast blow	
International Protection Rating	IP20	
Mounting options	Hanging, standing	
Dimensions (W × H × D)	185 mm × 160 mm × 260 mm	
Weight	5 kg	
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	20%...80% (non-condensing)

Further information

Optic	Fresnel
Fanless	No
Motorised zoom	No
Housing colour	Black
Power of the individual LED	120 W

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

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 main fuse.
No response to the DMX controller	1. Check the DMX connectors and cables for proper connection.
	2. 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.
Unintended light effects	Make sure that the DMX channel assignments of the devices do not overlap, and that the DMX start address of devices with independent control is always higher by the number of channels that have been set for the DMX mode on another device.

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.

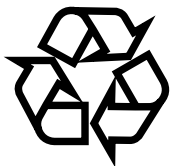
- Clean with a soft cloth using our lamp and lens cleaner (item no. 280122).
- Always dry the parts carefully.

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.

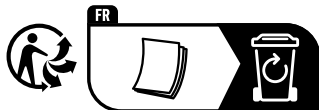
12 Protecting the environment

Disposal of the packing material



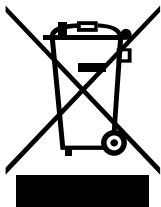
Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

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



Observe the disposal note regarding documentation in France.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) as amended.

Do not dispose of your old device with your normal household waste; instead, deliver it for controlled disposal by an approved waste disposal firm or through your local waste facility. If in doubt, consult your local waste management facility. You can also return the device to a retailer if they offer to take the device back for free or if they are legally obliged to do so. When disposing of the device, comply with the rules and regulations that apply in your country. You can also return your old device to Thomann GmbH at no charge. Check the current conditions on www.thomann.de.

Proper disposal protects the environment as well as the health of your fellow human beings. This is because the proper handling of old devices negates the potential negative effects of hazardous substances, and because it conserves resources by recycling them.

Also note that waste avoidance is a valuable contribution to environmental protection. Repairing a device or passing it on to another user is an ecologically valuable alternative to disposal. For example, use the classified ads of Thomann GmbH.

If your old device contains personal data, delete those data before disposing of it.

