

LED IP Bar 320/8 RGB DMX LED floodlight

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15.02.2018, ID: 347910 (V3)

Table of contents

		ieral notes	
	1.1	Further information	6
	1.2	Notational conventions	
	1.3	Symbols and signal words	. 7
2	Safe	ety instructions	10
3	Fea	tures	15
4	Inst	allation	17
5	Sta	rting up	21
6	Con	nections and operating elements	24
7		erating	
	7.1	Operating on the unit	30
	7.2	Menu overview	
	7.3	Remote control functions (optional)	36
	7.4	Functions in 2-channel DMX mode	37
	7.5	Functions in 3-channel DMX mode	40



Table of contents

	7.6	Functions in 4-channel DMX mode	41
	7.7	Functions in 7-channel DMX mode	41
	7.8	Functions in 14-channel DMX mode	45
	7.9	Functions in 26-channel DMX mode	46
8	Tech	nnical specifications	49
9	Plug	and connection assignment	50
10	Trou	ıbleshooting	51
11	Clea	ning	53
12	Prot	ecting the environment	54



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 (<u>www.thomann.de</u>) 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.

DisplaysTexts and values displayed on the device are marked by quotation marks and italics.

Examples: '24ch', 'OFF'.

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.
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
A	Warning – high-voltage.
	Warning – hot surface.



Warning signs	Type of danger
	Warning – suspended load.
<u>^</u>	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended to be used as an electronic illumination effect using LED technics. 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 short-circuit

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.





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.



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 burns

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

Do not touch the device with bare hands during operation, and after switching off wait for at least 15 minutes.



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!

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.



3 Features

The LED floodlight is particularly suited for professional lighting tasks in tour and festival use.

- \blacksquare 240 LEDs (80 × red, 80 × green, 80 × blue)
- special positioning of the LEDs for superior colour mixing already over short distances
- also suited for fixed installation due to extensive control options
- Operating modes
 - DMX (six modes) with the optionally available IP65 DMX adapter cable
 - automatic with 22 preprogrammed shows
 - master / slave
 - manually via optionally available infrared remote control and buttons and display on the unit
- robust and weatherproof metal housing
- splash-proof connectors
- protection type IP65, suitable for outdoor use
- Two pressure equalisation elements (prevent the development of condensation inside the device)



Information about protection class IP65

Equipment with protection class IP65 are dust-tight and completely protected against contact (first code number). They are also protected against splash water from any angle (second code digit). That is why this equipment can also be used outdoors. Event technology equipment is generally only designed for temporary use however (event lighting) and not for permanent use outdoors.

The specified protection class does not make a statement about the weather resistance of the equipment (resistance to changing ambient conditions as well as against the effects of sunlight and UV rays).

The seals and screw connections of the equipment must be checked regularly to ensure a fault-free operation. In cases of doubt, consult a specialist workshop in due time.



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.



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.





NOTICE!

Risk of overheating

Always ensure sufficient ventilation.

The ambient temperature must not exceed the limits stated in the chapter Technical Specifications of the User Manual.



NOTICE!

Use of stands

When mounting the device onto a stand, ensure that the stand is in a safe and stable position and that the weight of the device does not exceed the maximum permissible load capacity of the stand.





NOTICE!

Possible data transmission errors

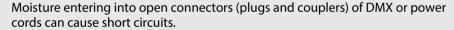
For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

Never connect the DMX input or output to audio devices such as mixers or amplifiers.



NOTICE!

Possible damage due to moisture



Close unused connectors with end caps intended for this purpose (www.thomann.de).

Mounting options

You can install the device on the wall, the ceiling or on the ground. Two mounting brackets and the necessary screws are included.

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Installation

Always work from a stable platform whenever installing, moving or servicing the unit. In doing so, the area underneath the unit must be cordoned off.



5 Starting up

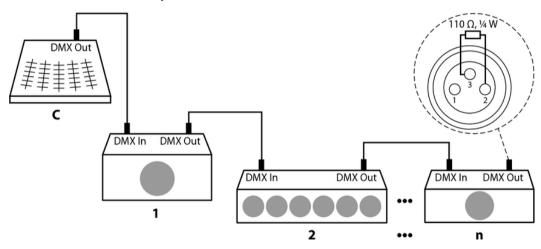
Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.



Connections in 'DMX' mode

Connect the DMX input of the device to the DMX output of a DMX controller or other 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.

Such a chain may consist of up to 30 DMX devices. Make sure that the output of the last device in the chain is terminated by a resistor (110 Ω , $\frac{1}{4}$ W).





DMX indicator

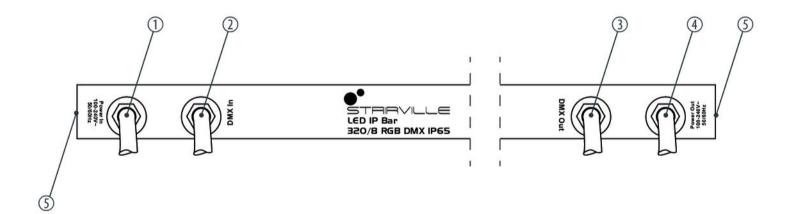
If the unit is in DMX mode and a DMX controller is connected and turned on, the 'd' is flashing in the first digit of the display.

Connections in 'Master / Slave' mode

When you configure a group of devices in 'Master / Slave' mode, the first device controls the others and allows an automatic, music-controlled and 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 unit to the DMX input of the second slave unit and so on (maximum 30 slaves).



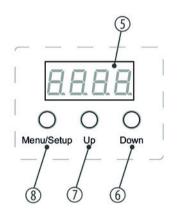
6 Connections and operating elements



1	[Power In]
	Power cable.
2	[DMX In]
	DMX input.
3	[DMX Out]
	DMX output
4	[Power Out]
	Voltage supply cable to the next unit (maximal 35 further units)
5	Pressure equalisation elements

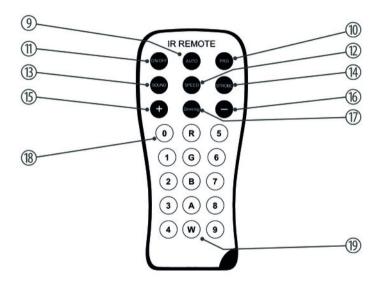


Display



5 Display.
6 Button [Down]
Navigates downwards in a menu list. Decreases the displayed value by one.
7 Button [Up]
Navigates upwards in a menu list. Increases the displayed value by one.
8 Button [Menu/Setup]
Enables the main menu, selects an option of the respective operating mode or switches between menu items.

Remote control (optional)





9	[AUTO]
	Activates the 'Automatic' mode.
10	[PRG]
	Activates the operating mode 'Preprogrammed automatic show'. Select the desired programme with the buttons $[+]$ and $[-]$.
11	[ON/OFF]
	Activates / deactivates the device.
12	[SPEED]
	Activates the setting mode for the programme speed. Adjust the speed using the buttons $[+]$ and $[-]$.
13	[SOUND]
	No function.
14	[STROBE]
	Turns the strobe effect on / off.



15	[+]
	Increases the set value.
16	[-]
	Decreases the set value.
17	[Dimming]
	Enables the dimmer function.
18	[09]
	Numeric buttons for direct selection of a fixed colour.
19	[R], [G], [B], [A], [W]
	Buttons to select a colour tone for the dimmer mode.

7 Operating

Connect the device to the power supply to start operation. After a few seconds, the display indicates that a reset is in progress. The device is then ready for use.

7.1 Operating on the unit

Press [Menu / Setup] for two seconds to activate the main menu and select an operating mode. Use [Up] and [Down] to change the respectively indicated value. When the display shows the desired value, press [Menu / Setup].

If you don't press any button for about 20 seconds, the current setting will be automatically applied and the display turns off. The set values are retained as long as the device is connected to the mains power supply.



Operating mode 'Preprogrammed automatic show'

A preprogrammed automatic show 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 [Menu / Setup] until the display shows 'Prxx'. Now you can select one of the preprogrammed automatic shows. Use [Up] and [Down] to select a value between 'Pr01' and 'Pr22'.

For programme Pr01, you can set one of seven static colours across all segments. Press [Menu / Setup] and use [Up] and [Down] to select a desired colour: red, yellow, green, cyan, blue, pink, white. After selection, press again [Menu / Setup] to set the flash frequency. With [Up] and [Down] you can now select a value between 'FS00' (slow) and 'FS99' (fast).

For programmes Pr20 and Pr21 you can set a static colour across all segments (background colour) or a colour that lights up segment-wise (hopping colour). Press [Menu / Setup] repeatedly until the display shows '1.xxx' (background colour) or '2.xxx' (hopping colour), respectively.

To adjust the speed of the selected automatic show, press [Menu / Setup] repeatedly until the display shows 'S.xx'. With [Up] and [Down] you can now select a value between 'S.01' (slow) and 'S.99' (fast) as well as 'SPFL' (flash effect).

To adjust the strobe frequency, press [Menu / Setup] repeatedly until the display shows 'F.xx'. With [Up] and [Down] you can now select a value between 'F.00' (slow) and 'F.99' (fast).



Operating mode 'Automatic'

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 [Menu / Setup] repeatedly until the display shows 'Auto'. The playback of the selected preprogrammed show starts automatically.



DMX address

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

Press [Menu / Setup] repeatedly until the display shows 'dxxx'.

Now you can set the number of the first DMX channel to be used by the device (DMX address). Use [Up] and [Down] to select a value between 1 and 512 (the display shows 'd001' ... 'd512').

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

Mode	Highest possible DMX address
2-channel	511
3-channel	510
4-channel	509
7-channel	506
14-channel	499
26-channel	487



Operating

DMX mode

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

Press [Menu / Setup] repeatedly until the display shows 'dxxx'. With [Up] and [Down] you can now select one of the following DMX modes:

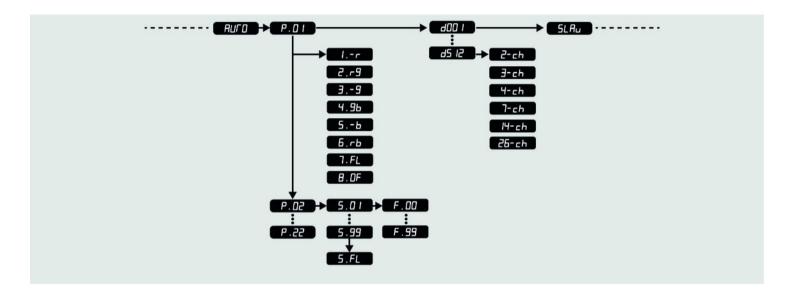
- '2-ch' (two channels)
- '3-ch' (three channels)
- '4-ch' (four channels)
- '7-ch' (seven channels)
- '14-ch' (fourteen channels)
- '26-ch' (twenty-six channels)

Operating mode 'Slave'

This setting is only relevant if the device is serving as Slave in a Master / Slave configuration and is not controlled via DMX.



7.2 Menu overview





7.3 Remote control functions (optional)

Direct selection of a fixed colour

Use the numeric buttons on the remote control to select a desired fixed colour directly. This setting is only relevant if the device is not controlled via DMX.

Value	Fixed colour
0	Cyan
1	Purple
2	Red
3	Orange
4	White
5	Pink
6	Green
7	Blue



Value	Fixed colour
8	Yellow
9	Warm white

Dimmer function

Use the letter buttons on the remote control to select a particular colour tone directly and with the buttons [+] and [-] you can adjust the dimming factor. This setting is only relevant if the device is not controlled via DMX.

7.4 Functions in 2-channel DMX mode

Channel	Value	Function
1	0 8	LEDs off
	9 17	Constant unicoloured pattern red
	18 26	Constant unicoloured pattern yellow



Channel	Value	Function
	27 35	Constant unicoloured pattern green
	36 44	Constant unicoloured pattern cyan
	45 53	Constant unicoloured pattern blue
	54 62	Constant unicoloured pattern pink
	63 71	Constant unicoloured pattern white
	72 80	Preprogrammed automatic show PR01
	81 89	Preprogrammed automatic show PR02
	90 98	Preprogrammed automatic show PR03
	99 107	Preprogrammed automatic show PR04
	108 116	Preprogrammed automatic show PR05
	117 125	Preprogrammed automatic show PR06
	126 134	Preprogrammed automatic show PR07
	135 143	Preprogrammed automatic show PR08



LED floodlight

Channel	Value	Function
	144 152	Preprogrammed automatic show PR09
	153 161	Preprogrammed automatic show PR10
	162 170	Preprogrammed automatic show PR11
	171 179	Preprogrammed automatic show PR12
	180 188	Preprogrammed automatic show PR13
	189 197	Preprogrammed automatic show PR14
	198 206	Preprogrammed automatic show PR15
	207 215	Preprogrammed automatic show PR16
	216 224	Preprogrammed automatic show PR17
	225 233	Preprogrammed automatic show PR18
	234 242	Preprogrammed automatic show PR19
	243 251	Preprogrammed automatic show PR20
	252 255	Preprogrammed automatic show PR21

LED IP Bar 320/8 RGB DMX



Channel	Value	Function
2		No function, if channel $1 = 071$
	0 255	Programme process speed, if channel 1 = 72255

7.5 Functions in 3-channel DMX mode

Channel	Value	Function
1	0 255	Intensity (0 % 100 %) of the 128 red LEDs
2	0 255	Intensity (0 % 100 %) of 96 green LEDs
3	0 255	Intensity (0 % 100 %) of 96 blue LEDs



7.6 Functions in 4-channel DMX mode

Channel	Value	Function
1	0 255	Dimmer (0 % 100 %) for all LEDs
2	0 255	Intensity (0 % 100 %) of the 128 red LEDs
3	0 255	Intensity (0 % 100 %) of 96 green LEDs
4	0 255	Intensity (0 % 100 %) of 96 blue LEDs

7.7 Functions in 7-channel DMX mode

Channel	Value	Function
1	0 255	Dimmer (0 % 100 %) for all LEDs
2	0 255	Intensity (0 % 100 %) of the 128 red LEDs
3	0 255	Intensity (0 % 100 %) of 96 green LEDs



Channel	Value	Function
4	0 255	Intensity (0 % 100 %) of 96 blue LEDs
5	08	No function
	9 17	Constant unicoloured pattern red
	18 26	Constant unicoloured pattern yellow
	27 35	Constant unicoloured pattern green
	36 44	Constant unicoloured pattern cyan
	45 53	Constant unicoloured pattern blue
	54 62	Constant unicoloured pattern pink
	63 71	Constant unicoloured pattern white
	72 80	Preprogrammed automatic show PR01
	81 89	Preprogrammed automatic show PR02
	90 98	Preprogrammed automatic show PR03
	99 107	Preprogrammed automatic show PR04



LED floodlight

Channel	Value	Function
	108 116	Preprogrammed automatic show PR05
	117 125	Preprogrammed automatic show PR06
	126 134	Preprogrammed automatic show PR07
	135 143	Preprogrammed automatic show PR08
	144 152	Preprogrammed automatic show PR09
	153 161	Preprogrammed automatic show PR10
	162 170	Preprogrammed automatic show PR11
	171 179	Preprogrammed automatic show PR12
	180 188	Preprogrammed automatic show PR13
	189 197	Preprogrammed automatic show PR14
	198 206	Preprogrammed automatic show PR15
	207 215	Preprogrammed automatic show PR16
	216 224	Preprogrammed automatic show PR17

LED IP Bar 320/8 RGB DMX



Channel	Value	Function
	225 233	Preprogrammed automatic show PR18
	234 242	Preprogrammed automatic show PR19
	243 251	Preprogrammed automatic show PR20
	252 255	Preprogrammed automatic show PR21
6		No function, if channel $1 = 071$
	0 255	Programme process speed, if channel $1 = 72255$
7	0 255	Strobe effect, increasing speed



7.8 Functions in 14-channel DMX mode

Channel	Value	Function
1	0 255	Dimmer (0 % 100 %) for all LEDs
2	0 255	Intensity (0 % 100 %) of the red LEDs – segment 1
3	0 255	Intensity (0 % 100 %) of the green LEDs – segment 1
4	0 255	Intensity (0 % 100 %) of the blue LEDs – segment 1
5	0 255	Intensity (0 % 100 %) of the red LEDs – segment 2
6	0 255	Intensity (0 % 100 %) of the green LEDs – segment 2
7	0 255	Intensity (0 % 100 %) of the blue LEDs – segment 2
8	0 255	Intensity (0 % 100 %) of the red LEDs – segment 3
9	0 255	Intensity (0 % 100 %) of the green LEDs – segment 3
10	0 255	Intensity (0 $\% \dots$ 100 $\%$) of the blue LEDs – segment 3
11	0 255	Intensity (0 % 100 %) of the red LEDs – segment 4



Channel	Value	Function
12	0 255	Intensity (0 % \dots 100 %) of the green LEDs – segment 4
13	0 255	Intensity (0 % 100 %) of the blue LEDs – segment 4
14	0 255	Strobe effect, increasing speed

7.9 Functions in 26-channel DMX mode

Channel	Value	Function
1	0 255	Dimmer (0 % 100 %) for all LEDs
2	0 255	Intensity (0 $\%$ 100 $\%$) of the red LEDs – segment 1
3	0 255	Intensity (0 $\%$ 100 $\%$) of the green LEDs – segment 1
4	0 255	Intensity (0 $\%$ 100 $\%$) of the blue LEDs – segment 1
5	0 255	Intensity (0 % 100 %) of the red LEDs – segment 2



Channel	Value	Function
6	0 255	Intensity (0 % 100 %) of the green LEDs – segment 2
7	0 255	Intensity (0 $\% \dots$ 100 $\%$) of the blue LEDs – segment 2
8	0 255	Intensity (0 % 100 %) of the red LEDs – segment 3
9	0 255	Intensity (0 % 100 %) of the green LEDs – segment 3
10	0 255	Intensity (0 % 100 %) of the blue LEDs – segment 3
11	0 255	Intensity (0 % 100 %) of the red LEDs – segment 4
12	0 255	Intensity (0 % 100 %) of the green LEDs – segment 4
13	0 255	Intensity (0 % 100 %) of the blue LEDs – segment 4
14	0 255	Intensity (0 % 100 %) of the red LEDs – segment 5
15	0 255	Intensity (0 % 100 %) of the green LEDs – segment 5
16	0 255	Intensity (0 % 100 %) of the blue LEDs – segment 5
17	0 255	Intensity (0 % 100 %) of the red LEDs – segment 6
18	0 255	Intensity (0 % 100 %) of the green LEDs – segment 6

LED IP Bar 320/8 RGB DMX



Channel	Value	Function
19	0 255	Intensity (0 % 100 %) of the blue LEDs – segment 6
20	0 255	Intensity (0 % 100 %) of the red LEDs – segment 7
21	0 255	Intensity (0 % 100 %) of the green LEDs – segment 7
22	0 255	Intensity (0 % 100 %) of the blue LEDs – segment 7
23	0 255	Intensity (0 % 100 %) of the red LEDs – segment 8
24	0 255	Intensity (0 % \dots 100 %) of the green LEDs – segment 8
25	0 255	Intensity (0 % 100 %) of the blue LEDs – segment 8
26	0 255	Strobe effect, increasing speed



8 Technical specifications

LEDs	$320 \times 10 \text{ mm LEDs } (128 \times \text{red}, 96 \times \text{green}, 96 \times \text{blue}).$
Beam angle	30°
Light power	803 Lux / 2 m
Number of DMX channels	2, 3, 4, 7, 14 or 26
Operating supply voltage	AC 230 V ∼ 50 Hz
Power consumption	26 W
DMX and power supply connector	3-pin outdoor connector
Protection type unit	IP65
Temperature range	−20 °C +45 °C
Dimensions (W \times H \times D)	1112 mm × 110 mm × 145 mm
Weight	4.6 kg



9 Plug and connection assignment

Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment so that a perfect light experience is guaranteed.

Please take our tips, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into a socket, the result of an incorrect connection may be a destroyed DMX controller, a short circuit or 'just' a not working light show!

DMX connections



A three-pole coupling in IP65 design is used as DMX output, a three-pole plug in IP65 design is used as DMX input. The drawing below and the table show the pin assignment of a matching coupling.

Pin	Assignment
1	Ground (shielding)
2	Signal inverted (DMX–, 'cold')
3	Signal (DMX+, 'hot')



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.	Check the mains connection and the fuse.
No response to the DMX controller.	1. When the display is flashing, e.g. 'd001', no valid DMX signal can be received. Make sure that the DMX controller is turned on. Check the DMX ports and cables for proper connection.
	2. If the display does not flash and still no response, check the address settings and the DMX polarity.
	3. Try using another DMX controller.
	4. Check to see if the DMX cables run near or alongside to high voltage cables that may cause damage or interference to DMX interface circuits.

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at <u>www.thomann.de</u>.



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 these materials with your normal household waste, but make sure that they are fed to a recovery. Please follow the notes and markings on the packaging.

Disposal of batteries



Batteries must not be disposed of as domestic waste or thrown into fire. Dispose of the batteries according to national or local regulations regarding hazardous waste. To protect the environment, dispose of empty batteries at your retail store or at appropriate collection sites.

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 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.











