



LED BossFx-1 Bundle

LED lighting set



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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.

1.1 Further information

On our website (www.thomann.de) you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

1.2 Notational conventions

This manual uses the following notational conventions:

Letterings

The letterings for connectors and controls are marked by square brackets and italics.

Examples: *[VOLUME]* control, *[Mono]* button.

Displays

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

Examples: '24ch', 'OFF'.

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.

Cross-references





References to other locations in this manual are identified by an arrow and the specified page number. In the electronic version of the manual, you can click the cross-reference to jump to the specified location.



Example: See ➤ 'Cross-references' on page 5.

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
	Warning – high-voltage.
	Warning – hot surface.
	Warning – laser radiation.
	Warning – dangerous optical radiation.

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

2 Safety instructions

Intended use

This device is intended for use as an electronic lighting effect by means of LED technology and for the projection of laser light effects. 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.

Laser safety basics

It is based on DIN EN 60825-1: 2015. The corresponding accident prevention regulation of the professional association in Germany is BGV-B2.

This device uses a class-3R laser. It is equipped with a safety key and a connection for an external safety switch. Always remove the safety key when the device is not attended by a trained operator.

As an operator you are responsible for the safety of all persons present. Familiarize yourself with the laser safety regulations that apply in your country. To ensure safe operation, it is important to pay attention to the following instructions.

Prior to commissioning, the company/operator must appoint a qualified person as laser protection officer in writing and notify the operation of the laser equipment to the Accident Prevention and Insurance Association and to the authority responsible for occupational safety. In the event of public use, the complete laser equipment must be approved by an expert before use.

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.

**DANGER!****Laser radiation – avoid exposure to beam**

The device uses a class-3R laser, classified according to EN 60825-1:2015. Do not look into the laser beam. The laser beam can injure your eyes when you directly look into it. Do not expose to the laser beam. The laser beam can cause skin burns.

In this context take extreme care when using converging optical instruments.

**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!****Laser radiation – risk of fire**

Keep the area exposed to laser radiation free from flammable substances.



NOTICE!

Risk of fire

Do not block areas of ventilation. Do not install the device near any direct heat source. Keep the device away from naked flames.



NOTICE!

Operating conditions

This device has been designed for indoor use only. To prevent damage, never expose the device to any liquid or moisture. Avoid direct sunlight, heavy dirt, and strong vibrations.

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.



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!

Damages due to disconnection during operation

Only operate the unit when all spotlights are connected.

The disconnection of LED spotlights during operation may damage the unit. Disconnect the unit from the power supply before disconnecting LED spotlights.

3 Features

Special features of the device:


- 2 LED spots each with 6 tricolour LEDs, 9 W each
- Derby effect with each 6 tricolour LEDs, 3 W each
- Stroboscope with 4 LEDs, 2 W each (white and ultra-violet)
- Grading laser with two laser diodes (green and red)
- Control via DMX (4 different modes), buttons and display on the unit, the supplied wireless foot switch and the supplied infrared remote control
- Preprogrammed automatic shows
- Sound control
- Master / Slave mode
- The scope of delivery also includes a T-bar tripod, various mounting brackets and a carrying bag

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.



DANGER!
Laser radiation

During installation follow the instructions in  Chapter 2 'Safety instructions' on page 7.

To avoid laser emission, remove the safety key before you start to install the device.



WARNING!
Stray laser radiation

Inadequately secured additional components may cause stray laser radiation.

Make sure that all additional components are adequately secured.



WARNING!
Laser radiation – safety switch required

The laser beam must be defeatable any time during operation, to avoid hazards by faults, unsafe operation conditions, or disturbance within the audience.

Therefore you have to connect a safety switch (emergency shut off) to the unit, by which you can switch off the laser any time even from a remote observation point (e.g. FOH position).



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!****Damages due to disconnection during operation**

Only operate the unit when all spotlights are connected.

The disconnection of LED spotlights during operation may damage the unit. Disconnect the unit from the power supply before disconnecting LED spotlights.

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

The distance between the light output and the illuminated surface must be more than 2.0 m (78.7 in).

Always ensure sufficient ventilation.

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

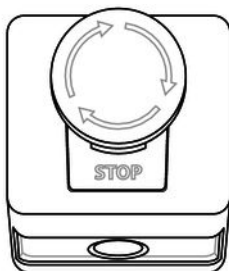
**NOTICE!****Use of stands**

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.

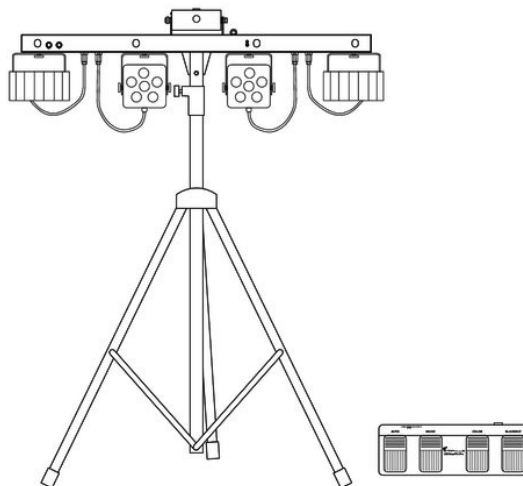
Never connect the DMX input or output to audio devices such as mixers or amplifiers.

Safety switch (emergency stop)

Connect the optional remote-control safety switch to the corresponding socket of the device. If you press the switch, the laser beam will be switched off immediately. To unlock the switch and resume operation, turn the knob clockwise.

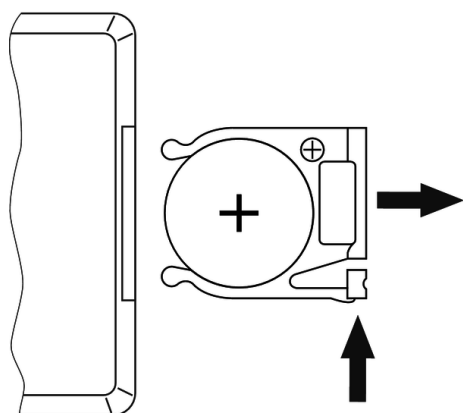
Pre-mounted spots

The two spots, the two derby effects and the laser are pre-assembled at the T-bar. The strobe LEDs are integrated in the T-bar. Only the tripod is still to be attached and the foot switch unit has to be connected.



Inserting the battery into the remote control

Press the lock of the battery holder to the centre of the housing and pull out the battery holder like a drawer. Insert the battery. The battery is correct if the positive pole points to the housing base of the remote control. Slide the battery holder back into the remote until it clicks into place.



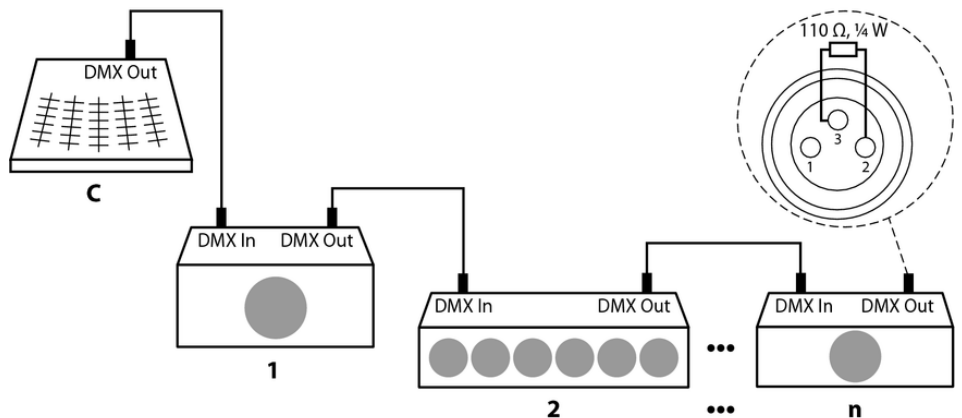
When shipping, the battery is already installed in the remote and protected against discharge by a transparent plastic foil. Remove the plastic foil prior to first use.

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 Ω, ¼ W).

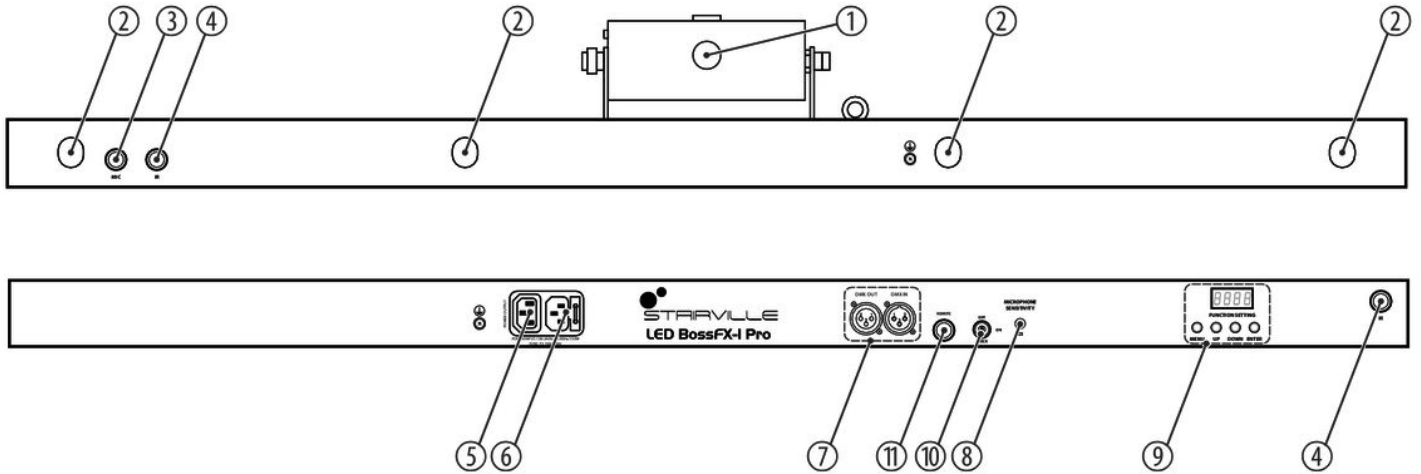


Connections in master/slave mode

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

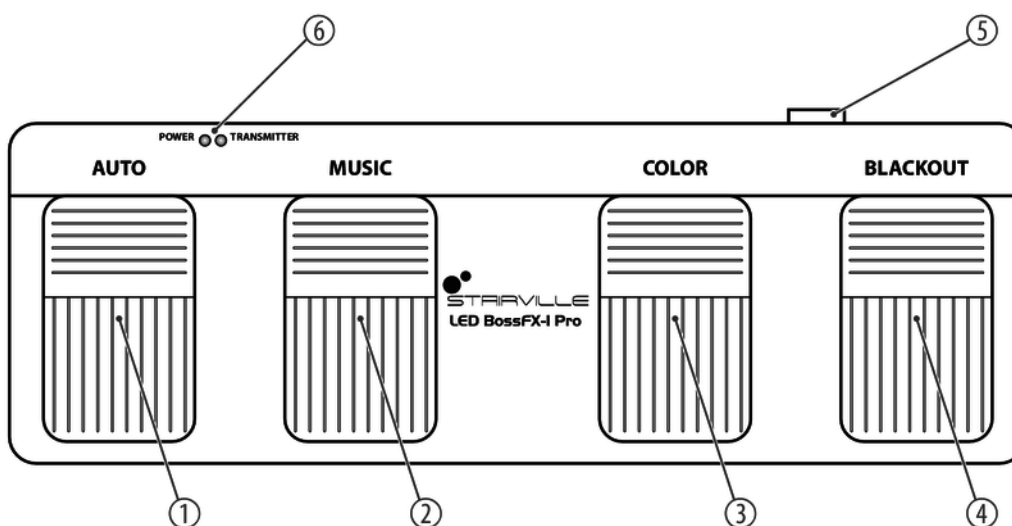
Front panel



1	Laser aperture.
2	Strobe LEDs
3	Microphone for sound control
4	[IR] Infrared sensor for the remote control signals.
5	[POWER OUTPUT] IEC chassis socket for the power supply of further devices
6	IEC chassis plug for power supply with fuse holder
7	[DMX IN] / [DMX OUT] DMX in and output
8	[MICROPHONE SENSITIVITY] Controller for the sensitivity of the built-in microphone

9	<p>Display</p> <p>[MENU]</p> <p>Activates the main menu and toggles between menu items. Closes an opened submenu.</p> <p>[ENTER]</p> <p>Selects an option of the respective operating mode, confirms the set value.</p> <p>[UP]</p> <p>Increases the displayed value by one.</p> <p>[DOWN]</p> <p>Decreases the displayed value by one.</p>
10	Safety key switch for the laser
11	<p>[REMOTE]</p> <p>2-pole interlock socket for connection of an external safety switch.</p>

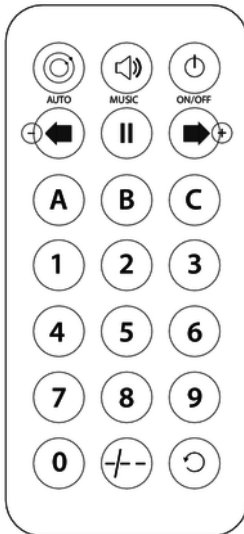
Wireless foot switch



1	<p>[AUTO]</p> <p>Activates the 'Automatic' mode (playback of preprogrammed automatic shows).</p>
2	<p>[MUSIC]</p> <p>Activates the 'Sound-control' mode (playback of sound-controlled automatic shows).</p>
3	<p>[COLOUR]</p> <p>Starts the automatic colour change or stops it again.</p>
4	<p>[BLACKOUT]</p> <p>Blackouts all LEDs or turns them back on again.</p>

5	Main switch. Turns the device on and off.
6	[POWER] Status LED lights up when the wireless footswitch is turned on. [TRANSMITTER] Status LED lights up when the wireless footswitch is connected to the LED bar.

Infrared remote control



Button labelling:	Function
[AUTO]	Enable / disable the automatic mode, selecting programme AM01 ... AM03.
[MUSIC]	Enable / disable the sound-controlled mode, selecting mode SM01 ... SM03.
[ON/OFF]	Blackout
⊕, ⊖	Colour selection
[]	Pause button
[A]	Selection of an automatic show for the LED spots and derby effects (AP01 ... AP18)
[B]	Selection of an automatic show for the laser (AL01 ... AL06)
[C]	Selection of an automatic show for the strobe LEDs (AF01 ... AF12)
[0] ... [9]	Selecting programme speed (0 = slow, 9 = fast)
[-/--]	No function.
↻	Button to switch between auto and sound-controlled mode.

7 Operating

7.1 Starting and stopping operation

Starting

Complete the following steps to start operation:

1. ➤ Verify that all required laser safety precautions have been taken. Make sure that there is no one in the reach of the laser beam.
2. ➤ Insert the safety key into the lock.
3. ➤ If not already done, connect the device to the mains.
4. ➤ After a few seconds, the fan and the motors start to work. The display shows the current operation mode. The device is now operational.
5. ➤ Turn the foot switch on.
6. ➤ Turn the safety key to the 'ON' position to turn the laser beam on.

Stopping

Complete the following steps to stop operation:

1. ➤ Turn the safety key to the 'OFF' position to turn the laser beam off and remove the key. Keep the safety key under control.
2. ➤ Turn the foot switch off.
3. ➤ Disconnect the device from the mains.

7.2 Main menu

Press *[MENU]* to activate the main menu and to return to the main menu from a sub-menu. Use *[ENTER]* to select further options. Use *[UP]* and *[DOWN]* to change the respectively indicated value. When the display shows the desired value press *[Mode]*.

The set values are retained even when the device is disconnected from the mains power supply.

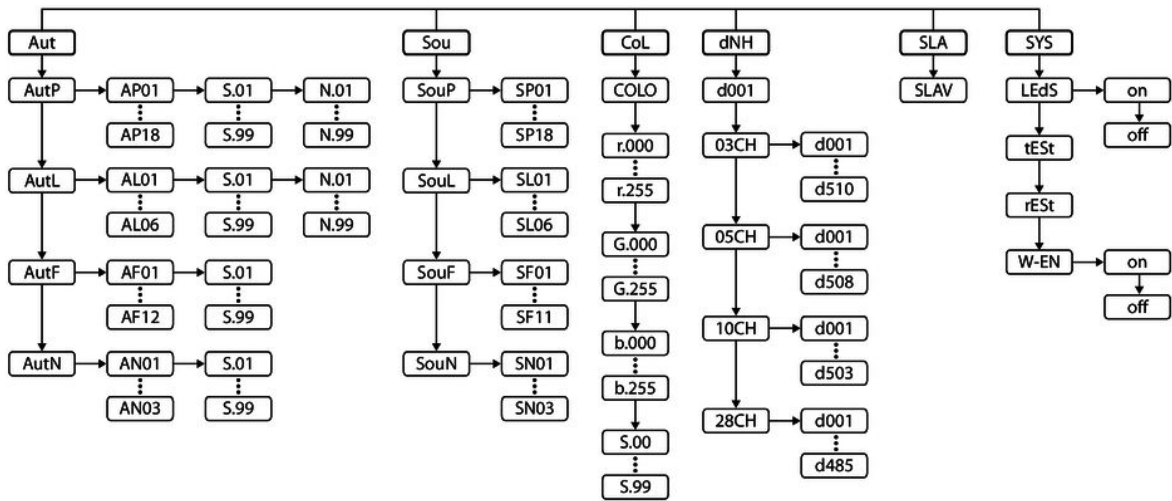
The following table shows the setting options.

Main menu	Menu level 2	Menu level 3	Meaning
'Aut'	Operating mode 'Preprogrammed automatic show'		
	'AutP'	Selecting an automatic show for the LED spots and derby effects ('AP01' ... 'AP18')	
		'S.01' ... 'S.99'	Speed of the selected automatic show
	'AutL'	Selecting an automatic show for the Laser ('AL01' ... 'AL06')	
'S.01' ... 'S.99'		Speed of the selected automatic show	

Main menu	Menu level 2	Menu level 3	Meaning
		'N.00' ... 'N.99'	Speed of the motors
	'AutF'	Selecting an automatic show for the strobe LEDs ('AF01' ... 'AF12')	
		'S.01' ... 'S.99'	Speed of the selected automatic show
	'AutN'	Selecting an automatic show for all components ('AN01' ... 'AN03')	
		'S.01' ... 'S.99'	Speed of the selected automatic show
'Sou'	Sound control		
	'SouP'	Selecting a sound-controlled automatic show for the LED spots and derby effects ('SP01' ... 'SP18')	
	'SouL'	Selecting a sound-controlled automatic show for the Laser ('SL01' ... 'SL06')	
	'SouF'	Selecting a sound-controlled automatic show for the strobe LEDs ('SF01' ... 'SF11')	
	'SouN'	Selecting a sound-controlled automatic show for all components ('SM01' ... 'SM03')	
'CoL'	Manual colour selection for the LED spots		
	'r.xxx'	Setting intensity red ('r.000' ... 'r.255')	
	'G.xxx'	Setting intensity green ('G.000' ... 'G.255')	
	'b.xxx'	Setting intensity blue ('b.000' ... 'b.255')	
	'S.xxx'	'S.00' ... 'S.99'	Setting the flash frequency
'dNH'	Operating mode DMX		
	'dXXX'	Setting the DMX address ('001' ... '512')	
	'xxCH'	Selecting a DMX mode: 3-channel, 5-channel, 10-channel or 28-channel	
		'dXXX'	Setting the DMX address 3-channel: ('001' ... '510') 5-channel: ('001' ... '508') 10-channel: ('001' ... '503') 28-channel: ('001' ... '485')
'SLA'	Operating mode 'Slave'		
	'SLAV'	Slave mode selection	
'SYS'	System settings		

Main menu	Menu level 2	Menu level 3	Meaning
	'LEdS'		Enabling automatic shutdown of the display when not in use ('on') or disabling ('off')
	'teSt'		Starting self-test
	'rEst'		Reset to factory defaults
	'W-EN'		Enabling the interface for the wireless foot switch ('on') or disabling ('off')

7.3 Menu overview



7.4 Functions in 3-channel DMX mode

Channel	Value	Function
1	Operating mode	
	0...9	Blackout
	10...31	Automatic show for the LED spots and derby effects
	32...65	Automatic show for the laser
	66...95	Automatic show for the strobe LEDs
	96...127	Automatic show for all components
	128...159	Sound-controlled automatic show for the LED spots and derby effects
	160...191	Sound-controlled automatic show for the laser

Channel	Value	Function
	192...223	Sound-controlled automatic show for the strobe LEDs
	224...255	Sound-controlled automatic show for all components
2	Programme selection	
	Automatic show for the LED spots and derby effects, if channel 1 = 10...31	
	0...9	AP01
	10...19	AP02
	20...29	AP03
	30...39	AP04
	40...49	AP05
	50...59	AP06
	60...69	AP07
	70...79	AP08
	80...89	AP09
	90...99	AP10
	100...109	AP11
	110...119	AP12
	120...129	AP13
	130...139	AP14
	140...149	AP15
	150...159	AP16
	160...169	AP17
	170...255	AP18
	Automatic show for the laser, if channel 1 = 32...65	
	0...39	AL01
	40...79	AL02
	80...119	AL03
	120...139	AL04
	140...159	AL05
	160...255	AL06
	Automatic show for the strobe LEDs, if channel 1 = 66...95	
	0...14	AF01
	15...29	AF02

Channel	Value	Function
	30...44	AF03
	45...59	AF04
	60...74	AF05
	75...89	AF06
	90...104	AF07
	105...119	AF08
	120...134	AF09
	135...149	AF10
	150...164	AF11
	165...255	AF12
Automatic show for all components, if channel 1 = 96...127		
	0...19	AM01
	20...39	AM02
	40...255	AM03
Sound-controlled automatic show for the LED spots and derby effects, if channel 1 = 128...159		
	0...9	SP01
	10...19	SP02
	20...29	SP03
	30...39	SP04
	40...49	SP05
	50...59	SP06
	60...69	SP07
	70...79	SP08
	80...89	SP09
	90...99	SP10
	100...109	SP11
	110...119	SP12
	120...129	SP13
	130...139	SP14
	140...149	SP15
	150...159	SP16
	160...169	SP17

Channel	Value	Function
	170...255	SP18
	Sound-controlled automatic show for the laser, if channel 1 = 160...191	
	0...39	SL01
	40...79	SL02
	80...119	SL03
	120...139	SL04
	140...159	SL05
	160...255	SL06
	Sound-controlled automatic show for the strobe LEDs, if channel 1 = 192...223	
	0...14	SF01
	15...29	SF02
	30...44	SF03
	45...59	SF04
	60...74	SF05
	75...89	SF06
	90...104	SF07
	105...119	SF08
	120...134	SF09
	135...149	SF10
	150...255	SF11
	Sound-controlled automatic show for all components, if channel 1 = 224...255	
	0...19	SM01
	20...39	SM02
	40...255	SM03
3	Running speed, if channel 1 = 10...127	
	0...255	Increasing speed

7.5 Functions in 5-channel DMX mode

Channel	Value	Function
LED spots and derby effects		
1	0...255	Intensity red (0 % to 100 %)

Channel	Value	Function
2	0...255	Intensity green (0 % to 100 %)
3	0...255	Intensity blue (0 % to 100 %)
4	0...191	Dimmer (0 % to 100 %), colour selection with channel 1...3
	192...200	Sound-controlled strobe effect (white)
	201...249	Strobe effect with increasing speed, colour selection with channel 1...3
	250...255	All LEDs on
5	Motor control (derby effects)	
	0...4	Stopped
	5...127	Clockwise rotation, speed increasing
	128...133	Stopped
	134...255	Counter-clockwise rotation, speed increasing

7.6 Functions in 10-channel DMX mode

Channel	Value	Function
LED spots and derby effects		
1	0...255	Intensity red (0 % to 100 %)
2	0...255	Intensity green (0 % to 100 %)
3	0...255	Intensity blue (0 % to 100 %)
4	0...191	Overall brightness (0 % to 100 %)
	192...200	Sound-controlled strobe effect
	201...249	Strobe effect with increasing speed
	250...255	All LEDs on
5	Motor control	
	0...4	Stopped
	5...127	Clockwise rotation, speed increasing
	128...133	Stopped
	134...255	Counter-clockwise rotation, speed increasing
Laser		
6	Red laser	
	0...4	Blackout
	5...9	Laser on

Channel	Value	Function
	10...255	Strobe effect with increasing speed
7	Green laser	
	0...4	Blackout
	5...9	Laser on
	10...255	Strobe effect with increasing speed
8	Motor control	
	0...4	Stopped
	5...127	Clockwise rotation, speed increasing
	128...133	Stopped
	134...255	Counter-clockwise rotation, speed increasing
Strobe LEDs		
9	White	
	0...4	Blackout
	5...9	LEDs on
	10...255	Strobe effect with increasing speed
10	UV	
	0...4	Blackout
	5...9	LEDs on
	10...255	Strobe effect with increasing speed

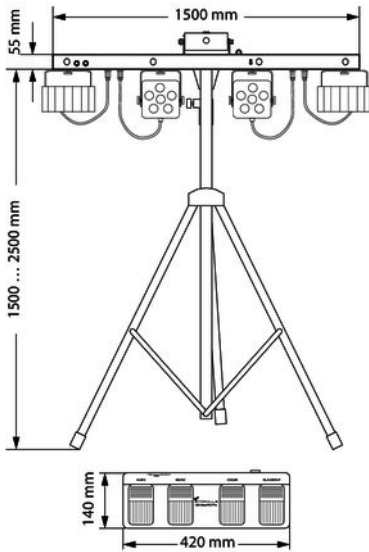
7.7 Functions in 28-channel DMX mode

Channel	Value	Function
Derby effect 1		
1	0...255	Intensity red (0 % to 100 %)
2	0...255	Intensity green (0 % to 100 %)
3	0...255	Intensity blue (0 % to 100 %)
4	0...9	Without function
	10...255	Strobe effect with increasing speed
5	Motor control	
	0...4	Stopped
	5...127	Clockwise rotation, speed increasing

Channel	Value	Function
	128...133	Stopped
	134...255	Counter-clockwise rotation, speed increasing
LED spot 1		
6	0...255	Intensity red (0 % to 100 %)
7	0...255	Intensity green (0 % to 100 %)
8	0...255	Intensity blue (0 % to 100 %)
9	0...9	Without function
	10...255	Strobe effect with increasing speed, colour selection with channel 6...8
10	0...255	Without function
LED spot 2		
11	0...255	Intensity red (0 % to 100 %)
12	0...255	Intensity green (0 % to 100 %)
13	0...255	Intensity blue (0 % to 100 %)
14	0...9	Without function
	10...255	Strobe effect with increasing speed, colour selection with channel 11...13
15	0...255	Without function
Derby effect 2		
16	0...255	Intensity red (0 % to 100 %)
17	0...255	Intensity green (0 % to 100 %)
18	0...255	Intensity blue (0 % to 100 %)
19	0...9	Without function
	10...255	Strobe effect with increasing speed
20	Motor control	
	0...4	Stopped
	5...127	Clockwise rotation, speed increasing
	128...133	Stopped
	134...255	Counter-clockwise rotation, speed increasing
Laser		
21	Red laser	
	0...4	Blackout
	5...9	Laser on
	10...255	Strobe effect with increasing speed

Channel	Value	Function
22	Green laser	
	0...4	Blackout
	5...9	Laser on
	10...255	Strobe effect with increasing speed
23	Motor control	
	0...4	Stopped
	5...127	Clockwise rotation, speed increasing
	128...133	Stopped
	134...255	Counter-clockwise rotation, speed increasing
Strobe LEDs		
24	LED 1, white	
	0...4	Blackout
	5...9	LED on
	10...255	Strobe effect with increasing speed
25	LED 2, white	
	0...4	Blackout
	5...9	LED on
	10...255	Strobe effect with increasing speed
26	LED 3, white	
	0...4	Blackout
	5...9	LED on
	10...255	Strobe effect with increasing speed
27	LED 4, white	
	0...4	Blackout
	5...9	LED on
	10...255	Strobe effect with increasing speed
28	UV	
	0...4	Blackout
	5...9	LEDs on
	10...255	Strobe effect with increasing speed

8 Technical specifications



Light source	LED spots: 12 × 9 W RGB LEDs Derby effects: 12 × 3 W RGB LEDs Laser: Green 30 mW / 532 nm, red 100 mW / 650 nm Stroboscope LEDs: 4 × 2-W LEDs (white and ultraviolet)	
Control	DMX, infrared remote control, wireless footswitch, buttons and display on the device	
Number of DMX channels	3, 5, 10 or 28	
Input connections	Voltage supply	IEC panel plug
	DMX control	XLR chassis plug, 3-pin
	external safety switch	Interlock socket, 2-pin
Output connections	Voltage supply	IEC chassis socket
	DMX control	XLR chassis socket, 3-pin
Laser class	3R	
Power consumption	130 W	
Operating supply voltage	100 – 240 V ~ 50/60 Hz	
Fuse	5 mm × 20 mm, 3.15 A, 250 V, slow-blow	
Battery (wireless foot switch)	9 V	
Protection class	IP20	
Mounting options	Tripod	
T-bar width	1500 mm	
Height (T-bar plus tripod)	max. 2500 mm	
Weight	8.8 kg	
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	50 %, non-condensing

Further information

Colour spectrum	RG
Animation laser	No
Grating laser	Yes
ILDA	No
Power rating	101 to 300
Analogue modulation	No

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

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



DANGER!

Laser radiation inside

During troubleshooting follow the instructions specified in [Chapter 2 'Safety instructions'](#) on page 7.

Only qualified personnel may carry out service work on the (open) device.

Suitable laser protection glasses are required for any activities at the device.

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	1. Check the power connection and main fuse.
	2. Check the safety key switch.
	3. Check the external safety switch (e.g., emergency stop button).
No response to the DMX controller	1. If the display shows a flashing number, for example '001', no DMX signal is being received. Check the DMX connectors and cables for proper connection.
	2. If the display does not flash and there is 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.
No response to the remote control	1. Check the remote control battery.
	2. Try using the remote control at a different angle to the IR sensor on the front panel of the device.
No response to the wireless foot switch	1. Check the battery of the wireless foot switch.
	2. Check in the 'SYS' menu whether the interface for the wireless footswitch is active.
	3. Decrease the distance between the wireless footswitch and the LED bar.

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.

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.

