



BAT.DERBY

LED effect

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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.

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 – 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. 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 life of the device by regular breaks in operation and avoid switching it on and off frequently. This device is not suitable for continuous 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.



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!

Incorrect handling of lithium batteries can result in injury

In the event of a short circuit, overheating or mechanical damage, lithium batteries can cause severe injuries.

Follow the advice on the correct handling of lithium batteries in the present section.



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!

Risk of fire due to incorrect polarity

Incorrectly inserted batteries may destroy the device or the batteries.

Ensure that proper polarity is observed when inserting batteries.



NOTICE!

Possible damage by leaking batteries

Leaking batteries can cause permanent damage to the device.

Take batteries out of the device if it is not going to be used for a longer period.

**NOTICE!****Possible damage due to incorrect storage**

Deep discharge can cause batteries to become permanently damaged or lose some of their capacity.

Before prolonged rest periods, charge the batteries to around 50 % of their capacity and then switch the equipment off. Store the equipment at a temperature between 10 °C and 32 °C in as dry an environment as possible. During extended storage periods, charge the batteries to 50 % approximately every three months.

3 Features

The battery-operated LED effect is suitable for use in clubs, bars, theatres, exhibitions, etc. or for mobile use.

Special features of the device:

- LEDs: 4 × RGBW, each 3 W
- Stand-alone, master-slave or DMX mode operation
- Control via DMX (7 channels), via the supplied infrared remote and via buttons and display on the unit
- Sound control
- Strobe effect
- dimmable
- Battery or mains powered
- incl. IR remote control, a rechargeable battery (also available separately under item no. 385488) and a charging cable for mains operation

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 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

The distance between light output and the illuminated surface must be more than 1.5 m (19.7in).

Provide 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.

Mounting options

You can install the unit in hanging or standing position. When in use, the device must always be attached to a solid surface or an approved truss. Use the openings of the bracket provided for mounting.

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.

The safety cable must be attached to the bracket.



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

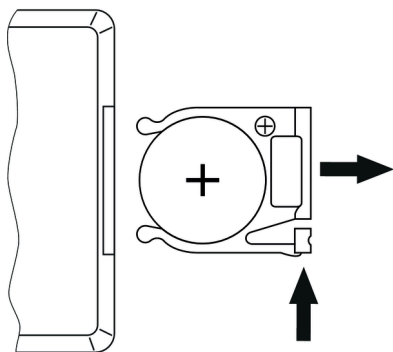
Infrared sensor for remote control

The infrared sensor for the remote control signals is located on the rear panel next to the display. Make sure it's not obstructed.

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.



4.1 Dealing with lithium batteries



WARNING!

Incorrect handling of lithium batteries can result in injury

In the event of a short circuit, overheating or mechanical damage, lithium batteries can cause severe injuries.

Follow the advice on the correct handling of lithium batteries in the present section.

When handled correctly and appropriately lithium batteries pose no risk.

Store lithium batteries in a cool, dry place, ideally in the original packaging.

Store lithium batteries away from heat sources (e.g. radiators or sunlight). Lithium batteries are hermetically sealed. Never attempt to open a lithium battery.

If the battery housing is damaged small amounts of the electrolyte may leak out. If this should happen, seal the lithium battery in airtight packaging and wipe up the traces of electrolyte using absorbent paper towels. You must wear protective rubber gloves when doing so. Clean your hands and the affected surface thoroughly with cold water.

Never attempt to recharge non-rechargeable lithium batteries. When charging lithium batteries you must use a suitable charging device intended for the purpose.

Before disposing of the device remove the lithium batteries. Protect used lithium batteries against potential short circuits, e.g. by covering the poles with adhesive tape.

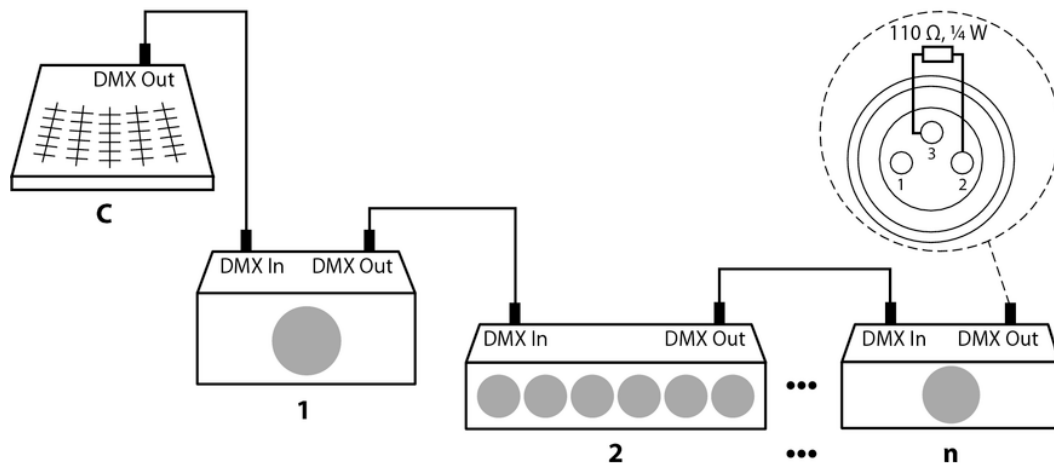
Only use powder extinguishers or other suitable extinguishing agents to extinguish a burning lithium battery.

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

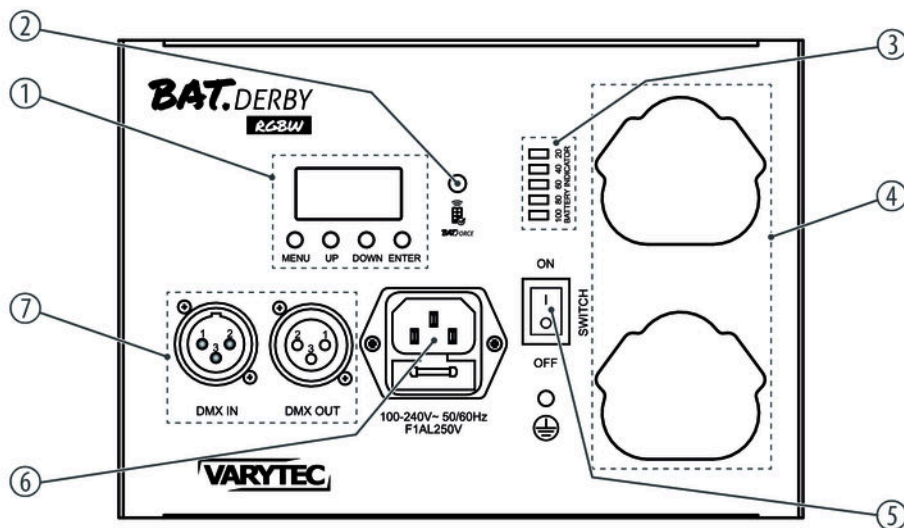
Connect the DMX input of the device to the DMX output of a DMX controller or another DMX device. Connect the output of the first DMX device to the input of the second one, and so on to form a daisy chain. Always ensure that the output of the last DMX device in the daisy chain is terminated with a resistor ($110\ \Omega$, $\frac{1}{4}\text{ W}$).



Connections in 'Master / Slave' mode

When you configure a group of devices in 'Master / Slave' mode, the first unit will control the others. 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.

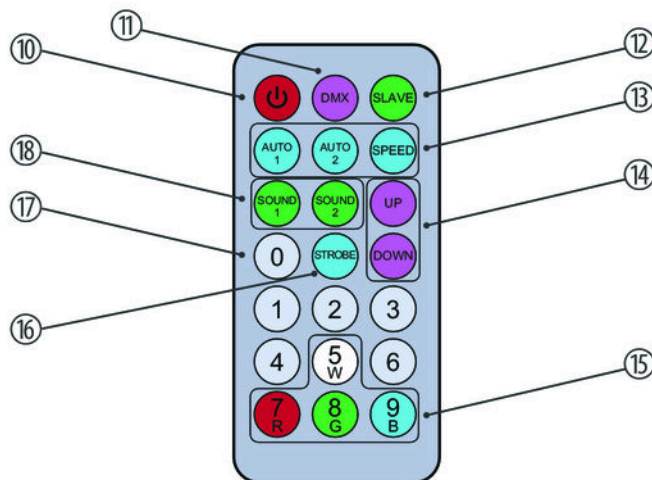
6 Connections and controls



1	Display and function buttons. <i>[MENU]</i> Activates the main menu and toggles between menu items. Closes an opened submenu. <i>[UP], [DOWN]</i> Toggles between the menu items of a menu level, increases or decreases the displayed value by one. <i>[ENTER]</i> Confirms the selection.
2	Infrared sensor for remote control
3	<i>[BATTERY INDICATOR]</i> Charging indicator of remaining battery capacity. When all the LEDs are on, the battery is fully charged.
4	2 × battery compartment
5	<i>[SWITCH]</i> Main switch. Turns the device on and off.

6	100 – 240 V~50/60 Hz Mains connection socket, designed as IEC chassis plug.
7	<i>[DMX IN]</i> DMX input.
	<i>[DMX OUT]</i> DMX output

Remote control



10	Button to turn the device on and off.
11	<i>[DMX]</i> Button to switch between DMX and stand-alone mode.
12	<i>[SLAVE]</i> Button to switch between master and slave mode.
13	<i>[AUTO 1], [AUTO 2], [SPEED]</i> Buttons to activate automatic mode 1 or 2 and to adjust the programme speed.
14	<i>[UP], [DOWN]</i> No function
15	Buttons for switching a basic colour on or off. Use <ul style="list-style-type: none"> ■ <i>[W]</i> for white light. ■ <i>[R], [G]</i> or <i>[B]</i> for primary colours red, green and blue.
16	<i>[STROBE]</i> No function

17	No function
18	<i>[SOUND 1]</i> , <i>[SOUND 2]</i> Buttons to activate sound-control mode 1 or 2.

7 Operating

7.1 Starting the device

Turn on the power using the main switch. The display shows the current operation mode.

7.2 Operating controls on the device

Menu control

1. ➤ Press *[MENU]* to open the main menu.
2. ➤ Press *[UP]* and *[DOWN]* to select the desired parameters or to change the respectively indicated value.
3. ➤ When the display shows the desired parameter or value press *[ENTER]*.
⇒ The respective submenu is displayed or the new value is confirmed.
4. ➤ To return to the previous menu level without changes, press *[MENU]*.

DMX address

1. ➤ Press *[MENU]* and press *[UP]* or *[DOWN]* repeatedly until the display shows 'Addr'.
2. ➤ Press *[ENTER]*.
3. ➤ Use *[UP]* or *[DOWN]* to select the desired DMX address between 001 and 512 (display shows 'A001' ... 'A512'). Make sure that this number matches the configuration of your DMX controller.
4. ➤ Confirm the selection with *[ENTER]*.
⇒ The selection is applied.

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

Sound control

Use 'SoUn' to select three different sound control programmes.

1. ➤ Press [MENU] and press [UP] or [DOWN] repeatedly until the display shows 'SoUn'. Confirm the selection with [ENTER]
2. ➤ Use [UP] or [DOWN] to select the desired sound control programme (display shows 'SoU1' ... 'SoU3'). Confirm the selection with [ENTER].
3. ➤ Use [UP] or [DOWN] to select the desired value for the sensitivity of the built-in microphone. For the sensitivity of the built-in microphone, a value between 'S 1' (low) and 'S 9' (high) can be selected. Confirm the selection with [ENTER].
⇒ The selection is applied.

Constant colour

Use 'CoLo' to select nine different pre-set colours or set a colour individually.

1. ➤ Press [MENU] and press [UP] or [DOWN] repeatedly until the display shows 'CoLo'. Confirm the selection with [ENTER].
2. ➤ Use [UP] or [DOWN] to select the desired pre-set colour (display shows 'CoL1...CoL9'). Confirm the selection with [ENTER].
or

3. ➤ use *[UP]* or *[DOWN]* to select 'AtF' for the individual colour setting. Confirm the selection with *[ENTER]*.

Use *[UP]* or *[DOWN]* to select the desired basic colour with the desired brightness value (display shows 'r000...r255' for red, 'G000...G255' for green, 'b000...b255' for blue, 'U000...U255' for white). Confirm the selection with *[ENTER]*.

⇒ The selected setting is accepted.

Auto programme

Use 'AUto' to select six automatic programmes and set a running speed.

1. ➤ Press *[MENU]* and press *[UP]* or *[DOWN]* repeatedly until the display shows 'AUto'. Confirm the selection with *[ENTER]*.

2. ➤ Use *[UP]* or *[DOWN]* to select the desired auto programme (display shows 'AUt1' ... 'AUt3'). Confirm the selection with *[ENTER]*.

⇒ The selected setting is accepted.

3. ➤ Use *[UP]* or *[DOWN]* to select the desired value of the movement speed. A speed value between 'SP 1' (low) and 'SP 9' (high) can be selected. Confirm the selection with *[ENTER]*.

⇒ The selected setting is accepted.

Remote control

Use 'reno' to activate or deactivate the remote control.

- 1.** ➤ Press [MENU] and press [UP] or [DOWN] repeatedly until the display shows 'reno'. Confirm the selection with [ENTER].
- 2.** ➤ Use [UP] or [DOWN] to select 'ON' to activate the remote control or 'OFF' to deactivate the remote control. Confirm the selection with [ENTER].
 - ⇒ The selected setting is accepted.

Device info

Use 'ver' to get device information.

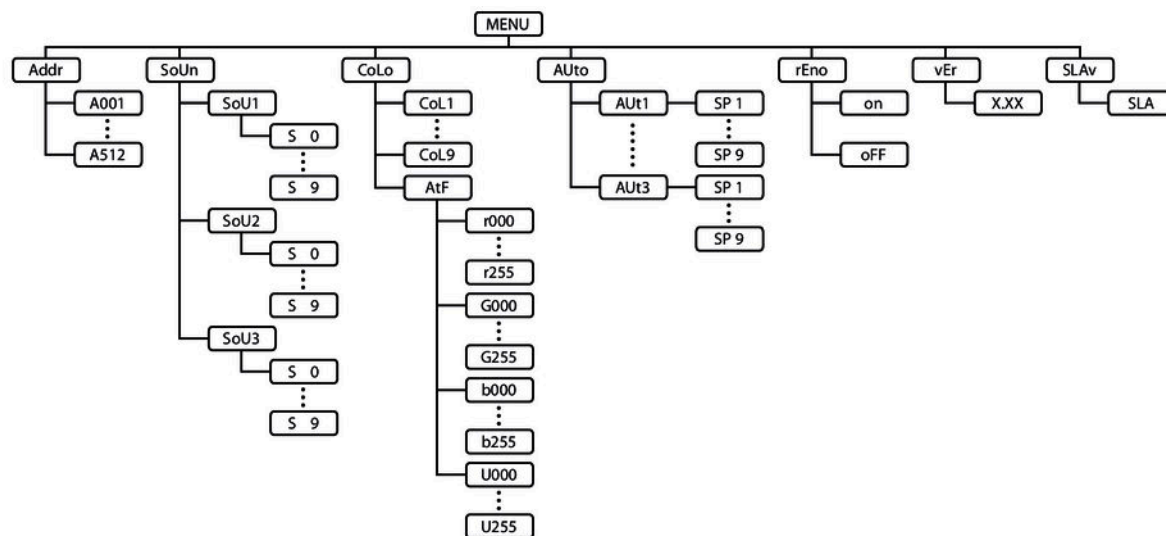
- 1.** ➤ Press [MENU] and press [UP] or [DOWN] repeatedly until the display shows 'ver'.
- 2.** ➤ Confirm the selection with [ENTER].
 - ⇒ The currently installed software version is displayed.

Master / slave mode

Use 'SLAu' to activate the Slave mode.




- 1.** ➤ Press *[MENU]* and press *[UP]* or *[DOWN]* repeatedly until the display shows 'SLAu'. Confirm the selection with *[ENTER]*.
- 2.** ➤ Use *[UP]* or *[DOWN]* to select 'SLA' to activate the Slave mode. Confirm the selection with *[ENTER]*.
 - ⇒ The device now operates in slave mode and applies all settings of the master device.

7.3 Menu overview



7.4 Charging the battery

The device can be operated with one or two rechargeable batteries. The device is supplied with one rechargeable battery (also available separately under item no. 385488). You can charge the battery during mains operation. Do not remove the battery during charging.

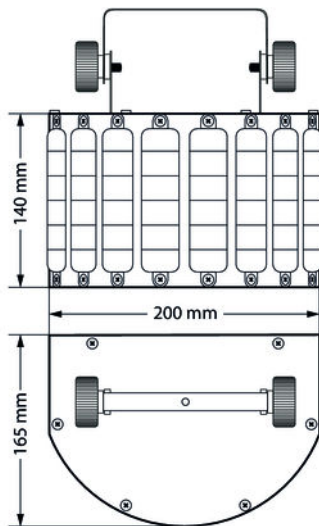
- 1.**  Slide the battery into the battery compartment.
- 2.**  Connect the mains plug to the mains socket of the device.
- 3.**  Connect the power plug to the power grid.
 - ⇒ Charging starts. The charge level indicators run from left to right during the charging process. When all 5 lights are lit at the same time, charging is complete.

While charging, you can switch off the device with the main switch.

7.5 Functions in 7-channel DMX mode

Channel	Value	Function
1	0...114	Setting the motor position
	115...255	Motor rotation (slow to fast)
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	0...7	Standard setting
	8...255	Strobe effect (slow to fast, 0 Hz...20 Hz)
7	0...15	Without function
	16...191	Automatic programmes 1...3
	192...255	Sound control programmes 1...3

8 Technical specifications



Light source	4 × RGBW, each 3 W	
Control	DMX	
	Remote control	
Number of DMX channels	7	
Control protocol	DMX 512	
Input connections	Voltage supply	IEC chassis plug C14
	DMX control	XLR chassis socket, 3-pin
Output connections	DMX control	XLR chassis socket, 3-pin
Power consumption	15 W	
Supply voltage	100 – 240 V ~ 50/60 Hz	
Fuse	5 mm × 20 mm, 1 A, 250 V, fast-acting	

Battery	Battery type	Lithium-ion Replaceable rechargeable battery packs, item no. 385488)
	Voltage	10.8 V
	Capacity	1500 mAh
	Charging time in the device	3 h
	Operating time per battery charge	In automatic mode when using 2 batteries: approx. 3 h
Battery remote control	Battery type	2 × button cells, LR1130/AG10, 1.5 V
Degree of protection	IP20	
Mounting options	Hanging, standing	
Dimensions (W × H × D)	200 mm × 140 mm × 165 mm	
Weight	2.7 kg	

Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	50 %, non condensing

Further information

Similar design	Beam effect
DMX control	Yes
Master/Slave	Yes
Remote control	Included
Sound control	Yes
Display	Yes
Housing colour	Black

9 Plug and connection assignments

Introduction

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

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

DMX connections



The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.

Pin	Configuration
1	Ground, shielding
2	Signal inverted (DMX-, 'cold signal')
3	Signal (DMX+, 'hot signal')

10 Troubleshooting



NOTICE!

Possible data transmission errors

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

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

In the following we list a few common problems that may occur during operation. We give you some suggestions for easy troubleshooting:

Symptom	Remedy
The unit does not work, no light	Check the mains connection and the 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.

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.

12 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 batteries



Batteries do contain some hazardous chemicals so they should not be thrown away with the normal household waste. They should be returned to the manufacturer for disposal or recycled elsewhere in accordance with your local regulations.

Remove lithium batteries from the device before disposal. Protect used lithium batteries against short circuit, for example by taping the poles.

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.

