



LED Hellball 3 RGB

LED effect

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08.07.2020, ID: 278299 (V2)

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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'*.

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
 A yellow triangular warning sign with a black border. Inside the triangle is a black silhouette of a person standing next to a rectangular object (a load) that is being lifted by a crane hook and cables.	Warning – suspended load.
 A yellow triangular warning sign with a black border. Inside the triangle is a large black exclamation mark.	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

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.



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.

3 Features

The Hellball 3 is a futuristic mirror ball effect and is characterized by the following features:

- 3×3 -W RGB-LEDs
- Semitransparent housing
- Control via DMX (6 channels) and via buttons and display on the unit
- Automatic mode with preprogrammed automatic shows
- Sound control
- Master / slave mode

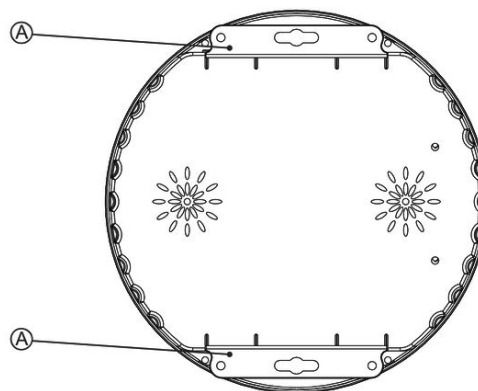
For technological reasons, the light output of LEDs decreases over their lifetime. This effect increases with higher operating temperature. You can extend the service life of the illuminants by providing adequate ventilation and operating the LEDs with the lowest possible brightness.

4 Installation and starting up

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.

Ceiling or wall mounting

The device is designed for ceiling or wall mounting and has for this purpose two mounting tabs on the bottom.



A Mounting tabs for ceiling or wall mounting of the unit.



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!

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.

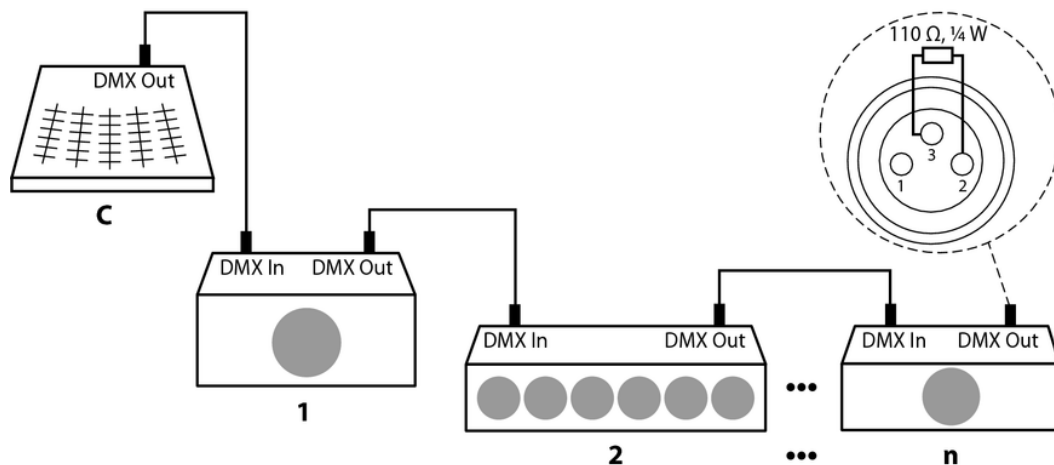
Use appropriate mounting hardware to attach the unit to the ceiling or a wall. The designated fastening area must be sufficiently stable for the load, level and vibration-free.

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



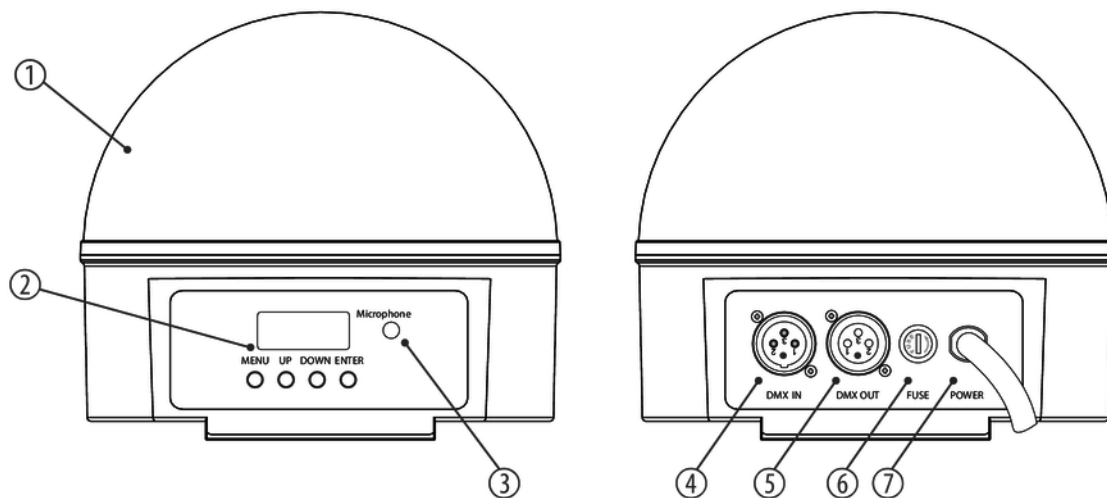
Connections in 'Master / Slave' mode

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 feature is especially useful to start a show without much programming. Connect the DMX output of the master unit to the DMX input of the first slave unit. 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).



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

5 Connections and controls



1	Semitransparent mirror ball with light apertures.
2	Display and control buttons: <i>[MODE]</i> Activates the main menu and toggles between menu items. Closes an opened submenu. <i>[UP]</i> Increases the displayed value by one. <i>[DOWN]</i> Decreases the displayed value by one. <i>[ENTER]</i> Selects an option of the respective operating mode, confirms the set value.
3	Microphone
4	<i>[DMX IN]</i> DMX input

5	<i>[DMX OUT]</i> DMX output
6	<i>[FUSE]</i> Fuse holder
7	<i>[POWER]</i> Power supply cable

6 Operating

Connect the device to the power supply to start operation.

6.1 Automatic mode

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 takes effect only when the device is not operated under DMX control.

Press *[Mode]* repeatedly until the display shows 'Ax_x'.

Press *[UP]* or *[DOWN]* to set the speed of the selected programme.

Programme	Effect
'A1_1'	All LEDs red
'A2_1'	All LEDs green
'A3_1'	All LEDs blue
'A4_1'	All LEDs three colours changing (red, green, blue)
'A5_1'	All LEDs seven colours changing (red, green, blue, mixed colours)

Programme	Effect
'A6_1'	Fade in, Fade out
'A7_1'	Stroboscope effect, three colours changing

Confirm by pressing *[ENTER]* to open the menu for the settings of the programme sequence speed. Press *[UP]* or *[DOWN]* to set the programme sequence speed in a range from 'Ax_1' ... 'Ax_9' (slow ... fast).

Confirm by pressing *[ENTER]* to activate the automatic mode.

6.2 Sound control

This setting is only relevant if the device is not controlled via DMX. In this operating mode, the device responds to acoustic pulses which are recorded by the integrated microphone.

Press *[MODE]* repeatedly until the display shows 'Sx_x'.

Programme	Effect
'S1_1'	All LEDs colours changing with rotation movement
'S2_1'	All LEDs colours changing with rotation movement and stroboscope effect

Confirm with *[ENTER]* to activate the music control.

6.3 Operating mode Slave

Connect the unit to the master with a suitable cable. The unit then operates as slave in a master/slave configuration and performs the movements/effects predefined by the master.

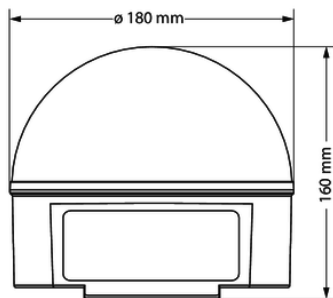
6.4 DMX mode

Connect the unit to the DMX controller with a suitable cable. The unit can be controlled via 6 DMX channels. Press *[MODE]* repeatedly until the display shows 'AXXX'. Now you can press *[UP]* or *[DOWN]* to set the DMX start address. Confirm with *[ENTER]*.

Channel	Value	Function
1	0 ... 5	Stroboscope effect off
	6 ... 255	Stroboscope effect, increasing speed
2	0	Red off
	1 ... 255	Intensity red, 0 ... 100 %
3	0	Green off
	1 ... 255	Intensity green, 0 ... 100 %
4	0	Blue off
	1 ... 255	Intensity blue, 0 ... 100 %

Channel	Value	Function
5	0 ... 5	Rotation movement off
	6 ... 127	Index, fixed position
	128 ... 255	Rotation movement, increasing speed
6	0 ... 5	Control via channel 1 ... 5
	6 ... 127	Built-in show programmes
	128 ... 255	Sound-controlled shows

7 Technical specifications



Light source	3 × RGB-LEDs, each 3 W	
Optical properties	Beam angle	135°
Control	DMX, buttons and display on the unit	
Number of DMX channels	6	
Input connections	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, slow-blow	
Degree of protection	IP20	
Mounting options	Hanging, standing	
Dimensions (W × H × D)	180 mm × 180 mm × 160 mm	

Weight	0.8 kg	
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	50 %, non-condensing

Further information

Similar design	Mirror ball
DMX control	Yes
Master/Slave	No
Remote control	Not possible
Sound control	Yes
Display	Yes

8 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')

9 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	1. Check the mains connection and the main fuse.
	2. Check the settings in manual operation.
No response to the DMX controller	1. Check whether the DMX cables run near or parallel to high-voltage cables that may cause damage or interference to a DMX interface circuit.
	2. Try using another DMX controller.

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

10 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.

11 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 of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the notes and markings on the packaging.

Disposal of your old device



This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) in its currently valid version. Do not dispose with your normal household waste.

Dispose of this device through an approved waste disposal firm or through your local waste facility. When discarding the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste disposal facility.

