



LED Octagon
XB 432 RGBW

LED PAR

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Table of contents

1	General notes.....	5
2	Safety instructions.....	8
3	Features.....	12
4	Installation.....	13
5	Starting up.....	15
6	Connections and operating elements.....	18
7	Operating.....	21
	7.1 Starting up the device.....	21
	7.2 Main menu.....	21
	7.3 Menu overview.....	28
	7.4 Functions in 4-channel DMX mode.....	29
	7.5 Functions in 6-channel DMX mode.....	29
	7.6 Functions in 8-channel DMX mode.....	31
8	Technical specifications.....	33

9	Plug and connection assignments.....	34
10	Troubleshooting.....	35
11	Protecting the environment.....	37


1 General notes



This user manual contains important information on 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 other users, be sure that they also receive this manual.

Our products are subject to a process of continuous development. We therefore reserve the right to make changes without notice.

Symbols and signal words

This section provides an overview of the symbols and signal words used in this user 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 signs	Type of danger
	Warning – suspended load.
	Warning – danger zone.

2 Safety instructions

Intended use

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



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 cover the device nor any ventilation slots. Do not place 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 Octagon XB 432 RGBW fulfills all requirements of a professional LED headlight. The water-proof housing (IP65) also allows outdoor operation, expanding the span of applications like stage use, disco and decoration by architectural lighting. All power cable and DMX control connectors are implemented as IP40 type and must be protected correspondingly for outdoor operation.

Special features of the device:

- 432 × 5 mm LEDs, each 108 of red, green, blue and white colour
- 41 preprogrammed automatic shows
- Control via DMX (3 different modes) as well as via buttons and display on the unit
- Master / slave operation

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.

You can install the device on the wall, ceiling or floor. A mounting bracket and the necessary screws are included in the package.

**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 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.

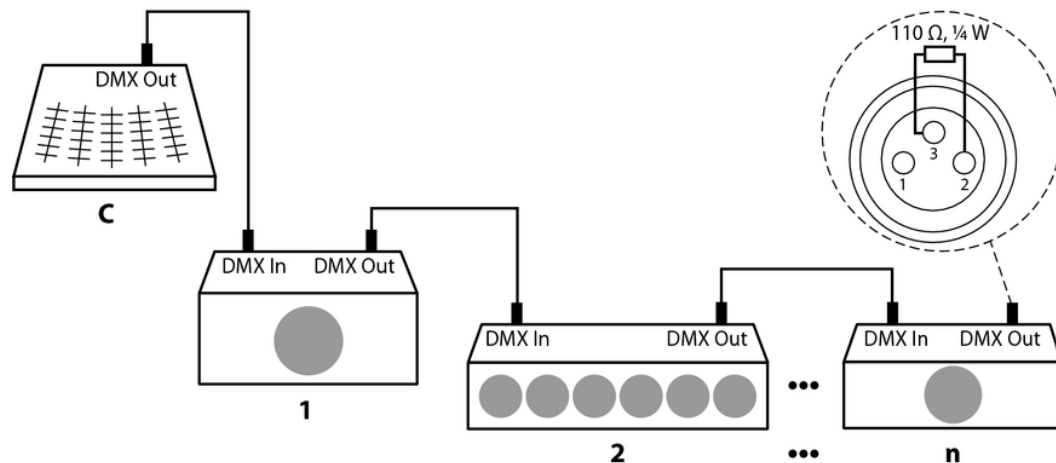
Never connect the DMX input or output to audio devices such as mixers or amplifiers.

5 Starting up

Establish all connections as long as the unit is switched off. Use the shortest possible high-quality cables for all connections.

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

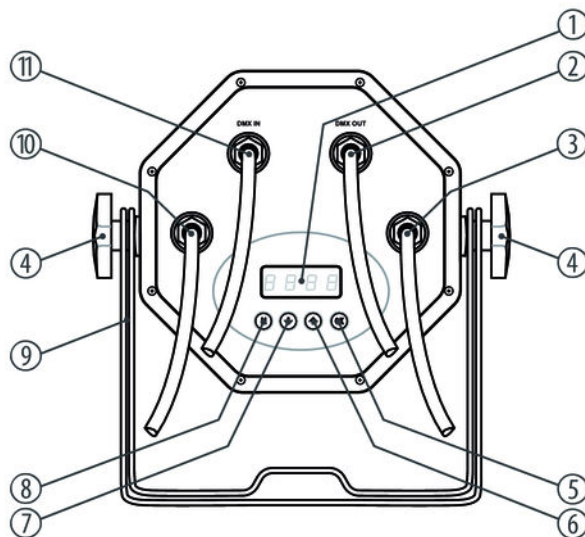


Connections in master/slave mode

When you configure a group of devices in master/slave mode, the first unit will control the 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 operating elements

Rear panel



1	Display.
2	DMX OUT DMX output.
3	Outgoing port supply voltage.
4	Locking screw for the bracket.
5	[OK] button Confirms the selected value.
6, 7	↑, ↓ buttons Increases or decreases the displayed value by one.
8	[M] button Activates the main menu or a submenu.
9	Dual bracket for hanging or setting up.

10	Incoming port supply voltage.
11	DMX IN DMX input.

7 Operating

7.1 Starting up the device

Connect the unit to the power grid to start the operation. After a few seconds, the display shows a running reset. Then, the device is operational.

7.2 Main menu

Press the *[M]* button to activate the main menu and select an operating mode. Use the arrow keys to change the respectively indicated value. When the display shows the desired value, press the *[OK]* button.

If you don't press any button for about 1 minute, the unit returns to the previous mode. The set values are retained even when the device is disconnected from the mains power supply.

DMX mode

Press the *[M]* button. Press one of the arrow keys repeatedly until the display shows 'SET'. Press the *[OK]* button. Press one of the arrow keys repeatedly until the display shows 'MODE'. Press the *[OK]* button. Now use the arrow keys to select one of the following DMX operating modes:

- '4CH' (four channels)
- '6CH' (six channels)
- '8CH' (eight channels)

This setting is only relevant if the unit is controlled via DMX. When the display shows the desired value, press the *[OK]* button to confirm the selection, and then *[M]* to return to the parent menu. To return to the parent menu without any changes, press the *[M]* button.

DMX address

Press the *[M]* button. Press one of the arrow keys repeatedly until the display shows 'DMX'. Press the *[OK]* button. Now you can set the number of the first DMX channel to be used by the device (DMX address). Select a value between 1 and 512 with the arrow keys (display shows 'A001' ... 'A512').

When the display shows the desired value, press the *[OK]* button to confirm the selection, and then *[M]* to return to the parent menu. To return to the parent menu without any changes, press the *[M]* button.

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

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

Operating mode 'Show/Master'

Press the *[M]* button. Press one of the arrow keys repeatedly until the display shows 'LINE'. Press the *[OK]* button. Press one of the arrow keys repeatedly until the display shows 'MA'. Press the *[OK]* button. Now you can select one of the 41 preprogrammed automatic shows. Use the arrow keys to select a value between 1 and 42 (display shows 'P-01' ... 'P-42').

The automatic show can only be activated on the unit, that operates as Master.

This setting is only relevant if the unit is not controlled via DMX. The device can work in stand-alone mode or control connected devices of the same type, which must be configured as slave. When the display shows the desired value, press the *[OK]* button to confirm the selection, and then *[M]* to return to the parent menu. To return to the parent menu without any changes, press the *[M]* button.

(For operating mode 'Slave' see ↗ 'Operating mode 'Slave'' on page 27.)

Programme speed

Press the *[M]* button. Press one of the arrow keys repeatedly until the display shows 'SET'. Press the *[OK]* button. Press one of the arrow keys repeatedly until the display shows 'SPEE'. Press the *[OK]* button. Now you can set the programme speed for the preprogrammed automatic shows. Select a value between 1 and 255 (display shows 'T001' ... 'T255').

This setting is only relevant if the unit is not controlled via DMX. When the display shows the desired value, press the *[OK]* button to confirm the selection, and then *[M]* to return to the parent menu. To return to the parent menu without any changes, press the *[M]* button.

Microphone sensitivity

Press the *[M]* button. Press one of the arrow keys repeatedly until the display shows 'SET'. Press the *[OK]* button. Press one of the arrow keys repeatedly until the display shows 'MIC'. Press the *[OK]* button. Now you can adjust the sensitivity of the built-in microphone for the sound-control. Use the arrow keys to select either 'OFF' (microphone off) or a value between 1 and 30 (display shows 'M-01' ... 'M-30').

This setting is only relevant if the unit is not controlled via DMX. When the display shows the desired value, press the *[OK]* button to confirm the selection, and then *[M]* to return to the parent menu. To return to the parent menu without any changes, press the *[M]* button.

Fade speed

Press the *[M]* button. Press one of the arrow keys repeatedly until the display shows 'FADE'. Press the *[OK]* button. Now you can adjust the fade speed of the preprogrammed automatic shows. Select a value between 1 and 7 with the arrow keys (display shows 'F-01' ... 'F-07').

This setting is only relevant if the unit is not controlled via DMX. When the display shows the desired value, press the *[OK]* button to confirm the selection and to return to the main menu. To return to the main menu without any changes, press the *[M]* button.

Colour selection

Press the *[M]* button. Press one of the arrow keys repeatedly until the display shows 'COLO'. Press the *[OK]* button. Now you can set the a basic colour for the preprogrammed automatic shows. Select a value between 1 and 4 with the arrow keys (display shows 'C-01' ... 'C-04').

This setting is only relevant if the unit is not controlled via DMX. When the display shows the desired value, press the *[OK]* button to confirm the selection and to return to the main menu. To return to the main menu without any changes, press the *[M]* button.

Manual test

Press the *[M]* button. Press one of the arrow keys repeatedly until the display shows 'TEST'. Press the *[OK]* button. Press one of the arrow keys repeatedly until the display shows 'RED', 'GREE', 'BLUE', 'WHIT' or 'STRO'. Press the *[OK]* button. Now you can adjust the brightness of the red, green, blue or white LEDs, each in a range of 0 to 255, or select the flashing speed in a range of 0 to 24.

This operation mode is also suitable to produce constant or flashing light of a colour mixed from the four LED colours without DMX control.

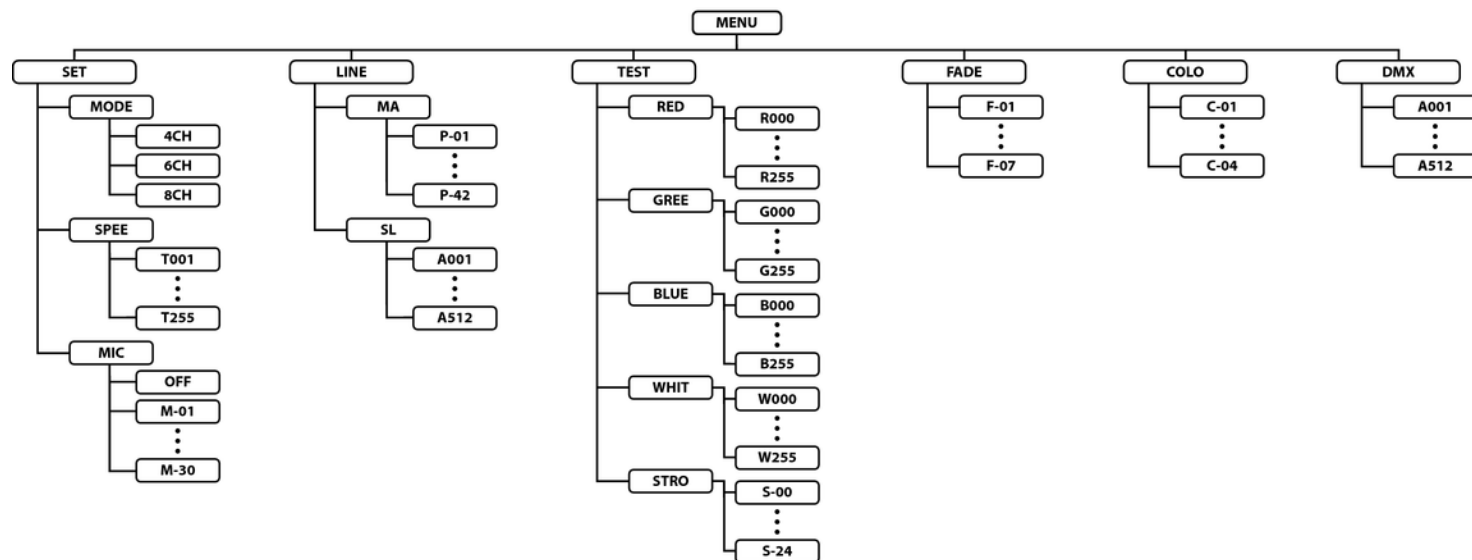
When the display shows the desired value, press the *[OK]* button to confirm the selection, and then *[M]* to return to the parent menu. To return to the parent menu without any changes, press the *[M]* button.

Operating mode 'Slave'

Press the *[M]* button. Press one of the arrow keys repeatedly until the display shows 'LINE'. Press the *[OK]* button. Press one of the arrow keys repeatedly until the display shows 'SL'. Press the *[OK]* button. Now you can set the number of the device through which it is addressed as Slave by the Master. Select a value between 1 and 512 with the arrow keys (display shows 'A001' ... 'A512').

This setting is only relevant if the unit works as slave controlled by a master, but not via DMX. When the display shows the desired value, press the *[OK]* button to confirm the selection, and then *[M]* to return to the parent menu. To return to the parent menu without any changes, press the *[M]* button.

7.3 Menu overview



7.4 Functions in 4-channel DMX mode

Channel	Value	Function
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...255	Intensity white (0 % to 100 %)

7.5 Functions in 6-channel DMX mode

Channel	Value	Function
1		Operating mode selection
	0...63	Constant colour, colour hue is set via channels 2 to 5

Channel	Value	Function
	64...127	Automatic colour change with 7 colours, channels 2 to 5 without function
	128...191	Automatic colour change with 12 colours, channels 2 to 5 without function
	192...255	Automatic colour change with 4 colours, channels 2 to 5 without function
2	0...255	Intensity red (0 % to 100 %), if channel 1 = 0...63
3	0...255	Intensity green (0 % to 100 %), if channel 1 = 0...63
4	0...255	Intensity blue (0 % to 100 %), if channel 1 = 0...63
5	0...255	Intensity white (0 % to 100 %), if channel 1 = 0...63
6	Effects speed	
	0...10	No automatic colour change
	11...100	Automatic colour change as set via channel 1, decreasing speed from fast to slow
	101...150	No automatic colour change
	151...255	Automatic colour change as set via channel 1, sound / programme controlled

7.6 Functions in 8-channel DMX mode

Channel	Value	Function
1	0...255	Intensity red (0 % to 100 %), if channel 5 = 0...15 and channel 7 = 0...31
2	0...255	Intensity green (0 % to 100 %), if channel 5 = 0...15 and channel 7 = 0...31
3	0...255	Intensity blue (0 % to 100 %), if channel 5 = 0...15 and channel 7 = 0...31
4	0...255	Intensity white (0 % to 100 %), if channel 5 = 0...15 and channel 7 = 0...31
5	Fixed colour pattern	
	0...15	No fixed colour and movement pattern
	16...255	One of 31 preprogrammed automatic shows (macros), channels 6 and 7 without function
6	Strobe effect	
	0...15	Full brightness, no strobe effect
	16...255	Strobe effect, increasing speed if channel 5 = 0...15
7	Operating mode selection	

Channel	Value	Function
	0...31	Constant colour, colour hue is set via channels 1 to 4
	32...63	Fade-out effect, speed control via channel 6
	64...95	Fade-in effect, speed control via channel 6
	96...127	Fade-in/out effect, speed control via channel 6
	128...159	Auto-mix effect, speed control via channel 6, channels 1 to 5 without function
	160...191	Chase (4 colours), speed control via channel 6, channels 1 to 5 without function
	192...223	Chase (12 colours), speed control via channel 6, channels 1 to 5 without function
	224...255	Sound-control
8	0...255	Dimmer (0 % to 100 %)

8 Technical specifications

Illuminant	108 × 5 mm LEDs, red
	108 × 5 mm LEDs, green
	108 × 5-mm-LEDs, blue
	108 × 5 mm LEDs, white
Number of DMX channels	4, 6, 8
Dispersion angle	36 °
Protection class	IP65
	Power cable and DMX data cable: IP40
Operating supply voltage	AC 230 V ~ , 50 Hz / AC 110 V ~ , 60 Hz
Power consumption	30 W
Dimensions (W × D × H)	215 mm × 140 mm × 215 mm
Weight	4.0 kg

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 fuse.
No response to the DMX controller.	1. Check the DMX ports and cables for proper connection.
	2. 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 www.thomann.de.

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). 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.



