VARYTEC

Blitz Bar 240

User Manual

Stroboscope

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Table of contents

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 – suspended load.

Warning signs	Type of danger
	Warning – danger zone.

2 Safety instructions

Intended use

This device is intended to be used as an illumination effect. The device is designed for professional use and is not suitable for use in households. Use the device only as described in this user manual. Any other use or use under other operating conditions is considered to be improper and may result in personal injury or property damage. No liability will be assumed for damages resulting from improper use.

This device may be used only by persons with sufficient physical, sensorial, and intellectual abilities and having corresponding knowledge and experience. Other persons may use this device only if they are supervised or instructed by a person who is responsible for their safety.

Safety

DANGER!

Danger for children

Ensure that plastic bags, packaging, etc. are disposed of properly and are not within reach of babies and young children. Choking hazard! Ensure that children do not detach any small parts (e.g. knobs or the like) from the unit. They could swallow the pieces and choke! Never let children unattended use electrical devices.

DANGER!

Electric shock caused by 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.

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!

Fire hazard due to exceedance of the maximum current

The device can power other devices of identical construction. The current consumption of all other devices connected in series must not exceed the values indicated in the technical specifications. Otherwise you risk injuries and irreparable damages to the device. Only connect so many identical devices that the maximum current consumption is not exceeded. Ensure the sufficient dimensioning (wire cross section) of the power cables used for all devices connected in series.

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

- LED strobe bar with ambient effect
- Futuristic effects through pixel control of the stroboscope
- Creative running effects
- 240 × CW LEDs for bright and dynamic strobe effects, arranged tubularly in the middle
- 384 × RGB LEDs for wash effects and colourful accents in the background
- Up to 20 individually controllable segments with the CW LEDs
- Up to 32 individually controllable segments with the RGB LEDs
- Control via DMX and via buttons and display on the device
- Operating modes:
  - Master/Slave
  - Sound control via built-in microphone
  - Auto operation
  - DMX (3 modes)
- 20 built-in chase programmes in automatic mode and sound control
- Flash rate: 0…20 Hz
- OLED display with four touch-sensitive buttons
- Swivelling mounting bracket
- Without fan due to convection cooling
- With Omega bracket for safe, hanging installation

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!

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 device 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 provided on the two-piece bracket for attaching.

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

The safety cable must be attached to the bracket.

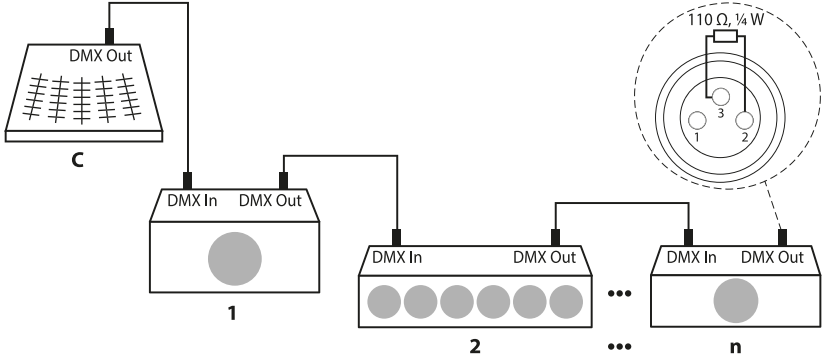
Please note that this device must not be connected to a dimmer.

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).

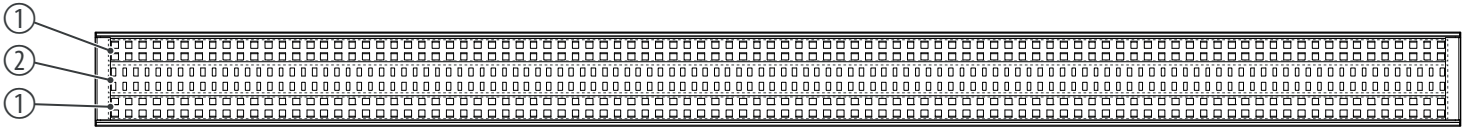


Connections in master/slave mode

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.

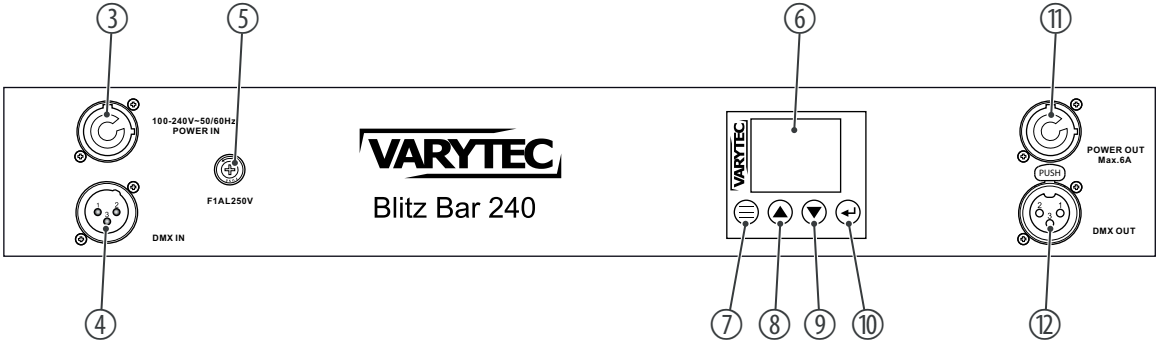
6 Connections and operating elements

Front panel



1	RGB LEDs
2	CW LEDs

Connection panel



3	*[POWER IN]* | lockable input socket (Power Twist) for the power supply of the device
4	*[DMX IN]* | DMX input, designed as XLR panel plug, 3-pin
5	*[F1AL250V]* | fuse holder
6	Display
7	☰ | activates the main menu for selecting the operating mode
8	▲ | increases the displayed value by one
9	▼ | decreases the displayed value by one

10	⏎ | selects an option of the respective operating mode, confirms the displayed value
11	*[POWER OUT]* | lockable output socket (Power Twist) for the power supply of further devices
12	*[DMX OUT]* | DMX output, designed as XLR panel socket, 3-pin

7 Operating

7.1 Starting the device

1. Connect the device to the power grid. The device is immediately operational.
2. The set values are retained during a power supply interruption.

7.2 Main menu

1. Press ☰ to activate the main menu.
2. Press ▲ or ▼ to select a menu item.
3. Press ↵ to confirm the selection.
4. Use ▲ or ▼ to change the respectively displayed value.
5. When the display shows the desired value, confirm with ↵.
6. To exit a menu item without making changes, press ☰.

All previously made settings are retained even when you disconnect the device from the power grid.

7.2.1 DMX address

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

1. Press ☰ to activate the main menu.
2. Press ▲ or ▼ until the display shows *'Dmx Address'* and confirm with ↵.
3. Use ▲ or ▼ to select a value between *'A000'* and *'A512'* for the desired DMX address.

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

Mode	Highest possible DMX address
8-channel mode	505
14-channel mode	499
232-channel mode	281

4. When the display shows the desired value, confirm with ↵.

7.2.2 DMX mode

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

1. Press ☰ to activate the main menu.
2. Press ▲ or ▼ until the display shows *'Mode'* and confirm with ↵.
3. Press ▲ or ▼ until the display shows *'DMX'* and confirm with ↵.
4. Press ▲ or ▼ to select the desired DMX mode.

Menu level 3	Function
'8Ch'	8-channel mode
'14Ch'	14-channel mode
'232Ch'	232-channel mode

5. When the display shows the desired value, confirm with ↵.

7.2.3 Auto operation

Auto mode can only be activated when the unit is operating in stand alone mode or as master in a master / slave combination. This setting is only relevant if the device is not controlled via a DMX controller. In auto mode, 20 different show programmes are available, which run with adjustable speed.

1. Press ☰ to activate the main menu.

2. Press ▲ or ▼ until the display shows *'Mode'* and confirm with ↵.

3. Press ▲ or ▼ until the display shows *'Auto'* and confirm with ↵.

4. Use ▲ or ▼ to select the desired show programme (*'Pro 00'* … *'Pro 20'*) and confirm with ↵.

⇨ The display shows *'SP'*.

5. Use ▲ or ▼ to set the running speed of the programme in a range from *'Sp 01'* (slow) … *'Sp 99'* (fast) and confirm with ↵.

7.2.4 Sound control

Sound control mode can only be activated when the unit is operating in stand alone mode or as master in a master / slave combination. This setting is only relevant if the device is not controlled via a DMX controller. In this operating mode, the device responds to acoustic pulses which are recorded by the integrated microphone.

1. Press ☰ to activate the main menu.

2. Press ▲ or ▼ until the display shows *'Mode'* and confirm with ↵.

3. Press ▲ or ▼ until the display shows *'Sound'* and confirm with ↵.

4. Use ▲ or ▼ to select the desired show programme (*'Pro 00'* … *'Pro 20'*) and confirm with ↵.

⇨ The display shows *'SP'*.

5. Use▲ or ▼ to set the running speed of the programme in a range from *'Se 01'* (slow) … *'Se 99'* (fast) and confirm with ↵.

7.2.5 Manual colour settings

This setting is only relevant if the device is not controlled via a DMX controller.

1. Press ☰ to activate the main menu.
2. Press ▲ or ▼ until the display shows *'Mode'* and confirm with ↵.
3. Press ▲ or ▼ until the display shows *'Manual'* and confirm with ↵.

   The following table shows the setting options.

Menu level 2	Menu level 3	Menu level 4	Function
'Manual'	*'Dimmer'*	*'000'* … *'255'*	Overall brightness
	'Red'	*'000'* … *'255'*	Intensity red (0 % to 100 %)
	'Green'	*'000'* … *'255'*	Intensity green (0 % to 100 %)
	'Blue'	*'000'* … *'255'*	Intensity blue (0 % to 100 %)
	'White'	*'000'* … *'255'*	Intensity white (0 % to 100 %)
	'35 Show'	*'000'* … *'255'*	Brightness strobe LEDs
	'35 Sp'	*'000'* … *'255'*	Running speed strobe LEDs
	'35'Str'	*'000'* … *'255'*	Flash rate strobe LEDs
	'50 Show'	*'000'* … *'255'*	Brightness ambient LEDs

Menu level 2	Menu level 3	Menu level 4	Function
	'50 Sp'	*'000'* … *'255'*	Running speed ambient LEDs
	'50'Str'	*'000'* … *'255'*	Flash rate ambient LEDs
	'50BG-R'	*'000'* … *'255'*	Brightness ambient LEDs red
	'50BG-G'	*'000'* … *'255'*	Brightness ambient LEDs green
	'50BG-B'	*'000'* … *'255'*	Brightness ambient LEDs blue

4. When the display shows the desired value, confirm with ⏎.

7.3 System settings

1. Press ☰ to activate the main menu.
2. Press ▲ or ▼ until the display shows *'Setting'* and confirm with ↵.

The following table shows the setting options.

Menu level 2	Menu level 3	Function
'Display'	Automatic display shutdown when not in use	
	'on'	The display illumination is permanently on
	'off'	The display illumination is switched off after 30 seconds
'Display Rev'	Display inversion	
	'on'	On, display is rotated by 180°
	'off'	Off, normal display
'DMX Fail'	Device behaviour on DMX signal failure	
	'Blackout'	Blackout
	'Manual'	Performing the manual control
	'Auto'	Performing an automatic run
	'Hold'	Retaining last settings

3. When the display shows the desired value, confirm with ⏎.

7.4 System information

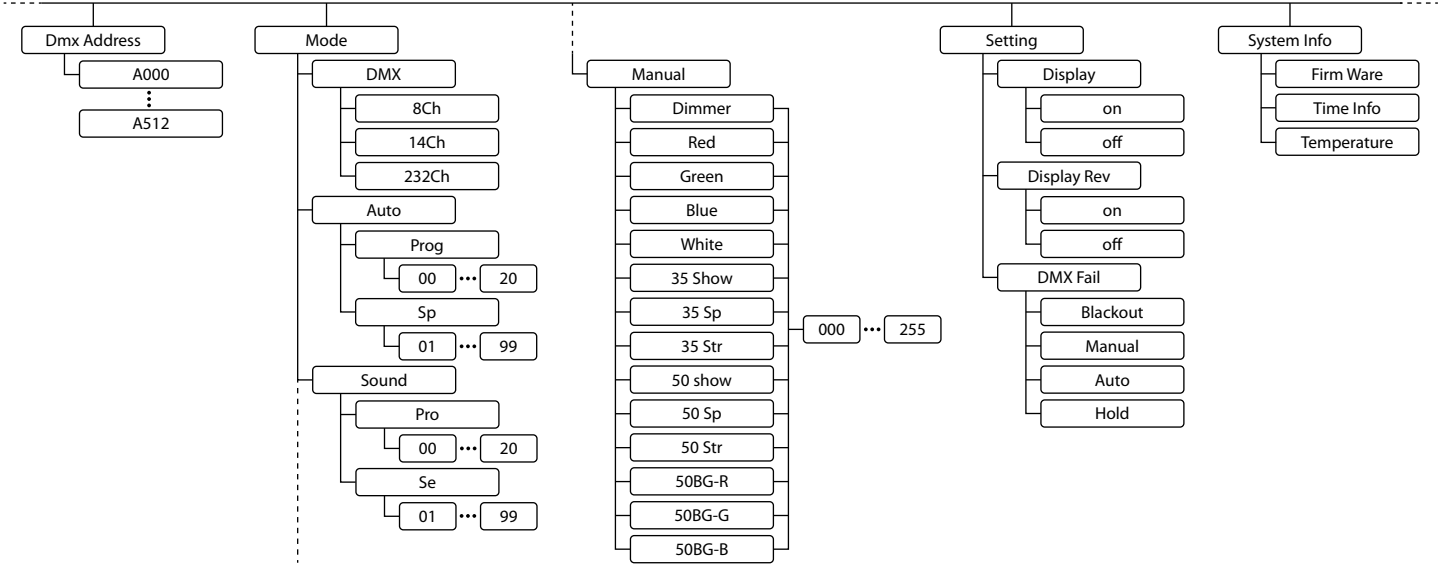
1. Press ☰ to activate the main menu.
2. Press ▲ or ▼ until the display shows *'System Info'* and confirm with ⏎.

   The following table shows the setting options.

Menu level 2	Function
'Firm Ware'	Displays the current firmware version.
'Time Info'	Displays the total running time of the device.
'Temperature'	Displays the current temperature of the device.

3. When the display shows the desired value, confirm with ⏎.

7.5 Menu overview



7.6 Functions in 8-channel mode

Channel	LED	Value	Function
1	Ambient LED	0…255	Intensity red (0 % to 100 %)
2	Ambient LED	0…255	Intensity green (0 % to 100 %)
3	Ambient LED	0…255	Intensity blue (0 % to 100 %)
4	Strobe LED	0…255	Strobe, increasing speed, colours (0 % bis 100 %)
5	Strobe LED	0…7	No function
		8…19	Automatic show white 1
		20…31	Automatic show white 2
		32…43	Automatic show white 3
		…	…
		212…223	Automatic show white 18
		224…235	Automatic show white 19
		236…255	Automatic show white 20
6	Strobe LED	0…255	Running speed of automatic show white, increasing (when channel 5 = 8…255)

Channel	LED	Value	Function
7	Ambient LED	0…7	No function
		8…12	Automatic show RGB 1
		13…16	Automatic show RGB 2
		17…20	Automatic show RGB 3
		…	…
		244…247	Automatic show RGB 60
		248…251	Automatic show RGB 61
		252…255	Automatic show RGB 62
8	Ambient LED	0…255	Running speed of automatic show RGB, increasing (when channel 7 = 8…255)

7.7 Functions in 14-channel mode

Channel	LED	Value	Function
1	Ambient LED	0…255	Intensity red (0 % to 100 %)
2	Ambient LED	0…255	Intensity green (0 % to 100 %)
3	Ambient LED	0…255	Intensity blue (0 % to 100 %)
4	Strobe LED	0…255	Intensity white (0 % to 100 %)
5	Strobe LED	0…7	No function
		8…19	Automatic show white 1
		20…31	Automatic show white 2
		32…43	Automatic show white 3
		…	…
		212…223	Automatic show white 18
		224…235	Automatic show white 19
		236…255	Automatic show white 20
6	Strobe LED	0…255	Running speed of automatic show white, increasing (when channel 5 = 8…255)

Channel	LED	Value	Function
7	Strobe LED	0…8	No stroboscope
		9…255	Strobe, increasing speed (0 % to 100 %)
8	Ambient LED	0…7	No function
		8…12	Automatic show RGB 1
		13…16	Automatic show RGB 2
		17…20	Automatic show RGB 3
		…	…
		244…247	Automatic show RGB 60
		248…251	Automatic show RGB 61
		252…255	Automatic show RGB 62
9	Ambient LED	0…255	Running speed of automatic show RGB, increasing (when channel 7 = 8…255)
10	Ambient LED	0…15	No stroboscope
		16…255	RGB strobe, increasing speed (0 % to 100 %)
11	Ambient LED	0…255	Background red (0 % to 100 %)
12	Ambient LED	0…255	Background green (0 % to 100 %)

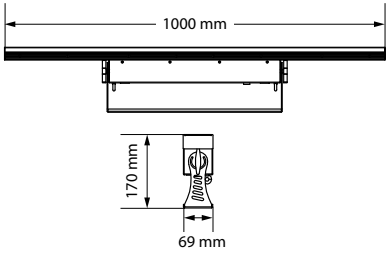
Channel	LED	Value	Function
13	Ambient LED	0…255	Background blue (0 % to 100 %)
14	Ambient LED	0…127	Direction normal
		128…255	Direction inverted

7.8 Functions in 232-channel mode

Channel	LED	Value	Function
1	Strobe LED	0…255	Intensity white 1 (0 % to 100 %)
2	Strobe LED	0…255	Intensity white 2 (0 % to 100 %)
3	Strobe LED	0…255	Intensity white 3 (0 % to 100 %)
…	…	…	…
38	Strobe LED	0…255	Intensity white 38 (0 % to 100 %)
39	Strobe LED	0…255	Intensity white 39 (0 % to 100 %)
40	Strobe LED	0…255	Intensity white 40 (0 % to 100 %)
41	Ambient LED	0…255	Intensity red 1 (0 % to 100 %)
42	Ambient LED	0…255	Intensity green 1 (0 % to 100 %)
43	Ambient LED	0…255	Intensity blue 1 (0 % to 100 %)
44	Ambient LED	0…255	Intensity red 2 (0 % to 100 %)
45	Ambient LED	0…255	Intensity green 2 (0 % to 100 %)
46	Ambient LED	0…255	Intensity blue 2 (0 % to 100 %)
47	Ambient LED	0…255	Intensity red 3 (0 % to 100 %)

Channel	LED	Value	Function
48	Ambient LED	0…255	Intensity green 3 (0 % to 100 %)
49	Ambient LED	0…255	Intensity blue 3 (0 % to 100 %)
…	…	…	…
230	Ambient LED	0…255	Intensity red 64 (0 % to 100 %)
231	Ambient LED	0…255	Intensity green 64 (0 % to 100 %)
232	Ambient LED	0…255	Intensity blue 64 (0 % to 100 %)

8 Technical specifications



Light source	240 × CW LED SMD 5730, 0.25 W (strobe) 384 × CW LED SMD 5050, 0.5 W (ambient)	
Properties of the CW LEDs SMD 5730	Colour temperature	6200 K
	Colour rendering index	CRI RA of 70
Optical properties	Beam angle	60° (strobe) and 120° (ambient)
Control	DMX, buttons and display on the unit	
Number of DMX channels	8, 14, 232	
Input connections	Power supply	Lockable input socket (Power Twist)
	DMX control	XLR chassis plug, 3-pin
Output connections	Power supply	Lockable output socket (Power Twist)
	DMX control	XLR chassis socket, 3-pin
Power consumption	250 W	
Supply voltage	100 - 240 V ~ 50/60 Hz	
Fuse	5 mm × 20 mm, 2 A, 250 V, slow-blow	

Flash rate	0…20 Hz	
Mounting options	Hanging, standing	
Dimensions (W × H × D)	1000 mm × 170 mm × 69 mm	
Weight	5.2 kg	
Ambient conditions	Temperature range	0 °C…40 °C
	Relative humidity	20 %…80 % (non-condensing)

Further information

Suitable for outdoor use	no
fanless	yes
Remote control	Not possible
Wireless DMX	no
Housing	Metal
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	1. Check the mains connection and the main fuse.
	2. Check the settings in manual operation ('Static Color')
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*.

11 Cleaning

Device components

Clean the device components that are accessible from the outside regularly. The cleaning frequency depends on the operating environment: damp, smoky or particularly dirty environments can cause greater accumulation of dirt on the device components.

- Clean with a dry soft cloth.
- Stubborn dirt can be removed with a slightly dampened cloth.
- Never use solvents or alcohol for cleaning.

12 Protecting the environment

Disposal of the packaging material

For the transport and protective packaging, environmentally friendly materials have been chosen that can be supplied to normal recycling.

Ensure that plastic bags, packaging, etc. are properly disposed of.

Do not just dispose 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.