




STARVILLE

CB-100 LED
Color Beam
LED spotlight

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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, include the manual for the next owner.

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
 A yellow triangular warning sign with a black border. Inside the triangle, a black silhouette shows a person standing on a platform with a crane hook and cables attached to a rectangular load above them.	Warning – suspended load.
 A yellow triangular warning sign with a black border. Inside the triangle, a black exclamation mark is centered.	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 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.



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 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!

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.



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

This device is especially suitable for use on show stages.

Special features of the device:

- Control via DMX (four channels) as well as via buttons and display on the unit
- Sound control
- Colour wheel with white, seven full-colours, split-colours and rainbow effect
- Electronic dimmer
- Overheat protection
- Shutter frequency: 0...20 Hz

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!

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.

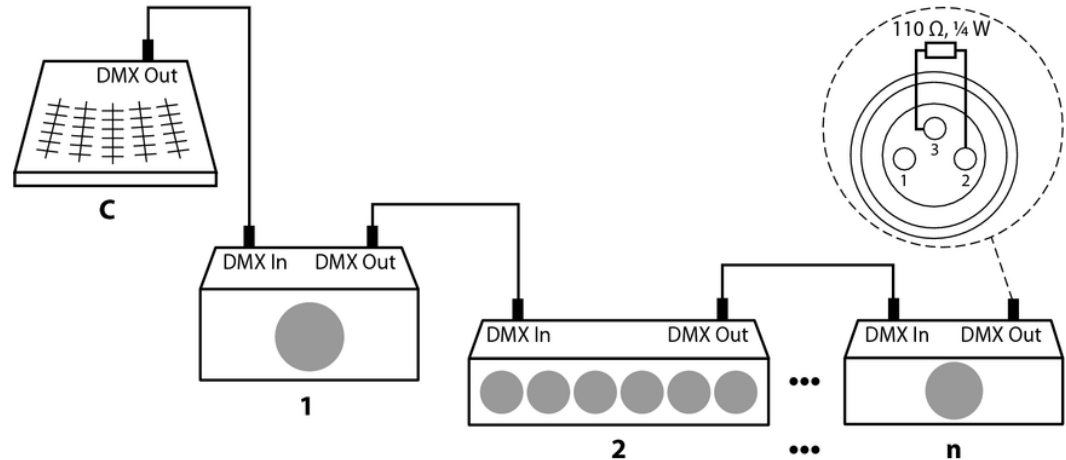
Never connect the DMX input or output to audio devices such as mixers or amplifiers.

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

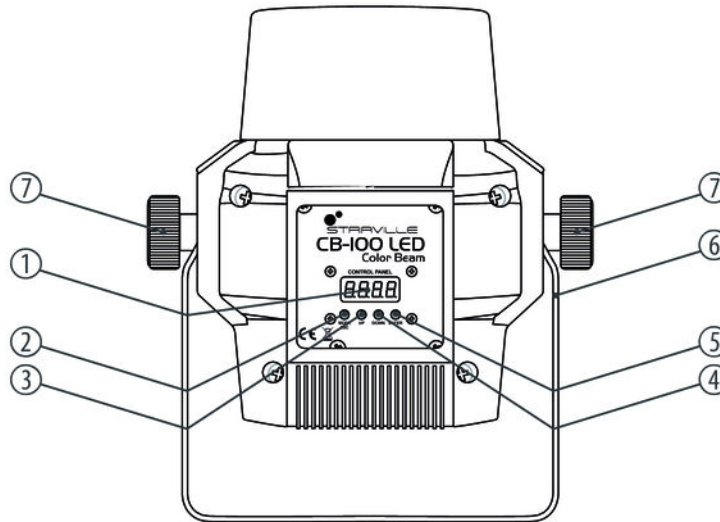


DMX indicator

When the unit is in DMX mode, a flashing dot in the display indicates an incoming DMX signal. Otherwise, perhaps the DMX controller is shut down or the wiring is not correct.

6 Connections and operating elements

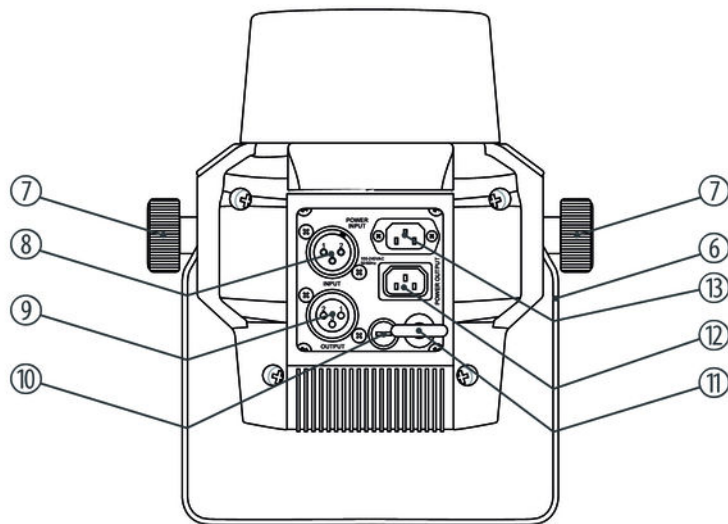
Bottom side



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1	CONTROL PANEL Display.
2	<i>[MODE/ESC]</i> button. Activates the main menu and toggles between menu items. Closes an opened submenu without saving the changes.
3	<i>[UP]</i> button. Increases the displayed value by one.
4	<i>[DOWN]</i> button. Decreases the displayed value by one.
5	<i>[ENTER]</i> button. Selects an option of the respective operating mode, confirms the set value.
6	Bracket for hanging or setting up.
7	Locking screw for the bracket.

Top side



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6	Bracket for hanging or setting up.
7	Locking screw for the bracket.
8	INPUT DMX input.
9	OUTPUT DMX output.
10	Fuse holder.
11	Safety eye.
12	IEC chassis socket for the power supply cable to the next unit.
13	IEC chassis connector for the mains power connection.

7 Operation

7.1 Starting up the device

Connect the unit to the power grid to start operation. After a few seconds the display shows 'd001'. Now the device is operational.

7.2 Main menu

Press *[MODE/ESC]* for about 3 seconds to activate the main menu. Press *[MODE/ESC]* again to select a menu item.

Use *[UP]* and *[DOWN]* to change the respectively displayed value. When the display shows the desired value, press *[ENTER]*. To return to the main menu without any changes, press *[MODE/ESC]*.

If you don't press any button for about 20 seconds, the display turns off. Then briefly press *[MODE/ESC]* to turn it on again.

All previously changed settings are being stored and retained even if you disconnect the device from the mains. To restart the device with standard values, use the 'LoAd' function (↻ 'Loading defaults' on page 27).

DMX address

Press *[MODE/ESC]* repeatedly until the display shows 'dxxx'. Now you can set the number of the first DMX channel to be used by the device (DMX address). Use *[UP]* and *[DOWN]* to select a value between 1 and 512 (display shows 'd001' ... 'd512').

When the display shows the desired value, press *[ENTER]* to confirm the selection, and then *[MODE/ESC]* to proceed to the next menu item. To change the menu item without making any adjustment, press *[MODE/ESC]*.

Make sure that this number matches the configuration of your DMX controller. The highest possible DMX address is 509.

Manual colour setting

Press *[MODE/ESC]* repeatedly until the display shows 'NaN'. Press *[ENTER]* to activate the operating mode. Press *[UP]* or *[DOWN]* until the display shows 'Colr'. Press 'Enter' again, the display shows 'Coxx'. Now use *[UP]* and *[DOWN]* to select from 18 colour settings (display shows 'Co00' ... 'Co17').

When the display shows the desired value, press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to proceed to the next menu item. To change the menu item without making any adjustment, press *[MODE/ESC]*.

Dimmer setting

Press *[MODE/ESC]* repeatedly until the display shows 'MAN'. Press *[ENTER]* to activate the operating mode. Press *[UP]* or *[DOWN]* until the display shows 'diMM'. Press 'Enter' again, the display shows 'Lxxx'. Now use *[UP]* and *[DOWN]* to adjust the brightness (display shows 'L000' ... 'L255').

When the display shows the desired value, press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to proceed to the next menu item. To change the menu item without making any adjustment, press *[MODE/ESC]*.

Display reversal

Press *[MODE/ESC]* repeatedly until the display shows 'diS'. Now use *[UP]* and *[DOWN]* to toggle between 'rdiS' (display text is shown upside down) and 'diS' (display text is shown normally).

When the display shows the desired value, press *[ENTER]* to confirm the setting and then *[MODE/ESC]* to proceed to the next menu item. To change the menu item without making any adjustment, press *[MODE/ESC]*.

Temperature display

Press *[MODE/ESC]* repeatedly until the display shows 'tCxx'. The display shows the current temperature of the LED.

Press *[MODE/ESC]* to quit the menu.

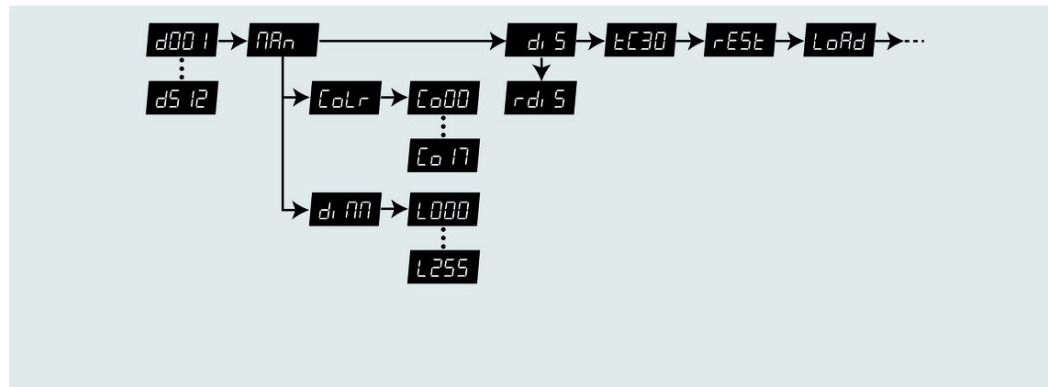
System reset

Press [MODE/ESC] repeatedly until the display shows 'rEst'. Press [ENTER] to reset the colour wheel to its default position.

Loading defaults

Press [MODE/ESC] repeatedly until the display shows 'LoAd'. Press [ENTER] to reset all values to the factory default settings.

Overview (main menu)



7.3 Settings menu

Press *[MODE/ESC]* for about three seconds to activate the settings menu. Use *[UP]* or *[DOWN]* to enter the units password 2323. You can change the digit on the cursor position using the *[UP]* button. Use the *[DOWN]* button to move the cursor to the next position. Press *[ENTER]* when all digits have been set.

Press *[MODE/ESC]* for about three seconds to quit the settings menu.

All previously done settings will be saved and retained even when the device is disconnected from the mains power.

Colour wheel

Activate the settings menu. Press *[MODE/ESC]* repeatedly until the display shows 'Cxxx'. Use the *[UP]* or *[DOWN]* button to set the desired default position for the display of two colours (display shows 'C000' ... 'C255').

When the display shows the desired value, press *[ENTER]* to confirm the settings and then *[MODE/ESC]* to proceed to the next menu item. To change the menu item without making any adjustment, press *[MODE/ESC]*.

Brightness

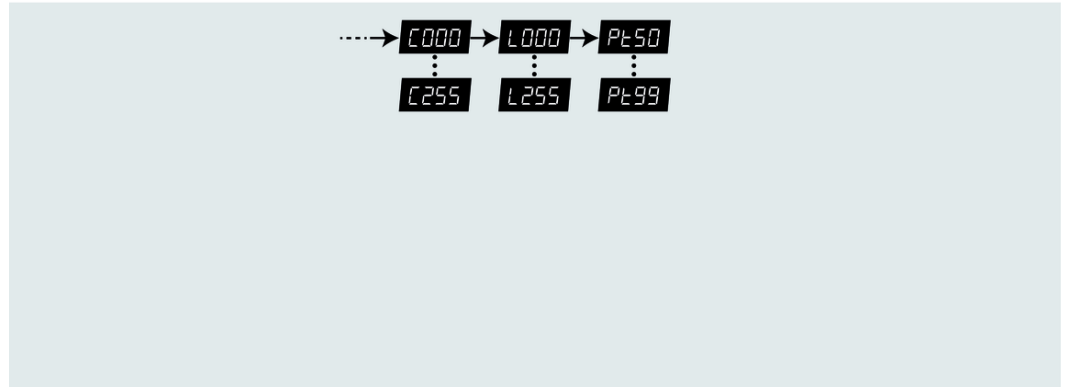
Activate the settings menu. Press *[MODE/ESC]* repeatedly until the display shows 'Lxxx'. Use the *[UP]* or *[DOWN]* button to set the desired default brightness (display shows 'L000' ... 'L255').

When the display shows the desired value, press *[ENTER]* to confirm the settings and then *[MODE/ESC]* to proceed to the next menu item. To change the menu item without making any adjustment, press *[MODE/ESC]*.

Temperature monitoring

Activate the settings menu. Press *[MODE/ESC]* repeatedly until the display shows 'Ptxx'. Use the *[UP]* or *[DOWN]* button to set the temperature, at which the overheat protection should be triggered (display shows 'Pt50' ... 'Pt99').

Overview (settings menu)



7.4 Functions in 4-channel DMX mode

Channel	Value	Function
1	0...255	Dimmer
2	Colour wheel	
	0...7	White
	8...15	Dark blue
	16...23	Yellow
	24...31	Pink
	32...39	Green
	40...47	Red
	48...55	Light blue
	56...63	Orange red
	64...71	White and dark blue

Channel	Value	Function
	72...79	Dark blue and yellow
	80...87	Yellow and pink
	88...95	Pink and green
	96...103	Green and red
	104...111	Red and light blue
	112...119	Light blue and orange red
	120...127	Orange red and white
	128...191	Rainbow effect counter clockwise, increasing speed
	192...255	Rainbow effect clockwise, increasing speed
3	Shutter	
	0...3	Closed
	4...7	Open
	8...215	Strobe effect, increasing speed

Channel	Value	Function
	216...255	Open
4	Functions	
	0...10	No function
	11...60	Blackout while colour wheel is rotating
	61...110	Sound control
	111...160	Blackout while colour wheel is rotating and sound control
	161...210	Reset the colour wheel
	211...255	Reset all channels

8 Technical specifications

LED	10 W high-power LEDs
Number of DMX channels	4
Dispersion angle	2°
Operating supply voltage	AC 230 V ~ , 50 Hz / AC 110 V ~ , 60 Hz
Power consumption	35 W
Dimensions (W × D × H)	280 mm × 350 mm × 280 mm
Weight	3.0 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 main fuse.
No response to the DMX controller	<ol style="list-style-type: none"> <li data-bbox="879 295 1525 454">1. If the dot behind the DMX channel indicator is not flashing in the display the unit does not receive a valid DMX signal. Make sure that the DMX controller is switched on. Check the DMX ports and cables for proper connection. <li data-bbox="879 454 1525 533">2. If the dot is flashing but still without any response, check the address settings and DMX polarity. <li data-bbox="879 533 1525 586">3. Try using another DMX controller. <li data-bbox="879 586 1525 674">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 Cleaning

Optical lenses

Clean the exterior of accessible optical lenses periodically to optimise 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 normal glass cleaning products.
- 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 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 device is subject to the European directive 2002/96/EC.

Do not dispose of the device 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.

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