



STAGE-PAR CX-2 RGBAW LED PAR



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# 1 General notes

This manual contains important instructions for the safe operation of the unit. Read and follow the safety instructions and all other instructions. Keep the manual for future reference. Make sure that it is available to all those using the device. If you sell the unit please make sure that the buyer also receives this manual.

Our products are subject to a process of continuous development. Thus, they are subject to change.



# 1.1 Further information

On our website (<u>www.thomann.de</u>) 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
A	Warning – high-voltage.
	Warning – suspended load.



Warning signs	Type of danger
<u>^</u>	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.





#### 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.

Secure the barn door with a safety cable on the spotlight after installation. The safety cable must run outside the barn door and must not interfere with the light emission.



#### 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.



#### 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 CX series brings all-new colour creations into the range of LED lights. The multi-chip LEDs provide an unprecedented colour mixing in all spectra. Pastel colours, vivid and vibrant colours and white tones can be displayed extremely precisely using the spotlights of the CX series.

Special features of the device:

- 10 × High-Power RGBA LEDs (8 W)
- 5 × High-Power RGBA LEDs (8 W)
- 42 preprogrammed automatic shows
- Control via DMX (3, 5, 7 or 8 channels) and via buttons and display on the unit
- Automatic mode and sound control
- Master / Slave operation
- Aluminium die-cast housing, black

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 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.



#### 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.

Secure the barn door with a safety cable on the spotlight after installation. The safety cable must run outside the barn door and must not interfere with the light emission.





#### 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 two-piece bracket 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.



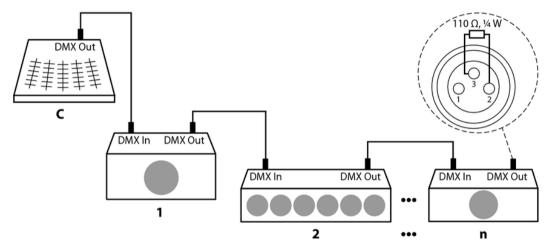
# 5 Starting up

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





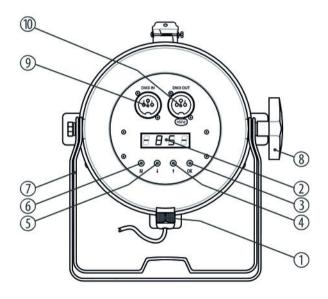
# Connections in master/slave mode

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 controls

# **Rear panel**





1	Power cord.
2	Display
3	[OK]
	Confirms a selected value
4, 5	↑ [ <del>↓</del>
	Increases / decreases the displayed value by one
6	
	Calls up the main menu or a submenu
7	Hanging bracket/floor stand
8	Locking screws for the mounting bracket



9	[DMX IN]
	DMX input.
10	[DMX OUT]
	DMX output



# 7 Operating

# 7.1 Starting the device

Connect the device to the power supply to start operation. After a few seconds, the display shows the 'DMX' value. The device is then ready for use.

### 7.2 Main menu

The device is in the main menu after switching on. Use the arrow buttons to select the desired operating mode. Use the arrow buttons to change the respectively displayed value. When the display shows the desired value, press [OK].



#### DMX mode

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

- '3CH' (three channels)
- '5CH' (five channels)
- '7CH' (seven channels)
- "8CH" (eight channels)

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



#### **DMX address**

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

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

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

Mode	Highest possible start address
3-channel	510
5-channel	508
7-channel	506
8-channel	505



### Operating mode 'Show/Master'

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

The auto show can only be activated on the device that works as master.

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



In a master/slave configuration all devices must operate in the 8-channel mode (activation via DMX mode, 'SET', 'MODE', '8CH').



### Operating mode 'Slave'

Press [M]. Press one of the arrow buttons repeatedly until the display shows 'LINE'. Press [OK]. Press one of the arrow buttons repeatedly until the display shows 'SL'. Press [OK]. Now you can set the number for the device via which it is addressed by the master as a slave. Use the arrow buttons to select a value between 1 and 512 (display shows 'A001'... 'A512').

This setting is only relevant if the device is operating as Slave controlled by a Master, but not via DMX. When the display shows the desired value press [OK] to confirm the selection and then [M] to return to the parent menu. To return to the parent menu without making changes, press [M].



In a master/slave configuration all devices must operate in the 8-channel mode (activation via DMX mode, 'SET', 'MODE', '8CH').



### **Programme speed**

Press [M]. Press one of the arrow buttons repeatedly until the display shows 'SET'. Press [OK]. Press one of the arrow buttons repeatedly until the display shows 'SPEE'. Press [OK]. Now you can adjust the programme speed for the preprogrammed automatic shows. Use the arrow buttons to select a value between 1 and 255 (display shows 'T001'... 'T255').

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

### Microphone sensitivity

Press [M]. Press one of the arrow buttons repeatedly until the display shows 'SET'. Press [OK]. Press one of the arrow buttons repeatedly until the display shows 'MIC'. Press [OK]. Now you can adjust the sensitivity of the built-in microphone for sound control. Use the arrow buttons 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 device is not controlled via DMX. When the display shows the desired value press [OK] to confirm the selection and then [M] to return to the parent menu. To return to the parent menu without making changes, press [M].



#### **Manual test**

Press [M]. Press one of the arrow buttons repeatedly until the display shows 'TEST'. Press [OK]. Press one of the arrow buttons repeatedly until the display shows 'RED', 'GREE', 'BLUE', 'AMBE', 'WHIT' or 'STRO'. Press [OK]. Now you can set the brightness of the red, green, blue, amber or white LEDs each in a range from 0 to 255, or select the strobe rate in a range of 0 to 24.

This mode is also suitable for generating constant or flashing light of a colour mixed from the five LED colours without DMX control.

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

### **Dimmer setting**

Press [M]. Press one of the arrow buttons repeatedly until the display shows 'SET'. Press [OK]. Press one of the arrow buttons repeatedly until the display shows 'DIMM'. Press [OK]. Now you can set the dimmer. Use the arrow buttons to select a value between 0 and 255 (display shows 'D000'... 'D255').

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



### Fade speed

Press [M]. Press one of the arrow buttons repeatedly until the display shows 'FADE'. Press [OK]. Now you can set the fade speed of the preprogrammed automatic shows. Use the arrow buttons to select a value between 1 and 7 (display shows 'F-01'... 'F-07').

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

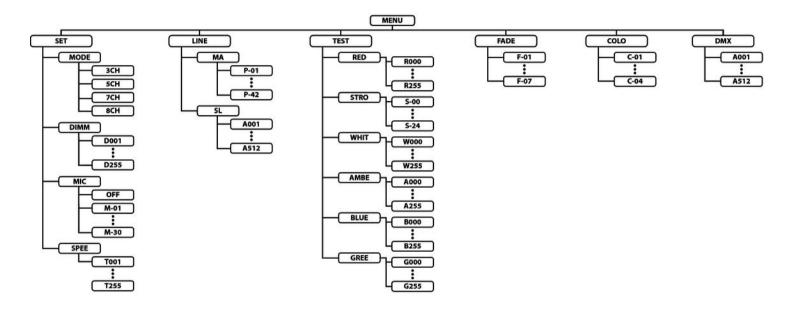
#### **Colour selection**

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

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



# 7.3 Menu overview





# 7.4 Functions in 3-channel DMX mode

Channel	Value	Function
1	008255	42 preprogrammed colour macros (colour mixes)
2	0255	Dimmer (0 % to 100 %)
3	0	Colour hue
	110	Sound control
	11255	Strobe effect

# 7.5 Functions in 5-channel DMX mode

Channel	Value	Function
1	0255	Intensity red (0 % to 100 %)
2	0255	Intensity green (0 % to 100 %)



# Operating

Channel	Value	Function
3	0255	Intensity blue (0 % to 100 %)
4	0255	Intensity amber (0 % to 100 %), outer LED ring
5	0255	Intensity white (0 % to 100 %), inner LED ring

# 7.6 Functions in 7-channel DMX mode

Channel	Value	Function
1	0255	Intensity red (0 % to 100 %)
2	0255	Intensity green (0 % to 100 %)
3	0255	Intensity blue (0 % to 100 %)
4	0255	Intensity amber (0 % to 100 %), outer LED ring
5	0255	Intensity white (0 % to 100 %), inner LED ring



Channel	Value	Function
6	0255	Dimmer (0 % to 100 %)
7	0	Colour hue
	110	Sound control
	11255	Strobe effect

### 7.7 Functions in 8-channel DMX mode

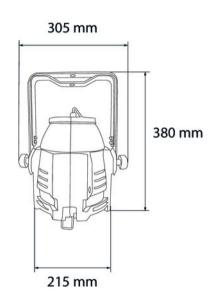
Channel	Value	Function
1	0255	Intensity red (0 % to 100 %), outer LED ring
2	0255	Intensity green (0 % to 100 %), outer LED ring
3	0255	Intensity blue (0 % to 100 %), outer LED ring
4	0255	Intensity amber (0 % to 100 %), outer LED ring

### Operating

Channel	Value	Function
5	0255	Intensity red (0 % to 100 %), inner LED ring
6	0255	Intensity green (0 % to 100 %), inner LED ring
7	0255	Intensity blue (0 % to 100 %), inner LED ring
8	0255	Intensity white (0 % to 100 %), inner LED ring



# 8 Technical specifications



LEDs	10 × High-Power RGBA (8 W)
	5 × High-Power RGBW (8 W)
Beam angle	25°
Number of DMX channels	3, 5, 7, 8
Operating supply voltage	230 V ∼ 50 Hz
Protection	IP30
Power consumption	107 W
Dimensions (W $\times$ H $\times$ D)	305 mm × 380 mm × 215 mm
Weight	4.4 kg

### Technical specifications

### **Environmental conditions**

Temperature range	0 °C40 °C
Relative humidity	50 %, non-condensing



# 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 con-	1. Check the DMX ports and cables for proper connection.
troller.	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 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 on a regular basis to remove dust and dirt. Before cleaning, switch off the device and disconnect AC-powered devices from the mains. Use a lint-free damp cloth for cleaning. 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.







