

Colors NerveStrobe HP

User Manual

Stroboscope

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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 <u>www.thomann.de</u>.

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

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.

This manual uses the following notational conventions:

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 mate- rial and environmental damage if it is not avoided.
Warning signs	Type of danger
	Warning – high-voltage.
	Warning – dangerous optical radiation.
	Warning – suspended load.
	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 only 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 operating life of the device by regular breaks and by avoiding frequent switching on and off. The device is not suitable for continuous operation.

Safety



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!

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.

NOTICE!

Possible staining

The plasticiser contained in the rubber feet of this product may possibly react with the coating of your surface and after some time cause permanent dark stains. In case of doubt, do not put the rubber feet directly on the surface and use a suitable underlay if necessary, i.e. felt pads or similar.

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 $^{\circ}$ C (104 $^{\circ}$ F).

3 Features

- 2-in-1 LED stroboscope and wash light
- 90 × CW LEDs for bright and dynamic strobe, blinder and blinder effects
- 360 × RGB LEDs for wash effects and colourful accents in the background
- Up to 12 individually controllable segments with the RGBW LEDs
- Soft frost filter for a unique look
- Control via DMX and via buttons and display on the unit
- Operating modes:
 - Master/Slave
 - Sound control via built-in microphone
 - Auto operation
 - DMX
- 14 built-in chase programmes in automatic mode and sound control
- Flash rate: 20 Hz
- Swivelling mounting bracket

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 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 provided on the two-piece bracket for attaching.

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 safety eyelet.

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 Hanging bracket/floor stand.
- 2 Locking screws for the bracket for hanging or placement
- 3 CW LEDs (WhiteBar)
- 4 RGBW LEDs (1 of 12 LED segments in 16, 56 and 68 channel DMX mode)

Rear side and connection panel



5	[POWER IN]
	Lockable input socket (Power Twist) for powering the device
6	[POWER OUT]
	Lockable output socket (Power Twist) for powering further devices
7	[F2AL250V]
	Fuse
8	Safety eye for attaching the safety cable
9	[DMX IN]
	DMX input, 3-pin
10	[DMX OUT]
	DMX output, 3-pin
11	[DMX IN]
	DMX input, 5-pin
12	[DMX OUT]
	DMX output, 5-pin
13	Display
	=
	Activates the main menu and toggles between menu items
	Increases the displayed value by one
	▼
	Decreases the displayed value by one
	له. اله
	Selects an option of the respective operating mode

7 Operating

7.1 Starting the device

- **1.** Connect the device to the power supply to start operation.
- **2.** The display shows the start screen with the last set operating parameters. The device is operational.

7.2 Navigating the menu

- **1.** Press \equiv to activate the main menu.
- **2.** Press \blacktriangle or \triangledown to select a submenu.
- 3. To activate the respectively shown menu item, press 4.
- 4. ▶ Press ▲ or ▼ to change the respectively indicated value.
- **5.** Press **4** to apply the displayed value.
- **6.** Press \equiv to return to the parent menu level.

The set values are retained even when the device is disconnected from the mains power supply.

7.3 Operating on the unit

7.3.1 Setting the DMX address

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'DMX Address'. Confirm with ◄.

This setting is only relevant when the device is controlled via DMX. 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	Display	Highest possible DMX address
3-channel	'3CH'	510
6-channel	'6CH'	507
12-channel	'12CH'	501
16-channel	'16CH'	497
56-channel	'56CH'	457
68-channel	'68CH'	445

The RGBW LEDs are divided into 12 segments in 16, 56 and 68 channel DMX modes.

7.3.2 Setting the DMX mode

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'DMX Mode'. Confirm with ◄.
- 3. Use ▲ or ▼ to select the desired DMX mode ('3CH', '6CH', '12CH', '16CH', '56CH' or '68CH'). Confirm with ◄.

This setting is only relevant when the device is controlled via DMX.

7.3.3 'Automatic mode'

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 DMX. 14 different show programmes are available in automatic mode. Configure the sequence speed and the dimmer intensity of the automatic mode.

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'Stand Alone'. Confirm with ◄.
- 3. ▶ Press ▲ or ▼ repeatedly until the display shows 'Auto'. Confirm with ◄.
- Use ▲ or ▼ to select the desired show programme ('Program 1'... 'Program 14'). Confirm with ◄.
- **5.** Press \blacktriangle or \checkmark to select the desired submenu or the desired value.

Menu level 4	Menu level 5	Description
'Dimmer'	'000255'	Dimmer intensity
'Speed'	'000255'	Running speed from slow to fast

The following sub menus are available:

6. ▶ Press ◄ to accept the selection.

7.3.4 Operating mode '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 DMX. In this operating mode, the device responds to acoustic pulses which are recorded by the integrated microphone. Configure the dimmer intensity and microphone sensitivity of the sound control.

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'Stand Alone'. Confirm with ◄.
- 3. ▶ Press ▲ or ▼ repeatedly until the display shows 'Sound'. Confirm with ◄.
- **4.** Use ▲ or ▼ to select the desired show programme (*'Program 1'*... *'Program 14'*). Confirm with ◄.

5. Press \blacktriangle or \triangledown to select the desired submenu or the desired value.

The following sub menus are available:

Menu level 4	Menu level 5	Description
'Dimmer'	'000255'	Dimmer intensity
'Mic Sens'	'00…99'	Microphone sensitivity from low to high

6. ▶ Press ◄ to accept the selection.

7.3.5 Master / slave mode

To use a device as the master device, select the auto mode, activate the sound control or the manual control. Connect the slave devices to the DMX output of the master device and select the DMX mode.

7.3.6 Setting colour macro

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'Stand Alone'. Confirm with ◄.
- 3. ▶ Press ▲ or ▼ repeatedly until the display shows 'WashMacro'. Confirm with ◄.
- **4.** Use ▲ or ▼ to select one of the 15 colour macros (*'Red'* ... *'Cold White'*) or turn the colour off (*'Color Off'*). Confirm with ◄.
- **5.** Press \blacktriangle or \triangledown to select the desired value for the intensity of the colour macro.

The following colour macros are available:

'Color Off'	'Yellow'	'Blue'	'Pink'
'Red'	'Green'	'Lavender'	'Warm White'
'Amber'	'Turquoise'	'Mauve'	'White'
'Yellow warm'	'Cyan'	'Magenta'	'Cold White'

6. ▶ Press to accept the selection.

7.3.7 Setting dimmer and strobe effect for CW LEDs (WhiteBar)

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'Stand Alone'. Confirm with ◄.
- 3. ▶ Press ▲ or ▼ repeatedly until the display shows 'WhiteBar'. Confirm with ◄.
- **4.** ▶ Press ▲ or ▼ to select the desired submenu or the desired value.

The following sub menus are available:

Menu level 3	Menu level 4	Description
'Dimmer'	'000255'	Dimmer intensity
'Strobe'	'AC 0 30Hz'	Strobe effect frequency from slow to fast

5. Press **+** to accept the selection.

7.3.8 Setting an individual mixed colour

- **1.** \triangleright Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'Stand Alone'. Confirm with ◄.
- 3. ▶ Press ▲ or ▼ repeatedly until the display shows 'Manual'. Confirm with ◄.
- **4.** \triangleright Press \blacktriangle or \triangledown to select the desired submenu or the desired value.

The following sub menus are available:

Menu level 3	Menu level 4	Description
'Dimmer'	'000255'	Dimmer intensity
'Strobe'	'AC 0 30Hz'	Strobe effect frequency from slow to fast
'Red'	'000255'	Intensity red from 0 % to 100 %
'Green'	'000255'	Intensity green from 0 % to 100 %
'Blue'	'000255'	Intensity blue from 0 % to 100 %
'White'	'000255'	Intensity white from 0 % to 100 %
'WhiteBar'	'000255'	Intensity WhiteBar from 0 % to 100 %

5. Press + to accept the selection.

7.3.9 Rotating the Display

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'Settings'. Confirm with ◄.
- 3. Press ▲ or ▼ repeatedly until the display shows 'Display Reverse'. Confirm with .
- **4.** Use ▲ or ▼ to choose between 'On' (display rotated by 180°) or 'Off' (display not rotated).
- 5. ▶ Press to accept the selection.

7.3.10 Display lighting

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'Settings'. Confirm with ◄.
- 3. Press ▲ or ▼ repeatedly until the display shows 'Display Backlight'. Confirm with ◄.
- **4.** Use ▲ or ▼ to choose between 'On' (display permanently on) or 'Off' (display turns off after a few seconds in case of inactivity).

7.3.11 Behaviour on DMX control failure

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'Settings'. Confirm with ◄.
- 3. ▶ Press ▲ or ▼ repeatedly until the display shows 'DMX Fail'. Confirm with ◄.

- 4. Use ▲ or ▼ to choose between 'Hold' (last DMX value is held), 'Blackout' (spot-light is switched off) or 'ManualMode' (emergency lighting is turned on) to make the setting to be used if the DMX control fails.

7.3.12 Dimmer curve

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'Settings'. Confirm with ◄.
- **3.** Press \blacktriangle or \bigtriangledown repeatedly until the display shows *'Dimmer Curve'*. Confirm with
- **4.** Use \blacktriangle or \triangledown to select the desired dimmer curve.

Display	Meaning
'Linear'	Linear course
'Exponential'	Exponential course
	(Square curve with a flat profile at the beginning and a steep profile at the end)
'Logarithmic'	Logarithmic course
	(Inverted quadratic curve with a steep course at the beginning and a flat course at the end)
'S Curve'	S-curve shaped course
	(Non-linear curve with a distinctive flat course at the beginning and end)

5. ▶ Press **+** to accept the selection.

7.3.13 Key lock

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'Settings'. Confirm with ◄.
- 3. ▶ Press ▲ or ▼ repeatedly until the display shows 'AutoLock'. Confirm with ◄.
- 4. Use ▲ or ▼ to choose between 'On' (keylock on) and 'Off' (keylock off).
- **5.** ▶ Press **+** to accept the selection.
- 6. Simultaneously press ▲ and ▼ for 5 seconds if you want to activate the input while the keylock is activated.

7.3.14 Resetting the device to factory defaults

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'Settings'. Confirm with ◄.
- 3. ▶ Press ▲ or ▼ repeatedly until the display shows 'Factory Reset'.
 - \Rightarrow The display shows the message 'Reset Now'.
- 4. ▶ Press ← to reset the device to factory default setting.

7.3.15 PWM (pulse width modulation)

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows *'Settings'*. Confirm with ◄.
- 3. ▶ Press ▲ or ▼ repeatedly until the display shows 'PWM Rate'. Confirm with ◄
- **4.** Use \blacktriangle or \lor to choose between '3000Hz', '6000Hz', '12kHz' or '25kHz'.

7.3.16 Firmware version display

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'System Info'. Confirm with ◄.
- Press ▲ or ▼ repeatedly until the display shows 'Firmware'. Confirm with ◄
 ⇒ The current firmware version is displayed.

7.3.17 Operating hours display

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'System Info'. Confirm with ◄.
- 3. ▶ Press ▲ or ▼ repeatedly until the display shows 'Hours'. Confirm with ◄
 - \Rightarrow The operation hours of the device are displayed.

7.3.18 LED temperature display

- **1.** Press \equiv to activate the main menu.
- 2. ▶ Press ▲ or ▼ repeatedly until the display shows 'System Info'. Confirm with ◄.
- 3. ▶ Press ▲ or ▼ repeatedly until the display shows 'Temp'. Confirm with ◄
 - \Rightarrow The current temperature of the LEDs is displayed.

7.4 Menu overview



Factory Reset PWM Rate

> 3000Hz 6000Hz 12kHz 25kHz

Blackout

ManualMode



7.5 Functions in 3-channel mode

Channel	LED	Value	Function		
1	WhiteBar	000255	Dimmer (0 % to 100 %)		
2 V	WhiteBar	Strobe			
		0005	LEDs on		
		00610	LEDs off (blackout)		
		01133	Impulses, increasing speed		
		03456	Randomly increasing brightness, increasing speed		
		05779	Randomly decreasing brightness, increasing speed		
		080102	Random Strobe effect, increasing speed		
		103127	Burst strobe, 5 s to 1 s		
		128250	Strobe effect, increasing speed, from 1 Hz to 20 Hz		
		251255	LEDs on		
3	Wash	Colour macro	S		
		000 005	LEDs off (blackout)		
		006013	Red		
		014021	Amber		
		022029	Warm yellow		
		030037	Yellow		
		038045	Green		
		046053	Turquoise		
		054061	Cyan		
		062069	Blue		
		070077	Lavender		
		078085	Mauve		
		086093	Magenta		
		094101	Pink		
		102109	Warm white		
		110117	White		
		118125	Cold white		
		126127	Colour change		
		128192	Colour change from colour 1 to colour 12, speed increasing		
		193255	Gradual colour change from colour 1 to colour 12, speed increasing		

7.6 Functions in 6-channel mode

Channel	LED	Value	Function
1	WhiteBar	000255	Dimmer (0 % to 100 %)
2	WhiteBar	Strobe	
		0005	LEDs on
		00610	LEDs off (blackout)
		01133	Impulses, increasing speed
		03456	Randomly increasing brightness, increasing speed
		05779	Randomly decreasing brightness, increasing speed
		080102	Random Strobe effect, increasing speed
		103127	Burst strobe, 5 s to 1 s
		128250	Strobe effect, increasing speed, from 1 Hz to 20 Hz
		251255	LEDs on
3	Wash	000255	Dimmer (0 % to 100 %)
4	Wash	Colour macro	S
		000 005	LEDs off (blackout)
		006013	Red
		014021	Amber
		022029	Warm yellow
		030037	Yellow
		038045	Green
		046053	Turquoise
		054061	Cyan
		062069	Blue
		070077	Lavender
		078085	Mauve
		086093	Magenta
		094101	Pink
		102109	Warm white
		110117	White
		118125	Cold white
		126127	Colour change
		128192	Colour change from colour 1 to colour 12, speed increasing
		193255	Gradual colour change from colour 1 to colour 12, speed increasing
5	Wash	Patterns	
		000010	No function
		011025	Pattern 1

Operating

Channel	LED	Value	Function
		026040	Pattern 2
		041055	Pattern 3
		056070	Pattern 4
		071085	Pattern 5
		086100	Pattern 6
		101115	Pattern 7
		116130	Pattern 8
		131145	Pattern 9
		146160	Pattern 10
		161175	Pattern 11
		176190	Pattern 12
		191205	Pattern 13
		206220	Pattern 14
		221235	Pattern 15
		236250	Pattern 16
		251255	No function
6	Wash	Patterns sequ	ence speed
		000255	Change, increasing speed

7.7 Functions in 12-channel mode

Channel	LED	Value	Function	
1	WhiteBar	000255	Dimmer (0 % to 100 %)	
2 Wh	WhiteBar	Strobe		
		0005	LEDs on	
		00610	LEDs off (blackout)	
		01133	Impulses, increasing speed	
		03456	Randomly increasing brightness, increasing speed	
		05779	Randomly decreasing brightness, increasing speed	
		080102	Random Strobe effect, increasing speed	
		103127	Burst strobe, 5 s to 1 s	
		128250	Strobe effect, increasing speed, from 1 Hz to 20 Hz	
		251255	LEDs on	
3	WhiteBar	Constant strok	pe pulse	
		000255	Strobe impulse duration, increasing from 7 ms to 650 ms	
4	Wash	000255	Dimmer (0 % to 100 %)	
5	Wash	Strobe		
		0005	LEDs on	
		00610	LEDs off (blackout)	
		01133	Impulses, increasing speed	
		03456	Randomly increasing brightness, increasing speed	
		05779	Randomly decreasing brightness, increasing speed	
		080102	Random Strobe effect, increasing speed	
		103127	Burst strobe, 5 s to 1 s	
		128250	Strobe effect, increasing speed, from 1 Hz to 20 Hz	
		251255	LEDs on	
6	Wash	000255	Intensity red (0 % to 100 %)	
7	Wash	000255	Intensity green (0 % to 100 %)	
8	Wash	000255	Intensity blue (0 % to 100 %)	
9	Wash	000255	Intensity white (0 % to 100 %)	
10	Wash	Colour macros	(overwrites channel 6 to 9)	
		000 005	LEDs off (blackout)	
		006013	Red	
		014021	Amber	
		022029	Warm yellow	
		030037	Yellow	
		038045	Green	

Operating

Channel	LED	Value	Function
		046053	Turquoise
		054061	Cyan
		062069	Blue
		070077	Lavender
		078085	Mauve
		086093	Magenta
		094101	Pink
		102109	Warm white
		110117	White
		118125	Cold white
		126127	Colour change
		128192	Colour change from colour 1 to colour 12, speed increasing
		193255	Gradual colour change from colour 1 to colour 12, speed increasing
11	Wash	Patterns	
		000010	No function
		011025	Pattern 1
		026040	Pattern 2
		041055	Pattern 3
		056070	Pattern 4
		071085	Pattern 5
		086100	Pattern 6
		101115	Pattern 7
		116130	Pattern 8
		131145	Pattern 9
		146160	Pattern 10
		161175	Pattern 11
		176190	Pattern 12
		191205	Pattern 13
		206220	Pattern 14
		221235	Pattern 15
		236250	Pattern 16
		251255	No function
12	Wash	Patterns seque	ence speed
		000255	Change, increasing speed

7.8 Functions in 16-channel mode

Channel	LED	Value	Function
1	WhiteBar	000255	Dimmer (0 % to 100 %)
2	WhiteBar	Strobe	
		0005	LEDs on
		00610	LEDs off (blackout)
		01133	Impulses, increasing speed
		03456	Randomly increasing brightness, increasing speed
		05779	Randomly decreasing brightness, increasing speed
		080102	Random Strobe effect, increasing speed
		103127	Burst strobe, 5 s to 1 s
		128250	Strobe effect, increasing speed, from 1 Hz to 20 Hz
		251255	LEDs on
3	WhiteBar	Constant stro	be pulse
		000255	Strobe impulse duration, increasing from 7 ms to 650 ms
4	Wash	000255	Dimmer (0 % to 100 %)
5	Wash	Strobe	
		0005	LEDs on
		00610	LEDs off (blackout)
		01133	Impulses, increasing speed
		03456	Randomly increasing brightness, increasing speed
		05779	Randomly decreasing brightness, increasing speed
		080102	Random Strobe effect, increasing speed
		103127	Burst strobe, 5 s to 1 s
		128250	Strobe effect, increasing speed, from 1 Hz to 20 Hz
		251255	LEDs on
6	Wash	000255	Intensity red, segment 16 (0 % to 100 %)
7	Wash	000255	Intensity green, segment 16 (0 % to 100 %)
8	Wash	000255	Intensity blue, segment 16 (0 % to 100 %)
9	Wash	000255	Intensity white, segment 16 (0 % to 100 %)
10	Wash	000255	Intensity red, segment 712 (0 % to 100 %)
11	Wash	000255	Intensity green, segment 712 (0 % to 100 %)
12	Wash	000255	Intensity blue, segment 712 (0 % to 100 %)
13	Wash	000255	Intensity white, segment 712 (0 % to 100 %)
14	Wash	Colour macro	s (overwrites channel 6 to 13)
		000 005	LEDs off (blackout)
		006013	Red

Operating

Channel	LED	Value	Function
		014021	Amber
		022029	Warm yellow
		030037	Yellow
		038045	Green
		046053	Turquoise
		054061	Cyan
		062069	Blue
		070077	Lavender
		078085	Mauve
		086093	Magenta
		094101	Pink
		102109	Warm white
		110117	White
		118125	Cold white
		126127	Colour change
		128192	Colour change from colour 1 to colour 12, speed increasing
		193255	Gradual colour change from colour 1 to colour 12, speed increasing
15	Wash	Patterns	
		000010	No function
		011025	Pattern 1
		026040	Pattern 2
		041055	Pattern 3
		056070	Pattern 4
		071085	Pattern 5
		086100	Pattern 6
		101115	Pattern 7
		116130	Pattern 8
		131145	Pattern 9
		146160	Pattern 10
		161175	Pattern 11
		176190	Pattern 12
		191205	Pattern 13
		206220	Pattern 14
		221235	Pattern 15
		236250	Pattern 16
		251255	No function

Channel	LED	Value	Function
16	Wash	Patterns sequ	ence speed
		000255	Change, increasing speed

7.9 Functions in 56-channel mode

Channel	LED	Value	Function
1	WhiteBar	000255	Dimmer (0 % to 100 %)
2 V	WhiteBar	Strobe	
		0005	LEDs on
		00610	LEDs off (blackout)
		01133	Impulses, increasing speed
		03456	Randomly increasing brightness, increasing speed
		05779	Randomly decreasing brightness, increasing speed
		080102	Random Strobe effect, increasing speed
		103127	Burst strobe, 5 s to 1 s
		128250	Strobe effect, increasing speed, from 1 Hz to 20 Hz
		251255	LEDs on
3	WhiteBar	Constant stro	be pulse
		000255	Strobe impulse duration, increasing from 7 ms to 650 ms
4	Wash	000255	Dimmer (0 % to 100 %)
5	Wash	Strobe	
		0005	LEDs on
		00610	LEDs off (blackout)
		01133	Impulses, increasing speed
		03456	Randomly increasing brightness, increasing speed
		05779	Randomly decreasing brightness, increasing speed
		080102	Random Strobe effect, increasing speed
		103127	Burst strobe, 5 s to 1 s
		128250	Strobe effect, increasing speed, from 1 Hz to 20 Hz
		251255	LEDs on
6	Wash	Colour macro	os (overwrites channel 9 to 56)
		000 005	LEDs off (blackout)
		006013	Red
		014021	Amber
		022029	Warm yellow
		030037	Yellow
		038045	Green
		046053	Turquoise
		054061	Cyan
		062069	Blue
		070077	Lavender

Operating

Channel	LED	Value	Function
		078085	Mauve
		086093	Magenta
		094101	Pink
		102109	Warm white
		110117	White
		118125	Cold white
		126127	Colour change
		128192	Colour change from colour 1 to colour 12, speed increasing
		193255	Gradual colour change from colour 1 to colour 12, speed increasing
7	Wash	Patterns	
		000010	No function
		011025	Pattern 1
		026040	Pattern 2
		041055	Pattern 3
		056070	Pattern 4
		071085	Pattern 5
		086100	Pattern 6
		101115	Pattern 7
		116130	Pattern 8
		131145	Pattern 9
		146160	Pattern 10
		161175	Pattern 11
		176190	Pattern 12
		191205	Pattern 13
		206220	Pattern 14
		221235	Pattern 15
		236250	Pattern 16
		251255	No function
8	Wash	Patterns sequ	uence speed
		000255	Change, increasing speed
9	Wash	000255	Intensity red, segment 1 (0 % to 100 %)
10	Wash	000255	Intensity green, segment 1 (0 % to 100 %)
11	Wash	000255	Intensity blue, segment 1 (0 % to 100 %)
12	Wash	000255	Intensity white, segment 1 (0 % to 100 %)
53	Wash	000255	Intensity red, segment 12 (0 % to 100 %)

Channel	LED	Value	Function
54	Wash	000255	Intensity green, segment 12 (0 % to 100 %)
55	Wash	000255	Intensity blue, segment 12 (0 % to 100 %)
56	Wash	000255	Intensity white, segment 12 (0 % to 100 %)

7.10 Functions in 68-channel mode

Channel	LED	Value	Function	
1	WhiteBar	000255	Dimmer (0 % to 100 %)	
2	WhiteBar	Strobe		
		0005	LEDs on	
		00610	LEDs off (blackout)	
		01133	Impulses, increasing speed	
		03456	Randomly increasing brightness, increasing speed	
		05779	Randomly decreasing brightness, increasing speed	
		080102	Random Strobe effect, increasing speed	
		103127	Burst strobe, 5 s to 1 s	
		128250	Strobe effect, increasing speed, from 1 Hz to 20 Hz	
		251255	LEDs on	
3	WhiteBar	Constant stro	be pulse	
		000255	Strobe impulse duration, increasing from 7 ms to 650 ms	
4	Wash	000255	Dimmer (0 % to 100 %)	
5	Wash	Strobe		
		0005	LEDs on	
		00610	LEDs off (blackout)	
		01133	Impulses, increasing speed	
		03456	Randomly increasing brightness, increasing speed	
		05779	Randomly decreasing brightness, increasing speed	
		080102	Random Strobe effect, increasing speed	
		103127	Burst strobe, 5 s to 1 s	
		128250	Strobe effect, increasing speed, from 1 Hz to 20 Hz	
		251255	LEDs on	
6	Wash	Colour macros (overwrites channel 9 to 68)		
		000 005	LEDs off (blackout)	
		006013	Red	
		014021	Amber	
		022029	Warm yellow	
		030037	Yellow	
		038045	Green	
		046053	Turquoise	
		054061	Cyan	
		062069	Blue	
		070077	Lavender	

Operating

Channel	LED	Value	Function	
		078085	Mauve	
		086093	Magenta	
		094101	Pink	
		102109	Warm white	
		110117	White	
		118125	Cold white	
		126127	Colour change	
		128192	Colour change from colour 1 to colour 12, speed increasing	
		193255	Gradual colour change from colour 1 to colour 12, speed increasing	
7	Wash	Dimmer patterns		
		000010	No function	
		011025	Pattern 1	
		026040	Pattern 2	
		041055	Pattern 3	
		056070	Pattern 4	
		071085	Pattern 5	
		086100	Pattern 6	
		101115	Pattern 7	
		116130	Pattern 8	
		131145	Pattern 9	
		146160	Pattern 10	
		161175	Pattern 11	
		176190	Pattern 12	
		191205	Pattern 13	
		206220	Pattern 14	
		221235	Pattern 15	
		236250	Pattern 16	
		251255	No function	
8	Wash	Running spee	ed dimmer patterns	
		000255	Change, increasing speed	
9	Wash	000255	Dimmer, segment 1 (0 % to 100 %)	
10	Wash	000255	Intensity red, segment 1 (0 % to 100 %)	
11	Wash	000255	Intensity green, segment 1 (0 % to 100 %)	
12	Wash	000255	Intensity blue, segment 1 (0 % to 100 %)	
13	Wash	000255	Intensity white, segment 1 (0 % to 100 %)	

Operating

Channel	LED	Value	Function
64	Wash		Dimmer, segment 12 (0 % to 100 %)
65	Wash	000255	Intensity red, segment 12 (0 % to 100 %)
66	Wash	000255	Intensity green, segment 12 (0 % to 100 %)
67	Wash	000255	Intensity blue, segment 12 (0 % to 100 %)
68	Wash	000255	Intensity white, segment 12 (0 % to 100 %)

LED segments





8 Technical specifications



Light source	90 × CW LED SMD 3535, 1 W (Strobe)		
	$360 \times \text{RGBW}$ LED SMD 5050, 0.3 W (Wash)		
Properties of the CW LEDs	Colour temperature	8000 K	
SMD 3535	Colour rendering index	CRI >70	
Optical properties	Beam angle	120°	
Control	DMX, buttons and displa	y on the unit	
Number of DMX channels	3, 6, 12, 16, 56 or 68		
Input connections	Voltage supply	Lockable input socket (Power Twist)	
	DMX control	XLR chassis plug, 3-pin	
		XLR chassis plug, 5-pin	
Output connections	Power supply for fur- ther devices	Lockable output socket (Power Twist)	
	DMX control	XLR chassis socket, 3-pin	
		XLR chassis socket, 5-pin	
Power consumption	250 W		
Operating supply voltage	100 - 240 V ~ 50/60 Hz		
Fuse	5 mm × 20 mm, 2 A, 250 V, fast-acting		
Flash rate	0 Hz20 Hz		
Protection class	IP20		
Mounting options	hanging, standing		
Dimensions (W \times H \times D)	446 mm \times 248 mm \times 100 mm		
Weight	5.5 kg		
Ambient conditions	Temperature range	0 °C40 °C	
	Relative humidity	20 %…80 % (non-condensing)	

Further information

Colour mixture	white
Housing	Metal
Cooling	Fan
Colour	Black

9 Plug and connection assignment

Introduction

DMX connections



DMX connections



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!

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')

A five-pin XLR socket serves as DMX output, a five-pin XLR plug serves as DMX input. The drawing below and the table show the pin assignment of a matching coupling.

Pin	Assignment
1	Ground (shielding)
2	Signal inverted (DMX–, 'cold')
3	Signal (DMX+, 'hot')
4	unused / second connection (DMX–)
5	unused / second connection (DMX+)

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	1. Check the mains connection and the main fuse.
light, the display is dark	2. Check the settings in manual mode.
No response to the DMX controller	1. Check whether the DMX controller is switched on. Check the DMX connectors and cables for proper connection.
	2. Check the address settings and the DMX polarity.
	3. Try using another DMX controller.
	4. Check whether the DMX cables run near or par- allel to high-voltage cables that may cause damage or interference to a DMX interface circuit.

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

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



Disposal of your old device



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.

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.

Notes

Notes