remus

HexSpot 515

User Manual

LED PAR

Table of contents

1 General information

This document contains important instructions for the safe operation of the product. Read and follow the safety instructions and all other instructions. Keep the document for future reference. Make sure that it is available to all those using the product. If you sell the product to another user, be sure that they also receive this document.

Our products and documentation are subject to a process of continuous development. They are therefore subject to change. Please refer to the latest version of the documentation, which is ready for download under *www.thomann.de*.

1.1 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 document.

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 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!
Risk of injury and choking hazard for children!

Children can suffocate on packaging material and small parts. Children can injure themselves when handling the device. Never allow children to play with the packaging material and the device. Always store packaging material out of the reach of babies and small children. Always dispose of packaging material properly when it is not in use. Never allow children to use the device without supervision. Keep small parts away from children and make sure that the device does not shed any small parts (such knobs) that children could play with.

DANGER!

Danger to life due to electric current!

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 when covers, safety equipment or optical components are missing or damaged.

DANGER!

Danger to life due to electric current!

A short circuit could lead to a fire hazard and risk of death. Always use proper ready-made insulated triple-core mains cable with a safety plug. Do not modify the mains cable or the plug. In case of isolation damage, disconnect immediately the power supply and arrange repair. If in doubt, seek advice from a qualified electrician.

WARNING!

Risk of eye damage caused by high light intensity!

The device generates highly intense light radiation. Looking directly into the light source can damage the eyes. Never look directly into the light source.

WARNING!

Risk of epileptic fit due to flashing lights!

The device emits flashing lights (strobe effects). Flashing lights can trigger epileptic fits in specific people. If you are at risk of epilepsy, avoid spending longer periods of time subjected to flashing lights and looking into strobing light.

NOTICE!

Risk of fire due to covered vents and neighbouring heat sources!

If the vents of the device are covered or the device is operated in the immediate vicinity of other heat sources, the device can overheat and burst into flames. Never cover the device or the vents. Do not install the device in the immediate vicinity of other heat sources. Never operate the device in the immediate vicinity of naked flames.

!

NOTICE!

Damage to the device if operated in unsuitable ambient conditions!

The device can be damaged if it is operated in unsuitable ambient conditions. Only operate the device indoors within the ambient conditions specified in the "Technical specifications" chapter of this user manual. Avoid operating it in environments with direct sunlight, heavy dirt and strong vibrations. Avoid operating it in environments with strong temperature fluctuations. If temperature fluctuations cannot be avoided (for example after transport in low outside temperatures), do not switch on the device immediately. Never subject the device to liquids or moisture. Never move the device to another location while it is in operation. In environments with increased dirt levels (for example due to dust, smoke, nicotine or mist): Have the device cleaned by qualified specialists at regular intervals to prevent damage due to overheating and other malfunctions.

!

NOTICE!

Damage to the device due to high voltages!

The device can be damaged if it is operated with the incorrect voltage or if high voltage peaks occur. In the worst case, excess voltages can also cause a risk of injury and fires. Make sure that the voltage specification on the device matches the local power grid before plugging in the device. Only operate the device from professionally installed mains sockets that are protected by a residual current circuit breaker (FI). As a precaution, disconnect the device from the power grid when storms are approaching or it the device will not be used for a longer period.

!

NOTICE!

Risk of fire due to installation of a wrong fuse!

Using fuses of a different type than compatible with the device may cause a fire and seriously damage the device. Only use fuses of the same type. Observe the labelling on the device casing and the information in the "Technical data" chapter.

!

NOTICE!

Risk of fire by exceeding the maximum current

The device can supply power to other devices of identical design and connected in series. If too many devices are connected, the power consumption can exceed the maximum permitted power consumption, which can cause the device to overheat and burst into flames. Only connect devices of identical design to the device. When deciding how many devices you can connect in series, make sure that the maximum permitted power consumption as stated on the device is not exceeded. Also refer to the specifications in the technical specifications for the device. Only use power cords with a cable cross-section designed for the required current intensity when connecting the devices in series.

3   Features

The LED PAR is particularly suitable for professional lighting work, for example at events, on rock stages, in theatres and musicals.

Special features of the device:

■   Five RGBAW+UV 6-in-1 LEDs, each 15 W
■   16-bit technology
■   Control via DMX (5 channels) and via the buttons and display on the device
■   Six pre-programmed automatic shows
■   Sound control
■   Master/slave mode
■   Colour macros
■   Noiseless operation due to convection cooling
■   Robust aluminium housing

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 from falling devices that were inadequately secured!

If devices are not properly secured during assembly, they can cause severe injury and considerable damage by falling.

When installing and operating, make sure to follow the standards and regulations 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 and fire due to inadequate distance and bad ventilation!

If the distance between the light source and the illuminated surface is too short or the device is badly ventilated, the device can overheat and cause fires.

Make sure that illuminated surfaces are more than 2 m away.

Do not operate the device in ambient temperatures above 40 °C.

Always ensure sufficient ventilation at the operating location.

!

NOTICE!

Potential property damage due to unsuitable stands!

If the device is mounted on an unsuitable stand, there is a risk that the stand will fall over and cause damage.

Only use stands whose maximum bearing capacity is at least as high as the weight of the device. Always ensure that the stand is stable.

!

NOTICE!
Data transfer errors due to improper wiring!
If the DMX connections are wired incorrectly, this can cause errors during the data transfer.

Do not connect the DMX input and output to audio devices, e.g. mixers or amplifiers.

Use special DMX cables for the wiring instead of normal microphone cables.

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

Mounting options

You can install the device in hanging or standing positions. When in use, the device must always be attached to a solid surface or an approved mount. Use the openings provided on the two-piece bracket for attaching.

Always work from a stable platform whenever installing, moving or servicing the device. While you do this, the area underneath the device must be cordoned off.

The safety cable must be attached to the safety cable eyelet on the back of the device.

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).
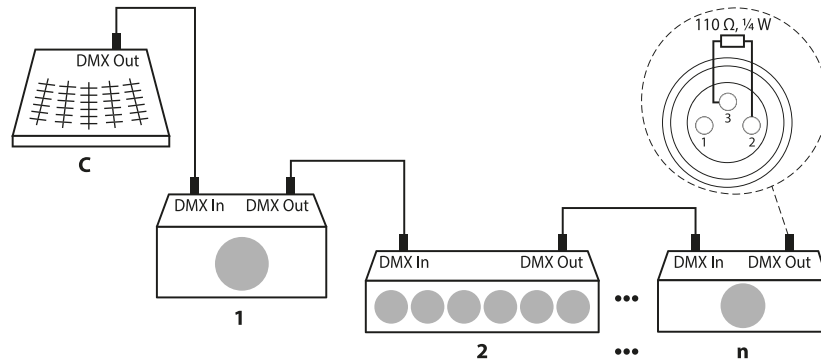
Connections in master/slave mode

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 controls
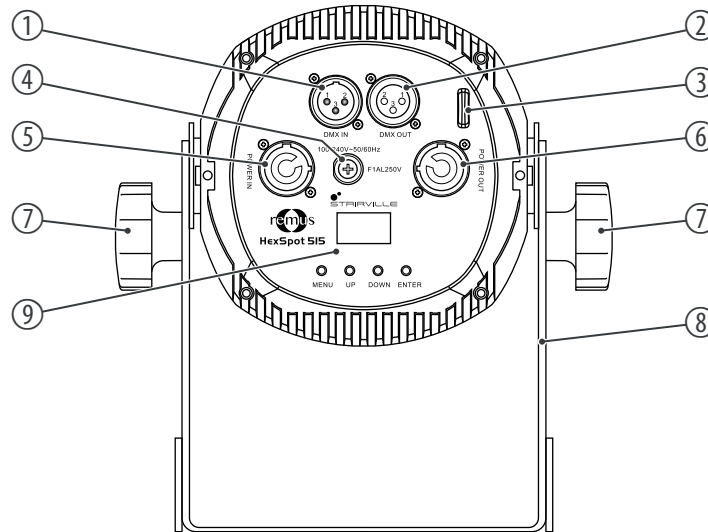
1	*[DMX IN]* | DMX input, designed as XLR panel plug, 3-pin
2	*[DMX OUT]* | DMX output, designed as XLR panel socket, 3-pin
3	Safety cable eyelet
4	Fuse holder
5	*[POWER IN]* | Lockable input socket (Power Twist) for mains power supply
6	*[POWER OUT]* | Lockable output socket (Power Twist) for powering a connected device
7	Locking screw for the two-piece bracket
8	Two-piece bracket for setting up or hanging up
9	Display
	[MENU] | Activates the settings menu, moves back one menu level, and closes an opened submenu without saving the changes.
	[UP] | Navigates upwards in a menu list. Increases the displayed value by one.
	[DOWN] | Navigates downwards in a menu list. Decreases the displayed value by one.
	[ENTER] | calls up the menu for the respective operation mode, confirms a set value.

7 Operating

7.1 Starting the device

Connect the device to the mains to start operation. After a few seconds, the display indicates that a reset is in progress. The device is now operational.

7.2 Operation on the device

Navigating in the menu

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* to call up further menu items.

3. ▶ To activate the displayed menu item, press *[ENTER]*.

4. ▶ Press *[UP]* or *[DOWN]* to change the displayed value.

5. ▶ Press *[ENTER]* to apply the displayed value.

6. ▶ To exit a menu item without making changes, press *[MENU]*.

The set values are retained even when you switch the device off and disconnect it from the mains.

7.2.1 DMX address

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

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'DMX Address'*. Confirm the selection with *[ENTER]*.

3. ▶ Use *[UP]* or *[DOWN]* to select the required DMX address between 1 (*'001'*) and 512 (*'512'*) and confirm the selection with *[ENTER]*.

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
2-channel mode	511
3-channel mode	510
6-channel mode	507
9-channel mode	504
11-channel mode	502

4. ▶ Press *[MENU]* to return to the parent menu level.

7.2.2   DMX mode

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

1. ▸ Press *[MENU]* to activate the main menu.

2. ▸ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'DMX Mode'*. Confirm the selection with *[ENTER]*.

3. ▸ Press *[UP]* or *[DOWN]* to select the required DMX mode (*'2CH'*, *'3CH'*, *'6CH'*, *'9CH'* or *'11CH'*).

4. ▸ Press *[ENTER]* to accept the selection.

7.2.3 Auto programmes

In this operating mode you select one of the automatic programmes and configure the speed and the dimmer intensity of the automatic programme.

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Stand Alone'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Auto'*. Confirm the selection with *[ENTER]*.

4. ▶ Use *[UP]* or *[DOWN]* to select the required automatic programme (display shows *'Program 1'* … *'Program 6'*). Confirm with *[ENTER]*.

5. ▶ Press *[UP]* or *[DOWN]* to select the required submenu or value.

The following submenus are available:

Menu level 4	Menu level 5	Description
'Dimmer'	*'000…255'*	Dimmer intensity
'Speed'	*'000…255'*	Running speed from slow to fast

6. ▶ Press *[ENTER]* to accept the selection.

7.2.4 Sound control

In this mode the device follows the rhythm of the background music or sounds detected by the built-in microphone.

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Stand Alone'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Sound'*. Confirm the selection with *[ENTER]*.

4. ▶ Press *[UP]* or *[DOWN]* repeatedly to select the required value for microphone sensitivity (display shows *'Mic Sens 00'* … *'Mic Sens 99'*).

5. ▶ Press *[ENTER]* to accept the selection.

⇨ Sound control is activated.

7.2.5   Colour macros

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Stand Alone'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Color Macro'*. Confirm the selection with *[ENTER]*.

4. ▶ Use *[UP]* or *[DOWN]* to select one of the 16 colour macros or turn off the colour (*'Color Off'*). Confirm the selection with *[ENTER]*.

5. ▶ Press *[UP]* or *[DOWN]* to select the required value for the intensity of the colour macro (display shows *'001'* … *'255'*).

6. ▶ Press *[ENTER]* to accept the selection.

7.2.6   Constant colours

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Stand Alone'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Static'*. Confirm the selection with *[ENTER]*.

4. ▶ Use *[UP]* or *[DOWN]* to select an effect or a colour that you can adjust individually. Confirm the selection with *[ENTER]*.

5. ▶ To set the intensity of the dimmer, the frequency of the strobe effect or the intensity of the colour, use *[UP]* or *[DOWN]* to select a value between *'000'* and *'255'*.

6. ▶ Press *[ENTER]* to accept the selection.

Display	Meaning
'Dimmer'	Dimmer intensity
'Strobe'	Strobe effect
'Red'	Red
'Green'	Green
' Blue'	Blue

Display	Meaning
'White'	White
'Amber'	Amber
'UV'	Ultraviolet

7.2.7   Colour temperature and dimmer for white

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Stand Alone'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Tunable White'*. Confirm with *[ENTER]*.

4. ▶ Press *[UP]* or *[DOWN]* to select the required submenu or value.

The following submenus are available:

Menu level 3	Menu level 4	Description
'Dimmer'	*'000…255'*	Dimmer intensity
'CTC'	*'3200K…7280K'*	Colour temperature: 3200 K…7280 K

5. ▶ Press *[ENTER]* to accept the selection.

7.2.8   Individual mixed colour

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Stand Alone'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'User Color'*. Confirm with *[ENTER]*.

4. ▶ Use *[UP]* or *[DOWN]* to select one of 8 memory slots for an individual mixed colour (display shows *'Color1'* … *'Color8'*). Confirm with *[ENTER]*.

5. ▶ Press *[UP]* or *[DOWN]* to select the required submenu or value.

The following submenus are available:

Menu level 4	Menu level 5	Description
'Dimmer'	*'000…255'*	Dimmer intensity from 0 to 255
'Strobe'	*'000…255'*	Strobe effect from 0 to 255
'Red'	*'000…255'*	Red from 0 to 255
'Green'	*'000…255'*	Green from 0 to 255
' Blue'	*'000…255'*	Blue from 0 to 255
'White'	*'000…255'*	White from 0 to 255

Menu level 4	Menu level 5	Description
'Amber'	*'000…255'*	Amber from 0 to 255
'UV'	*'000…255'*	Ultraviolet from 0 to 255

6. ▸ Press *[ENTER]* to accept the selection.

7.2.9   Slave mode

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

1. ▸ Press *[MENU]* to activate the main menu.

2. ▸ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Slave'*. Confirm the selection with *[ENTER]*.

3. ▸ Use *[UP]* or *[DOWN]* to select the *'Yes'* menu item. Confirm with *[ENTER]*.

⇨ The device is now running in slave mode, i.e. it will copy the behaviour of the controlling master device exactly if the wiring is correct.

4. ▸ To disable slave mode, select *'No'*. Confirm with *[ENTER]*.

7.2.10   System settings

7.2.10.1   Rotating the display

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Settings'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Display Reverse'*. Confirm with *[ENTER]*.

4. ▶ Use *[UP]* or *[DOWN]* to select either *'On'* (display rotated by 180°) or *'Off'* (display not rotated).

5. ▶ Press *[ENTER]* to accept the selection.

7.2.10.2   Display lighting

1. ► Press *[MENU]* to activate the main menu.

2. ► Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Settings'*. Confirm the selection with *[ENTER]*.

3. ► Press *[UP]* or *[DOWN]* repeatedly until the display shows *'DisplayLight'*. Confirm with *[ENTER]*.

4. ► Use *[UP]* or *[DOWN]* to select *'On'* (display permanently on) or *'Off'* (display turns off after a few seconds of inactivity).

5. ► Press *[ENTER]* to accept the selection.

7.2.10.3   Behaviour in the event of DMX control failure

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Settings'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'DMX Fail'*. Confirm with *[ENTER]*.

4. ▶ Use *[UP]* or *[DOWN]* to select *'Hold'*, *'Blackout'* or *'Emergency Light'* to make the setting to be applied if the DMX controller fails.

5. ▶ Press *[ENTER]* to accept the selection.

Display	Meaning
'Hold'	Last DMX value is maintained.
'Blackout'	Spotlight is turned off.
'Emergency Light'	Emergency light is turned on.

7.2.10.4 Dimmer curve

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Settings'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Dimmer Curve'*. Confirm with *[ENTER]*.

4. ▶ Use *[UP]* or *[DOWN]* to select the required dimmer curve (display shows *'Linear'*, *'Exponential'*, *'Logarithmic'* or *'S-Curve'*).

5. ▶ Press *[ENTER]* to accept the selection.

Display	Meaning
'Linear'	Linear course
'Exponential'	Exponential course (Square curve with a flat profile at the beginning and a steep profile at the end)

Display	Meaning
'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)

7.2.10.5   Dimmer response

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Settings'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Dimmer Response'*. Confirm with *[ENTER]*.

4. ▶ Use *[UP]* or *[DOWN]* to select the required response behaviour of the dimmer (display shows *'LED'* or *'Halogen'*).

5. ▶ Press *[ENTER]* to accept the selection.

Display	Meaning
'LED'	The dimmer setting for LED is activated.
'Halogen'	The imitation of the dimming behaviour for halogen light is activated.

7.2.10.6   Key lock

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Settings'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'AutoLock'*. Confirm with *[ENTER]*.

4. ▶ Use *[UP]* or *[DOWN]* to select either *'On'* (keylock on) and *'Off'* (keylock off).

5. ▶ Press *[ENTER]* to accept the selection.

7.2.10.7   Resetting the device to factory defaults

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Settings'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Factory Reset'*. Confirm with *[ENTER]*.

   ⇨   The display shows the message *'Reset Now'*.

4. ▶ Confirm with *[ENTER]* to start the reset.

7.2.11   System information

7.2.11.1   Firmware version

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'System Info'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Firmware'*.

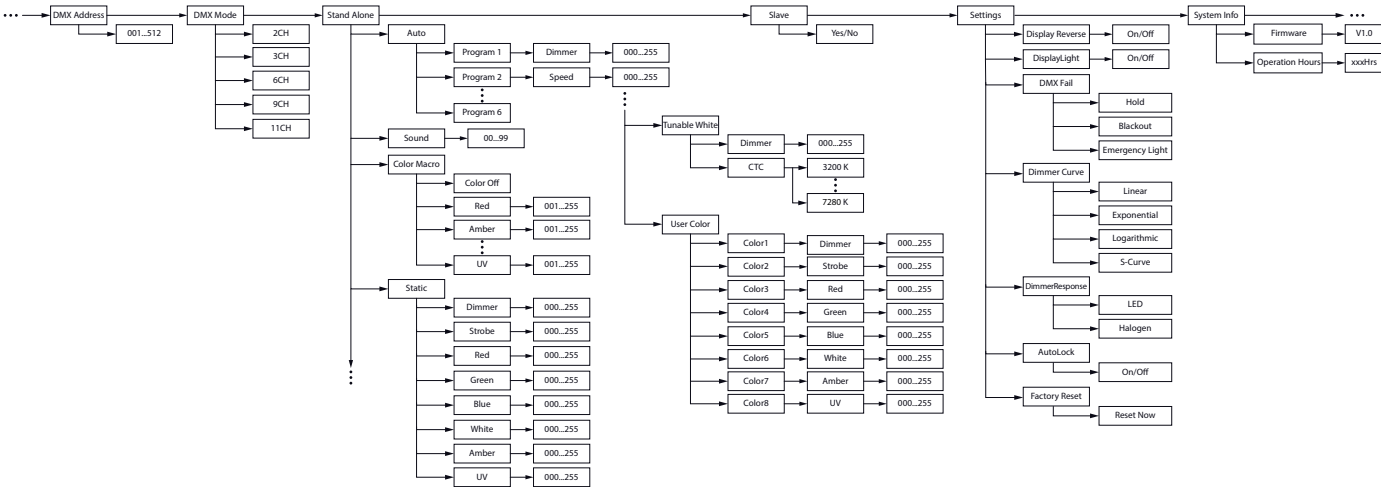⇨ The current firmware version is displayed.

7.2.11.2   Operating hours

1. ▶ Press *[MENU]* to activate the main menu.

2. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'System Info'*. Confirm the selection with *[ENTER]*.

3. ▶ Press *[UP]* or *[DOWN]* repeatedly until the display shows *'Operation Hours'*.

⇨ The operation hours of the device are displayed.

7.3 Menu overview

DMX Address					
	001...512				
DMX Mode	2CH				
	3CH				
	6CH				
	9CH				
	11CH				
Stand Alone	Auto	Program 1	Dimmer	000...255	
		Program 2	Speed	000...255	
		Program 6			
	Sound	00...99			
	Color Macro	Color Off			
		Red	001...255		
		Amber	001...255		
		UV	001...255		
	Static	Dimmer	000...255		
		Strobe	000...255		
		Red	000...255		
		Green	000...255		
		Blue	000...255		
		White	000...255		
		Amber	000...255		
		UV	000...255		

Tunable White
- Dimmer — 000...255
- CTC — 3200 K ... 7280 K

User Color
- Color1 — Dimmer — 000...255
- Color2 — Strobe — 000...255
- Color3 — Red — 000...255
- Color4 — Green — 000...255
- Color5 — Blue — 000...255
- Color6 — White — 000...255
- Color7 — Amber — 000...255
- Color8 — UV — 000...255

Slave
- Yes/No

Settings
- Display Reverse — On/Off
- DisplayLight — On/Off
- DMX Fail — Hold / Blackout / Emergency Light
- Dimmer Curve — Linear / Exponential / Logarithmic / S-Curve
- DimmerResponse — LED / Halogen
- AutoLock — On/Off
- Factory Reset — Reset Now

System Info
- Firmware — V1.0
- Operation Hours — xxxHrs

7.4 Functions in 2-channel DMX mode

Channel	Value	Function
1	000…255	Dimmer intensity from dark (0) to bright (255)
2	000…255	Colour temperature from 3200 K to 7280 K

7.5   Functions in 3-channel DMX mode

Channel	Value	Function
1	000…255	Dimmer intensity from dark (0) to bright (255)
2	Strobe	
	000…005	LEDs on
	006…010	LEDs off
	011…033	Random pulses, increasing speed
	034…056	Randomly increasing brightness, increasing speed
	057…079	Randomly decreasing brightness, increasing speed
	080…102	Random strobe effect, increasing speed
	103…127	Strobe pulses (interval 5 s to 1 s)
	128…250	Strobe effect, increasing speed (1 … 20 Hz)
	251…255	LEDs on
3	Colour macros	
	000…005	Blackout
	011…013	Red

Channel	Value	Function
	014…021	Amber
	022…029	Warm yellow
	…	…
	102…109	Warm white
	110…117	White
	118…125	Cold white
	126…127	Colour change stop
	128…191	Colour change colour 1…12, increasing speed
	192…255	Slow colour change with dissolve colour 1…12, increasing speed

7.6 Functions in 6-channel DMX mode

Channel	Value	Function
1	000…255	Red intensity (0%…100%)
2	000…255	Green intensity (0%…100%)
3	000…255	Blue intensity (0%…100%)
4	000…255	White intensity (0%…100%)
5	000…255	Amber intensity (0%…100%)
6	000…255	UV intensity (0%…100%)

7.7 Functions in 9-channel DMX mode

Channel	Value	Function
1	000…255	Dimmer intensity from dark (0) to bright (255)
2	Strobe	
	000…005	LEDs on
	006…010	LEDs off
	011…033	Random pulses, increasing speed
	034…056	Randomly increasing brightness, increasing speed
	057…079	Randomly decreasing brightness, increasing speed
	080…102	Random strobe effect, increasing speed
	103…127	Strobe impulses (5 s strobe effect, 1 s pause)
	128…250	Strobe effect, increasing speed (1 … 20 Hz)
	251…255	LEDs on
3	000…255	Red intensity (0%…100%)
4	000…255	Green intensity (0%…100%)
5	000…255	Blue intensity (0%…100%)

| Channel	Value	Function
6	000…255	White intensity (0%…100%)
7	000…255	Amber intensity (0%…100%)
8	000…255	UV intensity (0%…100%)
9	Colour macros (overwrites channel 3…8)	
	000…005	Blackout
	011…013	Red
	014…021	Amber
	022…029	Warm yellow
	…	…
	102…109	Warm white
	110…117	White
	118…125	Cold white
	126…127	Colour change stop
	128…191	Colour change colour 1…12, increasing speed
	192…255	Slow colour change with dissolve colour 1…12, increasing speed

7.8   Functions in 11-channel DMX mode

Channel	Value	Function
1	000…255	Dimmer intensity from dark (0) to bright (255)
2	Strobe	
	000…005	LEDs on
	006…010	LEDs off
	011…033	Random pulses, increasing speed
	034…056	Randomly increasing brightness, increasing speed
	057…079	Randomly decreasing brightness, increasing speed
	080…102	Random strobe effect, increasing speed
	103…127	Strobe impulses (5 s strobe effect, 1 s pause)
	128…250	Strobe effect, increasing speed (1 … 20 Hz)
	251…255	LEDs on
3	000…255	Red intensity (0%…100%)
4	000…255	Green intensity (0%…100%)
5	000…255	Blue intensity (0%…100%)

Channel	Value	Function
6	000…255	White intensity (0%…100%)
7	000…255	Amber intensity (0%…100%)
8	000…255	UV intensity (0%…100%)
9	Colour macros (overwrites channel 3…8)	
	000…005	Blackout
	011…013	Red
	014…021	Amber
	022…029	Warm yellow
	…	…
	102…109	Warm white
	110…117	White
	118…125	Cold white
	126…127	Colour change stop
	128…191	Colour change colour 1…12, increasing speed
	192…255	Slow colour change with dissolve colour 1…12, increasing speed
10	000…005	No function

Channel	Value	Function
	006…255	Colour temperature from 3200 K to 7280 K
11	Dimmer curve	
	000…005	No function
	006…063	Linear course
	064…127	Exponential course
	128…191	Logarithmic course
	192…255	S-curve shaped course

8 Technical specifications
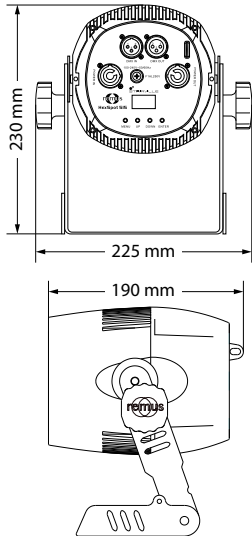
Item number		
Light source		5 × 6in1-RGBAW-UV-LED, each 15 W
Light source properties	Colour temperature	3200 K…7280 K
Optical properties	Beam angle	30°
	Repetition rate	5000 Hz
Control		DMX
		Buttons and display
Number of DMX channels		2, 3, 6, 9 or 11
Input connections	Power supply	Lockable input socket (Power Twist)
	DMX control	XLR panel plug, 3-pin
Output connections	Power supply for further devices	Lockable output socket (Power Twist)
	DMX control	XLR panel socket, 3-pin
Power consumption		100 W
Supply voltage		100 - 240 V ∼ 50/60 Hz

Item number		
International Protection Rating		IP20
Mounting options		Hanging, standing
Dimensions (W × H × D), with bracket		225 mm × 230 mm × 190 mm
Weight		2.5 kg
Ambient conditions	Temperature range	0 ℃…40 ℃
	Relative humidity	20%…80% (non-condensing)

Further information

Item number	
Design	Studio housing
Number of LEDs	5
Colour mix	RGBAWUV
LED type	x-in-1
Floor housing	yes
Fanless	yes
Wireless DMX	no
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!**
> **Data transfer errors due to improper wiring!**
> If the DMX connections are wired incorrectly, this can cause errors during the data transfer.
>
> Do not connect the DMX input and output to audio devices, e.g. mixers or amplifiers.
>
> Use special DMX cables for the wiring instead of normal microphone cables.

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 device does not work, no light	Check the mains connection and the fuse.
No response to the DMX controller	1. If the device is in DMX mode and a DMX controller is connected and turned on, the first digit 'd' of the display is flashing. If it doesn't, no valid DMX signal is received. Check that the DMX controller is switched on. Check the DMX connections and cables for proper connection.
	2. If the display is not flashing but there is still no response, check the address settings and the DMX polarity.
	3. Try using another DMX controller.
	4. Check whether the DMX cables run near or parallel 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 _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 of any contamination, such as dust, etc. on a regular basis. Before cleaning, switch off the device and disconnect mains-operated devices from the mains. Only use pH-neutral, solvent-free and non-abrasive cleaning agents. Clean the unit with a slightly damp lint-free cloth.

12   Protecting the environment

Disposal of the packing material

Environmentally friendly materials have been chosen for the packaging. These materials can be sent for normal recycling. Ensure that plastic bags, packaging, etc. are disposed of in the proper manner.

Do not dispose of these materials with your normal household waste, but make sure that they are collected for recycling. Please follow the instructions and markings on the packaging.

Observe the disposal note regarding documentation in France.

Disposal of your old device

This product is subject to the European Waste Electrical and Electronic Equipment Directive (WEEE) as amended.

Do not dispose of your old device with your normal household waste; instead, deliver it for controlled disposal by an approved waste disposal firm or through your local waste facility. When disposing of the device, comply with the rules and regulations that apply in your country. If in doubt, consult your local waste management facility. Proper disposal protects the environment as well as the health of your fellow human beings.

Also note that waste avoidance is a valuable contribution to environmental protection. Repairing a device or passing it on to another user is an ecologically valuable alternative to disposal.

You can return your old device to Thomann GmbH at no charge. Check the current conditions on _www.thomann.de_.

If your old device contains personal data, delete those data before disposing of it.

Notes