

ignition

WAL-L412 BP

LED spotlight

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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 [www.thomann.de](http://www.thomann.de).

## 1.1 Further information

On our website ([www.thomann.de](http://www.thomann.de)) you will find lots of further information and details on the following points:

Download	This manual is also available as PDF file for you to download.
Keyword search	Use the search function in the electronic version to find the topics of interest for you quickly.
Online guides	Our online guides provide detailed information on technical basics and terms.
Personal consultation	For personal consultation please contact our technical hotline.
Service	If you have any problems with the device the customer service will gladly assist you.

## 1.2 Notational conventions

This manual uses the following notational conventions:

### Letterings

The letterings for connectors and controls are marked by square brackets and italics.

**Examples:** *[VOLUME]* control, *[Mono]* button.

### Displays



Texts and values displayed on the device are marked by quotation marks and italics.



**Examples:** *'24ch'*, *'OFF'*.

## 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
<b>DANGER!</b>	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.
<b>WARNING!</b>	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.
<b>NOTICE!</b>	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 signs	Type of danger
 A yellow triangular warning sign with a black border, depicting a crane hook lifting a rectangular load.	Warning – suspended load.
 A yellow triangular warning sign with a black border, featuring a large black exclamation mark.	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**

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.



### **WARNING!**

#### **Incorrect handling of lithium batteries can result in injury**

In the event of a short circuit, overheating or mechanical damage, lithium batteries can cause severe injuries.

Follow the advice on the correct handling of lithium batteries in the present section.



### **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!**

**Risk of fire due to incorrect polarity**

Incorrectly inserted batteries may destroy the device or the batteries.

Ensure that proper polarity is observed when inserting batteries.



**NOTICE!**

**Possible damage by leaking batteries**

Leaking batteries can cause permanent damage to the device.

Take batteries out of the device if it is not going to be used for a longer period.



### **NOTICE!**

#### **Possible staining**

The plasticiser contained in the rubber feet of this product may possibly react with the coating of your parquet, linoleum, laminate or PVC floor and after some time cause permanent dark stains.

In case of doubt, do not put the rubber feet directly on the floor, but use felt-pad floor protectors or a carpet.



### **NOTICE!**

#### **Possible damage due to incorrect storage**

Deep discharge can cause batteries to become permanently damaged or lose some of their capacity.

Before prolonged rest periods, charge the batteries to around 50 % of their capacity and then switch the equipment off. Store the equipment at a temperature between 10 °C and 32 °C in as dry an environment as possible. During extended storage periods, charge the batteries to 50 % approximately every three months.



### 3 Features

Special features of the device:

- Four four-colour LEDs (RGBW, 12 W each)
- Battery-operated LED spotlight
- Operation in DMX mode (4, 6 or 9 channels)
- Foldable carrying handle on the top
- Spotlight with adjustable inclination angle
- Control via DMX, Wireless DMX, with the optionally available infrared remote control (item no. 354223) as well as the buttons and the display on the device
- Numerous pre-programmed mixed colours and effects programmes
- Standing or hanging mounting
- Additional diffusion filters available: 20° (item no. 461726), 40° (item no. 461727), 15x60° (item no. 471120)
- Compatible charging station (Item no. 461728, optionally available).
- Compatible Touring Case 4in1 (Item no. 461732) or 6in1 (Item no. 461733) with power supply for charging optionally available.

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.

**Information about degree of protection IP54**

Equipment with degree of protection IP54 are dust protected and completely protected against contact (first code number). They are also protected against splash water from any angle (second code digit). That is why this equipment can also be used outdoors. Event technology equipment is generally only designed for temporary use however (event lighting) and not for permanent use outdoors.

The specified degree of protection does not make a statement about the weather resistance of the equipment (resistance to changing ambient conditions as well as against the effects of sunlight and UV rays).

The seals and screw connections of the equipment must be checked regularly to ensure a fault-free operation. In cases of doubt, consult a specialist workshop in due time.

**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 provided openings of the Omega brackets for fixing.

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 threaded through the cut-outs in the housing.



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

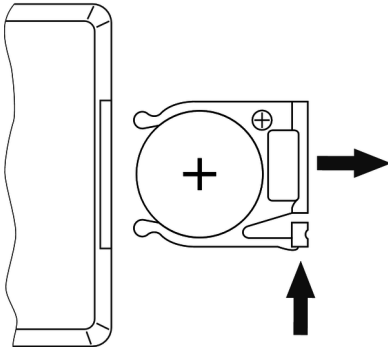
### **Infrared sensor for the remote control**

The infrared receiver for the remote control signals is located in the display. Make sure it's not obstructed.

### Inserting the battery into the remote control

Press the lock of the battery holder to the centre of the housing and pull out the battery holder like a drawer. Insert the battery. The battery is correct if the positive pole points to the housing base of the remote control. Slide the battery holder back into the remote until it clicks into place.

When shipping, the battery is already installed in the remote and protected against discharge by a transparent plastic foil. Remove the plastic foil prior to first use.



## 4.1 Dealing with lithium batteries



### **WARNING!**

#### **Incorrect handling of lithium batteries can result in injury**

In the event of a short circuit, overheating or mechanical damage, lithium batteries can cause severe injuries.

Follow the advice on the correct handling of lithium batteries in the present section.

When handled correctly and appropriately lithium batteries pose no risk.

Store lithium batteries in a cool, dry place, ideally in the original packaging.

Store lithium batteries away from heat sources (e.g. radiators or sunlight). Lithium batteries are hermetically sealed. Never attempt to open a lithium battery.

If the battery housing is damaged small amounts of the electrolyte may leak out. If this should happen, seal the lithium battery in airtight packaging and wipe up the traces of electrolyte using absorbent paper towels. You must wear protective rubber gloves when doing so. Clean your hands and the affected surface thoroughly with cold water.



Never attempt to recharge non-rechargeable lithium batteries. When charging lithium batteries you must use a suitable charging device intended for the purpose.

Before disposing of the device remove the lithium batteries. Protect used lithium batteries against potential short circuits, e.g. by covering the poles with adhesive tape.

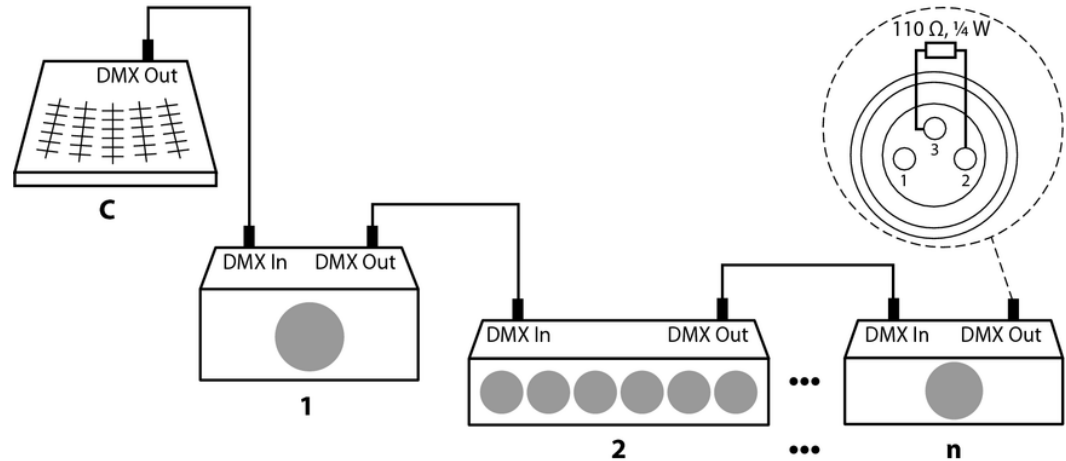
Only use powder extinguishers or other suitable extinguishing agents to extinguish a burning lithium battery.

## 5 Starting up

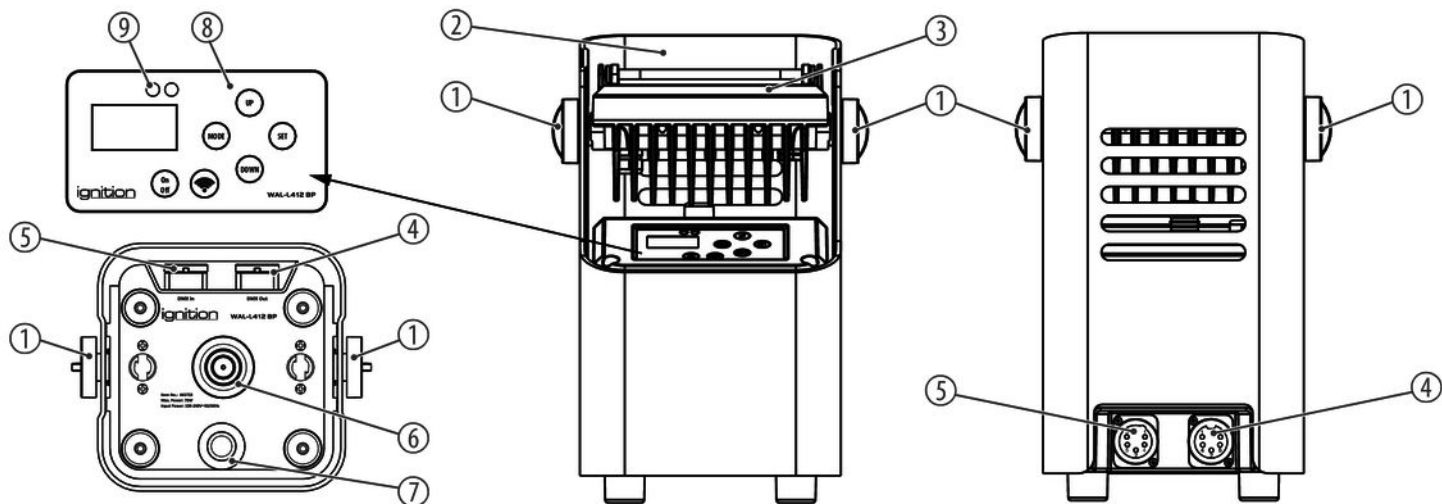
Create all connections while the device is off. Use the shortest possible high-quality cables for all connections. Take care when running the cables to prevent tripping hazards.

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




## 6 Connections and controls



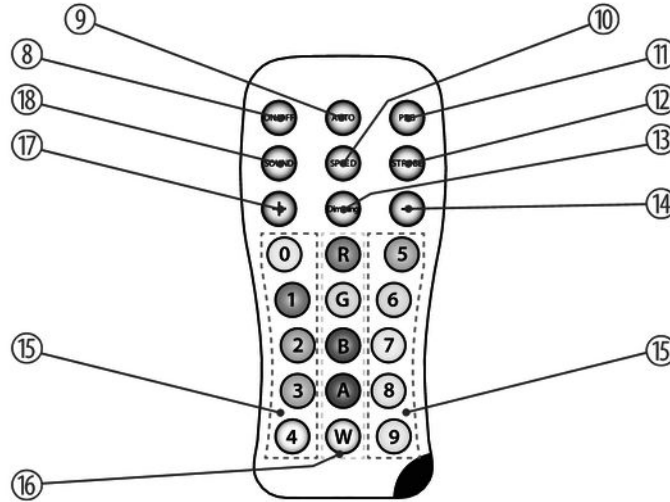
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1	Rotary knob for adjusting the inclination of the spotlight
2	Foldable carrying handle
3	Swivelling headlight
4	DMX output socket, 5-pin
5	DMX input socket, 5-pin
6	Contact for charging station
7	Main switch. When not in use, disconnect the battery with the main switch, thus switching it voltage free.
8	Display
	The display gets locked and shows the current operating mode if no key is pressed during 30 s. Simultaneously press <i>[MODE]</i> and <i>[SET]</i> for 3 s, to unlock.
	<i>[ON / OFF]</i>
	Switches the unit to standby mode or activates it.
	Button <i>[MODE]</i>
	Activates the main menu and toggles between menu items. Closes an opened submenu

	<p><i>[Up], [Down]</i> buttons</p> <p>Toggles between the menu items of a menu level, increases or decreases the displayed value by one</p>
	<p><i>[SET]</i> button</p> <p>Selects an option of the respective operating mode, confirms the set value</p>
	<p>Button </p> <p>To disconnect the wireless DMX connection</p>
9	Sensor for IR remote control

**Remote control**

A remote control is optional accessory (item # 354223) and not included.



8	<i>[ON/OFF]</i> Button to turn the blackout on or off
9	<i>[AUTO]</i> Enables the Auto mode
10	<i>[SPEED]</i> Allows to set the running speed of programmes 02...17
11	<i>[PRG]</i> Enables the Programme mode
12	<i>[STROBE]</i> Turns the Stroboscope effect on and off
13	<i>[Dimming]</i> Brightness control
14	<i>[-]</i> Decreases the displayed value by one



15	<i>[0] ... [9]</i> Numeric buttons for entering a numerical value directly			
	0 = cyan	1 = purple	2 = purple-red	3 = orange
	4 = white	5 = light-pink	6 = light-green	7 = light-blue
	8 = yellow	9 = warm white		
16	Buttons for colour selection			
17	<i>[+]</i> Increases the displayed value by one			
18	<i>[SOUND]</i> No function			

Press *[OFF]* and then *[9]*, *[8]* and *[7]* to reset the device to factory settings.


## 7 Operating

### 7.1 Starting the device

Connect the device to the power supply to start operation. After a few seconds the unit is ready for use.

### 7.2 Main menu

Press *[MODE]* to activate the main menu. Use *[UP]* or *[DOWN]* to select a submenu. When the display shows the desired submenu press *[SET]* to open it up. To close the main menu, press *[MODE]*. The selected or entered values take effect immediately

Press  for 3 seconds to establish a wireless DMX connection. If no connection is established, no wireless DMX signal is being received.

All previously made settings are retained even when you disconnect the device from the power grid. To restart with default values, use the function 'Factory'.

The following table shows the setting options.

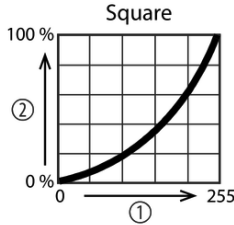
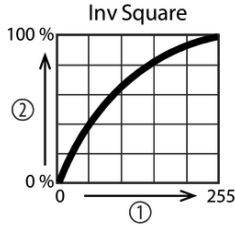
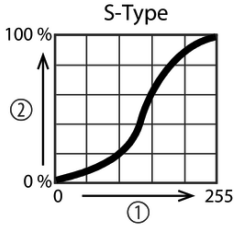
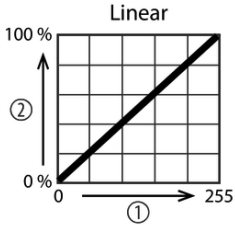
Main menu	Menu level 2	Menu level 3	Meaning
'DMX'	Selecting the DMX mode		
	'Address'	'001...512'	
		Highest possible addresses:	
		4-channel mode	509
		6-channel mode	507
		9-channel mode	504
	'Channels'	'4-CH'	4-channel DMX mode
		'6-CH'	6-channel DMX mode
'9-CH'		9-channel DMX mode	
'W-DMX'	'On' / 'Off'		
'Slave'	Slave mode		
'AUTO'	Automatic programme run		
'Program'	'Mode'	'1...17'	Preprogrammed programme sequence

Main menu	Menu level 2	Menu level 3	Meaning
	'Color' (Programme 01)	'0...39'	Static colour
	'Speed' (Programme 02...17)	'1...100'	Programme running speed
	'Strobe'	'0...99'	Strobe effect speed
'Dimmer'	'Red'	'0...255'	
	'Green'	'0...255'	
	'Blue'	'0...255'	
	'White'	'0...255'	
'Settings'	'Curves Select'	Dimmer curve selection	
		'Linear'	Linear (proportional) course
		'Square Law'	Non-linear curve with a distinctive flat profile at the beginning and end
		'Inv Square Law'	Inverted quadratic curve with a steep profile at the beginning and flat profile at the end

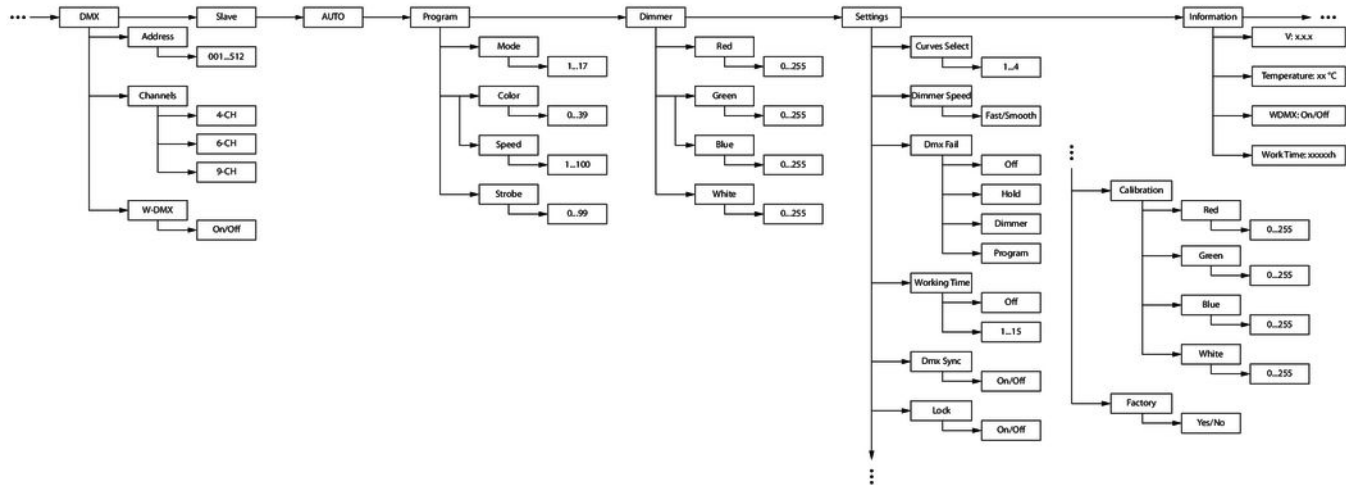
Main menu	Menu level 2	Menu level 3	Meaning
		'S-Type'	Inverted square curve with a steep profile at the beginning and flat profile at the end
	'Dimmer Speed'	Dimmer speed selection	
		'Fast'	Fast
		'Smooth'	Slow
	'Dmx Fail'	Device behaviour on DMX signal failure	
		'Off'	Blackout
		'Hold'	Retaining last settings
		'Dimmer'	Switches to dimmer mode
		'Program'	Switches to preprogrammed programme mode
	'Working Time'	Setting the battery runtime	
		'Off'	Device operates with highest performance
		'1...15'	The light output is reduced so far that the set runtime can be achieved.

Main menu	Menu level 2	Menu level 3	Meaning
	'DMX Sync'	Setting the DMX synchronisation	
		'On'	Enabled
		'Off'	Disabled
	'Lock'	Lock screen	
		'On'	Turned on
		'Off'	Turned off
	Calibration	Colour calibration, white balance	
		Red	'0...255'
		Green	'0...255'
		Blue	'0...255'
		White	'0...255'
	Factory	Reset to factory defaults	
		Yes	

Main menu	Menu level 2	Menu level 3	Meaning
		No	
'Information'	'V: x.x.x'	Show firmware version of the device	
	'Temperature: xx °C'	Display of device temperature and protection against overheating	
	'WDMX: On / off'	Wireless DMX display	
	'Work Time: xxxxxh'	Work time display	



## 7.3 Menu overview





## 7.4 Functions in 4-channel DMX mode

Channel	Value	Function
1	0...255	Intensity red (0 % to 100 %)
2	0...255	Intensity green (0 % to 100 %)
3	0...255	Intensity blue (0 % to 100 %)
4	0...255	Intensity white (0 % to 100 %)

## 7.5 Functions in 6-channel DMX mode

Channel	Value	Function
1	0...255	Dimmer (0 % to 100 %)
2	0...255	Intensity red (0 % to 100 %)
3	0...255	Intensity green (0 % to 100 %)

Channel	Value	Function
4	0...255	Intensity blue (0 % to 100 %)
5	0...255	Intensity white (0 % to 100 %)
6	Strobe effect	
	0...10	No function
	11...255	Increasing speed

## 7.6 Functions in 9-channel DMX mode

Channel	Value	Function
1	0...255	Dimmer (0 % to 100 %)
2	0...255	Intensity red (0 % to 100 %)
3	0...255	Intensity green (0 % to 100 %)

Channel	Value	Function
4	0...255	Intensity blue (0 % to 100 %)
5	0...255	Intensity white (0 % to 100 %)
6	Preset colour blends	
	0...15	No function
	16...21	R255 G000 B000 W000
	22...27	R255 G015 B000 W000
	28...33	R255 G050 B000 W000
	34...39	R255 G125 B000 W000
	40...45	R255 G170 B000 W000
	46...51	R255 G210 B000 W000
	52...57	R255 G255 B000 W000
	58...63	R200 G255 B000 W000
	64...69	R160 G255 B000 W000

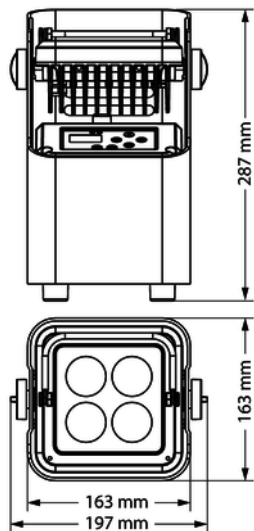
Channel	Value	Function
	70...75	R110 G255 B000 W000
	76...81	R070 G255 B000 W000
	82...87	R000 G255 B000 W000
	88...93	R000 G255 B010 W000
	94...99	R000 G255 B025 W000
	100...105	R000 G255 B040 W000
	106...111	R000 G255 B070 W000
	112...117	R000 G255 B120 W000
	118...123	R000 G255 B255 W000
	124...129	R000 G100 B255 W000
	130...135	R000 G000 B255 W000
	136...141	R020 G000 B255 W000
	142...147	R050 G000 B255 W000

Channel	Value	Function
	148...153	R080 G000 B255 W000
	154...159	R130 G000 B255 W000
	160...165	R180 G000 B255 W000
	166...171	R225 G000 B255 W000
	172...177	R255 G000 B255 W000
	178...183	R255 G000 B220 W000
	184...189	R255 G000 B070 W000
	190...195	R255 G000 B020 W000
	196...201	R255 G000 B007 W000
	202...207	R000 G000 B000 W255
	208...213	R255 G000 B000 W255
	214...219	R125 G000 B000 W255
	220...225	R000 G255 B000 W255

Channel	Value	Function
	226...231	R000 G120 B000 W255
	232...237	R000 G000 B255 W255
	238...243	R000 G000 B100 W255
	244...255	R000 G000 B050 W255
7	Preprogrammed programme sequences	
	0...15	No function
	16...30	Programme 02
	31...45	Programme 03
	46...60	Programme 04
	61...75	Programme 05
	76...90	Programme 06
	91...105	Programme 07
	106...120	Programme 08

Channel	Value	Function
	121...135	Programme 09
	136...150	Programme 10
	151...165	Programme 11
	166...180	Programme 12
	181...195	Programme 13
	196...210	Programme 14
	211...225	Programme 15
	226...240	Programme 16
	241...255	Programme 17
8	0...255	Speed increasing, if channel 7 = 16...255
9	Strobe effect	
	0...10	No function
	11...255	Increasing speed

## 8 Technical specifications



Light source	4 × four-colour LEDs (RGBW, 12 W each)	
Optical properties	Beam angle	10°
Control	DMX, Wireless DMX, IR remote control, manually via buttons and display on the unit	
Number of DMX channels	4, 6 or 9,	
Input connections	DMX control	XLR chassis socket, 5-pin
Output connections	DMX control	XLR chassis socket, 5-pin
Power consumption	75 W	
Supply voltage	20 V $\overline{\text{---}}$ (via charging station Ignition WAL-L Single Charge, item no. 461728)	
Battery	Battery type	Lithium-ion, chargeable
	Voltage	18.5 V



	Capacity	2.600 mAh
	Runtime with full light output	approx. 6 h
	Runtime with single colour	approx. 22 h
Degree of protection	IP54	
Mounting options	Hanging, standing	
Dimensions (W × H × D)	197 mm × 287 mm × 163 mm	
Weight	4.5 kg	
Ambient conditions	Temperature range	0 °C...40 °C
	Relative humidity	50 %, non-condensing

### Further information

Outdoor housing shape	Flood light
Floor housing	Yes
Fanless	Yes
DMX	Yes
Wireless DMX	Yes
IR remote control	Optionally available (item no. 354223)
Charging station	Optionally available (item no. 461728)
Housing colour	Black

## 9 Plug and connection assignments

### Introduction

This chapter will help you select the right cables and plugs to connect your valuable equipment so that a perfect light experience is guaranteed.

Please take our tips, because especially in 'Sound & Light' caution is indicated: Even if a plug fits into a socket, the result of an incorrect connection may be a destroyed DMX controller, a short circuit or 'just' a not working light show!

### DMX connections



The unit offers a 3-pin XLR socket for DMX output and a 3-pin XLR plug for DMX input. Please refer to the drawing and table below for the pin assignment of a suitable XLR plug.

Pin	Configuration
1	Ground, shielding
2	Signal inverted (DMX-, 'cold signal')
3	Signal (DMX+, 'hot signal')

## 10 Troubleshooting



### **NOTICE!**

#### **Possible data transmission errors**

For error-free operation make use of dedicated DMX cables and do not use ordinary microphone cables.

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

In the following we list a few common problems that may occur during operation. We give you some suggestions for easy troubleshooting:

Symptom	Remedy
The unit does not work, no light	Check the main switch on the bottom of the device. Charge the device in the optional charging station.
No response to the DMX controller	<ol style="list-style-type: none"> <li data-bbox="879 325 1524 400">1. Check the DMX connectors and cables for proper connection.</li> <li data-bbox="879 400 1524 449">2. Check the address settings and the DMX polarity.</li> <li data-bbox="879 449 1524 497">3. Try using another DMX controller.</li> <li data-bbox="879 497 1524 602">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.</li> </ol>
The built-in battery can no longer be recharged.	Do not attempt to replace the built-in battery yourself. Please contact our service centre.
No connection can be established to a W-DMX transmitter.	Hold down the W-DMX button on the device until the display expires. Press the Link button on your transmitter.

If the procedures recommended above do not succeed, please contact our Service Center. You can find the contact information at [www.thomann.de](http://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 packaging material



For the 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 batteries



Batteries do contain some hazardous chemicals so they should not be thrown away with the normal household waste. They should be returned to the manufacturer for disposal or recycled elsewhere in accordance with your local regulations.

Remove lithium batteries from the device before disposal. Protect used lithium batteries against potential short circuits, e.g. by covering the poles with adhesive tape. Dispose the built-in lithium batteries together with the device. Please check for an appropriate reception facility.



### 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.





