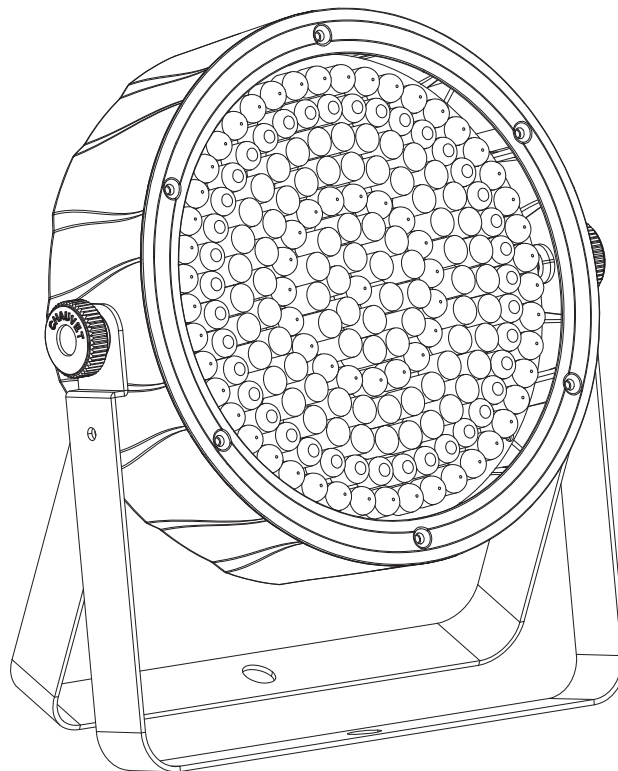


eurolite®

**BEDIENUNGSANLEITUNG
USER MANUAL**

**AKKU SLS-180
RGBA Spot**



USER MANUAL

eurolite[®]

AKKU SLS-180 RGBA Spot



CAUTION!

Keep this device away from rain and moisture!
Never open the housing!

For your own safety, please read this user manual carefully before you initially start-up.

Every person involved with the installation, operation and maintenance of this device has to

- be qualified
- follow the instructions of this manual
- consider this manual to be part of the total product
- keep this manual for the entire service life of the product
- pass this manual on to every further owner or user of the product
- download the latest version of the user manual from the Internet

INTRODUCTION

Thank you for having chosen the EUROLITE AKKU SLS-180 RGBA Spot. If you follow the instructions given in this manual, we are sure that you will enjoy this device for a long period of time.

Unpack your AKKU SLS-180 RGBA Spot.

SAFETY INSTRUCTIONS



CAUTION!

Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching the wires!

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.



Important:

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

Please make sure that there are no obvious transport damages. Should you notice any damages on the A/C connection cable or on the casing, do not take the device into operation and immediately consult your local dealer.

If the device has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your device. Leave the device switched off until it has reached room temperature.

This device falls under protection-class II and features a protective insulation. The voltage and frequency must exactly be the same as stated on the device. Wrong voltages or power outlets can lead to the destruction of the device and to mortal electrical shock.

Always plug in the power plug last. The power plug must always be inserted without force. Make sure that the plug is tightly connected with the outlet.

Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution! Never touch them with wet hands, as this could lead to mortal electrical shock.

Never modify, bend, strain mechanically, put pressure on, pull or heat up the power cord. Never operate next to sources of heat or cold. Disregard can lead to power cord damages, fire or mortal electrical shock.

The cable insert or the female part in the device must never be strained. There must always be sufficient cable to the device. Otherwise, the cable may be damaged which may lead to mortal damage.

If extension cords are used, make sure that the core diameter is sufficient for the required power consumption of the device. All warnings concerning the power cords are also valid for possible extension cords.

Make sure that the available voltage is not higher than stated on the technical sticker.

Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord. Otherwise, the cable or plug can be damaged leading to mortal electrical shock. If the power plug or the power switch is not accessible, the device must be disconnected via the mains.

If the power plug or the device is dusty, the device must be taken out of operation, disconnected and then be cleaned with a dry cloth. Dust can reduce the insulation which may lead to mortal electrical shock. More severe dirt in and at the device should only be removed by a specialist.

There must never enter any liquid into power outlets, extension cords or any holes in the housing of the device. If you suppose that also a minimal amount of liquid may have entered the device, it must immediately be disconnected. This is also valid, if the device was exposed to high humidity. Also if the device is still running, the device must be checked by a specialist if the liquid has reduced any insulation. Reduced insulation can cause mortal electrical shock.

There must never be any objects entering into the device. This is especially valid for metal parts. If any metal parts like staples or coarse metal chips enter into the device, the device must be taken out of operation and disconnected immediately. Malfunction or short-circuits caused by metal parts may cause mortal injuries.



HEALTH HAZARD!

Never look directly into the light source, as sensitive persons may suffer an epileptic shock (especially meant for epileptics)!

Please consider that damages caused by manual modifications to the device are not subject to warranty.

Keep away children and amateurs!

OPERATING DETERMINATIONS

This device is a lighting effect for creating decorative effects. It is designed for professional use, e.g. on stage, in discotheques or theaters. Thanks to the integrated rechargeable battery it is ideally suited for mobile applications.

The device can be operated with 100-240 V, 50/60 Hz mains voltage or via the integrated lithium ion rechargeable battery (11.1 V, 5400 mAh) which can be recharged when connecting the device to the mains. The IR remote control operates with a CR2025 button cell. The device was designed for indoor use only.

Lighting effects are not designed for permanent operation. Consistent operation breaks will ensure that the device will serve you for a long time without defects.

Do not shake the device. Avoid brute force when installing or operating the device.

When choosing the installation spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!

This device must never be operated or stockpiled in surroundings where splash water, rain, moisture or fog may harm the device. Moisture or very high humidity can reduce the insulation and lead to mortal electrical

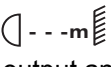
shocks. When using smoke machines, make sure that the device is never exposed to the direct smoke jet and is installed in a distance of 0.5 meters between smoke machine and device. The room must only be saturated with an amount of smoke that the visibility will always be more than 10 meters.

The ambient temperature must always be between -5°C and $+45^{\circ}\text{C}$. Keep away from direct insulation (particularly in cars) and heaters.

The relative humidity must not exceed 50 % with an ambient temperature of 45°C .

This device must only be operated in an altitude between -20 and 2000 m over NN.

Never use the device during thunderstorms. Over voltage could destroy the device. Always disconnect the device during thunderstorms.

The symbol  determines the minimum distance from lighted objects. The minimum distance between light-output and the illuminated surface must be more than 0.1 meters.

This device is only allowed for an installation via the mounting bracket. In order to safeguard sufficient ventilation, leave 50 cm of free space around the device.

The housing must never touch surrounding surfaces or objects.

Make sure that the area below the installation place is blocked when rigging, derigging or servicing the fixture.

Always fix the fixture with an appropriate safety bond.

The maximum ambient temperature $T_a = 45^{\circ}\text{C}$ must never be exceeded.

Operate the device only after having become familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!

Never use solvents or aggressive detergents in order to clean the device! Rather use a soft and damp cloth.

Please use the original packaging if the device is to be transported. Make sure that you pack the device in the original state.

Please consider that unauthorized modifications on the device are forbidden due to safety reasons!

Never remove the serial barcode from the device as this would make the guarantee void.

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, crash etc.

Regarding Rechargeable batteries and Batteries

The given battery run time depends largely on the operating mode and ambient temperature. Low temperatures will reduce the run time considerably. Before using the device for the first time, completely charge the battery.

Rechargeable batteries/batteries are hazardous waste which need to be disposed of appropriately. If the device is to be disposed, the batteries have to be removed first. Take it to a local recycling plant for a disposal which is not harmful to the environment. Do not dispose of rechargeable batteries/batteries into household waste!

Make sure that the poles are correct when inserting the battery. Never let batteries lying around openly as there is the danger that these can be swallowed by children or domestic animals. Immediately consult a doctor when batteries are swallowed! Leaking or damaged batteries can cause irritations when getting into contact with the skin. In this case use appropriate protective gloves. Make sure that the batteries cannot be short-circuited, thrown into the fire and be charged. There is a danger of explosion.

The contained lithium-ion battery is subject to the Dangerous Goods Legislation requirements. The user can transport the battery by road without further requirements. When being transported by third parties (e.g.: air transport or forwarding agency), special requirements on packaging and labelling must be observed. For preparation of the item being shipped, consulting an expert for hazardous material is required. Dispatch battery only when the housing is undamaged. Tape or mask off open contacts and pack up the battery in such a manner that it cannot move around in the packaging. Please also observe possibly more detailed national regulations.

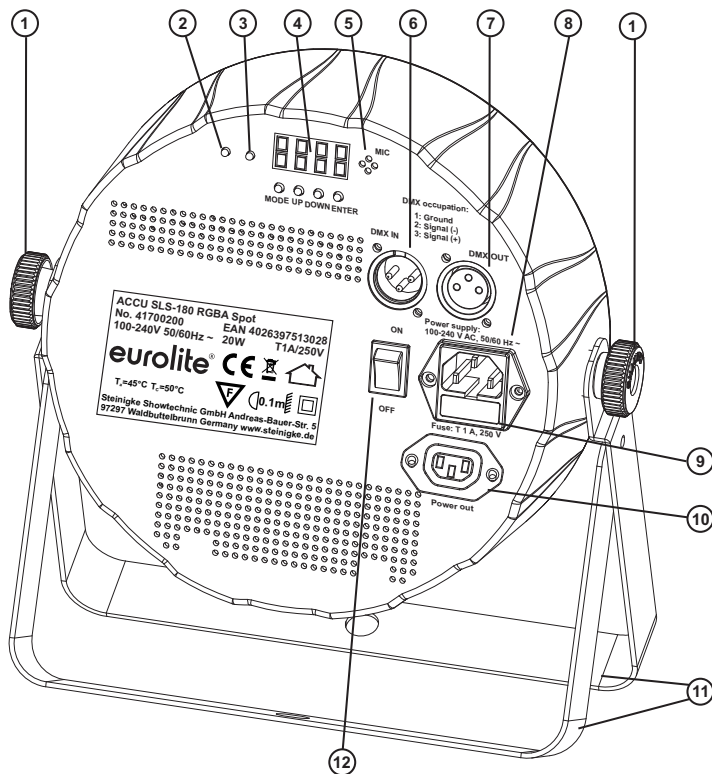
DESCRIPTION OF THE DEVICE

Features

Slimline LED spot with rechargeable battery pack

- Operable in stand-alone mode or via DMX
- DMX512 control possible via any commercial DMX controller (occupies max.8 channels)
- 4, 6, 8 DMX channels selectable for numerous applications
- Equipped with 180 x 10 mm LEDs in the colors red, green, blue and amber
- Functions: static colors, RGBA color blend, automatic color change, internal programs, dimmer and strobe settings via remote control and DMX, Master/Slave
- Sound-control via built-in microphone; sensitivity adjustable via control board, remote control and DMX
- Comfortable addressing and setting via control panel with LED display and four operating buttons
- Infrared-remote control included in delivery
- Operation via mains connection or built-in rechargeable lithium-ion battery with up to 6 hours operating time
- Integrated automatic charging of the battery with LED indication
- Flat housing form requires minimal space when rigging
- Standing or hanging installation possible
- Second mounting bracket for safe standing installation
- Locking possibility at the mounting bracket
- Feed-through output allows to power up to 8 devices
- Switch-mode power supply for operation between 100 and 240 Volts
- Power connection via included IEC power cable with safety plug

Overview



- (1) Fixation screws
- (2) Battery charging, red indicator light
- (3) Battery charged, green indicator light
- (4) LED display and programming buttons
- (5) Microphone
- (6) DMX input plug
- (7) DMX output socket
- (8) Power supply
- (9) Fuseholder
- (10) Power output
- (11) Mounting brackets
- (12) On/Off switch

INSTALLATION

The AKKU SLS-180 RGBA Spot can be installed on the ground or on the wall or ceiling.

Overhead rigging



DANGER TO LIFE!

Please consider the EN 60598-2-17 and the respective national standards during the installation!
The installation must only be carried out by an authorized dealer!

The installation of the device has to be built and constructed in a way that it can hold 10 times the weight for 1 hour without any harming deformation.

The installation must always be secured with a secondary safety attachment, e.g. an appropriate catch net. This secondary safety attachment must be constructed in a way that no part of the installation can fall down if the main attachment fails.

When rigging, derigging or servicing the fixture staying in the area below the installation place, on bridges, under high working places and other endangered areas is forbidden.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert before taking into operation for the first time and after changes before taking into operation another time.

The operator has to make sure that safety-relating and machine-technical installations are approved by an expert after every four year in the course of an acceptance test.

The operator has to make sure that safety-relating and machine-technical installations are approved by a skilled person once a year.

Procedure:

The device should be installed outside areas where persons may walk by or be seated.

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, including (but not limited to) calculating working load limits, installation material being used, and periodic safety inspection of all installation material and the device. If you lack these qualifications, do not attempt the installation yourself, but instead use a professional structural rigger. Improper installation can result in bodily injury and/or damage to property.

The device has to be installed out of the reach of people.

If the device shall be lowered from the ceiling or high joists, professional trussing systems have to be used. The device must never be fixed swinging freely in the room.

Caution: Devices may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do NOT install the device!

Before rigging make sure that the installation area can hold a minimum point load of 10 times the device's weight.



DANGER OF FIRE!

When installing the device, make sure there is no highly-inflammable material (decoration articles, etc.) within a distance of min. 0.5 m.

Mount the device to your trussing system using appropriate clamps.

For overhead use, always install an appropriate safety bond.

You must only use safety bonds and quick links complying with DIN 56927, shackles complying with DIN EN 1677-1 and BGV C1 carabines. The safety bonds, quick links, shackles and the carabines must be sufficiently dimensioned and used correctly in accordance with the latest industrial safety regulations (e. g. BGV C1, BGI 810-3).

Please note: for overhead rigging in public or industrial areas, a series of safety instructions have to be followed that this manual can only give in part. The operator must therefore inform himself on the current safety instructions and consider them.

The manufacturer cannot be made liable for damages caused by incorrect installations or insufficient safety precautions!

Pull the safety bond through the hole in the mounting-bracket and over the trussing system or a safe fixation spot. Insert the end in the quick link and tighten the safety screw.



The maximum drop distance must never exceed 20 cm.

A safety bond which already held the strain of a crash or which is defective must not be used again.

Adjust the desired inclination angle via the mounting bracket and tighten the fixation screws.

	DANGER TO LIFE! Before taking into operation for the first time, the installation has to be approved by an expert!	
---	--	--

DMX512 control

	The wires must not come into contact with each other, otherwise the devices will not work at all, or will not work properly.	
--	--	--

	Please note, the starting address depends upon which controller is being used.	
---	--	---

Only use a DMX cable and 3-pin XLR plugs and connectors in order to connect the controller with the fixture or one fixture with another.

Occupation of the XLR connection:



If you are using controllers with this occupation, you can connect the DMX output of the controller directly with the DMX input of the first device in the DMX chain. If you wish to connect DMX controllers with other XLR outputs, you need to use adapter cables.

Building a serial DMX chain:

Connect the DMX output of the first device in the DMX chain with the DMX input of the next device. Always connect one output with the input of the next device until all devices are connected.

Caution: At the last fixture, the DMX cable has to be terminated. Plug the terminator with a 120 Ω resistor between Signal (-) and Signal (+) in the DMX output of the last fixture.


POWER SUPPLY

The device can be operated with mains voltage and for mobile use via the internal rechargeable battery.

Mains operation

- 1 Connect the device to the mains with the enclosed power supply cable. Do not connect it to a dimming pack.
- 2 The IEC jack Power Out allows for power supply of further devices. A maximum of 8 fixtures may be linked together. After every 8 devices, the fixtures must have a renewed connection with the power mains. Appropriate power cables with IEC plugs and IEC inline jacks are available as accessories.
- 3 When operating the device via the mains, the automatic charging for the rechargeable battery is always active even if the unit is switched off. To prevent unnecessary power consumption, always disconnect the mains plug from the mains socket if the unit is not used for a longer period.

The occupation of the connection cables is as follows:

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	

Attention! The earth has to be connected!

If the device will be directly connected with the local power supply network, a disconnection switch with a minimum opening of 3 mm at every pole has to be included in the permanent electrical installation.

The device must only be connected with an electric installation carried out in compliance with the IEC standards. The electric installation must be equipped with a Residual Current Device (RCD) with a maximum fault current of 30 mA.

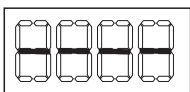
Rechargeable battery operation

Prior to operating the device off mains for the first time, the rechargeable battery must be fully charged for 24 hours.

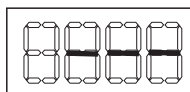
- 1 Switch on the device with the power switch. The operating time of the battery depends on the operating mode and the ambient temperature (max 6 hours). After operation, switch the device off.
- 2 For charging the battery, connect the device to a power outlet via the enclosed power cable. The lower indicator lights up red (charging active). When the battery is fully loaded, the upper indicator lights up green. Charging time is 5 hours. The device may be operated during the charging procedure.
- 3 The device features a protective circuit for charging which prevents overload of the rechargeable battery. However, disconnect the device from the mains after charging. Otherwise there will be a low current consumption even if the device is switched off.
- 4 The device will heat up during charging; this is normal.
- 5 To prevent damage to the battery by deep discharge, recharge a completely discharged battery as soon as possible. Do not store the unit with the battery completely discharged and regularly recharge the battery in case of long storage.

Battery status

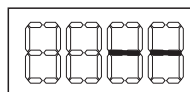
30 seconds after the last actuation of a button, the display indicates the battery charging status by four bars (see graphic). If all four bars are displayed, the battery is fully loaded. If the display is flashing, the battery is going flat. In this state, the device can be operated for another 20 to 30 minutes. Then an emergency switch-off deactivates the device to protect it from total discharge.



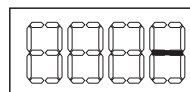
100%



75%



50%



25%

OPERATION

Switch on the device with the power switch. The unit requires a short initialization process and is then ready for operation. The display shortly inserts the firmware version and you can choose the desired mode via the buttons MODE, ENTER, UP and DOWN.

The device has two operating modes. It can be operated in stand-alone mode via the control board or the remote control or in DMX-controlled mode via a standard DMX controller.

Control board



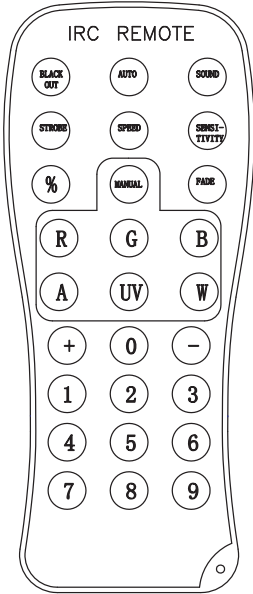
MODE UP DOWN ENTER

The control board offers several features, i.e. setting the DMX starting address, running a preset program or selecting a DMX channel mode.

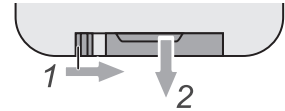
Browse through the menu by pressing MODE. You can change the selection by pressing UP or DOWN. Press ENTER in order to confirm. You can leave every mode by pressing MODE. The functions provided are listed in the following sections.

Menu level 1	Menu level 2	Function	Default
DMX channel mode and DMX starting address			
4-CH	d 1–d512 (also Slave setting)	4-channel mode	
6-CH		6-channel mode	
8-CH		8-channel mode	
Static color combinations			
C _ _	C 1	R	C 15
	C 2	G	
	C 3	B	
	C 4	A	
	C 5	G+B	
	C 6	R+B	
	C 7	R+G	
	C 8	R+G+B	
	C 9	R+A	
	C 10	G+A	
	C 11	B+A	
	C 12	R+G+A	
	C 13	R+B+A	
	C 14	G+B+A	
	C 15	R+G+B+A	
Automatic mode			
P _ _	P 1	4-colors switching	P 1
	P 2	4-colors fading	
	P 3	15-colors switching	
	P 4	15-colors fading	
	P 5	4-color program, sound-controlled	
	P 6	15-color program, sound-controlled	
Speed			
S _ _	S 1–S100	Speed of the Auto-programs	S100
Sound-controlled mode			
Sens	u 0–u100	Microphone sensitivity	u 80
Customized colors			
U _ _	r 0–r100	Red 0–100 %	100
	g 0–g100	Green 0–100 %	
	b 0–b100	Blue 0–100 %	
	A 0–A100	Amber 0–100 %	
IR remote control			
SET		Remote control activated: Press ENTER button to confirm	

EUROLITE IR-7 remote control



- 1 The device must be activated for remote control. For this, set menu item SET to On.
- 2 When actuating a button, always hold the remote control in the direction of the sensor. There must be visual connection between the remote control and the sensor.
- 3 The remote control is supplied with a battery inserted. An insulating foil between the battery and the battery contacts prevents the battery from being discharged during storage. Prior to the first operation remove the foil from the battery support on the rear side of the remote control. Otherwise operation of the remote control is not possible.
- 4 If the range of the remote control decreases (10 meters as a maximum), replace the battery. For this purpose, on the rear side of the remote control press the small bar with the groove to the right and at the same time remove the battery support. For operation, one 3 V button cell type CR 2025 is required. When inserting, pay attention that the positive pole of the button cell shows upwards in the support.



CAUTION!

Danger of explosion when battery is replaced improperly. Only replace by the same type. Please dispose of old and used batteries properly. Batteries are hazardous waste and should not be disposed of with regular domestic waste!

Button	Function	Setting options
BLACKOUT	All LEDs on/off	-
AUTO	Internal programs	Program 1-6 with +/-
		Running speed with SPEED and +/-
		Fade speed with FADE and +/-
		Strobe effect with STROBE and +/-
SOUND	Sound-controlled mode	Microphone sensitivity with SENSITIVITY and +/-
MANUAL	Manual color selection	Amber brightness with A and +/-
		Red brightness with R and +/-
		Green brightness with G and +/-
		Blue brightness with B and +/-
0 ~ 9	Static colors	0 = white (RGBA), 1 = red, 2 = amber, 3 = yellow, 4 = green, 5 = cyan, 6 = blue, 7 = magenta, 8 = orange, and 9 = amber

DMX-controlled operation

For operation with a DMX controller the device offers seven DMX channel modes. Every DMX channel has a different occupation with different features. The individual channels and their features are listed under DMX protocol.

Selecting the number of DMX channels and the DMX starting address

- 1 Adjust the number of DMX channels which are to be used for controlling the device. For this, press the **MODE** button so many times until the desired value is indicated in the display (4-CH, 6-CH or 8-CH). Then press **ENTER** to confirm your setting.
- 2 Then set the DMX starting address with the buttons **UP** and **DOWN** and confirm your setting with **ENTER**. The DMX starting address is the first channel from which the AKKU SLS-180 RGBA Spot will respond to the controller. Please make sure there are no overlapping channels in order to control each AKKU SLS-180 RGBA Spot correctly and independently from any other fixture on the DMX chain. If several devices are addressed similarly, they will work synchronically. Now you can start operating the AKKU SLS-180 RGBA Spot via your DMX controller.
- 3 The display indicates the DMX data status:



After switching on, the device will automatically detect whether DMX512 data is received or not. If data is received, the display will show "d.001" with the actually set address and the red DMX indicator will be flashing. If there is no data received at the DMX input, the display will show "d001" with the actually set address.

This situation can occur if:

- the XLR plug (cable with DMX signal from controller) is not connected with the input of the device.
- the controller is switched off or defective, if the cable or connector is defective or the signal wires are swap in the input connector.

DMX protocol

4-channel mode

Channel	Value	Function
1	000-255	Red 0 – 100%
2	000-255	Green 0 – 100%
3	000-255	Blue 0 – 100%
4	000-255	Amber 0 – 100%

6-channel mode

Channel	Value	Function
1	000-255	Red 0 – 100%
2	000-255	Green 0 – 100%
3	000-255	Blue 0 – 100%
4	000-255	Amber 0 – 100%
5	000-255	Dimmer 0 – 100%
6	000-000	No function
	001-005	Sound control
	006-010	No function
	011-255	Strobe Slow → fast (flash frequency 1-23 Hz)

8-channel mode

Channel	Value	Function
1	000-255	Red 0 – 100%
2	000-255	Green 0 – 100%
3	000-255	Blue 0 – 100%
4	000-255	Amber 0 – 100%
5	000-015	No function
	016-255	Color macros
6	000-015	No function
	016-255	Strobe Slow → fast (flash frequency 1-23 Hz)
	000-255	Speed Slow → fast (when CH7 is 032 – 255)
7	000-031	No function
	032-063	0 – 100%
	064-095	100% - 0
	096-127	100% - 0 – 100%
	128-159	Fading colors
	160-191	3 color switch
	192-223	7 color switch
	224-255	Sound control
8	000-255	Dimmer 0 – 100%

CLEANING AND MAINTENANCE



DANGER TO LIFE!

Disconnect from mains before starting maintenance operation!

We recommend a frequent cleaning of the device. Please use a soft lint-free and moistened cloth. Never use alcohol or solvents!

There are no serviceable parts inside the device except for the fuse. Maintenance and service operations are only to be carried out by authorized dealers.

Replacing the fuse

If the fine-wire fuse of the device fuses, only replace the fuse by a fuse of same type and rating.

Before replacing the fuse, unplug mains lead.

Procedure:

- Step 1:** Open the fuseholder on the rear panel with a fitting screwdriver.
- Step 2:** Remove the old fuse from the fuseholder.
- Step 3:** Install the new fuse in the fuseholder.
- Step 4:** Replace the fuseholder in the housing.

Should you need any spare parts, please use genuine parts.

If the power supply cable of this device becomes damaged, it has to be replaced by a special power supply cable available at your dealer.

Should you have further questions, please contact your dealer.

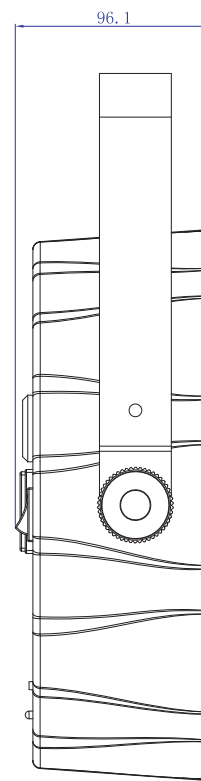
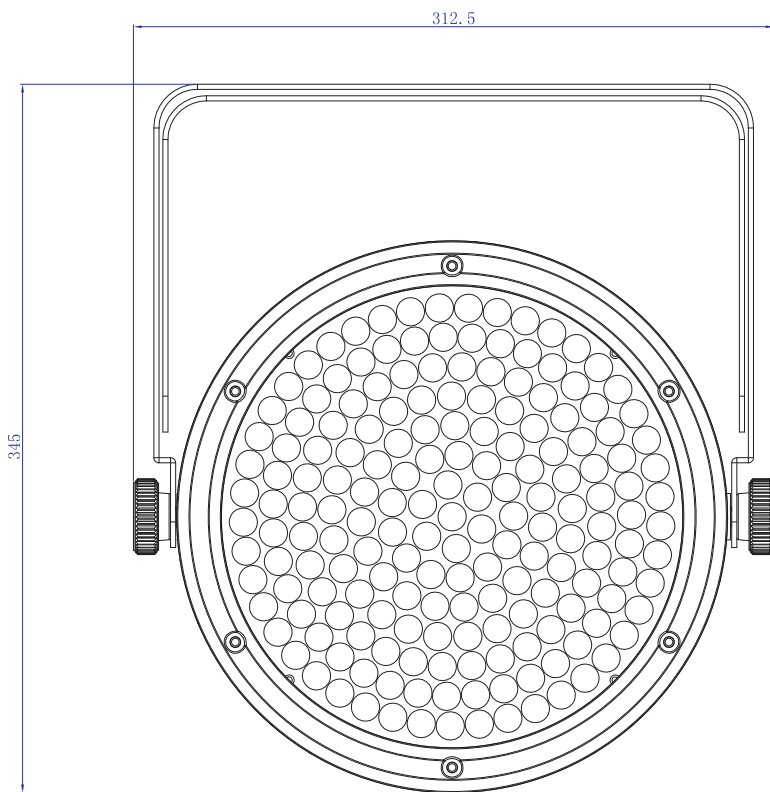
TECHNICAL SPECIFICATIONS

Power supply:	100-240 V AC, 50/60 Hz ~ for mains operation
Power consumption:	20 W
Number of DMX channels:	4/6/8
DMX512 connection:	3-pin XLR
Sound-control:	via built-in microphone
Maximum ambient temperature T_a :	45° C
Max. housing temperature T_c (steady state):	50° C
Min.distance from flammable surfaces:	0.1 m
Min.distance to lighted object:	0.5 m
Fuse:	T 1 A, 250 V
Type of LED:	10 mm
Number of LEDs:	180 (39xR, 39xG, 51xB, 51xA)
Beam angle:	11° - 19°
Dimensions (LxWxH):	312.5 x 96.1 x 345 mm
Weight:	1.8 kg

Battery pack type:	
Lithium ion	11.1 V, 5400 mAh (59.94 Wh)
Battery operation:	6 hours
Recharging time:	5 hours

Remote control	
Power supply:	CR2025 button cell 3 V

Accessories	No.
EUROLITE IR-7 Remote control	50530561
EUROLITE TPC-10 Coupler, black	59006858
Saveking Safety bond 3x600 silver	58010250
EUROLITE DMX LED Operator 2 controller	70064502
SB-18 Softbag	30130555



Please note: All information is subject to change without prior notice. 11.12.2014 ©