



Synjax Matrix Bar 12

Matrix Effect Spotlight

User Manual

V 1.0



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1. Introduction

ATTENTION: For your own safety, please read these operating instructions carefully before the first use.

This headlight has left our company in best condition. To maintain this condition and to ensure safe operation, it is absolutely necessary to observe the following safety instructions and warnings, which are described in this operating manual.

The manufacturer does not accept any liability for damage caused by not following these operating instructions or unauthorized changes to the device.

Please note that damages caused by manual changes to this device are not covered by the warranty.

ATTENTION: This device is for professional use only! Protection class IP 20 - only for use in dry environment (indoor)!

Light Bright does not authorize the use of your devices in life support systems. Life Support Systems are systems whose purpose is to maintain or stabilize life and whose defect or malfunction could result in death or injury to persons.

2. Safety instructions

CAUTION: Disconnect the device from the power supply before opening the device. Touching live parts (high voltage) can cause an electric shock.

Make sure that the mains voltage to be connected is not higher than the voltage indicated on the type plate. This device should only be operated with the power source specified on the type plate.

If you are not sure what type of power supply you have, contact your dealer or your power company.

Always disconnect the device from the power supply before carrying out cleaning work, changing fuses or replacing parts.

The power plug must always be accessible after installation of the spotlight. Do not overload the sockets or extension cords as this may result in fire or electric shock. Do not place any objects on the power cord. Do not install the spotlight in such a way that people can trip over the power cord or step on it. Make sure that the power cord can never be crushed or damaged by sharp edges. Check the unit and the power cord from time to time.

Always refer servicing to qualified service personnel.

ATTENTION: This light corresponds to protection class I. Therefore this light must be connected to a mains socket with earthing contact.

Never connect this device to a dimmable power source.

Some smoke and odor may be produced during initial operation. This is a normal procedure and does not necessarily mean that the unit is defective.

The unit becomes hot during operation. Never touch the device with bare hands during operation!

When replacing fuses, only use fuses of the same type with identical values. Have fuses replaced only by a qualified technician.

ATTENTION: EYE DAMAGE! Do not look into the light source for a long time during operation. This can be harmful to the eyes. Possibly dangerous radiation.

If the device was exposed to strong temperature fluctuations (e.g. after transport), the device must not be switched on immediately. The resulting condensation water can damage your device. Leave the device switched off until it has reached room temperature.

Do not shake or knock the device. Avoid brute force during installation or operation.

This spotlight was designed for indoor use only. Do not expose this unit to rain or moisture.

When choosing a mounting location, make sure that the device is not exposed to extreme heat, humidity or dust.

Ventilation openings and slots in the head and foot of the spotlight are provided for ventilation. To ensure reliable operation of the device and protect it from overheating, these openings must not be covered.

Never cover the front lens when the headlight is in use.

The openings should never be covered with fabrics or other objects so that the airways are blocked.

This unit must not be operated in an environment without adequate ventilation.

The device may only be operated when the housing is closed and all screws are tightened.

The device must always be secured with an additional safety device.

Make sure that the area underneath the spotlight is clear during installation, conversion and dismantling.

ATTENTION: The distance between the light emission and the illuminated surface must be at least 2.0 meter.

The front lens must be replaced if it is visibly damaged so that its function is impaired, e.g. by cracks or deep scratches!

To avoid damaging the internal parts of the lamp base, never let sunlight shine directly into the front lens.

The maximum ambient temperature of 45°C must not be exceeded.

Do not operate the device until you have familiarized yourself with its functions. Prevent operation by persons who are not qualified to use the device. Most damage is the result of improper operation!

Please use the original packaging or specially adapted flight cases when transporting the device.

3. Unpacking the device

Content of the package: The headlight, a Powercon connection cable.

Open the packaging carefully on the top side and check the headlight and accessories for possible transport damages. These should be reported immediately to the transport company.

4. Installation

The device comes with a ready made-up Powercon connection cable. Please use only the supplied cable or a cable of the same type assembled by a specialist. The connection of the device to the power supply must also be carried out by an authorized specialist.

Connection in Germany/Europe:

Conductor color	Function	Symbol
Brown	Phase	„L“
Blue	Neutral conductor	„N“
Yellow/green	Protective earth	„PE“ \perp

Connected loads: voltage 100-240 V, frequency 50 - 60 Hz, power max. 60 VA

The electrical safety as well as the function of the device is only guaranteed if it is connected to a properly installed protective conductor system. It is very important that this basic safety requirement is present. In case of doubt, have the electrical installation checked by a specialist. The manufacturer cannot be held responsible for damage caused by a missing or interrupted protective conductor (e.g. electric shock)! Only use the device in a completely assembled state so that no electrical components can be touched. **(danger 100-240 V)**

If you have observed the listed points, you can plug in the devices or have them connected to the mains by a specialist.

ATTENTION: The spotlight may light up immediately if standalone operation is activated or a DMX signal is applied!

5. DMX-Connection

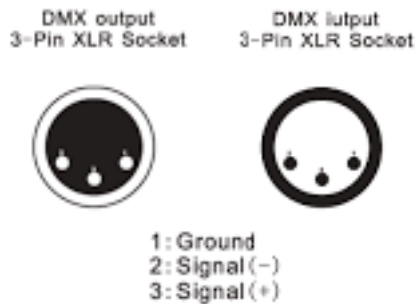
The DMX cabling (signal lines) should be done with a 2-wire cable with shielding. We recommend a DMX cable with 110 Ohm, 2x0,22mm² or 4x0,22mm². The plugs and sockets are 3-pin XLR-connectors, which can be purchased in specialized shops.

Pin assignment:

Pin1 = Ground / Shielding

Pin2 = DMX -

Pin3 = DMX +



The spotlight has a DMX-in and DMX-out connection. Now connect the DMX output of your controller to the first spotlight (Controller DMX-Out -> Spotlight DMX-In). Then connect the first spotlight with the second spotlight and so on. In some cases it is advisable to plug in a so called end plug/end resistor (XLR plug with a resistor of 120 Ohm between pin 2 and pin 3). Whether or not an end plug is required depends on various factors, including the cable lengths used and the number of units. However, as long as there are no problems in the DMX line, it is not necessary.

6. Mounting the device

The spotlight can either be positioned or suspended from a truss system. Horizontal mounting to the truss is also permitted.

If you place the unit on the floor, you may only operate the unit on a hard surface, as the air inlets in the foot must remain free!

To hang the unit on a traverse system, please use only approved holding devices such as superclamps or couplers.

Make sure that the truss construction on which you mount the device complies with the safety regulations. When using a truss, always secure the spotlight with a safety device that complies with the national regulations. Use the safety eyelet on the device for this purpose.

7. Control Panel

The spotlight has a display to show the set parameters and four buttons to adjust them. This control panel allows you to adjust all the parameters of the spotlight according to your needs.

Operation of the menu

Each setting must be confirmed with ENTER!

The last setting confirmed with ENTER is active after a restart. In DMX mode it is absolutely necessary to confirm the DMX address again after changing the MODE.

dXXX

Setting the DMX address from 1 - 512

rXXX

Red backlight static from 0 - 255 Dimmbar

GXXX

Green backlight static from 0 - 255 Dimmbar

bXXX

Blue backlight static from 0 - 255 Dimmbar

HXXX

White LEDs static dimmable from 0 - 255

PrXX

Programs selectable from 1 - 35

SPXX

Program speed selectable from 1 - 16

AUTO / AudI

Automatic or sound mode

dISP

Direction of the display selectable

CHXX

DMX channel mode selectable. The following modes are available: 6 Ch, 9 CH, 84 Ch and 89 Ch. Please refer to the table below for the corresponding DMX assignment.



8. Channel assignment

Channel				Value	Funktion
6	9	84	89		
1	1		1		Dimmer
				0-255	0-100% Intensity
2	2		2		Shutter effect
				0-255	Shutter (slow-fast)
3	3				Red
				0-255	0-100% Red
4	4				Green
				0-255	0-100% Green
5	5				Blue
				0-255	0-100% Blue
6	6				White Beam
				0-255	0-100% White Beam LEDs
	7		87		Color Mix
		0-255		Color Mix effect	
	8		88		Programm
		0-15		No function	
		16-255		Saved effects	
	9		89		Speed
		0-255		Speed of saved effects	
					White Beam dimmer
		1	3	0-255	Beam 1 0-100% Intensity
		2	4	0-255	Beam 2 0-100% Intensity
		3	5	0-255	Beam 3 0-100 Intensity
			
		12	14	0-255	Beam 12 0-100% Intensity
					Color dimmer
		13	15	0-255	Red 1 0-100% Intensity
		14	16	0-255	Green 1 0-100% Intensity
		15	17	0-255	Blue 1 0-100% Intensity
		16	18	0-255	Red 2 0-100% Intensity
		17	19	0-255	Green 2 0-100% Intensity
		18	20	0-255	Blue 2 0-100% Intensity

Channel				Value	Funktion
6	9	84	89		
		19	21	0-255	Red 3 0-100% Intensity
		20	22	0-255	Green 3 0-100% Intensity
		21	23	0-255	Blue 3 0-100% Intensity
			
		82	84	0-255	Red 24 0-100% Intensity
		83	85	0-255	Green 24 0-100% Intensity
		84	86	0-255	Blue 24 0-100% Intensity

9. Service and cleaning

ATTENTION: Always disconnect the device from the voltage source before opening it!

You should check the function of the fans in the head and foot at regular intervals. Above all, you should make sure that the air intakes as well as the inside of the spotlight are free of lint and dust.

To do this, open the head cover and the base plate at the foot. You can clean the spotlight with a brush/cleaning cloth and a vacuum cleaner or compressor (low speed only).

Take care not to bend or damage any parts during cleaning. After cleaning is complete, close all covers again with the corresponding screws and carry out a function test.

Please use only clean cleaning cloths or brushes and cleaning agents without alcohol to clean your device. We recommend regular cleaning at least every three months.

Pay attention to damage to the device, to parts of the device and to the connection cables. If you notice any damage, DO NOT use the device and take it to an authorized dealer to exclude dangers by using defective devices and to repair your device professionally.

10. Information



This device complies with the CE directive:

- in terms of the directive: 2014/35/EU Low Voltage Directive, (Directive 2014/35/EU of the European Parliament and of the Council of 26.02.2014 on the approximation of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits)
- in terms of the directive: 2014/30/EU Electromagnetic Compatibility (Directive 2014/30/EU of the European Parliament and of the Council of 26.02.2014 on the approximation of the laws of the Member States relating to electromagnetic compatibility)

The device complies with IP20 and is therefore protected against the penetration of solid foreign bodies with a diameter of more than 12mm (first code number 2), while it is sensitive to moisture, splash and jet water.

During operation, it is mandatory to connect the device to a power supply system equipped with a powerful grounding (Class 1 device according to EN 60598-1). Furthermore, it is recommended to protect the supply line of the equipment from indirect contact and/or short circuits with correctly dimensioned residual current circuit breakers.

Only use the device if the room temperature is below 45°C.

Before starting any maintenance work on the unit, it must cool down for at least 10 minutes after disconnection from the power supply to minimize the risk of damage to the electronic components. For maintenance or repair work on the chips, the device must cool down for at least another 20 minutes to prevent burning.