



Arond 200

LED Moving Head Spot

User Manual

V 1.0



Contents

1. Introduction	3
2. Safety Instructions	4
3. Unpacking the device	6
4. Installation	6
5. DMX Connection	7
6. Montage der Geräte	8
7. Control panel	9
8. Channel assignment	11
9. Gobos and color wheel	13
10. Photometric data	14
11. Service and cleaning	15
12. Information	16
13. Technical details	17



LIGHT BRIGHT

1. Introduction

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

The product 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 accepts no liability for damage caused by failure to comply with these operating instructions or unauthorized modifications 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 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 mains plug must always be accessible after installation of the spotlight. Do not overload the sockets or extension cords under any circumstances, as this could lead to 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 leave maintenance work to a qualified technician.

ATTENTION: This light corresponds to protection class 1 (Germany) 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 odour may be produced during the initial start-up. This is a normal procedure and does not necessarily mean that the device is defective.

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

When replacing fuses, use only 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 bump 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 the mounting location, make sure that the device is not exposed to extreme heat, humidity or dust.

Ventilation openings and slits in the head and foot of the headlamp serve for ventilation. To ensure reliable operation of the device and to 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 unit may only be operated when the housing is closed and all screws / omega head 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 meters.

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 damage to the internal parts of the lamp head, 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

Contents of the package: The headlight, a PowerCon connection cable and Omega brackets for mounting.

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:

Leiterfarbe	Funktion	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. 260W, 1.2A

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

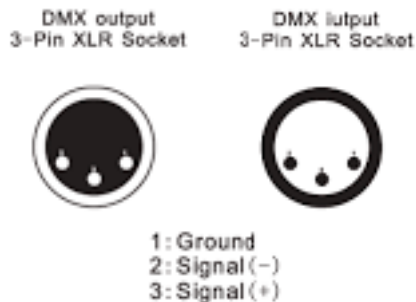
The DMX cabling (signal lines) should be done with a 2-wire cable with shielding. We recommend a DMX cable with 110 Ohm, 2x0,22mm² or 4x0,22mm². The plugs and sockets are 3-pin XLR-connectors, which can be purchased in specialized shops.

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 an 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. Montage der Geräte

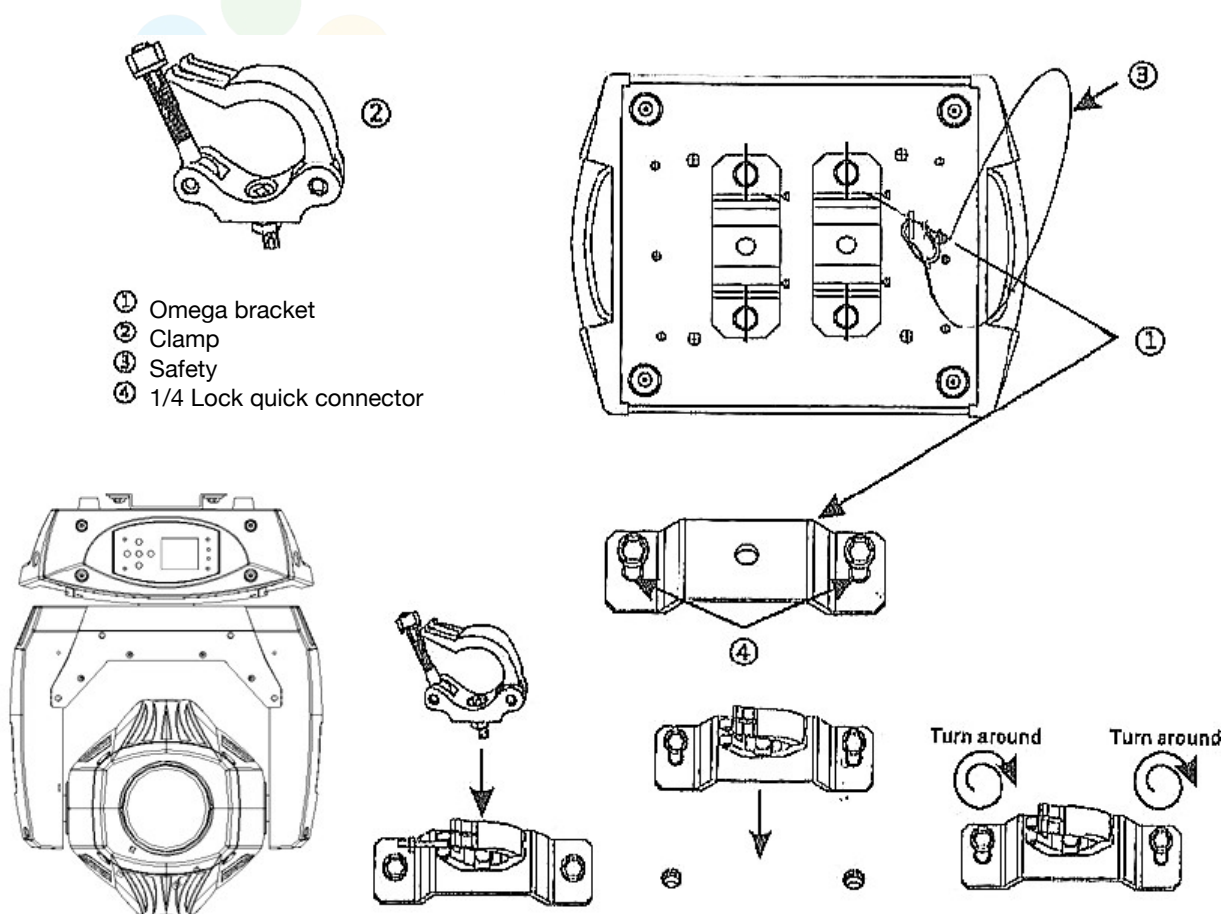
Warning: There must be a 0.5m safety distance between the light source and flammable material and a minimum distance of 2.0m between the light source and the surface to be illuminated.

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 truss system, use the Omega-Clamps with snap connectors supplied.

Make sure that the snap connectors engage securely. Make sure that the truss construction on which you mount the device complies with the safety regulations. When installing 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. In addition, the Arond200 has an error LED to indicate any errors in the fixture, and a DMX LED to show the current DMX status.



1. DMX ADDRESS

Here you can set the DMX address of the device.

Press "OK" to enter the DMX settings. Use the buttons "up" and "down" to set the desired DMX address and confirm with "OK".

2. RUN MODE

Here you can change the different working methods of the device.

Press "OK" to enter the DMX settings. Use the buttons "up" and "down" to set the desired DMX address and confirm with „OK".

The following modes are available:

DMX512, Sound, Auto 1, Auto 2, Auto 3

"DMX512" is for controlling the spotlight using an external lighting console, "Auto 1-3" are built-in standalone sequences, "Sound" lets the spotlight react automatically to ambient music through a built-in microphone.

3. INVERT PAN

Here you can invert the pan-movement of the device.

Press "OK" to enter the settings and use the arrow keys to navigate to the sub-item "Invert Pan". Press "OK" again to confirm and set the inverter to "Yes" or "No" to switch the inversion on or off. Confirm again with "OK".

4. INVERT TILT

Here the tilt-movement of the device can be inverted.

Press "OK" to enter the settings and use the arrow keys to navigate to the submenu item "Invert Tilt". Press "OK" again to confirm and set the Invert to "Yes" or "No" to switch the inversion on or off. Confirm again with "OK".

5. SCREEN SAVER

Here you can switch the screen saver on and off.

Press "OK" to enter the settings and use the arrow keys to navigate to the sub-item "Screen Saver". Confirm again with "OK" and switch the screen saver on or off. Confirm with "OK" to save the settings.

6. CHECK

Here you can control the spotlight directly on the device.

Press "OK" to enter the settings and use the arrow keys to navigate to the "Check" sub-item. Confirm again with "OK".

Here you can now change all parameters of the spotlight in the values 0-255.

Navigate to the parameter you want to change and press "OK". Now the value of the parameter can be changed. After you have set the desired value, press "OK" again to save it.

7. LOAD DEFAULT

Here you can reset all set parameters to factory settings

Press "OK" to enter the settings and use the arrow keys to navigate to the sub-item "Load Default". Press "OK" again to confirm and reset all settings you have made by confirming them.

8. SYSTEM TEST

Here the device performs an automatic test and runs all parameters and functions automatically.

Press "OK" to enter the settings and use the arrow keys to navigate to the sub-item "System Test". Confirm again with "OK" and the headlight starts directly with the test program.

9. MOTOR CALIBRATION

Here the motors of the device can be fine-tuned. We recommend that this be carried out by a Light Bright service partner to ensure safe operation.

10. SYSTEM INFO

Here the spotlight shows all relevant information such as firmware, temperatures, etc.

8. Channel assignment

Channel		
18	Value	Function
1		Pan (8bit)
	0-255	Pan movement
2		Pan fine (16bit)
	0-255	Pan movement fine
3		Tilt (8bit)
	0-255	Tilt movement
4		Tilt fine (16bit)
	0-255	Tilt movement fine
5		Position Speed
	0-255	Position speed (fast-slow)
6		Dimmer
	0-255	0-100% intensity
7		Shutter effect
	0-3	Shutter open
	2-99	Strobe 1 (slow-fast)
	100-149	Strobe 2 (Pulse slow-fast)
	150-199	Strobe 3 (Thunder slow-fast)
	200-249	Strobe 4 (random fast-slow)
	250-255	Shutter open
		Color Wheel
	0	Open
	1-179	Color 1-9 (all 20 values)

Channel		
18	Value	Function
8	180-199	Open
	200-226	Color wheel rotation (clockwise fast-slow)
	227-228	Open
	229-255	Color Wheel Rotation (counter-clockwise fast-slow)
9		Static gobo-wheel
	0-4	Open
	5-54	Gobo 1-10 (all 5 DMX values)
	55-154	Gobo 1-10 Shake effect (all 10 DMX values)
	155-204	Gobo wheel rotation (clockwise fast-slow)
	205	Stop
	206-255	Gobo wheel rotation (counter-clockwise fast-slow)
10		Rotating gobo-wheel
	0-9	Open
	10-79	Gobo 1-7 (all 10 DMX values)
	80-159	Gobo 1-7 Shake effect (all 10 DMX values)
	160-206	Gobo wheel rotation (clockwise (fast - slow)
	207-208	Stop
	209-255	Gobo wheel rotation (counter-clockwise fast-slow)
11		Gobo Rotation
	0-127	Gobo Position
	128-191	Gobo Rotation (Clockwise fast-slow)
	192-255	Gobo Rotation (Anti-Clockwise fast-slow)
12		4 fold prism
	0-127	Offen
	128-255	Prism
13		Prism rotation
	0-127	Prism positon
	128-190	Prism rotation (clockwise fast-slow)
	191-192	Stop
	193-255	Prism rotation (counterclockwise fast-slow)
14		Frost
	0-127	Open
	128-255	Frost
15		Focus
	0-255	Focus

Channel		
18	Value	Function
16		Zoom
	0-255	Zoom
17		Macro effect
	0-50	No function
	51-100	System detection
	101-150	Auto 1
	151-200	Auto 2
	201-255	Sound
18		Reset
	0-250	No function
	251-255	Reset the fixture (after 5 sec)

9. Gobos and color wheel

The Arond200 has two gobo wheels, each with 9 static (plus open) and 7 interchangeable rotatable and indexed gobos (plus open)

The gobos have a size of 21.6mm outside and 17mm inside.
In addition, the Arond200 has gobo scroll with variable speed.

9.1 Overview



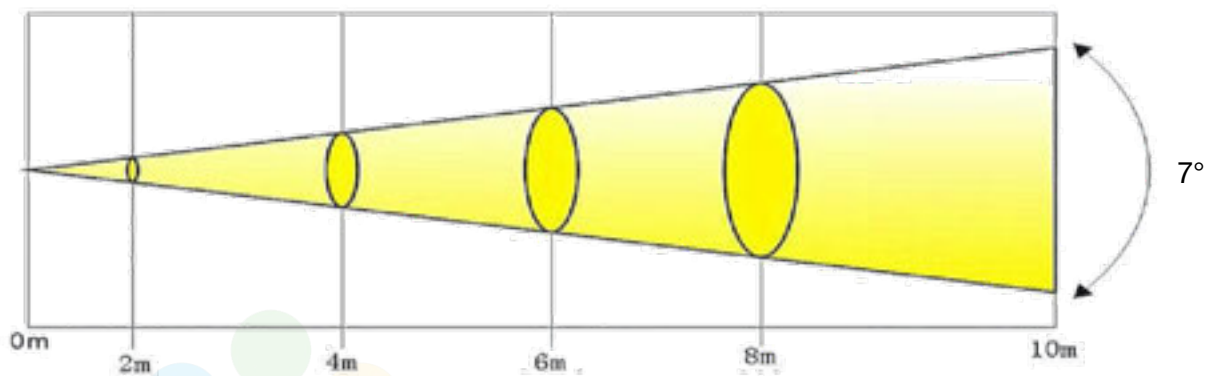
Gobo wheel static



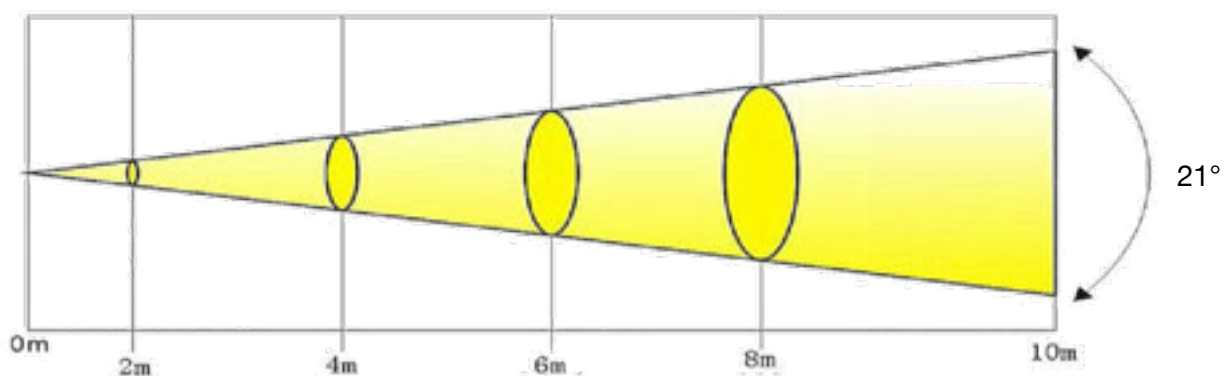
Gobo wheel rotatable

10. Photometric data

LUX Data at 7° Beam				
		4m	6m	8m
		25200	11600	6500



LUX Data at 21° Beam				
		4m	6m	8m
		3260	1530	860



11. 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, parts of the device and 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.

12. Information

This device complies with the CE directive:



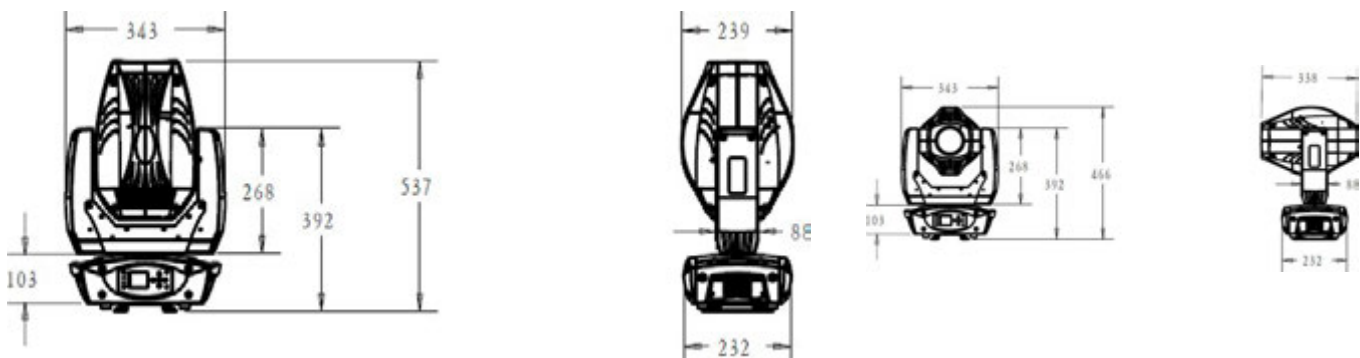
- in terms of the directive: 2014/35/EU Low Voltage Directive, (Directive 2014/35/EU of the European Parliament and of the Council of 26.02.2014 on the approximation of the laws of the Member States relating to electrical equipment designed for use within certain voltage limits)
- in terms of the directive: 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 on the device, it must cool down for at least 10 minutes after being disconnected from power to minimize the risk of damage to the chips. For maintenance or repair work on the chips, the unit must cool down for at least another 20 minutes to prevent burning.



13. Technical details

Power supply: AC100-240V,50-60Hz

Inrush current approx. 260W

Light Source: 200W White LED

Color temperature : 7500K

Channel: 18 DMX channel

Control: DMX/Master-slave/Auto/Sound

Pan: 540° + fine

Tilt: 270°+ fine

Zoom range : 7-21°.

Dimmer: 0-100% linear dimmer

Strobe: 1-25 Hz with pulse-effect

Color wheel: 9 colors + open, with half colors

Static gobo wheel: 9 Gobos + open

Rotatable gobo wheel : 7 gobos+open

Prisma: 4 fold Prism with bi-direction Rotation

Frost: mit Frost Effect

Dimensions:343 x 239 x 537 mm

Weight: 14.5 kg