

USER'S MANUAL
BEDIENUNGSANLEITUNG
MANUEL D'UTILISATION
MANUAL DE USUARIO
INSTRUKCJA OBSŁUGI
MANUALE D'USO



AZOR® B1

LED BEAM MOVING HEAD
CLAB1

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YOU'VE MADE THE RIGHT CHOICE!

We have designed this product to operate reliably over many years. Please read this User's Manual carefully, so that you can begin making optimum use of your Cameo Light product quickly. Learn more about Cameo Light on our website WWW.CAMEOLIGHT.COM.

PREVENTIVE MEASURES

1. Please read these instructions carefully.
2. Keep all information and instructions in a safe place.
3. Follow the instructions.
4. Observe all safety warnings. Never remove safety warnings or other information from the equipment.
5. Use the equipment only in the intended manner and for the intended purpose.
6. Use only sufficiently stable and compatible stands and/or mounts (for fixed installations). Make certain that wall mounts are properly installed and secured. Make certain that the equipment is installed securely and cannot fall down.
7. During installation, observe the applicable safety regulations for your country.
8. Never install and operate the equipment near radiators, heat registers, ovens or other sources of heat. Make certain that the equipment is always installed so that it is cooled sufficiently and cannot overheat.
9. Never place sources of ignition, e.g., burning candles, on the equipment.
10. Ventilation slits must not be blocked.
11. This appliance is designed exclusively for indoor use, do not use this equipment in the immediate vicinity of water (does not apply to special outdoor equipment - in this case, observe the special instructions noted below). Do not expose this equipment to flammable materials, fluids or gases.
12. Make certain that dripping or splashed water cannot enter the equipment. Do not place containers filled with liquids, such as vases or drinking vessels, on the equipment.
13. Make certain that objects cannot fall into the device.
14. Use this equipment only with the accessories recommended and intended by the manufacturer.
15. Do not open or modify this equipment.
16. After connecting the equipment, check all cables in order to prevent damage or accidents, e.g., due to tripping hazards.
17. During transport, make certain that the equipment cannot fall down and possibly cause property damage and personal injuries.
18. If your equipment is no longer functioning properly, if fluids or objects have gotten inside the equipment or if it has been damaged in another way, switch it off immediately and unplug it from the mains outlet (if it is a powered device). This equipment may only be repaired by authorized, qualified personnel.
19. Clean the equipment using a dry cloth.
20. Comply with all applicable disposal laws in your country. During disposal of packaging, please separate plastic and paper/cardboard.
21. Plastic bags must be kept out of reach of children.

FOR EQUIPMENT THAT CONNECTS TO THE POWER MAINS:

22. CAUTION: If the power cord of the device is equipped with an earthing contact, then it must be connected to an outlet with a protective ground. Never deactivate the protective ground of a power cord.
23. If the equipment has been exposed to strong fluctuations in temperature (for example, after transport), do not switch it on immediately. Moisture and condensation could damage the equipment. Do not switch on the equipment until it has reached room temperature.
24. Before connecting the equipment to the power outlet, first verify that the mains voltage and frequency match the values specified on the equipment. If the equipment has a voltage selection switch, connect the equipment to the power outlet only if the equipment values and the mains power values match. If the included power cord or power adapter does not fit in your wall outlet, contact your electrician.
25. Do not step on the power cord. Make certain that the power cable does not become kinked, especially at the mains outlet and/or power adapter and the equipment connector.
26. When connecting the equipment, make certain that the power cord or power adapter is always freely accessible. Always disconnect the equipment from the power supply if the equipment is not in use or if you want to clean the equipment. Always unplug the power cord and power adapter from the power outlet at the plug or adapter and not by pulling on the cord. Never touch the power cord and power adapter with wet hands.
27. Whenever possible, avoid switching the equipment on and off in quick succession because otherwise this can shorten the useful life of the equipment.
28. IMPORTANT INFORMATION: Replace fuses only with fuses of the same type and rating. If a fuse blows repeatedly, please contact an authorised service centre.
29. To disconnect the equipment from the power mains completely, unplug the power cord or power adapter from the power outlet.
30. If your device is equipped with a Volex power connector, the mating Volex equipment connector must be unlocked before it can be removed. However, this also means that the equipment can slide and fall down if the power cable is pulled, which can lead to personal injuries and/or other damage. For this reason, always be careful when laying cables.
31. Unplug the power cord and power adapter from the power outlet if there is a risk of a lightning strike or before extended periods of disuse.
32. The device must only be installed in a voltage-free condition (disconnect the mains plug from the mains).
33. Dust and other debris inside the unit may cause damage. The unit should be regularly serviced or cleaned (no guarantee) depending on ambient conditions (dust etc., nicotine, fog) by qualified personnel to prevent overheating and malfunction.
34. Please keep a distance of at least 0.5 m to any combustible materials.
35. Power cables to power multiple devices must have a cross-section of at least 1.5 mm². Within the EU, the cables must correspond to H05VV-F, or similar. Suitable cables are offered by Adam Hall. With these cables, you can connect multiple devices via the power OUT connection to the power IN connection of an additional device. Make sure that the total current consumption of all connected devices does not exceed the specified value on all connected devices (label on the device). Make sure to keep power cable connections as short as possible.

**CAUTION:**

To reduce the risk of electric shock, do not remove cover (or back). There are no user serviceable parts inside. Maintenance and repairs should be exclusively carried out by qualified service personnel.



The warning triangle with lightning symbol indicates dangerous uninsulated voltage inside the unit, which may cause an electrical shock.



The warning triangle with exclamation mark indicates important operating and maintenance instructions.



Warning! This symbol indicates a hot surface. Certain parts of the housing can become hot during operation. After use, wait for a cool-down period of at least 10 minutes before handling or transporting the device.



Warning! This device is designed for use below 2000 metres in altitude.



Warning! This product is not intended for use in tropical climates.



Caution! Intense LED light source! Risk of eye damage. Do not look into the light source.

CAUTION! IMPORTANT INFORMATION ABOUT LIGHTING PRODUCTS!

1. The product has been developed for professional use in the field of event technology and is not suitable as household lighting.
2. Do not stare, even temporarily, directly into the light beam.
3. Do not look at the beam directly with optical instruments such as magnifiers.
4. Stroboscope effects may cause epileptic seizures in sensitive people! People with epilepsy should definitely avoid places where strobes are used.

INTRODUCTION**LED MOVING HEAD AZOR® BEAM**

CLAB1

CONTROL FUNCTIONS

13-Channel and 16-channel DMX control

Master/Slave operation

Standalone functions

RDM-enabled

FEATURES

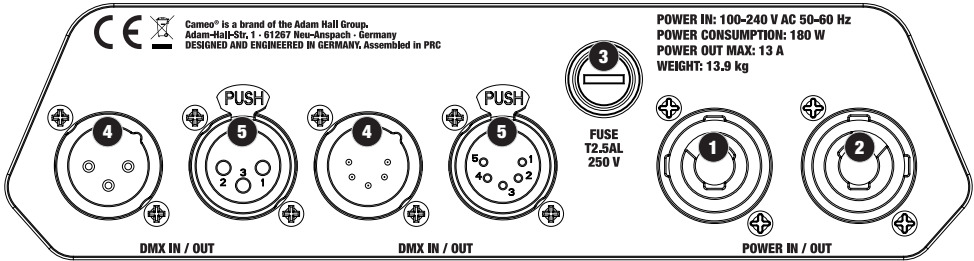
100 W LED. Super sharp 2° beam. Colour wheel with 14 brilliant colours and split colours. 17 fixed gobos. 2 rotating prisms (linear and circular). Focus via DMX. Strobe. Pan and tilt motors with 16-bit resolution. Automatic position correction.

Temperature-controlled fan. 3- and 5-pin DMX connections. powerCON-compatible AC power connection. 2 x Omega mounting brackets included.

Operating voltage 100–240 V AC. Power consumption 180W.

The spotlight features the RDM standard (remote device management). Remote device management allows the user to view status and configuration of RDM terminals via an RDM-capable controller.

CONNECTIONS, OPERATING AND DISPLAY ELEMENTS



1 POWER IN

powerCON-compatible mains input socket. Operating voltage 100-240 V AC/50-60Hz. Connection via the supplied mains cable.

2 POWER OUT

powerCON-compatible mains output socket for power supply to additional CAMEO spotlights. Ensure that the total current consumption of all connected devices does not exceed the value specified on the device in amperes (A).

3 FUSE

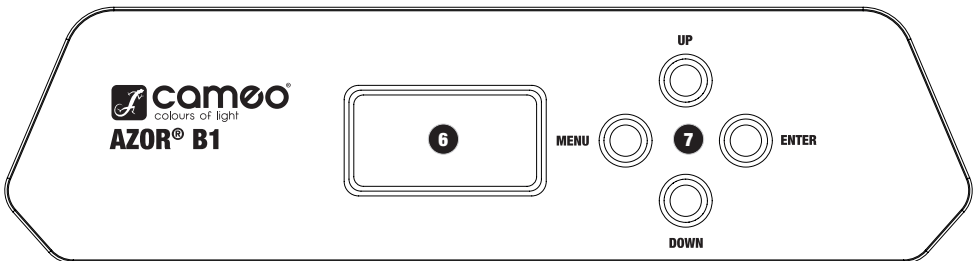
Fuse holder for 5 x 20mm micro fuses. **IMPORTANT:** Replace the fuse only with a fuse of the same type and value. In the event of repeated fuse failure, please contact an authorised service centre.

4 DMX IN

Male 3-pin and 5-pin XLR sockets for connection to a DMX control device (e.g. DMX console).

5 DMX OUT

Female 3-pin or 5-pin XLR sockets for sending the DMX control signal.



6 OLED-DISPLAY

The OLED display shows the currently activated mode (main display), the menu items in the selection menu and the numerical value or operating mode in certain menu items. If there is no input for approx. 30 seconds, the display automatically returns to the main display. If there is no control signal at the DMX input, the characters in the display will flash (DMX and slave operation).

7 CONTROL BUTTONS

MENU – Press MENU to access the selection menu. Press again to return to the main display.

UP and DOWN – Select the individual menu items in the selection menu (DMX address, mode, etc.) and in the sub-menus and change the value of a menu item, such as the DMX address.

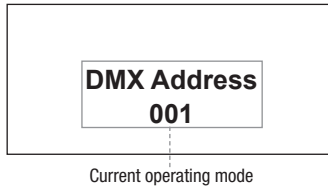
ENTER – In the selection menu, press ENTER to access the menu level in which values can be changed. Confirm value changes by pressing ENTER.

PLEASE NOTE

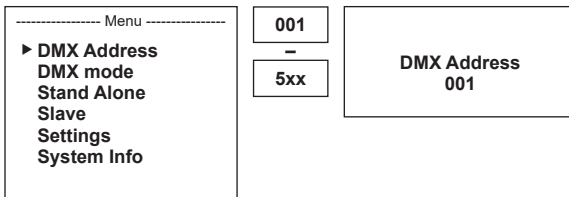
- As soon as the spotlight is correctly is connected to the power supply, the following will be displayed in succession: "Welcome to Cameo", the model and the software version. After this process, the lamp is ready for operation and starts in the previously enabled mode.
- If one of the DMX modes or slave mode is enabled and there is no control signal at the DMX input, the characters in the display will start to flash. The flashing stops when a control signal is present.
- After approx. 30 seconds of inactivity, the current operating mode is automatically displayed.
- Fast Access Feature: In order to simplify the menu guide, the device has an intelligent menu structure that allows direct access to previously selected menu items and sub-menu items. 1. Press MENU and ENTER simultaneously for direct access to the last-edited sub-menu item, where you can make changes instantly as required (DMX starting address and all modes). 2. Press MENU for direct access to the last-selected and last-edited menu item. Press ENTER repeatedly to access the sub-menu items in order to change individual settings (DMX starting address and all modes).
- The display can be rotated through 180° by pressing UP when the main display is visible. If the display is rotated by 180°, the functions of UP and DOWN are reversed and DOWN must be pressed to rotate the display again.

OPERATION**MAIN DISPLAY**

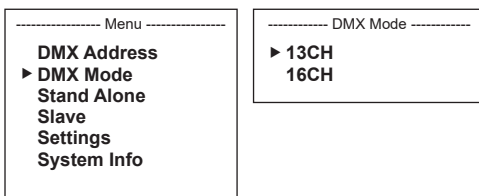
After the start-up process is complete, the spotlight is ready for operation and starts in the previously selected mode. The current mode is displayed (in the example, DMX mode with DMX address).

**SETTING DMX START ADDRESS (DMX ADDRESS)**

Press MENU to access the selection menu. Using the UP and DOWN controls, select the menu item "DMX address" (observe arrow) and confirm with ENTER. The display will show a three-digit number field and you can use the UP and DOWN controls to configure the desired DMX start address (highest value is dependent upon the active DMX mode). Confirm the entry with ENTER and press MENU to return to the main display (in the example, "DMX address 001").

**CONFIGURING DMX MODE (DMX Mode)**

Press MENU to access the selection menu. Using the UP and DOWN controls, select the menu item "DMX Mode" (observe arrow) and confirm with ENTER. In the submenu you can now select from the DMX modes "13CH" and "16CH" with UP and DOWN. Confirm your selection with ENTER. Tables with the channel assignments can be found in these instructions under DMX CONTROL.



SETTING STANDALONE MODE

The stand alone mode allows the dimmer, strobe, colour wheel and gobo wheel etc. to be adjusted directly on the device with values between 000 and 255, in a similar way to with a DMX controller. Four macros can be configured individually and stored internally, without the need for an additional DMX controller is needed (User Macro 1 - User Macro 4). The macros are freely editable and can be selected as required. Press MENU to access the selection menu. Using the UP and DOWN controls, select the menu item "Stand Alone" (observe arrow) and confirm with ENTER. Using the UP and DOWN buttons, select the desired macro and press ENTER to confirm. Use UP and DOWN to select the desired parameter, ENTER to enable editing, UP and DOWN to change the relevant value, and ENTER to confirm (see detailed table below equivalent to 16-channel DMX mode channel 1 to 14).

<p>----- Menu -----</p> <p>DMX Address DMX mode ▶ Stand Alone Slave Settings System Info</p>	<p>----- Stand Alone -----</p> <p>▶ User Macro 1 User Macro 2 User Macro 3 User Macro 4</p>	<p>----- User Macro 1 -----</p> <p>▶ Pan: 0-255 Pan Fine: 0-255 Tilt: 0-255 Tilt Fine: 0-255 Dimmer: 0-255 Dimmer Fine: 0-255 Strobe: 0-255 Colour: 0-255 Gobo: 0-255 Focus: 0-255 Prism: 0-255 Prism Rot: 0-255 P/T Macro: 0-255 P/T Speed: 0-255</p>	<p>0</p> <p>-</p> <p>255</p>	<p>Mode User Macro 1</p>
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User Macro 1-4				
Function	Values & Description			
Pan:	000	-	255	0% to 100%
Pan Fine:	000	-	255	0% to 100%
Tilt:	000	-	255	0% to 100%
Tilt Fine:	000	-	255	0% to 100%
Dimmer:	000	-	255	0% to 100%
Dimmer Fine:	000	-	255	0% to 100%
Strobe: (multifunctional strobe)	000	-	005	Strobe open
	006	-	010	Strobe closed
	011	-	033	Pulse random, slow -> fast
	034	-	056	Ramp up random, slow -> fast
	057	-	079	Ramp down random, slow -> fast
	080	-	102	Random Strobe Effect, slow -> fast
	103	-	127	Strobe Break Effect, 5s.1s (Short burst with break)
	128	-	250	Strobe slow -> fast <1Hz - 20Hz
	251	-	255	Strobe open

Colour: (Colour wheel)	000	–	005	Open
	006	–	011	Open/Deep Red
	012	–	017	Deep Red
	018	–	023	Deep Red/Medium Blue
	024	–	029	Medium Blue
	030	–	035	Medium Blue/Yellow
	036	–	041	Yellow
	042	–	047	Yellow/Magenta
	048	–	053	Magenta
	054	–	059	Magenta/Deep Green
	060	–	065	Deep Green
	066	–	071	Deep Green/Lavender
	072	–	077	Lavender
	078	–	083	Lavender/Peacock
	084	–	089	Peacock
	090	–	095	Peacock/Orange
	096	–	101	Orange
	102	–	107	Orange/Lime
	108	–	113	Lime
	114	–	119	Lime/Pink
	120	–	125	Pink
	126	–	131	Pink/Amber
	132	–	137	Amber
	138	–	143	Amber/Deep Blue
	144	–	149	Deep Blue
	150	–	155	Deep Blue/CTO
156	–	161	CTO	
162	–	167	CTO/Congo Blue	
168	–	173	Congo Blue	
174	–	179	Congo Blue/Open	
180	–	192	Open	
193	–	223	Colour wheel, rot. Slow -> Fast, CW	
224	–	224	Colour wheel, rot. Stop	
225	–	255	Colour wheel, rot. Fast -> Slow, CCW	

Gobo: (Gobo Wheel)	000	–	005	Open
	006	–	010	Gobo 1
	011	–	015	Gobo 2
	016	–	020	Gobo 3
	021	–	025	Gobo 4
	026	–	030	Gobo 5
	031	–	035	Gobo 6
	036	–	040	Gobo 7
	041	–	045	Gobo 8
	046	–	050	Gobo 9
	051	–	055	Gobo 10
	056	–	060	Gobo 11
	061	–	065	Gobo 12
	066	–	070	Gobo 13
	071	–	075	Gobo 14
	076	–	080	Gobo 15
	081	–	085	Gobo 16
	086	–	090	Gobo 17
	091	–	095	Open
	096	–	100	Gobo 1 shake (slow-fast)
	101	–	105	Gobo 2 shake (slow-fast)
	106	–	110	Gobo 3 shake (slow-fast)
	111	–	115	Gobo 4 shake (slow-fast)
	116	–	120	Gobo 5 shake (slow-fast)
	121	–	125	Gobo 6 shake (slow-fast)
	126	–	130	Gobo 7 shake (slow-fast)
	131	–	135	Gobo 8 shake (slow-fast)
	136	–	140	Gobo 9 shake (slow-fast)
	141	–	145	Gobo 10 shake (slow-fast)
	146	–	150	Gobo 11 shake (slow-fast)
	151	–	155	Gobo 12 shake (slow-fast)
	156	–	160	Gobo 13 shake (slow-fast)
	161	–	165	Gobo 14 shake (slow-fast)
	166	–	170	Gobo 15 shake (slow-fast)
	171	–	175	Gobo 16 shake (slow-fast)
176	–	180	Gobo 17 shake (slow-fast)	
181	–	192	Open	
193	–	223	Gobo wheel, rot. Slow -> Fast, CW	
224	–	224	Gobo wheel, rot. Stop	
225	–	255	Gobo wheel, rot. Fast -> Slow, CCW	
Focus:	000	–	255	0% to 100%
Prism:	000	–	005	Prism off (open)
	006	–	127	Linear Prism
	128	–	255	Circular Prism
Prism Rot: (Prism rotation)	000	–	005	Prism Rotation off
	006	–	128	Prism Position 0 ... 540°
	129	–	191	Prism Rotation, Slow -> Fast, CW
	192	–	192	Prism Rotation Stop
	193	–	255	Prism Rotation, Fast -> Slow, CCW

P/T Macro: (Pan/Tilt macro)	000	–	005	off
	006	–	040	PAN small > big
	041	–	075	TILT small > big
	076	–	110	PAN/TILT small > big
	111	–	145	PAN/TILT (inverse) small > big
	146	–	180	Circle small > big
	181	–	215	Circle (inverse) small > big
	216	–	255	Random small > big
P/T Speed: (Pan/Tilt speed)	000	–	255	Pan/Tilt Fast -> Slow

SLAVE MODE (Slave)

Press MENU to access the selection menu. Using the UP and DOWN controls, select the menu item "Slave" (observe arrow) and confirm with ENTER. Connect the slave and the master unit (same model, same software version) with a DMX cable (Master DMX OUT – Slave DMX IN) and enable one the standalone mode on the master unit (User Macro 1-4). Now the slave unit will follow the master unit.

<p>----- Menu -----</p> <p>DMX Address DMX mode Stand Alone ▶ Slave Settings System Info</p>	<p>Mode Slave</p>
--	-------------------------------------

DEVICE SETTINGS (Settings)

Press MENU to access the selection menu. Using the UP and DOWN controls, select the menu item "Settings" (observe arrow) and confirm with ENTER.

<p>----- Menu -----</p> <p>DMX Address DMX mode Stand Alone Slave ▶ Settings System Info</p>
--

This will take you to the submenu for setting the following submenu items (selection with UP and DOWN, change status/value with UP and DOWN, confirm with ENTER):

Settings (default = bold)				
Display Reverse	=	Flip display	On	Rotate display by 180° (e.g. for overhead installation)
			Off	No display rotation
Display Backlight	=	Display lighting	On	on permanently
			Off	Deactivates after approximately 10 seconds of inactivity
DMX Fail	=	Operating status in the event of DMX signal interruption	Hold	Last command is retained
			Blackout	Activates blackout

Dimmer Curve	=	dimmer curve	Linear	Light intensity increases linearly with DMX value	
			Exponential	Light intensity can be finely adjusted at lower DMX values and broadly adjusted at higher DMX values	
			Logarithmic	Light intensity can be broadly adjusted at lower DMX values and finely adjusted at higher DMX values	
			S-Curve	Light intensity can be finely adjusted at lower and higher DMX values and broadly adjusted at medium DMX values	
Pan reverse	=	Pan reverse	Yes	reverses pan direction	
			No	do reverse of pan direction	
Tilt Reverse	=	Tilt reverse	Yes	reverses tilt direction	
			No	does not reverse tilt direction	
P/T Feedback	=	Correction of head position	Yes	Automatic position correction is enabled	
			No	Automatic position correction is disabled	
PWM Frequency	=	LED PWM frequency	800 Hz 1200 Hz 2000 Hz 3600 Hz	Configuration of LED PWM frequency	
Fan	=	Adjusts fan speed	Auto	Automatic fan speed control	
			Low Noise	Extra quiet fan with reduced brightness	
Move Blackout	=	Automatic blackout during head movement	No	No blackout during head movement	
			Yes	Blackout during head movement	
Auto Test	=	Automatic function test	Auto-Test now?	Press ENTER for step-by-step function test of the LED and all motors (Pan, Tilt, Gobo...) Press MENU to stop the function test	
Reset	=	Restart the device	Reset now?	Restart the device with reset of all motors	
Adjust	=	Correct the zero position	Pan Offset	0-255	Correct pan zero position
			Tilt Offset	0-255	Correct tilt zero position
			Colour Offset	0-255	Correct colour wheel zero position
			Gobo Offset	0-255	Correct gobo wheel zero position
			6Pri Offset	0-255	Correct linear prism zero position
			R6Pri Offset	0-255	Correct linear prism rotation zero position
			8Pri Offset	0-255	Correct circular prism zero position
			R8Pri Offset	0-255	Correct circular prism rotation zero position
Factory Reset	=	reset to factory settings	Reset now?	Press ENTER to implement reset Press MENU to cancel reset	

DEVICE INFORMATION (System Info)

Press MODE to access the selection menu. Using the UP and DOWN controls, select the menu item "System Info" (observe arrow) and confirm with ENTER.

----- Menu -----
DMX Address
DMX mode
Stand Alone
Slave
Settings
► System Info

This will take you to the sub-menu for displaying device information. Use the UP and DOWN keys to select the desired parameter and then retrieve and/or configure with ENTER.

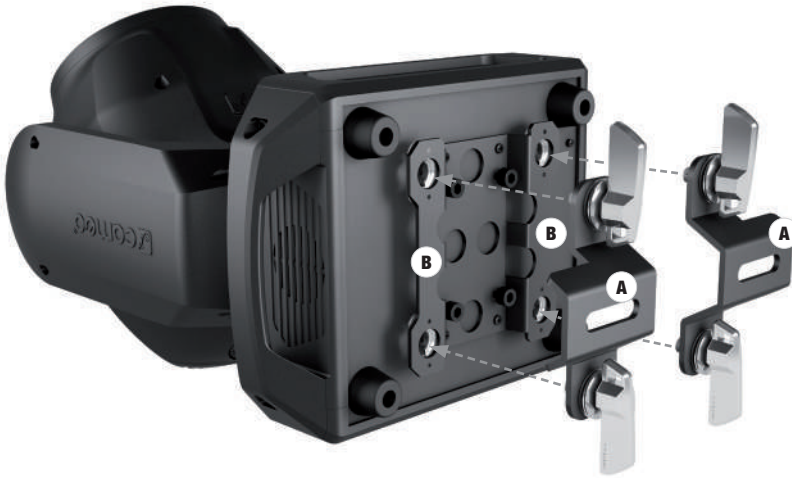
System Info					
Firmware	=	Displays device firmware	DISP:	Vx.x	Main control
			XY:	Vx.x	Pan/Tilt control
			MOTOR:	Vx.x	Control of head motors
Temperature	=	Displays device and LED temperature	LED	xx °C/xx °F	
			BASE	xx °C/xx °F	
			Unit °C/°F	Display in degrees Celsius Or degrees Fahrenheit	
Operation Hours	=	Spotlight operating time indicator	xxx:xxh	Displays the operating time of the spotlight in hours and minutes	
Error Info	=	Fault indicator If a fault is not corrected by a reset or restart, the defective unit must be repaired by an authorised service centre.	CTR1-XY Error (Pan/Tilt Control Error)	Solution: Restart	
			CTR2-MOTOR Error (Motor Control Error)	Solution: Restart	
			Pan Sensor Error (Pan Sensor Error after Pan/Tilt Reset)	Solution: Restart	
			Pan Encode Error (Pan Encode Error after Pan/Tilt Reset)	Solution: Restart	
			Tilt Sensor Error (Tilt Sensor Error after Pan/Tilt Reset)	Solution: Restart	
			Tilt Encode Error (Tilt Encode Error after Pan/Tilt Reset)	Solution: Restart	
			Colour Reset Fail (Colour Wheel Reset Error)	Solution: Reset head	
			Gobo Reset Fail (Gobo Wheel Reset Error)	Solution: Reset head	
			Prism6 Reset Fail (Linear Prism Reset Error)	Solution: Reset head	
			Prism8 Reset Fail (Circular Prism Reset Error)	Solution: Reset head	
			Focus Reset Fail (Focus Reset Error)	Solution: Reset head	
			Temperature Error (LED temperature above maximum)	Solution: Let it cool down, restart. Check maximum ambient temperature (40° C)	

INSTALLATION

Thanks to its integrated rubber feet, the lamp can be positioned in a suitable location on a level surface. on a traverse is carried out with two Omega brackets, mounted on the base of the device (A). 2 x Omega brackets are included. Suitable beam clamps are available as an option. Ensure firm connections and secure the spotlight to the securing lug (B) with a suitable safety cable. The distance between the spotlight and illuminated areas and objects must be at least 3 metres. The distance to other devices and combustible materials must be at least 0.2 metres.



Important note: Overhead mounting requires extensive experience, including the calculation of the load limit values of the installation material and regular safety inspection of all installation materials and spotlights. If you do not have these qualifications, do not attempt to perform an installation yourself. Refer instead to a qualified professional.



DMX TECHNOLOGY

DMX-512

DMX (Digital Multiplex) is the designation for a universal transmission protocol for communications between corresponding devices and controllers. A DMX controller sends DMX data to the connected DMX device(s). The DMX data is always transmitted as a serial data stream that is forwarded from one connected device to the next via the "DMX IN" and "DMX OUT" connectors (XLR plug-type connectors) that are found on every DMX-capable device, provided the maximum number of devices does not exceed 32 units. The last device in the chain needs to be equipped with a terminator (terminating resistor).



DMX CONNECTION

DMX is the common "language" via which a very wide range of types and models of equipment from various manufacturers can be connected with one another and controlled via a central controller, provided that all of the devices and the controller are DMX compatible. For optimum data transmission, it is necessary to keep the connecting cables between the individual devices as short as possible. The order in which the devices are integrated in the DMX network has no influence on the addresses. Thus the device with the DMX address 1 can be located at any position in the (serial) DMX chain: at the beginning, at the end or somewhere in the middle. If the DMX address 1 is assigned to a device, the controller "knows" that it should send all data allocated to address 1 to this device regardless of its position in the DMX network.

SERIAL CONNECTION OF MULTIPLE LIGHTS

1. Connect the male XLR connector (3-pin or 5-pin) of the DMX cable to the DMX output (female XLR socket) of the first DMX device (e.g. DMX-Controller).
2. Connect the female 3-pin XLR connector of the DMX cable connected to the first projector to the DMX input (male 3-pin socket) of the next DMX device. In the same way, connect the DMX output of this device to the DMX input of the next device and repeat until all devices have been connected. Please note that as a rule, DMX devices are connected in series and connections cannot be shared without active splitters. The maximum number of DMX devices in a DMX chain should not exceed 32 units.

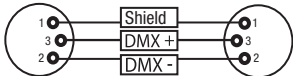
The Adam Hall 3 STAR, 4 STAR, and 5 STAR product ranges include an extensive selection of suitable cables.

DMX CABLES

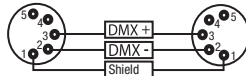
When fabricating your own cables, always observe the illustrations on this page. Never connect the shielding of the cable to the ground contact of the plug, and always make certain that the shielding does not come into contact with the housing of the XLR plug. If the shielding is connected to the ground, this can lead to short-circuiting and system malfunctions.

Pin Assignment

DMX cable with 3-pin XLR connectors:



DMX cable with 5-pin XLR connectors (pin 4 and 5 are not used):



DMX TERMINATORS (TERMINATING RESISTORS)

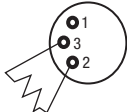
To prevent system errors, the last device in a DMX chain needs to be equipped with a terminating resistor (120 ohm, 1/4 Watt).

3-pin XLR connector with a terminating resistor: K3DMXT3

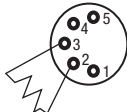
5-pin XLR connector with a terminating resistor: K3DMXT5

Pin Assignment

3-pin XLR connector:



5-pin XLR connector:



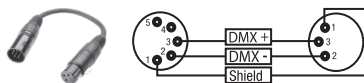
DMX ADAPTER

The combination of DMX devices with 3-pin connectors and DMX devices with 5-pin connectors in a DMX chain is possible with suitable adapters.

Pin Assignment

DMX Adapter 5-pin XLR male to 3-pin XLR female: K3DGF0020

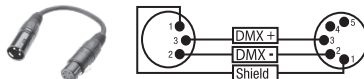
Pins 4 and 5 are not used.



Pin Assignment

DMX Adapter 3-pin XLR male to 5-pin XLR female: K3DHM0020

Pins 4 and 5 are not used.



TECHNICAL DATA

Product number:	CLAB1
Product type:	LED moving light
Type:	Beam Moving Head
Number of lamps:	1
Type of lamp:	100 W LED
Colour temperature:	Cool white 9200K
LED PWM frequency:	800Hz, 1200Hz, 2000Hz, 3600Hz (adjustable)
Number of colours on colour wheel:	14 + open and split colours
Number Gobos:	17 fix + open
Beam angle:	2°
DMX input:	3-pin XLR male 5-pin XLR male
DMX output:	3-pin XLR female 5-pin XLR female
DMX modes:	13-channel, 16-channel
DMX functions:	pan/tilt, pan/tilt fine, dimmer, dimmer fine, multifunctional strobe, colour wheel, colour wheel rotation, gobo wheel, gobo wheel rotation, gobo shake, focus, prisms 1 + 2, prism rotation, pan/tilt macros, pan/tilt speed, system settings
Standalone functions:	User macro 1-4, master/slave operation
System settings:	display reverse, display lighting on/off, DMX fail, dimmer curve, pan reverse, tilt reverse, P/T feed-back, PWM frequency, fan setting, movement blackout, auto test, reset, adjust, factory reset
Control:	DMX512, RDM-enabled
PAN angle:	540°
TILT angle:	270°
Operating controls:	MENU, ENTER, UP, DOWN
Display elements:	OLED display
Operating voltage:	100–240 V AC/50–60 Hz
Power consumption:	180W
Light intensity:	180000 lx @ 3m
Lighting power:	1800 lm
Power connection:	Blue & White Power Twist IN/OUT (out max 13A)
Fuse:	T2.5AL/250 V (5 x 20 mm)
Ambient temperature in operation:	–15°C to 45°C
Relative air humidity:	< 85%, non-condensing
Housing material:	metal, ABS
Housing colour:	black
Housing cooling:	Temperature-controlled fan
Dimensions (W x H x D, without bracket):	306 x 437 x 220mm
Weight:	13.9kg
Additional features:	mains cable with powerCON-compatible connector and 2 Omega mounting brackets supplied

ENGLISH

DEUTSCH

FRANCAIS

ESPAÑOL

POLSKI

ITALIANO

DMX

MANUFACTURER'S DECLARATIONS

ENGLISH

MANUFACTURER'S WARRANTY & LIMITATIONS OF LIABILITY

You can find our current warranty conditions and limitations of liability at: https://cdn-shop.adamhall.com/media/pdf/MANUFACTURERS-DECLARATIONS_CAMEO.pdf. To request warranty service for a product, please contact Adam Hall GmbH, Adam-Hall-Str. 1, 61267 Neu Anspach / Email: Info@adamhall.com / +49 (0)6081 / 9419-0.



CORRECT DISPOSAL OF THIS PRODUCT

(valid in the European Union and other European countries with a differentiated waste collection system)

■ This symbol on the product, or on its documents indicates that the device may not be treated as household waste. This is to avoid environmental damage or personal injury due to uncontrolled waste disposal. Please dispose of this product separately from other waste and have it recycled to promote sustainable economic activity. Household users should contact either the retailer where they purchased this product, or their local government office, for details on where and how they can recycle this item in an environmentally friendly manner. Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial waste for disposal.

FCC STATEMENT

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation

CE Compliance

Adam Hall GmbH states that this product meets the following guidelines (where applicable):

R&TTE (1999/5/EC) or RED (2014/53/EU) from June 2017

Low voltage directive (2014/35/EU)

EMV directive (2014/30/EU)

RoHS (2011/65/EU)

The complete declaration of conformity can be found at www.adamhall.com.

Furthermore, you may also direct your enquiry to info@adamhall.com.

DEUTSCH

FRANCAIS

ESPAÑOL

POLSKI

ITALIANO

DMX

DMX CONTROL / DMX STEUERUNG / PILOTAGE DMX / CONTROL DMX / STEROWANIE DMX / CONTROLLO DMX

13CH Mode						
Ch.	Function	Values & Descriptions			Sub-Group	
1	Pan	000	-	255	0% to 100%	Pan
2	Pan fine	000	-	255	0% to 100%	
3	Tilt	000	-	255	0% to 100%	Tilt
4	Tilt fine	000	-	255	0% to 100%	
5	Dimmer	000	-	255	0% to 100%	Dimmer
6	Dimmer fine	000	-	255	0% to 100%	
7	Strobe Functions	000	-	005	Strobe open	Multifunctional Strobe
		006	-	010	Strobe closed	
		011	-	033	Pulse Random, slow -> fast	
		034	-	056	Ramp up Random, slow -> fast	
		057	-	079	Ramp down Random, slow -> fast	
		080	-	102	Random Strobe Effect, slow -> fast	
		103	-	127	Strobe Break Effect, 5s.....1s (Short burst with break)	
		128	-	250	Strobe slow -> fast <1Hz - 20Hz	
8	Colour Wheel	251	-	255	Strobe open	Colour Wheel
		000	-	005	Open	
		006	-	011	Open/Deep Red	
		012	-	017	Deep Red	
		018	-	023	Deep Red / Medium Blue	
		024	-	029	Medium Blue	
		030	-	035	Medium Blue / Yellow	
		036	-	041	Yellow	
		042	-	047	Yellow / Magenta	
		048	-	053	Magenta	
		054	-	059	Magenta / Deep Green	
		060	-	065	Deep Green	
		066	-	071	Deep Green / Lavender	
		072	-	077	Lavender	
		078	-	083	Lavender / Peacock	
		084	-	089	Peacock	
		090	-	095	Peacock / Orange	
		096	-	101	Orange	
		102	-	107	Orange / Lime	
		108	-	113	Lime	
		114	-	119	Lime / Pink	
		120	-	125	Pink	
		126	-	131	Pink / Amber	
		132	-	137	Amber	
		138	-	143	Amber / Deep Blue	
		144	-	149	Deep Blue	
		150	-	155	Deep Blue / CTO	
		156	-	161	CTO	
162	-	167	CTO / Congo Blue			
168	-	173	Congo Blue			
174	-	179	Congo Blue / Open			
180	-	192	Open			
193	-	223	Colour Wheel rot. Slow -> Fast, CW			
224	-	224	Colour Wheel rot. Stop			
225	-	255	Colour Wheel rot. Fast -> Slow, CCW			

9	Gobo Wheel	000	-	005	Open	Gobo Wheel
		006	-	010	Gobo 1	
		011	-	015	Gobo 2	
		016	-	020	Gobo 3	
		021	-	025	Gobo 4	
		026	-	030	Gobo 5	
		031	-	035	Gobo 6	
		036	-	040	Gobo 7	
		041	-	045	Gobo 8	
		046	-	050	Gobo 9	
		051	-	055	Gobo 10	
		056	-	060	Gobo 11	
		061	-	065	Gobo 12	
		066	-	070	Gobo 13	
		071	-	075	Gobo 14	
		076	-	080	Gobo 15	
		081	-	085	Gobo 16	
		086	-	090	Gobo 17	
		091	-	095	Open	
		096	-	100	Gobo 1 shake (slow-fast)	
		101	-	105	Gobo 2 shake (slow-fast)	
		106	-	110	Gobo 3 shake (slow-fast)	
		111	-	115	Gobo 4 shake (slow-fast)	
		116	-	120	Gobo 5 shake (slow-fast)	
		121	-	125	Gobo 6 shake (slow-fast)	
		126	-	130	Gobo 7 shake (slow-fast)	
		131	-	135	Gobo 8 shake (slow-fast)	
		136	-	140	Gobo 9 shake (slow-fast)	
		141	-	145	Gobo 10 shake (slow-fast)	
		146	-	150	Gobo 11 shake (slow-fast)	
		151	-	155	Gobo 12 shake (slow-fast)	
		156	-	160	Gobo 13 shake (slow-fast)	
		161	-	165	Gobo 14 shake (slow-fast)	
166	-	170	Gobo 15 shake (slow-fast)			
171	-	175	Gobo 16 shake (slow-fast)			
176	-	180	Gobo 17 shake (slow-fast)			
181	-	192	Open			
193	-	223	Gobo Wheel rot. Slow -> Fast, CW			
224	-	224	Gobo Wheel rot. Stop			
225	-	255	Gobo Wheel rot. Fast -> Slow, CCW			
10	Focus	000	-	255	0% to 100%	Focus
11	Prism Selection	000	-	005	Prism off (open)	Prism
		006	-	127	Prism 1 linear	
		128	-	255	Prism 2 circular	
12	Prism Rotation	000	-	005	Prism Rotation off	
		006	-	128	Prism Position 0 ... 540°	
		129	-	191	Prism Rotation, Slow -> Fast, CW	
		192	-	192	Prism Rotation Stop	
		192	-	255	Prism Rotation, Fast -> Slow, CCW	

13	Device Settings (please read remark 1*)	000	-	005	no function	Device Settings
		006	-	028	Blackout while Moving on (Hold 3s)	
		029	-	051	Blackout while Moving off (Hold 5s)	
		052	-	074	Invert Pan on (Hold 3s)	
		075	-	097	Invert Pan off (Hold 5s)	
		098	-	120	Invert Tilt on (Hold 3s)	
		121	-	143	Invert Tilt off (Hold 5s)	
		144	-	166	Silent Fan on (Hold 3s)	
		167	-	189	Silent Fan off (Hold 5s)	
		190	-	212	Reset Pan / Tilt (Hold 3s)	
		213	-	235	Reset only Head (Hold 3s)	
		236	-	255	Reset All Functions (Hold 3s)	

16CH Mode						
Ch.	Function	Values & Descriptions			Sub-Group	
1	Pan	000	-	255	0% to 100%	Pan
2	Pan fine	000	-	255	0% to 100%	
3	Tilt	000	-	255	0% to 100%	Tilt
4	Tilt fine	000	-	255	0% to 100%	
5	Dimmer	000	-	255	0% to 100%	Dimmer
6	Dimmer fine	000	-	255	0% to 100%	
7	Strobe Functions	000	-	005	Strobe open	Multifunctional Strobe
		006	-	010	Strobe closed	
		011	-	033	Pulse Random, slow -> fast	
		034	-	056	Ramp up Random, slow -> fast	
		057	-	079	Ramp down Random, slow -> fast	
		080	-	102	Random Strobe Effect, slow -> fast	
		103	-	127	Strobe Break Effect, 5s.....1s (Short burst with break)	
		128	-	250	Strobe slow -> fast <1Hz - 20Hz	
251	-	255	Strobe open			

8	Colour Wheel	000	-	005	Open	Colour Wheel
		006	-	011	Open/Deep Red	
		012		017	Deep Red	
		018	-	023	Deep Red / Medium Blue	
		024		029	Medium Blue	
		030		035	Medium Blue / Yellow	
		036		041	Yellow	
		042		047	Yellow / Magenta	
		048		053	Magenta	
		054		059	Magenta / Deep Green	
		060		065	Deep Green	
		066		071	Deep Green / Lavender	
		072		077	Lavender	
		078		083	Lavender / Peacock	
		084		089	Peacock	
		090		095	Peacock / Orange	
		096		101	Orange	
		102		107	Orange / Lime	
		108		113	Lime	
		114	-	119	Lime / Pink	
		120	-	125	Pink	
		126	-	131	Pink / Amber	
		132	-	137	Amber	
		138	-	143	Amber / Deep Blue	
		144	-	149	Deep Blue	
		150	-	155	Deep Blue / CTO	
		156	-	161	CTO	
		162	-	167	CTO / Congo Blue	
		168	-	173	Congo Blue	
		174	-	179	Congo Blue / Open	
180	-	192	Open			
193	-	223	Colour Wheel rot. Slow -> Fast, CW			
224	-	224	Colour Wheel rot. Stop			
225	-	255	Colour Wheel rot. Fast -> Slow, CCW			

9	Gobo Wheel	000	-	005	Open	Gobo Wheel
		006	-	010	Gobo 1	
		011	-	015	Gobo 2	
		016	-	020	Gobo 3	
		021	-	025	Gobo 4	
		026	-	030	Gobo 5	
		031	-	035	Gobo 6	
		036	-	040	Gobo 7	
		041	-	045	Gobo 8	
		046	-	050	Gobo 9	
		051	-	055	Gobo 10	
		056	-	060	Gobo 11	
		061	-	065	Gobo 12	
		066	-	070	Gobo 13	
		071	-	075	Gobo 14	
		076	-	080	Gobo 15	
		081	-	085	Gobo 16	
		086	-	090	Gobo 17	
		091	-	095	Open	
		096	-	100	Gobo 1 shake (slow-fast)	
		101	-	105	Gobo 2 shake (slow-fast)	
		106	-	110	Gobo 3 shake (slow-fast)	
		111	-	115	Gobo 4 shake (slow-fast)	
		116	-	120	Gobo 5 shake (slow-fast)	
		121	-	125	Gobo 6 shake (slow-fast)	
		126	-	130	Gobo 7 shake (slow-fast)	
		131	-	135	Gobo 8 shake (slow-fast)	
		136	-	140	Gobo 9 shake (slow-fast)	
		141	-	145	Gobo 10 shake (slow-fast)	
		146	-	150	Gobo 11 shake (slow-fast)	
		151	-	155	Gobo 12 shake (slow-fast)	
		156	-	160	Gobo 13 shake (slow-fast)	
		161	-	165	Gobo 14 shake (slow-fast)	
166	-	170	Gobo 15 shake (slow-fast)			
171	-	175	Gobo 16 shake (slow-fast)			
176	-	180	Gobo 17 shake (slow-fast)			
181	-	192	Open			
193	-	223	Gobo Wheel rot. Slow -> Fast, CW			
224	-	224	Gobo Wheel rot. Stop			
225	-	255	Gobo Wheel rot. Fast -> Slow, CCW			
10	Focus	000	-	255	0% to 100%	Focus
11	Prism Selection	000	-	005	Prism off (open)	Prism
		006	-	127	Prism 1 linear	
		128	-	255	Prism 2 circular	
12	Prism Rotation	000	-	005	Prism Rotation off	Prism
		006	-	128	Prism Position 0 ... 540°	
		129	-	191	Prism Rotation, Slow -> Fast, CW	
		192	-	192	Prism Rotation Stop	
		193	-	255	Prism Rotation, Fast -> Slow, CCW	

13	Pan/Tilt Macro	000	-	005	off	Auto Movement
		006	-	040	PAN „small > big“	
		041	-	075	TILT „small > big“	
		076	-	110	PAN / TILT „small > big“	
		111	-	145	PAN / TILT (invers) „small > big“	
		146	-	180	Circle „small > big“	
		181	-	215	Circle (invers) „small > big“	
		216	-	255	Random „small > big“	
14	Pan/Tilt Speed	000	-	255	Pan/Tilt Fast -> Slow	Pan/Tilt speed
15	Set Dimmer Curve	000	-	005	no function	Dimmer Curve
		006	-	063	Linear Dimmer Curve	
		064	-	127	Exponential Dimmer Curve	
		128	-	191	Logarithmic Dimmer Curve	
		192	-	255	S-Curve Dimmer Curve	
16	Device Settings (please read remark 1*)	000	-	005	no function	Device Settings
		006	-	028	Blackout while Moving on (Hold 3s)	
		029	-	051	Blackout while Moving off (Hold 5s)	
		052	-	074	Invert Pan on (Hold 3s)	
		075	-	097	Invert Pan off (Hold 5s)	
		098	-	120	Invert Tilt on (Hold 3s)	
		121	-	143	Invert Tilt off (Hold 5s)	
		144	-	166	Silent Fan on (Hold 3s)	
		167	-	189	Silent Fan off (Hold 5s)	
		190	-	212	Reset Pan / Tilt (Hold 3s)	
		213	-	235	Reset only Head (Hold 3s)	
		236	-	255	Reset All Functions (Hold 3s)	

EN: (1*) After the adjustments have been made, set the value to 000 to avoid disturbance by endless function call.

DE: (1*) Nachdem die Einstellungen vorgenommen wurden, stellen Sie den Wert auf 000 ein, um Störungen durch endlosen Funktionsaufruf zu vermeiden.

FR: (1*) Une fois les ajustements effectués, réglez la valeur sur 000 pour éviter les perturbations par appel de fonction sans fin.

ES: (1*) Después de realizar los ajustes, establezca el valor en 000 para evitar perturbaciones mediante una llamada de función sin fin.

PL: (1*) Po dokonaniu ustawień ustaw wartość na 000, aby uniknąć zakłóceń przez niekończące się wywołanie funkcji.

IT: (1*) Dopo aver effettuato le regolazioni, impostare il valore su 000 per evitare disturbi causati da una chiamata a funzione infinita.

