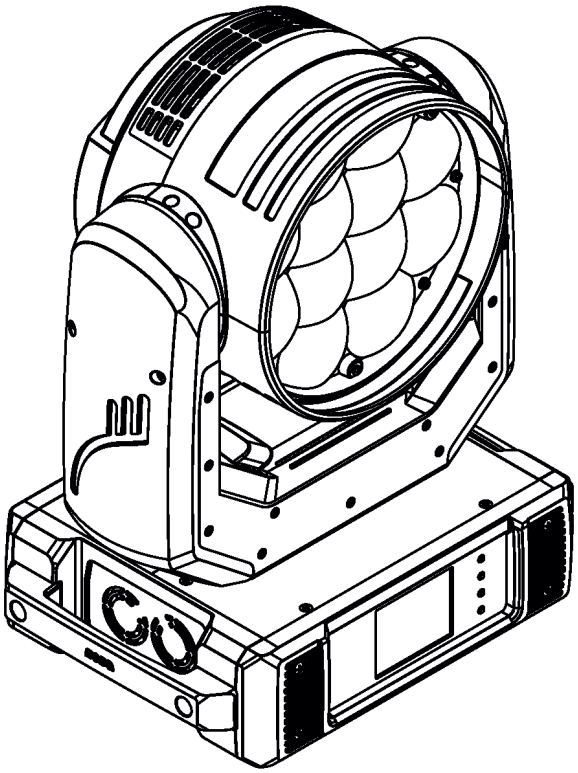
Robin LEDBeam 400™



ROBE Innovative Technology

QR code for user manual

USER MANUAL

ROBE® lighting s.r.o. • Czech Republic • www.robe.cz

Version 1.0

Robin LEDBeam 400

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FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE POWERING OR INSTALLING YOUR ROBIN LEDBEAM 400!

Save it for future reference.

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 manual.

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

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

The Robin LEDBeam 400 was designed for indoor use and it is intended for professional application only. It is not for household use.

1. Safety instructions

DANGEROUS VOLTAGE CONSTITUTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS UNIT!

This fixture should be operated only from the type of power source indicated on the marking label. If you are not sure of the type of power supplied, consult your authorized distributor or local power company.
Make sure that the available voltage is not higher than stated on the rear panel of the fixture.

Always disconnect the fixture from AC power before cleaning, removing or installing any part of the fixture.

The power plug has to be accessible after installing the fixture. Do not overload wall outlets and extension cords as this can result in fire or electric shock.

Do not allow anything to rest on the power cord. Do not locate this fixture where the cord may be damaged by persons walking on it.

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

Refer servicing to qualified service personnel.

This fixture falls under protection class I. Therefore this fixture has to be connected to a mains socket outlet with a protective earthing connection.

Do not connect this fixture to a dimmer pack.

Warning! Risk Group 2 LED product according to EN 62471.
LED light emission. Risk of eye injury.
Do not look straight at the fixture´s LED source during operation. The intense light beam may damage your eyes. Sensitive persons may suffer an epileptic shock.
Provide advance notice that strobe lighting is in use.

Do not view the light output with optical instruments or any device that may concentrate the beam.
The light source contains blue LEDs.

If the fixture 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.

Avoid brute force when installing or operating the fixture.

This fixture was designed for indoor use only, do not expose this unit to rain or use near water.

When choosing the installation spot, please make sure that the fixture is not exposed to extreme heat, moisture or dust.

Do not block the lens array with any object when the fixture is under operation.

The cooling openings in head and base of the fixture should never be covered with cloth or other materials, and never must be blocked.

This fixture should not be placed in a built-in installation unless proper ventilation is provided.

Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.

Always use a secondary safety wire for overhead installation of the fixture.

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

The fixture becomes hot during operation. Allow the fixture to cool approximately 15 minutes prior to manipulate with it.

Operate the fixture only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the fixture!

Please use the original packaging if the fixture is to be transported.

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

The product (covers and cables) must not be exposed to a high frequency electromagnetic field higher than 3V/m.

Immunity of the equipment is designed according to the standard EN 55035 Electromagnetic compatibility of multimedia equipment - Immunity requirements.
The installation company should check levels of possible interferences above levels given by this standard (e.g. transmitters in surrounding area) before installing the equipment.

Emission of the equipment complies with the standard EN55032 Electromagnetic compatibility of multimedia equipment – Emission Requirements according to class B.
.
Emission of the equipment complies with the standard EN55032 Electromagnetic compatibility of multimedia equipment – Emission Requirements according to class B.

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.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

The [Device] wireless operation is safe and complies to RF Exposure requirements

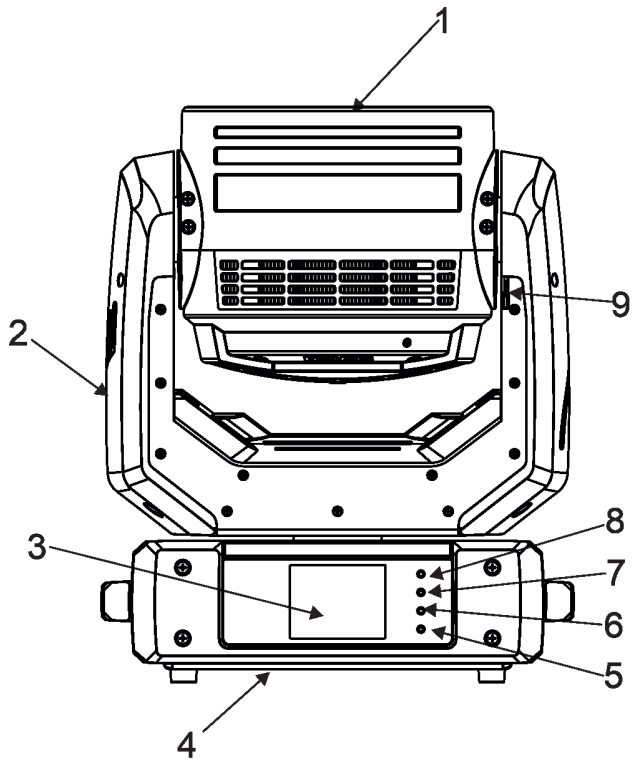
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Potential foggy front lens array does not influence function of the fixture and does not subject to complaint.

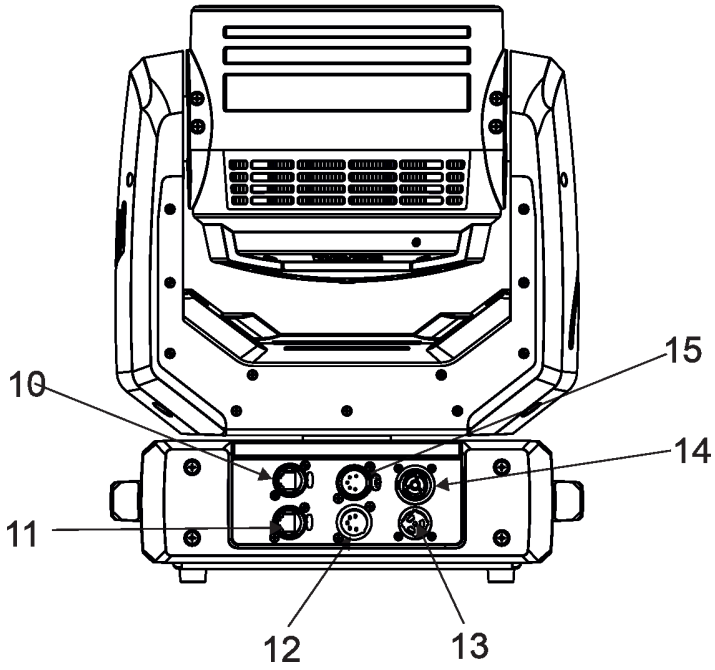
To avoid damage of an internal optical system of the fixture, never let the sunlight (or other light source) lights directly to the lens array.

Potential colour non-uniformity of the front lens array may occur, it does not influence colour output from the fixture and is not considered a fault.

2. Fixture exterior view



1 - Moving head
2 - Yoke
3 - Touch screen
4 - Base
5 - Enter button
6 - Preview
7 - Next button
8 - Escape button
9 - Tilt lock



10 - Ethernet OUT (RJ 45)*
11 - Ethernet IN (RJ 45)
12 - DMX In (5-pin XLR)
13 - Power IN (PowerCon True 1)
14 - Power OUT (PowerCon True 1)
15 - DMX OUT (5-pin XLR)
* version with Epass only

The head has to be locked for transportation - the tilt lock latch (9) has to be in the locked position. To unlock the head, move the latch to unlock position before operating the fixture.

The ENTER/DISPLAY ON button also serves for switching the display on (for a while) when the fixture is disconnected from the mains.

3. Installation

Fixtures must be installed by a qualified electrician in accordance with all national and local electrical and construction codes and regulations.

3.1 Connection to the mains

For protection from electric shock, the fixture must be earthed!

The Robin LEDBeam 400 is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-240 Volts.

If you need to install a power plug on the power cable to allow connection to power outlets, install a grounding-type (earthed) plug following the plug manufacturer's instructions. If you have any doubts about proper installation, consult a qualified electrician.

Core (EU)	Core (US)	Connection	Plug Terminal Marking
Brown	Black	Live	L
Light blue	White	Neutral	N
Yellow/Green	Green	Earth	⏚

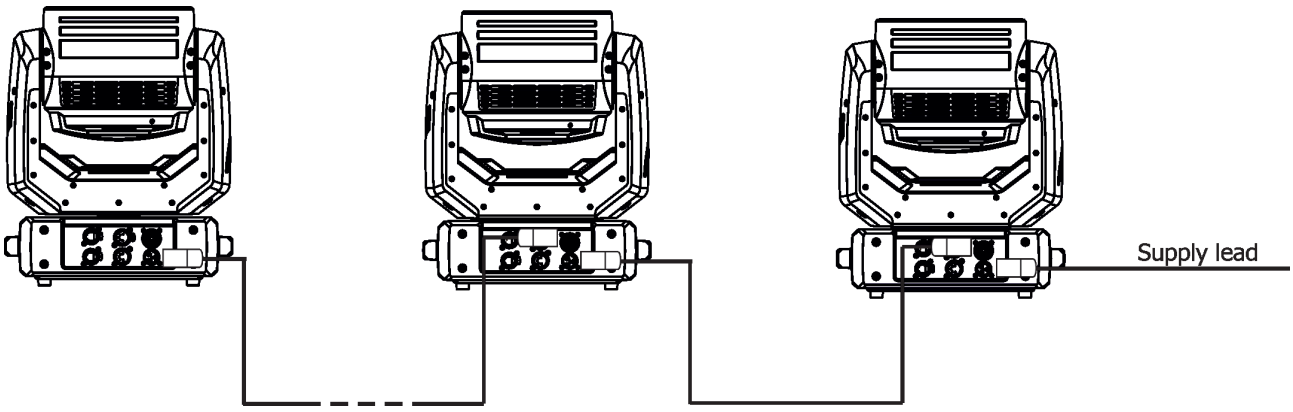
The device falls under class one and must be earthed (grounded)!

Before connecting the fixture to mains, the tilt lock must be in unlocked position

Design of the LEDPointe allows you to connect several fixtures (6 fixtures at 230V/16A circuit breaker; 3 fixtures at 120V/16 A circuit breaker) to AC mains power in one interconnected daisy chain using power input and throughput connector. Needed daisy chain cords are stated in the chapter "Technical specifications "

Do not overload the supply line and connecting cables.

Wiring and connection work must be carried out by qualified staff!



3.2 Rigging the fixture

The installation of the fixture 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.

The fixture 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 projector. 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 or damage to property.
The fixture has to be installed out of the reach of people.

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

Caution: Fixture may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do not install the moving head!

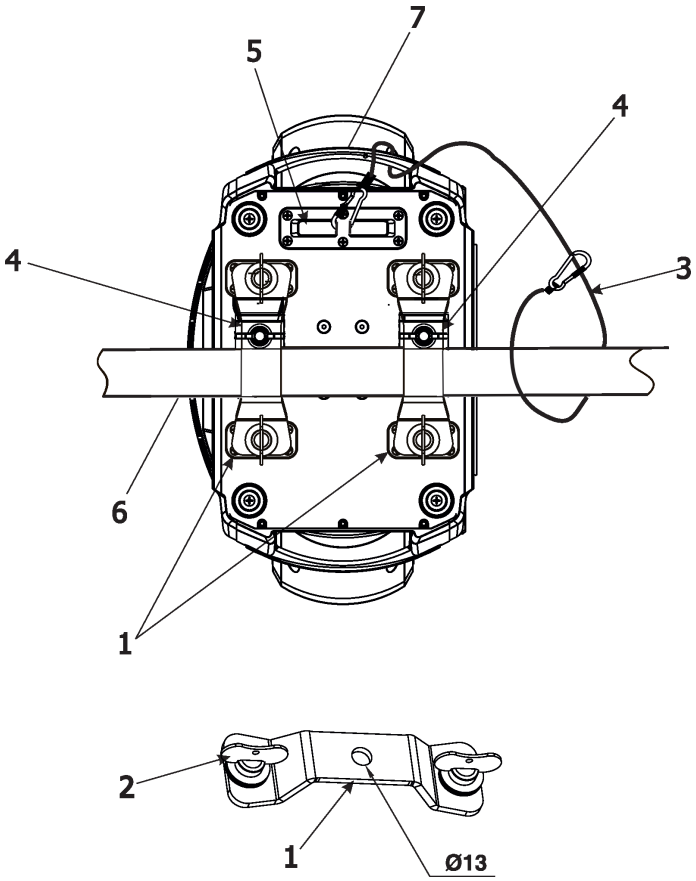
Before rigging make sure that the installation area can hold a minimum point load of 10 times the fixture's weight.

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

CAUTION!
Use an appropriate clamp to rig the fixture on the truss.
Follow the instructions mentioned at the bottom of the base.
Make sure that the device is fixed properly! Ensure that the structure (truss) to which you are attaching the fixtures is secure.

The fixture can be placed directly on the stage floor or rigged in any orientation on a truss without altering its operation characteristics .
For securing the fixture to the truss, install a safety wire which can hold at least 10 times the weight of the fixture. Use only the safety wire with a snap hook with screw lock gate.

Truss installation



Truss installation

1.Bolt Clamps (4) to the Omega adaptors (1) with M12 bolts and lock nuts through the hole in the Omega adaptors.
2.Fasten the Omega adaptors on the bottom of the base by means of the quick-lock fasteners (2) and tighten them fully clockwise.
3. Install the fixture on the truss.
4. Pull a safety wire (3) through the carrying handle (7) and the truss (6) as shown on the picture below in a suitable position so that the maximum fall of the fixture will be 20 cm. Fasten a snap hook in the attachment point (5).
Use only the safety wire with a snap hooks with screw lock gates.

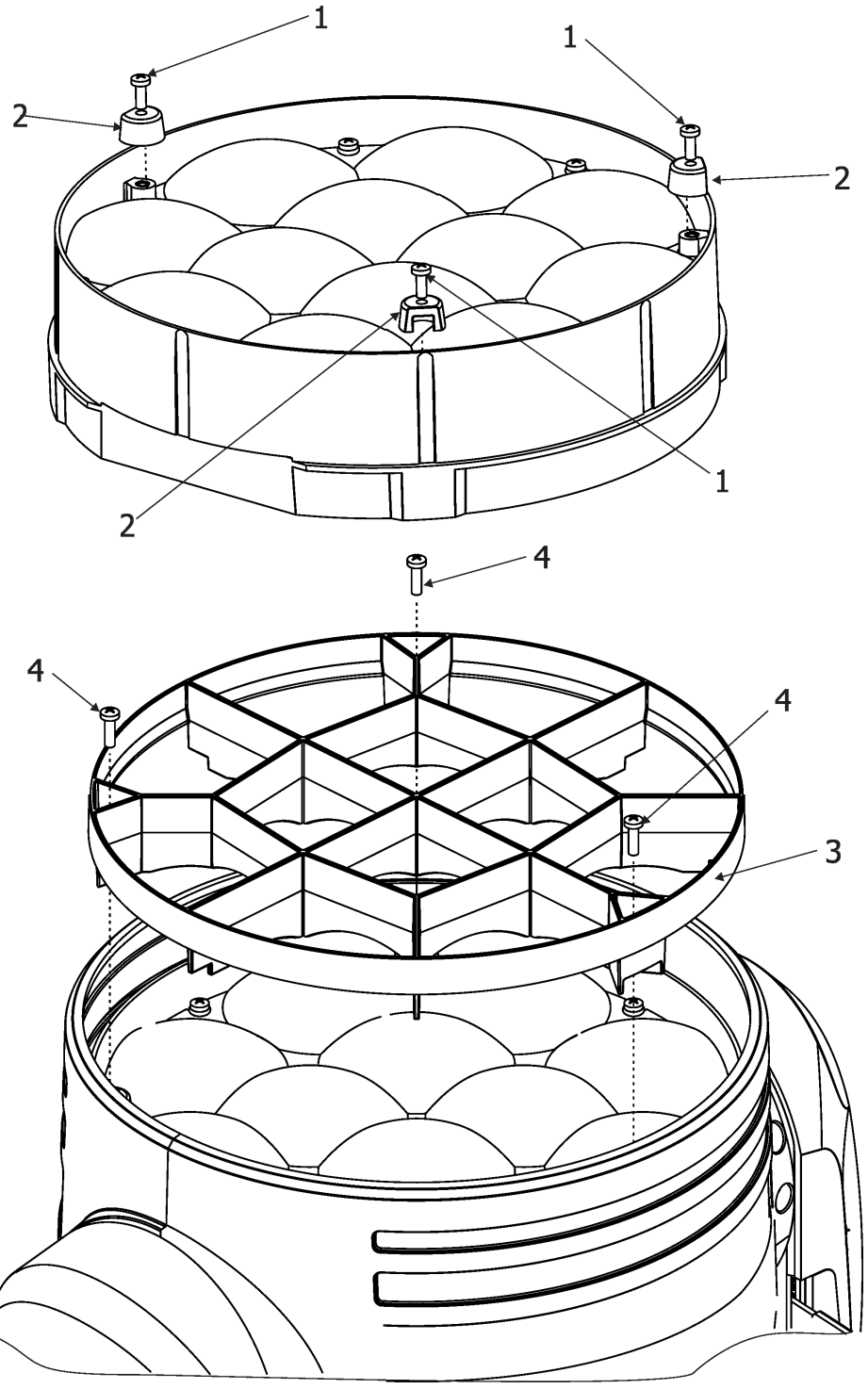
When installing fixtures side-by-side, avoid illuminating one fixture with another!

3.4 EggCrate installation

Unplug the fixture from mains before installing the EggCrate!

1.Unscrew three screws M3x8 (1) which hold safety locks (2) of the lens array. Remove the safety locks (2).
2. Insert the eggcrate (3) on the lens array and screw it to the lens array by means of the three enclosed screws M3x10 (4).

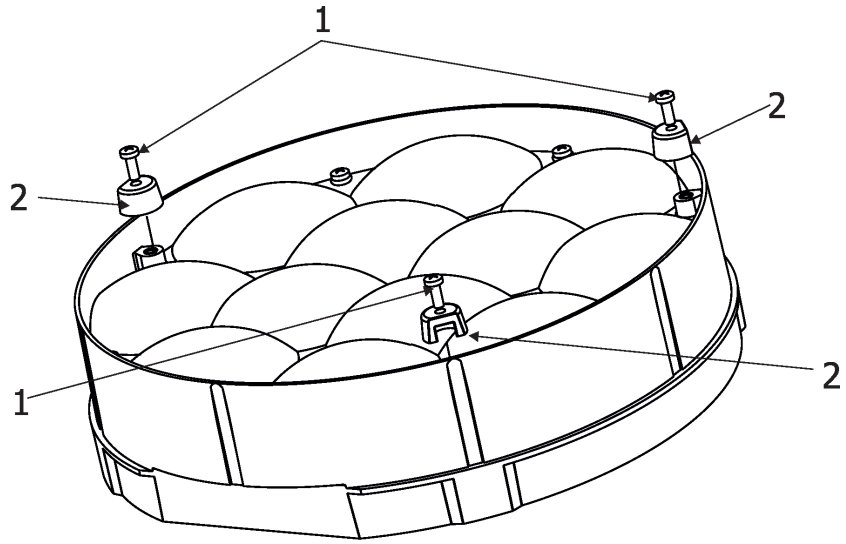
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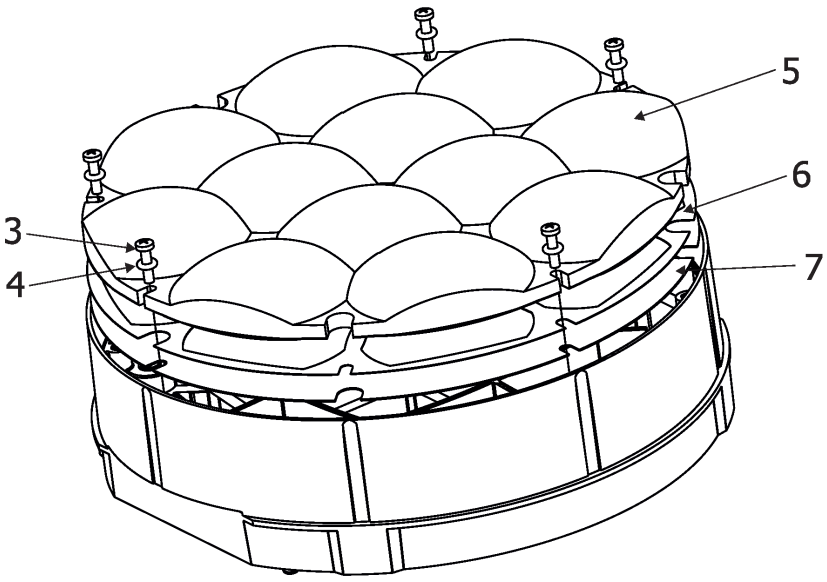


3.5 Diffusion filter installation

Unplug the fixture from mains before installing the diffusion filter!

1.Unscrew three screws M3x8 (1) which hold safety locks (2) of the lens array and remove them.
2.Unscrew the five screws M3x12 (3) with rubber rings (4) and remove the lens array (5) and the plastic film (6).
3. Remove transport protecting foil(s) from the diffusion filter.
4.Insert diffusion filter (7) matt side towards the lens array (5).
5.Insert the plastic film (6).
6.Insert the lens array (5) and screw it by means of the five screws (3) with rubber rings (4).
I**MPORTANT: Screws (5) have to be tightened in this way that rubber rings (4) are slightly deformed. Do not tighten them excessively, there is a risk of lens array cracking .**
7.Insert the three safety locks (2) on the lens array (5) and screw them by means of the three screws M3x8 (1).
8.Check that all screws are screwed and tightened.

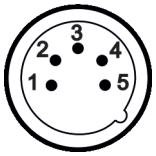




3.6 DMX-512 connection

The fixture is equipped with 5-pin XLR sockets for DMX input and output. Only use a shielded twisted-pair cable designed for RS-485 and 5-pin XLR plugs and connectors in order to connect the controller with the fixture or one fixture with another.

DMX output
XLR socket (female)



1 - Shield
2 - Signal (-)
3 - Signal (+)
4 - Not connected
5 - Not connected

DMX input
XLR socket (male)

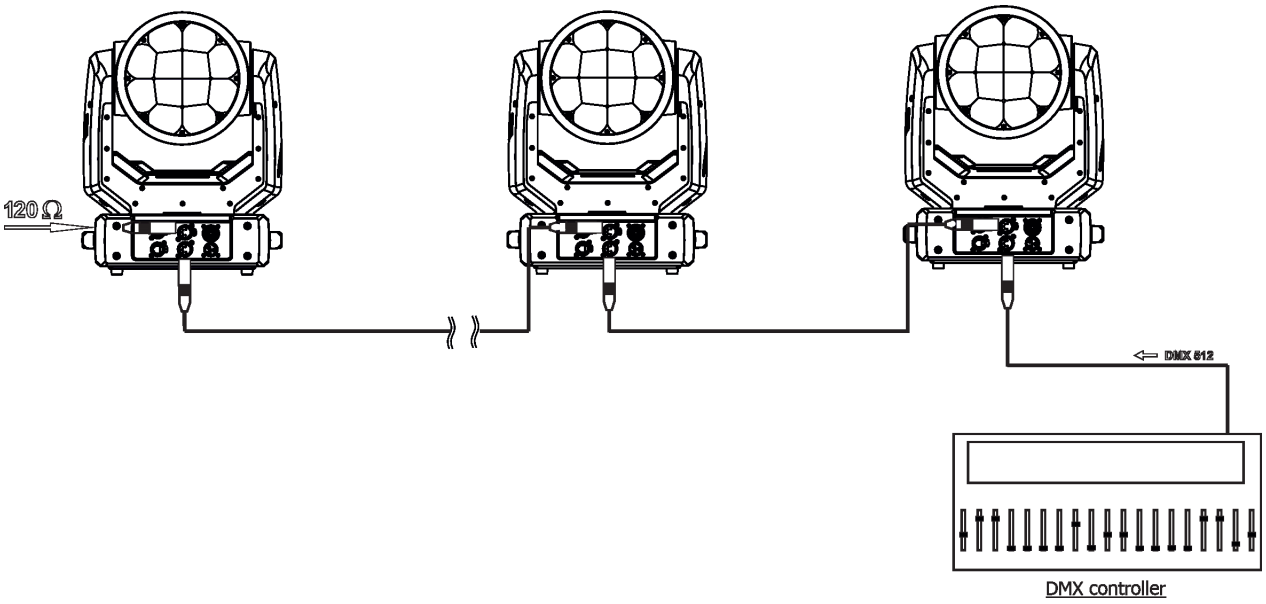


1 - Shield
2 - Signal (-)
3 - Signal (+)
4 - Not connected
5 - Not connected

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

Building a serial DMX chain:
Connect the DMX output of the first fixture in the DMX chain with the DMX input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected. Up to 32 fixtures can be interconnected.
Caution: At the last fixture, the DMX cable has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (–) and Signal (+) into a 5-pin XLR plug and plug it in the DMX output of the last fixture.

Example of connection:



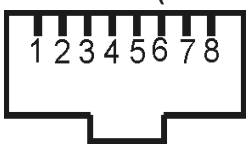
3.7 Ethernet connection (EP version only)

The fixtures on a data link are connected to the Ethernet with appropriate communication protocol (e.g. ArtNet). The control software running on your PC (or light console) has to support this communication protocol.
Art-Net communication protocol is a 10 Base T Ethernet protocol based on the TCP/IP.Its purpose is to allow transfer of large amounts of DMX 512 data over a wide area using standard network technology.

The IP address is the Internet protocol address.The IP uniquely identifies any node (fixture) on a network.
The Universe is a single DMX 512 frame of 512 channels.

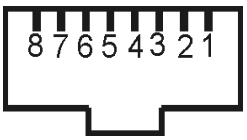
The Robin LEDBeam 400 EP is equipped with 8-pin RJ- 45 sockets for Ethernet connection.Use a network cable category 5 (with four “twisted” wire pairs) and standard RJ-45 plugs in order to connect the fixture to the network.

RJ-45 socket (front view):



1- TD+
2- TD-
3- RX+
4- Not connected
5- Not connected
6- RX-
7- Not connected
8- Not connected

RJ-45 plug (front view):



Patch cables that connect fixtures to the hubs or LAN sockets are wired 1:1,that is,pins with the same numbers are connected together:

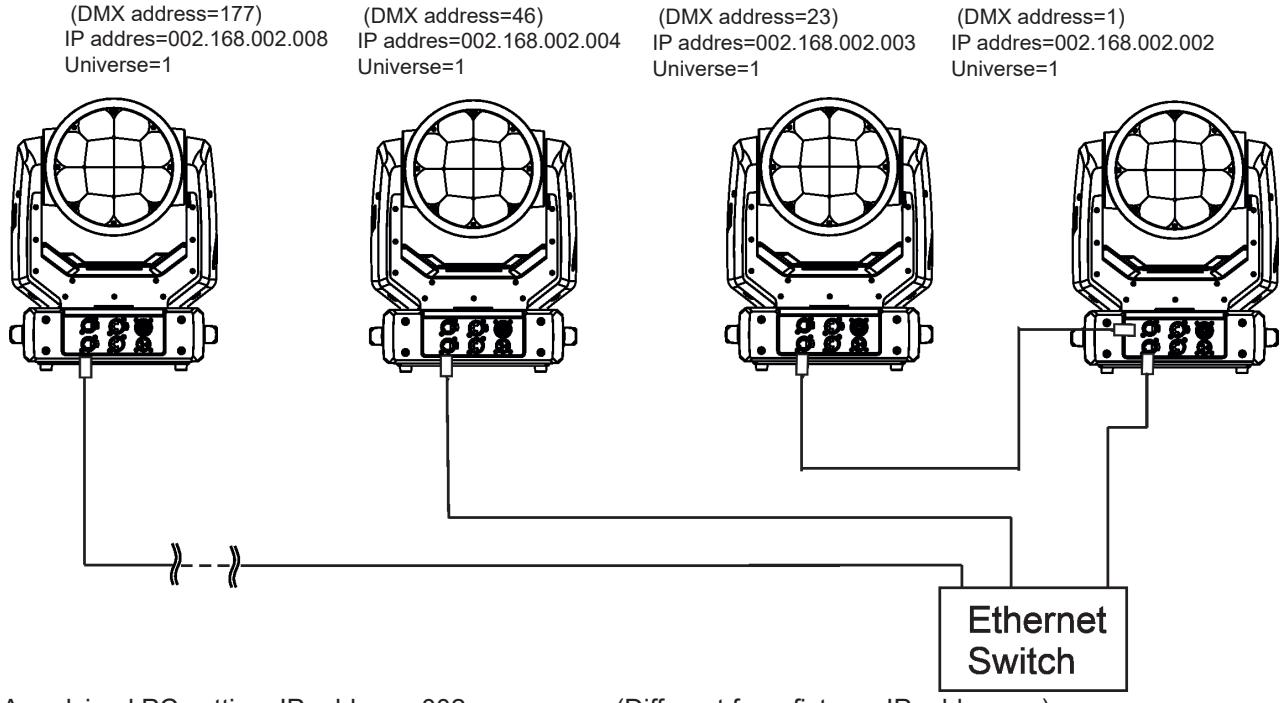
1-1 2-2 3-3 4-4 5-5 6-6 7-7 8-8

If only the fixture and the computer are to be interconnected,no hubs or other active components are needed.A cross-cable has to be used:

1-3 2-6 3-1 4-8 5-7 6-2 7-5 8-4

Connect the Ethernet inputs of all fixtures to the Ethernet network. Set their IP addresses and Net Masks Correct communication protocol (e.g. “ArtNet") has to be selected from the menu “Eth Mode” in the fixtures (Pers-->Ethernet -->Eth Mode). Set Universe(s) according to communication protocol.

Example of connection:



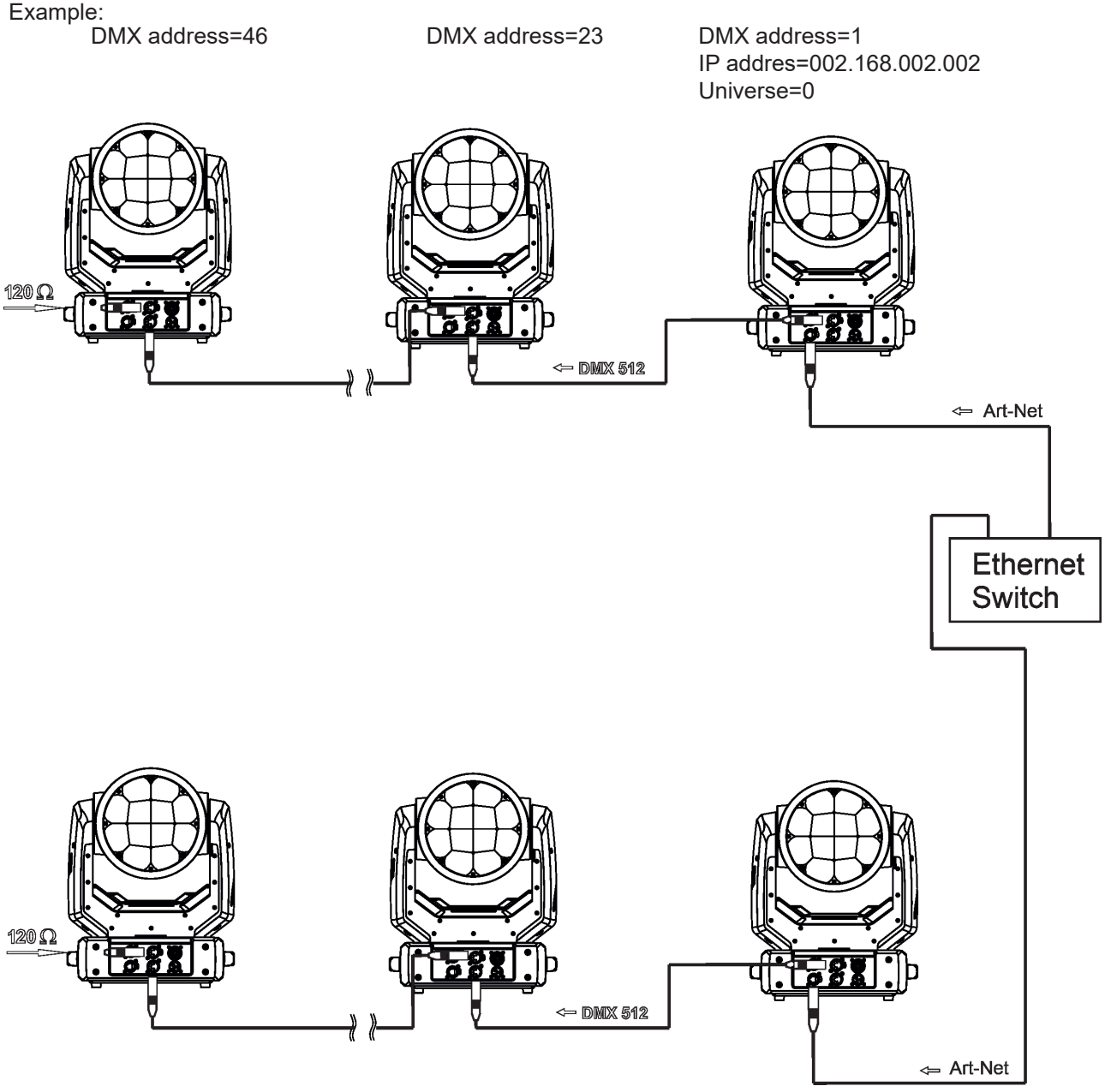
An advised PC setting: IP address: 002.xxx.xxx.xxx (Different from fixtures IP addresses)
NET mask: 255.0.0.0

The LEDBeam 400 can be equipped with Ethernet Pass Through Switch (optional) which sustains Ethernet integrity, when the fixture has no power, it automatically maintains network connectivity.
f you use the Ethernet IN-OUT way for the Ethernet connection, max. 8 fixtures can be connected in the IN-OUT line.

Ethernet / DMX operation

Option “ Artnet" (gMaI or gMA2 or sACN) has to be selected from “Ethernet Mode” menu at first fixture.
Option “Ethernet To DMX” has to be selected from the “Ethernet Mode” menu at the first fixture (connected to the Ethernet) in the fixture chain, next fixtures have standard DMX setting.
Connect the Ethernet input of the first fixture in the data chain with the network. Connect the DMX output of this fixture with the input of the next fixture until all fixtures are connected to the DMX chain.
Caution: At the last fixture, the DMX chain has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (–) and Signal (+) into a XLR-plug and connect it in the DMX-output of the last fixture.

Example:



3.8 Wireless DMX operation

The integrated wireless DMX/RDM module allows receiving wireless DMX. The ROBE wireless DMX/RDM module has full support for wireless communication protocols at entertainment market. Modul is based on well known LumenRadio RF technology, with implemented wire interface for connection with Robe products. RF output for MCX interface antenna as standard output

The item " Wireless " from the menu "DMX Input" allows you to activate receiving of wireless DMX (Personality--> DMX Input -->Wireless.). First two options from the "DMX Input" menu are stated in DMX chart as well (channel Power/Special functions , range of 10-19 DMX). If DMX input option is changed by DMX command, the change is permanently written into fixture´s memory.

DMX range of 10-19 switching fixture to the wired/wireless operation is active only during first 10 seconds after switching the fixture on.

After switching the fixture on, the fixture checks both modes of receiving DMX in the following order:

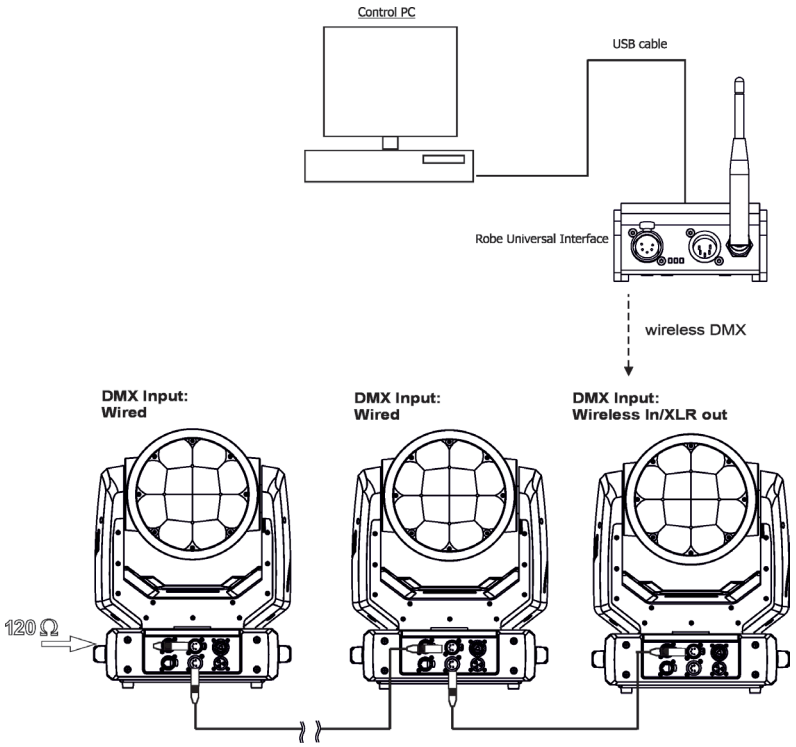
1. For the first five seconds, the fixture receives DMX signal from the wired input. If the Power/Special functions channel is set at some DMX input option, the fixture will receive DMX value according to this option. If DMX input option is set to the wired input , this option is saved and checking procedure is finished. If DMX input option is not set, the fixture continues next 5 seconds in scanning wireless DMX signal-see point 2.

2. For the next 5 seconds the fixture receives wireless DMX signal and again detects if the Power/Special functions channel is set at some DMX input option, if not, the fixture will take option which is set in the fixture menu "DMX Input".

To link the fixture with DMX transmitter.
The fixture can be only linked with the transmitter by running the link procedure at DMX transmitter .
After linking , the level of DMX signal (0-100 %) is displayed in the menu item “Wireless State“ (Information -->Wireless State).

To unlink the fixture from DMX transmitter.
The fixture can be unlinked from receiver via the menu item “ Unlink Wireless Adapter“ (Information--> Wireless State --> Unlink Wireless Adapter).

Note: If the option "Wireless In/XLR Out" is selected (Personality--> DMX Input -->Wireless In/XLR Out), the fixture receives wireless DMX and sends the signal to its wired DMX output. The fixture behaves as " Wireless/ Wired" adaptor.



4. Remotely controllable functions

Virtual Colour wheel
The virtual colour contains 66 preset colours, rainbow effect in both directions with variable speed.

CTO (colour temperature correction)
The CTO channel allows to change colour temperature of white in range of 1800K-10000K.

Colour Mix control
The Colour Mix control (channel 17) defines relation between colour channels (RGBL,CMY, CTC) or zones and Virtual colour wheel.

"Global" = Global Colours (RGBL/CMYcolours, Virtual Colour Wheel, CTC)
"Pixel" = Zone colours (individul zones, zone patterns)

DMX value	Function
0-9	Virtual colours ("Virtual" has priority)
10-19	Maximum mode (highest values have priority)
20-29	Minimum mode (lowest values have priority)
30-39	Multiply mode (multiply Global and Pixel)
40-49	Addition mode (Global + Pixel)
50-59	Subtraction mode (Global – Pixel)
60-69	Inverted Subtraction mode (Pixel – Global)
70-127	Reserved
128	Global colours only (Global has priority)
130-254	Crossfade (crossfade between Global and Pixel)
255	Colour channels ("Colour mix" has priority)

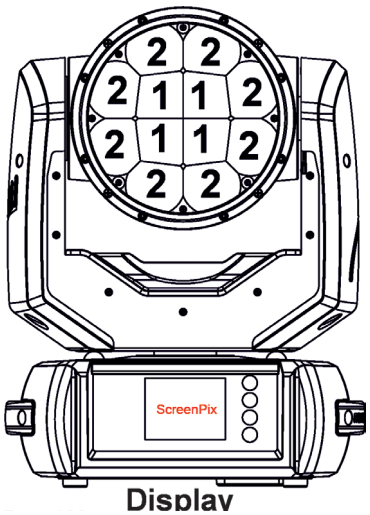
Zoom
The motorized zoom module allows beam range of 3.8°- 60°.

Dimmer/Shutter
Smooth 0 - 100 % dimming is provided by the electronic control unit. This unit is also used for strobe effects with variable speed.

Pan/Tilt
Pan/tilt movement range: 540°/228°.

Zone control
The LEDBeam 400 allows you to control two LED zones independently.

Zone order:



Display

ScreenPix
Highly intuitive macros transform every fixture display screen into a unique, dynamic twelve-sector colour effect source, unlocking a new realm of vibrant, captivating effects that bring your fixtures to life like never before.

To activate ScreenPix function
1.Switch the LEDBeam 400 to DMX mode 3.
2. Switch on the ScreenPix function on the channel Power/Special functions (DMX range 94-95).
3. Use DMX channels 44-50 for control of the ScreenPix function.
4 To switch off the ScreenPix function, set DMX value (96-97) on the channel Power/Special functions.

5. Control menu map

Default settings=Bold print

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Addressing	Settings	DMX Address	001-512			
		DMX Preset	**Mode 1**, Mode 2, Mode 3,			
		Ethernet Settings	Ethernet Mode	Disable		
				ArtNet		
				gMAI		
				gMA2		
				sACN		
			Ethernet To DMX	**Off**, On		
			IP Address/Net Mask	Default IP Address		
				Custom IP Address		
				Net Mask		
			ArtNet Universe	0-255		
			MANet settings	MANetI/II Universe	01-256	
				MANet Session ID	01-32	
			sACN Settings	sACN Universe	00001-32000	
Information	Fixture Times	Power On Time	Total Hours			
			Resetable Hours			
		Air Filters	Elapsed Time			
			Alert Period	10-300		
	Fixture Temperatures	Driver Temp.	Current			
			Maximum NonRes.			
			Maximum Res.			
		Base Temp.	Current			
			Maximum NonRes.			
			Maximum Res.			
	DMX Values	Pan				
		:				
		DLC Dimmer+Str				
	Wireless State					
	Power Channel State					
	Software Versions	Display System				
		Module M				
		Module L1				
		Module L2				
		Module O				
	SW HW Versions	Display System				
		Module M				
		Module L1				
		Module L2				
		Module O				
	Product IDs	Mac Address				
		RDM UID				
		RDM Label				
	LEDs Col. Calibrations					
	View Logs	Fixture Errors				
		Fixture States	Effect Statuses			
			Power On			
			Power Off			
		Fixture Position				
		Fixture Temperatures	Driver Temperature			

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			Base Temperature			
		System Logs				
Personality	DMX Presets	**Mode 1**				
		Mode 2:				
		Mode 3				
		View Selected Preset				
	DMX Input	**Wired Input**				
		Wireless Input				
		Wireless In/XLR Out				
	Pan/Tilt Settings	Pan Reverse	**Off**, On			
		Tilt Reverse	**Off**, On			
		Pan/Tilt Feedback	Off, **On**			
		Pan/Tilt mode	Time			
			Speed			
	Blackout Settings	Blackout During M.C.	**Off**, On			
		Blackout while:	Pan/Tilt moving	**Off**, On		
	Colour Mixing Mode	**RGBL**				
		CMY				
	White Point 10000K	Off, **On**				
	Frequency Setup	3 0 0 H z **, 6 0 0 H z ,** 1200Hz, 2400Hz High				
		Frequency Adjust				
	Tungsten Eff. Sim.	**Off**				
		750W				
		1000W				
		1200W				
		2000W				
		2500W				
	CRI Setting	CRI				
		Intensity mode				
	Dimmer Curve	Linear				
		Square Law				
	Init Effect Positions	Pan	0-255			
		:				
		LC Dimmer+Str	0-255			
	Reset Init Efect Pos.					
	Screen Settings	Display Intensity	1-**10**			
		Screen Saver Delay	**Off**-10min.			
		Touchscreen Lock	**Off**-10min.			
		Display Orientation	Normal			
			Inverted			
			Auto			
	Date & Time Settings					
	Temperature Unit	**°C**,°F				
	Fan Settings	Fan Mode	**Auto**			
			High			
			Quiet	Fan Noise Level		
		Quiet-Blackout Fan Off	**Off**, On			
	Date & Time Settings					
	Default Settings					
	Memory Tools	SD card	SD State			
			Mount SD			
			Unmount SD			
			Format SD			
	Password Protection					
	Reset Web Password					

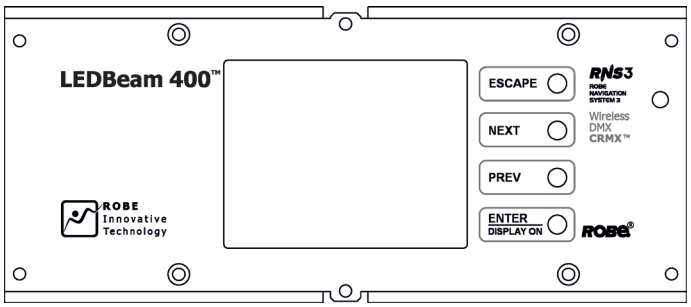
Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Manual Control	Reset Functions	Pan/Tilt reset				
		Zoom Reset				
		Total System reset				
	Manual Effect Control	Pan	0-255			
		:				
		DLC Dimmer+Str	0-255			
Stand -Alone	Test Sequences	Dynamic Mode				
		Static Mode	Pan	0-255		
			Tilt	0-255		
			Zoom	0-255		
	Preset Playback	**None**				
		Test				
		Prog. 1				
		Prog. 2				
		Prog. 3				
	Play Program	Play Program 1				
		Play Program 2				
		Play Program 3				
	Edit Program	Edit Program 1	Start Step	1-100		
			End Step	1-100		
			Edit Program Steps	Step 1	Pan	0-255
				:	:	
				:	Dimmer Fine	0-255
				:	Step Time	0-25,5 sec.
				Step 100	Pan	0-255
					:	
					Dimmer Fine	0-255
					Step Time	0-25,5 sec.
Service						
	Adjust DMX Values	Pan	0-255			
		:				
		White All Zones fine	0-255			
	Calibrations	Calibrate Effects	Pan	0-255		
			Tilt:	0-255		
			Zoom	0-255		
		Calibrate colours				
		Green Blue Correct.	Green Corr. 1800K High Int			
			Blue Corr. 1800K High Int			
			:			
			Green Corr.10000K High Int			
			Blue Corr.10000K High Int			
			Green Corr. 1800K High CRI			
			Blue Corr. 1800K High CRI			
			:			
			Green Corr.10000K High CRI			
			Blue Corr.10000K High CRI			

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		LEDs Current Calibration				
		Load Default Calibrations				
	Update Software					

6. Control menu

The Robin LEDBeam 400 is equipped with the QVGA screen with battery backup and four control buttons which allow you to set the fixture´s behaviour according to your needs, obtain information on its operation, test its various parts and program it, if it has to be used in a stand-alone mode.

Control buttons on the front panel



[ESCAPE] button used to leave the menu without saving changes.
[NEXT] , [PREV] buttons for moving between menu items and symbols, adjusting values.
[ENTER/Display On] button used to enter the selected menu (menu item) and to confirm adjusted value.
If the fixture is disconnected from mains, the button switches the screen on.

Icons used in the screen menu:

- [back arrow] used to move back to the previous screen (menu).
- [up arrow] used to move up on the previous page.
- [down arrow] used to move down on the next page.
- [confirm] used to save adjusted values, to leave menu or to perform desired action.
- [cancel] used to leave menu item without saving changes.
- [confirm+copy] used to save adjusted values and copy them to the next prog. step.
- [warning icon] used to indicate some error which has occurred in the fixture.
- [Ethernet] used to indicate Ethernet connected.
- [display turn] used to turn the display by 180°.
- [slider control] used to recall slider system for setting desired value.
- [keyboard control] used to recall keyboard system for setting desired value.
- [QR code] QR code for RDM UID of the fixture.

The menu page displays icons for each function that you can perform from the screen.
After switching the fixture on, the screen shows the screen with the ROBE logo:



Note: The green icon at the top right corner of the screen indicates the level of the display battery charging. If the whole icon is green, the battery is fully charged while the red icon indicates exhausted battery. The battery

charges during fixture operation, its charging lasts approximately 6 hours.
We recommend that the fixture should be in operation at least 7 hours per week to keep the battery fully charged. If you switch the fixture on and this screen will not appear till 1 minute, switch the fixture off and on again. If the screen lights, the battery is exhausted. In case the screen still does not light, the battery is faulty.
This is also indicated by an error message "Faulty battery" and if such an error message appears the battery should be replaced immediately. The lifetime of the battery is highly dependent on ambient temperature (and consequently on base temperature). If the maximum ambient temperatures are kept within the specified limits, the battery should last for at least two years. Shell the ambient temperatures exceed the specified maximum temperature, the lifetime of the batteries could be considerably shortened even up to just one year or less and also result in physical damage (battery leakage) or unreliable fixture functions.
Damage caused by batteries failed due to exceeded maximum ambient temperature cannot be claimed under warranty terms.

Press the [ENTER/Display On] button to enter the " Address" menu.
Any item may be selected from a screen by pressing the [NEXT] or [PREV] buttons to scroll through list items.



With each press, the next item is highlighted. Press [ENTER/Display On] to select the highlighted item.

Before first fixture operation, set current date and time in the menu "Date &Time Settings" (menu path: Personality--> Date &Time Settings).

6.1 Tab " Address"



DMX Address - Select the menu to set the DMX start address**.**
Blinking DMX address means that the fixture is either not receiving DMX data or that the set DMX address is higher then allowed, exceeding the DMX footprint of the set DMX mode.

DMX Preset - Use the menu to select desired channel mode.
View Selected Preset - Use the menu to display channels included in the selected mode.

Ethernet Settings - The menu allows all needed settings for the Ethernet operation

Ethernet Mode

Disable - The option disables Ethernet operation.
Artnet - Fixture receives Artnet protocol
gMAI - Fixture receives MANet I protocol
gMA2 - Fixture receives MANet 2 protocol
sACN - Fixture receives sACN protocol

Ethernet To DMX - Fixture receives protocol from the Ethernet input and sends DMX data to its DMX output (fixture works as an "Ethernet/DMX converter", next fixture can be connected to its DMX output and you can build a standard DMX chain by connecting another fixtures.
Only one fixture has to be connected to the Ethernet.

IP Address/Net Mask - Select this menu to set IP address. IP address is the Internet protocol address. The IP uniquely identifies any node (fixture) on a network.
There cannot be 2 fixtures with the same IP address on the network!

Default IP Address -Preset IP address, you can set up only first byte of IP address (2 or 10) e.g. **002**.019.052.086.

Custom IP Address - The option enables to set up all bytes of IP address.
Net Mask - The option enables to set up all bytes of Net Mask.

ArtNet Universe - Use this item to set a Universe (0-255). The Universe is a single DMX 512 frame of 512 channels.

MANet Settings - Use this menu to set parameters for MANet operation.
MANet Universe I/II - The value of this item can be set in range 1-256.
MANet Session ID - The value of this item can be set in range 1-32.

sACN Settings - Use this menu to set parameters for sACN operation.
sACN Universe - The value of this item can be set in range 1-32000.

This device implements a receiver for **Streaming ACN (sACN) as defined in ANSI E1.31** and is capable of receiving DMX512-A data transported over IP networks.
When multiple sources transmit data for the same universe, arbitration is performed according to the following rules:
1.**Source Priority** – The receiver selects the stream with the highest sACN universe priority value.
2.**Equal Priority Sources** – When multiple sources transmit with the same priority, the receiver performs HTP (Highest Takes Precedence) merging on a per-slot basis, where the highest DMX slot value from the active sources is utilized.
3.**Universe Selection** – The universe number processed by the receiver is user-configurable.

The device does not implement per-address priority extensions and relies on **universe-level priority and HTP merging** for multi-source arbitration.
All received data is interpreted as D**MX512-A slot values according to ANSI E1.11**, transported via the sACN protocol.

6.2 Tab "Information"



Fixture Times - The menu provides readouts of fixture operation hours and air filters using hours.
Power On Time - Select this menu to read the number of fixture operation hours.
Total Hours - The item shows the total number of the operation hours since the Robin LEDBeam 400 has been fabricated.
Resettable Hours - The item shows the number of the operation hours that the Robin LEDBeam 400 has been powered on since the counter was last reset.
In order to reset this counter to 0, touch the text box next to the item "Resettable Hours:"
Air Filter - Regular cleaning of the air filter in the fixture base is very important for the fixture´s life and performance.
Bild-up of dust, dirt and fog fluid residues reduces the fixture´s light output and cooling ability.
The two items of this menu help you to keep cleaning period of the air filter.
Alert period - Cleaning schedule for the fixture depends on the operating environment. It is therefore impossible to specify accurate cleaning interval. This item allows you to change the cleaning interval of the air filter. This "alert" value is 300 hours and it is set as default. Inspect the fixture within its 300 hours of operation to see whether cleaning is necessary. If cleaning is required, clean air filter and change the value in this menu on acceptable level. Min. level of alert period is 10 hours, max. is 300 hours.
Elapsed Time - The item allows you to read the time which remains to cleaning air filter. The time period is set in the menu mentioned above.
Expired time period is signalled by a a warning icon on the display.
Clean the filter and reset this menu item (by touching the text box next to the item "Elapsed Time").

Fixture Temperatures - The menu is used to view temperatures of the fixture´s inside.
Driver temperature - The menu shows temperature on the LEDs PCB in the fixture head (LEDs driver is on the LEDs PCB).
Current - A current temperature of the LEDs PCB.
Maximum NonRes. - A maximum temperature of the LEDs PCB since the fixture has

been fabricated.
Maximum Res. - A maximum temperature of the LEDs PCB since the counter was last reset.
In order to reset some counter to 0, touch text box next to the item "Max.Res."

Base Temperature - The menu shows temperature in the fixture base.
Current - A current temperature in the fixture base.
Maximum NonRes. - A maximum temperature in the fixture base since the fixture has been fabricated.
Maximum Res. - A maximum temperature in the fixture base since the counter was last reset.
In order to reset this counter to 0, touch the text box next to the item "Maximum Res."

DMX Values - The menu is used to read DMX values of each channel received by the fixture.

Power Channel State - The menu item shows state of switches on the Power/Special functions.

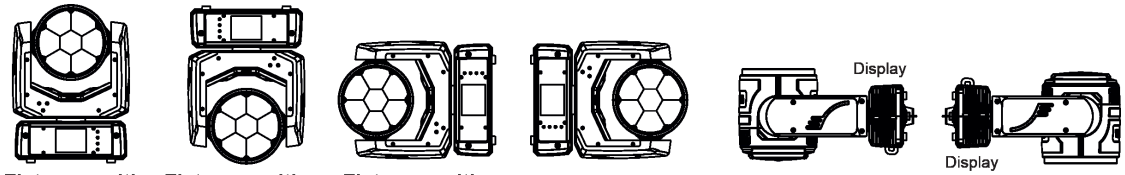
Software Versions - Select this item to read software version of fixture modules:
Display System - A display module in the fixture base
Module M - a pan/Tilt control module
Module L1 - a LEDs control module 1
Module L2 - a LEDs control module 2
Module O - a zoom control module

SW HW Versions - Select this item to read hardware versions of fixture PCBs and their software versions:
Display System - A display module in the fixture base
Module M - a pan/Tilt control module
Module L1 - a LEDs control module 1
Module L2 - a LEDs control module 2
Module O - a zoom control module

Product IDs - The menu is used to read the MAC Address ,RDM UID and RDM Label.

LEDs Col. Calibrations - The menu displays calibration values (X,Y,I) for each LEDs colour. The calibration values are measured for three levels of LEDs current and three temperatures of LEDs.

View Logs - Use this menu to read fixture´s data which have been recorded during fixture operation. This collected data allows easier troubleshooting.
Fixture Errors - Use this menu to read fixture errors which have occurred during fixture operation.
Fixture States - Recorded following actions: Fixture On, Fixture Off.
Fixture Positions - In the menu are recorded installation positions of the fixture:



Fixture position Up | Fixture position Down | Fixture position Left Side | Fixture position Right Side | Fixture position Back | Fixture position Front

Fixture Temperatures - Recorded temperatures which have exceeded defined levels.

Note: The log buffer can contain 8000 records max. If the buffer is full, old data will be overwritten.

6.3 Tab "Personality"



DMX Preset - Use the menu to select desired channel mode.
View Selected Preset - Use the menu to display channels included in the selected mode.

DMX Input- Use the menu to select mode of DMX signal receiving.

Wired - DMX signal is received by means of the standard DMX cable.

Wireless - DMX signal is received by means of the inbuilt wireless module.

Wireless In/XLR Out- the fixture receives wireless DMX and sends the signal to its wired DMX output. The fixture behaves as " Wireless/Wired" adapter.

The options "Wired" and "Wireless" are also stated in DMX chart (channel Power/Special functions).

Note. If the wireless module is not installed in the fixture, the following message will appear:

DMX Input Set to Wired
Wireless Module Missing

If the fixture is not connected to mains, the message "Not Available In Offline Mode" will appear after entering the menu DMX Input. To enter this menu, the fixture has to be connected to mains.

Pan/Tilt Settings - Use the menu set behaviour of both pan and tilt movements.

Pan Reverse - The item allows to invert pan movement.

Tilt Reverse - The item allows to invert tilt movement.

Pan/Tilt Feedback - The item allows to return the mowing head to the required pan/tilt position after changing the position by an external force if this option is set on.

Note. Be careful, the Pan/Tilt Feedback should be permanently On, the option Off is not suitable for standard operation and the head of the fixture can be damaged!

Pan/Tilt mode - Use this menu to set the mode of the pan/tilt movement

Time mode – The pan and tilt will move with different speeds and they will come at the same time to the end point of their tracks (pan and tilt use their optimal speeds). Time of the pan/tilt movement (25.5 sec. max.) is set by the channel "Pan/Tilt speed, Pan/Tilt time".

Speed Mode - Both Pan and tilt will move with the same speed as adjusted at the channel "Pan/Tilt speed, Pan/Tilt time".

Blackout Settings - Use the menu if you need to close the light output under certain conditions which are described below

Blackout During MC - Blackout during movement correction. Set this option On if you wish to close light output during the time when the head goes to its correct position, which has been changed by an external force.

Blackout While - Use this menu if you wish to close the light output during effect changes.

Pan/Tilt Moving - The menu item enables to close light output while the pan or tilt moves.

Colour Mixing Mode - This item allows switching into RGBL or CMY mode. In the CMY mode, the lime(8bit)/ lime (16) bit channels are not active.

White Point 10000K - If the function is on, the CTC channel allows you to set desired white in range of 1800K-10000K (0 DMX=10000K, 255 DMX=1800K). A necessary condition is that RGBLW channels have to be full or set at the same DMX value, e.g. 150.
If this function is off, the range of whites is not uniform and may be different for each fixture.

Frequency Setup - The function allows you to set the PWM (Pulse Width Modulation) output frequency of LEDs to 300Hz, 600Hz, 1200Hz, 2400Hz or High.

Frequency Adjust - The menu item allows you fine adjustment of the LED frequency around selected frequency

Tungsten Effect Sim. - This function simulates behaviour of a halogen lamp during dimming at calibrated whites 2700K, 3200K. You can select from various lamp wattage simulation: 750W, 1000W, 1200W, 2000W, 2500W.

CRI Setting - The menu item offers two light modes.

CRI - The light output from the fixture is optimized for high CRI

Intensity mode - The light ouput is optimized on max. light output.

Dimmer Curve - You can select desired dimmer curve: Linear, Square Law.

Init Effect Positions - Use the menu to set all effects to the desired positions at which they will stay after switching the fixture on without DMX signal connected.

Reset Init Effect Pos. - Use the menu item to reset effects in the menu "Init Effect Positions" to default (factory) values.

Screen Settings - Use this menu to change the touch screen settings.
Display Intensity - The item allows to control the intensity of the screen (1-min., 10-max.).
Screen saver Delay - The item allows you to keep the screen on or to turn it off automatically after 1-10 minutes after last touch (or pressing any button on the control panel).
Touchscreen Lock - The item allows you to lock the screen after last touch (or pressing any button on the control panel). The time delay can be set in range of 1-10 minutes. To unlock the screen, press the [ENTER/Display On] button.
Display Orientation - The menu allows to change display orientation.
Normal - Standard display orientation if the fixture is placed horizontally (e.g. on the ground).
Inverted - This function rotates menu 180 degrees from current orientation.
Auto - The option activates a gravitation sensor for automatic screen orientation.
Note: **Auto** option is set as default. You change the display orientation by touching the icon on the display, an the option set in the "Display Orientation" menu is temporarily overridden.

Temperature unit - Use the menu item to change temperature unit from °C to °F.

Fan Settings - Use the menu to set fans operation mode.
Fan Mode - Use the menu to set the fixture fans to max. power mode (option "**High**") or to the auto-control mode (option "**Auto**"). The third option "**Quiet**" allows you to set desired fan noise by means of the item Fan Noise Level.
The light output of the fixture is reduced at low speeds of fans.
Quiet Mode- Blackout Fan Off - The menu item allows you to stop all fans in the fixture (option "**On**") when its light output is closed (shutter in range of 0-31 DMX, or dimmer in 0 DMX or all colours in 0 DMX).
Date & Time Settings - Use this menu to set current date and time for the fixture log system (menu "View Logs"). Set this menu item before first fixture operation.

Default Settings - The menu item allows to set all fixture parameters to default (factory) values.

Memory Tools - the menu item SD card allows you to allows you to do operations with SD card.
SD card - Internal SD card in the fixture base.
SD State - The menu item shows state of internal SD cardl
Mount SD - The menu item allows you to mount internal SD card to the system.
Unmount SD - The menu item allows you to unmount internal SD card from the system.
Format SD - The menu item allows you format internal SD card. The card has to be mounted to the system before formated it.

Password Protection - allows to enter password in order to prevent unauthorized person from changing setting of the fixture. Password is set to 7623 and cannot be changed.

Reset Web Password - The menu item allows you to reset a password for access to the REAP (default password: 2479, user: robe).

Default Settings - The menu item allows to set all fixture parameters to default (factory) values.

6.4 Tab "Manual Control"



Reset Functions - The menu allows to reset the fixture either per function modules or all modules together.
Pan/Tilt Reset - The item resets the pan and tilt movement.
Zoom Reset - The item resets the zoom module.
Total System Reset - The item resets all function modules.
Manual Effect control - Use the menu to control all fixture channels by means of the control panel.

6.5 Tab "Stand-alone"



Test Sequences -Use the menu to run a test/demo sequences without an external controller, which will show you some possibilities of using the Robin LEDBeam 400.

Dynamic Mode - This mode uses all Robin LEDBeam 400 functions including pan/tilt movement and therefore is good for a complete introduction of the fixture.

Static Mode - This mode is suitable for projections on the wall, ceiling or ground without any pan/tilt movement. Adjust the pan, tilt and zoom to desired positions and start test sequences by touching the green ▶ icon.

Preset Playback - This menu allows you to select the program which will be played in a loop after switching the fixture on (the option is commonly used in a stand-alone operation without an external controller).

None - The option disables “Presetting playback” function.
Test - The option starts the test sequences.
Prog. 1 - The option starts user program number 1.
Prog. 2 - The option starts user program number 2.
Prog. 3 - The option starts user program number 3.

Play program - Use the menu to run desired user program in a loop.

Play Program 1 - The option starts user program number 1.
Play Program 2 - The option starts user program number 2.
Play Program 3 - The option starts user program number 3.

Edit Program - Use the menu to create or to edit desired program. The Robin LEDBeam 400 offers three free programs, each up to 100 steps.

Edit Program 1 - The option allows to edit user program number.1.
Edit Program 2 - The option allows to edit user program number 2.
Edit Program 3 - The option allows to edit user program number 3

To edit program:
1. Select the item which you want to edit (“Edit Program 1” - “Edit Program 3”).
2. By means of the items "Start Step" and "End Step" set first and last step of the program
3. Select the item "Edit Program Steps".
4. Select the item "Step 1".
5 From the list of effects select desired effect and set its value. Browse throw the list by pressing the [up arrow] and [down arrow] and set all desired effects.
An item "Step Time" (value of 0-25.5 sec.) is the time during which effects last in the current step
6. Save adjusted effects to the current step by the item ✔ .
If you stay on the item ✔ and simultaneously hold the ENTER button, the current program step will be copied to the next program step.
6. Repeat the steps 5 and 6 for next program steps.
7. After editing desired program steps, adjust the length of the program by means of the items "Start Step" and "End Step".

Note.
If you have made some changes in the program steps and you are leaving the programming menu, the following notice will appear: " Program Was Modified"
" Press OK For Save"

✘ - leaves program menu without saving values

6.6 Tab "Service"



Adjust DMX Values - The menu allows you to set all effects to desired positions before fine calibration of the effects .

Calibrations - This menu enables fine calibration of fixture effects and download default calibration values.
Calibrate Effects - The menu allows the fine adjustment of effects.
Pan- a pan position fine adjustment
Tilt - a tilt position fine adjustment
Zoom - a zoom position fine adjustment

Calibration of pan/tilt via the control board of the fixture
1. Disconnect DMX controller from the fixture and enter the "Calibrate Effects" menu.
2. Use the [up arrow] and [down arrow] to find "Pan" and touch it to enter the fine effect adjustment screen.
3. Set desired value and save it by touching the [confirm].
4. Repeat steps 2 and 3 for item "Tilt"
5. After calibrating both effects, touch the [confirm] to save all adjusted values and reset the fixture.

Calibrate Colours - The menu serves for calibration of white colours in the factory.

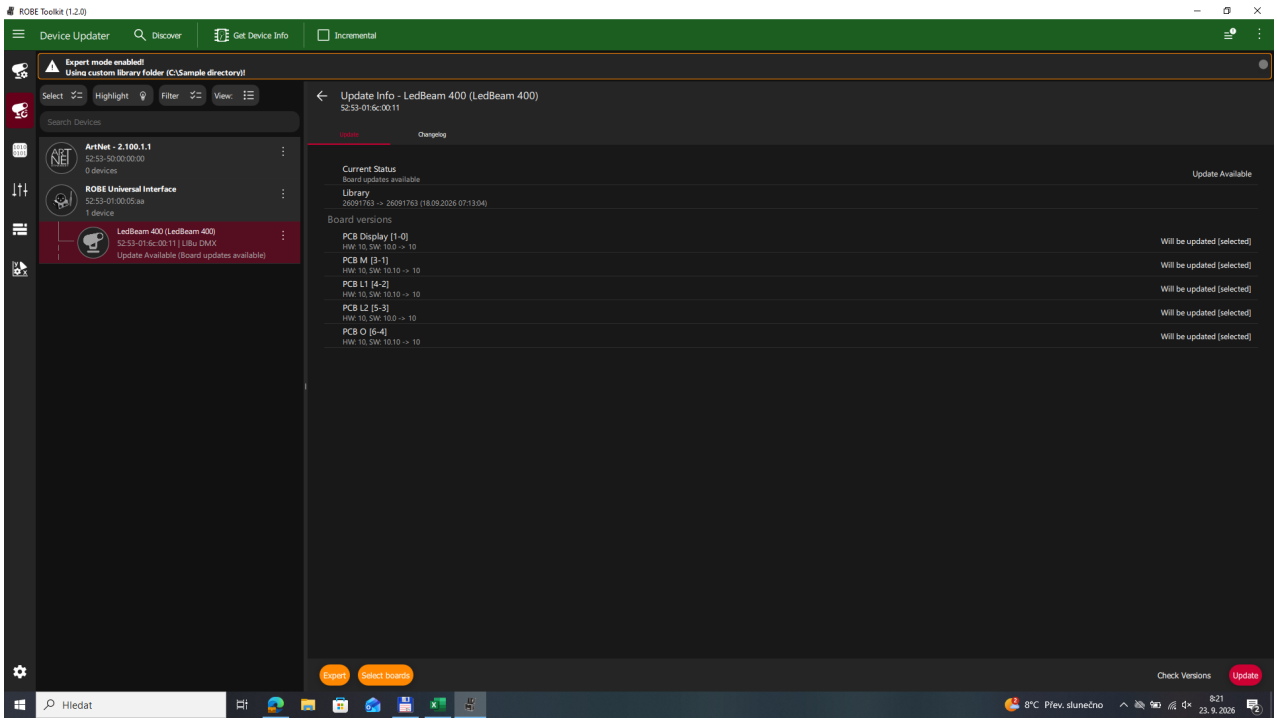
Green/Blue Corrections - The menu allows you to correct calibrated whites 1800K, 2700K, 3200K, 4200K, 5600K, 8000K and 10000K at high intensity and at high CRI. Both shutter and dimmer have to be open (255 DMX) during this correction.
The green correction can be also done by DMX commands. In this case you have to go on the option "Green/Blue correction calibration" (182.DMX) on the channel Power/Special function, select desired colour temperature and CRI (183-196 DMX) and by means of the channels "Green correction" and "CTC" set desired light output. After adjustment of desired colours, go on the option "Save Green/Blue correction " (197 DMX) and stay on it for 3 sec. to save adjusted colours.

LEDs Current Calibration - This process waits about 5 minutes and after its finishing the sign "Current Calibration DONE" will appear on the display. The procedure should be run if some colour non-uniformity has occurred during fixture operation.
I**mportant. The procedure must be run after LEDs PCB (RB 8587) changing** , otherwise damage of the LEDs PCB may occur! This calibration of LEDs current must be run before dimmer activation!
Note: Calibration of LEDs current can be also run by means of the RDM manager ver. 1.0.12 and higher (LED Driver -->Start Current Calibration).

Load Default Calibrations - The item loads default (factory) calibration values.

7. Software update

For software update of the fixture serves Robe Toolkit. The Robe Toolkit is a universal tool for Robe fixtures which includes Device Updater, Library Manager, Device Manager and simple DMX controller.
Please see the Toolkit user manual for more details about fixture update.
Software update of the Robin LEDBeam 400 cannot be done by means of standard Robe Uploader software.
For more information please see https://www.robe.cz/robe-toolkit



8. RDM

This fixture supports RDM operation. RDM (Remote Device Management) is a bi-directional communications protocol for use in DMX512 control systems, it is the new open standard for DMX512 device configuration and status monitoring.
The RDM protocol allows data packets to be inserted into a DMX512 data stream without adversely affecting existing non-RDM equipment. By using a special „Start Code," and by complying with the timing specifications for DMX512, the RDM protocol allows a console or dedicated RDM controller to send commands to and receive messages from specific moving lights.
RDM allows explicit commands to be sent to a device and responses to be received from it.
The list of commands for ROBIN LEDBeam 400 is the following.

Parameter ID	Discovery command	SET command	GET command
DISC_UNIQUE_BRANCH	*		
DISC_MUTE	*		
DISC_UN_MUTE	*		
DEVICE_INFO			*
SUPPORTED_PARAMETERS			*
SOFTWARE_VERSION_LABEL			*
DMX_START_ADDRESS		*	*
IDENTIFY_DEVICE		*	*
DEVICE_MODEL_DESCRIPTION			*
MANUFACTURER_LABEL			*
DEVICE_LABEL		*	*
SENSOR_DEFINITION			*
SENSOR_VALUE			*
DISPLAY_INVERT		*	*
DISPLAY_LEVEL		*	*
PAN_INVERT		*	*
TILT_INVERT		*	*
DEVICE_RESET		*	
DMX_PERSONALITY		*	*
DMX_PERSONALITY_DESCRIPTION			*
STATUS_MESSAGES			*
STATUS_ID_DESCRIPTION			*
DEVICE_HOURS			*
PARAMETER_DESCRIPTION			*
ROBE_DMX_INPUT		*	*
ROBE_WIRELESS_UNLINK		*	

RDM model ID for the Robin LEDBeam 400 is 0x016c.

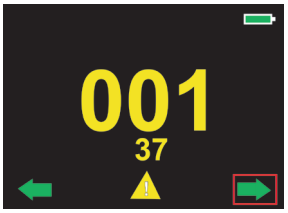
9. Robe Ethernet Access Portal (REAP)

The REAP allows you to display on your computer information about some fixture settings, operating conditions (e.g. temperature in the fixture) and error messages which were generated during fixture operation.
Your computer needs to be connected to the fixture(s) through the means of Ethernet wired network and a network switch.
The Ethernet network connection (Local LAN) typically needs to be set to 2.x.x.x address, assuming that no other computer on the network contains such an address while keeping all ROBE fixtures in default IP settings.

For more information about REAP options, computer and fixture settings please see the REAP user manual at https://www.robe.cz/res/downloads/user_manuals/User_manual_REAP.pdf.

10. Error and information messages

Error in the fixture is signalled by the yellow warning icon at the bottom line of the screen:



Touch the warning icon to display error messages.

List of error and information messages:

Pan Error 1
Mechanical end of the pan track was not detected.

Pan Error 2
Pan sensor error.

Pan Error 3
Pan feedback error.

P/T Blackout Active
Light output from the fixture was closed. This blackout was enforced by the following effect: pan or tilt.

Pan Reset Active
Pan reset is in progress and has not been fished yet.

Tilt Error 1
Mechanical end of the tilt track was not detected.

Tilt Error 2
Tilt sensor error.

Tilt Error 3
Tilt feedback error.

Tilt Reset Active
Tilt reset is in progress and has not been fished yet.

Zoom Error 1
Impact to the mechanical end of the zoom track was not detected.

Zoom Error 4
Incorrect detection of a zoom track. Impact to a mechanical obstruction was detected within running of the zoom.

F/Z Blackout Active
Light output from the fixture was closed. This blackout was enforced by the following effect: zoom.

Zoom Reset Active
Zoom reset is in progress and has not been fished yet.

Recharge The battery
The battery on the display board needs to be charged. Let the fixture on for cca 6 hrs.

Clean Air Filter
The message informs that the item "Elapsed Time" in the "Fixture Information" menu is at 0 value. Clean air filter in the fixture base and reset this counter.

Copy lib to backup failed.
As long as there is no other update error with some of the processors (on the display or in the Robe Toolkit), the update went through OK, but after the update, a backup of the update file has failed.
To fix it, try to power cycle the fixture. If no help, check SD card state (tab Personality --> Memory Tools --> SD Card -> SD State). Repeat fixture update and try to power cycle the fixture.
As a last attempt , format the SD card and repeat fixture update.

Backup actual lib failed
An error while backing up the update file (.lib), check SD card state (tab Personality --> Memory Tools --> SD Card -> SD State), try to power cycle the fixture.

Unpacking new lib failed
Check the update file (lib), repeat fixture update.

Open actual lib failed
An error in the update file (.lib) saved on the SD card or SD card error. Check SD card state (tab Personality --> Memory Tools --> SD Card -> SD State), try to power cycle the fixture.

Update lib failed
An error while moving the update file (.lib) in folders on SD card, check SD card state (tab Personality --> Memory Tools --> SD Card -> SD State), try to power cycle the fixture.

Display flashing failed
An error occurred while updating the display. Try to power cycle the fixture and repeat update.

New lib-wrong device model ID
The update file is corrupted or does not match type of fixture. Check the update and repeat fixture update.

Backup actual bin in ext. flash is invalid
Backup of binary file in memory is corrupted. Try to power cycle the fixture, if that did not help, update the fixture on the latest version.

Loaded backup from ext flash
Software update failed, binary backup loaded from external storage. Try to power cycle the fixture, if that did not help, try to update the fixture again.

Flashing failed
Software update failed, check the library file (.lib), power cycle the fixture and try to software update again.

Backup bin check failed
Backup of binary file in external memory is damaged. Power cycle the fixture, if that did not help, try to update the fixture on the latest version.

HW version error
Wrong update file (.lib), badly generated update file or the update file is not intended for the HW version of the fixture.

The following error messages apply to individual PCBs of functional modules (e.g. M - Pan/Tilt PCB, see the tab "Information", menu Software Version") which do not communicate..
The number in brackets indicates order of the module in the Toolkit during software upgrade.
If any of these error messages will appear on the display, try to switch off/on the fixture or perform software update.
If the error message still appears on display, change the corresponding PCB.
PCB M(3) response lost
PCB L1(4) response lost
PCB L2(5) response lost
PCB O(6) response lost

11. Technical Specifications

Electrical

Power supply: electronic auto-ranging
Input voltage range: 100-240V, 50-60Hz
Fuse: T 6.3A/250V AC
Max. power consumption: 550W (power factor 0.97)
Max. inrush current: < 12A @ 230Vac cold start
Mains output: max. 10.5 A

Source

Light source: 12 RGBL multichips
LED life expectancy: min. 50.000 hours
Typical lumen maintenance: : L70/B50 @ 50.000 hours

Optical System

Robe's proprietary optical design
Zoom range: 3.8° - 60°

Virtual colour wheel

66 pre-programmed colours
Rainbow effect with in both directions with variable speed

CTC

Variable CTC 1 800K-10 000K
Halogen lamp effect at whites 2700K-4200K

Strobe

Strobe effect with variable speed (0.3 - 20Hz)
Random strobe pulse effect with variable speed
Opening/closing pulse effect with variable speed

Dimmer

Smooth dimmer from 0 - 100 %

Pan/Tilt

Pan movement range 540°
Tilt movement range 228°
16 bit movement resolution
Automatic Pan/Tilt position correction
Remotely controllable speed of pan/tilt movement

Control

Graphic screen for fixture setting and addressing
Readout fixture usage, receiving DMX values, temperatures, etc
Built-in analyzer for easy fault finding, error messages
ScreenPix
3 user editable programs, each up to 100 steps
Supported protocols: SITT DMX-512, RDM, ArtNet, MA Net, MA Net2, sACN,
Support of RDM (Remote Device Management)
3 DMX modes (22, 27, 50 control channels)

Wireless DMX/RDM module

Compliance with USITT DMX-512 (1986 & 1990) and 512-A
Full DMX fidelity and frame integrity
Auto sensing of DMX frame rate and frame size
<5ms DMX latency
Operational frequency range of 2402-2480 MHz

Connection

DMX data In/Out: Locking 5-pin XLR
Power In/Out: Neutrik powerCON TRUE1
Ethernet In: RJ 45
Ethernet Out: RJ 45 (version with Epass only)

Max. number of fixtures in Ethernet IN/Out line

8

Rigging

Mounting points: 2 pairs of 1/4-turn locks
Mounting horizontally or vertically via Omega brackets

Temperatures

Ambient operating temperature range : +45°/-5°C
Maximum housing temperature : 75° C

Distances

Min. distance from flammable surfaces: 0.5 m
Min. distance of illuminated objects: 3 m

Total heat dissipation

844 BTU/h (calculated)

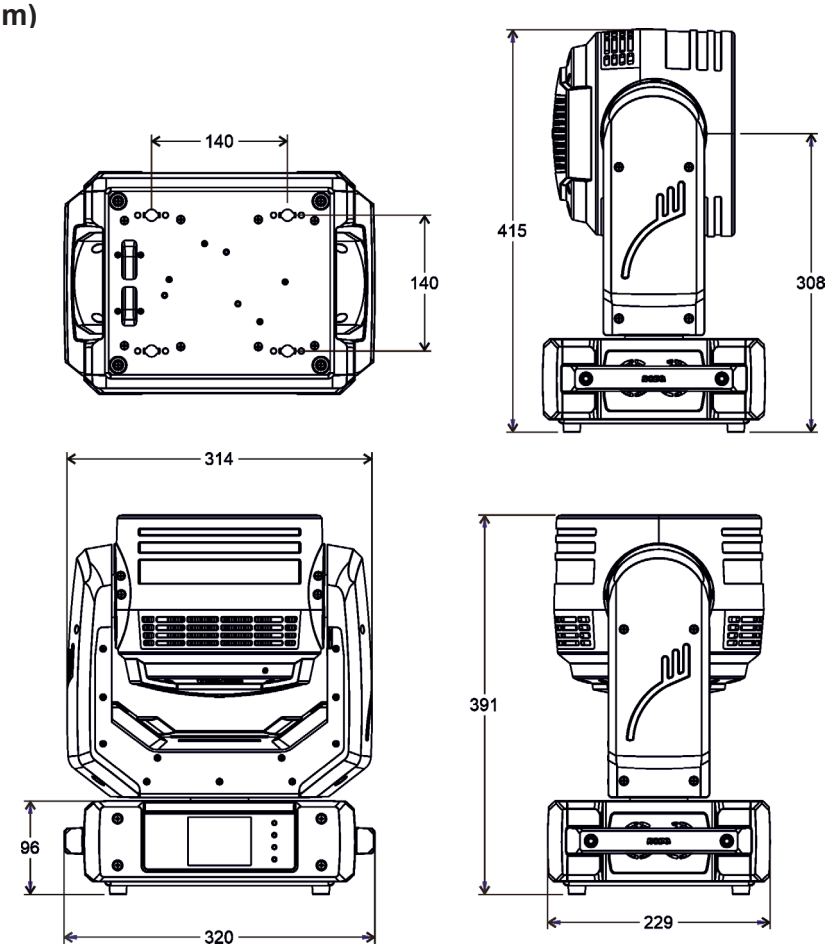
Ingress protection rating

IP20

Weight

10.6 kg (23.4 lb)

Dimensions (mm)



Battery

Size: AA (R6)
Type: IFR 14500, 600mA/3.2V

Accessories

1 x Omega adaptor CL-regular 2 pcs in box (P/N 10980033)
1 x user manual

Optional accessories

(P/N 13052405) Mains Cable PowerCon In TRUE1/Schuko, 2m, indoor
(P/N 13052277-01 PowerCON TRUE1 In; 2m; US, indoor
(P/N 13052407) Mains Cable PowerCon In TRUE1/open ended, 2m, indoor
(P/N 13052445) Mains Cable PowerCon In TRUE1/CEE 16A, 2m, indoor
(P/N 13052406) Mains Cable PowerCon In TRUE1; 2m; US
(P/N 13052439) Daisy Chain PowerCon TRUE1 In/Out, EU, 2m, indoor
(P/N 13052440) Daisy Chain PowerCon TRUE1 In/Out, US, 2m, indoor
(P/N 13052444) Daisy Chain PowerCon TRUE1 In/Out, EU, 5m, indoor
(P/N 17030386) Doughty Trigger Clamp
(P/N 99011963) Safety wire 36 kg
(P/N 10980559) Diffusion Filter 2° FW
(P/N 10980560) EggCrate
(P/N 10980184) Omega Adaptor T CL; 2;

12. Maintenance and cleaning

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not build up on or within the fixture. Otherwise, the fixture‘s light output will be significantly reduced. Regular cleaning will not only ensure the maximum light output, but will also allow the fixture to function reliably throughout its life. A soft lint-free cloth moistened with any weak detergent solution is recommended for cleaning fixture´s covers, under no circumstances should alcohol or solvents be used!

DANGER !
Disconnect from the mains before starting any maintenance and cleaning work

The interior of the fixture should be cleaned at least annually using a vacuum cleaner or compressed air. The cooling fans should be cleaned at least twice a year.

Important! Never use alcohols (ethanol, methanol, isopropyl alcohol), acetone and another aggressive solvents for cleaning the front lens array. Do not immerse lenses in liquid (e.g. water) during cleaning.

Recommended steps for cleaning the LED lens array:
1. Use low-pressure compressed air to remove coarse dust from lenses.
2. Use distilled water with weak detergent solution and lint-free small cloth for further cleaning of lenses.
3. Use an antistatic, alcohol-free screen cleaner (we recommend the Lyreco Screen Cleaner) and polish lenses until they are dry.
4. Check the lenses are dry before reapplying power.

Note: potential foggy front lens array does not influence function of the fixture and does not subject to complaint.

Periodically clean the air filter placed in the fixture base. Use a vacuum cleaner, compressed air or you can wash them and put back dry.
The guide rods of zoom module should be lubricated monthly (or according to the current situation of movement of zoom module). Use a suitable lubricant (e.g. oil Aronix /100ml/, P/N 90031114). For helixes of motors use lubricant Molykote G-N Plus, 100g (P/N 90031147).

More complicated maintenance and service operations are only to be carried out by authorized distributors.

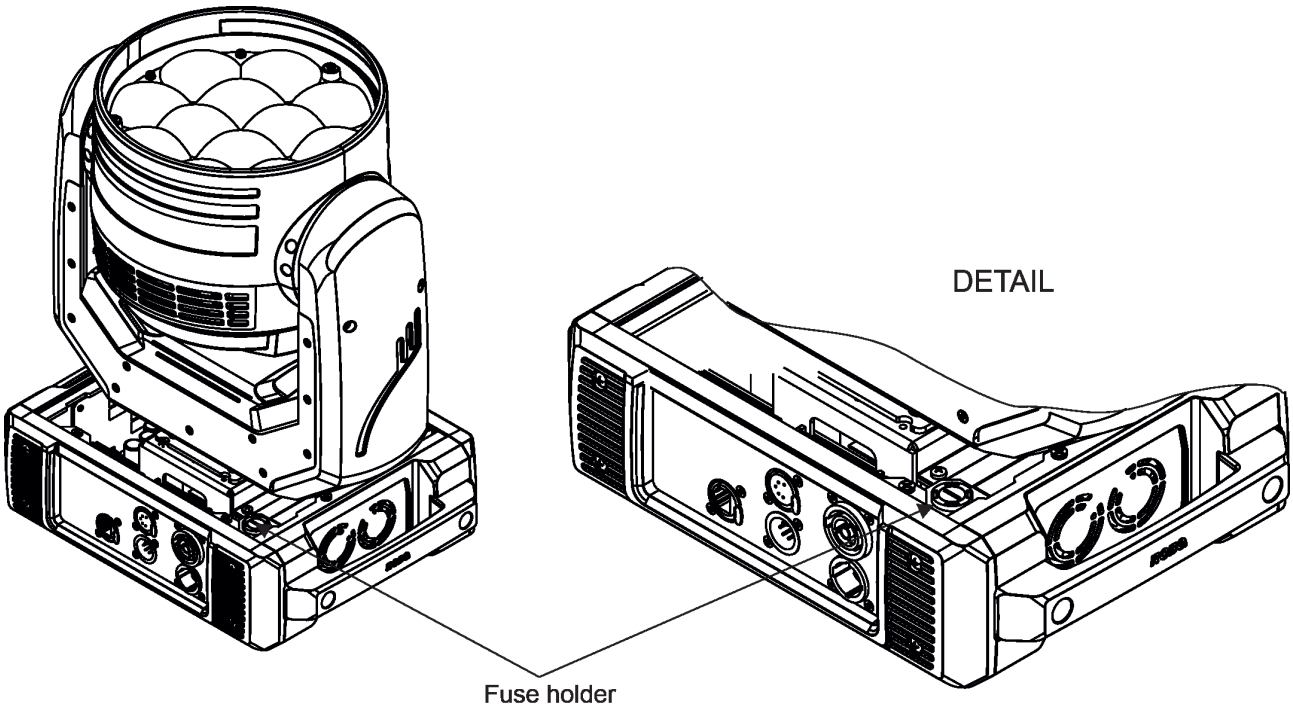
12.1 Checking plastic parts of the fixture

The plastic parts of the fixture should be checked for damages and beginning cracks at least every two months. If hint of a crack is found on some plastic part, do not use the fixture until the damaged part will be replaced. Cracks or another damages of the plastic parts can be caused by the fixture transportation or manipulation and also ageing process may influence plastic materials.
This checking is necessary for both fixed installations and preparing fixtures for renting. Any free moving parts inside of the fixture or any cracked plastic not sitting properly in place need to be immediately replaced.

12.2 Replacing the fuse

Before replacing the fuse, unplug mains lead!

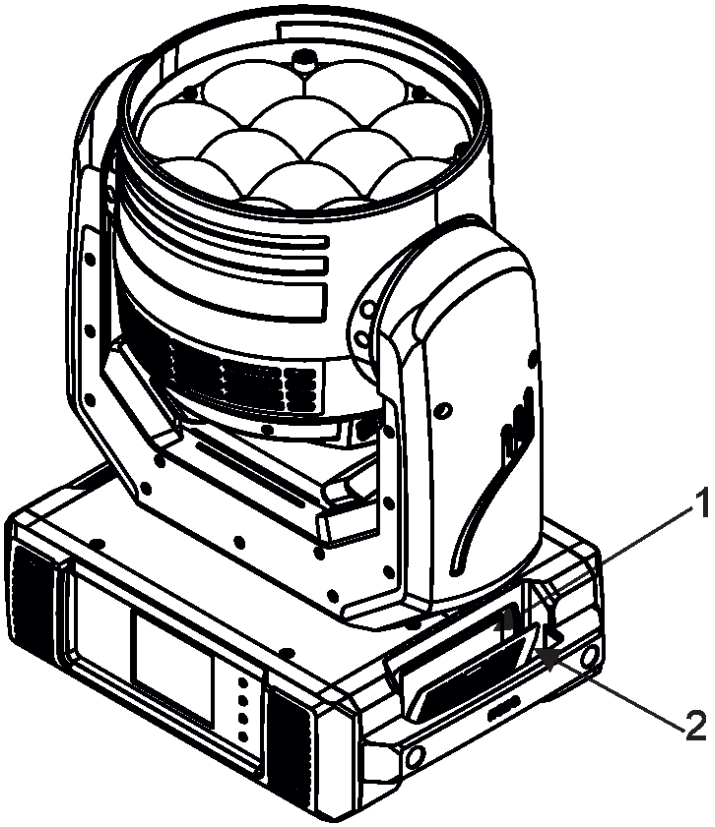
1. Remove rear top cover of the base by unscrewing four screws on the cover.
2. Remove the fuse holder with a fitting screwdriver (flat-head screwdriver).
3. Replace the fuse in the fuse holder by a fuse of the same type and rating only.
4. Screw the top cover back on the base.



12.3 Cleaning of the air filtr

Before cleaning the air filter, unplug mains lead!

Periodically clean the air filter placed in the fixture base. Use a vacuum cleaner, compressed air or you can wash it and put back dry. After replacing the air filter, reset the elapsed time counter in the tab "Information" (Information--->Fixture Times ---> Air Filter---> Elapsed Time).
The air filter (1) is placed under grid (2) which is fastened by means of magnets.



13. ChangeLog

This section summarizes changes in the user manual.

Version of the manual	Date of issue	Description of changes

September 23, 2026
Copyright © 2026 Robe Lighting - All rights reserved
All Specifications subject to change without notice
Made in ROBE Lighting s.r.o., Palackého 416, 757 01 Valašské Meziříčí, Czech Republic

Robin LEDBeam 400™ - DMX protocol

Version: 1.0

Mode 1-LedBeam compatible, Mode 2- Festival/TV, Mode 3- Full/ScreenPix

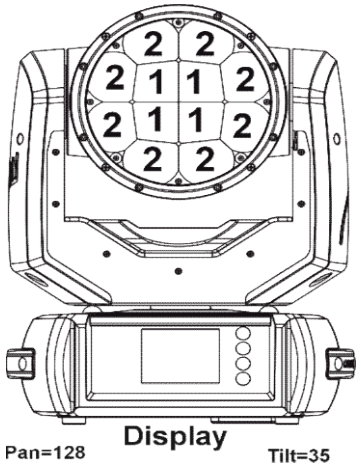
Quick overview of default DMX values for each channel and mode

Mode/channel			Default DMX value			Note	Function
M.1	M.2	M3	M. 1	M.2	M.3		
1	1	1	128	128	128		Pan (8 bit)
2	2	2	0	0	0		Pan fine (16 bit)
3	3	3	128	128	128		Tilt (8 bit)
4	4	4	0	0	0		Tilt fine (16 bit)
5	5	5	0	0	0		Pan/Tilt speed, Pan/Tilt time
6	6	6	0	0	0		Power/Special functions
7	7	7	0	0	0		Virtual colour wheel
8	8	8	255/0	255/0	255/0	1	Red/Cyan (8 bit)- all zones
9	9	9	255/0	255/0	255/0	1	Red/Cyan fine (16 bit)-all zones
10	10	10	255/0	255/0	255/0	1	Green/Magenta (8 bit)-all zones
11	11	11	255/0	255/0	255/0	1	Green/Magenta fine (16 bit)-all zones
12	12	12	255/0	255/0	255/0	1	Blue/Yellow (8 bit)-all zones
13	13	13	255/0	255/0	255/0	1	Blue/Yellow fine (16 bit) -all zones
14	14	14	255/0	255/0	255/0	1	Lime (8 bit)- all zones
15	15	15	255/0	255/0	255/0	1	Lime fine (16 bit)-all zones
16	16	16	40	40	40		CTC -all zones
17	17	17	45	45	45		Colour mix control
18	18	18	128	128	128		Zoom(8 bit)
19	19	19	0	0	0		Zoom fine (16 bit)
20	20	20	32	32	32		Shutter/ strobe-all zones
21	21	21	0	0	0		Dimmer intensity (8 bit)-all zones
22	22	22	0	0	0		Dimmer intensity fine (16 bit)-all zones
*	23	23	*	128	128		Green correction -all zones
*	24	24	*	10	10		LED frequency selection
*	25	25	*	0	0		LED frequency fine adjusting
*	26	26	*	0	0		Pattern effects selection
*	27	27	*	64	64		Pattern movement speed and direction
*	*	28	*	*	255/0	1	Red/Cyan (8 bit)- Zone 1
*	*	29	*	*	255/0	1	Red/Cyan fine (16 bit)-zone 1
*	*	30	*	*	255/0	1	Green/Magenta (8 bit)-zone 1
*	*	31	*	*	255/0	1	Green/Magenta fine (16 bit)-zone 1
*	*	32	*	*	255/0	1	Blue/Yellow (8 bit)-zone 1
*	*	33	*	*	255/0	1	Blue/Yellow fine (16 bit) - zone 1
*	*	34	*	*	255/0	1	Lime (8 bit)- zone 1
*	*	35	*	*	255/0	1	Lime fine (16 bit)-zone 1
*	*	36	*	*	255/0	1	Red/Cyan (8 bit)- Zone 2
*	*	37	*	*	255/0	1	Red/Cyan fine (16 bit)-zone 2
*	*	38	*	*	255/0	1	Green/Magenta (8 bit)-zone 2
*	*	39	*	*	255/0	1	Green/Magenta fine (16 bit)-zone 2
*	*	40	*	*	255/0	1	Blue/Yellow (8 bit)-zone 2
*	*	41	*	*	255/0	1	Blue/Yellow fine (16 bit) - zone 2
*	*	42	*	*	255/0	1	Lime (8 bit)- zone 2
*	*	43	*	*	255/0	1	Lime fine (16 bit)-zone 2

Mode/channel			Default DMX value			Note	Function
M.1	M.2	M3	M. 1	M.2	M.3		
*	*	44	*	*	255		ScreenPix Red - background
*	*	45	*	*	255		ScreenPix Green - background
*	*	46	*	*	255		ScreenPix Blue - background
*	*	47	*	*	0		ScreenPix Effect selection
*	*	48	*	*	128		Effect movement speed and direction
*	*	49	*	*	1		ScreenPix Effect colour selection
*	*	50	*	*	127		ScreenPix Dimmer and Shutter - background

Note 1. Default value: 255 - RGBL mode, 0-CMY mode

Order of zones



Robin LEDBeam 400™ - DMX protocol

Version: 1.0

Mode 1-LedBeam compatible, Mode 2- Festival/TV, Mode 3- Full/ScreenPix

Mode/channel			DMX Value	Function	Type of control
1	2	3			
1	**1**	**1**		**Pan (8 bit)**	
			0 - 255	Pan movement by 540°	proportional
2	**2**	**2**		**Pan Fine (16 bit)**	
			0 - 255	Fine control of pan movement	proportional
3	**3**	**3**		**Tilt (8 bit)**	
			0 - 255	Tilt movement by 228°	proportional
4	**4**	**4**		**Tilt fine (16 bit)**	
			0 - 255	Fine control of tilt movement	proportional
5	**5**	**5**		**Pan/Tilt speed , Pan/Tilt time**	
			0	Standard mode	step
			1	Max. Speed Mode	step
				Pan/Tilt speed mode	
			2 - 255	Speed from max. to min.	proportional
				Pan/Tilt time mode	
			2 - 255	Time from 0.2 s to 25.5 sec.	proportional
6	**6**	**6**		**Power/Special functions**	
			0 -9	Reserved	
				To activate following functions, stop in DMX value for at least 3 s and shutter must be closed at least 3 sec. („Shutter,Strobe" channel 20 must be at range: 0-31 DMX). Corresponding menu items are temporarily overriden (unless otherwise stated)	
			10-14	DMX input: Wired DMX	step
			15-19	DMX input: Wireless DMX *	step
			20-24	Graphic display: On	step
			25-29	Graphic display: Off	step
			30-34	Colour mixing mode: RGBL	step
			35-39	Colour mixing mode: CMY	step
			40-44	Pan/Tilt mode: Speed	step
			45-49	Pan/Tilt mode: Time	step
			50-54	Blackout while pan/tilt moving	step
			55-59	Disabled blackout while pan/tilt moving	step
			60-64	Dimmer curve: Square law	step
			65-69	Dimmer curve: Linear	step
			70-74	Fans mode: Auto	step
			75-79	Fans mode: High	step
			80-84	White point: On	step
			85-89	White point: Off	step
			90-93	Reserved	
			94-95	ScreenPix: On (Channels 44-50 are activated)	step
			96-97	ScreenPix: Off (channels 44-50 are deactivated)	step
			98-99	ScreenPix synchronization: On (ScreenPix utilizes zone colours if colours of zones 1 and 2 are the same)	step
			100-101	ScreenPix synchronization: Off	step

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			102-103	High light output mode	step
			104-105	CRI light output mode	step
			106-125	Reserved	
			126-127	Parking position: On	step
			128-129	Parking position: Off	step
				To activate following functions, stop in DMX value for at least 3 seconds. Corresponding menu items are temporarily overriden	
			130-139	Fixture reset (except pan/tilt)	
			140-149	Pan/Tilt reset	step
			150-159	Zoom reset	step
			160-169	Total fixture reset	step
			170-171	Tungsten effect simulation (750W) On **	step
			172-173	Tungsten effect simulation (1000W) On **	step
			174-175	Tungsten effect simulation (1200W) On **	step
			176-177	Tungsten effect simulation (2000W) On **	step
			178-179	Tungsten effect simulation (2500W) On **	step
			180-181	Tungsten effect simulation Off	step
				Green/Blue correction : 1. Activate the Green/Blue correction by the command "Green/Blue correction calibration". 2. Select desired colour temperature below and set green/blue correction using the "Green correction "channel and the "CTC" channel. 3. After setting corrections, use command "Save Green/Blue correction".	
			182	Green/Blue correction calibration	
			183	Green/Blue correction - 1800K/High Intensity	step
			184	Green/Blue correction - 2700K/High Intensity	step
			185	Green/Blue correction - 3200K/High Intensity	step
			186	Green/Blue correction - 4200K/High Intensity	step
			187	Green/Blue correction - 5600K/High Intensity	step
			188	Green/Blue correction - 8000K/High Intensity	step
			189	Green/Blue correction - 10000K/High Intensity	step
			190	Green/Blue correction - 1800K/High CRI	step
			191	Green/Blue correction - 2700K/High CRI	step
			192	Green/Blue correction - 3200K/High CRI	step
			193	Green/Blue correction - 4200K/High CRI	step
			194	Green/Blue correction - 5600K/High CRI	step
			195	Green/Blue correction - 8000K/High CRI	step
			196	Green/Blue correction - 10000K/High CRI	step
			197	Save Green/Blue correction	step
			198-237	Reserved	
				The following RoboSpot related commands are only applicable when the RoboSpot is connected:	
			238-239	RoboSpot enabled	step
			240-241	RoboSpot disabled - except handle faders and pan/tilt	step
			242-243	RoboSpot fully disabled	step
			244	Disabled "Quiet mode"	step
			245-255	Quiet mode - fan noise control from min. to max.	proportional
7	**7**	**7**		**Virtual colour wheel -all zones**	

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			0	No function	step
			1-2	Filter 4 (Medium Bastard Amber)	step
			3-4	Filter 25 (Sunset Red)	step
			5-6	Filter 19 (Fire)	step
			7-8	Filter 26 (Bright Red)	step
			9-10	Filter 58 (Lavender)	step
			11-12	Filter 68 (Sky Blue)	step
			13-14	Filter 36 (Medium Pink)	step
			15-16	Filter 89 (Moss Green)	step
			17-18	Filter 88 (Lime Green)	step
			19-20	Filter 90 (Dark Yellow Green)	step
			21-22	Filter 49 (Medium Purple)	step
			23-24	Filter 52 (Light Lavender)	step
			25-26	Filter 102 (Light Amber)	step
			27-28	Filter 103 (Straw)	step
			29-30	Filter 140 (Summer Blue)	step
			31-32	Filter 124 (Dark Green)	step
			33-34	Filter 106 (Primary Red)	step
			35-36	Filter 111 (Dark Pink)	step
			37-38	Filter 115 (Peacock Blue)	step
			39-40	Filter 126 (Mauve)	step
			41-42	Filter 117 (Steel Blue)	step
			43-44	Filter 118 (Light Blue)	step
			45-46	Filter 122 (Fern Green)	step
			47-48	Filter 182 (Light Red)	step
			49-50	Filter 121 (Filter Green)	step
			51-52	Filter 128 (Bright Pink)	step
			53-54	Filter 131 (Marine Blue)	step
			55-56	Filter 132 (Medium Blue)	step
			57-58	Filter 134 (Golden Amber)	step
			59-60	Filter 135 (Deep Golden Amber)	step
			61-62	Filter 136 (Pale Lavender)	step
			63-64	Filter 137 (Special Lavender)	step
			65-66	Filter 138 (Pale Green)	step
			67-68	Filter 798 (Chrysalis Pink)	step
			69-70	Filter 141 (Bright Blue)	step
			71-72	Filter 147 (Apricot)	step
			73-74	Filter 148 (Bright Rose)	step
			75-76	Filter 152 (Pale Gold)	step
			77-78	Filter 154 (Pale Rose)	step
			79-80	Filter 157 (Pink)	step
			81-82	Filter 143 (Pale Navy Blue)	step
			83-84	Filter 162 (Bastard Amber)	step
			85-86	Filter 164 (Flame Red)	step
			87-88	Filter 165 (Daylight Blue)	step
			89-90	Filter 169 (Lilac Tint)	step
			91-92	Filter 170 (Deep Lavender)	step
			93-94	Filter 172 (Lagoon Blue)	step

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			95-96	Filter 194 (Surprise Pink)	step
			97-98	Filter 180 (Dark Lavender)	step
			99-100	Filter 181 (Congo Blue)	step
			101-102	Filter 197 (Alice Blue)	step
			103-104	Filter 201 (Full C.T. Blue)	step
			105-106	Filter 202 (Half C.T. Blue)	step
			107-108	Filter 203 (Quarter C.T. Blue)	step
			109-110	Filter 204 (Full C.T. Orange)	step
			111-112	Filter 219 (Fluorescent Green)	step
			113-114	Filter 206 (Quarter C.T. Orange)	step
			115-116	Filter 247 (Filter Minus Green)	step
			117-118	Filter 248 (Half Minus Green)	step
			119-120	Filter 281 (Three Quarter C.T. Blue)	step
			121-122	Filter 285 (Three Quarter C.T. Orange)	step
			123-124	Filter 352 (Glacier Blue)	step
			125-126	Filter 353 (Lighter Blue)	step
			127-128	Filter 507 (Madge)	step
			129-130	Filter 778 (Millennium Gold)	step
			131-132	Filter 793 (Vanity Fair)	step
			133-235	Raw DMX	proportional
			236-245	Rainbow effect (with fade time) from slow-> fast	proportional
			246-255	Rainbow effect (without fade time) from slow-> fast	proportional
8	**8**	**8**		**Red/Cyan (8 bit)- all zones*** **	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
9	**9**	**9**		**Red/Cyan (16bit)- all zones*** **	
			0 - 255	Colour saturation control - fine	proportional
10	**10**	**10**		**Green/Magenta (8 bit) -all zones*** **	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
11	**11**	**11**		**Green/Magenta (16bit) -all zones*** **	
			0 - 255	Colour saturation control - fine	proportional
12	**12**	**12**		**Blue/Yellow (8 bit) -all zones*** **	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
13	**13**	**13**		**Blue/ Yellow (16bit) -all zones*** **	
			0 - 255	Colour saturation control - fine	proportional
14	**14**	**14**		**Lime (8 bit) - all zones*** **	
				If RGBL mode is selected:	
			0-255	Colour saturation control - coarse 0-100%	proportional
				If CMY mode is selected:	
			0 - 255	No function	
15	**15**	**15**		**Lime (16 bit) - all zones*** **	
			0 - 255	Colour saturation control - fine	proportional
16	**16**	**16**		**CTC -all zones**	
			0	10 000 K	step
			1-39	Colour temperature changing 9950 K ->8050 K (50 K /1 DMX)	proportional
			40	8000 K (40=Default)	step
			41-99	Colour temperature changing 7960 K ->5640 K (40 K/1 DMX)	proportional
			100	5600 K	step
			101-149	Colour temperature changing 5572 K ->4228 K (28 K/1 DMX)	proportional

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			150	4200 K	step
			151-189	Colour temperature changing 4175 K ->3225 K (25 K/1 DMX)	proportional
			190	3200 K	step
			191-209	Colour temperature changing 3175 K ->2725 K (25K /1 DMX)	proportional
			210	2700K	step
			211-254	Colour temperature changing 2680 K ->1820 K (20K /1 DMX)	proportional
			255	1800K	step
17	**17**	**17**		**Colour Mix control**	
				Defines relation between colour channels	
				"Global" = Global Colours (RGBL/CMYcolours, Virtual Colour Wheel, CTC)	
				"Pixel" = Zone colours (individul zones, zone patterns)	
			0-9	Global colours (Global has priority)	step
			10-19	Maximum mode (highest values have priority)	step
			20-29	Minimum mode (lowest values have priority)	step
			30-39	Multiply mode (multiply Global and Pixel)	step
			40-49	Addition mode (Global + Pixel)	step
			50-59	Subtraction mode (Global – Pixel)	step
			60-69	Inverted Subtraction mode (Pixel – Global)	step
			70-127	Raw DMX	proportional
			128	Global colours only (Global has priority)	step
			129-254	Crossfade (crossfade between Global and Pixel)	proportional
			255	Pixel has priority	step
18	**18**	**18**		**Zoom (8 bit)**	
			0-255	Zoom from max. to min.beam angle	proportional
19	**19**	**19**		**Zoom - fine (16 bit)**	
			0-255	Fine zooming	proportional
20	**20**	**20**		**Shutter/ strobe**	
			0 - 31	Shutter closed	step
			32 - 63	Shutter open	step
			64 - 95	Strobe eEffect from slow to fast -all zones together	proportional
			96 - 127	Shutter open	step
			128 - 143	Opening pulse in sequences from slow to fast-all zones together	proportional
			144 - 159	Closing pulse in sequences from fast to slow-all zones together	proportional
			160 - 169	Shutter open	step
			170 - 191	Random strobe zones - each zone strobes random	proportional
			192 - 223	Random strobe effect from slow to fast-all zones together	proportional
			224 - 255	Shutter open	step
21	**21**	**21**		**Dimmer intensity (8 bit)-all zones**	
			0 - 255	Dimmer intensity from 0% to 100%	proportional
22	**22**	**22**		**Dimmer intensity fine (16 bit)-all zones**	
			0 - 255	Fine dimming	proportional
*	**23**	**23**		**Green correction - all zones**	
			0	Uncorrected white	step
			1-127	Minus green --> uncorrected white	proportional
			128	Uncorrected white	step
			129-255	Uncorrected white --> Plus green	proportional
*	**24**	**24**		**LED frequency selection**	
				Factory display menu setting: 600Hz	

Mode/channel			DMX Value	Function	Type of control
1	2	3			
				fine adjusted in 127 steps up/down around selected PWM frequency on	
			0-4	PWM frequency from Display menu (fixture utilizes PWM	step
				frequency set in the display menu item Frequency Setup).	
			5-9	300 Hz	step
			10-14	600 Hz	step
			15-19	1200 Hz	step
			20-24	2400 Hz	step
			25-29	High	step
			30-255	Reserved (fixture utilizes PWM frequency set in the display menu item	
				Frequency Setup).	
*	**25**	**25**		**LED frequency fine adjusting**	
				Factory display menu setting: 600Hz	
				Select desired PWM output frequency of LEDs on the channel above.	
			0-1	Selected LED Frequency	step
			2	LED Frequency (step -126)	step
			3	LED Frequency (step -125)	step
			4	LED Frequency (step -124)	step
			:		
			125	LED Frequency (step -3)	step
			126	LED Frequency (step -2)	step
			127	LED Frequency (step -1)	step
			128	Selected LED Frequency	step
			129	LED Frequency (step +1)	step
			130	LED Frequency (step +2)	step
			131	LED Frequency (step +3)	step
			:		
			252	LED Frequency (step +124)	step
			253	LED Frequency (step +125)	step
			254	LED Frequency (step +126)	step
			255	Selected LED Frequency	step
*	**26**	**26**		**Pattern effects selection**	
			0	No pattern	step
			1	Center pulse = Red-> Green	step
			2	Center pulse = White 5600K-> Blue	step
			3	Center pulse = Lime-> Red	step
			4	Center pulse = Blue-> Green	step
			5	Center pulse = Lime-> White 5600K	step
			6	Center pulse = Red-> Blue	step
			7	Center pulse = Green-> White 5600K	step
			8	Center pulse= White 1800K-> Red	step
			9	Center pulse= Yellow-> Lime	step
			10	Center pulse = White 5600K-> Red	step
			11	Center pulse = White 10 000K-> White 1800K	step
			12	Center pulse = Magenta-> Blue	step
			13	Center pulse = Yellow-> Red	step
			14	Center pulse = Cyan-> White 5600K	step
			15	Center pulse = Green-> Magenta	step
			16	Center pulse = White 1800K-> Cyan	step

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			17	Center pulse = Red-> Magenta	step
			18	Center pulse = Magenta-> White 10 000K	step
			19	Center pulse = Cyan-> Lime	step
			20	Center pulse = Yellow-> Blue	step
			21	Inside out = Blackout-> Red-> Full Red	step
			22	Inside out = Blackout-> Green-> Full Green	step
			23	Inside out = Blackout-> Blue-> Full Blue	step
			24	Inside out = Blackout-> White 5600K-> Full White 5600K	step
			25	Inside out = Blackout->White 1800K-> Full White 1800K	step
			26	Inside out = Blackout-> White 10 000K-> Full White 10 000K	step
			27	Inside out = Blackout-> Lime-> Full Lime	step
			28	Inside out = Blackout-> Cyan-> Full Cyan	step
			29	Inside out = Blackout-> Magenta-> Full Magenta	step
			30	Inside out = Blackout-> Yellow-> Full Yellow	step
			31	Colour Ring Shift = Red-> Blue = Magenta-> Cyan	step
			32	Colour Ring Shift = Cyan-> White 1800K = White 5600K -> Cyan	step
			33	Colour Ring Shift = Green-> Red = Blue-> Lime	step
			34	Colour Ring Shift = White 1800K-> Yellow = White 5600K -> White 1800K	step
			35	Colour Ring Shift = Lime-> Yellow = Green-> Lime	step
			36-255	Raw DMX	proportional
*	**27**	**27**		**Pattern movement speed and direction**	
			0	No movement	step
				Pattern movement without fade time	
			1-63	Pattern movement from fast to slow, center to edge	proportional
			64	Pause - without movement	step
			65-127	Pattern movement from slow to fast, edge to center	proportional
			128	No movement	step
				Pattern movement with fade time	
			129-191	Pattern movement from fast to slow, center to edge	proportional
			192	Pause - without movement	step
			193-255	Pattern movement from slow to fast, edge to center	proportional
*	*	**28**		**Red/Cyan (8 bit) - zone 1*** **	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
*	*	**29**		**Red/Cyan (16bit)- zone 1*** **	
			0 - 255	Colour saturation control - fine	proportional
*	*	**30**		**Green/Magenta (8 bit) - zone 1*** **	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
*	*	**31**		**Green/Magenta (16bit)- zone 1*** **	
			0 - 255	Colour saturation control - fine	proportional
*	*	**32**		**Blue/Yellow (8 bit) - zone 1*** **	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
*	*	**33**		**Blue/Yellow (16bit)- zone 1*** **	
			0 - 255	Colour saturation control - fine	proportional
*	*	**34**		**Lime (8 bit) - zone 1**	
				If RGBL mode is selected:	
			0-255	Colour saturation control - coarse 0-100%	proportional
				If CMY mode is selected:	
			0 - 255	No function	

Mode/channel			DMX Value	Function	Type of control
1	2	3			
*	*	**35**		**Lime (16 bit) - zone 1**	
			0 - 255	Colour saturation control - fine	proportional
		36		**Red/Cyan (8 bit) - zone 2*** **	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
*	*	**37**		**Red/Cyan (16bit)- zone 2*** **	
			0 - 255	Colour saturation control - fine	proportional
*	*	**38**		**Green/Magenta (8 bit) - zone 2*** **	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
*	*	**39**		**Green/Magenta (16bit)- zone 2*** **	
			0 - 255	Colour saturation control - fine	proportional
*	*	**40**		**Blue/Yellow (8 bit) - zone 2*** **	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
*	*	**41**		**Blue/Yellow (16bit)- zone 2*** **	
			0 - 255	Colour saturation control - fine	proportional
*	*	**42**		**Lime (8 bit) - zone 2**	
				If RGBL mode is selected:	
			0-255	Colour saturation control - coarse 0-100%	proportional
				If CMY mode is selected:	
			0 - 255	No function	
*	*	**43**		**Lime (16 bit) - zone 2**	
			0 - 255	Colour saturation control - fine	proportional
*	*	**44**		**ScreenPix Red - background**	
			0-255	Red display saturation control 0-100%	proportional
*	*	**45**		**ScreenPix Green - background**	
			0-255	Green display saturation control 0-100%	proportional
*	*	**46**		**ScreenPix Blue - background**	
			0-255	Blue display saturation control 0-100%	proportional
*	*	**47**		**ScreenPix Effect selection**	
			0	No effect	step
			1	Effect 1	step
			2	Effect 2	step
			3	Effect 3	step
			4	Effect 4	step
			5	Effect 5	step
			6	Reserved	
			7	Effect 7	step
			8	Effect 8	step
			9	Reserved	
			10	Effect 10	step
			11	Reserved	
			12	Effect 12	step
			13	Reserved	
			14	Effect 14	step
			15	Effect 15	step
			16	Effect 16	step
			17	Effect 17	step
			18	Reserved	
			19	Effect 19	step

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			20	Effect 20	step
			21	Effect 21	step
			22	Effect 22	step
			23	Effect 23	step
			24	Colour effect 24	step
			25	Colour effect 25	step
			26	Colour effect 26	step
			27	Colour effect 27	step
			28	Reserved	
			29	Colour effect 29	step
			30	Colour effect 30	step
			31	Colour effect 31	step
			32	Reserved	
			33	Colour effect 33	step
			34	Colour effect 34	step
			35	Colour effect 35	step
			36	Colour effect 36	step
			37-38	Reserved	
			39	Colour effect 39	step
			40	Colour effect 40	step
			41	Colour effect 41	step
			42	Colour effect 42	step
			43	Colour effect 43	step
			44	Colour effect 44	step
			45	Colour effect 45	step
			46	Colour effect 46	step
			47	Colour effect 47	step
			48	Colour effect 48	step
			49	Colour effect 49	step
			50	Colour effect 50	step
			51	Colour effect 51	step
			52	Colour effect 52	step
			53	Colour effect 53	step
			54	Colour effect 54	step
			55	Colour effect 55	step
			56	Colour effect 56	step
			57-255	Reserved	step
*	*	**48**		**Effect movement speed and direction**	
			0	No movement	step
			1-127	Effect movement from fast to slow, left to right	proportional
			128	Pause - without movement	step
			129-255	Effect movement from slow to fast, right to left	proportional
*	*	**49**		**ScreenPix Effect colour selection**	
			0	No colour (ScreenPix Effect light output closed)	step
			1-14	White	step
			15	Blue (Blue=full, Red+Green=0)	step
			16-54	Red=0, Green->up, Blue =full	proportional
			55	Light Blue (Red=0, Green=full, Blue =full)	step

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			56 - 94	Red=0, Green=full, Blue->down	proportional
			95	Green (Red=0, Green=full, Blue =0)	step
			96 – 134	Red->up, Green=full, Blue=0	proportional
			135	Yellow (Red=full, Green=full, Blue=0)	step
			136 - 174	Red=full, Green->down, Blue=0	proportional
			175	Red(Red=full, Green=0, Blue=0)	step
			176 -214	Red=full, Green=0, Blue->up	proportional
			215	Magenta (Red=full, Green=0, Blue=full)	step
			216 - 254	Red -> down, Green=0, Blue=full	proportional
			255	Blue (Red=0, Green=0, Blue=full)	step
*	*	50		**Screen Pix Dimmer and Shutter - background**	
			0-127	Dimmer intensity from 0% to 100%	proportional
			128-159	Strobe-effect from slow to fast	proportional
			160-170	Shutter open	step
			171-186	Opening pulse in sequences from slow to fast	proportional
			187-202	Closing pulse in sequences from fast to slow	proportional
			203-213	Shutter open	step
			214-245	Random strobe-effect from slow to fast	proportional
			246-255	Shutter open	step

* function is active only 10 seconds after switching the fixture on

** In the Tungsten effect simulation the Dimmer channel imitates behaviour of the halogen lamp during dimming

*** Select RGB or CMY mixing mode on channel "Power/Special functions"

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All Specifications subject to change without notice