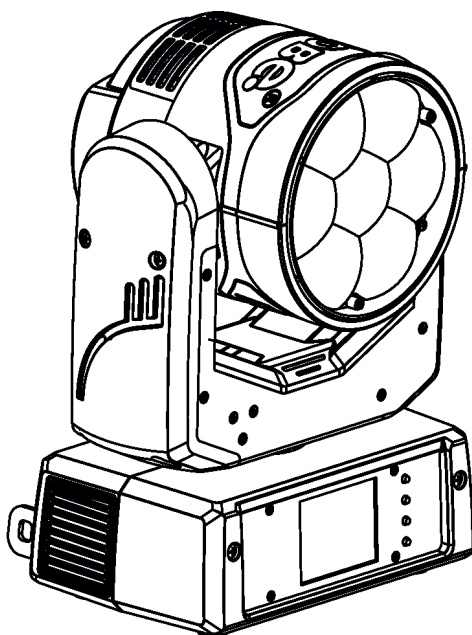


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# **ROBE**

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## **Robin LEDBeam 200™**



**ROBE**  
Innovative  
Technology

QR code for user manual



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### **USER MANUAL**

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Version 1.0

# Robin LEDBeam 200

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**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY  
BEFORE POWERING OR INSTALLING YOUR ROBIN LEDBEAM 200!**

**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 200 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 A.

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

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 A 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.

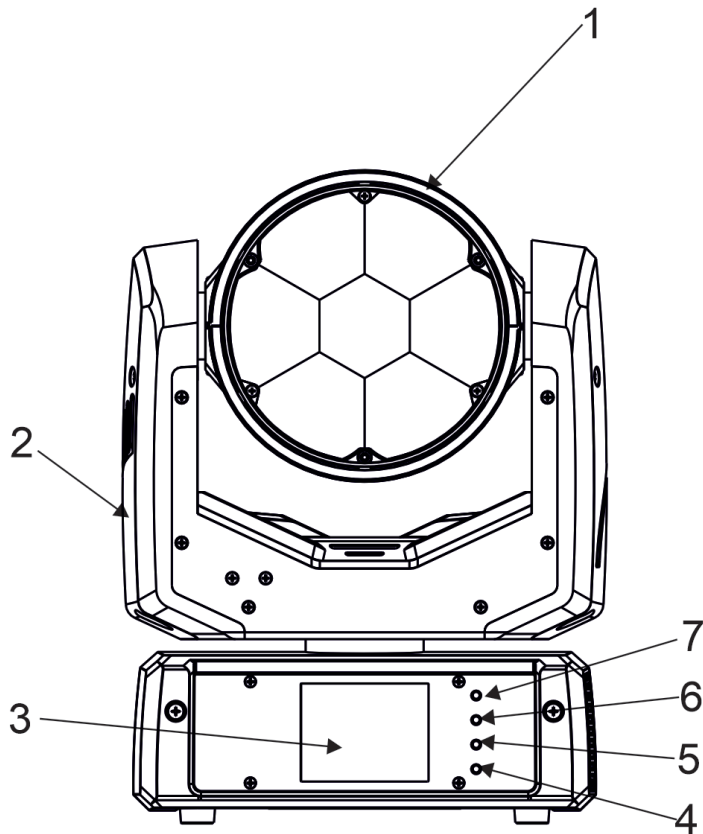
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

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

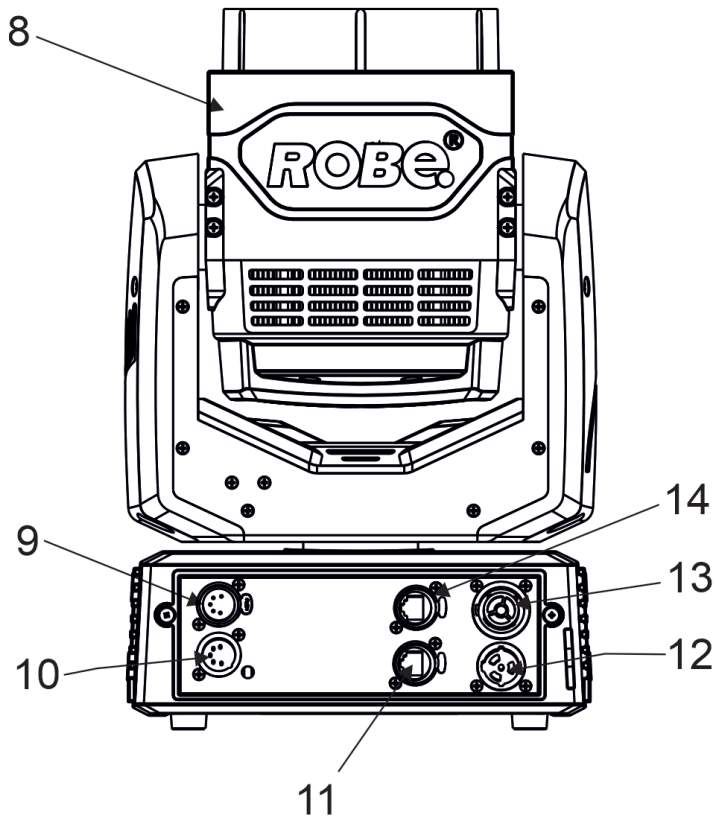
**To avoid damage of an internal optical system of the fixture, never let the sunlight (or other light source) lights directly to the lens array.**

**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 - Lens array
- 2 - Yoke
- 3 - Touch screen
- 4 - Enter button
- 5 - Preview
- 6 - Next button
- 7 - Escape button



- 8 - Moving head
  - 9 - DMX Out (5-pin XLR)
  - 10 - DMX In (5-pin XLR)
  - 11 - Ethernet IN (RJ 45)
  - 12 - Power IN (PowerCon True 1)
  - 13 - Power OUT (PowerCon True 1)
  - 14 - Ethernet OUT\* (RJ 45)
- \*EP version only

### 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 200 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.

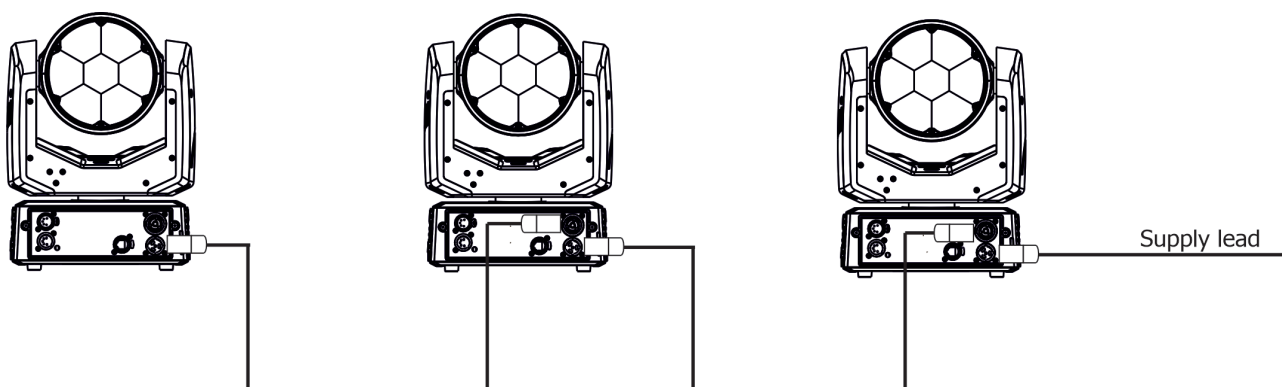
Core (EU)	Core (US)	Connection	Plug Terminal Marking
Brown	Black	Live	L
Light blue	White	Neutral	N
Yellow/Green	Green	Earth	

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

Design of the LEDPointe allows you to connect several fixtures (11 fixtures at 230V/16A circuit breaker; 5 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.

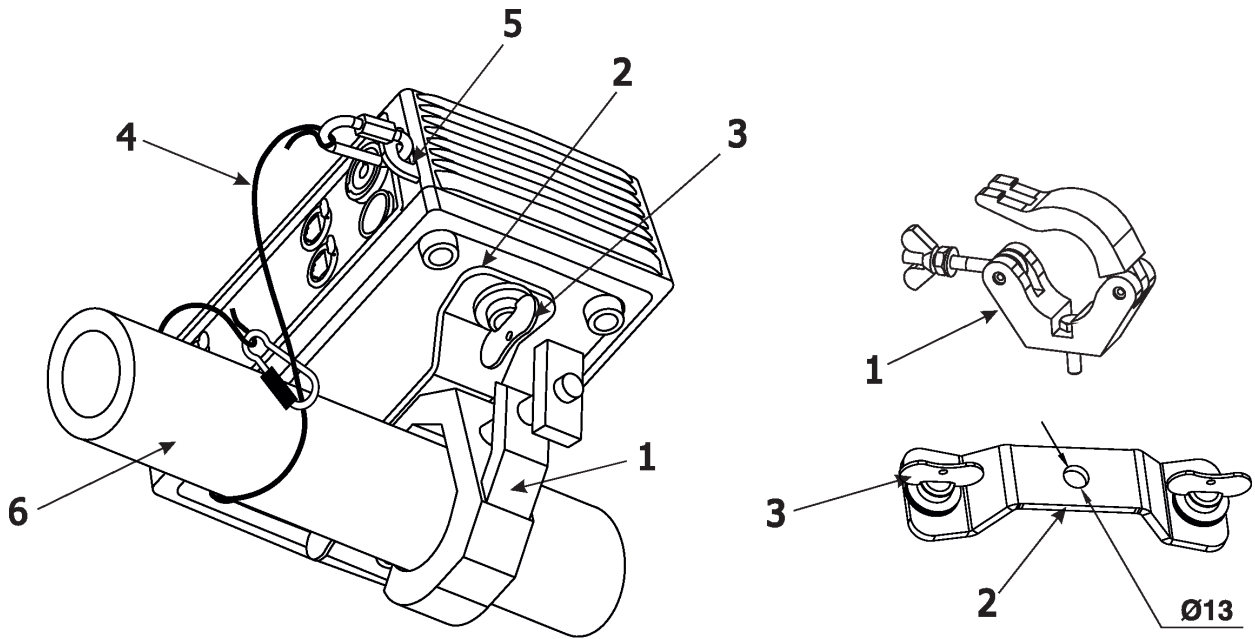
**When installing the device, make sure there is no highly inflammable material (decoration articles, etc.) in a distance of min. 0.4 m.**

**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



1. Bolt a clamp (1) to the omega holder (2) with M12 bolt and lock nut through the hole in the holder.
2. Fasten the omega holder to the bottom of the base by inserting both quick-lock fasteners (3) into the holes of the base and tighten them fully clockwise.
3. Clamp the fixture on a truss (6) and tighten the rigging clamp.
4. Wrap a safety wire (4) around the truss (6) as shown on the picture above and fasten a snap hook in the attachment point (5). Use only the safety wire with a snap hooks with screw lock gates. Length of the safety wire should ensure that maximum fall of the fixture will be 20 cm.

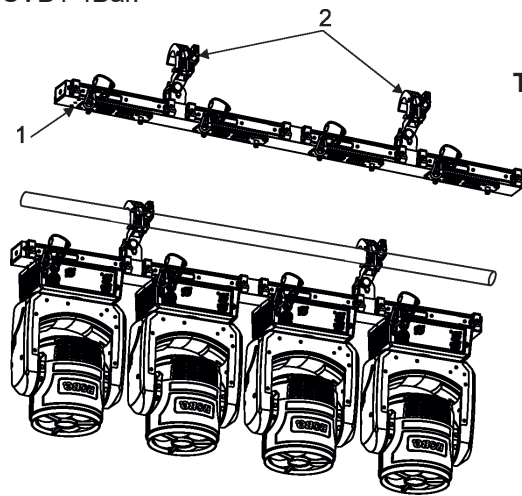
**When installing fixtures side-by-side, avoid illuminating one fixture with another!**

### 3.3 4Bar installation

The LB200/SVB1 4Bar (1) is used to fix 4 LEDBeam 200 fixtures on it and in this way simplifies handling with them.

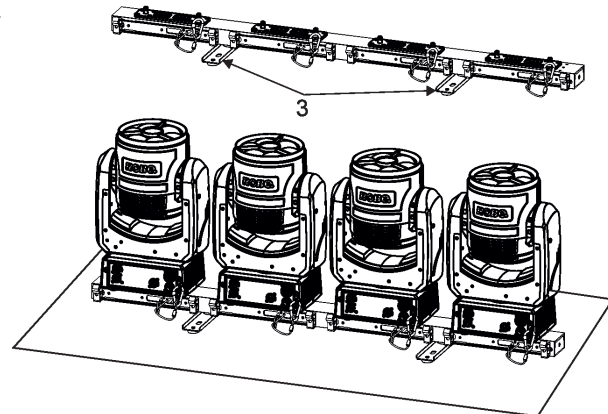
Design of the LB200/SVB1 4Bar allows it to be hung on a truss using two clamps (2) or stand on the floor using two legs (3).

The clamps are installed on the LB200/SVB1 4Bar as a default configuration and two legs are included to the LB200/SVB1 4Bar.

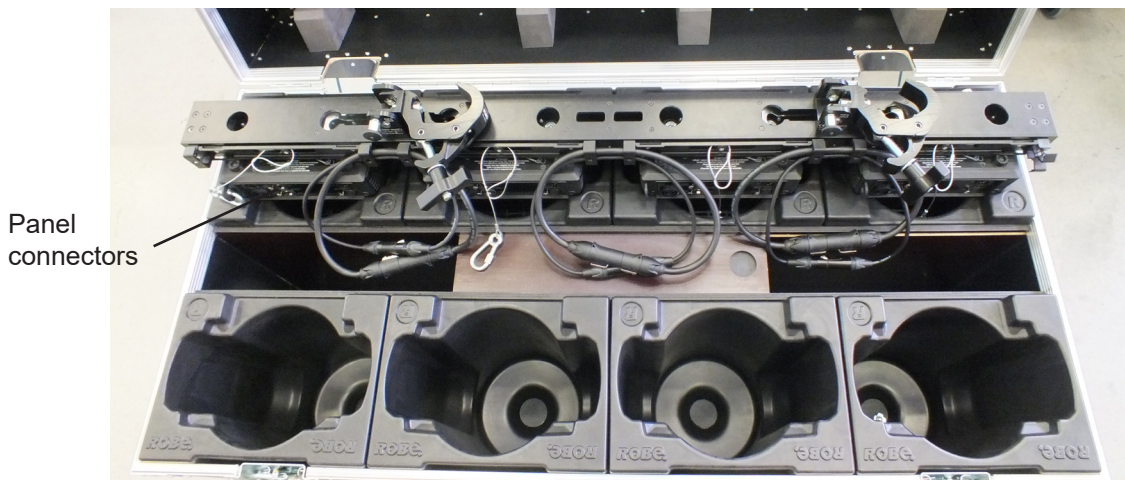


**Important.**

**Top hats must not be installed on the LEDBeams 200!.**



As the Robe LEDBeam 200 does not have pan/tilt locks, we recommend to carry out the LB200/SVB1 4Bar installation in the quad top loader case. Fixtures must be inserted in the case in this way that fixtures' panel connectors are oriented toward the centre of the case - see picture below.



#### **Installation the Robe LEDBeam 200 moving heads on the LB200/SVB1 4Bar with clamps**

1. Move both clamps (2) of the LB200/SVB1 4Bar to the upright position -pull the lock (4) towards you and move the clamp (2) to the upright position.

Note. By loosening the screw (11) with internal hexagonal head (use Allen key size 8) you can move the clamp (2) to desired position. After moving clamps to desired position, the clamp screws have to be properly tightened.

2. Insert the LB200/SVB1 4Bar on the LEDBeam 200 bases in this way, that pins (5) enter the fastening holes (6) in the LEDBeam 200 bases. Cables of the LEDBeam 200 4Bar have to be on the same side as the panel connectors of the LEDBeam 200 bases.

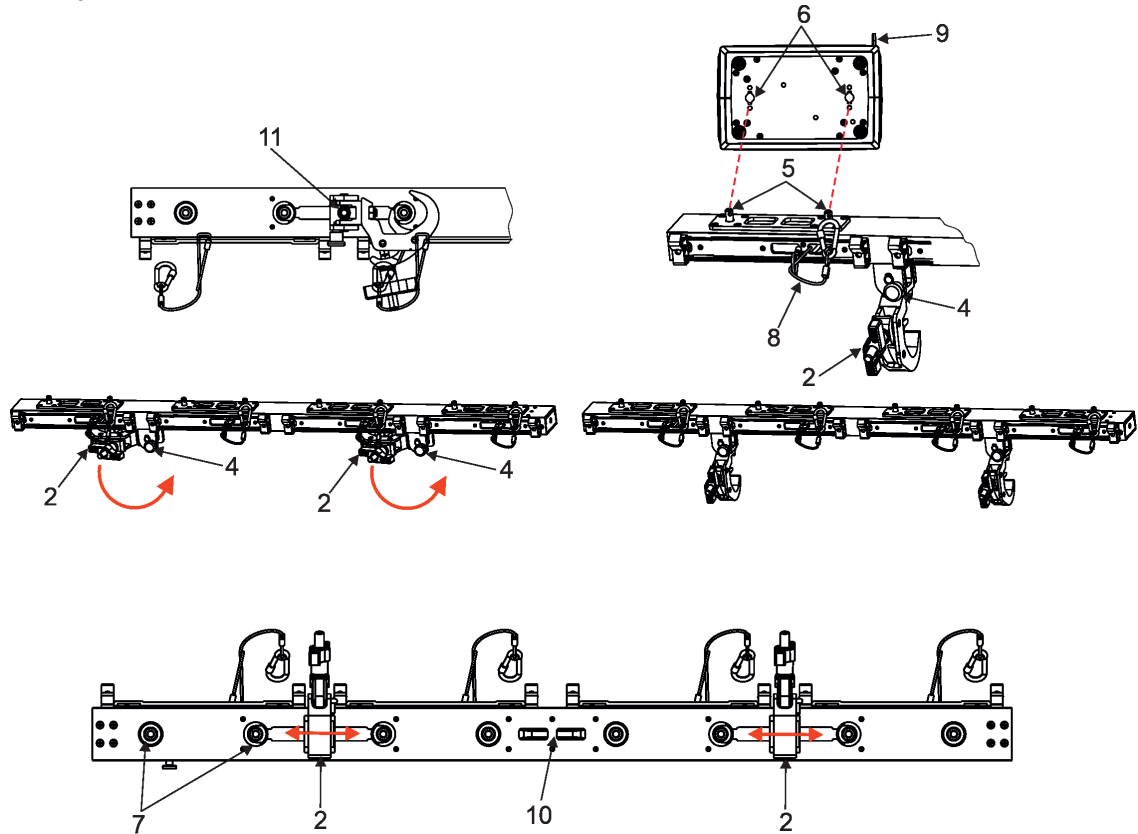
3. Tighten all screws with internal hexagonal head (7) which hold fixtures on the 4Bar fully clockwise (use Allen key size 8). Check, that all screws are properly tightened.

4. Fasten the safety wires (8) to the safety eyes of LEDBeam 200 bases.

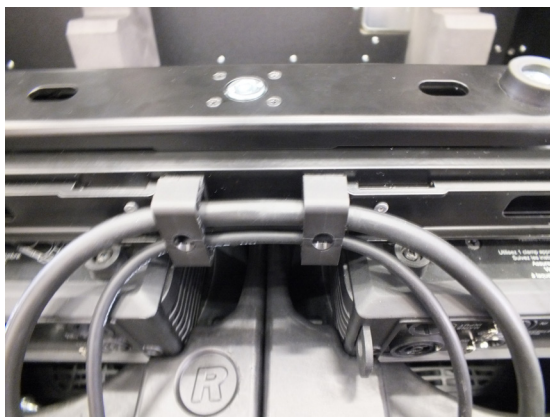
5. Connect LB200/SVB1 4Bar power and DMX cables with LEDBeam 200 bases.

6. After installing the LB200/SVB1 4Bar with moving heads on the truss, secure the LB200/SVB1 4Bar to the

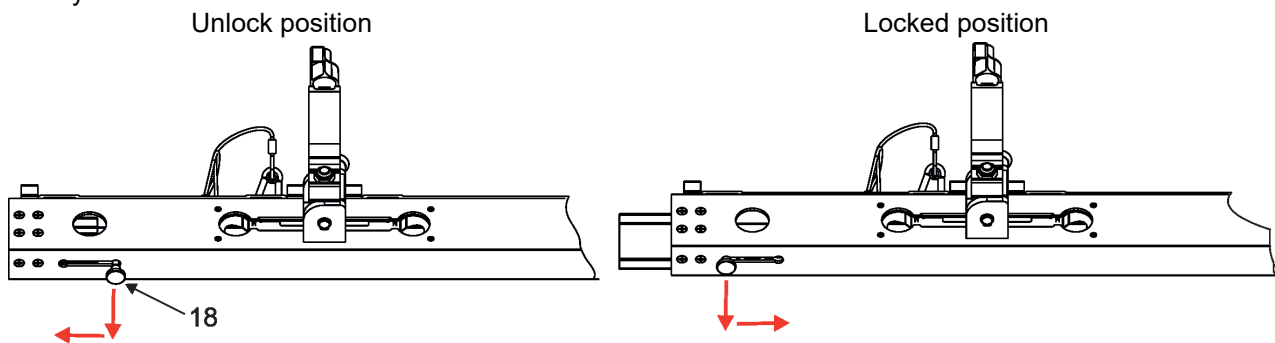
truss by means of the safety wire. Pull the safety wire around the truss and lock the snap hook of the safety wire in the attachment point (10). Use the safety wire of a suitable length that maximum fall of the LB200/SVB1 4Bar will be 20 cm.



Plastic holders on the LB200/SVB1 4Bar are used to fix cables.



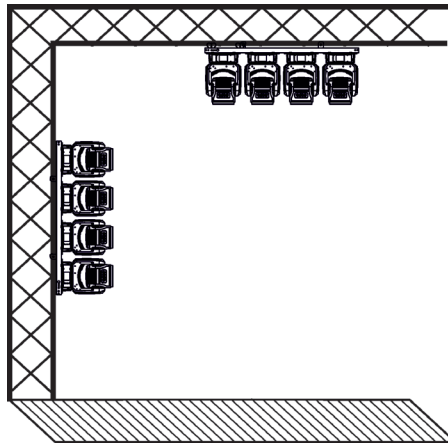
The side lock (18) allows you to align LB200/SVB1 4Bars in a row when LEDBeam 200 4Bars are installed side-by-side.



Do not forget to unlock side locks before dismantling the row of aligned LB200/SVB1 4Bars on the truss or floor. The side lock (18) has to be in unlocked position before inserting the LB200/SVB1 4Bar to the Quad top loader case.

## Allowed installation positions of the LB200/SVB1 4Bar on the truss

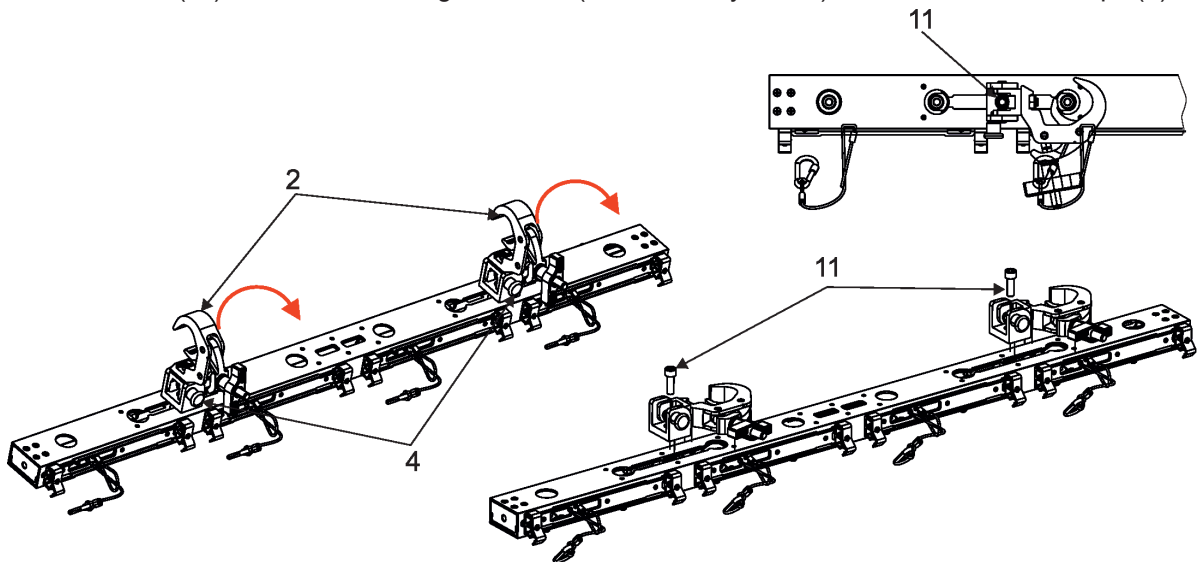
LB200/SVB1 4Bar must be secured to the truss by means of safety wire!



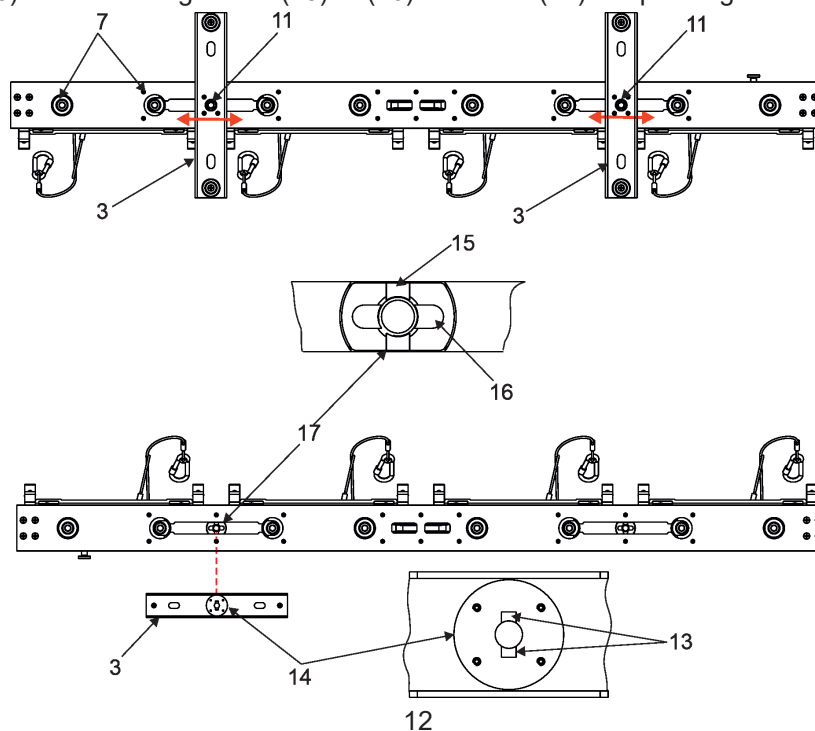
## Installation the Robe LEDBeam 200 moving heads on the LB200/SVB1 4Bar with legs

1. Remove both clamps from LB200/SVB1 4Bar - pull the lock (4) towards you and tilt the clamp (2) to the horizontal position.

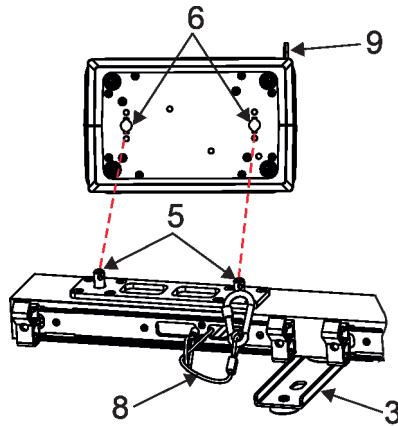
Unscrew screws (11) with internal hexagonal head (use Allen key size 8) and remove both clamps (2).



2. Screw two legs (3) on the LB200/SVB1 4Bar by means of two screws (11). The protrusions (13) in the bottom part (14) of leg (3) have to fit to grooves (15) or (16) in the nut (17) - depending on orientation of legs.



2. Insert the LB200/SVB1 4Bar on the LEDBeam 200 bases in this way, that pins (5) enter the fastening holes (6) in the LEDBeam 200 bases. Cables of the LB200/SVB1 4Bar have to be on the same side as the panel connectors of the LEDBeam 200 bases.



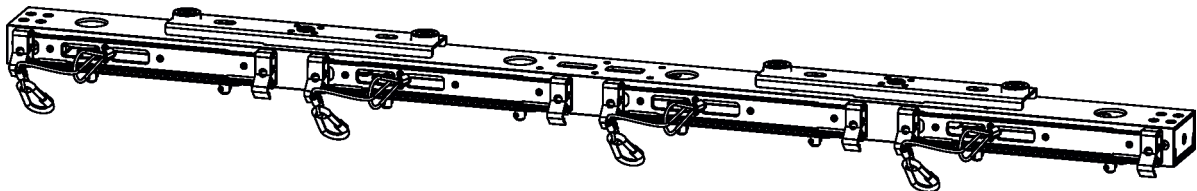
3. Tighten all screws with internal hexagonal head (7) which hold fixtures on the 4Bar fully clockwise (use Allen key size 8). Check, that all screws are properly tightened.

4. Fasten the safety wires (8) to the safety eyes of LEDBeam 200 bases.

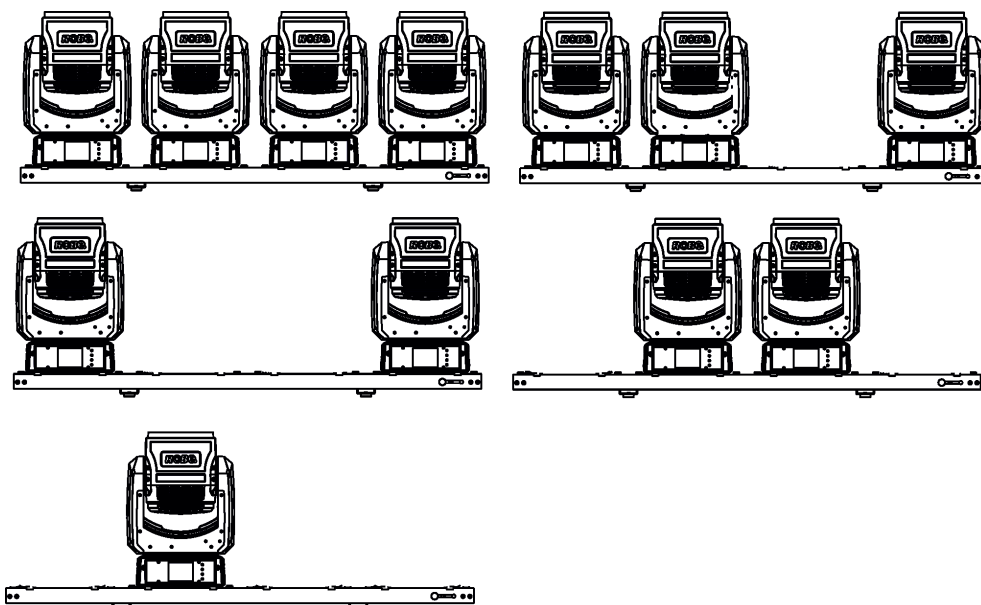
5. Connect LB200/SVB1 4Bar power and DMX cables with LEDBeam 200 bases.

Note. By loosening the screws (11) (use Allen key size 8) you can turn the legs (3) parallelly with LB200/SVB1 4Bar.

Legs have to be in this position before inserting the LB200/SVB1 4Bar to case.



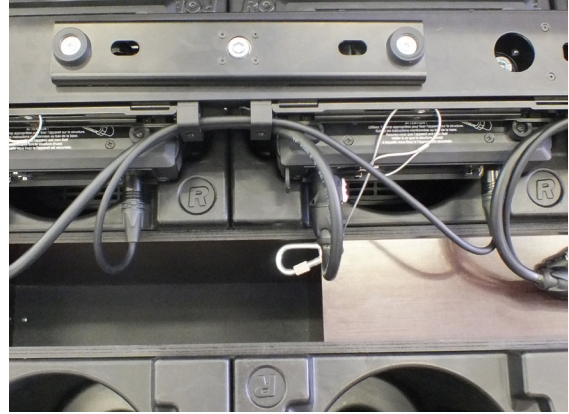
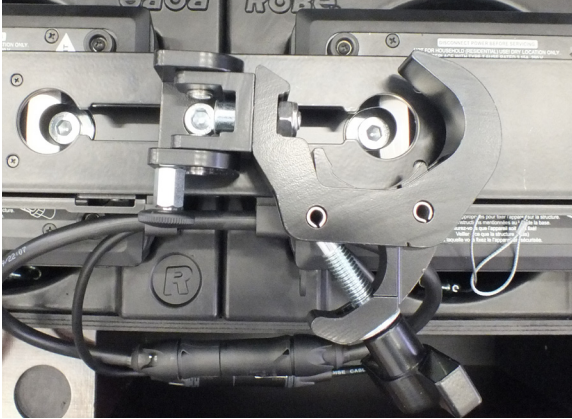
#### Allowed positions of Robins LEDBeam 200 on the LB200/SVB1 4Bar with legs



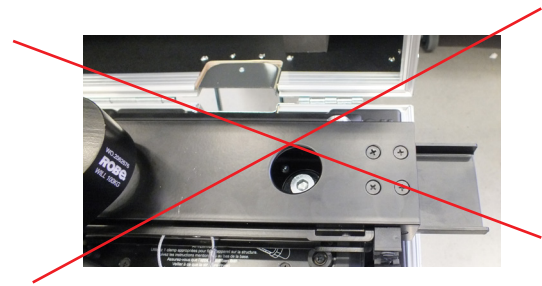
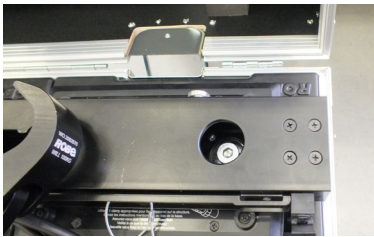
**Inserting the LB200/SVB1 4Bar with installed LEDBeam 200 fixtures into quad top loader case.**

Before inserting the LB200/SVB1 4Bar with installed LEDBeam 200 fixtures into case, please check the following.

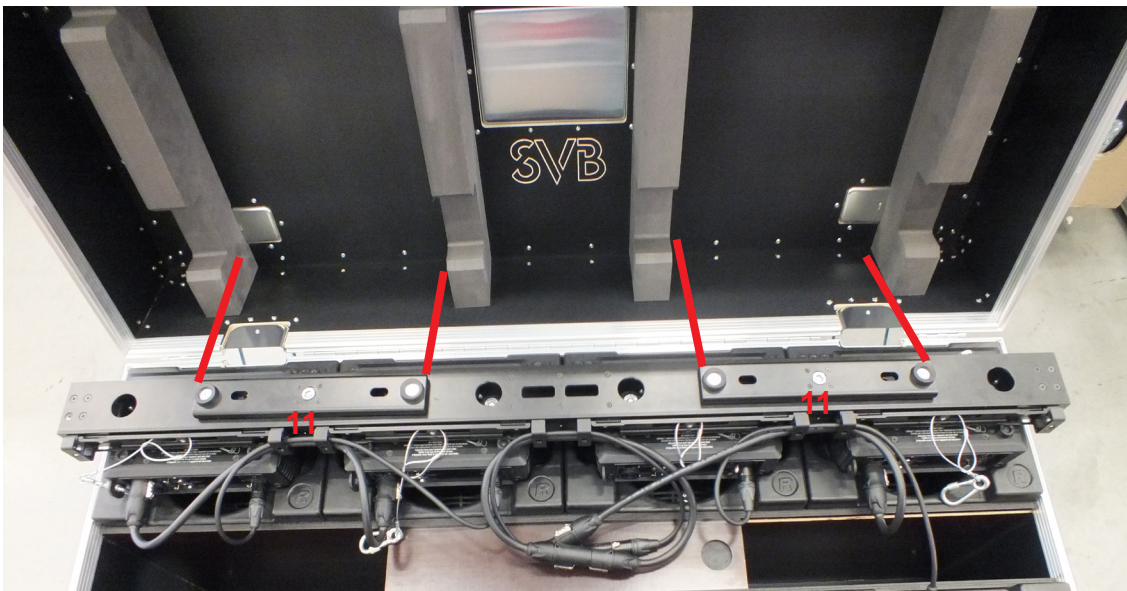
1. Clamps are tilted and legs turned parallelly with the LB200/SVB1 4Bar.



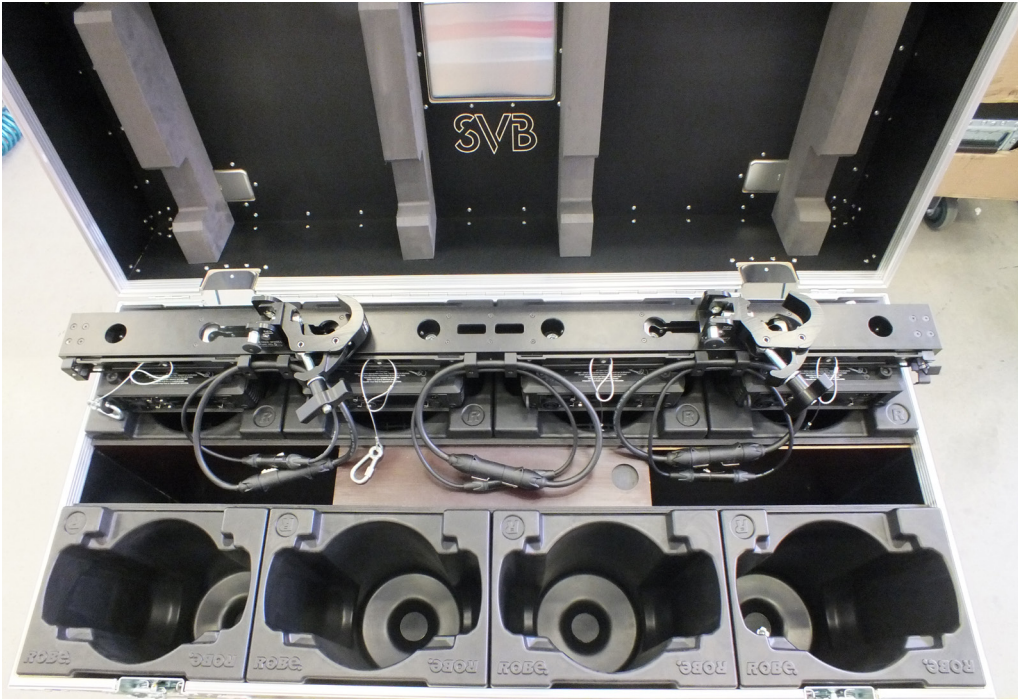
2. Part which does aligning of LB200/SVB1 4Bars is slid into LB200/SVB1 4Bar.



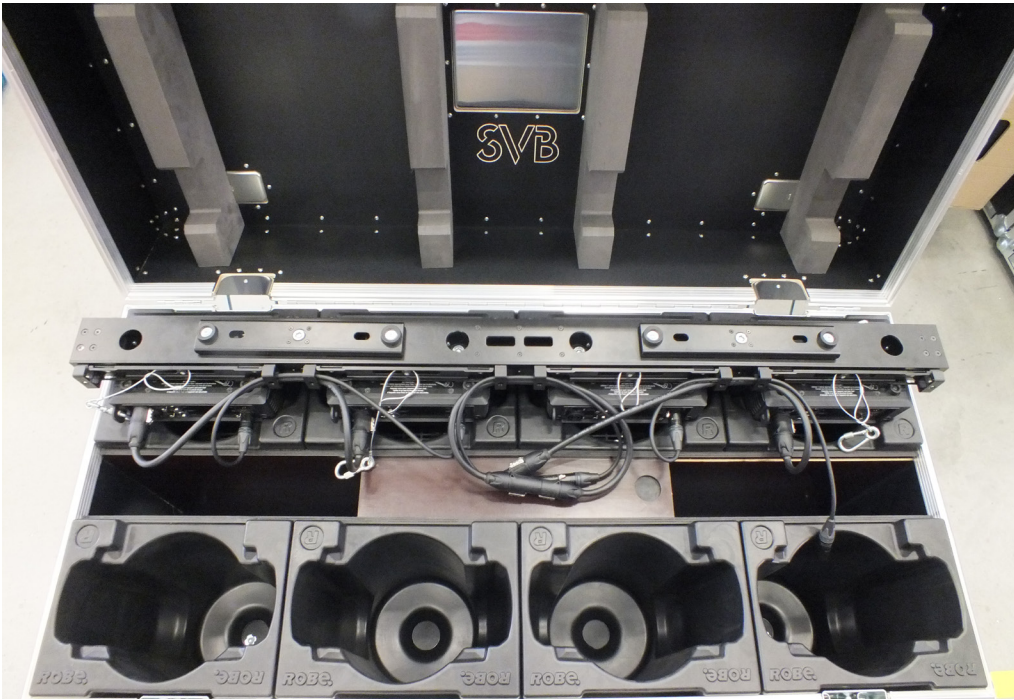
3. In case of LB200/SVB1 4Bars with legs, the leg must lie between the foam supports, if not, loose the screw (11) and move the leg to suitable position.



LB200/SVB1 4Bar with clamps in the quad top loader case.



LB200/SVB1 4Bar with legs in the quad top loader case.



### 3.4 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

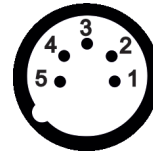
XLR socket (female)



- 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

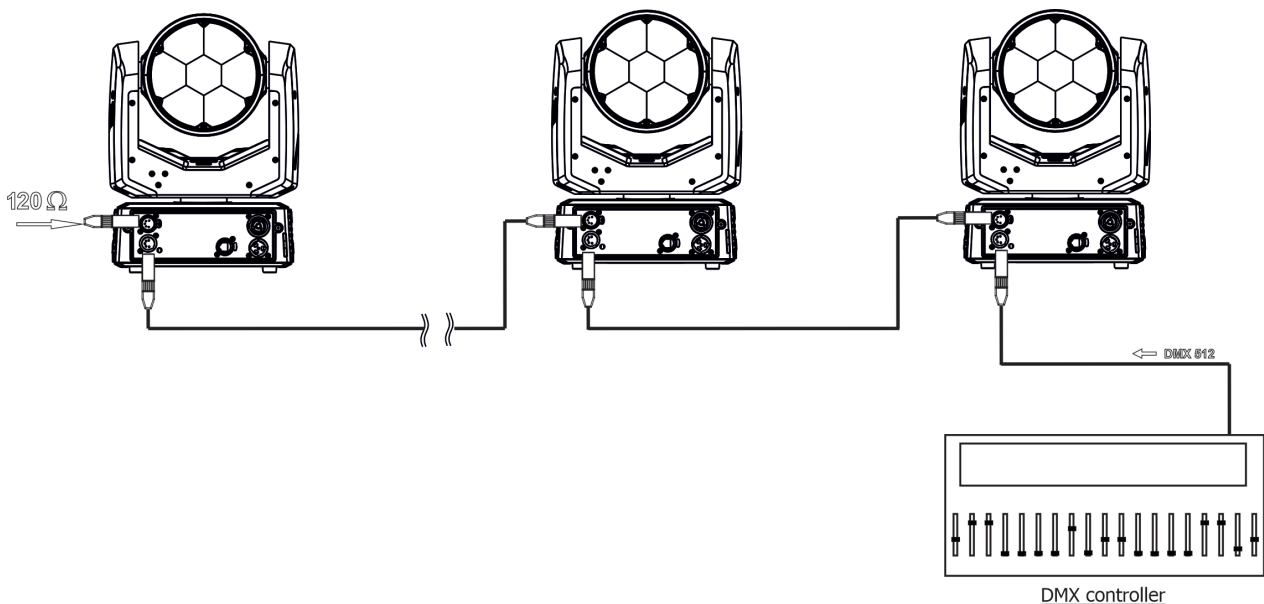
If you are using the standard DMX controllers, you can connect the DMX output of the controller directly with the DMX input of the first fixture in the DMX chain. If you wish to connect DMX controllers with other XLR outputs, you need to use adaptor cables.

#### 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:



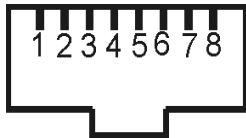
### 3.5 Ethernet connection (EP version only)

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.

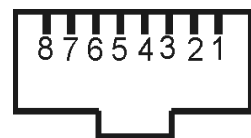
The Robin LEDBeam 200 EP is equipped with 8-pin RJ-45 sockets for Ethernet connection. Use a network cable category 5 (with four "twisted" wire pairs) and standard RJ-45 plugs in order to connect the fixture to the network.

**RJ-45 socket (front view):**



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

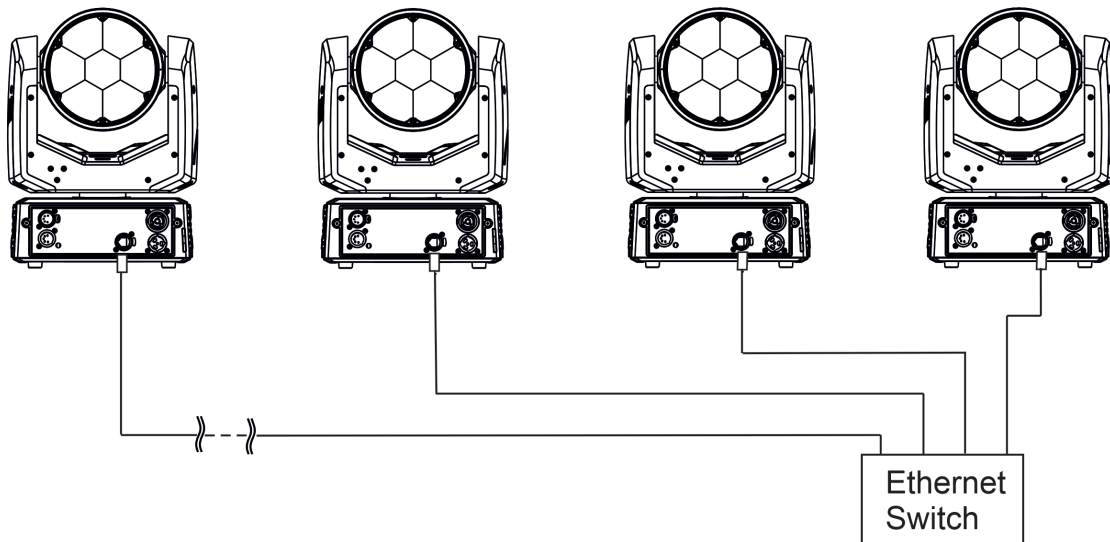
If only the fixture and the computer are to be interconnected, no hubs or other active components are needed. A cross-cable has to be used:

- |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|
| 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:

- |   |  |  |   |
|---|--|--|---|
| (DMX address=177)<br>IP adres=002.168.002.008<br>Universe=1 | (DMX address=46)<br>IP adres=002.168.002.004<br>Universe=1 | (DMX address=23)<br>IP adres=002.168.002.003<br>Universe=1 | (DMX address=1)<br>IP adres=002.168.002.002<br>Universe=1 |
|---|--|--|---|



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

## Ethernet / DMX operation

Option "Artnet" (gMa1 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:

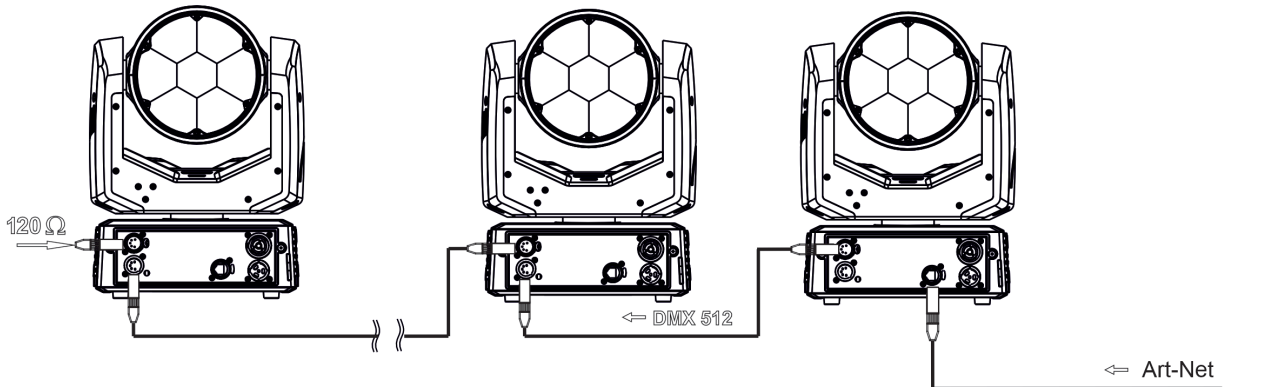
DMX address=46

DMX address=23

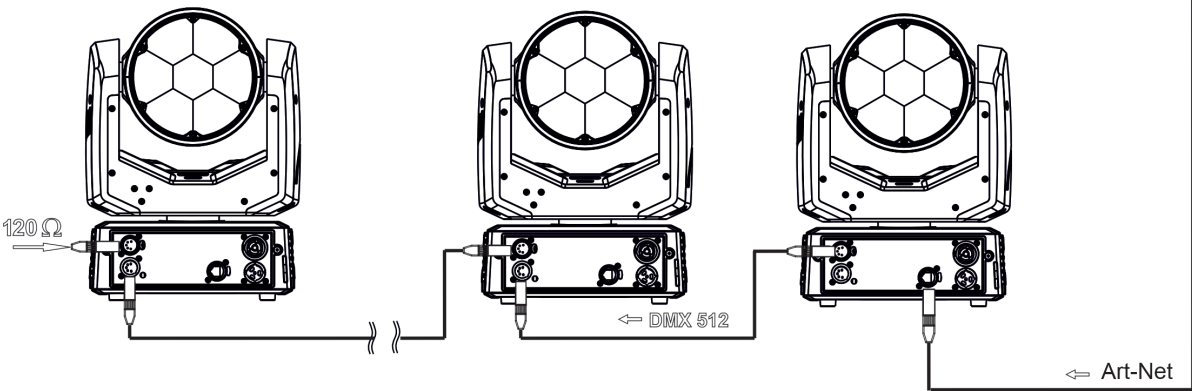
DMX address=1

IP address=002.168.002.002

Universe=0



Ethernet Switch



DMX address=46

DMX address=23

DMX address=1

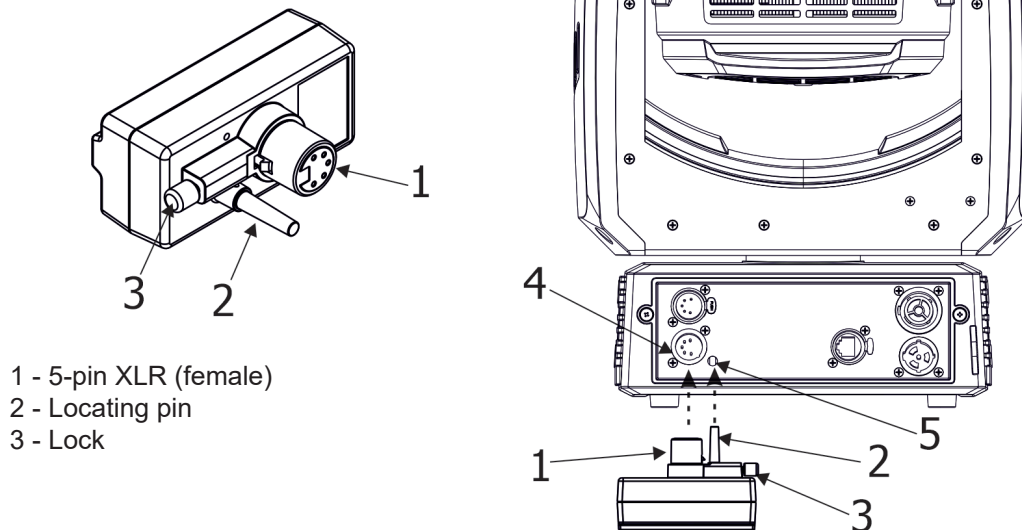
IP address=002.168.002.003

Universe=1

### 3.6 Wireless DMX operation

The external ROBE Wireless CRMX external module for compact ROBIN fixtures allows receiving wireless DMX. This module is equipped with the Lumen Radio CRMX module and antenna for receiving DMX signal. CRMX module operates on the 2.4 GHz band.

ROBE Wireless CRMX external module



Push in the 5-pin XLR plug (1) into 5-pin XLR socket (4) and simultaneously locating pin (2) into hole (5) in the fixture. In this way the wireless DMX module is connected with the fixture.

NOTE: when you disconnect the DMX wireless module from fixture, press and hold lock (5) during getting the wireless module out.

#### 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" (tab Information -->Wireless State).

#### To unlink the fixture from DMX transmitter.

The fixture can be unlinked from transmitter via the menu item " Unlink Wireless Adapter" (tab Information--> Wireless State --> Unlink Wireless Adapter).

## 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 defines relation between colour channels and virtual colour wheel.

"Colour mix" = colour channels (R/GBL/CMY/CTC)

"Virtual" = Virtual colour wheel

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

E.g. If you wish to control Virtual Colour Wheel, set the Colour Mix Control channel to 0 DMX, if you need to use colour channels, set the Colour Mix Control channel to 255 DMX.

### 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

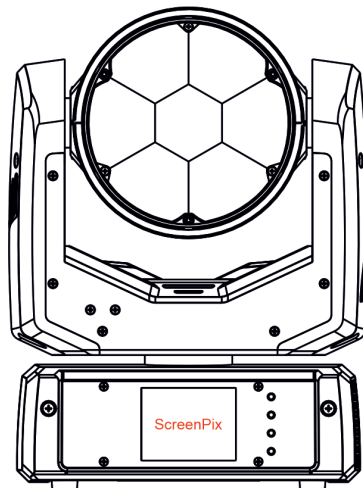
Pan/tilt movement range: 450°/228°.

### 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 200 to DMX mode 3.
2. Switch on the ScreenPix function on the channel Power/Special functions (DMX range 94-95).
3. Use DMX channels 60-66 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	<b>Mode 1</b> , Mode 2, Mode 3,				
		Ethernet Settings	Ethernet Mode	Disable			
				ArtNet			
				gMA1			
				gMA2			
				sACN			
				Ethernet To DMX	<b>Off</b> , On		
				IP Address/Net Mask	Default IP Address		
					Custom IP Address		
					Net Mask		
				ArtNet Universe	0-255		
				MANet settings	MANet/II Universe	01-256	
					MANet Session ID	01-32	
				sACN Settings	sACN Universe	00001-32000	
				sACN Merging	<b>On</b> , Off		
	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					
	View Logs	Fixture Errors					
		Fixture States	Power On				
			Power Off				
		Fixture Position					
		Fixture Temperatures	Driver Temperature				
			Base Temperature				

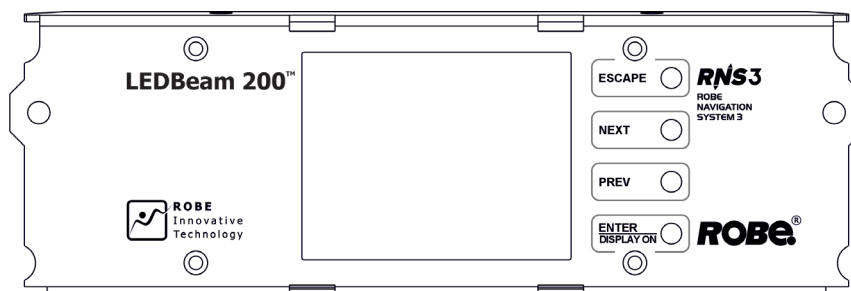
		System Logs				
Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Personality	DMX Presets	<b>Mode 1</b>				
		Mode 2:				
		Mode 3				
		View Selected Preset				
	Pan/Tilt Settings	Pan Reverse	<b>Off, On</b>			
		Tilt Reverse	<b>Off, On</b>			
		Pan/Tilt Feedback	<b>Off, On</b>			
		Pan/Tilt mode	Time			
			<b>Speed</b>			
		Pixel Control	Pixel Index	0-5		
			Pixel Mirror	<b>Off, On</b>		
			Reset to Default			
	Blackout Settings	Blackout During M.C.	<b>Off, On</b>			
		Blackout while:	Pan/Tilt moving	<b>Off, On</b>		
	Colour Mixing Mode	<b>RGBL</b>				
		CMY				
	White Point 8000K	<b>Off, On</b>				
	Tungsten Eff. Sim.	<b>Off</b>				
		750W				
		1000W				
		1200W				
		2000W				
		2500W				
	Dimmer Curve	Linear				
		<b>Square Law</b>				
	LEDs Output Frequency	3 0 0 H z , <b>6 0 0 H z</b> , 1200Hz, 2400Hz High				
	LEDs Frequency Adjust					
	Init Effect Positions	Pan	0-255			
		:				
		LC Dimmer+Str	0-255			
	Reset Init Efect Pos.					
	Screen Settings	Display Intensity	<b>1-10</b>			
		Screen Saver Delay	<b>Off-10min.</b>			
		Touchscreen Lock	<b>Off-10min.</b>			
		Display Orientation	Normal			
			Inverted			
			<b>Auto</b>			
	Temperature Unit	<b>°C, °F</b>				
	Fan Settings	Fan Mode	<b>Auto</b>			
			High			
			Quiet	Fan Noise Level		
		Quiet-Blackout Fan Off	<b>Off, On</b>			
	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			
		:				
		LC Dimmer+Str	0-255			
Stand -Alone	Test Sequences	Dynamic Mode				
		Static Mode	Pan	0-255		
			Tilt	0-255		
			Zoom	0-255		
	Preset Playback	<b>None</b>				
		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	Red	0-255		
			Green	0-255		
			Blue	0-255		
			Lime	0-255		
			Red Intensity	0-255		
			Green Intensity	0-255		
			Blue Intensity	0-255		
			Lime intensity	0-255		
		Load Default Calibrations				

## 6. Control menu

The Robin LEDBeam 200 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.

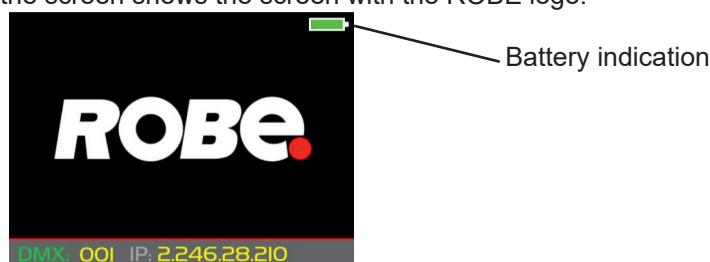
If the fixture is disconnected from mains, the button switches the screen on.

### 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

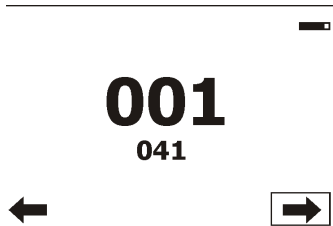
charges during fixture operation, its charging lasts cca 6 hours.

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 (as recorded and displayed in menu: Information -> Fixture Temperatures -> Ambient Temperature -> Maximum NonRes.) are kept within the specified limits, the battery should last for at least two years. Should 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 than 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

**gMA1** - Fixture receives MANet 1 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 **DMX512-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 200 has been fabricated.

**Resettable Hours** - The item shows the number of the operation hours that the Robin LEDBeam 200 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.

Build-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 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

**Module L2** - a LEDs control module

**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

**Module L2** - a LEDs control module

**Module O** - a zoom control module

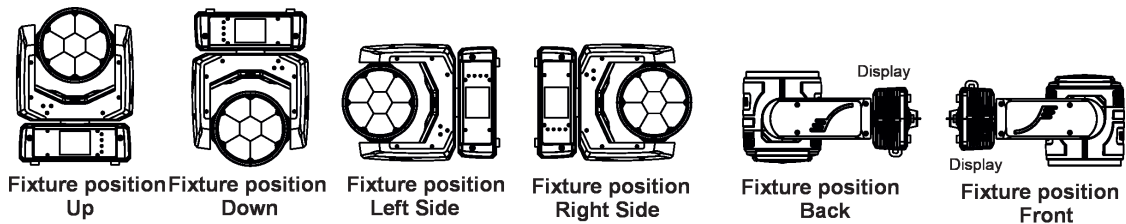
**Product IDs** - The menu is used to read the MAC Address ,RDM UID and RDM Label.

**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 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.

**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.

**ABlackout 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 RGLB or CMY mode. In the CMY mode, the lime(8bit)/lime (16) bit channels are not active.

**White Point 8000K** - 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 RGLBW 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.

**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.

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

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

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

**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, and 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 card!

**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 formatted 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 200.

**Dynamic Mode** - This mode uses all Robin LEDBeam 200 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 200 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 through 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.

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

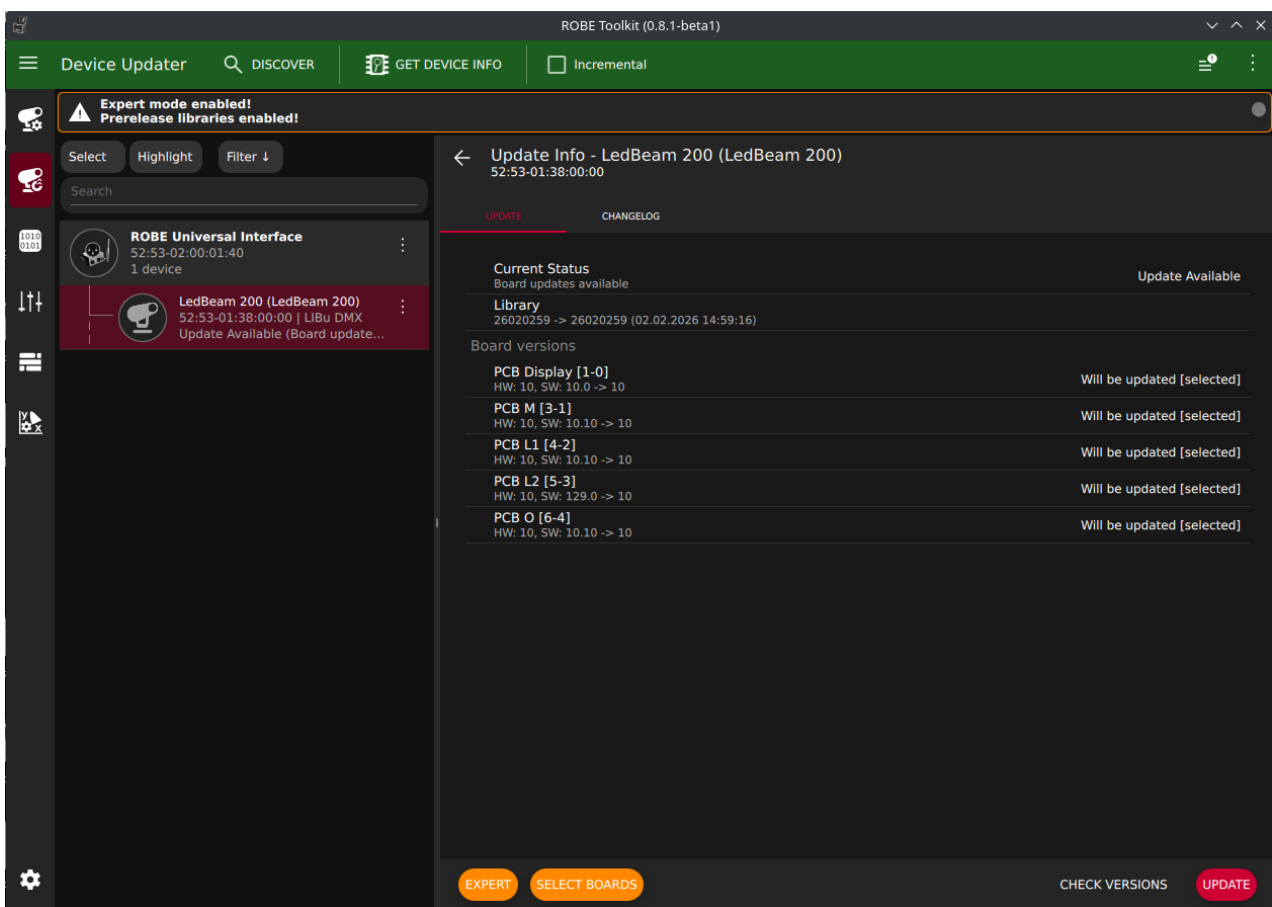
## 7. Software update

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 200 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 200 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 200 is 0x0169.

## 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](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.

#### **PROC X COMM ERR (e.g. PROC 2 COMM ERR)**

Internal communication error - some PCB in the fixture is faulty.

#### **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.

# 11. Technical Specifications

## Electrical

Power supply: electronic auto-ranging  
Input voltage range: 100-240V, 50-60Hz  
Fuse: T 4A/250V AC  
Max. power consumption: 330W (power factor 0.97)  
Max. inrush current: < 20 A @ 115 V AC & 230 V AC, cold start  
Mains output: max. 12A

## Source

Light source: 7 RGLB 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 450°  
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, 25, 32 control channels)

## External Wireless DMX/RDM module (optional)

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: RJ45 (EP version only)

## Max. number of fixtures in Ethernet IN/Out line

8

## Rigging

Mounting points: 1 pair of 1/4-turn locks  
Mounting horizontally or vertically via Omega bracket

## Temperatures

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

## Distances

Min. distance from flammable surfaces: 0.4 m  
Min. distance of illuminated objects: 1m

## Total heat dissipation

844 TU/h (calculated)

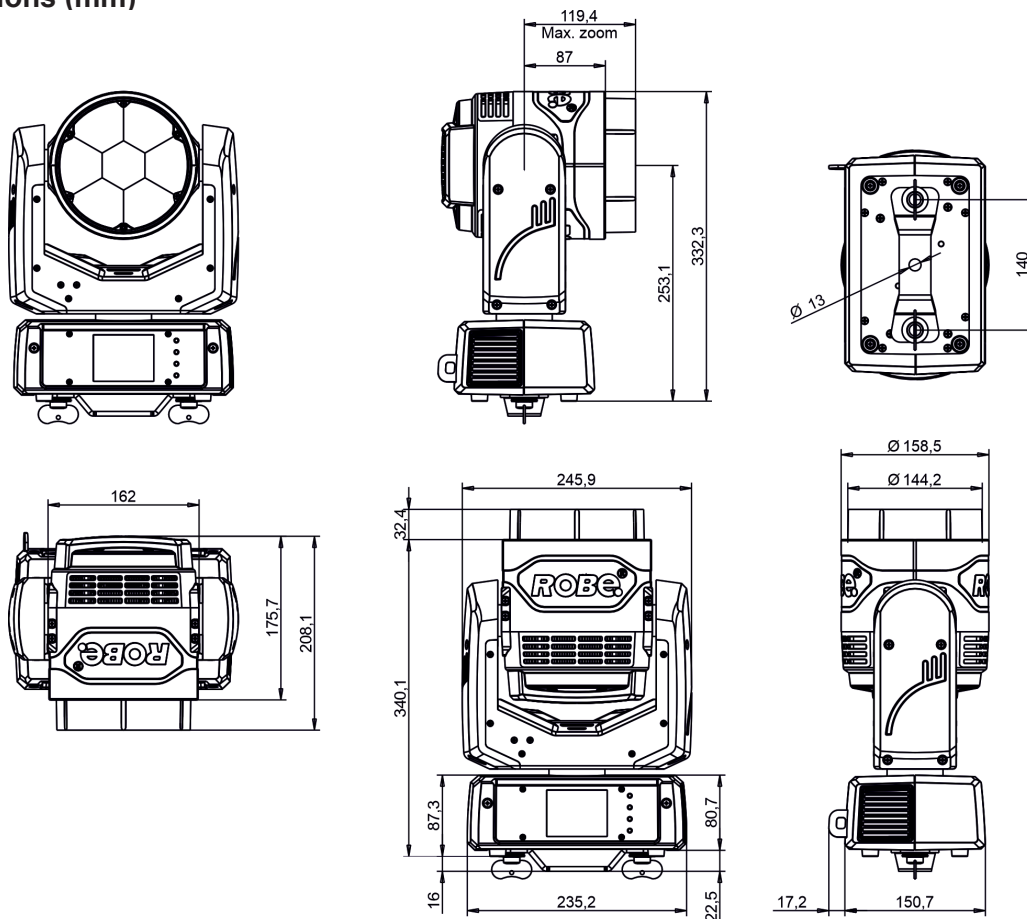
## Ingress protection rating

IP20

## Weight

5.9 kg (13 lb)

## Dimensions (mm)



## Accessories

- 1 x Omega adaptor CL-regular (P/N 99010420)
- 1 x user manual

## Optional accessories

- (P/N 10980127) ROBE Wireless DMX external module
- (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 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 10980423) Diffusion Filter 2° FW
- (P/N 10980346) EggCrate
- (P/N 10981141) LB200/SVB1 4Bar
- (P/N 10981507) Frost 5° assembled
- (P/N 10981506) Frost 2° assembled

## 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**

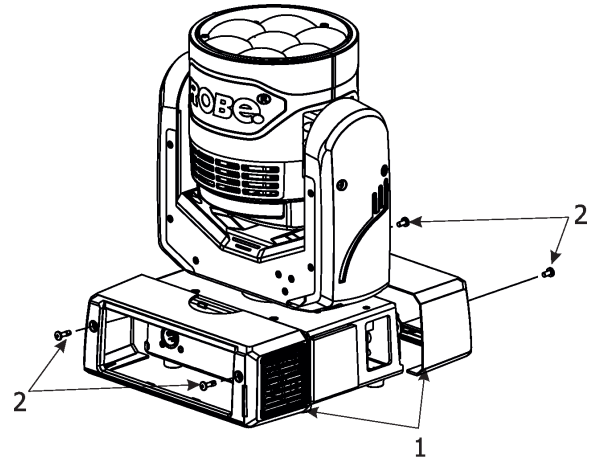
The plastic parts of the fixture should be checked for damages and beginning cracks at least every two months. If hint of a crack is found on some plastic part, do not use the fixture until the damaged part will be replaced. Cracks or another damages of the plastic parts can be caused by the fixture 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

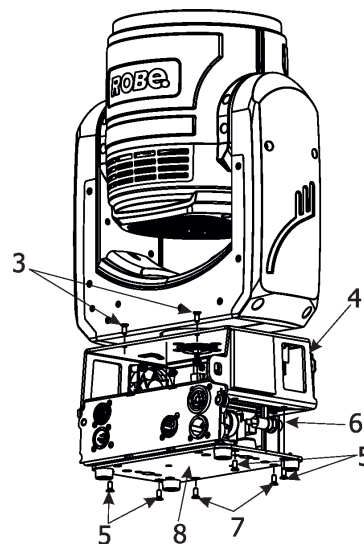
**Before replacing the fuse, unplug mains lead!**

1. Remove both plastic covers (1) of the base by unscrewing two fastening screws (2) on each cover.

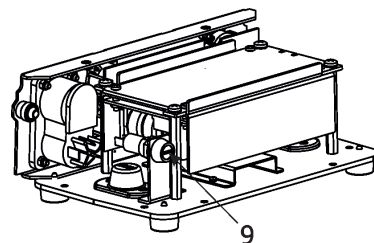


2. Unscrew four screws (3) on the top chassis (4). Lay down the fixture and unscrew four screws (5) on the bottom plate (8) to push out inside module of the base.

3. Unscrew two screws (7) on the bottom plate to remove rear panel of the fixture (6).



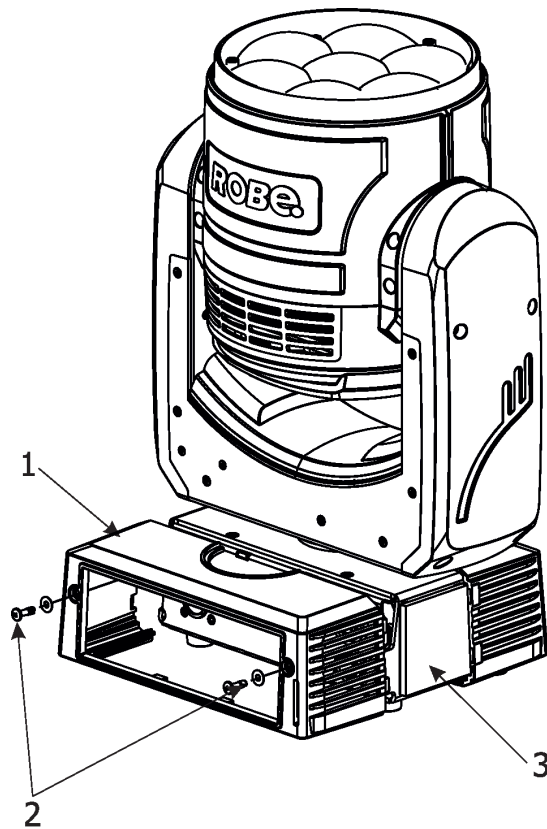
4. Now you have access to the fuse holder (9) in the inside module of the base.
5. Remove the old fuse from the fuse holder.
6. Replace the fuse in the fuse holder by a fuse of the same type and rating only.
7. Assemble the base of the fixture.



## 12.3 Cleaning of the air filter

**Before cleaning the air filter, unplug mains lead!**

1. Remove the front plastic cover of the base (1) by unscrewing two fastening screws (2) on the cover.



2. Clean the air filter (3) placed in the base. Use a vacuum cleaner, compressed air or you can wash it and put back dry.
3. Place the base cover back and fasten it by means of two screws (2).  
After replacing the air filter, reset the elapsed time counter in the menu Information.

## 13. ChangeLog

This section summarizes changes in the user manual.

Version of the manual	Date of issue	Description of changes

Robin LEDBeam 200™ - DMX protocol							
Version: 1.1							
Mode 1-Compatible mode, Mode 2- Full mode, Mode 3-ScreenPix mode							
<b>Quick overview of default DMX values for each channel and mode</b>							
Mode/channel			Default DMX value			Note	Function
M.1	M.2	M.3	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
16	8	8	0	0	0		CTC
17	9	9	45	45	45		Colour mix control
18	10	10	128	128	128		Zoom(8 bit)
19	11	11	0	0	0		Zoom fine (16 bit)
20	12	12	32	32	32		Shutter/ strobe
21	13	13	0	0	0		Dimmer intensity (8 bit)
22	14	14	0	0	0		Dimmer intensity fine (16 bit)
8	15	15	255/0	255/0	255/0	1	Red/Cyan (8 bit)
9	16	16	255/0	255/0	255/0	1	Red/Cyan fine (16 bit)
10	17	17	255/0	255/0	255/0	1	Green/Magenta (8 bit)
11	18	18	255/0	255/0	255/0	1	Green/Magenta fine (16 bit)
12	19	19	255/0	255/0	255/0	1	Blue/Yellow (8 bit)
13	20	20	255/0	255/0	255/0	1	Blue/Yellow fine (16 bit)
14	21	21	255/0	255/0	255/0	1	Lime (8 bit)
15	22	22	255/0	255/0	255/0	1	Lime fine (16 bit)
*	23	23	*	128	128		Green correction
*	24	24	*	10	10		LED frequency selection
*	25	25	*	0	0		LED frequency fine adjusting
*	*	26	*	*	255		ScreenPix Red - background
*	*	27	*	*	255		ScreenPix Green - background
*	*	28	*	*	255		ScreenPix Blue - background
*	*	29	*	*	0		ScreenPix Effect selection
*	*	30	*	*	128		ScreenPix Effect movement speed and direction
*	*	31	*	*	1		ScreenPix Effect colour selection
*	*	32	*	*	127		ScreenPix Dimmer and Shutter - background

## Robin LEDBeam 200™ - DMX protocol

Version: 1.1

Mode 1- Compatible mode, Mode 2- Full mode, Mode 3- ScreenPix mode

Mode/channel			DMX Value	Function	Type of control
1	2	3			
1	1	1		<b>Pan (8 bit)</b>	
			0 - 255	Pan movement by 450°	proportional
2	2	2		<b>Pan Fine (16 bit)</b>	
			0 - 255	Fine control of pan movement	proportional
3	3	3		<b>Tilt (8 bit)</b>	
			0 - 255	Tilt movement by 228°	proportional
4	4	4		<b>Tilt fine (16 bit)</b>	
			0 - 255	Fine control of tilt movement	proportional
5	5	5		<b>Pan/Tilt speed , Pan/Tilt time</b>	
			0	Standard mode	step
			1	Max. Speed Mode	step
				<b>Pan/Tilt speed mode</b>	
			2 - 255	Speed from max. to min.	proportional
				<b>Pan/Tilt time mode</b>	
			2 - 255	Time from 0.2 s to 25.5 sec.	proportional
6	6	6		<b>Power/Special functions</b>	
			0 - 9	Reserved	
				<i>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 20/12/12 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden (unless otherwise stated)</i>	
			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 26-32 are activated)	step
			96-97	ScreenPix: Off (channels 26-32 are deactivated)	step
			98-99	ScreenPix synchronization: On (ScreenPix utilizes LED colours)	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
				<i>To activate following functions, stop in DMX value for at least 3 seconds. Corresponding menu items are temporarily overridden</i>	
			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
				<i>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".</i>	
			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	
				<i>The following RoboSpot related commands are only applicable when the RoboSpot is connected:</i>	
			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
<b>7</b>	<b>7</b>	<b>7</b>		<b>Virtual colour wheel</b>	

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
<b>16</b>	<b>8</b>	<b>8</b>		<b>CTC</b>	
			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
			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
<b>17</b>	<b>9</b>	<b>9</b>		<b>Colour Mix control</b>	
				<i>Defines relation between colour channels</i>	
				"Virtual" = Virtual Colour Wheel	
				"Colour mix" = Colour channels (RGLB/CMY/CTC) or zones	
			0-9	"Virtual" has priority over "Colour Mix"	step
			10-19	Maximum mode (highest values have priority)	step
			20-29	Minimum mode (lowest values have priority)	step
			30-39	Multiply mode (multiply "Virtual" and "Colour Mix")	step
			40-49	Addition mode ("Virtual" + "Colour mix")	step
			50-59	Subtraction mode ("Virtual" -" Colour mix")	step
			60-69	Inverted Subtraction mode ("Virtual" -" Colour mix")	step
			70-79	White Point Off	step

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			80-128	Reserved	
			129	Virtual colors ("virtual" has priority)	step
			130-254	Crossfade (crossfade between "Virtual" and Colour mix)	proportional
			255	Colour channels ("Colour mix" has priority)	step
<b>18</b>	<b>10</b>	<b>10</b>		<b>Zoom (8 bit)</b>	
			0-255	Zoom from max. to min.beam angle	proportional
<b>19</b>	<b>11</b>	<b>11</b>		<b>Zoom - fine (16 bit)</b>	
			0-255	Fine zooming	proportional
<b>20</b>	<b>12</b>	<b>12</b>		<b>Shutter/ strobe</b>	
			0 - 31	Shutter closed	step
			32 - 63	Shutter open	step
			64 - 95	Strobe-effect from slow to fast	proportional
			96 - 127	Shutter open	step
			128 - 143	Opening pulse in sequences from slow to fast	proportional
			144 - 159	Closing pulse in sequences from fast to slow	proportional
			160 - 191	Shutter open	step
			192 - 223	Random strobe-effect from slow to fast	proportional
			224 - 255	Shutter open	step
<b>21</b>	<b>13</b>	<b>13</b>		<b>Dimmer intensity (8 bit)</b>	
			0 - 255	Dimmer intensity from 0% to 100%	proportional
<b>22</b>	<b>14</b>	<b>14</b>		<b>Dimmer intensity - fine (16 bit)</b>	
			0 - 255	Fine dimming	proportional
<b>8</b>	<b>15</b>	<b>15</b>		<b>Red/Cyan (8 bit)***</b>	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
<b>9</b>	<b>16</b>	<b>16</b>		<b>Red/Cyan (16bit)***</b>	
			0 - 255	Colour saturation control - fine	proportional
<b>10</b>	<b>17</b>	<b>17</b>		<b>Green/Magenta (8 bit)***</b>	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
<b>11</b>	<b>18</b>	<b>18</b>		<b>Green/Magenta (16bit)***</b>	
			0 - 255	Colour saturation control - fine	proportional
<b>12</b>	<b>19</b>	<b>19</b>		<b>Blue/Yellow (8 bit)***</b>	
			0 - 255	Colour saturation control - coarse 0-100%	proportional
<b>13</b>	<b>20</b>	<b>20</b>		<b>Blue/ Yellow (16bit)***</b>	
			0 - 255	Colour saturation control - fine	proportional
<b>14</b>	<b>21</b>	<b>21</b>		<b>Lime (8 bit) ***</b>	
				<i>If RGBL mode is selected:</i>	
			0-255	Colour saturation control - coarse 0-100%	proportional
				<i>If CMY mode is selected:</i>	
			0 - 255	No function	
<b>15</b>	<b>22</b>	<b>22</b>		<b>Lime (16 bit)***</b>	
			0 - 255	Colour saturation control - fine	proportional
<b>*</b>	<b>23</b>	<b>23</b>		<b>Green correction</b>	
			0	Uncorrected white	step
			1-127	Minus green --> uncorrected white	proportional
			128	Uncorrected white	step
			129-255	Uncorrected white --> Plus green	proportional
<b>*</b>	<b>24</b>	<b>24</b>		<b>LED frequency selection</b>	
				Factory display menu setting: 600Hz	

Mode/channel			DMX Value	Function	Type of control
1	2	3			
				<i>fine adjusted in 127 steps up/down around selected PWM frequency on</i>	
			0-4	PWM frequency from Display menu (fixture utilizes PWM frequency set in the display menu item Frequency Setup).	step
			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		<b>LED frequency fine adjusting</b>	
				Factory display menu setting: 600Hz	
				<i>Select desired PWM output frequency of LEDs on the channel above.</i>	
			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		<b>ScreenPix Red - background</b>	
			0-255	Red display saturation control 0-100%	proportional
*	*	27		<b>ScreenPix Green - background</b>	
			0-255	Green display saturation control 0-100%	proportional
*	*	28		<b>ScreenPix Blue - background</b>	
			0-255	Blue display saturation control 0-100%	proportional
*	*	29		<b>ScreenPix Effect selection</b>	
			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

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			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
			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
*	*	30		<b>ScreenPix Effect movement speed and direction</b>	
			0	No movement	step

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			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
*	*	<b>31</b>		<b>ScreenPix Effect colour selection</b>	
			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
			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
*	*	<b>32</b>		<b>Screen Pix Dimmer and Shutter - background</b>	
			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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