ROBE.
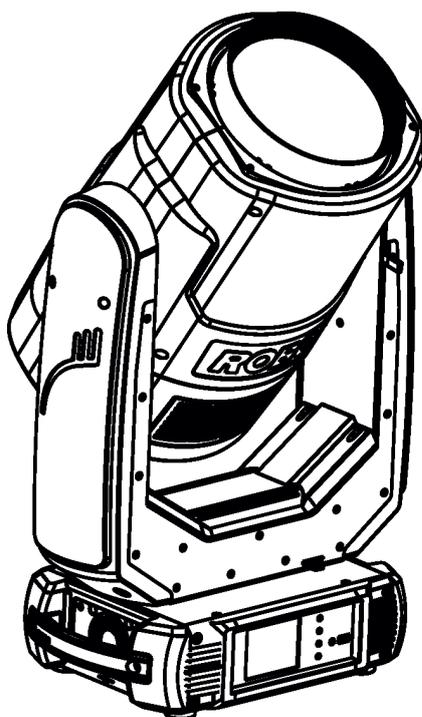
ROBIN® SuperSpikie

ROBIN® SuperSpikie

Wireless DMX   CRMX™

ROBE
Innovative
Technology

USER MANUAL

Version 1.0

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

Robin SuperSpikie

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> **FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE POWERING OR INSTALLING YOUR ROBIN SuperSuperSpikie !**
>
> **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 SuperSpikie 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!**

Make sure that the available voltage is not higher than stated on the rear panel of the fixture.
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.

WARNING! This unit does not contain an ON/OFF switch. Always disconnect power input cable to completely remove power from unit when not in use or before cleaning or servicing the unit.

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.

> **LED light emission. Risk of eye injury. Do not look into the beam at short distance of the of the product. Do not view the light output with optical instruments or any device that may conncentrate 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.

Air vents and slots in the fixture´s head and base are provided for ventilation, to ensure reliable operation of the device and to protect it from overheating.

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

The openings 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 cable when rigging this fixture.

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

The fixture becomes very hot during operation. Allow the fixture to cool approximately 20 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. Most damages are the result of unprofessional operation!

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!

If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short--circuit, burns, electric shock, crash etc.

To avoid damage of the internal optical system of the fixture, never let the sunlight or other fixture lights directly to the front lens , even when the fixture is not working !

Be carefull when the fixture performs fast pan and (or) tilt movement.
There is a danger of injury of your hands (especially fingers).

2. Fixture exterior view
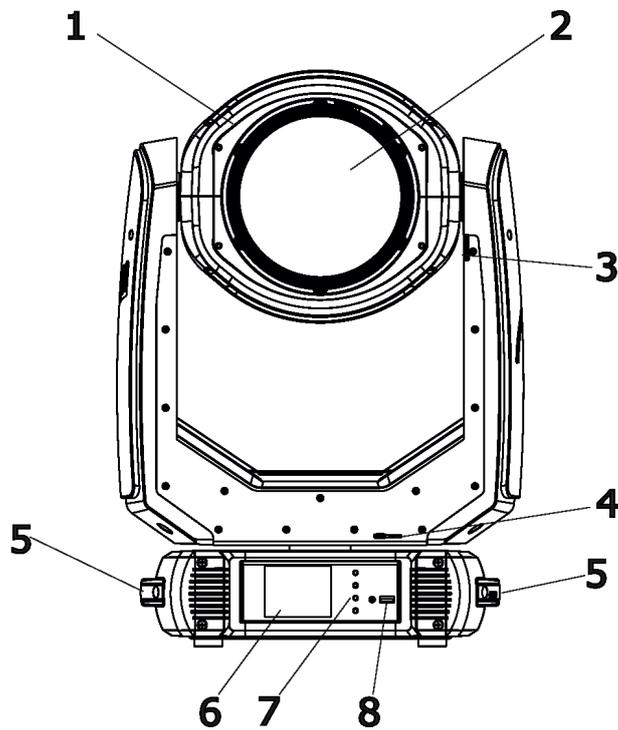
1 - Moving head
2 - Front lens
3 - Tilt lock
4 - Pan lock
5 - Handles
6 - QVGA touch screen
7 - Control buttons
8 - USB port
9 - Yoke
10 - Ethernet
11 - 5-pin DMX OUT
12 - 3-pin DMX OUT
13 - 3-pin DMX IN
14 - 5-pin DMX IN
15 - Fuse holder
16 - Mains IN
17 - Mains OUT
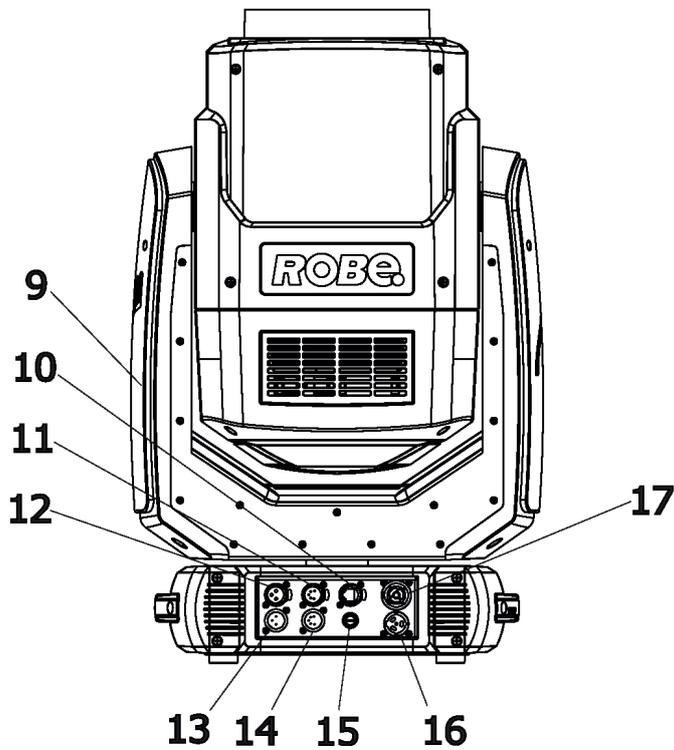
3. Installation

⚠ **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 SuperSpikie 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.
The cores in the power cable are coloured according to the following table.

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

This device falls under class one and must be earthed (grounded).
To apply power, first check that the head pan and tilt locks are released.

Design of the Robin SuperSpikie allows to connect several fixtures to AC mains power in one interconnected daisy chain using power input and throughput connectors. Needed daisy chain cords are stated in the chapter "Technical specifications "
The max. number of connected fixtures depends on the AC mains power voltage and certification:

| CE	cETLus
10 fixtures at power supply= 230V	6 fixtures at power supply= 230V
8 fixtures at power supply= 208V	5 fixtures at power supply= 208V
5 fixtures at power supply= 120V	3 fixtures at power supply= 120V

Actual numbers of fixtures may differ from values stated above as you have to take into account the length of supply cables, circuit breaker etc. at projecting of the fixtures installation Do not overload the supply line and the connecting leads.
Wiring and connection work must be carried out by qualified staff!

Supply lead
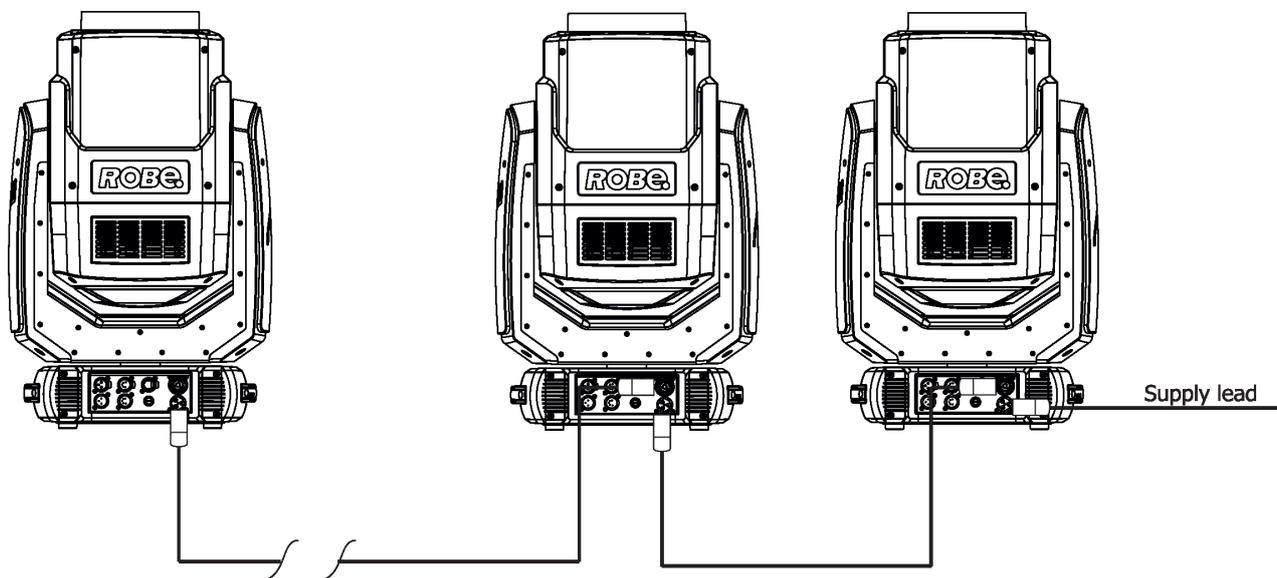
3.2 Rigging the fixture

A structure intended for installation of the fixture (s) must safely hold weight of the fixture(s) placed on it. The structure has to be certificated to the purpose.

The fixture (fixtures) must be installed in accordance with national and local electrical and construction codes and re**gulations.**

For overhead installation, the fixture must be always secured with a safety wire that can bear at least 10 times the weight of the fixture.

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 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 materials and the fixture. 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.

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.
Make sure that the device is fixed properly! Ensure that the structure (truss) to which you are attaching the fixture is secure.

The fixture can be placed directly on the stage floor or rigged on a truss without altering its operation characteristics.

Due to very fast pan/tilt movement of the fixture, the fixture has to be always anchored to the ground (base) otherwise there is a danger of knocking the fixture over.

For securing the fixture to the truss install a safety wire that can hold at least 10 times the weight of the fixture. Use only the safety wire with a snap hook with screw lock gate. Fasten the snap hook in the attachment point and the safety wire around the truss as shown on the picture below.

Truss installation

1. Bolt the clamps(3) to the omega holder (5) with M12 bolt and lock nut through the hole in the omega holder.
2. Fasten the omega holders to the bottom of the base by inserting both quick-lock fasteners (2) into
the holes of the base and tighten fully clockwise.
3. Clamp the fixture on a truss (6) and tighten the rigging clamps.
4. Pull the safety wire (4) through the attachment point (1) and through the handle (7) and around the truss (6)
and lock the snap hook with screw lock gate.
Use only a safety wire with a snap hook with screw lock gate.
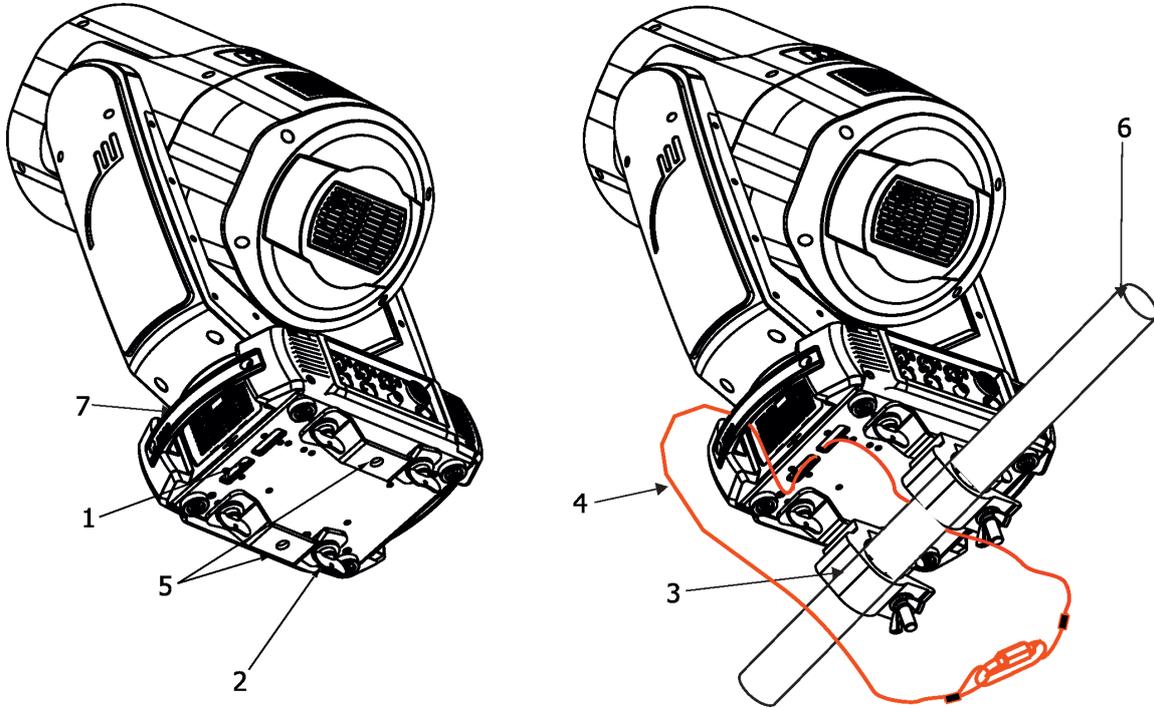
Mounting brackets Omega CL positions:
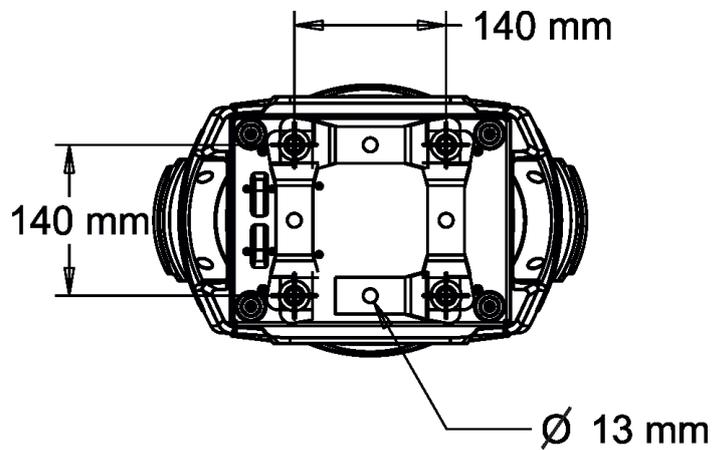
When installing fixtures side-by-side, avoid illuminating one fixture with another!

3.3 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:

1 - Shield
2 - Signal (-)
3 - Signal (+)
4 - Used for wireless DMX
5 - Used for wireless DMX

DMX input
XLR plug:

1 - Shield
2 - Signal (-)
3 - Signal (+)
4 - Used for wireless DMX
5 - Used for wireless DMX

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 adapter 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.
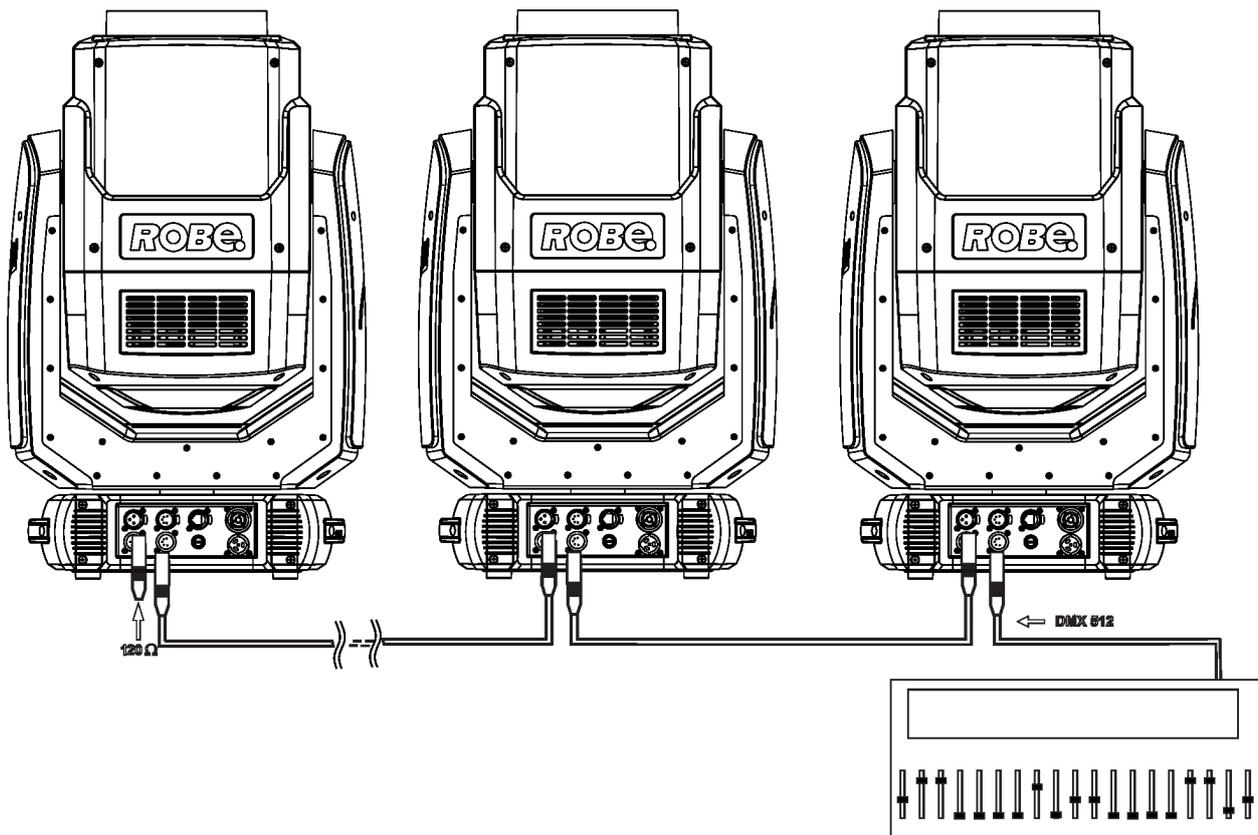
3.4 Ethernet connection

The fixtures on a data link are connected to the Ethernet with ArtNet (or MANet, MANet2, sACN) communication protocol. The control software running on your light console has to support some of the protocols.
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.

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 SuperSpikie is equipped with 8-pin RJ- 45 socket for Ethernet input. 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):   **RJ-45 plug (front view):**

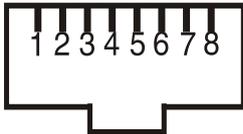|	
1- TD+	5- Not connected
2- TD-	6- RX-
3- RX+	7- Not connected
4- Not connected	8- Not connected
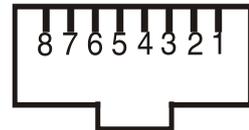
Patch cables that connect fixtures to the hubs or LAN sockets are wired 1:1,that is,pins with the same numbers are connected together:

       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

If the fixture is connected with active Ethernet socket (e.g. switch) the network icon will appear at the bottom right corner of the screen:
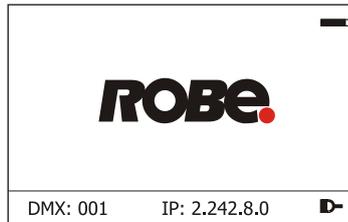
Ethernet operation
Connect the Ethernet inputs of all fixtures with the Ethernet network.
Option "Artnet (gMaI or gMA2 or sACN)" has to be selected from "Ethernet Mode" menu on the fixture.
Set IP address (002.xxx.xxx.xxx / 010.xxx.xxx.xxx) and the Universe.

(DMX address=161)	(DMX address=33)	(DMX address=1)
IP addres=002.168.002.004	IP addres=002.168.002.003	IP addres=002.168.002.002
Universe=1	Universe=1	Universe=1
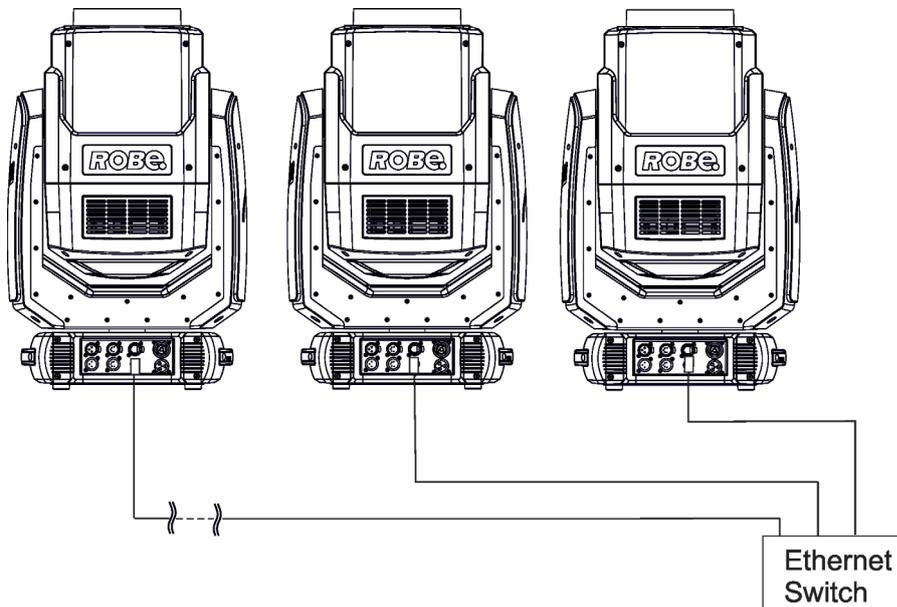
An advised PC setting: IP address: 002.xxx.xxx.xxx / 010.xxx.xxx.xxx (Different from fixture IP addresses)
                NET mask: 255.0.0.0

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 menu "Ethernet Mode" 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 DMX output of this fixture with DMX 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:
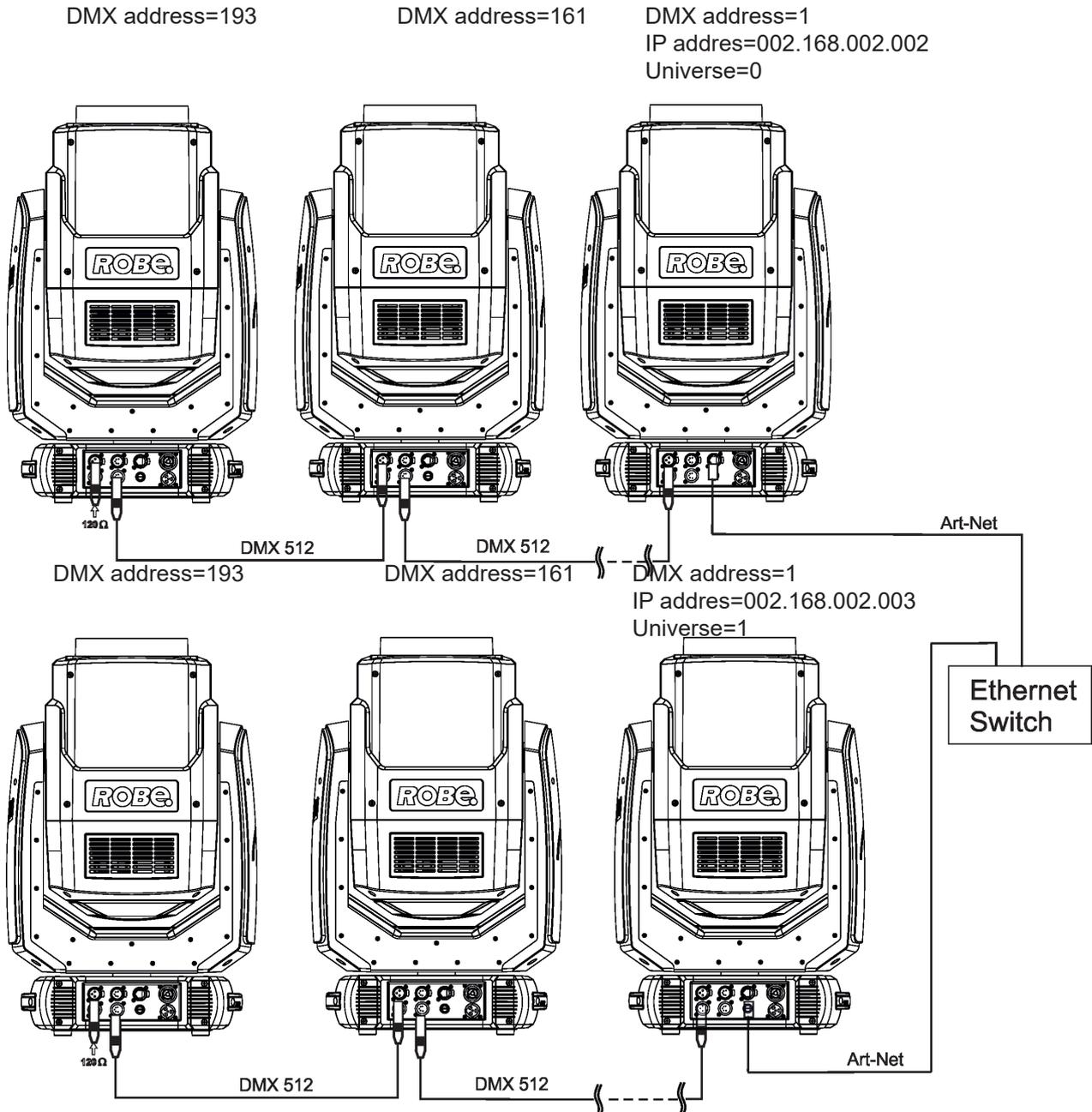
3.5 Wireless DMX operation

The wireless version of the Robin SuperSpikie is equipped with the Lumen Radio CRMX module and antenna for receiving DMX signal. CRMX module operates on the 2.4 GHz band.

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" adapter.

Example of connection:
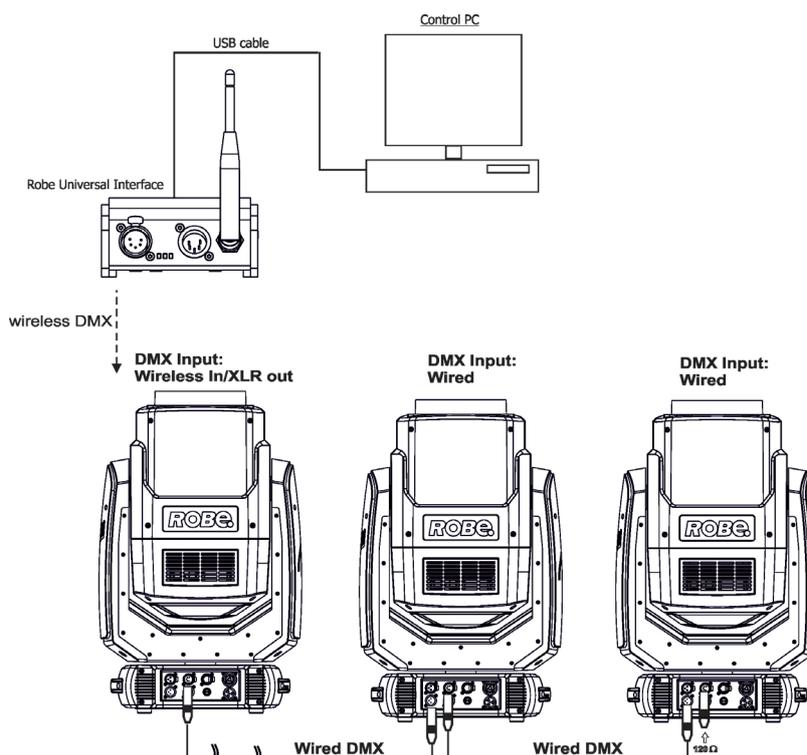
4. Remotely controllable functions

Virtual Colour wheel
The virtual colour contains 67 preset colours, rainbow effect in both directions with variable speed.

CTC (colour temperature correction)
The CTC channel allows to change colour temperature of white in range of 2700K-8000K.

Colour Mix control
The Colour Mix control channel defines relation between colour channels (R,G,B,W) and virtual colour wheel:

DMX value	Function
0-9	Virtual colour wheel has priority
10-19	Maximum mode (highest values have priority)
20-29	Minimum mode (lowest values have priority)
30-39	Multiply mode (multiply Virtual colour wheel and Colour channels)
40-49	Addition mode (Virtual colour wheel + Colour channels) - default
50-59	Subtraction mode (Virtual colour wheel – Colour channels)
60-69	Inverted Subtraction mode (Virtual colour wheel – Colour channels)
70-128	Reserved
129	Virtual colour wheel has priority
130-254	Cross fade between Virtual colour wheel and colour channels
255	Colour channels have priority

Prism
The 3-facet prism rotates in both directions at different speeds.

Flower Effect
The Flower effect rotates in both directions with variable speed. 10 Flower effect macros are created.

Frost filter
The separate frost filter allows you to widen max. beam angle up to 42°.

Zoom
The motorized zoom module allows beam range of 4°-33° (Flower Effect Off) / 3.5°-31° (Flower Effect Off) or 5°-42°(with Frost filter).

Dimmer/Shutter unit
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°/360°, continual pan/tilt rotation.

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, Mode 4			
		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	
				sACN Priority	0-255	
			Klingnet Settings	**Off**		
				On		
Information	Fixture Times	Power On Time	Total Hours			
			Resetable Hours			
		Air Filters	Elapsed Time			
			Alert Period	10-300		
	Fixture Temperatures	LEDs Temperature	Current			
			Maximum NonRes.			
			Maximum Res.			
		Base Temperature	Current			
			Maximum NonRes.			
			Maximum Res.			
	DMX Values	Pan				
		:				
		Dimmer Fine				
	Wireless State	Signal Quality				
		Unlink Wireless Adapter				
	Power Channel State					
	Software Versions	Display System				
		Module M				
		Module G				
		Module P				
		Module O				
		Module L				
	Product IDs	Mac Address				
		RDM UID				
		RDM Label				
	View Logs	Fixture Errors				
		Fixture States	Power On			
			Power Off			
		Fixture Position				
		Fixture Temperatures	LEDs Temperatures			
			Base Temperatures			

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Personality						
	User Mode	**User A Settings**				
		User B Settings:				
	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			
	Microphone Sensitivity	1-**10**-20				
	Blackout Settings	Blackout During M.C.	**Off**, On			
		Blackout while:	Pan/Tilt moving	**Off**, On		
	Colour Mixing Mode	**RGBW**				
		CMY				
	White Point 8000K	Off, **On**				
	Tungsten Eff. Sim.	**Off**				
		750W				
		1000W				
		1200W				
		2000W				
		2500W				
	Init Effect Positions	Pan	0-255			
		:				
		Dimmer Fine	0-255			
	Screen Settings	Display Intensity	1-**10**			
		Screen Saver Delay	**Off**-10min.			
		Touchscreen Lock	**Off**-10min.			
		Recalibrate Touchscreen				
		Display Orientation	Normal			
			Inverted			
			Auto			
	Temperature Unit	**°C**,°F				
	Fan Mode	**Auto**				
		High				
	Dimmer Curve	Linear				
		Square Law				
	Date & Time Settings					
	Default Settings					
Manual Control	Reset Functions	Total System reset				
		Pan/Tilt reset				
		Zoom Reset				
		Flower Ef/prism. Reset				
		Gobo Reset				
	Manual Effect Control	Pan	0-255			
		:				
		Dimmer Fine	0-255			

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
Stand -Alone	Test Sequences	Dynamic Mode				
		Static Mode	Pan	0-255		
			Tilt	0-255		
			Zoom	0-255		
	MusicTrigger	**Off**, On				
	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			
		:				
		Dimmer Fine	0-255			
	Calibrations	Calibrate Effects	Pan	0-255		
			Tilt:	0-255		
			Rot. Gobo wheel			
			R. Gobo Index 1			
			R. Gobo Index 2			
			Rod Rotation			
			Prism 1			
			Prism 2			
			Prism Rot.			
			F. Frost 1			
			F. Frost 2			
			Frost 1			
			Frost 2			
			Zoom			
		Calibrate colours	Red	0-255		
			Green	0-255		
			Blue	0-255		
			White	0-255		
		Load Default Calibrations				
	Update Software					

6. Control menu

The Robin SuperSpike Light is equipped with the QVGA Robe touch screen with battery backup which allows to set the fixture´s behaviour according to your needs, obtain information on its operation, test its various parts and lastly program it, if it has to be used in a stand-alone mode.
The fixture´s menu can be controlled either by the control buttons or directly by touching the icon.

Control buttons on the front panel:
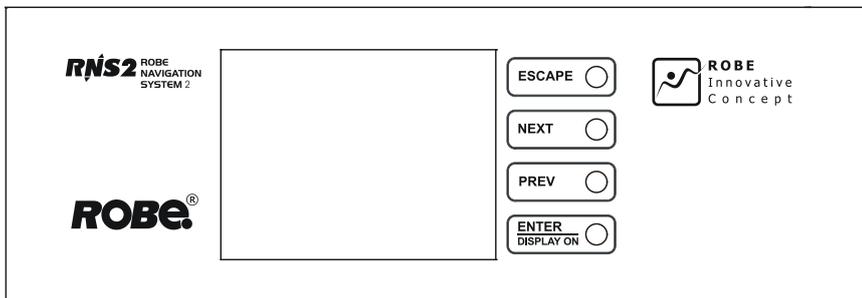
[ESCAPE] button used to leave the menu without saving changes.

[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 touch screen on.

Icons used in the touch 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°.

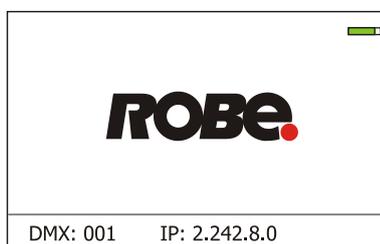- [slider control] used to recall slider system for setting desired value.

- [keyboard control] used to recall keyboard system for setting desired value.

- [air filters cleaning] used to signal that cleaning period of the air filters elapsed.

After switching the fixture on, the touch 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. 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.

Touch any part of the screen or press the [ENTER/Display On] button to display the initial screen with the current stored DMX address:

001
041

← →
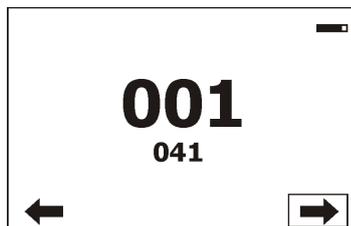
Touch the green arrow at the bottom right corner of the screen or press the [ENTER/Display On] button to enter the " Address" menu.

Each item (such as a Tab, menu item, text box, icon) may be selected from a screen by simply touching the item in the list or by pressing the [NEXT] or [PREV] buttons to scroll through 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 Setings).

6.1 Tab " Address"

DMX Address - Select the menu to set the DMX start address.

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.
sACN Priority - The value of this item can be set in range 0-255.

Klingnet Settings - Use this menu to enable or disable Klingnet protocol.

6.2 Tab "Information"

Fixture Times - The menu provides readouts of fixture operation hours and air filters using hours.
Power On Time Hours - 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 SuperSpike has been fabricated.
Resetable Hours - The item shows the number of the operation hours that the Robin SuperSpike 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 "Resetable Hours:"
Air Filters - Regular cleaning of the air filters 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 filters.
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 filters. 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 all air filters 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 filters.
The time period is set in the menu mentioned above.
Expired time period is signalled by a negative mark (-) at the time value and a warning icon
on the display.
Clean the filters 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.
LEDs temperatures - The menu shows temperature on the LEDs PCB .
Cur. - A current temperature of the LEDs PCB.
Max. - A maximum temperature of the LEDs PCB since the fixture has been fabricated.
Max. Res. - A maximum temperature of the LEDs PCB since the counter was last reset.
In order to reset some counter to 0, touch desired text box under item "Max.Res."
Base Temperature - The menu shows temperature in the fixture base (on the display PCB).
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.

Wireless State - The menu serves for reading of the wireless operation status.
   Unlink Wireless Adapter - The item serves for unlinking the fixture from DMX transmitter.
if the wireless module is not installed in the fixture, message" Wireless Module Not Installed" will appear.

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

Software Version - Select this item to read the software version of control processors:
          Display System - a display processor on the display board in the fixture base
          Module M - a pan/Tilt control processors
          Module G - a gobo control processor
          Module P - a prism/frost control processor
          Module O - a zoom control processor
          Module L - a LEDs control processor

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 colected data allows easier troubleshooting.
   Fixture Errors - Use this menu to read fixture errors which have occured during fixture operation.
   Fixture States - Recorded following actions: Power On, Power Off.
   Fixture Position - Recorded installation positions of the fixture:
   Fixture Temperatures - Recorded temperatures (LEDs Temperature, Base Temperature) 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"

User mode - The Robin SuperSpikie allows you to recall two user settings. After switching the fixture on for the first time, the User A settings is active. Now all changes made in the "Personality" tab , "Addressing" tab and the items "Music Trigger" and " Preset Playback" from the "Stand-alone" tab are saved to the User A settings. If you now select the User B settings, from this moment the changes made in these menus will be saved to the User B settings. After switching the fixture off and on, the User B setting is active.
   User A Settings - the function recalls the user A settings.
   User B Settings - the function recalls the user B settings.

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

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 permanent 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".

Microphone Sensitivity - Enter the menu if you want to adjust the microphone sensitivity from 1 (max.) to 20 (min.).

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

Blackout DMC - 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.

Active Blackouts - 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 pan or tilt position of the moving head is changing.

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

White Point 8000K - If the function is on, the CTC channel allows to set desired white in range of 8000K-2700K (0 DMX=8000K, 255 DMX=2700K). Necessary condition is , that RGBW channels have to be full or set at the same DMX values, 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.

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.

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.

Recalibrate Touchscreen - The item starts calibration of the touchscreen. Follow the instructions on the screen.

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 overriden.

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

Fan Mode - Use the menu to set the fixture fans to max. power mode ("**High**") or to auto-control mode ("**Auto**").

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

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 the 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.
   Total System Reset - The item resets all function modules.
   Pan/Tilt Reset - The item resets the pan and tilt movement.
    Zoom Reset - The item resets the zoom module.
   Flower Ef/Prism Reset - The item resets the Flower effect and rotating prism.
   Gobos Reset - The item resets rotating gobos
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 SuperSpike.
   Dynamic Mode - This mode uses all Robin SuperSpike 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 and tilt to desired positions and start test sequences by touching the green ▶ icon.

Music Trigger - Use the item to activate the sound control of the running program via the built-in microphone.
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 No. 1.
   Prog. 2 - The option starts user program No. 2.
   Prog. 3 - The option starts user program No. 3.

Play program - Use the menu to run desired program in a loop.
   Play Program 1 - The option starts user program No.1.
   Play Program 2 - The option starts user program No. 2.
   Play Program 3 - The option starts user program No. 3.
Edit Program - Use the menu to create or to edit desired program. The Robin SuperSpike offers 3 free programs, each up to 100 steps.
   Edit Program 1 - The option allows to edit user program No.1.
   Edit Program 2 - The option allows to edit user program No.2.
   Edit Program 3 - The option allows to edit user program No.3
To edit program:
1. Touch the item which you want to edit ("Edit Program 1" - "Edit Program 3").
2. Touch the item "Edit Program Steps".
3. Touch the item "Step 1".
4 From the list of effects touch desired effect and set its value. Browse throw the list by touching 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
5. Save adjusted effects to the current step by touching the [confirm] or save and copy them to the following step by touching the [confirm+copy]. By touching the text box "Preview" next to the current program step you can view created scene.
6. Repeat the steps 4 and 5 for next program steps.
7. After editing desired program steps, adjust the length of the program by touching the text boxes "Start Step" and "End Step".
Meaning of the icons used in the "Edit Program" menu:
⬇ - moves down on the next page   ✔ - saves adjusted values and leaves menu

⬇ - moves up on the previous page   ✅ - saves values to the current step and copy them to the
                                              following prog. step
❌ - leaves 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
          Rot. Gobo Wheel - a fine movement of module of rotating gobos
          R. Gobo Index 1 - a fine rotation of the rotating gobo 1
          R. Gobo Index 2 - a fine rotation of the rotating gobo 2
          Rod Rotation - a fine rotation of the rod
          Prism 1 - a fine movement of the prism module
          Prism 2 - a fine movement of the prism module
          Prism Rot. - a fine rotation of the prism
          F. Frost 1 - a fine movement of the small frost above rod
          F. Frost 2 - a fine movement of the small frost above rod
          Frost 1 - a fine movement of the frost module
          Frost 2 - a fine movement of the frost module
          Zoom - a fine movement of the zoom system

Calibration of the effects via the control board
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 next item
5. After calibrating all effects, touch the [confirm] to save all adjusted values and reset the fixture.

  Calibrate Colours - The menu serves for adjusting of LEDs saturation to achieve uniform white colours
          Red - a red LEDs saturation fine adjustment
          Green - a green LEDs saturation fine adjusment
          Blue - a blue LEDs saturation fine adjustment
          White - a white LEDs saturation fine adjustmentt

Calibration of white colours via the control board
1. Disconnect DMX controller from the fixture , open shutter and dimmer and set the CTC channel
   to DMX=64 (white 5600K), RGBW channels to 255 DMX and Zoom channel to 128 DMX.
2. Set the following items in the menu Personality:
   White Point 8000K =On
   Colour Mixing Mode=RGBW
3. Aim the light beam on the lux meter (e.g. Minolta CL-70F- Chroma meter) which is placed at
   min. distance of 3 m from the fixture.
4. Enter the menu Calibrate Colours.
5. By means of the Red, green, Blue and White items adjust the 5600K colour temperature as exactly as
   possible (Δu´v´= 0).
6. After adjusting 5600K colour temperature, touch the [confirm] to save all adjusted values and reset
   the fixture.

Calibration protocol:

Calibrated Effect	*Channel*
Pan	channel 32
Tilt	channel 33
Rot. Gobo Wheel	channel 34

R. Gobo Index 1	channel 35
R. Gobo Index 2	channel 36
Rod Rotation	channel 37
Prism 1	channel 38
Prism 2	channel 39
Prism Rot.	channel 40
F. Frost 1	channel 41
F. Frost 2	channel 42
Frost 1	channel 43
Frost 2	channel 44
Zoom	channel 45

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

**Update software** - The menu item allows you to update software in the fixture.
The following items are required in order to update software:
- PC running Windows or Linux or macOS
- DSU file
- Flash cable RS232/DMX, P/N13050624 (if you want to use a serial port of PC)
- Robe Universal Interface or Robe Universal interface WTX (if you want to use an USB port of PC)

After the software updating the fixture will be set to default (factory) values.

To update software in the fixture:
1. DSU file is available from Robe web site at WWW.robe.cz.
   File with extension zip is intended for Windows (used and tested from XP to W10 on 32/64bit systems).
   File with extension tbz is intended for Linux (used and tested on Debian and Ubuntu 32/64bit).
   File with extension dmg is intended for macOS (used and tested on OSX up to Sierra) XQuartz required,
   install it from https://www.xquartz.org/
   Save the download file to a folder on your computer.
   In case that you use windows, extract files in the zip file (e.g. DSU_RobinSuperSpikie_18082037.zip)
2. Disconnect the fixture from DMX controller.
3. If you use the flash cable RS232/DMX, connect a serial port of your computer with DMX input of the fixture
    by means of the cable.
   If you use the Robe Universal Interface, connect a USB port of your computer with the Robe Universal Interface
   by means of the USB cable and DMX input of the fixture with the DMX output of the Robe Universal Interface
   via a DMX cable.
4. Switch the fixture to the update mode (Service --> Updating Software).
   Note: If you do not want to continue in the software update, you have to switch off and on the fixture
   to escape from the updating mode.
   We recommend to cancel all running programs on your computer before starting the software update.
5. Double-click the software uploader file (e.g. DSU_RobinSuperSpikie_18082037.exe) in
   the extracted files. The Software Uploader program will start running.
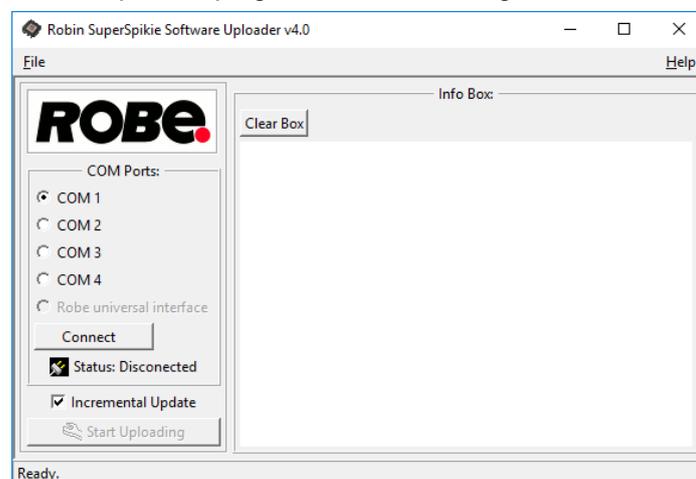
6. Select correct "COM " number if you use a Flash cable RS232/DMX or select "Robe Universal Interface 1 "
    if you use the Robe Universal Interface/Robe Universal Interface WTX and then click on the "Connect" button.
7. If the connection is OK, click the "Start Uploading" button to start software uploading. It will take several
    minutes to perform software update.

If the option "Incremental Update" is not checked, all processors will be updated (including processors with the same software version).

If you wish to update only processors with new version of software, check the "Incremental Update box".

Avoid interrupting the process. Update status is being displayed in the "Info Box" window.

When the update is finished, the line with the text "Fixture is successfully updated" will appear in this window.

In case upload process is interrupted (e.g. power loss), the fixture stays in "Updating mode" and you will have to repeat the software update again.

Another way, how to update software in the fixtures (especially large installation of fixtures) is to use the ROBE Uploader. It is a software for automatized software update of Robe fixtures. It takes advantage of RDM support).

For more information please see https://www.robe.cz/support/.

7. 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 SuperSpikie 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 SuperSpike is 0x0102.

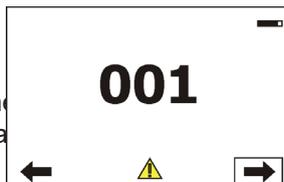# 8. Error and information messages

Information icon

⊛ **- Air Filters Cleaning**

This icon signalizes that cleaning period of the air filters has elapsed
and you have to clear air filters and reset the menu item "Elapsed Time".
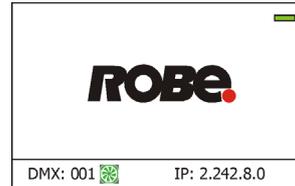
Errors

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

Touch the warning icon or press the ⌐⌐⌐ to display error messages.
List of error and information messages:

Temper. Sensor Error

The message informs you that the communication betwen the head temperature sensor and the main processor failed.

Tilt Error 1 *(Tilt Error 2)*

This message will appear after the reset of the fixture if the head´s magnetic-indexing circuit malfunctions (sensor failed or magnet is missing) or the stepping motor is defective or its driving IC on the PCB. The head is not located in the default position after the reset.

Pan Error 1 *(Pan Error 2)*

This message will appear after the reset of the fixture if the yoke´s magnetic-indexing circuit malfunctions (sensor failed or magnet is missing) or the stepping motor is defective or its driving IC on the PCB. The yoke is not located in the default position after the reset of the fixture.

Zoom Error 1 (Zoom Error 2)

The messages will appear after the reset of the zoom module if the zoom module is not located in the default position.

Rod Error

The messages will appear after the reset of the flower effect if the rod is not in the default position.

EEprom Error

Hardware error of the EEprom.

Recharge The battery

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

Battery faulty. Replace it.

The battery on the display board is exhausted and should be replaced immediately.

Clean Air Filters

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

9. Technical Specifications

Electrical

Power supply: electronic auto-ranging
Input voltage range: 100-240V, 50-60Hz
Max. power consumption: 330W
Fuse: T 5A/250V ~

Mains input: CE - max. 16A
ETL - max. 10A
Mains output: CE - max. 15A
ETL - max. 9A

Optic

Light source: 250W RGBW LED multichip
Min LED life expectancy: 20.000 hours (at full load of LEDs)
RGBW/CMY colour mixing +CTO
Halogen lamp effect at whites 2700K and 3200K

Virtual colour wheel

68 preset colours
CTC in range of whites 2700K-8000K
Rainbow effect with variable speed

Zoom

Linear motorized zoom: 4°-33° (Flower Effect Off)
3.5°-31°(Flower Effect On)
5°-42°(with Frost filter)

Strobe

Strobe effect with variable speed (0.3 - 20Hz)

Dimmer

Smooth dimmer from 0 - 100 %

Prism

3-facet circular prism with continuous rotation in both directions

Flower effect

Flower effect rotating in both directions
10 Flower effect macros

Rotating gobo wheel

2 glass gobos can be indexed and rotated in both directions at different speeds
Glass gobos: outside diameter=26.9 mm, image diameter=22.5 mm, thickness=1.1 mm,
high temperature borofloat or better glass
"Slot&lock" system for easy replacement of gobos

Pan/Tilt

Pan movement range 540° (switchable to 360°)
Tilt movement range 360°
Continual pan/tilt rotation
16 bit movement resolution
Automatic Pan/Tilt position correction
Remotely controllable speed of pan/tilt

Control

Graphic touch screen for fixture setting and addressing
Gravitation sensor for auto screen positioning
Battery backup of the touch screen
Readout fixture usage, receiving DMX values, temperatures, etc
Built-in analyzer for easy fault finding, error messages
Built-in demo sequences
Stand-alone operation
3 user editable programs, each up to 100 steps
Supported protocols: USITT DMX-512, RDM, Art-Net, MA Net, MA Net2, sACN, KlingNet
31 control channels

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
Producer: LumenRadio

Connection

DMX in/Out: 3-pin and 5-pin XLR
Ethernet: RJ 45
Power IN: Neutrik TrueOne NAC3MPX
Power OUT: Neutrik TrueOne NAC3FPX

Rigging

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

Temperatures

Maximum ambient temperature : 45° C
Maximum housing temperature : 70° C

Distances

Min. distance from flammable surfaces: 0.4 m
Min. distance to lighted object: 1 m

Total heat dissipation

1125 BTU/h (calculated)

Weight (net)

18.5 kg

Dimensions (mm)
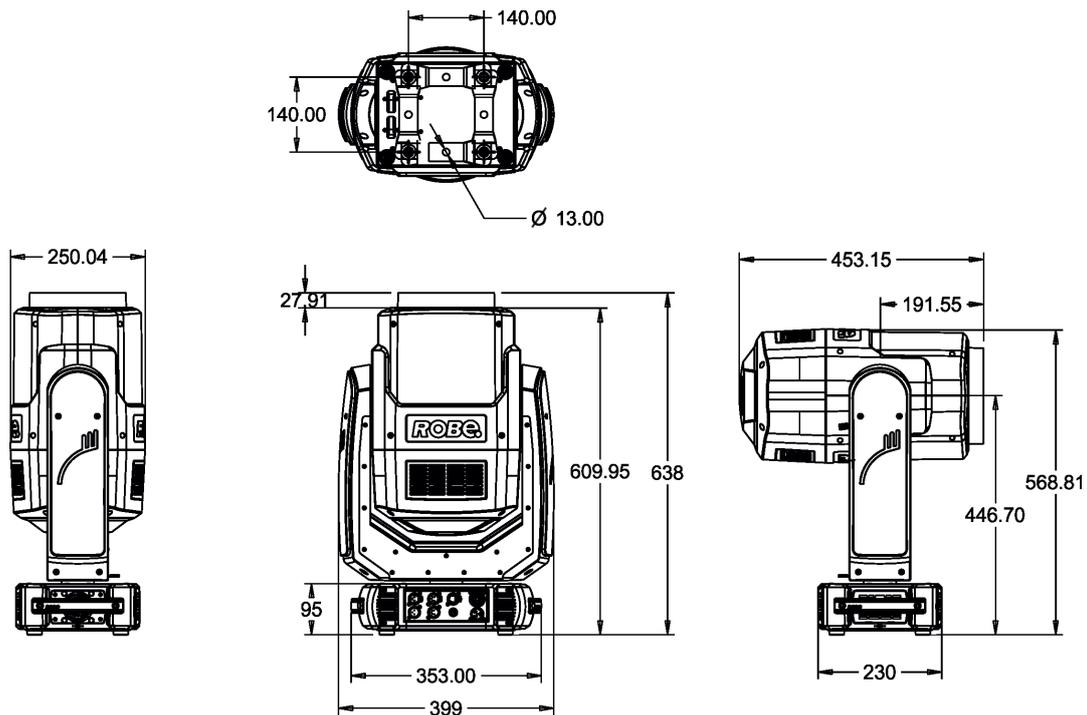
Accessories

1x Omega adaptor CL-regular 2 pcs in box (P/N10980033)

Optional accessories

(P/N 1305 2439) Daisy Chain PowerCon TRUE1 In/Out, EU, 2m, indoor
(P/N 1305 2440) Daisy Chain PowerCon TRUE1 In/Out, US, 2m, indoor
(P/N 13052444) Daisy Chain PowerCon TRUE1 In/Out, EU, 5m, indoor
(P/N 1305 2405) Mains Cable PowerCon In TRUE1/Schuko, 2m, indoor
(P/N 1305 2406) Mains Cable PowerCon In TRUE1/US, 2m, indoor
(P/N 1305 2407) Mains Cable PowerCon In TRUE1/open ended, 2m, indoor
(P/N 13052445) Mains Cable PowerCon In TRUE1/CEE 16A, 2m, indoor
Upgrade kit CRMX Universal 260 (P/N 99030100)
(P/N 17030386) Doughty Trigger Clamp
(P/N 99011963) Safety wire 35 kg

10. Maintenance and cleaning

DANGER !
Disconnect the fixture from the mains before starting any
maintenance work

A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used!

Never use solvents for cleaning the the fixture

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 good glass cleaning fluid is recommended, under no circumstances should solvents be used!

Front lens may require weekly cleaning as smoke-fluid tends to building up residues, reducing the light output very quickly. The cooling fans should be cleaned according to the situation (at least annually).
The interior of the head and base should be cleaned at least annually using a vacuum-cleaner.

Important! Check the air filter in fixture base periodically and clean before it becomes clogged!

Periodically clean air filter placed in the fixture´s base. The air filter cover is fastened by means of magnets. Use a vacuum cleaner, compressed air or you can wash them and put back dry.
After replacing the air filters, reset the elapsed time counter in the menu "Information" (Information--->Air Filters---> Elapsed Time).

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

10.1 Replacing the fuse

Before replacing the fuse in the fixture, unplug mains lead!

Before replacing the fuse, unplug mains lead.
>   1) Remove the fuse holder on the rear panel of the base with a fitting screwdriver from the housing
>   (anti-clockwise).
>   2) Remove the old fuse from the fuse holder.
>   3) Install the new fuse in the fuse holder (only the same type and rating).
>   4) Replace the fuseholder in the housing and fix it.

10.2 Disposing of the product

To preserve the environment please dispose or recycle this product at the end of its life according to the local regulations and codes.

11. Photometric diagrams

Min. Zoom
Flower Effect Off
Total Output: 2070 lumens
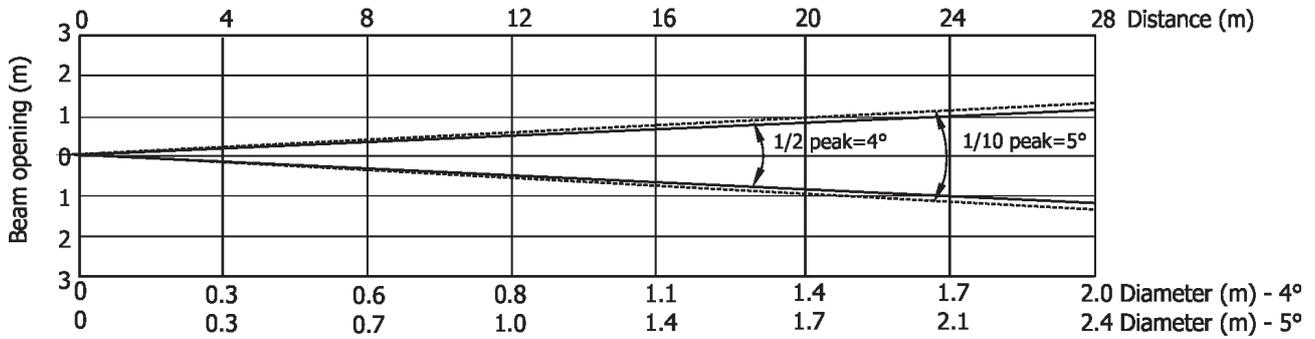
Distance (m)	4	5	8	12	16	20	24	28	
Red	5469/508	3500/352	1367/127	608/57	341/32	219/20	452/14	112/10	
Green	12125/1126	7760/721	3031/282	1347/125	758/70	485/45	337/31	247/23	Intensity (center) Lux/Footcandles
Blue	3109/289	1990/185	777/72	345/32	194/18	124/12	86/8	64/6	
White	19218/1785	12300/1143	4804/446	2135/198	1201/112	769/72	533/50	392/36	
R+G+B+W	32968/3063	21100/1960	8242/766	3663/340	2060/191	1318/123	915/85	672/63	

Illuminance distribution
Distance=5m
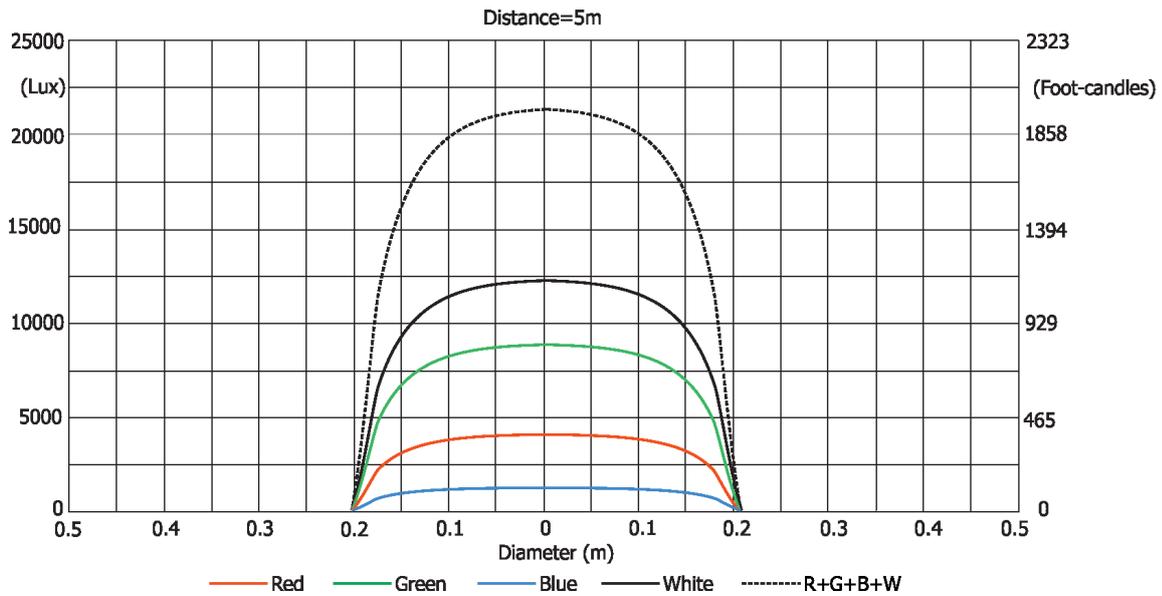
Max. Zoom
Flower Effect Off

Total Output: 4093 lumens
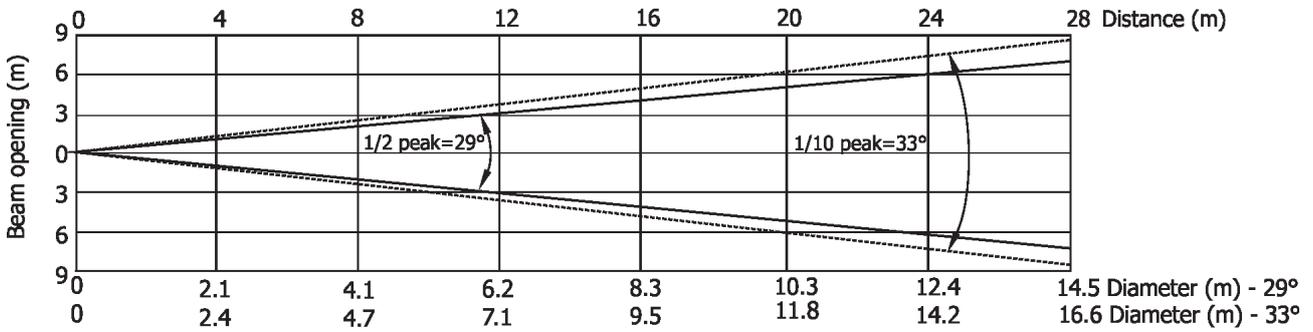
Distance (m)	4	5	8	12	16	20	24	28	
Red	223/21	143/13	56/5	25/2.3	14/1.3	9/0.8	6/0.6	5/0.4	
Green	325/30	325/30	127/12	56/5.2	32/2.9	20/2	14/1.3	10/1.0	
Blue	128/12	82/7.6	32/3.0	14/1.3	8/0.7	5/0.5	4/0.3	2.6/0.2	Intensity (center) Lux/Footcandles
White	759/71	486/45	190/18	84/8	47/4.4	30/2.8	21/2	16/1.4	
R+G+B+W	1335/124	855/79	334/31	148/14	84/7.8	53/5	37/3.4	27/2.5	

Illuminance distribution

Distance=5m

32
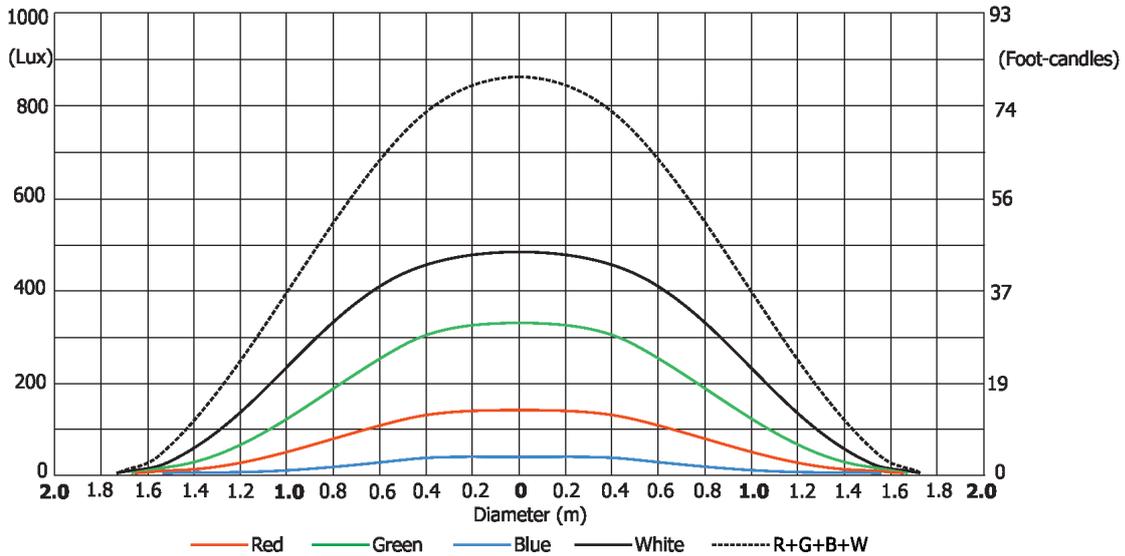
Min. Zoom
Flower Effect On

Total Output: 2300 lumens
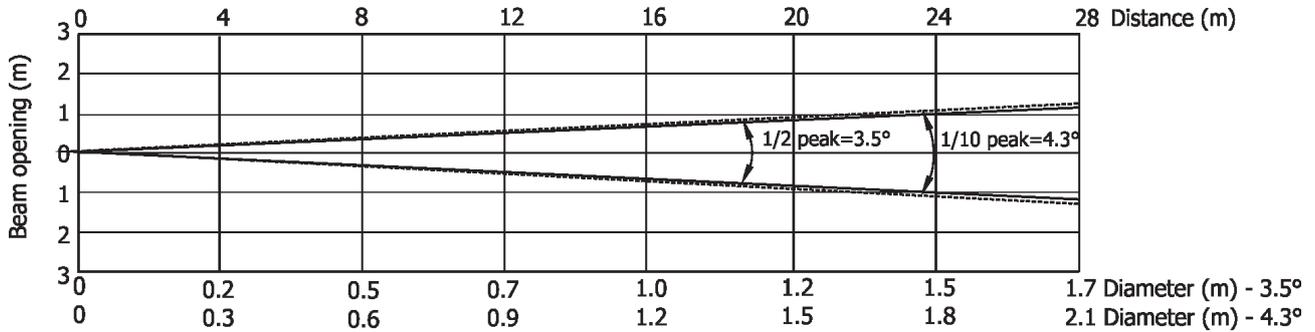
Distance (m)	4	5	8	12	16	20	24	28	
Red	6922/643	4430/412	1730/161	769/72	432/40	277/26	192/18	141/13	
Green	15937/1481	10200/948	3984/370	1770/165	996/93	637/59	442/41	325/30	Intensity (center) Lux/Footcandles
Blue	4187/389	2680/250	1046/97	465/43	262/24	167/16	116/11	86/8	
White	24687/2994	15800/1468	6172/573	2743/255	1543/143	987/92	685/64	503/47	
R+G+B+W	44219/4108	28300/2629	11054/1027	4913/456	2763/257	1768/164	1228/114	602/84	

Illuminance distribution
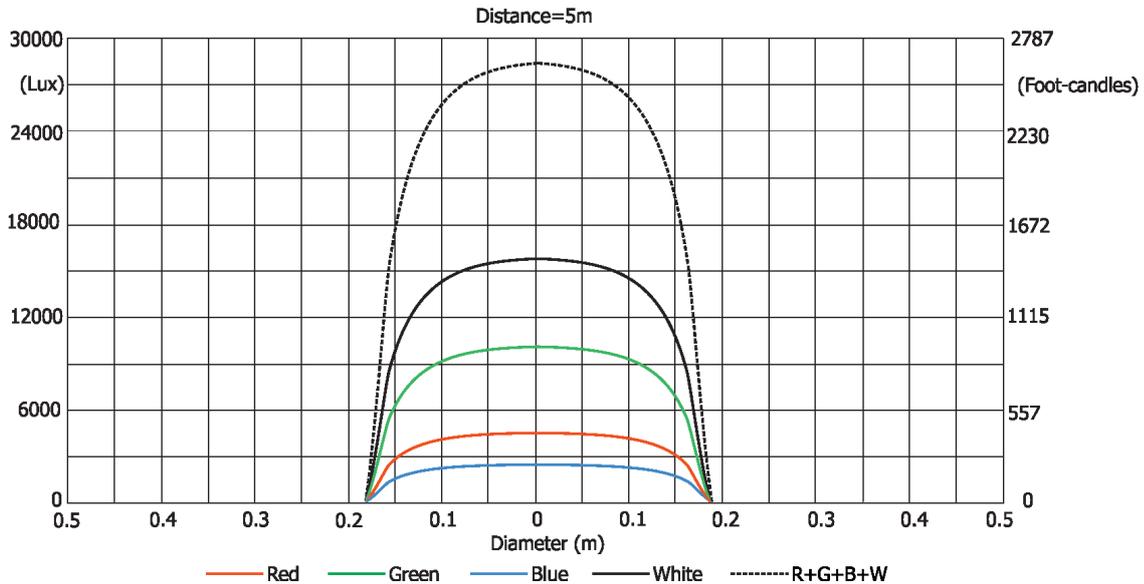
Distance=5m

Max. Zoom
Flower Effect On
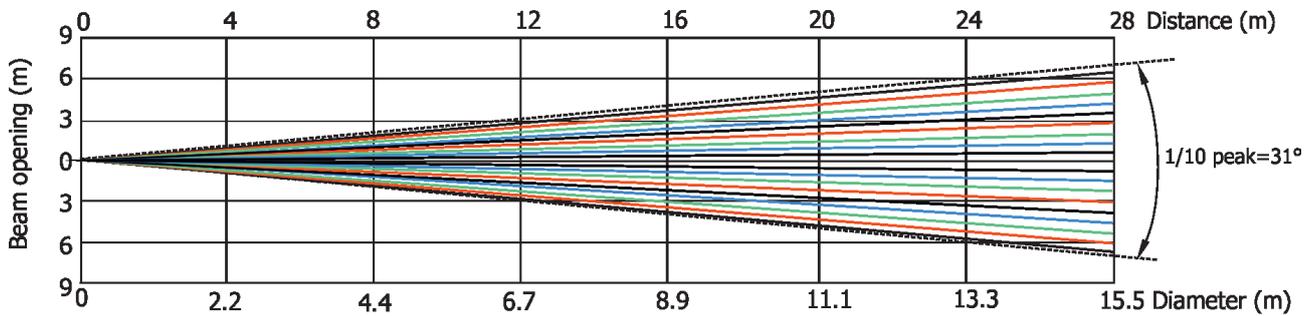
Distance (m)	4	5	8	12	16	20	24	28	
Red	810/75	519/48	203/19	90/8	50/5	32/3	23/2.1	17/1.5	
Green	1593/148	1020/95	398/37	177/17	99/9	64/6	44/4	33/3	Intensity (center) Lux/Footcandles
Blue	331/31	212/20	82/8	37/3.4	20/1.9	13/1.2	9/0.9	7/0.6	
White	3046/283	1950/181	761/71	338/32	190/18	121/11	85/8	62/6	

Image on the screen (just for illustration)
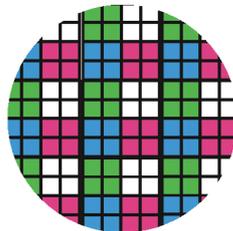
		Robin SuperSpikie - DMX protocol	
		Version: 1.2	
Channel	**DMX Value**	**Function**	**Type of control**
1		**Pan (8 bit)**	
	0 - 255	Pan movement by 540°/360° (128=default)	proportional
2		**Pan Fine (16 bit)**	
	0 - 255	Fine control of pan movement (0=default)	proportional
3		**Tilt (8 bit)**	
	0 - 255	Tilt movement by 360° (128=default)	proportional
4		**Tilt fine (16 bit)**	
	0 - 255	Fine control of tilt movement (0=default)	proportional
5		**Pan control***	
	0	Pan range 540°, shortcut Off (0=default)	step
	1	Pan range 360°, shortcut On	step
	2-127	No function (Pan range 540°, shortcut Off)	
	128-189	Continuous rotation fast -> slow , Forwards	proportional
	190-193	Stop rotation	step
	194-255	Continuous rotation slow -> fast , Backwards	proportional
6		**Tilt control***	
	0	Tilt range 360°, Shortcut Off (0=default)	step
	1	Tilt range 360°, Shortcut On	step
	2-127	No function (Tilt range 360°, Shortcut Off)	
	128-189	Continuous rotation fast -> slow , Forwards	proportional
	190-193	Stop rotation	step
	194-255	Continuous rotation slow -> fast , Backwards	proportional
7		**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
8		**Power/Special functions**	
	0 -9	Reserved (0=default)	
		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 29 must be at range: 0-31 DMX). Corresponding menu items are temporarily overriden.	
	10-14	DMX input: Wired DMX **	step
	15-19	DMX input: Wireless DMX **	step
		** function is active only 10 seconds after switching the fixture on	
	20-24	Graphic display On	step
	25-29	Graphic display Off	step
	30-34	RGBW colour mixing mode	step
	35-39	CMY colour mixing mode	step
	40-44	Pan/Tilt speed mode	step
	45 - 49	Pan/Tilt time mode	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

Channel	DMX Value	Function	Type of control
	65 - 69	Dimmer curve - linear	step
	70 - 74	Fans mode: Auto	step
	75 - 79	Fans mode: High	step
	80-84	White point 8000K On	step
	85-89	White point 8000K Off	step
	90-109	Reserved	
	110-114	Kling-Net On	step
	115-119	Kling-Net Off	step
	120 -129	Reserved	
		To activate following functions, stop in DMX value for at least 3 seconds.	
	130 - 139	Fixture reset (except pan/tilt)	
	140 - 149	Pan/Tilt reset	step
	150 - 159	Zoom reset	step
	160 - 169	Flower effect/Prism/Frost reset	step
		Tungsten effect simulation for whites 2700K and 3200K	
	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
	182 - 199	Reserved	
	200 - 209	Total fixture reset	step
	210 - 214	Gobo reset	step
	215 - 255	Reserved	
9		**Virtual colour wheel**	
	0	No function (0=default)	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

Channel	DMX Value	Function	Type of control
	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
	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	Reserved	
	236-245	Rainbow effect (with fade time) from slow-> fast	proportional
	246-255	Rainbow effect (without fade time) from slow-> fast	proportional
10		**Red/Cyan (8 bit)***	
	0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional

Channel	DMX Value	Function	Type of control
11		**Red/Cyan (16bit)*****	
	0 - 255	Colour saturation control - fine (255=default)	proportional
12		**Green/Magenta (8 bit) *** **	
	0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
13		**Green/Magenta (16bit) *** **	
	0 - 255	Colour saturation control - fine (255=default)	proportional
14		**Blue/Yellow (8 bit) *** **	
	0 - 255	Colour saturation control - coarse 0-100% (255=default)	proportional
15		**Blue/ Yellow (16bit) *** **	
	0 - 255	Colour saturation control - fine (255=default)	proportional
16		**White (8 bit)**	
		If RGBW mode is selected:	
	0-255	Colour saturation control - coarse 0-100% (255=default)	proportional
		If CMY mode is selected:	
	0 - 255	No function	
17		**White (16 bit)**	
	0 - 255	Colour saturation control - fine (255=default)	proportional
18		**CTC**	
		If function "White Point 8000K" is ON	
	0-255	Col. temperature correction from 8000K to 2700K -for whites only	proportional
		(0=8000K, 64=5600K, 128=4200K, 192=3200K, 255=2700K)	
		To get colour temperatures stated above, RGBW channels have to be set at the same value e.g. 255DMX (0=default)	
		(To activate Tungsten effect at 2700K and 3200K , set DMX value at "Power/Special functions" channel)	
		If function "White Point 8000K" is OFF	
	0-255	Colour temperature correction from cool white to 2700K	proportional
19		**Colour Mix control**	
		Defines relation between colour channels	
		"Virtual" = Virtual Colours (Virtual Colour Wheel)	
		"Colour mix" = Colour channels (RGBW/CMY)	
	0-9	Virtual colors ("Virtual" 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 Virtual and Colour Mix)	step
	40-49	Addition mode (Virtual + Colour mix) (45=default)	step
	50-59	Subtraction mode (Virtual – Colour mix)	step
	60-69	Inverted Subtraction mode (Colour mix-Virtual)	step
	70-128	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
20		**Rotating gobo selection**	
		Index - set indexing on channel 21	
	0-4	Open/hole (0=default)	step
	5-9	Gobo 1	step
	10-14	Gobo 2	step
		Rotation - set rotation on channel 21	
	15-19	Gobo 1	step
	20-24	Gobo 2	step

Channel	DMX Value	Function	Type of control
	25 - 255	Open/hole	step
21		**Rot. gobo indexing and rotation**	
		Gobo indexing - set position on channel 20	
	0 - 255	Gobo indexing (128=default)	proportional
		Gobo rotation - set position on channel 20	
	0	No rotation	step
	1 - 127	Forwards gobo rotation from fast to slow	proportional
	128	No rotation (default)	step
	129 - 255	Backwards gobo rotation from slow to fast	proportional
22		**Rot. gobo indexing/rotation - fine**	
	0-255	Fine indexing/rotation (0=default)	proportional
23		**Rotating Prism**	
	0	Open position-without prism (0=default)	step
	1 - 127	Prism inserted, forwards rotation from fast to slow	proportional
	128	No rotation-prism inserted	step
	129-255	Prism inserted, backwards rotation from slow to fast	proportional
24		**Flower Effect**	
	0	Open position-without Flower Effect (0=default)	step
	1 - 127	Flower effect on, forwards rotation from fast to slow	proportional
	128	Flower effect on, no rotation	step
	129-255	Flower effect on, backwards rotation from slow to fast	proportional
25		**Flower Effect & Rotating prism macros**	
	0	Open position - without macros (0=default)	step
		In range of 1-20 DMX, channels Rotating prism and Flower Effect are blocked	
	1-2	Macro 1	step
	3-4	Macro 2	step
	5-6	Macro 3	step
	7-8	Macro 4	step
	9-10	Macro 5	step
	11-12	Macro 6	step
	13-14	Macro 7	step
	15-16	Macro 8	step
	17-18	Macro 9	step
	19-20	Macro 10	step
	21-255	Reserved	
26		**Frost**	
	0-5	Open (0=default)	step
	6-11	Frost inserted	step
	12-211	Reserved	
	212 - 233	Pulse closing from slow to fast	proportional
	234 - 255	Pulse opening from fast to slow	proportional
27		**Zoom**	
	0-255	Zoom from max. to min.beam angle (128=default)	proportional
28		**Zoom - fine**	
	0-255	Fine zooming (0=default)	proportional
29		**Shutter/ strobe**	
	0 - 31	Shutter closed	step
	32 - 63	Shutter open (32=default)	step
	64 - 95	Strobe-effect from slow to fast	proportional

Channel	DMX Value	Function	Type of control
	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
30		**Dimmer intensity (8 bit)**	
	0 - 255	Dimmer intensity from 0% to 100% (0=default)	proportional
31		**Dimmer intensity - fine (16 bit)**	
	0 - 255	Fine dimming (0=default)	proportional
* Max. Speed of continual Tilt rotation depends on max. speed of continual Pan rotation and vice versa			
E.g. Max. Tilt speed is reduced with increasing Pan speed, and vice versa, Max. Pan speed is reduced with increasing Tilt speed			
** Function is active only 10 seconds after switching the fixture on			
***Select RGB or CMY mixing mode on the channel "Power/Special functions" .			
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