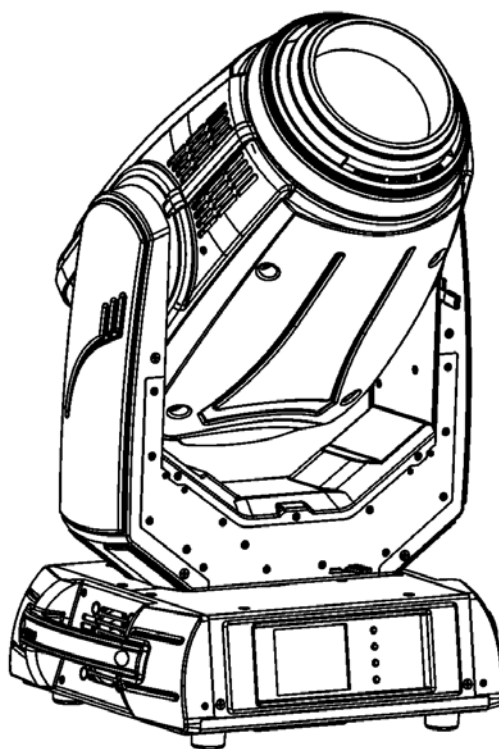

ROBE

ROBIN[®] Pointe



 **ROBIN[®]**
Innovative Technology

USER MANUAL

Version 1.7

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

Robin Pointe

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**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOU INITIAL START - UP**

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 Pointe was designed for indoor use and it is intended for professional application only. It is not for household use.

1. Safety instructions

CAUTION!
Disconnect the fixture from mains before you remove any cover of the fixture. With a high voltage you can suffer a dangerous electric shock when touching alive wires and electrical parts under covers!

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.

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

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.

During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.

Do not touch the device's housing bare hands during its operation (housing becomes hot)!

For replacement use lamps and fuses of same type and rating only.

CAUTION ! EYE DAMAGES !
Avoid looking directly into the light source!

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.

Before switching the fixture OFF, turn the lamp OFF and allow the fixture to cool for a while.

Do not shake the fixture. 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 objective 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.

The fixture becomes very hot during operation. Allow the fixture to cool approximately 20 minutes prior to manipulate with it.

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 mounting this fixture.

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

Warning
The minimum distance between light output and the illuminated surface must be more than 10 meters.

The maximum ambient temperature 45°C must never be exceeded.

CAUTION!
The lens has to be replaced when it is obviously damaged, so that its function is impaired, e. g. due to cracks or deep scratches!

Operate the device only after having familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!

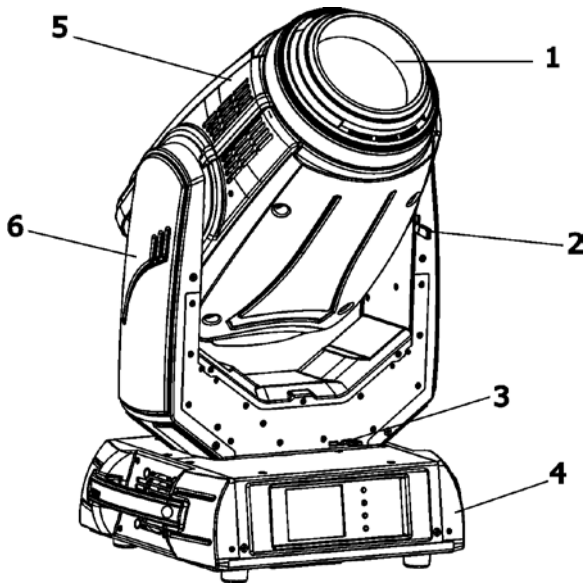
CAUTION!
The lamp has to be replaced when it is damaged or deformed due to the heat!

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

CAUTION!
Fast on-off-cycles (e.g. 10 min. on / 10 min. off) will reduce lamp life.

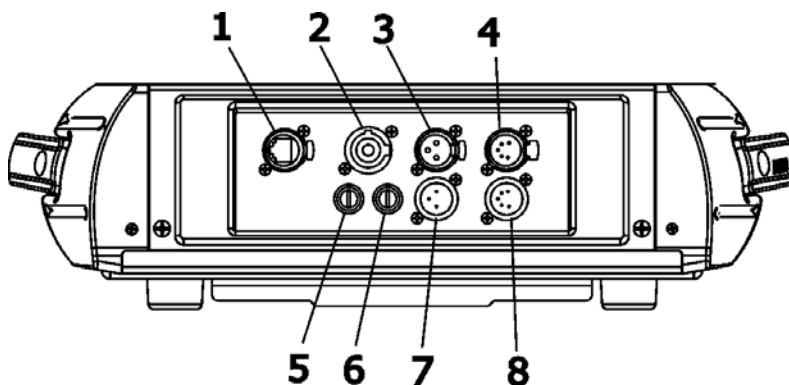
CAUTION!
To avoid damage of the internal parts of the fixture head, never let the sunlight lights directly to the front lens , even when the fixture is not working !

2. Fixture exterior view



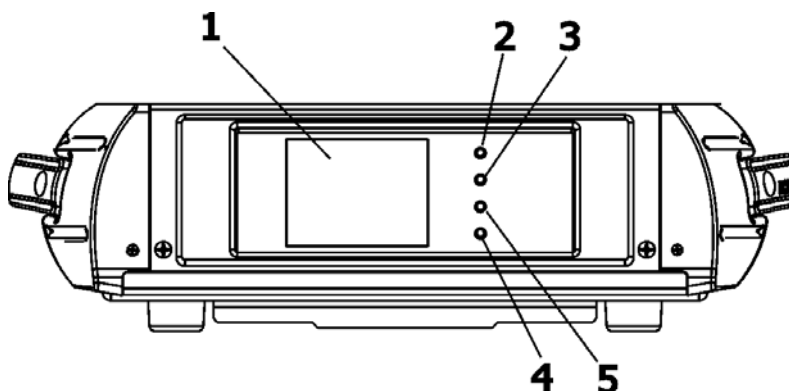
- 1 - Front lens
- 2 - Tilt lock
- 3 - Pan lock
- 4 - Base
- 5 - Moving head
- 6 - Arm

The head should be locked for transportation- the tilt lock latch (2) and the pan lock latch (3) have to be in the locked positions. To unlock the head, move these latches to unlock positions before operating the fixture.



Rear panel of the base:

- 1 - Ethernet input-RJ45
- 2 - Power
- 3 - 3-pin DMX Out
- 4 - 5-pin DMX Out
- 5 - Fuse holder-live
- 6 - Fuse holder-neutral
- 7 - 3-pin DMX In
- 8 - 5-pin DMX In



Front panel of the base:

- 1 - QVGA touch screen
- 2 - ESCAPE button
- 3 - NEXT button
- 4 - PREV button
- 5 - ENTER/DISPLAY ON button

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

3. Installation



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

3.1 Connection to the mains

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

The Robin Pointe is equipped with auto-switching power supply that automatically adjusts to any 50-60Hz AC power source from 100-240 Volts.
This fixture must be earthed. To use the fixture, a plug must be fixed.
The correct assembly of a sufficient plug may be done by professional persons only.
The conductors in the cable are marked by the following table.

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

3.2 Changing the lamp

DANGER !
Install the lamp with the fixture unplug from mains !

To insert the new lamp.

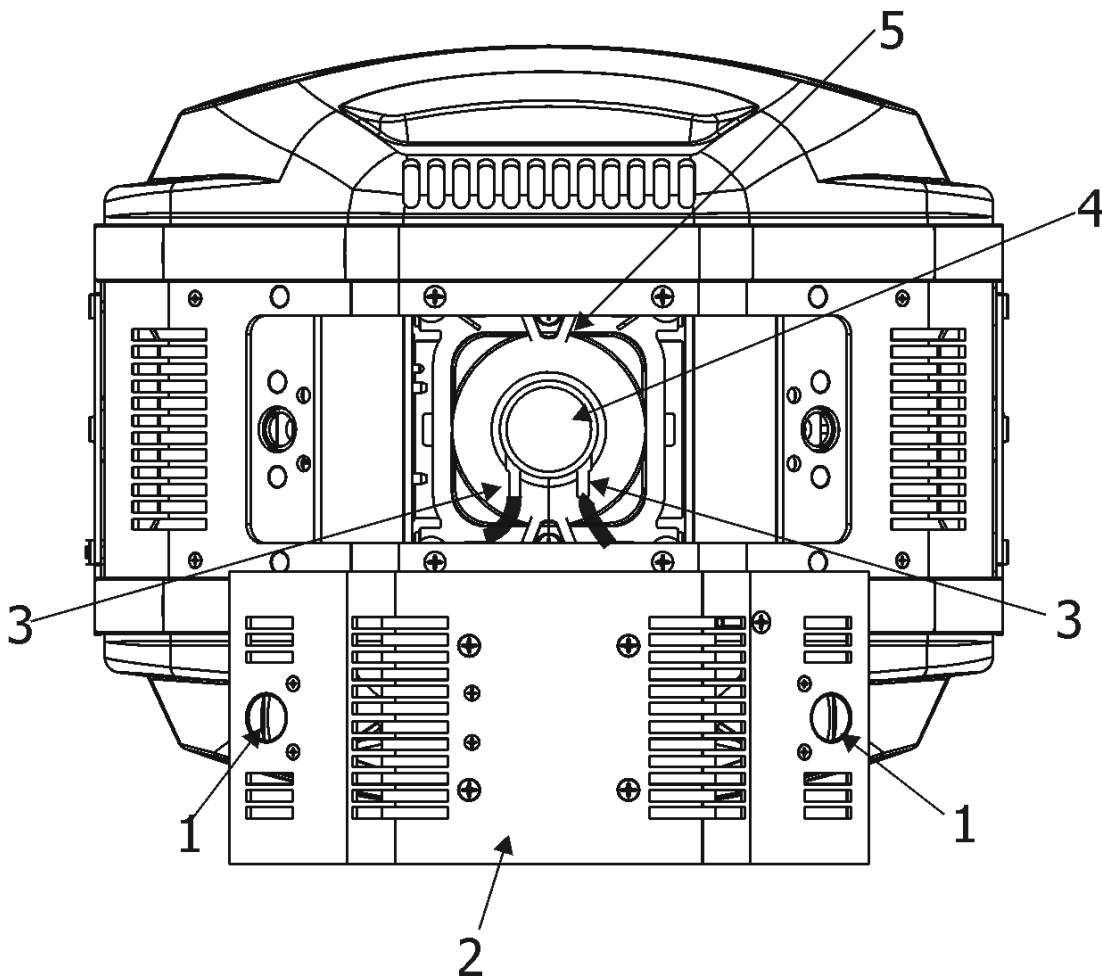
1. Disconnect the fixture from mains and allow it to cool at least 20 minutes.
2. Loosen the two quarter-turn fasteners (1) on a lamp cover and remove the lamp cover (2) to get into lamp compartment.
3. Remove both Fastons (3) from flat blades of the lamp.
4. Holding the lamp by its ceramic base (4), carefully pull the lamp outwards until you break force of spring locks (5) keeping the lamp in the lamp compartment.
5. Holding the new lamp by its ceramics base (4), gently insert the lamp into lamp compartment until it snaps into spring locks (5).

Do not install a lamp with a higher wattage! A lamp like this generates temperatures the device is not designed for. Damages caused by non-observance are not subject to warranty. Please follow the lamp manufacturer's notes!

Warning: do not touch the lamp's envelope with bare hands. Should this happen, clean the bulb with a cloth soaked in alcohol and dry it

6. Slide both Fastons (3) onto lamp blades and check this connection
7. Re-insert the lamp cover (2) and tighten the two quarter-turn fasteners (1).
8. Connect the fixture to the mains.
9. Reset the "Lamp On Time" and "Lamp Strikes" counters in the menu "Information".

Never operate this fixture without the lamp!
Do not operate this fixture without the lamp cover!



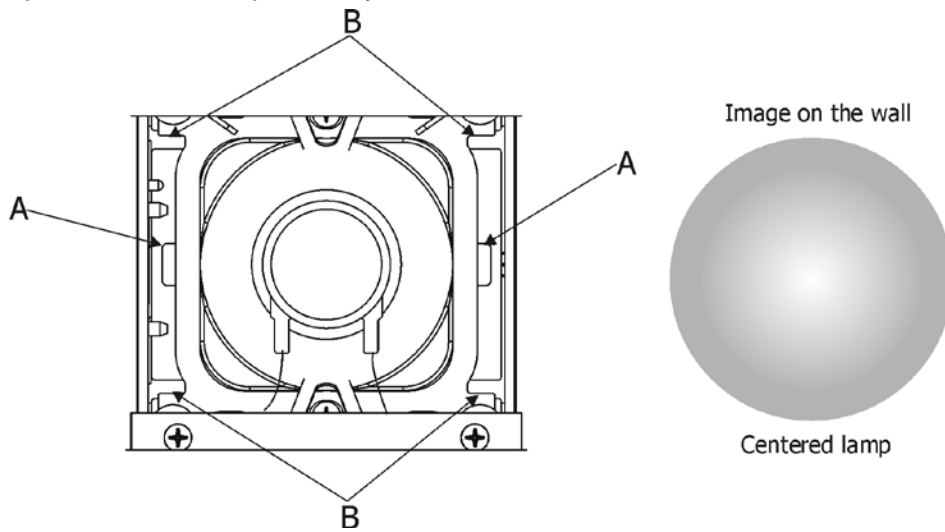
3.3 Lamp adjustment

The lamp holder is aligned at the factory. Due to differences between lamps, the fine adjustment may improve light performance.

For lamp adjustment serve four slots in the lamp assembly.

Slots A - for adjustment of the lamp horizontally

Slots B - for adjustment of the lamp vertically

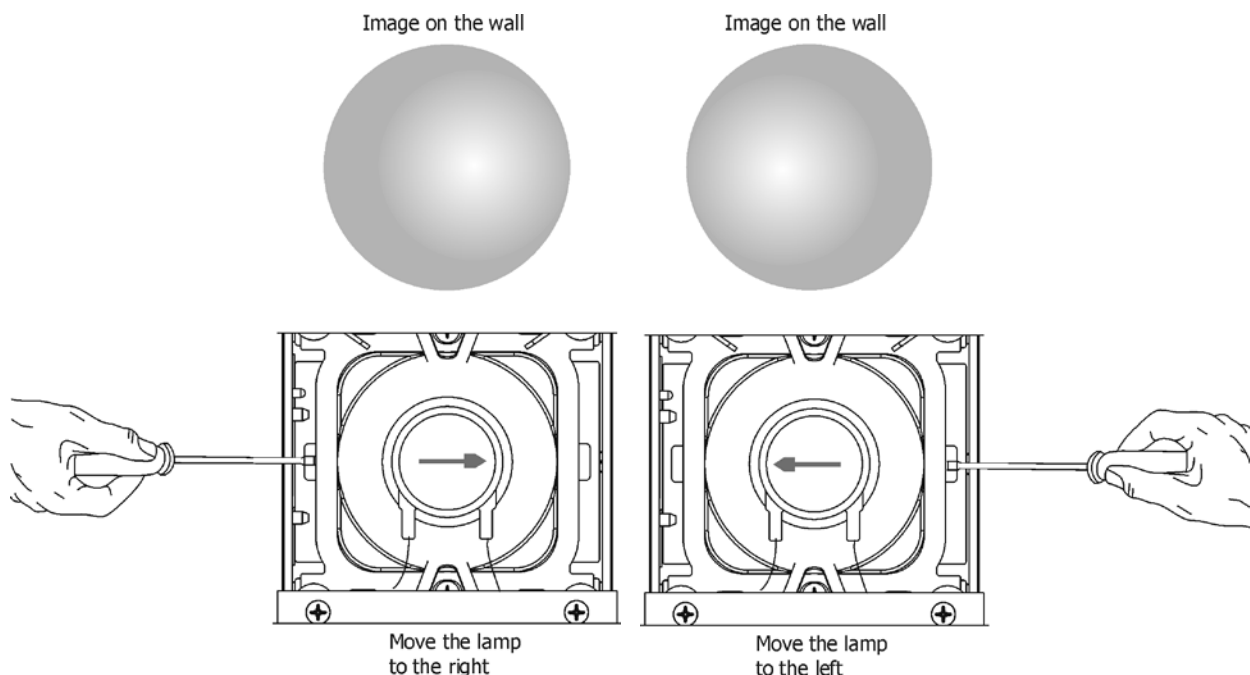


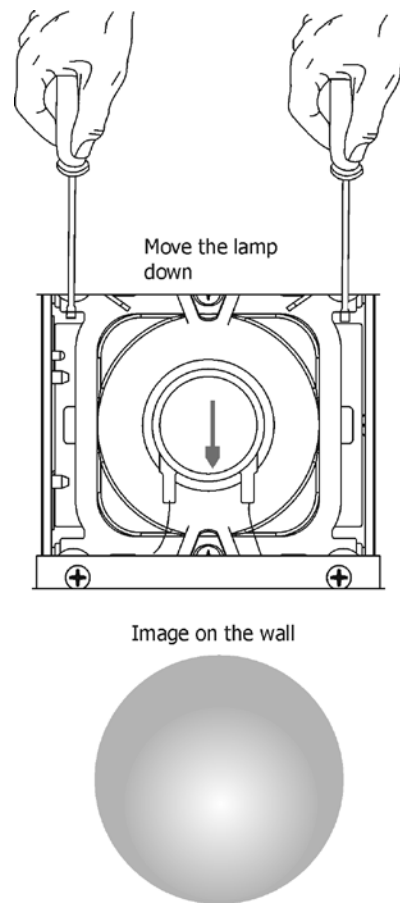
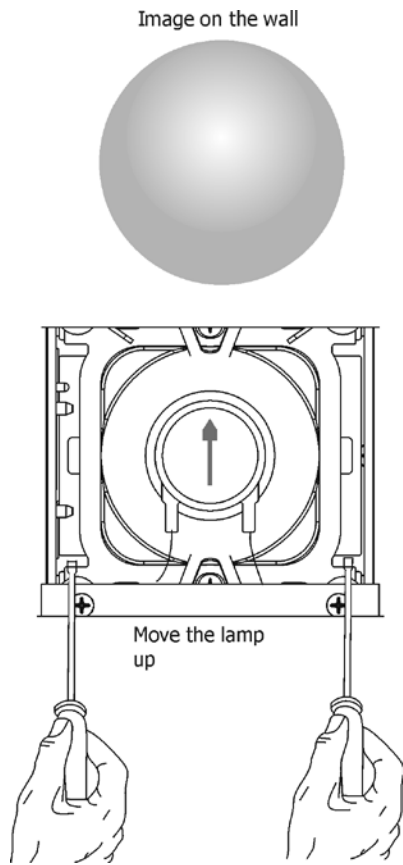
To adjust the lamp in the fixture.

1. Connect the fixture to the mains, switch on the lamp, open shutter and dimmer, set zoom and focus (Static gobo wheel a rotating gobo wheel should be set at 0 DMX) and check the image on the wall
2. Disconnect the fixture from mains.
3. Loosen two quarter-turn fasteners (1) on a lamp cover and remove the lamp cover (2) to get into lamp compartment.
4. Move the lamp into desired position by using a suitable screwdriver inserted in the appropriate slots (A, B).
5. Re-insert the lamp cover (2) and tighten the two quarter-turn fasteners (1).
6. Connect the fixture to the mains and check if the adjustment has been correctly made.
7. If you need to continue in adjusting, disconnect the fixture from mains and repeat steps 2-5.

**The lamp must be adjusted with the fixture disconnected from mains!
Do not operate this fixture without the lamp cover!**

Note: Due to light refraction in the fixture, the lamp has to be moved into direction of shifted hot-spot - see pictures below.





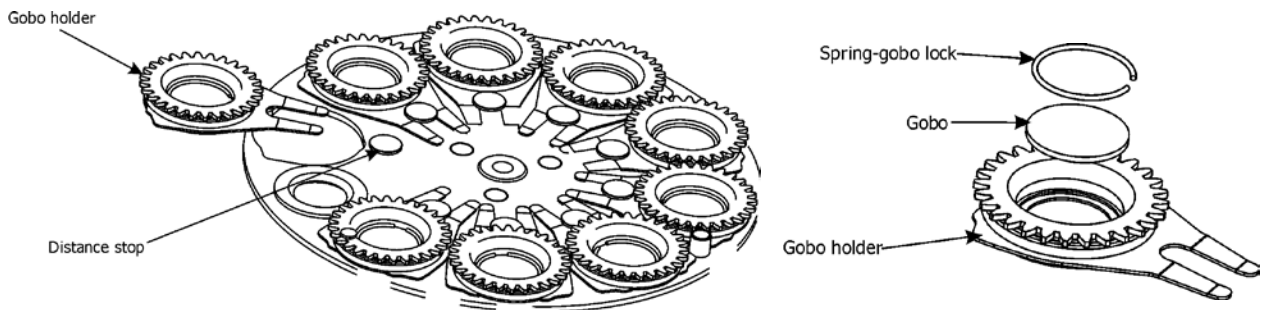
Note!

The adjusted hot-spot may move during the first 100 hours of the lamp operation (lamp stabilizes its burning) and the lamp adjusting has to be repeated. (In some cases, the lamp adjusting has to be made every 100 hours of lamp operation.)

3.4 Replacing rotating gobos

DANGER!
Replace gobos with the device switched off only.
Unplug from mains before!

1. Disconnect the fixture from mains and allow it to cool.
2. Remove the bottom plastic cover of the head by loosening the 4 quarter-turn fasteners on the cover.
3. Gently pull up the gobo holder from the rotation gobo wheel.
4. Carefully remove the gobo and the spring gobo-lock from the gobo holder by pushing to the gobe from the side without toothed wheel. Do not touch the surface of the pattern of the glass gobo - use a suitable glove.
Be careful! Glass!
5. Insert the new gobo (glazy side towards the lamp). Insert the spring-gobo lock to secure it in the gobo holder.
6. Insert the gobo holder back into rotating gobo wheel.
5. Replace the bottom cover before applying power.



3.5 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 regulation.

For overhead installation, the fixture must be always secured with a safety wire

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 a skilled person once a year.

Allow the fixture to cool for ten minutes before handling.

The projector should be installed outside areas where persons may walk by or be seated.

IMPORTANT! OVERHEAD RIGGING REQUIRES EXTENSIVE EXPERIENCE, including 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 use a help of professional companies.

CAUTION: Fixtures may cause severe injuries when crashing down! If you have doubts concerning the safety of a possible installation, do not install the fixture!

The fixture has to be installed out of the reach of public.

The fixture must never be fixed swinging freely in the room.

Danger of fire !

When installing the device, make sure there is no highly inflammable material (decoration articles, etc.) in a distance of min. 1 m.

**The special desing of the temperature filter has allowed to reduce distance between the fixture and lit objects, but the minimum distance of 10 meters between light output from the moving head and the lit objects must be kept!
(If the fixture will work in eco mode only, this distance can be redused to 7.5 m)**

CAUTION!

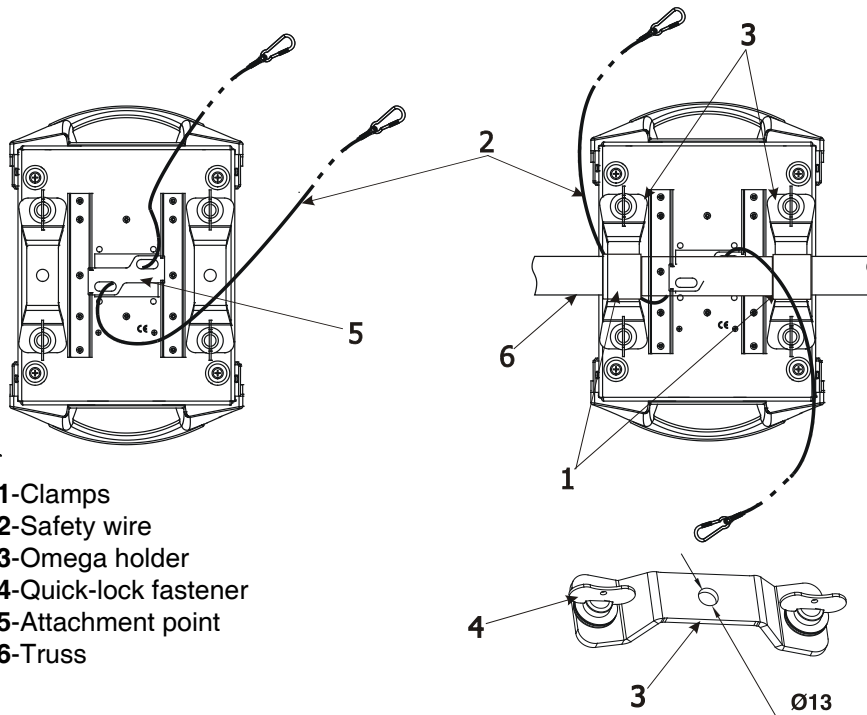
**Use 2 appropriate clamps to rig the fixture on the truss.
Follow the instructions mentioned at the bottom of the base.
Make sure that the device is fixed properly! Ensure that the structure (truss) to which you are attaching the fixtures is secure.**

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

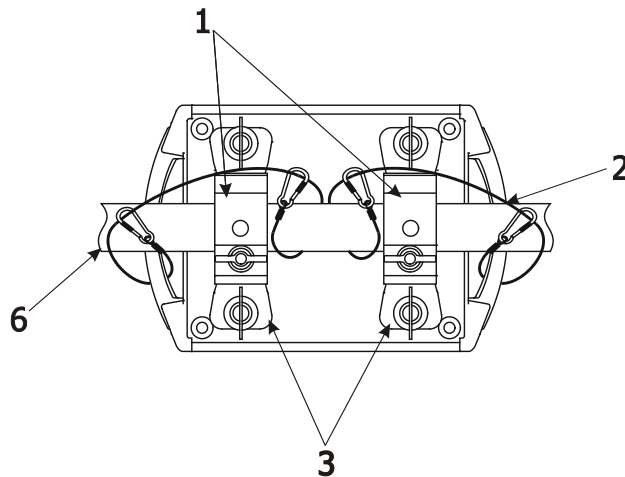
For securing a fixture to the truss, install a safety wire that can hold at least 10 times the weight of the fixture. Use only the safety wire with screw-on carabine. Pull the safety wire through the safety attachment point on the bottom of the base and around the truss as shown on the pictures below.

Truss installation

1. Bolt each clamp (1) to the omega holder (3) with M12 bolt and lock nut through the hole in the holder.
2. Fasten the omega holders on the bottom of the base by inserting both quick-lock fasteners (4) into the holes of the base and tighten fully clockwise.
3. Pull the safety wire (2) through the attachment point and around the truss (6).



Alternatively, fixtures handles can be used for safety attachment



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

DANGER TO LIFE!
**Before taking into operation for the first time, the installation has to be approved by
an expert!**

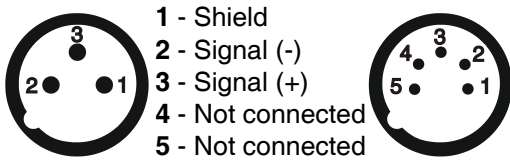
3.6 DMX-512 connection

The fixture is equipped with both 3-pin and 5-pin XLR sockets for DMX input and output. The sockets are wired in parallel.

Only use a shielded twisted-pair cable designed for RS-485 and 3-pin or 5-pin XLR-plugs and connectors in order to connect the controller with the fixture or one fixture with another.

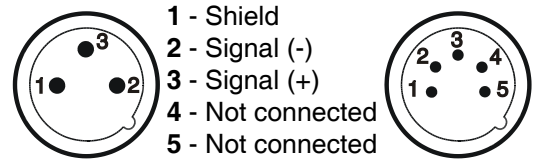
DMX - output

XLR mounting-sockets (rear view):



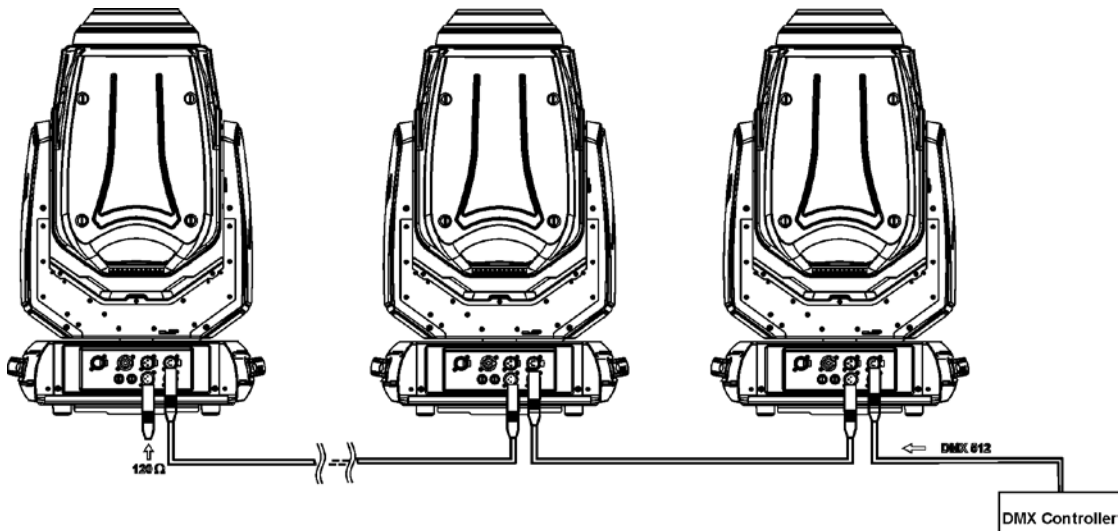
DMX-input

XLR mounting-plugs (rear view):



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-out-puts, 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.

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 3-pin XLR-plug and plug it in the DMX-output of the last fixture.

3.7 Ethernet connection

The fixtures on a data link are connected to the Ethernet with ArtNet communication protocol. The control software running on your PC (or light console) has to support Art-Net protocol.

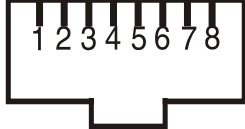
Art-Net communication protocol is a 10 Base T Ethernet protocol based on the TCP/IP. Its purpose is to allow transfer of large amounts of DMX 512 data over a wide area using standard network technology.

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.

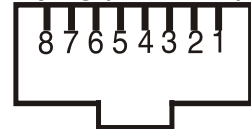
The Robin Pointe is equipped with 8-pin RJ-45 socket for Ethernet input. Use a network cable category 5 (with four "twisted" wire pairs) and standard RJ-45 plugs in order to connect the fixture to the network.

RJ-45 socket (front view):



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

RJ-45 plug (front view):




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

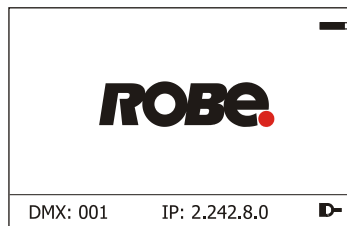


If only the fixture and the computer are to be interconnected, no hubs or other active components are needed.

A cross-cable has to be used:



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:



Direct Ethernet operation

Connect the Ethernet inputs of all fixtures with the Ethernet network.

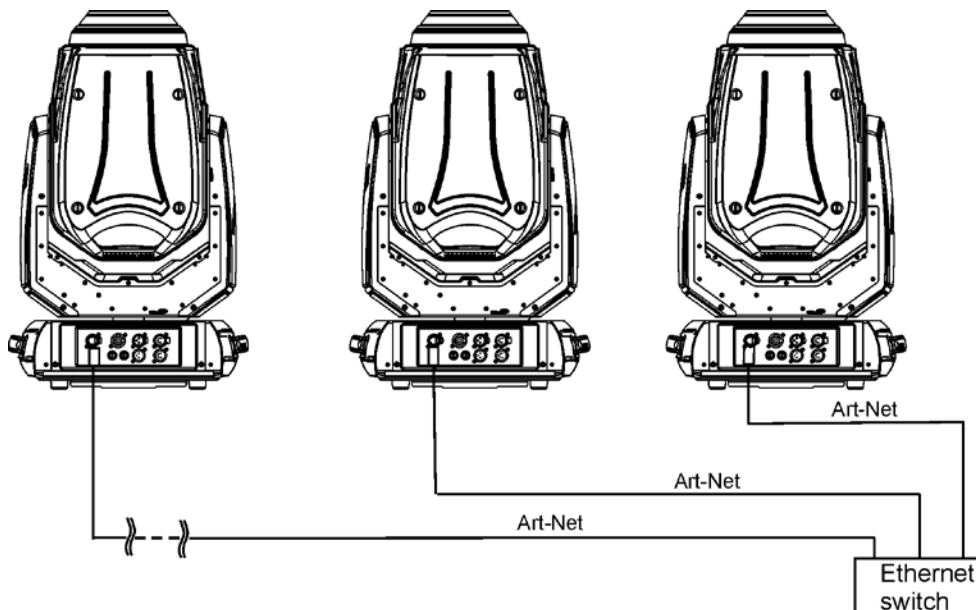
Option "Artnet (gMal or gMA2 or sACN)" has to be selected from "Ethernet Mode" menu on the fixture.

Set IP address (002.xxx.xxx.xxx / 010.xxx.xxx.xxx) and the Universe.

(DMX address=129)
IP address=002.168.002.004
Universe=1

(DMX address=24)
IP address=002.168.002.003
Universe=1

(DMX address=1)
IP address=002.168.002.002
Universe=1

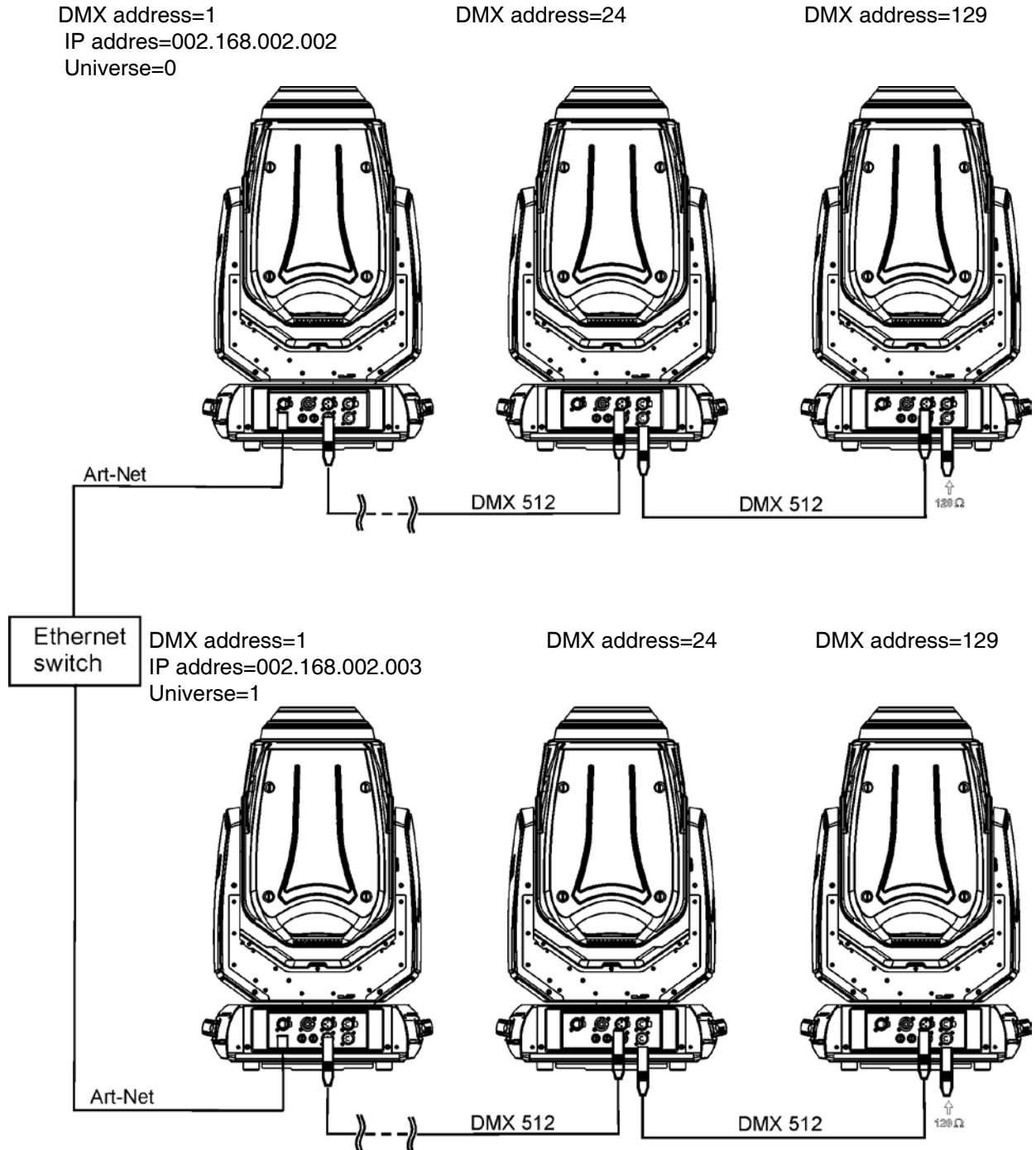


An advised PC setting: IP address: 002.xxx.xxx.xxx / 010.xxx.xxx.xxx (Different from fixture IP addresses)
NET mask: 255.0.0.0

Ethernet / DMX operation

Option "Artnet" (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.



3.8 Wireless DMX operation

The wireless version of the Robin Pointe 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 .

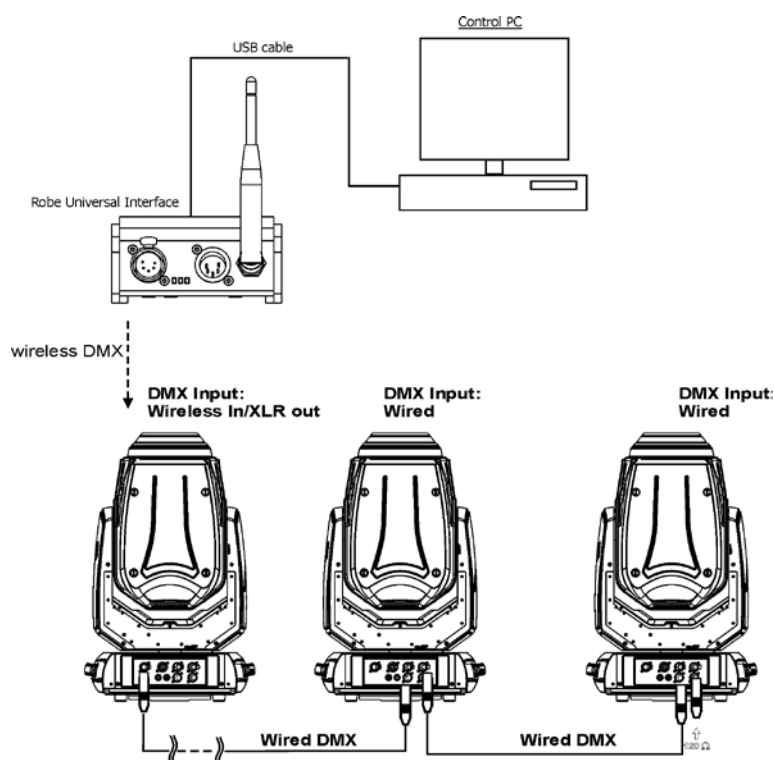
After linking , the level of DMX signal (0-100 %) is displayed in the menu item "Wireless State" (Information -->Wireless State).

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:



4. Remotely controllable functions

Lamp

The Robin Pointe is to be operated with a Osram Sirius HRI 280W RO lamp. The Osram Sirius HRI 280W RO is a lamp system consisting of a short arc burner within a reflector.

The fixture offers two modes for lamp running Standard Mode (full power of 280W, 2000hrs lamp life) and Eco Mode (lamp power of 230W, 3000hrs lamp life)

Colour wheel

This wheel contains 13 dichroic filters + open. The colour wheel can be positioned between two adjacent colours in any position. It is also possible to rotate the colour wheel continuously at different speeds ("Rainbow effect" in both directions).

Static gobo wheel

The static gobo wheel includes 10 metal gobos and 4 beam reducers. Gobo positioning and continual gobo positioning is available as well as a gobo-shake function.

Rotating gobo wheel

The rotating gobo wheel includes 9 replaceable "SLOT&LOCK" glass gobos rotating in both directions, indexable, + open position. Gobo positioning and gobo selection speed is available as well as a gobo-shake function.

Prisms

Both 6-facet linear prism and 8-facet circular prism rotates in both directions at different speeds, 16 prism/gobo macros are available.

Frost

Frost module provides variable frost for fine frosting.

Zoom

Motorized zoom unit enables zoom between 5° - 20° beam angle (spot applications) and 2.5°- 10° (beam applications).




Dimmer/Shutter unit

Smooth 0 - 100 % dimming is provided by the mechanical dimmer /shutter unit. This unit is also used for strobe effects with variable speed.

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	001-255				
		Ethernet Settings	Ethernet Mode	Disable			
				ArtNet			
				gMA1			
				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	MANet/II Universe	01-256	
					MANet Session ID	01-32	
				sACN Settings	sACN Universe	00001-32000	
					sACN Priority	0-255	
	Information	Fixture Times	Power On Time	Total Hours			
			Resetable Hours				
		Lamp On Time	Total Hours				
			Resetable Hours				
		Lamp Strikes	Total Strikes				
			Resetable Strikes				
		Air Filters	Elapsed Time				
			Alert Period	10-300			
		Fixture Temperatures	Head Temperature	Current			
				Maximum NonRes.			
				Maximum Res.			
			Ambient Temperature	Current			
				Maximum NonRes.			
				Maximum Res.			
			Base Temperature	Current			
				Maximum NonRes.			
			Maximum Res.				
	DMX Values	Pan					
		:					
		Dimmer Fine					
	Wireless State						
	Power Channel State						
	Software Versions	Display System					
		Module M					
		Module G					
		Module P					
		Module O					
	Product IDs	Mac Address					
		RDM UID					
		RDM Label					
	View Logs	Fixture Errors	Pan Errors				
			:				
			Temp.Sensor Errors				
		Fixture States	Power On				
			Power Off				
			Lamp On				

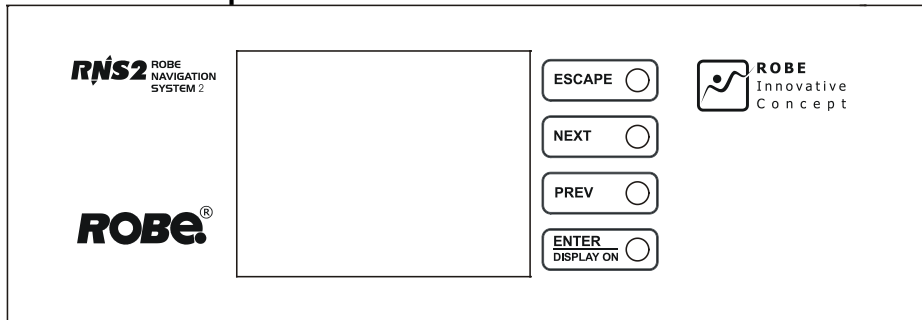
Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			Lamp Off			
		Fixture Position				
		Fixture Temperatures	Head Temperature			
			Ambient Temperature			
			Base Temperatures			
Personality	User Mode	User A Settings				
		User B Settings				
		User C Settings				
	DMX Presets	Mode 1				
		Mode 2				
		Mode 3				
		View Selected Preset				
	DMX Input	Wired Input				
		Wireless Input				
		Wireless In/XLR out				
	Pan/Tilt Settings	Pan Reverse	Off, On			
		Tilt Reverse	Off, On			
		Pan/Tilt Feedback	Off, On			
		Pan/Tilt mode	Time			
			Speed			
	Microphone Sensitivity	1-10-20				
	Blackout Settings	Blackout During M.C.	Off, On			
		Blackout while:	Pan/Tilt moving	Off, On		
			Colour Wheel Moving	Off, On		
			Gobo Wheels Moving	Off, On		
			Timeout Blackout	Off, On		
	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				
	Date & Time Settings					
	Default Settings					
Manual Control	Reset Functions	Reset All Systems				
		Pan/Tilt reset				
		Colour System Reset				
		Gobo System Reset				
		Strobe Reset				
		Optics/Prism/Frost Res.				
	Manual Effect Control	Pan	0-255			
		:				
		Dimmer Fine	0-255			
Stand -Alone	Demo	Pan	0-255			
		Tilt	0-255			
		Focus St. Gobos	0-255			

Tab	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
		Focus Rot. Gobos	0-255			
		Play Dynamic Demo				
		Play Static Demo				
	MusicTrigger	Off, On				
	Preset Playback	None				
		Test				
		Prg. 1				
		Prg. 2				
		Prg. 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			
	Adjust Lamp	Pan	0-255			
		:				
	Calibrations	Calibrate Effects	Pan	0-255		
			Tilt			
			Colour Wheel			
			Static Gobo Wheel			
			Rot. Gobo Wheel			
			R.Gobo Index			
			Prism 1			
			Prism 1 Rotation			
			Prism 2			
			Prism 2 Rotation			
			Zoom			
			Frost			
			Focus			
			Dimmer	0-255		
		Load Default Calibrations				
	Update Software					

6. Control menu

The Robin Pointe 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.



- [lamp menu] used to switch on/off the lamp and to set lamp functions.



- [Ethernet] used to indicate Ethernet connected.



- [display turn] used to turn the display by 180°.

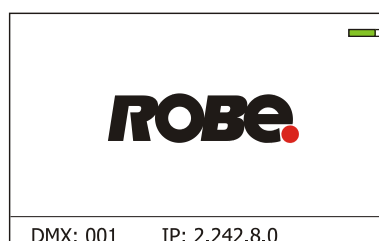


- [slider control] used to recall slider system for setting desired value.



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

The menu page displays icons for each function that you can perform from the touch screen. 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. 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.



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

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

An 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 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"



Settings - Select the menu to set desired fixture address setting.

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 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.

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

6.2 Tab "Information"



Fixture Times - The menu provides readouts of fixture and lamp operation 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 Pointe has been fabricated.

Resetable Hours - The item shows the number of the operation hours that the Robin Pointe 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:"

Lamp On Time Hours - Select this menu to read the number of the operation hours with the lamp on.

Total Hours - The item shows the total number of the operation hours with the lamp on since the Robin Pointe has been fabricated.

Resetable Hours - The item shows the number of the operation hours with the lamp on that the Robin Pointe 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:"

Lamp Strikes - Select this menu to read the number of lamp strikes.

Total Strikes - The item shows the total number of the lamp strikes since the Robin Pointe has been fabricated.

Resetable Strikes - The item shows the number of the lamp strikes since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Resetable Strikes:"

Air Filters - Regular cleaning of the air filters 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 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.

Head Temperature - The menu shows temperatures in the fixture head near the lamp.

Current - A current temperature of the fixture head.

Maximum NonRes. - A maximum temperature of the fixture head since the fixture has

been fabricated.

Maximum Res. - A maximum temperature of the fixture head since the counter was last reset.

In order to reset this counter to 0, touch the text box next to the item "Maximum 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."

Ambient Temperature - The menu shows temperature of the induced air on the fan in the fixture base .

Current - A current temperature of the induced air in the fixture base.

Maximum NonRes. - A maximum temperature of the induced air in the fixture base since the fixture has been fabricated.

Maximum Res. - A maximum temperature of the induced air in the fixture base since 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 (only for Wireless DMX version).

Software Version - Select this item to read the software version of the fixture modules:

Display System - A display processor on the display board in the fixture base

Module M - A pan/Tilt processor

Module G - A Static and rot. gobos + colours processor.

Module P - The prisms and frost processor.

Module O - A focus/zoom/strobe 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 collected data allows easier troubleshooting.

Fixture Errors - Use this menu to read fixture errors which have occurred during fixture operation.

There is a list of error folders:

Pan Errors	Prism 1 Errors
Tilt Errors	Prism 1 Rotation Errors
Dimmer Errors	Prism 2 Errors
Gobo Carousel Errors	Prism 2 Rotation Errors
Colour Errors	Lamp is Too Hot
Gobo Errors	Overheated
Clean Air Filters	Active Lamp Timer
Static Gobo Errors	Lamp Errors
Focus Errors	Temp. Sensor Errors
Zoom Errors	Frost Errors

Error messages regard the lamp driver:

Lamp driver overheated- the lamp driver switched off due to over temperature of driver board.

Lamp driver output short circuit detected - the lamp driver switched off due to a detected short of output connector or lamp electrodes.

End of lamp life detected - the lamp driver switched off due to end of lamp life time reached,lamp voltage too high caused by electrode burn back (gap)

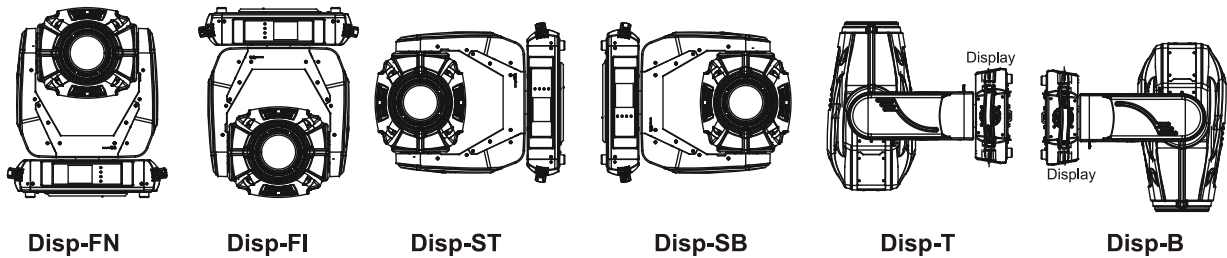
Lamp did not ignite - the lamp driver detected that lamp is not on within specified ignition time.

Lamp extinguished during normal operation - the driver switched off due less current through the lamp.

Lamp extinguished during run-up phase - the driver switched off due to too less current within initial preheat phase of lamp start (approx. initial 2sec)

Fixture States - Recorded following actions: Fixture On, Fixture Off, Lamp On, Lamp Off.

Fixture Position - 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"



User mode - The Robin Pointe allows you to recall up to 3 user settings. After switching the fixture on for the first time, the User A settings is active. Now all changes made in the "Personality" menu , "Addressing" menu and the "Music Trigger" and "Preset Playback" items from the "Stand-alone" menu 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. In this way you may use the 3 fixture operating behaviours.

User A Settings - the function recalls the user A settings.

User B Settings - the function recalls the user B settings.

User C Settings - the function recalls the user C settings.

DMX Preset - Use the menu to select desired channel mode.

Mode 1 - 24 control channels

Mode 2 - 16 control channels

Mode 3 - 30 control channels

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 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 the pan/tilt coordinates are changing.

Colour Wheel Moving - The menu item enables to close light output while the colour wheel

igoes goes from position to position.

Gobo Wheel Moving - The menu item enables to close light output while the rot. gobo wheel goes from position to position.

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 - Inverted orientation (needed if the fixture is hanging on the truss).

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

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.

Unlink Wireless Adapter - The menu serves for unlinking the fixture from the transmitter (only WDMX version)

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 Reset - The item resets all function modules.

Pan/Tilt Reset - The item resets a pan and tilt movement.

Colour System Reset - The item resets a colour wheel.

Gobo System Reset - The item resets a static/rotating gobo wheel.

Strobe Reset - The item resets strobe lamellas and a hot-spot module.

Optics/Prism/Frost Res. - The item resets a zoom, focus, prism and a frost module.

Preset Effect Control - Use the menu to show preset positions of each channel effect.

Manual Effect control - Use the menu to control all fixture channels by means of the control panel.

6.5 Tab "Stand-alone"



Demo - Use the menu to run a demo program without an external controller, which will show you some possibilities of using Robin Pointe. Adjust the "Pan", "Tilt", "Focus St. Gobos" and "Focus Rot. Gobos" to desired positions and select option:

Play Dynamic Demo - This option uses all Robin Pointe functions including pan/tilt movement and therefore is good for a complete introduction of the fixture.

Play Static Demo - This option is suitable for projections on the wall, ceiling or ground without a pan/tilt movement.

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 Pointe 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 through 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
-  - moves up on the previous page
-  - saves adjusted values and leaves menu
-  - saves values to the current step and copy them to the following prog. step
-  - leaves menu without saving values

There is a chart describing behaviour of items "Pan/Tilt Macro" and "P./T. Macro Speed".

DMX	Pan/Tilt Macro
0 - 9	Disabled pan/tilt macro
10 - 31	Reserved
32 - 63	Figure of circle (from small to large)
64 - 95	Figure of horizontal eight (from small to large)
96 - 127	Figure of vertical eight (from small to large)
128 - 159	Figure of rectangle (from small to large)
160 - 191	Figure of triangle (from small to large)
192 - 223	Figure of star (from small to large)
224 - 255	Figure of cross (from small to large)
	Pan/Tilt Macro Speed
0	No macro generation
1 - 127	Macro generation from fast to slow-forwards
128 - 129	No macro generation
130 - 255	Macro generation from slow to fast-backwards

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. The menu contains list of effects which can be calibrated:

- Pan**- a fine pan movement
- Tilt** - a fine tilt movement
- Colour Wheel** - a colour wheel
- Static Gobo** - a static gobo wheel
- Rot. Gobo Wheel** - a carousel of rotating gobos
- R. Gobo Index** - an indexing of rotating gobo
- Prism I** - a linear prism position
- Prism I rotation** - a linear prism indexing
- Prism II** - a circular prism position
- Prism II rotation** - a circular prism indexing
- Zoom** - a zoom module
- Frost** - a second frost filter
- Focus 1** - a focus of static gobo hole
- Focus 2** - a focus of beam reducer
- Focus 3** - a focus of rot. gobo hole
- Dimmer I/1** - a dimmer lamella 1
- Dimmer I/2**- a dimmer lamella 1
- Dimmer 2/1** - a dimmer lamella 2
- Dimmer 2/2**- a dimmer lamella 2

By using these items you can calibrate and adjust effects to their right positions.

Calibration 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 desired effect 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 the next effects.
5. After calibrating all effects, touch the [confirm] to save all adjusted values and reset the fixture.

Calibration via the DMX controller

1. Connect DMX controller to the fixture and set fixture effects to the desired positions before fine calibration.
2. Enter the "Calibrate Effects" menu and now you can exactly calibrate desired effects by DMX controller.

There is a calibration protocol:

Effect	Mode 1	Mode 2	Mode 2
Pan	channel 25	channel 17	channel 31
Tilt	channel 26	channel 18	channel 32
Colour wheel	channel 27	channel 19	channel 33
Static Gobo	channel 28	channel 20	channel 34
Rot. Gobo Wheel	channel 29	channel 21	channel 35
Rot. Gobo Index.	channel 30	channel 22	channel 36
Prism I	channel 31	channel 23	channel 37
Prism I Rotation	channel 32	channel 24	channel 38
Prism II	channel 33	channel 25	channel 39
Prism II Rotation	channel 34	channel 26	channel 40
Zoom	channel 35	channel 27	channel 41
Frost	channel 36	channel 28	channel 42
Focus 1	channel 37	channel 29	channel 43
Focus 2	channel 38	channel 30	channel 44
Focus 3	channel 39	channel 31	channel 45
Dimmer I/1	channel 40	channel 32	channel 46
Dimmer I/2	channel 41	channel 33	channel 47
Dimmer II/1	channel 42	channel 34	channel 48
Dimmer II/2	channel 43	channel 35	channel 49

After having calibrated all effects, touch the [confirm] to save adjusted values and reset the fixture.

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

Updating software - The menu item allows you to update software in the fixture via either serial or USB port of PC.

The following are required in order to update software:

- PC running Windows 95/98/2000/XP or Linux
- DMX Software Uploader
- Flash cable RS232/DMX No.13050624 (if you want to use a serial port of PC)
- Robe Universal Interface (if you want to use an USB port of PC)

Note 1: Software update should execute a qualified person. If you lack qualification, do not attempt the update yourself and ask for help your ROBE distributor.

Note 2: DMX address, IP address, programs 1-3 and all items in the menu "Personality" will be set to their default (factory) values.

To update software in the fixture:

I. Installation of the DMX Software Uploader.

1. DMX Software Uploader program is available from the ROBE web site at WWW.robe.cz.
2. Make a new directory (e.g. Robe_Uploader) on your hard disk and download the software to it.
3. Unpack the program from the archive. If the Robe fixture is produced in both magnetic and electronic ballast version, name of DMX Software Uploader is the same for both versions.

II. Fixture software updating.

1. Determine which of your ports is available on your PC and connect it:
 - with the DMX input of the fixture if you using the flash cable RS232/DMX
 - with the DMX output of the Robe Universal Interface if you using the USB cable.

Disconnect the fixture from the other fixtures in a DMX chain. Turn both the computer and the fixture on. Make sure the lamp is switched off (only if the fixture involves a lamp).

2. Switch the fixture to the updating mode by touching the "Updating Software " item

Note: If you do not want to continue in software update, you have to switch off and on the fixture to escape from this menu.

We recommend to cancel all running programs before starting the Software Uploader.

3. Run the Software Uploader program. Select desired COM and then click on the Connect button. (Select COM if the serial port is used or DreamBox1 if the USB port is used).

If the connection is OK, click on the "Start Uploading button" to start 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 later versions of processors, 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 "The fixture is successfully updated" will appear in this window and the fixture will reset with the new software.

Note: In the case of an interruption of the upload process (e.g. power cut), the fixture keeps the updating mode and you have to repeat the software update again.

After software update please do a full power off/on cycle with a complete display blackout in order to reset battery error checking procedure.

6.7 Icon "Lamp menu"



Lamp Status - The item enables to switch the lamp on/off.

Settings - The menu offers many items for setting of lamp behaviour.

Lamp Power - The item allows to set desired power of the lamp

Eco mode - Lamp power is reduced to 230W, lamp life is extended to 3000 hrs.

Standard mode - Lamp runs on max. power-280W. Lamp life is 2000hrs. This mode is set as default.

This setting can be temporarily changed by DMX command at "Power/Special functions" channel

Lamp Ignition Delay - The item allows to set the time delay(0-90sec.) before igniting the lamp by DMX

command. If the lamp is started directly from the control panel, the time delay will be ignored.

Lamp Light Sensor - Select this item to switch the light sensor off. The option "On" is intended for a standard operation. The option "Off" is for "emergency operation" only! If the lamp light sensor is switched off, the fixture will still try to ignite the lamp (even when the lamp is damaged or absent), on this account some electronics parts of the fixture can be damaged!

Lamp On/Off Settings - Use the menu to set rules for automatic switching on/off the lamp.

Lamp On Power On - If the item is on, the lamp will be automatically turn on after switching the fixture on.

Lamp Off via DMX - The item enables to switch the lamp off via DMX command from DMX controller.

Lamp On if DMX Present - The item allows you to strike the lamp automatically after 26 seconds if DMX signal is present on the fixture's DMX input.

Lamp Off if not DMX - The item allows you to switch off the lamp automatically after 2 minutes if DMX signal is missing on the fixture's DMX input.

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 Pointe 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			*
LAMP_STATE		*	*
LAMP_ON_MODE ¹		*	*
DEVICE_HOURS ²			*
LAMP_HOURS ²			*
LAMP_STRIKES ²			*

1...Another options for this command (only for Robe's fixtures):

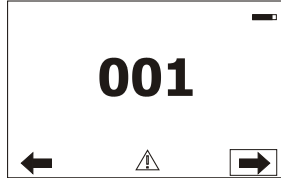
value PARAMETER_DATA=0x84 - lamp OFF by DMX value on DMX channel

value PARAMETER_DATA=0x88 - lamp OFF if DMX is not present

2...Commands relative resetable values

8. Error and information messages

Occurred errors during fixture operation are signalled by the yellow warning icon at the bottom line of the screen:



Touch the warning icon or press the [ESCAPE] button to display error messages.

List of error and information messages:

Lamp Error

If the ignition of the lamp is 3 times unsuccessful, the display shows "Lamp Error", meaning that the lamp could be damaged or even missed or there could be a failure on the lamp driver.

Overheated

This message informs that the fixture had been overheated and the lamp was switched off by means of the head temperature sensor.

Temper.Sensor Error

The message informs you that the communication between the head temperature sensor and the main processor failed and the lamp has been switched off.

Faulty battery

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

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.

Colour Wheel Error 1 (Colour Wheel Error 2)

The messages will appear after the reset of the colour wheel if this wheel is not located in the default position.

Dimmer Error 1 (Dimmer Error 2)

The messages will appear after the reset of the dimmer/strobe module if the strobe lamellas are not located in the default position.

Strobe 2 Error 1 (Strobe 2 Error 2)

The messages will appear after the reset of the dimmer/strobe module if the strobe lamella 2 is not located in the default position.

Prism 1 Error 1 (Prism 1 Error 2)

The messages will appear after the reset of the linear prism wheel if this effect is not located in the default position.

Prism 1 Rotation Error 1 (Prism 1 Rotation Error 2)

The messages will appear after the reset of the linear prism wheel if this effect is not located in the default position.

Prism 2 Error 1 (Prism 2 Error 2)

The messages will appear after the reset of the circular prism wheel if this effect is not located in the default

position.

Prism 2 Rotation Error 1 (Prism 2 Rotation Error 2)

The messages will appear after the reset of the circular prism wheel if this effect is not located in the default position.

Zoom Error 1 (Zoom Error 2)

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

Focus Error 1 (Focus Error 2)

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

Gobo Carousel Error 1 (Gobo Carousel Error 2)

The messages will appear after the reset of the rotating gobo wheel if this wheel is not located in the default position.

Gobo rotation Error 1 (Gobo Rotation Error 2)

The messages will appear after the reset of the rotating gobo wheel if the rotating gobos are not located in the default positions.

Static Gobo Error 1 (Static Gobo Wheel Error 2)

The messages will appear after the reset of the static gobo wheel if this wheel is not located in the default position.

Frost Error 1 (Frost I Error 2)

The messages will appear after the reset of the frost lamella if this effect is not located in the default position.

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.

Lamp Fan 1 Error

The fan above lamp in the fixture head is faulty. The lamp has been switched off.

Lamp Fan 2 Error

The fan (turbine) cooling a top of the lamp is faulty. The lamp has been switched off.

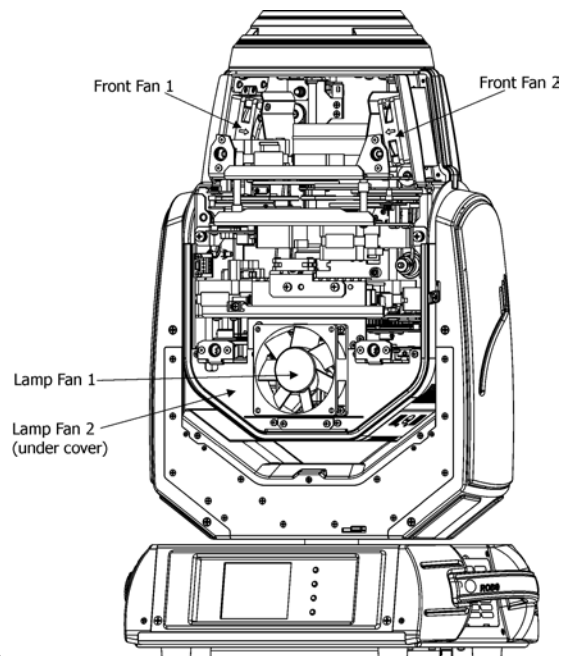
Front Fan 1 Error

The fan in the front part of the head is faulty. The lamp has been switched off.

Front Fan 2 Error

The fan in the front part of the head is faulty. The lamp has been switched off.

Location of fans:



9. Technical Specifications

Electrical

Power supply:.....electronic auto-ranging
Input voltage range:..... supply 100-240V, 50/60Hz
Live Fuse:.....T 5 A/250V,
Neutral Fuse:.....T 5 A/250V
Max. power consumption:.....470 W at 230V (I=2,05A,power factor 0.96)
Typical power consumption:.....390W at 230V (I=1.8A, power factor 0.95)
*Allow for a deviation of +/-10%

Lamp

Approved model: Osram Sirius HRI 280W RO
Base FaP2.5
Lamp life: 2000 hrs (Standard mode)
3000 hrs (Eco mode)

Ballast

Electronic

Optical System

High luminous-efficiency glass reflector
Beam range: 5°-20° (spot application)
2.5°-10° (beam application)

Colour wheel

13 dichroic filters + white

Static gobo wheel

10 metal gobos & 4 beam reducers

Rotating gobo wheel

9 glass gobos can be indexed and rotated in both directions at different speeds
Gobo wheel continuous rotation
Glass gobos: outside diameter=15.9 mm, image diameter=12.5 mm, thickness=1.1 mm,
high temperature borofloat or better glass
"Slot&lock" system for easy replacement of gobos

Prisms

Rotating 6-facet linear prism with continuous rotation in both directions
Rotating 8-facet circular prism with continuous rotation in both directions

Frost filter

Separate,variable frost filter

Zoom

Linear motorized zoom

Strobe

Strobe effect with variable speed (max.15 flashes/sec.)

Dimmer

Smooth dimmer from 0 - 100 %

Control

- Graphic touch screen for fixture setting and addressing
- Gravitation sensor for auto screen positioning
- Battery backup of the touch screen
- Readout fixture and lamp usage, receiving DMX values, temperatures, etc
- Built-in analyzer for easy fault finding, error messages
- Remotely switching on/off the lamp
- Built-in demo sequences
- Black-out while head moving, colour or gobo changing
- Self-resettable thermo-fuse
- Stand-alone operation
- 3 user editable programs, each up to 100 steps
- Supported protocols: USITT DMX 512, RDM, ArtNet, MANet, MANet2, sACN
- Support of RDM (Remote Device Management)
- 3 DMX modes (24, 16, 30 control channels)

Wireless DMX/RDM module (only for wireless DMX version)

- 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

Pan/Tilt

- Pan movement range 540°
- Tilt movement range 270°
- 16 bit movement resolution
- Automatic Pan/Tilt position correction
- Remotely controllable speed of pan/tilt movement for easy programming
- Movement control: tracking and vector
- Pan/tilt-lock mechanism

Connection

- DMX in/Out: 3-pin and 5-pin XLR
- Ethernet: RJ 45
- Power In: Chassis connector Neutrik PowerCon, A-type, NAC3MPA

Rigging

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

Temperatures

- Maximum ambient temperature : 45° C
- Maximum housing temperature : 90° C

Minimum distances

- Min. distance from flammable surfaces: 1 m
- Min. distance to lit objects (Standard mode-280W): 10 m
- Min. distance to lit objects (Eco mode-230W): 7.5 m

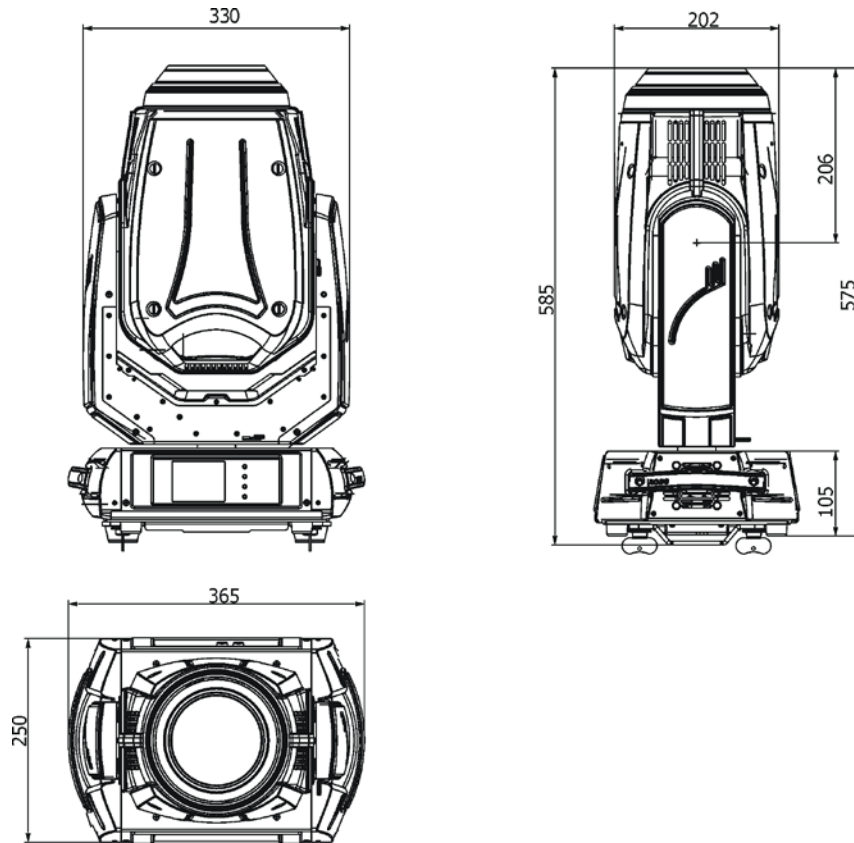
Total heat dissipation

- 1600 BTU/h (calculated)
- 469 Wh (calculated)

Weight (net):

- 15 kg

Dimensions (mm)



Accessories

Omega holder (No.99010420).....2 pcs

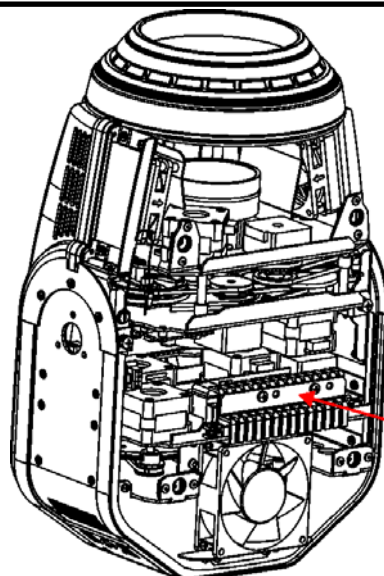
10. Maintenance and cleaning

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

DANGER !

Always disconnect the fixture from the mains before starting any maintenance work

If the fixture is connected to mains, high voltage is present at the heat sink of the lamp driver and at some parts of this lamp driver in the fixture head !



Lamp driver and its heat sink is under high voltage!

The front objective lens will require weekly cleaning as smoke-fluid tends to building up residues, reducing the light-output very quickly. The cooling-fans should be cleaned monthly.
 The interior of the fixture should be cleaned at least annually using a vacuum-cleaner or an air-jet.
 Dichroic colour filters and gobo wheels and the internal lenses should be cleaned monthly.
 Remove dust and dirt from the fans and cooling vents using a soft brush and vacuum-cleaner.

Important! Check the air filters periodically and clean before they become clogged!

Clean the air filters placed in the fixture head and base. 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).

Replacing the fuse.

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.

11. ChangeLog

This section summarizes all types of changes in the user manual.

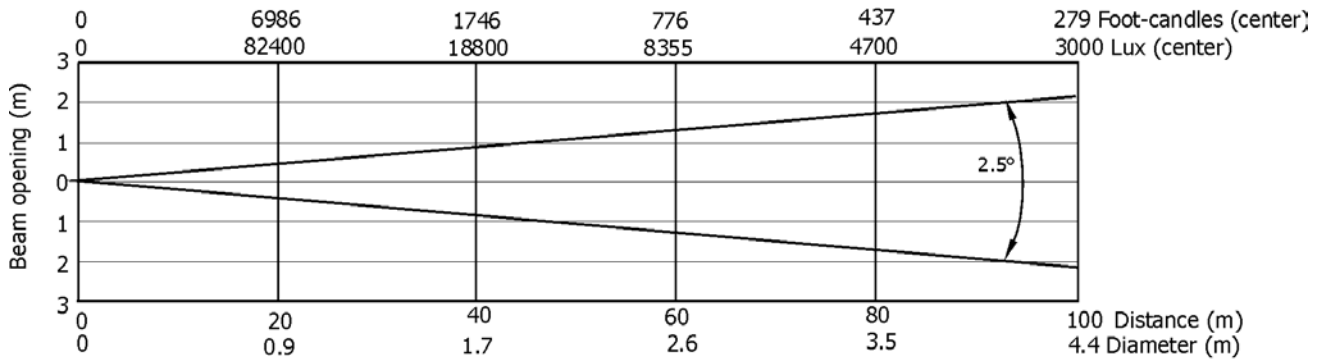
Version of the manual	Date of issue	Description of changes
1.1	29/04/2013	Added function " Lamp Power" into menu "Lamp". DMX chart version of 1.1
1.2	10/05/2013	Added Demo program to tab "Stand-alone"
1.3	20/05/2013	Added chapter Lamp adjustment
1.4	06/06/2013	Fan Error messages added
1.5	13/05/2013	New DMX chart vers. 1.3 (Added Mode 3)
1.6	02/09/2013	Error messages regard lamp driver added in menu Fixture Errors (Info-->View logs--> Fixture Errors)
1.7	29/05/2013	Added sACN protocol

*Specifications are subject to change without notice.
 May 29, 2014*

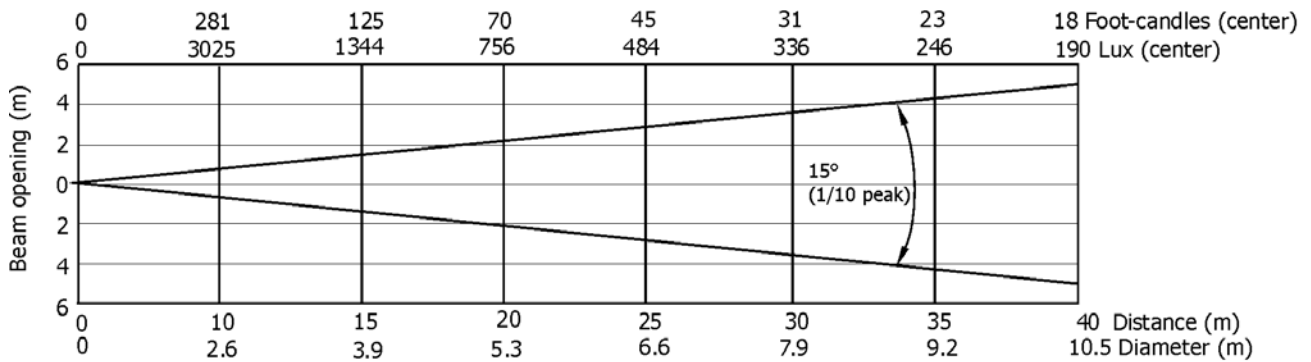
12. Photometric diagrams

All diagrams are for full power of the lamp (Standard Mode)

Min. Zoom (Beam application)

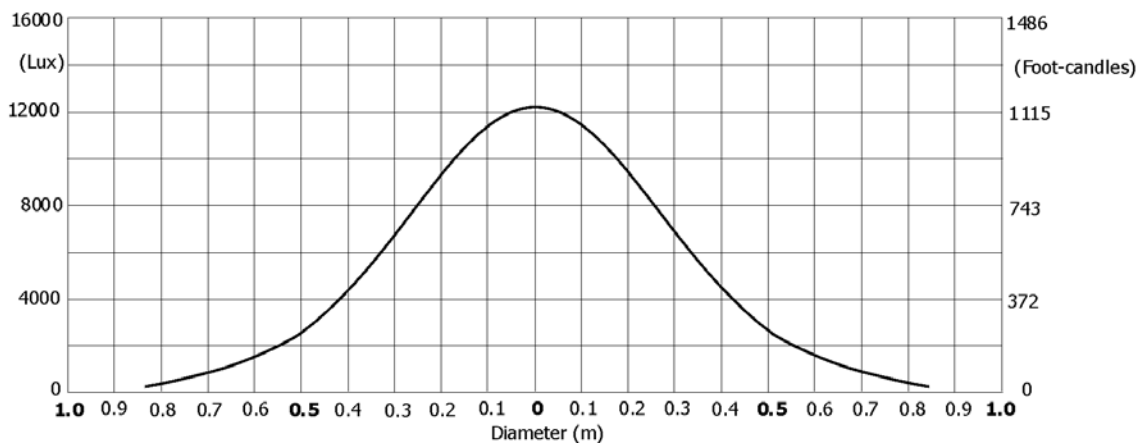


Min. Zoom with frost

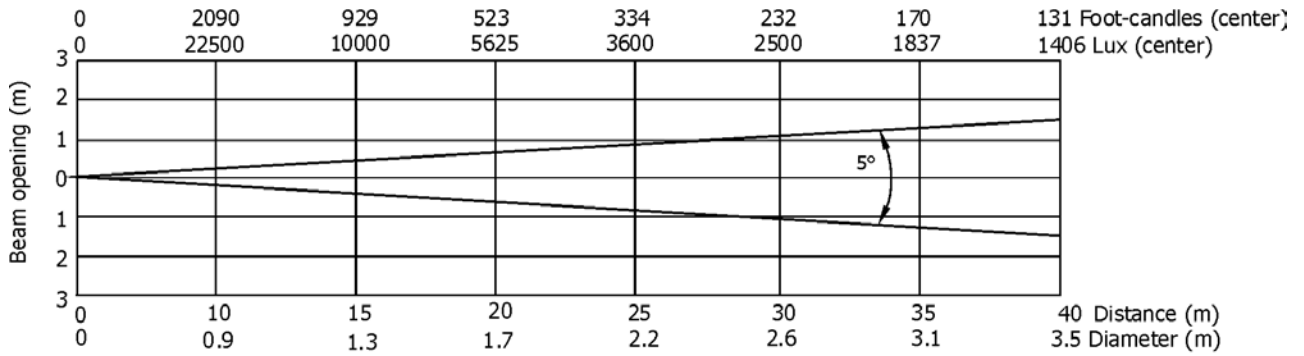


Illuminance distribution

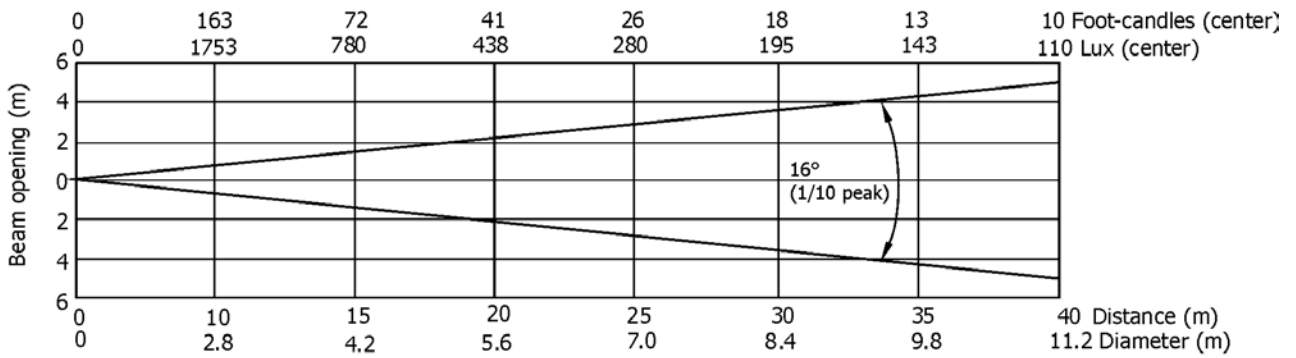
Distance=5m



Min. Zoom (Spot application)



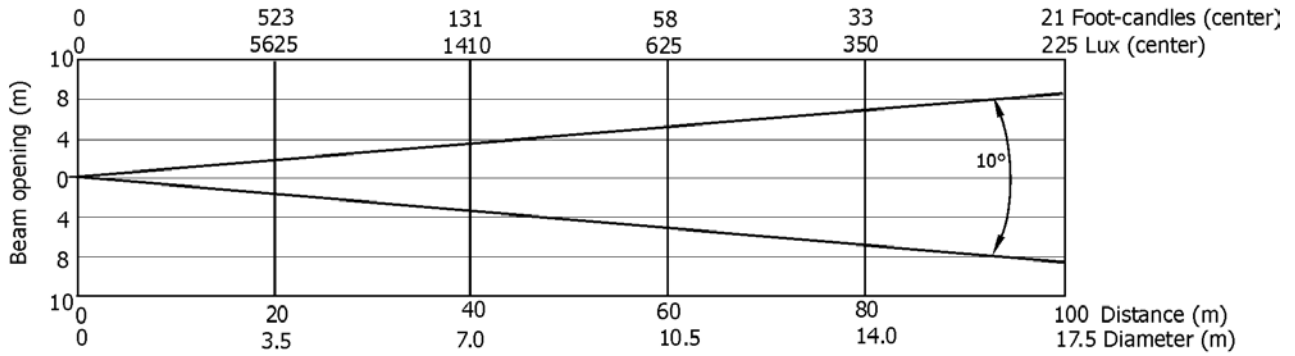
Min. Zoom with frost



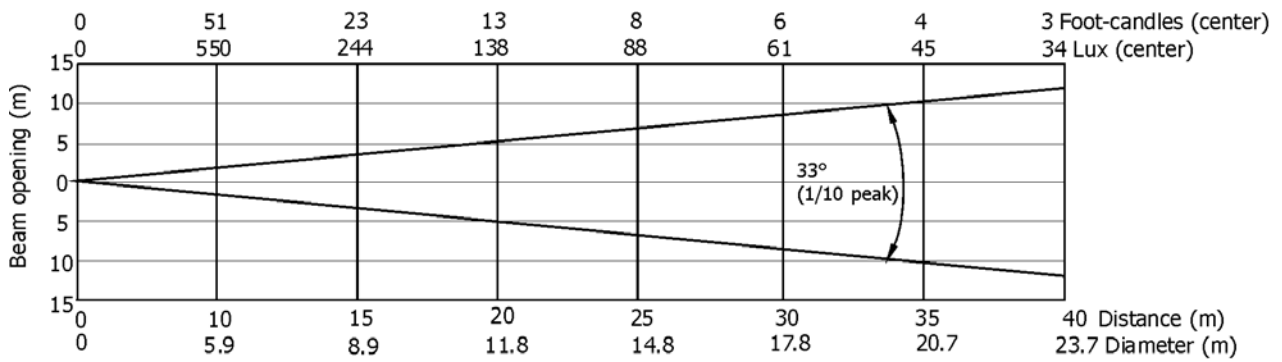
Illuminance distribution



Max. Zoom (Beam application)

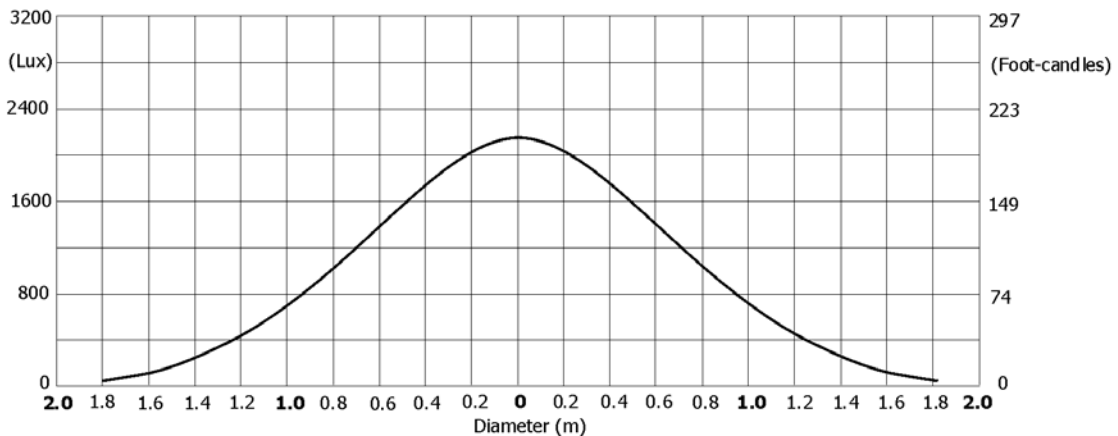


Max. Zoom with frost

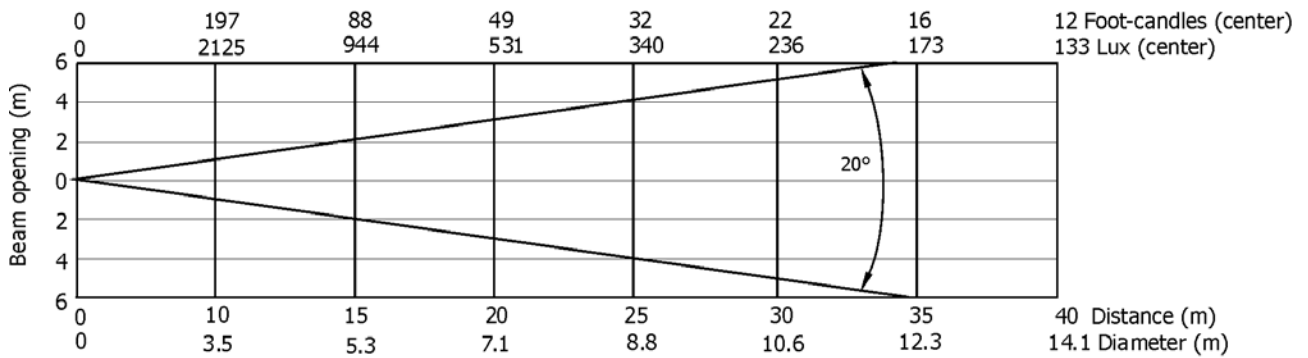


Illuminance distribution

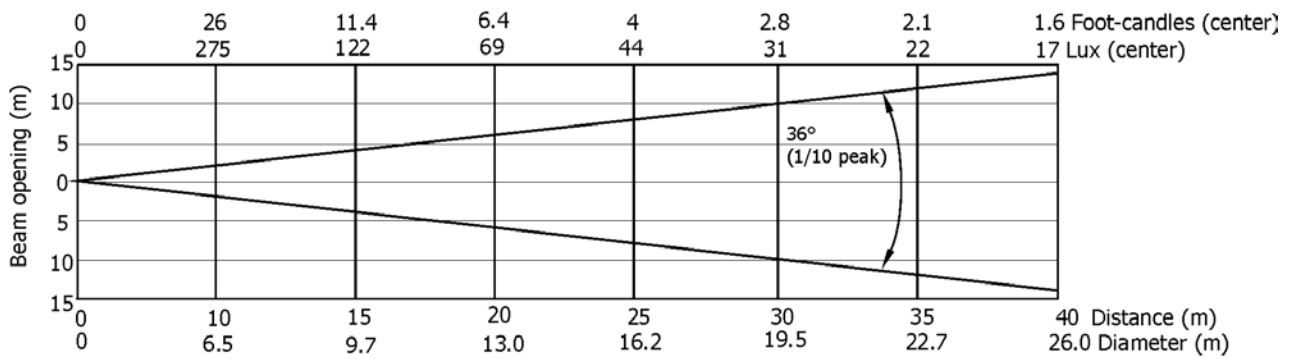
Distance=5m



Max. Zoom (Spot application)

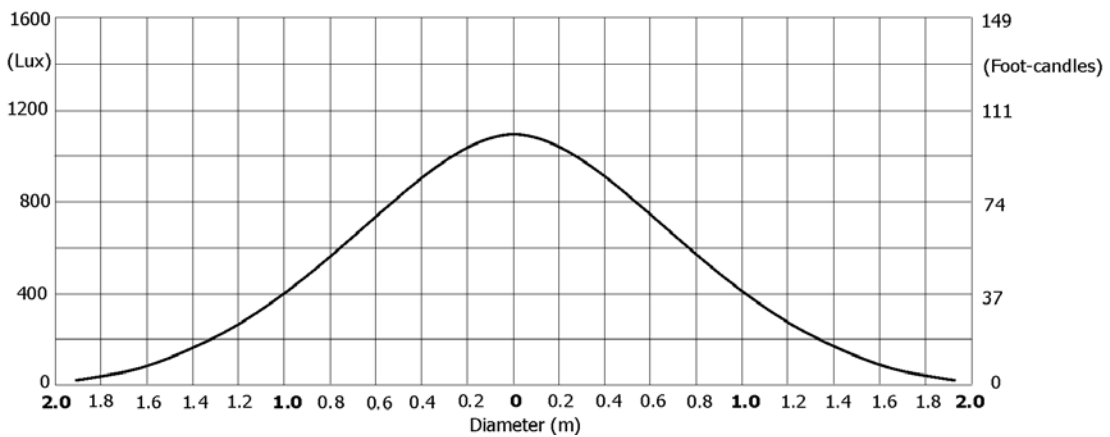


Max. Zoom with frost



Illuminance distribution

Distance=5m



DMX protocol

Robin Pointe - DMX protocol, version 1.3

(For fixtures produced after 20/08/2013 or updated with a software DSU_RobinPointe_13081258.zip (DSU_RobinPointe_13081258.tar.bz2) or latter . DSU RobinPointe_YYMMDDTT.zip -->YY=year, MM=month, DD= day)

Mode/channel			DMX Value	Function	Type of control
1	2	3			
1	1	1	0 - 255	Pan Pan movement by 540°	proportional
2	*	2	0 - 255	Pan Fine Fine control of pan movement	proportional
3	2	3	0 - 255	Tilt Tilt movement by 270°	proportional
4	*	4	0 - 255	Tilt fine Fine control of tilt movement	proportional
5	3	5		Pan/Tilt speed , Pan/Tilt time	
			0	Standard mode	step
			1	Max. Speed Mode	step
				Pan/Tilt speed mode	
			2 - 255	Speed from max. to min.	proportional
				Pan/Tilt time mode	
			2 - 255	Time from 0.2 s to 25.5 sec.	proportional
6	4	6		Power/Special functions	
			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 22/15/27 must be at range: 0-31 DMX). Corresponding menu items are temporarily overridden except DMX Input.</i>	
			10-14	DMX input: Wired DMX*	step
			15-19	DMX input: Wireless DMX*	step
				<i>* Function is active only 10 seconds after switching fixture on</i>	
			20-24	Eco mode (Lamp power 230W)	step
			25-29	Standard mode (Lamp power 280W)	step
			30-49	Reserved	
			50 - 59	Pan/Tilt speed mode	step
			60 - 69	Pan/Tilt time mode	step
			70 - 79	Blackout while pan/tilt moving	step
			80 - 89	Disabled blackout while pan/tilt moving	step
			90 - 99	Blackout while colour wheel moving	step
			100 - 109	Disabled blackout while colour wheel moving	step
			110 - 119	Blackout while gobo wheel moving	step
			120-129	Disabled blackout while gobo wheel moving	step
				<i>To activate following functions, stop in DMX value for at least 3 seconds:</i>	
			130 - 139	Lamp On,reset(total reset except pan/tilt reset)	step
			140 - 149	Pan/Tilt reset	step
			150 - 159	Colour system reset	step
			160 - 169	Gobo wheels reset	step
			170 - 179	Dimmer/Shutter	step
			180 - 189	Zoom/focus/prism reset	step
			190 - 199	Reserved	step
			200 - 209	Total reset	step
			210 - 229	Reserved	

DMX protocol

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			230 - 239	Lamp Off	step
			240 - 255	Reserved	
7	5	7		Colour wheel	
				Continual positioning	
			0	Open/white	proportional
			9	Deep Red	proportional
			18	Deep Blue	proportional
			27	Yellow	proportional
			37	Green	proportional
			46	Magenta	proportional
			55	Azure	proportional
			64	Red	proportional
			73	Dark green	proportional
			82	Amber	proportional
			91	Blue	proportional
			101	Orange	proportional
			110	CTO	proportional
			119	UV filter	proportional
			128-129	White	step
				Positioning	
			130-134	Deep Red	step
			135-138	Deep Blue	step
			139-143	Yellow	step
			144-147	Green	step
			148-152	Magenta	step
			153-157	Azure	step
			158-161	Red	step
			162-166	Dark green	step
			167-171	Amber	step
			172-176	Blue	step
			177-180	Orange	step
			181-185	CTO	step
			186-189	UV filter	step
			190 - 215	Forwards rainbow effect from fast to slow	proportional
			216 - 217	No rotation	step
			218 - 243	Backwards rainbow effect from slow to fast	proportional
			244 - 249	Random colour selection by audio control (Set microphone sensitivity in menu „Personality“)	step
			250 - 255	Auto random colour selection from fast to slow	proportional
8	*	8		Colour wheel - fine positioning	
			0 - 255	Fine positioning	proportional
9	6	9		Effect Speed	
			0 - 255	Speed of Rot. Gobo selection from max. to min.	proportional
*	*	10		Frost time	
			0	Function is off	step
			1 - 255	Time of frost movement (0.1 sec. --- >25.5 sec.)	proportional
*	*	11		Color time	
			0	Function is off	step

DMX protocol

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			1 - 255	Time of colour wheel movement (0.1 sec. --- >25.5 sec.)	proportional
*	*	12		Static gobo time	
			0	Function is off	step
			1 - 255	Time of static gobo wheel movement (0.1 sec. --- >25.5 sec.)	proportional
*	*	13		Prism time	
			0	Function is off	step
			1-50	Time of prism movement (0.1 sec. --- > 5 sec.)	proportional
			1 - 255	Time of prism rotation (0.1 sec. --- >25.5 sec.)	proportional
*	*	14		Zoom time	
			0	Function is off	step
			1 - 255	Time of zoom movement (0.1 sec. --- >25.5 sec.)	proportional
*	*	15		Focus time	
			0	Function is off	step
			1 - 255	Time of zoom movement (0.1 sec. --- >25.5 sec.)	proportional
10	7	16		Static gobo wheel	
			0-3	Open/hole	step
				<u>Positioning</u>	
			4-9	Gobo 1	step
			10-15	Gobo 2	step
			16-21	Gobo 3	step
			22-27	Gobo 4	step
			28-33	Gobo 5	step
			34-39	Gobo 6	step
			40-45	Gobo 7	step
			46-51	Gobo 8	step
			52-57	Gobo 9	step
			58-63	Gobo 10	step
			64-69	Beam reducer 1	step
			70-75	Beam reducer 2	step
			76-81	Beam reducer 3	step
			82-87	Beam reducer 4	step
				<u>Shaking gobos from slow to fast</u>	
			88-95	Gobo 1	proportional
			96-103	Gobo 2	proportional
			104-111	Gobo 3	proportional
			112-119	Gobo 4	proportional
			120-127	Gobo 5	proportional
			128-135	Gobo 6	proportional
			136-143	Gobo 7	proportional
			144-151	Gobo 8	proportional
			152-159	Gobo 9	proportional
			160-167	Gobo 10	proportional
			168-175	Beam reducer 1	proportional
			176-183	Beam reducer 2	proportional
			184-191	Beam reducer 3	proportional
			192-199	Beam reducer 4	proportional
			200-201	Open/hole	step
			202 - 221	Forwards gobo wheel rotation from fast to slow	proportional
			222 - 223	No rotation	
			224 - 243	Backwards gobo wheel rotation from slow to fast	proportional

DMX protocol

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			244 - 249	Random gobo selection by audio control <i>(Set microphone sensitivity in menu „Personality“)</i>	step
			250 - 255	Auto random gobo selection from fast to slow	proportional
11	8	17		Rotating gobo wheel <i>In the range of 0-59 DMX the gobo selection speed is controlled by the Effect Speed channel.</i>	
				<i>Index - set indexing on channel 12/9/17</i>	
			0	Open/Hole (default)	step
			1-4	Hole (flat field)	step
			5-7	Gobo 1	step
			8-10	Gobo 2	step
			11-13	Gobo 3	step
			14-16	Gobo 4	step
			17-19	Gobo 5	step
			20-22	Gobo 6	step
			23-25	Gobo 7	step
			26-28	Gobo 8	step
			29-31	Gobo 9	step
				<i>Rotation - set rotation on channel 12/9/17</i>	
			32-34	Gobo 1	step
			35-37	Gobo 2	step
			38-40	Gobo 3	step
			41-43	Gobo 4	step
			44-46	Gobo 5	step
			47-49	Gobo 6	step
			50-52	Gobo 7	step
			53-55	Gobo 8	step
			56-59	Gobo 9	step
				<i>Shaking gobos from slow to fast</i>	
				<i>Index - set indexing on channel 12/9/17</i>	
			60-67	Gobo 1	proportional
			68-75	Gobo 2	proportional
			76-83	Gobo 3	proportional
			84-91	Gobo 4	proportional
			92-99	Gobo 5	proportional
			100-107	Gobo 6	proportional
			108-115	Gobo 7	proportional
			116-123	Gobo 8	proportional
			124-129	Gobo 9	proportional
				<i>Shaking gobos from slow to fast</i>	
				<i>Rotation - set rotation on channel 12/9/17</i>	
			130-137	Gobo 1	proportional
			138-145	Gobo 2	proportional
			146-153	Gobo 3	proportional
			154-161	Gobo 4	proportional
			162-169	Gobo 5	proportional
			170-177	Gobo 6	proportional
			178-185	Gobo 7	proportional
			186-193	Gobo 8	proportional
			194-199	Gobo 9	proportional

DMX protocol

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			200 - 201	Open/hole	step
			202 - 221	Forwards gobo wheel rotation from fast to slow	proportional
			222 - 223	No rotation	step
			224 - 243	Backwards gobo wheel rotation from slow to fast	proportional
			244 - 249	Random gobo selection by audio control	step
				(Set microphone sensitivity in menu „Personality“)	
			250 - 255	Auto random gobo selection from fast to slow	proportional
12	9	18		Rot. gobo indexing and rotation	
				<i>Gobo indexing - set position on channel 11/8/16</i>	
			0 - 255	Gobo indexing	proportional
				<i>Gobo rotation - set position on channel 11/8/16</i>	
			0	No rotation	step
			1 - 127	Forwards gobo rotation from fast to slow	proportional
			128 - 129	No rotation	step
			130 - 255	Backwards gobo rotation from slow to fast	proportional
13	*	19		Rot. gobo indexing and rotation - fine	
			0-255	Fine indexing (rotation)	proportional
14	10	20		Prism	
			0 - 19	Open position (hole)	step
			20 -49	6-facet linear rotating prism -indexing	step
			50 - 75	6-facet linear rotating prism- rotation	step
			76 - 105	8-facet circular rotating prism- Indexing	step
			106-127	8-facet circular rotating prism-rotation	step
				Prism/gobo macros	
			128 - 135	Macro 1	step
			136 - 143	Macro 2	step
			144 - 151	Macro 3	step
			152 - 159	Macro 4	step
			160 - 167	Macro 5	step
			168 - 175	Macro 6	step
			176 - 183	Macro 7	step
			184 - 191	Macro 8	step
			192 - 199	Macro 9	step
			200 - 207	Macro 10	step
			208 - 215	Macro 11	step
			216 - 223	Macro 12	step
			224 - 231	Macro 13	step
			232 - 239	Macro 14	step
			240 - 247	Macro 15	step
			248 - 255	Macro 16	step
15	11	21		Prism rotation and indexing	
				<i>Prism indexing - set position on channel 14/10/19</i>	
			0 - 255	Prism indexing	proportional
				<i>Prism rotation - set position on channel 14/10/19</i>	
			0	No rotation	step
			1 - 127	Forwards prism rotation from fast to slow	proportional
			128 - 129	No rotation	step
			130 - 255	Backwards prism rotation from slow to fast	proportional
16	12	22		Frost	
			0	Open	step

DMX protocol

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			1 - 179	Frost from 0% to 100%	proportional
			180 - 189	100% frost	step
			190 - 211	Pulse closing from slow to fast	proportional
			212 - 233	Pulse opening from fast to slow	proportional
			234 - 255	Ramping from fast to slow	proportional
17	13	23		Zoom	
			0 - 255	Zoom from max. to min.beam angle	proportional
18	*	24		Zoom - fine	
			0-255	Fine zooming	proportional
19	14	25		Focus	
			0 - 255	Continuous adjustment from far to near	proportional
20	*	26		Focus - fine	
			0- 255	Fine focusing	proportional
21	*	27		Autofocus (priority & distance selection)	
				Select desired distance and effect on which you need to focus and use "Focus" channel (19/14/25) to focus the image.	
			0	Autofocus Off	step
				Rotating gobos & Hole (flat field)	
			1	10 metres	proportional
			8	15 metres	proportional
			16	20 metres	proportional
			24	25 metres	proportional
			32	30 metres	proportional
			40	35 metres	proportional
			48	40 metres	proportional
			56	45 metres	proportional
				Static gobos & Hole (default)	
			64	10 metres	proportional
			72	20 metres	proportional
			80	30 metres	proportional
			88	40 metres	proportional
			96	50 metres	proportional
			104	60 metres	proportional
			112	70 metres	proportional
			120	80 metres	proportional
			127	Infinity	proportional
			128-255	Reserved	
22	15	28		Shutter/ strobe	
			0 - 31	Shutter closed (Lamp power reduced to 230 W)	step
			32 - 63	Shutter open, Full lamp power	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, Full lamp power	step
23	16	29		Dimmer intensity	
			0 - 255	Dimmer intensity from 0% to 100%	proportional
24	*	30		Dimmer intensity - fine	

DMX protocol

Mode/channel			DMX Value	Function	Type of control
1	2	3			
			0 - 255	Fine dimming	proportional

