RAPTOR 2R
ROKHARVLED

2R

Moving Head Beam

User Manual

FOREWORD

Thank you for choosing the ROKHARV LED RAPTOR 2R moving
head beam light. This moving lighting fixture is conceived from our
very own research and development to ensure high quality. The RAPTOR
2R is in full compliance with CE standards and supports the worldwide DMX
512 control capability.

The Raptor 2R uses the latest OSRAM Sirius HRI 132W light source to give
a strong, clear and high quality light output. The mechanics of the motors
ensure a high speed, smooth pan and tilt with precise movement.

The applications of the RAPTOR 2R are endless giving versatility of use.
Main features include an Aluminium Gobo Wheel with 14 gobos plus open,
One frost wheel and a 13 colour plus white color wheel, as well as an
8 facet prism with rotation effect.

The RAPTOR 2R is small, rapid and compact but packs a heavyweight punch.

CONTENTS

1 SAFETY TIPS

- Before using the lights , please check that the light package is not unwrapped or damaged during transportation. If it is, please do NOT use the lights and contact the dealer or manufacturer.
- Before using the product, please make sure the voltage and Hertz are correct.
- To avoid electic shock ensure a ground wire is connected in the plug and the power supply you are connecting to.
- The space for installing must be sufficient, the shortest distance of each light is 50cm, ensure they do not touch each other.
- Unplug before moving or repairing the lights.

> Please ready this user manual in its entirity as it contains important information, such as installation, using and maintenance.

2 TECHNICAL PARAMETERS

◇DMX Channels: 16 DMX512 CHs
◇Power consumption: 150w
◇Control Model: DMX512/Auto/Sound
◇Blue LED Screen+Button
◇Light source: OSRAM 132W (2R Beam)
◇Pan & tilt silence 2 phase step motors
◇Color temperature 8300K, Life span 2000Hs
◇13Color+White. Dual color effect.
◇14 fixed gobos+white
◇8-facet prism with rotation effect.
◇Optical lens: high-precision optical glued lens.
◇Focus: Linear focus
◇Dimmer: 0-100% linear dimming.

◇Beam angle: 0-3.2 degree
◇Strobe: Single piece strobe(0.5-9F.P.S)
   16 bit ultra silence 2-phase step motors.
◇Housing: High temperature alloy plastic
   IP rate: IP20
◇Weight: 11.3KG
◇Size: 337x231x403 mm

> Extended features are available on the manual
> Menu display on the lighting fixture..
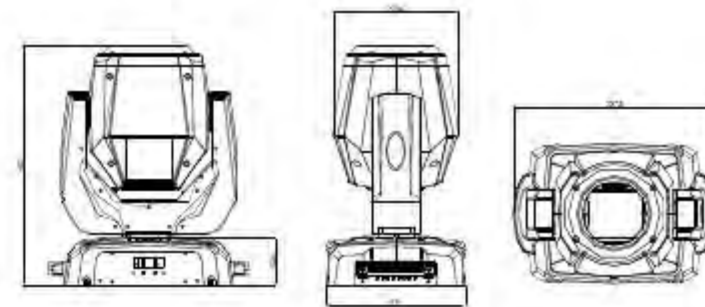
3 SCHEMATIC LIGHTING COMPONENTS

light head cover

front cover

arm

handle

LED display
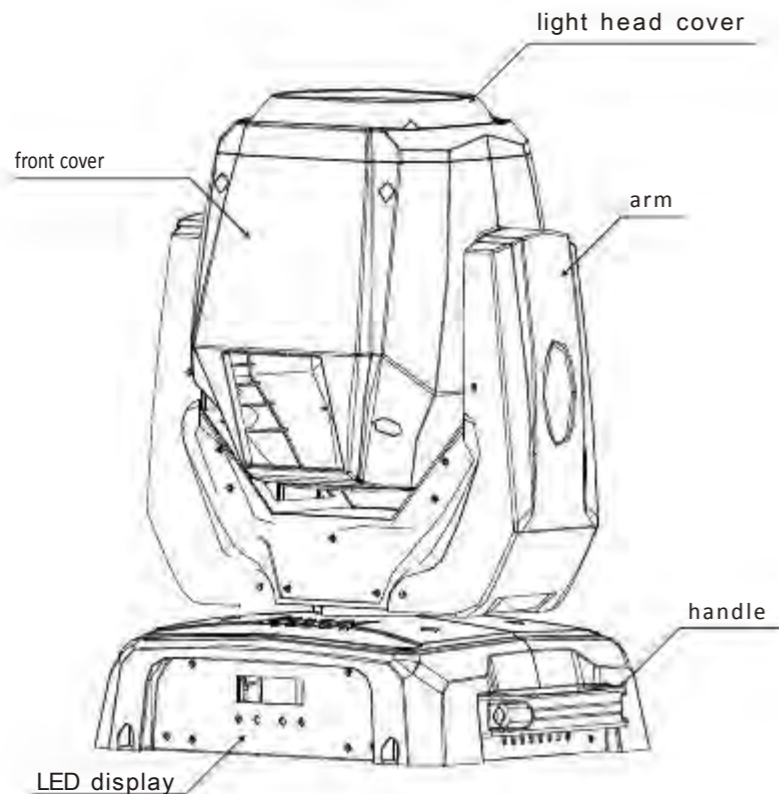
4 PACKING AND SHIPPING

4.1 Packing

The Raptor 2R is packaged with the below accessories:

Name	Quantity	Unit
User manual	1	piece
Safety Rope	1	piece
Clamp Hook	1	piece
Hanging Bracket	1	piece
Power lead	1	piece

4.2 Transport protection locks

In order to transport and to protect the lamp, the body has two locks (XY axes each a lock), X-axis has four lock position, Y-axis triple lock, lock locked in the center position in the transport and light a vertical position with the arm member.

Pan protection lock   Tilt protection lock   Lock position sketch map

4.3 Packing

1.Turn off lamp then disconnect the power supply so that the lamp to cool completely before packaging/moving for at least 15 minutes.
2.Close the light protection locks, when clean the surface of the light dust
3.Cover the light , hold the fixture using both side aluminum handles to rotate and package into box.
4.Add lighting accessories after placing the light in box.
5.Up to two crates stacked prohibited upside down.

4.4 Unpacking

1.Open the box and bag
2.Hold the fixture handles, lifting and carrying away the light from the box .Rotate to stand on base.
3.Before turing on the light,ensure you open the light protecting lock

On receipt of lamps, please check if there is damage to the fold closure caused by transport, where there is transportation damage, please do not use this fixture,and as soon as possible contact ROKHARV LED

5 INSTALLATION STANDARDS

Users should ensure that light and installation materials are checked for regular safety. Unprofessional incorrect installation can be dangerous. This Lighting fixture must be operated by professionals. Optimum temperatures for operation are 15-35 Degrees Celcius. When installing, dismantling or servicing the light, do not stand directly beneath the light. We advise that installed lights are serviced at least once a year and safety checks are carried out every 6 months.

5.1 Installating/Rigging

RAPTOR 2R beam moving head lights can be placed on the stage or on a stand in any direction. Quick lock system enables The fixture to be installed/removed using the lighting hooks provided.

Note: must use two clamps on fixtures, and are 1/4 buckle fastening jig, only fully rotated 90 degrees clockwise to lock fastener.

5.2 Fixed equipmen

1. Before installing fixtures ensure rigging equipment is not damaged and can bare at least 10 times the total weight of the light, fixtures

And accessories.

2. Insert the lock hook fastener into the base mounting holes horizontally, turn 90 degrees to lock. To unlock reverse this procedure.

3. Alwaysuse the safety rope when installing/rigging lighting to mounts or truss points

NOTE: Add safety rope to the fixture base when installing, not the handles.

NOTE: Lights must have at least 50cm in between each light as Below.

3XLR plug
1.Grounding
2.Signal-
3.Signal+

Terminal plug connect with XLR plug second or third by a 0.25w 120ohm resistor, then connect the resistor into last light's DMX output jack

Your controller connects to the nearest input XLR, then from Output of the fixture connect to the input of the next one and so on. For long throws of DMX cable please connect a signal ender to the last fixtures out connection.
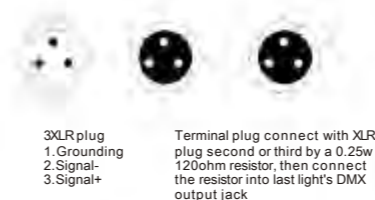
Do not use two separate out connections. If the connecting amplifier connects in series as above. Please use shielded DMX Cable.

7 AC POWER

7.Fuse

Power supply and fuse configured as shown in the following table.

Power :100-240v~

Fuse: 5A main fuse

7.2 Power Connection

If the external flexible cable or cord of this light is damaged, the line is up to the manufacturer or its service agent or a similar qualified person to replace, in order to avoid danger. To connect the power supply personnel must have the appropriate qualifications before proceeding, you must make sure you are using the power supply voltage matches the voltage identified and have overload or leakage protection. Directly connect the device to the power supply, do not connect to the silicon box dimming system, otherwise damage to the fixture is possible.

Note:
1 Do not install other similar bulbs, as this may cause safety hazards or equipment damage.
2.To reduce the risk of damage to the light, replace the lamp before life is over
3.Do not use a bulb if it appears damaged.

8 LAMP

8.1 Lamp Description

Raptor 2R moving head beam light uses an Osram 2R lamp. Single-ended lamp is short arc point light source,and its color temperature is 8000K and very stable,CRI>90.Life span is over 2000 hours(according the using situation)
Attention

8.2 Changing lamp

1.Disconnect the power, so that the lamp can cool, the arm of the lamp body lock locked in a horizontal position.
2. Use a Phillips screwdriver to remove three screws which are named on the cover ABC
3.With the appropriate force pushing down lamp,taking up the bulbwhen its cup edge over the Stainless steel section.
4.Install the bulb in reverse order of the above.

Note: when replacing a light lamp do not touch the bulb with bare hands at the ball, avoid oil stained hands on the ball.
2 When you install the lamp into the holder gently
Put it n, Do not let the bulb hit hard objects around it to prevent damage to the bulbs.

8.3 Correction bulbs

The Lamp has been tested before selling. If there is a an error and the lamp does not strike please try re-setting the light or lamp using the Built in menu. IF problems still persist then please contact ROKHARV LED

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9 FUNCTION

9.1Gobo wheel

Metal gobo wheel with 14 gobos plus open, and 13 colurs plus white.

Gobo wheel :   Last Gobo

Open/first Gobo

Color wheel :

Cool color
red
Rose-red
brown
Neon color
Fuchsia
Blue
light yellow
Blue-green
Dark yellow
green
Yellow-green
Brown-yellow
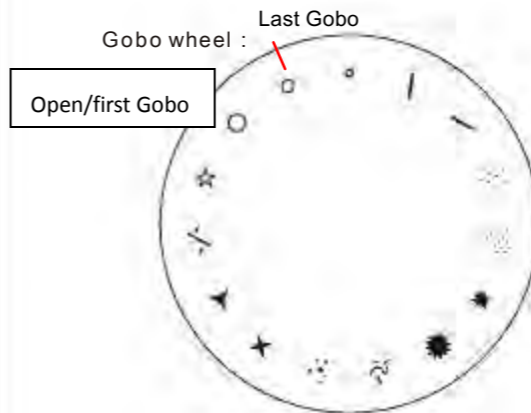
9 FUNCTION

9.2 Colour wheel

The colour wheel is made up of 14 high standard fixed colours, the user can easily select their own favorite colour, to create a perfect lighting effect.Use the gobo wheel at same time to transform a colorful gobo effect.
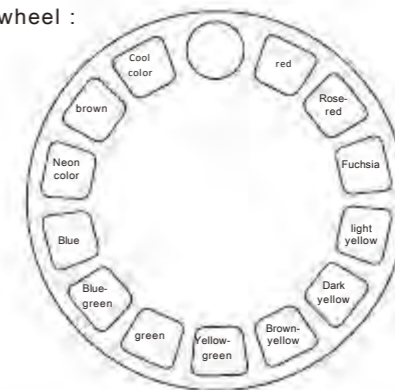
(Gobo colurs are subject to change without notice)

9.3 Optical lens focus

Using two high-precision double-screw motor synchronization, adjusting the optical lens to complete the pattern Focus with definition.

9.4 Prism wheel and the prism enlarge

Prism wheel with a 8 facets, clockwise and counterclockwise rotating with adjustable speed.The Prism wheel can create a variety of brilliant lighting effects with color wheel and gobo wheel. Prism wheel through two high-precision ultra-fast eight-head screw motor spot size adjustment cut prisms,and creates wonderful prism dynamic effects.

9.5 Dimming and strobe

0-100% mechanical dimmer, you can instantly switch strobe speed up to 12 times / sec, along with random strobe special features.

9.6 Frost

Frost is a piece of atomizing lens, according to the actual control to complete the frost effect as your want .

9.7 horizontal and vertical scanning

Pan:540°, Tilt 270°, With 16BIT precise positioning capabilities.Pan and Tilt speed is adjustable.

11

10 LCD SETTING

10.1 The display presentation

10.2 Manu Operation

DMX Address	0-512	
Pan Positive and negative	negative	
	Positive	
Tilt Positive and negative	negative	
	Positive	
Mode	DMX512	
	Auto	
	Master-slave	
Manual Control	Channel 1	0-255
	Channel 2	0-255
	Channel 3	0-255
	Channel 4	0-255
	Channel 5	0-255
	Channel 6	0-255
	Channel 7	0-255
	Channel 8	0-255
	Channel 9	0-255
	Channel 10	0-255
	Channel 11	0-255
	Channel 12	0-255
	Channel 13	0-255
	Channel 14	0-255
	Channel 15	0-255
	Channel 16	0-255

Lamp	On	
	Off	
Information	Show CPU time	
	Show CPU version	
	Show CPU temperature	
	Signal	Correct
		Error
	Motors CPU time	
	Motors CPU version	
	Motors CPU temperature	
	Lamp holder temperature	
	Pan	Correct
		Error
	Tilt	Correct
		Error
	Gobo	Correct
		Error
	Color	Correct
		Error
Reset	Pan	
	Tilt	
	Gobo	
	Color	
	Focus	
	Dimmer	
	Prism	
	Frost	
	Restore factory settings	Confirmed by 10S
Correction	pan	0-255
	tilt	0-255
	gobo	0-255
	colour	0-255
	dimmer	0-255
	prism	0-255
	frost	0-255
	focus	0-255
	pan	0-255
	tilt	0-255

12

11 DMX512 Channels

Channel 1:Pan	0-255
Channel 2:Pan fine	0-255
Channel 3:Tilt	0-255
Channel 4:Pan fine	0-255
Channel 5:Pan&tilt speed adjust	0-255: Speed from fast to slow.
Channels 6: Color	0-6: White / Open
	7-13: White / Red
	14-20: Red
	21-27: Red / Pink
	28-34 Pink
	35-41 Pink / Fuschia
	42-48 Fuschia
	49-55 Fuschia / Light Yellow
	55-61 Light Yellow
	62-68 Light Yellow/ Dark Yellow
	69-75 Dark Yellow
	76-82 Dark Yellow / Bronze
	83-89 Bronze
	90-96 Bronze / Light Green
	97-103 Light Green
	104-110 Light Green / Green
	111-117 Green
	118-124 Green / Dark Green
	125-131 Dark Green
	132-138 Dark Green / Blue
	139-145 Blue
	146-152 Blue / Neon
	153-159 Neon
	160-166 Neon / Brown
	167-173 Brown
	174-180 Brown / Cool Colour
	181-187 Cool Colour
	188-194 Cool color / white
	195-225 Colour Clockwise
	226-255 Colour Antidockwise

Channels7: Gobo	0-4 Open
	5-9 Gobo1
	10-14 Gobo 2
	15-19 Gobo 3
	20-24 Gobo 4
	25-29 Gobo 5
	30-34 Gobo 6
	35-39 Gobo 7
	40-44 Gobo 8
	45-49 Gobo 9
	50-54 Gobo 10
	55-59 Gobo 11
	60-64 Gobo 12
	65-69 Gobo 13
	70-74 Gobo 14
	75-83 Gobo 14 Shake
	84-92 Gobo13 Shake
	93-101 Gobo 12 Shake
	102-110 Gobo 11 Shake
	111-119 Gobo 10 Shake
	120-128 Gobo 9 Shake
	129-137 Gobo 8 Shake
	138-146 Gobo 7 Shake
	147-155 Gobo 6 Shake
	156-164 Gobo 5 Shake
	165-173 Gobo 4 Shake
	174-182 Gobo 3 Shake
	182-190 Gobo 2 Shake
	191-199 Gobo 1 Shake
	200-225 Gobo clockwise rotation
	226-255 Gobo counterclockwise rotation
Channel 8: Strobe	0-9 Closed Shutter
	10-127 Strobe from slow to fast
	128-249 Random slow to fast
	250-255 Open
Channel9:Dimmer	0 -255: Open shutter

Channel 10: Prism	0-127 No prism effect
	128-255 With prism effect
Channel 11: Prism rotation	0-9 Prism stationary
	10-91 Prism clockwise rotation
	92-173 Prism counterclockwise rotation
	174-255 Prism rotating back and forth
Chanel12: Fucos	0-255: Focus Adjust
Channel13: Frost	0-255: Frost Adjust
Channel 14: Auto mode	0-127 DMX control
	128-255 DMX auto control
Channel 15: Reset	50-70 Pan reset
	71-90 Tilt reset
	91-255 System reset
Channel 16: Lamp function	40 -100 Lamp OFF
	100-255 Lamp ON

12 FAILURE SCOREBOARD AND SOLUTIONS

Listed below is a common approach in the operation of a few common problems.
◇Fault A: The lamp is not working, the bulb is not lit, the fan does not work
Solving 1: Check the power supply or the fuse is burned
Solve 2: The main power connector on the voltage detector
◇Fault B: connect control units, lighting does not respond
Solving 1: After connecting control units, lighting should be working. If it is not working properly, check the signal cable plugs and wires are connected correctly.
Solve 2: If the lamp is lit display, but the channel does not respond, check the address code is set correctly and DMX output voltage polarity.
Solve 3: DMX signal problems if your lighting is off, check the input terminal and the circuit board
Solve 4: Please change another one DMX controller
Solve 5: Check whether the signal cable near high voltage power lines caused DMX display board inside the wire damage.
◇Fault C: A channel is not working
Solving 1: stepper motor may be damaged, or the line connecting the motherboard burned out
Solve 2: IC driver board on the motherboard may be damaged

13 CLEAN LIGHTS

Please regularly clean the outside of the optical lens removing any dust. Please use glass cleaning solution on the lens. When cleaning the lighting please ensure to check for damage to the fixture. Do not put liquid inside the light or near the light. This lighting fixture must be serviced and cleaned by a qualified person only. Any damaged caused during cleaning and servicing is not covered under warranty.

Enjoy your ROKHARV LED product.

14 RAPTOR 2R Photometrics data

PHOTOMETRICS DIAGRAM

lux	210000	52000	23000	12000
Distance (m)	5	10	15	50
Wash dia.(♦)m	34	70	104	140