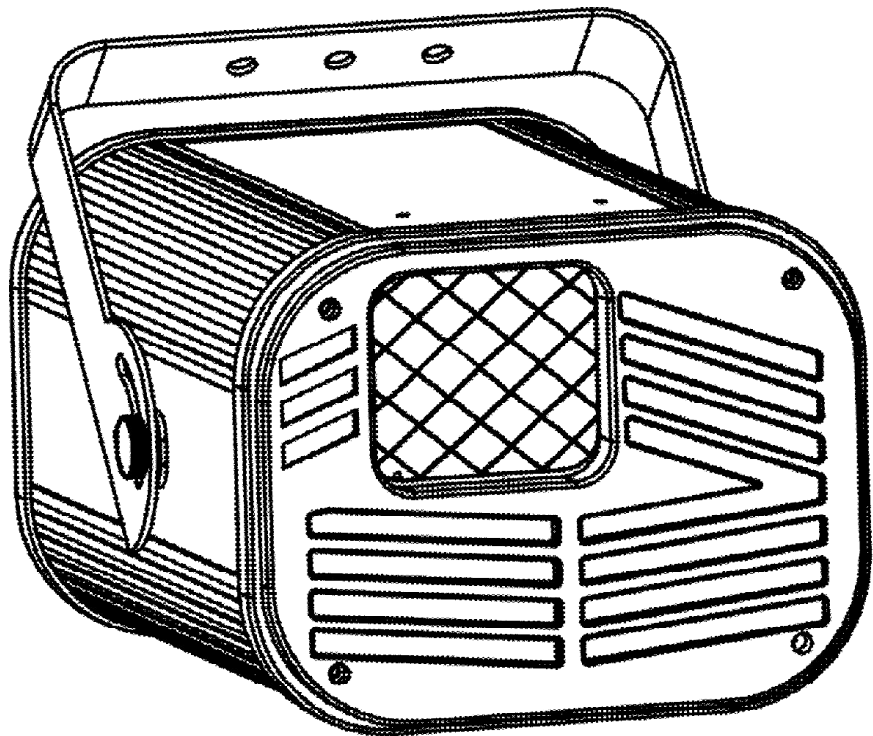


Instruction Manual

Magic 2R

BEAM SCANNER LASER
hybrid effects projector



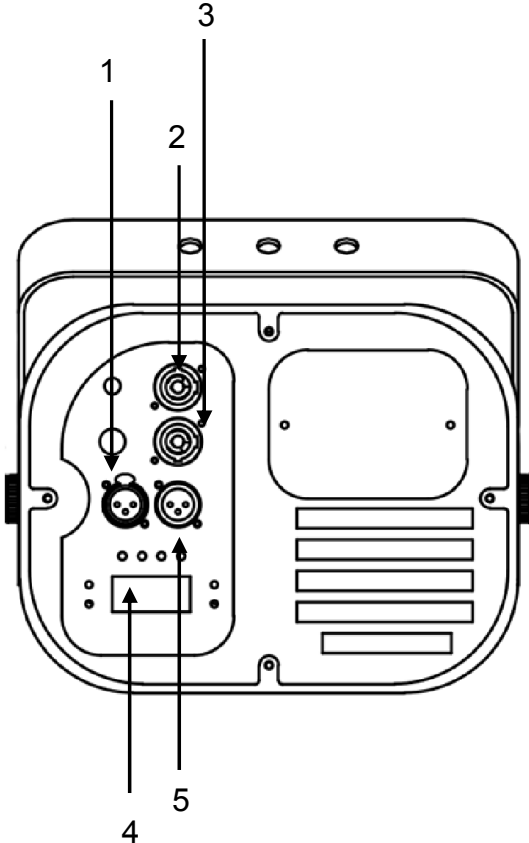
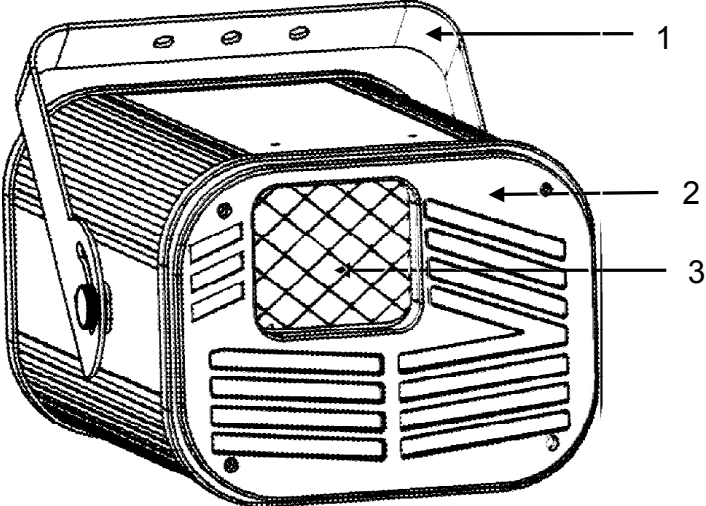
(Instruction version: 1.0)

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1. Description of Device

- 1. Arm
- 2. Body
- 3. Lens



- 1. DMX-Output (3 pin)
- 2. Power Out
- 3. Power In
- 4. LCD display
- 5. DMX-Input (3 pin)

- 3
- 4
- 5
- 2 D
- 3
- 4
- 5

2. Safety Instructions



The light is a High-Tech Product. To guarantee a smooth operation, it is necessary to respect the following rules. The manufacturer of this device will not take responsibility for damages through any disregard of the information provided in this manual. Warranty claims also will be voided in the case that the fixture housing is opened.

- Before powering on the fixture, make sure that the fixtures fans and air inlets are clean and not blocked.
- Ensure that the fixture head can rotate unhindered throughout its complete range of pan and tilt movement. A safety distance of at least 0.5 m must be maintained between the fixture and any easily inflammable material (e.g. decoration material).
- **Attention!** Don't touch the fixture during the operation. This can cause injuries and/or damages.
- **The fixture doesn't contain any user serviceable parts. Opening the fixture will void all warranties.**
- It is necessary to wait at least 15 minutes after disconnecting the mains power before handling the fixture.. Pay attention to possible hot parts of the fixture.
-- Danger of BURNING --
- **Never look directly into the beam of light .**
- Never use optical apertures to observe the beam of light.
- You'll risk serious injury of your eyes and in particular of your retina.



Attention: Class 2M can cause injuries of your eyes even without optical instruments in front of them or within a distance of less than 0.5m and short exposure time.

Hence: Avoid direct radiation into your eyes!

- To ensure safe operation, follow also the Installation guide.
- Operating the light without suitable safety aids like Safety cables or clamps/hooks can increase the risk of an accident and must be avoided.
- Repair, maintenance, and installation work shall be done by qualified or certified staff only. You need to pay attention to the common rules of technology that are not explicitly mentioned in this manual.
- Use only original spare parts. Any structural modification of the system will terminate all warranty claims.
- Please keep this instruction manual for future reference.

3. Preparation and Connections

3.1. Safety information

The light fixtures are fitted with a number of plano-convex lenses in a highly efficient collimator cluster. This type of lens can act as a strong magnifying glass.

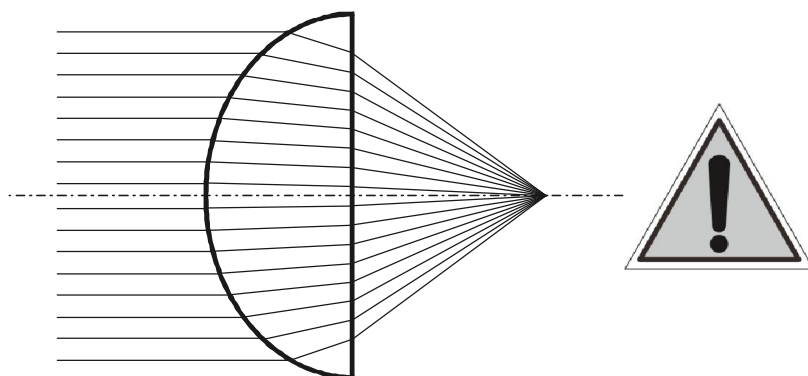
If the rays from a strong light source (such as the sun or another lighting fixture) are directed towards the front of any of these fixtures, then internal damage may occur. In a worst case scenario with a high power light source this can happen very quickly, damaging the fixture internally, potentially melting components or causing an internal fire within seconds.

In order to avoid these possible problems please adhere to the following requirements:

- 1 Do not expose the front of a fixture to direct sunlight or any other strong light sources.
- 2 For outdoor applications during daylight make sure that the front face of any fixture is either shielded or points away from the sun, even when fixtures are not in use.
- 3 Do not modify the front glass or lenses of any fixture.

These requirements have to be followed regardless of whether a fixture is powered on or off as the magnifying effect is an optical effect and therefore independent from the (electrical) state of the fixture.

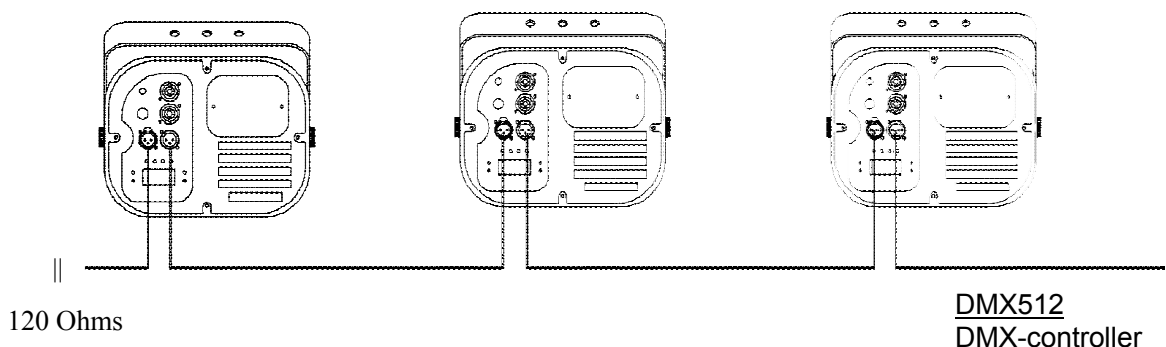
Especially when working with high powered **beam-lights**; extreme caution and observance of these safety instructions is mandatory.



Should you have any questions about the operation of your fixture then please contact your local supplier, or their authorized distributor.

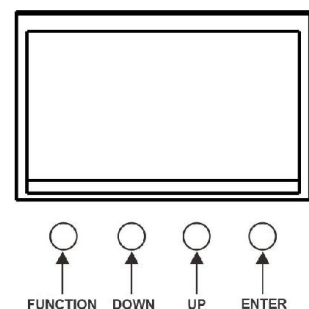
3.2. Connections

- *Power Supply*
~100-240 Volt AC, 50-60 Hz, earth contact type plug - Powercon
Connected load 350 VA (W) \Leftrightarrow T6.3A (micro-fuse 5x20mm)
Please see printing on the case for the right electronic supply!
Disconnect from the mains supply for changing the fuse and use only the above described micro-fuse type.
- *DMX*
USITT DMX-512 Standard input/output in 3 pin / 5 pin connectors. Pin 1 = [Ground] / Pin 2 = [-] / Pin 3 = [+] / Pin 4&5 N.C. The DMX- Addressing starts at the DMX- Address [001].



4. The Menu Field

You'll find the control board on the side part of the bottom. It allows you to make all necessary adjustments of the light. With the **Enter**-key you get into the main menu. Afterwards you can navigate through the menu with the **Up/Down**-keys. Push the **Enter**-key to get in the next menu level or to confirm your settings. Make them and set functions **ON/OFF** with the **Up/Down**-keys. Confirm and save it with the **Enter**-key. Push the **Function**-key to cancel the entry and go back to the main menu.



To lock or unlock the keys of the menu field press Mode+Enter+Up simultaneously.

5. Operation Instruction

MENU		A001
	DMX Address	
		A512
	Channel Mode	17Ch
		21Ch
	Show Mode	Sound
		Auto
	Slave Mode	Master
		Slave
	Black Out	No
		Yes
	Sound State	On
		Off
	Sound Sense	0--100
	Pan Inverse	No
		Yes
	Tilt Inverse	No
		Yes
	Back Light	On
		Off
	On	

	Lamp On/Off		
			Off
	Auto Test		
			---°C
	Temp.		
			-20--200°C
	Fixture Time		0--999
MENU			
	Firmware Version		V1.01
			No
	Factory Defaults		
			Yes
			No
	System Reset		
			Yes

6. DMX Channel Selection (DMX Protocol)

Standard-Mode 17 DMX channels

Channel	DMX	17CH:	
1	0---127	Pan Movement	PAN
	128---255	Pan Shaking Movement Slow To Fast	
2	0---127	Tilt Movement	TILT
	128---255	Tilt Shaking Movement Slow To Fast	
3	0---2	Open	COLOR
	3---4	Open + Color1	
	5---6	Color1	
	7---9	Color1 + Color2	
	10---11	Color2	
	12---13	Color2 + Color3	
	14---15	Color3	
	16---18	Color3 + Color4	
	19---20	Color4	
	21---22	Color4 + Color5	
	23---24	Color5	
	25---27	Color5 + Color6	
	28---29	Color6	
	30---31	Color6 + Color7	
	32---33	Color7	
	34---36	Color7 + Color8	
	37---38	Color8	
	39---40	Color8 + Color9	
	41---43	Color9	
	44---45	Color9 + Color10	
	46---47	Color10	
	48---49	Color10 + Color11	
	50---52	Color11	
	53---54	Color11 + Color12	
	55---56	Color12	
	57---58	Color12 + Color13	
	59---61	Color13	
	62---63	Color13 + Color14	
	64---65	Color14	
	66---67	Color14 + Open	
	68---128	Color Wheel Index - Color1 To Color15	
	129---190	Clockwise Color Rotation From Fast To Slow	
191---193	Stop		
194---255	CounterClockwise Color Rotation From Slow To		

		Fast	
4	0---7	Open	GOBO
	8---14	Gobo1	
	15---22	Gobo2	
	23---29	Gobo3	
	30---37	Gobo4	
	38---44	Gobo5	
	45---52	Gobo6	
	53---59	Gobo7	
	60---67	Gobo8	
	68---74	Gobo9	
	75---82	Gobo10	
	83---89	Gobo11	
	90---97	Gobo12	
	98---104	Gobo13	
	105---112	Gobo14	
	113---119	Gobo15	
	120---126	Gobo16	
127---133	Gobo17		
134---194	Clockwise Gobo Rotation From Fast To Slow		
195---255	CounterClockwise Gobo Rotation From Slow To Fast		
5	0---8	Off	PATTERN MACROS
	9---16	Pattern Macro 1	
	17---25	Pattern Macro 2	
	26---33	Pattern Macro 3	
	34---42	Pattern Macro 4	
	43---50	Pattern Macro 5	
	51---59	Pattern Macro 6	
	60---67	Pattern Macro 7	
	68---76	Pattern Macro 8	
	77---84	Pattern Macro 9	
	85---93	Pattern Macro 10	
	94---101	Pattern Macro 11	
	102---110	Pattern Macro 12	
	111---118	Pattern Macro 13	
	119---127	Pattern Macro 14	
	128---135	Pattern Macro 15	
	136---144	Pattern Macro 16	
	145---152	Pattern Macro 17	
	153---161	Pattern Macro 18	
	162---169	Pattern Macro 19	
170---178	Pattern Macro 20		

	179---186	Pattern Macro 21	
	187---195	Pattern Macro 22	
	196---203	Pattern Macro 23	
	204---212	Pattern Macro 24	
	213---220	Pattern Macro 25	
	221---229	Pattern Macro 26	
	230---237	Pattern Macro 27	
	238---246	Pattern Macro 28	
	247---255	Pattern Macro 29	
6	0---9	Stop	PATTERN ROTATION[Clockwise/ CounterClockwise]
	10---120	Clockwise Pattern Rotation From Fast To Slow	
	121---134	Stop	
	135---245	CounterClockwise Pattern Rotation From Slow To Fast	
	246---255	Stop	
7	0---9	Stop	PATTERN ROTATION[Horizontal /Vertical]
	10---120	Horizontal Pattern Rotation From Fast To Slow	
	121---134	Stop	
	135---245	Vertical Pattern Rotation From Slow To Fast	
	246---255	Stop	
8	0---127	Pattern Zoom Manual	PATTERN ZOOM
	128---255	Pattern Zoom From Slow To Fast	
9	0---9	Stop	HORIZONTAL PATTERN MOVEMENT
	10---120	Horizontal Pattern Movement Left	
	121---144	Stop	
	145---255	Horizontal Pattern Movement right	
10	0---9	Stop	VERTICAL PATTERN MOVEMENT
	10---120	Vertical Pattern Movement Up	
	121---144	Stop	
	145---255	Vertical Pattern Movement Down	
11	0---127	0---360°	ECCENTRI
	128---191	Clockwise Rotation From Fast To Slow	
	192---255	CounterClockwise Rotation From Slow To Fast	
12	0---7	Stop	ECCENTRI SHAKING
	8---255	Shaking From Slow To Fast	
13	0---255	Prism Movement	PRISM
14	0---127	RPrism Indexing	RPRISM
	128---191	Clockwise Rotation From Fast To Slow	
	192---255	CounterClockwise Rotation From Slow To Fast	
15	0---255	Dimmer Intensity 0 To 100%	DIMMER INTENSITY
16	0---7	No Function	SHUTTER
	8---255	Shutter From Slow To Fast	
17	0---39	No Function	FUNCTION[Active

	40---59	Lamp On	After 5S]
	60---79	Lamp Off	
	80---89	All Motors Reset	
	90---99	Pan/Tilt Motors Reset	
	100---109	Color Motor Reset	
	110---119	Gobo Motor Reset	
	120---129	Shutter & Dimmer Motors Reset	
	130---139	Other Motors Reset	
	140---149	Enable Blackout While Pan/Tilt Movement	
	150---159	Disable Blackout While Pan/Tilt Movement	
	160---169	Enable Blackout While Color Change	
	170---179	Disable Blackout While Color Change	
	180---189	Enable Blackout While Gobo Change	
	190---199	Disable Blackout While Gobo Change	
	200---219	System Reset	
	220---255	No Function	

Advanced-Mode 21 DMX channels

Channel	DMX	21CH:	
1	0---255	Pan Movement	PAN
2	0---255	Pan Movement Fine[16 bit]	PAN FINE[16 BIT]
3	0---255	Tilt Movement	TILT
4	0---255	Tilt Movement Fine[16 bit]	TILT FINE[16 BIT]
5	0---7	No Function	PAN SHAKING
	8---255	Pan Shaking Movement Slow To Fast	
6	0---7	No Function	TILT SHAKING
	8---255	Tilt Shaking Movement Slow To Fast	
7	0---2	Open	COLOR
	3---4	Open + Color1	
	5---6	Color1	
	7---9	Color1 + Color2	
	10---11	Color2	
	12---13	Color2 + Color3	
	14---15	Color3	
	16---18	Color3 + Color4	
	19---20	Color4	
	21---22	Color4 + Color5	
	23---24	Color5	
	25---27	Color5 + Color6	
28---29	Color6		

	30---31	Color6 + Color7	
	32---33	Color7	
	34---36	Color7 + Color8	
	37---38	Color8	
	39---40	Color8 + Color9	
	41---43	Color9	
	44---45	Color9 + Color10	
	46---47	Color10	
	48---49	Color10 + Color11	
	50---52	Color11	
	53---54	Color11 + Color12	
	55---56	Color12	
	57---58	Color12 + Color13	
	59---61	Color13	
	62---63	Color13 + Color14	
	64---65	Color14	
	66---67	Color14 + Open	
	68---128	Color Wheel Index - Color1 To Color15	
	129---190	Clockwise Color Rotation From Fast To Slow	
	191---193	Stop	
	194---255	CounterClockwise Color Rotation From Slow To Fast	
8	0---7	Open	GOBO
	8---14	Gobo1	
	15---22	Gobo2	
	23---29	Gobo3	
	30---37	Gobo4	
	38---44	Gobo5	
	45---52	Gobo6	
	53---59	Gobo7	
	60---67	Gobo8	
	68---74	Gobo9	
	75---82	Gobo10	
	83---89	Gobo11	
	90---97	Gobo12	
	98---104	Gobo13	
	105---112	Gobo14	
	113---119	Gobo15	
	120---126	Gobo16	
	127---133	Gobo17	
134---194	Clockwise Gobo Rotation From Fast To Slow		
195---255	CounterClockwise Gobo Rotation From Slow To Fast		

9	0---8	Off	PATTERN MACROS
	9---16	Pattern Macro 1	
	17---25	Pattern Macro 2	
	26---33	Pattern Macro 3	
	34---42	Pattern Macro 4	
	43---50	Pattern Macro 5	
	51---59	Pattern Macro 6	
	60---67	Pattern Macro 7	
	68---76	Pattern Macro 8	
	77---84	Pattern Macro 9	
	85---93	Pattern Macro 10	
	94---101	Pattern Macro 11	
	102---110	Pattern Macro 12	
	111---118	Pattern Macro 13	
	119---127	Pattern Macro 14	
	128---135	Pattern Macro 15	
	136---144	Pattern Macro 16	
	145---152	Pattern Macro 17	
	153---161	Pattern Macro 18	
	162---169	Pattern Macro 19	
	170---178	Pattern Macro 20	
	179---186	Pattern Macro 21	
	187---195	Pattern Macro 22	
	196---203	Pattern Macro 23	
	204---212	Pattern Macro 24	
	213---220	Pattern Macro 25	
	221---229	Pattern Macro 26	
	230---237	Pattern Macro 27	
	238---246	Pattern Macro 28	
247---255	Pattern Macro 29		
10	0---9	Stop	PATTERN ROTATION[Clockwise/CounterClockwise]
	10---120	Clockwise Pattern Rotation From Fast To Slow	
	121---134	Stop	
	135---245	CounterClockwise Pattern Rotation From Slow To Fast	
	246---255	Stop	
11	0---9	Stop	PATTERN ROTATION[Horizontal/Vertical]
	10---120	Horizontal Pattern Rotation From Fast To Slow	
	121---134	Stop	
	135---245	Vertical Pattern Rotation From Slow To Fast	
	246---255	Stop	
12	0---127	Pattern Zoom Manual	PATTERN ZOOM
	128---255	Pattern Zoom From Slow To Fast	

13	0---9	Stop	HORIZONTAL PATTERN MOVEMENT
	10---120	Horizontal Pattern Movement Left	
	121---144	Stop	
	145---255	Horizontal Pattern Movement right	
14	0---9	Stop	VERTICAL PATTERN MOVEMENT
	10---120	Vertical Pattern Movement Up	
	121---144	Stop	
	145---255	Vertical Pattern Movement Down	
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	128---191	Clockwise Rotation From Fast To Slow	
	192---255	CounterClockwise Rotation From Slow To Fast	
16	0---7	Stop	ECCENTRI SHAKING
	8---255	Shaking From Slow To Fast	
17	0---255	Prism Movement	PRISM
18	0---127	RPrism Indexing	RPRISM
	128---191	Clockwise Rotation From Fast To Slow	
	192---255	CounterClockwise Rotation From Slow To Fast	
19	0---255	Dimmer Intensity 0 To 100%	DIMMER INTENSITY
20	0---7	No Function	SHUTTER
	8---255	Shutter From Slow To Fast	
21	0---39	No Function	FUNCTION[Active After 5S]
	40---59	Lamp On	
	60---79	Lamp Off	
	80---89	All Motors Reset	
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	160---169	Enable Blackout While Color Change	
	170---179	Disable Blackout While Color Change	
	180---189	Enable Blackout While Gobo Change	
	190---199	Disable Blackout While Gobo Change	
200---219	System Reset		
220---255	No Function		

7. Maintaining and Cleaning the Light

The light is a fixture of very low maintenance. It is only necessary to clean the air inlets and outlets as well as the optical lenses from time to time. For safe operation 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 or damages can occur. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to operate 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!

7.1. Safety regulations

1. **Pull out the mains power plug!**
2. Wait min. 15 minutes after disconnecting power to allow the fixture to cool down.

7.2. Maintenance and Interval (rule-of-thumb)

The contamination of the fixture depends on the environment details. Hence no general guidelines can be given. The intervals given below are only suggestions from our experience.

Position	Interval	In this way
Optical system	weekly	soft brush /lint-free cloth
Fan and air channel	monthly	vacuum cleaner, airbrush, etc.

Attention:

- 1 **Never let optical parts come into contact with oil or fat.**
- 2 **Before running the fixture wait until all parts are dry.**
- 3 **Never touch lenses with bare fingers.**

8. Technical Specifications

FEATURES

Multi Effect Luminaire, Beam, Scanner, Laser Simulator
3° Precision Beam
3 Facet Rotating Prism
X / Y and Z High-Speed Mirror System

SOURCE

YODN 132W 2R Lamp
6,000 Hour Average Life

PHOTOMETRIC DATA

Measured with 3° Beam Full On
45,010 LUX 4,181 FC @16.4' (5m)
12,050 LUX 1,119 FC @32.8' (10m)
5,633 LUX 523 FC @49.2' (15m)
3,178 LUX 295 FC @65.6' (20m)
2,276 LUX 212 FC @82.0' (25m)

EFFECTS

Strobe
Electronic Dimmer
3 Facet Rotating Prism
Multiple Pattern Macros
Manual Focus

COLORS & GOBOS

(14) Dichroic Colors + White
(17) Gobos + Open

CONTROL / CONNECTIONS

(2) DMX Channel Modes (17 / 21)
4 Button Control Panel
3pin DMX In/Out
powerCON In/Out

SIZE / WEIGHT

Size: 38.5X30.5X26
Weight: 7.5KG

ELECTRICAL / THERMAL

AC 100-240V - 50/60Hz
220W Max Power Consumption
Multiple Unit Power Linking (max 7 @120V / 14 @230V)
104°F (40°C) Max Ambient Temperature

APPROVALS / RATINGS

CE
RoHs
IP20

INSTALLATION

Rigging: Clamps (Not Included)
Working Position: Any (360°)

INCLUDED ITEMS

(1) Adjustable Mounting Yoke
(1) PowerCON Cable
(1) DMX 3pin signal cable

9. Dimensions

Length: 14.2 (361mm)
Width: 12.0 (305mm)
Vertical Height: 11.6 (295mm)
Weight: 21.0 lbs. (9.5 kg)