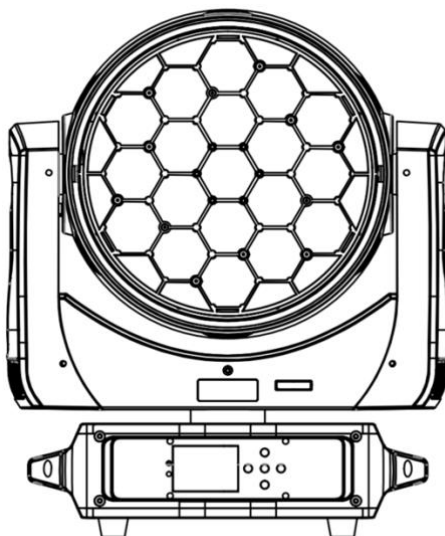# BiWash 1940

(Model: ML-BWZ1940)

This product manual contains important information about the safe installation and use of this projector. Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

User manual

Please read the instructions carefully before use

INDEX

1.STATEMENT

The product has well capability and intact packing when leave factory. All of the user should comply with warning item and manual, any misuse cause of the damages are not included in our guarantee, and also cannot be responsible for any malfunction & problem owing to ignore the manual.

2.ACCESSORIES

These items are packed together with the product:

Name	Quantity	Unit	Remark
USER MANUAL	1	PCS	
POWER CABLE	1	PCS	
OMEGA	2	PCS	

3.SAFETY INSTRUCTION

WARNING! *Read the safety precautions in this section before unpacking, installing, powering or operating this product.*

Review the following safety precautions carefully before installing or operating the fixture. This fixture must be installed in accordance with the applicable

installation code by a person familiar with the construction and operation of the fixture and the hazards involved.

Preventing electric shock

WARNING! *Risk of electric shock.*

- Always power off/unplug the fixture before removing any covers.
- Ensure that the power is turned off when connecting the fixture to the AC mains supply.
- Ensure that the fixture is electrically connected to earth (ground).
- Do not apply power if the fixture is in any way damaged.
- Do not immerse the fixture in water or liquid.

Preventing burns and fire

WARNING! *Take measures to prevent burns and fire.*

- Install in a location that prevents accidental contact with the fixture.
- Install only in a well-ventilated space.
- Install only in accordance with applicable building codes.
- Do not paint, cover or modify the fixture.
- Keep all flammable materials away from the fixture.
- Allow the fixture to cool for 15 minutes after operation, before touching it.
- CAUTION: Exterior surface temperature after 5 min. operation = 45 °C (113 °F). Steady state = 60 °C (140 °F).

Avoid personal injury

- Do not look directly at the light source from close range.
- Take precautions to prevent injury due to falls when working at height.
- For permanent installation, ensure that the fixture is securely fastened to a load-bearing surface with suitable corrosion-resistant hardware.
- For temporary installation with clamps, ensure that the quarter-turn fasteners are turned fully and secured with a suitable safety cable. The cable must be approved for a safe working load (SWL) of 10 times the weight of the fixture, and it must have a minimum gauge of 3 mm.

4.INSTALLATION

The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating.   And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people.

Clamp mounting

The moving head provides a unique mounting bracket assembly that integrates the bottom of the base, the included '**Omega Bracket**' and the **Safety Cable** rigging point in one unit (see the illustration below).When mounting this fixture to truss be sure to sere to secure an appropriately rated

clamp to the included **Omega Bracket** using a M10 screw fitted through the center hole of the 'omega bracket'. As an added safety measure be sure to attached at least one properly rated **Safety Cable** to the fixture using one of the safety cable rigging point integrated in the base assembly.

DMX-512 control connection:

Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.
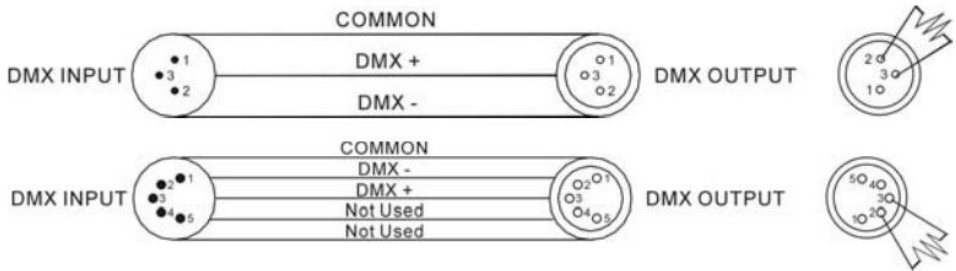
DMX-512 connection with DMX terminator:

For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 resistor connected between pins 2 and 3,which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below.
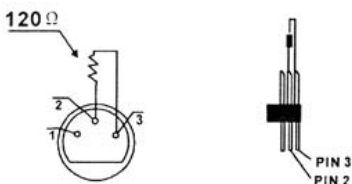
DMX Address Setting:

By using a universal DMX controller to control the units, you will need to set DMX address from 1 to 512 so that the units can receive DMX signal.

Press the MENU button up to when the DMX Address is showing on the display. Pressing the ENTER button and the display will blink. Use the UP/DOWN buttons to change the DMX address.

Once the address has been selected, press the ENTER button to setup, to go back to the functions without any change press the MENU button again. Press and hold the MENU button about one second or wait for about one minute to exit the menu mode.

Please refer to the following diagram to address your DMX512 channel for the first 4 units：

CHs Mode	Unit 1 Adds	Unit 2 Adds	Unit 3 Adds	Unit 4 Adds
21CH	1	22	43	64
97CH	1	98	195	292
92CH	1	93	185	277
78CH	1	79	157	235
35CH	1	36	71	106
23CH	1	24	47	70

5.TECHNICAL SPECIFICATION

Light Source:

Light Source : 19x40W RGBW LED
LED life expectancy: 20000 hours

Optical System:

Advanced optical system to ensure clear and large-range beam & wash effect

Zoom range: 4°-60°

Focus: Electronic focus

Control and Program:

4-buttons

Display: LCD display

Protocols: DMX512, RDM

DMX channel: 21CH,23CH,35CH, 78CH, 92CH,97CH

Pan/Tilt Resolution: 16 bit

Dimmer: 16 bit

Upgrade the firmware via DMX link

PAN & TILT

Pan movement: 540°

Tilt movement: 270°

Automatic Pan/Tilt position correction

Electrical and Connectors

Power supply with electronic auto-ranging

Input voltage range: 100-240V~ 50/60Hz

Power consumption: 1000 W

Power In/Out: Power Connector in/out

Data in/out: 3-pin Or 5-pin XLR

Weight & Size

N.W:15.5KG

Product size: 40*33*48 cm

Carton Packing Size: 50*38*48 (1pcs)

Carton Packing Weight : 18 KG
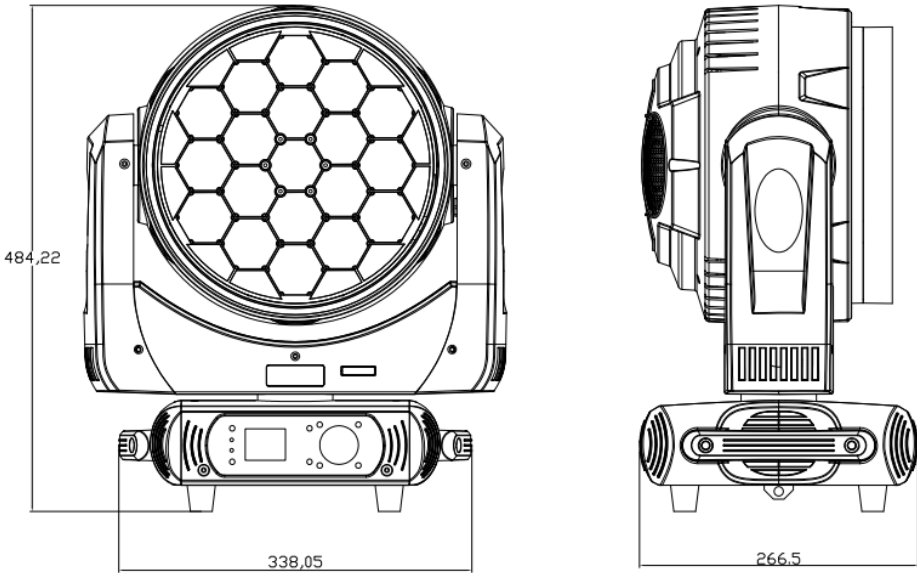
Please Note: Specifications and improvements in the design of this unit and this manual are subject to change without any prior written notice.

6.PANEL OPTATION

Turn on the unit, press the MENU button into menu mode, and press the UP/DOWN button until the required function is shown on the monitor. Select the function by the ENTER button. Use the UP/DOWN button to choose the submenu, press the ENTER button to store and automatically return to the last menu. Press the MENU button or let the unit idle one minute to exit menu mode.

In the event of disconnecting with mains power, press the UP button for one minute to enter into menu mode. Press MENU button or let the unit idle one minute to exit

Addre	000-512	
Set	Run Mode	DMX/Sound/Auto2/Auto1
	Channel Mode	21CH/97CH/92CH/78CH/35CH/23CH
	Invert Pan	OFF/ON
	Invert Tilt	OFF/ON
	Hall Crct	ON/OFF
	Encoder Crct	ON/OFF
	Signal Keep	OFF/ON
	Invert Screen	Auto/off/on
	Update Slave	OFF/ON
	Language	EN/中文
	Load Default	OK/Cancel
Manual	1.Pan	000-255
	2.Pan Fine	000-255
	3.Tilt	000-255
	4.Tilt Fine	000-255
	5.P-T Speed	000-255
	6.Zoom	000-255
	7.Rotation	000-255
	8.Dimmer	000-255
	9.Strobe	000-255
	10.Red	000-255
	11.Green	000-255
	12.Blue	000-255
	13.White	000-255
	14.Linear CTO	000-255
	15.Macro Colour	000-255
	16.Static Effect	000-255

	17.Shape	000-255
	18.Shape Speed	000-255
	19.Background R	000-255
	20.Background G	000-255
	21.Background B	000-255
	22.Background W	000-255
	23.Reset	000-255
Calib	Pan	
	Tilt	
	Focus	
	Rotate	
	Balance-Red	
	Balance-Green	
	Balance-Blue	
	Balance-White	
	Balance1-Red	
	Balance1-Green	
	Balance1-Blue	
	Balance1-White	
	...	...
	Balance19-White	
	Power	
	Mic	
	Change Password	New password: 0000 (Default : 6688)
Rest	Reset Effect	
	Reset Scan	
	Reset All	
Note	Reset Info	System OK
	DMX Date	

	Sensor Info	
	Hardware	xx.xx.xx.x
	Software	xx.xx.xx.x

7.CHANNEL DESCRIPTION

21 Channels Mode

CH	Function	Value	Description
1	Red	0-255	LED OFF - LED ON
2	Red fine	0-255	LOW - UP
3	Green	0-255	LED OFF - LED ON
4	Green fine	0-255	LOW - UP
5	Blue	0-255	LED OFF - LED ON
6	Blue fine	0-255	LOW - UP
7	White	0-255	LED OFF - LED ON
8	White fine	0-255	LOW - UP
9	Linear CTO	225-255	2500 K
		189-224	3200 K
		145-188	4000 K
		118-144	5000 K
		100-117	5600 K
		55-99	6000 K
		11-54	7000 K
		10	8000 K
		0-9	UNUSED RANGE

10	Macro color	209-255	White
		208	Dirty White
		207	Alice Blue
		191-206	Congo Blue
		184-190	Dark Steel Blue
		180-183	Deep lavender
		179	Lilac Tint
		175-178	Daylight Blue
		174	Flame Red
		172-173	Bastard Amber
		168-171	Deep Orange
		162-167	Pale Gold
		157-161	Apricot
		151-156	Bright Blue
		149-150	Primary Green
		147-148	Special lavender
		146	Pale Lavender
		145	Deep Golden Amber
		142-144	Medium Blue
		138-141	Bright Pink
		136-137	Mauve
		134-135	Dark Green
		131-133	Leaf Green
		129-130	Dark Blue
		128	Light Blue
		127	Steel Blue
		126	Med Blue Green

		125	Peacock Blue
		123-124	Magenta
		121-122	Dark Pink
		120	Middle Rose
		119	Light Salmon
		118	English Rose
		117	Light Rose
		115-116	Orange
		114	Deep Amber
		113	Straw
		112	Light Amber
		110-111	Spring Yellow
		100-109	Dark yellow green
		89-99	Just Blue
		78-88	Sky Blue
		68-77	Lavender
		62-67	Light Lavender
		49-61	Pink Carnation
		46-48	Medium Pink
		45	Light Pink
		35-44	Sunrise Red
		32-34	Dark Amber
		31	Gold Amber
		30	Medium Amber
		29	Fire
		27-28	Surprise Peach
		23-26	Straw Tint

		20-22	Medium Yellow
		19	Black
		18	White 5000 K
		17	White 3700 K
		16	White 7000 K
		15	Magenta
		14	Yellow
		13	Cyan
		12	Blue
		11	Green
		10	Red
		0-9	Macro color OFF
11	Strobe	252 - 255	OPEN
		239 - 251	RANDOM FAST STROBE
		226 - 238	RANDOM MEDIUM STROBE
		213 - 225	RANDOM SLOW STROBE
		208 - 212	OPEN
		108-207	SLOW PULSATION - FAST PULSATION
		104 - 107	OPEN
		4-103	SLOW STROBE - FAST STROBE
		0 - 3	CLOSED
12	Dimmer	0-255	NO LIGHT - FULL LIGHT
13	Dimmer Fine	0-255	LOW - UP
14	Pan	0-255	Pan Rotation
15	Pan Fine	0-255	Pan Fine
16	Tilt	0-255	Tilt Rotation
17	Tilt Fine	0-255	Tilt Fine

18	Function	0-255	Empty
19	Reset	0-127	UNUSED RANGE
		128-255	COMPLETE RESET
20	Zoom	0-255	NARROW BEAM - WIDE BEAM
21	Zoom Rotation	0-127	LINEAR ROTATION
		128-190	FAST ROTATION - SLOW ROTATION
		191-192	STOP
		193-255	SLOW ROTATION - FAST ROTATION

23 Channels Mode

CH	Function	Value	Description
1	Pan	0-255	Pan Rotation
2	Pan Fine	0-255	Pan Fine
3	Tilt	0-255	Tilt Rotation
4	Tilt Fine	0-255	Tilt Fine
5	Pan/Tilt Speed	0-255	From Slow To Fast
6	Zoom	0-255	Zoom
7	LENS rotation	0-127	0 to 60 degree
		128-191	Unlimited clockwise rotation from fast to slow
		192-255	Unlimited anticlockwise rotation from fast to slow
8	Dimmer	0-255	NO LIGHT - FULL LIGHT
9	Strobe	0-255	Strobe
10	Red	0-255	LED OFF - LED ON
11	Green	0-255	LED OFF - LED ON
12	Blue	0-255	LED OFF - LED ON
13	White	0-255	LED OFF - LED ON

14	Color	0-255	Linear color temperature control
15	Marco	0-255	Marco color change
16	Static effect	0-255	Each 5 DMX value is a kind of static effect
17	Dynamic effect	0-255	Each 5 DMX value is a kind of dynamic effect
18	Dynamic effect	0-255	Speed from slow to fast,pls operate against 15 CH
19	Background R	0-255	1-100% Background Red linear dimmer from dark to bright
20	Background G	0-255	1-100% Background Green linear dimmer from dark to bright
21	Background B	0-255	1-100% Background Blue linear dimmer from dark to bright
22	Background W	0-255	1-100% Background White linear dimmer from dark to bright
23	Reset	0-250	No Function
		251-255	Reset with 5 seconds

35 Channels Mode

CH	Function	Value	Description
1	Red	0-255	LED OFF - LED ON
2	Red fine	0-255	LOW - UP
3	Green	0-255	LED OFF - LED ON
4	Green fine	0-255	LOW - UP
5	Blue	0-255	LED OFF - LED ON
6	Blue fine	0-255	LOW - UP
7	White	0-255	LED OFF - LED ON
8	White fine	0-255	LOW - UP
9	Linear CTO	225-255	2500 K

		189-224	3200 K
		145-188	4000 K
		118-144	5000 K
		100-117	5600 K
		55-99	6000 K
		11-54	7000 K
		10	8000 K
		0-9	UNUSED RANGE
10	Macro color	209-255	White
		208	Dirty White
		207	Alice Blue
		191-206	Congo Blue
		184-190	Dark Steel Blue
		180-183	Deep lavender
		179	Lilac Tint
		175-178	Daylight Blue
		174	Flame Red
		172-173	Bastard Amber
		168-171	Deep Orange
		162-167	Pale Gold
		157-161	Apricot
		151-156	Bright Blue
		149-150	Primary Green
		147-148	Special lavender
		146	Pale Lavender
		145	Deep Golden Amber
		142-144	Medium Blue

		138-141	Bright Pink
		136-137	Mauve
		134-135	Dark Green
		131-133	Leaf Green
		129-130	Dark Blue
		128	Light Blue
		127	Steel Blue
		126	Med Blu Green
		125	Peacock Blue
		123-124	Magenta
		121-122	Dark Pink
		120	Middle Rose
		119	Light Salmon
		118	English Rose
		117	Light Rose
		115-116	Orange
		114	Deep Amber
		113	Straw
		112	Light Amber
		110-111	Spring Yellow
		100-109	Dark yellow green
		89-99	Just Blue
		78-88	Sky Blue
		68-77	Lavender
		62-67	Light Lavender
		49-61	Pink Carnation
		46-48	Medium Pink

		45	Light Pink
		35-44	Sunrise Red
		32-34	Dark Amber
		31	Gold Amber
		30	Medium Amber
		29	Fire
		27-28	Surprise Peach
		23-26	Straw Tint
		20-22	Medium Yellow
		19	Black
		18	White 5000 K
		17	White 3700 K
		16	White 7000 K
		15	Magenta
		14	Yellow
		13	Cyan
		12	Blue
		11	Green
		10	Red
		0-9	Macro color OFF
11	Strobe	252 - 255	OPEN
		239 - 251	RANDOM FAST STROBE
		226 - 238	RANDOM MEDIUM STROBE
		213 - 225	RANDOM SLOW STROBE
		208 - 212	OPEN
		108-207	SLOW PULSATION - FAST PULSATION
		104 - 107	OPEN

		4-103	SLOW STROBE - FAST STROBE
		0 - 3	CLOSED
12	Dimmer	0-255	NO LIGHT - FULL LIGHT
13	Dimmer Fine	0-255	LOW - UP
14	Pan	0-255	Pan Rotation
15	Pan Fine	0-255	Pan Fine
16	Tilt	0-255	Tilt Rotation
17	Tilt Fine	0-255	Tilt Fine
18	Function	0-255	Empty
19	Reset	0-127	UNUSED RANGE
		128-255	COMPLETE RESET
20	Zoom	0-255	NARROW BEAM - WIDE BEAM
21	Zoom Rotation	0-127	LINEAR ROTATION
		128-190	FAST ROTATION - SLOW ROTATION
		191-192	STOP
		193-255	SLOW ROTATION - FAST ROTATION
22	Shape Selection	0-255	Shape Effect
23	Shape Speed	0-255	SLOW Speed - FAST Speed
24	Shape Fade	0-255	Fade effect
25	Shape R	0-255	LED OFF - LED ON
26	Shape G	0-255	LED OFF - LED ON
27	Shape B	0-255	LED OFF - LED ON
28	Shape W	0-255	LED OFF - LED ON
29	Shape Dimmer	0-255	NO LIGHT - FULL LIGHT
30	Background Dimmer	0-255	NO LIGHT - FULL LIGHT
31	Shape Transition	0-255	Shape Transition Effect

CH	Function	Value	Description
32	Shape Offset	0-255	Shape Offset Effect
33	Foreground Strobe	0-255	Empty
34	Background Strobe	0-255	Empty
35	Background Select	0-255	Empty

78 Channels Mode

CH	Function	Value	Description
1	Red	0-255	LED OFF - LED ON
2	Red fine	0-255	LOW - UP
3	Green	0-255	LED OFF - LED ON
4	Green fine	0-255	LOW - UP
5	Blue	0-255	LED OFF - LED ON
6	Blue fine	0-255	LOW - UP
7	White	0-255	LED OFF - LED ON
8	White fine	0-255	LOW - UP
9	Linear CTO	225-255	2500 K
		189-224	3200 K
		145-188	4000 K
		118-144	5000 K
		100-117	5600 K
		55-99	6000 K
		11-54	7000 K
		10	8000 K
		0-9	UNUSED RANGE

		209-255	White
		208	Dirty White
		207	Alice Blue
		191-206	Congo Blue
		184-190	Dark Steel Blue
		180-183	Deep lavender
		179	Lilac Tint
		175-178	Daylight Blue
		174	Flame Red
		172-173	Bastard Amber
		168-171	Deep Orange
		162-167	Pale Gold
		157-161	Apricot
10	Macro color	151-156	Bright Blue
		149-150	Primary Green
		147-148	Special lavender
		146	Pale Lavender
		145	Deep Golden Amber
		142-144	Medium Blue
		138-141	Bright Pink
		136-137	Mauve
		134-135	Dark Green
		131-133	Leaf Green
		129-130	Dark Blue
		128	Light Blue
		127	Steel Blue
		126	Med Blue Green

		125	Peacock Blue
		123-124	Magenta
		121-122	Dark Pink
		120	Middle Rose
		119	Light Salmon
		118	English Rose
		117	Light Rose
		115-116	Orange
		114	Deep Amber
		113	Straw
		112	Light Amber
		110-111	Spring Yellow
		100-109	Dark yellow green
		89-99	Just Blue
		78-88	Sky Blue
		68-77	Lavender
		62-67	Light Lavender
		49-61	Pink Carnation
		46-48	Medium Pink
		45	Light Pink
		35-44	Sunrise Red
		32-34	Dark Amber
		31	Gold Amber
		30	Medium Amber
		29	Fire
		27-28	Surprise Peach
		23-26	Straw Tint

		20-22	Medium Yellow
		19	Black
		18	White 5000 K
		17	White 3700 K
		16	White 7000 K
		15	Magenta
		14	Yellow
		13	Cyan
		12	Blue
		11	Green
		10	Red
		0-9	Macro color OFF
11	Strobe	252 - 255	OPEN
		239 - 251	RANDOM FAST STROBE
		226 - 238	RANDOM MEDIUM STROBE
		213 - 225	RANDOM SLOW STROBE
		208 - 212	OPEN
		108-207	SLOW PULSATION - FAST PULSATION
		104 - 107	OPEN
		4-103	SLOW STROBE - FAST STROBE
		0 - 3	CLOSED
12	Dimmer	0-255	NO LIGHT - FULL LIGHT
13	Dimmer Fine	0-255	LOW - UP
14	Pan	0-255	Pan Rotation
15	Pan Fine	0-255	Pan Fine
16	Tilt	0-255	Tilt Rotation
17	Tilt Fine	0-255	Tilt Fine

18	Function	0-255	Empty
19	Reset	0-127	UNUSED RANGE
		128-255	COMPLETE RESET
20	Zoom	0-255	NARROW BEAM - WIDE BEAM
21	Zoom Rotation	0-127	LINEAR ROTATION
		128-190	FAST ROTATION - SLOW ROTATION
		191-192	STOP
		193-255	SLOW ROTATION - FAST ROTATION
22	LED 1 Red	0-255	LED OFF - LED ON
23	LED 1 Green	0-255	LED OFF - LED ON
24	LED 1 Blue	0-255	LED OFF - LED ON
25	LED 2 Red	0-255	LED OFF - LED ON
26	LED 2 Green	0-255	LED OFF - LED ON
27	LED 2 Blue	0-255	LED OFF - LED ON
...	...	...	...
76	LED 19 Red	0-255	LED OFF - LED ON
77	LED 19 Green	0-255	LED OFF - LED ON
78	LED 19 Blue	0-255	LED OFF - LED ON

92 Channels Mode

CH	Function	Value	Description
1	Red	0-255	LED OFF - LED ON
2	Red fine	0-255	LOW - UP
3	Green	0-255	LED OFF - LED ON
4	Green fine	0-255	LOW - UP
5	Blue	0-255	LED OFF - LED ON
6	Blue fine	0-255	LOW - UP

7	White	0-255	LED OFF - LED ON
8	White fine	0-255	LOW - UP
9	Linear CTO	225-255	2500 K
		189-224	3200 K
		145-188	4000 K
		118-144	5000 K
		100-117	5600 K
		55-99	6000 K
		11-54	7000 K
		10	8000 K
		0-9	UNUSED RANGE
10	Macro colour	209-255	White
		208	Dirty White
		207	Alice Blue
		191-206	Congo Blue
		184-190	Dark Steel Blue
		180-183	Deep lavender
		179	Lilac Tint
		175-178	Daylight Blue
		174	Flame Red
		172-173	Bastard Amber
		168-171	Deep Orange
		162-167	Pale Gold
		157-161	Apricot
		151-156	Bright Blue
		149-150	Primary Green
		147-148	Special lavender

		146	Pale Lavender
		145	Deep Golden Amber
		142-144	Medium Blue
		138-141	Bright Pink
		136-137	Mauve
		134-135	Dark Green
		131-133	Leaf Green
		129-130	Dark Blue
		128	Light Blue
		127	Steel Blue
		126	Med Blu Green
		125	Peacock Blue
		123-124	Magenta
		121-122	Dark Pink
		120	Middle Rose
		119	Light Salmon
		118	English Rose
		117	Light Rose
		115-116	Orange
		114	Deep Amber
		113	Straw
		112	Light Amber
		110-111	Spring Yellow
		100-109	Dark yellow green
		89-99	Just Blue
		78-88	Sky Blue
		68-77	Lavender

		62-67	Light Lavender
		49-61	Pink Carnation
		46-48	Medium Pink
		45	Light Pink
		35-44	Sunrise Red
		32-34	Dark Amber
		31	Gold Amber
		30	Medium Amber
		29	Fire
		27-28	Surprise Peach
		23-26	Straw Tint
		20-22	Medium Yellow
		19	Black
		18	White 5000 K
		17	White 3700 K
		16	White 7000 K
		15	Magenta
		14	Yellow
		13	Cyan
		12	Blue
		11	Green
		10	Red
		0-9	Macro color OFF
11	Strobe	252 - 255	OPEN
		239 - 251	RANDOM FAST STROBE
		226 - 238	RANDOM MEDIUM STROBE
		213 - 225	RANDOM SLOW STROBE

		208 - 212	OPEN
		108-207	SLOW PULSATION - FAST PULSATION
		104 - 107	OPEN
		4-103	SLOW STROBE - FAST STROBE
		0 - 3	CLOSED
12	Dimmer	0-255	NO LIGHT - FULL LIGHT
13	Dimmer Fine	0-255	LOW - UP
14	Pan	0-255	Pan Rotation
15	Pan Fine	0-255	Pan Fine
16	Tilt	0-255	Tilt Rotation
17	Tilt Fine	0-255	Tilt Fine
18	Function	0-255	Empty
19	Reset	0-127	UNUSED RANGE
		128-255	COMPLETE RESET
20	Zoom	0-255	NARROW BEAM - WIDE BEAM
21	Zoom Rotation	0-127	LINEAR ROTATION
		128-190	FAST ROTATION - SLOW ROTATION
		191-192	STOP
		193-255	SLOW ROTATION - FAST ROTATION
22	Shape Selection	0-255	Shape Effect
23	Shape Speed	0-255	SLOW Speed - FAST Speed
24	Shape Fade	0-255	Fade effect
25	Shape R	0-255	LED OFF - LED ON
26	Shape G	0-255	LED OFF - LED ON
27	Shape B	0-255	LED OFF - LED ON
28	Shape W	0-255	LED OFF - LED ON
29	Shape Dimmer	0-255	NO LIGHT - FULL LIGHT

30	Background Dimmer	0-255	NO LIGHT - FULL LIGHT
31	Shape Transition	0-255	Shape Transition Effect
32	Shape Offset	0-255	Shape Offset Effect
33	Foreground Strobe	0-255	Empty
34	Background Strobe	0-255	Empty
35	Background Select	0-255	Empty
36	LED 1 Red	0-255	LED OFF - LED ON
37	LED 1 Green	0-255	LED OFF - LED ON
38	LED 1 Blue	0-255	LED OFF - LED ON
39	LED 2 Red	0-255	LED OFF - LED ON
40	LED 2 Green	0-255	LED OFF - LED ON
41	LED 2 Blue	0-255	LED OFF - LED ON
...	...	...	...
90	LED 19 Red	0-255	LED OFF - LED ON
91	LED 19 Green	0-255	LED OFF - LED ON
92	LED 19 Blue	0-255	LED OFF - LED ON

97 Channels Mode

CH	Function	Value	Description
1	Red	0-255	LED OFF - LED ON
2	Red fine	0-255	LOW - UP
3	Green	0-255	LED OFF - LED ON
4	Green fine	0-255	LOW - UP

5	Blue	0-255	LED OFF - LED ON
6	Blue fine	0-255	LOW - UP
7	White	0-255	LED OFF - LED ON
8	White fine	0-255	LOW - UP
9	Linear CTO	225-255	2500 K
		189-224	3200 K
		145-188	4000 K
		118-144	5000 K
		100-117	5600 K
		55-99	6000 K
		11-54	7000 K
		10	8000 K
		0-9	UNUSED RANGE
10	Macro color	209-255	White
		208	Dirty White
		207	Alice Blue
		191-206	Congo Blue
		184-190	Dark Steel Blue
		180-183	Deep lavender
		179	Lilac Tint
		175-178	Daylight Blue
		174	Flame Red
		172-173	Bastard Amber
		168-171	Deep Orange
		162-167	Pale Gold
		157-161	Apricot
		151-156	Bright Blue

		149-150	Primary Green
		147-148	Special lavender
		146	Pale Lavender
		145	Deep Golden Amber
		142-144	Medium Blue
		138-141	Bright Pink
		136-137	Mauve
		134-135	Dark Green
		131-133	Leaf Green
		129-130	Dark Blue
		128	Light Blue
		127	Steel Blue
		126	Med Blue Green
		125	Peacock Blue
		123-124	Magenta
		121-122	Dark Pink
		120	Middle Rose
		119	Light Salmon
		118	English Rose
		117	Light Rose
		115-116	Orange
		114	Deep Amber
		113	Straw
		112	Light Amber
		110-111	Spring Yellow
		100-109	Dark yellow green
		89-99	Just Blue

		78-88	Sky Blue
		68-77	Lavender
		62-67	Light Lavender
		49-61	Pink Carnation
		46-48	Medium Pink
		45	Light Pink
		35-44	Sunrise Red
		32-34	Dark Amber
		31	Gold Amber
		30	Medium Amber
		29	Fire
		27-28	Surprise Peach
		23-26	Straw Tint
		20-22	Medium Yellow
		19	Black
		18	White 5000 K
		17	White 3700 K
		16	White 7000 K
		15	Magenta
		14	Yellow
		13	Cyan
		12	Blue
		11	Green
		10	Red
		0-9	Macro color OFF
11	Strobe	252 - 255	OPEN
		239 - 251	RANDOM FAST STROBE

		226 - 238	RANDOM MEDIUM STROBE
		213 - 225	RANDOM SLOW STROBE
		208 - 212	OPEN
		108-207	FAST PULSATION - SLOW PULSATION
		104 - 107	OPEN
		4-103	SLOW STROBE - FAST STROBE
		0 - 3	CLOSED
12	Dimmer	0-255	NO LIGHT - FULL LIGHT
13	Dimmer Fine	0-255	LOW - UP
14	Pan	0-255	Pan Rotation
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18	Function	0-255	Empty
19	Reset	0-127	UNUSED RANGE
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20	Zoom	0-255	NARROW BEAM - WIDE BEAM
21	Zoom Rotation	0-127	LINEAR ROTATION
		128-190	FAST ROTATION - SLOW ROTATION
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		193-255	SLOW ROTATION - FAST ROTATION
22	LED 1 Red	0-255	LED OFF - LED ON
23	LED 1 Green	0-255	LED OFF - LED ON
24	LED 1 Blue	0-255	LED OFF - LED ON
25	LED 1 White	0-255	LED OFF - LED ON
26	LED 2 Red	0-255	LED OFF - LED ON
27	LED 2 Green	0-255	LED OFF - LED ON

28	LED 2 Blue	0-255	LED OFF - LED ON
29	LED 2 White	0-255	LED OFF - LED ON
...	...	...	...
94	LED 19 Red	0-255	LED OFF - LED ON
95	LED 19 Green	0-255	LED OFF - LED ON
96	LED 19 Blue	0-255	LED OFF - LED ON
97	LED 19 White	0-255	LED OFF - LED ON

8.TROUBELSHOOTING

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. The unit does not work, no light and the fan does not work
   1. Check the connect power and main fuse.
   2. Measure the mains voltage on the main connector.
   3. Check the power on LED to see if it can be light up or not.
B. Not responding to DMX controller
   1. DMX LED should be on. If not, check DMX connectors, cables to see if they are linked properly.
   2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
   3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
   4. Try to use another DMX controller.
   5. Check to see if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.
C. One of the channels is not working well

1. The stepper motor might be damaged or the cable connected to the PCB is broken.

2. The motor's drive IC on the PCB might be out of condition.

D. The lamp is cutting out intermittently

1. The lamp is not working well. Check the mains voltage either too high or too low.

2. Internal temperature may be too high. Check if replacement of fan is needed on the head.

E. No response to the sound

1. Make sure the unit does not receive DMX signal..

2. Check microphone to see if it is good by tapping the microphone.

F. If The tilt belt is broken

1. The stepper motor might be damaged or the cable connected to the PCB is broken.

2. The motor's drive IC on the PCB might be out of condition.

9.CLEANING AND MAINTENANCE

C A U T I O N
Disconnect power before cleaning or maintenance.

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

CLEANING

Frequent cleaning is recommended to insure proper function, optimized light output, and an extended life. The frequency of cleaning depends on the

environment in which the fixture operates: damp, smoky or particularly dirty environments can cause greater accumulation of dirt on the fixture's optics.

- Clean the external lens surface at least every 20 days with a soft cloth to avoid dirt/debris accumulation.
- Never use alcohol, solvents, or ammonia based cleaners.

MAINTENANCE

Regular inspections are recommended to insure proper function and extended life. There are no user serviceable parts inside this fixture, please refer all other service issues to an authorized service technician. Should you need any spare parts, please order genuine parts from your local dealer.

RIUKOE

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