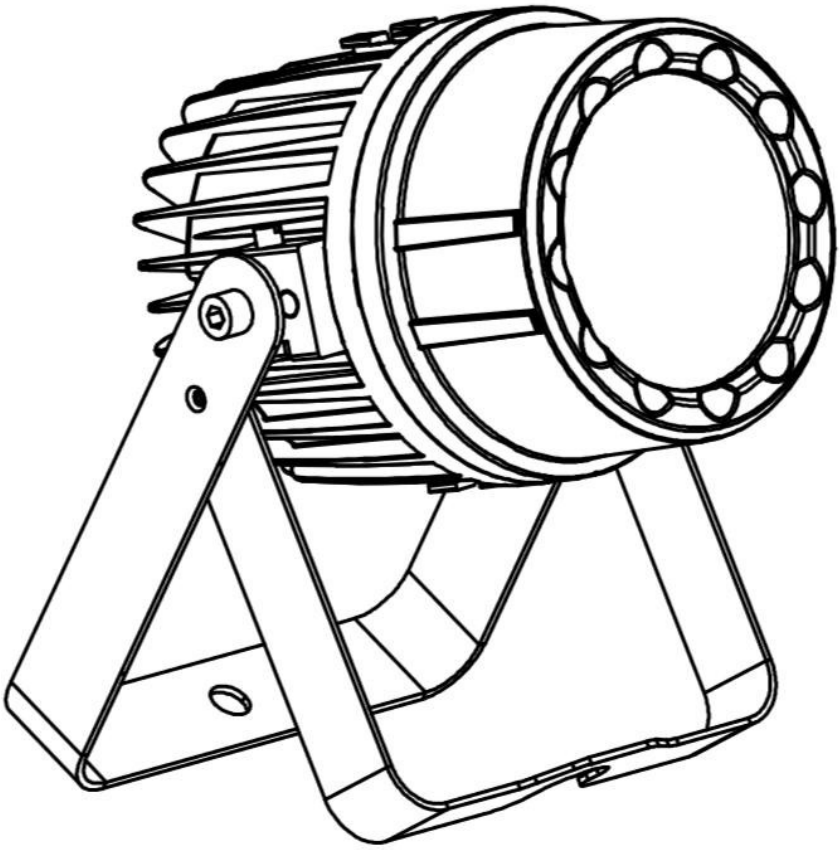
Ditto 8 IP



User manual

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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 can not be responsible for any malfunction & problem owing to ignore the manual.

Safety Instructions

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.

Unpack and check carefully there is no transportation damage before using the unit.

Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.

It's important to ground the yellow/green conductor to earth in order to avoid electric shock.

The unit is for indoor use only. Use only in a dry location.

The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.

Disconnect main power before replacement or servicing.

Make sure there are no flammable materials close to the unit while operating as it is fire hazard.

Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.

Maximum ambient temperature is Ta: 40℃. DO NOT operate it where the temperature is higher than this Unit surface temperature may reach up to 85℃. DO NOT touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.

the event of serious operating problem, stop using the unit immediately.Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.

⛆ DO NOT touch any wire during operation as high voltage might be causing electric shock.

Warning:

⛆ To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
⛆ DO NOT open the unit within five minutes after switching off.

⛆ The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

Caution:

There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

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.

Technical Specifications

Light Sources: 8*60W RGBW 4-in-1 Osram LED
Beam Angle:3.5°- 40°
Power Consumption: 550w
Power Voltage: AC 100-260V, 50/60Hz
Control box weight: 2.59kgs
Single lamp holder weight: 1.88kgs
Single lamp holder with hanger weight: 2.44kg
Single lamp head size: 181x140x140mm

Control
DMX Channel: 23/28/35/43 Channels
Control Modes: DMX512/mater-Slave/Auto Run/Music/Manual/RDM

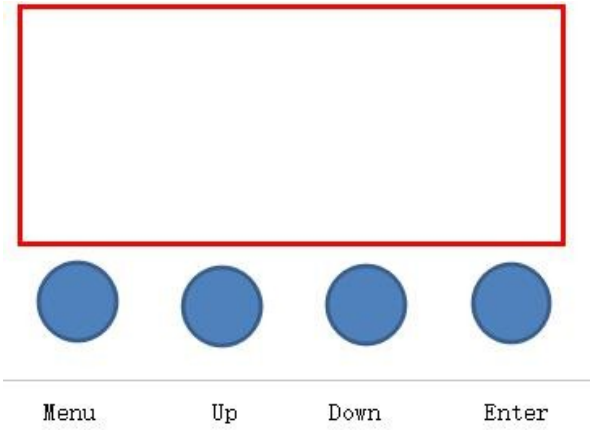
Construction
Data In socket: waterproof 5-pin XLR sockets(24V power + signal line)
The control box :PowerCon in/out 3-pin
Protection Rating: IP65

Features
1>LED single control
2>One control box (not waterproof) controls eight belts for focusing,which can be connected in series at 230V, and 2 units can be connected in series at 120V.
3>A control box (not waterproof) controls eight 60W4in1 die-casting heads with focus and waterproof, supporting point control,Can be installed separately by hangers, can be assembled in multiple
4>The control line is a 3M long silicone cable, and the Xishang 5-core waterproof connector (the cable connecting the lamp holder to the control box)
5>High-efficiency optical system ,Super beam effect plus zoom

Lux Date

Z68 - LED 60W Waterproof Zoom Par				
Distance(m)	Min Zoom range =3.5°		Max Zoom range =40°	
	Spot diameter (cm)	Value Data(lux)	Spot diameter(cm)	Value Data(lux)
1m	16cm	80700	73cm	3430
3m	30cm	11200	174cm	582
5m	47cm	3830	292cm	208
8m	72cm	1400	470cm	79.6
10m	85cm	887	580cm	50.6

How To Control The Unit



Display: Connection control box use

MENU To select the programming functions
DOWN To go backward in the selected functions
uP To go forward in the selected functions
ENTER To confirm the selected functions

Set DMX Address Code

1 Press **"Menu"** to "Set DMX Address",and press**"ENTER"** keys to enter

into

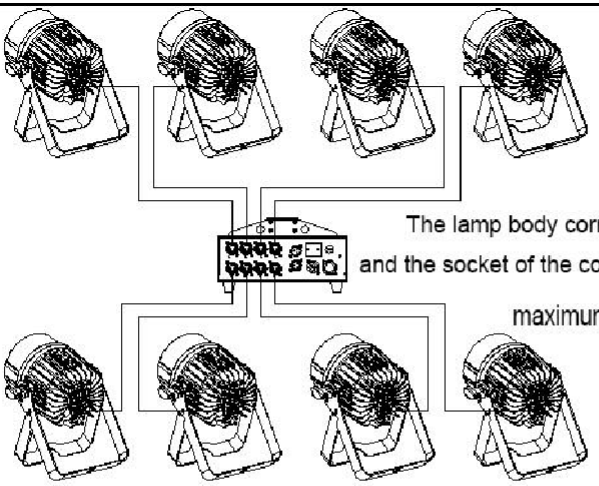
2 Show "Set DMX Address DMX Address:**001**",Press the "**UP and DOWN**" keys to amended

3 Press **"ENTER"**keys to save and Exit,Press the"**MENU"**Keys does not save and Exit

Menu	Mic Sense	001--100	Sound sensitivity adjustment
	Language	English	Select display language
		Chinese	
	Fan Set	Auto	Select fan speed
		Low	
		High	
	No Signal	Black Out	Select the state when the luminaire has no signal
		Hold	
	Reset	Yes	Reset
		No	
	Default	Yes	Reset
		No	
	Adjust	Pass Word：up+down+up+down	Change the value of Pan/Tilt/Focus to correct the angle; change the value of R/G/B/W to adjust the white balance.
		1.Red：0--255	
Menu	Adjust	2.Greed：0--255	
		3.Blue：0--255	
	Adjust	4.White：0--255	
Address		001--512	Set the address

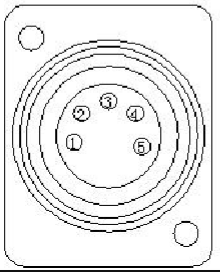
			code from 001--512
Reverse	1.Display	1.YES 2.NO	Display font forward and reverse switching
Information		1.CH Value	Show all channel information
		2.Soft V1.0	Program version number
Mode	DMX512		Set control mode
	Auto	1.Master	
		2.Alone	
	Sound	1.Master	
		2.Alone	
	Manual 1.Master 2.Alone	1.Focus:0--255	Manual control
		2.Red：0--255	
		3.Greed：0--255	
		4.Blue：0--255	
		5.White：0--255	
		6.Strobe：0-255	
Channel	1. 23Channels	23 CH	Select channel mode
	2. 28Channels	28CH	
	3. 35Channels	35CH	
	4. 43Channels	43CH	

Control Box information



The lamp body corresponds to the control box ,
and the socket of the control line from socket pins 1 to 5.

maximum length of control line =15M



1: A+(24AWG)
2: B-(24AWG)
3: 5V(24AWG)
4: 24V-(22AWG)
5: 24V+(22AWG)

A set Z68 standard including:

8pcs 60W lights with brackets

+

1pc control box

8pcs 5-pin 3M cables
(connect light to control box)

+

1pc (1.3M) power cable
+1pc(1.3M)3-pin DMX cable
(connect control box to console)

+

16pcs connector
(light to light connection)

DMX Channel List

Model 1 - CH23

Channel	Function	DMX value	Description
CH -1	Focusing 1	0--255	Beam angle from small to large
CH -2	Focusing 2		
CH -3	Focusing 3		
CH -4	Focusing 4		
CH -5	Focusing 5		
CH -6	Focusing 6		
CH -7	Focusing 7		
CH -8	Focusing 8		
CH -9	Dimming	0--255	Linear dimming dark to light
CH -10	Strobe	0--3	Lighting
		4--203	Synchronous strobe speed from slow to fast (1HZ-25HZ)
		204--255	Random strobe
CH -11	Red dimming	0--255	Linear dimming from dark to light
CH -12	Green dimming		
CH -13	Blue dimming		
CH -14	White dimming		
CH -15	Dimming mode	0--49	Mode 1
		50--99	Mode 2
		100--149	Mode 3
		150--255	Mode 4

CH -16	Color temperature	0--15	No effect
		16--35	R100%,G UP,B0%
		36--55	R DOWM,G100%, B0%
		56--75	R0%,G100%,B UP
		76--95	R0%,G DOWM,B100%
		96--115	R UP,G0%,B100%
		116--135	R100%,G0%,B DOWM
		136--155	R100%,G UP,B UP
		156--175	R DOWM,G DOWM,B100%
		176--195	R 100%,G 100%,B100%,W 100%R 100%,G 100%,B100%,W 100%
		196--200	2800K
		201--205	3200K
		206--210	3500K
		211--215	4000K
		216--220	4500K
		221--225	5000K
		226--230	5500K

CH -16	Color temperature	231--235	6000K
		236--240	6500K
		241--245	7000K
		246--250	7500K
		251--255	8000K
CH -17	Macro color	0--9	No effect
		10--19	Macro color 1
		20--29	Macro color 2
		...(10 numbers)	.....
		240--249	Macro color 23
		250--255	Macro color 24
CH -18	Binary graphics selection	0--255	Binary graphics selection
CH -19	Pattern background R		Pattern effect red
CH -20	Pattern background G		Pattern effect green
CH -21	Pattern background B		Pattern effect blue
CH -22	Pattern background W		Pattern effect white
CH -23	Reset	0--250	No function
		251--255	Reset 5s is valid

Model 2 - CH28

Channel	Function	DMX value	Description
CH -1	Red	0--255	Red dimming
CH -2	Red trim		Red trim
CH -3	Green		Green dimming
CH -4	Green trim		Green trim
CH -5	Blue		Blue dimming
CH -6	Blue trim		Blue trim
CH -7	White		White dimming
CH -8	White trim		White trim
CH -9	Color temperature	0--15	No effect
		16--35	R100%,G UP,B0%
		36--55	R DOWM,G100%,B 0%
		56--75	R0%,G100%,B UP
		76--95	R0%,G DOWM,B100%
		96--115	R UP,G0%,B100%
		116--135	R100%,G0%,B DOWM
		136--155	R100%,G UP,B UP
		156--175	R DOWM,G

CH -9	Color temperature		DOWM,B100%
		176--195	R 100%,G 100%,B100%,W100%R 100%,G 100%,B100%,W100%
		196--200	2800K
		201--205	3200K
		206--210	3500K
		211--215	4000K
		216--220	4500K
		221--225	5000K
		226--230	5500K
	Color temperature	231--235	6000K
		236--240	6500K
		241--245	7000K
		246--250	7500K
		251--255	8000K
CH -10	Macro color	0--9	No effect
		10--19	Macro color 1
		20--29	Macro color 2
		...(10 numbers)	.....
		240--249	Macro color 23
		250--255	Macro color 24
CH -11	Strobe	0--3	Lighting
		4--203	Synchronous strobe speed from slow to fast

			(1HZ-25HZ)
		204--255	Random strobe
CH -12	Dimming	0--255	Linear dimming dark to light
CH -13	Dimming fine tuning	0--255	Dimming fine-tuning control
CH -14	Dimming mode	0--49	Mode 1
		50--99	Mode 2
		100--149	Mode 3
		150--255	Mode 4
CH -15	Zoom	0--255	Zoom
CH -16	Pattern change(8 effects& 5effects)	0--9	No effect
		10--14	Monochrome dynamic pattern 1
		15--19	Monochrome dynamic pattern 2
		...(5 numbers)	.....
		80--84	Monochrome dynamic pattern 15
		85--89	Mixed color dynamic pattern 1
		90--94	Mixed color dynamic pattern 2
		...(5 numbers)	.....
		115--119	Mixed color dynamic pattern 7
		120--124	Monochrome dynamic pattern 1
		125--129	Monochrome

CH -16			dynamic pattern 2
	Pattern change(8 effects& 5effects)	...(5 numbers)	.....
		160--164	Monochrome dynamic pattern 9
		165--169	Mixed color dynamic pattern 1
		170--174	Mixed color dynamic pattern 2
		...(5 numbers)	.....
		180--184	Mixed color dynamic pattern 4
CH -17	Pattern effect speed	0--9	No effect
		10--132	Forward, from fast to slow (with 16 channels)
		133--255	Reverse, from slow to fast (with 16 channels)
CH -18	Pattern shift	0--255	Pattern translation (with 16 channels)
CH -19	Pattern effect fade		Pattern effect fade
CH -20	Pattern background R		Pattern effect red
CH -21	Pattern background G		Pattern effect green
CH -22	Pattern background B		Pattern effect blue
CH -23	Pattern		Pattern effect

	background W		white
CH -24	Pattern dimming	0--255	Pattern 0-100% dimming
CH -25	Background dimming		Background 0-100% dimming
CH -26	Strobe in the foreground		Strobe in the foreground
CH -27	Background strobe		Background strobe
CH -28	Reset	0--250	No function
		251--255	Reset 5s is valid

Model 3 - CH35

Channel	**Function**	**DMX value**	**Description**
CH -1	Zoom	0--255	Beam angle from small to large
CH -2	Dimming	0--255	Linear dimming dark to light
CH -3	Strobe	0--3	Lighting
		4--203	Synchronous strobe speed from slow to fast (1HZ-25HZ)
		204--255	Random strobe
CH -4	Red dimming	0--255	Linear dimming from dark to light
CH -5	Green dimming		
CH -6	Blue dimming		

CH -7	White dimming		
CH -8	Dimming mode	0--49	Mode 1
		50--99	Mode 2
		100--149	Mode 3
		150--255	Mode 4
CH -9	Color temperature	0--15	No effect
		16--35	R100%,G UP,B0%
		36--55	R DOWM,G100%, B0%
		56--75	R0%,G100%,B UP
		76--95	R0%,G DOWM,B100%
		96--115	R UP,G0%,B100%
		116--135	R100%,G0%,B DOWM
		136--155	R100%,G UP,B UP
		156--175	R DOWM,G DOWM,B100%
		176--195	R 100%,G 100%,B100%,W 100%R 100%,G 100%,B100%,W 100%
		196--200	2800K
		201--205	3200K

CH -9		206--210	3500K
		211--215	4000K
		216--220	4500K
		221--225	5000K
		226--230	5500K
	Color temperature	231--235	6000K
		236--240	6500K
		241--245	7000K
		246--250	7500K
		251--255	8000K
CH -10	Macro color	0--9	No effect
		10--19	Macro color 1
		20--29	Macro color 2
		...(10 numbers)	.....
		240--249	Macro color 23
		250--255	Macro color 24
CH -11	R1LED dimming	0--255	R1LED dimming
CH -12	G1LED dimming		G1LED dimming
CH -13	B1LED dimming		B1LED dimming
CH -14	R2LED dimming		R2LED dimming
CH -15	G2LED dimming		G2LED dimming
CH -16	B2LED dimming		B2LED dimming
……	……	……	……
CH -32	R8LED dimming	0--255	R12LED dimmer
CH -33	G8LED dimming		G12LED dimmer
CH -34	B8LED dimming		B12LED dimmer
CH -35	Reset	0--250	No function
		251--255	Reset 5s is valid

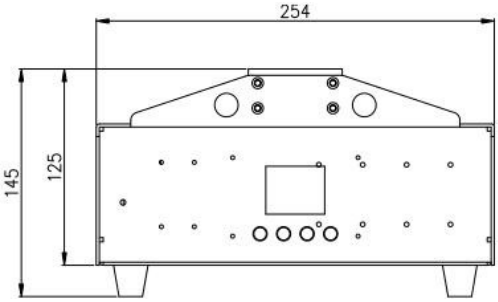
Model 4 - CH43

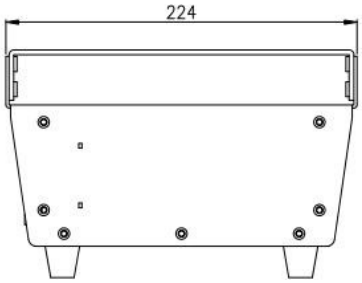
Channel	Function	DMX value	Description
CH -1	Zoom	0--255	Beam angle from small to large
CH -2	Dimming	0--255	Linear dimming dark to light
CH -3	Strobe	0--3	Lighting
		4--203	Synchronous strobe speed from slow to fast (1HZ-25HZ)
		204--255	Random strobe
CH -4	Red dimming	0--255	Linear dimming from dark to light
CH -5	Green dimming		
CH -6	Blue dimming		
CH -7	White dimming		
CH -8	Dimming mode	0--49	Mode 1
		50--99	Mode 2
		100--149	Mode 3
		150--255	Mode 4
CH -9	Color temperature	0--15	No effect
		16--35	R100%,G UP,B0%
		36--55	R DOWM,G100%, B0%
		56--75	R0%,G100%,B UP
		76--95	R0%,G

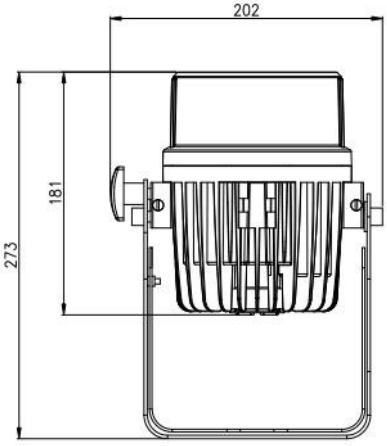
CH -19	Color temperature		DOWM,B100%
		96--115	R UP,G0%,B100%
		116--135	R100%,G0%,B DOWM
		136--155	R100%,G UP,B UP
		156--175	R DOWM,G DOWM,B100%
		176--195	R 100%,G 100%,B100%,W 100%R 100%,G 100%,B100%,W 100%
		196--200	2800K
		201--205	3200K
		206--210	3500K
		211--215	4000K
		216--220	4500K
		221--225	5000K
		226--230	5500K
		231--235	6000K
		236--240	6500K
		241--245	7000K
		246--250	7500K
		251--255	8000K
CH -10	Macro color	0--9	No effect
		10--19	Macro color 1
		20--29	Macro color 2
		...(10	.....

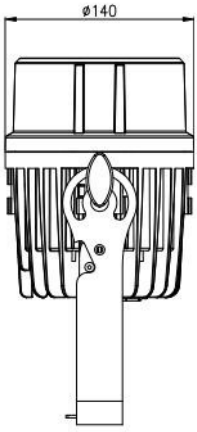
CH -10	Macro color	numbers)	
		240--249	Macro color 23
		250--255	Macro color 24
CH -11	R1LED dimming	0--255	R1LED dimming
CH -12	G1LED dimming		G1LED dimming
CH -13	B1LED dimming		B1LED dimming
CH -14	W1LEDdimming		W1LEDdimming
CH -15	R2LED dimming		R2LED dimming
CH -16	G2LED dimming		G2LED dimming
CH -17	B2LED dimming		B2LED dimming
CH -18	W2LEDdimming		W2LEDdimming
……	……	……	……
CH -39	R8LED dimming	0--255	R12LED dimmer
CH -40	G8LED dimming		G12LED dimmer
CH -41	B8LED dimming		B12LED dimmer
CH -42	W8LEDdimming		W12LEDdimmer
CH -43	Reset	0--250	No function
		251--255	Reset 5s is valid

Shape









Trouble shooting

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 connection of power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link 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 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.

9. Fixture Cleaning

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

- **Clean with soft cloth using normal glass cleaning fluid.**
- **Always dry the parts carefully.**
- **Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.**