

User Manual

Please read the instruction carefully before use

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01/ Safety Instructions



Please read the instruction carefully which includes important information about the installation, usage and maintenance.

WARNING

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

Important:

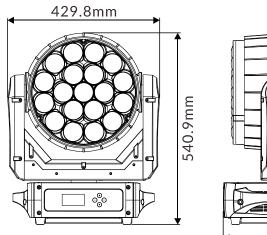
Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

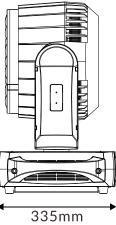
- Unpack and check carefully to ensure that there is no transportation damage before using the unit.
- This product is for indoor use only. Use only in a dry location.
- DO install and operate by qualified operator.
- DO NOT allow children to operate the fixture.
- Use safety chain when fixing the unit. Handle the unit by carrying its base instead of head only.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces.
- Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.
- Before operation, ensure that you are connecting this product to the proper voltage in accordance with the specifications in this manual or on the product's specification label.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- Minimum ambient temperature TA: 0°C. Maximum ambient temperature TA: 40°C. Do not operate this product at a lower or higher temperature.
- DO NOT connect the device to any dimmer pack.
- Keep flammable materials away from the fixture while operating to avoid fire hazard.
- Make sure the power cord is not crimped or damaged; replace it immediately if damaged.
- Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut off the mains power immediately.
- DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.

- DO NOT touch any wire during operation as there might be a hazard of electric shock.
- Avoid entanglement of the power cord with other wires.
- The minimum distance to objects/surface must be more than 5 meters.
- Disconnect mains power before fuse replacement or servicing.
- Replace fuse only with the same type.
- In the event of serious operating problem, stop using the unit immediately.
- Never turn on and off the unit time after time.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.
- DO NOT open the housing as there are no user serviceable parts inside.
- DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.
- Disconnect this product from its power source before servicing.
- DO use the original packaging if the device is to be transported.
- Avoid direct eye exposure to the light source while the product is on.
- DO NOT operate this product if you see damage on the housing, shields, or cables. Have the damaged parts replaced by an authorized technician at once.

02/ Technical Specifications

Power Voltage	100-240V~ 50/60Hz				
Power Consumption	680W				
Light Source	19x40W RGBW LED				
Zoom Range	5°-50°				
Dimmer/Strobe	0-100% smooth dimmi speed	ing; outstandi	ng strobe effect with variable		
	Pan	540°			
Movement	Tilt	220°			
Movement	Pan/Tilt Resolution	16 bit			
	Automatic pan/tilt position correction				
	DMX Channel	15/27/17/15+ Channels			
Control	Control Mode	DMX512			
Control	Control Mode	RDM			
	Firmware Upgrade	Firmware Upgrade via DMX link			
	Display	LCD display			
Construction	Data In/Out	3-pin and 5-pin XLR			
Construction	Power In/Out	Power Connector in			
	Protection Rating	IP20			
	Electronic linear zoom system				
Features	Outstanding color mixing effect				
	Ring control				
Dimensions	429.8x335x540.9mm 16.9"x13.2"x2		16.9"x13.2"x21.3"in		
Weight			22kgs 48.5lbs		





Photometric Diagram:

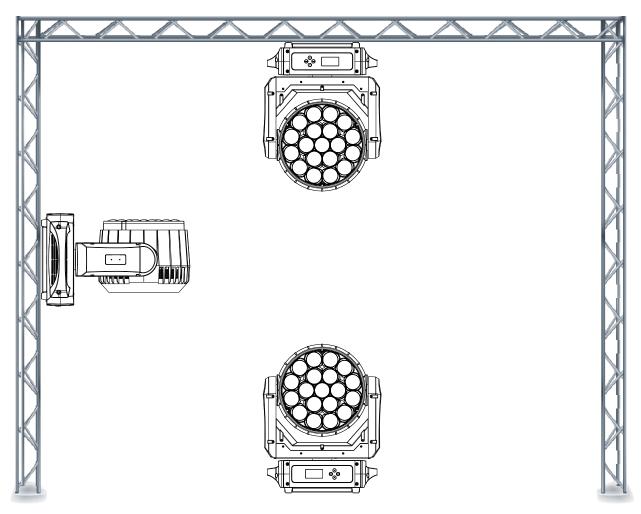
Distance(m)	5	10	15	20
	I	I		
)5°	50°
				/
	I	I	I	
5°Lux	28,000	7,000	3,100	1,750
Diameter(m)	1.1	2.1	2.8	4.1
50°Lux	828	272	141	82
Diameter(m)	7.3	14.6	21.9	29.2

03/ Control Panel

1. Display	To show the v	arious menus and the selected function		
	MENU	To enter into move backward or leave the menu		
2. Buttons	▲ UP	To go backward to move up in the menu		
2. Buttons	▼ DOWN	To go forward to move down in the menu		
	ENTER	To perform the desired functions		
3. DMX IN	For DMX512 link, use 3/5-pin XLR cable to link the unit and DMX controller to input DMX signal			
4. DMX OUT	For DMX512 link, use 3/5-pin XLR cable to link the next units to output DMX signal			
5. POWER SWITCH	Turns on/off the power			
6. FUSE(T 15A)	Protects the unit from damage of over current or short circuit			
7. POWER	To connect to supply power			

04/ Fixture Installation

- DO install and operate by qualified operator. Fixture(s) should be installed in areas outside walking paths, seating areas, or away from areas were unauthorized personnel might reach the fixture by hand. NEVER stand directly below the fixture(s) when rigging, removing or servicing.
- Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always attach a safety cable that can hold at least 12 times the weight of the fixture whenever installing this fixture in a suspended environment to ensure that the fixture will not fall if the clamp fails.
- This fixture is fully operational in three different mounting positions: hanging upside-down, mounted sideways on trussing, or set on a flat level surface. Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.



5.1 Main Functions

- To access the control menus, press the [MENU] button.
- ▶ Navigate the menu structure, using the [ENTER], [▲ UP] and [▼ DOWN] buttons.
- To select a menu option or to confirm a selection, press the [ENTER] button.
- To return to a higher level in the menu structure without making a change, press the [MENU] button, or wait 30 seconds.

The main functions are shown below:

MENU	SUBMENU	OPTIONS		
	DMX Address	1-512	(Default=1)	
		Mode 1 (15)		
DMV Sattings	Channel Mode	Mode 2 (27)		
DMX Settings		Mode 3 (17)		
		Mode 4 (15+)		
	View DMX Value			
	Pan Invert	No		
		Yes		
	Tilt Invert	No		
		Yes		
	P/T Feedback	No		
	P/T FEEUDACK	Yes		
	Bl.o P/T Moving	No		
		Yes		
		Red	125-255	
Fixture Settings	White Balance	Green	125-255	
		Blue	125-255	
	Cooling Mode	Auto		
		Quiet		
		Square Law		
	Dimmer Curve	Inv SQ Law		
		Liner		
		S Curve		
	Dimmer Speed	Fast		
		Smooth		

MENU	SUBMENU		OPTIONS		
	Dianlay Invert	No			
	Display Invert	Yes			
	Backlight Intensity	1-10	(Default	:=10)	
Display Settings	Tanan anatana 1 hait	°C			
	Temperature Unit	°F			
		English			
	Language	Chinese			
	Auto Test				
		Pan	0-255		
		Pan Fine	0-255		
		Tilt	0-255		
		Tilt Fine	0-255		
		P/T Speed	0-255		
		Function	0-255		
Fixture Test		Dimmer	0-255		
Fixture lest	Manual Test	Dimmer Fine	0-255		
		Shutter	0-255		
		Red	0-255		
		Green	0-255		
		Blue	0-255		
		White	0-255		
		Color	0-255		
		Zoom	0-255		
	Fixture Use Hour				
		Total LED Hour			
	LED Use Hour	LED On Hour			
Fixture Information		LED Hours Reset	Passwor	d=050	
	Firmware Version				
		Fixture Errors			
	Error Logs	Posot Error Log	No		
		Reset Error Log	Yes	Password=050	
	Pan & Tilt	No			
Fair & Tilt		Yes			
Reset Functions	Effect	No			
	Effect	Yes			
	All	No			
		Yes			
Special Functions Factory Settings		No			
	raciory Settings	Yes			

DMX Settings

Enter the control menu and select **DMX Settings**, press ENTER. Use the UP/DOWN button to select **DMX Address, Channel Mode** or **View DMX Value**.

DMX Address

Select DMX Address, press ENTER.

Use UP/DOWN button to select an address, confirm your selection with ENTER.

CHANNEL MODE	DMX ADDRESS
Mode 1 (15)	1-498
Mode 2 (27)	1-486
Mode 3 (17)	1-496
Mode 4 (15+)	1-498

To exit the menu, press MENU, or wait 30 seconds.

Channel Mode

Select Channel Mode, press ENTER.

Use UP/DOWN button to select between Mode 1 (15), Mode 2 (27), Mode 3 (17) and Mode 4 (15+), confirm your selection with ENTER. To exit the menu, press MENU, or wait 30 seconds.

View DMX Value

Select View DMX Value, press ENTER.

Use UP/DOWN button to select the desired DMX channel, for which the value is to be displayed.

Fixture Settings

Enter the control menu and select **Fixture Settings**, press ENTER. Use the UP/DOWN button to select **Pan Invert, Tilt Invert, P/T Feedback, Bl.o P/T Moving, White Balance, Cooling Mode, Dimmer Curve** or **Dimmer Speed**.

Pan Invert	
	Select Pan Invert, press ENTER.
	Use UP/DOWN button to select $\ensuremath{\text{No}}$ (pan invert deactivated) or $\ensuremath{\text{Yes}}$ (pan
	invert activated), confirm your selection with ENTER.
	To exit the menu, press MENU, or wait 30 seconds.
Tilt Invert	
	Select Tilt Invert, press ENTER.
	Use UP/DOWN button to select \mathbf{No} (tilt invert deactivated) or \mathbf{Yes} (tilt
	invert activated), confirm your selection with ENTER.
	To exit the menu, press MENU, or wait 30 seconds.
P/T Feedback	
	Select P/T Feedback, press ENTER.
	Use UP/DOWN button to select $\ensuremath{\text{No}}$ (pan/tilt feedback deactivated) or
	Yes (pan/tilt feedback activated), confirm your selection with ENTER.
	To exit the menu, press MENU, or wait 30 seconds.
Bl.o P/T Moving	
	Select Bl.o P/T Moving, press ENTER.
	Use UP/DOWN button to select $\ensuremath{\text{No}}$ (blacks out when pan/tilt move
	deactivated) or $\ensuremath{\text{Yes}}$ (blacks out when pan/tilt move activated), confirm
	your selection with ENTER.
	To exit the menu, press MENU, or wait 30 seconds.

White Balance

Select White Balance, press ENTER.

Use UP/DOWN button to select **Red**, **Green** or **Blue**, confirm your selection with ENTER.

Use UP/DOWN button to select a value between **125** and **255**, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Cooling Mode

Select Cooling Mode, press ENTER.

Use UP/DOWN button to select **Auto** or **Quiet**, confirm your selection with ENTER.

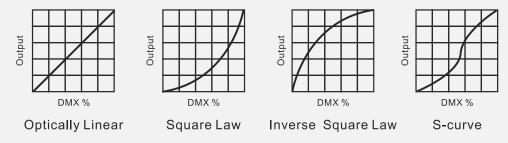
To exit the menu, press MENU, or wait 30 seconds.

Dimmer Curve

Select Dimmer Curve, press ENTER.

Use UP/DOWN button to select **Square Law, Inv SQ Law, Linear** or **S Curve**, confirm your selection with ENTER.

Dimmer Modes



To exit the menu, press MENU, or wait 30 seconds.

Dimmer Speed

Select Dimmer Speed, press ENTER.

Use UP/DOWN button to select **Fast** or **Smooth**, confirm your selection with ENTER.

Display Settings

Enter the control menu and select **Display Settings**, press ENTER. Use the UP/DOWN button to select **Display Invert, Backlight Intensity, Temperature Unit** or **Language**.

Display Invert

Select **Display Invert,** press ENTER. Use UP/DOWN button to select **No** (display normal) or **Yes** (display inverted), confirm your selection with ENTER. To exit the menu, press MENU, or wait 30 seconds.

Backlight Intensity

Select Backlight Intensity, press ENTER.

Use UP/DOWN button to select a value between **1** (dark) and **10** (bright), confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Temperature Unit

Select Temperature Unit, press ENTER.

Use UP/DOWN button to select °C or °F, confirm your selection with ENTER.

To exit the menu, press MENU, or wait 30 seconds.

Language

Select Language, press ENTER.

Use UP/DOWN button to select **English** or **Chinese**, confirm your selection with ENTER.

Fixture Test

Enter the control menu and select **Fixture Test**, press ENTER. Use the UP/DOWN button to select **Auto Test** or **Manual Test**.

Auto Test	
	Select Auto Test, press ENTER.
	The device immediately performs an automatic self-test.
	To end the automatic self-test and exit the menu, press MENU, or wait
	30 seconds.
Manual Test	
	Select Manual Test, press ENTER.
	Use UP/DOWN button to select the channel for which the manual test
	is to be performed, confirm your selection with ENTER.
	Use UP/DOWN button to select a value, confirm your selection with
	ENTER.
	To exit the menu, press MENU, or wait 30 seconds.
	(All channels value will become 0 after exiting Manual Test menu.)

Fixture Information

Enter the control menu and select **Fixture Information**, press ENTER. Use the UP/DOWN button to select **Fixture Use Hour, LED Use Hour, Firmware Version** or **Error Logs**.

Fixture Use Hour

Select Fixture Use Hour, press ENTER.

The operating hours is displayed.

LED Use Hour

	Select LED Use Hour, press ENTER.
	Use UP/DOWN button to select Total LED Hour (total time) or LED On
	Hour (current switch-on time), confirm your selection with ENTER.
	The total time or current switch-on time is displayed.
	Use UP/DOWN button to select LED Hours Reset, confirm your
	selection with ENTER.
	Use UP/DOWN button to set the password 050, confirm your selection
	with ENTER. The LED operating hours is reset.
	To exit the menu, press MENU, or wait 30 seconds.
Firmware Version	
	Select Firmware Version, press ENTER.
	The firmware version is displayed.
	To exit the menu, press MENU, or wait 30 seconds.
Error Logs	
	Select Error Logs, press ENTER.
	Use UP/DOWN button to select Fixture Errors, confirm your selection
	with ENTER.
	The error list is displayed.
	Use UP/DOWN button to select Reset Error Log, confirm your selection
	with ENTER.
	If you wish to reset the relevant error logs, select Yes. If you do not wish
	to reset anything, select No . Confirm your selection with ENTER.
	If you select Yes, use UP/DOWN button to set the password 050,
	confirm your selection with ENTER. The relevant error logs are reset.
	To exit the menu, press MENU, or wait 30 seconds.

Reset Functions

Enter the control menu and select **Reset Functions**, press ENTER. Use the UP/DOWN button to select **Pan & Tilt, Effect** or **All.**

Pan & Tilt	
	Select Pan & Tilt, press ENTER.
	Use UP/DOWN button to select $\operatorname{\mathbf{No}}$ or $\operatorname{\mathbf{Yes}}$ (the device will run built-in
	program to reset pan/tilt to their home positions), confirm your selection
	with ENTER.
	To exit the menu, press MENU, or wait 30 seconds.
Effect	
	Select Effect, press ENTER.
	Use UP/DOWN button to select No or Yes (the device will run built-in
	program to reset effect to their home positions), confirm your selection
	with ENTER.
	To exit the menu, press MENU, or wait 30 seconds.
All	
	Select All, press ENTER.
	Use UP/DOWN button to select $\operatorname{\textbf{No}}$ or $\operatorname{\textbf{Yes}}$ (the device will run built-in
	program to reset all to their home positions), confirm your selection with
	ENTER.
	To exit the menu mass MENUL envirit 20 eccords

Special Functions

Enter the control menu and select **Special Functions**, press ENTER. Use the UP/DOWN button to select **Factory Settings**.

Factory Settings

Select Factory Settings, press ENTER.

If you wish to reset the device to the factory settings, select **Yes**. If you do not wish to reset anything, select **No**. Confirm your selection with ENTER.

RDM functions: Certain menus of the device and functions can be called up via the RDM protocol.

The parameter IDs are implemented as follows for different commands:

Parameter ID	Command 'Discovery'	Command 'Set'	Command 'Get'
DISC_UNIQUE_BRANCH	\checkmark		
DISC_MUTE	\checkmark		
DISC_UN_MUTE	\checkmark		
DEVICE_INFO			\checkmark
SUPPORTED_PARAMETERS			\checkmark
SOFTWARE_VERSION_LABEL			\checkmark
DMX_START_ADDRESS		\checkmark	\checkmark
IDENTIFY_DEVICE		\checkmark	\checkmark
DEVICE_MODEL_DESCRIPTION			\checkmark
PARAMETER_DESCRIPTION			\checkmark
MANUFACTURER_LABEL			\checkmark
DEVICE_LABEL		\checkmark	\checkmark
BOOT_SOFTWARE_VERSION_ID			\checkmark
BOOT_SOFTWARE_VERSION_LABEL			\checkmark
DMX_PERSONALITY		\checkmark	\checkmark
DMX_PERSONALITY_DESCRIPTION			\checkmark
SLOT_INFO			\checkmark
SLOT_DESCRIPTION			\checkmark
SENSOR_DEFINITION			\checkmark
SENSOR_VALUE			\checkmark
PAN_INVERT		\checkmark	\checkmark
TILT_INVERT		\checkmark	\checkmark
RESET_DEVICE		\checkmark	

 \checkmark -Command implemented for the respective parameter ID

5.2 Home Position Adjustment

- To access the control menus, press the [MENU] button.
- To access the offset menus, long-press the [ENTER] button.
- ▶ Navigate the offset menus, using the [ENTER], [▲ UP] and [▼ DOWN] buttons.
- To select a menu option or to confirm a selection, press the [ENTER] button.
- To return to a higher level in the menu structure without making a change, press the [MENU] button, or wait 30 seconds.

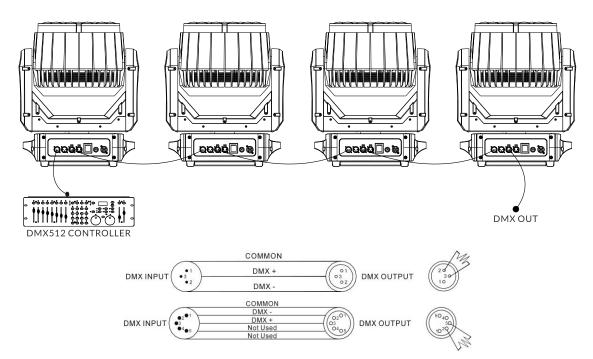
OFFSET MENU	VALUES
Pan	-128~127
Tilt	-128~127
Zoom	0~255

Pan

	Select Pan, press ENTER.
	Use UP/DOWN button to select a value between -128 and 127, confirm
	your selection with ENTER.
	To exit the offset menu, press MENU, or wait 30 seconds.
Tilt	
	Select Tilt, press ENTER.
	Use UP/DOWN button to select a value between -128 and 127, confirm
	your selection with ENTER.
	To exit the offset menu, press MENU, or wait 30 seconds.
Zoom	
	Select Zoom, press ENTER.
	Use UP/DOWN button to select a value between 0 and 255, confirm
	your selection with ENTER.
	To exit the offset menu, press MENU, or wait 30 seconds.

06/ Control By Universal DMX Controller

6.1 DMX512 Connection



1. At last unit, the DMX cable has to be terminated with a terminator. Solder a 120-ohm 1/4W resistor between pin 2(DMX-) and pin 3(DMX+) into a 3-pin XLR-plug and plug it in the DMX-output of the last unit.

2. Connect the unit together in a "daisy chain" by XLR plug cable from the output of the unit to the input of the next unit. The cable can only be used in series and cannot be connected in parallel. DMX 512 is a very high-speed signal. Inadequate or damaged cables, soldered joints or corroded connectors can easily distort the signal and shut down the system.

3. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.

4. Each lighting unit needs to have a DMX address to receive the data by the controller. The address number is between 1-512.

5. The end of the DMX 512 system should be terminated to reduce signal errors.

6. 3 pin XLR connectors are more popular than 5 pins XLR.

3 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)

5 pin XLR: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+), Pin4, Pin5 not used.

6.2 Address Setting

If you use a universal DMX controller to control the units, you have to set DMX address between 1 and 512 so that the units can receive DMX signal.

Press the MENU button to access the control menus, select DMX Settings, press the ENTER button to confirm. Use the UP/DOWN button to select DMX Address, press the ENTER button to confirm, the present address will show on the display. Use the UP/DOWN button to adjust the address between 001 and 512, press the ENTER button to store. To exit the menu, press MENU, or wait 30 seconds.

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

Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address
15 channels	1	16	31	46
27 channels	1	28	55	82
17 channels	1	18	35	52
15+ channels	1	16	31	46

6.3 DMX512 Configuration

Please control the fixture by referring to the configurations below.

Attentions:

- The unit will maintain the last condition until reset if you cut-off the DMX signal.
- For the channel Function, keep the value for about 3 seconds, then the corresponding function will take into effect.

15 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→220°
4	000-255	TILT FINE
5	000-255	PAN/TILT SPEED Fast to Slow
6	000-009 010-014 015-255	SPECIAL FUNCTIONS Null Reset Null
7	000-255	DIMMER 0%→100%
8	000-255	DIMMER FINE
9	000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164 165-169 170-184 185-189 190-204 205-209 210-224 225-229 230-244 245-255	SHUTTER Close Open Strobe 1: fast→slow Open Strobe 2: opening pulse, fast→slow Open Strobe 3: closing pulse, fast→slow Open Strobe 4: random strobe, fast→slow Open Strobe 5: random closing pulse, fast→slow Open Strobe 6: random opening pulse, fast→slow Open Strobe 6: random burst pulse, fast→slow Open Strobe 8: random burst pulse, fast→slow Open Strobe 8: random burst pulse, fast→slow Open Strobe 9: sine wave, fast→slow Open Strobe 10: burst, fast→slow Open
10	000-255	RED 0%→100%
11	000-255	GREEN 0%→100%

12	000-255	BLUE 0%→100%
13	000-255	WHITE 0%→100%
14	000-009 010-014 015-019 020-024 025-029 030-034 035-039 040-044 045-049 050-054 055-059 060-064 065-069 070-074 075-079 080-084 085-089 090-094 095-099 100-104 105-109 110-114 115-119 120-124 125-129 130-134 135-139 140-144 145-149 150-154 155-159 160-164 165-169 170-174 175-179 180-201 202-207 208-229 230-234 235-239 240-244 245-249	COLOR MACRO Null Color 1 Color 2 Color 3 Color 4 Color 5 Color 5 Color 6 Color 7 Color 8 Color 9 Color 10 Color 11 Color 12 Color 13 Color 14 Color 15 Color 14 Color 15 Color 16 Color 17 Color 18 Color 17 Color 18 Color 20 Color 21 Color 21 Color 22 Color 23 Color 24 Color 23 Color 24 Color 25 Color 26 Color 27 Color 28 Color 31 Color 31 Color 31 Color 33 Open Color 33 Open Fast Medium Slow

	250-255	Open
15	000-255	ZOOM Wide→Narrow

27 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→220°
4	000-255	TILT FINE
5	000-255	PAN/TILT SPEED Fast to Slow
6	000-255	ZOOM Wide→Narrow
7	000-009 010-014 015-255	SPECIAL FUNCTIONS Null Reset Null
8	000-255	DIMMER 0%→100%
9	000-255	DIMMER FINE
10	000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164 165-169 170-184 185-189 190-204 205-209	SHUTTERCloseOpenStrobe 1: fast→slowOpenStrobe 2: opening pulse, fast→slowOpenStrobe 3: closing pulse, fast→slowOpenStrobe 4: random strobe, fast→slowOpenStrobe 5: random closing pulse, fast→slowOpenStrobe 5: random opening pulse, fast→slowOpenStrobe 6: random opening pulse, fast→slowOpenStrobe 7: burst pulse, fast→slowOpenStrobe 8: random burst pulse, fast→slowOpen

	210-224	Strobe 9: sine wave, fast→slow
	225-229	Open
	230-244	Strobe 10: burst, fast→slow
	245-255	Open
		RED 1
11	000-255	0%→100%
	000 200	GREEN 1
12	000-255	0%→100%
	000-255	
13	000 055	BLUE 1
	000-255	0%→100%
14		WHITE 1
	000-255	0%→100%
		COLOR MACRO 1
	000-009	Null
	010-017	Color 1
	018-024	Color 2
	025-032	Color 3
	033-039	Color 4
	040-047	Color 5
	048-054	Color 6
	055-061	Color 7
	062-069	Color 8
	070-076	Color 9
	077-084	Color 10
	085-091	Color 11
	092-099	Color 12
	100-106	Color 13
	107-113	Color 14
	114-121	Color 15
15	122-128	Color 16
	129-136	Color 17
	137-143	Color 18
	144-151	Color 19
	152-158	Color 20
	159-165	Color 21
	166-173	Color 22
	174-180	Color 23
	181-188	Color 24
	189-195	Color 25
	196-203	Color 26
	204-210	Color 27
	211-217	Color 28
	218-225	Color 29
	226-232	Color 30
	233-240	Color 31
	241-247	Color 32
	248-255	Color 33

16	000-255	RED 2 0%→100%
17	000-255	GREEN 2 0%→100%
18	000-255	BLUE 2 0%→100%
19	000-255	WHITE 2 0%→100%
20	000-255	COLOR MACRO 2 (Same as COLOR MACRO 1)
21	000-255	RED 3 0%→100%
22	000-255	GREEN 3 0%→100%
23	000-255	BLUE 3 0%→100%
24	000-255	WHITE 3 0%→100%
25	000-255	COLOR MACRO 3 (Same as COLOR MACRO 1)
26	000-007 008-022 023-037 038-052 053-067 068-082 083-097 098-112 113-127 128-142 143-157 158-172 173-187 188-202 203-217 218-232 233-247 248-255	MACRO EFFECT SELECT Null Built-in Effect 1 Built-in Effect 2 Built-in Effect 3 Built-in Effect 3 Built-in Effect 4 Built-in Effect 5 Built-in Effect 6 Built-in Effect 7 Built-in Effect 7 Built-in Effect 8 Built-in Effect 9 Built-in Effect 10 Built-in Effect 11 Built-in Effect 12 Built-in Effect 13 Built-in Effect 14 Built-in Effect 15 Built-in Effect 16 Built-in Effect 17
27	000-255	MACRO EFFECT SPEED Slow to Fast

17 Channels (Mode 3):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
	000 233	TILT
3	000-255	0°→220°
4	000-255	TILT FINE
5	000-255	PAN/TILT SPEED Fast to Slow
6	000-009 010-014 015-255	SPECIAL FUNCTIONS Null Reset Null
7	000-255	DIMMER 0%→100%
8	000-255	DIMMER FINE
9	000-019 020-024 025-064 065-069 070-084 085-089 090-104 105-109 110-124 125-129 130-144 145-149 150-164 165-169 170-184 185-189 190-204 205-209 210-224 225-229 230-244 245-255	SHUTTER Close OpenStrobe 1: fast→slow OpenStrobe 2: opening pulse, fast→slow OpenStrobe 2: opening pulse, fast→slow OpenStrobe 3: closing pulse, fast→slow OpenStrobe 4: random strobe, fast→slow OpenStrobe 5: random closing pulse, fast→slow OpenStrobe 5: random opening pulse, fast→slow OpenStrobe 6: random opening pulse, fast→slow OpenStrobe 6: random opening pulse, fast→slow OpenStrobe 7: burst pulse, fast→slow OpenStrobe 8: random burst pulse, fast→slow OpenStrobe 9: sine wave, fast→slow OpenStrobe 10: burst, fast→slow Open
10	000-255	RED 0%→100%
11	000-255	GREEN 0%→100%

12	000-255	BLUE 0%→100%
13		WHITE
14	000-255 000-009 010-014 015-019 020-024 025-029 030-034 035-039 040-044 045-049 050-054 055-059 060-064 065-069 070-074 075-079 080-084 085-089 090-094 095-099 100-104 105-109 110-114 115-119 120-124 125-129 130-134 135-139 140-144 145-149 150-154 155-159 160-164 165-169 170-174 175-179 180-201 202-207 208-229 230-234 235-239 240-244 245-249	$0\% \rightarrow 100\%$ COLOR MACRO Null Color 1 Color 2 Color 3 Color 4 Color 5 Color 6 Color 7 Color 8 Color 9 Color 10 Color 11 Color 12 Color 13 Color 14 Color 15 Color 16 Color 17 Color 18 Color 19 Color 20 Color 21 Color 22 Color 23 Color 23 Color 24 Color 25 Color 25 Color 30 Color 31 Color 32 Color 33 Open Color 33 Open Fast Medium Slow

	250-255	Open
15		ZOOM
15	000-255	Wide→Narrow
16	000-007 008-016 017-025 026-034 035-043 044-052 053-061 062-070 071-079 080-088 089-097 098-106 107-115 116-124 125-133 134-142 143-151 152-160 161-169 170-178 179-187 188-196 197-205 206-214 215-223 224-232 233-241 242-250 251-255	MACRO EFFECT SELECT Null Built-in Effect 1 Built-in Effect 2 Built-in Effect 3 Built-in Effect 3 Built-in Effect 4 Built-in Effect 5 Built-in Effect 7 Built-in Effect 7 Built-in Effect 9 Built-in Effect 10 Built-in Effect 11 Built-in Effect 12 Built-in Effect 13 Built-in Effect 14 Built-in Effect 15 Built-in Effect 17 Built-in Effect 18 Built-in Effect 20 Built-in Effect 21 Built-in Effect 21 Built-in Effect 22 Built-in Effect 23 Built-in Effect 23 Built-in Effect 24 Built-in Effect 27 Built-in Effect 27
17	000-127 128-255	MACRO EFFECT SPEED Slow to Fast without Fade Slow to Fast with Fade

15+ Channels (Mode 4):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3		TILT
	000-255	0°→220°
4	000-255	TILT FINE
5	000-255	PAN/TILT SPEED Fast to Slow
6	000-009 010-014 015-255	SPECIAL FUNCTIONS Null Reset Null
7	000-255	DIMMER 0%→100%
8	$\begin{array}{c} 000-019\\ 020-024\\ 025-064\\ 065-069\\ 070-084\\ 085-089\\ 090-104\\ 105-109\\ 110-124\\ 125-129\\ 130-144\\ 145-149\\ 150-164\\ 165-169\\ 170-184\\ 185-189\\ 190-204\\ 205-209\\ 210-224\\ 225-229\\ 230-244\\ 245-255\end{array}$	SHUTTER Close Open Strobe 1: fast→slow Open Strobe 2: opening pulse, fast→slow Open Strobe 3: closing pulse, fast→slow Open Strobe 4: random strobe, fast→slow Open Strobe 5: random closing pulse, fast→slow Open Strobe 5: random opening pulse, fast→slow Open Strobe 6: random opening pulse, fast→slow Open Strobe 7: burst pulse, fast→slow Open Strobe 8: random burst pulse, fast→slow Open Strobe 8: random burst pulse, fast→slow Open Strobe 9: sine wave, fast→slow Open Strobe 10: burst, fast→slow Open
9	000-255	RED 0%→100%
10		GREEN
	000-255	0%→100%
11		BLUE

	000-255	0%→100%
		WHITE
12	000-255	0%→100%
	000 233	COLOR MACRO
	000-009	Null
	010-017	Color 1
	018-024	Color 2
	025-032	Color 3
	033-039	Color 4
	040-047	Color 5
	048-054	Color 6
	055-061	Color 7
	062-069	Color 8
	070-076	Color 9
	077-084	Color 10
	085-091	Color 11
	092-099	Color 12
	100-106	Color 13
	107-113	Color 14
	114-121	Color 15
13	122-128	Color 16
	129-136	Color 17
	137-143	Color 18
	144-151	Color 19
	152-158 159-165	Color 20 Color 21
	166-173	Color 21 Color 22
	174-180	Color 22 Color 23
	181-188	Color 24
	189-195	Color 25
	196-203	Color 26
	204-210	Color 27
	211-217	Color 28
	218-225	Color 29
	226-232	Color 30
	233-240	Color 31
	241-247	Color 32
	248-255	Color 33
14		ZOOM
74	000-255	Wide→Narrow
		MACRO EFFECT SELECT
	000-031	Null
	032-047	Built-in Effect 1
15	048-063	Built-in Effect 2
	064-079	Built-in Effect 3
	080-095	Built-in Effect 4
	096-111	Built-in Effect 5

112-127	Built-in Effect 6
128-143	Built-in Effect 7, Slow to Fast
144-159	Built-in Effect 8, Slow to Fast
160-175	Built-in Effect 9, Slow to Fast
176-191	Built-in Effect 10, Slow to Fast
192-207	Built-in Effect 11, Slow to Fast
208-223	Built-in Effect 12, Slow to Fast
224-239	Built-in Effect 13, Slow to Fast
240-255	Built-in Effect 14, Slow to Fast

07/ Error Information

Error codes are shown continuously in the display when the fixture fails and they will not disappear until the fixture is repaired.

CPU-B/C Error

Check whether the 485 (DATA) leads on the PCB board are installed in place or disconnected.

Check whether the related 485 (DATA) signal circuit on the PCB board is damaged.

Pan Reset Error

Check whether the position of the pan where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the pan operating range.

Check whether the Hall element on the pan is damaged.

Check whether the lead connecting the Hall element on the pan and the PCB board is in poor contact or disconnected.

Check whether the motor on the pan is damaged.

Check whether the related circuit of the motor drive board on the pan is damage.

Pan Encode Error

Check whether the encoder on the pan is damaged.

Check whether the lead connecting the encoder on the pan and the PCB board is in poor contact or disconnected.

Tilt Reset Error

Check whether the position of the tilt where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the tilt operating range.

Check whether the Hall element on the tilt is damaged.

Check whether the lead connecting the Hall element on the tilt and the PCB board is in poor contact or disconnected.

Check whether the motor on the tilt is damaged.

Check whether the related circuit of the motor drive board on the tilt is damage.

Tilt Encode Error

Check whether the encoder on the tilt is damaged. Check whether the lead connecting the encoder on the tilt and the PCB board is in poor contact or disconnected.

Zoom Error

Check whether the position of the zoom where the magnet is installed falls off or is damaged.

Check whether there are obstacles in the zoom operating range.

Check whether the Hall element on the zoom is damaged.

Check whether the lead connecting the Hall element on the zoom and

the PCB board is in poor contact or disconnected.

Check whether the motor on the zoom is damaged.

Check whether the related circuit of the motor drive board on the zoom is damage.

08/ Troubleshooting

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

A. The unit does not work, no light and the fan does not work

- Check the connected power and main fuse.
- Measure the voltage.
- Check the power indicator to see whether it can be lit up or not.

B. Not responding to the DMX controller

- Check whether the DMX connectors and the DMX cables are connected correctly.
- Check whether the DMX address is correctly set.
- If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.
- Try it with another DMX controller.
- Check whether the DMX cables run near or alongside to the high-voltage cables, which may damage or interfere with the signal circuit.

C. One of the channels is not working well

- The stepper motor might be damaged or the cable connected to the PCB might be broken.
- The motor's drive IC on the PCB might be out of condition.

09/ Fixture Cleaning

It is absolutely essential that the fixture is kept clean to ensure the maximum light-output and allow the fixture to function reliably throughout its life. The fixture must be cleaned regularly to avoid dust, dirt and smoke-fluid residues building up on or within the fixture. The cleaning frequency depends on the application environment. Clean the fixture immediately if the dust enters it to avoid damage to the optical lens due to excessive dust.

- A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should solvents be used.
- Always dry the parts carefully.
- Clean the external optical lens at least every 20 days.

Declaration of Conformity

We declare that our products (lighting equipments) comply with the following specification and bears CE mark in accordance with the provision of the Electromagnetic Compatibility (EMC) Directive 2014/30/EU.

EN 55032: 2015; EN 61000-3-2: 2014; EN 61000-3-3: 2013; EN 55103-2: 2009.

> & Harmonized Standard

EN 60598-1: 2015; EN 60598-2-17: 1989+A2: 1991; EN 62493: 2015.

Safety of household and similar electrical appliances Part 1: General requirements and tests

