
LED MOVING HEAD

USER MANUAL

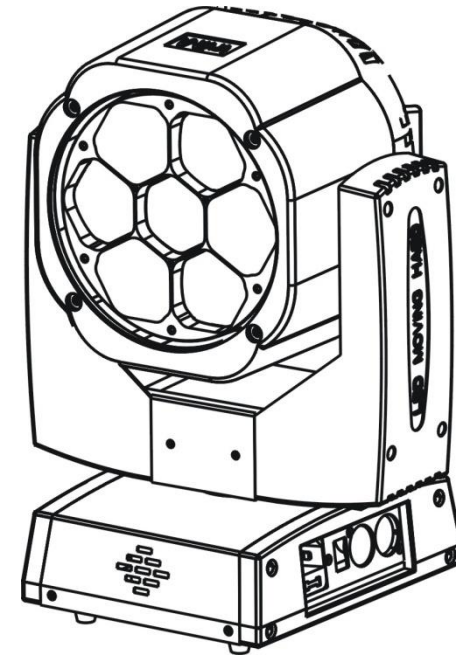


Table of Contents

BEFORE USIN	2
What is include	2
Open Instruction.....	2
AC Power Supply.....	2
Safety Instruction.....	2
INTRODUCTION	3
Specification.....	3
Product features.....	3
Product Introduction	4
Installation	5
Installation requirement.....	5
Power supply connection.....	5
DMX Signal Connection	6
Operating Instruction	6
Control board function.....	6
Menu Map	8
DMX Channel Table	11
RED GREEN BLUE WHITE.....	13
RED FINE GREEN FINEWHITE FINE	13
LINEAP CTO	13
MACRO COLOUR	14
STOP STROBE-FOREGROUNDSTROBE - BACKGROUND STROBE.....	15
TILT.....	16
DIMMER.....	16
PAN.....	17
FUNCTION	17
DIMMER CURVE.....	18
RESET.....	18
ZOOM.....	18
ZOOM ROTATION	19
RED LED 1 to... GREEN LED 1 to... BLUE LED 1 to... WHITE LED 1 to.....	19
SHAPE SELECTION-SHAPE SPED-SHAPE OFFSET.....	20
Macro Of f.....	20

Before Using

• SHAPE FADE

BIT	EFFECT
246-255	Smooth, fading curve with automatic gamma*
245	Smooth, fading curve gamma 2
243	Smooth, fading curve gamma 1,986
244	Smooth, fading curve gamma 1,993
.	
.	
.	
.	
.	
.	
18	Smooth, fading curve gamma 0,513
17	Smooth, fading curve gamma 0,506
16	Smooth, fading curve gamma 0,5
0-15	Snap

• SHAPE RGBW SHAPE

DIMMER BACKGROUND

DIMMER



BIT	EFFECT
255	LED ON
.	
.	
.	
.	
.	
.	
0	LED OFF

• SHAPE TRANSITION

BIT	EFFECT
255	4 sec
.	
.	
216	3 sec
.	
171	2 sec
.	
.	
113	1 sec
.	
.	
73	0,5 sec
.	
.	
5	100 ms
0-4	No fade

LED reference number for pixel mapping

TILT: channel 16 @ 200 bit



What is include

- Equipment x 1
- Power cable with Plug x 1
- User manual x 1
- Iron holder x 2

Open Instruction



Help preserve the environment! Ensure that this product is recycled at the end of its life. Your supplier can give details of local arrangements for the disposal of products.

Please open the equipment carefully ,and check all the spare parts are included or not.If any part of the cause of the failure due to improper transportation or carton,please keep the packing materials and immediately inform the shipper to check.If the equipment must be returned to the factory,the equipment should be use the original carton and packaging.

AC Power Supply

The equipment power supply is able to adapt to the wide input voltage.Please confirm the input voltage is in the scale of rated voltage。 The equipment can adapt to100V-240V AC voltage, Frequency50-60HZ。 It can not run a rheostat(variable resistor) or dimmer circuits.

Safety Instruction

This product is I level protection equipment,so it is must be connected well and connected by the professional people.

- Make sure the volatage don't be above or below which the user manual rated values.
- Confirm the power cord is not a sword cut or damaged.
- Must be cut off the power supply in the condition of no using or cleaning.
- Only allowed with the power cord plug connection.Please do not force when unplug the power cord to pull the plug.。
- Be careful in the process of installation of equipment.Avoid touching the bare wire,otherwise it will suffer fatal shocks.。
- Don't look the light source directly,otherwise it will hurts the eyes.

- When choosing installation position of equipment and the equipment must be more than 0.5m distance between objects.
- Please use the equipment wires appropriate.
- Without the manufacturer's authorization or laypeople don't remove,repair and modification of equipment.
- The maximum operating temperature is 40°C , don't operate the equipment when it is over 40°C
- Do not connect the equipment to the dimmer equipment.

Introduction

Specification

- Rated Voltage: AC100V~240V 50-60HZ
- Rated Power: 180W
- LED Qty: 7x15W high power 4 in 1 LEDs
- LED Drive Current: 1000mA
- Beam Angle: 4-60°Zoom
- IP : IP20
- DMX Mode: 25CH/55CH
- Net weight: 8.2 Kg
- Gross weight: 9Kg

Product feature

- XLR sockets input/output 3Pin
- Power input
- 3 kinds of control model: DMX512, ,Soundactive,Master/slave
- LCD display screen
- Display screen can be turned upside down with 180°to fit the installation in different place
- Indoor operation temperature: -20°C~+40°C
- 5 DMX modes: 25/55CH
- dimmer:0-100% linear dimmer
- Pan/tilt:
 - 16bit fine pan/tilt control
 - Smooth and accurate locating
 - Pan: 540°Tilt:210°
 - Motor rotation in forward and reverse can be setting up
- Each LED can be controlled individually, rich colour
- The front lens may be infimited rotation in foward and reverse
- 0-20HZ strobe
- Zoom anger :4°-60°

133-137	Shape 6				
138-142	Shape 7				
143-147	Shape 8				
148-152	Shape 9				
153-157	Shape 10				
158-162	Shape 11				
163-255	Reserved 保留		N.a	N.a	

1:Random colors activation with foreground R,G B,W=0

Macro Off

DMX channel value: from 0 to 7.

No shape effects activated Turns off any previously selected shape

Static Rings

DMX channel value: from 8 to 32 .

The ring or ring used by the macro are turned on with the foreground colour (Shape

Red+ShapeGreen+Shapeblue+Shape White)

Available combinations: Ring 1 On, Ring 2 On,

Random pixels

DMX DMX channel value:63-72.

Leds are turned and off randomly .

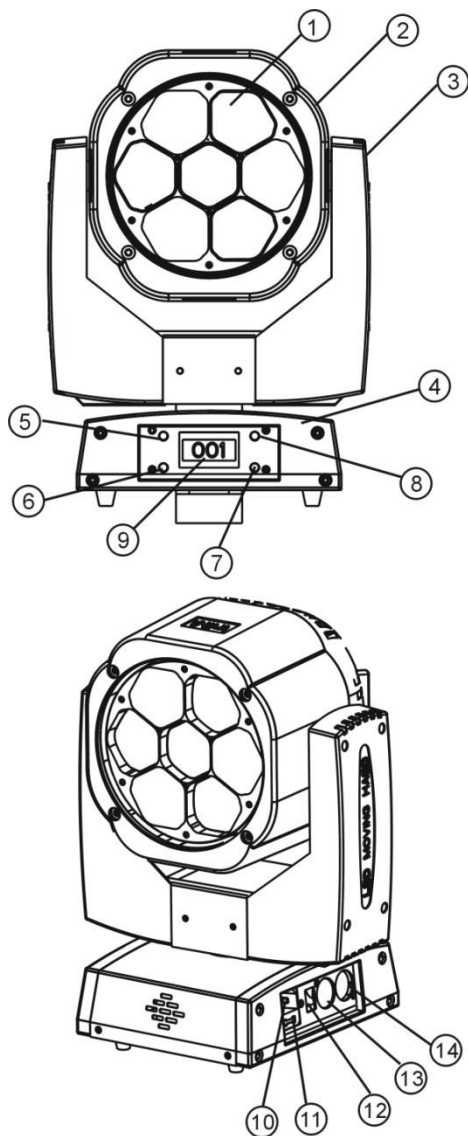
The Shape Speed channel increases the speed and defines the fade fadeeffect for the leds: from 126(min speed) to 0(max speed) with a Instant-on/fade-out led effect and from 129 (min speed) to 255 (max speed)with a fade-in+fade-out led effect, At a DMX value of 127 and 128 the macro stays still.

If foreground colors are all set to 0 the Random-Colors mode is activated.

The Shape Smoothing channel adjusts the fading effect applied to the macro movement

The color used by the macro changes at every restart.

Product Introduction



- ① Lens
- ② Head
- ③ Arm
- ④ Bottom
- ⑤ Menu-button
- ⑥ Enter-button
- ⑦ Down-button
- ⑧ UP-button
- ⑨ LCD Display
- ⑩ Power in
- ⑪ Fuse
- ⑫ Power switch
- ⑬ DMX in
- ⑭ DMX out

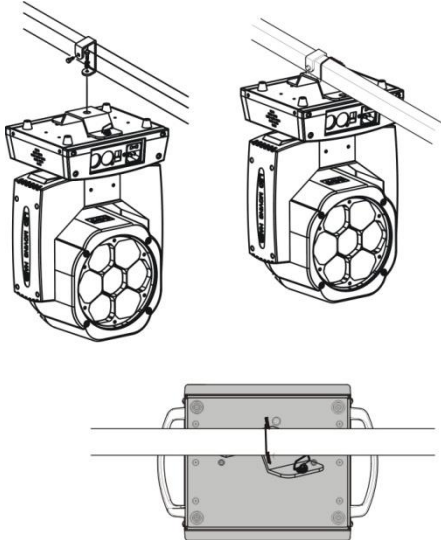
SHAPE SELECTION-SHAPE SPED-SHAPE OFFSET

BIT	SHAPE-SELECTION	Description	PANDOM COLORS 1	SHAP E SPEED	SHAPE OFFSET
0-7	Macro OFF		N.a	N.a	N.a
8-12	Ring 1	Static effects.The ring or rings used by the macro are turned-on with the foreground colour.	N.a	N.a	N.a
13-17	Ring 2				
18-22	NO Function				
23-27	Ring 1+2				
28-32	NO Function				
33-37	Ring Opening (Closing)		Yes	0-63 = Radius size, static. 64-158 = max to min speed, Closing effect 159-160 = STOP 161-255 = min to max speed, Opening effect	0-9 → continuous 10-255 → random distribution of flash from 2 to 20 fixtures 从 2-20
38-42	Ring Opening (Closing) Filled		Yes		
43-47	Ring Opening (Close/open)		Yes	0-63 = Radius size, static. 64-158 = max to min speed, Closing effect. 159-160 = STOP. 161-255 = min to max speed, Opening effect	
48-52	Ring Opening (Close/open) Filled		Yes		
53-57	Random pixels distributed on many fixtures		Yes	0-63 = STOP 64-158 = max to min speed, Instant-on +fadeout.. 159-160 = STOP. 161-255 = min to max speed, FadeIn + FadeOut. Fade or snap depending on fade channel	0-255 → select random distribution from 2 up to 20 fixtures
58-62	Random pixels with variable density and speed		Yes		
63-67	Rainbow 1 Variable speed		N.a	0-63 = Angle 0-360°, static. 64-158 = max to min speed, c.cw rotation 159-160 = STOP 161-255 = min to max Speed,cw rotation	0-255 → angle offset from 0 to 360°
68-72	Rainbow 2 Fixed speed with variable color offset		N.a	0-63 = STOP 64-158 = c.cwrotationc.cw 159-160 = STOP 161-255 = cw rotationcw The value64-158 or 161-255 change the rainbow angle offset (the orange starting angle).	N.a
73-77	Fan (3 ams)		N.a	0-63 = angle offset, 0-360° 64-158 = max to min speed, c.cw rotation 159-160 = STOP 161-255 = min to maxspeed, cwrotation.	0-255 → angle offset from 0 to 360°
78-82	Bar (2 ams)				
83-87	Half moon				
88-92	Triangle				
93-97	Two rotating bars of different colors				
98-102	Two rotating arcs of different colors				
103-107	Two rotating arcs of different colors and direction				
108-112	Shape 1		N.a	0-63 = angle offset, 0-360° 64-158 = max to min speed, c.cw rotation. 159-160 = STOP	0-255 → angle offset from 0 to 360

Installation

Installation Requirements

- This equipment can be used in many places, it can hang and put on the ground.
- Choosing a suitable place to put or hang the equipment when installation. Must be use the special screws and hook to make sure the lamp's weight is in the weight range.
- When installing the equipment, ensure no inflammable and explosive goods at 0.5 meter distance.
- Please ask the professionals to install the equipment, any improper installation will cause personal injury or material damage.
- To prevent others entering the working area below, the installation or maintenance of equipment with suitable and stable platform
- The equipment must be placed in ventilated place, at least 50 cm from the ground, please ensure that the vent without clogging.



Power supply connection

The equipment can be used in the wide voltage input. Please make sure the voltage is the scale of rated voltage when connecting the power. The equipment can adapt to 100V to 240 V AC voltage and 50-60 Hz.

•ZOOM ROTATION



BIT	EFFECT
255	FAST ROTATION
.	
.	
.	
.	
.193	
191-192	SLOW ROTATION
190	STOP
.	SLOW ROTATION
.	
.	
.	
128	FAST ROTATION
127	
.	
.	
.	
.	
.	
0	LINEAR ROTATION

•ZOOM ROTATION(available on zoom channel from 0 bit to 42 bit)

BIT	MACRO EFFECT
193-255	CCW Rotation, speed from 3 RPH to 10 RPM
191-192.	Stop rotation
128-190.	CW Rotation, speed from 10 RPM to 3 RPH
127.	Indexed zone. Lens angle = 60.00
126	Indexed zone. Lens angle = 59.52
.....3	
2	Indexed zone. Lens angle = 1.42
1	Indexed zone. Lens angle = 0.94
0	Indexed zone. Lens angle = 0.47
	Indexed zone. Lens angle = 0

•ZOOM ROTATION(available on zoom channel at 255 bit only)

BIT	MACRO EFFECT
128-255	Lens offset angle: 0.00 degree
127.	Lens offset angle: +4.00 degree
126	Lens offset angle: +3.94 degree
125	Lens offset angle: +3.87 degree
.....	
1	Lens offset angle: +0.06 degree
0	Lens offset angle: 0.00 degree

•RED LED 1 to...

GREEN LED 1 to...

BLUE LED 1 to...

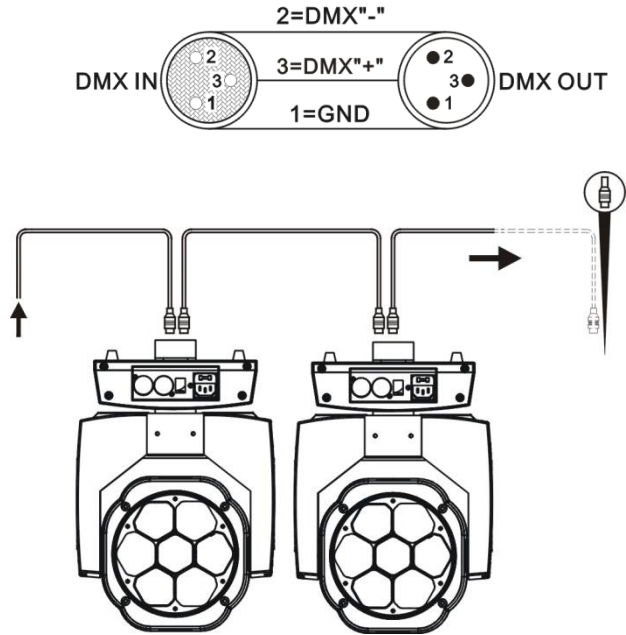
WHITE LED 1 to...

BIT	EFFECT
255	LED ON
0	LED OFF

s	Connection	Pin
Brown	AC Live	1
Blue	AC Neutral	2
Green/Yellow	AC Ground	3

DMX Signal Connection

1. Use DMX512 controller, use the DMX signal (male) to plug into the first lamp(female) 3 pin.
2. Put out of the equipment of the first signal wire(head),connected to the equipment of the next 3 pin plug(female),so on.Seebelowed pictures.

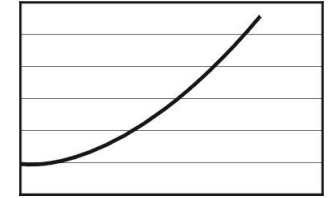
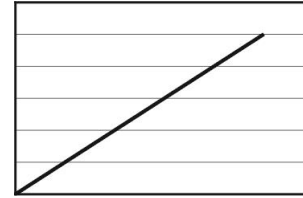


Operating Instruction

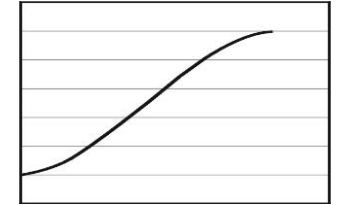
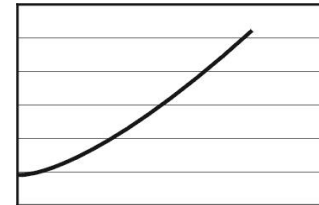
Control board function

Button	Function
MENU	Choose Menu or function exit
ENTER	Current show menu or enter into the current selected function
UP	Increase the value
DOWN	Decrease the value

DIMMER CURVE 1 - GAMMA 1 LINEARDIMMER CURVE 3 - GAMMA 2,



DIMMER CURVE 2 - GAMMA 1,5DIMMER CURVE 4 - S



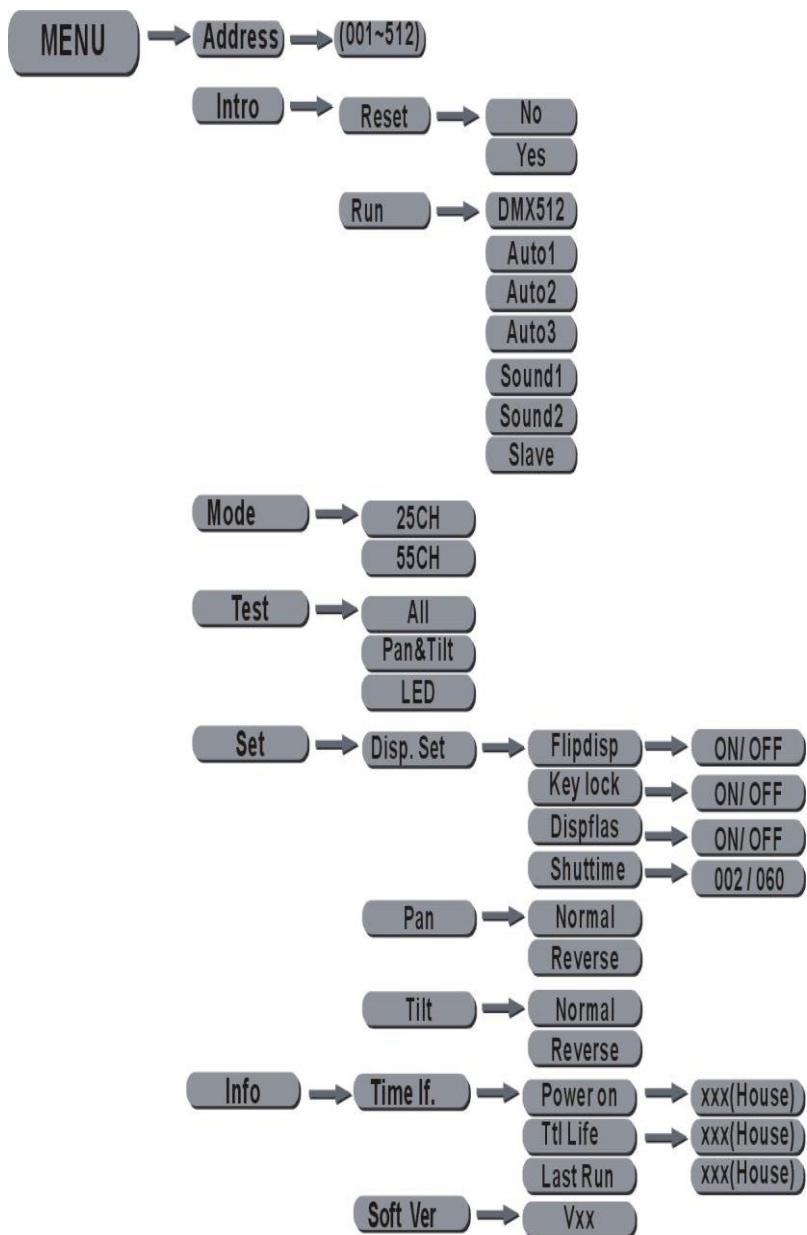
•RESET

BIT	EFFECT
255	COMPLETE RESET
.	.
.	Complete reset is activated passing through the unused range and staying 5 seconds in complete reset levels
.	.
..128	COMPLETE RESET
127	PAN / TILT RESET
.	.
.	Pan / Tilt reset is activated passing through the unused range and staying 5 seconds in Pan / Tilt reset levels
.	.
.	.
77	PAN / TILT RESET
76	ZOOM RESET
.	.
.	Effects reset is activated passing through the unused range and staying 5 seconds in Effects reset levels.
.	.
26	ZOOM RESET
25	.
0	UNUSED RANGE

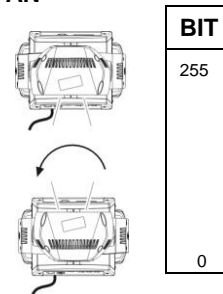
•ZOOM

BIT	EFFECT
255	WIDE BEAM
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
.	.
0	NARROW BEAM

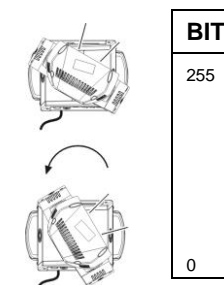
Menu Map



•PAN

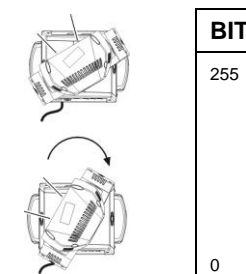
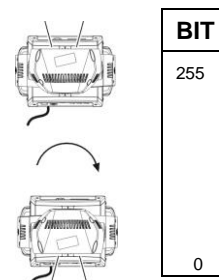


•PAN FINE



Operation with option InvertPan 《》 GOff

(Tilt conventionally represented at 35 bit and option Invert Tilt 《》 GOff)



Operation with option InvertPan 《》 GOn

(Tilt conventionally represented at 35 bit and option Invert Til 《》 tGOff)

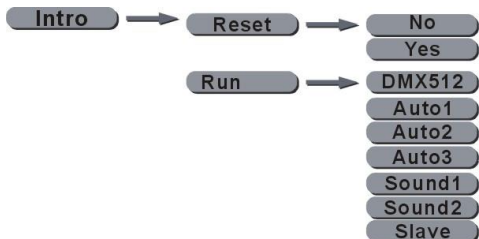
•FUNCTION

BIT	EFFECT
103 – 255	Reserved
52 – 57	Dimmer Curve 4
48 – 52	Dimmer Curve 3
43 – 47	Dimmer Curve 2
38 – 42	Dimmer Curve 1
24 – 37	Pan Tilt Normal xy
12 – 24	Pan Tilt Fast (Default)
0 – 11	Function off – rearmed

Address → (001~512)

[DMX address setting]

- Press MENU when it shows **【Address】**, then press ENTER.
- Change the DMX address by UP or DOWN.



[Function selection]

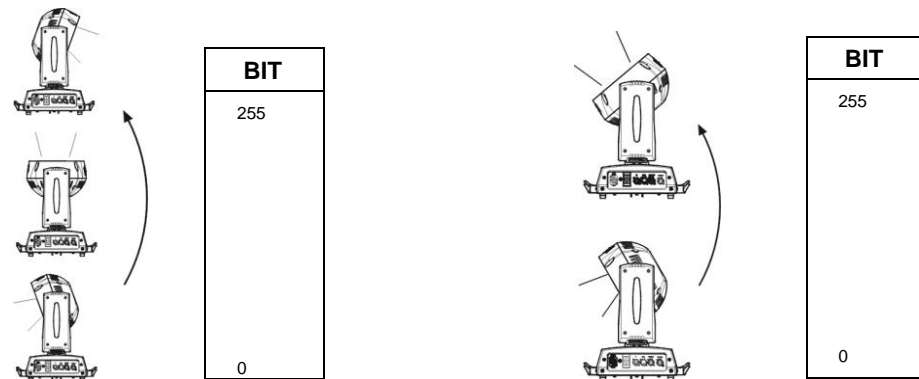
- Press MENU until it shows **【Intro,press】** ENTER
- Press UP or DOWN to choose **【Reset】**, **【Run】**.
- When choosing **Reset**, press ENTER, and press UP or DOWN to choose **【YES】** or **【NO】**. When choosing **【YES】**, press ENTER, the equipment reset, restore factory sett
- When choosing **Run**, press ENTER, press UP or DOWN to choose **【DMX512】**, **【Auto1】**, **【Auto2】**, **【Auto3】**, **【Sound1】**, **【Sound2】**, **【Slave】**. When choosing **【DMX512】**, the DMX controller sending the signal(3 pin signal is valid),
- When choosing **【Auto1】**, **【Auto2】**, **【Auto3】**, **【Sound1】** or **【Sound2】**, **【Auto1】**, **【Auto2】**, **【Auto3】**, **【Sound1】**, **【Sound2】**, choose Auto or Sound mode, it can be used as the master. When choosing **【Slave】**, it is Slave, receive the Master signal. Choose the Slave need to quit to the main menu can be controlled.



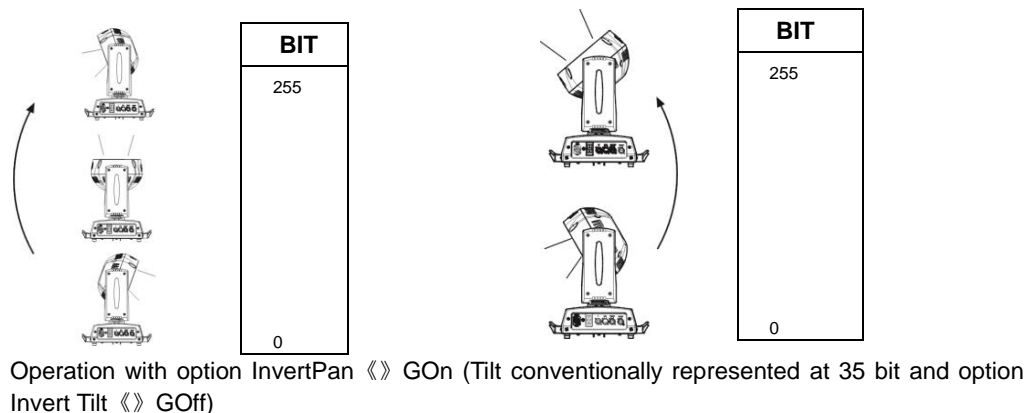
[DMX Mode selection]

- Press MENU until it shows **【Users mode】**, press ENTER.
- Choose Channel mode by pressing UP or DOWN: **【25CH】**, **【55CH】**.

•TILT

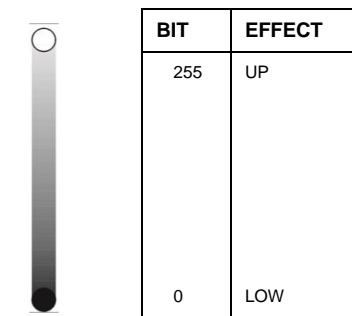
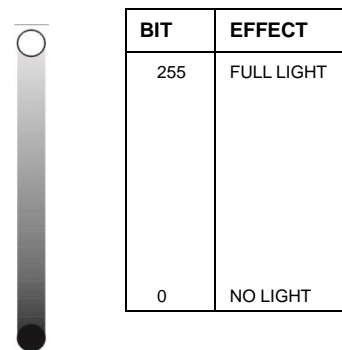


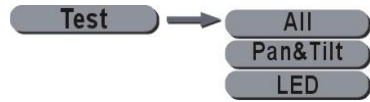
Operation with option InvertPan <<> GOff
(Tilt conventionally represented at 35 bit and option Invert Tilt <<> GOff)



Operation with option InvertPan <<> GOn (Tilt conventionally represented at 35 bit and option Invert Tilt <<> GOff)

• DIMMER • DIMMER FIN





[Test Procedure]

- Press MENU, until it shows **【Test】**, and then press ENTER.
- Press UP or DOWN to choose **【All】**, **【Pan&Tilt】** and **【LED】**. When selecting **【All】**, it is testing the motor and LED, When selecting **【Pan&Tilt】** to test the motor, choose **【LED】** it is only LED operated..



[Adaptive function setting]

- Press MENU, until it shows **【Set】**, and then press ENTER.
- Press UP or DOWN to choose **【Disp.setting】**, **【Pan】**, **【Tilt】**.
- When selecting **【Disp.setting】**, press ENTER, press UP or DOWN to choose **【Shut off time】**, **【Flip display】**, **【Key lock】** or **【Disp flash】**. If selecting **【Shut off time】**, press ENTER, operate UP or DOWN, it can be set LCD backlight close from 2-60 mins. If selecting **【Flip display】**, press ENTER, operate UP or DOWN, press **【ON/OFF】** to choose **【ON】**, the screens can rotate 180°. When selecting **【Key lock】**, press ENTER, operate UP or DOWN, press **【ON/OFF】** to choose **【ON】**, when the backlight closed, the button key is locked, the operation is invalid at this time. It must be entered Up、Down、Up、Down, press ENTER to confirm the unlock. When selecting **【Disp flash】**, press ENTER, operate UP or DOWN, it can be chosen **【ON/OFF】**, choose **【ON】**, the screen's backlight begin to blink when the equipment received the DMX signal, that means it is received the DMX signal. The screen's backlight closed when there is no signal.
- When selecting **【Pan】** or **【Tilt】**, press ENTER, operate UP or DOWN, Choose **【Normal】** or **【Reverse】** to set the forward and reverse operation.

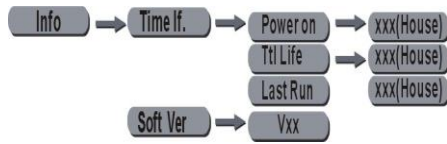
32-34	22	Dark Amber	255	65	0	0
31	21	Gold Amber	255	100	0	0
30	20	Medium Amber	255	135	0	0
29	19	Fire	255	56	0	0
27-28	17	Surprise Peach	198	114	9	0
23-26	13	Straw Tint	152	115	9	0
20-22	10	Medium Yellow	156	126	0	0
19	-	Black	0	0	0	0
18	-	White 5000 K	255	137	0	193
17	-	White 3700 K	255	201	25	255
16	-	White 7000 K	216	237	61	255
15	-	Magenta	255	0	255	0
14	-	Yellow	255	255	0	0
13	-	Cyan	0	255	255	0
12	-	Blue	0	0	255	0
11	-	Green	0	255	0	0
10	-	Red	255	0	0	0
0-9	-	Macro color OFF	-	-	-	-

•STOP STROBE - FOREGROUND STROBE - BACKGROUND STROBE



BIT	EFFECT
252-252	OPEN 开
239-251	RANDOM FAST STROBE
226-238	RANDOM MEDIUM STROBE
213-225	RANDOM SLOW STROBE
208-212	OPEN
207	FAST PULSATION (25 flash/sec)
...	
108	SLOW PULSATION (0,5 flash/sec)
104-107	OPEN
103	FAST STROBE (25 flash/sec)
...	
4	SLOW STROBE (1 flash/sec)
0-3	CLOSED

• MACRO COLOUR

**[Check equipment information]**

- Press MENU, until it shows **【Info】**, press ENTER.
- Operate UP or DOWN to choose **【Time Info】**, **【Software Ver】**.
- When selecting **【Time Info】**, press ENTER, operate UP or DOWN to choose **【Power on】**, **【Ttl Life hrs】** or **【Last Run Hrs】**. If choosing **【Power on】**, press ENTER to enter into the equipment“XXXX”hours. If selecting **【Ttl Life hrs】**, pressENTER to enter into the equipment total operation time“XXXX”hours, If selecting **【Last Run Hrs】**, press ENTER to show the LED’s last operation“XXXX”hours。
- When selecting **【Software Ver】**, pressENTER ,it will show the equipment’software version.

BIT	LEE REFERENCE	COLOUR	BIT VALUE			
			R	G	B	W
209-255	--	White	255	235	66	255
208	--	Dirty White	255	255	122	255
207	197	Alice Blue	128	255	143	0
191-206	181	Congo Blue	77	0	255	0、
184-190	174	Dark Steel Blue	181	255	95	0
180-183	170	Deep lavender	255	168	64	0
179	169	Lilac Tint	255	199	49	0
175-178	165	Daylight Blue	82	214	90	0
174	164	Flame Red	255	46	2	0
172-173	162	Bastard Amber	255	181	28	0
168-171	158	Deep Orange	222	84	0	0
162-167	152	Pale Gold	253	171	26	0
157-161	147	Apricot	255	143	13	0
151-156	141	Bright Blue	0	255	87	0
149-150	139	Primary Green	77	255	0	0
147-148	137	Special lavender	219	197	79	0
146	136	Pale Lavender	255	197	61	0
145	135	Deep Golden Amber	255	58	0	0
142-144	132	Medium Blue	0	255	143	0
138-141	128	Bright Pink	255	53	36	0
136-137	126	Mauve	227	41	56	0
134-135	124	Dark Green	84	255	13	0
131-133	121	Leaf Green	206	255	0	0
129-130	119	Dark Blue	0	186	255	0
128	118	Light Blue	74	255	82	0
127	117	Steel Blue	206	255	56	0
126	116	Med Blu Green	206	255	56	0
125	115	Peacock Blue	51	255	51	0
123-124	113	Magenta	255	20	15	0
121-122	111	Dark Pink	255	109	33	0
120	110	Middle Rose	217	130	28	0
119	109	Light Salmon	255	138	31	0
118	108	English Rose	255	148	23	0
117	107	Light Rose	255	141	31	0
115-116	105	Orange	255	122	0	0
114	104	Deep Amber	255	166	0	0
113	103	Straw	230	160	0	69
112	102	Light Amber	237	163	0	0
110-111	100	Spring Yellow	245	202	0	0
100-109	90	Dark yellow green	41	219	0	0
89-99	79	Just Blue	0	194	130	0
78-88	68	Sky Blue	0	255	135	0
68-77	58	Lavender	243	117	133	199
62-67	52	Light Lavender	243	117	39	197
49-61	39	Pink Carnation	255	107	0	130
46-48	36	Medium Pink	255	87	0	107
45	35	Light Pink	255	112	0	141
35-44	25	Sunrise Red	255	83	2	0

10

DMX Channel Table

25CH MODE

CHAN-NEL	CHANNEL MODE
1	Red
2	Green
3	Blue
4	White
5	Linear CTO
6	Macro colour
7	Strobe
8	Dimmer
9	Pan
10	Tilt
11	Function
12	Reset
13	Zoom
14	Zoom Rotation
15	Shape Selection
16	Shape Speed
17	Shape Fade
18	Shape R
19	Shape G
20	Shape B
21	Shape W
22	Shape Dimmer
23	Background Dimmer
24	Shape Transition
25	Shape Offset

55CH MODE

CHAN-NEL	CHANNEL MODE
1	Red
2	Green
3	Blue
4	White
5	Linear CTO
6	Macro colour
7	Strobe
8	Dimmer
9	Pan
10	Pan Fine
11	Tilt
12	Tilt Fine
13	Function
14	Reset
15	Zoom
16	Zoom Rotation
17	Shape Selection
18	Shape Speed
19	Shape Fade
20	Shape R
21	Shape G
22	Shape B
23	Shape W
24	Shape Dimmer
25	Background Dimmer
26	Shape Transition
27	Shape Offset
28	Red LED 1
29	Green LED 1
30	Blue LED 1
31	White LED1
....	Red LED ...
....	Green LED ...
....	Blue LED ...
51	Red LED 7
52	Green LED7
53	Blue LED7
55	White LE7

NOTE: On conclusion of resetting in case of absence of DMX signal, Pan & Tilt move to the "Home" position (Pan 128 bit - Tilt 128 bit) all the others channels stay at 0 bit.

- RED
- GREEN
- BLUE
- WHITE



BIT	EFFECT
255	LED ON
0	LED OFF

1

- LINEAR CTO

BIT	EFFECT
255	8000K
.....
224	7200K
.....
188	6000K
.....
144	5600K
.....
117	5000k
.....
99	4000K
.....
54	3200K
.....
10	2500K
0-9	UNUSED RANGE

Note: If CTO channel is active, the WHITE channel is disabled.