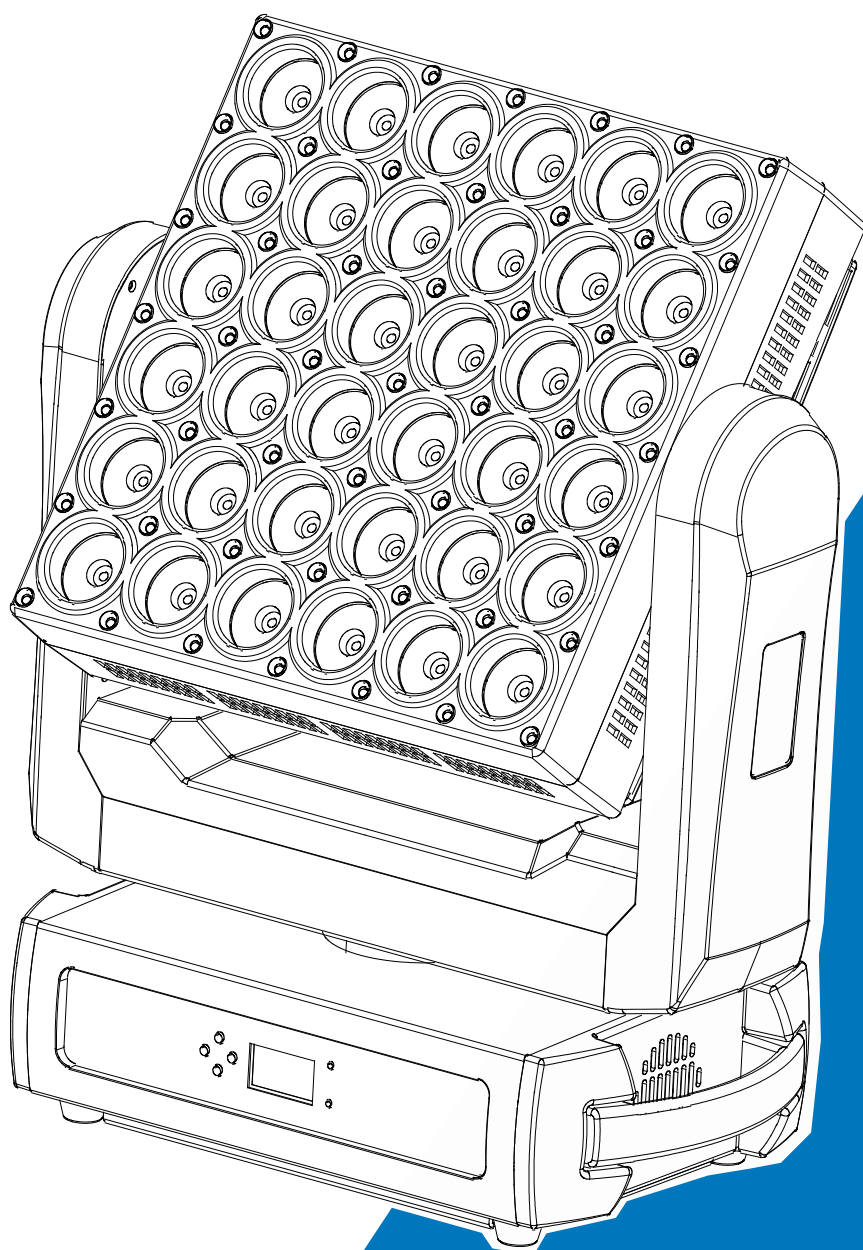


Acme®

Solaris[★]



User Manual

Please read the instruction carefully before use

CONTENTS

1. Safety Instructions	2
2. Technical Specifications	4
3. Control Panel	6
4. How To Set The Unit.....	6
4.1 Main Function.....	6
4.2 Home Position Adjustment	14
5. Control By Universal DMX Controller	14
5.1 DMX512 Connection	14
5.2 Address Setting	15
5.3 DMX512 Configuration.....	16
6. Troubleshooting.....	31
7. Fixture Cleaning.....	31

1. 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.
- Unit's surface temperature may reach up to 55°C. DO NOT touch the housing bare-handed during its operation.
- 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 0.2 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.

Installation:

The fixture should be fixed on the clamp. 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 install a safety cable that can hold at least 12 times the weight of the fixture when installing.

DO install and operate by qualified operator. It must be installed in a place where there is out of the reach of people.

2. Technical Specifications

Power Voltage:

100-240V~ 50/60Hz

Power Consumption:

580W

Light Source:

36x15W RGBW LED

49x0.06W CW LED

Beam Angle:

6°

Spot Angle:

10.8°

Movement:

Pan/Tilt movement: 360° Infinite

Pan/Tilt Resolution: 16bit

Dimmer/Shutter:

Smooth dimming from 0~100%; outstanding strobe effect with variable speed

Control:

DMX Channel: 166/206/22+144/21 channels

Control Mode: DMX512, RDM, Art-Net, sACN

Firmware Upgrade via DMX link

Construction:

Display: LCD display

Data In/Out: 3-pin&5-pin XLR, RJ-45

Power In/Out: Power Connector in/out

Protection Rating: IP20

Features:

Variable CTO

Integrated multi features: beam, wash, pixel effect, star background and moonflower beam

36 (6x6) x 15W RGBW pixel control LED + 49 (7x7) CW star-effect LED

Preset a variety of graphics matrix effect

Outstanding color mixing effect

Excellent thermal control

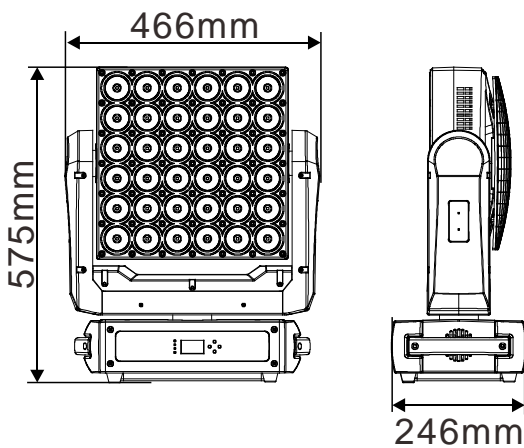
Low noise: fan speed can be adjusted automatically according to temperature

Optional reflector mirror module can create moonflower effect

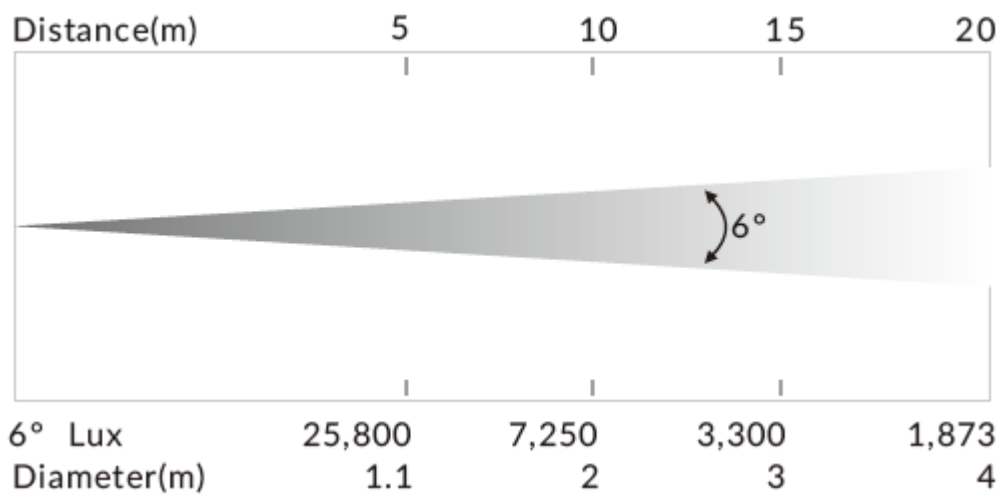
Dimensions/ Weight:

466x246x575mm, 20kgs

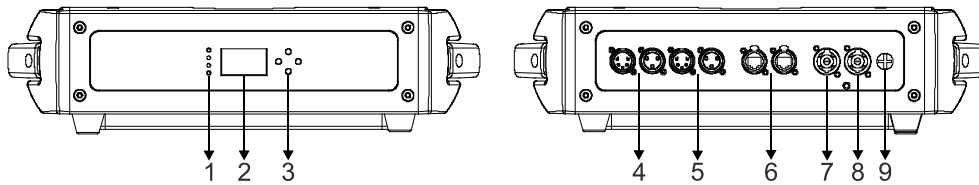
18.3"x9.7"x22.6" in, 44.1lbs



Photometric Diagram:



3. Control Panel



1. LED:

POWER	On	Power on
DMX	On	DMX input present

2. Display: To show the various menus and the selected function

3. Button:

MENU	To enter into move backward or leave the menu
UP	To go backward to move up in the menu
DOWN	To go forward to move down in the menu
ENTER	To perform the desired functions

4. DMX IN:

For DMX512 link, use 3/5-pin XLR cable to link the unit and DMX controller

5. DMX OUT:

For DMX512 link, use 3/5-pin XLR cable to link the next units

6. ETHERNET: Transfers fixture's information to a main controller

7. POWER IN: Connects to supply power

8. POWER OUT: Connects to the next fixture

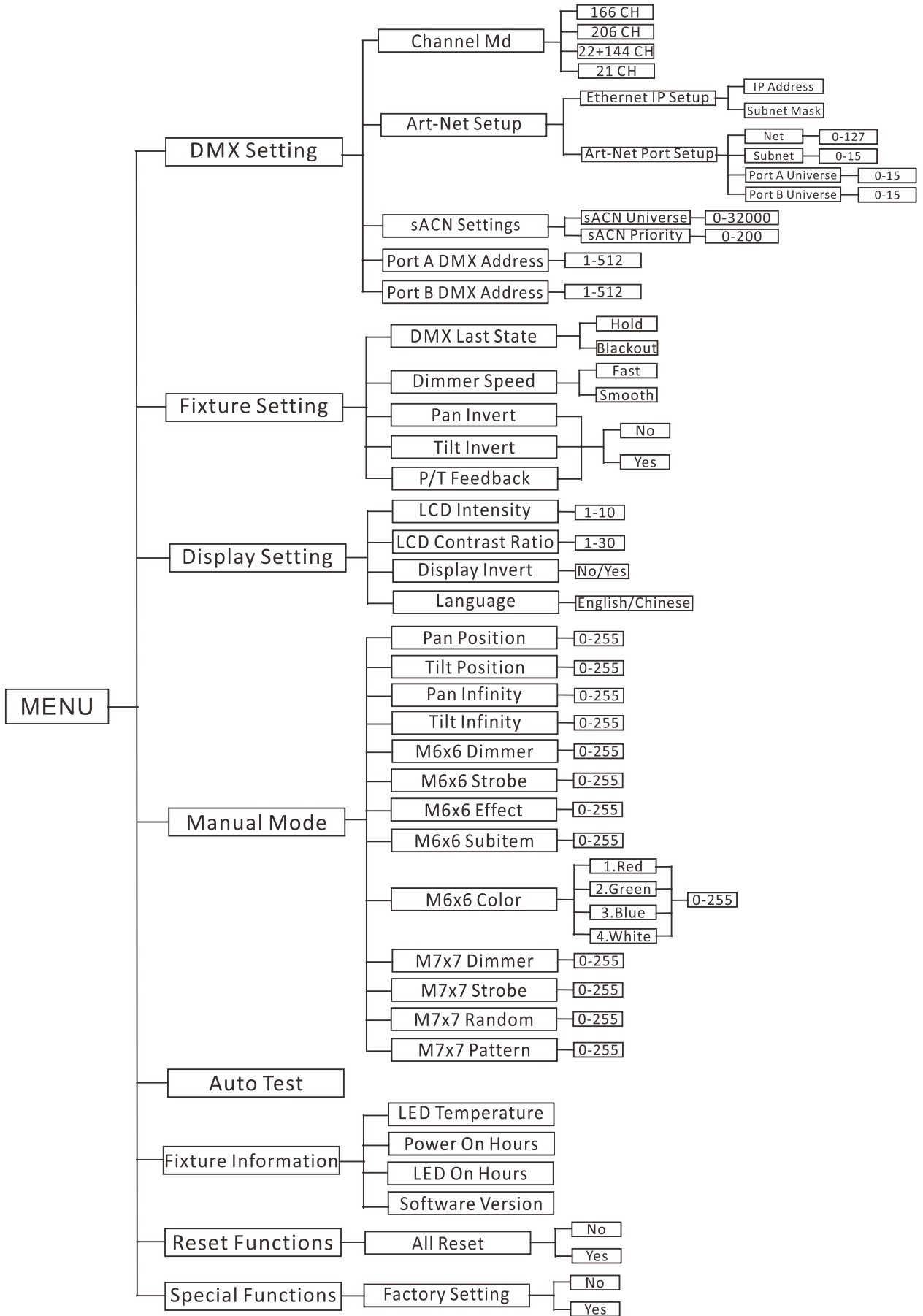
9. FUSE(T 15A): Protects the unit from damage of over current or short circuit

4. How To Set The Unit

4.1 Main Function

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 pressing 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 30 seconds to exit menu mode.

The main functions are shown below:



DMX Setting

To select **DMX Settings**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Channel Mode**, **Art-Net Setup**, **sACN Settings**, **Port A DMX Address** or **Port B DMX Address**.

Channel Mode

To select **Channel Mode**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **166 CH**, **206 CH**, **22+144CH** or **21 CH**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Are-Net Setup

To select **Are-Net Setup**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Ethernet IP Setup** or **Art-Net Port Setup**, press the **ENTER** button to store. When choose the **Ethernet IP Setup**, use the **UP/DOWN** button to select **IP Address** or **Subnet Mask**. When choose the **Art-Net Port Setup**, use the **UP/DOWN** button to select **Net**, **Subnet**, **Port A Universe** or **Port B Universe**. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

sACN Settings

To select **sACN Settings**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **sACN Universe** or **sACN Priority**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Port A DMX Address

To select **Port A DMX Address**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the address from **001** to **512**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Port B DMX Address (This menu will only appear when the “Channel Mode” has selected the “22+144 CH”)

To select **Port B DMX Address**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to adjust the address from **001** to **512**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Fixture Setting

To select **Fixture Setting**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **DMX Last State**, **Dimmer Speed**, **Pan Invert**, **Tilt Invert** or **P/T Feedback**.

DMX Last State

To select **DMX Last State**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Hold** (fixture continues to obey the last command it received Via DMX if DMX signal stops) or **Blackout** (fixture blacks out if DMX signal stops), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Dimmer Speed

To select **Dimmer Speed**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **Fast** or **Smooth**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Pan Invert

To select **Pan Invert**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (pan invert), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Tilt Invert

To select **Tilt Invert**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (normal) or **Yes** (tilt invert), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

P/T Feedback

To select **P/T Feedback**, press the **ENTER** button to confirm. Use the **UP/DOWN** button to select **No** (Pan or tilt's position will not feedback while out of step) or **Yes** (Feedback while pan/tilt out of step), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Display Setting

To select **Display Setting**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **LCD Intensity, LCD Contrast Ratio, Display Invert** or **Language**.

LCD Intensity

Select **LCD Intensity**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **1** (dark) to **10** (bright), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

LCD Contrast Ratio

Select **LCD Contrast Ratio**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **1** to **30**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Display Invert

Select **Display Invert**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select **No** (normal display) or **Yes** (invert display), press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Language

Select **Language**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select **English** or **Chinese**. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Manual Mode

To select **Manual Mode**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **Pan Position, Tilt Position, Pan Infinity, Tilt Infinity, M6x6 Dimmer, M6x6 Strobe, M6x6 Effect, M6x6 Subitem, M6x6 Color, M7x7 Dimmer, M7x7 Strobe, M7x7 Random** or **M7x7 Pattern**.

Pan Position

Select **Pan Position**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Tilt Position

Select **Tilt Position**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Pan Infinity

Select **Pan Infinity**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Tilt Infinity

Select **Tilt Infinity**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

M6x6 Dimmer

Select **M6x6 Dimmer**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

M6x6 Strobe

Select **M6x6 Strobe**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

M6x6 Effect

Select **M6x6 Effect**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

M6x6 Subitem

Select **M6x6 Subitem**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

M6x6 Color

Select **M6x6 Color**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to select **1. Red, 2. Green, 3. Blue** or **4. White**, and adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

M7x7 Dimmer

Select **M7x7 Dimmer**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

M7x7 Strobe

Select **M7x7 Strobe**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the

MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

M7x7 Random

Select **M7x7 Random**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

M7x7 Pattern

Select **M7x7 Pattern**, press the **ENTER** button to confirm, present mode will blink on the display, use the **UP/DOWN** button to adjust the value from **0** to **255**, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 30 seconds to exit menu mode.

Auto Test

To select **Auto Test**, press the **ENTER** button to confirm, the unit will run built-in programs to automatically test pan, tilt, dimmer, pattern, and so on. Press the **MENU** button back to the last menu or exit menu mode after auto test.

Fixture Information

To select **Fixture Information**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **LED Temperature**, **Power On Hours**, **LED On Hours** or **Software Version**.

LED Temperature

Select **LED Temperature**, press the **ENTER** button to confirm, temperature of the unit will show on the display, press the **MENU** button to exit.

Power On Hours

Select **Power On Hours**, press the **ENTER** button to confirm, fixture use time will show on the display, press the **MENU** button to exit.

LED On Hours

Select **LED On Hours**, press the **ENTER** button to confirm, LED use time will show on the display, press the **MENU** button to exit.

Software Version

Select **Software Version**, press the **ENTER** button to confirm, firmware version will show on the display, press the **MENU** button back to exit.

Reset Functions

All Reset

Select **All Reset**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No** or **Yes** (the unit will run built-in program to reset all motors to their home positions), press **ENTER** button to store. Press the **MENU** button to exit.

Special Functions

Factory Setting

Select **Factory Setting**, press the **ENTER** button to confirm, use the **UP/DOWN** button to select **No** (normal) or **Yes** (the fixture will reset to factory settings), press **ENTER** button to store. Press the **MENU** button to exit.

RDM FUNCTIONS

Select the MANUFACTURER menu to display the manufacturer of the fixture.

Select the SOFTWARE VERSION menu and the program version number of the fixture will be displayed.

Select the DMX START ADDRESS menu to change the DMX 512 address (001-512).

Select the DEVICE MODEL DESCRIPTION menu to display the model of the fixture.

Select the DEVICE LABEL menu to change the model of the fixture.

Select the DMX PERSONALITY menu to set the channel mode of the fixture (166/206/22+144/21 channel).

Select the DMX PERSONALITY DESCRIPTION menu to display the current channel mode of the fixture.

Select the DEVICE HOURS menu to display the running time of the fixture.

Select the PAN INVERT menu and the fixture will run the pan invert mode.

Select the TILT INVERT menu and the fixture will run the tilt invert mode.

Select the RESET DEVICE menu, the WARM RESET/COLD RESET option will be displayed. When WARM RESET is selected, the fixture will start a warm reset, and exit when COLD RESET is selected.

4.2 Home Position Adjustment

Press the MENU button into menu mode, then press the ENTER button for about 3 seconds into offset mode to adjust the home position. Select the function by pressing 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 MENU button to exit.



Pan

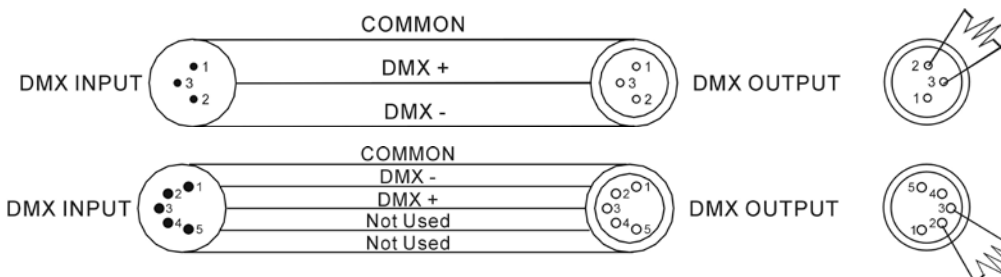
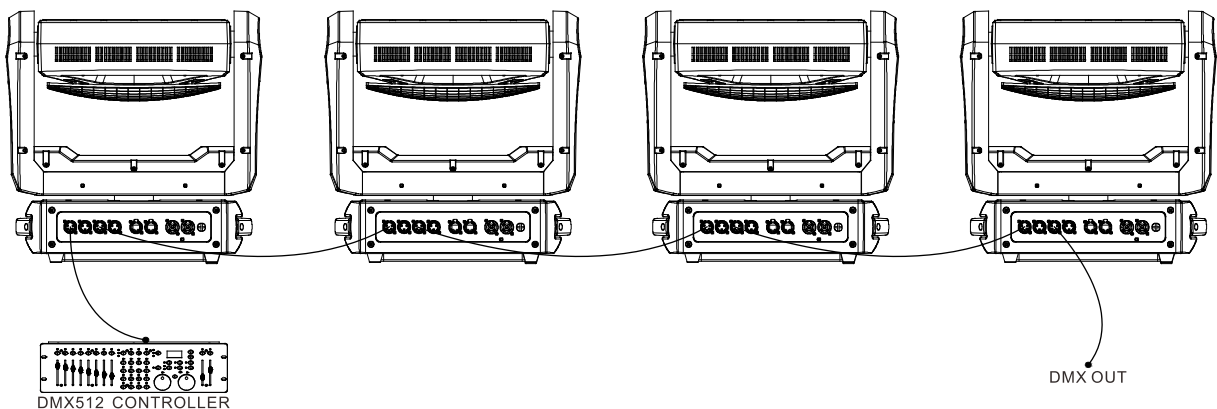
Enter offset mode, select **Pan**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

Tilt

Enter offset mode, select **Tilt**, press the **ENTER** button to confirm, the present position will blink on the display, use the **UP/DOWN** button to offset the value from -128 to 127, press the **ENTER** button to store. Press the **MENU** button to exit.

5. Control By Universal DMX Controller

5.1 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.

5.2 Address Setting

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

Press the MENU button to enter menu mode, select DMX Setting, press the ENTER button to confirm, use the UP/DOWN button to select Port A DMX Address or Port A DMX Address, press the ENTER button to confirm, the present address will blink on the display, use the UP/DOWN button to adjust the address from 001 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.

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
166 channels	1	167	333	499
206 channels	1	207	413	/
22+144 channels	1	167	333	499
21 channels	1	22	43	64

5.3 DMX512 Configuration

Please control the fixture by referring to the configurations below

Attentions:

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

166 Channels (Mode 1):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→450°
4	000-255	TILT FINE
5	000-254 255	PAN/TILT SPEED Fast to Slow Fast
6	000-127 128-189 190-193 194-255	Pan Infinity Pan Position CCW Infinity, Fast to Slow Stop CW Infinity, Slow to Fast
7	000-127 128-189 190-193 194-255	Tilt Infinity Tilt Position CW Infinity, Fast to Slow Stop CCW Infinity, Slow to Fast

8	000-069 070-079 080-255	FUNCTION No Function Reset All No Function
9	000-255	DIMMER 0%→100%
10	000-255	DIMMER FINE
11	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	STROBE Close Open Strobe, Slow to Fast Open Fast Close Slow Open Open Fast Open Slow Close Open Random Strobe Open
12	000-255	RED 0%→100%
13	000-255	GREEN 0%→100%
14	000-255	BLUE 0%→100%
15	000-255	WHITE 0%→100%
16	000-063 064-127 128-191 192-255	RGBW EFFECT SWITCH No Function Control "RGBW EFFECT MODE" Control "36 RGBW PIXEL" Control "R, G, B, W"
17	000-014 015-047 048-095 096-135 136-175 176-215 216-255	RGBW EFFECT MODE Blackout Full On Macro Effect (see channel 18-1) Number 1 to 9 (see channel 18-2) Letter A to Z (see channel 18-3) Letter a to z (see channel 18-4) Blackout
18-1	000-007 008-015 016-023 024-031 032-039	MARCO EFFECT No Function Effect 01 Effect 02 Effect 03 Effect 04

	040-047 048-055 056-063 064-071 072-079 080-087 088-095 096-103 104-111 112-119 120-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255	Effect 05 Effect 06 Effect 07 Effect 08 Effect 09 Effect 10 Effect 11 Effect 12 Effect 13 Effect 14 Effect 15 Effect 16 Effect 17 Effect 18 Effect 19 Effect 20 Effect 21 Effect 22 Effect 23 Effect 24 Effect 25 Effect 26 Effect 27 Effect 28 Effect 29 Effect 30 Effect 31
18-2	000-025 026-048 049-071 072-094 095-117 118-140 141-163 164-186 187-209 210-232 233-255	NUMBER 1 to 9 No Function Number-0 Number-1 Number-2 Number-3 Number-4 Number-5 Number-6 Number-7 Number-8 Number-9
18-3	000-021 022-030 031-039 040-048 049-057 058-066 067-075	LETTER A to Z No Function Letter-A Letter-B Letter-C Letter-D Letter-E Letter-F

	076-084 085-093 094-102 103-111 112-120 121-129 130-138 139-147 148-156 157-165 166-174 175-183 184-192 193-201 202-210 211-219 220-228 229-237 238-246 247-255	Letter-G Letter-H Letter-I Letter-J Letter-K Letter-L Letter-M Letter-N Letter-O Letter-P Letter-Q Letter-R Letter-S Letter-T Letter-U Letter-V Letter-W Letter-X Letter-Y Letter-Z
18-4	000-021 022-030 031-039 040-048 049-057 058-066 067-075 076-084 085-093 094-102 103-111 112-120 121-129 130-138 139-147 148-156 157-165 166-174 175-183 184-192 193-201 202-210 211-219 220-228 229-237 238-246	LETTER a to z No Function Letter-a Letter-b Letter-c Letter-d Letter-e Letter-f Letter-g Letter-h Letter-i Letter-j Letter-k Letter-l Letter-m Letter-n Letter-o Letter-p Letter-q Letter-r Letter-s Letter-t Letter-u Letter-v Letter-w Letter-x Letter-y

	247-255	Letter-z
19	000-010 011-063 064-073 074-127 128-137 138-191 192-201 202-255	RANDOM STAR Open Effect 1 Open Effect 2 Open Effect 3 Open Effect 4
20	000-011 012-023 024-035 036-047 048-059 060-071 072-083 084-095 096-107 108-119 120-131 132-143 144-155 156-167 168-179 180-191 192-203 204-215 216-227 228-239 240-255	STAR PATTERN Pattern 01 Pattern 02 Pattern 03 Pattern 04 Pattern 05 Pattern 06 Pattern 07 Pattern 08 Pattern 09 Pattern 10 Pattern 11 Pattern 12 Pattern 13 Pattern 14 Pattern 15 Pattern 16 Pattern 17 Pattern 18 Pattern 19 Pattern 20 No Function
21	000-255	STAR DIMMER 0%→100%
22	000-012 013-025 026-076 077-127 128-178 179-242 243-255	STAR STROBE Open Close Strobe, Slow to Fast Slow Open Fast Close Fast Open Slow Close Random Strobe, Slow to Fast Open
23-166	000-255	36 RGBW PIXEL

206 Channels (Mode 2):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→450°
4	000-255	TILT FINE
5	000-254 255	PAN/TILT SPEED Fast to Slow Fast
6	000-127 128-189 190-193 194-255	Pan Infinity Pan Position CCW Infinity, Fast to Slow Stop CW Infinity, Slow to Fast
7	000-127 128-189 190-193 194-255	Tilt Infinity Tilt Position CW Infinity, Fast to Slow Stop CCW Infinity, Slow to Fast
8	000-069 070-079 080-255	FUNCTION No Function Reset All No Function
9	000-255	DIMMER 0%→100%
10	000-255	DIMMER FINE
11	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	STROBE Close Open Strobe, Slow to Fast Open Fast Close Slow Open Open Fast Open Slow Close Open Random Strobe Open
12-155	000-255	36 RGBW PIXEL
156	000-255	STAR DIMMER 0%→100%

157	000-012 013-025 026-076 077-127 128-178 179-242 243-255	STAR STROBE Open Close Strobe, Slow to Fast Slow Open Fast Close Fast Open Slow Close Random Strobe, Slow to Fast Open
158-206	000-255	49 STAR PIXEL

22+144 Channels (Mode 3):

CHANNEL	VALUE	FUNCTION
1(Port A)	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→450°
4	000-255	TILT FINE
5	000-254 255	PAN/TILT SPEED Fast to Slow Fast
6	000-127 128-189 190-193 194-255	Pan Infinity Pan Position CCW Infinity, Fast to Slow Stop CW Infinity, Slow to Fast
7	000-127 128-189 190-193 194-255	Tilt Infinity Tilt Position CW Infinity, Fast to Slow Stop CCW Infinity, Slow to Fast
8	000-069 070-079 080-255	FUNCTION No Function Reset All No Function
9	000-255	DIMMER 0%→100%
10	000-255	DIMMER FINE
11	000-007	STROBE Close

	008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	Open Strobe, Slow to Fast Open Fast Close Slow Open Open Fast Open Slow Close Open Random Strobe Open
12	000-255	RED 0%→100%
13	000-255	GREEN 0%→100%
14	000-255	BLUE 0%→100%
15	000-255	WHITE 0%→100%
16	000-063 064-127 128-191 192-255	RGBW EFFECT SWITCH No Function Control "RGBW EFFECT MODE" Control "36 RGBW PIXEL" Control "R, G, B, W"
17	000-014 015-047 048-095 096-135 136-175 176-215 216-255	RGBW EFFECT MODE Blackout Full On Macro Effect (see channel 18-1) Number 1 to 9 (see channel 18-2) Letter A to Z (see channel 18-3) Letter a to z (see channel 18-4) Blackout
18-1	000-007 008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-071 072-079 080-087 088-095 096-103 104-111 112-119	MARCO EFFECT No Function Effect 01 Effect 02 Effect 03 Effect 04 Effect 05 Effect 06 Effect 07 Effect 08 Effect 09 Effect 10 Effect 11 Effect 12 Effect 13 Effect 14

	120-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255	Effect 15 Effect 16 Effect 17 Effect 18 Effect 19 Effect 20 Effect 21 Effect 22 Effect 23 Effect 24 Effect 25 Effect 26 Effect 27 Effect 28 Effect 29 Effect 30 Effect 31
18-2	000-025 026-048 049-071 072-094 095-117 118-140 141-163 164-186 187-209 210-232 233-255	NUMBER 1 to 9 No Function Number-0 Number-1 Number-2 Number-3 Number-4 Number-5 Number-6 Number-7 Number-8 Number-9
18-3	000-021 022-030 031-039 040-048 049-057 058-066 067-075 076-084 085-093 094-102 103-111 112-120 121-129 130-138 139-147 148-156 157-165	LETTER A to Z No Function Letter-A Letter-B Letter-C Letter-D Letter-E Letter-F Letter-G Letter-H Letter-I Letter-J Letter-K Letter-L Letter-M Letter-N Letter-O Letter-P

	166-174 175-183 184-192 193-201 202-210 211-219 220-228 229-237 238-246 247-255	Letter-Q Letter-R Letter-S Letter-T Letter-U Letter-V Letter-W Letter-X Letter-Y Letter-Z
18-4	000-021 022-030 031-039 040-048 049-057 058-066 067-075 076-084 085-093 094-102 103-111 112-120 121-129 130-138 139-147 148-156 157-165 166-174 175-183 184-192 193-201 202-210 211-219 220-228 229-237 238-246 247-255	LETTER a to z No Function Letter-a Letter-b Letter-c Letter-d Letter-e Letter-f Letter-g Letter-h Letter-i Letter-j Letter-k Letter-l Letter-m Letter-n Letter-o Letter-p Letter-q Letter-r Letter-s Letter-t Letter-u Letter-v Letter-w Letter-x Letter-y Letter-z
19	000-010 011-063 064-073 074-127 128-137 138-191 192-201 202-255	RANDOM STAR Open Effect 1 Open Effect 2 Open Effect 3 Open Effect 4

20	000-011 012-023 024-035 036-047 048-059 060-071 072-083 084-095 096-107 108-119 120-131 132-143 144-155 156-167 168-179 180-191 192-203 204-215 216-227 228-239 240-255	STAR PATTERN Pattern 01 Pattern 02 Pattern 03 Pattern 04 Pattern 05 Pattern 06 Pattern 07 Pattern 08 Pattern 09 Pattern 10 Pattern 11 Pattern 12 Pattern 13 Pattern 14 Pattern 15 Pattern 16 Pattern 17 Pattern 18 Pattern 19 Pattern 20 No Function
21	000-255	STAR DIMMER 0%→100%
22	000-012 013-025 026-076 077-127 128-178 179-242 243-255	STAR STROBE Open Close Strobe, Slow to Fast Slow Open Fast Close Fast Open Slow Close Random Strobe, Slow to Fast Open
23-166(Port B)	000-255	36 RGBW PIXEL

21 Channels (Mode 4):

CHANNEL	VALUE	FUNCTION
1	000-255	PAN 0°→540°
2	000-255	PAN FINE
3	000-255	TILT 0°→450°
4	000-255	TILT FINE
5	000-254 255	PAN/TILT SPEED Fast to Slow Fast
6	000-127 128-189 190-193 194-255	Pan Infinity Pan Position CCW Infinity, Fast to Slow Stop CW Infinity, Slow to Fast
7	000-127 128-189 190-193 194-255	Tilt Infinity Tilt Position CW Infinity, Fast to Slow Stop CCW Infinity, Slow to Fast
8	000-069 070-079 080-255	FUNCTION No Function Reset All No Function
9	000-255	DIMMER 0%→100%
10	000-255	DIMMER FINE
11	000-007 008-015 016-131 132-139 140-181 182-189 190-231 232-239 240-247 248-255	STROBE Close Open Strobe, Slow to Fast Open Fast Close Slow Open Open Fast Open Slow Close Open Random Strobe Open
12	000-255	RED 0%→100%
13	000-255	GREEN 0%→100%

14	000-255	BLUE 0%→100%
15	000-255	WHITE 0%→100%
16	000-014 015-047 048-095 096-135 136-175 176-215 216-255	RGBW EFFECT MODE Blackout Full On Macro Effect (see channel 17-1) Number 1 to 9 (see channel 17-2) Letter A to Z (see channel 17-3) Letter a to z (see channel 17-4) Blackout
17-1	000-007 008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-071 072-079 080-087 088-095 096-103 104-111 112-119 120-127 128-135 136-143 144-151 152-159 160-167 168-175 176-183 184-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255	MARCO EFFECT No Function Effect 01 Effect 02 Effect 03 Effect 04 Effect 05 Effect 06 Effect 07 Effect 08 Effect 09 Effect 10 Effect 11 Effect 12 Effect 13 Effect 14 Effect 15 Effect 16 Effect 17 Effect 18 Effect 19 Effect 20 Effect 21 Effect 22 Effect 23 Effect 24 Effect 25 Effect 26 Effect 27 Effect 28 Effect 29 Effect 30 Effect 31
17-2		NUMBER 1 to 9

	000-025 026-048 049-071 072-094 095-117 118-140 141-163 164-186 187-209 210-232 233-255	No Function Number-0 Number-1 Number-2 Number-3 Number-4 Number-5 Number-6 Number-7 Number-8 Number-9
17-3	000-021 022-030 031-039 040-048 049-057 058-066 067-075 076-084 085-093 094-102 103-111 112-120 121-129 130-138 139-147 148-156 157-165 166-174 175-183 184-192 193-201 202-210 211-219 220-228 229-237 238-246 247-255	LETTER A to Z No Function Letter-A Letter-B Letter-C Letter-D Letter-E Letter-F Letter-G Letter-H Letter-I Letter-J Letter-K Letter-L Letter-M Letter-N Letter-O Letter-P Letter-Q Letter-R Letter-S Letter-T Letter-U Letter-V Letter-W Letter-X Letter-Y Letter-Z
17-4	000-021 022-030 031-039 040-048 049-057 058-066 067-075	LETTER a to z No Function Letter-a Letter-b Letter-c Letter-d Letter-e Letter-f

	076-084 085-093 094-102 103-111 112-120 121-129 130-138 139-147 148-156 157-165 166-174 175-183 184-192 193-201 202-210 211-219 220-228 229-237 238-246 247-255	Letter-g Letter-h Letter-i Letter-j Letter-k Letter-l Letter-m Letter-n Letter-o Letter-p Letter-q Letter-r Letter-s Letter-t Letter-u Letter-v Letter-w Letter-x Letter-y Letter-z
18	000-010 011-063 064-073 074-127 128-137 138-191 192-201 202-255	RANDOM STAR Open Effect 1 Open Effect 2 Open Effect 3 Open Effect 4
19	000-011 012-023 024-035 036-047 048-059 060-071 072-083 084-095 096-107 108-119 120-131 132-143 144-155 156-167 168-179 180-191 192-203	STAR PATTERN Pattern 01 Pattern 02 Pattern 03 Pattern 04 Pattern 05 Pattern 06 Pattern 07 Pattern 08 Pattern 09 Pattern 10 Pattern 11 Pattern 12 Pattern 13 Pattern 14 Pattern 15 Pattern 16 Pattern 17

	204-215 216-227 228-239 240-255	Pattern 18 Pattern 19 Pattern 20 No Function
20	000-255	STAR DIMMER 0%→100%
21	000-012 013-025 026-076 077-127 128-178 179-242 243-255	STAR STROBE Open Close Strobe, Slow to Fast Slow Open Fast Close Fast Open Slow Close Random Strobe, Slow to Fast Open

6. 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

1. Check the connected power.
2. Measure the voltage.
3. Check the power indicator to see whether it can be lit up or not.

B. Not responding to the DMX controller

1. Check whether the DMX connectors and the DMX cables are connected correctly.
2. Check whether the DMX address is correctly set.
3. If the intermittent DMX signal problem occurs, check whether the XLR socket and the signal cable are well connected.
4. Try it with another DMX controller.
5. 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

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

7. 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.

Innovation, Quality, Performance