MOVING HEAD

MH-740 LED WASH

MANUAL

INDEPENDANT PIXEL CONTROL

ROTATING FRONT LENS

BRIGHT AND FAST

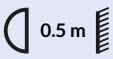
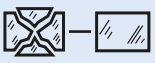
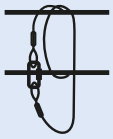
LIGHT INC

www.light-inc.nl

THANK YOU FOR PURCHASING OUR PRODUCTS

Every unit has been thoroughly tested and has been shipped in perfect operating condition. Carefully check the outer and inner packaging for damage that may have occurred during shipping. If the carton appears to be damaged, carefully inspect your fixture for any damage and be sure all accessories necessary to operate the unit have arrived intact. In case damage has been found or parts are missing, please contact the distributor or your dealer for further instructions. Do not return this unit to your dealer without first contacting them.

1. SAFETY INFORMATION

	Before operating this unit, please carefully read this manual and keep for usage in the future. It is necessary to respect the following rules.
	Disposal of the device after its life cycle can damage the environment. Take it to a recycling company or return it to the authorized dealer.
	The products referred to in this manual conform to the guidelines of the European Community and are therefore marked with the CE logo.
	Keep this device away from children and unauthorized users. The dealer is not liable for damage as a result of ignoring the information in this manual and incorrect operation.
	Before operating this unit, please make sure the housing is in good condition and ensure pan and tilt can rotate in full range.
	Ensure that a minimum distance of 0.5 m is maintained between the fixture and any flammable material.
	The device can only function with 100-240v voltage, 50 / 60Hz power. Do not connect to any other power supply. Disconnect the device from the power supply before opening it or before maintenance.
	Never look directly into the projecting lens when the fixture is switched on. The light can cause epileptic seizures in light-sensitive people or people with epilepsy. Extreme caution and compliance with these safety instructions are required, especially with beam effects.
	Do not place or install the device on a surface that is exposed to vibration or any movement.
-15°C +45°C	The device should operate in temperature range -15 °C and + 45 °C. Do not use the device if the temperature exceeds this range.
	The lens shield must be replaced if it is broken. Never use the device if the shield is not fully closed.
	Safety I class device must be earthed.
	When the fixture is mounted overhead, the safety rope must be attached to the correct mounting location on the bottom of the device.
	Please note that damage caused by manual changes to the device is not covered by the warranty.
	If possible, recycle all packaging material.

2. INSTALLATION

The fixture should be mounted using its Omega Quick Release Clamp bracket. Always ensure that the unit is securely fixed to prevent vibration and slipping during operation. Make sure that the structure to which you are attaching the unit is sturdy and capable of supporting a weight that is 10 times that of the fixture. When installing, always use a safety cable that can support a weight 12 times that of the fixture.

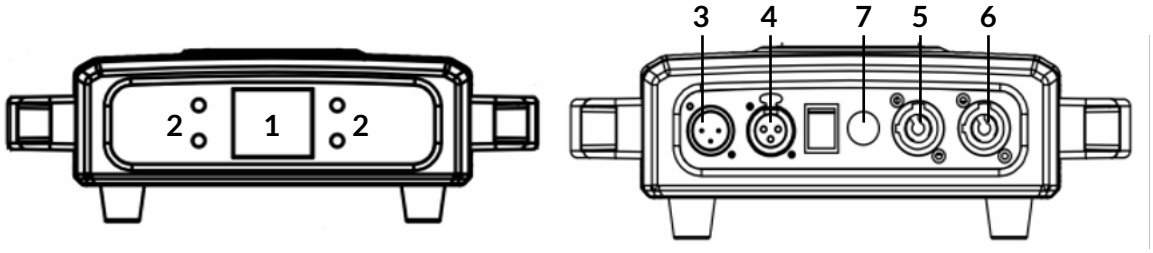
The equipment must be installed by professionals. It should be positioned in a location that is inaccessible to people and where no one can walk by or underneath it.

3. TECHNICAL SPECIFICATIONS

POWER VOLTAGE:	AC 100~240V, 50/60HZ
POWER CONSUMPTION:	320W
LIGHT SOURCE:	7PCSX40W RGBW LED
ZOOM RANGE:	4°~55°
MOVEMENT:	PAN: 540°
TILT:	270°
PAN/TILT RESOLUTION:	16BIT
DIMMING/STROBE:	0~100% SMOOTH DIMMING, VARIABLE STROBE SPEEDS
CONTROL:	DMX CHANNEL: 16/44 CHANNELS
CONTROL MODE:	DMX, MASTER/SLAVE
FIRMWARE UPGRADE:	UPDATE VIA DMX LINK
CONSTRUCTION:	DISPLAY: OLED DISPLAY
DATA IN/OUT:	3-PIN XLR
POWER IN/OUT:	POWER CON IN/OUT PROTECTION RATING: IP20
FEATURES:	ELECTRONIC LINEAR ZOOM SYSTEM, PIXEL CONTROL
DIMENSION:	33×16×17CM, WEIGHT:5,1KG

4. HOW TO SET THE UNIT

4.1 Control Panel



1. Display: To show the various menus and the selected functions
2. Button:

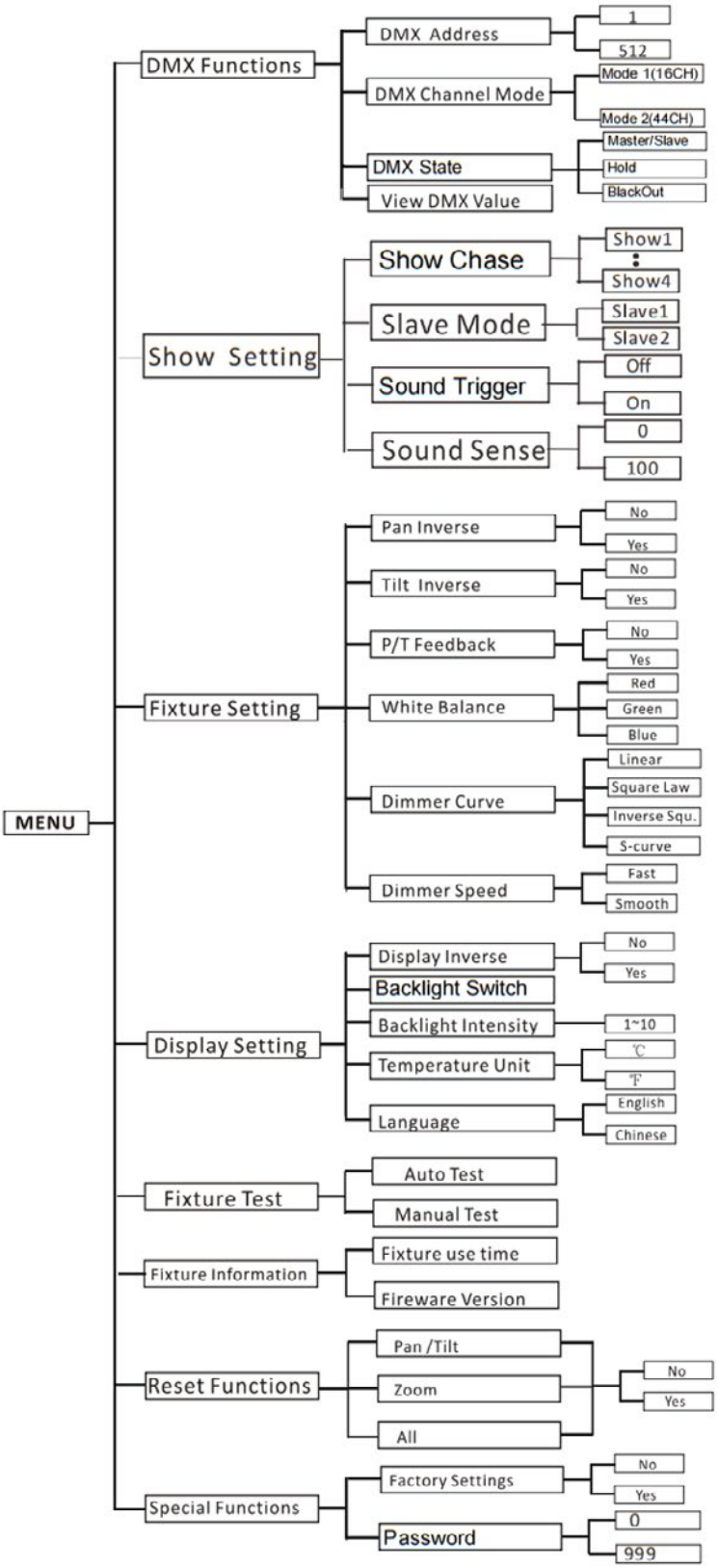
MENU	Use this to move backward or exit the current menu.
DOWN ▼	Use this to move forward in the selected functions.
UP ▲	Use this to move backward in the selected functions.
ENTER	Use this to confirm the chosen functions.

3. DMX IN: DMX512 link, use 3 XLR cable to link the unit and the DMX controller
4. DMX OUT: DMX512 link, use 3 XLR cable to link the next unit and output DMX signal
5. MAINS IN: To connect to the main supply
6. MAINS OUT: To connect to the next unit
7. Fuse(T 10A): Protects the unit from over-voltage or short circuit

4.2 Main function

To power on the unit, press the MENU button to enter the menu mode. Then, use the UP/DOWN buttons to navigate until the desired function is displayed on the monitor. Confirm your selection by pressing the ENTER button. For submenus, use the UP/DOWN button to make your choice, and press ENTER to save and automatically return to the previous menu.

To exit the menu mode, press the MENU button or allow the unit to idle for one minute. The main functions are listed below:



DMX Functions
To access MENU mode, select DMX Functions, then press the ENTER button to confirm. Use the UP/DOWN button to choose between DMX Address, DMX Channel Mode, or View DMX Value.

DMX Address
For DMX Address selection, press ENTER to confirm. Use the UP/DOWN button to adjust the address from 001 to 512, then press ENTER to set up. To return to the previous menu, press the MENU button or let the unit idle for one minute to exit menu mode.

DMX Channel Mode
For DMX Channel Mode selection, press ENTER to confirm. Use the UP/DOWN button to choose between Mode 1 (16) or Mode 2 (44), then press ENTER to set up. To return to the previous menu, press the MENU button or let the unit idle for one minute to exit menu mode.

DMX State
To select DMX State Mode, press ENTER to confirm. Use the UP/DOWN button to select Hold or Blackout, then press ENTER to set up. To return to the previous menu, press the MENU button or let the unit idle for one minute to exit menu mode.

View DMX Value
To choose View DMX Value, press ENTER to confirm. Use the UP/DOWN button to view the DMX channel values. To return to the previous menu, press the MENU button or let the unit idle for one minute to exit menu mode.

Fixture Setting
Enter MENU mode, select Fixture Setting, press the ENTER button to confirm, use the UP/DOWN button to select Pan Inverse, Tilt Inverse, P/T Feedback, BL.O. P/T Moving, White Balance, Cooling Mode, Dimmer Curve or Dimmer Speed.

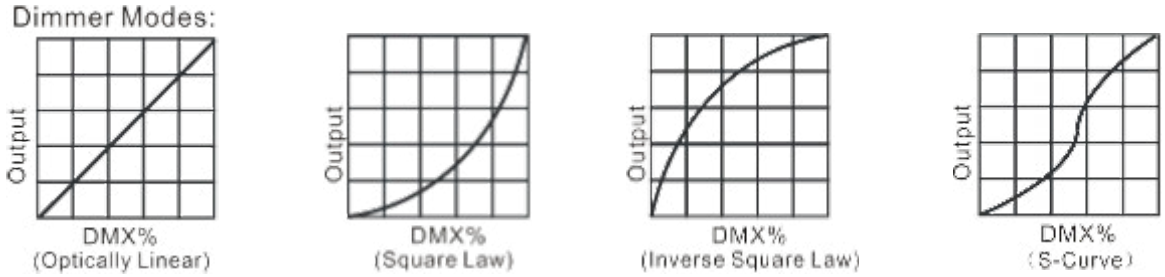
Pan Inverse
To select Pan Inverse, press the ENTER button to confirm. Use the UP/DOWN button to select No (normal) or Yes (pan inverse), and press the ENTER button to set up. Press the MENU button to return to the previous menu or let the unit idle for one minute to exit menu mode.

Tilt Inverse
To select Tilt Inverse, press the ENTER button to confirm. Use the UP/DOWN button to select No (normal) or Yes (tilt inverse), and press the ENTER button to set up. Press the MENU button to return to the previous menu or let the unit idle for one minute 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), and press the ENTER button to set up. Press the MENU button to return to the previous menu or let the unit idle for one minute to exit menu mode.

White Balance
To select White Balance, press the ENTER button to confirm. Use the UP/DOWN button to select Red, Green, or Blue. Once selected, press the ENTER button to confirm, and use the UP/DOWN button to adjust the value from 125 to 255, and press the ENTER button to set up. Press the MENU button to return to the previous menu or let the unit idle for one minute to exit menu mode.

Dimmer Curve
To select Dimmer Curve, press the ENTER button to confirm. Use the UP/DOWN button to select Linear, Square Law, Inverse Squ. or S-Curve. Once selected, press the ENTER button to store. Press the MENU button to return to the previous menu or let the unit idle for one minute to exit menu mode.



Dimmer Curve Options:
Linear: The increase in light intensity appears linear as the DMX value is increased.
Square Law: Light intensity control is finer at low levels and coarser at high levels.
Inverse Square Law: Light intensity control is coarser at low levels and finer at high levels.
S-Curve: Light intensity control is finer at both low and high levels and coarser at medium levels.

Dimmer Speed
To select Dimmer Speed, press the ENTER button to confirm. Use the UP/DOWN button to select Fast or Smooth. Once selected, press the ENTER button to set up. Press the MENU button to return to the previous menu or let the unit idle for one minute to exit menu mode.

Display Setting
Enter MENU mode, select Display Setting, press the ENTER button to confirm, and use the UP/DOWN button to select Display Inverse, Backlight Auto Off, Backlight Intensity, Temperature unit, or Display Warning.

Display Inverse
To select Display Inverse, press the ENTER button to confirm. Use the UP/DOWN button to select No (normal) or Yes (display inverse). Once selected, press the ENTER button to store. Press the MENU button to return to the previous menu or let the unit idle for one minute to exit menu mode.

Backlight Switch
To select Backlight Switch, press the ENTER button to confirm. Use the UP/DOWN button to select No (display always on) or Yes (display goes off one minute after exiting menu mode). Once selected, press the ENTER button to confirm and store. Press the MENU button to return to the previous menu or let the unit idle for one minute to exit menu mode.

Backlight Intensity
To select Backlight Intensity, press the ENTER button to confirm. Use the UP/DOWN button to adjust the intensity from 1 (dark) to 10 (bright). Once selected, press the ENTER button to set up and store. Press the MENU button to return to the previous menu or let the unit idle for one minute to exit menu mode.

Temperature Unit
To Select Temperature Unit, press the ENTER button to confirm. Use the UP/DOWN button to select °C or °F, and press the ENTER button to store. Press the MENU button to return to the previous menu or let the unit idle for one minute to exit menu mode.

Language
To select Language, press the ENTER button to confirm. Use the UP/DOWN button to select
English or Chinese will show the error warning when the unit goes wrong), press the
ENTER button to store. Press the MENU button to return to the previous menu or let the unit idle for one minute to exit menu mode.

Fixture Test
Enter MENU mode, select Fixture Test, press the ENTER button to confirm, use the UP/DOWN button to select Auto Test or Manual Test

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, shutter, spe.fun and etc. Press the MENU button to return to the previous menu or exit menu mode after the auto-test.

Manual Test
To select Manual Test, press the ENTER button to confirm. Use the UP/DOWN button to select a channel, and adjust the channel value. Once selected, press the ENTER button to set up, the fixture will run as the channel value indicates. Press the MENU button to return to the previous menu or let the unit idle for one minute to exit menu mode. (All channels' values will become 0 after exiting the Manual Test menu)

Fixture Information
Enter MENU mode, select Fixture Information, press the ENTER button to confirm, and use the UP/DOWN button to select Fixture use time, LED On time, or Firmware Version.

Fixture use time
To select Fixture use time, press the ENTER button to confirm, the fixture working hours will show on the display. Press the MENU button to exit.

Firmware Version
To select Firmware Version, press the ENTER button to confirm, the fixture software version will show on the display. Press the MENU button to exit.

Reset Functions
Enter MENU mode, select Reset Functions, press the ENTER button to confirm, use the UP/DOWN button to select Pan/Tilt, Zoom, or All.

Pan/Tilt
To Select Pan/Tilt, press the ENTER button to confirm. Use the UP/DOWN button to select No or Yes (the unit will run a built-in program to reset the pan and tilt to their home positions), and press the ENTER button to store. Press the MENU button to exit menu mode.

Zoom
To select Zoom, press the ENTER button to confirm. Use the UP/DOWN button to select No or Yes (the unit will run a built-in program to reset zoom to its home positions), and press the ENTER button to store. Press the MENU button to exit menu mode.

All
To select All, press the ENTER button to confirm. Use the UP/DOWN button to select No or Yes (the unit will run a built-in program to reset all motors to their home positions), and press the ENTER button to store. Press the MENU button to exit menu mode.

Special Functions
Enter MENU mode, select Special Functions, press the ENTER button to confirm, use the UP/DOWN button to select Fixture Maintenance or Factory Setting.

Fixture Maintenance

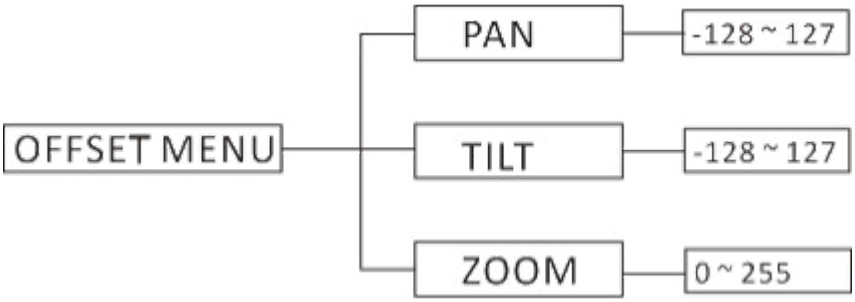
To select Fixture Maintenance, press the ENTER button to confirm. Use the UP/DOWN button to choose between Interval or Remain Time. For Interval, press the ENTER button to confirm; the interval time will be displayed. Press the MENU button to exit. For Remain Time, press the ENTER button to confirm; the remaining time will be displayed. Press ENTER again to confirm, then press the MENU button to exit.

Factory Setting

For selecting Factory Setting, press the ENTER button to confirm. Use the UP/DOWN button to choose between No or Yes (the fixture will reset to factory settings and exit menu mode).

4.3 Home Position Adjustment

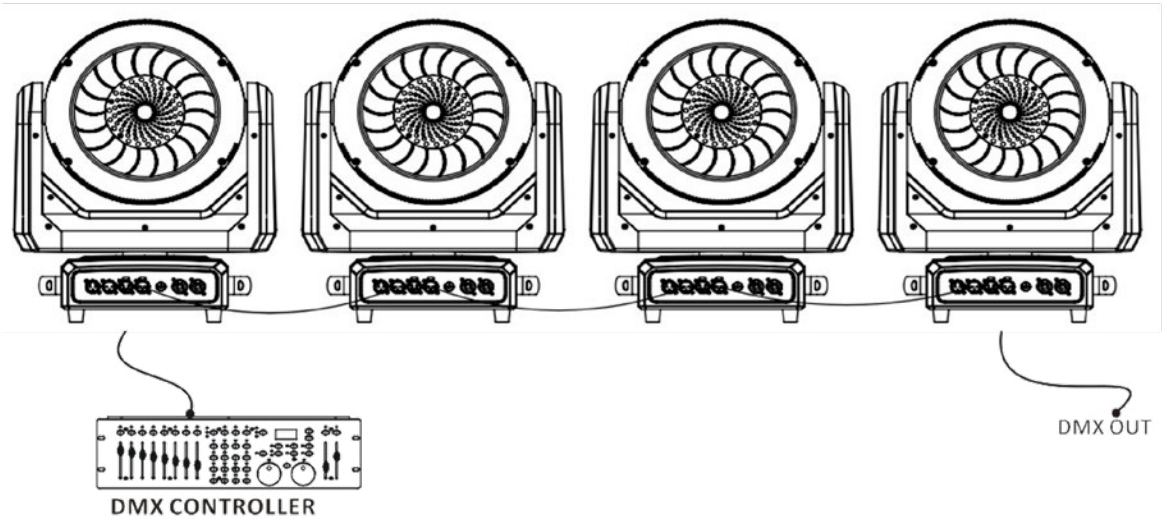
Press the MENU button to enter menu mode, then press the ENTER button for about 3 seconds to enter offset mode for adjusting the home position. Select the function with the ENTER button. Use the UP/DOWN button to choose the submenu, press the ENTER button to save and automatically return to the last menu. Press the MENU button to exit.

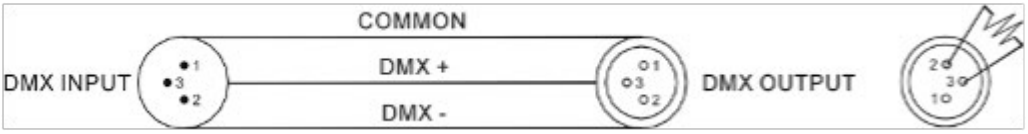


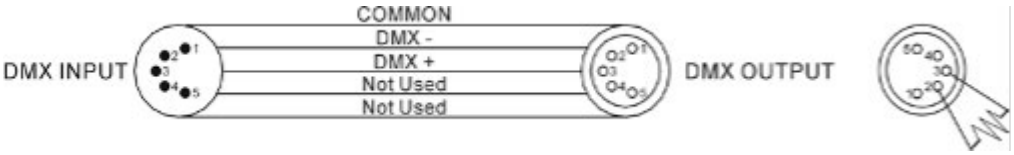
In the main functions, hold the ENTER button for at least 3 seconds to enter offset mode. Use the DOWN/UP button to select Pan, Tilt, or Zoom, and press the ENTER button to confirm. Adjust the home position of Pan, Tilt, or Zoom using the DOWN/UP buttons. Once the position is selected, press the ENTER button to set up.
To return to the functions without changes, press the MENU button. Press and hold the MENU button for about one second or wait for about one minute to exit the menu mode.

5. CONTROL BY UNIVERSAL DMX CONTROLLER

5.1 DMX512 Connection







1. DMX Cable Termination: At the last unit, the DMX cable must 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. Then, plug it into the DMX output of the last unit.

2. Connection Method: Connect the units together in a "daisy chain" using XLR plug cables. Connect the output of one unit to the input of the next unit. Do not branch or split the cable to create a "Y" cable. DMX 512 is a high-speed signal, and using inadequate, damaged cables, soldered joints, or corroded connectors can distort the signal and cause system shutdown.

3. Pass-Through Connectors: The DMX output and input connectors act as pass-through to maintain the DMX circuit even when the power of one of the units is disconnected.

4. DMX Addressing: Each lighting unit requires a unique DMX address to receive data from the controller. The address number typically ranges between 0 and 511 (commonly, 0 and 1 are equivalent to 1).

5. Termination for Signal Quality: Terminate the end of the DMX 512 system to reduce signal errors and ensure proper signal quality.

6. XLR Connector Types: 3-pin XLR connectors are more widely used than 5-pin XLR connectors.
   - 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 (+), Pin 4 and Pin 5 are not used.

5.2 Address Setting

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

Press the MENU button to enter menu mode, select DMX Functions, press the ENTER button to confirm, use the UP/DOWN button to select DMX Address, and press the ENTER button to confirm, the present address will blink the display, use the UP/DOWN button to adjust the address from 001 to 512, press the ENTER button to store.

To return to the previous menu, press the MENU button, or let the unit idle for one minute 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
16 channels	1	17	33	49
44 channels	1	45	89	133

5.3 DMX512 Configuration

Please refer to below configurations to control the fixtures

Attention:

1. The unit will retain its last state until reset, even if the DMX signal is disconnected.
2. To activate a specific function for a channel, maintain the value for about 5 seconds, and the corresponding function will then come into effect.

16 Ch. Channel	Value	Function
1		Pan
	000-255	0°-540°
2		Tilt
	000-255	0°-236°
3		Pan/Tilt speed
	000-255	Fast -> Slow
4		Zoom
	0-255	Wide (55°) -> Small (4°)
5		Lens rotation
	000-127	Index
	128-191	Clockwise rotation Fast -> Slow
	192-255	Counter clockwise rotation Slow -> Fast
6		Shutter
	000-019	Off
	020-024	Open
	025-064	Strobe Fast -> Slow
	065-069	Open
	070-084	Pulse, fast close slow open Fast -> Slow
	085-089	Open
	090-104	Pulse fast open slow close Fast -> Slow

Channel	Value	Function
6	105-109	Open
	110-124	Strobe Fast -> Slow
	125-129	Open
	130-144	Pulse, fast close slow open Fast -> slow
	145-149	Open
	150-164	Pulse fast open slow close Fast -> Slow
	165-169	Open
	170-184	Dimmer macro burst pulse Fast -> Slow
	185-189	Open
	190-204	Dimmer macro burst pulse Fast -> Slow
	205-209	Open
	210-224	Dimmer macro slow open slow close Fast -> Slow
	225-229	Open
	230-244	Dimmer macro burst little Fast -> Slow
	245-255	Open
7		Dimmer
	000-255	0% -> 100%
8		Red
	000-255	0% -> 100%
9		Green
	000-255	0% -> 100%
10		Blue
	000-255	0% -> 100%
11		White
	000-255	0% -> 100%
12		Colour macro
	000-009	No macro colour
	010-014	White 1
	015-019	Light pink
	020-024	Deep pink
	025-029	Pink
	030-034	Lavender
	035-039	Light cyan 1
	040-044	Light sky blue
	045-049	Deep sky blue
	050-054	Cyan 1
	055-059	Light blue

Channel	Value	Function
12	060-064	Powder blue
	065-074	Light cyan 2
	075-079	Light cyan 3
	080-084	White 2
	085-089	White 3
	090-094	Light cyan 4
	095-099	Cyan 2
	100-104	Soft aquamarine
	105-109	Green 1
	110-114	Green 2
	115-119	Green 3
	120-124	Green 4
	125-129	Green 5
	130-134	Yellow 1
	135-139	Yellow 2
	140-144	Yellow 3
	145-149	Green 6
	150-154	Yellow 4
	155-159	Dark yellow 1
	160-164	Dark yellow 2
	165-169	Yellow 5
	170-174	Orange
	175-179	No macro colour
	180-204	Forward macro fade Fast -> Slow
	205-229	Backward macro fade Slow -> fast
	230-234	No macro colour
	235-249	Colour jump Fast -> Slow
	250-255	No macro colour
13		Macro program individually controlled LEDs
	000-007	Off
	008-023	Program 1
	024-039	Program 2
	040-055	Program 3
	056-071	Program 4
	072-087	Program 5
	088-103	Program 6
	104-119	Program 7
	120-135	Program 8
	136-151	Program 9

Channel	Value	Function
13	152-167	Program 10
	168-183	Program 11
	184-199	Program 12
	200-215	Program 13
	216-231	Program 14
	232-247	Program 15
	248-255	Program 16
14		Colour of macro program individually controlled LEDs
	000-017	White 1
	018-024	Light pink
	025-032	Deep pink
	033-039	Pink
	040-047	Lavender
	048-054	Light cyan 1
	055-061	Light sky blue
	062-069	Deep sky blue
	070-076	Cyan 1
	077-084	Light blue
	085-091	Powder blue
	092-106	Light cyan 2
	107-113	Light cyan 3
	114-121	White 2
	122-128	White 3
	129-136	Light cyan 4
	137-143	Cyan 2
	144-151	Soft aquamarine
	152-158	Green 1
	159-165	Green 2
	166-173	Green 3
	174-180	Green 4
	181-188	Green 5
	189-195	Yellow 1
	196-203	Yellow 2
	204-210	Yellow 3
	211-217	Green 6
	218-225	Yellow 4
	226-232	Dark yellow 1
	233-240	Dark yellow 2
	241-247	Yellow 5
	248-255	Orange
15		Macro program speed
	000-255	Slow -> Fast

Channel	Value	Function
16		Reset
	000-009	Nothing
	010-019	Reset all
	020-029	Zoom / lens rotation reset
	030-039	Pan / tilt reset
	040-255	Nothing

44 Ch. Channel	Value	Function
1		Pan
	000-255	0°-540°
2	000-255	Pan fine
3		Tilt
	000-255	0°-236°
4	000-255	Tilt fine
5		Pan/Tilt speed
	000-255	Fast -> Slow
6		Zoom
	0-255	Wide (55°) -> Small (4°)
7	000-255	Zoom fine
8		Lens rotation
	000-127	Index
	128-191	Clockwise rotation Fast -> Slow
	192-255	Counter clockwise rotation Slow -> Fast
9		Shutter
	000-019	Off
	020-024	Open
	025-064	Strobe Fast -> Slow
	065-069	Open
	070-084	Pulse, fast close slow open Fast -> Slow
	085-089	Open
	090-104	Pulse fast open slow close Fast -> Slow
	105-109	Open
	110-124	Strobe Fast -> slow
	125-129	Open
	130-144	Pulse, fast close slow open Fast -> Slow
	145-149	Open
	150-164	Pulse fast open slow close Fast -> Slow

Channel	Value	Function
9	165-169	Open
	170-184	Dimmer macro burst pulse Fast -> Slow
	185-189	Open
	190-204	Dimmer macro burst pulse Fast -> Slow
	205-209	Open
	210-224	Dimmer macro slow open slow close Fast -> Slow
	225-229	Open
	230-244	Dimmer macro burst little Fast -> Slow
	245-255	Open
10		Dimmer
	000-255	0% -> 100%
11	000-255	Dimmer fine
12		Red 1
	000-255	0% -> 100%
13		Green 1
	000-255	0% -> 100%
14		Blue 1
	000-255	0% -> 100%
15		White 1
	000-255	0% -> 100%
16		Red 2
	000-255	0% -> 100%
17		Green 2
	000-255	0% -> 100%
18		Blue 2
	000-255	0% -> 100%
19		White 2
	000-255	0% -> 100%
20		Red 3
	000-255	0% -> 100%
21		Green 3
	000-255	0% -> 100%
22		Blue 3
	000-255	0% -> 100%
23		White 3
	000-255	0% -> 100%
24		Red 4
	000-255	0% -> 100%
25		Green 4
	000-255	0% -> 100%

Channel	Value	Function
26		Blue 4
	000-255	0% -> 100%
27		White 4
	000-255	0% -> 100%
28		Red 5
	000-255	0% -> 100%
29		Green 5
	000-255	0% -> 100%
30		Blue 5
	000-255	0% -> 100%
31		White 5
	000-255	0% -> 100%
32		Red 6
	000-255	0% -> 100%
33		Green 6
	000-255	0% -> 100%
34		Blue 6
	000-255	0% -> 100%
35		White 6
	000-255	0% -> 100%
36		Red 7
	000-255	0% -> 100%
37		Green 7
	000-255	0% -> 100%
38		Blue 7
	000-255	0% -> 100%
39		White 7
	000-255	0% -> 100%
40		Colour macro
	000-009	No macro colour
	010-014	White 1
	015-019	Light pink
	020-024	Deep pink
	025-029	Pink
	030-034	Lavender
	035-039	Light cyan 1
	040-044	Light sky blue
	045-049	Deep sky blue
	050-054	Cyan 1
	055-059	Light blue
	060-064	Powder blue
	065-074	Light cyan 2
	075-079	Light cyan 3

Channel	Value	Function
40	080-084	White 2
	085-089	White 3
	090-094	Light cyan 4
	095-099	Cyan 2
	100-104	Soft aquamarine
	105-109	Green 1
	110-114	Green 2
	115-119	Green 3
	120-124	Green 4
	125-129	Green 5
	130-134	Yellow 1
	135-139	Yellow 2
	140-144	Yellow 3
	145-149	Green 6
	150-154	Yellow 4
	155-159	Dark yellow 1
	160-164	Dark yellow 2
	165-169	Yellow 5
	170-174	Orange
	175-179	No macro colour
	180-204	Forward macro fade Fast -> slow
	205-229	Backward macro fade Slow -> Fast
	230-234	No macro colour
	235-249	Colour jump Fast -> Slow
	250-255	No macro colour
41		Macro program individually controlled LEDs
	000-007	Off
	008-023	Program 1
	024-039	Program 2
	040-055	Program 3
	056-071	Program 4
	072-087	Program 5
	088-103	Program 6
	104-119	Program 7
	120-135	Program 8
	136-151	Program 9
	152-167	Program 10
	168-183	Program 11
	184-199	Program 12
	200-215	Program 13

Channel	Value	Function
41	216-231	Program 14
	232-247	Program 15
	248-255	Program 16
42		Colour of macro program individually controlled LEDs
	000-017	White 1
	018-024	Light pink
	025-032	Deep pink
	033-039	Pink
	040-047	Lavender
	048-054	Light cyan 1
	055-061	Light sky blue
	062-069	Deep sky blue
	070-076	Cyan 1
	077-084	Light blue
	085-091	Powder blue
	092-106	Light cyan 2
	107-113	Light cyan 3
	114-121	White 2
	122-128	White 3
	129-136	Light cyan 4
	137-143	Cyan 2
	144-151	Soft aquamarine
	152-158	Green 1
	159-165	Green 2
	166-173	Green 3
	174-180	Green 4
	181-188	Green 5
	189-195	Yellow 1
	196-203	Yellow 2
	204-210	Yellow 3
	211-217	Green 6
	218-225	Yellow 4
	226-232	Dark yellow 1
	233-240	Dark yellow 2
	241-247	Yellow 5
	248-255	Orange
43		Macro program speed
	000-255	Slow -> Fast
44		Reset
	000-009	Nothing
	010-019	Reset all
	020-029	Zoom / lens rotation reset
	030-039	Pan / tilt reset
	040-255	Nothing

6. TROUBLESHOOTING

During operation, you might encounter some common problems. Here are suggestions for easy troubleshooting:

A. The unit does not work, no light, and the fan does not operate:
1. Check the power connection and the main fuse.
2. Measure the mains voltage on the main connector.

B. Not responding to DMX controller:
1. Ensure the DMX LED is active. If not, verify the DMX connectors and cables for proper connection.
2. If the DMX LED is active but there's no response to channels, check the address settings and DMX polarity.
3. For intermittent DMX signal issues, examine the pins on connectors or the unit's PCB, or the previous unit's PCB.
4. Try using a different DMX controller.
5. Inspect if DMX cables are positioned near high-voltage cables, which could lead to damage or interference to the DMX interface circuit.

C. One channel not functioning properly:
1. The stepper motor might be damaged, or the cable connected to the PCB may be broken.
2. The motor's drive IC on the PCB might be compromised.

7. FIXTURE CLEANING

To optimize light output, periodically clean internal and external optical lenses and/or mirrors.
The cleaning frequency depends on the fixture's operating environment; environments with dampness, smoke, or excessive dirt can lead to greater accumulation of dirt on the unit's optics.

Cleaning Procedure:
- Use a soft cloth and normal glass cleaning liquid.
- Ensure the components are thoroughly dried.
- Clean external optics at least every 20 days. Clean internal optics at least every 30/60 days

8. NOTES

ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE

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