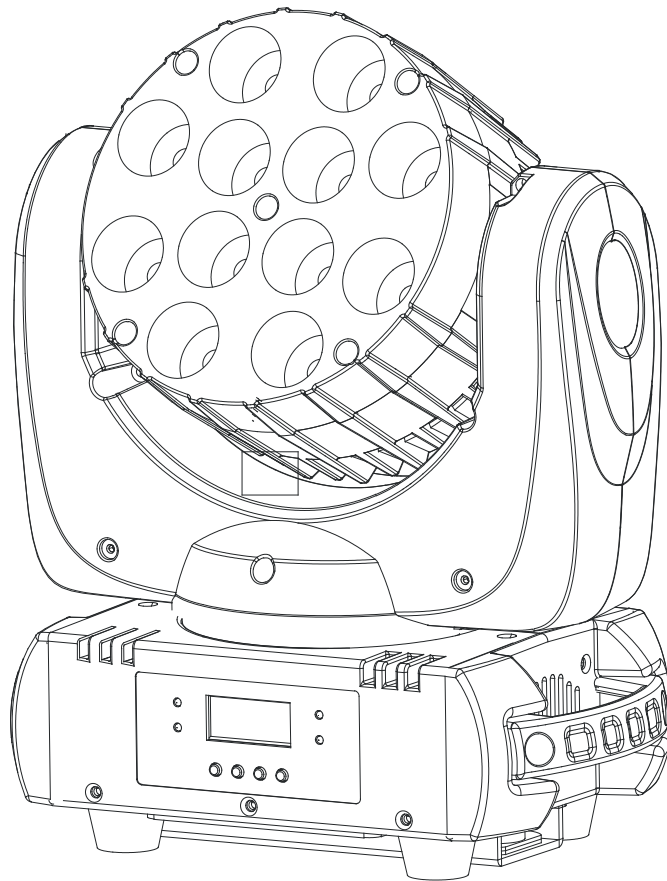


EXPOLITE



TourWash Mini
48CM+W

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1. Safety Instructions



WARNING

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

- Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.
- Unpack and check carefully there is no transportation damage before using the unit.
- Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.
- It's important to ground the yellow/green conductor to earth in order to avoid electric shock.
- The unit is for indoor use only. Use only in a dry location.
- The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.
- Disconnect main power before replacement or servicing.
- Make sure there are no flammable materials close to the unit while operating as it is fire hazard.
- Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.
- Maximum ambient temperature is $T_a: 40^{\circ}\text{C}$. DO NOT operate it where the temperature is higher than this.
- Unit surface temperature may reach up to 85°C . DO NOT touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.
- In the event of serious operating problem, stop using the unit immediately. Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.
- DO NOT touch any wire during operation as high voltage might be causing electric shock.

Warning:

- To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.
- DO NOT open the unit within five minutes after switching off.
- The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

Caution:

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

Installation:

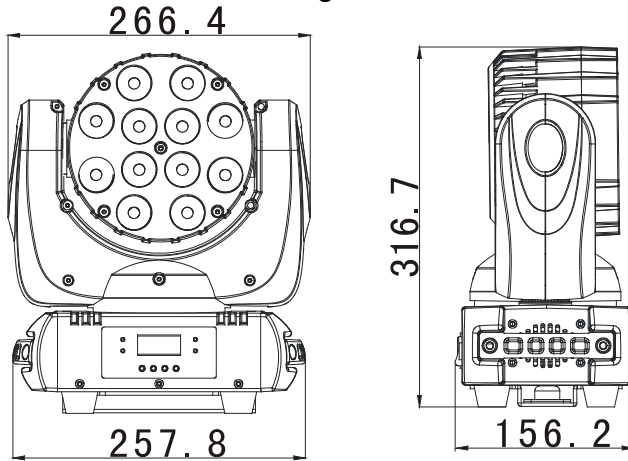
The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people and has no one pass by or under it.

2. Technical Specifications

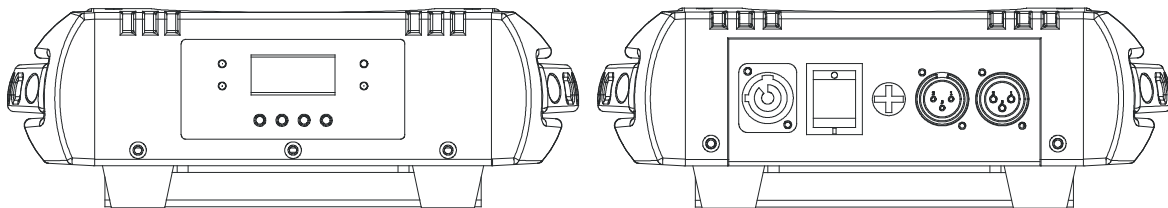
- ◇ Extremely small, fast and powerful LED moving beam.
- ◇ DMX Channels: 9/12/14/14/26
- ◇ Pan/Tilt: 630°/200°, speed adjustable
- ◇ Beam Angle: 20°
- ◇ Smooth electronic dimming: 0-100%
- ◇ Electronic strobe with pulse and random effects
- ◇ High efficiency, low power consumption
- ◇ Super compact, low weight

Voltage: AC 100V~240V, 50/60Hz
Power consumption: 150W
LED: 12 X 10W Quad-color LED
Dimension: 267 X 157 X 317mm
Weight: 6.5Kgs



3. How To Set The Unit

3.1 Control panel



Display:

Show the various menus and the selected functions

LED:

| | | |
|-------|----|-------------------|
| DMX | On | DMX input present |
| POWER | On | Power On |
| NULL | | NO FUNCTION |
| NULL | | NO FUNCTION |

Button:

| | |
|-------|--|
| MENU | To select the programming functions |
| DOWN | To go backward in the selected functions |
| UP | To go forward in the selected functions |
| ENTER | To confirm the selected functions |

Power Cable:

Connect to the mains supply.

Power Switch:

Turn On/Off the power.

Fuse(T6.3A):

Protect the unit from damage of over-current

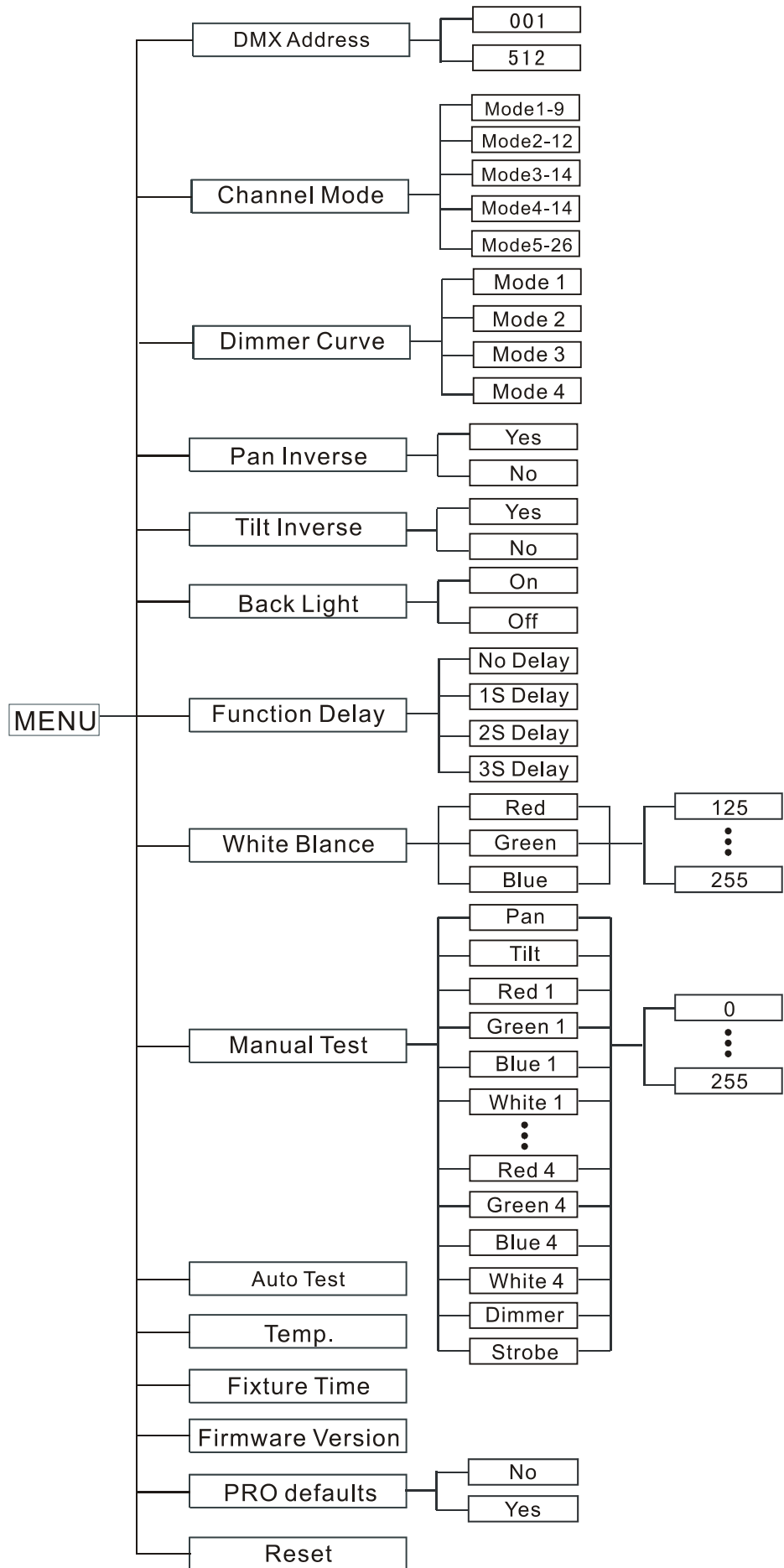
DMX input/output:

For DMX512 link, use 3-pin XLR cable to link the unit together.

3.2 Main Functions

To select any of the given functions, press the **MENU** button up to when the required one is showing on the display. Select the function by the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to change the mode. Once the required mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

The main functions are showing below:



DMX Address

Select **DMX Address**, press the **ENTER** button to confirm, the present address will blink on the display. Use the **UP** and **DOWN** button to adjust the address from **001** to **512**. Once the address has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

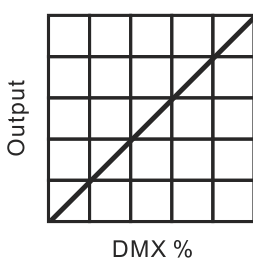
Channel Mode

Select **Channel Mode**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Mode1-9**, **Mode2-12**, **Mode3-14**, **Mode4-14** or **Mode5-26** Mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

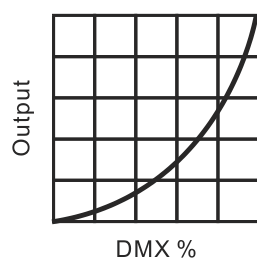
Dimmer Curve

Select **Dimmer Curve**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Mode1**, **Mode 2**, **Mode 3** or **Mode 4** mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

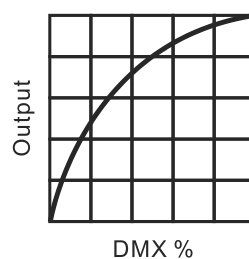
Dimmer Modes



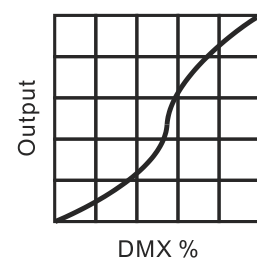
Optically Linear



Square Law



Inverse Square Law



S-curve

Mode 1(Optically Linear): The increase in light intensity appears to be linear as DMX

value is increased.

Mode 2(Square Law): Light intensity control is finer at low levels and coarser at high levels.

Mode 3(Inverse Square Law): Light intensity control is coarser at low levels and finer at high levels.

Mode 4(S-cure): Light intensity control is finer at low levels and high levels and coarser at medium levels.

Pan Inverse

Select **Pan Inverse**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Yes** (pan inversion) or **No** (normal) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Tilt Inverse

Select **Tilt Inverse**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Yes** (tilt inversion) or **No**(normal) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Back Light

Select **Back Light**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **On** (LED on) or **Off** (LED off) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Function Delay

Select **Function Delay**, press ENTER button to confirm, present mode will blink on the display. Use **DOWN** and **UP** button to select the **No Delay** or **1S/2S/3S Delay** (Wait for 1/2/3 seconds before the Functions are activated/deactivated) mode. Once the mode has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

White Balance

Select **White Balance**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Red** or **Green** or **Blue**. Once the mode has been selected, press the **ENTER** button to setup, use the **DOWN** and **UP** button to change the value (125~255). Once the mode has been selected, press the **ENTER** button to setup, go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Manual Test

Select **Manual Test**, press the **ENTER** button to confirm, present mode will blink on the display. Use the **DOWN** and **UP** button to select the **Pan/ Tilt/ Red1/ Green1/ Blue1/ White1/...Red4/ Green4/ Blue4/ White4/ Dimmer** or **Strobe**. Once the mode has been selected, press the **ENTER** button to setup, use the **DOWN** and **UP** button to change the value (0~255). Once the mode has been selected, press the **ENTER** button to setup, go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Auto Test

Select **Auto Test**, press the **ENTER** button and the unit will run self-test by built-in program. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Temp.

Select **Temp.**, press the **ENTER** button and the display will show the temperature of the unit. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Fixture Time

Select **Fixture Time**, press the **ENTER** button and the display will show the number of working hours of the unit. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Firmware Version

Select **Firmware Version**, pressing **ENTER** button and the display will show the version of software of the unit. To go back to the functions press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

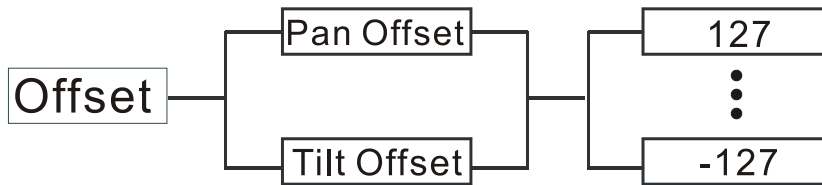
PRO Defaults

Select **PRO Defaults**, press the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to select the **Yes** (run built-in program to set the fixture to PRO Defaults settings) or **No**. Press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

Reset

Select **Reset**, pressing **ENTER** button and all channels of the unit will return to their standard position.

3.3 Home Position Adjustment



In the main functions, hold **Enter** button for at least 3 seconds into offset mode, use **DOWN** and **UP** button up to choose **Pan Offset** or **Tilt Offset**, pressing **ENTER** button and the display will blink. Use **DOWN** and **UP** button to adjust the home position of the Pan or Tilt. Once the position has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the menu mode.

4. How to Control the Unit

You can operate the unit in two ways:

1. Master/slave built-in preprogram functions
2. Universal DMX controller

No need to turn off the unit when you change the DMX address, as the new DMX address setting will be effect at once. Every time you turn the unit on, it will show “CM-120F” on the display, and move all the motors to their ‘home’ position and you may hear some noises for about 20 seconds. After that the unit will be ready to receive DMX signal or run the built in programs.

4.1 Master/Slave Built-in Preprogrammed Functions

By linking the units in master/slave connection, the first unit will control the other units to give an automatic, sound activated, synchronized light show. This function is good when you want an instant show.

4.2 Channel Mode Setting

Enter **MENU** mode, select **Channel Mode**, press the **ENTER** button to confirm, present channel mode will blink on the display, use **UP** and **DOWN** button to select **Mode1-9**, **Mode2-12**, **Mode3-14**, **Mode4-14** or **Mode5-26**, once selected, press the **ENTER** button to store. Press the **MENU** button back to the last menu or let the unit idle 7 seconds to exit menu mode.

4.3 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 up to when the **DMX Address** is showing on the display. Pressing the **ENTER** button and the display will blink. Use the **DOWN** and **UP** button to change the DMX512 address. Once the address has been selected, press the **ENTER** button to setup, to go back to the functions without any change press the **MENU** button again. Hold and press the **MENU** button about one second or wait for one minute to exit the 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 |
|--------------|----------------|----------------|----------------|----------------|
| 9 channels | 1 | 10 | 19 | 28 |
| 12 channels | 1 | 13 | 25 | 37 |
| 14 channels | 1 | 15 | 29 | 43 |
| 26 channels | 1 | 27 | 53 | 79 |

4.4 DMX 512 Configurations

9 channels (Mode 1):

| 9 channels Mode | | | | | | | | |
|-----------------|------|--|-----|-------|------|-------|--------|---|
| Ch1 | Ch2 | Ch3 | Ch4 | Ch5 | Ch6 | Ch7 | Ch8 | Ch9 |
| Pan | Tilt | Strobe | Red | Green | Blue | White | Dimmer | Function |
| | | <ul style="list-style-type: none"> 248-255 Open 240-247 Random Strobe 232-239 Open 190-231 Slow Close Fast Open 182-189 Open 140-181 Fast Close Slow Open 132-139 Open Fast 16-131 Slow 0-15 Open | | | | | | <ul style="list-style-type: none"> 210-255 No Function 200-209 Reset All 090-199 No Function 080-089 Disable Blackout while Pan/Tilt Move 070-079 Enable Blackout while Pan/Tilt Move 000-069 No Function |

12 channels (Mode 2):

| 12 Channels Mode | | | | | |
|---|--|-----|----------|------|-----------|
| Ch1 | Ch2 | Ch3 | Ch4 | Ch5 | Ch6 |
| Electronic shutter effect | Dimmer | Pan | Pan Fine | Tilt | Tilt Fine |
| 245-255 Shutter open 230-244 Strobe10:burst(fast to slow) 225-229 Shutter open 210-224 Strobe9:sine wave(fast to slow) 205-209 Shutter open 190-204 Strobe8:random burst pulse(fast to slow) 185-189 Shutter open 170-184 Strobe7:burst pulse(fast to slow) 165-169 Shutter open 150-164 Strobe6:random closing pulse(fast to slow) 145-149 Shutter open 130-144 Strobe5:random opening pulse(fast to slow) 125-129 Shutter open 110-124 Strobe4:random strobe(fast to slow) 105-109 Shutter open 090-104 Strobe3:closing pulse(fast to slow) 085-089 Shutter open 070-084 Strobe2:opening pulse(fast to slow) 065-069 Shutter open 050-064 Strobe1:fast to slow 020-049 Shutter open 000-019 Shutter closed | | | | | |
| Ch7 | Ch8 | Ch9 | Ch10 | Ch11 | Ch12 |
| Fixture control settings | Color wheel effect | Red | Green | Blue | White |
| 250-255 No Function 125-249 Illuminate display 120-124 Smooth dimming, speed of changes restricted slightly 115-119 No Function 110-114 Fast dimming, speed of changes unrestricted 105-109 Disable Blackout while P/T moving 100-104 No Function 095-099 Enable Blackout while P/T moving 015-094 No Function 010-014 Reset entire fixture 000-009 No Function | 250-255 Open 245-249 Slow 240-244 Medium 235-239 Fast 230-234 Open 208-229 Counter-clockwise, slow to fast 202-207 Stop 180-201 Clockwise, fast to slow 175-179 Open 170-174 LEE 164 - Flame red 165-169 LEE 135 - Deep gold amber 160-164 LEE 778 - Millennium gold 155-159 LEE 021 - Gold amber 150-154 LEE 105 - Orange 145-149 LEE 179 - Chrome orange 140-144 LEE 104 - Deep amber 135-139 LEE 100 - Spring yellow 130-134 LEE 088 - Lime green 125-129 LEE 738 - JAS green 120-124 LEE 122 - Fern green 115-119 LEE 089 - Moss green 110-114 LEE 139 - Primary green 105-109 LEE 124 - Dark green 100-104 LEE 116 - Medium blue green 095-099 LEE 118 - Light blue 090-094 LEE 353 - Lighter blue 085-089 LEE 117 - Steel blue 080-084 LEE 202 - Half CT blue 075-079 LEE 201 - Full CT blue 070-074 LEE 161 - State blue 065-069 LEE 200 - Double CT blue 060-064 LEE 132 - Medium blue 055-059 LEE 079 - Just blue 050-054 LEE 120 - Deep blue 045-049 LEE 071 - Tokyo blue 040-044 LEE 181 - Congo blue 035-039 LEE 194 - Surprise pink 030-034 LEE 345 - Fuchsia pink 025-029 LEE 328 - Follies pink 020-024 LEE 332 - Special rose pink 015-019 LEE 157 - pink 010-014 LEE 790 - Moroccan pink 000-009 Open | | | | |

14 channels (Mode 3):

| 14 Channels Mode | | | | | | |
|---|----------------------|---|----------------------------|----------------------------|--|----------------------------|
| Ch1 | Ch2 | Ch3 | Ch4 | Ch5 | Ch6 | Ch7 |
| Pan | Pan Fine | Tilt | Tilt Fine | Pan/Tilt Speed | Pan/Tilt Marco | Pan/Tilt Marco Speed |
| 255 540° 0 0° | 255 0 | 255 270° 0 0° | 255 0 | 255 Slow 0 Fast | 236-255 Marco 12 216-235 Marco 11 196-215 Marco 10 176-195 Marco 9 156-175 Marco 8 136-155 Marco 7 116-135 Marco 6 096-115 Marco 5 076-095 Marco 4 056-075 Marco 3 036-055 Marco 2 016-035 Marco 1 000-015 No effect | 255 Slow 0 Fast |
| Ch8 | Ch9 | Ch10 | Ch11 | Ch12 | Ch13 | Ch14 |
| Function | Dimmer | Strobe | Color1 | Color2 | Color3 | Color4 |
| 210-255 No Function 200-209 Reset All 090-199 No Function 080-089 Disable Blackout while Pan/Tilt Move 070-079 Enable Blackout while Pan/Tilt Move 000-069 No Function | 255 100% 0 0% | 248-255 Open 240-247 Random Strobe 232-239 Open 190-231 Slow Close Fast Open 182-189 Open 140-181 Fast Close Slow Open 132-139 Open Fast ⚡⚡⚡ 16-131 ⚡⚡ ⚡ Slow 8-15 Open 0-7 Blackout | 255 0 Color 1-31 | 255 0 Color 1-31 | 255 0 Color 1-31 | 255 0 Color 1-31 |

14 channels (Mode 4):

| 14 Channels(Mode4) | | | | | | |
|---|---------------------------|---------------------------|---------------------------|-------------------------------|---|-------------------------------|
| Ch1 | Ch2 | Ch3 | Ch4 | Ch5 | Ch6 | Ch7 |
| Pan | Pan Fine | Tilt | Tilt Fine | Pan/Tilt Speed | Function | Dimmer |
| 255 — 630° 0 — 0° | 255 — 0 — | 255 — 200° 0 — 0° | 255 — 0 — | 255 — Slow ↑ 0 — Fast | 210-255 No Function 200-209 Reset All 090-199 No Function 080-089 Disable Blackout while Pan/Tilt Move 070-079 Enable Blackout while Pan/Tilt Move 000-069 No Function | 255 — 100% 0 — 0% |
| Ch8 | Ch9 | Ch10 | Ch11 | Ch12 | Ch13 | Ch14 |
| Strobe | Red | Green | Blue | White | Color | Fade speed |
| 248-255 Open 240-247 Random Strobe 232-239 Open 190-231 Slow Close Fast Open 182-189 Open 140-181 Fast Close Slow Open 132-139 Open Fast ⚡⚡⚡ 16-131 ⚡⚡ ⚡ Slow Open 8-15 Open 0-7 Blackout | 255 — 100% 0 — 0% | 255 — 100% 0 — 0% | 255 — 100% 0 — 0% | 255 — 100% 0 — 0% | 192-255 Color fade 1~16 128-191 Color macor 1~16 008-127 Color 1~32 000-007 Normal | 255 — Fast ↑ 0 — Slow |

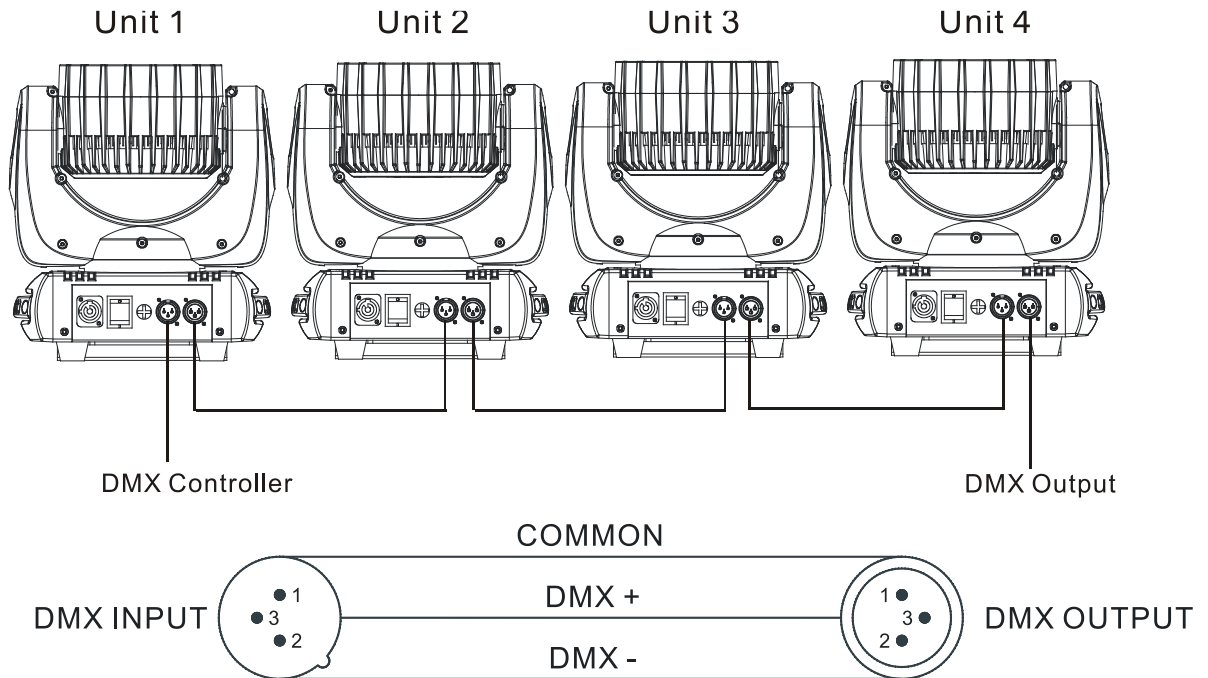
26 channels mode:

| 26 Channels(Mode5) | | | | | |
|--------------------|----------|-------|-----------|----------------|---|
| Ch1 | Ch2 | Ch3 | Ch4 | Ch5 | Ch6 |
| Pan | Pan Fine | Tilt | Tilt Fine | Pan/Tilt Speed | Function |
| | | | | | 210-255 No Function 200-209 Reset All 090-199 No Function 080-089 Disable Blackout while Pan/Tilt Move 070-079 Enable Blackout while Pan/Tilt Move 000-069 No Function |
| Ch7 | Ch8 | Ch9 | Ch10 | Ch11 | Ch12 |
| Dimmer | Strobe | Red 1 | Green1 | Blue 1 | White1 |
| | | | | | |

26 channels(Mode5)

| Ch13 | Ch14 | Ch15 | Ch16 | Ch17 | Ch18 | Ch19 | Ch20 |
|--------------|---------------|--------------|---------------|---|---------------|-------------------|---------------|
| Red 2 | Green2 | Blue2 | White2 | Red 3 | Green3 | Blue3 | White3 |
| | | | | | | | |
| Ch21 | Ch22 | Ch23 | Ch24 | Ch25 | | Ch26 | |
| Red 4 | Green4 | Blue4 | White4 | Color | | Fade speed | |
| | | | | 192-255 Color fade 1~16 128-191 Color macor 1~16 008-127 Color 1~32 000-007 Normal | | | |

5. DMX 512 Connections



Termination reduces signal errors and to avoid signal transmission problems and interference. It is always advisable to connect a DMX terminal. (Resistance 120 ohm 1/4W) between pin2(DMX-) and pin3(DMX+) of the last fixture.



1. If you using a controller with 5 pins DMX output, you need to use a 5 to 3 pin adapter-cable.
2. 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.
3. Connect the unit together in a `daisy chain` by XLR plug from the output of the unit to the input of the next unit. The cable can not branched or split to a `Y` cable. 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.
4. The DMX output and input connectors are pass-through to maintain the DMX circuit, when one of the units' power is disconnected.
5. Each lighting unit needs to have an address set to receive the data sent by the controller. The address number is between 0-511 (usually 0 & 1 are equal to 1).
6. The end of the DMX 512 system should be terminated to reduce signal errors.

7. 3 pin XLR connectors are more popular than 5 pin 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 (+), Pin 4/Pin 5: Not used.

6. Troubleshooting

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

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

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

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on PCB of the unit or the previous one.
4. Try to use another DMX controller.
5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. Some units don't respond to the easy controller

1. You may have a break in the DMX cabling. Check the LED for the response of the master/ slave mode signal.
2. Wrong DMX address in the unit. Set the proper address.

D. One of the channels is not working well

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

7. Fixture Cleaning

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

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

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 89/336/EEC.

EN55103-1: 2009 ; EN55103-2: 2009; EN62471: 2008;
EN61000-3-2: 2006 + A1:2009 + A2:2009; EN61000-3-3: 2008.

&

Harmonized Standard

EN60598-2-17:1989 + A2:1991; EN60598-1:2008+ A11: 2009 62471:2008;
EN 62493: 2010
Safety of household and similar electrical appliances
Part 1: General requirements

