# squareled

# Manual | Q818 PAR-64 18x8W RGBW Quad-Color

## 1. Summarization

Thank you for purchasing our LED PAR64 lighting. Please read these instructions carefully before begin and operate the fixtures according to these instructions to avoid any possible damages and accidents causes by misusage.

**Products introduction:**

The Q818 light uses aluminum shell, designed in a fashion of hydrodynamic form. Appearance shows: long can, short can or short can with color filter. It adopts high power 4-in-1 LED, which refers to single LED is made of R,G,B,W LED, And long life span, low consumption, good color mixing effect and high brightness are the most prominent features. Each kind of LED can be independently dimmed.The built-in program includes dimming, strobe, eotic, gradual change, fading and so on.It uses power switch, performs low weight and consumption, stable capability and long life. International standard DMX 512 signal is requested.

**Packliste:** 1 xQ818, 1x DMX signal cable , the user manual, warranty card

## 2. Safety Notes

**Safety Notes**
! Enquire the skilled people before any repair;
! Always make sure disconnect from the power source before setting up, serving and moving;.
! Avoid direct eye exposure to the fixture when it is on;

**Safety instruction**
Make sure the power supply voltage are consistent with this lights   Ensure the use of voltage is in the range of the request technical parameter.

Before the installation, please check the light's fasteners and mechanical structure have been received in good condition and appear no damage.

This light is designed for indoor use; working temperature is lower than 40 degree.

The fixtures maybe mounted in any position provided there is adequate room for ventilation. Make sure there are no inflammable and explosive items (ornaments) in 0.5 meters away.

Yellow / green cabling earthling safety; no flicker when the fixture is working on.

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## 3. outside size picture

325mm

193mm

226mm

272mm

267mm
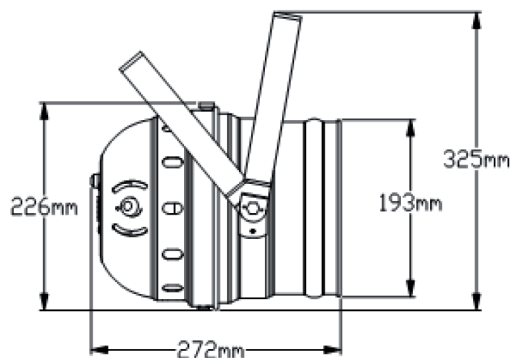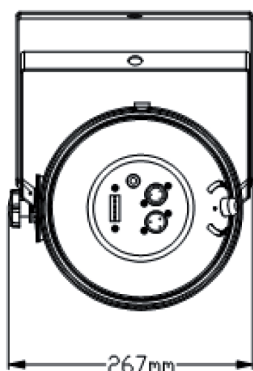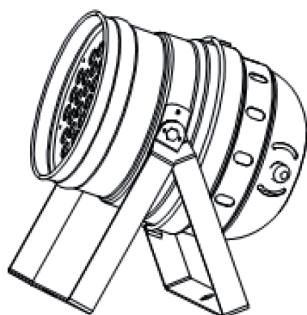
## 4. Main Function

» high quality LED: low consumption, brightness, stable capability and long life

» each color of LED with 32-bit dimming. RGB can make over 16.7 million colors

» dim 0%-100%, Strobe, gradual change, jumping change

» DMX512 Controller, 4 button set DMX ID address with led display

» auto run /sound activated/master slave/interconnected multi-machine control

» using switching power supply to protect the LED to work well

» lens degree: 25º, 45º optional

» 3, 4, 5, 8, 9 CH DMX control channel optional

» body color: black/white, optional

## 5. DMX Control Function

DMX Channel (3CH):

| channel | DMX value | Control Function | Remarks |
|---------|-----------|------------------|---------|
| 1CH | 0-255 | RGB color mixing | Hue |
| 2CH | 0-255 | W Dimming 0-100% | Color Saturation |
| 3CH | 0-255 | General dimming 0-100% | purity |

**Note:** Chromaticity represents visible light, such as red, green, yellow, cyan etc.Color saturation refers to the proportion of color chromaticity possession, 100% saturation means the color has reached the pure color. Purity value refers to the brightness, when purity reaches 100%, the color is the brightest.

DMX Channel (4CH):

| channel | DMX value | Control Function | Remarks |
|---------|-----------|------------------|---------|
| 1CH | 0-255 | R 0-100% | |
| 2CH | 0-255 | G 0-100% | |
| 3CH | 0-255 | B 0-100% | |
| 4CH | 0-255 | W 0-100% | |

DMX Channel (5CH):

| channel | DMX value | Control Function | Remarks |
|---------|-----------|------------------|---------|
| 1CH | 0-255 | General dimming | |
| 2CH | 0-255 | R 0-100% | |
| 3CH | 0-255 | G 0-100% | |
| 4CH | 0-255 | B 0-100% | |
| 5CH | 0-255 | W 0-100% | |

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**DMX Channel (8CH):**

| channel | DMX value | Control Function | Remarks | Priority |
|---------|-----------|------------------|---------|----------|
| 1CH | 0-255 | (General dimming) | | |
| 2CH | 0-255 | Red dimming 0——100% | | |
| 3CH | 0-255 | Green dimming 0—100% | | 1 |
| 4CH | 0-255 | Blue dimming 0—100% | | |
| 5CH | 0-255 | White 0——100% | | |
| 6CH | 0-14 | Dimming | When 7CH>31, this function is invalid. | 2 |
| | 15-255 | Strobe Speed | | |
| | 0-31 | Invalid | | |
| | 32-63 | From dark to bright | Must use CH1,2,3,4,5CH, otherwise no light. From the 8CH, start the speed adjustment. | |
| | 64-95 | From bright to dark | | |
| 7CH | 96-127 | From dark—bright—dark | | |
| | 128-159 | RGB  Gradient | | 3 |
| | 160-191 | dark—bright—dark auto run | Speed adjustment from 8CH | |
| | 192-223 | 4 colors jumping change | | |
| | 224-255 | Multi-colors jumping change | | |
| 8CH | 0-255 | Speed Adjustment (7CH) | | |

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|---------|-----------|------------------|---------|----------|
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| 2CH | 0-255 | Red dimming 0——100% | | |
| 3CH | 0-255 | Green dimming 0—100% | | |
| 4CH | 0-255 | Blue dimming 0—100% | | |
| 5CH | 0-255 | White 0——100% | | |
| 6CH | 0-14 | Dimming | When 7CH>31>his function is invalid. | |
| 7CH | 15-255 | Strobe Speed | | 2 |
| | 0-31 | Invalid | Must use CH1,2,3,4,5CH, otherwise no light. From the 8CH, start the speed adjustment. | 3 |
| | 32-63 | From dark to bright | | |
| | 64-95 | From bright to dark | | |
| | 96-127 | From dark—bright—dark | | |
| | 128-159 | RGB  Gradient | Speed adjustment from 8CH | |
| | 160-191 | dark—bright—dark auto run | | |
| | 192-223 | 4 colors jumping change | | |
| | 224-255 | Multi-colors jumping change | | |
| 8CH | 0-255 | Speed Adjustment (7CH) | | |
| 9CH | 0-5<br>6-55<br>56-105<br>106-155<br>156-205<br>206-255 | Set by LED display<br>DIMMER0<br>DIMMER1<br>DIMMER2<br>DIMMER3<br>DIMMER4 | | |

## 6. Display Operation
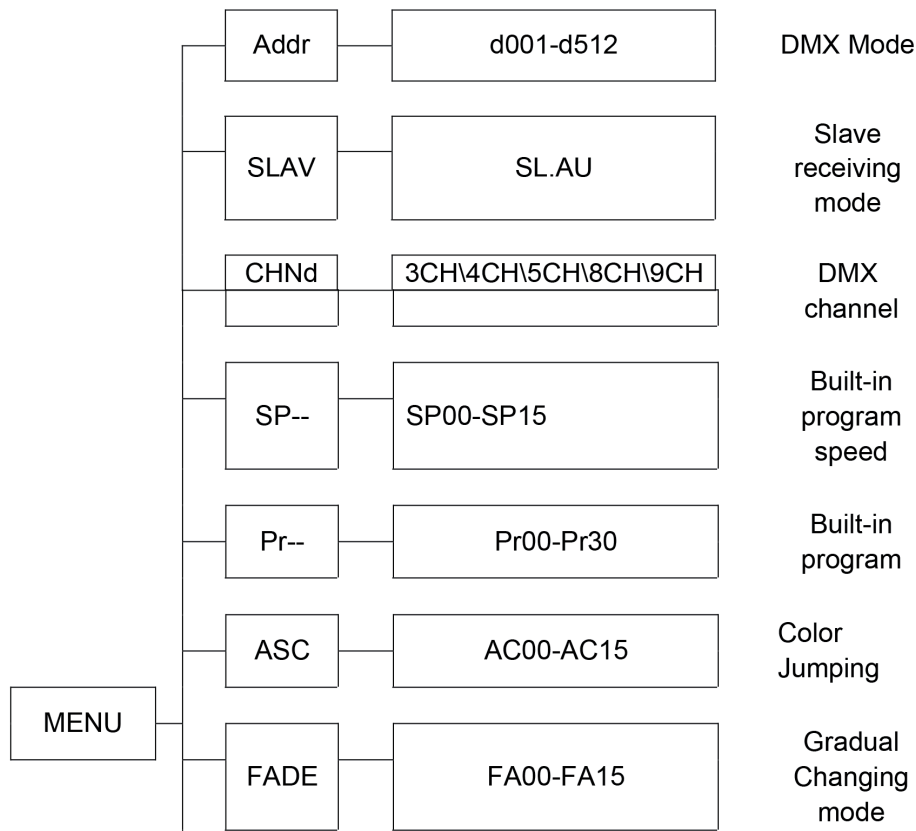


**DMX IN/OUT**

**LED Display**

**4 buttons**
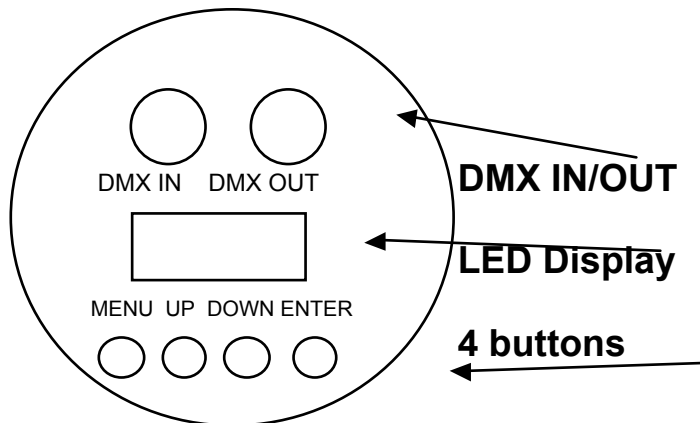
MENU : access the menu or return to a previous menu option

ENTER: select the current menu option
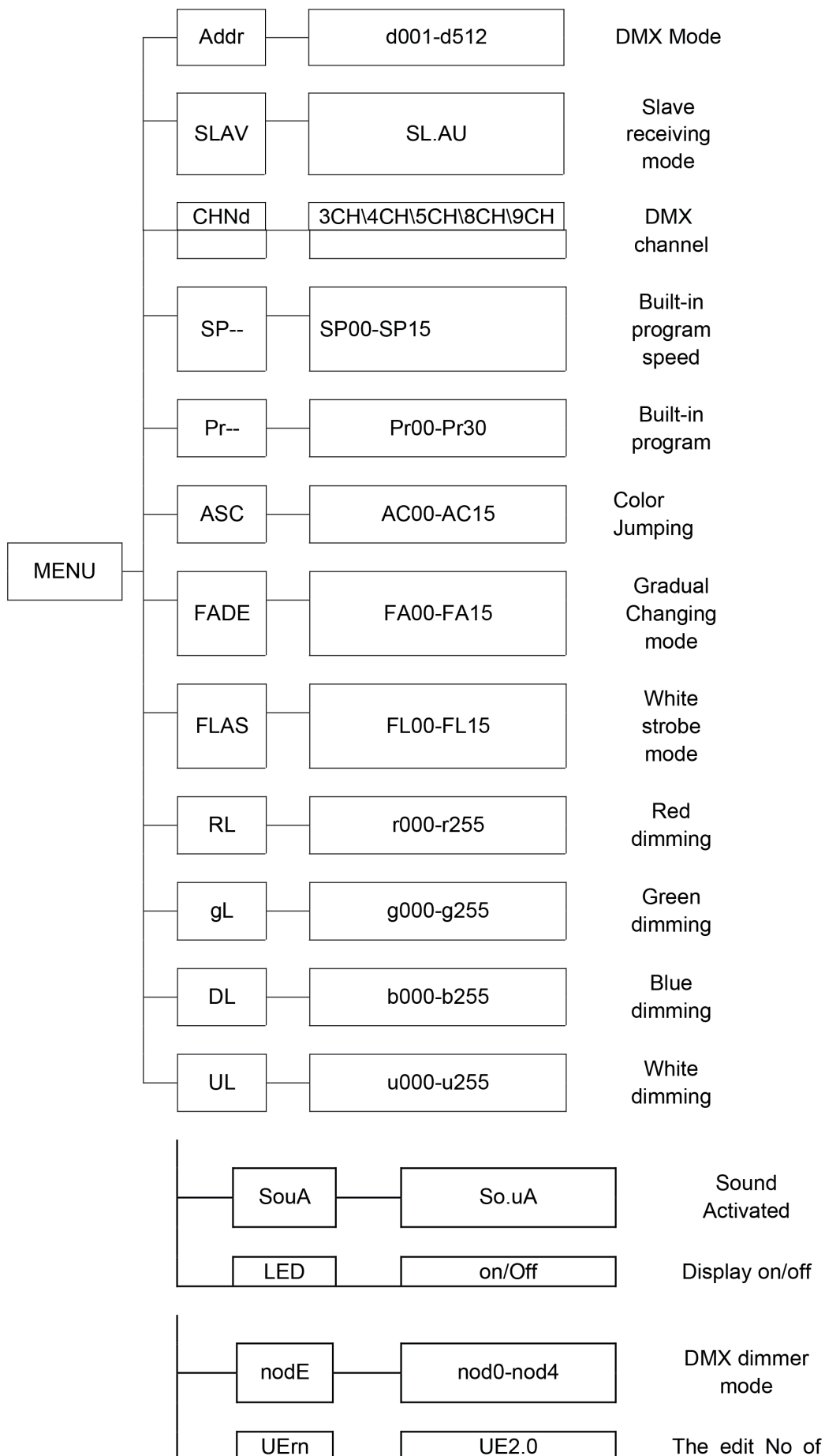
UP: menu selection or parameter increments

DOWN: menu selection or parameters decrease

## 7. Menu Instruction

| MENU | | | |
|---|---|---|---|
| | Addr | d001-d512 | DMX Mode |
| | SLAV | SL.AU | Slave receiving mode |
| | CHNd | 3CH\4CH\5CH\8CH\9CH | DMX channel |
| | SP-- | SP00-SP15 | Built-in program speed |
| | Pr-- | Pr00-Pr30 | Built-in program |
| | ASC | AC00-AC15 | Color Jumping |
| | FADE | FA00-FA15 | Gradual Changing mode |

| | | |
|---|---|---|
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| ASC | AC00-AC15 | Color Jumping |
| FADE | FA00-FA15 | Gradual Changing mode |
| FLAS | FL00-FL15 | White strobe mode |
| RL | r000-r255 | Red dimming |
| gL | g000-g255 | Green dimming |
| DL | b000-b255 | Blue dimming |
| UL | u000-u255 | White dimming |

MENU

| | | |
|---|---|---|
| SouA | So.uA | Sound Activated |
| LED | on/Off | Display on/off |
| nodE | nod0-nod4 | DMX dimmer mode |
| UErn | UE2.0 | The edit No of |

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## Operating instruction:

MENU ➤ ENTER ➤ UP/DOWN ➤ ENTER

MENU (UP/DOWN)+ENTER+UP/DOWN)+ENTER

Remark:  Exp: Select the DMX mode, Here are the operation details:

- Press the MENU, go back to the initial setting
- Press UP/DOWN, display "Addr"
- Press ENTER to change the content, the display will flash at this moment
- Press UP/DOWN to change the address code to select d001
- Press ENTER to select and store the current menu options. DMX mode will be stored automati-cally and the screen will stop flashing.
- Exp: Select DMX Channels optional mode, the operation is as below:
- Press MENU, go back to the initial setting
- Press UP/DOWN, display "CHnd"
- Press ENTER to change the content, the display will glinting at this moment
- Press UP/DOWN to select the DMX channels that you need, 3CH, 4CH, 5CH and so on
- Press ENTER select and store the current menu options. DMX mode will be stored automtically and the screen will stop glinting.
- Exp: turn off the display, the operation is as below:
- Press MENU, go back to the initial setting
- Press UP/DOWN, display "LED"
- Press ENTER to change the content, the display will flash at this moment
- Press UP/DOWN to select "OFF"
- Press ENTER to confirm, then select the working mode that you need. When stop pressing, the display will turn off after a while. When the display is off, press any button to activate the display. If setting the led to "off", when stop pressing, the display will turn off after a while.

2. Details of program built inside (Pr- -)

Press MENU, go back to the initial setting

- Press UP / DOWN until Pr--
- Press ENTER to choose, the display will flash at this moment
- Press UP / DOWN to change the address code to select pr00
- Press ENTER to select and store the current menu options. DMX mode will be stored automatically and the screen will stop flashing.

Remark: Pr14--- Pr30 Can change the content Of SP, correct the speed of jumping change , SP00 is the fastest, SP15 is the slowest

- Pr00-Pr13: R,G,B.W single color or multi-colors lighting
- Pr14-Pr28: correspond with the Pr00-Pr13 add the strobe function.
- Pr29: 4 colors jumping.
- Pr30: multiple colors jumping

## 8. Operating Control Instruction

### Master/Slave

Master: The master should always work as a master as long as it is not set in a DMX mode whatever other modes it is. And it send out the signal so that the slave synchronous with it. To avoid the host signal and DMX512 signals interfere with each other, should cut off the DMX512 signals. The signal lines are longer than 60 meters (20 lamps), should increase a signal amplifier.

Slave: the Slave must be set in DMX mode and the address code should be A001, to assure receive the master's signals correctly. Only one light can be set as a Master and others are slaves.

## 9. XLR cable connecting

### XLR cable

The standard way of connecting the XLR is: one end connects to the male plug, and the other end connects to the female. As bellow: pin 1: ground, pin 2: negative signal, pin 3: positive signal
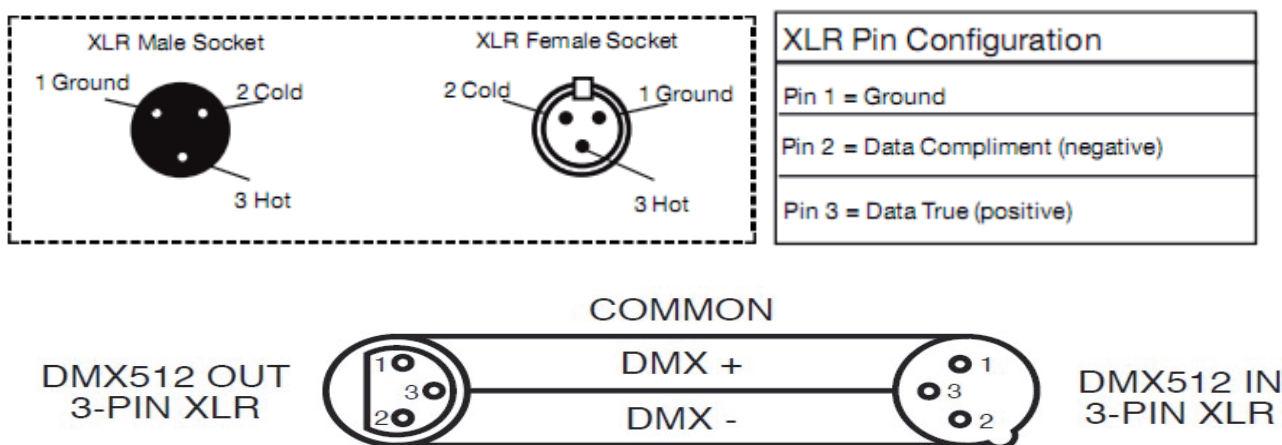


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Noted: In order to avoid failures and interference signal transmission, we connect a resistance120Ω (1/4W) at the end of the DMX connecting as below:

Termination reduces signal errors and avoids signal transmission problems and interference. It is always advisable to connect a DMX terminal, (Resistance 120 Ohm 1/4 W) between PIN 2 (DMX-) and PIN 3 (DMX +) of the last fixture.
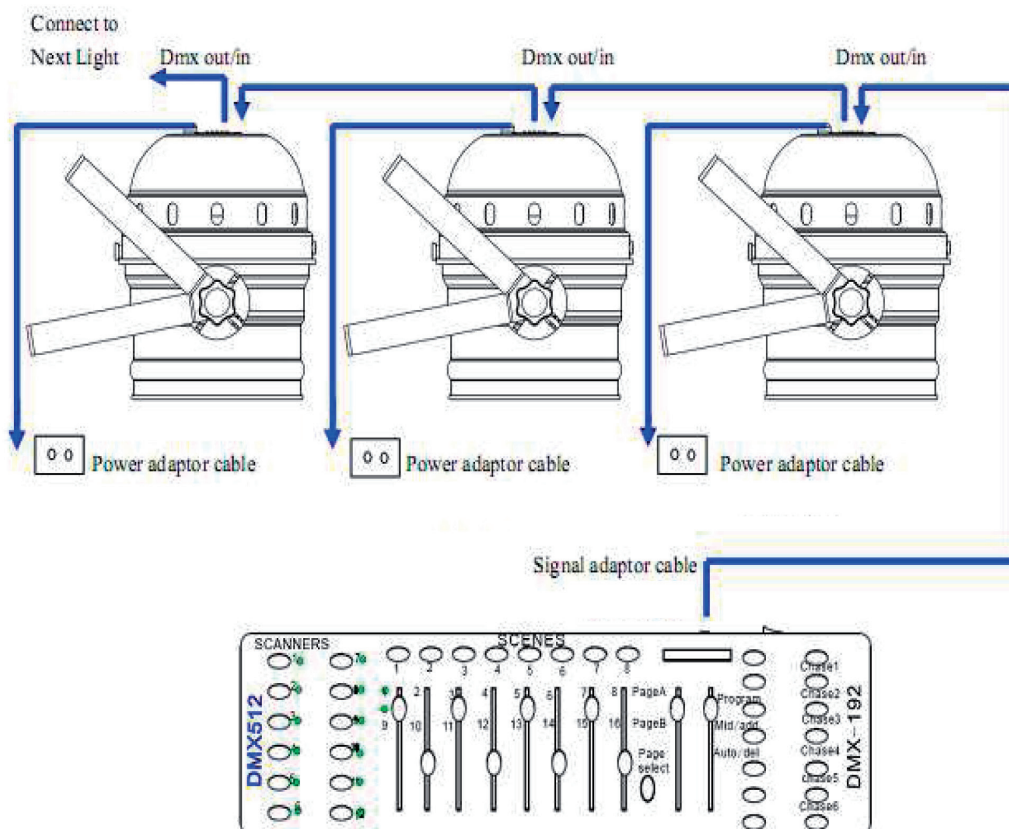
The Conversion between 3 pin and 5 pin XLR.

If the output cable of DMX512 controller is the 5PIN, please use 1pc 5PIN to 3PIN cable.

| 3-Pin XLR to 5-Pin XLR Conversion | | |
|---|---|---|
| Conductor | 3-Pin XLR Female (Out) | 5-Pin XLR Male (In) |
| Ground/Shield | Pin 1 | Pin 1 |
| Data Compliment (- signal) | Pin 2 | Pin 2 |
| Data True (+ signal) | Pin 3 | Pin 3 |
| Not Used | | Do Not Use |
| Not Used | | Do Not Use |

## 10. Connecting picture

Light connecting picture:

## 11. Trouble Shooting

| Problem | Checking Way |
|---|---|
| Can not turn on the light | Check the power source plug is in normal or not<br>Check the switch of the lights is off or on<br>Check the fuse if in normal |
| DMX can not control it | Check the DMX cable is connect to the lights or not<br>Check the DMX512 controller work in normal or not<br>Check the DMX cable is normal or not<br>Check if the lights is in DMX mode (A001) |
| Display not bright | When connect to the electricity, did the led flash one time? If so, the power source is normal; If not, please check if the switch and the transformer has power out<br>Check if the power input of the IC board is normal<br>Check if the cable connect to the display loose<br>Change the main board to see if it is normal.<br>Chang the display |
| LED not light | When connect to the electricity, did the led flash one time? If so, the power source is normal; If not, please check if the switch and the transformer has power out<br>Check if the power input of the  IC board is normal<br>Check if the cable connect to the display loose<br>Change the main board to see if it is normal.<br>Chang the display |
| Some of the LED not light | LED is connected by leds in series first, then connect parallel, so please check if the leds is loose<br> Use the multimeter to check if the led is bright or not, of not, please change the led<br>check whether current limiting resistor is normal or not<br>Check constant current IC is normal or not (compared with the normal IC) |
| Single color leds always bright/not bright | Check the switch of this color is normal or not<br>Change the IC control board |
| Noted: only professional persons can do as above! ||

## 12. Technical Specification

- Input voltage: AC 100V-264V/47-63HZ
- Output voltage: DC24V
- Consume:  160W
- Lamp Type: High Power LED(8W)
- Lamp Spec:4-in-1 8W (18PCS)
- Constant current driver: 500MA
- PWM Dimmer: 400HZ(16666 steps)
- Refresh rate: >400HZ
- Life span: 50000~100000hours
- Control Signal: DMX512, sound activated, auto run
- Control mode: stand alone/ sound activated
- Channel: 3CH, 4CH, 5CH, 8CH, 9CH
- Color effect: RGBW mixing
- Function Effect: dimmer, strobe, eotic, gradual change, sound activated
- Beam Angle: 25°,45°
- Cooling mode: Natural Convection
- Anti-electricity intension: 1.5KV
- Insulation Resistance: >2MΩ
- Size: 30 x 22 x 23cm
- Net Weight: 2.5KG