

# BL-DMX-103-V2 4 channel DMX controlled dimmer

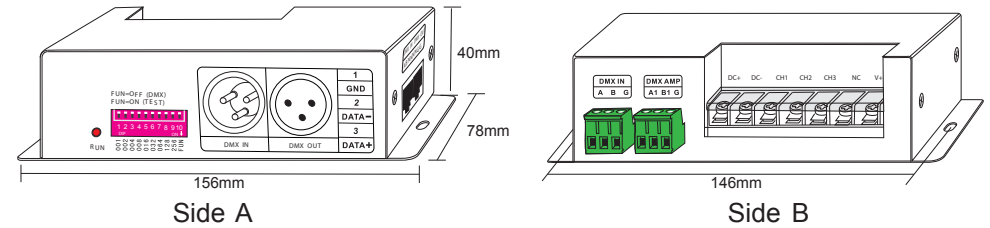


This decoder is designed via advanced micro-electronic control technology to convert universal DMX512 signal into PWM signal; this compact decoder work with DMX512 Console, with 256 levels gray scale output per channel. Realize 0-100% brightness and various changing effect; equipped with DMX standard XLR-3, RJ45, green terminal interface, easy to operate. And it can control single color, two color, RGB, RGBW LED light.

## 1. Product Parameter:

Input Signal	DMX512
Power Supply Required	DC Constant Voltage
Input Voltage	DC5V~DC24V
Max Current Load	6A/CH×4CH 24A Max
Max Output Power	120W/288W/576W(5V/12V/24V)
Output Gray Scale	256 Levels/CH(8bit/CH)
DMX512 Socket	XLR-3, RJ45, Green Terminals
Working Temperature	-30°C-65°C
Dimension	L156×W78×H40mm
Output Type	Pulse Width Modulation (PWM)
Weight(G.W.)	430g

## 2. Configuration Diagram:

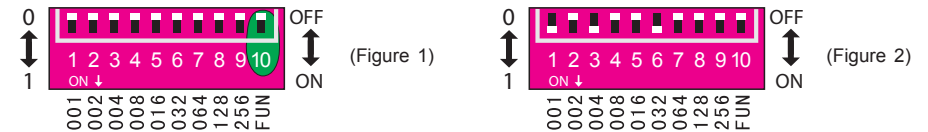


## 3. Set Initial DMX Address:

Accept DMX512 signal only when the DIP switch FUN=OFF, as figure 1									
DIP	1	2	3	4	5	6	7	8	9
Value	001	002	004	008	016	032	064	128	256
Remark									
DMX512 initial address is the total amount of the Dip switch 1-9, down dip switch to "ON" position, User can get its place value, Up dip switch to "OFF" position, Its place value is 0.									

Example: Set initial address to 37

Set the 1<sup>st</sup>, 3<sup>rd</sup>, 6<sup>th</sup>, bit of the DIP switch downward to "1" the rest to "0" (like figure 2), the summation from 1 to 9 is 1+4+ 32, so the DMX512 initial address code is 37.



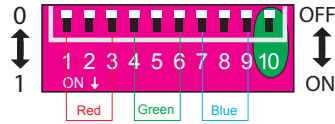
## 4. DMX Dimming Instruction:

Each DMX decoder occupies 4 DMX addresses when connecting the DMX console. For instance, defaulting the initial address for the DMX decoder is 1, please find their corresponding relationships in the following form.

DMX Console Channel	DMX Decoder Output Channel
CH1 0-255	CH1 PWM 0-100% (LED R)
CH2 0-255	CH2 PWM 0-100% (LED G)
CH3 0-255	CH3 PWM 0-100% (LED B)
CH4 0-255	CH4 PWM 0-100% (LED W)

## 5. Testing Functions:

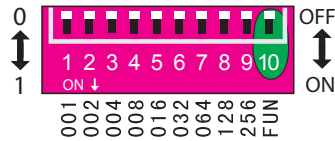
### 1) Manual Dimming Functions:



FUN=OFF, disconnect the DMX512 signal, entering the manual dimming with the dip switch

Brightness	DIP1-3(CH1)	DIP4-6(CH2)	DIP7-9(CH3)
0	000	000	000
14%	100	100	100
28%	010	010	010
43%	110	110	110
57%	001	001	001
71%	101	101	101
86%	011	011	011
100%	111	111	111

### 2) Automatic Functions:



As diagram, FUN=ON: test function; 1-9DIP switch=OFF: BLACK

DIP1	DIP2	DIP3	DIP4	DIP5	DIP6	DIP7	DIP8	DIP9
Red	Green	Blue	Yellow	Purple	Cyan	full brightness	Strobe	Color gradual

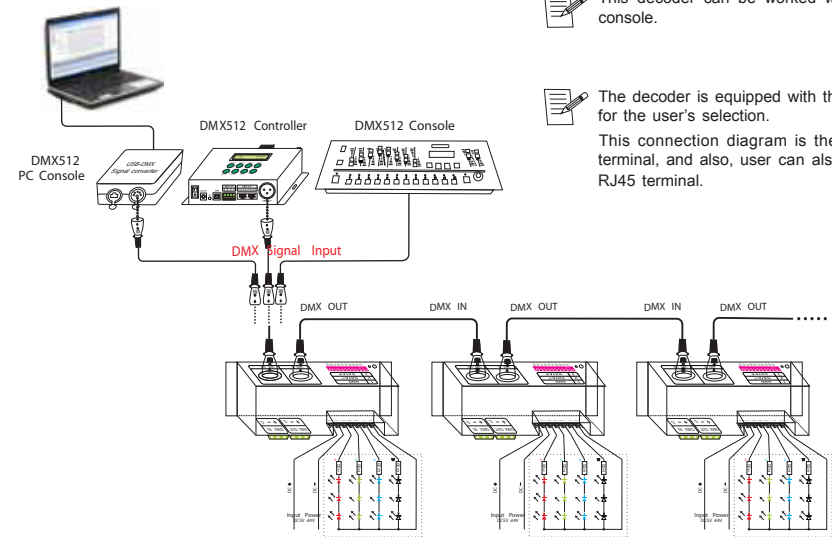


1-7 is to realize 8 speed levels. 7 is the fastest levels while dip switch 1-7=OFF: the speed is 0.

DIP1	DIP2	DIP3	DIP4	DIP5	DIP6	DIP7
Speed 1	Speed 2	Speed 3	Speed 4	Speed 5	Speed 6	Speed 7

As diagram,when several dip switches are on,subjected to the highest switch value, when all the dip switches=ON,it's the color gradual in the test mode, 7 speed level

## 6. Conjunction Diagram:



This decoder can be worked with any brand of DMX console.

The decoder is equipped with three types DMX terminal for the user's selection.

This connection diagram is the example of the XLR-3 terminal, and also, user can also use green terminal or RJ45 terminal.

## 7. Attention:

- 1) The product shall be installed and serviced by a qualified electrician
- 2) This product is non-waterproof. Please avoid the sun and rain. When installed outdoors please ensure it is mounted in a water proof enclosure.
- 3) Good heat dissipation will prolong the working life of the controller. Please ensure good ventilation.
- 4) Please check if the output voltage of any LED power supplies used comply with the working voltage of the product.
- 5) Please ensure that adequate sized cable is used from the controller to the LED lights to carry the current. Please also ensure that the cable is secured tightly in the connector.
- 6) Ensure all wire connections and polarities are correct before applying power to avoid any damages to the LED lights.
- 7) If a fault occurs please return the product to your supplier. Do not attempt to fix this product by yourself.