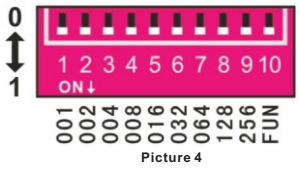
2、Color jumping & color smooth speed
When decoder is at testing mode, DIP Switch 8 is at “ON”, it’s the 7 Color Jumping, when DIP Switch 9 is at “ON”, it’s the 7 Color Smooth,
with 8 speed levels for each effect.
SWITCH 1-7 OFF:SPEED 0
SWITCH 1=ON:SPEED 1
SWITCH 2=ON:SPEED 2
SEITCH 3=ON:SPEED 3
SWITCH 4=ON:SPEED 4
SWITCH 5=ON:SPEED 5
SWITCH 6=ON:SPEED 6
SEITICH7=ON:SPEED 7
As Picture 4. When several DIP SWITCH at “ON”
at the same time, comply with the largest value switch; In Picture4, it shows the decoder status is color smooth at testing function, and is at Speed 7.



Picture 4

## 8、After-Sales

From the day you purchase our products within 3 years, if being used properly in accordance with the instruction, and quality problems occur, we provide free repair or replacement services except the following cases:
1.Any defects caused by wrong operations.
2.Any damages caused by inappropriate power supply or abnormal voltage.
3.Any damages caused by unauthorized removal, maintenance, modifying circuit, incorrect connections and replacing chips.
4.Any damages due to transportation, breaking, flooded water after the purchase.
5.Any damages caused by earthquake, fire, flood, lightning strike etc force majeure of natural disasters.
6.Any damages caused by negligence, inappropriate storing at high temperature and humidity environment or near harmful chemicals.

## 9、Kindly Reminder

1.Power Source Selection
Power source must be DC constant voltage type of power supply. Due to the efficient output in some power supplies are only 80% of total, so please select at least 20% higher output power supply than the consumption of LED lights.





# DMX512 Constant Voltage Decoder User Manual

(Please read through this manual carefully before use)

## 1、Brief Introduction

24CH RGB DMX decoding driver works to convert universal DMX512/1990 digital signal to PWM signal, which controlled by DMX512 console, with 256 levels grey scale output per channel. Adopting unique programming technology, Creating exclamatory, perfect color fade & smooth effect, simultaneously let LED color more affluent.

## 2、Specifications

| Model | 24CH Decoder |
|---|---|
| Input voltage | DC12V-24V |
| Max load current | 3A/CH×24 |
| Max output power | 860W/1720W(12V/24V ) |
| Output Scale level | 256 levels |
| Input signal | DMX512/1990 |
| Output DMX Channel | 24Ch CV PWM |
| working temperature | -30℃-65℃ |
| Dimension | L260×W110×H40(mm) |
| Package Size | L270×W130×H45(mm) |
| Weight (G.W) | 920g |

## 3、Basic Features

1.24 output channels, 3A per channel which can connect RGB full-color lights.
2.0-100% smooth brightness adjusting, 256 grey steps per channel.
3.Universal standard DMX512 input protocol; addresses can be set up by DIP switch.
4.Working voltage from DC12V-DC24V.
5.10 self-changing modes, 8 speed levels.
6. Power loss memory function.

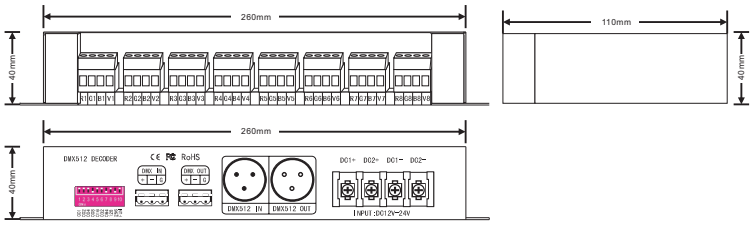




## 4、Safety warnings

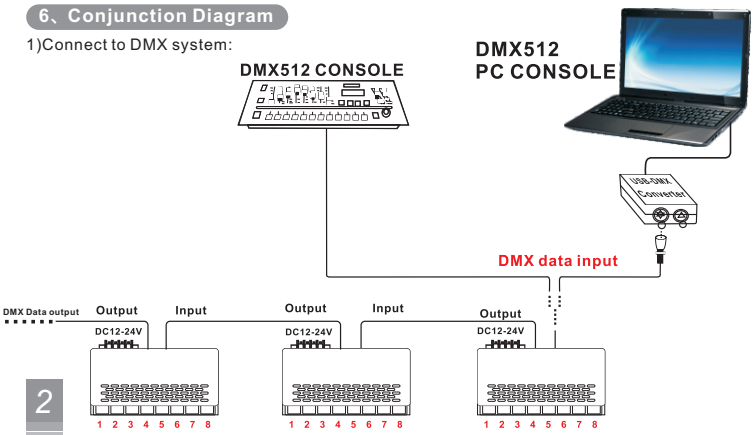
Please don’t install this controller in lightening, intense magnetic and high-voltage fields.
1.To reduce the risk of component damage and fire caused by short circuit, make sure correct connection.
2.Always be sure to mount this unit in an area that will allow proper ventilation to ensure a fitting temperature.
3.Check if the voltage and power adapter suit the controller.
(please select DC12-24V power supply with constant voltage)
4.Don’t connect cables with power on; make sure a correct connection and no short circuit checked with instrument before power on.
5.Please don’t open controller cover and operate if problems occur.
The manual is only suitable for this model; any update is subject to change without prior notice.

## 5、Interfaces




## 6、Conjunction Diagram

1)Connect to DMX system:





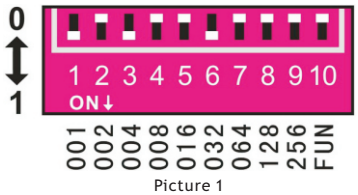



NOTE: According to DMX512 protocol, in order to ensure a steady DMX data transmission, you should weld a metalster(Metal Thin Film resistor, 90-120Ω 1/4 W )at the end of each layout of DMX data cable(between Foot 2 and Foot 3, Data + and Data -), please also refer to your DMX console manual to select a correct resistor.

## 7、Operating instructions

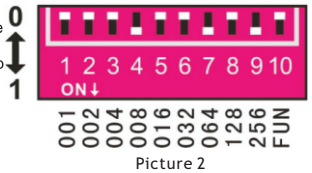
1)Decoder address setting

This decoder occupies 3 addresses, adopted Dip switch to set the address, the Dip switchesfrom 1 to 9 are a kind of binary value coding switches used to set DMX512 initial address code, the correlative bits is the 1-9 bits of the DIP switch, the 1st bit is LSC, the 9th bit MSC , 512 addresses totally.DMX512 initial address code is equal to the total amount of the Dip switches’ number from 1 to 9, press Dip switch downward (ON: at position “1”), user can get the number of its position, if pressing upward (at position “0”), the number of its position is 0.Accept DMX512signal only when the DIP switch FUN= OFF (at position “0”)Example 1: Set to 37Set the 6th, 3rd, 1st bit of the DIP switch downward to “1”, others to “0” (picture 1), the total sum from 1to 9 is 32+4+1, so the DMX512 initial address code is 37.



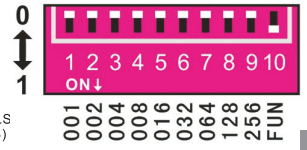
Picture 1

Example 2:
Set DMX512 original address code as 328: Set the 9th, 7rd, 4st bit of the DIP switch downward to “1”, the rest to “0” (as picture 2), the total sum from 1 to 9 is 256+64+8, so the DMX512 original address code is 328.



Picture 2

Ⅵ. Instructions for other functions
1、Testing function:
The 10th DIP switch is FUN, acting as the function key.
DMX512 Decoder works when FUN is at OFF, receiving DMX512 signals.
Decoder testing mode works when FUN is at position" ON" as Picture 3:
SWITCH1-9 OFF:BLACK
SWITCH1 IS ONRED
SWITCH2 IS ON: GREEN
SWITCH3 IS ON:BLUE
SWITCH4 IS ON:YELLOW
SWITCH5 IS ON: PURPLE
SWITCH6 IS ON: CYAN
SWITCH7 IS ON :WHITE
SWITCH8 IS ON :7 CLOLOR JUMPING (8 SPEED LEVELS
SWITCH9 IS ON: 7 COLOR SMOOTH (8 SPEED LEVELS)



Picture 3