Speed for Program 520 – 589 (Color Changing Fading Mode) for one step and not for the whole program:
0=0,5 sec. | 1=1 sec. | 2=2 sec. | 3=3 sec. | 4=5 sec. | 5=10 sec. | 6=15 sec. | 7=30 sec. | 8=60 sec. | 9=120 sec.
Speed for Programm 590 - 599 ( one step and not for the whole program):
0=0,02 sec.| 1=0,04 sec.| 2=0,1 sec.| 3=0,2 sec.| 4=0,5 sec.| 5=1 sec.| 6=2 sec.| 7=5 sec.| 8=10 sec.| 9=15 sec.
Brightness for 900 - 999. the units digit show the brightness:
0=1% Brightness, 1=5% Brightness, 2=10% Brightness, 3=20% Brightness, 4=30% Brightness, 5=40%
Brightness, 6=50% Brightness, 7=60% Brightness, 8=80% Brightness and 9=100% Brightness

## 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.

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# 24CH 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 4096 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

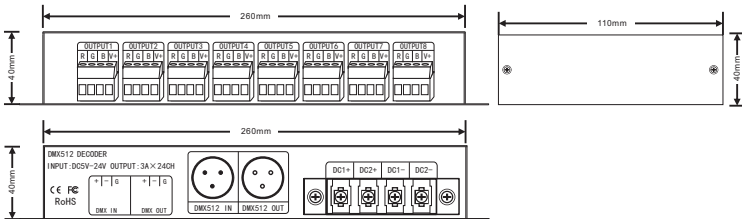| Model | 24CH Decoder |
|---|---|
| Input voltage | DC5V-24V |
| Max load current | 3A/CH×24 |
| Max output power | 360W(5V)860W/1720W(12V/24V ) |
| Output Scale level | 4096 levels |
| Input signal | DMX512/1990 |
| Output DMX Channel | 24Ch CV PWM |
| Dimension | L260×W110×H40(mm) |
| Package Size | L270×W130×H45(mm) |
| Weight (G.W) | 920g |

## 3、Basic Features

1. Universal standard DMX512 input protocol;  3-digital-display shows DMX address code.
2. Working voltage from DC5V-DC24V.
3. 24 output channels,4096 grey steps per channel.
4. Multiple self–change modes, 10 speed levels .

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## 4、Safety warnings

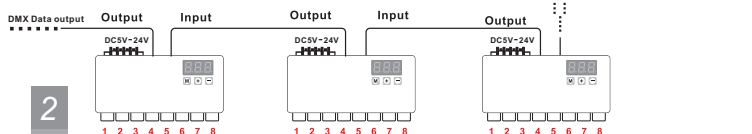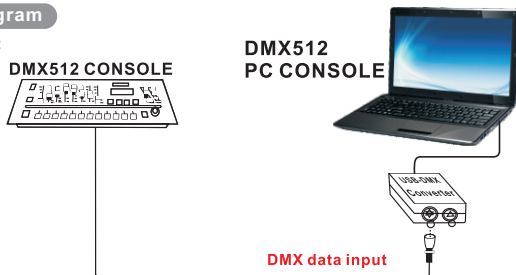Please don't install this controller in lightening, intense magnetic and high-voltage fields.
1. To reduce the risk of component damage and fire caused by short circuit, make sure correct connection.
2. Always be sure to mount this unit in an area that will allow proper ventilation to ensure a fitting 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:



DMX512 CONSOLE

DMX512 PC CONSOLE

DMX data input

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

Three touch buttons: M,+,-

| M | change the turns in the 3 display tube |
|---|---|
| + | increase |
| - | decrease |

ϓThree-digital-display indicates the current setting value; different value indicates different operating status. Three-digital-display goes off without operation for 1 minutes, press any key to turn it on. The decoder has an automatic key lock. If no settings are made to the decoder, the key lock function is activated after approximately 15 seconds automatically. Pressing M button for about 2 seconds to deactivated. Subsequently, the decoder can be set.

1. DMX Slave Mode: The value is: 001-512, such as: "001"



The decimal point of last digital of the display tube will twinkle regularly when receives DMX512 signal normally. When no signal is received, the decimal point does not twinkle, and showing current DMX address.
DMX master mode preset patterns list :

| 000 | All channels to 100% |
|---|---|
| 513 | RED |
| 514 | GREEN |
| 515 | BLUE |
| 516 | MAGENTA |
| 517 | CYAN |
| 518 | YELLOW |
| 519 | ORANGE |
| 520-529 | red, orange, yellow, green, cyan, blue, magenta (Fading mode) |
| 530-539 | white, magenta, red, orange, yellow, green, cyan, blue (Fading mode) |
| 540-549 | yellow/orange, red (Fading mode) |
| 550-559 | magenta blue (Fading mode) |
| 560-569 | cyan, blue (Fading mode) |
| 570-579 | green, yellow, (Fading mode) |
| 580-589 | All 24 channels make a pulsating move from 1% to 100% (Fading mode) |
| 590-599 | Strobo for all 24 channels 0% to 100% (Jumping mode) |
| 600-699 | Red from 0 to 99% |
| 700-799 | Green from 0 to 99% |
| 800-899 | Blue from 0 to 99% |
| 900-999 | 10 different white tones mixing with different RGB percentage |

＊520-599，  First two digital indicate the modes, the third one shows the speed. 10 speed levels ,from 0-9 speed decreasing. Total: 8 modes ,such as :

Mode        Speed level 4

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3