

8. After-Sales

If used in accordance with these instructions, we provide a free repair or replacement service up to three years from the day of purchase if a fault should occur with the unit, except for the following cases:

1. Any defects caused by incorrect operation.
2. Any damage caused by inappropriate power supply or abnormal voltage.
3. Any damage caused by unauthorized removal, maintenance, modification of the circuit, incorrect connection and repair, e.g. replacement of ICs.
4. Any damage due to transportation, incorrect handling or water after purchase.
5. Any damages caused by earthquake, fire, flood, lightning strike, force majeure of natural disasters, etc.
6. Any damage caused by negligence, inappropriate storage at high or low temperatures, humid environment or near harmful chemicals.

9. Important reminder

Power Source Selection

The power source must be DC constant voltage type power supplies. Because some power supplies are only 80% efficient, we highly recommend that you use a power supply rated at least 20% higher than the total load.

DMX512 Constant Voltage Decoder User Manual



(Please read through this manual carefully before use)

1. Brief Introduction

24CH RGB DMX decoding driver converts a DMX512/1990 input to PWM output with 256 different levels output per channel. With improved firmware, it provides flicker free and smoother dimming.

2. Specifications

| Model | 24CH Decoder |
|--------------------|-------------------------------|
| Input voltage | DC5V-24V |
| Max load current | 3A/CH×24 |
| Max output power | 360W(5V)/860W(12V)/1720W(24V) |
| Output Scale level | 256 levels |
| Input signal | DMX512/1990 |
| Output DMX Channel | 24Ch CV PWM |
| Dimension | L145×W98×H30(mm) |
| Weight (G.W) | 500g |

3. Basic Features

1. 24 output channels, 3A per channel arranged in groups of three (ideal for RGB LEDs).
2. 0 ~ 100% smooth brightness control, 256 steps per channel.
3. Universal standard DMX512 input protocol; addresses can be set by DIP switch.
4. Working voltage from DC 5V ~ 24V.
5. 10 built-in programs, 8 speeds.
6. Power loss memory function.

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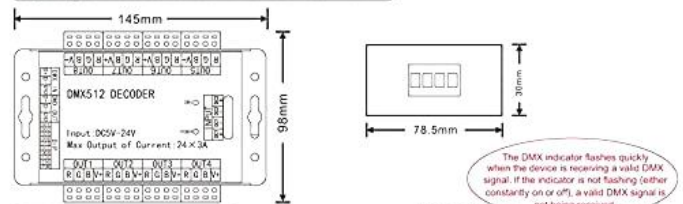
4. Safety warnings

Please do not install this controller in areas subject to lightning, intense magnetic fields and high voltages.

1. To reduce the risk of component damage and fire caused by short circuits, ensure that all connections are made correctly, securely and use suitably rated cable.
2. Ensure that the unit is mounted in an area that will allow proper ventilation so that the unit does not overheat.
3. Ensure that the power supply or supplies are correctly rated; regulated 5V ~ 24V DC and able to supply a suitable current.
4. Do not connect or disconnect cables with power applied. Check to ensure that there are no short circuits before applying power.
5. Do not open the unit if problems occur.

This manual is only suitable for this model; the specification or operation is subject to change without prior notice.

5. Physical dimensions and connections



6. Connection diagram

1) Connect to DMX system:

DMX512 CONSOLE



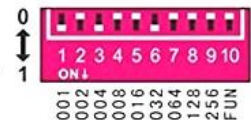
NOTE: According to the DMX512 specification, for reliable DMX data transmission, you should ensure that the last device in the DMX chain is correctly terminated. A 110 ~ 130Ω 1/2W resistor connected between pins 2 and 3 (Data and Data+). Please refer to the manual for your DMX console or output device for more details.

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7. Operating instructions

1) Decoder address setting

DIP switch 10 is the FUNCTION (FUN) switch. When FUN is OFF (up), DMX input is used.



Picture 1

The decoder occupies 24 consecutive DMX channels, set by DIP switches 1 ~ 9. The switches have a binary 'weighting' (shown in the picture) and set the DMX start channel. A switch is ON when it is in the downward position and OFF when it is in the upward position.

Please note that DMX input is only received and used when the FUN switch is OFF (up).

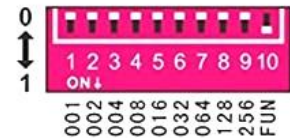
Example: DMX start channel 37 Set switches 1, 3 and 6 ON (down) and all others to OFF (up) (picture 1), the sum of the binary weightings is: $1 + 4 + 32 = 37$, so the decoder will respond to DMX channels 37 through to 60.

2) Instructions for built-in programs:

The built-in programs can be used for testing of the unit or for basic displays.

Built-in program mode operates when the FUN switch (DIP switch 10) is ON (down) as shown in picture 2.

| | |
|----------------|-----------------|
| SWITCH 1-9=OFF | Black |
| SWITCH 1=ON | Red |
| SWITCH 2=ON | Green |
| SWITCH 3=ON | Blue |
| SWITCH 4=ON | Yellow |
| SWITCH 5=ON | Purple |
| SWITCH 6=ON | Cyan |
| SWITCH 7=ON | White |
| SWITCH 8=ON | 7 Color jumping |
| SWITCH 9=ON | 7 Color smooth |



Picture 2

Color jumping and color smooth built-in programs operate when DIP switches 8 and 9 are in the ON (down) position respectively. 8 speeds are available for each effect:

| | |
|-----------|----------------------------|
| 1-7开关=OFF | SPEED 0 |
| 开关1=ON | SPEED 1 |
| 开关2=ON | SPEED 2 |
| 开关3=ON | SPEED 3 |
| 开关4=ON | SPEED 4 |
| 开关5=ON | SPEED 5 |
| 开关6=ON | SPEED 6 |
| 开关7=ON | SPEED 7(the fastest speed) |

When multiple speed DIP switches are ON (down) at the same time, the fastest selected speed is used.

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