DMX512 DECODER



User Manual

Foreword

Before installation and usage, we strongly recommend you to read through this manual carefully.

After-sales service

From the day you purchase our products within a year, 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 unauthorized removal, maintenance, modifying circuit, incorrect connections and replacing chips.
3. Any damages due to transportation, vibration etc after the purchase.
4. Any damages caused by earthquake, fire, lightning strike, pollution and abnormal voltage.
5. Any damages caused by negligence, inappropriate storing at high temperature and humidity environment or near harmful chemicals.
6. Product has been updated.

Safety Warnings

1. Please don’t install this decoder in lightening, intense magnetic and high-voltage fields.
2. To reduce the risk of component damage and fire caused by short circuit, make sure correct connection
3. Always be sure to mount this unit in an area that will allow proper ventilation to ensure a fitting temperature.
4. Check if the voltage and power adapter suit the decoder & if anode or cathode definition is the same as the controller’s.
5. Don’t connect cables with power on, make sure a correct connection and no short circuit checked with instrument before power on.
6. Please don’t repair without permission if problems occur.
For update information, kindly please consult with your supplier.

Decoder Introduction

This decoder is designed via advanced microchip technology to convert the universal standard DMX512/1990 signal into analog signal, it allows user to choose 1~3 output channel, 256-level brightness control, max 512 output channels. This compact decoder connects to light console, analog device and various Led terminal products such as RGB Led lamps, RGB Led tubes, building lamps, LED wall washers or lighting and other compatible devices allowing its user to create endless possibilities of light shows.

I. Product Specifications:

1.) Input Power：DC5V--DC24V

2.) Output Current：6A per channel（total current: 18A）

3.) Output Power：90W（5V）220W(12V) 450W(24V)

4.) Brightness Control ：256 scales

5.) DMX Address：3 channels

6.) DMX512 Standard：DMX512/1990

7.) Product Dimension：125×52×40（mm）

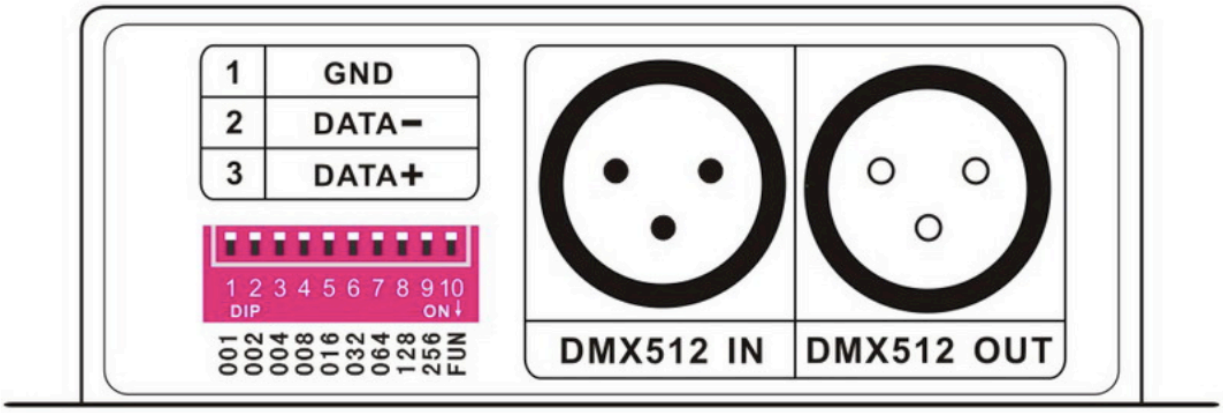
8.) Casing Size：135×70×50（mm）

9.) Weight：0.3KG

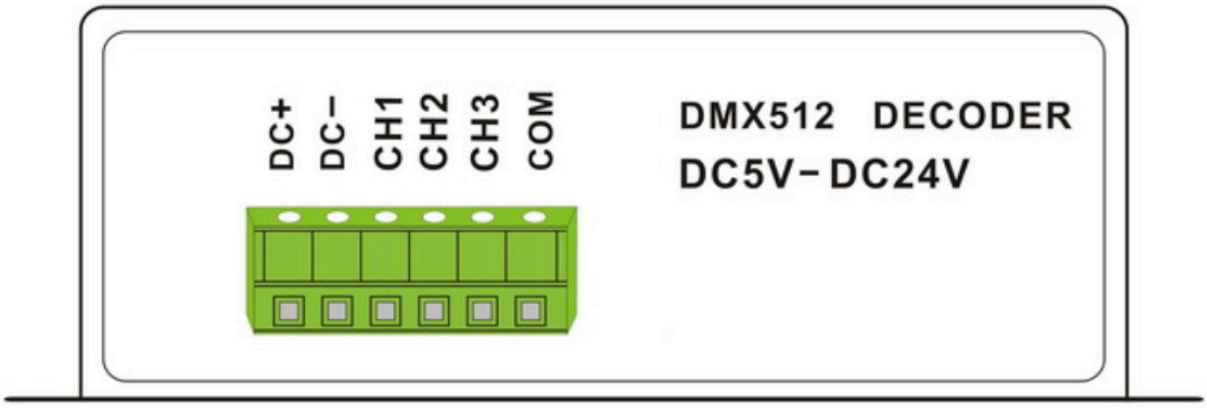
II. Basic Functions

1.) 256 scales of smooth brightness adjusting.
2.) User addressable DMX interface-with easy dip-switch settings and testing modes.
3.) High power output, 3 output channels.
4.) Over load auto protection.
5.)DMX pass through and in/out connector for daisy chain configurations.

III. Configuration Diagram



Input Port



Output Port

IV. Decoder address setting

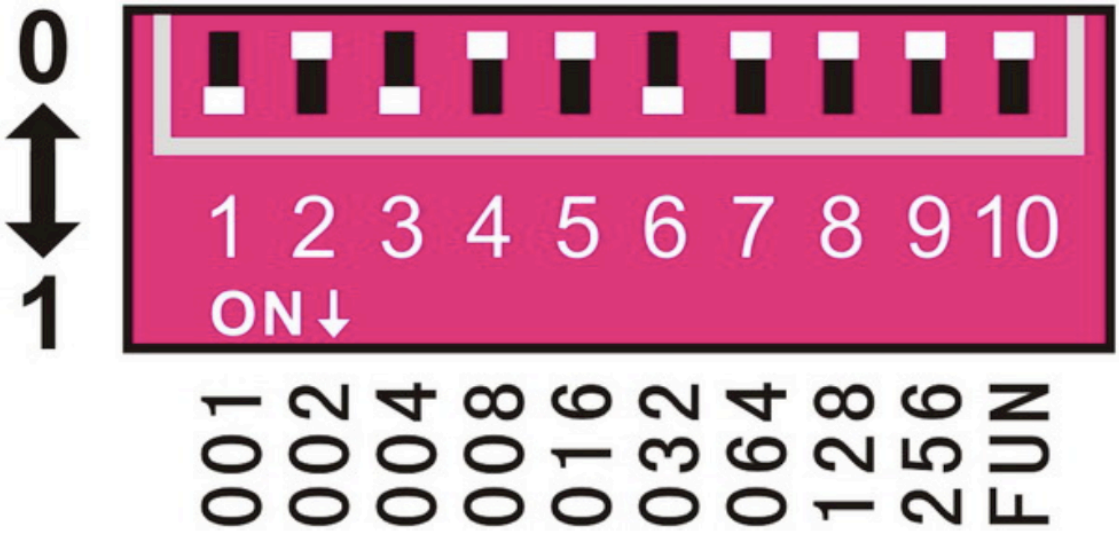
This decoder occupies 3 addresses, adopted Dip switch to set the address, the Dip switches from 1 to 9 are a kind of binary value coding switches used to set DMX512 initial address code, the correlative bits is the 1-9 bits of the DIP switch, the 1st bit is LSC, the 9th bit MSC , 512 addresses totally.

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.

Example 1: Set to 37

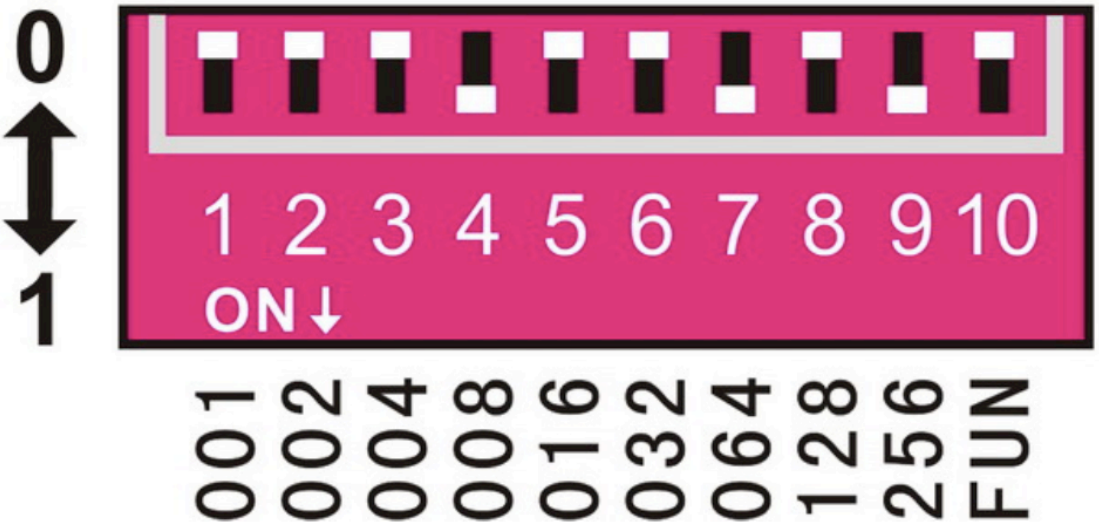
Set the 6th, 3rd, 1st bit of the DIP switch downward to “1”, others to “0” (as pictured below), the total sum from 1 to 9 is 32+4+1, so the DMX512 initial address code is 37.

NOTE: Accept DMX512 signal only when the DIP switch FUN＝OFF (at position “0”)



Example 2:

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

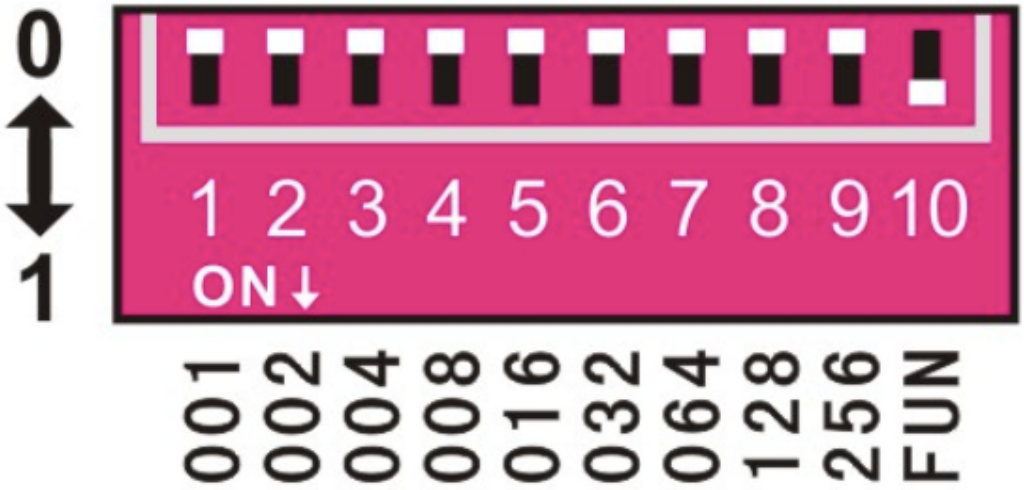


V. Instructions for other functions

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 pictured below:

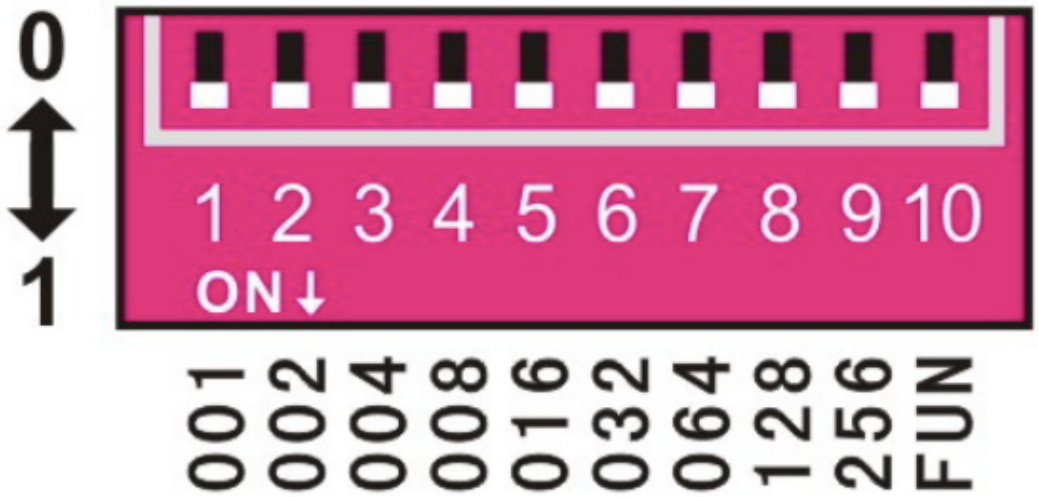
SWITCH1－9 OFF：BLACK
SWITCH1 IS ON：RED
SWITCH2 IS ON: GREEN
SWITCH3 IS ON: BLUE
SWITCH4 IS ON: YELLOW
SWITCH5 IS ON: PURPLE
SWITCH6 IS ON: CYAN
SWITCH7 IS ON: WHITE
SWITCH8 IS ON: 7 CLOLOR JUMPING (8 SPEED LEVELS)
SWITCH9 IS ON: 7 COLOR SMOOTH (8 SPEED LEVELS)



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.

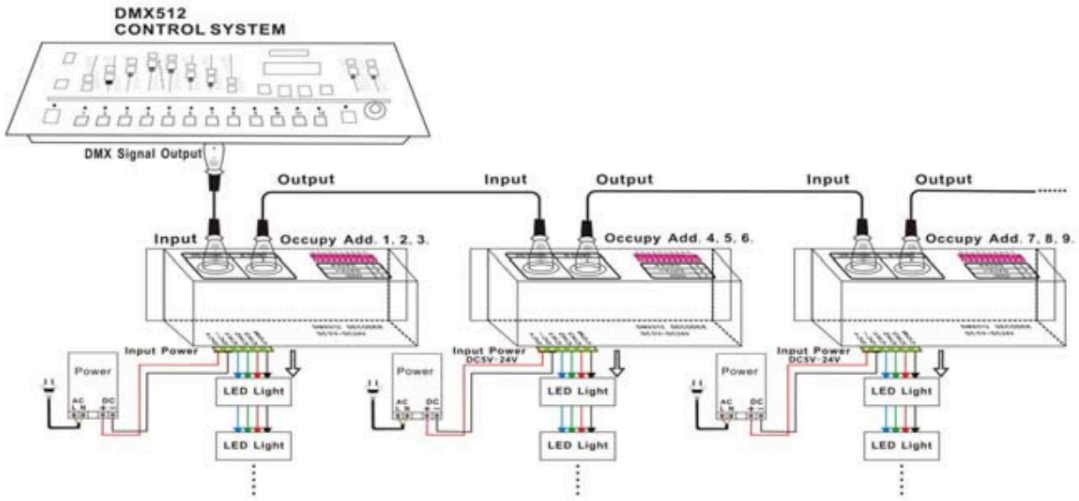
SWITCH 1－7 OFF：SPEED 0
SWITCH 1＝ON：SPEED 1
SWITCH 2＝ON：SPEED 2
SWITCH 3＝ON：SPEED 3
SWITCH 4＝ON：SPEED 4
SWITCH 5＝ON：SPEED 5
SWITCH 6＝ON：SPEED 6
SWITCH 7＝ON：SPEED 7



NOTE: As pictured above. When several DIP SWITCHES are “ON” at the same time, comply with the largest value switch, the testing function is when FUN = ON, DIP SWITCH 8 & 9 for the color changing function, DIP SWITCH 1-7 for the speed function, comply with the largest value switch, SPEED 7 is the fastest speed.

VI. Conjunction Diagram

Each Decoder with one power supply



Or one power supply with multi decoders

