

# MODEL: LN-DMXTCON-4CH-LV

LOW VOLTAGE DMX DECODER (12/24VDC)

**LED WORLD INC.**  
1800-387-4081- (403) 256-0074  
www.ledworldlighting.com

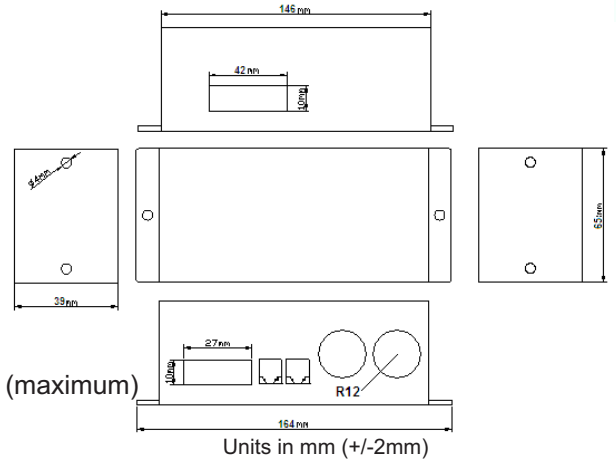
## FEATURES:

DMX common controller uses an advanced micro control unit to receive standard DMX-512 digital control signal and transformed it into PWM Mosfet driven signal for driving constant voltage LED(s). Each unit can be daisy chained to other DMX controllers VIA DMX port and then to master DMX Digital console. Features 4 channel's to control four individual colors with a 256 grayscale level for each channel. Ideal for low voltage RGB Flex Strip™ lighting, RGBY Flex Strip™ lighting, RGB Back light and single color strips where dimming function is required.

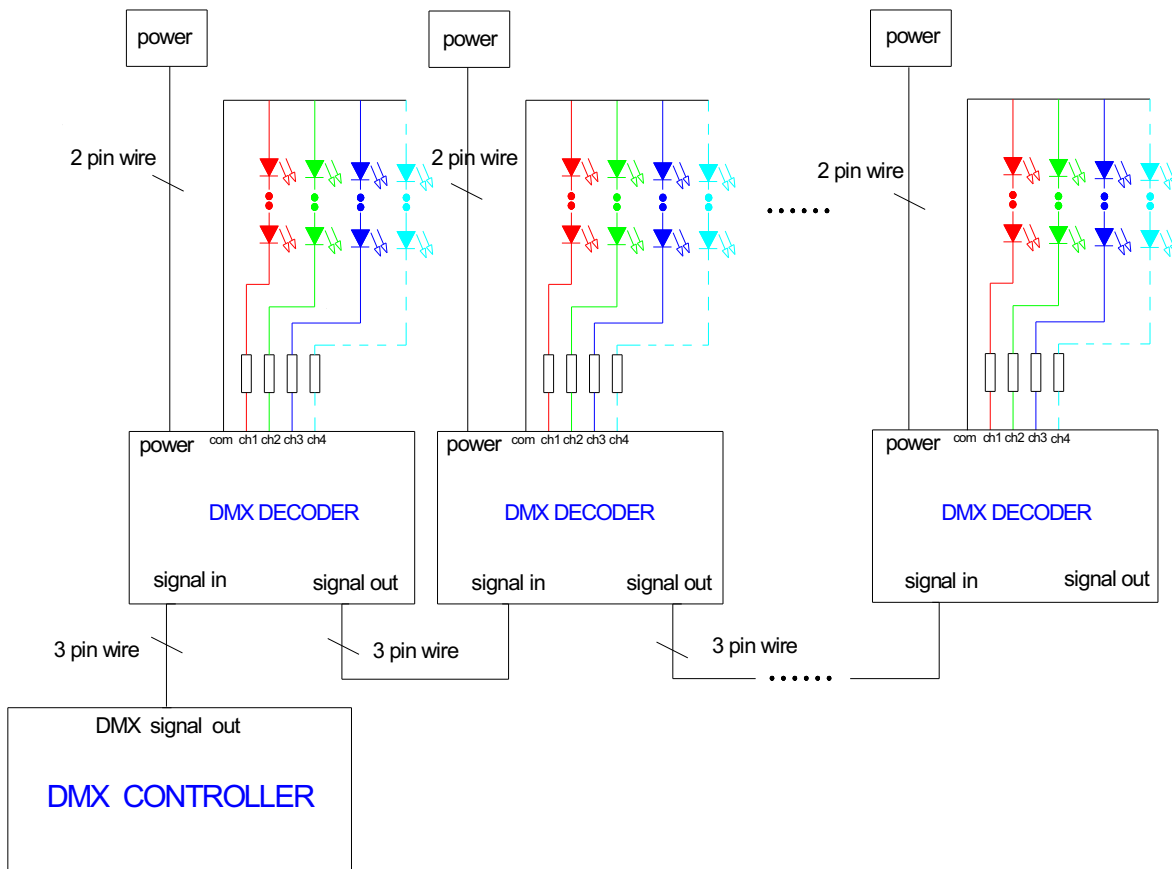


## Technical Parameters

Operating temperature:	-20 to 50 C Indoor (dry location)
Supply voltage:	5V to 24VDC
Output:	4 channels
Grayscale:	256/channel
External dimension:	L165 x W68 x H40 (mm)
Packing size:	L180 x W95 x H60 (mm)
Net weight:	320g
Gross weight:	355g
Static power consumption:	<1W
Output current: each channel	3 Amps (max)
Maximum Input:	5 Amps 12VDC / 8 Amps 24VDC
Output power:	5VDC:<60W, 12VDC:<108W, 24VDC:<192W (maximum)
Certifications:	CE, Rohs



## Typical Applications Setup Diagram



# MODEL: LN-DMXTCON-4CH-LV

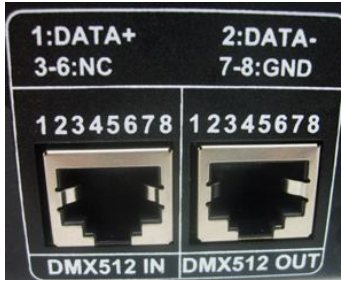
LOW VOLTAGE DMX DECODER (12/24VDC)

LED WORLD INC.  
1800-387-4081- (403) 256-0074  
www.ledworldlighting.com

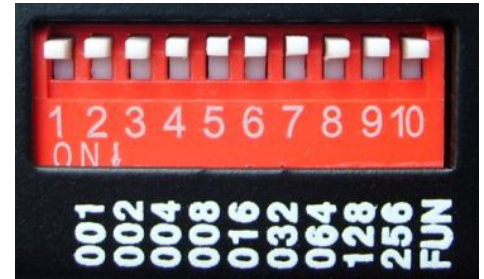
## Interface specifications DMX input/output interface:



3-pin-block as DMX signal interface.



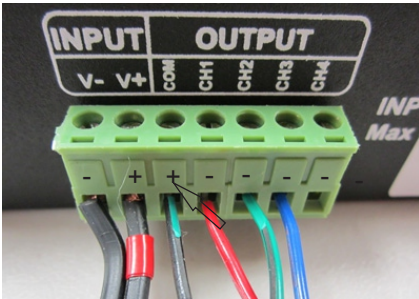
DMX input and output interface  
2: Optional RJ45 as signal interface to each unit. Only one interface can be used.



DMX Address code function setting interface. Note ON is dip down.

## Low voltage input:

Under normal circumstances only three channels are used with low voltage RGB LED Lighting but a four channel is available for another color if required.



If attaching RGB Flex Strip to LN-DMXTCON-4CH-LV, correct polarity is imperative; Black (may be white color wire) wire is positive (+) and goes to "COM" terminal. The common format is to insert the Red wire to CH1, Green wire to CH2 and Blue wire to CH3 (RGB Format). If unit is set to DMX Channel 1, the unit will automatically occupy Channels, 1,2,3 and 4 on the master DMX console.

If attaching a single color, the format is to attach the positive to COM and negative to Ch1 (but can also be Channel 2, 3 or 4 if desired).

## WARNING!

WIRE 6-8 MM (0.25-0.30")  
EXPOSED WIRE SHOULD NOT BE MORE THAN 6-8 MM LONG & SOLDER TIP (tinned). **DO NOT ALLOW WIRES TO CROSS** AND INSURE ALL EXPOSED WIRE IS FULLY INSERTED INTO THE SCREW TERMINALS. HAND TIGHTEN SCREW TERMINALS. USE ONLY 22 TO 16 GAUGE WIRE (NOT EXCEEDING 16 GAUGE).

- Input voltage must be identical to output voltage of the LED
- Input: For low voltage power input (5VDC ~ 24VDC).  
V- (negative) V+ (positive)

### IMPORTANT NOTE:

**COM: is for (+) Cathode**  
**Ch1, CH2, CH3, CH4 are (-) Anode**

**WARNING: ONLY QUALIFIED PERSONNEL SHOULD PERFORM INSTALLATION.**  
**TO AVOID ELECTRICAL SHOCK OR COMPONENT DAMAGE, DISCONNECT POWER BEFORE ATTEMPTING INSTALLATION OF THE POWER SUPPLIES.**

Failure to install the power supplies and/or LED modules in accordance with the National Electric Code (NEC), all applicable Federal, State and local electric codes as well as the specific Underwriters Laboratories (UL/CSA) safety standards for the installation, location and application may cause serious personal injury, death, property damage and/or product malfunction. These instructions are guidelines for installation and power supplies. Installation requirements may vary depending on the application. Licensed electricians should provide all installation services for connection of both primary and secondary (input/output) of the power supplies.

Not for in wall installation.

Cable lighting systems be installed only in dry locations

Cable lighting systems not be installed in bathrooms; Keep away from water or wet areas.

Conductors of extra-low-voltage circuits be rigidly supported,

Conductors not be installed in contact with combustible materials and not run through walls, ceilings, floors or partitions, and; Uninsulated conductors not be installed less than 2.2 m from the floor.

When using power supplies; the following basic safety features should be verified in addition to any other application specific concerns and local safety codes:

Short circuit protection

Overload protection (FUSE 5 AMP)

Overheat protection

Correct output voltage, including consideration for ripple and spikes.

# MODEL: LN-DMXTCON-4CH-LV

LOW VOLTAGE DMX DECODER (12/24VDC)

LED WORLD INC.  
1800-387-4081- (403) 256-0074  
www.ledworldlighting.com

## Direction for use:

### DMX address code settings:

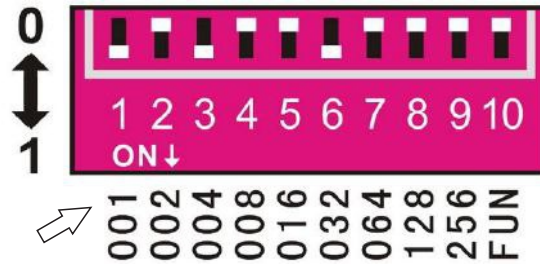
Each DMX controller occupies 4 sequential DMX addresses. Use the dip switches on the front to set the address in Binary code. For example, if the DMX controller is set to address 1, then channels 1 through 4 are occupied. 511 addresses can be set using the dip switches. Switches 1 through 9 are to set the DMX address and switches 10 is used to testing and function mode. Switches from 1 to 9; 1 is the lowest, and 9 is the highest.

DMX original address code is equal to the total value of the coding switch value from 1 to 9 turned on; flip the dip switch downwards (ON is at 1). The value of switch can be determined by adding the numbers value under the dip switch number (i.e. 001, 002 ect...)

DMX signal can only be received when coding switch FUN(10)=OFF(up).

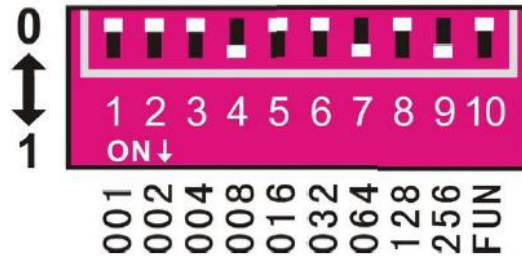
### Example 1:

Look at the following picture. If you want to set the DMX address to 37, set the first switch dip down as well as, the third and the sixth code switch dip. The total value of coding switch value from 1 to 9 is  $32 + 4 + 1$ , ( $001 + 004 + 032 = 37$ ) that is, the address code of DMX512 is 37.



### Example 2:

Look at the following picture, if you want to set 328 as the address code, you can only switch down the ninth, the seventh and the fourth code switches; the total value of dip switch is  $256+64+8$ , (using switches 1-9 only) is 328.



## 1. Testing function: FUN

The tenth DIP switch is called "FUN" and has a built-in function button. FUN=OFF allows the use of the DMX decoder functions. Using FUN you can test different functions if using three color LED RGB.

With the FUN switch DIP to ON: The default coding switch1-9 is off: Black.

Note; the following common format RGB format is used Red to CH1, Green to CH2 and Blue to CH3 (RGB Format).

Switch1=ON: red

Switch2=ON: green

Switch3=ON: blue

Switch4=ON: yellow

Switch5=ON: purple

Switch6=ON: cyan

Switch7=ON: white

Switch8=ON: seven-color jumpy changing (8 steps speed)

