

# LT-8016-A/B

## DMX512 LED Digital Tube

### User's manual



(Please read through this manual before use)

## Forward

Thanks for choosing our LT-8016 dmx digital tube. Before installation and use, we strongly recommend you to read through this manual carefully. If device has been damaged during transport, please report it to your supplier immediately. Please don't take any action without contacting your supplier first.

## After-sales Service

One year from your purchase date, 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 acts of God, 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 controller in lightning, intense magnetic or high-voltage fields.
2. To reduce the risk of component damage and fire caused by short circuit, make sure connections are correct.
3. Always be sure to mount this unit in an area that will allow proper ventilation to ensure the temperature is in the proper range.
4. Check the voltage is in the proper range and the power adapter polarity is correct. Do not connect cables with power on and make sure connections are correct. Check for short circuits with a test instrument before powering on.
5. Please don't attempt any repairs yourself; doing so will void your manufacture's warranty.

For update information, please consult with your supplier.

## Product Brief

LT-8016 DMX512 digital tube introduces an eye-catching new element to the designer's toolbox; it's based on LED semi-conductor digital RGB techniques, supporting universal dmx512 standard protocol, users can modulate up to millions of colors and deliver countless looks from multi-color changes to video displays, there's no limit to what can be displayed.

Each tube can be set to 1, 2, 4, 8 or 16 pixels per meter, very flexible; users can edit the dmx address on site as per your typical project request with our dmx address writer. The dmx addresses are re-writable.

### I . Components:

DMX512 digital tube includes:

- 1: 144pcs RGB LED's(48R; 48G, 48B);
- 2: UV-resistant & long life lasting PC tube;
- 3: Aluminum-base, waterproof-switching power supply;
- 4: High quality chips, double-sided PCB, plug & play data and power cables etc;

### II . Specs:

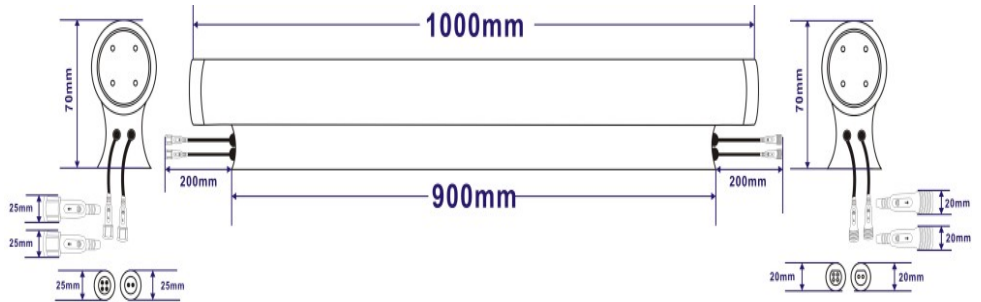
#### 1. Tube specs

LED qty	144pcs/m (R48,B48,G48)
Housing	Round PC tube+ aluminum-base
Viewing angle	≥250°
Brightness	≥800cd/m <sup>2</sup>
Life Tenure	≥50000hrs
Dimension	L1000× ϕ 50×H75(mm)
Box Size	L1020×W70×H83(mm)
Box Weight	1.5kg
Carton Size	L1030×W302×H268(mm)
Qty per carton	12m/ctn
G.W. per carton	22KG

## 2. Technical Specs:

Input power	Wide range voltage from AC90-250V
Power consumption	≤12W
Data connector	DMX512/1990
Dmx address setting	LT-8900dmx address encoder
Compatible controller	Any standard DMX512 controller
Suitable temperature	-20C° ~ 50C°
Protection level	IP66

## III. Product size:

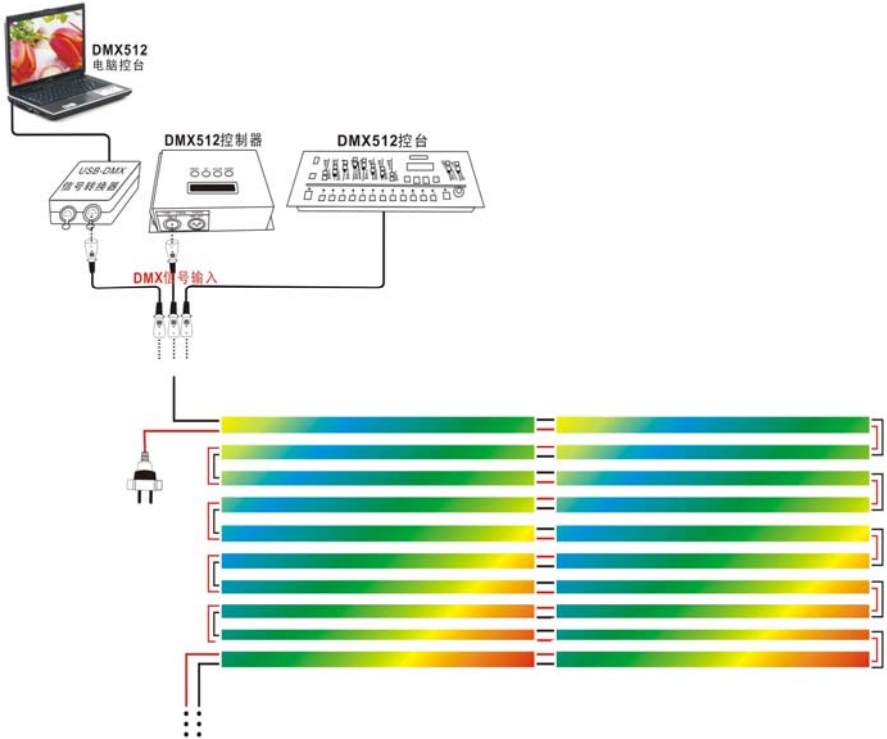


## IV. Definition for 4-pin data cable:

Data cable	Definition
Brown	DMX512 digital wire A
Green	DMX512 digital wire B
Blue	NC(no connection)
Black	GND

## V. Conjunction sample:

Any dmx controller can run DMX digital tubes compatible with universal standard DMX512 protocol



**Appendix :**

**LT-8900 DMX512 address encoder**



**I . Major function:**

1. Write dmx initial address;
2. Divide each meter into 1, 2, 4, 8 or 16 segments;
3. Test DMX512 tube;

**II . Definition for data cable**

Data cable	Definition
Brown	DMX512 digital wire A
Green	DMX512 digital wire B
Blue	Address encoding wire
Black	GND

**III. Instructions:**

**1. Preparation:**

Connect data cable of DMX tube with the data cable of DMX Address Encoder first, then set parameters via the four buttons (MODE; SETUP; UP;

DOWN) on the DMX Address Encoder.

## 2. Main interface:

Press MODE and enter the following interface:



```
WRITING  ADDR:  1
REP: /  1  STEP:  1
```

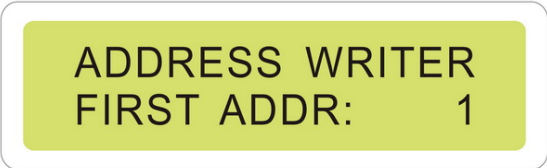
**WRITING ADDR:1:** the current initial address, you can press UP or DOWN to modify;

**REP:/1:** the current repeatable value, press UP or DOWN to divide each tube to different segments;

**STEP:1:** It refers to the address total value increased or decreased by every pressing of the UP or DOWN buttons, it's easier and faster to set dmx addresses for many tubes in a batch process.

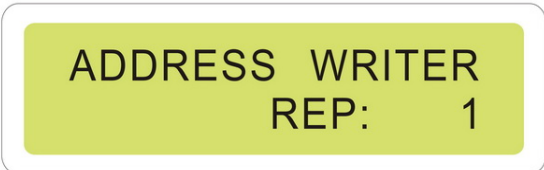
## 3. Write First Address & setup pixels

- Press SETUP to following interface:



```
ADDRESS WRITER
FIRST ADDR:    1
```

- Press UP or DOWN to select initial DMX address from 1-512, and you can also go back to the main interface to select, after the choice, the addresses will be remembered automatically, tube flashes white to show DMX addresses are written successfully.



```
ADDRESS WRITER
REP:    1
```

- REP: Press UP & DOWN to set different segments per meter for each tube, as

follows:

REP:1 means 16pixels(48 dmx channels) per meter;

REP:/2 (8 pixels, 24 dmx channels);

REP:/4 (4 pixels, 12 dmx channels);

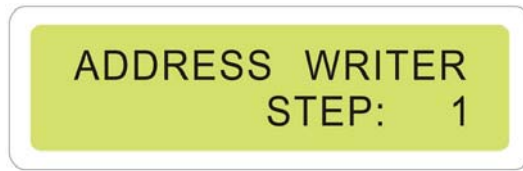
REP:/8 (2 pixels, 6 dmx channels)

REP:/16 (1pixel, 3 dmx channels);

For example, if you want to set a 16-pixel digital dmx tube to 8 pixels per meter, you can set **REP=/02**.

If you want to set it to 4 pixels, you can set **REP=/04**.

**Total pixels(16)÷REP pixels=actual pixel.**



●**STEP** means you can jump a pre-determined amount of dmx addresses each time, which makes it easier & faster to set up dmx addresses in a batch.

For example:

If the first tube's initial address is 1, and each tube has 6 dmx addresses (REP:/8, 2 pixels, 6 dmx addresses), first, set the initial address as 1, and the Step=6, REP:8, press MODE to quit;

Now let's write dmx addresses for the first tube, the initial address for first tube is 1, the first tube is done;

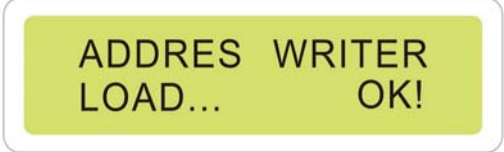
Then press UP, it will be 1+6=7(the initial address for the 2<sup>nd</sup> tube), press UP again, it will be 7+6=13(the initial address for the 3<sup>rd</sup> tube) ..... and so on, in this way, you will find it easier and faster to set up dmx addresses in batch without complicated calculation.





ADDRESS WRITER  
LOAD DEFAULT...

• Press UP or DOWN to recall the EX-work parameter, if successful, it will show the following on the display:



ADDRES WRITER  
LOAD... OK!

#### 4. Testing

Press MODE & enter the following interface :



TESTING ADDR: 8  
VAL: 255 STEP: 1

TESTING ADDR: 8 The LED at segment 8 will light up

VAL: 255 The brightness is at Level 255, the brightest level.

STEP:1 Now the step is 1, Press UP and DOWN will increase one dmx address or decrease one dmx address.

Press UP and DOWN to test corresponding address, and the LED at corresponding address will light up.

If you want to change the above parameters, you can press button SETUP to get into the set up interface:

There are 4 parameters including **FIRST ADDR**、**VAL**、**STEP** and **Load default**.


1) Press SETUP and view the following display:



ADDRESS WRITER  
FIRST ADDR: 1

Press UP and DOWN to test address from 1-512, or go back to main interface to select.

2) Press SETUP and view the following display:



ADDRESS WRITER  
VAL:255

Press UP and DOWN from 0-255 to test the current address' brightness,.

3) Press SETUP and view the following display:



ADDRESS WRITER  
STEP: 1

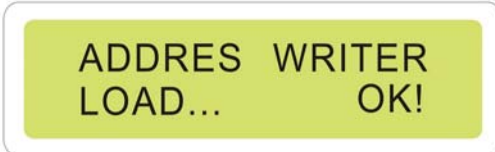
Press UP and DOWN to select from 1-48, "STEP" means how many dmx channels it jumps each time under testing.

4) Press SETUP again to recall Exwork parameters:



ADDRESS WRITER  
LOAD DEFAULT...

Press UP or DOWN to confirm, if successful, it will show following on the display



ADDRES WRITER  
LOAD... OK!