

# LT-300 V6.0 LED RGB/DMX Controller



LT-300 multi-function full-color LED RGB/DMX controller is dedicated to control color changes of LED lights with 4-pin 3 channels (common anode), this compact product has a small LCD screen, up to 39 color changing modes. This unit can run standalone or work with DMX signal programming controller to receive universal DMX512 signals.

## 1. Product Parameter:

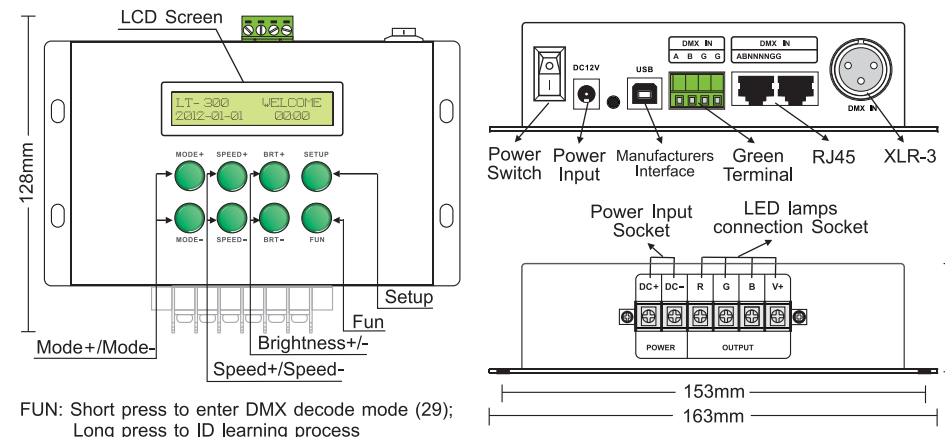
### LT-300 V6.0 LED RGB/DMX Controller

- Input Voltage: 12~24VDC
- Max Current Load : 8A×3CH
- Max Output Power: 288W/576W(12V/24V)
- Changing Mode: 39 Modes
- DMX512 Standard: DMX512/1990
- DMX512 Socket: XLR-3, RJ45, Green Terminal
- Working Temperature: -30℃~65℃
- Dimensions: L163×W128×H40(mm)
- Package Size: L260×W132×H46(mm)
- Weight (G.W.): 790g

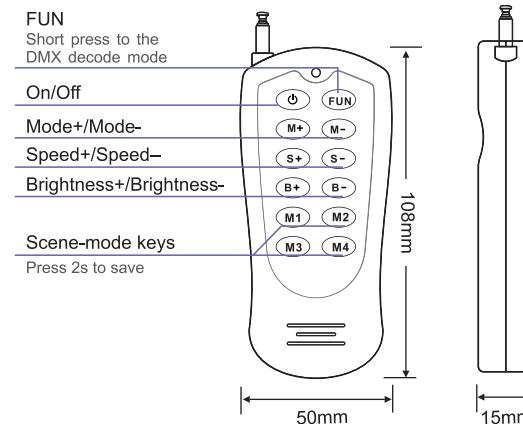
## 2. Function Features:

- 2.1 Built-in a LCD screen, easy to set up parameters.
- 2.2 Built-in perpetual calendar, real-time display system clock, can be set up to play different programs in any time, Monday to Sunday or holiday.
- 2.3 28 lighting modes, such as, single color brightness, color change, color smooth, and color strobe, etc.
- 2.4 Multi-level changing speed, brightness and RGB grey scale adjustment for your choices, 256 brightness levels per RGB(16.77 million static colors).
- 2.5 Feel free to define many changing modes into a step, 8 independent cycle steps maximum.
- 2.6 Support different input ports like standard XLR-3, RJ45 and green terminal.

## 3. Configuration Diagram:



### Controller



**Buzzer on/off:** Long press "On/Off" button on the remote.

### ID Learning Method:

Long press **FUN** button on the controller for 2 seconds, there is a buzzer beep, keep pressing.

**Learning ID:** Press any key on the remote **in 3 seconds**.

**Canceling ID:** Press any key on the remote **over 3 seconds**.

## 4. Operating Instructions:

8 function keys on the controller : MODE+/MODE-(mode), SPEED+/SPEED-(speed), BRT+/BRT-(brightness), SETUP(setup), FUN(DMX shortcut key)

Table of Changing Modes.

No.	Mode	Display	No.	Mode	Display
1	Black	01 BLACK 2012-01-01 12:00	15	Red/Green Smooth	15 RG SMOOTH SPEED:8 BRT:8
2	Static Red	02 STATIC RED SPEED:8 BRT:8	16	Red/Blue Smooth	16 RB SMOOTH SPEED:8 BRT:8
3	Static Green	03 STATIC GREEN SPEED:8 BRT:8	17	Green/Blue Smooth	17 GB SMOOTH SPEED:8 BRT:8
4	Static Blue	04 STATIC BLUE SPEED:8 BRT:8	18	Red/Yellow Smooth	18 RY SMOOTH SPEED:8 BRT:8
5	Static Yellow	05 STATIC YELLOW SPEED:8 BRT:8	19	Green/Cyan Smooth	19 GC SMOOTH SPEED:8 BRT:8
6	Static Purple	06 STATIC PURPLE SPEED:8 BRT:8	20	Blue/Purple Smooth	20 BP SMOOTH SPEED:8 BRT:8
7	Static Cyan	07 STATIC CYAN SPEED:8 BRT:8	21	Green/Yellow Smooth	21 GY SMOOTH SPEED:8 BRT:8
8	Static White	08 STATIC WHITE SPEED:8 BRT:8	22	Blue/Cyan Smooth	22 BC SMOOTH SPEED:8 BRT:8
9	RGB Blink	09 STATIC BLINK SPEED:8 BRT:8	23	Red/Purple Smooth	23 RP SMOOTH SPEED:8 BRT:8
10	Color Blink	10 COLOR BLINK SPEED:8 BRT:8	24	Blue/White Smooth	24 BW SMOOTH SPEED:8 BRT:8
11	RGB Change	11 RGB CHANGE SPEED:8 BRT:8	25	YPC Smooth	25 YPC SMOOTH SPEED:8 BRT:8
12	Color Change	12 COLOR CHANGE SPEED:8 BRT:8	26	RGB Smooth	26 RGB SMOOTH SPEED:8 BRT:8
13	RGB Fade	13 RGB FADE SPEED:8 BRT:8	27	Color Smooth	27 COLOR SMOOTH SPEED:8 BRT:8
14	Color Fade	14 COLOR FADE SPEED:8 BRT:8			

**1-27  
General Modes**

Press "SPEED+"/"SPEED-" to adjust speed.

Press "BRT+"/"BRT-" to adjust brightness.

**[Note]**

For mode 2-8, static color will be showed when speed=1 or speed=8, speed=2~7 is strobe effect.

28	RGB dimming	28 RGB DIMMING R255 G255 B255
----	-------------	----------------------------------

**28: RGB Brightness Adjust Mode**

(16.77 million static colors)

Press "SPEED+" / "SPEED-" key to switch R/G/B.  
Press "BRT+" / "BRT-" key to adjust RGB value(range: 0~255).

29	DMX decode	29 DMX DECODE DMX ADDRESS:001
30	DMX mode	29 DMX MODE DMX ADDRESS:001

**29~30: DMX512 Control Modes**

31	Play1 off	31 PLAY1 OFF 2012-01-01 12:00	35	Play5 off	35 PLAY5 OFF 2012-01-01 12:00
32	Play2 off	32 PLAY2 OFF 2012-01-01 12:00	36	Play6 off	36 PLAY6 OFF 2012-01-01 12:00
33	Play3 off	33 PLAY3 OFF 2012-01-01 12:00	37	Play7 off	37 PLAY7 OFF 2012-01-01 12:00
34	Play4 off	34 PLAY4 OFF 2012-01-01 12:00	38	Play8 off	38 PLAY8 OFF 2012-01-01 12:00


**31-38:  
Automatic Change Modes**











39	Play1-Play8	39 PLAY1-PLAY8 2012-01-01 12:00
----	-------------	------------------------------------


**39: Automatic Time Running Mode**


Press "MODE+" / "MODE-" button to switch modes.







**5. "SETUP" Key Instruction:**

5.1 In the mode 1-27, press  button for 3 seconds to enter submenu, see the form below.

NO.	Submenu Function (press mode+/- to switch)	LCD Display	Setting Method
1	Running times adjustment	RUN TIMES:255 000-NOT RUNNING	Press   to adjust running times. (Range: 0~255). (Only work for the modes 31~38)
2	RGB grey scale adjustment	RGB BRIGHT ADJ R255 G255 B255	Press   to switch R/G/B. Press   to adjust RGB value. (Range: 127~255)
3	Speed multiple adjustment	SPEED MULTIPLE: 001	Press   to adjust speed multiple. (Range: 0~255)
4	Restore to default mode	LOAD DEFAULT SET PRESS BRT+ - KEY	Press   to restore the default.

press  to save and exit submenu.

5.2 In the mode 29-30, press  button for 3 seconds to enter submenu, see the form below.

NO.	Submenu Function	LCD Display	Setting Methods
1	Set DMX address	DMX ADDRESS: 512 2012-01-01 00:00 (Range: 0~512)	Press   to adjust the hundred numbers. <b>512</b> Press   to adjust the ten digit numbers. <b>512</b> Press   to adjust the single digit numbers. <b>512</b>




press  to save and exit submenu.

Table of 29-30 Functional Modes.

Function Modes	Channel	Function								
29 DMX Decoder Mode	1 <sup>st</sup> channel	0-255(R) : Red LED 0-100% dimming								
	2 <sup>nd</sup> channel	0-255(G) : Green LED 0-100% dimming								
	3 <sup>rd</sup> channel	0-255(B) : Blue LED 0-100% dimming								
30 DMX Manage Mode	1 <sup>st</sup> channel	0-255: Select 1-29 modes, 256(0-255) values divided into 32 portion (8 value per portion). The 29 <sup>th</sup> mode occupy 3 portions (24 value).								
	<table border="1"> <thead> <tr> <th>When 1<sup>st</sup> channel select the 1-27 modes</th> <th>When 1<sup>st</sup> channel select 28/29 modes</th> </tr> </thead> <tbody> <tr> <td>2<sup>nd</sup> channel select speed change(16 levels). 0-255: 256 values divided into 16 portion.</td> <td>2<sup>nd</sup> channel 0-255(R) : Red LED 0-100% dimming</td> </tr> <tr> <td>3<sup>rd</sup> channel select brightness change. (16 levels) 0-255: 256 values divided into 16 portion.</td> <td>3<sup>rd</sup> channel 0-255 (G): Green LED 0-100% dimming.</td> </tr> <tr> <td>4<sup>th</sup> channel _____</td> <td>4<sup>th</sup> channel 0-255 (B): Blue LED 0-100% dimming.</td> </tr> </tbody> </table>		When 1 <sup>st</sup> channel select the 1-27 modes	When 1 <sup>st</sup> channel select 28/29 modes	2 <sup>nd</sup> channel select speed change(16 levels). 0-255: 256 values divided into 16 portion.	2 <sup>nd</sup> channel 0-255(R) : Red LED 0-100% dimming	3 <sup>rd</sup> channel select brightness change. (16 levels) 0-255: 256 values divided into 16 portion.	3 <sup>rd</sup> channel 0-255 (G): Green LED 0-100% dimming.	4 <sup>th</sup> channel _____	4 <sup>th</sup> channel 0-255 (B): Blue LED 0-100% dimming.
	When 1 <sup>st</sup> channel select the 1-27 modes	When 1 <sup>st</sup> channel select 28/29 modes								
	2 <sup>nd</sup> channel select speed change(16 levels). 0-255: 256 values divided into 16 portion.	2 <sup>nd</sup> channel 0-255(R) : Red LED 0-100% dimming								
3 <sup>rd</sup> channel select brightness change. (16 levels) 0-255: 256 values divided into 16 portion.	3 <sup>rd</sup> channel 0-255 (G): Green LED 0-100% dimming.									
4 <sup>th</sup> channel _____	4 <sup>th</sup> channel 0-255 (B): Blue LED 0-100% dimming.									
2 <sup>nd</sup> channel	0-255: 256 values divided into 16 portion.									
3 <sup>rd</sup> channel	0-255: 256 values divided into 16 portion.									

5.3 In the mode 31-38, press  button for 3 seconds to enter submenu, see the form below.

NO.	Submenu Function (Press MODE+/- to switch)	LCD Display	Setting Methods
1	Setting switch state	31 PLAY1 OFF OPEN1 SAVE1	Press   to switch items. OFF OPEN1 SAVE1 Press   to switch 2 options: ON/OFF Select "ON" to 39 automatic time running mode. Load the operation times of 1-30 modes, press   to confirm. Save the setting about the operation times, press   to confirm.
2	Setting operation week	RUN WEEK: MTWTFSS TIME: 18:00-06:00	Press   to switch items. M Monday T Tuesday W Wednesday T Thursday F Friday S Saturday S Sunday Press   to adjust value. (if you do not choose the Monday to Sunday, the screen will appear "_" the one mark)
3	Operate time and date 1	DATE01: 0101-0103 TIME: 00:00-00:00	Press   to switch items. 0101-0103 (date) Press   to adjust value. 00:00-00:00 (time)
4	Operate time and date 2	DATE02: 0501-0503 TIME: 00:00-00:00	Press   to switch items. 0501-0503 (date) Press   to adjust value. 00:00-00:00 (time)
5	Operate time and date 3	DATE03: 1001-1007 TIME: 00:00-00:00	Press   to switch items. 1001-1007 (date) Press   to adjust value. 00:00-00:00 (time)
6	System clock setting	DATE/TIME SETUP 2012-01-01 12:00	Press   to switch items 2012-01-01 12:00 Press   to adjust value.
7	Modes restore default value	LOAD DEFAULT SET PRESS BRT+ - KEY	Press   to restore default value of the current setting automatic mode.

press  to save and exit submenu.

5.4 In the mode 39, press  button for 3 seconds to enter submenu.

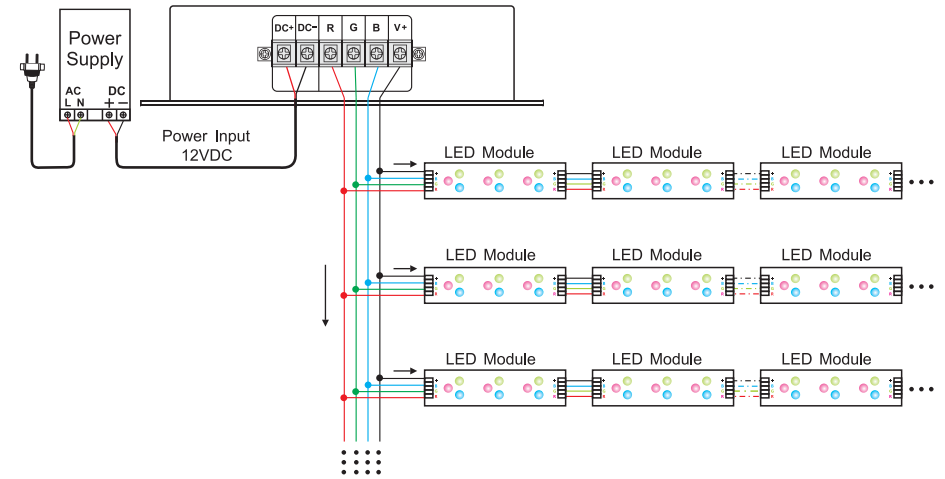
LOAD DEFAULT SET  
PRESS BRT+ - KEY

Press to restore default value of mode 39.

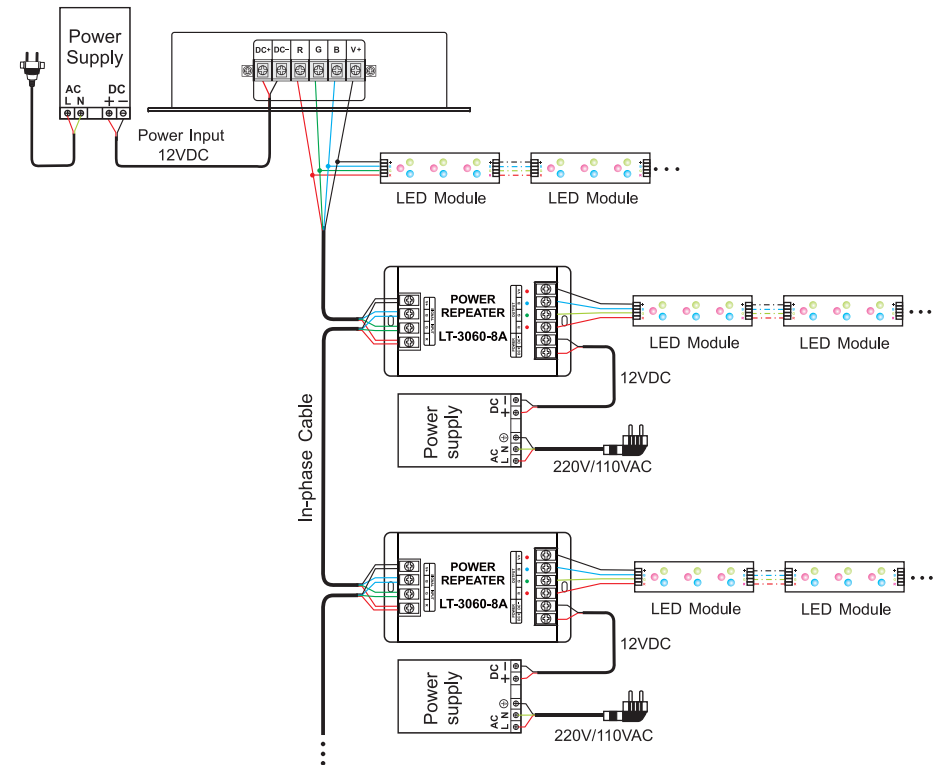
When set the 39<sup>th</sup> mode, according to the present switch condition and running time of automatic change modes 31-38, run the corresponding mode. The submenu only has the items that restore to default status( Please carefully choose the item).

## 6. Wiring Diagram:

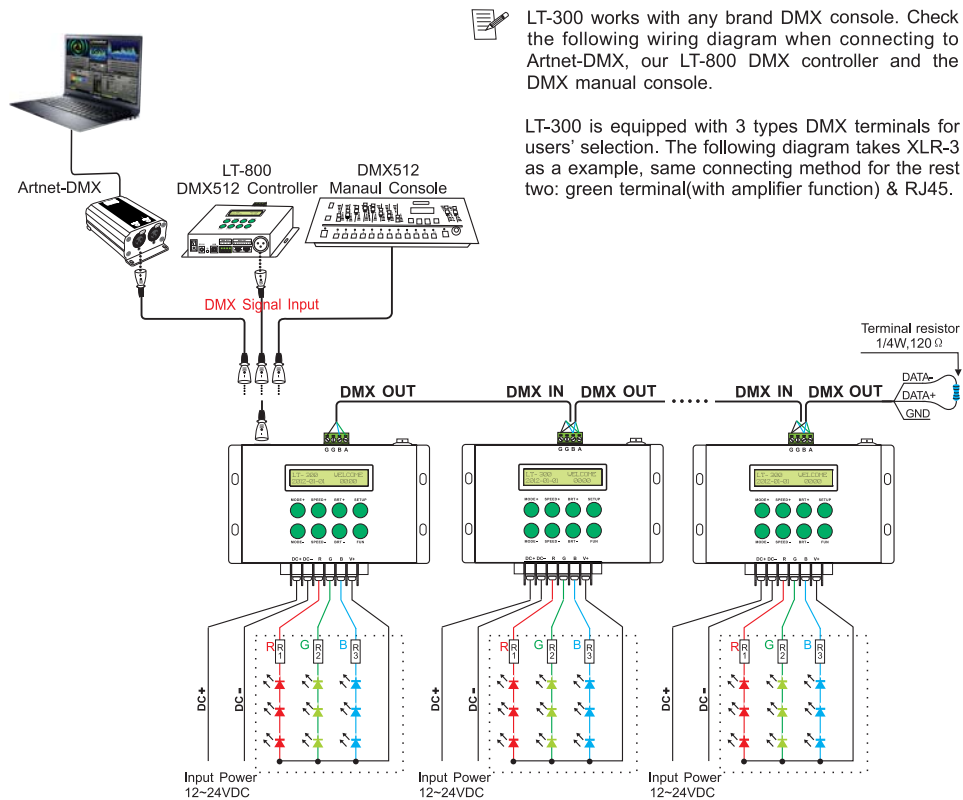
6.1 Connect to low power LED light, take LED RGB module as an example.



6.2 If one controller is not enough, can add extra power repeater to expand the power output.



6.3 Connect to the DMX512 device.



7. Attention:

- 7.1 The product shall be installed and serviced by the qualified person.
- 7.2 This product is non-waterproof. Please avoid the sun and rain. When installed outdoors please ensure it is mounted in a water proof enclosure.
- 7.3 Good heat dissipation will prolong the working life of the controller. Please ensure good ventilation.
- 7.4 Please check if the output voltage of the LED power supply used comply with the working voltage of the product.
- 7.5 Please ensure that adequate sized cable is used from the controller to the LED lights to carry the current. Please also ensure that the DC cable is secured tightly in the connector.
- 7.6 Ensure all wire connections and polarities are correct before applying power to avoid any damages to the LED lights.
- 7.7 If a fault occurs, please return the product to your supplier. Do not attempt to fix this product by yourself.

8. Warranty Agreement:

- 8.1 We provide lifelong technical assistance with this product:
    - A 5-year warranty is given from the date of purchase. The warranty is for free repair or replacement and covers manufacturing faults only.
    - For faults beyond the 5-year warranty we reserve the right to charge for time and parts.
  - 8.2 Warranty exclusions below:
    - Any man-made damages caused from improper operation, or connecting to excess voltage and overloading.
    - The product appears to have excessive physical damage.
    - Damage due to natural disasters and force majeure.
    - Warranty label, fragile label and unique barcode label have been damaged.
    - The product has been replaced by a brand new product.
  - 8.3 Repair or replacement as provided under this warranty is the exclusive remedy to the customer. Ltech shall not be liable for any incidental or consequential damages for breach of any stipulation in this warranty.
  - 8.4 Any amendment or adjustment to this warranty must be approved in writing by Ltech only.
- ★This manual only applies to this model. Ltech reserves the right to make changes without prior notice.