

LT-300 LED Controller

V5.00



(Kindly please read through this manual carefully before use)

Forward

Thanks for choosing our LT-300 Full Color Multifunction Controller. Before installation and usage, we strongly recommend you to read through this manual carefully.

After-Sales

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, falling etc after the purchase.
4. Any damages caused by earthquake, fire, flood, water, 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. Products has been updated.

Safety warnings

1. Don't install this controller 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 controller & 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 open controller cover and operate if problems occur.

For update information, kindly please consult with your supplier.

Product Brief

LT-300 Multifunction Full-color Controller is dedicated to control color changes of Led lights with 4-pin 3-loop cables (common anode), this compact device has a small LCD screen, built-in a DMX512 decoder (3 addresses) & up to 34 color changing modes.

This unit can run standalone or networking with multi controller, or work with DMX console to receive universal DMX512 signals

I . Parameter:

Part No.: LT-300

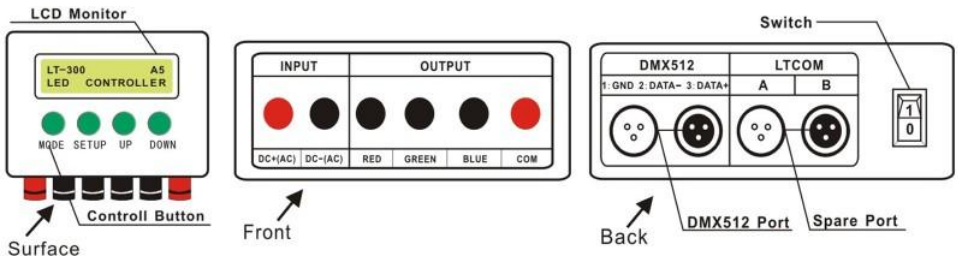
Power input :	DC12V~DC24V
Current output:	8A/chx3
Power output:	1~600W(24V) 1~300W(12V)
Protection:	Auto overload protection
Mode:	34 color skipping, gradual, flash, chasing etc
Changing speed:	0-100 levels
Static Dimming Level:	0-100 levels per RGB
3 rd Commnication Port:	DMX512/1990
Dimension:	L190xW120xH50mm
Package size:	L210xW160xH65mm
Weight(GW):	1kg

II . Basic function:

- 1、 Built-in a 2X16 bit LCD screen, easy to set up parameters;
- 2、 3 RGB channels, maximum 8A per channel; supports full load working;
- 3、 34 color changing modes, can choose each mode's speed separately;
- 4、 0-100 levels of color dimming per RGB, can select static LED color and adjust brightness at will;
- 5、 Can edit auto running mode, & choose a specific pattern ;

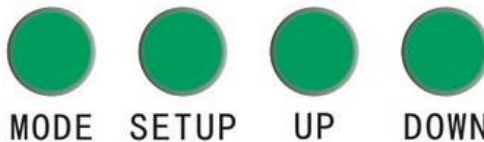
- 6、 Support universal DMX512 protocol, remote control available with extra DMX512 devices.
- 7、 Can control hi-power & low power led lamps with 4-pin, 3 loops
- 8、 Standalone used or networking with LT-390 to have an unlimited power extension;
- 9、 Auto store setups, with off-power protection;
- 10、 Restore default parameter(ex-factory parameter);

III. Configuration Diagram:



IV. Instruction

- 1. Press MODE or UP & DOWN to set color pattern in turn:



Mode 19: Color Smooth

No	Display content	Description
1	BLACK	All Off
2	STATIC RED	Static red
3	STATIC GREEN	Static green
4	STATIC BLUE	Static blue
5	STATIC YELLOW	Static yellow
6	STATIC PURPLE	Static purple
7	STATIC CYAN	Static cyan
8	STATIC WHITE	Static white
9	COLOR CHANGE	7 color jumping
10	COLOR CHANGE2	7 color jumping(flicker)
11	SIX COLOR CHANGE	6 color jumping
12	SIX COLOR CHANGE2	6 color jumping (flicker)
13	RGB CHANGE	3 color jumping
14	RGB CHANGE2	3 color jumping (flicker)
15	RG CHANGE	RG jumping
16	RB CHANGE	RB jumping
17	GB CHANGE	GB jumping
18	WHITE CHANGE	White screen flicker
19	COLOR SMOOTH	7 color gradual
20	RGB SMOOTH	3 color gradual
21	RG SMOOTH	RG gradual
22	RB SMOOTH	RB gradual
23	GB SMOOTH	GB gradual
24	COLOR GRADUAL	7 color gradual fade & change
25	RGB GRADUAL	3 color gradual fade & change
26	WHITE GRADUAL	White fade
27	RG GRADUAL	Red/Green fade & change

28	RB GRADUAL	Red/Blue fade & change
29	GB GRADUAL	Green/Blue fade & change
30	R GRADUAL	Red fade
31	G GRADUAL	Green fade
32	B GRADUAL	Blue fade
33	ADJUST MODE	RGB 0-100 color depth
34	AUTO PROGRAM	Auto running selected pattern
35	DMX512 MODE	DMX512 mode
36	DMX512 DECODER	DMX512 decoder

2. Press SETUP in turn(1–8 are static state without modulation function).

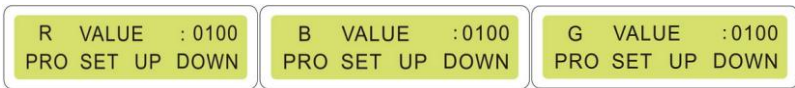
Run Speed :0090
PRO SET UP DOWN

Run Times : 0001
PRO SET UP DOWN

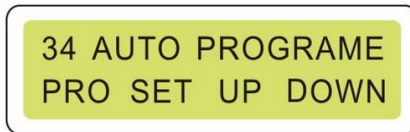
Load Default
Enter UP or Down

No.	Parameter	Remarks	
		Max	Min
1	RUN SPEED	100	0
2	RUN TIMES	100	0
3	LOAD DEFAULT	Restore default parameters	

3. UP: Up & reset/Load default.
4. DOWN: Down & reset/Load default.
5. RUN TIMES: configure run times at 34 AUTO PROGRAM, if it's 0, will pass this mode, that's to say, not run this mode.
6. Load Default: Each program are pre-set and saved by factory, Press LOAD DEFAULT can reload all default data. If run at AUTO PROGRAM to press LOAD DEFAULT, all data will be re-set to factory pre-set.
7. At 33 ADJUST MODE, the manual light dimming, adjusts 0-100 brightness level per RGB.



8. At 34 AUTO PROGRAM, auto circle 7-32 or all modes, configured at RUN Times to choose if need re-circle running.



9. At Mode 35&36, it can receive DMX512 signal.

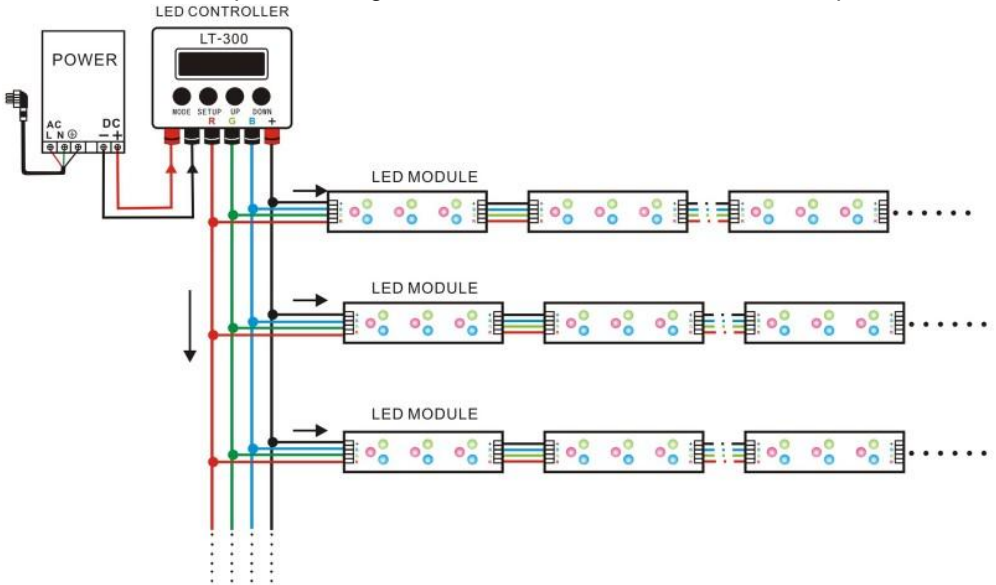


10. ☆35 DMX512 MODE can control all patterns(1st addr) & speed(2nd addr)
11. ☆36 DMX512 DECODER can completely receive extra DMX512 signal. Need to setup addr, press SETUP to enter and then press UP & DOWN to choose from 0001-0512 to set the addr.

DMX512 ADDR:0001
PRO SET UP DOWN

V. Standalone connection Map

1. Connect to low power led light, take LED RGB module as an example:

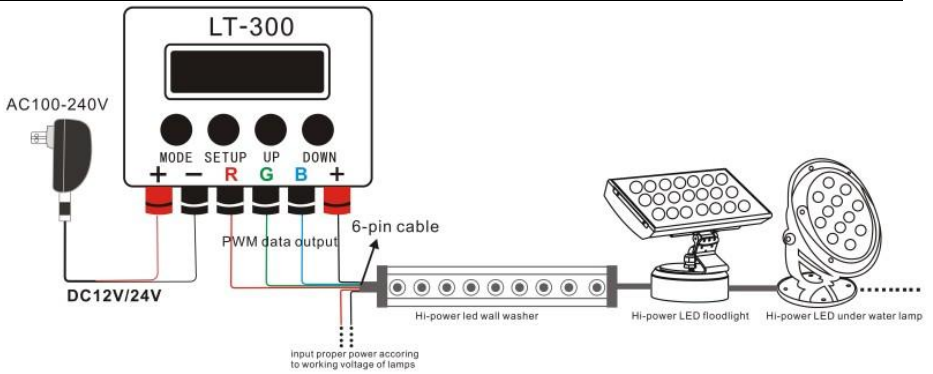


2. Connect to hi-power LED light;

Note: Hi-power LED light should be built-in dimmable PWM constant driving IC. The controller outputs signals to the constant driving IC of the lights only, one controller can control unlimited LED lights.

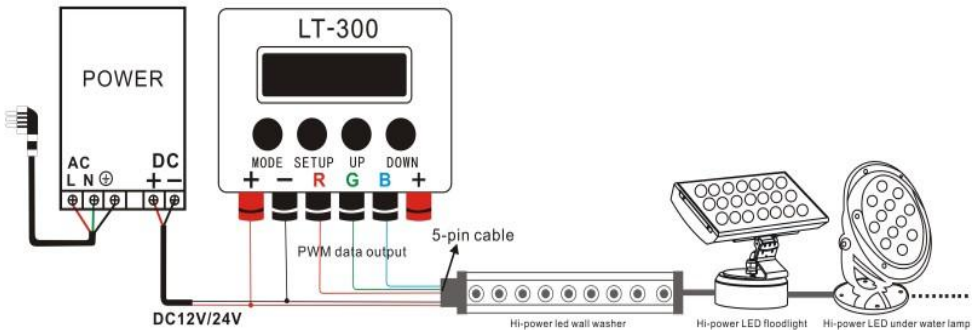
Usually the light has a 6-pin or 5-pin data cable.

6-pin cable connection method (4 wires for the controller to output PWM signals, the other 2 wires for the power)

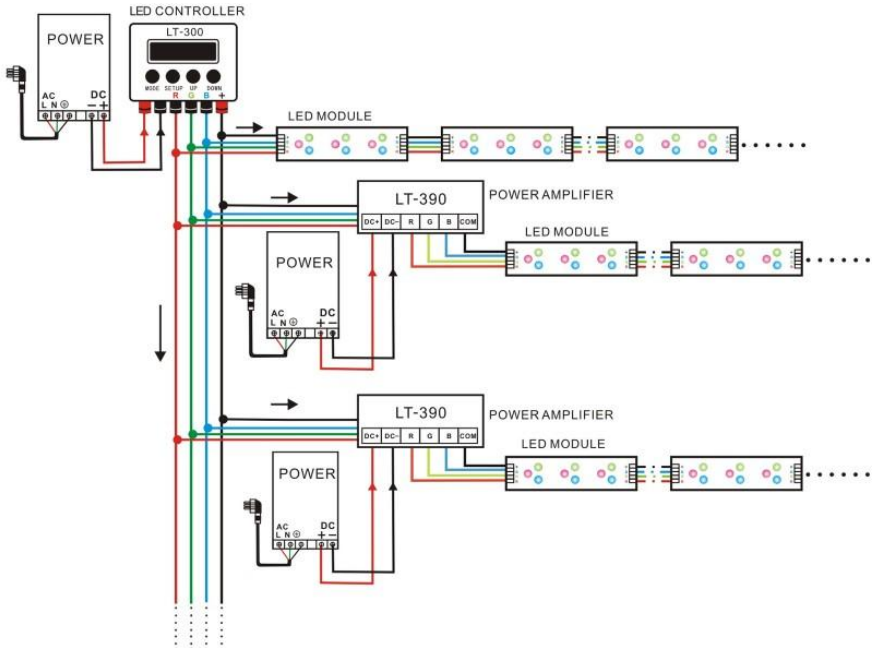


5-pin connection method:

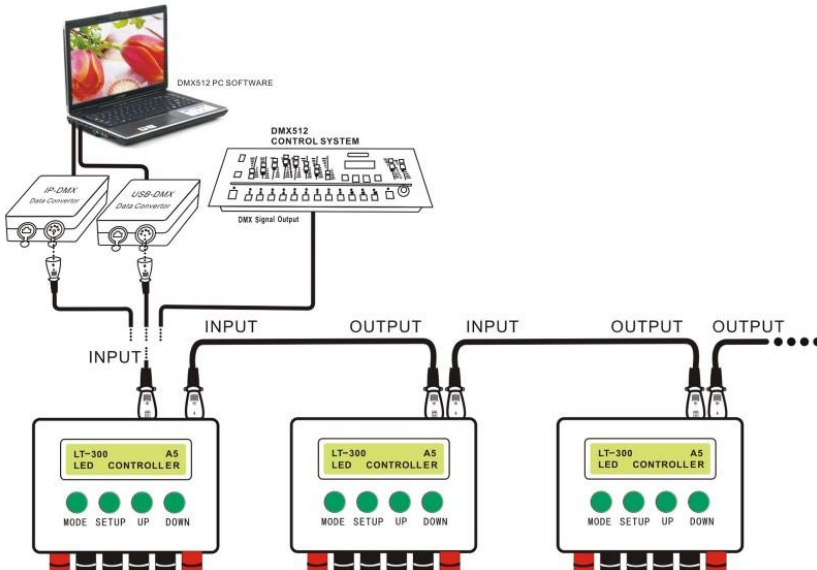
(the anode of the controller's power input and power output share an anode wire from the switching power supply, the light needs only 5-pin cable)



3. Connect to low power LED light(such as 5mm, piranha LED etc.), if one controller is not enough, can add extra LT-390 to expand the power output.



4. Connect to extra DMX512 console or DMX512 PC software console:



VI. Failure analysis and solutions

Malfunction	Causation	Settle
No light	1、 No power from the switch 2、 At 1.BLACK Mode 3、 Overload protection 4、 Wrong connection	1、 Check the power switch 2、 Change another mode 3、 Reduce load, power on again. 4、 Check connection
Wrong color	5、 RGB wires are connected wrongly	5、 Re-wire RGB wires
Can't receive DMX signal	6、 Wrong signal input, not universal standard DMX512 signal; 7、 DMX address is no set correctly; 8、 A reverse connection of data anode & cathode	6、 Connect to standard universal DMX512 device 7、 Check corresponding address 8、 Re-wire data anode & cathode.