SKU: EL-DCRGB-MOD-512

Controller Manual

(Version V5.00)

Overview

Thanks for choosing Step 1 Dezigns RGB DMX512 LED Controller. We strongly recommend you to read this manual carefully before the installation and usage. Make sure you have completely understood the instructions so as to ensure normal working of the controller, be familiar with all of the operating skills.

Before opening the package, please check if there's damage or defect during transportation, if damage occurs, please don't use it and inform your supplier immediately.

Safety

In order to ensure a perfect quality of the product and a safe usage, please kindly follow the instructions.
Suppliers don't take charge of any problems or damages that occur due to mishandling such as an operation not permitted in this manual.

In order to avoid careless damages and bringing you loss, please read the following statements:

1、 To avoid getting on fire or a shock, don't put the controller in rainy or humid area.

2、 Please avoid install this controller in lightening, intense magnetic and high-voltage fields.

3、 The controller for indoor use only, makes sure to put it in a waterproof housing for outdoor use.

4、 Make sure correct connection to avoid fire and damage caused by short circuit.

5、 Please install the controller at drafty area to ensure a fitting temperature.

6、 Please check if local voltage and power adapter meet the controller requirements, and if power positive or negative pole definition is the same as controller.

7、 Choose an install place where can withstand 10 times the weight of the product to ensure a solid installation

8、 Wipe the cover with soft cloth dipped a little neutral detergent, be sure not to use any sandpaper, polishing powder or alcohol, gasoline and so on liquor

9、 Don't connect cables with power on; make sure a correct connection and no short circuit checked with instrument before power on.

10、 Don't alter or tear up the label on controller for future system maintenance.

11、 Please don't dismantle or modify the product.

12、 If you need spare parts, please choose authentic version.

13、 If you have any questions, please contact your supplier.

This manual applies to this model product only, for more information, please contact our staff.

Function Brief

Multifunction Full-color Controller is dedicated to control color changes of Led lights with 4-pin 3-loop cables (common anode), this compact unit has a small LCD panel, we adopt hi-performance micro processor as its core part with powerful function, built-in DMX512 decoder (3 addresses) & up to 34 color changing modes. This unit can run standalone or networking with multi controller, or work with DMX 512 console to receive signals.

Ⅰ. Performance Parameter:

Input Voltage:	12/24 VDC
Input Signal:	DMX512(1990)
Transition speed:	250Kbps
Output channel:	3 Channels
Output current:	8A/Channel(totally 24A)

|	
Remote control distance:	50m
Working temperature:	0~70℃
Description:	Within 36 modes, ,such as flash, fade, etc.

Ⅱ. Basic function:

1、 34 color jumping, color smooth patterns, each pattern's parameter can be configured separately.

2、 LED light dimming or color-depth selecting with 0-100 dimming levels per RGB.

3、 Edit auto running Mode & choose designated pattern.

4、 Supports universal DMX512 protocol, remote control with exterior DMX512 devices.

5、 Built-in a DMX512 Decoder (3 addresses).

6、 Used separately or connected to STDCRGB-MOD512 power extension module, unlimited quantities, to have an unlimited power extension output

7、 All led lights can be controlled by operating the function button on the main controller, easy and flexible when net working.

8、 Auto store parameter, don't need repeat configuration next time.

9、 Restore default parameter(ex-factory parameter)

Ⅲ. Dimension Diagram:
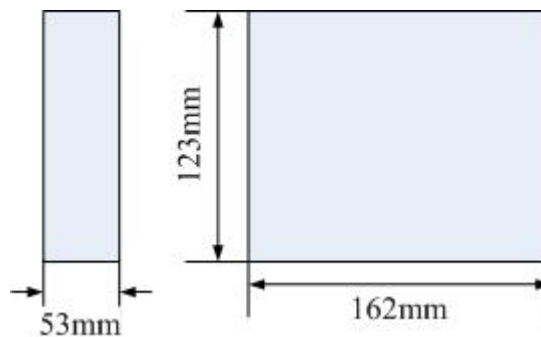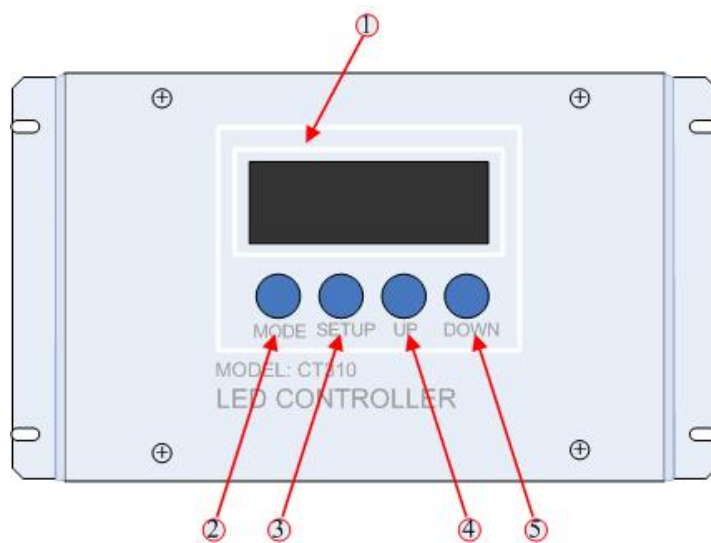
① LCD screen

② MODE: Change mode by pressing this button

③ SETUP: Press this button to set the program according to user's need

④ UP: Press this button to increase the parameter value of currently item (keep pressing to increase continuously), or choose next changing mode or reload default setting

⑤ DOWN: Press this button to decrease the parameter value of currently item (keep pressing to decrease continuously), or choose last changing mode or reload default setting.
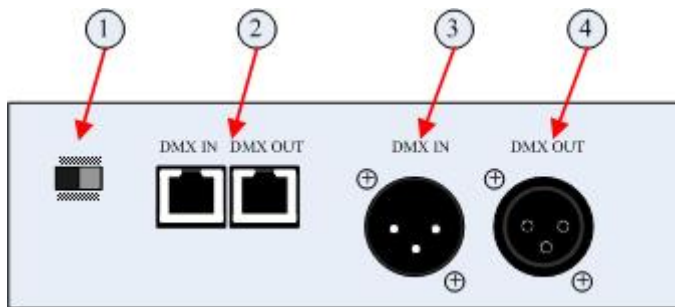
V. Front Panel Instruction
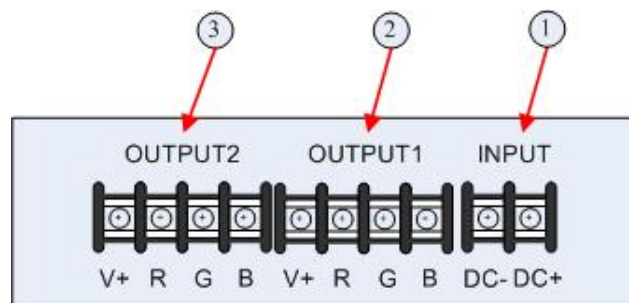
① Power input terminals: 12V/24V DC. Make sure the right connection.

② Drive output terminals 1: Connect to LED modules.

③ Signal output terminals 2: Connect to LED modules.

Remark: the signal of output port 1 is same with output port 2.

VI. Back Panel Instruction

① Switch of DMX512 signal terminator, turn to "on" to terminate DMX512 signal.

② RJ45 input/output interface: connect to DMX512 signal cable

③ XLR-3 male input/output interface: connect to DMX512 signal cable

④ XLR 3 Female output interface: connect to DMX512 signal cable

VII. Signal Interface Instruction

A. RJ45 interface
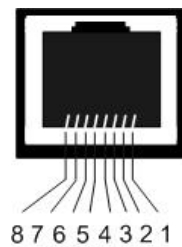
1: DATA+
2: DATA-
3-6: NC
7-8: GND

B. XLR 3 interface

1. GND
2. DATA-
3. DATA+

VIII. Button Function of Remote Controller

A. MODE
B. SETUP
C. UP
D. DOWN

The usage of this remote controller is same with the buttons on panel; please refer to Top Panel Instruction" for details.

IX. Instruction

The controller has 4 function setting buttons: MODE、SETUP、UP、DOWN.

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

No	Display	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	DMX512　DECODER	Auto running selected pattern
35	DMX512　MODE	DMX512 mode
36	AUTO　PROGRAM	DMX512 decoder

2. Controller Programming Instructions

　Mode 1-8 are static color mode without adjusting functions; Mode 9-32 (preset changing mode), can be set the program speed, run times in the automatic mode, or reload default value.

3. Press " SETUP" in stand by status:

Times	Description	Operation	Parameter	Remark
1	RUN SPEED	Press "UP"/"DOWN" to change parameter value	0−100	Press " MODE" to exit
2	RUN TIMES		0−100	
3	LOAD DEFAULT	Press "UP"/"DOWN" to load default	factory default	

Remark: "RUN TIMES"is the running times of this mode under automatic mode.

4. RGB color adjustable mode program instruction:

　User can adjust the brightness of R, G, and B separately, and the value will display on LCD screen:

Step 1: Press "MODE" to select Mode

Step 2: Press "SETUP" to set brightness of Red, change value by "UP" / " DOWN"

Step 3: Press "SETUP" again to set brightness of Green, change value by "UP" / " DOWN"

Step 4: Press "SETUP" again to set brightness of Blue, change value by "UP" / " DOWN"

Step 5: Press "SETUP" again to reload default value, press "UP" or "DOWN", the R, G, B
brightness will reload factory default.

Step 6: Press "MODE" to exit.

DMX512 decoder program instruction:

X. DMX512 decoder program instruction:

The controller can be set as a DMX512 decoder (3 channels), and select desire DMX512
address as follows:

Step 1: Press "MODE" to select mode 34: DMX512 decoder

Step 2: Press "SETUP" to set DMX512 address, change value by "UP" / " DOWN"

Step 3: Press "MODE" to exit

XI.DMX512 mode program instruction:

The controller can be set as a 3 channels controller which was controlled by a DMX512
controller. Set the DMX address as follows:

Step 1: Press "MODE" to select mode 35: DMX512 mode

Step 2: Press "SETUP" to set DMX512 address, change value by "UP" / " DOWN"

Step 3: Press "MODE" to exit

to select the led color changing mode according to the dmx512 parameter value in this mode. the
DMX512 value with corresponding mode as following:

0: Black(all off)	8: 7-color jumping	16: GB jumping	24: RGB fade in, fade out
1: Static Red	9: 7-color flicker	17: White jumping	25: White fade in, fade out
2: Static Greed	10: 6-color jumping	18: 7-color gradual change	26: RG fade in, fade out
3: Static Blue	11: 6 color flicker	19: RGB gradual change	27: RB fade in, fade out
4: Static yellow	12: RGB jumping	20: RG gradual change	28: GB fade in, fade out
5: Static purple	13: RGB flicker	21: RB gradual change	29: Red fade in, fade out
6: Static cyan	14: RG jumping	22: GB gradual change	30: Green fade in, fade out
7: Static white	15: RB jumping	23: 7-color fade in, fade out	31: Blue fade in, fade out

Automatic mode program instruction:

User can select some of 9-32 modes or all of them to run automatically under this mode
according to each mode's speed and run times value.

To reload factory default:

Step 1: Press "mode to select mode 36

Step 2: Press "SETUP", then press ' UP' / ' DOWN" to reload default

Step 3: Press "MODE" to exit

IV. WIRING DIAGRAM