Pixel Light Controller
User Manual

（Please read through this manual carefully before use）

1. Brief Introduction

Welcome to use our Pixel light controller. It is the upgraded version of the BC-100 DMX512 controller, it can output international standard DMX512/1990 signal, and also can output SPI signal to control a variety of pixel lights.This controller has a OLED screen, easy to operate with RF wireless remote control. Built-in real time clock system and a strong DIY & combination function can achieve abundant light color effect, and can meet your various control requirements.

2. Specifications

Model	Pixel Light Controller
Working Voltage	DC9V(With adapter)
Output Signal	DMX512、SPI
DMX Interface	XLR-3, RJ45, Terminal Block
Working Temp	-20°C-55°C
Dimension	145mm x 78.4mm x 30.5mm
Weight(G.W.)	410g

3. Feature function
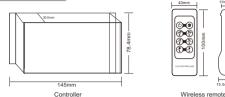
1. With OLED screen, easy to operate.
2. Built-in real time clock system, your program can be set to played in any time.
3. 40 built-in patterns, 4 DIY recording modes and 4 combined modes, it can combine hundreds of control patterns.

4. Multilevel changing speed, brightness and RGB sequence adjustment for yout choices.
5. Output standard DMX512/1990 signal, multiple SPI signals output.
6. Support multiple DMX512 connector like XLR-3, RJ45, terminals, easy to use.
7. With RF wireless remote control, can choose changing modes and control speed and brightness.

4. Safety warnings

1. Inorder to use it properly and safety, please read user's manual carefully before installation.
2. Please don't install this controller in lightening, intense magnetic and high-voltage fields.
3. To reduce the risk of component damage and fire caused by short circuit, make sure correct connection.
4. Always be sure to mount this unit in an area that will allow proper ventilation to ensure a fitting temperature.
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.
   The manual is only suitable for this model; any update is subject to change without prior notice.

5. Dimensions

Controller

Wireless remote

6. Operating Instructions

1. Controller and Wireless remote control button instrucinons：

RJ45-DMX512 interface   Power interface   Power switch

XLR3-DMX512 interface

RJ45-SPI long distance connector   SPI Terminals   DMX512 Terminals

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Key	Short press function	Long press function (2s)
MODE	Switch mode, back to previous	
SETUP	Enter and switch setup	Enter special effect exit setup
UP	Switch mode, increase current set value	Increase current set value rapidly
DOWN	Switch mode, decrease current set value	Decrease current set value rapidly
OK	Comfirm and enter into next value	

2. Changing Patterns

NO.	LCE display	Working models	Operation
1	1.BLACK	Black	
2	2. RED SPEED:8 BRT:8	Red (flicker)	Speed 1 is static color, speed and brightness are adjustable.
3	3. GREEN SPEED:8 BRT:8	Green (flicker)	
4	4. BLUE SPEED:8 BRT:8	Bule (flicker)	
5	5. YELLOW SPEED:8 BRT:8	Yellow (flicker)	
6	6. PURPLE SPEED:8 BRT:6	Purple (flicker)	
7	7. CYAN SPEED:8 BRT:8	Cyan (flicker)	
8	8. WHITE SPEED:8 BRT:8	White (flicker)	
9	9. RGB CHANGE SPEED:8 BRT:8	RGB change	Speed and brightness are adjustable
10	10. COLOR CHANGE SPEED:8 BRT:8	Color change	
11	11. RG SMOOTH SPEED:6 BRT:8	RG smooth	
12	12. RB SMOOTH SPEED:8 BRT:8	RB smooth	
13	13. GB SMOOTH SPEED:8 BRT:8	GB smooth	
14	14. RGB SMOOTH SPEED:8 BRT:8	RGB smooth	
15	15. COLOR SMOOTH SPEED:8 BRT:8	Color smooth	
16	16. COLOR FADE SPEED:8 BRT:8	Color fade	

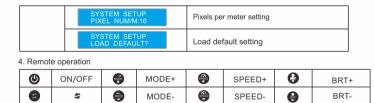|	LCE display	Working models	Operation
17	17. WHITE FADE SPEED:8 BRT:8	White fade	Speed, brightness, Forward-reverse adjustable.
18	18. RGB CLOSURE SPEED:8 BRT:8	RGB fold	
19	19. COLOR CLOSURE SPEED:8 BRT:8 F	Color fold	
20	20. RGB SPLIT SPEED:8 BRT:8 F	RGB split	
21	21. COLOR SPLIT SPEED:8 BRT:8 F	Color split	
22	22. RGB PILE SPEED:8 BRT:8 F	RGB pile	
23	23. COLOR PILE SPEED:8 BRT:8 F	Color pile	
24	24. RG CHASE SPEED:8 BRT:8 F	RG chase	
25	25. RB CHASE SPEED:8 BRT:8 F	RB chase	
26	26. GB CHASE SPEED:8 BRT:8 F	GB chase	
27	27. RGB CHASE SPEED:8 BRT:8 F	RGB chase	
28	28. COLOR CHASE SPEED:8 BRT:8 F	Color chase	
29	29. RGB SCAN SPEED:8 BRT:8 F	RGB scan	
30	30. COLOR SCAN SPEED:8 BRT:8 F	Color scan	
31	31. RED METEOR SPEED:8 BRT:8 F	Red meteor	
32	32. GREEN METEOR SPEED:8 BRT:8 F	Green meteor	
33	33. BLUE METEOR SPEED:8 BRT:8 F	Blue meteor	
34	34. YELLOW METEOR SPEED:8 BRT:8 F	Yellow meteor	
35	35. PURPLE METEOR SPEED:8 BRT:8 F	Purple meteor	
36	36. CYAN METEOR SPEED:8 BRT:8 F	Cyan meteor	
37	37. WHITE METEOR SPEED:8 BRT:8 F	White meteor	
38	38. COLOR METEOR SPEED:4 BRT:8 F	Color meteor	

39	39. RGB FLOW SPEED:8 BRT:8 F	RGB flow	
40	40. COLOR COVER SPEED:8 BRT:8 F	Color cover	
41	41. DIY MODE 1 8 STEPS FADE	DIY mode1	Customizing the color, duration, change type of up to eight steps,the controller can automatically play the changing mode you need, Speed and brightness are adjustable.
42	42. DIY MODE 2 8 STEPS FADE	DIY mode2	
43	43. DIY MODE 3 8 STEPS FADE	DIY mode3	
44	44. DIY MODE 4 8 STEPS FADE	DIY mode4	
45	45. GROUP1 MODE 1 MODES ON	Group1 mode	Each Group mode can be combined by up to eight modes which select from mode 1-44 , speed, brightness and running time of sub-mode can be set.
46	46. GROUP2 MODE 1 MODES ON	Group2 mode	
47	47. GROUP3 MODE 1 MODES ON	Group3 mode	
48	48. GROUP4 MODE 1 MODES ON	Group4 mode	
49	49. TIMER MODE ALL TIMER OFF	Timer mode	Up to eight Timer setup, per timer setup can be set as PER DAY, PER DATE or SPE DATE, start time, end time,and running modes from mode 1-48. when there are multiple timer, the earlier timer will be operated firstly.

3. Parameter setting

Model	Parameter	Instruction
2-40	MODE2 SETUP RUN SPEED:8	Running speed, Value 1-8, the higher the value, the faster.
2-40	MODE2 SETUP RUN BRT:8	Running brightness, value 1-8, the higher the value, the brighter.
18-40	MODE18 SETUP REVERSE:YES	Running reversed
41-44	DIY1 STEP1 T:001 R255 G255 B255	T is the duration of per changing steps, value 0-255, 0 indicates skipping this step, the unit time 1s for Fade change, the unit time 0.5 for jump change , R for red value, G for green value, B for blue value, value is 0-255
41-44	DIY1 SETUP CHANGE KIND:FADE	Setting the changing types of DIY mode, FADE or JUMP

45-48	DIY1 SETUP RUN SPEED:8	Setting the overall changing speed of DIY mode, value 1-8. The higher the value, the faster. Value1 to 8, respectively means to run at the speed 8-1 times base on the original time.
	DIY1 SETUP RUN BRT:8	Setting the overall changing brightness of DIY mode, value 1-8. The higher the value, the faster.
	MODE45 GROUP1 M:10 S:4 B:8 T:1	M is the sub mode sequence when at Group mode, value 0-44, "0" indicates no need this sub mode , "S" for speed, "B" for brightness, "T" for running times , value is 1-8
	MODE45 SETUP LOAD DEFAULT?	Load default setting
49	TIMER SETUP TIMER1:OFF	Timing setting: Select OFF, PER DAY, PER DATE, SPE DATE
	TIMER SETUP TIMER1:PER DAY	
	TIMER SETUP TIMER1:PER DATE	
	TIMER SETUP TIMER1:SPE DATE	
	SMTWTFS 00:00-00:00 M:01	When set the timing as per day, the letters ' SMTWTFS' of the first line, represent from Sunday to Saturday, respectively. The displayed letter means selected, '-' means unselected. The parameters of the second linear start time and end time. 'M' represents the running mode sequence number when timing started, value 1-48.
	DATE:01-31 00:00-00:00 M:01	When set the timing as per date, the parameter of the first line is start date and end date. The parameters of the second line are start time and end time. 'M' represents the running mode sequence number when timing started, value 1-48.
	DATE:01/01-12/31 00:00-00:00 M:011	When set the timing as specified date, the parameter of the first line is start date and end date. The parameters of the second line are start time and end time. 'M' represents the running mode sequence number when timing started, value 1-48.
	TIMER SETUP LOAD DEFAULT?	Load default setting
50	REMOTE CALL DMX ADDRESS:001	DMX remote call set DMX address: 001-512 only effective when output is none DMX.
System setting (Long press SETUP for 2s to enter)	SYSTEM TIME 01/01/2016 10:10	System time setting
	SYSTEM SETUP OUTPUT SIGNAL	Output signal setting: DMX-RGB, WS2811, UCS8904, WS2801, LPD6803, LPD8806, UCS8903 DMX-RGBW, TM1814, UCS2904, UCS8904
	SYSTEM SETUP RGB SEQUENCE:RGB	24 kinds of sequence RGB/W setting
	SYSTEM SETUP PIXEL NUM:170	Pixel setting: DMX-RGB is 170 pixels, DMX-RGBW is 128 pixels. SPI supports a maximum of 1000 pixels.

	SYSTEM SETUP PIXEL NUM/M:16	Pixels per meter setting
	SYSTEM SETUP LOAD DEFAULT?	Load default setting

4. Remote operation

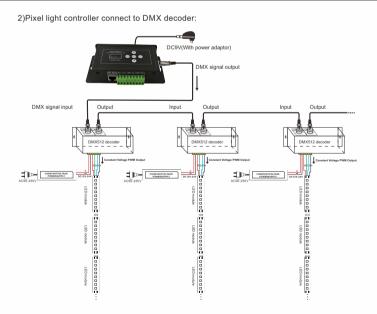|							
⏻	ON/OFF	MODE	MODE+	SPEED	SPEED+		BRT+
			MODE-		SPEED-		BRT-

Wireless remote control only support the switch of the 1-48 modes, when set the 49th or 50th mode on the controller, no need remote control.

The learning ID Method of the Remote Control:
Long press the SETUP to enter the settings,when pressed MATCHING RF?, then press the OK key on the controller, and press any key on the remote control, when the OLED displays' SAVE ID SUCCESS', it indicates that ID setting success.

5. Conjunction Diagram

1)Pixel light controller connect to DMX, SPI lamps

DC9V(With power adaptor)

DMX, SPI signal output

DMX, SPI point source

Input the power source according to the working voltage

DC9V(With power adaptor)

DMX, SPI signal output

DMX, SPI wall lamps   DMX, SPI wall lamps

Input the power source according to the working voltage

DC9V(With power adaptor)

DMX, SPI signal output

DMX, SPI digital tube   DMX, SPI digital tube ... DMX, SPI digital tube

Input the power source according to the working voltage

2)Pixel light controller connect to DMX decoder:

DC9V(With power adaptor)

DMX signal output

DMX signal input   Output   Input   Output   Input   Output

DMX512 decoder   DMX512 decoder   DMX512 decoder

Constant Voltage PWM Output

CONSTANT VOLTAGE POWER SUPPLY   DC12V-24V

AC90-250V

LED module

7.After-Sales

From the day you purchase our products within 3 years, 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 inappropriate power supply or abnormal voltage.
3. Any damages caused by unauthorized removal, maintenance, modifying circuit, incorrect connections and replacing chips.
4. Any damages due to transportation, breaking, flooded water after the purchase.
5. Any damages caused by earthquake, fire, flood, lightning strike etc. force majeure of natural disasters.
6. Any damages caused by negligence, inappropriate storing at high temperature and humidity environment or near harmful chemicals.