LED Pixel Light Controller
User Manual

(Please read through this manual carefully before use)

1. Brief Introduction

Welcome to use our LED pixel light controller. It has OLED screen to display and touch button to control. It is convenient to operate and can control most of the IC driving led lamps on the market. It support 2 channel trigger function, so it can be connected with various inductive switches including PIR switch, touch switch, gesture switch, etc. It also has a built-in real-time clock system.Your program can be set to play in any time.

2. Specification

Model	Led Pixel light controller
Working Voltage	DC5-DC24V
Trigger Function Voltage	DC5-DC24V
Load current	MAX 10A
Max output power	50W(5V)/120W(12V)/240W(24V)
Working temperature	-20°C-55°C
Product dimension	135mm x 30mm x 20mm
Weight	61g

3. Basic Features

1. With OLED screen display, it is easy to operate.
2. It can control up to 1000 pixels. IC types and color sequence are optional.

3. 54 built-in patterns. The color changing speed, brightness and direction are adjustable.
4. 2 channel trigger function. It can connect to inductive switches.
5. With built-in real time clock system, it has 8 timing setting.

4. Safety warning

1. In order to use it properly and safely, please read user's manual carefully before installation.
2. Please don't install this unit in lighting, 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 instruction before power on.
6. Please don't repair by yourself if problems occur.
The manual is only suitable for this model; any update is subject to change without prior notice.

5. Dimensions
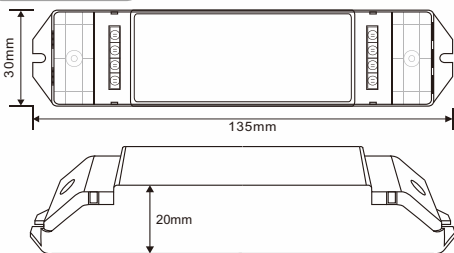
6. Operating instructions

1.controller interface and buttons instruction

IN 1:Trigger channel 1 input port
IN 2:Trigger channel 2 input port
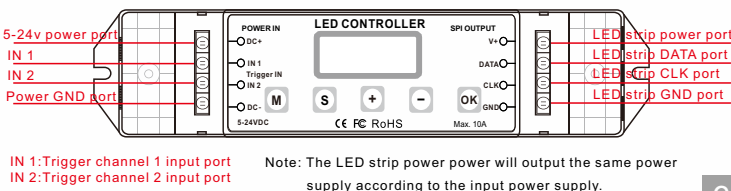
Note: The LED strip power power will output the same power supply according to the input power supply.

Key		Short press function	Long press function(2s)
M	MODE	Switch mode, back to previous	
S	SET	Enter and switch setup	Enter system setup
+	INCREASE	Switch mode, increase current set value	Increase current set value rapidly
-	DECREASE	Switch mode, decrease current set value	decrease current set value rapidly
OK	CONFIRM	Confirm and enter into next value	

2.变化模式

NO.	LCE display	Working moderls	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	Blue（flicker）	
5	5. YELLOW SPEED:8 BRT:8	Yellow（flicker）	
6	6. PURPLE SPEED:8 BRT:8	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	
17	17. WHITE FADE SPEED:8 BRT:8	White fade	Speed,brightness, forward-reverse adjustable
18	18. RGB CLOSURE SPEED:8 BRT:8	RGB closure	
19	19. COLOR CLOSURE SPEED:8 BRT:8	Color closure	
20	20. RGB SPLIT SPEED:8 BRT:8	RGB split	
21	21. COLOR SPLIT SPEED:8 BRT:8	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 CHASE SPEED:8 BRT:8 F	Red chase	
32	32. GREEN CHASE SPEED:8 BRT:8 F	Green chase	
33	33. BLUE CHASE SPEED:8 BRT:8 F	Blue chase	
34	34. YELLOW CHASE SPEED:8 BRT:8 F	Yellow chase	
35	35. PURPLE CHASE SPEED:8 BRT:8 F	Purple chase	
36	36. CYAN CHASE SPEED:8 BRT:8 F	Cyan chase	
37	37. WHITE CHASE SPEED:8 BRT:8 F	White chase	
38	38. RED METEOR SPEED:8 BRT:8 F	Red meteor	

39	39. GREEN METEOR SPEED:8 BRT:8 F	Green meteor	Speed,brightness, forward-reverse adjustable.
40	40. BLUE METEOR SPEED:8 BRT:8 F	Blue meteor	
41	41. YELLOW METEOR SPEED:8 BRT:8 F	Yellow meteor	
42	42. PURPLE METEOR SPEED:8 BRT:8 F	Purple meteor	
43	43. CYAN METEOR SPEED:8 BRT:8 F	Cyan meteor	
44	44. WHITE METEOR SPEED:8 BRT:8 F	White meteor	
45	45. COLOR METEOR SPEED:8 BRT:8 F	Color meteor	
46	46. RGB FLOW SPEED:8 BRT:8 F	RGB flow	
47	47. RED COVER SPEED:8 BRT:8 F	Red cover	
48	48. GREEN COVER SPEED:8 BRT:8 F	Green cover	
49	49.BULE COVER SPEED:8 BRT:8 F	Blue cover	
50	50. YELLOW COVER SPEED:8 BRT:8 F	Yellow cover	
51	51.PURPLE COVER SPEED:8 BRT:8 F	Purple cover	
52	52. CYAN COVER SPEED:8 BRT:8 F	Cyan cover	
53	53. WHITE COVER SPEED:8 BRT:8 F	White cover	
54	54. COLOR COVER SPEED:8 BRT:8 F	Color cover	
55	55. 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 models from mode 2-54. When there are multiple timer, the earlier timer will be operated firstly.

3.Parameter setting

Model	Parameter	Instruction
2-54	MODE2 SETUP RUN SPEED:8	Running speed, Value1-8 the higher the value, the faster.
	MODE2 SETUP RUN BRT:8	Running brightness value 1-8, the higher the value, the brighter

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22-54	MODE22 SETUP DIR:FORWARD	Forward running	
22-54	MODE22 SETUP DIR:REVERSE	Reverse running	
55	TIMER SETUP TIMER1:OFF		Control mode: enter TIMER MODE 55 then pressS to set TIMER1 and press "+""-"to switch. Choose one and press OK to next setting. Enter M back to previous menu. In TIMER SETUP interface, press S to switch to TIMER2 and so on.
	TIMER SETUP TIMER1:PER DAY		
	TIMER SETUP TIMER1:PER DATA		
	TIMER SETUP TIMER1:SPE DATA		Control way: value OFF, PERDAY, PERDATE, SPEDATA indicated as turning off timer function, setting the timer weekly, date of every month and appointed day
	SMTWTFS 00:00-00:00 M:01		Timing mode is to set the week and time. The SMTWTFS indicated as from Sunday to Saturday. Displayed letter is be set and "-" is not set. The second line set the starting and end time. M is the Changing Patterns No, from 1-54.
	DATE:01-31 00:00-00:00 M:01		Timing mode is to set the date in one month. The first line is to set the beginning and end date. The second line is to set the starting and end time. M is to set the Changing Patterns No, from 1-54.
	DATE:01/01-12/31 00:00-00:00 M:011		Timing mode is to set the appointed day. The first line is to set the beginning and end date. The second line is to set the starting and end time.M is to set the Changing Patterns No, from 1-54.
	SYSTEM TIME 01/01/2016 10:10	Set system date and time	
Setting setup (Long press SETUP for 2 second)	SYSTEM SETUP OUTPUT SIGNAL	Set ICs type : 2811 (Tm1803, TM1804, Tm1809, TM1812, UCS1903, UCS1909, UCS1912, UCS2903, UCS2909, UCS2912, WS2811, WS2812B, SK6822, WS2813, APA104, P943, WS2818A, WS2818B, GS8206, P943, SM16703, WS2815, GS8208, SK6813, TX1818) 2801 (WS2801, WS2803) 6803 (LPD6803, LPD1101, D705, UCS6909, UCS6912) 8806 (LPD8803, LPD8806, LPD8809, LPD8812) 8903 (UCS8903) 1814 (TM1814) 2904 (SK6812RGBW, UCS2904B, P9412, WS2813RGBW, WS28314) 8904 (Ucs8904)
	SYSTEM SETUP RGB SEQUENCE:RGB	Set RGB sequence, switch to control light strips. Make sure the RGB three letters sequence is correspond to the lamp beads sequence red, green and blue. The RGBW sequence is correspond to the lamp beads sequence red, green, blue and white.

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Trigger setup	SYSTEM SETUP PIXEL NUM:360	Pixel setting value 8-1000	
	TIGGER1 SETUP ON M:22 DIR:R	Trigger 1 setup	
	TIGGER2 SETUP OFF M:22 DIR:R	Trigger 2 setup	
	SYSTEM SETUP LOAD DEFAULT?	Load default setting	Press "-""+" to switch setup, press OK to confirm and enter into next value.
	TIGGER1 SETUP ON M:22 DIR:R		ON/OFF to turn on/off trigger function. M to switch the trigger effect, value 2-54, correspond to patterns no.2-54. press DIR to change the direction of trigger effect.

4.conjunction diagram

LED pixel light controller connect to SPI strips

1)The PIR switch and the controller can be powered separately when the power supply is different.
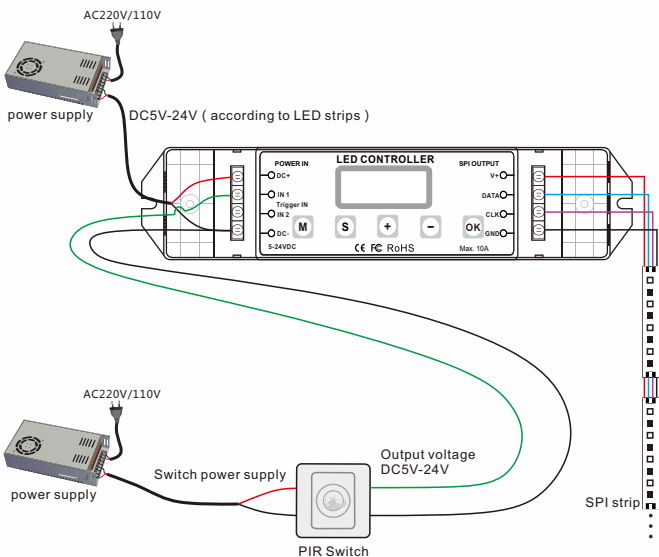
2)The PIR switch and the controller can be connected as following when the power supply is same.
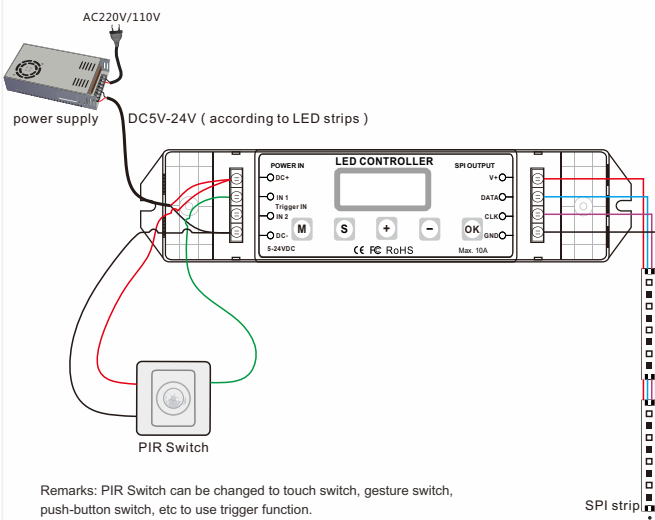
Remarks: PIR Switch can be changed to touch switch, gesture switch, push-button switch, etc to use trigger function.

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.