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LEDYi Lighting K-1000C DMX Addressable LED Strip Instruction Manual

Contents

LEDYI

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Product Information

Specifications:

- **Controller load lamps:** 512-pixel
- **Speed:**
    - 512 points pixel speed: up to 30 frames/sec
    - 1024 points pixel speed: up to 25 frames/sec
    - 2048 points pixel speed: about 15 frames/sec
- **Support chips:** UCS1903,1909,1912,2903,2904,2909,2912, TM1803,1804,1809,1812
- **Input Voltage:** DC 5-24V

Product Usage Instructions

Button Functions:

- Press CHIP and MODE button to enter write code mode. Select the appropriate chip coding mode using the MODE button.
- Press SPEED+ and SPEED- simultaneously to enter effect files looping mode. Use these buttons to adjust the playback speed.

Interface Connections:
Connect the DC power supply positive input to the DC 5-24V terminal and the negative input to GND. Follow the wiring diagram for DMX lights coding and wiring method.

Controller Cascading:
When cascading multiple controllers, the second controller's digital screen will display 222. All cascade controllers' playback speed is controlled by the first set.

Coding Mode:
To set the coding channel, press CHIP and MODE simultaneously to switch to coding mode. Adjust the chip selection and address code as needed. Press MODE to code and switch to playback mode after finishing.

- **Playback Mode Adjustment:**
  Switch between playback modes and adjust speed by pressing the MODE button and SPEED button accordingly.
- **Special Feature:**
  A derived program allows for one-key coding in the software. Long press MODE for 5 seconds to write code to the lights directly. Contact our engineer or salesman for detailed operation method.

Frequently Asked Questions (FAQ):

- **Q: How do I select the appropriate chip coding mode?**
  A: Press CHIP and MODE buttons to enter write code mode, then use the MODE button to select the desired chip coding mode.
- **Q: How can I adjust the playback speed?**
  A: Press SPEED+ and SPEED- buttons simultaneously to enter effect files looping mode. Use these buttons to adjust the playback speed

K-1000C system features

1. 32 to 65536 degree Gray control, Gamma correction procession handle.
2. Support various point, line light source, and all kinds of rules and specific shaped handle.
3. The controller has one output port, can support up to 512/2048 pixels(DMX lighting support up to 512 pixels).
4. Play content stored in the SD card, the SD card can store up to 32 effects File, SD card capacity support 128MB-32GB.
5. The controller can single set use, also multiple controllers cascade, cascade optical isolation mode: interference, better stability, cascade distance between two controllers can reach up to 150 meters, need to use 0.5M² pure copper power cord.
6. The controller support chip can lock the support IC in software, or not lock the support IC in the software, select the support IC through the controller CHIP button, this scheme is more flexible and convenient.
7. For the DMX lighting IC, the controller comes with write address function; In addition, with use of our 2016 LedEdit-K V3.26 or later edition can make one key write address function setting.
8. Support load lamp is 4 channels (RGBW) pixels, or split into single channel point pixels.
9. Enhanced 485 TTL and 485 differential (DMX) signal output.
10. The controller comes with the test effects were as follows: 1 red, green, blue and black jump; 2 red, green, blue and black gradient; 3 red, green, blue and goes.

Note 1: The controller load lamps 512 points pixel, speed can reach up to 30 frames/sec, 1024 point pixel speed can reach up to 25 frames/sec, 2048 point pixel speed is about 15 frames/sec (the above parameter is an example of 1903 agreement IC, different IC have difference)

Note 2: International standard DMX512 (1990 agreement) maximum support 512 pixels. When the load is international standard 170 pixels, the speed can reach up to 30 frames / sec, 340 pixels speed is about 20 frames / sec, when 512 pixels speed is about 12 frames/sec.

Support chips PC Software Select K-1000-RGB):

- **00:** UCS1903,1909,1912,2903,2904 2909,2912 TM1803,1804,1809,1812 SM16703 16709,16712 WS2811 WS2812 WS2813 WS2815,WS2818 INK1003 LX3203,1603,1103 GS8205,8206 SK6812 max. Supports lights 2048 pixels
- **01 SM16716,16726 support** up to 2048 pixels
- **02 P9813 support** up to 2048 pixels
- **03 LPD6803 support** up to 2048 pixels
- **04 LX1003,1203 support** up to 2048 pixels
- **05 WS2801 support** up to 2048 pixels
- **06 LPD1886 support** up to 2048 pixels
- **07 TM1913 support** up to 2048 pixels
- **08 TM1914 support** up to 2048 pixels
- **09 P9883,P9823 support** up to 2048 pixels
- **10 DMX support** up to 512 pixels, suggest to support ≤320 pixels
- **11 DMX** 500K support up to 512 pixels, suggest to support ≤320 pixels
- **12 DMX** 250K-CZF support up to 512 pixels, suggest supporting ≤320 pixels
- **13 DMX** 250K-CZF support up to 512 pixels, suggest to support ≤320 pixels

NOTES:

1. If support RGBW four channels' lights should select K-1000-RGBW.
2. If support single-channel light should choose K-1000-W, at this time, one channel means one pixel, the software effect make as white lighting.

Appearance Picture

Screen print meaning:

- **Button meaning:**

| Button	Meaning	
CHIP	Switch chip	Press CHIP and then MODE button, can enter write code mode, 61 means UCS512-A/B coding; 62 means WS2821 coding; 63 means SM512 coding, 64 means UCS512-C coding
MODE	Switch file	
SPEED+	Speed up	Press SPEED+ and SPEED- the same time, would enter effect files looping mode.
SPEED-	Speed down	

- **Interface Meaning:**

DC 5-24V	5v-24V DC power positive input
GND	DC power supply negative input
POWER	Power indicator
SD card SD CARD	SD card slot
GND	Ground line
CLK	Clock line Coding line if DMX lights
DAT	Data line
B	Signal –
A	Signal +
IN A	Cascade sync signal, connect the front OUT A
IN B	Cascade sync signal, connect the front OUT B
OUT A	Cascade sync signal, connect the next IN A
OUT B	Cascade sync signal, connect the next IN B

The corresponding frame rate of speed level:

| Speed Level	Frame Rate/Sec	Speed Level	Frame Rate/Sec
1	4 frame	9	14 frame
2	5 frame	10	16 frame
3	6 frame	11	18 frame
4	7 frame	12	20 frame
5	8 frame	13	23 frame
6	9 frame	14	25 frame
7	10 frame	15	27 frame
8	12 frame	16	30 frame

Conventional IC lamps wiring
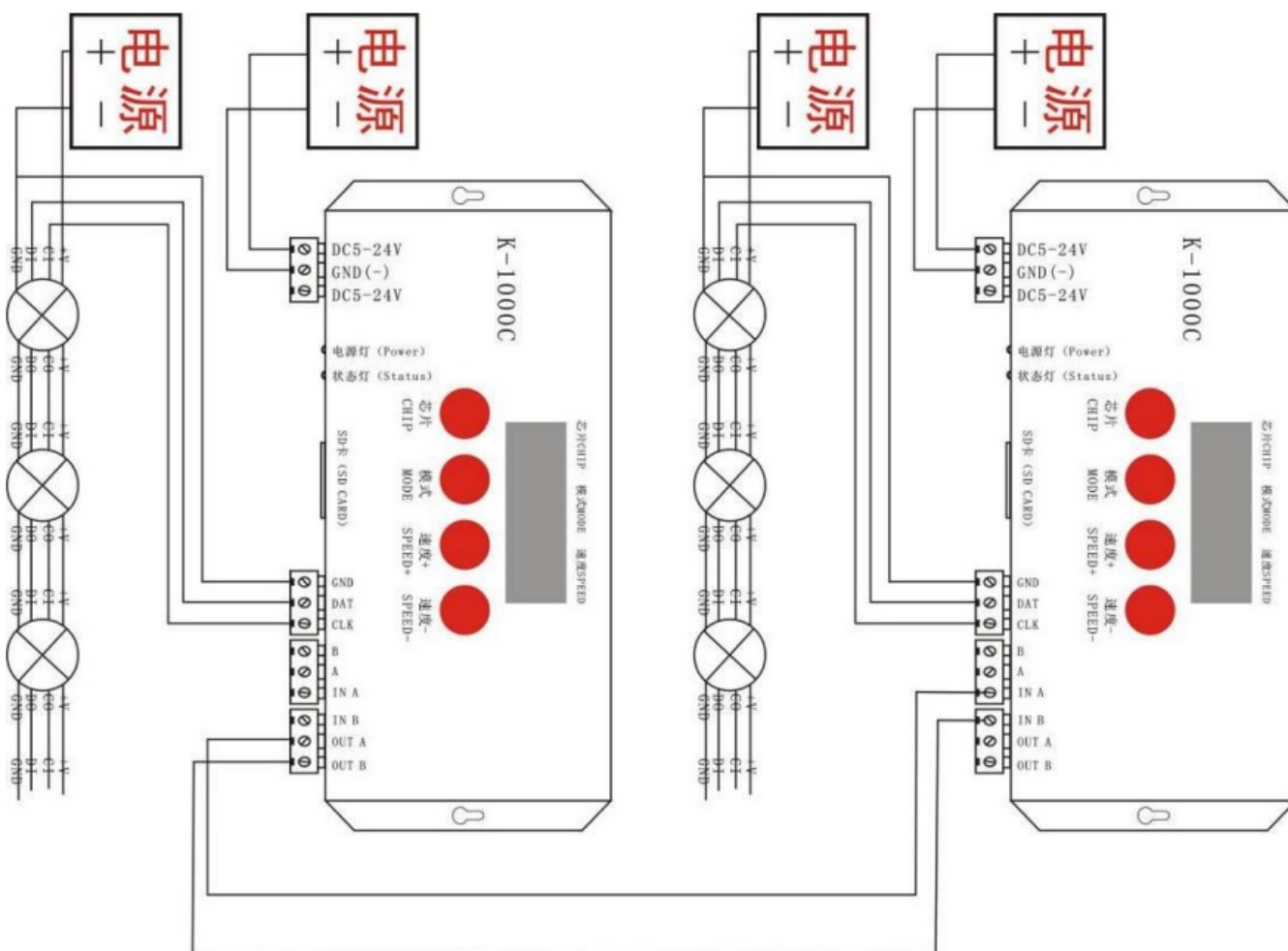
NOTE: 1.When multiple controllers cascade, beginning from the second controller digital screen display 222, and status lights: on, off, on, off, strobe, all cascade controllers' playback speed is controlled by the first set.

Controller support DMX lights coding and wiring method

Two signal wiring diagram:
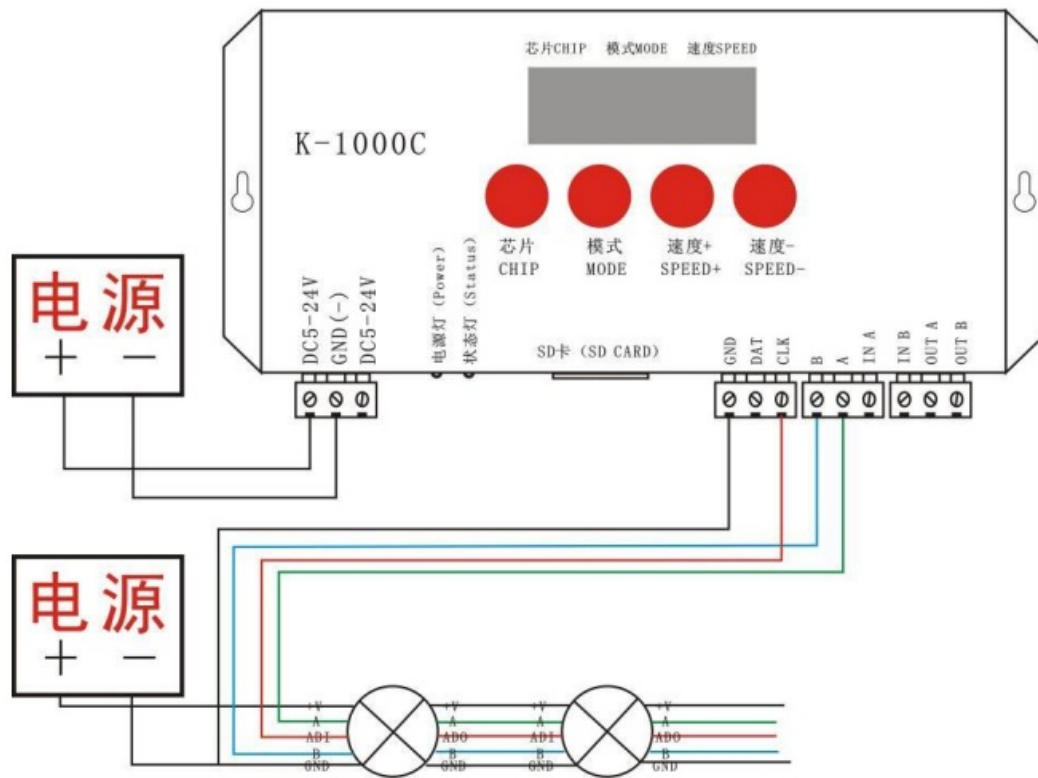
Single signal wiring diagram:
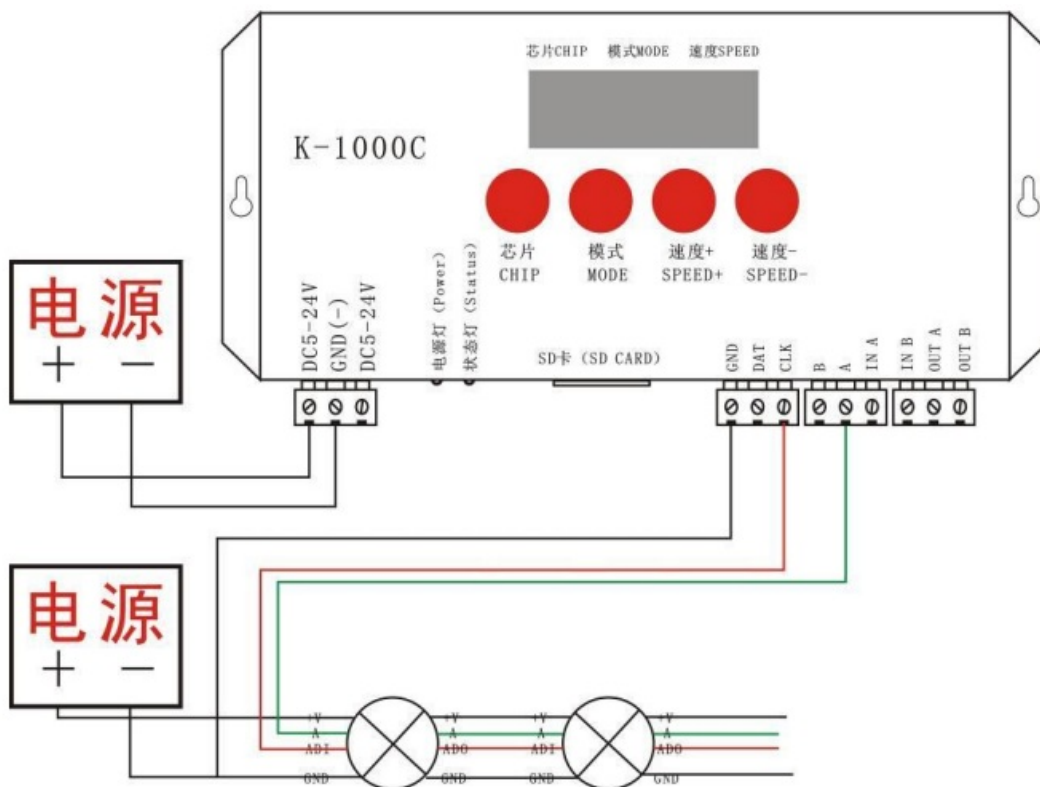
1. Like the above diagram, wired the line and start the controller, press "CHIP"and "MODE" at the same time switch to coding mode, adjust to Chip: 61 is UCS512A or B coding mode, as below:

NOTE: 61 means UCS512A or B coding mode; 62 means WS2821 coding mode; 63 means SM DMX512AP; 64 means UCS512-C Ch. 03 means the coding channel is 3 channels

2. After selection, press "MODE" to code, then the screen would display A A A. Like below:

3. After finishing address code, press "CHIP" first and at the same time press "MODE" button, switch to playback mode, and switch the chip to Chip: 10, this is the DMX512 standard agreement 250Kbps playback mode. At this time, press MODE button and SPEED button can separately switch playback mode and adjust speed, as below:

Special Remarks: Derived program after set one-key coding in the software, long press MODE for 5 seconds can write code to the lights directly, this function is very convenient and practical. Welcome to consult our engineer or salesman to learn the detailed operation method.
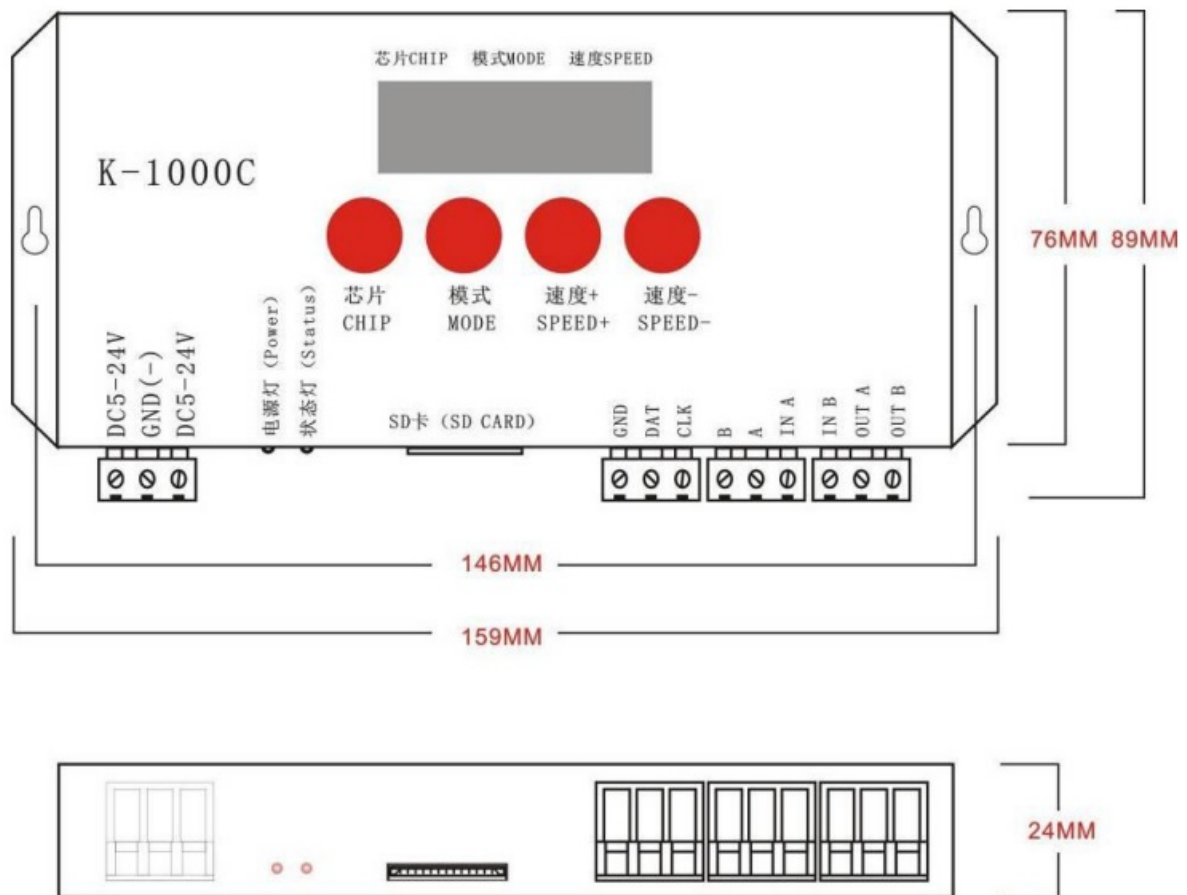
Specific parameter

- **Type:** SD card
- **Capacity:** 128MB—32GB
- **Format:** FAT or FAT32
- **Storage file:** *.led

Physical parameter:

- **Working temperature:** -30℃—85℃
- **Working power:** DC 5V -24V input
- **Power consumption:** 2W
- **Data transmission interface:** 3pin binding post
- **Weight:** 0.35Kg

Size:

Notes:

1. To copy files to SD card, you must format the SD card first, pay attention to is that each copy must be formatted first.
2. SD card must be formatted as FAT form or FAT32 form.
3. The SD card can not be hot-swappable, plug the SD card each time, you must first disconnect the power supply controller.

How to handle the common problems

- **Problem 1:** After powered on, the controller screen display FFF, and no effect output.

  Answer: The screen display FFF means the controller did not read the SD card correctly, the exist problems as below:

  1. SD card is empty, has no effect files.
  2. The effect files *.led in SD card and the controller model is mismatched, please select the correct controller model, chip model in the latest edition 2016LedEdit, and remake effect files *.led.
  3. Change SD card and then retest, rule out the possibility of SD card is broken.

- **Problem 2:** After powered on, the indicator is normal, but the lamps has no effect change.

  Answer: It has the following reasons for this problem:

  1. Please check if the signal line of the lamps and the controller is connected correctly.
  2. Conventional lamps signals divided into input and output, please confirm whether the controller connected the first lamp's signal input.

- **Problem 3:** After connect the lamps and the controller, the lamps is strobe and has an effect change, at the same time the controlled indicator shows normal.

  Answer:

  1. The ground line of the controller and the lamps are not connected.
  2. The effects in SD are not correct. The IC of the lamps when making effect does not correspond with the IC of the actual lamps.
  3. If did not lock the chip, when making effects in the software, need to press the controller chip to the light's corresponding chip, about press to which number, please refer to the sticker IC order on the controller.
  4. The power supply voltage of the lamps is insufficient.

- **Problem 4:** SD card can not be formatted.

  Answer:

  1. Firstly, make sure if the protection switch on the side of SD card is unlocked. The unlocking direction is the gold needle side of SD card.
  2. The protection has been designed as required, but can not formatted, if this condition appears, it always because the SD card reader is broken, please change the SD card reader(had better use good quality card reader, SSK card reader is suggested).
  3. If the above operations can not solve the formatting problems, please change the SD card and retest.

Documents / Resources

[**LEDYi Lighting K-1000C DMX Addressable LED Strip**](#) [pdf] Instruction Manual
K-1000C DMX Addressable LED Strip, K-1000C, DMX Addressable LED Strip, Addressable LED Strip, LED Strip

References

- [**User Manual**](#)