

## OPERATING INSTRUCTION FOR SMART CONTROLLER

### 1. General description

This controller is specially designed for LED ribbons using HL1606 as IC driver, it is very useful and powerful. Perfect for use in light box advertisement, stage light, house decoration, and so on.

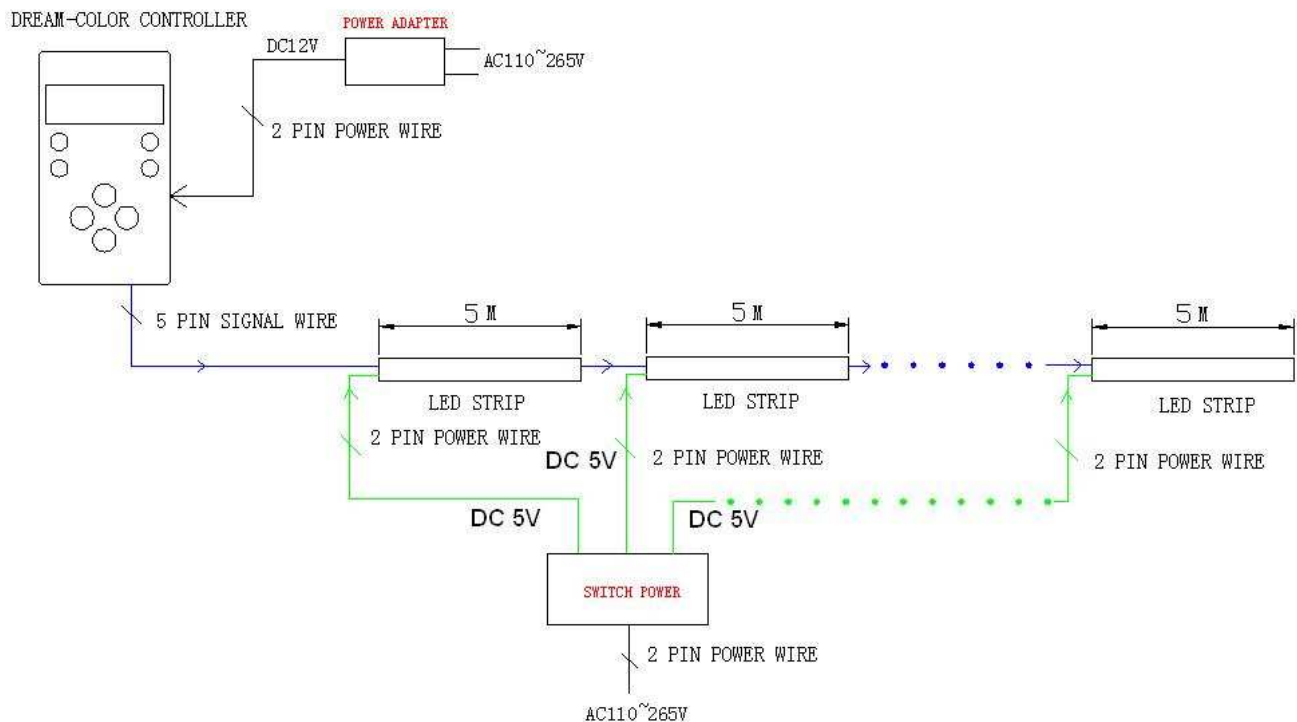
### 2. Specification

- Working temperature: -20- 60 °C
- Supply voltage: DC12V
- Product size: L90×W60×H25mm
- Weight: 100g
- Rated power:2.2W
- Output:two groups SPI signal

### 3. Function&Feature

- Set up the length of LED ribbon as required
- 83 built-in programs options to choose from
- Memory function, keeping the last record when power off or problem occurred
- 128\*128\*128 gray scale

### 4. Connecting diagram



## 5. Photo of object



## 6. Function of manual controller panel



### ON/OFF button.

it can open or close LED anytime, when close, The LCD will display "IC NUMBER: \*\*\*\*", "\*\*\*\*" for the current set of IC number.



### Play/pause button.

when you want to see the static effect of ribbon ,you may press this button to pause.



### Adding button

To add the IC NUMBER, the Max. IC number is 255 (for our smart ribbon, can control up to 510 pcs RGB, 2pcs per section, 16 sections per meter)



### Reducing button

To reduce the IC NUMBER, the Min. IC number is 16 (16 sections RGB ribbon, 16sections per meter, SMD lamp spacing: 6.25cm)



### Program Up Select button

Up direction, there are 83 programs in all, please refer to below in details



### Program Down Select button

Down direction, easy to use as per your wish



### Speed slow button

There are 100 steps in all, Max. number is 100



### Speed quick button

The Min. number is 1

**7. Function of remote control pannel**



**Power on/off button and mode select button**

Press ON/OFF button to power on and off the LED ribbons, when led is in a state of closing, The LCD will display "IC NUMBER: \*\*\*", "\*\*\*\*" is the value of current setting.

Press tMODE button to play/pause ribbon, when you want to see the static effect of led, you may press this button to pause.



**Program choosing button**

Press the B+ and B- buttons to choose the modes from 83 modes as per your wish.



**Speed adjust button**

Press the S+ black button to increase speed, pressing the S- one to decrease the speed, there are 100 steps in total, Max. is 100, Min. is 1.

**8. OUTPUT1 & OUTPUT2 Description:**

L, K, D, S is the corresponding signal of HL1606, which is L\_I, CK\_I, D\_I, S\_I

**9. PROGRAM Description: (Condition: A1—Blue LED; A2—Red LED; A3—Green LED)**

PROGRAM	Function
1	All color wave forward direction
2	All color wave backward direction
3	All color draw curtain by waving
4	All color lower curtain by waving
5	Three color wave by wave forward direction
6	Three color wave by wave backward direction
7	Three color draw curtain waving by waving
8	Three color lower curtain waving by waving
9	Many color wave forward direction
10	Many color wave backward direction
11	Many color wave draw curtain
12	Many color wave lower curtain
13	Six color trail forward direction
14	Six color trail backward direction
15	Six color trail draw curtain
16	Six color trail lower curtain

- 17 Three base color trail forward direction
- 18 Three base color trail backward direction
- 19 Three base color trail draw curtain
- 20 Three base color trail lower curtain
- 21 Six color jumpy change
- 22 Three base color jumpy change
- 23 Three mixing color jumpy change
- 24 Six color jumpy change forward direction
- 25 Six color jumpy change backward direction
- 26 Six color jumpy change draw curtain
- 27 Six color jumpy change lower curtain
- 28 Three base color jumpy change forward direction
- 29 Three base color jumpy change backward direction
- 30 Three base color jumpy change draw curtain
- 31 Three base color jumpy change lower curtain
- 32 Six color brush forward direction
- 33 Six color brush backward direction
- 34 Three base color brush forward direction
- 35 Three base color brush backward direction
- 36 Six color brush draw curtain
- 37 Six color brush lower curtain
- 38 Three base color brush draw curtain
- 39 Three base color brush lower curtain
- 40 Change color red-purple-red forward direction
- 41 Change color red-purple-red backward direction
- 42 Change color red-purple-red draw curtain
- 43 Change color red-purple-red lower curtain
- 44 Change color red-yellow-red forward direction
- 45 Change color red-yellow-red backward direction
- 46 Change color red-yellow-red draw curtain
- 47 Change color red-yellow-red lower curtain
- 48 Change color red-green-red forward direction
- 49 Change color red-green-red backward direction
- 50 Change color red-green-red draw curtain
- 51 Change color red-green-red lower curtain
- 52 Change color red-blue-red forward direction
- 53 Change color red-blue-red backward direction
- 54 Change color red-blue-red draw curtain
- 55 Change color red-blue-red lower curtain
- 56 Change color green-cyan-green forward direction
- 57 Change color green-cyan-green backward direction
- 58 Change color green-cyan-green draw curtain
- 59 Change color green-cyan-green lower curtain
- 60 Change color green-blue-green forward direction
- 61 Change color green-blue-green backward direction
- 62 Change color green-blue-green draw curtain
- 63 Change color green-blue-green lower curtain

64	Change color red-white-red forward direction
65	Change color red-white-red backward direction
66	Change color red-white-red draw curtain
67	Change color red-white-red lower direction
68	Change color green-white-green forward direction
69	Change color green-white-green backward direction
70	Change color green-white-green draw curtain
71	Change color green-white-green lower direction
72	Change color blue-white-blue forward direction
73	Change color blue-white-blue backward direction
74	Change color blue-white-blue draw curtain
75	Change color blue-white-blue lower curtain
76	Six color fade in and fade out forward direction
77	Six color fade in and fade out backward direction
78	Six color fade in and fade out draw curtain
79	Six color fade in and fade out lower curtain
80	Three base color fade in and fade out forward direction
81	Three base color fade in and fade out backward direction
82	Three base color fade in and fade out draw curtain
83	Three base color fade in and fade out lower curtain

## **10. Safety Information**

- Supply voltage of this product is DC12V, never connect to DC24V or AC220V, it will burn easily.
- Never connect two wires directly in case of short circuit.
- Lead wire should be connected correctly according to colors that connecting diagram
- Warranty of this product is one year, in this period we guarantee replacement or repairing with no charge, but exclude the artificial situation of damaged.