

# HCD-300 series Multifunctional Controller

## User's Manual

\*Please read this manual carefully before use the controller

### Brief introduction of functions

The LED multifunctional isochronous controller (HCD-300 series) is based on high performance microprocessor manipulation technology, supporting international standard DMX512 control protocol interface. It has more than 30 editable color change patterns, including gradual change, screening and jumping styles. The LED man-machine interface makes it easy to set all kinds of working parameters.

### Models and Basic Features

- **HCD-300A (AC version):** 1 Amper per line, (660 W. for 220 V input, 330 W for 110V input). Output voltage is rectified to drive LED devices.
- **HCD-300D (DC version):** 10 A per line (720 W for 24 V input, 360 W for 12 V input). Output voltages is the same as input voltage.
- **HCD-301 AC:** wattage extension module, current output: 3 A per line
- **HCD-302 DC:** wattage extension module, current output: 20 A per line

Dimension: 90×120×50 (mm)

### Functions

- Support DMX512 protocol interface.
- There are over 30 editable color change patterns. The working parameters of each changing process can be configured independently.
- Automatically run and set default modes.

- Automatically save and configure parameters.

### **Instruction for user**

There are 4 function-setting buttons: MODE, SETUP, UP and DOWN.

Press MODE button to change programs stored in HCD-300FS

# Updated Functions For the HCD-300

Programs ----->

<u>Serial Number</u>	<u>Display Content</u>	<u>Instruction</u>
1	Black	Static Black
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 Change 2	7 Color Flicker
11	Six Color Change	6 Color Shift
12	Six Color Change 2	6 Color Flicker
13	RGB Change	3 Color Shift
14	RGB Change 2	3 Color Flicker
15	RG Change	RG Shift
16	RB Change	RB Shift
17	GB Change	GB Shift
18	White Flash	White Flash
19	Color Smooth	7 Color Gradual Change
20	RGB Smooth	3 Color Gradual Change
21	RG Smooth	RG Gradual Change
22	RB Smooth	RB Gradual Change
23	GB Smooth	GB Gradual Change
24	Color Gradual	7 Color Fade in / fade down
25	RGB Gradual	3 Color Fade in / fade down
26	White Gradual	White Fade in / fade down
27	RG Gradual	RG Fade in / fade down
28	RB Gradual	RB Fade in / fade down
29	GB Gradual	GB Fade in / fade down
30	Red Gradual	Red Fade in / fade down
31	Green Gradual	Green Fade in / fade down
32	Blue Gradual	Blue Fade in / fade down
33	Adjust Mode	Adjust RGB
34	Auto Programmer	Automatically Run
35	DMX512 MODE	DMX Controller Mode
36	DMX512 DECODE	DMX RGB Adjust Mode

Use program 35 to change DMX address (press Setup while in DMX512 MODE)

Press SETUP to adjust: (1–8 is static without adjusting functions)

Serial number	Parameters Display	Instruction
1	RUN SPEED	100 or 0
2	AUTO SELECT	YES or NO
3	LOAD DEFAULT	Ex works parameters

Up: Preset parameter increases

DOWN: Preset parameter decreases

Preset parameters: There are individual factory preset parameters for each color change pattern. It is saved independently in the controller. In the AUTO PROGRAM mode, you can have the controller operate with all factory preset parameters by choosing LOAD DEFAULT.

### **Installing Instruction:**

**HCD - 300A: (AC220V/AC110V)**



Connect the adaptor to the controller and then put the plug into the 220V/110VAC socket.

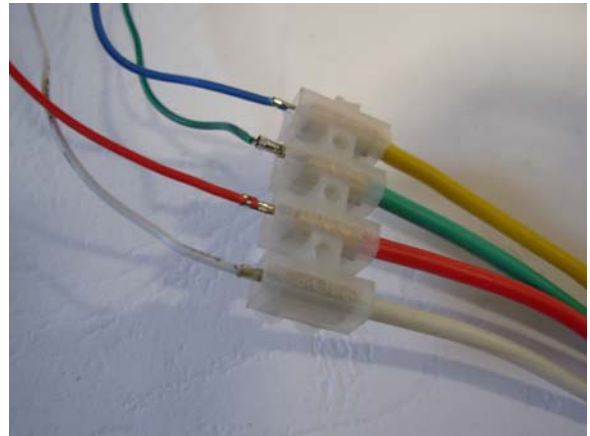


Join the connectors of the LED products (such as RGB border light and rope light etc.) and the controller.

## HCD-300D: (DC24V/DC12V)



Connect the adaptor to the controller and then put the plug into the 220V/110VAC socket



Connect the lines of the LED products (such as RGB flex strip and waterproof module etc.) to the outputline of the controller.



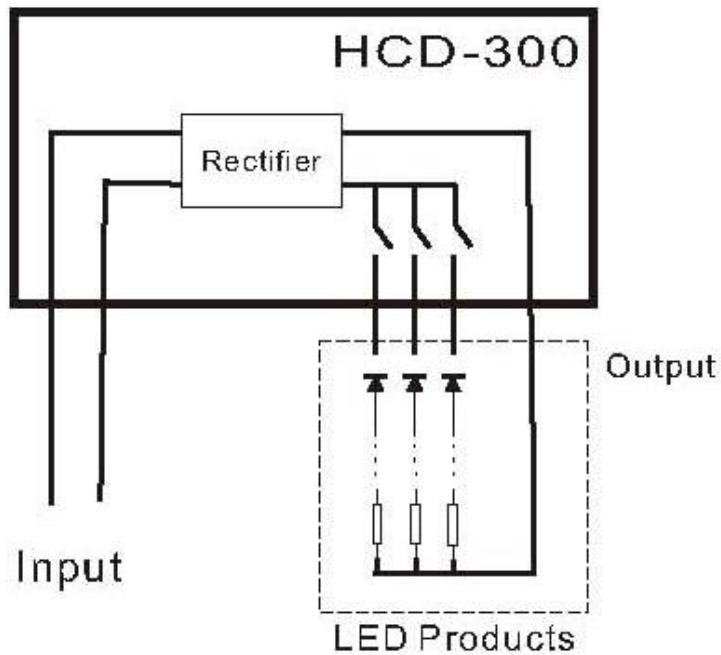
Connect the inputline of the controller to the DC power supply (please note anode and cathode of the DC power)



Overview

Input line: brown = positive; black = negative

Output line: white = common line, DC+; red = red LED; green = green LED, yellow = blue LED



Under DMX512 mode, 4 lines of DMX512 signals can be received. The initial address is adjusted by UP, DOWN key (1-512). The preset initial address is 1. Each controller occupies 4 DMX512 address.

First channel, DMX512 data 0-255, controls 29 color change patterns.

Second channel, DMX512 data 0-255, controls color change speed; it also controls the percentage of redness in 29th change pattern

Third, DMX512 data 0-255 controls the percentage of green color in 29<sup>th</sup> pattern

The fourth, DMX512 data 0-255 controls the percentage of blue color in the 29th pattern.

### **Precautions:**

1. Please avoid install this controller in lightening, intense magnetic and high-voltage fields.
2. The controller should be installed indoors. Otherwise, please arrange rain shielding.
3. Make sure the wires are connected correctly and avoid short cut and burnt out the fuse.