UNITED EAST ELECTRONIC INDUSTRIAL LIMITED

东莞市优易电子设计开发有限公司

JC-3RF DMX LED LIGHTING CONTROLLER USER'S MANUAL

Standard Accessories:

ColorEdit_DMX INSTALLER	
DC12V ADPATOR	
USB CABLE	
NETWORK CABLE	
RJ45 to JC-3RF CONNECTOR	
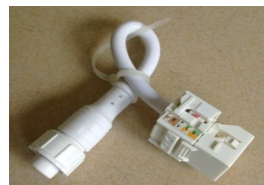
Optional Accessories:

RJ45 to RS485 CONVERTER	

SOUND CONTROLLER	

● INTRODUCTION

LED lighting controller, standard DMX512A signal, on-line / off-line operation, sound controller selectable, cascade connection from one to another to build a large-scale LED network control.built-in FLASH memory, no need additional SD card, operate easily as a USB flash drive to save and manage files, output signal via port 2 of "DMX Out".

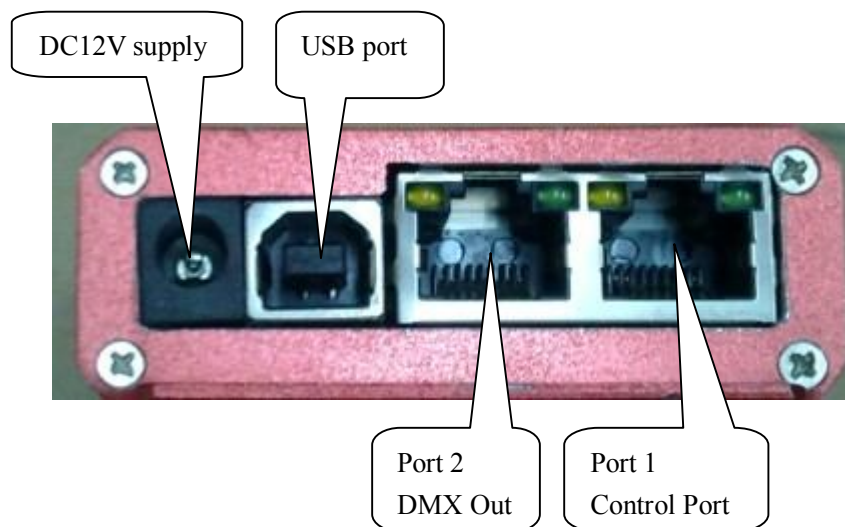### 1. Features

   1) Output

     Connector: RS485

   2) Power Supply

     Voltage: DC9V-24V
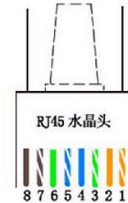
2. Connection Port

Controller Connecting Photo

Note: 1. USB port is used to store .DMX files created from Color Edit software. (To read and recognize a .DMX file easily, the last two letters of any .DMX file should be numbers.)

  2. Port 1 is a control port. Use it to connect and synchronize multiply JC-3RF controllers. To connect it with additional sound controller can realize sound control. Implement control command of host PC, play .DMX file from DMX select controller.

  3. Port 2 is to output DMX512A signal to control DMX lighting device or driver.
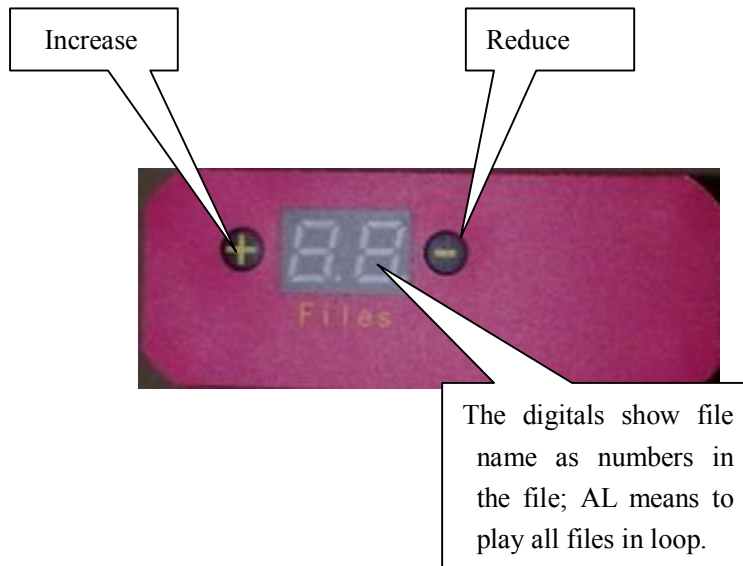
3. Cable connection table

Port 2 DMX OUT	DMX D+ pin 1	DMX D- pin 2
Port 1 RS485 IN/OUT	cascade connection synchronization, sound control, response to control command of host PC, DMX controller control	

Note: Pin 1,2,3,4 are shown as the network cable from top side

4. Button Function

Increase

Reduce

The digitals show file name as numbers in the file; AL means to play all files in loop.

● USB to DMX multiply controller

Features:

1．Run by ColorEdit_DMX software, output DMX signal to realize on-line connection synchronization, or to set and control JC330-3 functions.
2．Open control protocol, work as a USB to DMX512A converter; support other software to control DMX output (but it requires to contact UE sales first).

Operation:

1．Hold "+" or "-" button on the controller, then power up or connect it with USB cable, the digital display shows "PC", it works as a USB to DMX converter (when connect it at the first time, there will be a note that requires to install

USB_DMX512Aint.inf on your computer), then via Color Edit software it can control DMX devices, or set and control functions for JC330-3.

2．Connect it with computer via USB cable without pushing button, it works like a USB port (no need driver program), and you can copy files into the controller.

● Off-line DMX Controller

Features:

1. 2GB memory, DMX signal output, control as many as 512 pixels.
2. Select file through button (LED display to show current file name), can save 99 files.
3. RS485 port, receive command from computer or another controller (send command via required command format)
4. Sound controllable (need to connect with additional sound controller).
5. Multiply JC-3RF controllers, synchronization play, create partition file for the same file (the first 2 numbers of a file name are the partition number) when connect control ports together.

Operation:

1. Change display program by pushing buttons

1）Create customer-made display programs though Color Edit software (must be in .DMX format), and save in computer.

2）Connect with computer through USB cable (power supply via computer, no need power up by adaptor). Copy and save customer-made DMX files into the controller.

Note: there are 10 default programs from factory (file name 0~9, less than 150 pixels). You can create desired display programs through Color Edit software. When you save an edited file, the last two letters of a file name must be numbers, for example ABC**01**.DMX. The digital display on the controller only shows the last two numbers of a file. In this way, you can change or find desired display files easily.

3）Connect DV12V power supply adaptor, and connect port 2 of the controller with a LED device, when the green LED is flashing, it means the controller is running a certain display program. You can push the + or – buttons to change display file. When it shows AL, it means it is running all display programs saved in the controller in loop. When it shows 00, it means no output of any DMX signal.

2. Change display program via control port (use standard Internet communications protocols)

    1) Serial port communication rate is 57600 bps (serial control, need a RS232 to RS485 converter), the longest distance is 500 meters.

Command format

Fixed start bit	File select command	address	Control file number
F0 F0 0F 0F	FE 01	2bytes	00 00 2bytes

Note: **a**：Address needs 2 bytes, the first byte is ten-digit number (0-9), the second byte is unit-digit, address is less than 99.

    b：file number is from 2 bytes too, the first byte is for tens-digit, and the second is for unit-digit number. For example, file number 99 is like this 09 09. File number is less than 99.

    c: 00 means no output. AA means to display all programs in loop (the same function as to select AL).

    2) When you want to change a controller address, please hold both + and – buttons for 3 seconds, when the LED display is flashing and it shows the address of the controller, not the file number now. You can change the address by pushing + or – button at the same time. If there is no any operation in 3 seconds, address setup function will stop automatically and show the file name again. (It saves the address when it shows at the last time. When it powers up next time, the address number will be shown what is set at the last time).

3. Sound Controllable Function

Sound Controller

Adjust display speed by using additional sound controller. At the moment the connected sound controller turns on, it stops to display program. When the sound controller receives signal, display program will resume and speed up.

4. Control JC-3RF via DMX lighting adjuster (or other DMX device) (Note:

default set is for RS485 control, to get DMX control, please specify when you order our controller)

1）Select JC-3RF DMX address, to hold the + and – buttons at the same time for 3 seconds, the digital display will be flashing, it shows the address of current DMX address. Push + or – button to change DMX address. If no operation in 3 seconds, it shows the address which is set at the last time. It is also the same address when power up next time.

2) Command format: each JC-3RF occupies one DMX channel. If current JC-3RF address is 3, then the display file is the channel3 of DMX. Percentage of DMX is to set for display file name. 0 means no output, 100% means to display all files in loop.

DMX %	DMX Hex format	File name
0	0x00	No output
1	0x1~0x3	xxxx01.DMX
2	0x4~0x6	xxxx02.DMX
10	0x19~0x1a	xxxx10.DMX
30	0x4c~0x4d	xxxx30.DMX
50	0x7f~0x80	xxxx50.DMX
99	0xfc~0xfd	xxxx99.DMX
100	0xff	Display all files in loop.

NOTE: If there is no change for DMX control number, JC-3RF runs a certain selected file in loop. When the DMX control number changes stably and at 100ms, selected control files start to display in loop.

5. Wireless synchronization connection for multiply JC-3RF's

Please set one JC-3RF as the master controller. Push the "+" or "-" button around the "Address" to set and adjust the controller address as "1", then this JC-3RF works as a master controller. Set any addresses for all other JC-3RF controllers except "1", and they work as slave controllers. All slave controllers receive wireless signals through wireless device, and play the same files sent from the master controller synchronously.

● Important Safety Instructions

WARNING – WHEN USING ELECTRICAL PRODUCTS, BASIC PRECAUTIONS

SHOULD ALWAYS BE TAKEN, INCLUDING THE FOLLOWING:

WARNING – TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT

EXPOSE THE APPLIANCE TO RAIN OR MOISTURE.

Do not use this product near water.

The product should be located with sufficient air space for proper ventilation, far away from flammable and explosive articles.

Do not install near any heat sources such as radiators, heat registers, stoves, or other heat producing products.

Do not place the product on any electrical-conductive device or on system directly.

The product shall be connected to a main socket outlet with a protective grounding connection.

Check power supply or switching power voltage if it meets system requirement or not before plug in outlet.

The power adaptor being used with this product should be unplugged from the wall outlet during lightning storms or when left unused for long periods of time.

Clean only with a dry cloth. Before cleaning the unit, turn off the power and unplug the power adaptor from the outlet.

Do not damage or remove or change product labels; do not modify or re-solder board or move or change any components on the product.

Do not attempt to service this product beyond what has been described in the user maintenance instructions. All other servicing should be referred to qualified service personnel.

CAUTION: You are cautioned that any change or modifications not expressly approved in this manual could avoid your warranty.

- **Service and Maintenance**

  The manufacturer (UE) provides service based on stipulates of the consumer protection law, and under the sight of receipt / invoice.

  1. within 1 year of purchasing the product, and not damaged by the user, the company will repair the failed product freely

  2. damaged by improper usage or maintenance, the manufacturer will repair the product with a certain service charge

  3. please contact the manufacturer (UE) or the distributors when having quality problems

  4. any updates on the manual will not notice further, if you have any questions please call the company phone directly

Manufacturer: United East Electronic Industrial (HK) Co., Ltd.

Address: No.17 Qilin East Road, Da'ning Industrial Zone, Humen Town,

Dongguan City, Guangdong Province, China

TEL：0769-86237138; FAX：0769-85707559

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