

# LED CONTROLLER

ITEM No.:

Master Pro 2

## INSTRUCTION OF MASTER PRO 2

This controller is used to write & read DMX address of our DMX fixtures which do not have buttons or digital LED display. It has automatic sequential addressing function. Furthermore, its built-in programs can achieve convenient and speedily control of light fittings. (For functions, it's suitable for RGB fixtures).

### A. Structure:

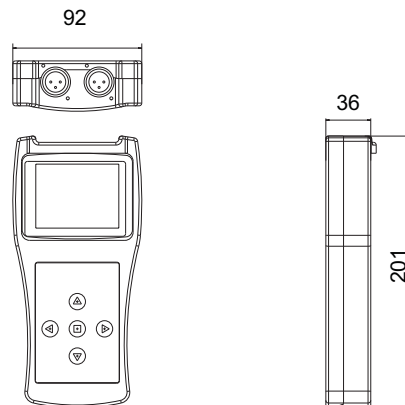
#### A-1. Introduction:

- It's a handheld controller
- 3.2inch LCD display, 240(RGB)\*320 Dots with touch keys
- With 3.7V1800mAh lithium battery inside,  
Charging voltage: 5V; Charging port: Mini USB
- 2 DMX output ports with XLR-3 female connectors
- Max DMX Channels: 512CH (Max. control: 170 pcs DMX 3CH RGB fixtures)



#### A-2. Specifications:

Size:	L201×W92×H36mm
Weight:	0.67kgs
Working temperature:	-20℃~55℃
Input volt.:	120~240V AC
Working volt.:	5V
Protection :	IP20
DMX addressing:	Available



### B. Setting steps:

#### B-1. Primary interface

##### 1. Start-up interface

The screen will be white at first time when you switch on, pls re-start it again; then controller will enter into LCD color screen and it will show model and version numbers (Figure B.1) after 2 seconds; after that, it will enter into main interface.

##### 2. Main Interface

Main interface (Figure B.2) includes time, date and 3 function options. "1" refers to Function & Operation; "2" refers to Built-in Programs; "3" means options. Press (←) or (→) button, the cursor will move among 1 to 3. It will enter into submenu after pressing "Confirm" button.

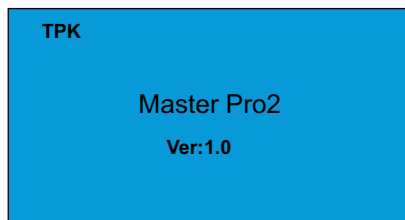


Figure B. 1

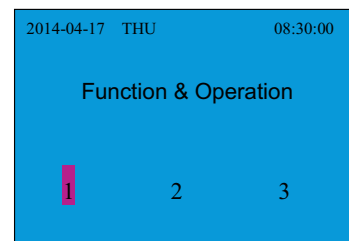


Figure B. 2

#### B-2. Secondary Interface

##### 1. Instruction of interface partition

Each submenu consists of 3 parts: 1: subject; 2: Menu choice; 3: Operating functions

##### 2. Operating Instruction

There are 5 touch keys on controller: Up (↑); Down (↓); Left (←); Right (→) and Confirm (■). Pressing (↑) or (↓), the cursor will move up or down accordingly. If there is a list for contents, the controller will choose first row Acquiescently when enter into the interface. When pressing (←) or (→) button for Confirm or Cancel, Confirm will lead to enter into the function module; Cancel will lead to go back to previous interface.

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## C. Function Settings

As Figure C.1:1,2,3 and 4 are 4 options of function menu; press( ↑ ) or( ↓ ) to choose the line of the list and press( ← ) or( → ) to choose Confirm or Cancel. Confirm will lead to enter into submenu; Cancel will lead to go back to previous level.

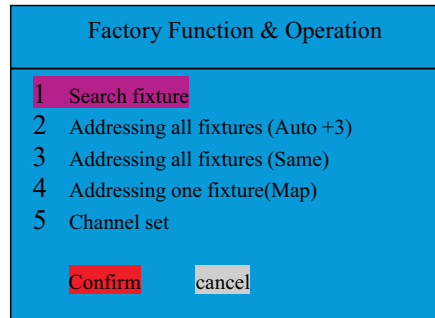


Figure C. 1

### C-1. Search fixture

1. Search online fixtures, controller will enter into interface of DMX address settings(Figure C.2). You will have to research the fixtures if it is the first time you set the address or you added new fixtures. Controller will save the info of fixtures automatically after searching.

While searching, all fixtures will enter into searching status(Red LEDs are on with 10% intensity; when fixtures are found(Green LEDs are on with 100% intensity); the details of fixtures will be sent to controller. All fixtures will work under green color after searching finish.

2. When enter into interface of Search fixture, it will hint whether to start to search fixtures; operation will be cancelled when choose "No" and controller will go back to previous interface;searching will start after choosing "Yes", and it will allot DMX addresses to all fixtures according to sequence of connection. Searching interface is as shown in Figure C.3.

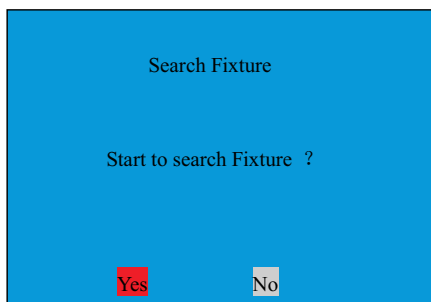


Figure C. 2

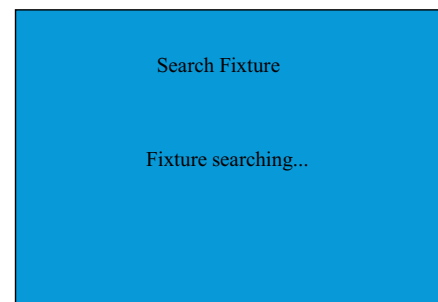


Figure C. 3

3. Interfact will show as below Figure C.4 after seaching finished.

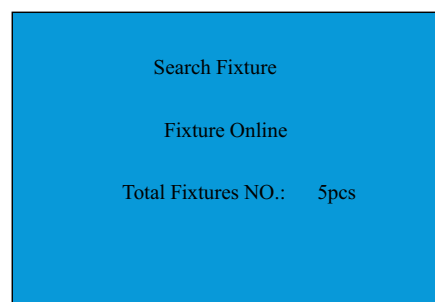


Figure C. 4

The quantity of searched fixtures will show behind the words"Total Fixtrues NO.:"; and it will show "0" if no fixture is found. And press any button to get back to last interface.

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## C-2. Addressing all fixtures (Auto +3)

1. Automatically and sequentially addressing all fixtures(Figure C.5),you should set the start address, then controller will address all fixtures according to physical connection sequence, address will be increased by "digit" which is the DMX channel of the fixture. The lights will work on 100% green color after addressing is OK

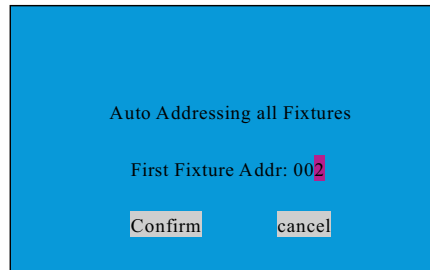


Figure C. 5

2. Press (←) or (→), the cursor will move among First fixture address(xxx), Confirm and Cancel. Press (↑) or (↓), you can change the digits of the address(should be less than 512).Press (■) after choosing Confirm, then addresses of fixtures will be written automatically and sequentially, address will be increased by according to the DMX channel of fixtures; press any button to get back to secondary interface. Press (■) after choosing Cancel, it will not make any change; controller will go back to secondary interface directly.

## C-3. Addressing all fixtures(Same)

1. Pls choose one address before setting same address to all fixtures, then choose Confirm to finish the setting or Cancel to stop setting(Figure C.6). The lights will work on 100% green color after addressing is OK

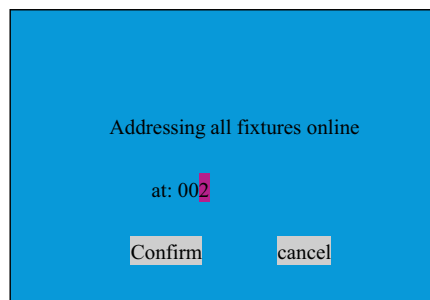


Figure C. 6

2. Press (←) or (→), the cursor will move among First fixture address(xxx), Confirm and Cancel. Press (↑) or (↓), you can change the digits of the address(should be less than 512).Press (■) after choosing Confirm, then all fixtures will be addressed with same DMX address; press any button to get back to secondary interface. Press (■) after choosing Cancel, it will not make any change; controller will go back to secondary interface directly.

## C-4. Addressing one fixture(Map)

1. Change the address manually, all fixtures which are found will be listed in submenu(according to physical connection sequence). Users can change address of any fixture after choosing it.(Figure C.7)

2. Press(↑) or (↓), choose the fixture among the list; Press(←) or (→), choose "Confirm" to enter into next interface or "Cancel" to get back to previous one.(Figure C.8)



Figure C. 7

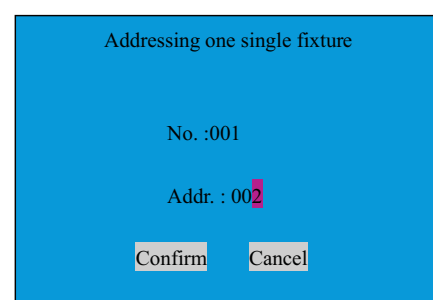


Figure C. 8

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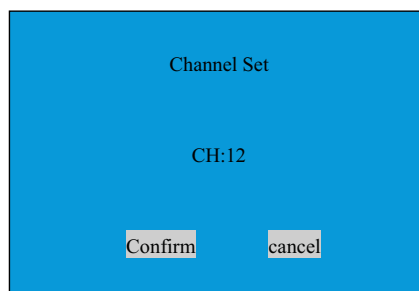
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3. Press (←or→) to remove the selected place on 3 Addr and "Confirm and Cancel" , press (↑ or ↓) to add or decrease value in selected place. Press (■) after choosing "Confirm" to modify the address and return to address table interface. Press (■) after choosing "Cancel" to give up and return to address table interface.

## C-5. Channel Setup

1. Channel setup is to setup the channel digital of every fixture, when handling "Addressing all fixture (Auto+3)", controller will write continuous DMX address for every fixture automatically.



Drawing C. 8

2. Like above drawing, channel is 12, When do "Addressing all fixtures (Auto+3)", setup the 1st fixture as 2, then 2nd fixture is 14, 3rd is 26, others like this.

3. This setup is for the same channel digital of all fixtures. If fixture has different DMX channels, hiding function of controller is used when auto-writing address. Which write address automatically by self-increasing way based on the channel quality of fixture. If used, pls refer to the datasheet.

## D. Built-in Program (Play)

1. Play one of the built-in functions and online control out fixtures connected to this controller (Figure D.1).

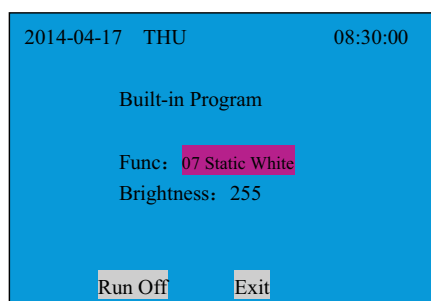


Figure D. 1

Press (←or→) to move and select the parameters need to modify; press (↑ or ↓) to add or decrease value in selected place. When choosing "Run Off", press (■) to move between "Run Off" & "Run On". Press (■) after choosing "Exit" to drop out of this playing function and return to the main interface.

2. Func means Function Parameters, Speed/Brightness means speed/gray parameter. Inside regular functions are 40pcs (Refer to below table:)

Function	Speed/Brightness	Function	Speed/Brightness
00-Black Out			
01-Static Red	0~255 class gray degree	21-Right Flow	0~100 class speed
02-Static Green	0~255 class gray degree	22-Bidir-Flow	0~100 class speed
03-Static Yellow	0~255 class gray degree	23-Side->Middle	0~100 class speed
04-Static Blue	0~255 class gray degree	24-Middle->Side	0~100 class speed
05-Static Purple	0~255 class gray degree	25-Side<->Middle	0~100 class speed
06-Static Cyan	0~255 class gray degree	26-Left Stack	0~100 class speed
07-Static White	0~255 class gray degree	27-Right Stack	0~100 class speed
08-Dimmer	0~255 class gray degree	28-Bidir-Stack	0~100 class speed

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09-Color Change	0~100 class speed	29-Pingpong	0~100 class speed
10-Color Flash	0~100 class speed	30-Rainbow Left	0~100 class speed
11-Red Fade	0~100 class speed	31-Rainbow Right	0~100 class speed
12-Green Fade	0~100 class speed	32-Red Drip	0~100 class speed
13-Yellow Fade	0~100 class speed	33-Green Drip	0~100 class speed
14-Blue Fade	0~100 class speed	34-Yellow Drip	0~100 class speed
15-Purple Fade	0~100 class speed	35-Blue Drip	0~100 class speed
16-Cyan Fade	0~100 class speed	36-Purple Drip	0~100 class speed
17-White Fade	0~100 class speed	37-Cyan Drip	0~100 class speed
18-Color Fade1	0~100 class speed	38-White Drip	0~100 class speed
19-Color Fade2	0~100 class speed	39-Color Drip	0~100 class speed
20-Left Flow	0~100 class speed	40-AutoRun Mode	0~100 times circle

Swich (Run On or Run Off) on play function is controlled by timing function in Alarm or by manual forcibly. Run on is to play function and to control fixtures' changing; onlie Run Off is Black out function, close fixtures' changing. When timing function opens (Alarm Enable to Yes), and also reach to Turn-On time, trggering play function switch to "Run On", when reach to Turn-Off time, traggering play function switch to "Run Off". If no need timing play, pls choose Alarm in Option interface , after entry into sub-interface of Alarm, close timing function (Alarm Enable to NO).

## E. Option

As shown in figure E.1, the menu contains "Clock Setup", "Alarm ", "System Reset" . Press (↑ or ↓) to choose below list options. Press (← or →) to confirm or cancel the options. Confirm will enter into submenu, cancel will return to the previous interface.

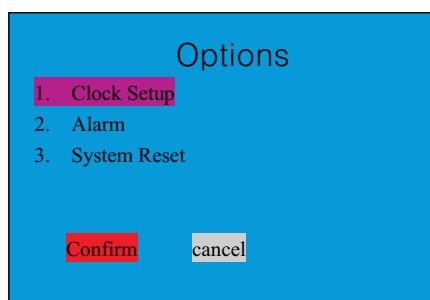


Figure E. 1

### E-1 Clock Setup

As shown in figure E. 2, Clock Setup is system time setting. Entry into submenu can adjust the date and time. Press (← or →) can move among the selected position in the Date and Time ; Press (↑ or ↓) to add or decrease value. Press (■) after choosing "confirm" to modify time and return to secondary function interface; Press (■) after choosing "Cancel" to discard the changes and return to the secondary function interface.

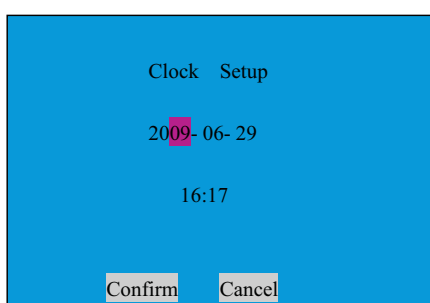


Figure E. 2

### E-2 Alarm

As shown in figure E. 3, Alarm is a timing function. Enter into submenu can choose the usage of timing function and Set adjustment of Auto Switch'time in Built-in Program.

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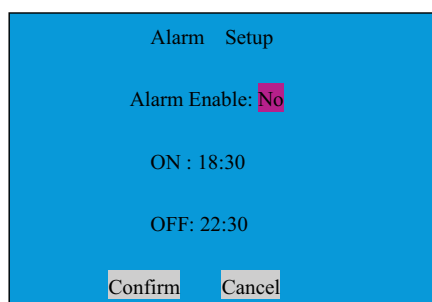


Figure E. 3

“Alarm Enable” has two kinds of status—Yes and No. “Yes” can open timing function. Press (↑ or ↓) to exchange between “Yes” and “No”. When closing timing function (Alarm Enable to No) doesn’t adjust switch trigger time, the time parameters of ON and OFF is invalid. Press (← or →) can move between “Confirm” and “Cancel” in “Alarm Enable”. Press (■) after choosing “Confirm” to close the function (timing function is invalid) and return to secondary function interface. Press (■) after choosing “Cancel” to give up modification and return to secondary function interface.

When opening timing function (Alarm Enable is yes), press (← or →) can move to select between ON and OFF. Press (↑ or ↓) to modify the value in selected place. Press (■) after choosing “Confirm” to modify the time of timing switch (Timing valid) and return to secondary function interface. Press (■) after choosing “Cancel” to give up modification and return to secondary function interface. ON means to start time; OFF is to close. They will work when playing effect (valid in Built-in-Program interface). (Timing function will save all selected parameters after pressing (■) in selected “Confirm”).

E-3. System Reset is to restore factory settings.

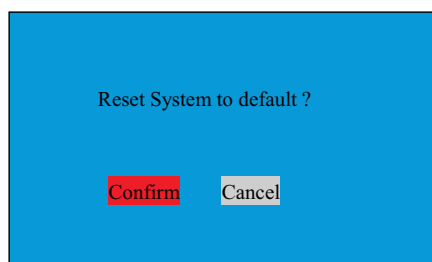


Figure E. 4

## Caution:

1. When setting address at first time or add new fixtures, controller must “search fixture” once; then controller will save the searching information of last time, no need to search every time. Don’t always search equipment unless it is necessary.
2. All fixtures will be 100% green when searching and setting DMX address automatically, if the fixture doesn’t show green, then can determine this fixture is failed. Pls return it to supplier for repairing within warranty period.
3. After entry into manual setting address (Addressing one fixture (Map) function, the fixture already selected shows 100% green, unselected fixture will show 10% red. If there are some fixtures out of these two status, then the fixture is failed. Pls return it to supplier for repairing within warranty period.
4. Max. loading fixtures are 170pcs(3CH), every 100M or 60pcs fixture need a amplifier.
5. The battery inside could be used for 2hours, if for longer time, pls use power adapter.
6. Battery in this controller can keep working for 2 hours, if for long-time working, power adaptor is needed.
7. Controller power has 3 snap swithes for option, left switch is to charge for inside battery, middle is providing power for adaptor, right is providing power for inside battery. Charging battery and adaptor need power adaptor. Close the controller has to switch the snap to the middle and power off power adaptor.

## Warming:

1. Pls read this manual carefully before operation correctly!!!
2. This products is for indoor, don’t use it in rain or water.
3. Pls use original power adapter for charging, TPK shall not be responsible for any damage to controller by using other adapters!!!
4. Don’t place this controller in charging or standing close to other heat source, in order to avoid battery leakage or explosion temperature!!!
5. Don’t make any collision or severe shock!!!
6. If occur battery liquid leakage or any odor, pls stop to use and contact supplie!!!
7. If there are some problems to controller, pls turn to technicals and don’t open it by yourself.

The above instruction are subject to update or improved without notice. Pls turn to our staff for further details !  
Thanks for your long term support !