LEAHUA

SP 192 Console

SP-C192

This manual contains important information. Please read before operating fixture.

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http:// www.leahualighting.com

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Accessories

CA8602A	1piece	Remark
Manual	1piece	
Waterproof male	6piece	
Waterproof female	1piece	
Tail Plug	1piece	
Installed accessories	2piece	

The most new features of the computer light controller : it can realize the data transferring operation between 2 controllers (the user can copy the chase data from one controller to another controller).

It following the universal DMX 512 protocol, can control 12pieces 16-channel scanners or other equipments, and chase program and manual control of scanners can be performed at the same time .The functions are compact, and its convenient and flexible operation made it handled very easily. is suitable for different ballroom, taproom and small show.

1. Technical Specifications

Output signal	DMX512
DMX channels	1-192
Maximum control channel amount of a scanner	16
Control amount of scanners	12
Amount of chase	12
Maximum chase steps in a chase	100
Amount of scanner scene	100
Running scene directly	12
Manual operation of scanner	Yes
Music run	Yes
Blackout function	Yes
Time of running chase can be adjust	Yes
Cross of running chase can be adjust	Yes
Port of DMX output	XLR-D3F
Power supply	AC90-240V,50-60Hz,4W
Size	53.5*18.5*10CM
Weight	2.5KG

2. Operation Instruction

Cautions of safety

- It must be connected to the earth ground to ensure the safety of user。
- When this controller is working，don't plug in or plug out DMX 512 cable to avoid destroying the electronic components of the port in the controller.
- Don't splash any liquid to the controller to avoid destroying the electric components and the functions of the controller

- The scanner controller is precision electric equipment .please pay attention to moisture proof protection and dustproof .And please clean the controller panel thermally.
-

Installation of controller

Contents in the package of this scanner controller：

- This scanner controller: 1；
- Power supply line :1；
- User manual : 1。

Installing structure of this scanner controller follows the international standard “19”3U.It can be embedded in operation board or directly installed in 19’’ shelf or cabinet.

The power of the controller has steady voltage output in a wide range of power supply voltage that it is adopt to the power supply of all the world .Before the power supply is connected ,.Please check whether the voltage is in normal range of this controller.

When the fuse needs to be replaced, please use the fuse with the current capacity signed on the rear of the controller.

Connecting to scanner

According to DMX 512 protocol, DMX signal cable must be screened twist cable with impedance of 120Ω. In practical engineering installation, if the whole length of the cable is short, the cable may be replaced by high quality screened two-core microphone cable.

User joins each end of the cable to a XLR plug. Foot 1of the XLR plug is connected to the screen net of the cable. Twist lines (distinguished by different colors) are connected to foot 2 and 3. Foot 3 is signal + and foot 2 is signal -. Foot 2 and foot 3 of the plug cannot be confused.

To ensure correct DMX signal transmission, a 120Ω terminal matching resistance must be connected to the last equipment to absorb terminal signal reflection. The operation is as following: connect a 120Ω resistance to foot 2 and foot 3 of a plug then plug it to the output of the last scanner (or

other equipment).

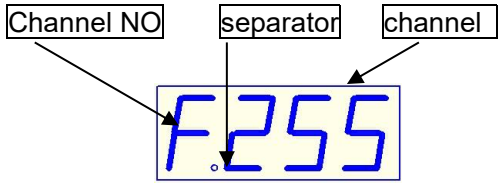
Address distribution of DMX 512

This scanner controller utilizes channel 1-192 of DMX 512 to transmit the control signals to various scanners. Each scanner is fixed with 16 control channels.

Scanner NO	First DMX address of scanner	
	Decimal code	Switch bit of scanner address
		123456789
1	1	100000000
2	17	100010000
3	33	100001000
4	49	100011000
5	65	100000100
6	81	100010100
7	97	100001100
8	113	100011100
9	129	100000010
10	145	100010010
11	161	100001010
12	177	100011010

Digit display instruction

1) Running scene and manual operation display ：

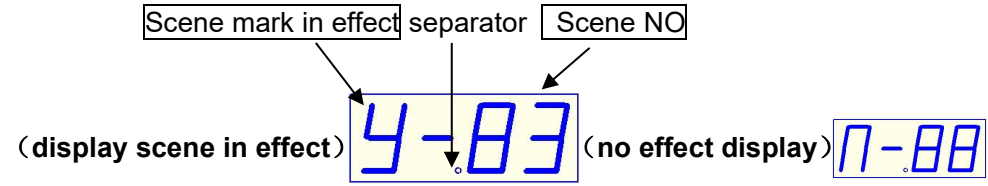


1) Channel NO——display the channel of current fader 0-f correspond1-16 channel 。

2) Channel —— display the current input channel value （range：000-255）。

3) Separator ——used in distinguishing different content。

2）editing scene operation display ：

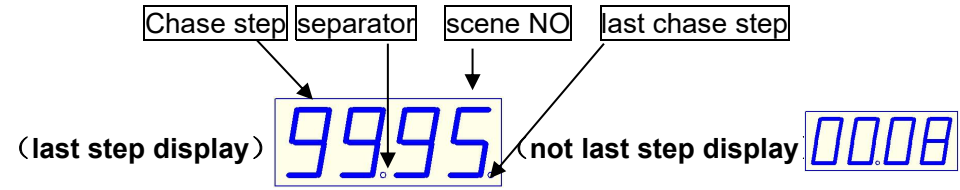


1）Scene mark in effect——the content of choosing the scene （Y means“Yes”，N means“NO”）。

2）scene NO——display the editing scene（range：00-99）

3）Separator ——used in distinguishing different content。

3）edit and running cross chase operation display：



1）Chase step——the editing chase step NO，range：00-99。

2）Scene NO——the scene will save in the chase step，range：00-99。

3）Last chase step——the step is the last chase step。

4）Separator ——used in distinguishing different content。。

5）no chase display——no content in the chase（as follows）。

Description rules

1）**xxx** mean key，switch or channel fader，for example：“Chase”。

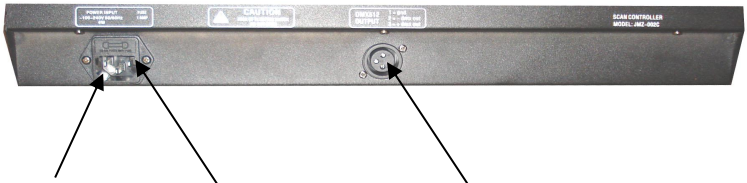
2) ◄Step, Step►, ◄Scene 和 Scene► keys in the following text , respectively, also referred to as A, B, C and D key，

Because the four buttons are regarded Composite function keys，They can also correspond to a state of expression of the corresponding functions。

3) in the Schematic diagram of the operation，Circle with the number of steps means a one-to-one relationship in explaining the steps and the schematic diagram of the serial number of the serial number for

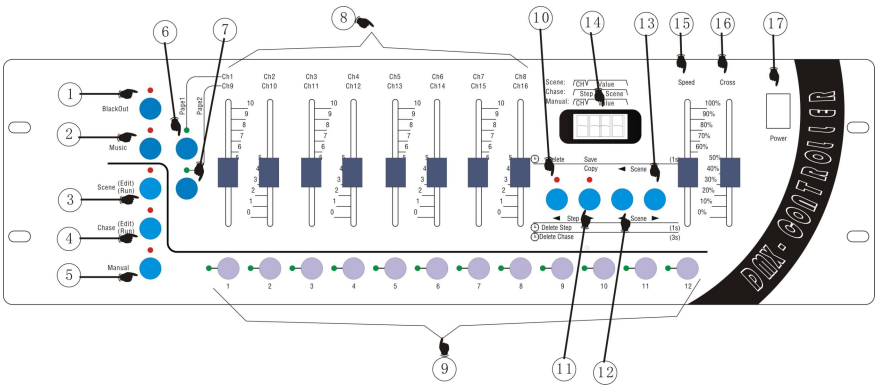
Example ： “①”or “1）”；in “①”and“1）”are Consistent，both mean first step or No. 1

Rear instruction



Power input socket | fuse | DMX signal output port

Panel instruction



1) Blackout Output black keys, pressing the button make light bright. when the control output value of Platform, all channels to 0, resulting in black scenes。

2) Music Voice-activated key, pressing the button to make light bright. Running the program is triggered by the built-in microphone to run。

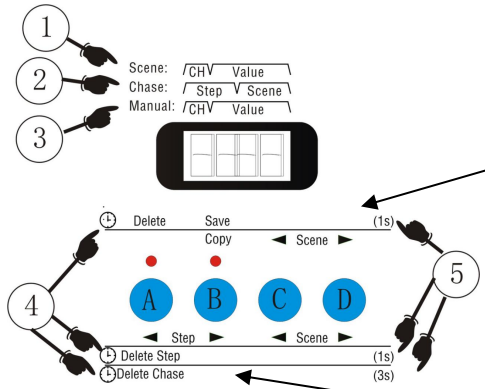
3) Scene Edit / Run Scene Editor / run key, if pressing time is more than 1 seconds, the indicator light flashes into the scene editor state; then if pressing for 1 second again will withdrawn from editing the state to the running state. Bright light is always on。
4) Chase Edit / Run walking light program editor / run key, if pressing time is more than 1 seconds, the indicator light flashes into the scene editor state; then if pressing for 1 second again will withdrawn from editing the state to the running state, Bright light is always on。
5) Manual control key。
6) Page1 Access keys page 1。
7) Page2 Access keys page 2。
8) Ch1/Ch9-Ch8/Ch16 Channel fader（page one 1-8 / page two 9-16）。
9) 1-12 The number keys 1-12（Used to select the No. field, and follow procedures and signal lights to choose）。
10) ◄Step key is called as A key，（run）Operation to remove lantern; (edit scenes) deleted scenes; (Edit the walking light procedure) Step Remove Programs / Remove Programs / decreasing step-by-step selection procedure。
11) Step►key is called as B key，（Edit scenes) scene copy / preserve the scene; (Editor lights go procedure) incremental step-by-step selection procedure。
12) ◄Scene key is called as C key，（Scene Editor / walking lights Procedure) its reduced choice key of scenes
13) Scene►key is called as D key，（Scene Editor / walking lights Procedure） its increced choice key of scenes。
14) Digital display。
15) Speed Speed adjustment fader。
16) Cross Gradual adjustment fader。
17) Power Power switch。

The number keys (1-12) in the scene / procedures / manual control mode of the corresponding menu

function of number keys / functional state	the number keys 1-12

Scene Edit / Run	Editing Scene	Used to select the lamp
	Running scene	Used to select the running scenes
Chase Edit / Run	Editing program	Used to select the editing scenes
	Running program	Used to select the running scenes
Manual	Manual control	Used to select the lamp

Description of A,B,C,D these four function keys in the panel



A,B,C,D Four key scenes in the editing function of state

the function of A,B,C,D Four buttons in the editing process

①Step► When running scene with a digital display that's just - the first for a digital control channel number CH fader shows that the first 2-4 fader-bit digital control input values to show。

② When the lights go running process with a digital display that's just - the first-bit digital tube 1-2 run-time for the process step-by-step shows the current output, the first 2-4 bit digital control for step-by-step procedures to preserve the scene in the show its。

③ Manual control with digital display that's just - the first for a digital control channel number CH fader shows that the first 2-4 fader-bit digital control input values to show。

④ Delay icon button operation - said that the function of the corresponding button press and hold, through a period of time after the delay generated by。

⑤ Button to operate the time delay value - there is 1 second and 3 seconds.

A,B,C,D four key scenes in the editing and editing, respectively, Under the procedure menu

button / function		A key	B key	C key	D key
Edit scene	No delay	--	Copy Scene copy	◄Scene No. scenes to move the election	Edit Scene
	Delay 1S	Delete delete scene	Save scene preservation	--	
Edit program	No delay	◄Step Step forward the election process	Step► Backward step-by-step selection procedure	◄Scene No. scenes to move the election	Edit Program
	Delay 1S	Delete Step Delete the current step-by-step procedures	--	--	
	Delay 3S	Delete Chase Delete the current procedures	--	--	
Manual lantern	No delay	to clear the state of lantern	--	--	Manual lantern

A,B,C,D four key scenes in the editing process and editing of the functional state of operation

I）Scenes in the editing function of the state of operation：

A) Scene copy function (Note: pressing time of less than 1 second)：

1） Use C,D key to Select the scene to be copied (No. 3-4 bit digital tube will display the number of the scenes)；

2） Press B key make the light bright；

3） use C,D key to choose to paste No. scenes, the scenes will be changed (No. 3-4 bit digital tube will display the number of the scenes)；

4） press B key To make light out on the scene to complete the replication process, the latter scenario will be chosen before the contents of a scene instead of。

B) Save the scene features (Note: pressing time is greater than 1 second):
Press the B button for more than 1 second, the indicator light on the current editorial content is saved to the scene of the Taiwan-controlled memory.

C) to remove scenes feature (Note: pressing time is greater than 1 second):
Press the B button for more than 1 second, the indicator light on the current content has been edited to remove scenes.

II) in the editorial functions of the state of operation:

A) the selection process step-by-step with the scene number (Note: pressing time of less than 1 second):

1) A, B button for forward and backward step selection process, when the final step-by-step process occurs, then B button you can add a new procedure after the step-by-step.

2) C, D keys used to select the step number to preserve the scene.

B) Remove Programs Step (Note: press time more than 1 seconds, less than 3 seconds):
Press the A button for more than 1 second, the indicator light shows the current process step-by-step from the procedure was removed.

C) to remove the current procedure (Note: more than 3 seconds press time):
Press the A button for more than 3 seconds, indicator light will change the course of two shows that the current process is removed, this time 1-2 bit

digital tube displays "00", the first-bit digital tube display 3-4 "--"。

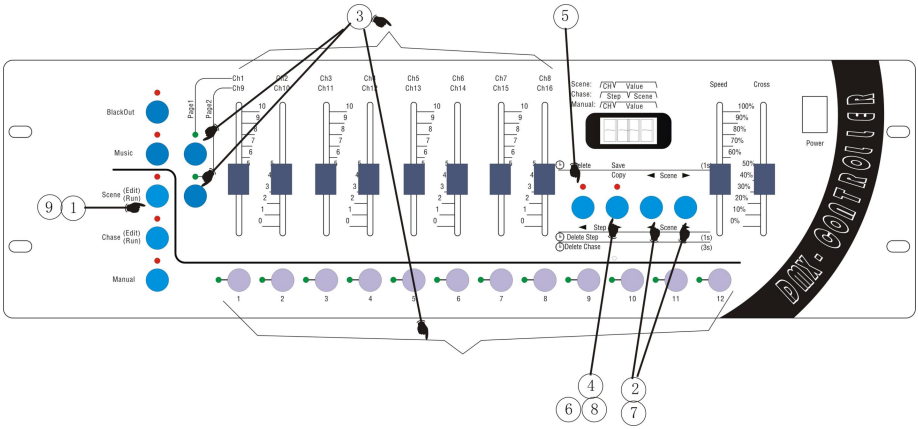
III) the functions of the state of manual steps:

A) Clear lantern status:

Running mode, press the A button used to clear the current output lantern.

Edit scene

1）the schematic diagram of the edit scene panel：



The definition of the process steps of the edit SCEN：

① Press **SCENE** button in excess of 2 seconds, the indicator light glittering, enter the edit scene state.

② Use the ◄ **Scene**& **Scene** ► button to choose the scene serial number;

If want to edit the current scene, then run the step 3;

If want to delete the current scene, then run the step 5;

If want to copy the current scene, then run the step 7.

③ Edit the current scene: use the number button **1-12** to choose the light number, then with the cooperation of the **Page1** & **Page2** button, use the handspike **Ch1/Ch9**-**Ch8/Ch16** to set the value of each channel;

④ Save the editing scene: Press the SAVE button in excess of 2 seconds, when the panel indicator light and the screen glitter once, the current editing scene is saved;

If want to continue to edit other scene, run the step 2, choose another

scene to edit; or run the step 9 to exit the editing scene state.

⑤ Delete the current scene: Press the DELETE button in excess of 2 seconds, the lighting of the indicator light implies that the current scene is deleted.

If want to continue to edit other scene, run the step 2, choose another scene to edit; or run the step 9 to exit the editing scene state.

⑥ Copy the current scene: Press the COPY button, until the indicator light , enter the copy state, the contents of the current scene as the source of the scene content.

⑦ Use the ◄Scene& Scene► button to choose the scene serial number which is used to store the contents of the scene to copy, the serial number is the target serial number.

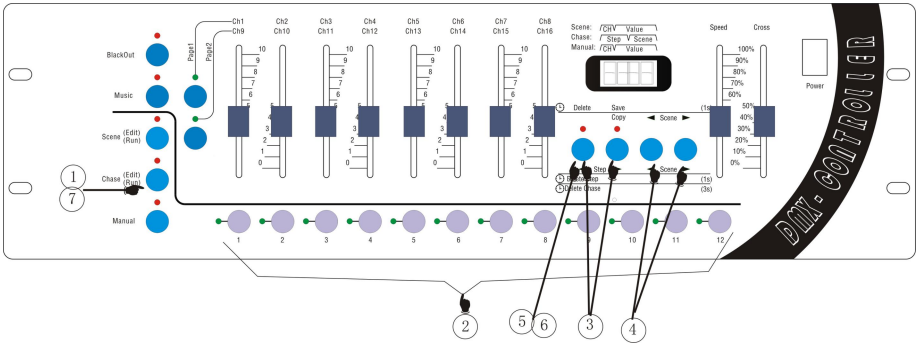
⑧ Press the COPY button again, the indicator go out, complete the copy process, then the contents of the source scene to cover the contents of the target scene.

If want to continue to edit other scene, run the step 2, choose another scene to edit; or run the step 9 to exit the editing scene state.

⑨ Exit the editing scene: Press the SCENE button in excess of 2 seconds, the indicator light from glittering to lighting, system switch from editing scene state.

Edit chase

1） the schematic diagram of the edit chase panel：



2）introduction of editing chase：

①press Chase over 2 seconds， and the indicator light will flash，

meaning that the chase is in editing state （ digit will display “CHA”,prompting to select Chase number）；

②selecting the number that you want：use Num Lock 1-12 to select the chase number （if the program is empty ,digit displays“00.--”. if step zero and the number of the saved scene in this step will be displayed ,such as “00,08”）

If you want to delete the current chase, execute the ⑤step

③select program step ：Channels ◄Step and Step► keys used to select the step of the Program that you want to edit

If you want to delete the current chase ,please execute the⑥ step

④selecting the scene number：using ◄Scene 和 Scene►，to select a scene number and the scene and it will be saved in the chase step selected in the ③ step.

If you want to edit other steps of the current chase, execute the③ repeatedly；

⑤deleting current program：press Delete key over 3 seconds，and the indicator light will flash 2 times, then the current chase will be deleted。（digit will display”00.--”）。

If you want to edit other steps of the current chase, execute the③ repeatedly；

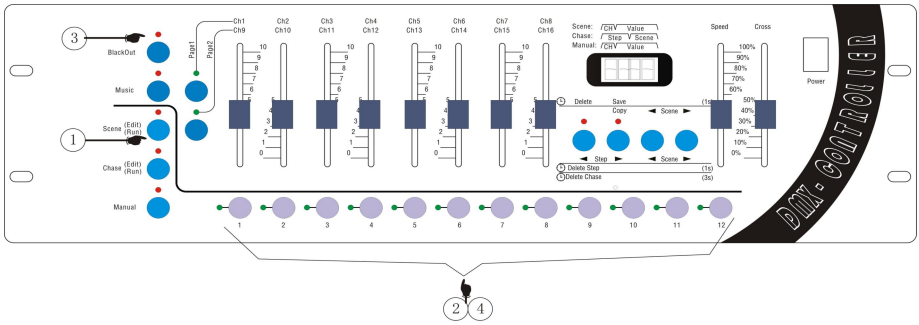
⑥deleting the current step of the chase：press Delete key over1second，and the pilot lamp will flash 1 time, then the current step will be deleted。

If you want to edit other steps of the current chase, execute the③ repeatedly；

⑦exiting the editing state of the chase of linear light：press Chase key over 1 second ,and the pilot will light constantly after flashing ,then the state will be switched to state of running chase of the linear light

Running scene

1）the schematic diagram of the running scene panel：



2) introduction of running scene's step

①press Scene key , and the lights are always on, meaning having entering the state of running scene

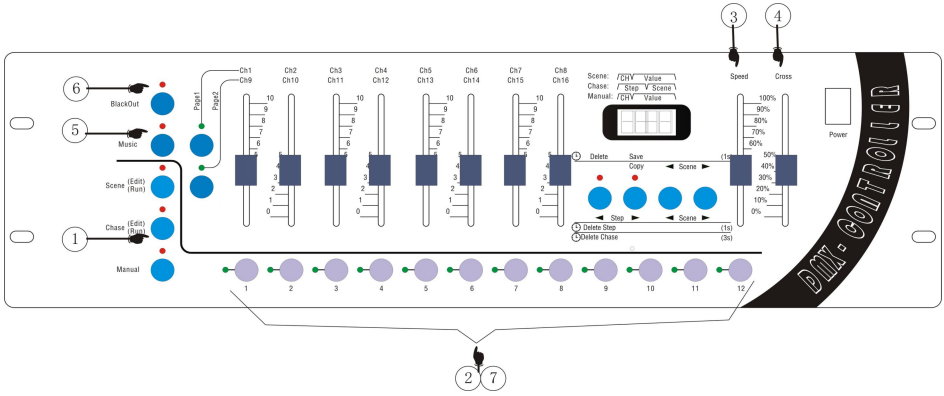
②selecting the scene number :use Num Lock 1-12 to choose the number you want

③if you want to output blackscene ,press blackout and if the indicator light is on ,the effect of black scene is being out ,or the effect is exited

④close the scene's output :use the NumLock to select the number of the scene that you want to close .

Running chase

1）the schematic diagram of the running chase panel：



2) Introduction of running the chase

①pess Chase to light the indicator light

②select the chase number you want: use Num Lock 1-12 to select the

number

③adjusting the settling-time :adjust the clipper Speed to adjust the setting-time of the chase steps .The top means the shortest time and the bottom the longest

④adjusting the shading-time :adjust the clipper Cross to adjust the shading-time of the chase step,and .The top means non-shading and the more declined the longer shading-time

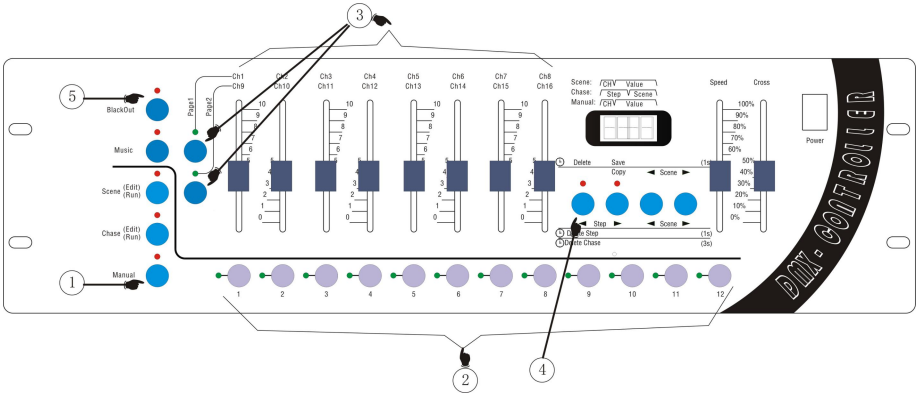
⑤running by sound-activated: if you need to activate chase in the way of sound-activated ,press Music to make the lamp on, meaning having entered the state of sound-activated, and if the lamp is off ,it means the sound-activated state is exited

⑥Outputting blackscene:if you need to output balckscene ,press Blackout key so that you can choose to whether output blackscene or not

⑦exiting the running chase: use NumLock 1-12 to select the running chase number and the chase will be closed。

Manual operation

1）the schematic diagram of the manual operation panel：



2）The definition of the process steps of the manual operation :

① Entering the manual state: Press the **MANUAL** button, make the indicator light constantly shinning, and enter manual operation state.

② Choosing the manual lights: Use the number button **1**-**12** to choose the number of lights.

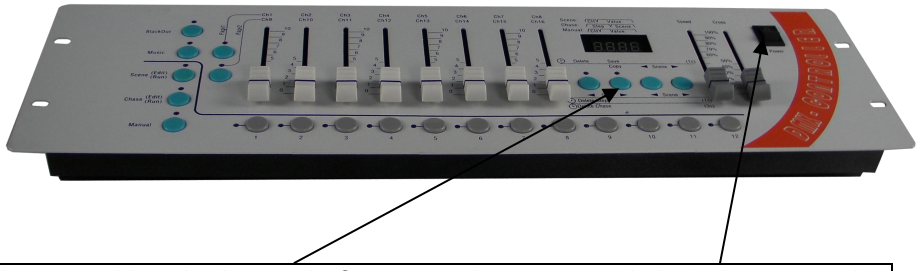
③ Modify the value of the channel of the lights: with the cooperation of the **Page1** & **Page2** button and the channel handspike can realize the purpose of manual control of the lights. Press **Page1** button, the indicator light on, handspike correspond to **Ch1**-**Ch8**; press **Page2** button, the indicator light on, handspike correspond to **Ch9**-**Ch16**, realize the switch operation of the 16 channels.

④ Cleanout the manual state: Press **DELETE** button, clean out the output state which was set on the manual state.

⑤ If need the effects of blackout, press **BLACKOUT** button, switch the output

3. The copy operation for the controller's data

一）The operation for outputting the chase

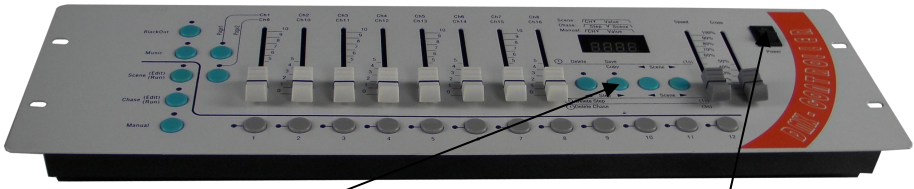


1, keep pushing the button before open the power switch 2, then open the power switch

1) Connect the "controller for chase outputting" with "controller for chase inputting" with the specially cable for the date copy and connect both controllers with the power;

2) Pls keep pushing the scene button"  "on the "controller for chase outputting" ,then open the power switch ,it will go into the "outputting state" after the display showing "SE.xx",and just stop pushing "  ".

二）The operation for inputting the chase



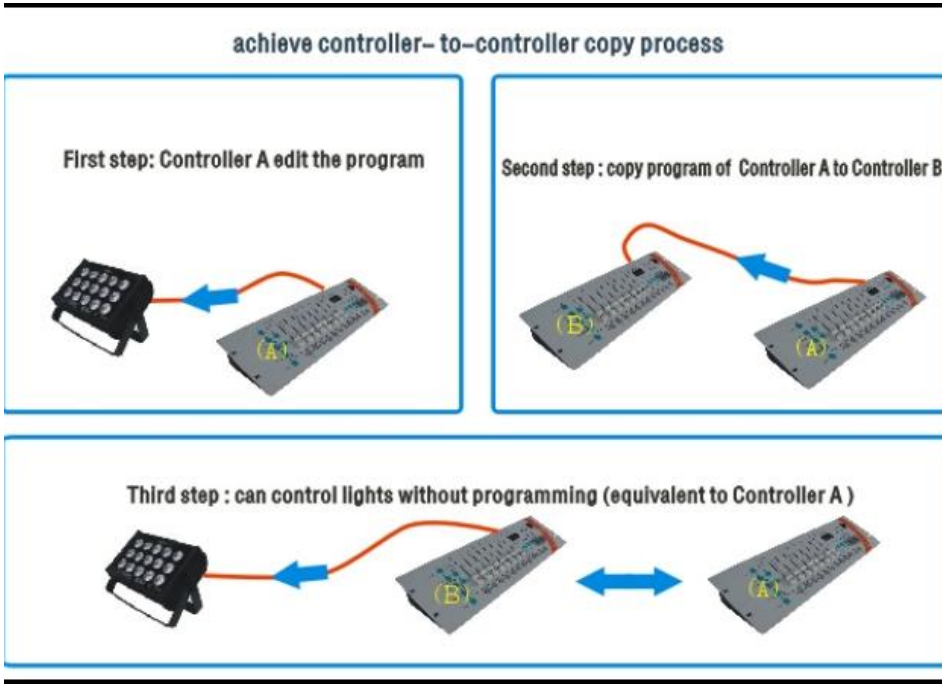
1, keep pushing the button before open the power switch 2, then open the power switch

1) Connect the “controller for chase outputting” with “controller for chase inputting” with the specially cable for the date copy and connect both controllers with the power;

2) Pls keep pushing the scene button“ ”on the “controller for chase outputting” ,then open the power switch ,it will go into the “outputting state” after the display showing “RE.xx”,and just stop pushing “ ”.

3) Now it’s going into the process of copy, and the display on the “controller for chase inputting” will shows the last 2 numbers are growing up, until it shows “END”, all copy is done. Then can close the power and extract the copy cable. And restart the “controller for chase inputting”, the user can use it to control the lightings.

三）The flow chart of the data copy operation



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