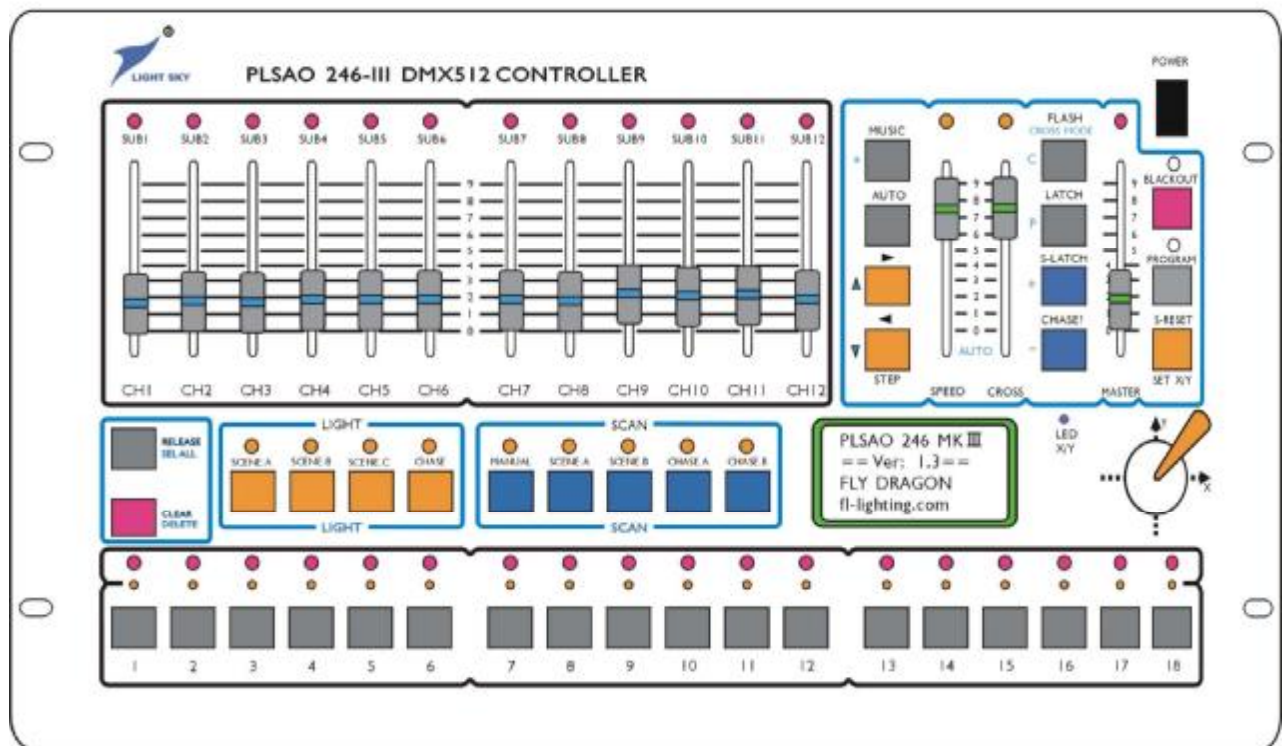




Instruction Manual

246 CHANNELS CONTROLLER

MODEL:DISCO 246



GUANG ZHOU FLY DRAGON LIGHTING EQUIPMENT CO., LTD

CONTENTS

1	Summarize	3
1.1	Function	3
1.2	Technique Parameter	3
1.3	Point of Attention for Safety Use.....	4
2	Installation	4
2.1	Connected of Power Supply	4
2.2	Scanner and Digital Light Adjusting Equipment of Connected	4
2.3	Connected Audio Frequency Signal.....	4
2.4	DMX512 Address Distribution	4
2.5	System Connected Sketch Map	5
3	Operation Manual	6
3.1	Introduce of Vocabulary	6
3.2	Keyboard Part.....	6
3.2.1	Function Button	6
3.2.2	Number Button	6
3.2.3	[BLACKOUT] Button	7
3.2.4	[S-RESET] Button	7
3.2.5	[CLEAR] Button.....	7
3.2.6	[RELEASE] Button	7
3.2.7	[AUTO] Button.....	7
3.2.8	[MUSIC] Synchronous Button	7
3.2.9	Cycle Mark Button[*]	8
3.2.10	[FLASH], [LATCH], [S-LATCH] Button	8
3.2.11	[4] and [3] Button	8
3.2.12	Copy and Paste Button.....	8
3.2.13	[+] and [-]Button.....	8
3.3	Handspike、Control Rocker Part	8
3.3.1	Handspike Group.....	8
3.3.2	[SPEED] Pausing Time on Scene Handspike.....	9
3.3.3	[CROSS] Gradual Changing on Scene Handspike	9
3.3.4	[MASTER] Control Handspike	9
3.3.5	Scan Control Rocker	9
4	Scanner Part	9
4.1	Scanner on Program Operation	9
4.1.1	Learn Your Scanner Channel Function	9
4.1.2	Scanner DMX 512 Address Code Set	9
4.1.3	Control Rocker of X/Y Channel Set	11

4.1.4	Scanner Operate by Hand	12
4.1.5	Edit Scanner Chase Scene	13
4.1.5.1	Edit Method	13
4.1.5.2	Scanner Scene on Copy & Paste	14
4.1.5.3	Simple and Shortcut of Scanner Scene Edit Method	15
4.1.5.4	Edit Special of 215、216 Scene	15
4.1.6	Edit on Scan Program	15
4.1.6.1	Scanner Scan of Cycle Mark ***	15
4.1.6.2	Scanner Scan Program of Edit Step	15
4.1.6.3	Scene Increase & Delete During Scan Program	16
4.2	Scanner Running Work	17
4.2.1	Point of Scanner Scanning Work	17
4.2.2	Scanner Scene on Running	17
4.2.3	Scanner Scan Program on Running	17
4.2.4	Scanner Running on Manual	18
4.2.5	Scanner on Clear Operate	18
4.2.6	Scanner on Release Operate	19
4.2.7	Scanner of Output Look	19
5	Light Part	19
5.1	Lighting of Edit	19
5.1.1	Edit for Lighting Scene	19
5.1.1.1	Edit Method	19
5.1.1.2	Copy and Paste of Lighting Scene	20
5.1.2	Edit Chase Program	21
5.2	Lighting of Running Operate	22
5.2.1	Point of Lighting Operate	22
5.2.2	Dimmer Scene on Running	23
5.2.3	Dimmer on Chase Program	23
5.2.4	Manual Dimmer on Running	23
5.2.5	Dimmer Control	23
5.2.6	Clear on Operate	24
5.2.7	Release on Operate	24
5.2.8	Look Lighting Running State	24

Note: As the company pursues a policy to improve its products all the time, the data contains in this manual are subject to change without notice. The Feilong Company reserves the right to change the relevant specifications in product improvement. The publisher of this manual shall not be responsible for the accuracy of the information herein contained or the consequence resulting from such information.

1 SUMMARIZE

1.1 Function

- I 246-III can control 30 routes general light and 18 scanners with 12 channels.
- I 246-III can carry out scanner and general light make 90 scenes 12 groups scan program and hand operate fold output、 come into being very complex、 multi real-time control.
- I All kinds different type of scanner can consolidate use control rocker, being X/Y control and hand operation very easy.
- I 246-III console applies double DMX outlet interface design (two individual photoelectric separate DMX output drive module) and protect console safe work well, and exempt maintain in course of perform.

1.2 Technique Parameter

Sheet 1: 246-III sheet of scanner console technique parameter

Digital Signal output	DMX512/1990 Digital Format
Scanner Channel	1-216
Light Switch Channel	217-234 (18 Routes)
Dimmer Channel	235-246 (12 Routes)
Controllable Scanner Number	18 Sets
Each scanner Control Channel	12 Routes
Scene Storable	432 Channels, 216 Scan Scenes, 216 dimmer Scenes.
Chase Program	54 Channels, 36 Scan Scenes, 18 Chase Programs.
Superposition program Output Number	6Groups General dimmer + 6Groups Scanner + 90 Static Scenes
Steps of Each Run Light Program	120 Steps
Gradual Changing [CROSS] Range	0-100%
Scan Range	0.04s-10m/s
Edit of Program Inner Scene Time	Can Set Each Steps Speed and Transition Time While Edit Procedure.
Senior Edit Manner	Scanner and Light Scene of Copy & Paste
Music Synchronous Trigger	Unbalance line level input -10dB~+10dB acclimatize oneself to/ build-in microphone pickup.
Scan Orientation Control	Clockwise and Anticlockwise Direction
Keyboard Lock Module	Flash, Latch, S-Latch
Music Control Signal Input	Unbalance line level input (1/4 Single Track Socket)/ build-in microphone pickup
Display Manner	LCD16*4 Liquid Crystal Display Screen, LED Indicator Light
DMX512 Outlet Interface	Photoelectric Separate DMX Output Drive Module*2, XLR Pin3 Socket*2
Power and Fuse Device	100~240VAC, 50~60Hz, 1A Fuse
Size	485MM(L)*267MM(W)*85MM(H)*
Weight	4.7kg

1.3 Point of Attention for Safety Use

- I 246-III console must be connection to the grounding.
- I If 246-III console, scanner and dimmer during the running, please to avoid put on/off the plug of the DMX512 digital line as power is on.
- I Keep the scanner console away from water or other liquids.
- I Due to the projector console is precise instrument, please pay attention to damp-proof, dust-proof.

2 Installation

246-III Console Packing List:

1.246-III console	1 set
2.Power connected cable	1 piece
3.Communication cable	1 piece
4.User manual	1 copy

246-III console according to international standard 19' install structure. Not only the installation manner can adopt embed operate table-board, but also can direct-connected on the 19 stands or machinery.

2.1 Connected Power Supply

The power supply has wide voltage range of the stabilization voltage, and power supply specs accord with all over the world. If the console connect with power supply, make sure check the voltage apply range of scanner console. And the plug must be connect with power supply protect ground line, ensure that the equipment safety user. Otherwise, bring the static voltage lead to damaging parts of an apparatus, it will not within guarantee to keep it in good repair.

2.2 Scanner and Digital Dimmer Equipment of Connected

Both scanner and dimmer equipment are controlled by 246-III console, and DMX512 of console output digital signal can be connect with scanner、 digital dimmer (silicon box)、 type of digital switch box (digital dot-control silicon box) and DMX512 multiprocessing decoder and so on.

The console rear panel have two DMX512 output signal socket, pin 1 is connect with ground, pin 2 is signal negative while pin 3 is signal positive.

DMX512 connected cable line apply the double-stranded and shielded cable. Lengthen of cable terminal need jointing XLR plug, shielding net connected XLR plug of pin 1, twisted-pair (different color distinguish) connected XLR plug of pin 2 and pin 3, pay attention to right direction.

2.3 Connected Audio Frequency Signal

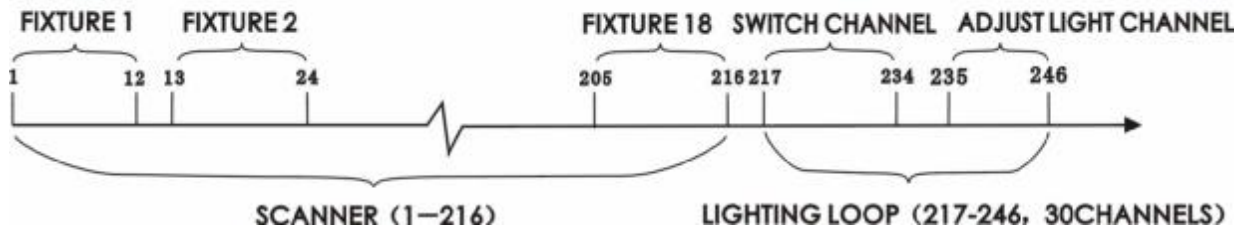
Audio frequency signal can be from audio mixing console and the other audio play equipment of line level output or from the build-in microphone pickup ambient. 246-III console which auto pick-up music contain low-frequency rhythm as chase program of music trigger synchronous signal. And the console which rear panel have one of 1/4 (6.35mm) unbalance single track channel auto frequency signal input plug, applying range of audio signal input level: -10dB~+10dB. If insert 1/4 of audio plug, the sound come from line level input, after pull out plug which the sound from inner-equip microphone pickup.

2.4 DMX512 Address Distribution

The console of 246-III applies 1-246 channels of DMX512 and transportation digital control signal to scanner and adjusting light equipment. As follow:

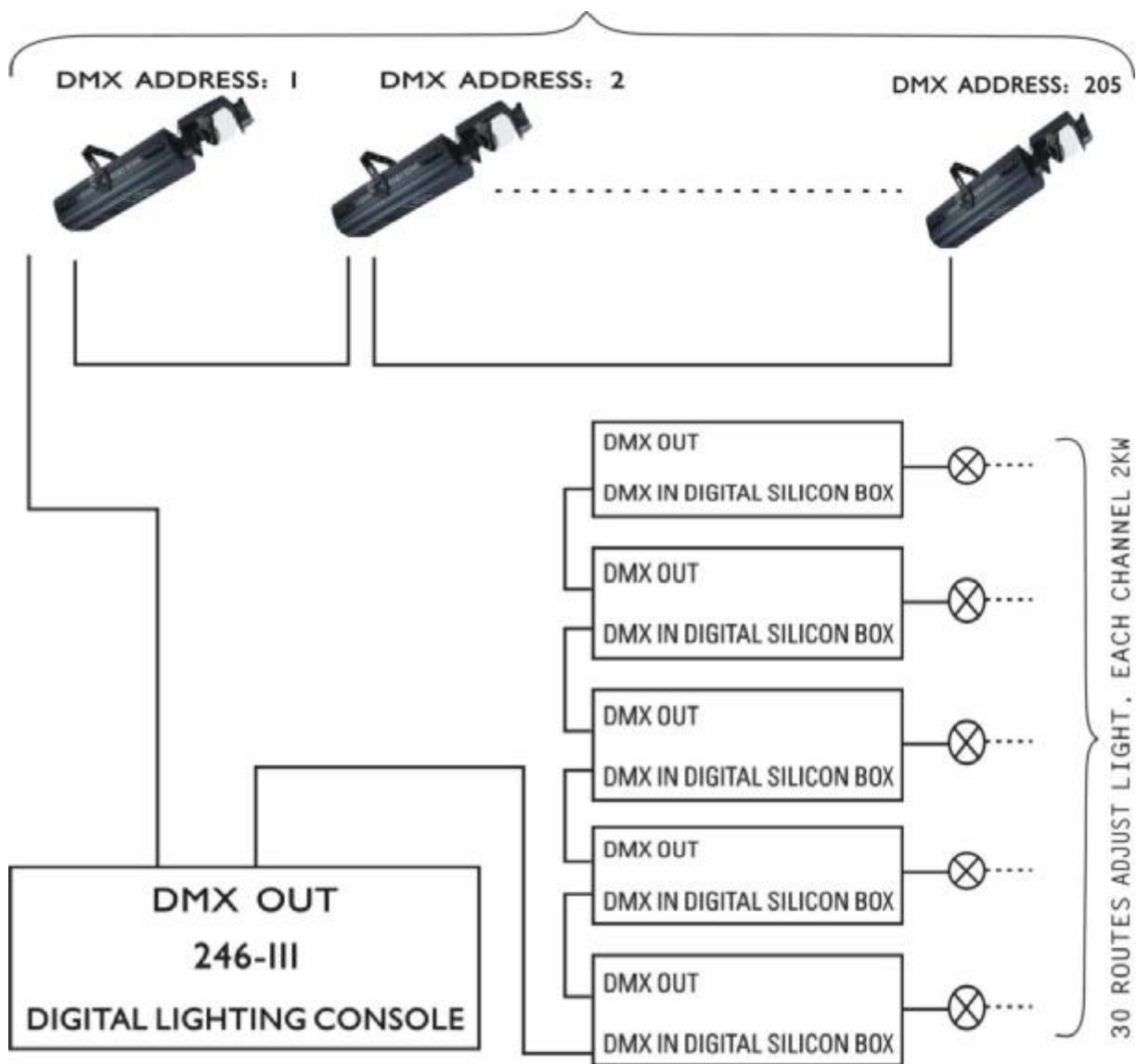
- I The part of scanner user 1-216 channels, and each scanner settled distribution 12 control channels.
- I The dimmer equipment user 217-246 channels, one switch control user 217-234 channels, the other dimmer control user 235-246 channels. Luminance of the 30 dimmer channels control by the master handspike control.

246-III DMX512CHANNEL DISTRIBUTION



Picture. A

2.5 System Connected Sketch Map



CAN BE CONTROLLABLE 18 SCANNER 30 ROUTES ADJUST LIGHT

Picture. B

3 Operation User Manual

3.1 Introduce of vocabulary

- I Scanner scene: during the same time, gather that each scanner with X/Y position、 luminance、 pattern、 color and each channel value
- I General lighting scene: during the same time, several lighting loop luminance of gather.
- I Chase program: each run light program make up of several of chase program step, and each program foot of output user a stored of scene.

3.2 Keyboard Part

41 buttons. Some of button have corresponding indicator lamp. When indicator lamp turn on, it is executing endue with function of the key, or outputting object of the key, such as: scene, chase program, one scanner, one light loop and so on.

Some of buttons have two different colors of letter sign which means that under the different state have different function.

3.2.1 Function Button

Scanner console of 246-III have two work areas: SCAN (projector), LIGHT (lighting), together 9 function buttons.

SCAN (scanner) work area has 5 functions key.

- I [MANUAL] Scanner control button on manual
- I [SCENE.A] Scanner scene A key, control 1-18 scanner scenes.
- I [SCENE.B] Scanner scene B key, control 19-36 scanner scenes.
- I [CHASE.A] Scanner scan program A key, control 1-18 scanner chase programs.
- I [CHASE.B] Scanner scan procedure B key, control 19-36 scanner chase programs.

LIGHT (lighting) work area has 4 function buttons:

- I [SCENE.A] Scanner scene A key, control 1-18 lighting scenes.
- I [SCENE.B] Scanner scene B key, control 19-36 lighting scenes.
- I [SCENE.C] Dimmer scene C key, control music rhythm trigger bring flash of 37-54 lighting scenes.
- I [CHASE] Dimmer chase program key, control 1-18 chase programs.

3.2.2 Number Button

The console has 18 number buttons, each of number button correspond with 1 yellow light and 1 red light. Under the different state of function button, the 18 number buttons have different function. If the yellow light turn on, number key correspond scene or chase program are outputting; If the red light turn on, it is means that the number key correspond scanner and dimmer channel are outputting.

Each function button can be auto-set lock control module of number key: ([FLASH] dot-shake, [LATCH] self-lock, [S-LATCH] mutual lock)

3.2.3 [BLACKOUT] Button

The key output an order that all of scanner under state of blackout, and the light form 30 channels under state of turn off with No.215 special scene (No.215 scene default setting channel value is 0).

3.2.4 [S-RESET] Projector Re-set Button

The key output an order that all of scanner bring re-set of No.216 special scene (No.216 scene default set channel value is 0).

3.2.5 [CLEAR] Button

It can be clear all the output of currently function button.

3.2.6 [RELEASE] Button

The release button with the other button、handspike、control rocker combination user, it will execute different release function.

I [RELEASE] Button + HANDSPIKE

Press [RESEALE] key, then push the handspike, it releases that handspike to the channel control.

Such as, running 1 scanner chase program, and make No.1 scanner under state of hand control, user CH3 handspike change No.1 scanner color. Press [RELEASE] button and push CH3 handspike, it release that handspike to NO.1 scanner color channel control, and under state of hand control No.1 scanner of color channel revert to chase program.

I [RELEASE] Button + CONTROL ROCKER

Press [RELEASE] button, and shake control rocker, it releases that rocker to the X/Y channel control.

Such as, running 1 scanner scan program, and make No.1 scanner under state of hand control, user control rocker change No.1 scanner of X/Y position. Press [RELEASE] button, and shake control rocker, it release that control rocker to No.1 scanner of X/Y control, and under state of hand No.1 scanner of X/Y channel revert to scan program.

I [RELEASE] Button + [CLEAR] Button

According the function key's on area and carry out different release function:

1. If select the function key under state of LIGHT area, it release handspike group to CH1- CH12 dimmer channels control, and clear handspike group of control value.
2. If select the function key under state of SCAN area, it release handspike group to CH1- CH12 channel control and control rocker to X/Y channel, and clear handspike group and rocker of control value, the rocker of indicator light be turn off.

3.2.7 [AUTO] Button

When running chase program, press [AUTO] button, chase program of pausing time by [SPEED] handspike control. It is effect that the key to the scanner of chase program and scan program.

3.2.8 [MUSIC] Synchronous Button

When running chase program, press [MUSIC] synchronous key, chase program user music rhythm synchronous trigger running. It is effect that the key to the scanner chase program and scan program.

3.2.9 Cycle Mark Button [*]

Under the state of chase program edit, the key set auto-cycle mark. When chase program running to have cycle mark of step, it can be auto return the first program step and re-running. The key and [MUSIC] button can be together user.

3.2.10 [FLASH] Button, [LATCH] Button, S-[LATCH] Button

Each function buttons can be auto-set lock control mode of number key: ([FLASH] dot-shake, [LATCH] self-lock, [S-LATCH] mutual lock).

Press [FLASH] dot-shake, the liquid crystal of top right corner will display F, the number key located dot-shake control mode. That is press it output, release it have not output. The mode can be press multi number key and output multi scene or chase program simultaneously.

Press [LATCH] button, the liquid crystal of top right corner will display L, the number key located self-lock control mode. If press number key, self-lock, release it continue preserve, and output endue with the key of scene or chase program; press the next key, the key reset and stop output. The mode can be press multi number key and output multi scene or chase program simultaneously.

Press [S-LATCH] Key, the liquid crystal of top right corner will display S, the number key located self-lock control mode. Under the state of mode, press number key release the other key excepting lock the [S-LATCH] button, so, it can be only output 1 scene or chase program.

3.2.11 [4], [3] Button

Both [4] and [3] key have multi purpose.

During running the chase program, can be change chase program of direction, that is program foot adopt increase or decrease running, on the liquid crystal screen of the second line right display and execute of lighting direction sign.

Edit chase program in order to change program step.

3.2.12 [C], [P] Button

When edit scene, it can be user above two keys carry out scene copy and paste. One of [C] key COPY and [FLASH] key can be user together, the other [P] key PASTE and [LATCH] key can be user together

3.2.13 [CROSS MODE] Scene Filtrate Mode Button

User select whole channel date smooth transition or only have X/Y scan channel data smooth transition.

3.3 Handspike, Control Rocker Part

246-III console has 15 bars handspike. Handspike push up, the control value will increase; handspike below, the control value will decrease.

3.3.1 Handspike Group

246-III console has 1 group series of tactic 12 scroll bar. Which have two functions as follow:

- I Press SCAN area function key, the scroll bar control scanner 1-12 channels of control value. And it was each named CH1, CH2...CH12.
- I Press LIGHT area function key, the scroll bar also was named SUB1, SUB2...SUB12, and control DMX channel 235-246 (12 channels) dimmers control.

3.3.2 [SPEED] Pause Time on Scene Handspike

[SPEED] handspike applies control on the [AUTO] running state of scanner chase program and scan program of pausing time on scene.

If the handspike pausing underside of [AUTO] area, that is chase speed was control by the program scene [SPEED].

3.3.3 [CROSS] Gradual Changing on Scene Handspike

Cross gradual changing handspike user control change scene or chase program foot of cross gradual changing effect of transition time.

If the handspike pause underside of [AUTO] area, that is scan speed was control by the program scene [CROSS].

3.3.4 [MASTER] Handspike

[MASTER] handspike applies to 30 channels lighting loop (DMX channel 217-246 luminance control). One of DMX channel 217-234 through 1-18 number keys as switch control, and channel 235-246 of DMX of each luminance through CH1-CH12 scroll bars control, it is output value of the 30 channels through [MASTER] handspike control.

3.3.5 Scan Control Rocker

It is facility and agility that user control rocker direct control scanner of X/Y position than handspike. If you want to direct user must be set control scanner of X/Y channel No., then the scanner console will be auto-memory-save.

4 PROJECTOR PART

4.1 Scanner Program Operate

Scanner program is based on the scene, so should be first edit chase program. Step of the scanner program as follows:

1. Learning your scanner
2. Scanner DMX 512 Address Code Set
3. Control rocker of X/Y channel set
4. Scanner scene program
5. Scanner chase program

If withdraw program, all of setting auto-saves and the data will be not lost after close machine.

4.1.1 Learning Your Scanner Channel Function

Due to it is different that the control channel and control parameter of scanner, so if program should have a user manual order to refer to kinds of control parameter.

4.1.2 Scanner DMX 512 Address Code Set

246-III console inner to DMX512 digital signal as follows:

- I 1-216 channels is scanner control channel, each scanner user 12 channels.
- I 217-234 (18 channels) is type of switch control channel.
- I 235-246 (12 channels) is dimmer control channel

If the scanner DIP address switch under the state of complete close (00000000), and receive the first channel data of DMX512 can be according sheet 1(introduce of scanner address switch set method) such as: JESPANG

If the scanner DIP address switch on the 1 (10000000) can receive the first channel data of DMX512, should according sheet 2 (introduce of scanner address switch set method) such as LIGHT SKY and KESTREL.

Sheet1: scanner address switch setting (1)

Projector number	Address of CMX	Address switch value 123456789
1	1	00000000
2	13	00110000
3	25	00011000
4	37	00100100
5	49	00001100
6	61	00111100
7	73	00010010
8	85	00101010
9	97	00000110
10	109	00110110
11	121	00011110
12	133	00100010
13	145	000010010
14	157	001110010
15	169	000101010
16	181	001011010
17	193	000000110
18	205	001100110

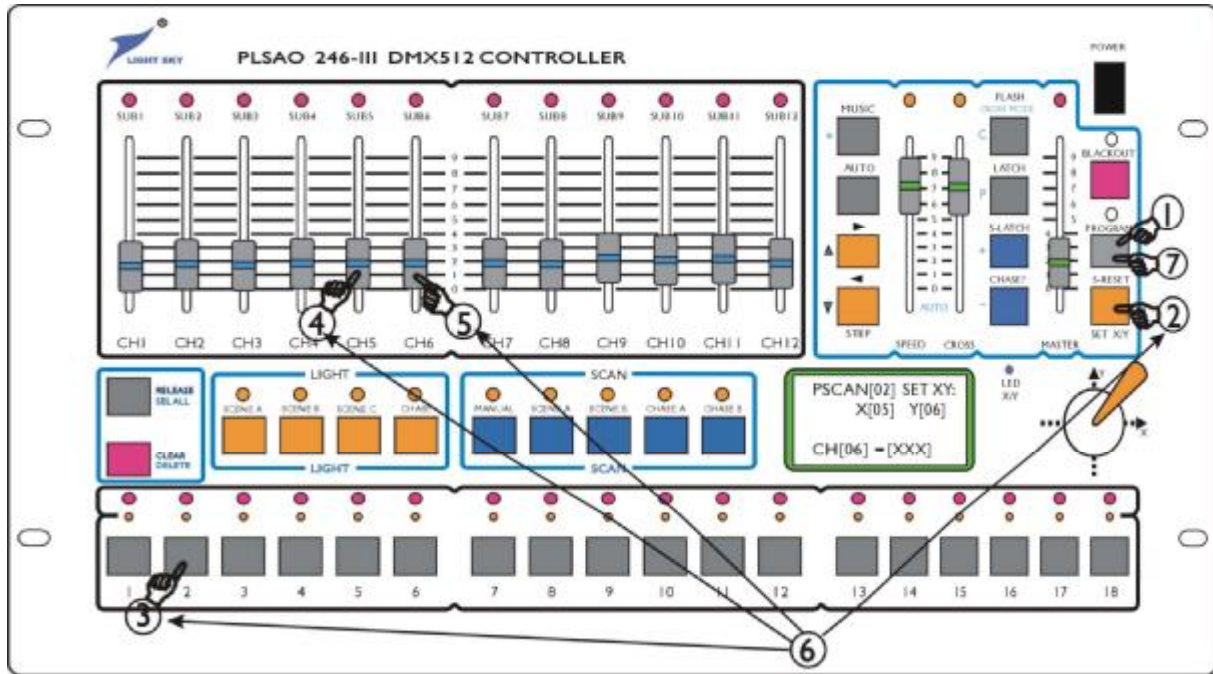
Sheet 2: scanner address switch set ting(2)

Projector number	Address of CMX	Address switch value 123456789
1	1	10000000
2	13	10110000
3	25	10011000
4	37	10100100
5	49	10001100
6	61	10111100
7	73	10010010
8	85	10101010
9	97	10000110
10	109	10110110
11	121	10011110
12	133	10100010
13	145	100010010
14	157	101110010
15	169	100101010
16	181	101011010
17	193	100000110
18	205	101100110

Note: 0=OFF, 1= ON

4.1.3 Control Rocker of X/Y Channel Set

It must be set control rocker of X/Y control channel, then user it and control scanner of X/Y position.
Control rocker of X/Y channel set step (refer to picture. C)



Picture. C

Step:

1	Press [PROGRAM] button and enter into program state.
2	Press [SET X/Y] button
3	User number button select scanner. (If controllable scanner is the same type or all the type of lamp have same X/Y scan channel, can be omitted the step)
4	Push scanner X axis control channel corresponding handspike, make control rocker achieve X channel No.
5	Push scanner Y axis control channel corresponding handspike, make control rocker achieve Y channel No.
6	Repeat 2-5 steps, set each scanner of X/Y channel. If set error, please from the second step execute.
7	Press [PROGRAM] button and withdraw program state. Control rocker of X/Y set was auto-set save.
8	Press [DELETE] button, clear rocker of X/Y set.

For example1: One 8BIT scanner of channel information as follows:

X axis channel = 5, Y axis channel = 6

Above-mentioned set step: the 4 step X axis set push CH5 handspike, the 5 step of Y axis set push CH6 handspike.

With 16BIT scanner, X/Y axes control data consist of two 8BITs channel, that to say, X axis high 8 digit and X axis low 8 digit. Y axis high 8 digit and Y axis low 8 digit. Set such scanner of X/Y, only set it high 8 digit.

For example2: One 16BIT scanner of channel information as follows:

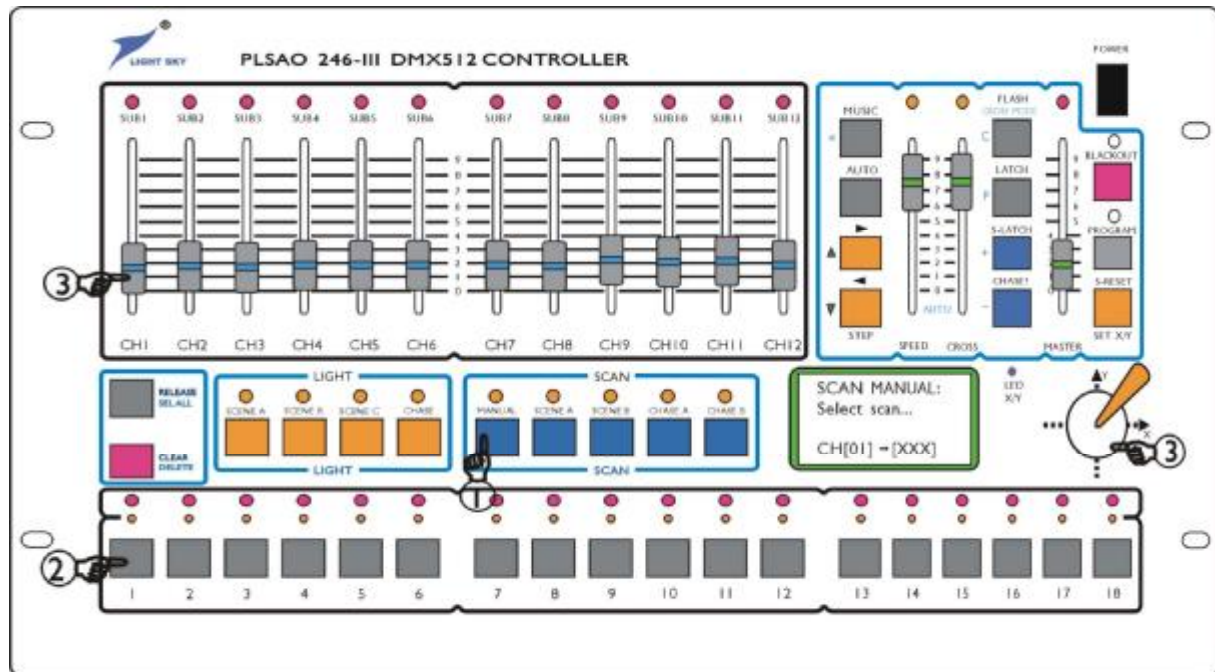
X axis high 8 digit channel = 5, X axis low 8 digit channel = 6

Y axis high 8 digit channel = 7, Y axis low 8 digit channel = 8

Above-mentioned set step: the 4 step of X axis set push CH5 handspike, the 5 step of Y axis set push CH7 handspike.

4.1.4 Scanner Operate on Manual

Scanner Operate on Manual (refer to picture. D). This picture show that each step of the first scanner through hand.



Picture. D

Step:

1	Press [MANUAL] button.
2	Press number button, select need be hand operate of scanner and corresponding red indicator turn on. In picture D, press number key [1].
3	User CH1-CH12 scroll bars direct control scanner, also user rocker direct control scanner of X/Y channel.

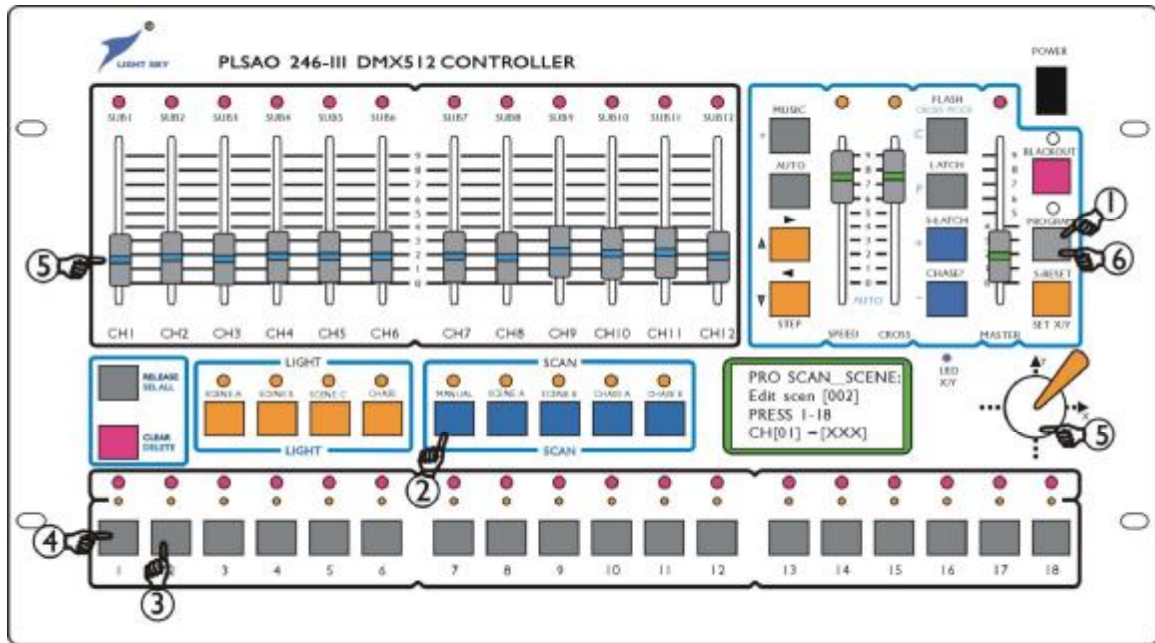
Hint on Operate:

- 1 The scanner under state of hand, PRI is the highest, if output scene, the scanner chase program unable to control in a moment.
- 1 It can be select have same X/Y channel of the scanner and carry out hand control.
- 1 Push handspike, liquid crystal screen display of handspike number follow the handspike change, the handspike have effect. If the handspike No. no change in a moment, please push the handspike again.
- 1 Need clear the hand operate, press [CLEAR] button.

4.1.5 Edit on Scanner Scene

4.1.5.1 Edit Method

Picture. E is the No.2 scanner scene (from the No.1 scanner separate output) of edit step.



Picture. E

Step:

1	Press [PROGRAM] button
2	Press SCAN area [SCENE.A] key
3	User number button selector need edit of scanner scene No., in this picture, press number button [2]. Can be repeat 2-3 step, range of 1-18 select the other need edit of scene No.
4	User number key select need control of scanner. In this picture, press number button [1].
5	User handspike set scanner of color, pattern and luminance; user control rocker set X/Y axes position. User method of handspike and rocker refer to 4.1.4.
6	Press [PROGRAM] button, withdraw edit

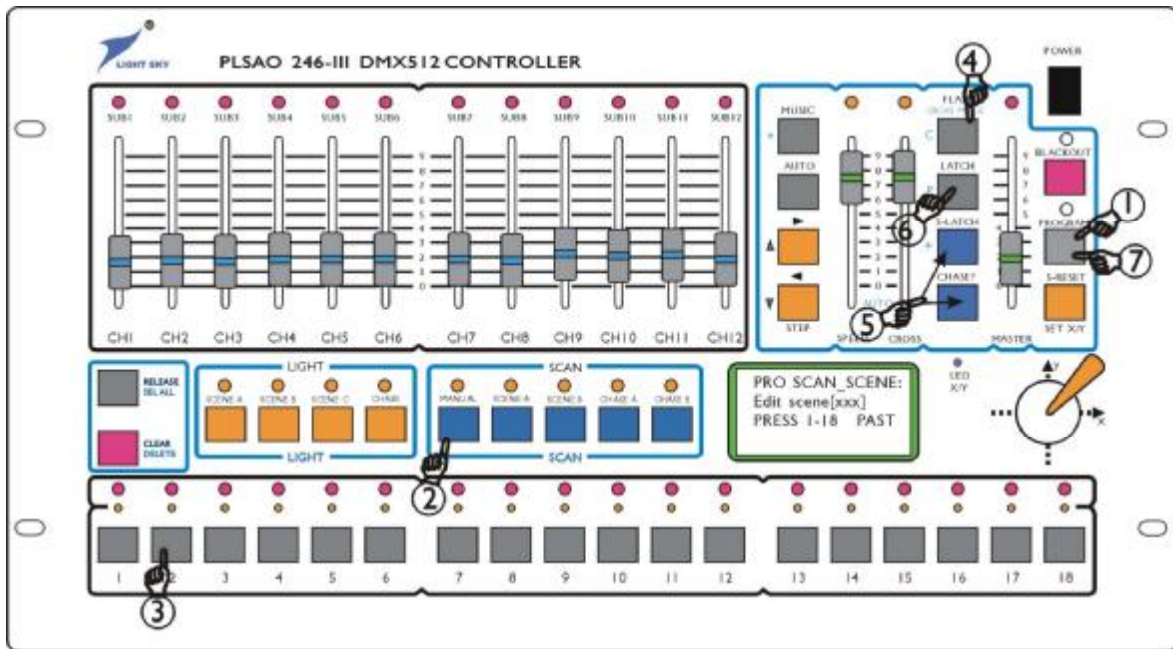
Hint on Operate:

- l If the scene made up of several scanner, should be repeat 4-5 steps, and to each scanner edit.
- l Repeat 2-5 steps, edit other scene.
- l Press SCAN area [SCENE.A], have 18 number buttons corresponding 1-18 scanner scenes. After press SCAN area [SCENE.B] key, have 18 number keys corresponding 19-36 scanner scenes. User [+] or [-] button can be the larger of range select need edit No. (1-216). Edit scene over No. 37, must be adopt the method.
- l [SEL ALL] button user whole select/whole select 1-18 projector
- l [DELETE] button user clear scene of the whole data.
- l Press [+] button and edit next scene, if the scene is empty (that is the scene of all the data is 0), the console will auto copy the last scene of data by way of continue program use, if the scene is not empty, it will not copy the last scene data, renew the scene whole data and continue program.

4.1.5.2 Scanner Scene on Copy & Paste

If need edit several similar with scene, user copy and paste can be decrease scene of workload. The method as follow:

1. Under state of scanner scene edit, first of all, select original scene number, [C](copy) button and ([FLASH] button) together user.
 2. Select as paste aim scene number, press [P](paste) and ([LATCH] button), then the original scene paste to the aim scene, it will appear two scene of content is sameness.
 3. User handspike revise each channel value, and come into being new scene content.
- Copy step of scanner scene (picture. F) show that the No.1 scanner scene copy to the No.5 scanner scene.



Picture. F

Step:

1	Press [PROGRAM] button
2	Press SCAN area [SCENE.A]
3	User number button select as copy source of scanner scene No. In this picture, press number key [1]. User [+] or [-] button can be select the larger range of edit No. (1-216)
4	Press [C] button
5	User number button select as paste aim scene No., in this picture, press number button [5]. User [+] or [-] button can be selected the larger range of edit No. (1-216).
6	Press [P] button, after paste, can be according edit method of scanner scene edit the No.5 scene.
7	Press [PROGRAM] button, withdraw edit

Hint on Operate:

- 1 Scanner scene of copy and paste function can be user scanner scene edit.

4.1.5.3 Simple and Shortcut of Scanner Scene Edit Method

246-III console operate can be fold output of several scene. By way of easy edit and operate, introduce that method of simple, shortcut program, nimble and quick user:

1. According control object arrange scene No.:
 - I 1-18 scene each set only contain 1_color scene (the other channel =0,excepting scanner color channel);
 - I 19-36 scene each set only contain 1_pattern scene (the other channel =0,excepting scanner pattern channel);
 - I Chase program of X/Y position scene arrange 37-214, each scene set one X/Y position, the other channel = 0, excepting scanner X/Y and luminance channel.
2. Edit [CHASE] chase program, each program step user 1 only contain scanner X/Y position value and luminance scene (37-214), that to say, chase program can only control scanner beam and no matter the color and pattern change.

When the scanner running, according the under-mentioned method can be appearance output fold and come into being rich and colorful on change.

- I Press SCAN area [CHASE.A] or [CHASE.B] key, user number key select 1-36 chase programs.
- I Press SCAN area [SEC NE.A] key, user 1-18 number keys fold scanner color;
- I Press SCAN area [SEC NE.B] key, user 1-18 number keys fold scanner pattern.

4.1.5.4 Edit Special of 215、 216 Scene

246-III panel of [BLACKOUT] and [S-RESET] have special function.

Press [BLACKOUT] button, the scanner console under state of extinguish. Can be output the No.215 scene to the whole scanner, and with 30 dimmer loops auto output blackout control signal, please refer to scanner scene edit method and edit No.215 scanner scene, all of the scanner luminance control channel set blackout output (lamp must be turn on, and refer to scanner instruction manual)

Press [S-RESET] button, only scanner output the No.216 scanner reposition scene, have no change dimmer loop output value. Please refer to scanner scene edit method and edit No.216 scanner scene, all of scanner set reposition (refer to scanner instruction manual).

4.1.6 Edit Scanner Chase Program

4.1.6.1 Scanner Scan of Cycle Mark [*]

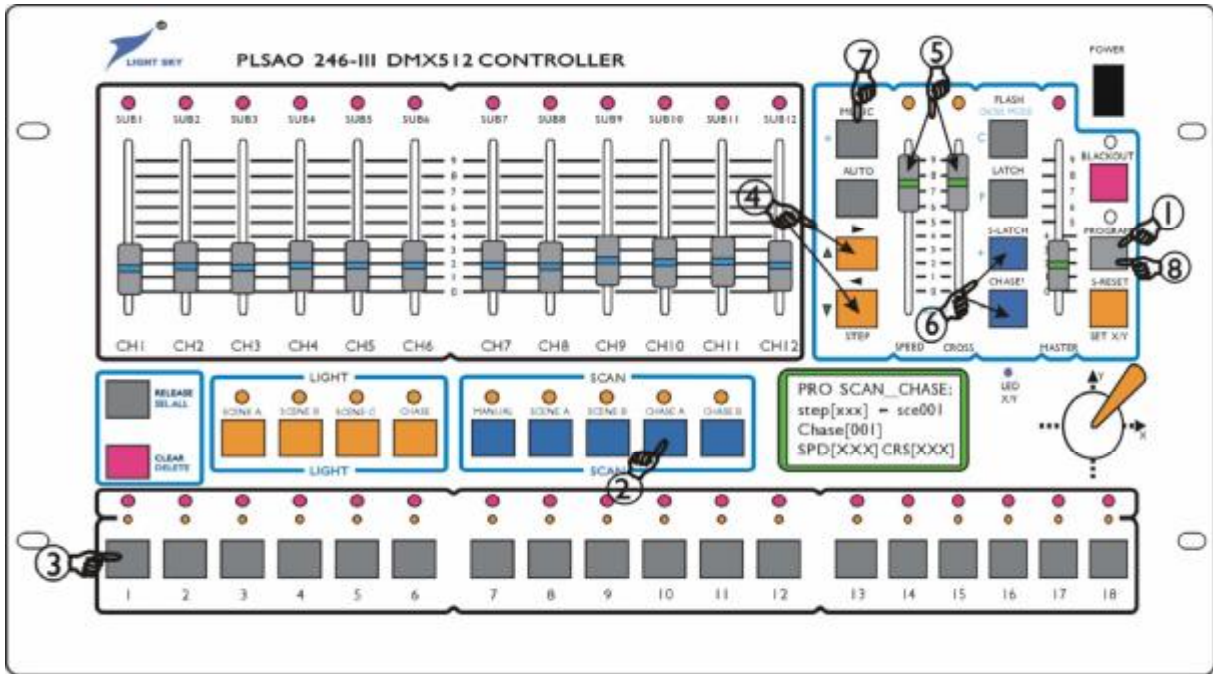
During the scan program, need arrange a group of ***cycle mark. The mark function: scan program begin of the first program step, when meet have *** mark of program step will auto back the first step cycle scan.

Under the step of edit, can be revise *** cycle mark position.

4.1.6.2 Scanner Scan Program of Edit Step

Due to scan program is direct user scene output, so should first edit scanner scan program scene, then edit chase program, each chase program step and point number of scanner scene.

Program step see picture. G. It is show that editing the first scanner scan program, currently program step is the third step, the program step output No.38 scene.



Picture. G

Scan program of edit step:

1	Press [PROGRAM] button
2	Press SCAN area [CHASE.A] key
3	Direct user number button select need edit of scan program No., in this picture, press [CHASE.A] key then press number button [1], that to say, edit No.1 scan program. Can be repeat 2-3 step, then select other need edit of scan program No.
4	User [▲] or [▼] button select edit of program step (1-120). In this picture G, press [▲] button till liquid crystal screen display STEP <<002>>. If meet the past set of auto cycle mark, liquid crystal screen display STEP <<***>>.
5	Push [SPEED CROSS], adjusting the scene, pause time and gradual change time.
6	User [+] or [-] button set currently program step of the first step corresponding scene No., if need auto increase make program step of each scene No., must be select the first step program scene No., then key in [*] as the first step program scene No., then key in [*] again as a begin mark. In this picture, press [+] till liquid crystal screen display SCE 038, that to say, the 2 program step user No.38 scanner scene. Suggest that run light program step of scene select range is 37-214(1-18 is color scene, 19-36 is pattern scene, 215 and 216 are special scene). According the 4 step operate, look already edited of each program step. Repeat 4-5 step, edit other program step.
7	After edit the last program step, press [*] cycle mark, on the liquid crystal screen, user *** replace currently program step number display and auto cancel original set mark.
8	Press [PROGRAM] button and withdraw.

Note: If the 2 step according SCAN area [CHASE.B] key can be edit scanner 19-36 scan programs.

4.1.6.3 Scene Increase & Delete During the Scan Program

1 Increase scene step in the program

Under revise of program edit state, press [▲] or [▼] button, find out need insert of program step position, press [SELL ALL] button, currently program step of scene data will copy and insert the next

program step, press [▲] again and find out just insert program step, edit and revise scene data, then the following program step data corresponding one by one shift, and the end cycle mark also must be shift (how many scene insert, and how many [*] mark shift .)

- I Delete scene step in the program

Same the operate method, only that [SELL ALL] button change [DELL] button, the following program step data should be corresponding auto shift go ahead and attention [*] cycle mark also move along.

4.2 Scanner Scanning Work

4.2.1 Point of Scanner Scanning Work

- I [BLACKOUT] indicator lamp turn off, 246-III console under the state of scanning.
[BLACKOUT] indicator lamp turn on, the console output [BLACKOUT], that to say, the scanner running No.215 scene.
- I If [PROGRAM] light turn off (under state of non-program), can be make multi complex running control to scanner.
- I Point of output: firstly, press function key, then press number key and output scene or scan program. The method can carry out multifunction running simultaneously. Such as: altogether running 3 scanners of scan program and fold 2 scanners scene.
- I User [FLASH], [LATCH], [S-LATCH] button set number key of lock state. The number key under different state which cooperate with function can be carry out scene and scan program fold running together.
- I Operate by hand, priority. When the scanner under the state of hand, the selected scanner of hand control channel for the moment can't accept scan scene and scan program of control, so, the hand have priority. After withdraw the hand operate, auto revert to general scan state.

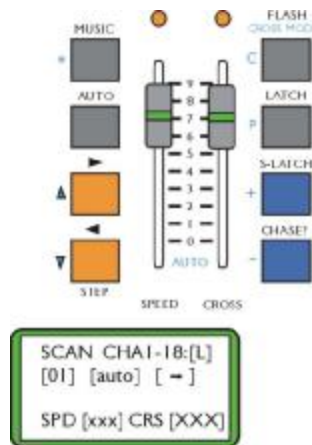
4.2.2 Scanner Scene on Running

- I Press SCAN area [SCENE .A] key, then press number key [1]-[18], running scanner scene (1-18).
- I Press SCAN area [SCENE .B] key, then press number key [1]-[18], running scanner scene (19-36).
- I User [FLASH], [LATCH], [S-LATCH] button set number key of lock state, carry out single and multi scene of running.

4.2.3 Scanner Scan Program on Running

- I Press SCAN area [SCENE .A] key, then press number key [1]-[18], running scanner scan program (1-18); Press SCAN area [SCENE .B] key, then press number key, running scanner scan program (19-36).
- I After press [AUTO] button, scan program according [SPEED] handspike set of speed auto-running. Adjusting [SPEED] handspike, can be change scanning running speed. When handspike located [AUTO] area, the procedure according to program set of time running.
- I Press [MUSIC] button, scan program follow the music signal rhythm spring running.
- I Adjusting [CROSS] handspike can be change scan program step cross gradual change of transition time. When handspike located [AUTO] area, the procedure according to program set of time running.

- 1 User [4] and [3] button change scan program step of decrease/increase running way.
- 1 Press [CROSS MODE] button and liquid crystal panel display CROSS ALL, all of the channel must be according cross gradual change of transition time make smooth running. Then press [CROSS MODE] button and liquid crystal panel display CROSS X-Y, only set of X, Y channel according cross gradual change of transition time make smooth running, the other channel make jumping change running.
- 1 Running scan program, picture H show of every button and handspike to program running parameter of revise act on liquid crystal screen display of scene No. Press [CHASE?] chase look key, then press number key, under stop scan program state, look and revise the scan program of each running parameter. That is secret revise.



Picture. H

4.2.4 Scanner Running on Manual

- 1 Press SCAN area [MANUAL] button, user number button select hand operate scanner, then user handspike group of each scroll bar control scanner state and control scanner's X/Y position. X/Y channel same of scanner can be select together.
- 1 User [FLASH], [LATCH], [S-LATCH] button set number key of lock state, carry out multi running manners.

4.2.5 Scanner on Clear Operate

- 1 Press SCAN area [SCENE.A] key, then press [CLEAR] button, stop running 1-18 scanner scenes.
- 1 Press SCAN area [SCENE.B] key, then press [CLEAR] button, stop running (19-36) scanner scenes.
- 1 Press SCAN area [CHASE.A] key, then press [CLEAR] button, stop running 1-18 scanner scenes.
- 1 Press SCAN area [CHASE.B] key, then press [CLEAR] button, stop running (19-36) scanner scenes.
- 1 Press SCAN area [MANUAL] button, then press [CLEAR] button, stop-running scanner operate by hand.

4.2.6 Scanner on Release Operate

- I Press [RELEASE] button, push handspike group at discretion scroll bar, it release handspike to scanner control.
- I Press [RELEASE] button, shake control rocker, it will release rocker to scanner X/Y axes control.
- I Press [RELEASE] button and press [CLEAR] button, it will release handspike group and control rocker to scanner control.

4.2.7 Scanner of Output Look

- I Press SCAN area [MANUAL] key, the scanner on hand operates through red indicator hint, one of hand-control channel value by the flash of green indicator's luminance hint.
- I Press SCAN area [SCENE.A] key, outputting 1-18 scanner scenes by yellow indicator lamp display.
- I Press SCAN area [SCENE.B] key, outputting 19-36 scanner scenes by yellow indicator lamp display.
- I Press SCAN area [CHASE.A] key, outputting scanner scan program by yellow indicator lamp display.
- I Press SCAN area [CHASE.B] key, outputting scanner scan program by yellow indicator lamp display.

5 LIGHTING PART

5.1 Lighting of Edit

246-III console can control 30 channel dimmer loop. One is 1-18 routes user on/off control, CH1-CH12 can auto dimmer. The 30 channels lighting loop can accept handspike of dimmer control.

The specialty of 246-III console as follow:

- I LIGHT area [SCENE.A] key control 1-18 dimmer scenes.
- I LIGHT area [SCENE.B] key control 19-36 dimmer scenes.
- I LIGHT area [SCENE.C] key control 37-54 dimmer scenes.
- I LIGHT area [CHASE] button control 1-18 chase program.

In the LIGHT area [SCENE.C] key, contain a special design that the light luminance can accept rhythm of music signal and synchronous flash. If edit 37-54 scenes, these specialty need be considerable.

246-III can store 216 channels light scene, and each scene contained 1-18 channels on/off control, and dimmer value of CH1-CH12. All the set can be auto- protected when you withdraw program, and the data can't be lost after turn off scanner console.

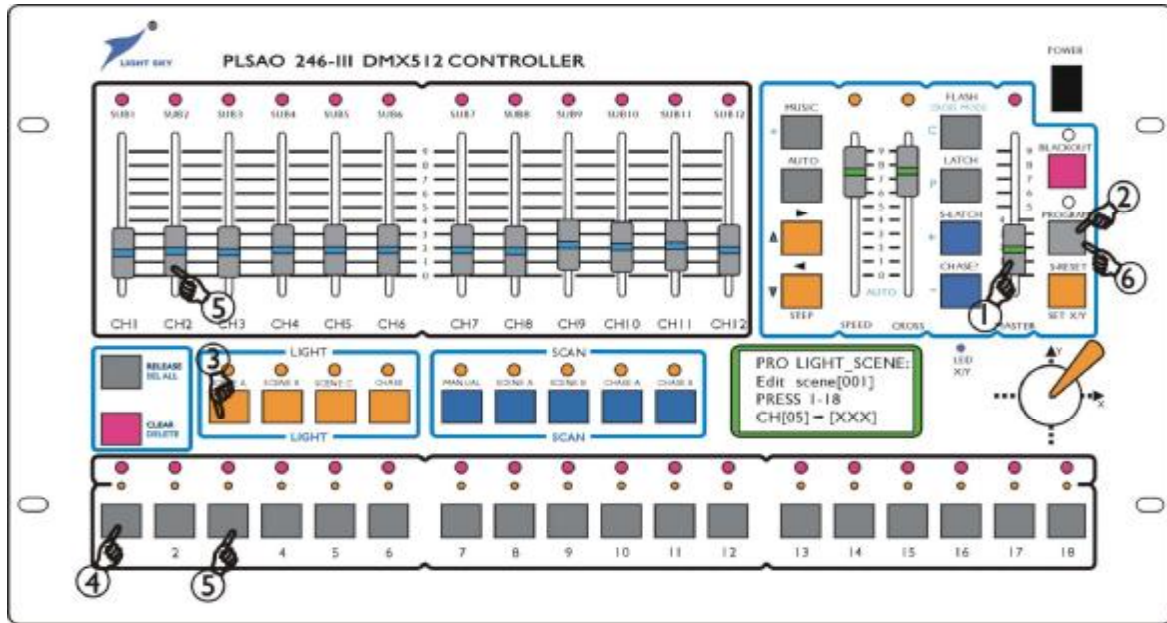
It is resemble that dimmer program and scanner program. Please follow the two steps:

1. dimmer scene edit.
2. lighting chase program edit.

5.1.1 Edit for Lighting Scene

5.1.1.1 Edit Method

Edit of lighting scene step (refer to picture. I). The picture show of edit the first lighting scene, and the scene compose by the 3 channels and CH2 lighting channels.



Picture. I

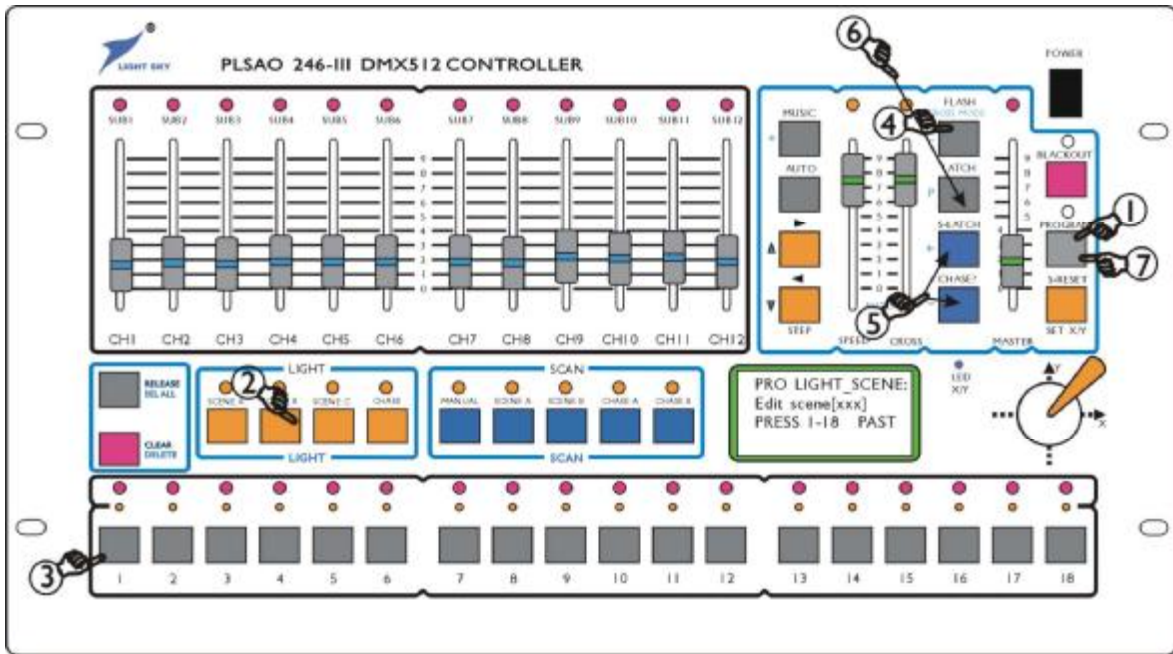
Step:

1	[MASTER] handspike push maximum
2	Press [PROGRAM] button
3	Press LIGHT area [SCENE.A] key
4	User number button select need edit of dimmer scene No. This picture press number button [1]. Can repeat 3-4 steps, and then select other scene No. Can user [+] button or [-] button select the larger range of scene No. (1-216).
5	Press number button, set 1-18 lighting loop of on/off, and user handspike group adjusting CH1-CH2 lighting loop of luminance. This picture press number [3], turn on the third route light, adjusting CH2 handspike to the propriety luminance. Repeat 3-5 steps and edit other scene.
6	Press (PROGRAM) button and withdraw.

5.1.1.2 Copy and Paste of Lighting Scene

At present, if edit some similar scene, user scene copy function can be decrease workload of scene edit. The method as follow:

1. Under state of the dimmer scene edit, select original scene No. Press [C] button ([FLASH] button reuse) copy;
2. Select No. as paste aim scene, press [P] button ([LATCH] button), as the original scene content paste to the aim scene, then it is complete alike that the content of two scenes.
3. User methods of dimmer scene edit, revise paste aim scene, become new scene content.
Step of dimmer scene (refer to picture J) that No.1 light scene paste No.5 dimmer scene.



Picture. J

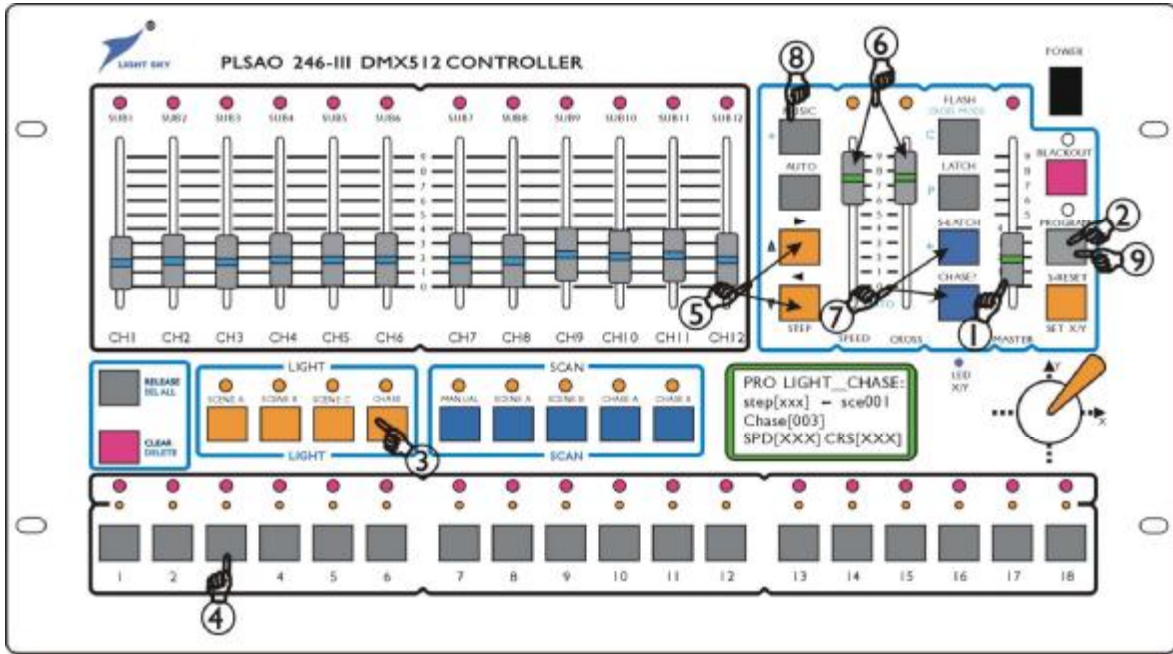
Step:

1	Press [PROGRAM] button, the red [PROGRAM] indicator lamp flash and enter into edit state.
2	Press LIGHT area [SCENE.A] key, edit dimmer scene.
3	User number key select as copy source of dimmer scene No., in picture J, press number [1] button. Can be user [+] button or [-] button and select the larger range of scene NO. (1-216).
4	Press [P] button, copy.
5	User number key select as paste aim scene No. in picture J, select the fifth dimmer scene as paste aim scene. Can be user [+] button or [-] button and select the larger range of scene No. (1-216).
6	Press [P] button, paste. After paste, can be according lighting scene edit method revise the fifth scene.
7	Press [PROGRAM] button and withdraw.

5.1.2 Edit Chase program

246-III scanner console of chase program is based on the scene, so, should first edit dimmer scene, then edit chase program.

Edit step (refer to picture. K). The picture show that edit of the third scanner chase program, now the program step is the 5 step which output No.99 scanner scene (suppose No.99 have edited which contain 1,2,3,24,25 lighting channel output):



Picture. K

Step:

1	[MASTER] handspike push maximum
2	Press [PROGRAM] button
3	Press LIGHT area [CHASE] button
4	Direct user number key select need edit of chase program No. In picture K, press number key [3]. Can be repeat 2-3 step, then select other need edit of chase program No.
5	User [▲] or [▼] button select currently edit of program step (1-120). In picture K, press [▲] button till liquid crystal screen display [STEP] (005). If meet the past set of auto cycle mark, the liquid crystal screen display (**). Can be according method look already edited of each program step.
6	Adjusting [SPEED CROSS] joystick potential regulator, set pausing time on scene and cross gradual changing speed on scene.
7	User [+] or [-] button select currently program step of scanner scene No. In picture K, press [+] key till liquid crystal screen display SEC 009. Can be repeat 4-6 steps and edit other program step.
8	After edit the last program step, press [*] cycle mark key, on the liquid crystal screen, user *** replace currently program step No., and auto cancel original set of mark.
9	Press [PROGRAM] button and withdraw.

5.2 Lighting of Running Operate

5.2.1 Point of Lighting Running

- [BLACKOUT] indicator lamp extinguish, 246-III scanner console under state of running.

[BLACKOUT] indicator lamp turn on, 246-III scanner console to 1-30 channels dimmer running blackout signal.

- | If [PROGRAM] light turn off (under state of non-program), can be
- | make multi complex running to dimmer loop.
- | Point of output: firstly, press function key, then press number key and output scene or chase program. The method can be carry out multifunction output simultaneously. Such as: at the some time, output 2 chase programs + 3 dimmer scenes + CH1-CH12 dimmer loops as manual dimmer control.
- | User [FLASH], [LATCH], [S-LATCH] button set number key of lock state.
- | The number button under the different of lock state, can be carry out scene and chase program are fold output, auto-running and dot-shake running.
- | [MASTER] handspike control 1-30 dimmer loop of luminance.
- | Operate on manual, priority. When the CH1-CH12 dimmer loop on manual, for the moment can't accept of running scene and chase program of control, so, the manual has priority. After withdraw the manual operate, auto revert to general running state.

5.2.2 Dimmer Scene on Running

- | Press LIGHT area [SCENE .A] key, then press number key, running dimmer scene (1-18).
- | Press LIGHT area [SCENE .B] key, then press number key, running dimmer scene (19-36).
- | Press LIGHT area [SCENE .C] key, then press number key, running dimmer scene (37-54), the area of scene will affected by music signal of rhythm element trigger cause flash output.
- | User [FLASH], [LATCH], [S-LATCH] button set number button of lock state, carry out multi running.

5.2.3 Dimmer on Chase Program

- | Press LIGHT area [CHASE] button, then press number button, output dimmer scene of chase program (1-18).
- | User [FLASH], [LATCH], [S-LATCH] button set number button of lock state, carry out multi running.
- | After press [AUTO] button, chase program according to [SPEED] handspike set speed running. Adjust [SPEED] handspike, can be change chase dimmer speed.
- | Press [MUSIC] button, chase program by the music signal trigger.
- | Adjusting [CROSS] handspike can be change chase program step of transition time.
- | User [4] and [3] button change chase program step of decrease/increase running way.
- | After set [AUTO], [MUSIC], [4], [3] button and [SPEED CROSS] handspike, the chase program of above state will auto-save.

5.2.4 Manual Dimmer on running

If select the function key on the LIGHT area, adjust handspike group of each scroll bar and control 19-36 lighting loops of luminance.

5.2.5 Dimmer Control

Adjust [MASTER] handspike, and control 1-36 lighting loops of luminance.

5.2.6 Clear on Operate

- | Press LIGHT area [SCENE.A] key, then press [CLEAR] button, stop running 1-18 lighting scenes.
- | Press LIGHT area [SCENE.B] key, then press [CLEAR] button, stop running 19-36 lighting scenes.
- | Press LIGHT area [SCENE.C] key, then press [CLEAR] button, stop running 37-54 lighting scenes.
- | Press LIGHT area [CHASE] button, then press [CLEAR] button, stop running 1-18 chase programs.

5.2.7 Release on Operate

- | Press [RELEASE] button, push handspike group at discretion scroll bar, it release handspike to lighting loop of dimmer control.
- | Press [RELEASE] button and press [CLEAR] button and release handspike group to each lighting loop of dimmer control together.

5.2.8 Look Lighting Running State

- | Press LIGHT area [SCENE.A] key, outputting 1-18 lighting scenes by yellow indicator lamp display.
- | Press LIGHT area [SCENE.B] key, outputting 19-36 lighting scenes by yellow indicator lamp display.
- | Press LIGHT area [SCENE.C] key, outputting 37-54 lighting scenes by yellow indicator lamp display.
- | Press LIGHT area [CHASE] button, outputting chase programs by yellow indicator lamp display.