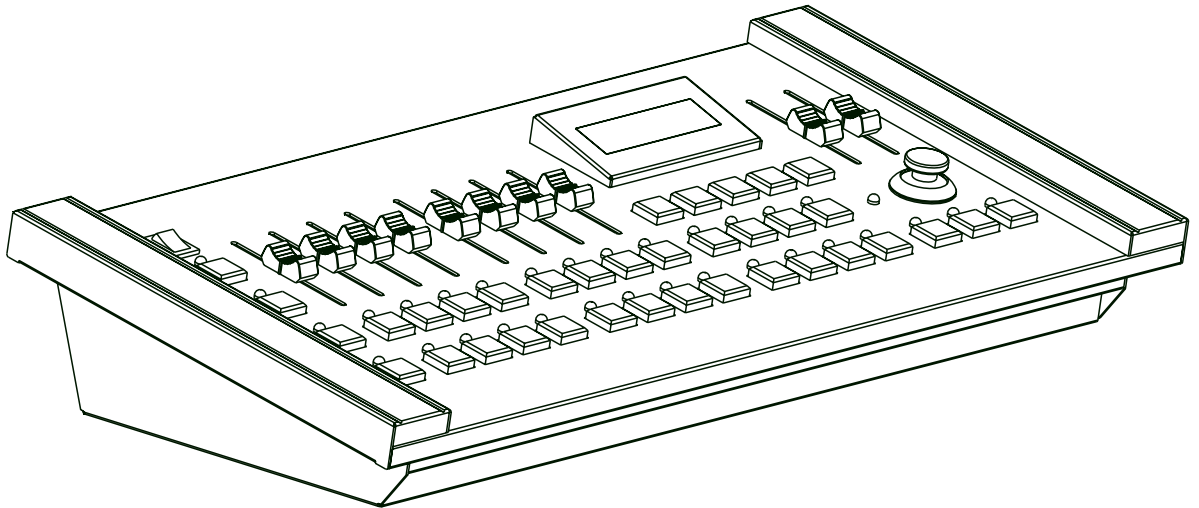


DMX 512 CONTROLLER SERIES



□ **DMX Controller** **CROCODILE 2024**

USER MANUAL

Version:2.0 2010.3.22

This product manual contains important information about the safe installation and use of this projector. Please read and follow these instructions carefully and keep this manual in a safe place for future reference.

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Thanks for using crocodile series scanner console! The console has internationally standard DMX512 signal output. Before operation, please refer to the use's manual carefully.

1、parameters

Output signal specifications	DMX 512/1990 internationally standard
Total number of channels	504 channels
Number of scanners	20 scanner
Max.number of channels for the scanner	24 channels
Number of chases(scenes)	24 chase
Maximal number of chase steps(scene)	20 steps
Total number of chase steps(scene)	480 steps
Scene pause time	0.1-25.5 second/step
Scene cross speed	0-25.5 seconds
Dimmer channel	24 channels
Display screen	LCD display,16*2 characters
DMX 512 outputs interface	3-Pin XLR input/output
Memory capacity	512K high capacity memory card
Input voltage	AC100-240V 50/60Hz 9V/1000mA
Volume	485mmX250mmX91mm
Weight	5 Kg

2. Safety use cautions

- The console must be connected to the safety earth line.
- Never pulling out or inserting the communication cable with electricity.
- Start order: please turn on all the controlled scanner power supplies first,and then turn on the controller power,otherwise the controller is easy to be destroyed.
- prevent it from damp, water,dust,static, and maintain and clean it regularly.

3、 Contents in the package

- Crocodile series console 1PC
- Crocodile series user's manual 1PC
- Power adapter 1PC

4、 Signal cable

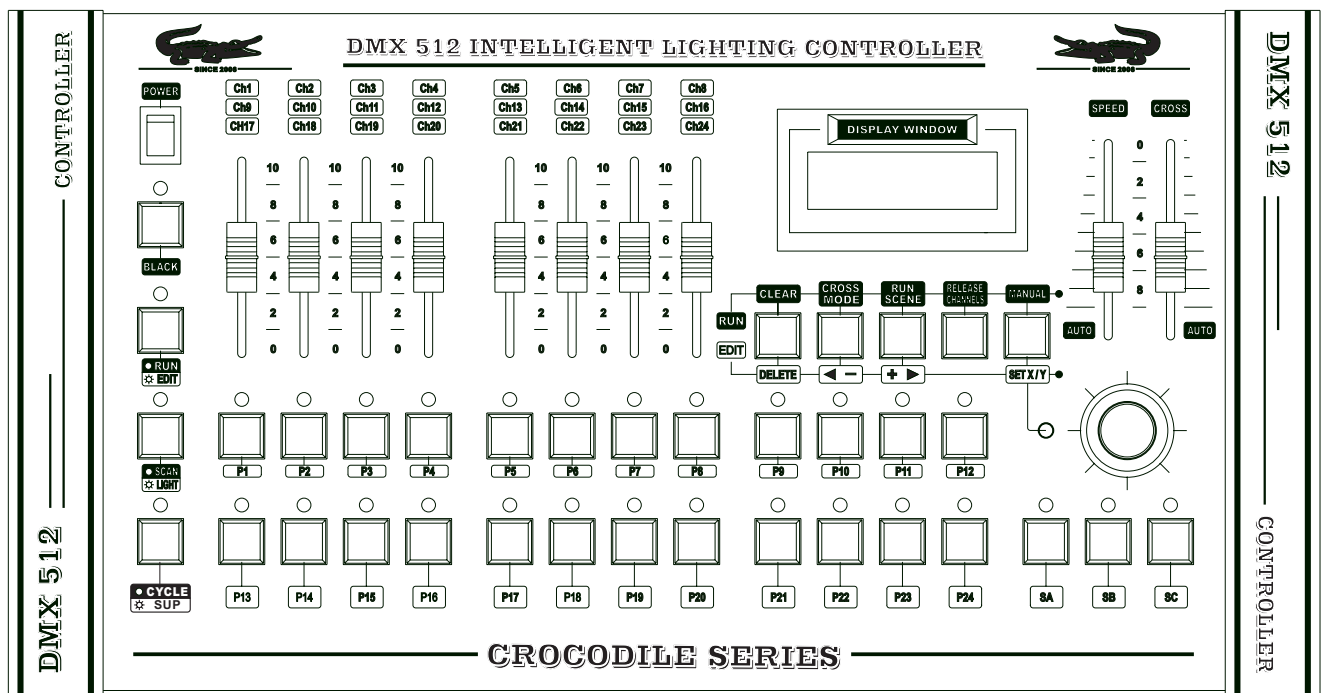
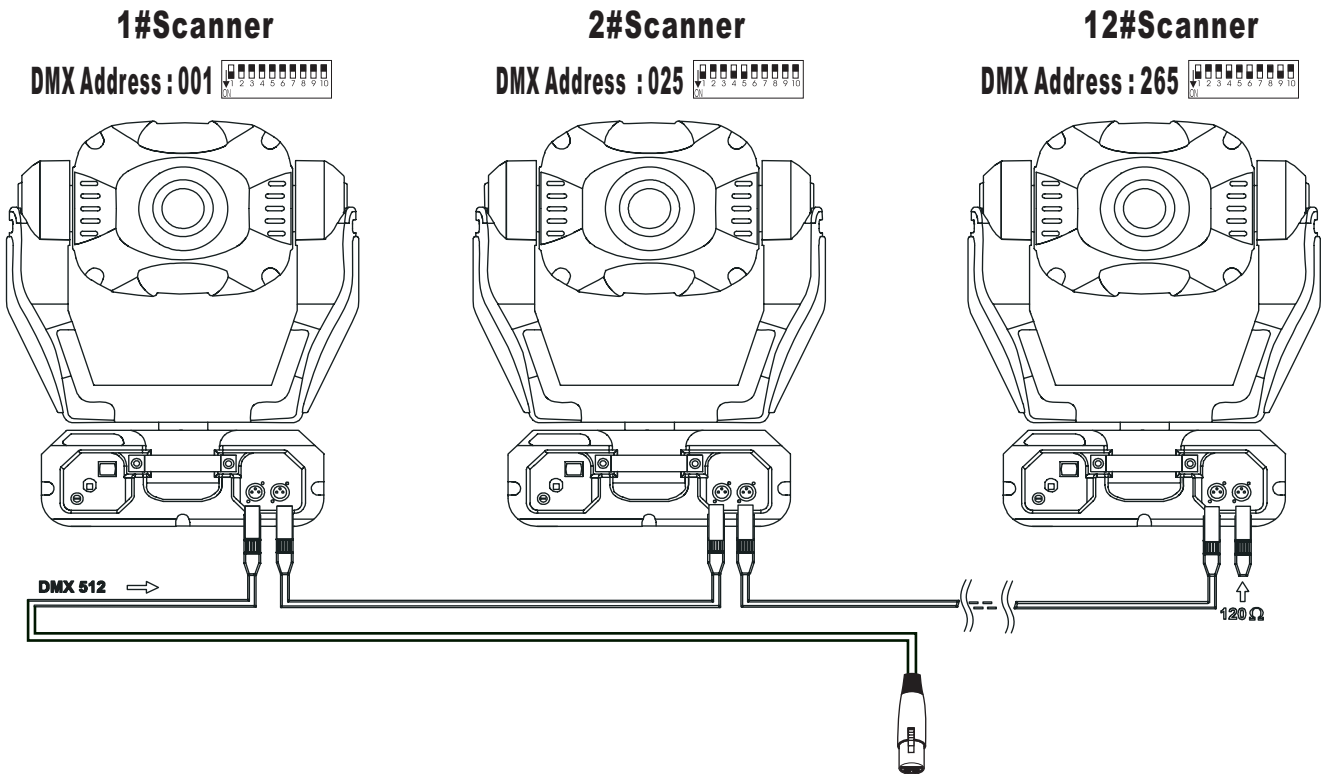
- It use double-shield wire with the specified impedance of 120 ohms, and if the cable exceeds 200 meters long or there are too many scanners, a signal amplifier should be added, and a terminal resistor should be added to the last scanner(120 Ω ,1/4W).
- The 1st pin of the signal cable is the grounding (GND) , 2nd pin is negatives, and 3rd pin is positive signal; they should not be inversely connected, and should not be coldly welded.
- The signal cable should not be shielded by single-terminal earthing.
- The signal cable should not be wired together with strong electricity

5、 DMX512 address distribution

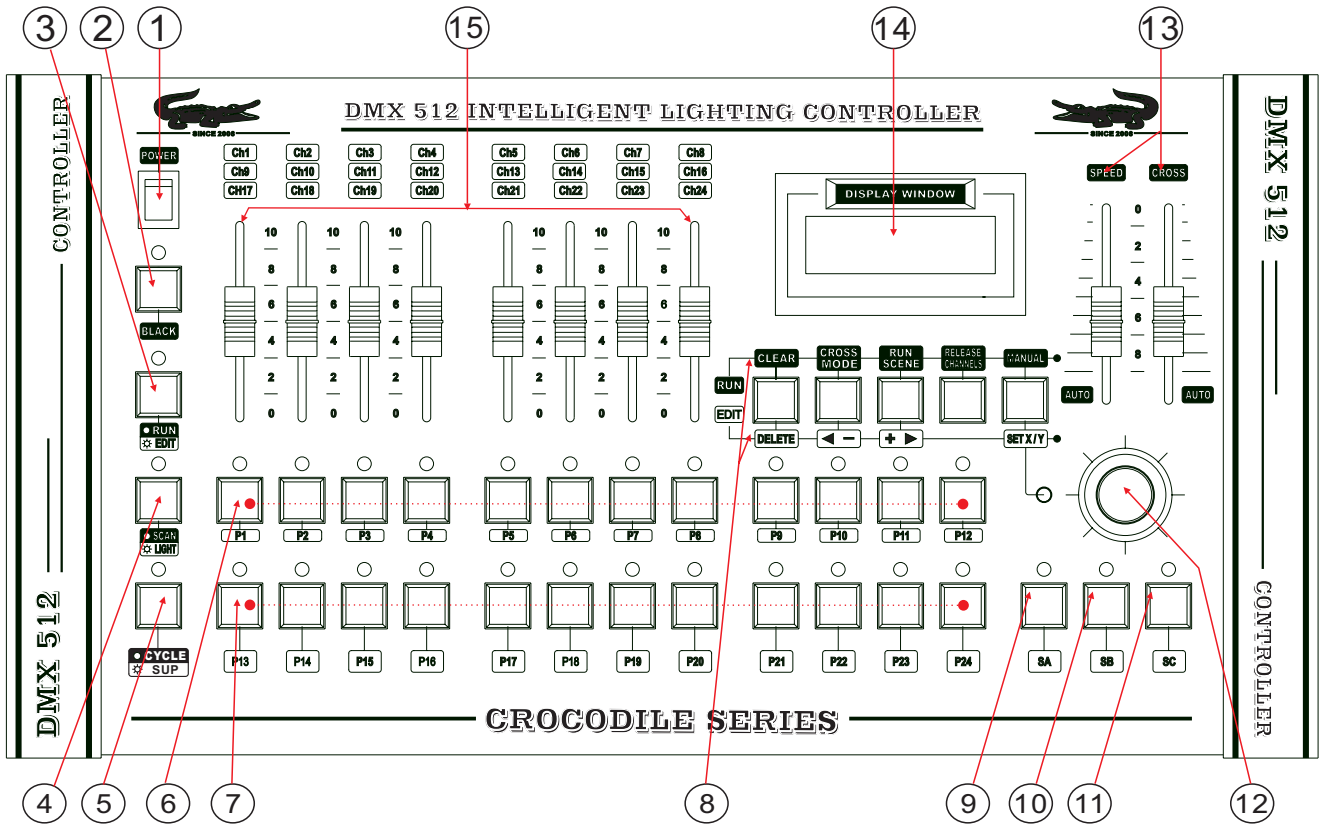
Console uses 1 to 504 channels of dmx512, so it can control the scanners.
With no more than 24 channels. The address is distributed as follows:

Scanner serial number	Scanner dmx starting address	
	Decimal system	Scanner address switch location
1	1	1 ON
2	25	1 ,4,5 ON
3	49	1 ,5,6 ON
4	73	1 ,4,7 ON
5	97	1 ,6,7 ON
6	121	1,4, 5,6,7 ON
7	145	1 ,5,8 ON
8	169	1 ,4,6,8 ON
9	193	1,7,8 ON
10	217	1,4,5,7,8 ON
11	241	1,5,6,7,8 ON
12	265	1,4,9 ON
13	289	1,6,9 ON
14	313	1,4,5,6,9 ON
15	337	1,5,7,9 ON
16	361	1,4,6,7,9 ON
17	385	1,8,9 ON
18	409	1,4,5,8,9 ON
19	433	1,5,6,8,9 ON
20	457	1,4,7,8,9 ON
Dimmer channel 1-24	481-504	

6、Signal cable link and scanner DMX address setting



7、Operation panel view



8、 Front panel function area instruction

Number	Description	Function
1	POWER	Switch ON/OFF console; if the power supply of whole unit needs to be turned off completely, please pull out external power adaptor.
2	BLACK	ON/OFF DMX signal output * LED ON: No light, all output DMX signals are 0 * LED OFF: Normal signal output state.
3	EDIT/RUN	Edit/running program * LED ON: Edit program. Maximum 24 chases of each program editable and 20 steps each chases * LED OFF: Run chase.
4	Scanner dimmer selection key	* LED ON: Dimmer function be effected. * LED OFF: Control lighting fixture as normal DMX function channel
5	Cycle / SUP	* LED ON: Run selected several chases superpose * LED OFF: Run selected several chases in cycle

<p>6-7</p>	<p>P1-P24 Number key area</p>	<p>* Edit program state - Select chase number and controlled scanner number. Press number key one time to select edit chase number and then press number key again to select the number of scanner want to be controlled. * Running program - Select chase number expect to run. * Work with function key to select scanner number and set all 20 steps of 1st chase and first 4 steps of 2nd chase as 24 separately steps.</p>
<p>8</p>	<p>Duplex button area</p>	<p>Different function buttons during program or running. Please refer to instruction details of the duplex key</p>
<p>9</p>	<p>Page turning 1</p>	<p>LED ON: Slider area correspond to CH1-8</p>
<p>10</p>	<p>Page turning 2</p>	<p>LED ON: Slider area correspond to CH9-16</p>
<p>11</p>	<p>Page turning 3</p>	<p>LED ON: Slider area correspond to CH17-24</p>
<p>12</p>	<p>Joystick (Fine Key)</p>	<p>Control X, Y of scanner or press it to fine adjust X,Y</p>
<p>13</p>	<p>SPEED、 CROSS AUTO</p>	<p>*SPEED slider: Change chase running time during program or running period *CROSS slider: Adjust chase fade time during program or running period *AUTO: Set both speed & cross sliders at bottom means run program in original time setting. (The upper part is used to change time manually accord situation.)</p>
<p>14</p>	<p>LCD 16*2</p>	<p>Display relative data</p>
<p>15</p>	<p>CH1-16 (channel Data slider area)</p>	<p>Manual control selected lighting fixture DMX /dimmer channel value to active relative function</p>

9、 Duplex key area

EDIT area	[DELETE]	<ul style="list-style-type: none"> * Delete the chase or chase step during programming ** Press one time to delete the current chase step. ** Keep pressing 3 seconds to delete all steps of current. * [SET X/Y] - Press [DELETE] to cancel the X-Y channel assignment.
	[◀ -]	View previous steps during programming
	[+ ▶]	Save current chase steps or view next edited step during programming
	[SET X/Y]	Active programming, press [SET X/Y] and select X/Y channel between CH1-24 of scanner via SA/SB/SC to assign X/Y channel to joystick. Press [SET X/Y] again to save and quit setting when yellow indicate led ON.
RUN area	[CLEAR]	<ul style="list-style-type: none"> * Press [CLEAR] to delete selected number key at once. The number key can be selected repeat during program running. * In the running mode, all channel data will be cleared to zero after pressing this key
	[CROSS MODE]	<ul style="list-style-type: none"> * MODE1: All channel fade time be controlled by Cross slider during program running * MODE2: The edited X/Y channel fade time be controlled by Cross slider but all other channel run in jump way to prevent unedited colour or gobos from playing during slow program running.
	[RUN SCENE]	During chase running, Press [RUN SCENE] and P1-P24 to select first 24 steps of Chase 1 & 2 to run as special steps alone. Press [RUN SCENE] again to quite this function and then current chase will continue to run.
	[RELEASE CHANNELS]	<ul style="list-style-type: none"> * Under MANUAL mode, Press [RELEASE CHANNELS] and move sliders of selected channel by pressing SA/SB/SC or Joystick to change Ch1-Ch24 output data during program running. Then current program will not run as preset data but current data of selected channel. Press [RELEASE CHANNELS] again to quit this function * O indicates the CH1-24 channel data is controlled by manual slider, and F indicates program run as preset data automatic..
	[MANUAL]	During chase running, press [MANUAL] & any key of (P1-P20) to select the scanner want to be controlled manually and then move sliders of relative channel to control it manually. Then control selected scanner in auto and manual at the same time.

10、LCD display

Display	Specific information
XXXXXX XXXX	Model and version number
S/N:0020-02-2727**** TEST OK	Series Number and Test condition
RUN Chase[??] [01][00.0][00.0]	[??] -- Input chase / step number [01] -- Step number of chase 1st [00.0] -- Chase running time Last [00.0] -- Chase cross speed
RUN Chase[??] CH[**]→[***] 或 X→[***]Y→[***]	The upper line shows current running chase and bottom line indicates current modified channel number and channel data.
RUN SCENE SELECT P1--P24	* Press P1 to P20 to select 20 steps of 1st chase * Press P21-P24 to select 1st 4 steps of 2nd chase
EDIT Chase[??] Step[01][**]	Press [EDIT/RUN] and then corresponding indicate light ON to enter EDIT situation. [??] -- Edit chase number STEP[01] -- Chase step number, modify it with[◀ -] or [+ ▶] [**] -- current step is last step of edit chase. There will no number if it has data already
EDIT Chase[??] CH[**]→[***] or X→[***]Y→[***]	The upper line shows current edit chase number , and the bottom line represents the modified channel number and channel data.
EDIT Chase[??] SPEED→[***] or CROSS→[***]	The upper line represents the chase number to be edited, and bottom line indicates current modified chase running speed or cross time
1 2 3 4 5 6 7 8 FFFFFFFF A or FFFFFFFFF B or FFFFFFFFF C	* Press [RELEASE CHANNELS] under MANUAL mode to get left menu. * FFFFFFFFF A -- Show 1-8 channel status * FFFFFFFFF B -- Show 9-16 channel status * FFFFFFFFFC -- Show 17-24 channel status * 0 -- current channel under manual mode F -- current channel under auto mode * Press SA/SB/SC to select relative channel and move sliders of it to change status

<p>Set: X-Y X: [] Y: []</p>	<p>Press [EDIT] and [SET X/Y], select scanner by P1-P20 (Set X/Y for all scanners if not select scanner by P1-P20), press SA/SB/SC to select relative channel to assign to joystick or press [DELETE] to delete previous assignment setting</p>
<p>MANUAL: [??] FFFFFFFF A or FFFFFFFFF B or FFFFFFFFF C</p>	<p>* Press MANUAL during program running: [??] -- Display current running Chase / Step FFFFFFFF A -- Show 1-8 channel status FFFFFFFF B -- Show 9-16 channel status FFFFFFFF C -- Show 17-24 channel status O -- current channel under manual mode F -- current channel under auto mode * Select one scanner or several scanners via P1-P20 * Press SA/SB/SC to select relative channel and move sliders of it to change status</p>

11、 Edit scanner chase

- 1、 Press [BLACK], to turn off correspondent LED indicate light.
- 2、 Press [EDIT/RUN], to turn on relative LED indicate light, and enter the program state.
- 3、 Press any one of the number keys (P1-P24) one time, to select edit chase number [].
- 4、 Then press numbers (P1-P20) , to select controlled scanner and correspondent LED ON. If correspondent indicate LED not ON, it means that scanner not be selected and Step 5 will no effect with it.
- 5、 Move sliders of CH1-8 to change value or press [SB/SC] to change CH9-24 value. and slide (CH9-CH24) to call out the corresponding scanner effect(Control joystick to change value If X/Y channel be assigned to joystick).
- 6、 Repeat steps 4, and 5 to program other scanners to get expect effect
- 7、 Move sliders of [SPEED] and [CROSS] set chase running speed and cross time.
- 8、 Press[+ ➤], to save current chase/step and enter next step editing. (Press[← -],can view last chase or repeat above 4,5,6 and 7 steps to modify it and press[+ ➤] again to save it).
- 9、 Repeat steps 4 to 8 to edit other chases/chase steps.
- 10、 Press [EDIT/RUN] until relative indicate light off to quit program status and run program.
- 11、 Repeat steps 2 to 10, to edit other chases.

12、 Running chases

- 1、 Press[EDIT/RUN] until indicate LED OFF.
- 2、 Press number keys (P1-P24) to select chase number and run it; if that chase number has not been edited, then the corresponding LED will not ON.
- 3、 Move sliders of [SPEED] and [CROSS] chase running speed and cross time. If [SPEED] or [CROSS] sliders is at bottom AUTO area, then the chase will run as preset speed and cross time.

- 4、 Press [CROSS MODE] to change the running mode -- refer to 9. Duplex key instruction.
- 5、 If you want to run program in manual and automatic at the same time, please set as following steps.
 - 1) Press [MANUAL] and [RELEASE CHANNELS] and then LCD display (12345678; FFFFFFFFA).
 - 2) Press [SA/SB/SC] to check channel status. If channel show O, move slider of that channel to release it and change status be F to make sure it under program control. (O -- Channel under manual control; F -- Channel run as program preset data).
 - 3) Press [RELEASE CHANNELS] to save change and quit.
 - 4) Press P1-P20 to select scanner to run in both manual and automatic mode -- several scanners could be selected at the same time.
 - 5) Press SA/SB/SC to select correspondent channel of selected scanner. Then this channel will under manual control only to active manual and automatic modes at the same time (LCD display O instead of F)
- 6、 Press [BLACK] can make pause/play current chase -- correspondent LED light ON means pause and OFF means play as normal.

13、 Special scene presentation

In the state of chase running (i. e., the indicating light of [RUN/EDIT] is OFF), Press [RUN SCENE], then press any key of P1-P24 to select 20 steps of 1st chase and 1st 4 steps of 2nd chase. Therefore , we suggest to set first 24 steps with special effects.

14、 How to set and cancel joystick

Joystick settings:

- 1) Press [RUN/EDIT] and relative indicate light ON to enter PROGRAM status.
- 2) Press [SET X/Y] and LCD display (set:X-Y X:[] Y:[])
- 3) Press P1-P20 to select scanner. (This step can be skipped if X/Y channel of all scanners is same)
- 4) Press SA/SB/SC to select correspondent X/Y channel to assign to joystick and then relative yellow indicate led light ON or Press [DELETE] to cancel wrong setting and set correct channel..
- 5) Press [SET X/Y] again to save and quit.

Cancel joystick setting:

- 1) Press [SET X/Y]
- 2) Press P1-P20 to select scanner. (This step can be skipped if X/Y channel of all scanners is same)
- 3) Press [DELETE] to clear setting and correspondent yellow led light OFF.
- 4) press [SET X/Y] again to save change and quit.

15、 Dimmer control

Distributed control: In the status of non-programming, press SCAN/LIGHT and the indicating light ON to enter dimmer function; Press SA/SB/SC to select relative dimmer channel. Move sliders of it to change dimmer.

New features

1. Auto-save last running program when switch off or power off and continue play last running program while switch ON or power ON again.
2. Play single chase or multi chases in cycle. The indicate led light of CYCLE/SUP OFF means chase run in cycle.
- 3, Multi chases (maximum 8 chases) run at the same time. The indicate led light of CYCLE/SUP ON means multi selected chases run at the same time.
- 4, Set different X/Y channel of single scanner.
- 5, Under auto + manual mix running modes, release single channel or all channel. Press [MANUAL] and [RELEASE CHANNELS], select correspondent channel via SA/SB/SC to release it. LCD display will show status of current channel from O to F. Press [CLEAR] and release all channels. Then LCD display show status of all channel from O to F.
Press [RELEASE CHANNELS] again to save and quit.