



MATRIX BAR 6



USER MANUAL

1 SUMMARIZE

Thank you for purchasing our Light MATRIX BAR 6. Please read these instructions carefully before begin and operate the fixtures according to these instructions to avoid any possible damages and accidents causes by misuse.

Product introduction

This LED wall washer is designed in a fashion of hydrodynamic form. It uses high power RGBW 5-in-1 25W COB LEDs, means each led is made of R,G,B,A,W five led chips. It performs long life time, low power consumption, high brightness stable capability and colorful. The built-in program includes dimmer, strobe, water, gradual change, fading and so on. It has the function of low weight, low power consumption and stable. International standard DMX 512 signal is requested.

Packing list

Content	Quantity
MATRIX BAR 6	1
Power Cable	1
DMX Signal cable	1
The use manual	1

2 SAFETY INFORMATION

Safety Notes



Enquire the skilled people before any repair;

Always make sure disconnect from the power source before setting up, serving and moving;

Avoid direct eye exposure to the fixture when it is on;



Safety instruction

Make sure the power supply voltage is consistent with this lights, Ensure the use of voltage is in the range of the request technical parameter.

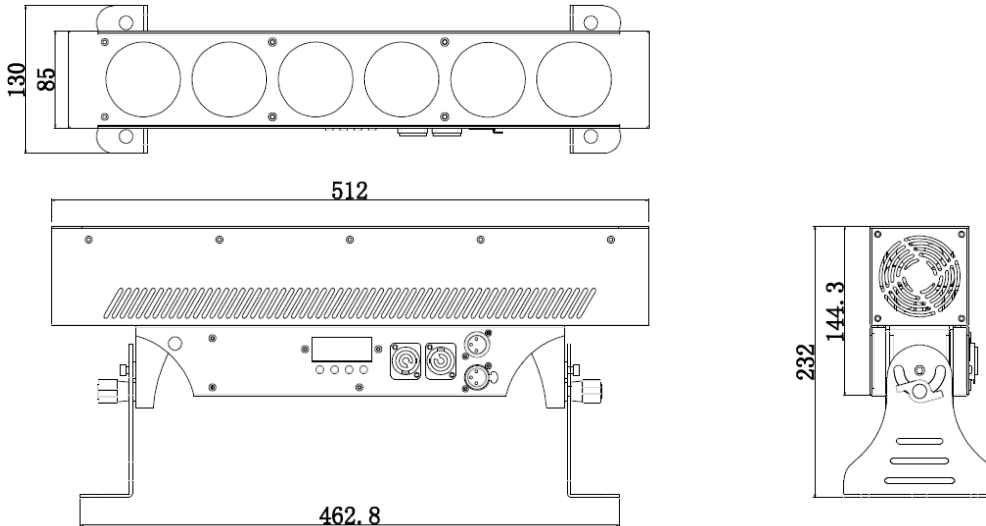
Before the installation, please check the light's fasteners and mechanical structure have been received in good condition and appear no damage.

This light is designed for indoor or outdoor, working temperature should be lower than 50 degrees.

The fixtures should be mounted in any position provided there is adequate room for ventilation. Make sure there are no inflammable and explosive items (ornaments) in 0.5 meters away.

Yellow / green cabling earthing safety; no flicker when the fixture is working on.

3 DIMENSION DIAGRAM



4 MAIN FUNCTION

Input voltage: AC 100V-264V/47-63HZ

Consume: 150W

Lamp Type: 25W LED 5-in-1 R、G、B、A、W (6PCS)

Life span: 50000~100000hours

PWM Dimmer: 1500HZ (16666 grades)

Control Signal: DMX512

Control mode: Standalone / Master slave mode

Channel: 38CH, 30CH, 23CH, 23CH-2, 18CH, 18CH-2, 11CH, 6CH, 5CH

Function Effect: Smooth dimmer, strobos, gradual change, rainbow effect, autoes, auto programming

Built-in temperature control measurement function, when LED work overheated, intelligent reduce LED output power, current power output could be checked

Cooling mode: Fan cooling Convection, Fan speed can be set to reduce noise

Beam Angle: 60° Optional

Anti-electricity intension: 1.5KV

Insulation Resistance: > 2 MΩ

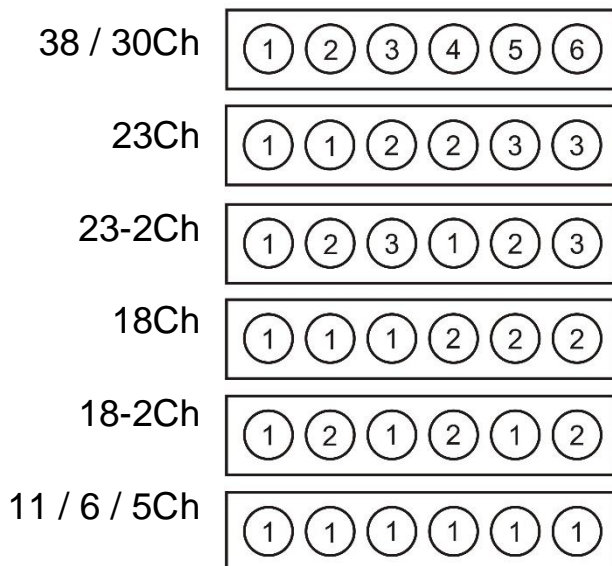
Size: 512 x 130 x 232mm

Net Weight: 5.1 Kg

IP Protection: IP20

5 DMX CONTROL FUNCTION

DMX Channels



Illustrations: The same numbers represent the same group.

38 Channel Mode

Channel	Name
1	Dim all
2	R1
3	G1
4	B1
5	A1
6	W1
7	R2
8	G2
9	B2
10	A2
11	W2
12	R3
13	G3

30 Channel Mode

Channel	Name
1	R1
2	G1
3	B1
4	A1
5	W1
6	R2
7	G2
8	B2
9	A2
10	W2
11	R3
12	G3
13	B3

14	B3
15	A3
16	W3
17	R4
18	G4
19	B4
20	A4
21	W4
22	R5
23	G5
24	B5
25	A5
26	W5
27	R6
28	G6
29	B6
30	A6
31	W6
32	Strobe
33	Effect
34	Auto speed
35	Virtual color wheel
36	Dimmer mode
37	Id function
38	Id address

14	A3
15	W3
16	R4
17	G4
18	B4
19	A4
20	W4
21	R5
22	G5
23	B5
24	A5
25	W5
26	R6
27	G6
28	B6
29	A6
30	W6

23 Channel Mode

Channel	Name
1	Dim all
2	R1

18 Channel Mode

Channel	Name
1	Dim all
2	R1

3	G1
4	B1
5	A1
6	W1
7	R2
8	G2
9	B2
10	A2
11	W2
12	R3
13	G3
14	B3
15	A3
16	W3
17	Strobe
18	Effect
19	Auto speed
20	Virtual color wheel
21	Dimmer mode
22	Id function
23	Id address

3	G1
4	B1
5	A1
6	W1
7	R2
8	G2
9	B2
10	A2
11	W2
12	Strobe
13	Effect
14	Auto speed
15	Virtual color wheel
16	Dimmer mode
17	Id function
18	Id address

11 Channel Mode

Channel	Name
1	Dim all
2	R1
3	G1
4	B1

6 Channel Mode

Channel	Name
1	Dim all
2	R1
3	G1
4	B1

5 Channel Mode

Channel	Name
1	R
2	G
3	B
4	W

5	A1
6	W1
7	Strobe
8	Effect
9	Auto speed
10	Virtual color wheel
11	Dimmer mode

5	A1
6	W1

5	A
---	---

Name	Value	Function
Dim all	0-255	From dark to light
Red	0-255	From dark to light
Green	0-255	From dark to light
Blue	0-255	From dark to light
Amber	0-255	From dark to light
White	0-5	From dark to light
Strobe	0-5	No strobe
	6-20	Not synchronous strobe (slow to fast)
	21-60	Synchronous strobe (slow to fast)
	61-100	Electronic sine wave (slow to fast)
	101-140	Random strobe (slow to fast)
	141-180	Opening pulse (slow to fast)
	181-220	Closing pulse (slow to fast)
	221-255	Electronic square wave (slow to fast)
Effect	0-5	No effect
	6-10	Ct01 (call custom color ct01)
	11-15	Ct02
	16-20	Ct03
	21-25	Ct04
	26-30	Ct05
	31-35	Ct06
	36-40	Ct07
	41-45	Ct08

46-50	Ct09
51-55	Ct10
56-60	Auto 1 (0-255s)
61-65	Auto 2 (0-255s)
66-70	Auto 3 (0-255s)
71-75	Auto 4 (0-255s)
76-80	Auto 5 (0-255s)
81-85	Auto 6 (0-127.5s)
86-90	Auto 7 (0-25.5s)
91-95	Auto 8 (0-12.25s)
96-100	Auto 9 (0-17s)
101-105	Auto 10 (0-25.5s)
106-110	Auto 11 (0-25.5s)
111-115	Auto 12 (0-25.5s)
116-120	Auto 13 (0-17s)
121-125	Auto 14 (0-17s)
126-130	Auto 15 (0-12.25s)
131-135	Auto 16 (0-12.25s)
136-140	Auto 17 (0-25s)
141-145	Auto 18 (0-25s)
146-150	Auto 19 (0-25.5s)
151-155	Auto 20 (0-255s)
156-160	Auto 21 (0-25.5s)
161-165	Auto 22 (0-12.25s)
166-170	Auto 23 (0-17s)
171-175	Auto 24 (0-25.5s)
176-180	Auto 25 (0-25.5s)
181-185	Auto 26 (0-25.5s)
186-190	Auto 27 (0-17s)
191-195	Auto 28 (0-17s)
196-200	Auto 29 (0-12.25s)
201-205	Auto 30 (0-12.25s)

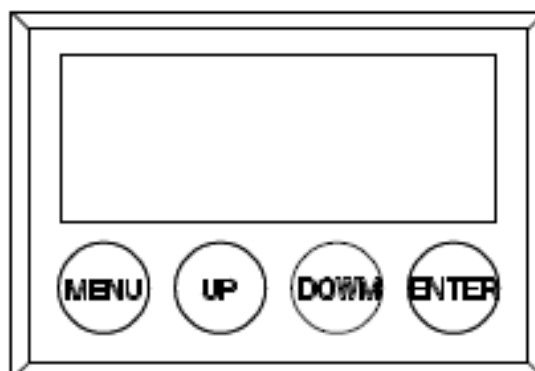
	206-210	Auto 31 (0-25s)
	211-215	Auto 32 (0-25s)
	216-220	Auto 33 (0-255s)
	221-225	Chase1
	226-230	Chase2
	231-235	Chase3
	236-240	Sound 1: sound change color
	241-245	Sound 2: sound strobe (white color only)
	246-255	Reserved
Auto speed	0-255	Auto speed, from fast to slow
Virtual color wheel (RGB color mixing instead of RGB channels but a w channels not affected)	0-10	No effect
	11	Blue (blue=full, red+green+white=0) (step)
	12-50	Red=0, green->up, blue =full, white=0 (proportional)
	51	Light blue (red=0, green=full, blue =full, white=0) (step)
	52-90	Red=0, green=full, blue->down, white=0 (proportional)
	91	Green (red=0, green=full, blue =0, white=0) (step)
	92-130	Red->up, green=full, blue=0, white=0 (proportional)
	131	Yellow (red=full, green=full, blue=0, white=0) (step)
	132-170	Red=full, green->down, blue=0, white=0 (proportional)
	171	Red (red=full, green=0, blue=0, white=0) (step)
	172-210	Red=full, green=0, blue->up, white=0 (proportional)
	211	Magenta (red=full, green=0, blue=full, white=0) (step)
	212-250	Red -> down, green=0, blue=full, white=0 (proportional)
	251-255	Blue (red=0, green=0, blue=full, white=0) (step)
Dimmer mode	0-10	Use the dimmer mode which menu had set up

	11-20	Linear curve and not smooth
	21-30	Square law curve and not smooth
	31-40	Inverse square law curve and not smooth
	41-50	S-curve and not smooth
	51-60	Linear curve and smooth
	61-70	Square law curve and smooth
	71-80	Inverse square law curve and smooth
	81-90	S-curve and smooth
	91-255	Use the dimmer mode which menu had set up
ID function	0-10	Id disable
	10-20	Id enable
	21-30	Id address channel divided by 10 and enable
	31-255	Reserved
ID address	0-255	Id address

Auto	Effect
1	R,G,B,A,W,RG,RB,GB,AW,RGBA,RGBW,RGBAW
2	R↑,R↓,G↑,G↓,B↑,B↓,A↑,A↓,W↑,W↓
3	R↑G↑,R↓G↓,R↑B↑,R↓B↓,B↑G↑,B↓G↓
4	R↑G↑B↑W↑,R↓G↓B↓W↓
5	B,BG↑,BG↓,G,G↑,G↓,R,R↑,R↓,B(Rainbow effect)
6	One piece running from 1 to 6 then change color continue
7	2 Amber step running
8	3 Orange running with fade
9	3 Pink step running
10	2 Red running on Green
11	2 Green running on Blue
12	2 Yellow running on Pink
13	1 Red step running
14	1 Yellow step running
15	3 Yellow running with fade
16	3 Pink running with fade

17	Yellow open from 1 to 6 then dark
18	Blue open from 1 to 6 then dark
19	Each piece change with RGBYPC
20	Inverse direction AUTO 6
21	Inverse direction AUTO 7
22	3 White running with fade
23	3 Cyan step running
24	Inverse direction AUTO 10
25	Inverse direction AUTO 11
26	Inverse direction AUTO 12
27	Inverse direction AUTO 13
28	Inverse direction AUTO 14
29	Inverse direction AUTO 15
30	Inverse direction AUTO 16
31	Inverse direction AUTO 17
32	Inverse direction AUTO 18
33	Each piece rainbow effect

6 DISPLAY OPERATION INSTRUCTION



MENU: access the menu or return to a previous menu option

ENTER: select the current menu option

UP: menu selection or parameter increments

DOWN: menu selection or parameters decrease

Menu Tree:

Tab	Level 1	Level 2	Level 3	Level 4
Addr (address)	001-512			
Stat (static control)	R1	<u>0</u> -255 *		
	G1	<u>0</u> -255 *		
	B1	<u>0</u> -255 *		
	A1	<u>0</u> -255 *		
	W1	<u>0</u> -255 *		
	R2	<u>0</u> -255 *		
	G2	<u>0</u> -255 *		
	B2	<u>0</u> -255 *		
	A2	<u>0</u> -255 *		
	W2	<u>0</u> -255 *		
	R3	<u>0</u> -255 *		
	G3	<u>0</u> -255 *		
	B3	<u>0</u> -255 *		
	A3	<u>0</u> -255 *		
	W3	<u>0</u> -255 *		
	Shut	<u>0</u> -255 *		
Set (set)	Cal (calibration)	R	0-255	
		G	0-255	
		B	0-255	
		A	0-255	
		W	0-255	
		Use	Yes/No	

	Chmd (channel mode)	38ch		
		30ch		
		23ch		
		23ch.		
		18ch		
		18ch		
		11ch		
		6ch		
		5ch		
	Dim (dimming mode)	Lin/sqr/isqr/scur/ lin. /sqr./isqr/scur.		
	Disp (display set)	On (permanent on)		
		2min (2 minutes off)		
	Fan (fan speed)	High (high)		
		Mid_(middle)		
		Low(low)		
Ctst (custom color set)	Ct01	R	0-255	
	.	G	0-255	
	.	B	0-255	
	.	A	0-255	
	.	W	0-255	
	Ct10			
Auto (auto)	At01	Run.. *		
	. .	Run.. *		
	. .	Run.. *		
	. .	Run.. *		
	At33	Run.. *		
	Atsp (auto speed)	0-255		
	Chs1 (chase 1)	Run.. *		

	Chs2 (chase 2)	Run.. *		
	Chs3 (chase 3)	Run.. *		
	Sou1	Run.. *(sound change color)		
	Sou2	Run.. *(sound strobe, white color only)		
Prog (program)	Chs1 (chase 1)	Sc01 (scene 1)	R1	0-255
	.	.	G1	0-255
	.	.	B1	0-255
	.	.	A1	0-255
	.	.	W1	0-255
	.	.	R2	0-255
	.	.	G2	0-255
	.	.	B2	0-255
	.	.	A2	0-255
	.	.	W2	0-255
	.	.	R3	0-255
	.	.	G3	0-255
	.	.	B3	0-255
	.	.	A3	0-255
	.	.	W3	0-255
	.	.	Shut	0-255
	.	.	Auto	None, at01-at33
	.	.	Atsp	0-255(s)
	.	.	Time	0-255(s)
	.	.	Wait	0-25.5(s)
	.	.	Use	Yes/No
	.	Sc20 (scene 20)		
	Chs3 (chase 3)			
Info (information)	Soft (software version)	Vx.x		

	Pow (power reduction)	100%/80%/50%		
Load (load)	St I (setting load)	Yes/No		
	Pr I (program load)	Yes/No		
Send (send)	Yes/No			
ID	0-255			

Illustrations: When enter to the “*” position displayed on the LED, the projector will automatically set as master and send data to external. Other projectors will synchronously be running without manually set as slaver. When power cycle it will jump to the “*” position and running again.

6.1 DMX ADDRESS SETTING

- 1) Press the **【ENTER】** button in **【ADDR】** menu, then enter to the DMX address setting.
- 2) Press the **【UP/DOWN】** button to select **【1-512】** numerical value.
- 3) Press the **【ENTER】** button to escape and save.

6.2 STATIC SETTING

- 1) Press the **【ENTER】** button in **【STAT】** menu, then enter to the static setting.
- 2) Press the **【UP/DOWN】** button to select **【RED1】** , **【GREEN1】** , **【BLUE1】** , **【AMBER1】** , **【WHITE1】** ... **【SHUT】** .
- 3) Press the **【UP/DOWN】** button to set up the **【0-255】** numerical value.
- 4) Press the **【ENTER】** button to escape and save.

6.3 COLOR CAST CALIBRATION SETTING

- 1) Press the **【ENTER】** button in **【CAL】** menu, then enter to the color cast calibration setting.
- 2) Press the **【UP/DOWN】** button to select **【RED】** , **【GREEN】** , **【BLUE】** , **【AMBER】** , **【WHITE】**

- 3) Press the **【UP/DOWN】** button to set up the **【0-255】** numerical value.
- 4) On the **【USE】** interface, pressing **【YES】** button means valid, **【NO】** means invalid.
- 5) Press the **【ENTER】** button to escape and save.

Illustrations: When pressing the **【YES】** button which means valid on the **【USE】** interface, the actual output value of RED, GREEN, BLUE, AMBER, WHITE, UV is output in accordance with the percentage which the color cast calibration value divides 255.

6.4 CHANNEL MODE SETTING

- 1) Press the **【ENTER】** button in **【CHMD】** menu, then enter to the channel mode setting.
- 2) Press the **【UP/DOWN】** button to select **【68CH】** , **【60CH】** , **【28CH】** , **【28CH.】** , **【23CH】** , **【23CH.】** , **【18CH】** , **【11CH】** , **【6CH】** , **【5CH.】**
- 3) Press the **【ENTER】** button to escape and save.

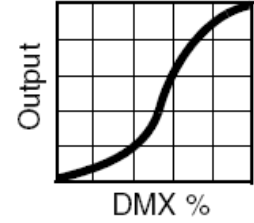
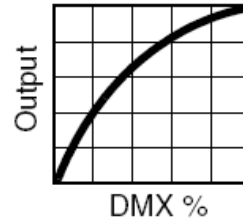
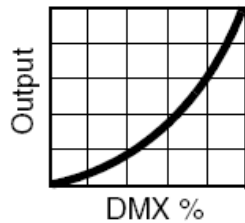
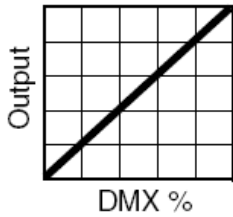
6.5 DIMMING MODE SETTING

- 1) Press the **【ENTER】** button in **【DIM】** menu, then enter to the dimming mode setting.
- 2) Press the **【UP/DOWN】** button to select **【LIN】** , **【SQR】** , **【ISQR】** , **【SCUR】** , **【LIN.】** , **【SQR.】** , **【ISQR】** and **【SCUR.】** .
- 3) Press the **【ENTER】** button to escape and save.

Illustrations : When setting **【LIN.】** , **【SQR.】** , **【ISQR.】** and **【SCUR.】** in **【DIM】** menu, there will be added a little delay dimming effect for smooth.

Dimming curve:

Linear curve: Square law curve: Inverse Square law curve: S-curve:



6.6 DISPLAY SETTING

- 1) Press the **【ENTER】** button in **【DISY】** menu, then enter to the display setting.
- 2) Press the **【UP/DOWN】** button to select **【ON】** , **【2 MINITES OFF】**
- 3) Press the **【ENTER】** button to escape and save.

6.7 SET MAXMUN FAN SPEED

- 1) Press the **【ENTER】** button in **【FAN】** menu, then enter to the maximum fan speed setting.
- 2) Press the **【UP/DOWN】** button to select **【HIGH】** , **【MIDDLE】** , **【LOW】**
- 3) Press the **【ENTER】** button to escape and save.

6.8 CUSTOM COLOR SETTING

- 1) Press the **【ENTER】** button in **【CTST】** menu, then enter to the custom color setting.
- 2) Press the **【UP/DOWN】** select **【CT01】** ... **【CT10】**
- 2) Press the **【UP/DOWN】** button to select **【1-512】** numerical value.
- 3) Press the **【ENTER】** button to escape and save.

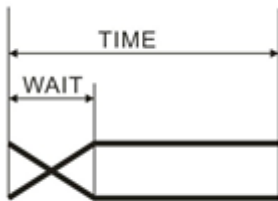
6.9 AUTO RUN, SELF-PROGRAM RUN

- 1) Press the **【ENTER】** button in **【AUTO】** menu, then enter to the auto run, self-program run.
- 2) Press the **【UP/DOWN】** button to select **【AT01】** ... **【AT33】** , **【SPEED】** , **【CHASE01】** ... **【SOUND2】**
- 3) Press the **【ENTER】** button to start running.

6.10 EDIT SELF-PROGRAM

- 1) Press the **【ENTER】** button in **【PROG】** menu, then enter to the edit self-program.
- 2) Press the **【UP/DOWN】** button to select **【CHASE01】** ... **【CHASE03】**
- 3) Press the **【ENTER】** button for confirmation and enter to the next menu.
- 4) Press the **【UP/DOWN】** button to select **【SCENE01】** ... **【SCENE20】**
- 5) Press the **【ENTER】** button for confirmation and enter to the next menu.
- 6) Then press the **【UP/DOWN】** button to select **【RED1】** ... **【SHUT】** , **【TIME】** , **【WAIT】** , **【USE】**
- 7) Press the **【UP/DOWN】** button to set up the parameter which are needed.
- 8) Press the **【ENTER】** button to escape and save.

Illustrations : When **【USE】** is set to be **【NO】** , or the parameter of **【TIME】** is 0, it will not run this scene. When **【WAIT】** is set to be FADE time, the running process is as the following chart showing.



6.11 CHECK THE LIGHTING INFORMATION

- 1) Press the **【ENTER】** button in **【INFO】** menu, then enter to the checking the lighting information.
- 2) **【SOFT】** button is for software version information.
- 3) **【POW】** button is for the current information of power reduction. It is 100% output in normal conditions, but 80% or 50% output in over temperature protection situation.

6.12 LIGHTING SETTING PARAMETER RESET

- 1) Press the **【ENTER】** button in **【ST L】** menu, then enter to the lighting setting parameter reset.
- 2) Press the **【UP/DOWN】** button to select **【YES】** .

3) Press the **【ENTER】** button to escape and save.

Illustrations : “ADDR” “CTST” and “PROG” are not reset, the others reset to the underlined value of the word.

6.13 【PROG】 SELF-PROGRAMMING PARAMETER RESET

1) Press the **【ENTER】** button in **【PR L】** menu, then enter to the **【PROG】** self-programming parameter reset.

2) Press the **【UP/DOWN】** button to select **【YES】** .

3) Press the **【ENTER】** button to escape and save.

6.14 LIGHTING PARAMETER DOWNLOADING EACH OTHER VIA DMX CABLE

1) Press the **【ENTER】** button in **【SEND】** menu, then enter to sending parameter to other lightings.

2) Press the **【UP/DOWN】** button to select **【YES】** .

3) Press the **【ENTER】** button to confirm sending.

Illustrations :

1) Please disconnect the connection of projector and DMX console before sending the parameter.

2) The information of **【ADDR】** 、 **【CAL】** 、 **【ID】** can't be sent, can't be downloaded each other.

3) There will be an automatic reset of the other projectors after receiving parameter correctly.

6.15 ID ADDRESS SETTING

1) Press the **【ENTER】** button in **【ID】** menu, then enter to the ID address setting.

2) Press the **【UP/DOWN】** button to select **【0-255】** numerical value.

3) Press the **【ENTER】** button to escape and save.

Illustrations :

1)When ID FUNCTION in channel profile is 10-20, the ID ADDRESS in fixture setting must equal to the ID ADDRESS in channel profile setting then the fixture will be active.

2)When ID FUNCTION in channel profile is 21-30, the ID ADDRESS in channel profile setting will be divided by 10 then ignore the fractional part, if the result is equal to the ID ADDRESS which set in **【ID】** menu, the fixture will be active. For example, if the fixture ID ADDRESS is 3 now, the valid value in the channel profile setting is 30-39. Similarly, when 15 the valid value is 150-159.

7 TROUBLESHOOTING

Problem	Reason and action
The lighting can't be started normally	<ul style="list-style-type: none"> ● Check the power connection is correct or not. ● Please detect the voltage. ● Power supply is damaged or incorrect connected. Call a qualified personnel to fix it. ● Connection of control board is not correct. Call a qualified personnel to fix it.
Out of console's control	<ul style="list-style-type: none"> ● Please check the DMX connector and the power connection is connected correctly or not. It means having signal if it shows twinkling of the decimal point which in the lower right corner of the screen when exiting the screen saver. ● Please check the DMX address setting of lighting is correct or not. ● Check 【CHMD】 setting is correct or not. ● Please check whether the DMX line is near to the high voltage wire or not. In that case, it will damage or interfere the DMX electric circuit.
The beam appears dim, the brightness declines obviously	<ul style="list-style-type: none"> ● Check whether the 【CAL】 is started or not and the set value is too small. ● Check whether the 【POW】 is in over temperature protection situation or not, if yes, please take measures for ventilation.