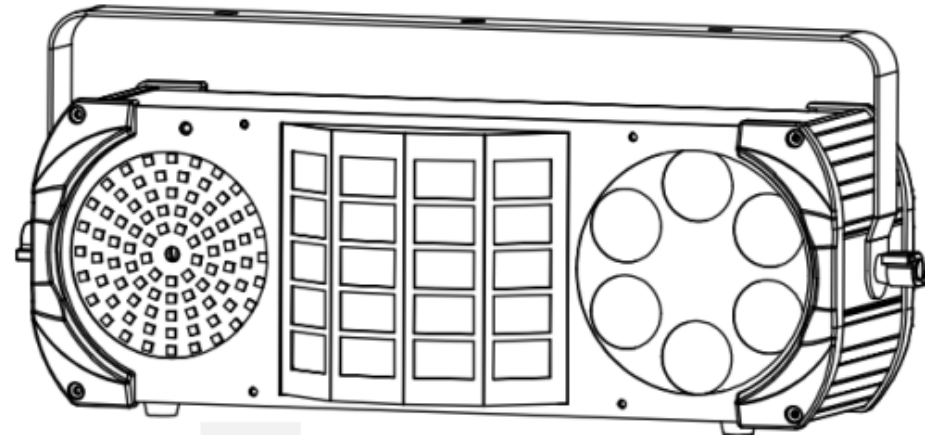# Radio

(SMD：87*0.2W-RGB 3in1，Derby Light 2*8W-RGBW 4in1，Laser：

Red 150mW+Green 50mW，Pattern Light：6*3W-RGB single color)

User Manual

Please read this user manual before use this product

I.Opening Check

No	Item and description	Quantity	Unit
1	Radio	1	piece
2	Handle	1	piece
3	Knob screw	2	piece
4	Black gasket	2	piece
5	IR Remote	1	piece
6	Laser key（hang on the light）	2	piece
7	Power cable	1	piece
8	User manual	1	piece
9	Clamp cable（Model optional）		
10	Safety lines	Options	
11	DMX signal lines		

★ For the sake of safety and under the terms, it does not allow unauthorized restructuring or modification of this product. Please note that improper use and human damage caused by this product, it can not be covered by our warranty. Also, unprofessional operations will cause short circuits, burns or shocks, and more either.

★The machine has been rigorously tested before shipment. Please comply with the instructions of the operation requirements, to ensure the product can be running safely under normal circumstances.

★Any damage caused by improper operation will result in the termination of the warranty claim. We are not accept any property lost and responsibility of human being improper use and unprofessional operation.

★Please place user manual in a safe place for reference.

After selling,renting or carrying, you can give it to new owner.

★Attention：Base on our products keep improving by our company，our user manual data is subject to change without notice. We will remain rights of changing product specification.

★If found that laser is not connected when the power on.You should cut the power and connect with the laser line.To avoid damage , it is forbidden to unplug / insert the laser cable when the power is on.

IX、Product maintenance and cleaning

Please note the following points when testing this product:

★All the screws and parts for installing must be tightly connected and cannot be rusted；

★Housings, lenses, fixtures and mounting locations (e.g ceilings, hangers, trusses, etc.) must not be deformed

★The power cable must not be damaged.The installation and use must be operated by trained professional technicians and it must ensure that safety hazards are eliminated.

Note: Please unplug the power cable before doing product maintenance!

It is very important to keep machine clean and dry.Before unlock the machine and start maintenance,you should keep the machine power off and unplug. Keep cleaning regularly can make the light have max brightness and also can extend its use time. We suggest to use good glass cleaner and clean it with a soft cloth. Can not use alcohol or chemical solvents under any circumstances. The interior of the machine and the fan should be cleaned at least once every quarter by using a vacuum cleaner.

	190	-	253	Color fading, slow to fast	
	254	-	255	Sound control choose color	
CH15	000	-	010	Red laser off	
	011	-	020	Red laser on	
	021	-	255	Red laser strobe, slow to fast	
CH16	000	-	010	Green laser off	
	011	-	020	Green laser on	
	021	-	255	Green laser strobe, slow to fast	Laser
CH17	000	-	099	Laser rotates counterclockwise, speed is fast and slow	
	100	-	109	Stop	
	110	-	209	Laser rotates clockwise, slow to fast	
	210	-	255	Sound control choose color	
CH18	000	-	255	Pattern light on, dimmer 0-100%	
CH19	000	-	007	Dimmer on	
	008	-	015	Dimmer off	
	016	-	131	Strobe，slow to fast	
	132	-	139	Dimmer on	
	140	-	181	LED fast on slow off, slow to fast	
	182	-	189	Dimmer on	
	190	-	231	LED fast off slow on，slow to fast	
	232	-	239	Dimmer on	Pattern Light
	2404	-	247	Thunder strobe	
	248	-	255	Dimmer on	
CH20	000	-	255	Red,dimmer 0-100%	
CH21	000	-	255	Green,dimmer 0-100%	
CH22	000	-	255	Blue,dimmer 0-100%	
CH23	000	-	063	Manual rotation	
	064	-	127	Counterclockwise rotation,fast to slow	
	128	-	131	Stop	
	132	-	195	Clockwise rotation, slow to fast	
	196	-	255	Sound control choose color	

II.Safety Instruction

CAUTION!
Keep this equipment away from rain, moisture and liquids.
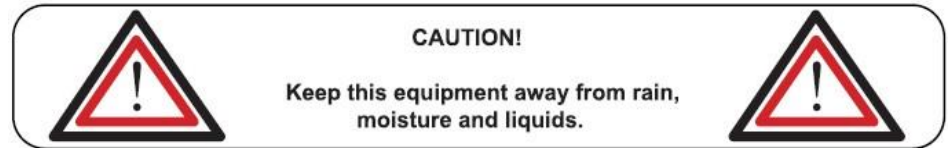
1. When opening the packing, take all accessories out, and remove the light to a horizontal table for good operation. First check whether the accessories are complete, then check carefully whether the whole light has no damage. If there is any damage, please contact us as soon as possible.

2. AC Power: Check whether the local power supply is accordance with the requirements of the product rated voltage.

3. The product is only suitable for indoor working environment. The light should keep dry, keep away from wet, overheat or dusty environment. Don't come into contact with water and other liquids to prevent or reduce the risk of electric shock or fire.

4. Please do not install the light directly on the surface of the combustible substance.

5. The people who install, operate and maintain of light professional certificate required.

6. When there are faults of the light, please stop using the light immediately. Don't try to repair, please contact the nearest authorized technical assistance center, if the parts damage, always use the same type of parts replaced.

7. Don't touch any electrical wiring in the process of operation to prevent the risk of electric shock.

8. To make sure the light working environment temperature, the highest do not exceed 40 ℃，the lowest do not exceed - 20 ℃.

9. Under the stable cooling working situation, the highest temperature of the housing of the light can reach 80 ℃, please do not touch.

10. The light is design according to the type of electric shock protection. The light should be use in good connection grounding power system and the ground wire must connect with the ground wire of the power supply system. The earth sign port of the light should be connected to the installing fixtures.

11. Do not use the damage of the insulating layer wire and also do not use the power cord overlap on the other wire. When not in use or clean the light, please disconnect the power, don't pull the plug in hard or just drag the wires.

12. There are no components inside for maintenance. Before start operation the light, please check whether all of the shell is installed. In the case of the shell open used the light is prohibited.

Note: Under any installation, maintenance and clean the light, please confirm that has cut off the power cord!

⚠ **CAUTION! TAKE CARE USING THIS EQUIPMENT!**
HIGH VOLTAGE-RISK OF ELECTRIC SHOCK!! ⚠
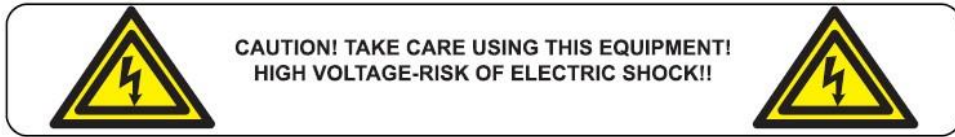
III.Product specification

1.Built-in Master/slave,DMX,Sound active with various function.

2.LED display, easy to control.

3.Great for disco, night club, bar, party, moving DJ and concert and so on.

4.DMX chancel: 3CH/23CH

5.Control mode：Sound active, show mode, DMX, Master/slave

6.Voltage: AC100-240V, 50-60Hz.

7.Fuse：F3AL250V.

8.Power consumption：P=76W.

9.Light source：SMD：87*0.2W-RGB 3in1，Derby：2*8W-RGBW 4in1，Laser：Red 150mW+Green 50mW，Pattern：6*3W-RGB single color

10.Net weight：5.5kg

12.Light size：54.4*22.9*18.5cm
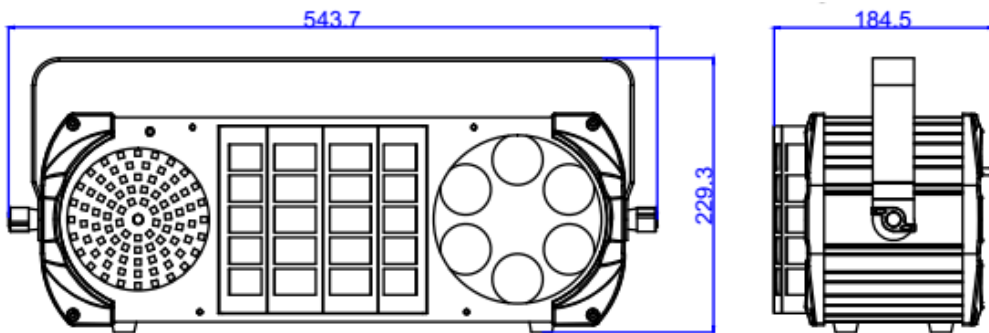
［**Sheet 2**］DMX Channel（23CH）

DMX	Value			Function	
CH1	000	-	255	Derby LED on, dimmer 0-100%	Derby
CH2	000	-	007	Dimmer on	
	008	-	249	Strobe, slow to fast	
	250	-	255	Dimmer on	
CH3	000	-	255	Red, dimmer 0-100%	
CH4	000	-	255	Green, dimmer 0-100%	
CH5	000	-	255	Blue, dimmer 0-100%	
CH6	000	-	255	White, dimmer 0-100%	
CH7	000	-	005	No function	
	006	-	125	Color choosing	
	126	-	189	Color jumping,slow to fast	
	190	-	253	Color fading, slow to fast	
	254	-	255	Sound control choosing color	
CH8	000	-	127	LED rotation，0-360°	
	128	-	249	Position jumping, slow to fast	
	250	-	255	Sound control choosing position	
CH9	000	-	255	SMD on，dimmer 0-100%	SMD Strobe
CH10	000	-	007	Dimmer on	
	008	-	015	Dimmer off	
	016	-	131	Strobe, slow to fast	
	132	-	139	Dimmer on	
	140	-	181	LED fast on slow off, slow to fast	
	182	-	189	Dimmer on	
	190	-	231	LED fast off slow on, slow to fast	
	232	-	239	Dimmer on	
	2404	-	247	Thunder strobe	
	248	-	255	Dimmer on	
CH11	000	-	255	Red, dimmer 0-100%	
CH12	000	-	255	Green, dimmer 0-100%	
CH13	000	-	255	Blue, dimmer 0-100%	
CH14	000	-	005	No function	
	006	-	125	Color choosing	
	126	-	189	Color jumping, slow to fast	

[Sheet ④] DMX Channel（3CH）

DMX	Value			Function	
CH1	172	-	213	Pattern Light show mode	On
CH2	000	-	015	SMD strobe random show effect	Pattern light show choosing
	016	-	040	Show 1	
	041	-	066	Show 2	
	067	-	091	Show 3	
	092	-	117	Show 4	
	118	-	142	Show 5	
	143	-	168	Show 6	
	169	-	193	Show 7	
	194	-	219	Show 8	
	220	-	244	Show 9	
	245	-	255	Show 10	
CH3	000	-	249	Show mode, slow to fast	Speed control
	250	-	255	Sound control mode	

[Sheet ⑤] DMX Channel（3CH）

DMX	Value			Function	
CH1	214	-	255	Four lights combined show effect	On
CH2	000	-	015	Random show effect	Combined show choosing
	016	-	040	Show 1	
	041	-	066	Show 2	
	067	-	091	Show 3	
	092	-	117	Show 4	
	118	-	142	Show 5	
	143	-	168	Show 6	
	169	-	193	Show 7	
	194	-	219	Show 8	
	220	-	244	Show 9	
	245	-	255	Show 10	
CH3	000	-	249	Show mode, slow to fast	Speed control

13.Lumin

LED	Color	@1M	Angle
SMD	R	33Lux	136°
	G	79Lux	
	B	68Lux	
	RGB	168Lux	
Derby	R	780Lux	6°
	G	1300Lux	
	B	1500Lux	
	W	1800Lux	
Pattern	R	718Lux	17°
	G	720Lux	
	B	1144Lux	
	RGB	1786Lux	

IV. LED Display

DISPLAY
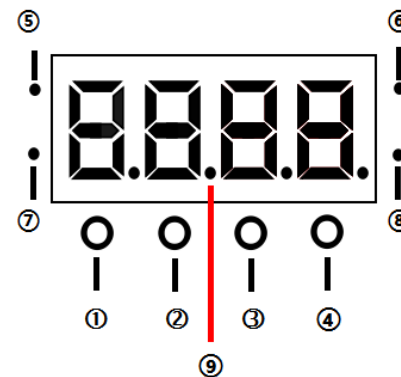
	SQ	Silkscreen	Function		
Button:	①	MENU	Enter/check menu		
	②	DOWN	Check the next menu		
	③	UP	Check the last menu		
	④	ENTER	Enter the menu or confirm		
LED:	⑤	DMX	Strobe	DMX in	
	⑥	SLAVE	Strobe	Slave mode	
	⑦	MASTER	Strobe	Master mode	
	⑧	SOUND	Strobe	Sound mode	
	⑨		Enter the menu or confirm		

V.LED display function：

MENU	Value			Description	
`Addr`	`A088`	`A509`		DMX 509 Address code chosen (3CH address code, Max 509,23CH address cose,Max 489)	
`CHAn`	`3CH`			3CH	
	`23CH`			23CH	
`AASt`	`AASt`			Master mode	
	`SLAv`			Slave mode	
`Sh r`	`SPed`	`SP 1` → `SP 8`		Random effect, speed slow to fast	
`Sh L`	`Sh-`	`Al r`		Random laser	Laser light
		`AL 1` → `AL 6`		laser show 1-6	
		`oFF`		laser off	
	`SPed`	`SP 1` → `SP 8`		laser speed slow to fast	
`Sh d`	`Sh-`	`8d r`		Derby random effect	Derby light
		`8d 1` → `8d 8`		Derby show 1-8	
		`oFF`		Derby off	
	`SPed`	`SP 1` → `SP 8`		Speed slow to fast	
`Sh S`	`Sh-`	`8S r`		SMD random effect	SMD light
		`8S 1` → `8S10`		SMD show effect 1-10	
		`oFF`		SMD off	
	`SPed`	`SP 1` → `SP 8`		Speed slow to fast	

［**Sheet ②**］DMX Channel（3CH）

DMX	Value			Function	
CH1	088	-	129	Derby show	On
CH2	000	-	019	Derby random show	Derby show choosing
	020	-	051	Show 1	
	052	-	082	Show 2	
	083	-	114	Show 3	
	115	-	146	Show 4	
	147	-	178	Show 5	
	179	-	210	Show 6	
	211	-	242	Show 7	
	243	-	255	Show 8	
CH3	000	-	249	Show mode, slow to fast	Speed control
	250	-	255	Sound control model	

［**Sheet ③**］DMX Channel（3CH）

DMX	Value			Function	
CH1	130	-	171	SMD strobe light show	On
CH2	000	-	016	SMD strobe light random show	SMD strobe light show choosing
	017	-	045	Show 1	
	046	-	073	Show 2	
	074	-	102	Show 3	
	103	-	130	Show 4	
	131	-	158	Show 5	
	159	-	187	Show 6	
	188	-	215	Show 7	
	216	-	243	Show 8	
	244	-	255	Show 9	
CH3	000	-	249	Show mode, slow to fast	Speed control
	250	-	255	Sound control mode	

	Shield	
1 ○	DMX +	○ 1
3 ○	DMX −	○ 3
2 ○		○ 2
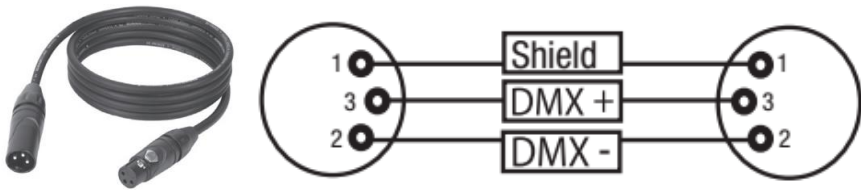
VIII.Chancel (choose ⒜⒪⒪⒤ default address code)

［**Sheet 1**］DMX Channel（3CH）

DMX	value			Function	
CH1	000	-	005	No function	Show effect choosing
	006	-	045	Random show	
	046	-	087	Laser show	
	088	-	129	Derby show	
	130	-	171	SMD strobe show	
	172	-	213	Pattern show	
	214	-	255	Four light combined show	
CH2	000	-	255	Show mode	Details as below sheet
CH3	000	-	249	Show mode, slow to fast	Speed control
	250	-	255	Sound control mode	

［**Sheet ①**］DMX Channel（3CH）

DMX	Value			Function	
CH1	046	-	087	Laser show mode	On
CH2	000	-	025	Laser random show	Laser show choosing
	026	-	067	Show 1	
	068	-	110	Show 2	
	111	-	152	Show 3	
	153	-	195	Show 4	
	196	-	237	Show 5	
	238	-	255	Show 6	
CH3	000	-	249	Show mode, slow to fast	Speed control
	250	-	255	Sound active	

			Function	
		8C r	Pattern light random effect	Pattern light
SH C	SH-	8C 1 → 8C8O	Pattern light show1-8	
		oFF	Pattern light off	
	SPed	SP 1 → SP 8	Speed slow to fast	
SoUn	on		Sound active on	
	oFF		Sound active off	
SEnS	1 → 100		Sound sensitivity	
LEd	on		LED on	
	oFF		LED off	
dISP	dSIP		LED Dispaly/ Inversion Display	
tESt	tESt		Test	
UEr	0-10		Program version	
rSt	no		No	
	YES		Reset	

VI. How to operate

You can use 3 methods to control the machine：

★Master/slave

The program automatically recognizes the master/slave and can also be manually set the program.

★IR Remote

(When using the IR Remote)The remote-control receiving probe and IR remote must be kept clear of obstacles.It can receive a signal from strong range of 10 meters.

| Picture	Buttons	Function
	ON/OFF	Turn on/off
	SOUND	Sound control
	STROBE	Strobe effect
	SHOW1	Show mode 1
	SHOW2	Show mode 2
	SHOW3	Show mode 3
	SHOW4	Show mode 4
	SPEED+	Speed up
	SPEED -	Speed down
	SHOW5	Show mode 5
	DIMMER+	Dimmer up
	DIMMER -	Dimmer down
	1-9	SMD light color

★DMX Controller

VII. DMX controller

If control by DMX controller, then you need to set the address code to control the light, the address code value is 1-509, the light could receive the signal accordingly.

Press **MENU** button，select Addr menu, press **ENTER** button，address will strobe.Use **UP /DOWN** to select DMX 512 address. Our original value is A001. After address ensure，press **ENTER** button.

DMX512 controller output connect the first machine DMX input,then first machine output connect the second machine DMX input and so on, until you connect all slave machine.

DMX512
DMX-Controlle
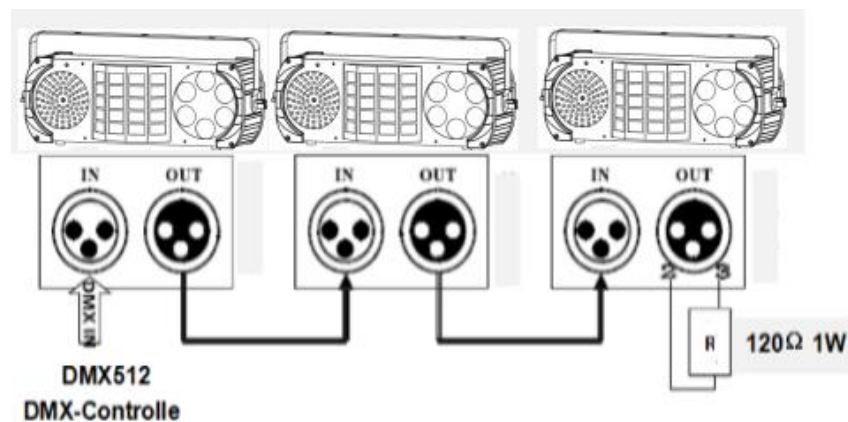
DMX connection with terminator (loop connection)

In the process of installation, if the signal line laid longer or in a noisy environment such as a dance hall, we recommend to use a DMX terminator (loop connection), which avoids the turbidity of the digital control signal due to electrical noise.The DMX terminator is composed of a simple XLR connector 2 cores and 3 cores which is connected with a 120 Ω resistor. Please insert the terminator into the XLR output port of the last product. Please refer to the figure below：