

# Topic Light Co., Ltd.



## ANIMATION LASER LIGHT User manual



*Please read over this manual before operating the light*

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# The manual of Laser show system

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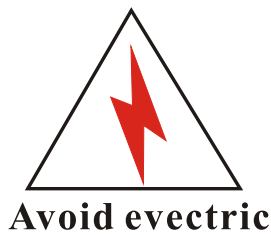
## First、 Brief

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Thank you for purchasing of our professional laser show system. We always try to develop our product with high-tech and high performance to meet your requirement and expectation.

The unit is designed strictly according to the international standard. The control way is single or master/slave in option. The manual is included the skill parameter and detail instructions etc. Please read the manual carefully before using the product.

### ◎ SECURITY WARNINGS



## Second、 Packing list

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2 - 1 We use the carton to pack normally. You may choose the fly case.

2 - 2 Opening the package

Open the case and take out the enclosed spare parts, remove the drier, take the unit and put it in a flat place to operate.

2 - 3 Spare parts

With of exception of this equipment, the packing enclosed as following

<b>Package List</b>			
Projector	1pcs		
Power line	1pcs		
The manual	1pcs		

### **Third、 installation and safety instruction**

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3 - 1 installation:

1, Installation location

Before the installation, to ensure the stability of the installation points, can withstand the product weight at least ten times more than the bearing structure.

2, Installation method

Use two professional lamp hook, M10 bolts to secure the mounting nut through the lamp comes with fixed; dispensing (or supplied) through the installation of the safety lock handle and other hanging objects. When installing the lighting to ensure stable, ban pedestrians through the installation process under the lighting. In addition, when the demolition of lighting to cut off the power supply to ensure the same security, first take the safety rope, hang down again, at the same time ensure that beneath the pedestrian safety.

3-2 Caution:

1, the laser beam should avoid direct or indirect fired people's eyes, and keep a distance between the lamp and combustible material at least 0.5 m.

2, Do not frequent switching of light, so as not to affect the light life, and try to avoid prolonged open, ensure that the ambient temperature does not exceed 35 °C.

**Using before pls must be check power supply link with earth wire correctly or not.**

## Fourth、 power supply and signal connect

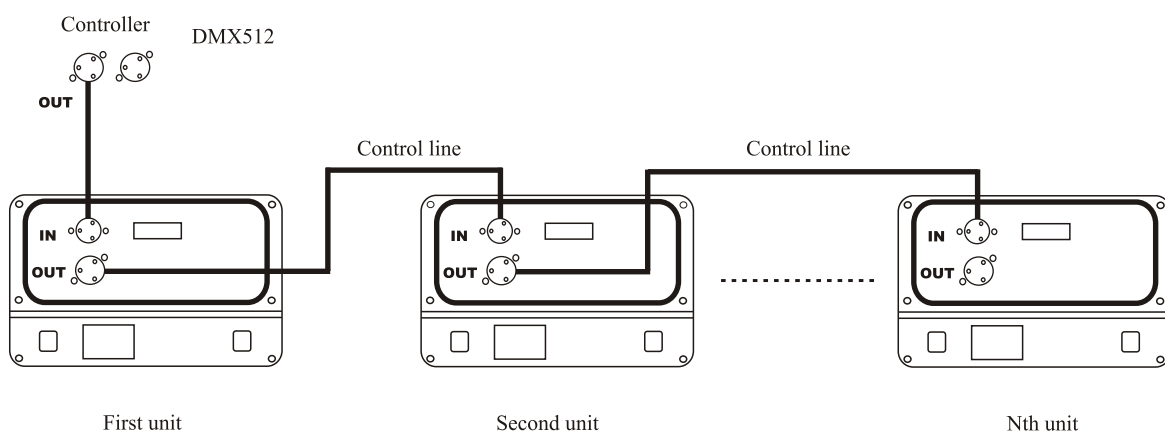
### 4 - 1 Connect the power and control

Use the professional plug to connect the laser light and power cable. Before installing the unit, please confirm whether the voltage and frequency indicated on the real panel of laser light. Voltage and frequency parameters(is matching)

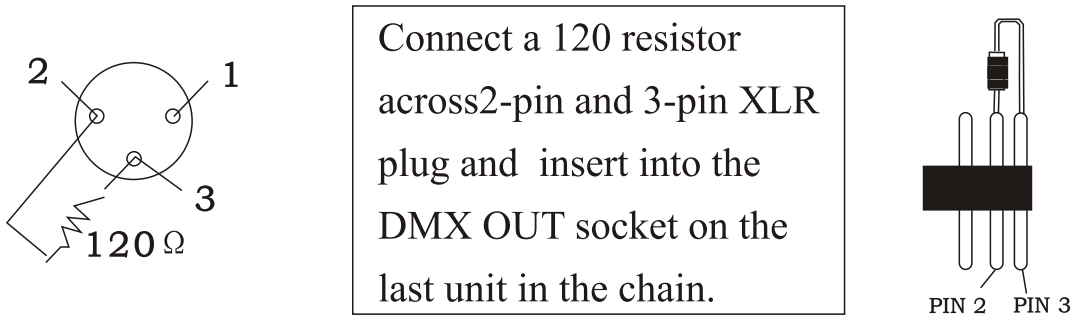
Voltage	AC100~240V		AC100~120V	AC200~240V
Opt				
Frequency	50Hz	60Hz	50~60Hz	
Opt				

### 4 - 2 Connect the signal cable

The laser light may be controlled the DMX 512 signal. Under sound and Atuo control. the master/slave can be used. The master/slave mode is lined by signal line. Connect the DMX-out of the first fixture in the DMX-chain with the DMX-input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected.

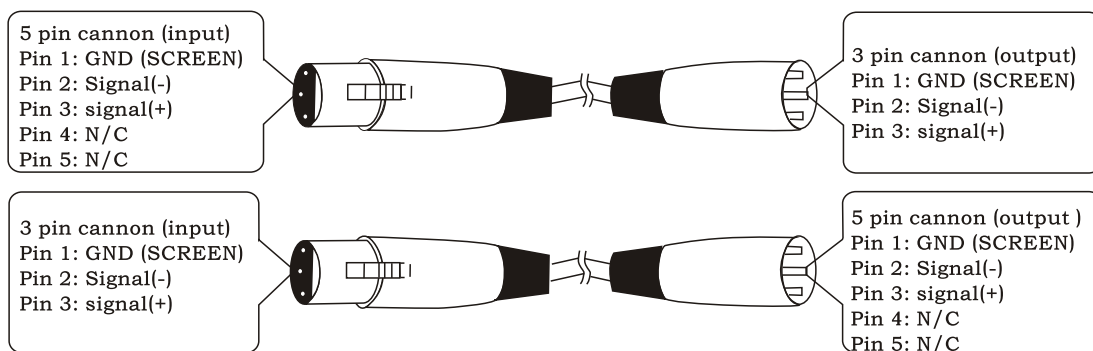


Caution: Please remember the signal output of last machine must connect the attached circle plug .The circle plug connect a 120 resistor between 2 feet and 3 feet canon plug. The signal reflects phenomena can be avoided by using circle plug during DMX 512 signal transfer. (DMX TERMINATOR CONNECTION):



The laser light use 3 feet XLR plug, if the controller you use is 5 feet XLR plug. You must use a inter change line from 5 feet to 3 feet. See the following. The transform of 3-pin and 5-pin XLR adaptor.

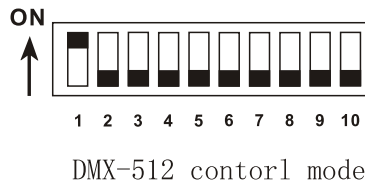
### The 3pin and 5pin Canon DMX512 connector circuit



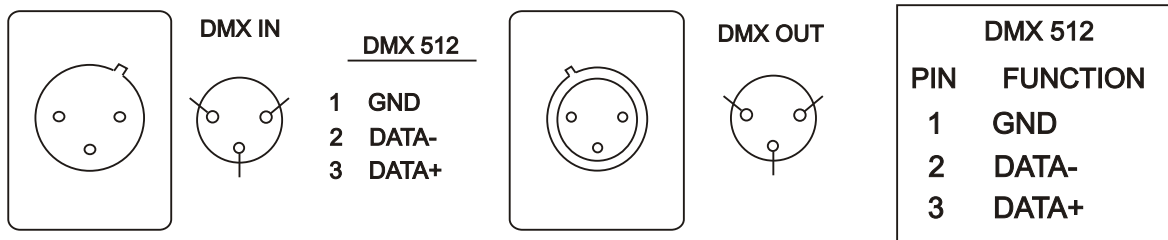
## Fifth、 Operation instruction

The light has four functions: Music, Automatic, DMX 512, ILDA PC

5-1 The international standard DMX512 control. When the DIP10 is OFF, the DIP 1-9 are DIP swift.



1、 The Cannon adaptor is used to input and output the DMX512 signal. The transmission is used 2-pin shielded cable. Connect the shielded coat to 1 and the middle 2-pin to 2,3separately.



2、 DIP swift code is used as the setting of function and DMX address code. DIP 1-9 are used as the setting of channel. Adopt binary code, for example 4,3,1 are ON, 2 OFF, namely 1101 ,value is 13. Another way is  $ADD = \sum DIP_i$  as follows:

i	9	8	7	6	5	4	3	2	1
DIP <sub>i</sub>	+256	+128	+64	+32	+16	+8	+4	+2	+1

$38 = 32 + 4 + 2$ , If set the incipient code is 38.Only need set DIP6,DIP3, DIP2 are ON, Set the prime code is following (For example use 12 channels DMX console):

DMX address	DIP set
1	1 ON
13	4,3,1 ON
49	6,5,1 ON
133	8,3,1 ON
.....	.....

3、 DIP address code function mode set as following( if have computer ILDA signal input, ILDA signal will be priority, address code is invalid.

MODE		DIP Switch
1	Sound mode	 ON ↑
2	Automatic mode	 ON ↑
3	DMX-512 control	 ON ↑

( 1~9 is address set, detail information pls check DMX cheat sheet)

### 3、DMx Channel description:

The fixture can display two different patterns at the same time---24 channels version. And the 2nd pattern can move with the main pattern ---10 channels version. Also you can display one pattern only---13 channels version.

The four function of each channel as following .

Channel	Function	DMX512	Specification
CH1	Play mode	0~0	Laser off
		1~63	Sound mode ( sound active )
		64~127	Automatic mode ( Auto active )
		128~191	Double pattern mode(manual active)
		192~255	Wave effect ( manual active )

1)CH1=1---63 is DMX sound mode , as following :

Channel	Function	DMX512	Specification
CH1	Running	1~63	Running sound mode
CH2	Speed	0~255	16 Class speed(from slow to fast)
		0~15	Running all
		16~31	Running patterns 1
		32~47	Running patterns 2
		48~63	Running patterns 3
		64~79	Running patterns 4
		80~95	Running patterns 5



CH3	patters	96~111	Running patterns 6
		112~127	Running patterns 7
		128~143	Running patterns 8
		144~159	Running patterns 9
		160~175	Running patterns 10
		176~191	Running patterns 11
		192~207	Running patterns 12
		208~223	Running patterns 13
		224~239	Running patterns 14
		240~255	Running patterns 15
CH4	No use		No use
↓			↓
CH24	No use		No use

2)CH1=64---127 is DMX automatic mode , as following :

Channel	Function	DMX512	Specification
CH1	Running	64~127	Running Auto mode
CH2	Speed	0~255	16 Class speed(from slow to fast)
		0~15	Running all
		16~31	Running patterns 1
		32~47	Running patterns 2
		48~63	Running patterns 3
		64~79	Running patterns 4
		80~95	Running patterns 5
CH3	patters	96~111	Running patterns 6
		112~127	Running patterns 7
		128~143	Running patterns 8
		144~159	Running patterns 9
		160~175	Running patterns 10
		176~191	Running patterns 11
		192~207	Running patterns 12
		208~223	Running patterns 13
		224~239	Running patterns 14
		240~255	Running patterns 15

CH4	No use		No use
↓			↓
CH24	No use		No use

3)CH1=128---191 is DMX double pattern mode , as following :

Channel	Function	DMX512	Specification	
CH1	Running	128~191	Double pattern mode	
CH2	laser on/off	0~127	Laser off	
		128~255	Laser on	
CH3	Main gobo team choose	0~255	8 gobo teams(255/32=0~7)	
CH4	Main gobo choose	0~255	16 gobo teams(255/16=0~15)	
CH5	color	0~31	Original color	Noted: If it is single color out let is original
		32~63	White	
		64~95	Red	
		96~127	Yellow	
		128~159	Green	
		160~191	Cyan	
		192~223	Blue	
		224~255	Purple	
CH6	Main color change	0~1	Original	Noted:If it is single color this channel is invalid
		2~255	Color gradual change	
CH7	Main drawing	0~127	Manual drawing	
		128~255	Gradual drawing speed	
CH8	Main gobo zoom	0~127	Gobo size from big to small(manual)	
		128~191	Gobo size from big to small(auto)	
		192~255	Gobo size from smalle to big(manual)	
CH9	Main horizontal rotation	0~127	Stationary Pan rotate angle(0~360° )	
		128~191	Pan clockwise rotate speed	
		192~255	Pan anti-clockwise rotate speed	
CH10	Main Vertical rotation	0~127	Stationary tilt rotate angle(0~360° )	
		128~191	Tilt clockwise rotate speed	
		192~255	Tilt anti-clockwise rotate speed	

CH11	Main centre rotation	0~127	Stationary centre rotate angle ( 0~360°)	
		128~191	Centre clockwise rotate speed	
		192~255	Centre anti-clockwise rotate speed	
CH12	Main horizontal move	0~127	Stationary Pan move	
		128~191	Pan left move	
		192~255	Pan left move	
CH13	Main vertical move	0~127	Stationary tilt move	
		128~191	Tilt right move	
		192~255	Tilt left move	
CH14	The 2nd Gobo team choose	0~255	8 gobo teams ( 255/32=0~7 )	
CH15	The 2nd Gobo choose	0~255	16 gobo teams ( 255/16=0~15 )	
CH16	The 2nd color	0~31	Original color	Noted: If it is single color out let is original
		32~63	White	
		64~95	Red	
		96~127	Yellow	
		128~159	Green	
		160~191	Cyan	
		192~223	Blue	
		224~255	Purple	
CH17	The 2nd color gradual change	0~1	Original color	Noted:If it is single color this channel is invalid
		2~255	Color gradual change	
CH18	The 2nd drawing	0~127	Manual drawing	
		128~255	Gradual drawing speed	
CH19	The 2nd gobo zoom	0~127	Gobo size from big to small(manual)	
		128~191	Gobo size from big to small(auto)	
		192~255	Gobo size from small to big(auto)	
CH20	The 2nd vertical rotation	0~127	Stationary pan rotate angle(0~360° )	
		128~191	Pan clockwise rotate speed	
		192~255	Pan anti-clockwise rotate speed	
CH21	The 2nd vertical rotation	0~127	Stationary tilt rotate angle(0~360° )	
		128~191	Tilt clockwise rotate speed	
		192~255	Tilt anti-clockwise rotate speed	

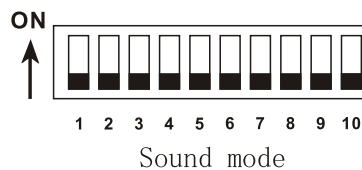
CH22	The 2nd centre rotation	0~127	Stationary centre rotate angle(0~360°)
		128~191	Centre clockwise rotate speed
		192~255	Centre anti-clockwise rotate speed
CH23	Main pattern horizontal	0~127	Stationary pan move
		128~191	Pan right move
		192~255	Pan left move
CH24	The 2nd vertical move	0~127	Stationary tilt move
		128~191	Tilt right move
		192~255	Tilt left move

4)CH1=192---255 is DMX wave effect mode , as following :

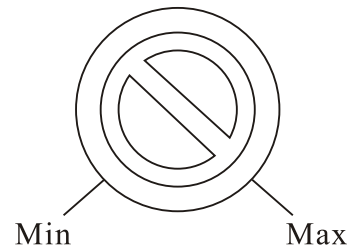
Channel	Function	DMX512	Specification
CH1	Running	192~255	Wave effect mode
CH2	laser on/off	0~127	Laser off
		128~255	Laser on
CH3	Wave scope	0~255	From small to big
CH4	Wave frequency	0~255	From low to high
CH5	color	0~31	Original color
		32~63	White
		64~95	Red
		96~127	Yellow
		128~159	Green
		160~191	Cyan
		192~223	Blue
		224~255	Purple
			Noted: If it is single color out let is original
CH6	Main color change	0~1	Original
		2~255	Color gradual change
			Noted:If it is single color this channel is invalid
CH7	Main drawing	0~127	Manual drawing
		128~255	Gradual drawing speed
CH8	Gobo	0~255	16 Gobos(255/16)

CH9	Wave mode	0~63	From right to left
		64~127	From left to right
		128~191	From inside to outside
CH10	Wave flow speed	192~255	From outside to inside
		0~127	Wave stationary degree
		128~255	Wave flow speed
CH11	No use		No use
↓			↓
CH24	No use		No use

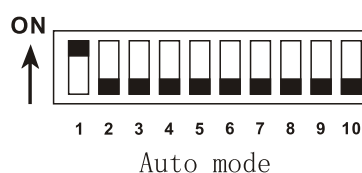
5-2 Sound function: set DIP1~10 is OFF, Then in the voice control pattern , the light set at the build-in microphone by on the voice control activate, the lamps have the rhythm along with the music transform colour and pattern. Following chart:



The sound control may be adjusted by the regulator on the rear of case.

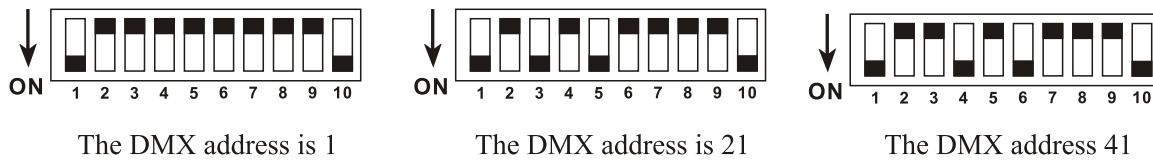


5-3 Automatic mode: the DIP 1 set to ON DIP2~10 set to OFF. Then laser lights controlled by the internal, external voices are not selfcontrol movement, to achieve silent static or more occasions, the same to you As misty dream feeling.



5-4DMX mode: the DIP 10 set to OFF, DIP1~9 set to address. Then laser lights controlled by the DMX controller

◎ Address establishment schematic drawing as follows:



**Prompt: If for the non-LED numerical code tube demonstration type, the outset address establishment passable DMX address has speed-searched the table to be conveniently and quickly inquires obtains, sees attaches the page.**

## Sixth、 Safety warning and maintain

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### 6 - 1 Safety warning:

- 1、 The product must be installed by a qualified professional. Please do not open the equipment.
- 2、 The fans and air-vents should not be jammed by other equipment or decorate materials.
- 3、 Avoid looking directly in the light source.

### 6 - 2 Maintain:

- 1、 Please read the user manual in detail before operating the equipment Please call the technician in case the machine broken down.
- 2、 Keep the equipment away from water or moisture.
- 3、 Make sure the power is off and the equipment is not connected to the mains power supply before opening the unit or carrying and any maintenance.
- 4、 If there has been any damaged caused to the laser diode by the user

## Seventh、 Specification

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- 1、 Power Input: AC100~240V,50/60Hz
- 2、 Power Consumption:  <250W,  <450W,  <650W
- 3、 Laser:  Green,  RGB
- 4、 Laser modulation:  TTL,  Analog
- 5、 Scanner:  ILDA25Kppc±30°  
 ILDA30Kppc±30°  
 ILDA40Kppc±30°
- 5、 DMX channel mode: 3CH/3CH/24CH/10CH
- 6、 Control mode: Sound control/Automatic/DMX512/ILDA

# DMX Address Quick Reference Chart

## DipSwitch Position

DMX:DIPSWITCH SET					#9	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1
0=OFF					#8	0	0	0	0	1	1	1	1	0	0	0	0	1	1	1	1
1=ON					#7	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1	1
X=OFF or ON					#6	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1
#1	#2	#3	#4	#5																	
0	0	0	0	0		32	64	96	128	160	192	224	256	288	320	352	384	416	448	480	
1	0	0	0	0	1	33	65	97	129	161	193	225	257	289	321	353	385	417	449	481	
0	1	0	0	0	2	34	66	98	130	162	194	226	258	290	322	354	386	418	450	482	
1	1	0	0	0	3	35	67	99	131	163	195	227	259	291	323	355	387	419	451	483	
0	0	1	0	0	4	36	68	100	132	164	196	228	260	292	324	356	388	420	452	484	
1	0	1	0	0	5	37	69	101	133	165	197	229	261	293	325	357	389	421	453	485	
0	1	1	0	0	6	38	70	102	134	166	198	230	262	294	326	358	390	422	454	486	
1	1	1	0	0	7	39	71	103	135	167	199	231	263	295	327	359	391	423	455	487	
0	0	0	1	0	8	40	72	104	136	168	200	232	264	296	328	360	392	424	456	488	
1	0	0	1	0	9	41	73	105	137	169	201	233	265	297	329	361	393	425	457	489	
0	1	0	1	0	10	42	74	106	138	170	202	234	266	298	330	362	394	426	458	490	
1	1	0	1	0	11	43	75	107	139	171	203	235	267	299	331	363	395	427	459	491	
0	0	1	1	0	12	44	76	108	140	172	204	236	268	300	332	364	396	428	460	492	
1	0	1	1	0	13	45	77	109	141	173	205	237	269	301	333	365	397	429	461	493	
0	1	1	1	0	14	46	78	110	142	174	206	238	270	302	334	366	398	430	462	494	
1	1	1	1	0	15	47	79	111	143	175	207	239	271	303	335	367	399	431	463	495	
0	0	0	0	1	16	48	80	112	144	176	208	240	272	304	336	368	400	432	464	496	
1	0	0	0	1	17	49	81	113	145	177	209	241	273	305	337	369	401	433	465	497	
0	1	0	0	1	18	50	82	114	146	178	210	242	274	306	338	370	402	434	466	498	
1	1	0	0	1	19	51	83	115	147	179	211	243	275	307	339	371	403	435	467	499	
0	0	1	0	1	20	52	84	116	148	180	212	244	276	308	340	372	404	436	468	500	
1	0	1	0	1	21	53	85	117	149	181	213	245	277	309	341	373	405	437	469	501	
0	1	1	0	1	22	54	86	118	150	182	214	246	278	310	342	374	406	438	470	502	
1	1	1	0	1	23	55	87	119	151	183	215	247	279	311	343	375	407	439	471	503	
0	0	0	1	1	24	56	88	120	152	184	216	248	280	312	344	376	408	440	472	504	
1	0	0	1	1	25	57	89	121	153	185	217	249	281	313	345	377	409	441	473	505	
0	1	0	1	1	26	58	90	122	154	186	218	250	282	314	346	378	410	442	474	506	
1	1	0	1	1	27	59	91	123	155	187	219	251	283	315	347	379	411	443	475	507	
0	0	1	1	1	28	60	92	124	156	188	220	252	284	316	348	380	412	444	476	508	
1	0	1	1	1	29	61	93	125	157	189	221	253	285	317	349	381	413	445	477	509	
0	1	1	1	1	30	62	94	126	158	190	222	254	286	318	350	382	414	446	478	510	
1	1	1	1	1	31	63	95	127	159	191	223	255	287	319	351	383	415	447	479	511	

DipSwitch Position

DMX Address



## Product common breakdown comparative chart

Breakdown cause	Major breakdown analysis and solution
The fixture no work	<ol style="list-style-type: none"> <li>1. Check the power cable whether to connect the fixture, whether the fuse does burn out.</li> <li>2. Check the input voltage whether to assign the voltage match with the fixture.</li> </ol>
No sound control	<ol style="list-style-type: none"> <li>1. Check the address code or the display whether establishes according to the instruction booklet is the voice control pattern.</li> <li>2. Check the potentiometer possibly moves is smallest, attempt to adjust the potentiometer.</li> </ol>
The fixture can bright normally, but it not controlled by controller	<ol style="list-style-type: none"> <li>1. Please check the fixtures' DIP outset address setting whether correctly.</li> <li>2. Please check the XLR signal cable whether be damage.</li> </ol>
Master-slave mode, The master mode is normal, but slave mode is not normal	<ol style="list-style-type: none"> <li>1. Please conformed only one for the master and the master without DMX be connected, and to set master as sound control or auto pattern.</li> <li>2. If the Master-slave setting is right but still have problem, please check the XLR connect cable.</li> </ol>
The button malfunction, does not work.	<ol style="list-style-type: none"> <li>1. Check the buttons whether to have some button not to have the normal reset.</li> </ol>
The fixtures' brightness obvious dim	<ol style="list-style-type: none"> <li>1. Check the LED tubes or the laser already whether to be service life.</li> <li>2. Check the internal and external optical system whether to be clean.</li> </ol>

