



®

LASER DISPLAY SYSTEM

Y 500+

USER MANUAL



BIG DIPPER LASER SCIENCE & TECHNOLOGY CO., LTD


BEAM LASER USER MANUAL

Model: BDL-50、K320、K500、K500+

Please read this manual carefully before operating the LASER display system.

1. This is class I laser product
2. Do not disassemble or repair the system by yourself unless you are qualified in the relevant field of electronics. When there is a problem, please enquire or contact a qualified electrician, or your local dealer.
3. Installation should be done by professional technician.
4. Do not exposure the system to wet and dust-laden environment.
5. Do not touch the system by wet hand and pull the power cable forcefully.
6. Do not turn on or off the system frequently, avoid turning on it for long time.
7. Prevent strong vibration or G-shock to the system.
8. Prevent other harmful objects entering the system.
9. Keep at least 1 meter between the system and the objects in the lighting.
10. Connect the power cable only when the system has

been installed.

11. Before connecting or disconnecting the power, adjust the luminance of the LASER diode as dim as possible to avoid any damage to it.
12. Before powering on the system, be sure the power cable is connected into the power socket well.
13. Turn off the system for 25 minutes after running constantly for three hours; ensure that the system is able to cool down in a suitable environment.
14. When to be transported, use the original package to avoid damage.
15.  This symbol indicate separate collection for electrical and electronic equipment.

Inspection:

Check that the following components are present within the package when receiving system - from the list bellow:

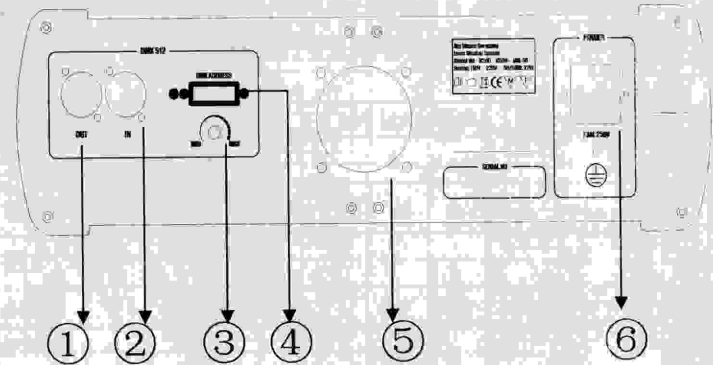
- | | |
|--------------------------|-------------------------|
| 1 x LASER display system | 1 x User manual |
| 1 x Power cable | 1 x DMX cable(optional) |

Installation:

1. Be sure that there is no flammable or explosive objects nearby in 1.5meters area. At the same time,

1. Keep more than half a meter between the wall and LASER display system.
2. Be sure the power socket output voltage matches that off the LASER display system.
3. Ensure the fan and the exhaust are not blocked.
4. The LASER display system should be statically fixed immovably.
5. It is essential to be earthed well for the sake of safety.

Back panel



- ① DMX 512 OUT:DMX 512 single out
- ② DMX 512 IN :DMX 512 single in
- ③ MIN、MAX: sound sensitivity potentiometer.
- ④ DMX ADDRESS: Binary address switch.
- ⑤ FAN
- ⑥ F3AL 250V: Input power with internal fuse(3A)

DMX512 operation instructions

This laser light is controlled by the standard DMX. Please connect controlling panel with the lighting as following fig.:



Before using the DMX512 controller, you should set the channel address. It can be set 001~511 address, every binary address switch has a digital no, please refer to:

No.	Digital No.	No.	Digital No.
1st	1	6th	32
2nd	2	7th	64
3rd	4	8th	128
4th	8	9th	256
5th	16	10th	Function switch

When setting, what you have to do is that the No. of the choosing dial switch is equal to the sum of digital no. please refer to:

PC NO	Algorism	Binary switch	PC NO	Algorism	Binary switch
1	001		12	177	
2	017		13	193	
3	033		14	209	
4	049		15	225	
5	065		16	241	
6	081		17	257	
7	097		18	273	
8	113		19	289	
9	129		20	305	
10	145		21	321	
11	161		22	337	

Mention:

When the tenth dial switch is off, the laser lighting is under sound control. When the tenth dial switch is on, the laser lighting is under auto-playing slow patterns.

Note:

When the lighting are connected one by one, do remember: link a 120ohm resistance between PIN1 and PIN2 in the way of in series.

This lighting has four DMX512 channels:

model		BDL-50	K320	K500	K500+
Parameters					
1	Laser diode	Green	Red	Green	Green
2	Laser power	532nm	650nm	532nm	532nm
		50mw	300mw	50mw	100mw
3	Power supply	AC220/110,50/60HZ			
4	Scanner angle	+/-18°			
Channel		DMX 4 Channels			
The details of channel					
Channel No		DMX512 fig.	content		
5	1	Control mode	0~63	Sound control	
			64~127	Single pattern	
			128~191	Auto play	
			192~255	Shut off	
2	Pattern	0~6	Horizontal fan		
		7~13	Special pan fan		
		14~20	Vertical fan		

2	Pattern	21-27	Special tilt line
		28-34	Time and space tunnel 1
		35-41	Time and space tunnel 2
		42-48	Circle turning bigger 1
		49-55	Circle turning bigger 2
		56-62	Circle rotating clockwise
		63-69	Circle rotating anti-clockwise
		70-76	Star with four angle
		77-83	Wave line
		84-90	Special wave line
		91-97	Crossed line 1
		98-104	Crossed line 2
		105-111	Rectangle
		112-118	Special rectangle
		119-125	Rectangle becoming bigger
		126-132	Double rectangle 1 becoming bigger
		133-139	Double rectangle 2 becoming bigger
		140-146	Swing diagonal
		147-153	Rotating bar
		154-160	Diagonal
		161-167	Rotating line
		168-174	Pentagon 1
		175-181	Moving bar
		182-188	Bar
		189-195	Special bar
		196-202	Flying bird
		203-209	Special flying bird
		210-216	Patulous rectangle
217-223	Jumping dot		
224-230	Dot		
231-237	Line		
238-244	A single line		
245-255	Bar		
3	Scan dot	0-255	Dot scanning speed
4	Scan line	0-255	Line scanning speed

6	Control mode	Sound/Auto-play/single pattern by DMX
7	Effect	Displaying more than 50 light beams and patterns, displaying laser patterns specified by international laser display association, such as diffusing laser network. Slowly rotating color fan, time and space tunnel and fairy flowers. (Can be programmed with customers)
8	Dimensions (mm)	408*280*120/410*210*120/ 408*280*120/408*280*120
9	Net weight/gross weight (KG)	4. 2/5. 3

Mention:

- 1, when the first time you use the the laser device, it's under sound control. Please turn the sensitivity knob to the middle position.
- 2, the control of channel 2 will work only if the number of channel 1 between 64 and 127.
- 3, channel 3 is used for imagine made of dot or line.;
- 4, channel 4 is effected for all imagines.

Maintenance:

Clean the lens regularly. Do not use a wet cloth or other chemicals; but a cotton cloth with alcohol. The maintenance period depends on the usage frequency and surrounding conditions of the LASER display system. It is recommended that the system should be cleaned every 15 days.

Warning:

Be sure power off before any maintenance or fixture.

Disclaimer:

The end-user of this product should abide by the above instructions and warnings. The results led by the perform actions, which do not go along with this manual , are not in the range of warranty.

The right for explanation involved items in this manual belong to Big Dipper Laser Science & Technology Co., Ltd.