



LED Spot Light

User Manual

Model: LS90

Warnings:

Please check the package whether any damage is caused by transportation after you got the lights. If there is any damage, please do not use this fixture, and contact the dealer or manufacturer as soon as possible.

1. This product is only suitable for professional use, and does not apply to security for other purposes.
2. Be cautious to prevent the impact that is caused by the device. The use of this product should pay attention to: fire, heat, electric shock, ultraviolet radiation, the lamp to explode or Shedding caused serious or fatal injury.
3. Need to read the instructions before use energized or installing. Follow through the operation of security methods and pay attention to the warning signs on the specification and equipment.
4. This product is only suitable for indoor use, protection class IP20.
5. Lamps should be kept dry to avoid Moisture, overheating or dusty environment. Shall stop working once the using environment exceed 40°C.
6. Prevent lamps come into contact with water or any other liquid.
7. Please replace the protection screen, optical lens, UV screen if any visible damage, i.e. function no use, crack or gash caused.
8. Make sure the facilities and hooks can withstand at least 10 times the weight of the fixtures when hanging the devices.
9. Please make sure the hardware strong enough and do not have any damage, or use safety rope to increase the safety of the fixtures.
10. Please reduce the height of the hanger rod to a safe position when installing or dismantling the fixtures.
11. Avoid eye exposure to the lighted LED lamp. Do not use the fixture without lens or protection cover.
12. Please replace the relevant component if any damage caused.
13. Please make sure the voltage used comply with the voltage for the fixture, moreover to have overload and leakage protection. Every fixture shall earth correctly accordingly to the relevant and professional standard when installing the fixtures.

Maintenance

Optical components should be cleaned gently, Do not use disruptive solvent, otherwise it will damage the plastic or coated surface.

1. After the power is off, cooled completely, then open the case.
2. Blowing machine with a vacuum cleaner or pressure blower, gently blow away dust and floating objects.
3. Use odorless paper or cotton cloth soaked with water or distilled water to wipe particulate, do not rub surfaces, blow any floating object with a pressurized gas.
4. Dip cotton of the alcohol or unscented tissue paper to remove dust and residues, glass cleaner may also be used, but residues must be removed with distilled water, to the circle on each side, wipe from the center, and then wiped dry with a soft cotton cloth.
5. Using a soft brush, cotton paper, air cleaners or stress on stomatal and hair dryers that the dust from the fan out. Excessive dust, smoke and damage caused by non-normal use, out of the scope of warranty.

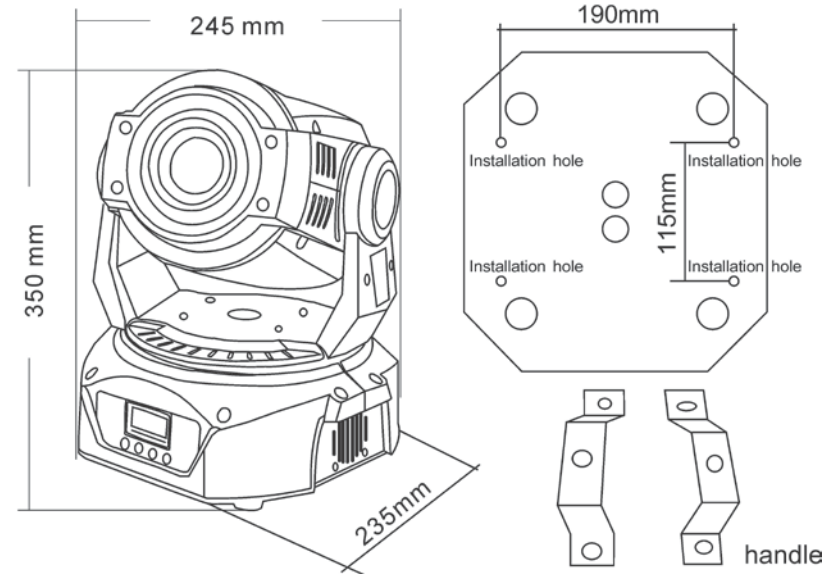
Declare

The product is with good performance and complete package when it is delivered. The end-user of this product should follow all the above instructions and warnings. Any damage caused by misuse, malfunction and problem caused by ignoring the instructions are not included in the repair guarantees of the manufacturer or dealers. All products made from Big Dipper Laser Company have anti - fake identification. please verify the anti-counterfeit label at the bottom of the case to ensure the interests of consumers.

Interpretation of matters set forth in this manual belongs to Big Dipper Company

LED Spot Light

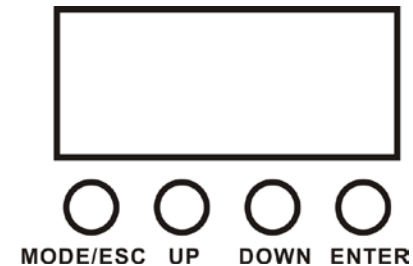
1. Adopt high brightness LED light source
2. 6 kinds of glass patterns and 8 kinds of metal patterns create perfect effect
3. Optical zoom lens
4. Positioning accuracy, operation flexibly
5. Application to bar, disco, performance, wedding etc.



Diameter of the installation hole 6MM, screw used: 6*12MM

Control Panel Instruction:

- [MODE/ESC] Menu Selection Button.
- [UP] Scrolls through menu items and numbers in ascending order.
- [DOWN] Scrolls through menu items and numbers in descending order.
- [ENTER] Used to select and confirm/store the current selection.



Technical parameters

Model	LS90	
Parameters		
Power		
Power supply	100-240V/50-60HZ	
Power consumption	150W	
Light Source		
LED Specifications	90W White	Luminous Flux: 4500Lm
Color Temperature	8000 K	
Average Lifespan	30000 Hours	
Color/Gobo		
Color	7 Color + Blank Color	
Gobo	14 fixed gobo + blank gobo	
Prism	Rotation 3-face prism, Bilateral rotation	
Lens	High precision optical lens, with zoom	
Focusing	Linear adjustment	
Dimmer	0-100% linear dimmer	
Scanning Angle		
PAN	540°	
TILT	270°	
Operation		
Control Mode	Auto / Sound/ DMX / Master-slave	
DMX channels	16	
Security & Package		
Work environment	Indoor: 0°C-40°C	
Macro functions	Reset/ lamp on or off can be controlled by controller; Thermal shutdown circuit; Over-current Protection Circuit	
Size	245*235*350mm	
N.W./G.W.	7.0/9.0KG	
Spare parts including	Power Cable x1, Handle x2, Screw x4, User Manual x1	

Inspection

In order to use the product securely and properly, please read the manual before using and follow the instructions strictly to prevent personal safety trouble and product damage caused by misuse.

Take care of the product, check the possibility of the product damage caused by transportation and check all the listed items are present upon receipt of the product:

LED Spot Light	1	Use Manual	1
Power cable	1	Handle	2

Installation

1. Make sure there is no flammable or explosive subjects within min 1.5 meter nearby the installation, the distance between wall and the light shall be min 0.5M
2. Before installation, please check and make sure the power supply voltage meet request of the system.
3. Please check ventilation and fans or exhaust passages are cleared.
4. The equipment should be fixed firmly.
5. For security reasons, the appliance must be earthed.

Speed – channel 13

Bit	Effect	Remark
0--255	X-axis, Y-axis Motor Speed Adjustment	

Pan fine tuning– channel 14

Bit	Effect	Remark
0--255	Pan fine tuning 1°	

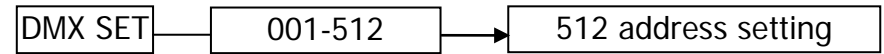
Tilt fine tuning– channel 15

Bit	Effect	Remark
0--255	Tilt fine tuning 1°	

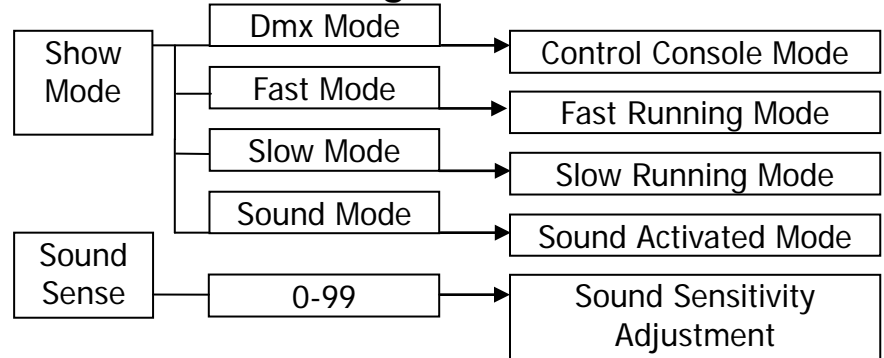
Reset– channel 16

Bit	Effect	Remark
201-255	Reset OFF	All motors run self-checking program and return to original position
150--200	Reset ON	
0--149	Reset OFF	

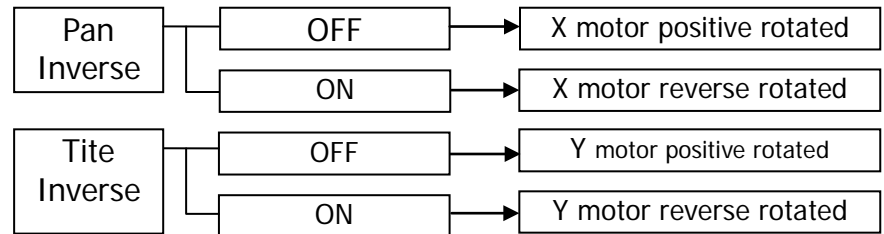
Operation Instruction Control Console Setting



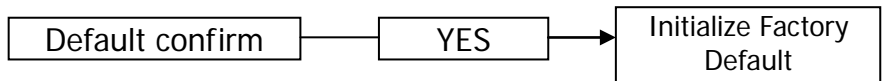
Control Mode Setting



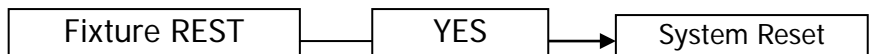
Motor Rotation Setting



Reset



Initialize Setting



Remarks: Please confirm the selected operation mode after selecting an operation mode.

16 Channel Mode

Function	Bit	Instruction
CH1	0-255	Pan moving
CH2	0-255	Tilt moving
CH3	0-255	Dimming
CH4	0-255	Strobe
CH5		Color Panel
	0-159	Fixed Color
	160-255	Color Stream
CH6		Glass gobo
	0-219	Fixed Gobo
	220-255	Gobo Rotation
CH7	0-255	Gobo Automatically Rotate
CH8	11-249	Gobo Shake
CH9		Metal gobo
	0-219	Fixed Color
	220-255	Gobo Rotation
CH10	11-249	Gobo Shake
CH11	0-255	Focusing
CH12	0-255	Prism Rotation
CH13	0-255	Speed
CH14	0-255	Pan Fine Tuning
CH15	0-255	Tilt Fine Tuning
CH16	150-200	Reset

Bit	Effect	Remark
255	Patterns auto running- Fast	
.....	Gobo 7 to Glass gobo4)	
220	Patterns auto running- Slow	
215-219	Gobo14	
189-214	Glass gobo3	
162-188	Glass gobo2	
135-161	Glass gobo1	
108-134	Glass gobo0	
81-107	Gobo 9	
54-80	Gobo 8	
27-53	Gobo 7	
1-26	White	

Metal Gobo Shake – channel 10

Bit	Effect	Remark
251-255	Gobo Shake OFF	
10-250	Gobo Shake ON	Gradually Fast
0-10	Gobo Shake OFF	

Focusing – channel 11

Bit	Effect	Remark
255	Focusing 100%	
.....	
0	Focusing 0%	

Prism Inserted / Rotation - channel 12

Bit	Effect	Remark
101-255	Positive Rotation (Gradually	
50-100	Prism Inserted	
0-49	Prism Excluded	

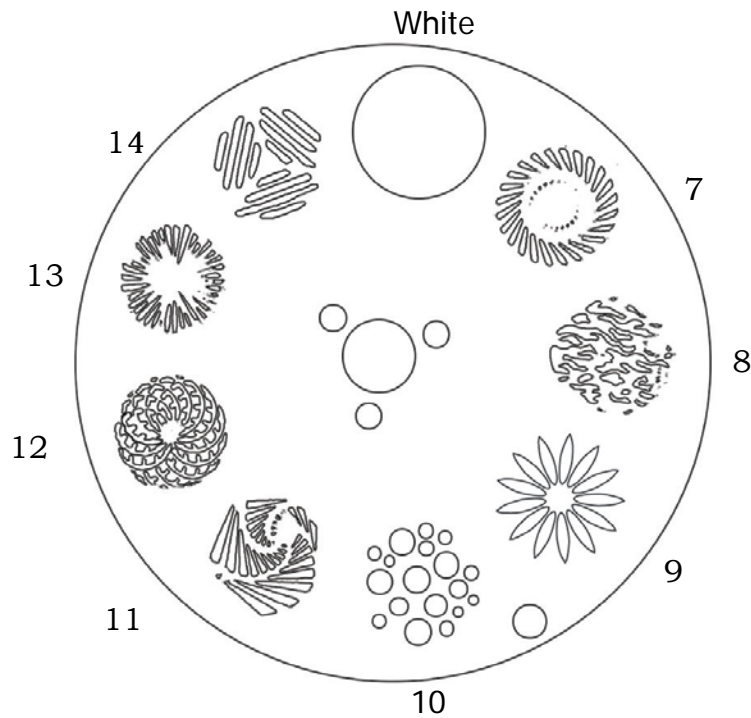
Glass Gobo Rotation – Channel 7

Bit	Effect	Remark
179-255	Gobo Rotation (Forward)	Gradually Fast
167-178	Gobo Rotation Off	
90-167	Gobo Rotation (Reverse)	Gradually Fast
0-89	Gobo Rotation by Manual Control	

Glass Gobo Shake – Channel 8

Bit	Effect	Remark
251-255	Gobo Shake Off	
10-250	Gobo Shake On	Gradually Fast
0-10	Gobo Shake Off	

Metal Gobo – Channel 9



Pan– Channel 1

Bit	Effect	Remark
255	Pan Tuning 540°	
.....	0° to 540°	
0	Pan Tuning 0°	

Tilt – Channel 2

Bit	Effect	Remark
255	Tilt Tuning 270°	
.....	0° to 270°	
0	Tilt Tuning 0°	

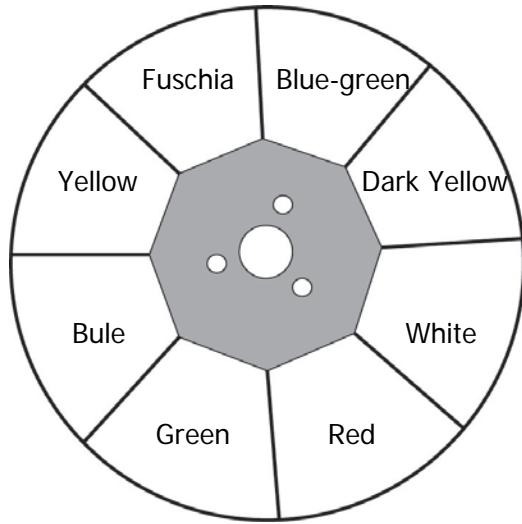
Dimming - Channel 3

Bit	Effect	Remark
255	Brightness 100%	
.....	
0	Brightness 0%	

Strobe – Channel 4

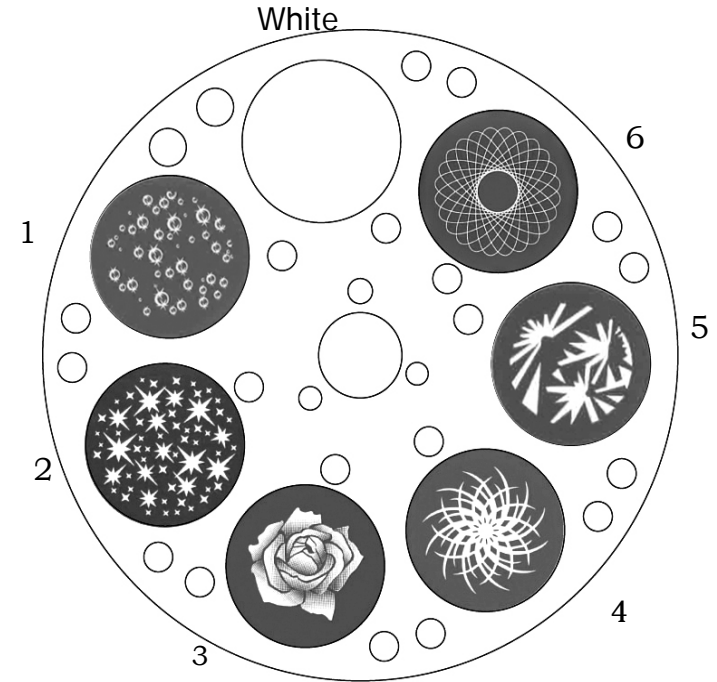
Bit	Effect	Remark
250-255	Keep Lighting	Control via Dimming Channel 3
11-249	Strobe (Gradually Fast)	
0-10	Keep Lighting	

Color Panel - Channel 5



Bit	Effect	Remark
255	Fast Rotation	For convenience, color value has been setted in multiple of 10.
.....	Red to Dark Yellow	
150	Slow Rotation	
140	Green + Red	
130	Blue + Green	
120	Yellow + Blue	
110	Fuschia + Yellow	
100	Blue-green + Fuschia	
90	Dark Yellow + Blue-green	
80	White+ Dark Yellow	
70	Dark Yellow	
60	Blue-green	
50	Rose Color	
40	Yellow	
30	Blue	
20	Green	
10	Red	
0	White	

Glass Gobo – Channel 6



Bit	Effect	Remark
255	Postive Rotation Fast)	
.....	Glass gobo to Gobo 6	
220-	Postive Rotation Slow	
216-219	Gobo 6	
180-215	Gobo 5	
144-179	Gobo 4	
108-143	Gobo 3	
72-107	Gobo 2	
36-71	Gobo 1	
0-35	White	