

**stage 4**  
*Professional lighting*

## LEO SPOT 180



## USER MANUAL

Thank you very much for choosing our product. For safety purpose, please read this manual carefully before your operation. This manual included installation and using information. Please install and operate it according to this manual.

### **Technology Reference:**

Voltage: 100-240V,50-60Hz

- Power consumption: 250W
- LED: ultra bright 180W LED
- Color wheel: 7 colors + white, spilt colors, rainbow effect
- Rotated gobo wheel: 3 glass gobos + 3 metal gobos+open, gobo flow effect, gobo shake
- Fixed gobo wheel: 8 fixed gobos+open, gobo flow effect
- Effect wheel: 3 facet prism and 6 facet linear prism, adjustable rotating speed and direction, the two prism can overlap.
- Dimmer/Strobe: Dimmer, 0-20Hz/s
- Focus: Variable motorized focus
- Beam angle: 15°
- Pan: 540° Tilt: 222°
- Control: DMX 512, 13/17 CH
- Working mode: Stand-alone mode, Controller mode, Master/Slave synchronization mode
- Other function: Pan/Tilt speed adjustable
- Housing: High temperature resistant engineering plastic + aluminum alloy.
- Weight: 9.4KG
- Per packing size: 415\*350\*350mm

### **Accessories:**

The accessories below were packed with product, please check if they are once open the package.

- Power cable: 1PCS
- XLR cable: 1PCS
- User manual: 1 PCS
- Clamp (Optional): 2PCS

### **Warning!!!**

Please check whether the light with damage by shipment once open the package before operation. If product with damage by shipment, please do not operate the light then contact the dealer or supplier.

This product is designed for Indoor use, the IP rate is IP20. Keep the product in dry environment. Avoid in damp, overheating, or much dusty environment. Prevent fixture in contact with the water and other liquids.

Please do not install the fixture on the surface of combustible substances.

Qualified professionals can install, operate and maintain the fixture, and to make sure strictly in accordance with the procedures described in this operating instructions.

The fixture should be installed in a well ventilated place, and the distance from the wall to keep above 10 cm, at the same time, please check the fan and the vent is unimpeded.

Do not use the fixture is directly projected on combustible objects, the distance between the fixture and light objects please keep over 1 meter.

Don't look straight into the light source of the fixture (especially for epilepsy patients), so as not to cause damage to the eyes!

Please do not open and fix the fixture by yourself.

For electrical parts connected person must have the corresponding qualifications before operate.

Before installation, please make sure the power supply voltage you used and the voltage of fixture is identified.

Every fixture should be properly grounded and in accordance with the relevant standard for electrical installation.

Don't dispatch the fixture connected to any other dimming device.

Do not use insulating layer with damage for the power cord, and don't take the power cord overlap on the other wire. When not use or to clean the fixture, please unplug the power cord. Don't unplug the plug rudely or drag the power cord directly.

Keep the bulb clean, do not contact with the glass bulb by hand directly.

Equipped with insurance rope connecting hole at the bottom of the fixture, for security, please use safety cable to hang the fixture.

There is no any parts for repair inside the fixture. Before starting operation of the fixture, please check whether all the cover plate (or housing) has been installed well, whether the screw has been tighten .

Prohibit use the fixture when the cover plate or housing is opened.

If you have any questions or Suggestions, please contact with dealers or supplier.

### **Important!!**

Before any installation, maintenance and clean the fixture, please confirm the power supply is cut off!

Power supply connection

The power cord connection as follows:

L = (live wire) brown wire

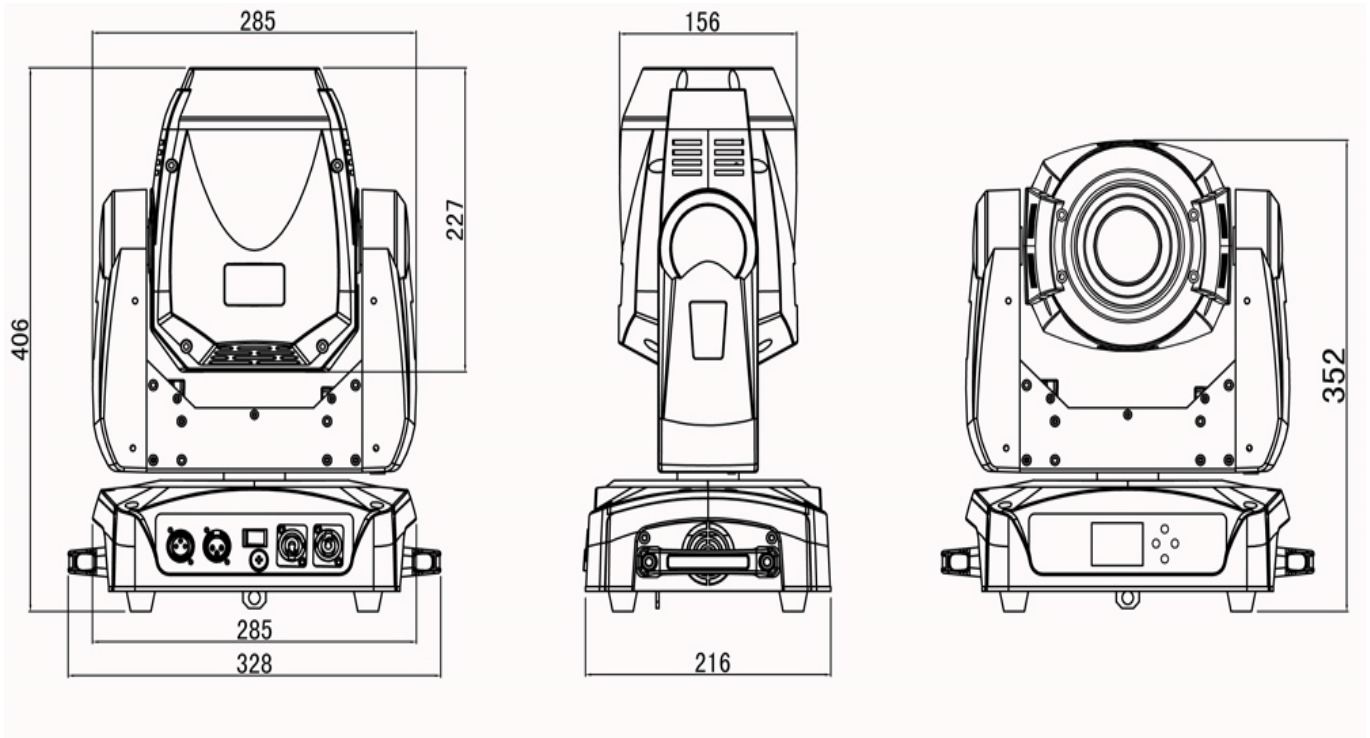
E (ground) = yellow/green double color line

N =(middle line) blue line

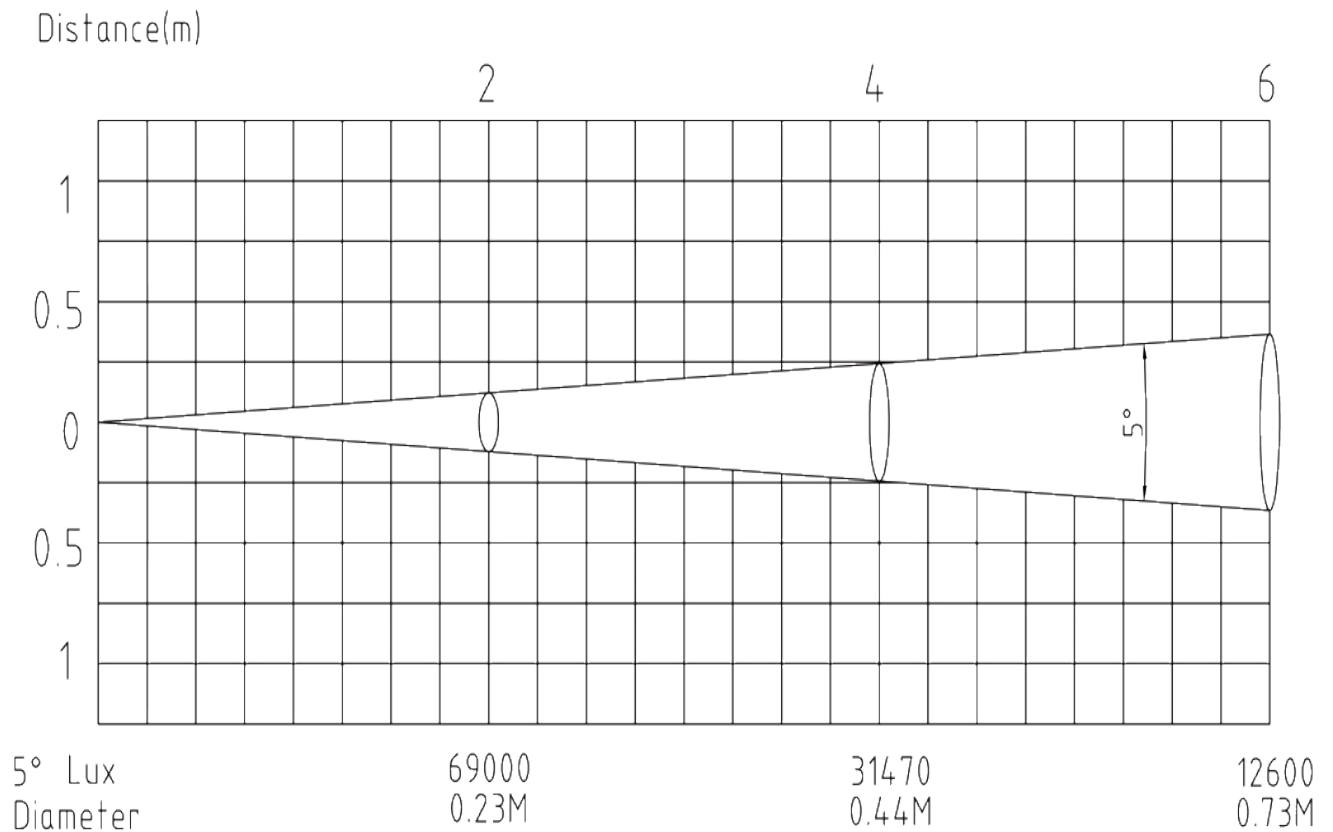
Connecting power supply, please pay attention to the power supply voltage and frequency should be marked on the voltage and frequency of fixture. When more than one moving head light used at the same time, it is recommended that the power of the fixture, respectively connection, this can control the fixture ON/OFF separately.

**Important:** Connect to the power supply, the ground (yellow/green line) should be safety grounding, electrical installation shall comply with all relevant standards.

**Product dimension**



**Photometric data**

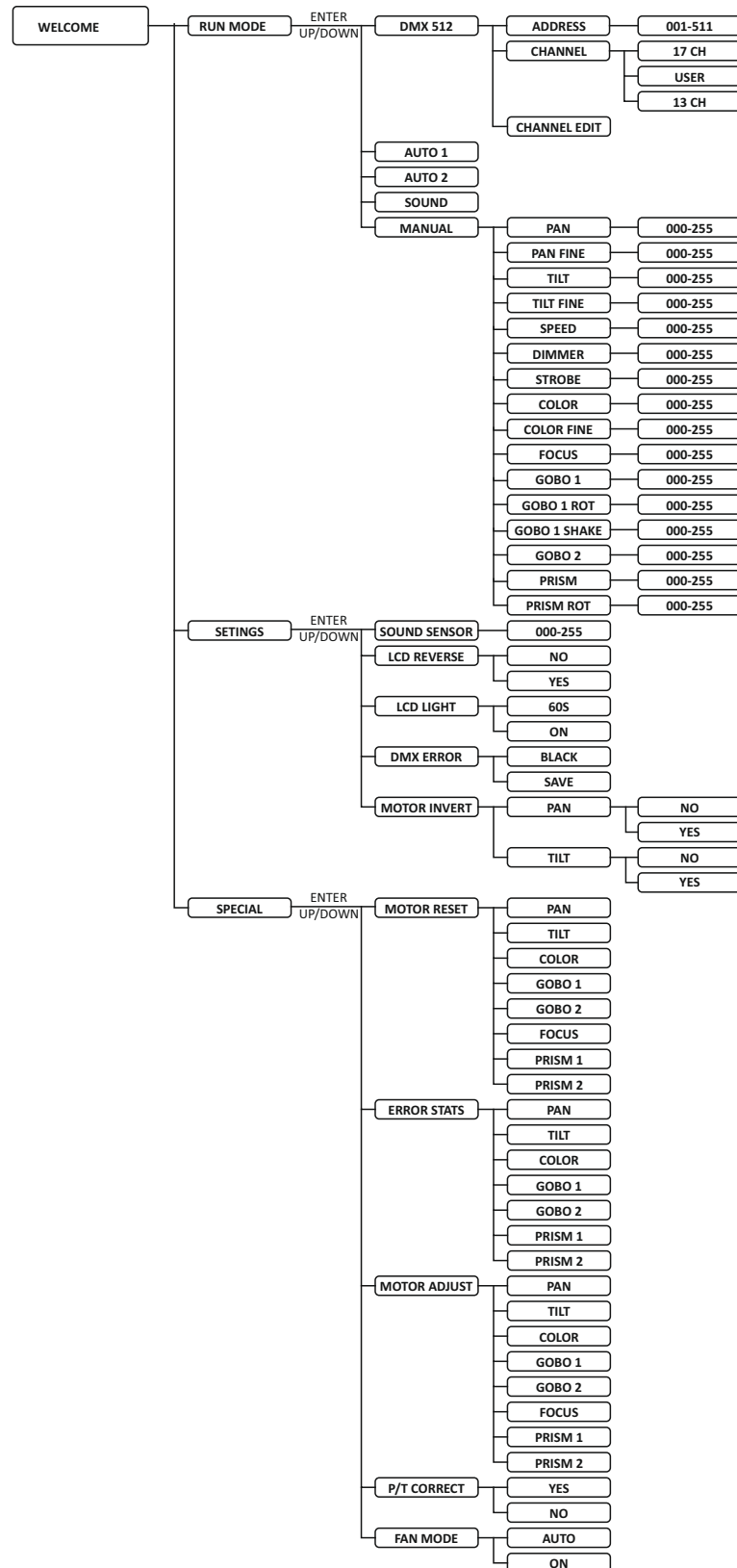


## Function Setting (LED display instruction)

Mode 1: A001 is factory default setting. In this mode receive DMX512 signal control. Press ENTER to set ID address. Use UP or DOWN to change the value of ID address, then press ENTER to save.



## System menu



## DMX CHANNEL CONTROL

There are two modes to get DMX 512 signal for this fixture, one is 17CH, and the other is 13CH. Please find the details as follow:

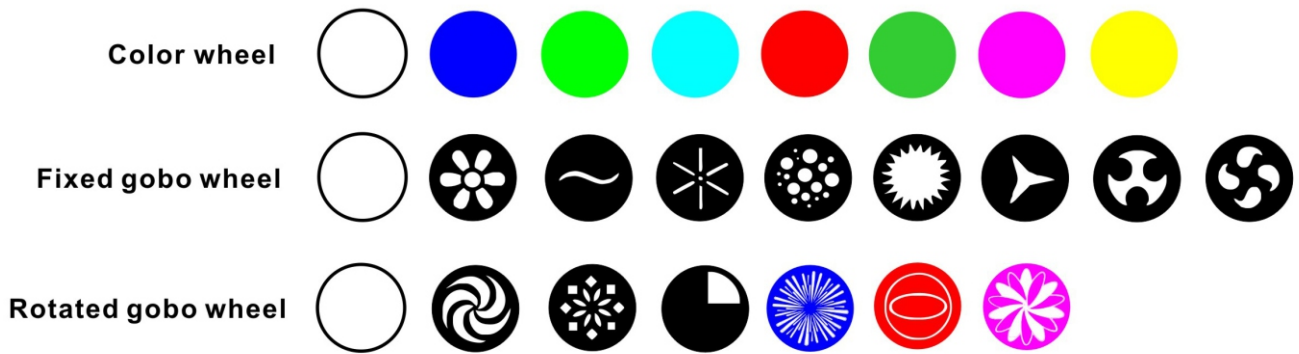
### 17-channel

Channel	Function	Value	Description
1CH	Pan	0-255	Pan Movement (540°)
2CH	Pan Fine	0-255	16bit Pan Movement
3CH	Tilt	0-255	Tilt Movement (222°)
4CH	Tilt Fine	0-255	16bit Tilt Movement
5CH	Pan/Tilt speed	0-255	Decreasing speed
6CH	Dimmer	0-255	Dimmer 0-100%
7CH	Strobe	0-19	No function
		20-199	Strobe effect slow to fast
		200-249	Random strobe
		250-255	No function
8CH	Color	0-19	Open/White
		20-39	Color1
		40-59	Color2
		60-79	Color3
		80-99	Color4
		100-119	Color5
		120-139	Color6
		140-159	Color7
		160-199	Forwards skipped rotation from fast to slow
		200-227	Forwards rainbow effect from fast to slow
228-255	Backwards rainbow effect from slow to fast		
9CH	Color Offset	0-255	0-100%
10CH	Focus	0-255	far to near
11CH	Rotating gobo	0-24	Open/Write
		25-49	Gobo1
		50-74	Gobo2
		75-99	Gobo3
		100-124	Gobo4
		125-149	Gobo5
		150-179	Gobo6
		180-199	Forwards skipped rotation from fast to slow
		200-227	Forwards Continuous rotation from fast to slow
		228-255	Backwards Continuous rotation from slow to fast
12CH	Gobo1 Rot.	0-19	Gobo rotation stop
		20-99	Forwards gobo rotation from fast to slow
		100-179	Backwards gobo rotation from slow to fast
		180-255	Forwards Backwards rotation from slow to fast
13CH	Gobo1 shake	0-255	Slow to fast
14CH	Static gobo	0-19	Open/White
		20-39	Gobo1
		40-59	Gobo2
		60-79	Gobo3
		80-99	Gobo4
		100-119	Gobo5
		120-139	Gobo6
		140-159	Gobo7
		160-179	Gobo8
		180-199	Forwards skipped rotation from fast to slow
200-227	Forwards Continuous rotation from fast to slow		
228-255	Backwards Continuous rotation from slow to fast		
15CH	Prism	0-63	excluded
		64-127	prism1 inserted , prism2 excluded
		128-191	prism1 excluded,prism2,inserted
		192-255	prism1 and prism2 inserted
16CH	Prism rot.	0-63	Stop
		64-119	Forwards Continuous rotation from fast to slow
		120-123	Stop
		124-179	Backwards Continuous rotation from slow to fast
		180-255	Forwards, Backwards rotation from slow to fast
17CH	control	20-39	Auto1
		40-59	Auto2
		200-119	Reset all

13-channel

Channel	Function	Value	Description
1CH	Pan	0-255	Pan Movement (540°)
2CH	Tilt	0-255	Tilt Movement (222°)
3CH	Pan/Tilt speed	0-255	Decreasing speed
4CH	Dimmer	0-255	Dimmer 0-100%
5CH	Strobe	0-19	No function
		20-199	Strobe effect slow to fast
		200-249	Random strobe
		250-255	No function
6CH	Color	0-19	Open/White
		20-39	Color1
		40-59	Color2
		60-79	Color3
		80-99	Color4
		100-119	Color5
		120-139	Color6
		140-159	Color7
		160-199	Forwards skipped rotation from fast to slow
		200-227	Forwards rainbow effect from fast to slow
228-255	Backwards rainbow effect from slow to fast		
7CH	Focus	0-255	far to near
8CH	Rotating gobo	0-24	Open/Write
		25-49	Gobo1
		50-74	Gobo2
		75-99	Gobo3
		100-124	Gobo4
		125-149	Gobo5
		150-179	Gobo6
		180-199	Forwards skipped rotation from fast to slow
		200-227	Forwards Continuous rotation from fast to slow
		228-255	Backwards Continuous rotation from slow to fast
9CH	Gobo1 Rot.	0-19	Gobo rotation stop
		20-99	Forwards gobo rotation from fast to slow
		100-179	Backwards gobo rotation from slow to fast
		180-255	Forwards Backwards rotation from slow to fast
10CH	Static gobo	0-19	Open/White
		20-39	Gobo1
		40-59	Gobo2
		60-79	Gobo3
		80-99	Gobo4
		100-119	Gobo5
		120-139	Gobo6
		140-159	Gobo7
		160-179	Gobo8
		180-199	Forwards skipped rotation from fast to slow
200-227	Forwards Continuous rotation from fast to slow		
228-255	Backwards Continuous rotation from slow to fast		
11CH	Prism	0-63	excluded
		64-127	prism1 inserted , prism2 excluded
		128-191	prism1 excluded,prism2,inserted
		192-255	prism1 and prism2 inserted
12CH	Prism rot.	0-63	Stop
		64-119	Forwards Continuous rotation from fast to slow
		120-123	Stop
		124-179	Backwards Continuous rotation from slow to fast
180-255	Forwards, Backwards rotation from slow to fast		
13CH	control	20-39	Auto1
		40-59	Auto2
		200-119	Reset all

## Colors and gobos



## Maintenance

When the lens have fracture and other damage, it should be replaced in time. when the fixture can't start to run, please check if the fuse of power supply is burnout, if it is burnout please install the fitted corresponding specification fuse with 5A / 250V. Note it must use the same specifications fuse. The is installed with overheating protection device, when it is overheat, the overheating protection device will automatically cut off power supply. Please check whether the fan running, whether the fan and fan nets have dust jam, find troubleshooting before working. But note that a qualified technicians can do the repair work.

In order to maintain the gobo wheel smooth rotation and smooth movement, it is suggested to add grease for the rotation gobo wheel every two months. Should use good quality grease.

In order to ensure the fixture working well, maintain the cleanness of fixture is very necessary. It should be clean once every 30 days after cooling the fans. Internal and external optical lens, reflector and coating color filter cleaning must be carried out periodically to optimize the output light efficiency. Do not use any contains chemical solvent cleaning coating color filter

Cleaning the fixture depending on the operating frequency of fixture and the surrounding environment. Clean with a soft cloth and cleaning products for glass, suggest to clean the external optical system at least once every 30 days , clean the internal optical system at least once every 30/60 days.

Please do not use alcohol and other organic solvents to wipe housing, lest cause damage.

## General troubleshooting

Phenomenon	Solution
Fixture can not start to work	1. Check if the power fuse burnout
Fixture light normally, but no responding to the DMX controller	1. Check if the DMX start address is correct 2. Check if the XLR signal cable was damaged
Fixture work intermittently	Check if the fan work well, Whether dust blocked fan and fan nets
Dark light, brightness decreases obviously	1. Check whether the internal and external optical system clean
Beam is not pure (have a halo)	Clean the dust and oil of bulb, lens and other parts
The beam distortion serious	1. Check whether the lens is broken 2. Clean the dust or oil of lens