

Centolight

Twilight

150 SPOT

150W LED Spot Moving Head



USER MANUAL

Please read this manual carefully and proper take care of this manual.

TABLE OF CONTENTS

1. 1. INTRODUCTION	5
2. OVERVIEW.....	6
3. MAIN FEATURES	6
4. FRONT/REAR PANELS.....	7
5. MENU OPERATING INSTRUCTION	8
6. OVERHEAD RIGGING	9
7. MAINS CONNECTIONS	10
8. DMX CONNECTION	10
9. DMX Channel Chart	11
10. TROUBLESHOOTING	15
11. Maintenance	16
12. SPECIFICATIONS	16
13. COLOR AND GOBO WHEELS	17
14. WARRANTY AND SERVICE	18
15. WARNING.....	18

IMPORTANT SAFETY SYMBOLS



The symbol is used to indicate that some hazardous live terminals are involved within this apparatus, even under the normal operating conditions, which may be sufficient to constitute the risk of electric shock or death.



The symbol is used in the service documentation to indicate that specific component shall be replaced only by the component specified in that documentation for safety reasons.



Protective grounding terminal



Alternating current/voltage



Hazardous live terminal

ON

Denotes the apparatus is turned on

OFF

Denotes the apparatus is turned off

WARNING:

Describes precautions that should be observed to prevent the danger of injury or death to the operator.

CAUTION:

Describes precautions that should be observed to prevent danger of the apparatus.



To protect the environment, please try to recycle the packing material as much as possible



The projector is for indoor use only, IP20. Use only in dry locations. Keep this device away from rain and moisture, excessive heat, humidity and dust. Do not allow contact with water or any other fluids, or metallic objects.



Don't throw this product away just as general trash, please deal with the product follow the abandon electronic product regulation in your country.



Locate the fixture in a well ventilated spot, away from any flammable materials and/or liquids. The fixture must be fixed at least 50cm from surrounding walls

TAKING CARE OF YOUR PRODUCT

- ▶ Read these instructions
- ▶ Keep these instructions
- ▶ Heed all warning

- ▶ Follow all instructions

WATER / MOISTURE

The apparatus should be protected from moisture and rain and can not be used near water; for example near a bathtub, a kitchen sink, a swimming pool, etc.

CONDENSATION

To avoid condensation to be formed inside, allow this unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condense sometimes prevents the unit from working at full performance or may even cause damages.

HEAT

The apparatus should be located away from heat sources such as radiators, stoves or other appliances that produce heat. Don not use it when maximum ambient temperature is higher than 40°C.

VENTILATION

Do not block areas of ventilation opening. Failure to do could result in fire. Always install according to the manufacturer's instructions.

OBJECT AND LIQUID ENTRY

Objects do not fall into and liquids are not spilled into the inside of the apparatus for safety.

POWER CORD AND PLUG

Protect power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two poles; a grounding-type plug has two poles and a third grounding terminal. The third prong is provided for your safety. If the provided plug does not fit into your outlet, refer to an electrician for replacement. Unplug the unit when it is not used for a longer time.

POWER SUPPLY

In case of external power supply, the apparatus should be connected to the power supply only of the type as marked on the apparatus or described in the manual. Failure to do could result in damage to the product and possibly the user. Unplug this apparatus during lightning storms or when unused for long periods of time.

ELECTRICAL CONNECTION

Always disconnect from the power source before servicing or replacing fuse and be sure to replace with same fuse size and type. Cut off power before moving, repairing and cleaning the unit. Improper electrical wiring may invalidate the product warranty.

TWILIGHT 150 SPOT USER MANUAL

To avoid electric shock, all fixtures must be connected to circuits with a suitable ground. Do not power on and power off the fixture in a short time.

DMX CONNECTION

When use DMX controller, please make sure that there is no interference sources (e.g. intercom, high frequency radio waves and radiation source).

CLEANING

Clean only with a dry cloth. Do not use any solvents such as benzene or alcohol.

SERVICING

Do not implement any servicing other than those means described in the manual. Refer all servicing to qualified service personnel only. Only use accessories/attachments or parts recommended by the manufacturer.

I. INTRODUCTION


Thank you for purchasing our TWILIGHT 150 SPOT moving head. Enjoy your new equipment and make sure to read this manual carefully before operation!

This user manual is made to provide both an overview of controls, as well as information on how to use them. In order to help you to understand the connections between the various controls, we have gathered in groups according to their functions.

I.1. UNPACKING

Your TWILIGHT 150 SPOT was carefully packed to ensure safe transport. Despite this, we recommend you to carefully examine the package and its contents for any signs of physical damage, which can occur during transport. It is composed by following parts:

- ▶ Moving Head
- ▶ Power Cord
- ▶ DMX Cable
- ▶ Clamps (2 pcs)
- ▶ User manual

 **ATTENTION:** Packaging bag is not a toy! Keep out of reach of children!!! Keep in a safe place the original packaging material for future use.

I.2. ACCESSORIES

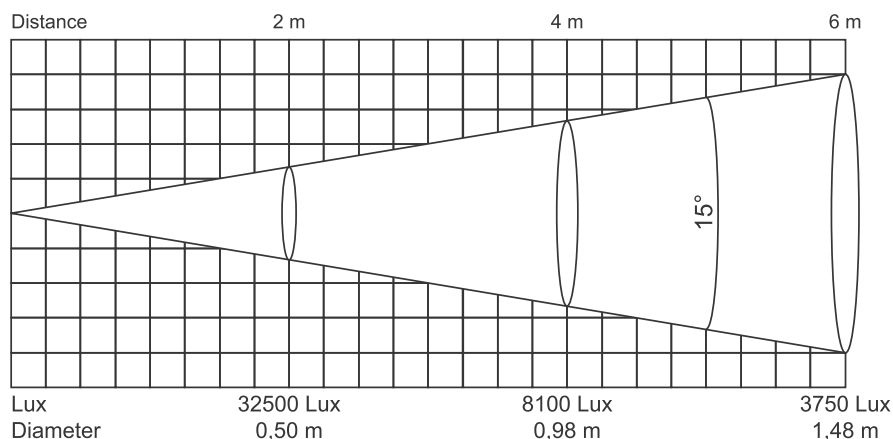
2. OVERVIEW

This LED spot moving-head of TWILIGHT Series combines the benefits of LED technology (energy saving, low heat emission, increased reliability and durability over time) with the quality of digital control systems and the accuracy of its optics. The TWILIGHT 150 SPOT is, therefore, a tool suitable for professionals of entertainment, both in touring and fixed installations.

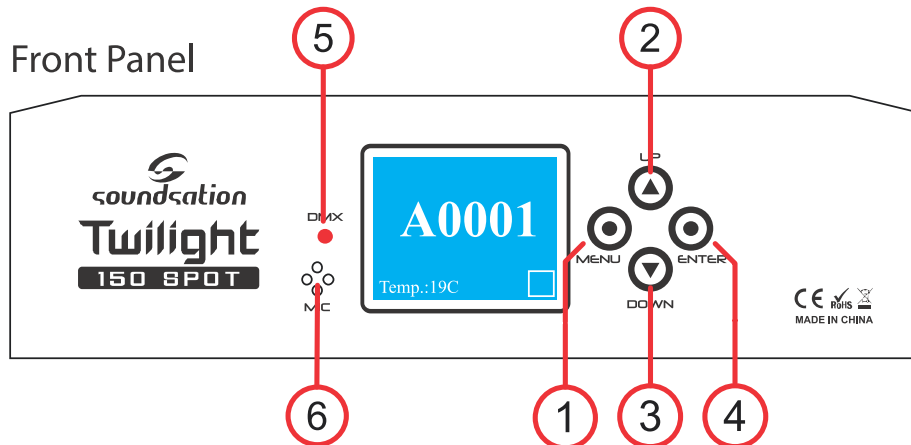
The optical system is able to emit a beam of 50.000 Lux @ 1m with 15° angle. The focus is motorized; dimmer is linear with a 0-20Hz frequency for strobe effects. The TWILIGHT 150 SPOT offers a 8 + white color wheel with rainbow effect, a first gobo wheel with 7 rotating gobos (4 metal + 2 glass + 1 water ripple gobo) and a second wheel with 9 fixed gobos + open. Both gobo wheels have rainbow and shake effects. Finally, a 3-facet and a linear prisms (both with controllable rotation and direction) and frost, allow creating rich and varied light effects. The chassis is largely made up of aluminum and allows to reduce the final weight in just 9.2kg. The fixture is available both in single carton and in two-unit professional flight case.

3. MAIN FEATURES

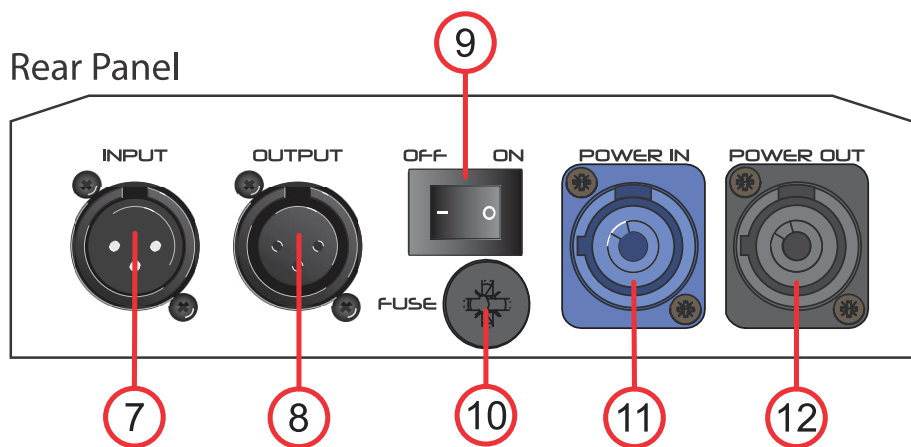
- ▶ LED: Ultra-bright white 150W LED
- ▶ Lux: 50.000 @ 1m
- ▶ Beam angle: 15°
- ▶ Motorized Focus
- ▶ 1 Color wheel and 2 Gobo wheels
- ▶ 1 circular prism, 1 linear, frost
- ▶ Stand-alone, DMX, Master/Slave modes
- ▶ 13CH / 16CH DMX modes
- ▶ Lightweight yet tough housing



4. FRONT/REAR PANELS



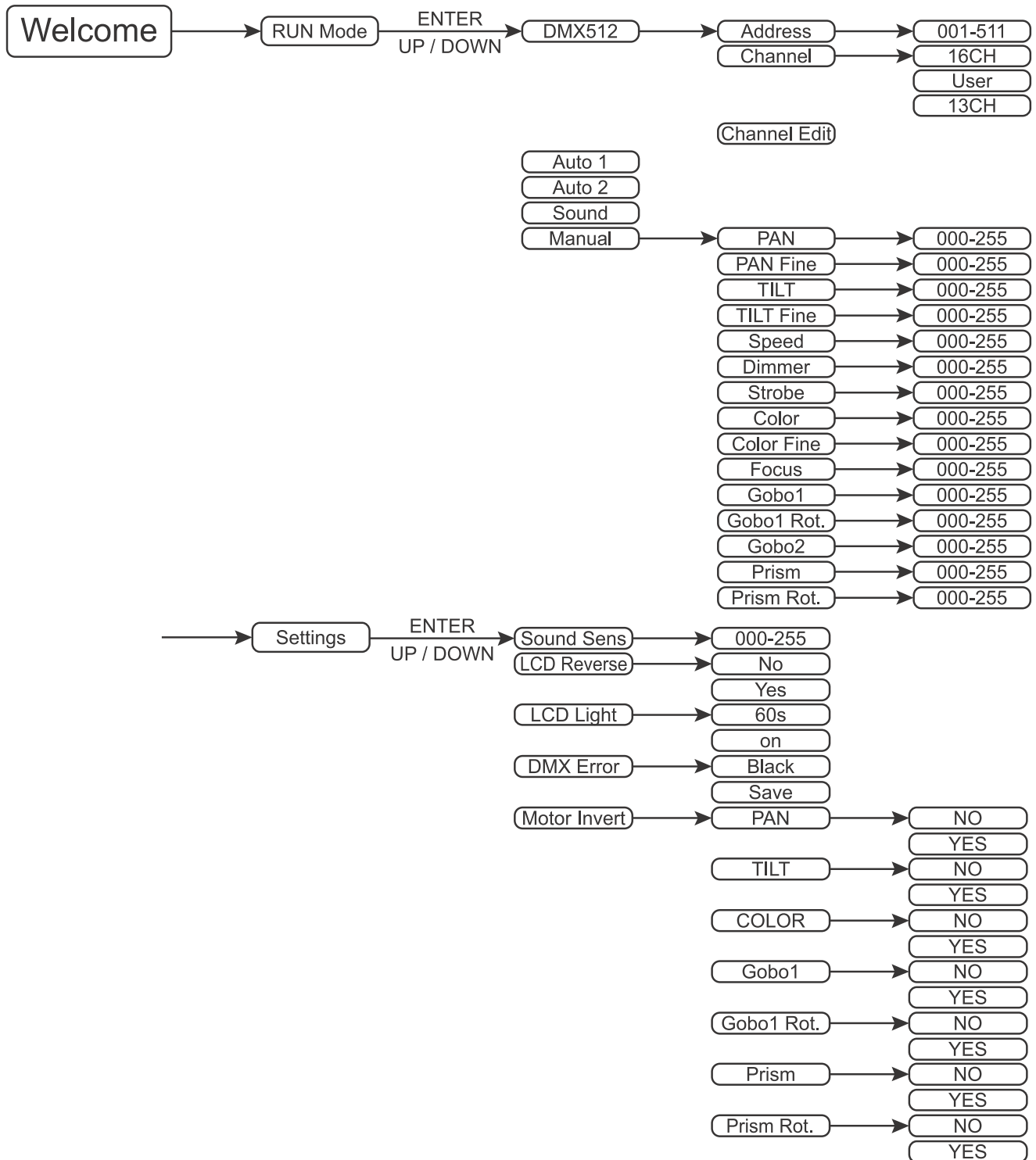
1. **MENU:** Used to select different menu items.
2. **UP:** To go up in the menu and to increase values shown on the display.
3. **DOWN:** To go back in the menu and to lower values shown on the display.
4. **ENTER:** Used to confirm your choice.
5. **DMX indicator LED:** It light when the device receives DMX signals
6. **Microphone:** It receives audio signal

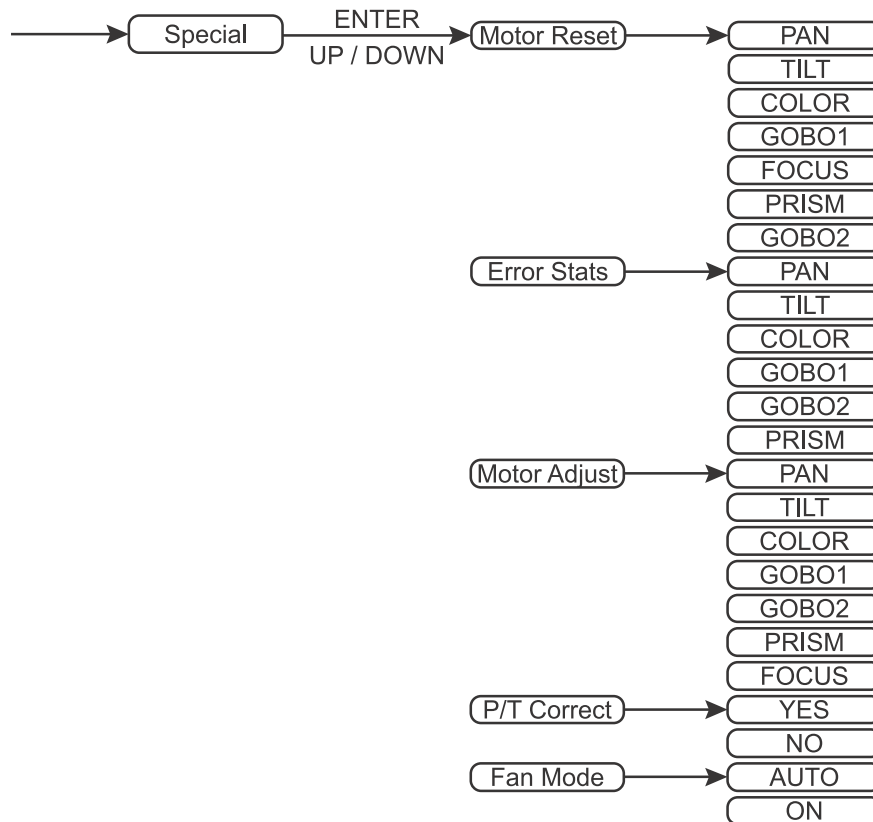


7. **DMX input:** 3PIN male XLR connector for DMX communication
8. **DMX output:** 3PIN female XLR connector for DMX communication
9. **Power switch:** Power ON/OFF
10. **Fuse:** In case of electric failure, it burns. To prevent the risk of fire and damaging the unit, please use only of the recommended fuse type as described in the manual. Before replacing the fuse, make sure the unit turned off and disconnected from the AC outlet.
11. **Power Input:** Power input cable
12. **Power Output:** Power output cable

5. MENU OPERATING INSTRUCTION

With the help of the LCD display, it's very easy to set up and change operating mode. When TWILIGHT 150 SPOT is powered on, firstly current operating standalone mode or DMX address will be shown on LCD monitor.





6. OVERHEAD RIGGING

⚠️ WARNING: The installation must be carried out by qualified service personal only. Improper installation can result in serious injuries and /or damage to property. Overhead rigging required extensive experience! Working load limits should be respected, Certified installation materials should be used, the installed device should be inspected regularly for safety.

- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- Locate the fixture in a well ventilated spot, far away from any flammable materials and/or liquids. The fixture must be fixed at least 50cm from surrounding walls.
- The device should be installed out of reach of people and outside areas where persons may walk by or be seated.
- Before rigging, make sure that the installation area can hold minimum point load of 10 times the device's weight. The device should be well fixed; a free swinging mounting is dangerous and may not be considered!
- Do not cover any ventilation opening as this may result in overheating
- Before the first time use, it must be inspected by professional staff to make sure safety, inspection regularly every year.

7. MAINS CONNECTIONS

Connect the device to the mains with the supplied power cable. Please note that power voltage and frequency are the same as the marked voltage and frequency of device when connecting power.

Every device's power should be connected separately, so that device can be controlled individually. To prevent the risk of fire and damaging the unit, please use only of the recommended fuse type as described above. Before replacing the fuse, make sure the unit turned off and disconnected from the AC outlet.

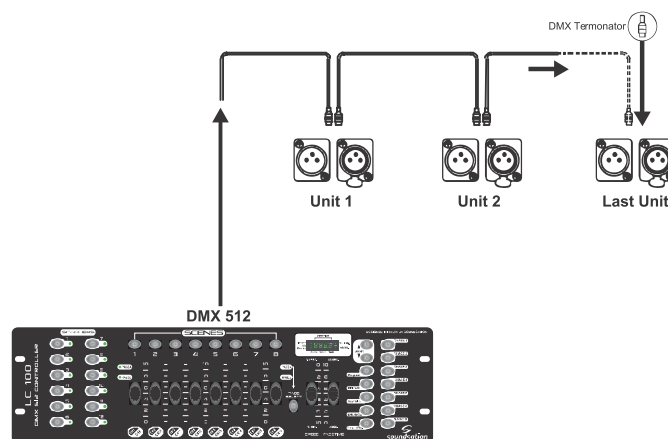
Wire correspondence is as follow:

Cable (EU)	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	⊕

⚠ The earth must be connected! Pay attention to the safety! Before taking into operation for the first time, the installation has to be approved by an expert.

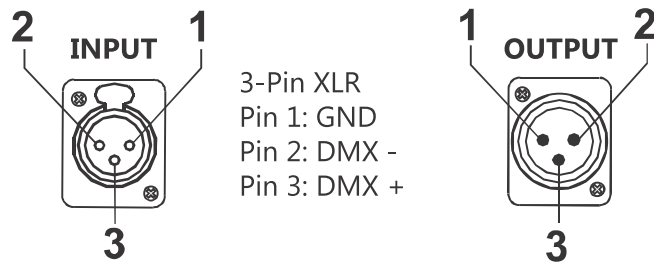
8. DMX CONNECTION

DMX fixtures are designed to receive data through a serial Daisy Chain. A Daisy Chain connection is where the DATA OUT of one fixture connects to the DATA IN of the next fixture. The order in which the fixtures are connected is not important and has no effect on how a controller communicates to each fixture. Use an order that provides for the easiest and most direct cabling.



Connect fixtures using shielded 2-conductor twisted pair cable with 3-pin XLR male to female connectors. The shield connection is pin 1, while pin 2 is Data Negative (S-), and pin 3 is Data positive (S+).

DMX use of 3-Pin XLR Connectors

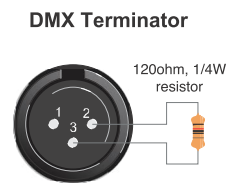


CAUTION: Wires must not come into contact with each other; otherwise the fixtures will not work at all, or will not work properly.

8.1. DMX Terminator

DMX is a resilient communication protocol, however errors still occasionally occur. In order to prevent electrical noise from disturbing and corrupting the DMX control signals, a good habit is to connect DMX output of last fixture in the chain to a DMX terminator, especially over long signal cable runs.

The DMX terminator is simply an XLR connector with a 120Ω (ohm), 1/4 Watt resistor connected across Signal (-) and Signal (+), respectively, pins 2 and 3, which is then plugged into the output socket on last projector in the chain. The connections are illustrated below.

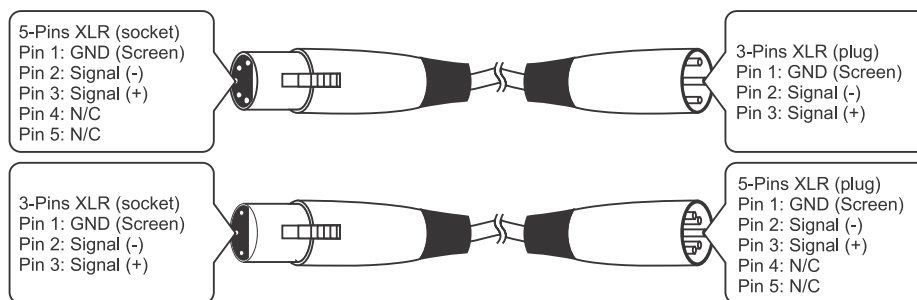


Complimentary signal cable can transmits signals to 20 unit fixtures at most. Signal amplifier is a must to connect more fixtures.

8.2.3-Pin vs 5-Pin DMX cables

DMX connection protocols used by controllers and fixtures manufacturers are not standardized around the world. However, two are the most common standards: 5-Pin XLR and 3-Pin XLR system. If you wish to connect TWILIGHT 150 SPOT to a 5-Pin XLR input fixture, you need to use an adapter-cable or make it by yourself.

Following the wiring correspondence between 3-Pin and 5-Pin plug and socket standards



9. DMX Channel Chart

There are two modes to get DMX 512 signal for this fixture: 16CH (basic) and 13 CH.

16-CHANNELS (BASIC MODE)

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	0-17	Open/White
		18-35	Color1
		36-53	Color2
		54-71	Color3
		72-89	Color4
		90-107	Color5
		108-125	Color6
		126-143	Color7
		144-159	Color8
		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	
10CH	Focus	0-255	Far to near
11CH	Rotating gobo	0-9	Open
		10-19	Gobo1
		20-29	Gobo2
		30-39	Gobo3
		40-49	Gobo4
		50-59	Gobo5
		60-69	Gobo6
		70-79	Gobo7
		80-99	Gobo7 Shake
		100-109	Gobo6 Shake
		110-119	Gobo5 Shake
		120-129	Gobo4 Shake
		130-139	Gobo3 Shake
		140-149	Gobo2 Shake
		150-159	Gobo1 Shake
		160-174	Forwards skipped rotation from fast to slow
		175-199	Backwards skipped rotation from slow to fast
200-226	Forwards Continuous rotation from fast to slow		
227-255	Backwards Continuous rotation from slow to fast		

TWILIGHT 150 SPOT USER MANUAL

12CH	Gobo Rotation	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	Static gobo	0-9	Open/White
		10-19	Gobo1
		20-29	Gobo2
		30-39	Gobo3
		40-49	Gobo4
		50-59	Gobo5
		60-69	Gobo6
		70-79	Gobo7
		80-99	Gobo8
		100-109	Gobo9
		110-119	Gobo9 shake
		120-129	Gobo8 shake
		130-139	Gobo7 shake
		140-149	Gobo6 shake
		150-159	Gobo5 shake
		160-169	Gobo4 Shake
		170-179	Gobo3 Shake
		180-189	Gobo2 Shake
190-199	Gobo1 Shake		
200-226	Forwards Continuous rotation from fast to slow		
227-255	Backwards Continuous rotation from slow to fast		
14CH	Prism	0-63	Close
		64-127	Prism1
		128-191	Prism2
		192-255	Prism3
15CH	Prism rot.	0-63	Indexing
		64-119	Forwards Continuous rotation from fast to slow
		120-123	Stop
		124-179	Backwards Continuous rotation from slow to fast
		180-255	Rotating left and right
16CH	Control	20-39	Auto1
		40-59	Auto2
		200-119	Reset all
		240-255	Sound (Sensitivity from low to high)

13-CHANNELS

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	0-17	Open/White
		18-35	Color1
		36-53	Color2
		54-71	Color3
		72-89	Color4
		90-107	Color5
		108-125	Color6
		126-143	Color7
		144-159	Color8
		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
8CH	Rotating gobo	0-9	Open
		10-19	Gobo1
		20-29	Gobo2
		30-39	Gobo3
		40-49	Gobo4
		50-59	Gobo5
		60-69	Gobo6
		70-79	Gobo7
		80-99	Gobo7 Shake
		100-109	Gobo6 Shake
		110-119	Gobo5 Shake
		120-129	Gobo4 Shake
		130-139	Gobo3 Shake
		140-149	Gobo2 Shake
		150-159	Gobo1 Shake
		160-174	Forwards skipped rotation from fast to slow
		175-199	Backwards skipped rotation from slow to fast
		200-226	Forwards Continuous rotation from fast to slow
		227-255	Backwards Continuous rotation from slow to fast
		9CH	Gobo Rot.
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	0-9	Open/White
		10-19	Gobo1
		20-29	Gobo2
		30-39	Gobo3
		40-49	Gobo4
		50-59	Gobo5

TWILIGHT 150 SPOT USER MANUAL

10CH	Static gobo	60-69	Gobo6
		70-79	Gobo7
		80-99	Gobo8
		100-109	Gobo9
		110-119	Gobo9 shake
		120-129	Gobo8 shake
		130-139	Gobo7 shake
		140-149	Gobo6 shake
		150-159	Gobo5 shake
		160-169	Gobo4 Shake
		170-179	Gobo3 Shake
		180-189	Gobo2 Shake
		190-199	Gobo1 Shake
		200-226	Forwards Continuous rotation from fast to slow
		227-255	Backwards Continuous rotation from slow to fast
		11CH	Prism
64-127	Prism1		
128-191	Prism2		
192-255	Prism3		
12CH	Prism rot.	0-63	Indexing
		64-119	Forwards Continuous rotation from fast to slow
		120-123	Stop
		124-179	Backwards Continuous rotation from slow to fast
		180-255	Rotating left and right
13CH	Control	20-39	Auto1
		40-59	Auto2
		200-119	Reset all
		240-255	Sound(Sensitivity from low to high)

10. TROUBLESHOOTING

Phenomenon	Solution
Fixture cannot 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	Check whether the internal and external optical system is clean
Beam is not pure (have a halo)	Clean the dust and oil of bulb, lens and other parts
Beam is seriously distorted	1. Check whether the lens is broken 2. Clean the dust or oil of lens

II. 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 is burnout. If it is so, please install the fitted corresponding specification fuse (5x20mm T5A / 250V).

The TWILIGHT 150 SPOT 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 is 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.

12. SPECIFICATIONS

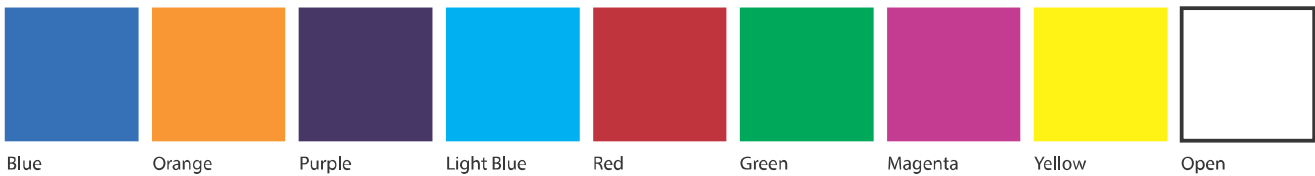
Light emitting source	Ultra-bright 150W LED
Beam intensity:	50.000 Lux @ 1m
Beam angle	15°
Focus	Variable motorized focus
Color wheel	8 colors + white, split colors, rainbow effect
Rotating Gobo wheel	2 glass gobos + 4 metal gobos + 1 water ripple gobo + open/white, rainbow effect, gobo shake
Static gobo wheel	9 static gobos + open, gobo flow effect, gobo shake
Effect wheel	3-facet circular prism, 6 facet linear prism and frost, adjustable rotating speed and direction
Dimmer/Strobe	Dimmer variable electronic dimmer (0-100%), 0-20Hz
PAN/TILT	Pan: 540°, Tilt: 222°, with adjustable speed
Working modes	Stand-alone mode, DMX mode, Master/Slave synchronization mode
DMX Control	16CH / 13CH modes

TWILIGHT 150 SPOT USER MANUAL

Housing	High temperature resistant engineering plastic + aluminum alloy
Voltage	100-240V,50-60Hz
Fuse	T5A-250V, 5x20mm
Power consumption	230W
Fixture Size (LxHxD)	328 x 352min/400max x 216 mm
Fixture Weight	9.2kg
Carton Size (LxHxD)	350 x 415 x 350mm
Carton Weight	11.2kg

13. COLOR AND GOBO WHEELS

COLORS



FIXED GOBOS



ROTATING GOBOS

