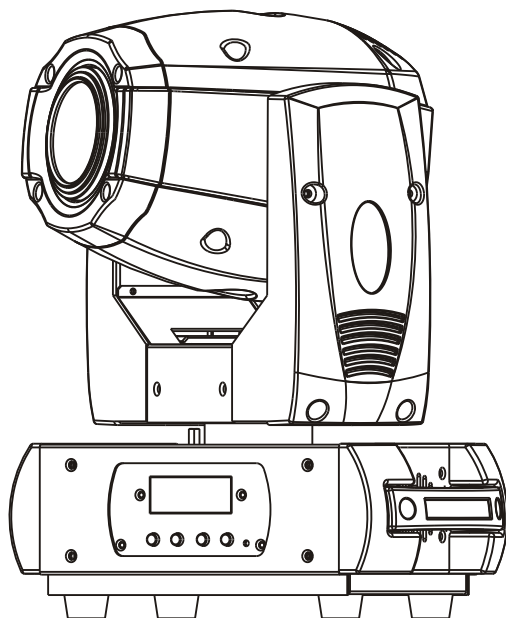


# SI-123 MINISPOT 90



CE   IP20 LED  0.2m  t<sub>a</sub> 40°C t<sub>c</sub> 150°C

# User Manual

KEEP THIS MANUAL FOR FUTURE NEEDS

# 1

## **SAFETY INSTRUCTIONS**



### **CAUTION**

Becareful with your operations. With a dangerous voltage you cansuffer a dangerous electric shock when touching wires!

This device has left the factory in perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.



### **IMPORTANT**

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.

If the device has been exposed to temperature changes due to environmental changes, do not switch it on immediately. The arising condensation could damage the device. Leave the device switched off until it has reached room temperature.

This device falls under protection-class I. Therefore it is essential that the device be earthed.

The electric connection must carry out by qualified person.

The device shall only be used with rate voltage and frequency.

Make sure that the available voltage is not higher than stated at the end of this manual.

Make sure the power cord is never crimped or damaged by sharp edges. If this would be the case, replacement of the cable must be done by an authorized dealer.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord.

During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, it should decrease gradually.

Please don't project the beam onto combustible substances.

Fixtures cannot be installed on combustible substances, keep more than 50cm distance with wall for smooth air flow, so there should be no shelter for fans and ventilation for heat radiation.

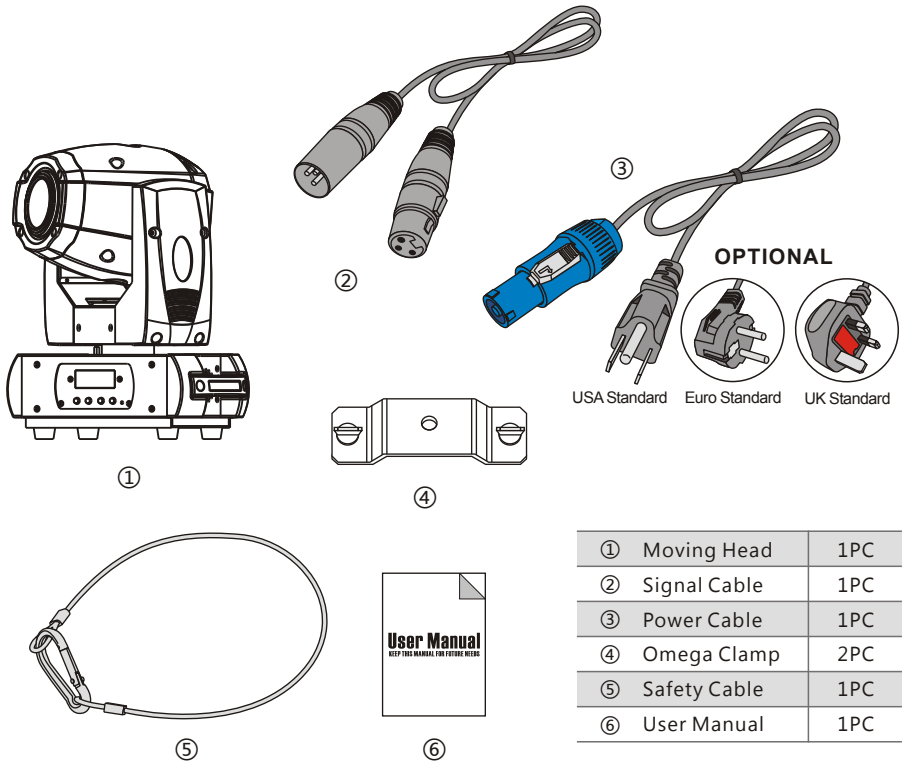
If the external flexible cable or cord of this luminaire is damaged, it shall be exclusively replaced by the manufacturer or his service agent or a similar qualified person in order to avoid a hazard.

## 2 UNPACKING

Thank you for choosing our MINISPOT 90. For your own safety, please read this manual before installing the device. This manual covers the important information on installation and applications. Please install and operate the fixture with following instructions. Meanwhile, please keep this manual well for future needs.

The MINISPOT 90 is made of a new type of high temperature strength of engineering plastics and cast aluminum casing with nice outlook. The fixture is designed and manufactured strictly following CE standards, complying with international standard DMX512 protocol. It's available independently controlled and linkable with each other for operation. And it is applicable for large-scale live performances, theater, studio, nightclubs and discos.

The MINISPOT 90 adopts a 90W white LED lamp which features high brightness and stability. Please carefully unpack it when you receive the fixture and check whether it is damaged during the transportation. And please check whether the following items are included inside the box:

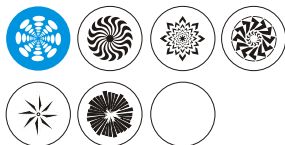


## **3 FEATURES & SPECIFICATIONS**

### **Features**

- A 90W white LED lamp
- 50000 hours life span and low power consumption
- 8/16 bit smooth and precise resolution for PAN/TILT movement
- 360°/540°/630° PAN and 90°/180°/270° TILT movement
- Scan position memory, auto reposition after unexpected movement
- Specific optic system with 11.9° projection angle
- Improved optics and flat beam field
- 1 rotatable gobo wheel with 6 rotatable and interchangeable gobos plus open with speed adjustable, stream effect, dithering effect and rotatable clockwise or anticlockwise
- Gobo size 21.8mm (external dimensions)/14.5mm (inner dimensions)
- 1 color wheel with 7 colors plus open
- Variable direction rainbow effect with speed adjustable
- 2 meter to infinite electric focus
- 1 3-facet prism with variable speed and direction
- 0-100% linear LED dimmer
- 25T/sec high speed LED shutter/strobe effect with variable speed
- Preset variable/random strobe and dimming pulse effect
- 14/16 DMX channels USITT DMX-512
- DMX512, master-slave, and sound activated controllable or auto operation (7 built-in programs)
- DMX recorder and edit function integrated
- Red background LED display
- Powercon connector IN
- 3-pin XLR connectors IN/OUT
- Fan cooling system
- Constant temperature readout and management function
- 45°C max ambient temperature
- IP20 protection rating
- 55dB at 3'dB rating
- 1\*hanging kit

#### **Rotating gobos**



#### **Colors**



# Specifications

**Input Voltage:** AC90-260V 50/60Hz

**LED Quantities:** 1\*90W white LED

**Control Signal:** DMX512, master-slave and sound activated or auto operation

**Control Channel:** 14/16 DMX channels USITT DMX-512

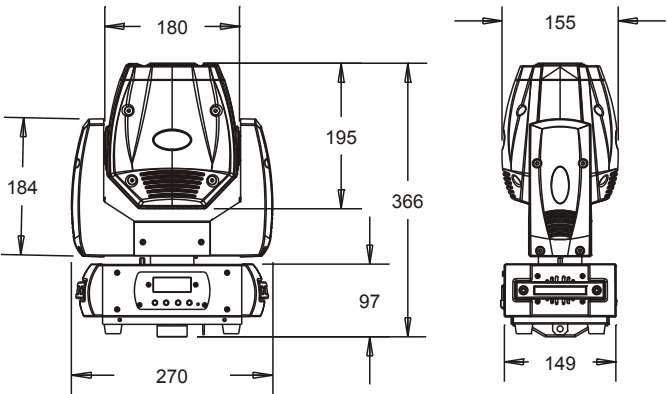
**Power Consumption:** 135W

**Dimensions:** 149(D)\*270(W)\*366(H)mm

**Packing Dimensions:** 350(D)\*450(W)\*240(H)mm

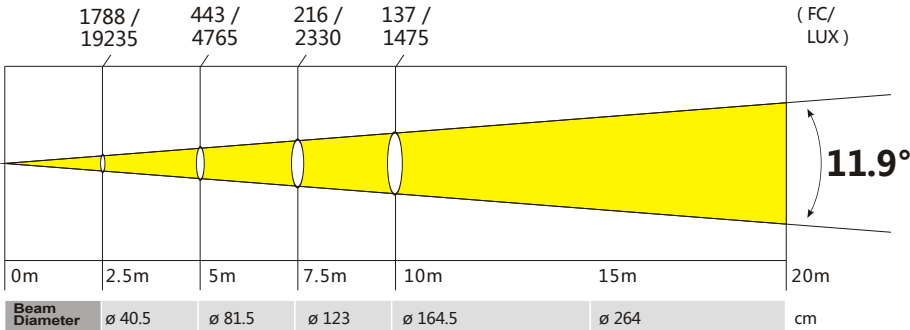
**Net Weight:** 6.6kg

**Gross Weight:** 7.6kg



## 4 PHOTOMETRIC DATA

**Photometric Beam Angle Data** 11.9° Beam Angle  $LUX \times 0.0929 = FC$



## **5 OPERATION INSTRUCTIONS**

- The MINISPOT 90 is for spot effect for on-site decoration purpose.
- Don't turn on the fixture if it's been through severe temperature difference like after transportation because it might damage the light due to the environment changes. So make sure to operate the fixture until it is in normal temperature.
- This light should be keep away from strong shaking during any transportation or movement.
- Don't pull up the light by only the head, or it might cause damages to the mechanical parts.
- Don't expose the fixture in overheat, moisture or environment with too much dust when installing it. And don't lay any power cables on the floor. Or it might cause electronic shock to the people.
- Make sure the installation place is in good safety condition before installing the fixture.
- Make sure to put the safety chain and check whether the screws are screwed properly when installing the fixture.
- Make sure the lens are in good condition. It's recommended to replace the units if there are any damages or severe scratch.
- Make sure the fixture is operated by qualified personnel who knows the fixture before using.
- Keep the original packages if any second shipment is needed.
- Don't try to change the fixtures without any instruction by the manufacturer or the appointed repairing agencies.
- It is not in warranty range if there are any malfunctions from not following the user manual to operate or any illegal operation, like shock short circuit, electronic shock, lamp broke, etc.

## **6 INSTALLATIONS**

**Cautions:** For added protection mount the fixtures in areas outside walking paths, seating areas, or in areas where the fixture might be reached by unauthorized personnel.

Before mounting the fixture to any surface, make sure that the installation area can hold a minimum point load of 10 times the device's weight.

Fixture installation must always be secured with a secondary safety attachment, such as an appropriate safety cable.

Never stand directly below the device when mounting, removing, or servicing the fixture.

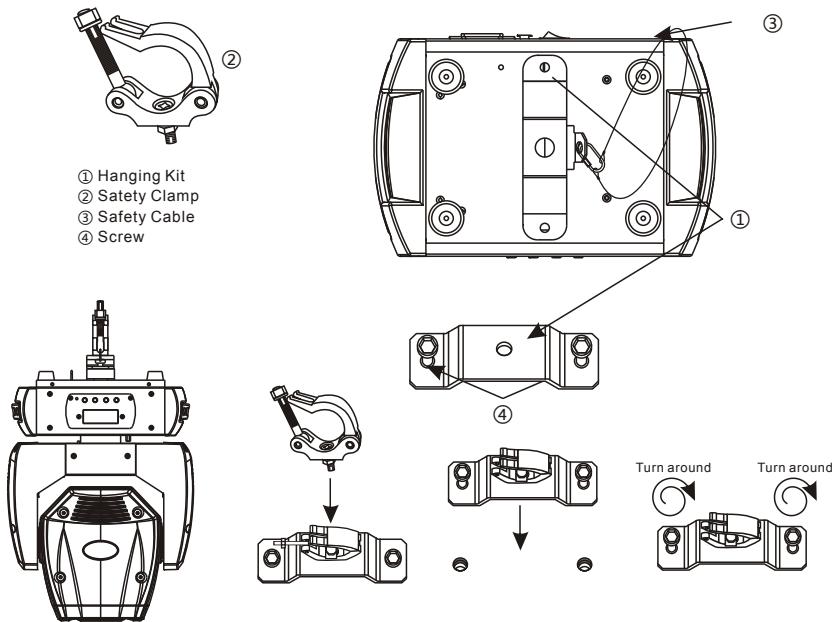
from a ceiling, or set on a flat level surface (see illustration below). Be sure this fixture is kept at least 0.5m (1.5 ft) away from any flammable materials (decoration etc.).

Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.

**Mounting points:** Overhead mounting requires extensive experience, including amongst others calculating working load limits, a fine knowledge of the installation material being used, and periodic safety inspection of all installation material and the fixture. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

Be sure to complete all rigging and installation procedures before connecting the main power cord to the appropriate wall outlet.

**Clamp Mounting:** MINISPOT 90 provides a unique mounting bracket assembly that integrates the bottom of the base, and the safety cable rigging point in one unit (see the illustration below). When mounting this fixture to truss be sure to secure an appropriately rated clamp to the included omega bracket using a M10 screw fitted through the center hole of the "Hanging Kit". As an added safety measure be sure to attached at least one properly rated safety cable to the fixture using on of the safety cable rigging point integrated in the base assembly .



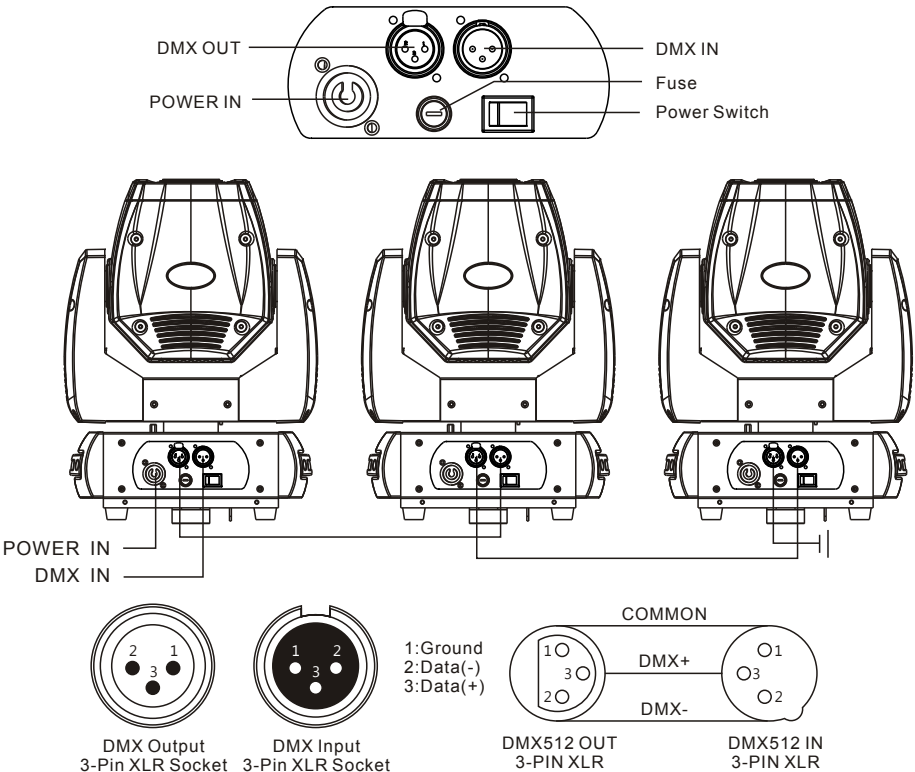
Regardless of the rigging option you choose for your MINISPOT 90, always be sure to secure your fixture with a safety cable. The fixture provides a built-in rigging point for a safety cable on the hanging bracket as illustrated above. Be sure to only use the designated rigging point for the safety cable and never secure a safety cable to a carrying handle.

# 7 DMX-512 CONTROL CONNECTIONS

Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple

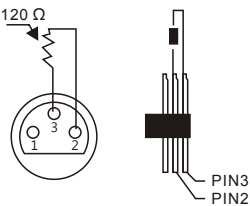
Moving head together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors. Please refer to the diagram below.

DMX-512 connection with DMX terminator



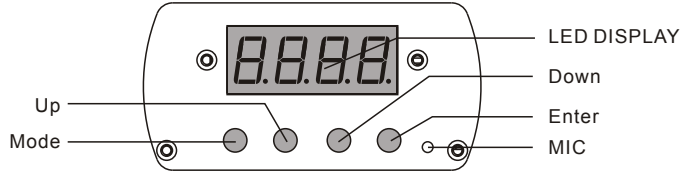


For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3, which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below.



## 8 MENU OPERATIONS

MENU	MODE	ADDR	VALU	A001~AXXX (AXXX)	DMX address setting
			SLAV	ON/OFF (SLAV)	Slave
	AUTO	IP1~8		ALON (AU-A)	Alone setting
				MAST (AU-M)	Master setting
	SOUN	IP1~8		ALON (SO-A)	Alone setting
				MAST (SO-M)	Master setting
	SET	MIC	M-XX		Mic sensitivity
		LODA	ON/OFF		Data reload
		VER	V-1.0~V-9.9		Software version
		CALI	Code(088)		Calibration Code
			CH01--CH12	0--255	Calobration Channels
		SPM	SP1		SP1
			SP2		SP2
	DMX	CH14			14 CH
		CH16			16 CH
	REST	ON/OFF			Reset
	TEMP	TXXX			Temperature reading
	DEGR	PAN	630/540/360		PAN angle options
		TILT	270/180/90		TILT angle options
	P-REV	ON/OFF			PAN inverted
	T-REV	ON/OFF			TILT inverted



## 9 DMX CHANNELS

Mode/Channel		Function	Values	Description
Ch14	Ch16			
1	1	Pan	0-255	PAN Movement
2	2	Pan-fine	0-255	Fine control of Pan movement
3	3	Tilt	0-255	Tilt Movement
4	4	Tilt-fine	0-255	Fine control of Tilt movement
5	5	Color wheel	0-15	Open / white
			16-31	Color 1
			32-47	Color 2
			48-63	Color 3
			64-79	Color 4
			80-95	Color 5
			96-111	Color 6
			112-127	Color 7
			128-189	Forwards rainbow effect from fast to slow
			190-193	Color rotation stop
			194-255	Backwards rainbow effect from slow to fast
6	6	Gobo wheel 1	0-9	Open
			10-19	Gobo 1
			20-29	Gobo 2
			30-39	Gobo 3
			40-49	Gobo 4
			50-59	Gobo 5
			60-69	Gobo 6
			70-89	Gobo 1 shake slow to fast
			90-109	Gobo 2 shake slow to fast
			110-129	Gobo 3 shake slow to fast
			130-149	Gobo 4 shake slow to fast
			150-169	Gobo 5 shake slow to fast
			170-189	Gobo 6 shake slow to fast
			190-255	Rot. gobo wheel cont. rotation slow to fast
7	7	Gobo1 rotation	0-3	No function
			4-127	Forwards gobo rotation from fast to slow
			128-131	Gobo rotation stop
			132-255	Backwards gobo rotation from slow to fast
8	8			No function
9	9	Shutter	0-31	Shutter closed
			32-63	Shutter open
			64-95	Strobe effect slow to fast
			96-127	Shutter open
			128-159	Pulse-effect sequences slow to fast

9	9	Shutter	160-191	Shutter open
			192-223	Random strobe effect slow to fast
			224-225	Shutter open
10	10	Dimmer	0-255	Dimmer 0%...100%
11	11	Focus	0-255	In(near)to out(far)
12	12	Prism & Rotation	0-5	OFF
			6-127	ON
			128-255	Rotation from slow to fast
13	13	Speed Pan/Tilt	0-225	Max to min speed
			226-235	Blackout by movement
			236-245	Blackout by all wheel changing
			246-255	No function
14	14	Special function	0-19	No function
			20-29	No function
			30-39	No function
			40-79	No function
			80-84	All motor reset
			85-87	Scan motor reset
			88-90	Colors motor reset
			91-93	Gobo motor reset
			94-96	No function
			99-119	Internal program 1
			120-139	Internal program 2
			140-159	Internal program 3
			160-179	Internal program 4
			180-199	Internal program 5
			200-219	Internal program 6
			220-239	Internal program 7
			240-255	Internal sound program 1
	15	0-255	0-255	Max to min speed
	16	0-255	0-255	Max to min speed

## **10 MAINTENANCE AND CLEANING**

The following points have to be considered during the inspection:

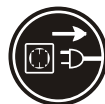
- 1) All screws for installing the devices or parts of the device have to be tightly connected and must not be corroded.
- 2) There must not be any deformations on the housing, color lenses, fixations and installation spots (ceiling, suspension, trussing).
- 3) Mechanically moved parts must not show any traces of wearing and must not rotate with unbalances.
- 4) The electric power supply cables must not show any damage, material fatigue or sediments.

Further instructions depending on the installation spot and usage have to be adhered by a skilled installer and any safety problems have to be removed.



### **CAUTION**

Disconnect from mains before starting maintenance operation.



In order to make the lights in good condition and extend the life time, we suggest a regular cleaning to the lights.

- 1) Clean the inside and outside lens each week to avoid the weakness of the lights due to accumulation of dust.
- 2) Clean the fan each week.
- 3) A detailed electric check by approved electrical engineer each three month, make sure that the circuit contacts are in good condition, prevent the poor contact of circuit from overheating.

We recommend a frequent cleaning of the device. Please use a moist, lint- free cloth. Never use alcohol or solvents.

There are no serviceable parts inside the device. Please refer to the instructions under "Installation instructions".

Should you need any spare parts, please order genuine parts from your local dealer.





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