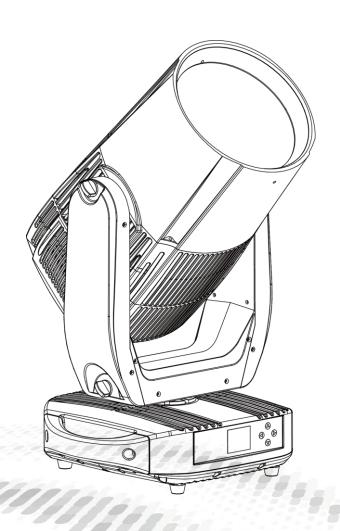


# NL1 USER MANUAL





MODEL: SS9471SCM-PRO

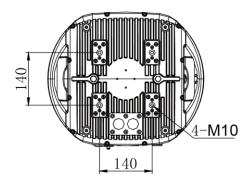


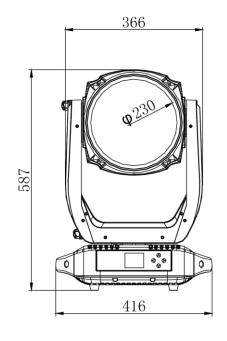
广州市雅江光电设备有限公司 Guangzhou Yajiang Photoelectric Equipment Co., Ltd. 电话/Tel:020-86947788 邮箱/E-mail:sales@yajiang.cn 传真/Fax:020-86943773 网址/Website:www.yajiang.cn

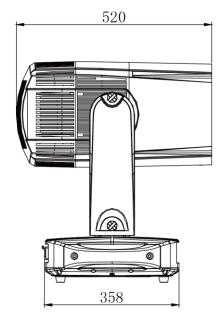
# 1 PRODUCT

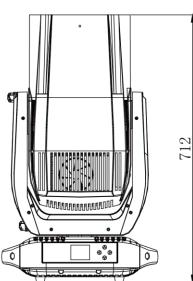
## 1.1 TECHNICAL SPECIFICATIONS

Type	SS9471SCM-PRO		
LED colors	260W Laser source		
Angle	1°		
Power	380W		
Control Protocol	DMX512, RDM, ARTNET, sACN, W-DMX (Optional)		
Voltage Range	100-240V~		
Frequency Range	50/60Hz		
Protection	IP66		
Operation Temperature	-20℃~45℃		
Dimensions	416x358x712mm		
Weight	39kg		









## 1.2 Safety Notes

#### **IMPORTANT**

- This product must be installed by a qualified professional.
- 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
- The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

#### CAUTION!

- Make sure that the available voltage is not higher than stated on the rear panel.
- Do not touch the power cables if your hands are wet.
- The earth wire must always be connected to the ground. Therefore it is essential to connect the yellow/green conductor to earth.
- Make sure that the power-cord is never crimped or damaged by sharp edges. Check the
  device and the power-cord from time to time. The electric connection, repairs and servicing
  must be carried out by a qualified employee.
- Always disconnect power input cable to completely remove power from unit when not in use or before cleaning or servicing the fixture.
- Do not switch the fixture on and off in short intervals as this would reduce the Laser's life.
- Do not touch the device's housing bare hands during its operation (housing becomes hot)!
   The surface of the product's casing can reach up to 60° C (140° F) during operation. Avoid contact by persons and materials. Do not install the product in a location where there is a risk of accidental contact. Allow the product to cool for at least 10 minutes before handling.
- For replacement use Lasers and fuses of same type and rating only.
- Please protect the fixture and avoid destroy during transport and installation. If there is any damage to the coating, the shell may be corroded.
- When hanging Lasers and lanterns, it is necessary to verify that facilities and hooks can bear at least 10 times the weight of Lasers and lanterns.
- Fix the safety rope at the correct holes only. Only operate the fixture after having checked that the housing is firmly closed and all screws are tightly fastened.
- The maximum ambient temperature 45°C must never be exceeded. Do not operate the product if the ambient temperature (Ta) exceeds 45°C (115°F).
- During the initial start-up some smoke or smell may arise. This is a normal process and does
  not necessarily mean that the device is defective.

## **Electrical Warning**

- The light source contained in this luminaire shall only be replaced by the manufacturer or his service agent or a similar qualified person
- For replacement use Lasers and fuses of same type and rating only.
- The lens has to be replaced when it is obviously damaged, so that its function is impaired, e. g. due to cracks or deep scratches!

#### Keep the product well away from flammable materials

- Keep all combustible materials (e.g. fabric, wood, paper) at least 10m (40 in.) away from the product.
- Ensure that there is free and unobstructed airflow around the product. Provide a minimum clearance of 150 mm (6 in.) around fans and air vents.
- Do not illuminate surfaces within 10 m (40 ft.) of the product.
- Do not install a fuse that has a higher rating than the one originally installed in the product.
   Do not bypass fuses.
- Do not stick filters, masks or other materials onto optical components.
- If the fixture seems to be abnormally hot, shows signs of melting or emits smoke, disconnect the fixture from power immediately and allow it to cool. Do not touch the fixture without heatproof safety gloves. Keep the fixture well away from combustible and flammable materials.

# NEVER LOOK DIRECTLY INTO THE LIGHT SOURCE! RETINA INJURY RISK - MAY INDUCE BLINDNESS!

Do not point the front of the fixture towards the sun or other strong light sources. The front lens focuses and concentrates light just like a magnifying glass. Strong light can cause internal damage to the fixture, melting components or starting an internal fire within seconds.

#### To avoid problems from strong light sources:

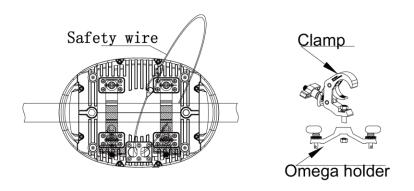
- Do not expose the front of a fixture to sunlight or any other strong light source. Avoid pointing other high-powered beam lights directly at the fixture.
- Do not focus a light beam from one lighting fixture directly towards another.
- For outdoor applications during daylight, make sure that the front face of any fixture is shielded or points away from the sun, even when not in use.
- Do not expose the product to heat (from other lighting fixtures for example).

## **2 INSTALLATION**

### 2.1 MOUNTING

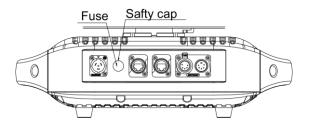
#### **Truss installation**

- ♦ Keep all combustible materials (e.g. fabric, wood, paper) at least 500 mm (20 in.) away from the product.
- For overhead use, always install a safety cable that can hold at least 10 times the weight of the fixture.
- For overhead installation, the fixture must be always secured with a safety wire that can bear at least 10 times the weight of the fixture;
- Secure the fixture with a safety cable through the rear safety eye and truss as shown..
- ◆ Ensure that the structure (truss) to which you are attaching the fixture is secure



## 2.2 Fuse replacement

- ♦ Remove the safety cap by a screwdriver.
- Fetch the old fuse from safety cap.
- Install a new fuse.
- Install the safety cap.



#### 2.3 POWER CONNECTIONS

◆ This product has an auto-ranging power supply that can work with an input voltage range of 100–240V~, 50/60 Hz.

#### AC Plug

Connection	Wire (U.S.	Wire(Europe)	Screw Color
AC Live	Black	Brown	Yellow/Brass
AC Neutral	White	Blue	Silver
AC Ground	Green/Yellow	Green/Yellow	Green

## 2.4 Data network requirements

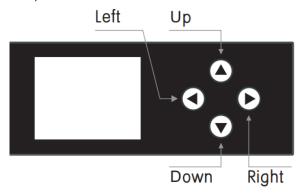
- ◆ Connect the DMX512 controller to the units in series. A DMX 512 data link is required in order to control the fixture via DMX. The fixture has 3/5-pin XLR connectors for DMX data input and output.
- ◆ Each unit has N DMX channels so the DMX Addresses should increase by increments of 1, (Nx1)+1, (Nx2)+1, (Nx3)+1...
- ◆ Any DMX address in the range from 001 to 512 may be used.
- ◆ Connect the DMX-output of the first fixture in the DMX chain with the DMX-input of the next fixture. Always connect one output with the input of the next fixture until all fixtures are connected.
- ♦ Caution: At the last fixture, the DMX-cable has to be terminated with a terminator. Solder a 120 Ω resistor between Signal (−) and Signal (+) into a 3/5-pin XLR-plug and plug it in the DMX-output of the last fixture.

DMX-output DMX-input XLR mounting-sockets XLR mounting-plugs 1-Ground 1-Ground 2-Shield(-) 2-Shield(-) **⊚**3 3-Shield(+) 3-Shield(+) 1 @ **©**2 **©**5 4-Not connected 4-Not connected 5-Not connected 5-Not connected DMX-controller DMX512

## **3 FUNCTIONS AND SETTINGS**

### 3.1 DISPLAY OPERATION

- ◆ LEFT: Used to access the menu or to return a previous menu option;
- RIGHT: Used to select and store the current menu or confirm the current function value or option within a menu;
- ◆ UP: Navigates downwards through the menu list and increases the numeric value when in a function;
- ◆ DOWN: Navigates upwards through the menu list and decreases the numeric value when in a function:
- ♦ When the display locked, please unlock the display as below:
  - 1. Keep pressing BACK around 5sec, until the display shows inset password.
  - 2. Press "up down up down, enter" to unlock.



## 3.2 Menu Map

ADDRESS	001 – 512(Defau	lt 001)	DMX address setting	
PERSON	BASIC		Use the menu to select desired channel	
	STANDARD (De	fault)	mode	
	EXTEND			
RUNMODE	DMX512 (Defaul	t)	Select Signal	
	ARTNET		Default: DMX512	
	ARTNET TO DM	X	ARTNET: Ethernet control	
	sACN		CUSTOM1-2 Set up get into EDIT MENU	
	AUTO		edit	
	CUSTOM1			
	CUSTOM2			
OPTION	PAN INVERT	NORMAL (Default)	PAN moving direction selection	
	PANINVERI	INVERT		
	TILT INVERT	NORMAL (Default)	TILT moving direction selection	
	ILLINVERI	INVERT	1	
		STUDIO	Fan mode low speed	
	PERFORM	POWER	Fast rotation of fan, all power	
		LIVE (Default)	Automatic rotation of fan	
	BLACKOUT	OFF (Default)	Select OFF blackout without delay	

	<u> </u>	1			
		ON		Select ON Blackout delay 3s	
	DIMMER	DIM4 (Default)			Dimming curves <b>OFF</b> (fast) to <b>DIM4</b> (slow);
	BININER	OFF			
	DMX ERROR	SAVE (Default)		Hold after loss of DMX signal	
	DWX ERROR	BLACK		Blackout after loss of DMX signal	
		On			Display backlight always on
	DISDLAY TIME	30s			Turns off display backlight after 30s/1min
	DISPLAY TIME	1min (Default)			/2min of inactivity
		2min			
	DIODI AVVI GOV	OFF		Locks display (passcode is <up>,</up>	
	DISPLAY LOCK	ON (Default)			<down>,<up>, <down>, <enter>)</enter></down></up></down>
		OFF			Not upload data
	LOAD PARA	ON (Default)			Upload data
		RECOVERY	***		Restore default factory settings.
		CLEAN EDIT1	***		Clean customer self-editing scene 1
		CLEAN EDIT2	***		Clean customer self-editing scene 2
	SETTING		YES		Hide wireless mode WDMX reset and
		WDMX HIDE			signal hide and the default is wired mode
			NO		only
			2.xxx.xxx.xxx		Net switch off IP mode
		NET SWITCH	10.xxx.xxx		Net switch on IP mode
		UNIVERS 0-255		Packet group Settings	
	NETWORK		DEFAUL IP		Default IP
		IP MODE	CUSTOM IP		Customer's IP
		CUSTOM IP XX.XX.XX		Customer's IP setting	
		OFF			XY Encoder switch.
	PT ENCODER	ON		OFF is close; ON is open.	
		OFF			Focus limit off
	FOCUS LIMIT	ON			Focus limit on
	WDMV DEGET	YES			Do not clear the receiver's message.
	WDMX RESET	NO			Clear the receiver's message
		ONLY XLRDMX		ONLY XLR is wire only	
		XLRDMX FIRST			XLR FIRST is wire first
	SIGNAL	ONLY WDMX			ONLY WDMX is wireless only
		WDMX FIRST			WDMX FIRS is wireless first
		WDMX TO XLRI	OMX		WDMX TO DMX is wireless to wired
EDIT			PAN	0-255	Edit the custom programs1-30
			TILT	0-255	Select play 【EDIT 1】 in RUNMOEDE
	EDIT 1-2	STEP 1-30	PT SPEED	0-255	CUSTOM 1; Select play 【EDIT 2】 in
			СТО	0-255	RUNMOEDE CUSTOM 2
	1	1			

			FIXED GOBO	0-255	
			PRISM 1	0-255	-
			PRISM 2	0-255	-
			FROST	0-255	1
			FOCUS	0-255	-
			DIMMER	0-255	-
			STROBE	0-25	-
			TIME	0-255	
			USE	YES/NO	Select YES to run the steps user need.
MANUAL	AUTO TEST		- I		
		PAN	0-255		Manual control channel
		TILT	0-255		1
		PT SPEED	0-255		-
		СТО	0-255		-
		COLOR	0-255		-
		FIXED GOBO	0-255		1
	CHANNEL	PRISM 1	0-255		1
		PRISM 2	0-255		1
		FROST	0-255		-
		FOCUS	0-255		1
		DIMMER	0-255		1
		STROBE	0-25		1
		YES	•		Factory testing mode. All stepper motors
	DEBUG HIDE	NO			are not controlled by signal, It only works
					again after the reset.
		ALL RESET			Select Yes/No to carry out all reset
	RESET	PT RESET			Select Yes/No to carry out P/T reset
	RESET	COLOR SYS			COLOR/CTO reset
		OTHER			Focus GOBO reset
INFO	FIXTURE HOUR	S			Hours of fixture use
	LED USE HOUR	S		LED use time	
	TEMPERATURE			LED temperature	
	VERSION				Software versions
	NETWORK				Check network parameter
	RDM	UID	0x388Axxxxxxxx		Check fixture's ID
	TKBWI	LABEL			Check fixture's LABEL
		MEMORY IC			Memory IC
	SYSTEM	ANGLESENSOI	२		Angle Sensor
	ERROR	PAN SENSOR		Pan Sensor	
		PAN ENCODER	?		Pan Encoder

		PAN DRIVEIC		Pan Drive IC
		TILT SENSOR		Tilt Sensor
				_
		TILT ENCODER		Tilt Encoder
		TILT DRIVEIC		Tilt Drive IC
		TEMPERATURE		Temperature
		CTO RESET		CTO reset
		COLOR RESET		Color reset
		FIXED GOBO		gobo reset
		PRISM 1 RESET PRISM 2 RESET		Prism 1 reset
				Prism 2 reset
		FOCUS RESET		Focus reset
SERVICE		PAN	±127	Pan position fine adjustment
		TILT	±127	Tilt position fine adjustment
	***	СТО	±127	CTO position fine adjustment
		COLOR	±127	Color position fine adjustment
		FIXED GOBO	±127	Gobo position fine adjustment
		PRISM 1	±127	Prism1 position fine adjustment
		PRISM 2	±127	Prism2 position fine adjustment
		FROST	±127	Frost position fine adjustment
		FOCUS	±127	Focus position fine adjustment

# **4 USING A DMX512 CONTROLLER**

## **4.1 DMX CONTROL**

BASIC (13CH)	STANDARD (17CH)	Extend (19CH)	Value	Function
1	1	1	000-255	PAN 0-540°
-	2	2	000-255	PAN FINE
2	3	3	000-255	TILT 0-270°
-	4	4	000-255	TILT FINE
3	5	5	000-255	PT Speed
			СТО	
			0-10	WHITE
4	6	6	11-127	СТО
			128-244	СТВ
			245-255	WHITE
			COLOR WH	IEEL 19+1
			0-7	WHITE
			8-10	COLOR 1
			11-13	COLOR 2
			14-16	COLOR 3
			17-19	COLOR 4
			20-22	COLOR 5
			23-25	COLOR 6
			26-28	COLOR 7
			29-31	COLOR 8
			32-34	COLOR 9
			35-37	COLOR 10
5	7	7	38-40	COLOR 11
			41-43	COLOR 12
			44-46	COLOR 13
			47-49	COLOR 14
			50-52	COLOR 15
			53-55	COLOR 16
			56-58	COLOR 17
			59-61	COLOR 18
			62-64	COLOR 19
			65-191	COLOR WHELL1 0-360°
			192-222	COLOR WHELL1 RAINBOW EFFECT(SPEED 100%->1)
			223-224	STOP
			225-255	COLOR WHELL1 RAINBOW EFFECT(SPEED 1->100%)
-	-	8	000-255	COLOR WHEEL FINE
			FIXED GOE	3O WHEEL 29+1
			0-10	WHITE
			11-12	FIXED GOBO WHEEL 1
			13-14	FIXED GOBO WHEEL 2

15-16	FIXED GOBO WHEEL 3
17-18	FIXED GOBO WHEEL 4
19-20	FIXED GOBO WHEEL 5
21-22	FIXED GOBO WHEEL 6
23-24	FIXED GOBO WHEEL 7
25-26	FIXED GOBO WHEEL 8
27-28	FIXED GOBO WHEEL 9
29-30	FIXED GOBO WHEEL 10
31-32	FIXED GOBO WHEEL 11
33-34	FIXED GOBO WHEEL 12
35-36	FIXED GOBO WHEEL 13
37-38	FIXED GOBO WHEEL 14
39-40	FIXED GOBO WHEEL 15
41-42	FIXED GOBO WHEEL 16
43-44	FIXED GOBO WHEEL 17
45-46	FIXED GOBO WHEEL 18
47-48	FIXED GOBO WHEEL 19
49-50	FIXED GOBO WHEEL 20
51-52	FIXED GOBO WHEEL 21
53-54	FIXED GOBO WHEEL 22
55-56	FIXED GOBO WHEEL 23
57-58	FIXED GOBO WHEEL 24
59-60	FIXED GOBO WHEEL 25
61-62	FIXED GOBO WHEEL 26
63-64	FIXED GOBO WHEEL 27
65-66	FIXED GOBO WHEEL 28
67-68	FIXED GOBO WHEEL 29
69-72	FIXED GOBO WHEEL 1 SHAKE (SPEED 1> 100%)
73-76	FIXED GOBO WHEEL 2 SHAKE (SPEED 1> 100%)
77-80	FIXED GOBO WHEEL 3 SHAKE (SPEED 1> 100%)
81-84	FIXED GOBO WHEEL 4 SHAKE (SPEED 1> 100%)
85-88	FIXED GOBO WHEEL 5 SHAKE (SPEED 1 -> 100%)
89-92	FIXED GOBO WHEEL 6 SHAKE (SPEED 1 -> 100%)
93-96	FIXED GOBO WHEEL 7 SHAKE (SPEED 1 —> 100%)
97-100	FIXED GOBO WHEEL 8 SHAKE (SPEED 1 —> 100%)
101-104	FIXED GOBO WHEEL 9 SHAKE (SPEED 1 —> 100%)
105-108	FIXED GOBO WHEEL 10 SHAKE (SPEED 1 —> 100%)
109-112	FIXED GOBO WHEEL 11 SHAKE (SPEED 1 —> 100%)
113-116	FIXED GOBO WHEEL 12 SHAKE (SPEED 1 —> 100%)
117-120	FIXED GOBO WHEEL 13 SHAKE (SPEED 1 —> 100%)
121-124	FIXED GOBO WHEEL 14 SHAKE (SPEED 1 —> 100%)
125-128	FIXED GOBO WHEEL 15 SHAKE (SPEED 1 —> 100%)
129-132	FIXED GOBO WHEEL 16 SHAKE (SPEED 1 —> 100%)
133-136	FIXED GOBO WHEEL 17 SHAKE (SPEED 1 —> 100%)
137-140	FIXED GOBO WHEEL 18 SHAKE (SPEED 1 —> 100%)
141-144	FIXED GOBO WHEEL 19 SHAKE (SPEED 1 —> 100%)

			145-148	FIXED GOBO WHEEL 20 SHAKE (SPEED 1 —> 100%)	
			149-152	FIXED GOBO WHEEL 21 SHAKE (SPEED 1 —> 100%)	
			153-156	FIXED GOBO WHEEL 22 SHAKE (SPEED 1 —> 100%)	
			157-160	FIXED GOBO WHEEL 23 SHAKE (SPEED 1 —> 100%)	
			161-164	FIXED GOBO WHEEL 23 SHAKE (SPEED 1 —> 100%)	
			165-168	FIXED GOBO WHEEL 24 SHAKE (SPEED 1 —> 100%)	
			169-172	FIXED GOBO WHEEL 26 SHAKE (SPEED 1 -> 100%)	
			173-176	FIXED GOBO WHEEL 27 SHAKE (SPEED 1 -> 100%)	
			177-180	FIXED GOBO WHEEL 28 SHAKE (SPEED 1 -> 100%)	
			181-184	FIXED GOBO WHEEL 29 SHAKE (SPEED 1 —> 100%)	
			185-188	STOP WATER EFFECT	
			189-219	STATIC GOBO JUMPING WATER EFFECT (SPEED 100 —> 1%)	
			220-224	STOP WATER EFFECT	
			225-255	STATIC GOBO FLOWING WATER EFFECT (SPEED 1 —> 100%)	
-	-	10	000-255	FIXED GOBO WHEEL FINE	
			PRISM 1		
			0-10	WHITE	
			11-145	PRISM INSERT AND ADJUST THE ANGLE (0 -> 360°)	
		11	146-150	STOP	
7	7 9		151-200	PRISM INSERT AND POSITIVE ROTATION (SPEED 100%  —> 1)	
			201-205	STOP ROTATION	
				PRISM INSERT AND REVERSE ROTATION (SPEED 1>	
			206-255	100%)	
			PRISM 2		
			0-10	WHITE	
			11-145	PRISM INSERT AND ADJUST THE ANGLE (0 -> 360°)	
			146-150	STOP	
8	10	12	151-200	PRISM INSERT AND POSITIVE ROTATION (SPEED 100% —> 1)	
			201-205	STOP ROTATION	
			206-255	PRISM INSERT AND REVERSE ROTATION (SPEED 1 —> 100%)	
			FROST	•	
9	11	13	0-10	WHITE	
			11-255	LINEAR CUT (0-100%)	
10	12	14	000-255	FOCUS	
-	13	15	000-255	FOCUS FINE	
11	14	16	000-255	DIMMER	
-	15	17	000-255	DIMMER FINE	
			STROBE		
			0-9	NO FUNCTION	
12	16	18	10-99	STROBE ( FROM SLOW TO FAST)	
			100-109	NO FUNCTION	
			110-179	LIGHTNING STROBE	
		•			

			180-189	NO FUNCTION
			190-255	RANDOM SROBE
			CONTROL	(EXECUTE AFTER 3 SECONDS)
			0-10	NO FUNCTION
			11-20	PAN/TILT BLACK ACTIVATED
			21-30	PAN/TILT BLACK DEACTIVATED
			31-40	PAN INVERT
			41-50	TILT INVERT
			51-60	PAN/TILT INVERT OFF
			61-70	STUDIO
			71-80	POWER
			81-90	LIVE
		19	91-100	RESERVED
			101-110	DIM4
12	17		111-120	OFF
13	13 17		121-130	RESERVED
			131-140	RESERVED
			141-150	RESERVED
			151-160	RESERVED
			161-170	RESERVED
			171-180	RESERVED
			181-190	RESERVED
			191-200	RESERVED
			201-210	ALL RESET
			211-220	XY RESET
			221-230	COLOR\GOBO SYSTEM RESET
			231-240	FOCUS RESET
			241-255	RESERVED