SPL-LED-1940

CONTENTS

01/ Safety Information

Please keep this User Manual for future consultation. If you sell the unit to another user, be
sure that they also receive this instruction 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.

    Unpack and check carefully to ensure that there is no transportation damage before using the unit.

    This product is suitable for wet locations. Do not immerse in water.

    DO install and operate by qualified operator.

    DO NOT allow children to operate the fixture.

    Use safety chain (made of steel, min. diameter 4.0mm) when fixing the unit. Handle the
unit by carrying its base instead of head only.

    The unit must be installed in a location with adequate ventilation, at least 50cm from
adjacent surfaces.

    Be sure that no ventilation slots is blocked, otherwise the unit will be overheated.

    Before operation, ensure that you are connecting this product to the proper voltage in
accordance with the specifications in this manual or on the product's specification label.

    It's important to ground the yellow/green conductor to earth in order to avoid electric
shock.

    Minimum ambient temperature TA: -10℃. Maximum ambient temperature TA: 40℃. Do
not operate this product at a lower or higher temperature.

    DO NOT connect the device to any dimmer pack.

    Keep flammable materials away from the fixture while operating to avoid fire hazard.

    Make sure the power cord is not crimped or damaged; replace it immediately if damaged.

    Unit's surface temperature may reach up to 70℃. DO NOT touch the housing
bare-handed during its operation.
Avoid any flammable liquids, water or metal from entering the unit. Once it happens, cut
off the mains power immediately.

    DO NOT operate in a dirty or dusty environment. DO clean the fixture regularly.

    DO NOT touch any wire during operation as there might be a hazard of electric

shock.

Avoid entanglement of the power cord with other wires.

The minimum distance to objects/surface must be more than 4 meters.

In the event of serious operating problem, stop using the unit immediately.

Never turn on and off the unit time after time.

The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

DO NOT open the housing as there are no user serviceable parts inside.

DO NOT attempt to operate this unit if it becomes damaged. DO NOT attempt any repairs yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center if needed.

Disconnect this product from its power source before servicing.

DO use the original packaging if the device is to be transported.

Check that the head tilt lock is released before packing for transportation.

Avoid direct eye exposure to the light source while the product is on.

DO NOT operate this product if you see damage on the housing, shields, or cables. Have
the damaged parts replaced by an authorized technician at once.
External sources of light beams from direct sunlight or any other strong light source, which penetrate the front lens of lighting fixtures, can cause severe internal damage. DO
NOT expose the fixture front lens to light beams from direct sunlight or any other strong
light source from any angle while unpacking, installation, use, and extended idle times outdoors. DO NOT focus a light beam from one lighting fixture directly towards another.
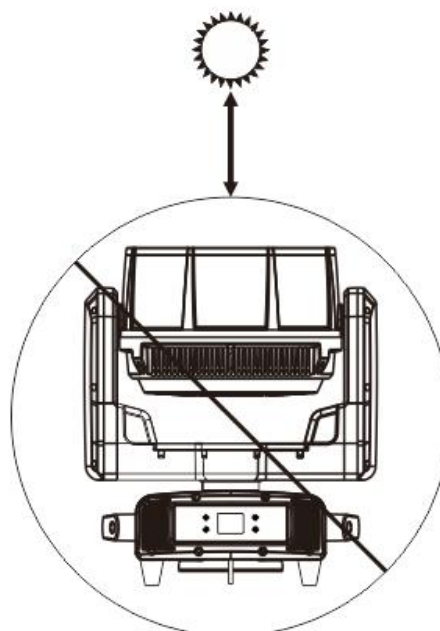
02/ Technical Specifications

Input voltage：AC100-240V 50/60Hz

Power consumptionn：800W

LED type：54*0.2W 5050 RGB

LED QTY：19*40WRGBW(4IN1)pc

Average lifespan：50000 hours

Beam angle：4°- 38°

Electronic Dimming：0-100%

Strobe：1S/25

Focus：Yes

Rotate：Yes

Pan：540° 16bits

Tilt：270° 16bits

DMX channel：30CH/32CH/34CH/44CH

Control mode：DMX /RDM

Display mode：LED

IP rating：IP65

Max ambient temp：45°

Product dimension： 330*260*440mm

N.W：14.5kG

Photometric Diagram:

Distance	1m/39.4in	2m/78.74in	3m/118.1in	5m/196.9in
4°(LUX)				
RGBW	250000	158000	107000	40000
R	47000	3200	19000	7500
G	88400	59000	38500	14780
B	2740	1600	1140	481
W	134000	158000	54570	20000
Diameter(m)	0.07	0.14	0.21	0.35
32°(LUX)				
RGBW	76000	18000	11750	4600
R	13000	3600	2085	832
G	28900	7000	4664	1770
B	880	207	188	98
W	40000	9800	6300	2400
Diameter(m)	0.57	1.15	1.72	2.87
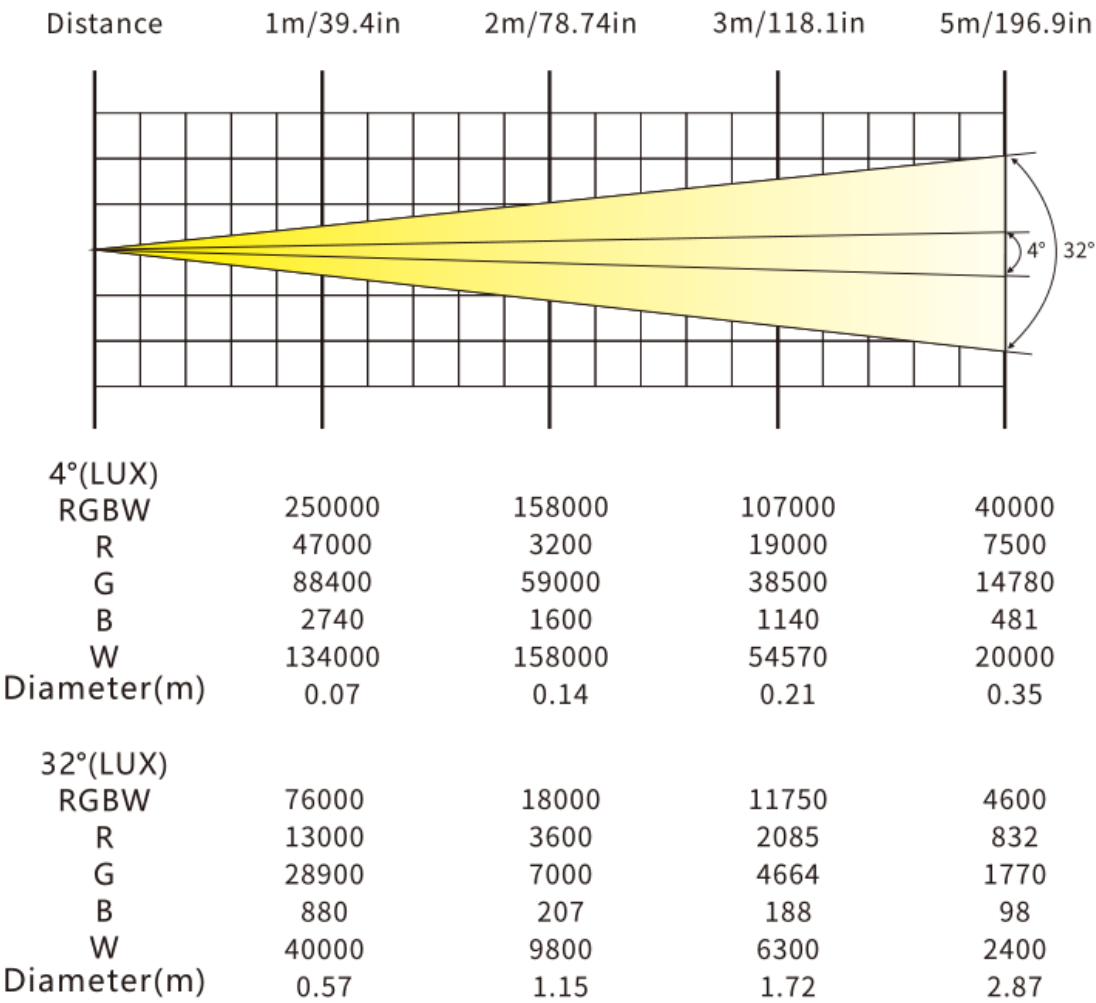
03/ Connecting Power and Data

To apply power, first check that the head pan and tilt locks are released.

This fixture can operate on any 180-240Vac; 50/60Hz AC mains power supply.

The maximum power consumption is 760W.

The fixture must be grounded/earthed and able to be isolated from AC power. The AC power

supply must incorporate a fuse or circuit breaker for fault protection.

Wiring and connection work must be carried out by a qualified electrician.

The power cable color coding is given in the figure below:

Wire	Color (US)	Wire	Color (EU)	Symbol	Conductor
■	black	■	brown	L	live
□	white	■	blue	N	neutral
■	green	■	yellow/green	⏚ or ⏚	ground (earth)

Power cord set should be used: Listed SJOW flexible cord with rating: 300V, 105°C, VW-1,

14AWG x 3C, molded with 5-20P attachment plug and terminated with cord connector model RCAC3F-X-000-01 with rating 250V, 16A by Neutrik Technology (Ningbo) Co., Ltd.

The power cord shall be at least 914mm (It is to be measured from the face of attachment

plug to the face of connector).

CAUTION!

DO NOT CONNECT THE FIXTURE TO AN ELECTRICAL DIMMER SYSTEM AS DOING SO MAY CAUSE DAMAGE.

04/ Connecting Data

The fixture is equipped with 5-pin (or 3-pin) XLR sockets for DMX input and output. Use a
high-quality DMX cable designed for RS-485 and 5-pin (or 3-pin) XLR-plugs and connectors
in order to connect the controller with the fixture or one fixture with another. For outdoor
installations, use only IP-rated XLR connectors suitable for outdoor use.
Building a serial DMX chain:
Connect the DMX data output from the controller to the fixture's data input socket. 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.
Up to 32 fixtures can be connected to the same DMX link. Terminate the DMX out cable of
the last fixture in the data link with a 120 ohm DMX terminator.

DMX512
3PIN
1.SCREEN
2.SIGNAL-
3.SIGNAL+

DMX512
5PIN
1.SCREEN
2.SIGNAL-
3.SIGNAL+

120 Ω

PIN 3
PIN 2

05/ Address Setting

All fixtures should be given a DMX starting address when operating with a DMX controller, in order to ensure that the correct fixture responds to the correct control signal. Incorrect settings will result in unpredictable responses from the lighting controller.

You can set the same starting address for all fixtures or a group of fixtures, or set different addresses for each individual fixture.

Setting all fixtures to the same DMX address will cause all fixtures to react in the same way. In this case, please note that changing the settings of one channel will affect all the fixtures simultaneously.

If you set each fixture to a different DMX address, each unit will "listen" starting at the channel number you have set, based on the quantity of DMX channels of each fixture. That means changing the settings of one channel will only affect the selected fixture.

For example, if the first fixture is set to 43 ch DMX mode with a start DMX address of 1, the following fixture in the DMX chain should then be set to a DMX address of 44. As the first fixture uses all the first 43 DMX channels, the next available channel is 44 (43+1=44 >> 44). See the chart below for more details:
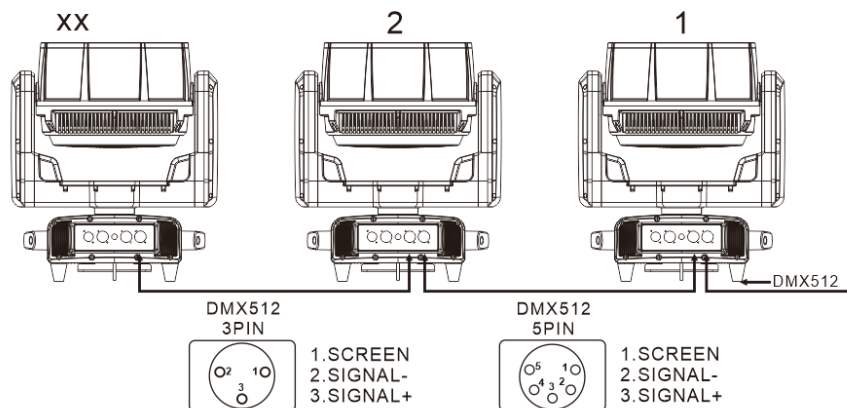
Channel Mode	Unit 1 Address	Unit 2 Address	Unit 3 Address	Unit 4 Address	Unit xxx Address
43 channels	1	44	87	130	......
34 channels	1	35	69	103	......
32 channels	1	33	65	97	......
23 channels	1	24	47	90	......

• 1. Display	To show the various menus and the selected function	
• 2. Buttons	MENU	To enter into move backward or leave the menu
	UP	To go backward to move up in the menu
	DOWN	To go forward to move down in the menu
	ENTER	To perform the desired functions

Menu key: enter/return to the main menu.

Up key: menu function up selection/parameter increment.

Down key: menu function down selection/parameter decreasing.

Enter key: select the menu function, and confirm and save it when the menu function parameters are modified.

Second, the menu function

After the machine is powered on and reset, press the menu key to enter the main menu (exit after 30 seconds of no operation in the main menu interface). See the main menu menu (5 main menu options in total) for details. Press the Up or Down key to select the main menu, enter the Enter key to modify the function parameters of each menu, and then press the Enter key to save the current function parameters after modification (with power-off memory after saving).

Primary menu	submenu	Menu function description
1. System Settings	1. DMX address	Modify the DMX address code up or down (the optional range of address code is 001-512), and press the Enter key to save. The default value is 001.
	2. Encoder	Modify the encoder on/off up or down, save the confirmation key and turn it on by default.
	3. X inversion	Modify the X-reversal on/off up or down, and confirm to save, which is closed by default.
	4. Y inversion	Modify Y-turn on/off up or down, and confirm to save, which is closed by default.
	5. Advanced Settings	
2. Operation mode	1. Operation mode	Select the running mode DMX/ Voice Control/Auto up or down, and press the Enter key to save. The default DMX is selected.
	2. Channel selection	Select channels ch30, ch32, ch34, ch44, ch87, ch101, ch106, ch108 and ch110 up or down, and confirm to save, which is the default.
3. Manual control	1、X	Modify the operating parameter value of X motor up or down (adjustable range 000-255), and press the Enter key to save. The default value is 000.
	2, X fine tuning	Modify the fine-tuning parameter value of X motor up or down (adjustable range 000-255), and press the Enter key to save. The default value is 000.
	3、Y	Modify the operating parameter value of Y motor up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 128.
	4, y fine-tuning	Modify the fine-tuning parameter value of Y motor up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 000.
	5, XY speed	Modify the operating speed parameter value of XY motor up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 000.
	6, focusing	Modify the operation parameter value of the focusing motor up or down (adjustable range 000-255), and press the Enter key to save, and the default value is 000.
	7. Turn the mirror	Modify the parameter value of the rotating mirror up or down (adjustable range 000-255), and press OK to save. The default value is 000.
	8. Dimming	Modify the dimming parameter value up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 255.
	9, stroboscopic	Modify the strobe parameter value up or down (adjustable range 000-

		255), and press the Enter key to save. The default value is 000.
	10. The foreground is red	Modify the red current value up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 255.
	11. The foreground is green	Modify the green current value up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 255.
	12. The foreground is blue	Modify the blue current value up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 255.
	13. The foreground is white	Modify the white current value up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 255.
	14. Color temperature	Modify the color temperature up or down (adjustable range 000-255), and press OK to save. The default value is 000.
	15. Dyeing	Modify the color dyeing value up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 000.
	16, desalination	Modify the color fade value up or down (adjustable range: 000-255), and press OK to save; the default value is 000.
	17. Translation	Modify the translation value up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 000.
	18. Patterns	Modify the color dyeing value up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 000.
	19. Moving pictures	Modify the color animation up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 000.
	20. Speed	Modify the speed up or down (adjustable range 000-255), and press the Enter key to save. The default value is 000.
	21. The background color is red	Modify the red current value up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 000.
	22. The background color is green	Modify the green current value up or down (adjustable range 000-255), and press the Enter key to save. The default value is 000.
	23. The background color is blue	Modify the blue current value up or down (adjustable range: 000-255), and press the Enter key to save; the default value is 000.
	24, the background color is white	Modify the white current value up or down (adjustable range 000-255), and press the Enter key to save. The default value is 000.
	25, reset	When the parameter value is 150-255, the whole machine is reset. The parameter value of the console must be pulled below 10 before it is pushed to 150-255. The parameter value is useless when it is 000-149, so it cannot be reset.
4. Display settings	1. Language choice	Select Chinese /EN (English) up or down, and press the Enter key to save. The default is Chinese.

	2. Inverted display settings	Select up or down to turn off/on the reverse display setting, and press the Enter key to save, which is turned off by default.	
	3, screen saver settings,	Select the close/open screen saver setting up or down, and confirm to save it, which is turned on by default.	
	4. Software version	06MC	
5. Information	Encryption settings	close	
	time	9999:00	
	HALL	0000110	
6. Factory Settings	Please enter the password for display! Change it to 138 up or down, and then press the Enter key to enter the factory settings.	1. X axis calibration	Modify the parameter up or down (range 000-255), and confirm to save it. The default value is 128.
		2, Y axis calibration	Modify the parameter up or down (range 000-255), and confirm to save it. The default value is 128.
		3, focusing calibration	Modify the parameter up or down (range 000-255), and confirm to save it. The default value is 128.
		4, focusing stroke	Modify the parameter up or down (range 000-255), and press the Enter key to save. The default value is 128.
		5, rotary calibration	Modify the parameter up or down (range 000-255), and confirm to save it. The default value is 128.
		6. Red	Modify the red light bulb current (032-255) up or down, and press the Enter key to save. The default value is 252.
		7. Green	Modify the green light bulb current up or down (032-255), and press the Enter key to save. The default value is 252.
		8. Blue	Modify the blue light bulb current up or down (032-255), and press the Enter key to save. The default value is 252.
		9. White	Modify the white light bulb current up or down (032-255), and press the Enter key to save. The default value is 252.
		10. Current	Select 000 /007 up or down, and confirm to save. The default value is 004.
		11. Speed	Modify the speed parameter (range 001-007) up or down, and press OK to save. The default value is 000.
		12、Logo	Select 000 /001 up or down, and confirm to save. The default value is 000.
		13. Temperature	Modify the temperature parameter (range 045-075) up or down, and confirm to save it. The default value is 065.
		14. Temperature-	Select up or down to turn off/on the fan control, and press the Enter key to save, which will be turned off by

		Fan	default.
		15、LED	LED-A/LED-B

08/ DMX Protoco

CH32.CH34-CHANNEL MODE:

CH32	CH34	Function	Value	Instruction
1	1	X	0-255	
2	2	X fine	0-255	
3	3	Y	0-255	
4	4	Y	0-255	
5	5	XY speed	0-255	From fast to slow
6	6	Zoom	0-255	Small to big
7	7	Lens rotation	0-127	0~60°
			128-188	Endless rotation from fast to slow
			189-193	stop
			194-255	Endless rotation from slow to fast
8	8	Total dimmer	0-255	0-100%
9	9	Strobe	0-255	
10	10	Red	0-255	0-100%
11	11	Green	0-255	0-100%
12	12	Blue	0-255	0-100%
13	13	Whit	0-255	0-100%
14	14	Color temp adjust	0-255	3200K-6500K
15	15	Marco color	0-255	

	16	Desalt	0-255	
	17	translation	0-255	
16	18	Static effect	0-255	
17	19	Dynamic effect	0-255	
18	20	Dynamic effect speed	0-255	From fast to slow
19	21	Background red	0-255	0-100%
20	22	Background green	0-255	0-100%
21	23	Background blue	0-255	0-100%
22	24	Background white	0-255	0-100%
23	25	Reset	0-250	No function
			251-255	All reset after 5s
24	26	SMD LED Dimming	0-255	0-100%
25	27	SMD LED strboe	0-255	Strobe speed from slow to block
26	28	Red 1 led dimmer	0-255	0-100%
27	29	Green 1 led dimmer	0-255	0-100%
28	30	Blue 1 led dimmer	0-255	0-100%
29	31	SMD led rings	0-255	
30	32	Dynamic effect speed	0-255	From fast to slow
31	33	SMD LED Backlight color	0-255	
32	34	SMD LED Backlight background tone light	0-255	

CH30.CH44. -CHANNEL MODE:

CH30	CH44	Function	Value	Instruction

1	1	Red	0-255	0-100%
2	2	Red fine	0-255	
3	3	Green	0-255	0-100%
4	4	Green fine	0-255	
5	5	Blue	0-255	0-100%
6	6	Blue fine	0-255	
7	7	white	0-255	0-100%
8	8	White fine	0-255	
9	9	Color temp adjust	0-255	3200K-6500K
10	10	Color macro	0-255	Inner color change
11	11	Strobe	0-255	open
12	12	Total dimmer	0-255	0-100%
13	13	Total dimmer fine	0-255	
14	14	X	0-255	pan
15	15	X fine	0-255	Pan fine
16	16	Y	0-255	Tilt
17	17	Y fine	0-255	Tilt fine
18	18	Marco function	0-255	No function
19	19	Reset	0-250	No function
			251-255	full reset after 5s
20	20	Zoom	0-255	
21	21	Lens rotation	0-255	
	22	Pattern rotation	0-255	

	23	Pattern effect speed	0-255	
	24	Fading of pattern effect	0-255	
	25	R pattern effect	0-255	
	26	R pattern effect	0-255	
	27	R pattern effect	0-255	
	28	R pattern effect	0-255	
	29	Pattern dimming	0-255	
	30	Background dimming	0-255	
	31	Pattern change	0-255	
	32	Pattern translation	0-255	
	33	Foreground stroboscopic	0-255	
	34	Background stroboscopic	0-255	
	35	Background selection	0-255	
22	36	Color temp adjust	0-255	0-100%
23	37	Strobe	0-255	On
24	38	Red	0-255	0-100%
25	39	Green	0-255	0-100%
26	40	Blue	0-255	0-100%
27	41	SMD led rings	0-255	
28	42	Dynamic effect speed	0-255	From fast to slow
29	43	SMD LED Backlight color	0-255	
30	44	SMD LED Backlight background tone light	0-255	

09/ Troubleshooting

Problem	Potential cause(s)	Remedies
Fixture does not respond or appears to be off.	No power to the fixture.	Confirm that the power is switched on and cables are plugged in.
	No output from PSU.	Replace the PSU.
Fixture suddenly turned off.	Power was turned off.	Check the power supply, switches and breakers
Light output cuts out intermittently.	Fixture is too hot.	Check fixture's stored error messages for more information. Allow fixture to cool. Clean fixture. Reduce ambient temperature.
Fixture suddenly stopped responding.	DMX cables were disconnected.	nspect DMX cables.
Fixture operates irregularly / abnormal.	Incorrect DMX address or DMX mode.	Inspect and enter the correct DMX address or mode
	DMX link is not terminated.	Install a XLR 120ohm DMX termination at the end of the DMX link.
	Bad data link.	Replace or repair defective cables and/or connections
	One of the fixtures is defective and is disturbing data transmission on the link.	Track and isolate the corrupted fixture. Have the fixture serviced by a qualified technician.
Pan / tilt is skipping / shuddering	Pan/ tilt locks are not released.	Release the pan / tilt locks
	Obstacles are within the required pan / tilt clearance.	Inspect and remove any obstacles constraining free operation of the pan / tilt.
	The Hall element is	Replace the Hall element

	damaged	
	The magnetic steel fell out	Replace the magnetic steel

10/ Fixture Cleaning

Regular cleaning is very important for fixture life and performance. Buildup of dust, dirt,
smoke particles, fog fluid residues, etc. degrades the fixture's light output and cooling ability.
Cleaning schedules for lighting fixtures vary greatly depending on the operating environment.
It is therefore impossible to specify precise cleaning intervals for the fixture. Environmental
factors that may result in a need for frequent cleaning include:

    Use of smoke or fog machines.

    High airflow rates (near air conditioning vents, for example).

    Airborne dust (from stage effects, building structures and fittings or the natural environment at outdoor events, for example).

If one or more of these factors is present, inspect fixtures within their first few hours of operation to see whether cleaning is necessary. Check again at frequent intervals. This procedure will allow you to assess cleaning requirements in your particular situation. Follow these precautions when cleaning the fixture:

    Work in a clean, dry, well-lit area.

    Use gentle pressure only. A soft lint-free cloth dampened with a solution of water and a
mild detergent is recommended, under no circumstances should alcohol, solvents or abrasives be used! Use care when cleaning optical components: surfaces are fragile and
easily scratched.