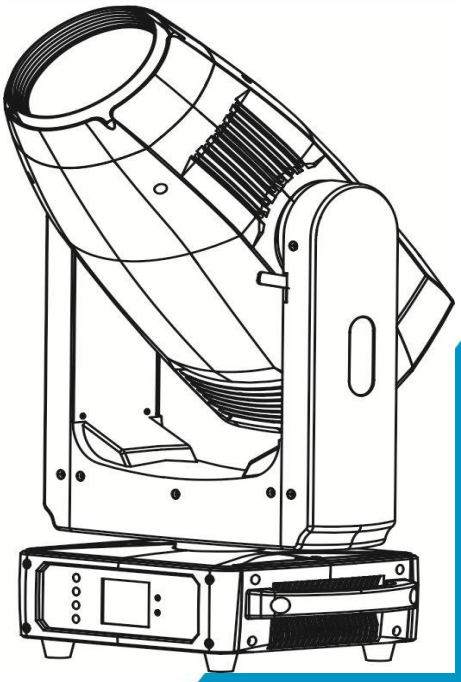
SPL-LED-681BSW



User Manual

Please read the instruction carefully before use

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.

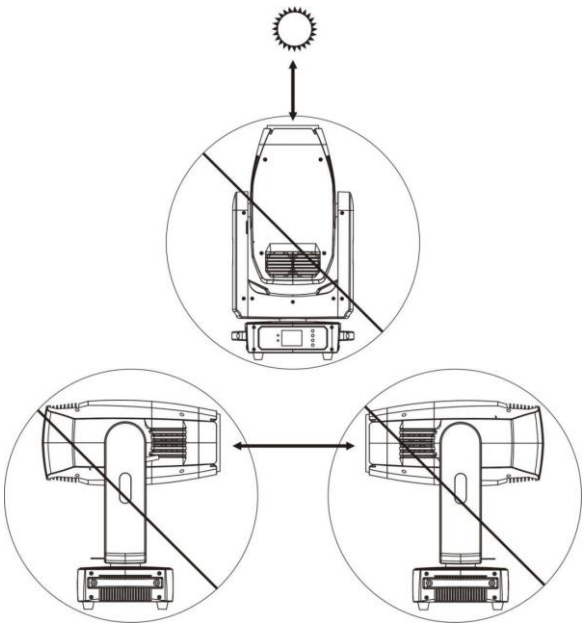
Disconnect this product from its power source before servicing.

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.

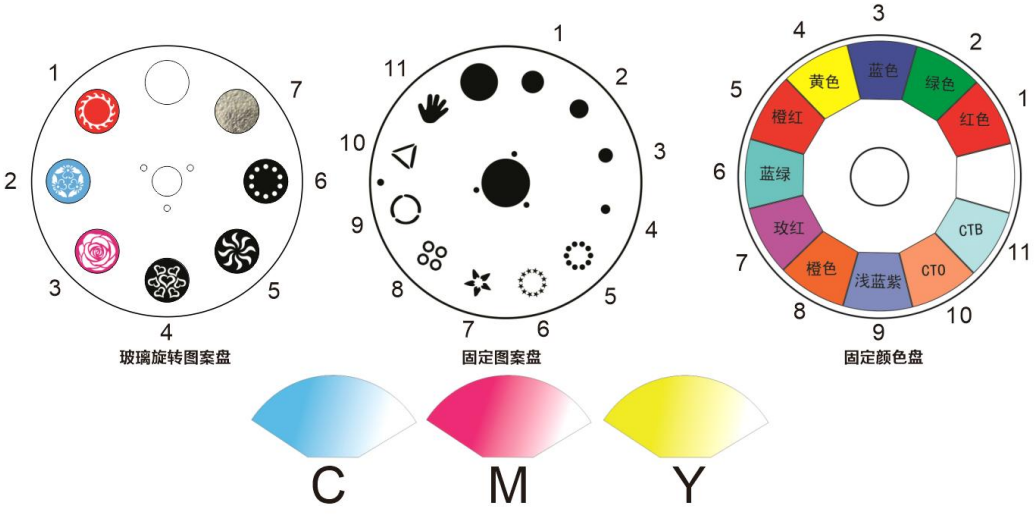
DO NOT operate this product if you see damage on the housing, shields, or cables. Have
the damaged parts replaced by an authorized technician at once.
External sources of light beams from direct sunlight or any other strong light source, which penetrate the front lens of lighting fixtures, can cause 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.

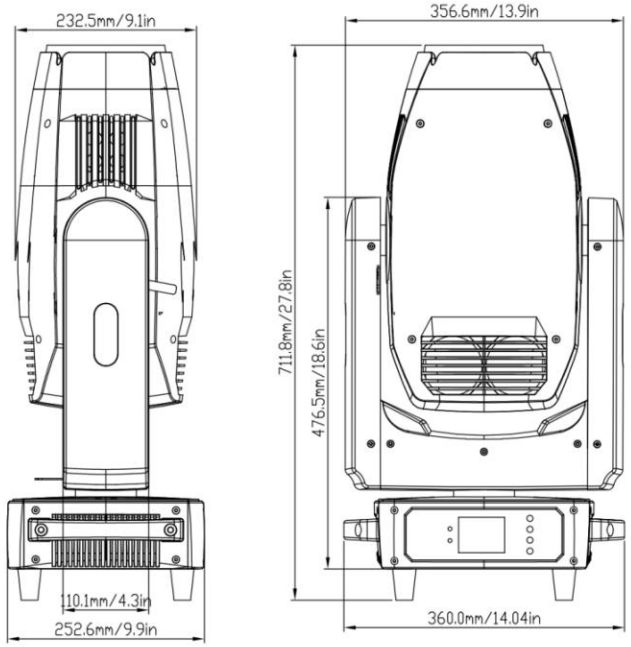


02/ Technical Specifications

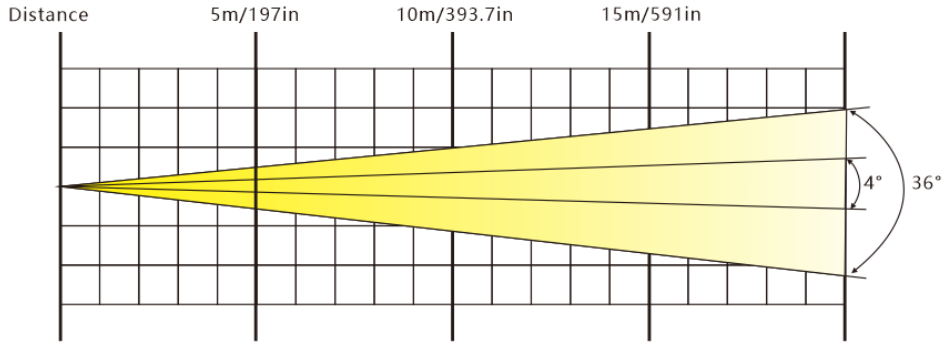
- Input voltage：AC100-240V 50/60Hz
- Power consumption：700 W
- Light source：600WLED mode
- Beam angle：4°~44°
- C M Y: CMY Color mixing
- Dimer：0-100% smooth dimming
- Strobe：1S/25（Built in multiple strobe effects）
- Pan：540°(16bit°)
- Tilt：270°(16bit°)
- Gobo wheel：11 Gobo+Open
- Pattern Rotating Wheel：7Gobo+Open
- Color：9 Color+Open+CTO+CTB
- Prism 1: Octagonal prism
- Prism 2: Triprism
- Atomization: Independent atomization effect
- Focusing: Electric focusing system
- Control panel:LCD screen
- Control Protocol: DMX512/AUTO/SOUND
- Channel mode: 24CH
- Software upgrading: DMX Connect upgrade software
- DMX Connector：3Pin&5Pin XLR Input&Output
- Power connector: Cannon control tail single inlet socket
- IP：IP20
- Maximum operating environment temperature：45°

Product dimension：360*252*712 mm
N.W：23kG





Photometric Diagram:



4°(Lux)	115000	28300	12900
Diameter(m)	0.39	0.8	1.18
36°(Lux)	2670	660	300
Diameter(m)	3	6.16	9

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 800W.
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:

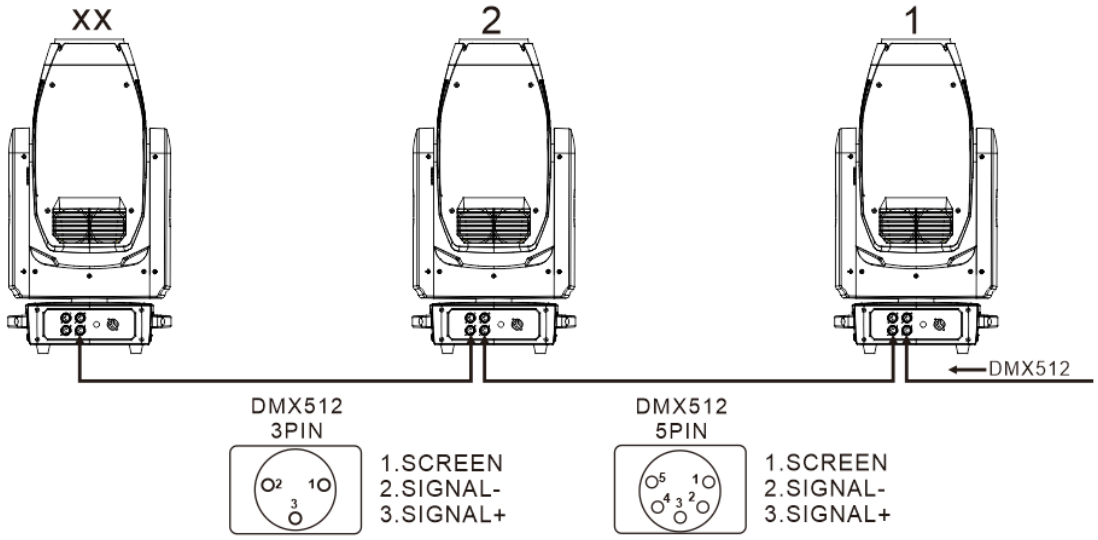
Wire	Color (US)	Wire	Color (EU)	Symbol	Conductor
	black		brown	L	live
	white		blue	N	neutral
	green		yellow/green	⏚ or ⏚	ground (earth)

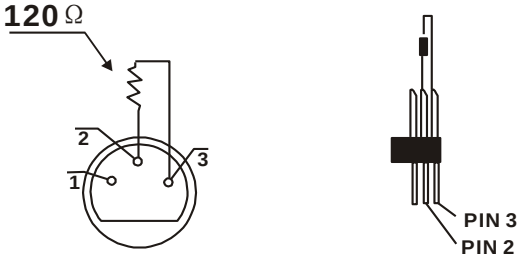
Power cord set should be used: Listed SJOW flexible cord with rating: 300V, 105°C, VW-1,
14AWG x 3C, molded with 5-20P attachment plug and terminated with cord connector model RCAC3F-X-000-01 with rating 250V, 16A by Neutrik Technology (Ningbo) Co., Ltd.
The power cord shall be at least 914mm (It is 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.





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.

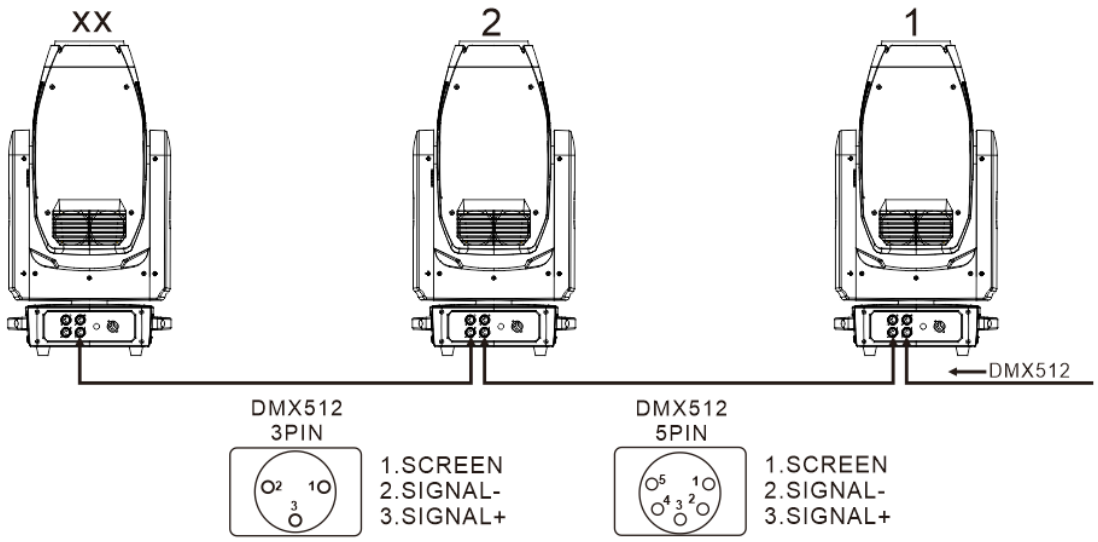
You can set the same starting address for all fixtures or a group of fixtures, or set different addresses for each individual fixture.

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.

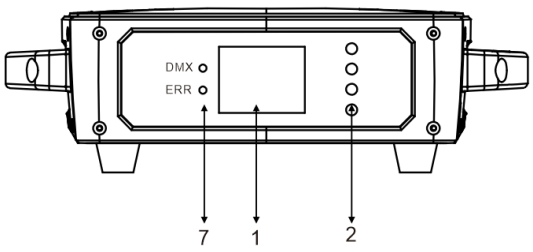
For example, if the first fixture is set to 43 ch DMX mode with a start DMX address of 1, the following fixture in the DMX chain should then be set to a DMX address of 44. As the first fixture uses all the first 43 DMX channels, the next available channel is 44 (43+1=44 >> 44).

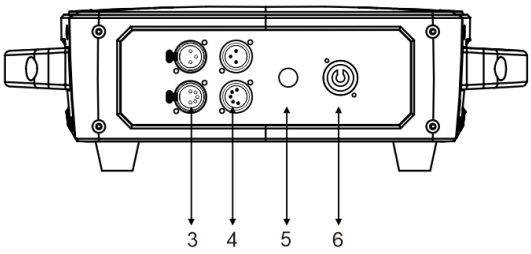
See the chart below for more details:



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	·····

06/ Overview





● 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
● 3. DMX IN	For DMX512 link, use 5-pin XLR cable to link the unit and DMX controller to input DMX signal (optional with 3-pin IP XLR)	
● 4. DMX OUT	For DMX512 link, use 5-pin XLR cable to link the next units to output DMX signal (optional with 3-pin IP XLR)	
● 6 POWER IN	To connect to supply power	

07/ Display and operation

Standard	Address	001–512	Set the address code for the lighting fixture
	DMX mode	Mode1 Mode2	Select DMX control mode
	Effect mode	No/Yes	The effect disk automatically searches for the shortest distance to rotate and run
	No signal	Clear Hold	Maintain the DMX value or reset the DMX channel value when there is no DMX signal
	Show time	No/Yes	Display the running time timer on the main interface
	Brightness	000–255	Adjust screen brightness
	Effect sync	Speed 1 Speed 2 Speed 3 Speed 4 Speed 5 Speed 6 Speed 7 Close	Select Effect Speed Mode
	Screensaver	Off/on	Turn off the screen when there is no touch or button operation
	XY encoder	Off/on	Cancel or use XY automatic error correction function
	X inversion	No/Yes	Choose to run in the X-axis forward or reverse direction
	Y inversion	No/Yes	Choose to run the Y-axis in the forward or reverse direction
	Focus inversion	No/Yes	Choose to run the focusing axis in the forward or reverse direction
	Zoom inversion	No/Yes	Choose to run the zoom axis in the forward or reverse direction
Advanced	This setting is the main parameter setting for the lighting fixture and requires permission		
Info	Error List	No error	Click OK to view the error when there is an error

	System ver	Vxxxxxxx	System version information
	Main board	xxxxxxx	Version information of the main control board
	Serial NO.	xxxxxxxx	Equipment factory number
	SYS timer	00000. 0H	Total operating time of the system (hours)
	Run timer	000:00	Operating time after this power on (hours)
	Lamp timer	00000. 0H	Total time of bulb illumination (hours)
	Permission	----: --	(Reserved)
	Equip TEMP	000	The temperature of the main parts of the equipment (requires equipment support)
	Head TEMP	000	Temperature at the lamp head position of the equipment (requires equipment support)
	Fan1 speed	000	(Reserved)
	Fan2 speed	000	(Reserved)
	Pan coder	----------	(Reserved)
	Tilt coder	----------	(Reserved)
perform	Run mode	Auto/Dmx/Sound	Automatically or voice control the selected program to run
	Run speed	000-255	Set the speed for automatic program execution
	Run cross	000-255	Set up automatic or voice controlled sliding steps (requires device support)
	Built-in 1	Off/on	Test Program 1 Built into the Device
	Built-in 2	Off/on	Built in testing program 2 of the device
	User PRO 1	XXXX	User self programmed program 1
	User PRO 2	XXXX	User self programmed program 2
	User PRO 3	XXXX	User self programmed program 3
	User PRO 4	XXXX	User self programmed program 4
	Circle shape	Off	(Reserved)
	Shpae shape	Off	(Reserved)
	Shape range	000-255	(Reserved)
	Sound DB	000-255	Adjust the sensitivity of voice control
Program	(Detailed explanation on the next page)		
Reset	System reset to initial position		

08/ DMX Protoco

CH24-CHANNEL MODE:

Channel	Name	Value	Describe
CH1	x-axis	0-255	0-540°
CH2	X-axis fine-tuning	0-255	0-2°
CH3	y-axis	0-255	0-270°
CH4	Y-axis fine-tuning	0-255	0-1°
CH5	XY speed	0-255	From fast to slow
CH6	**Dimer**	0-255	0-100%
CH7	**Strobe**	0-3	Off
		4-127	From slow to fast
		128-131	consecration
		132-251	From slow to fast
		252-255	consecration
CH8	**Color**	0-4	white light
		5-9	Red 1
		10-14	Green 2
		15-19	Blue 3
		20-24	Yellow 4
		25-29	Orange Red 5
		30-34	Blue Green 6
		35-39	Rose Red 7
		40-44	Orange 8
		45-49	Light Blue Purple 9
		50-54	Brown Yellow 10
		55-59	Cool color 11
		60-64	White+Red
		65-69	Red+Green
		70-74	Green+Blue
		75-79	Blue+Yellow
		80-84	Yellow+Orange Red
		85-89	Orange red+blue-green
		90-94	Blue green+Rose red
		95-99	Rose red+orange
		100-104	Orange+light blue purple
		105-109	Light blue purple+brown yellow
		110-114	Brown yellow+cool color
		115-119	Cold color+white
		120-185	From fast to slow
		186-189	stop

		190-255	From slow to fast
CH9	**CMY1**	0-255	Linear CMY Blue
CH10	**CMY2**	0-255	Linear CMY Rose Red
CH11	**CMY3**	0-255	Linear CMY Yellow
CH12	**Fixed diagram**	0-5	White light
		6-11	Pattern 1
		12-17	Pattern 2
		18-23	Pattern 3
		24-29	Pattern 4
		30-35	Pattern 5
		36-41	Pattern 6
		42-47	Pattern 7
		48-53	Pattern 8
		54-59	Pattern 9
		60-65	Pattern 10
		66-71	Big Circle 11
		72-77	Shake pattern 1 from slow to fast
		78-83	Shake pattern 2 from slow to fast
		84-89	Shake pattern from slow to fast 3
		90-95	Shake pattern from slow to fast 4
		96-101	Shake pattern from slow to fast 5
		102-107	Shake pattern from slow to fast 6
		108-113	Shake pattern from slow to fast 7
		114-119	Shake pattern from slow to fast 8
		120-125	Shake pattern from slow to fast 9
		126-131	Shake pattern from slow to fast 10
		132-136	Shake pattern from slow to fast 11
		137-190	From fast to slow forward
		191-192	stop
		193-255	Reverse from slow to fast
CH13	**Glass pattern**	0-4	white light
		5-9	Pattern 1
		10-14	Pattern 2
		15-19	Pattern 3
		20-24	Pattern 4
		25-29	Pattern 5
		30-34	Pattern 6
		35-39	Pattern 7
		40-69	Shake pattern 1 from slow to fast
		70-84	Shake pattern 2 from slow to fast
		85-99	Shake pattern from slow to fast 3
		100-114	Shake pattern from slow to fast 4
		115-129	Shake pattern from slow to fast 5

		130-144	Shake pattern from slow to fast 6
		145-159	Shake pattern from slow to fast 7
		160-207	From fast to slow forward
		208-255	Reverse from slow to fast
CH14	**Gobo Rotation**	0-127	0-360°
		128-192	From fast to slow
		193-255	From slow to fast
CH15	**Prism 1**	0-127	NO FUNCTION
		128-255	Cut in Prism 1
CH16	**Prism 1 Rotation**	0-127	0-400°
		128-187	From fast to slow forward
		188-195	stop
		196-255	Reverse from slow to fast
CH17	**Prism 2**	0-127	NO FUNCTION
		128-255	Cut in Prism 2
CH18	**Prism 2 Rotation**	0-127	0-400°
		128-187	From fast to slow forward
		188-195	stop
		196-255	Reverse from slow to fast
CH19	**atomization**	0-127	NO FUNCTION
		128-255	atomization
CH20	**amplify**	0-255	From small to large
CH21	**focus adjustment**	0-255	From far to near
CH22	**Focus fine-tuning**	0-255	0-1°
CH23	**Automatic Function**	0-49	NO FUNCTION
		50-99	X-axis automatic
		100-149	Y-axis automatic
		150-199	XY axis automatic
		200-255	Voice control
CH24	**Reset**	0-209	NO FUNCTION
		210-219	Reset XY in more than 6 seconds
		220-239	Reset effect for more than 6 seconds
		240-255	Reset all within 6 seconds or more

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 damaged	Replace the Hall element
	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.