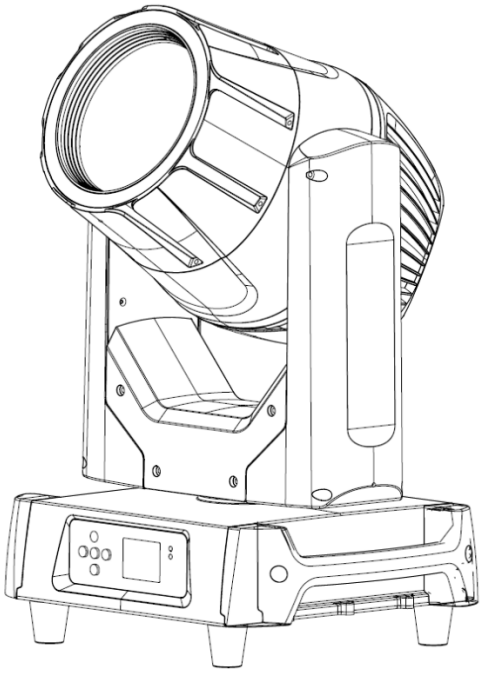
SPL-MHL-380 IP



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.

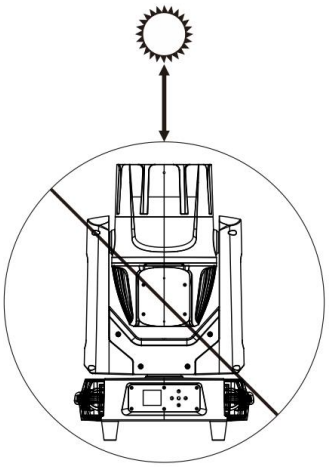
Disconnect this product from its power source before servicing.

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.

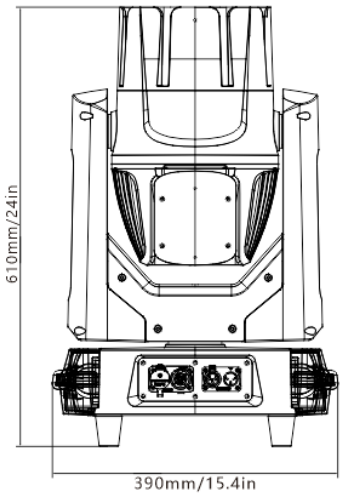
DO NOT operate this product if you see damage on the housing, shields, or cables. Have
the damaged parts replaced by an authorized technician at once.
External sources of light beams from direct sunlight or any other strong light source, which penetrate the front lens of lighting fixtures, can cause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

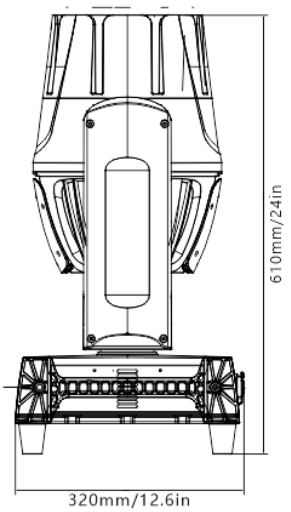


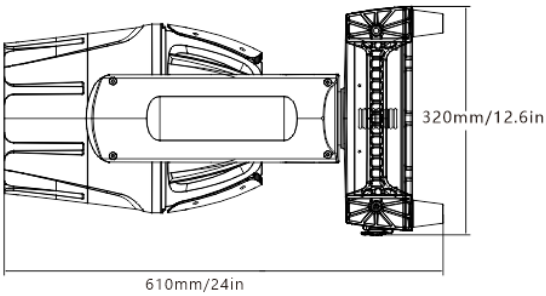
02/ Technical Specifications

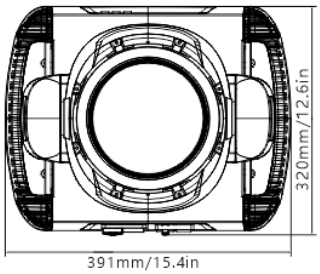
1. Voltage：100-240V，50/60HZ；
2. Power Consumption：450W；
3. Lamp: Chinese lamp 380W
4. DMX Channel: 16CH
5. Operation mode: master-slave/DMX/Auto
6. strobe:25Hz
7. **Beam angle：2.8°**
8. rotating gobo wheel: 12 gobos+open+ 5 glass gobos
9. Color : 14 colors+open
10. Prism 1: 12-facet
11. Prism 2: 8+16-facet
12. Pan: 540°(16bits)
13. Tilt: 270°(16bits)
14. RDM: Yes
15. Display: LCD touch screen

Product dimension：610*391*320 mm
N.W：26kG

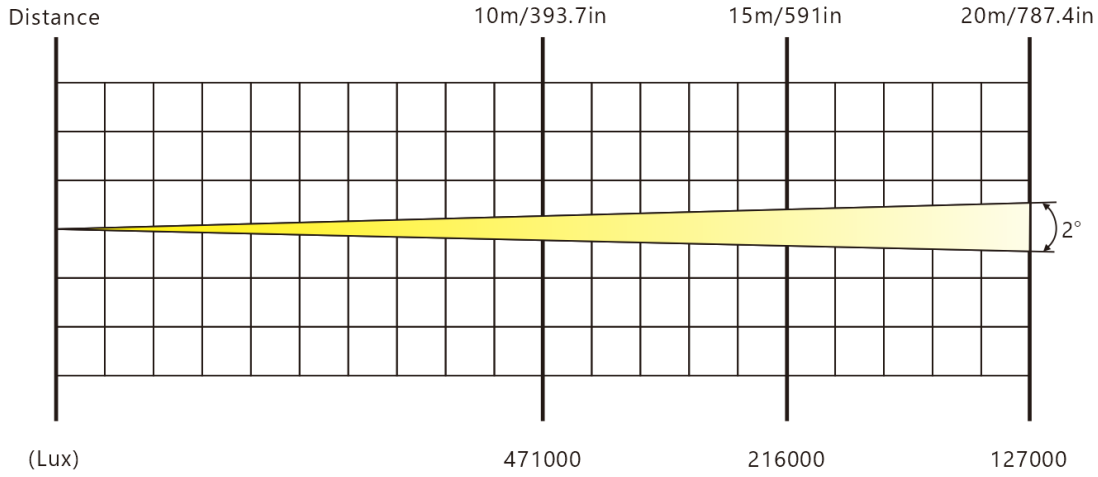








Photometric Diagram:



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 4500W.
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:

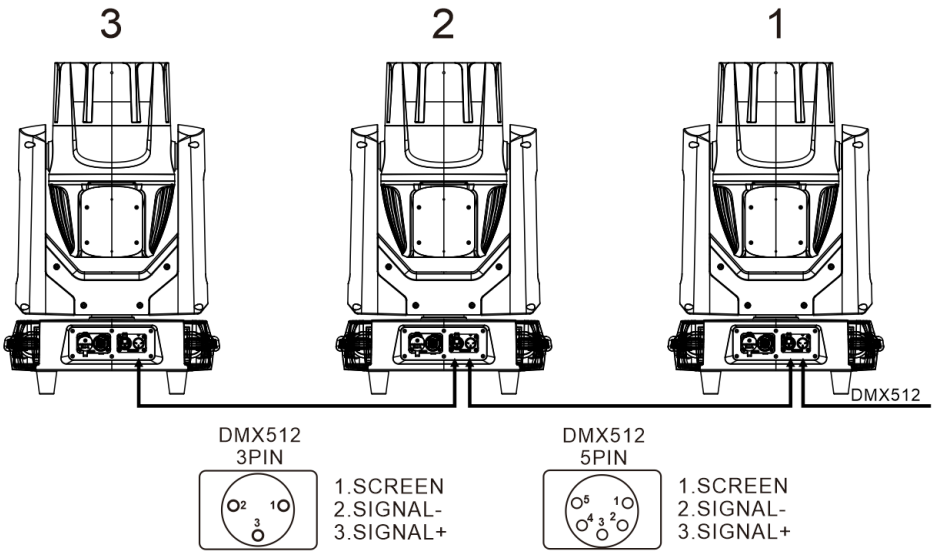
Wire	Color (US)	Wire	Color (EU)	Symbol	Conductor
	black		brown	L	live
	white		blue	N	neutral
	green		yellow/green	⏚ or ⏚	ground (earth)

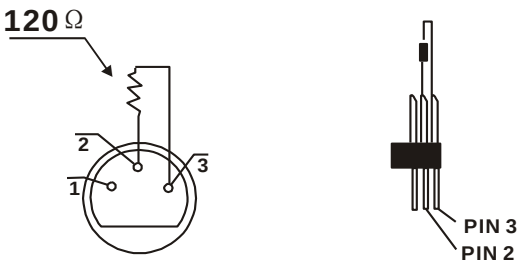
Power cord set should be used: Listed SJOW flexible cord with rating: 300V, 105°C, VW-1,
14AWG x 3C, molded with 5-20P attachment plug and terminated with cord connector model RCAC3F-X-000-01 with rating 250V, 16A by Neutrik Technology (Ningbo) Co., Ltd.
The power cord shall be at least 914mm (It is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

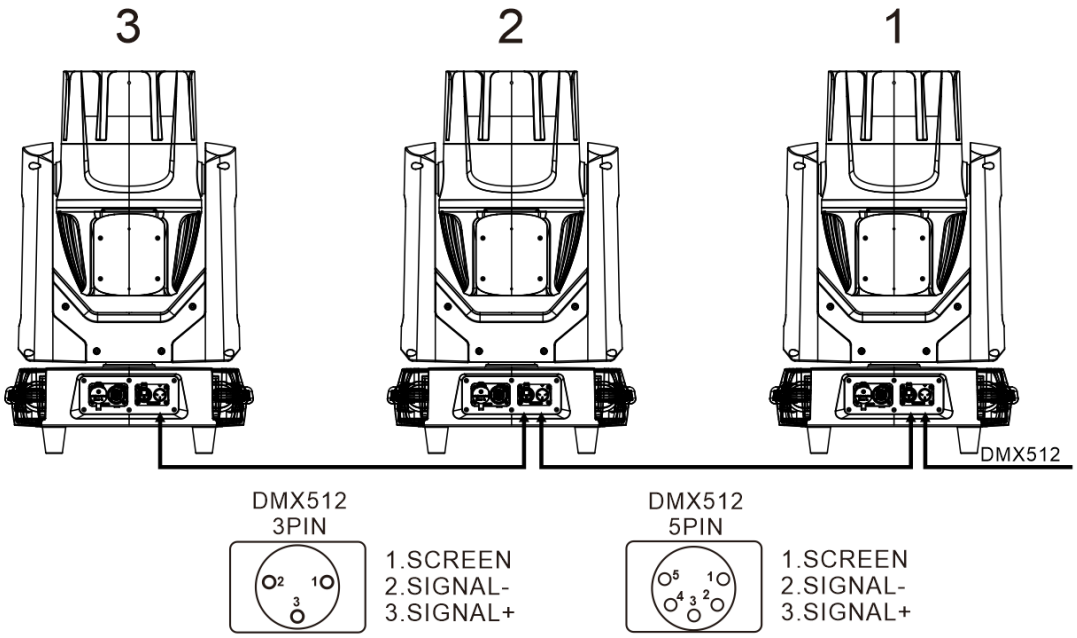
You can set the same starting address for all fixtures or a group of fixtures, or set different addresses for each individual fixture.

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.

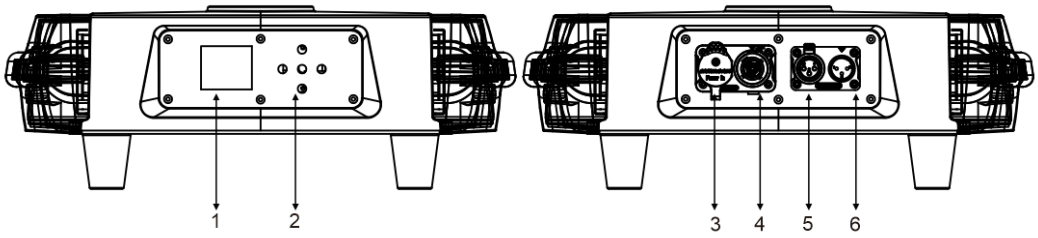
For example, if the first fixture is set to 43 ch DMX mode with a start DMX address of 1, the following fixture in the DMX chain should then be set to a DMX address of 44. As the first fixture uses all the first 43 DMX channels, the next available channel is 44 (43+1=44 >> 44).

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)	
● 5 POWER IN	To connect to supply power	
● 6 POWER OUT	To connect to supply power	

07/ Display and operation

Main menu	Sub-MENU	Parameter
Press <OK> button 5s till open display, select password <1,2,3,4> to unlock display.		
Advanced	Advanced setting should approval	
Standard	Default set	Set address code
	Address	Select DMX control mode
	DMX mode	effect wheel automatically finds the shortest distance to rotate and run
	Effect mode	Choose to turn the bulb "on" or "off" each time
	Started lamp	Turn on the lamp manually
	Switch lamp	Keep DMX value or clear DMX channel value when no DMX signal
	No signal	Choose screen menu color
	UI Color	Display the runtime timer on the main screen
	Show time	Adjust screen brightness
	Brightness	
	Effec sync	Turn off the screen when no touch and key operation
	Screensaver	Cancel or use the XY auto-correction function
	XY encoder	Select X-axis to run forward or reverse
	X inversion	Select Y-axis to run forward or reverse
	Y inversion	Choose to run the focus forward or reverse
	Focus inversion	Choose to run the Zoom forward or reverse
Info	Error List	If there are no errors or there are errors, click OK to view the errors
	Display Ver	Display version information
	Mainboardv	Mainboard version information
	Serial NO.	Equipment factory number
	SYS timer	Total system running time (hours)
	Run timer	Running time after this power-on (hours)
	Lamp timer	The total time of lamp on (hours)

	Permission	
	Equip TEMP	The temperature of the main part (requires device support)
	Head TEMP	The temperature of the head (requires device support)
	FAN 1 Speed	fan 1 speed (requires equipment support)
	FAN 2 Speed	fan 2 speed (requires equipment support)
	FAN 3 Speed	fan 3 speed (requires equipment support)
	FAN 4 Speed	fan 4 speed (requires equipment support)
	Pon Coder	
	Tilt Coder	
Perform	Run mode	Run selected programs Auto or Sound orDMX
	Run speed	Set the speed of Auto running
	Run cross	Set run cross for Auto or Sound
	Built-in 1	built-in test program 1
	Built-in 2	built-in test program 2
	User PRO 1	User-programmed program 1
	User PRO 2	User-programmed program 2
	User PRO 3	User-programmed program 3
	User PRO 4	User-programmed program 4
	Circle shape	(reserve)
	Square shape	(reserve)
	Shape range	(reserve)
	Sound DB	Adjust the sound control sensitivity
Program	This function can program up to 4 user programs, and the 4 programs can be run in series, that is to say, the programmed 4 programs can be switched to ON at the same time in the "User-Pro" function. Go to program 2, go to program 3, then program 4, then loop back to program 1, and so on. Of course, it can also be run as a single option.	
Reset	Reset to initial position	
Language	English/ Chinese	

08/ DMX Protoco

CH19-CHANNEL MODE:

CH19	Function	Value	Instruction
CH1	Color whee	000-004	White
		005 -009	White+Color 1
		010 - 014	Color 1
		015 - 019	Color 1+color 2
		020 - 024	Color 2
		025 - 029	Color 2+color 3
		030 - 034	Color 3
		035 - 039	Color 3+color 4
		040 - 044	Color 4
		045 - 049	Color 4+color 5
		050 - 054	Color 5
		055 - 059	Color 5+color 6
		060 - 064	Color 6
		065 - 069	Color 6+color 7
		070 - 074	Color 7
		075 - 079	Color 7+color 8
		080 - 084	Color 8
		085 - 089	Color 8+color 9
		090 - 094	Color 9
		095 - 099	Color 9+color 10
		100 -104	Color 10
		105 -109	Color 10+color 11
		110 -114	Color 11
		115 -119	Color 11+color 12
		120 -124	Color 12
		125-129	Color 12+color 13
		130 -134	Color 13
		140- 144	Color 14
		145- 149	Color 14+White
		150- 200	Reverse flow (from fast to slow)
		201- 255	Forward flow (from slow to fast)
CH2	Strobe	000-003	Shutter closed
		004-103	Strobe from slow to fast
		104-107	Open the shutter
		108-207	Pulse strobe from slow to fast
		208-212	Open
		213-251	Random strobe from slow to fast

		252-255	Open → (controlled by the dimming channel)
CH3	Dimmer	000-255	dimmer from dark to bright
CH4	Gobo	000 - 004	
		005 - 009	White
		010 - 014	gobo 1
		015 - 019	gobo 2
		020 - 024	gobo 3
		025 - 029	gobo 4
		030 - 034	gobo 5
		035 - 039	gobo 6
		040 - 044	gobo 7
		045 - 049	gobo 8
		050 - 054	gobo 9
		055 - 059	gobo 10
		060 - 064	gobo 11
		065 - 069	gobo 12
		070 - 074	gobo 13
		075 - 079	gobo 14
		080 - 084	gobo 15
		085 - 089	gobo 16
		090 - 129	gobo 17
		130 - 134	Forward flow (from slow to fast)
		135 - 169	Stop
		170 - 174	Reverse flow (from fast to slow)
		175 - 179	gobo 1 shake slow to fast
		180 - 184	gobo 2 shake slow to fast
		185 - 189	gobo 3 shake slow to fast
		190 - 194	gobo 4 shake slow to fast
		195 - 199	gobo 5 shake slow to fast
		200 - 204	gobo 6 shake slow to fast
		205 - 209	gobo 7 shake slow to fast
		210 - 214	gobo 8 shake slow to fast
		215 - 219	gobo 9 shake slow to fast
		220 - 224	gobo 10 shake slow to fast
		225 - 229	gobo 11 shake slow to fast
		230 - 234	gobo 12 shake slow to fast
		235 - 239	gobo 13 shake slow to fast
		240 - 244	gobo 14 shake slow to fast
		245 - 249	gobo 15 shake slow to fast
		250 - 255	gobo 16 shake slow to fast gobo 17 shake slow to fast
CH5	Prism1	000-31	no prism
		32-255	prism 1

CH6	Prism1 rotation	000-127 128-190 191-192 193-255	Prism angle adjustment Reverse rotation (fast to slow) Stop Forward rotation (slow to fast)
CH7	Prism 2	000-31 32-255	no prism prism 2
CH8	Prism2 rotation	000-127 128-190 191-192 193-255	Prism angle adjustment Reverse rotation (fast to slow) Stop Forward rotation (slow to fast)
CH9	Focus	000-255	Pattern clarity from near to far
CH10	pan	000-255	0-540 degree
CH11	pan fine	000-255	0-1.2 degree
CH12	tilt	000-255	0-270 degree
CH13	tilt fine	000-255	0-1.2 degree
CH14	XY speed	000-255	speed fast to slow
CH15	Frost & 6-color effect	000-127 128-191 192-255	no function 6-color effect Frost
CH16	Lamp control	000-025 100-105 200-205 250-255	no function Lamp off Lamp on all motors reset
CH17	RGB strobe	000-255	Strobe from slow to fast
CH18	RGB effect	000-001 002-005 006-010 011-015 016-020 021-025 026-029 030-048 049-054 055-058 059-063 064-068 069-073 074-078	Red 1 Green 2 Blue 3 Yellow 4 Rose 5 Light blue 6 White 7 Color jump 8 Effect 9 Effect 10 Effect 11 Effect 12 Effect 13 Effect 14

		079-087 088-092 093-097 098-102 103-107 108-112 113-116 117-122 123-126 127-131 132-136 137-140 141-144 145-149 150-155 156-160 161-165 166-170 161-165 166-174 175-179 180-184 185-189 190-194 195-199 200-203 204-208 209-213 214-218 219-223 224-228 229-232 233-237 238-242 243-247 248-252 253-255	Effect 15 Effect 16 Effect 17 Effect 18 Effect 19 Effect 20 Effect 21 Effect 22 Effect 23 Effect 24 Effect 25 Effect 26 Effect 27 Effect 28 Effect 29 Effect 30 Effect 31 Effect 32 Effect 33 Effect 34 Effect 35 Effect 40 Effect 41 Effect 42 Effect 43 Effect 44 Effect 45 Effect 46 Effect 47 Effect 48 Effect 49 Effect 50 Effect 51 Effect 52 Effect 53 Effect 54 Effect 55
CH19	RGBeffect Speed	0-255	Speed from slow to fast

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.