



SPL-LED-M700F IP



User Manual

Please read the instruction carefully before use

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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°C. Maximum ambient temperature TA: 40°C. 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°C. 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

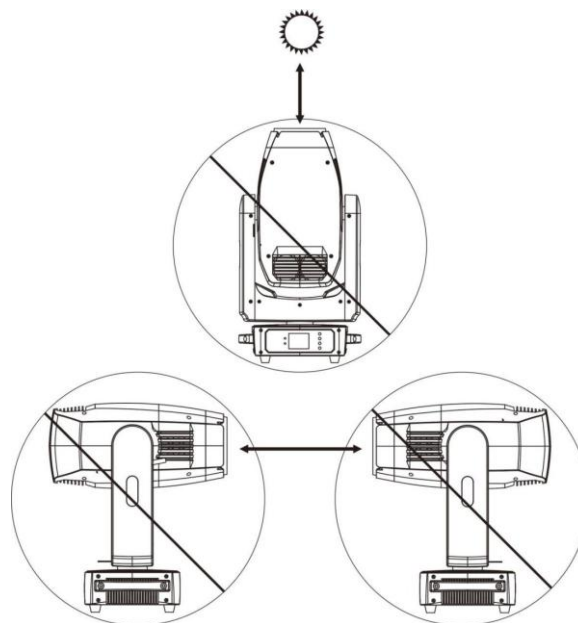
the damaged parts replaced by an authorized technician at once.

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

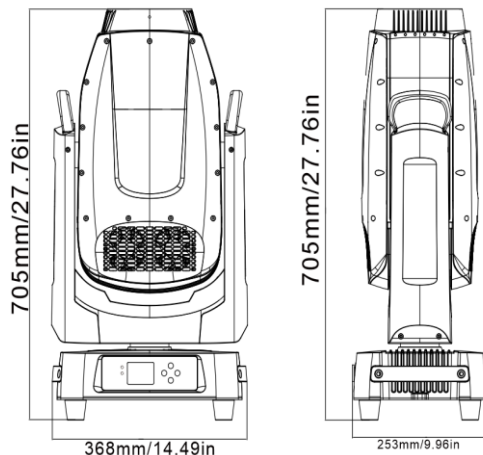
NOT expose the fixture front lens to light beams from direct sunlight or any other strong

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.

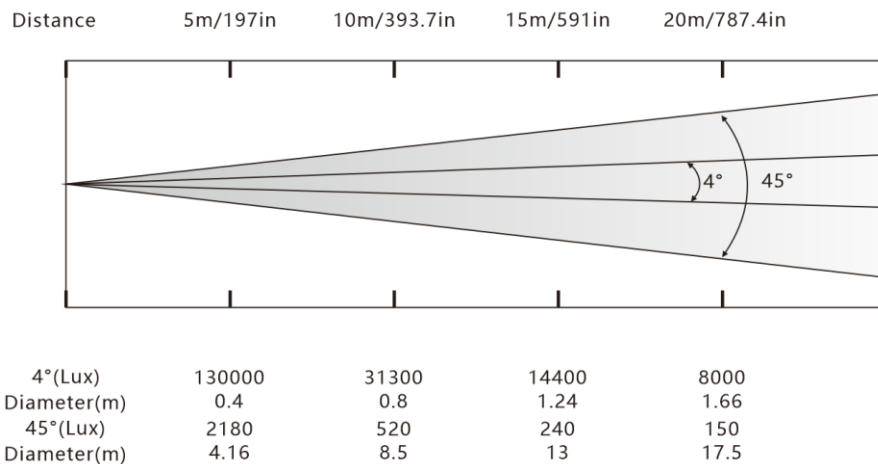


02/ Technical Specifications

1. Voltage: 100-240V, 50/60HZ;
 2. Power Consumption: 800W;
 3. Lamp: 700 W 7500K white led module
 4. DMX Channel: 35CH
 5. Operation mode: master-slave/DMX/Auto
 6. strobe:25Hz
 7. **Beam angle: 4°-45°**
 8. rotating gobo wheel: 7 gobos+white
 9. Color wheel: 5 colors+open+CTO
 10. Flare: 4pcs
 11. Pan: 540°(16bits)
 12. Tilt: 270°(16bits)
 13. Frost /focus/zoom/flare effect/cut/iris/CMY/CTO/RDM: Yes
 14. RDM: Yes
 15. Display: LCD touch screen
- Product dimension: 705*368*253 mm**
- N.W: 30kG**



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 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	$\perp$ or $\oplus$	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.

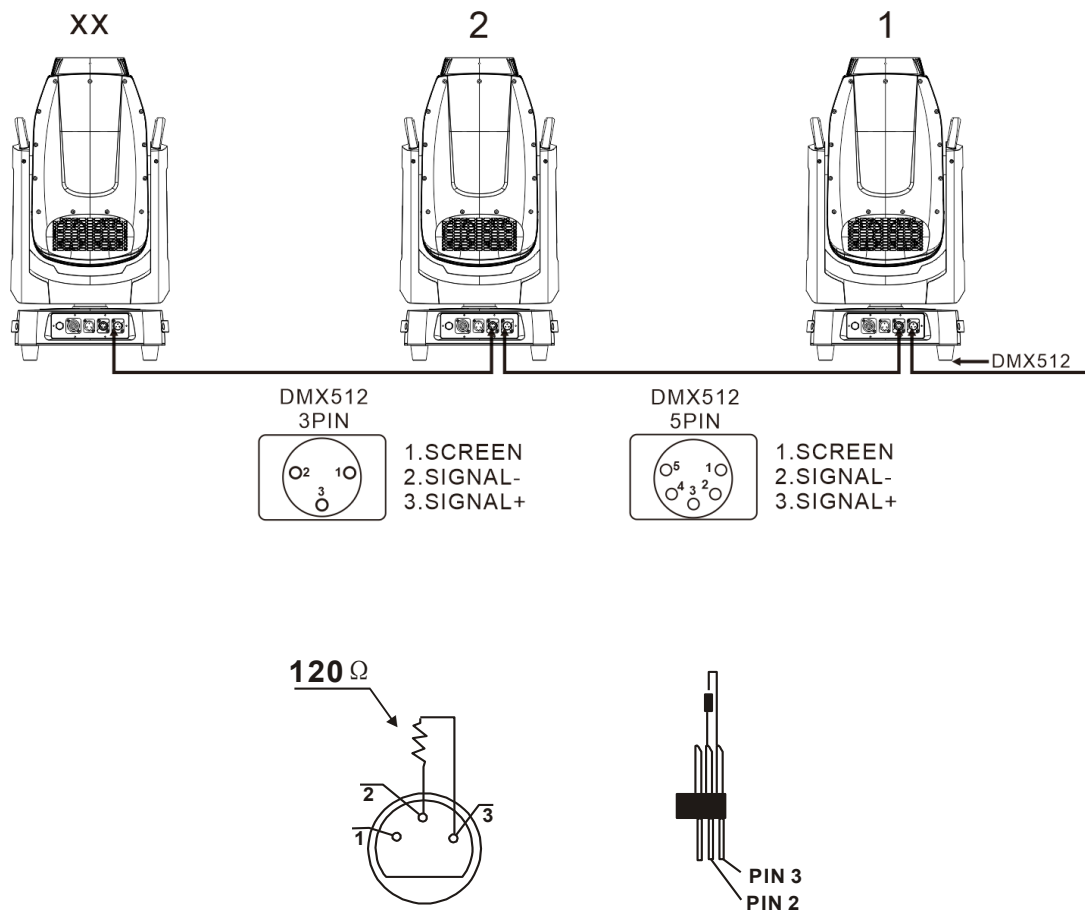
Connect

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.

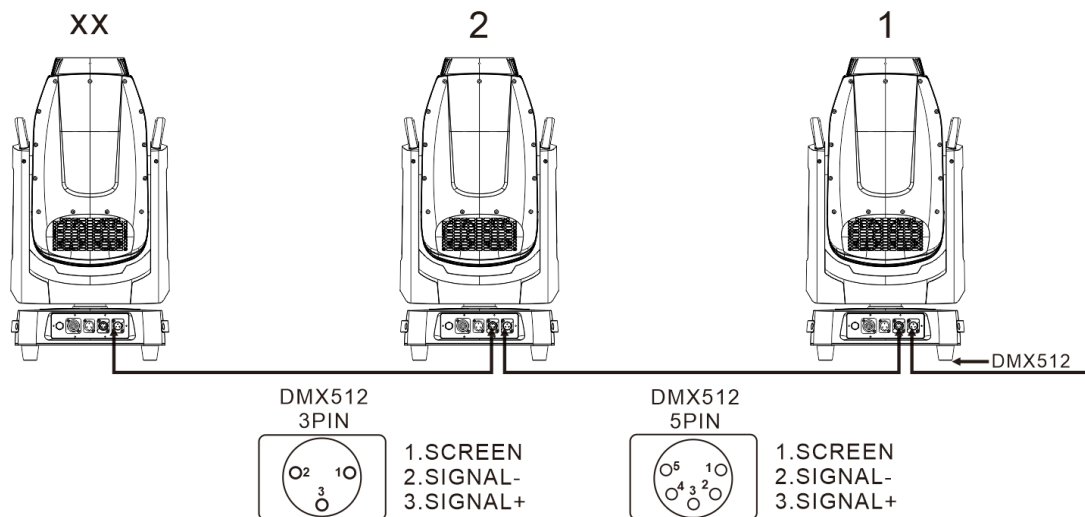
You can set the same starting address for all fixtures or a group of fixtures, or set different addresses for each individual fixture.

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.

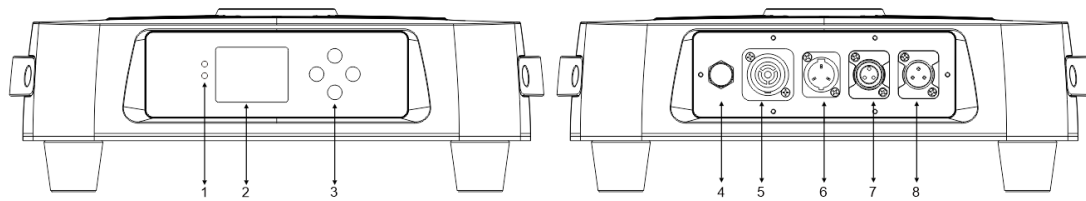
For example, if the first fixture is set to 43 ch DMX mode with a start DMX address of 1, the following fixture in the DMX chain should then be set to a DMX address of 44. As the first fixture uses all the first 43 DMX channels, the next available channel is 44 ($43+1=44 \gg 44$).

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. **Indicator light:** DMX indicator light and error reporting indicator light
2. **Display Screen:** Display various function menus
3. **Buttons:** MENU: Enter /Return to the menu

UP: Go to the previous option

DOWN: Go to the next option

ENTER: Menu confirmation.
4. **Air vent valve**
5. **Power In:** Connect power supply
6. **Power out:** Connect the next fixture
7. **DMX output:** For DMX512 connection, use 3-core XLR signal cable to connect the next fixture and output DMX signal (optional 5-core)
8. **DMX input:** For DMX512 connection, use 3-core XLR signal cable to connect the next fixture and output DMX signal (optional 5-core)

07/ Display and operation

DMX set			Key description: Pressing up or down is the +1 or -1 mode. Long press for 3 seconds, then click right-click for the next one. Pressing the left mouse button and the confirmation button saves and exits Manual instructions: First enter the hundred's digit, then the ten's digit, and finally the unit's digit. For example, if you enter the address code 286, you need to click 2 first, then 8, and finally 6.
Setup	DMX Channel	35CH	DMX control mode
	Work Mode	Standard	
		Theater	Fan silent mode
	Language	Chinese/English	Set the language to Chinese/English
	Screen Rotation	ON/OFF	Display on the front of the screen /display in invert
	Screen Auto Rotation	ON/OFF	Screen does not auto rotating /Screen auto rotating
	DMX Signal	KEEP	Continue running in the original state
		CLEAR	The motor returns to its original position and stops
	Display saver	ON/OFF	After opening, the screen goes out after 30 seconds of no operation
	Invert Pan	ON/OFF	Pan-0-255 Invert
	Invert Tilt	ON/OFF	Tilt-0-255 Invert
	Pan Tilt Swap	ON/OFF	Exchange the channels of the Pan Tilt Swap (including fine-tuning)
	Pan Tilt Encoder	ON	The encoder is used to determine out-of-step and automatically correct the position
		OFF	Do not use an encoder to correct the position
	Load Default		After pressing the "confirm" key, you will see a confirmation dialog box. Press the "confirm" key again to restore the load default Settings
Run Mode	Auto Mode	DMX	Slave machine status: Receives DMX signals from the console or the host
		Auto	Host status: Auto and sending DMX signals to the slave machine
	Manual		Enter the manual control interface, which is used to

	Control		control the current fixture(not receiving DMX signals) and the corresponding channel. For details, please refer to the channel sheet.
	Device Reset		After confirmation, all the motors began to reset
	XY Reset		After confirmation, the XY motor begins to reset
	MT Reset		After confirmation, small motor begins to reset
System	Version		Main board version number
		Display	Display board version number
		XY board	XY board version number
		Focus board	Focus board version number
		Cut board	Cut board version number
		LED board	LED driver board version number
	Temp message	The temperature under the lamp panel	Display the temperature of the module
	System Time	Total Lamp	Total lamp lighting time (accurate to minutes)
		Partial Lamp	Partial lamp lighting time (accurate to minutes)
		Total User	Total usage time (accurate to the minute)
		Partial User	The usage time since this startup (accurate to the minute)
		Authority Hours	9999 represents unencrypted and can be used for a long time. Other values represent the remaining usage time and are encrypted.
	Sensor Monitor	Pan Hall	Viewing the Hall status of the Encoder Hall; When magnetism is detected, it is 0; otherwise, it is 1.
		Tilt Hall	
		Color Hall	
		CMY-Cyan Hall	
		CMY-Magenta Hall	
		CMY-Yellow Hall	
		CTO Hall	
		Gobo Hall	
		Gobol Hall	
		Gobol Rotating Hall	
		Focus Hall	
		Zoom Hall	
		Prism RT Hall	
		Pan Wheel State	
		Tilt Wheel State	

		Pan Wheel Step	The Pan Tilt encoder wheel step value: When moving in the positive direction, the step value should increase; when moving in the invert direction, the step value should decrease. It is normal for the values to be the same each time you turn to the same point.
		Tilt Wheel Step	
	System Error		View if there are any errors in the system
	DMX Monitor		View the values of each DMX channel
Dimmer Curve	Dimmer Curve	S Curve	The default dimmer curve is Sine Curve .
		In Square	
		Square	
		Linear	
Factory	Motor Calibration	Pan	After entering the sub-interface, the reset positions of the Pan,Tilt and other motors can be adjusted to compensate for hardware installation errors. The adjustment range is -128 to +127, and +0 indicates that the motor stroke adjustment has not been adjusted.
		Tilt	
		Color	
		Gobo1	
		Class Gobo2	
		Class Gobo2 Rotating	
		Cyan Zero	
		Magenta Zero	
		Yellow Zero	
		Cyan Range	
		Magenta Range	
		Yellow Range	
		Focus	
		Zoom	
		Prism1 Zero	
		Prism1 Cal	
		Prism2 Zero	
		Prism2 Cal	
		Prism1 Rotation	
		Prism2 Rotation	
		Forst1 Zero	
		Forst1 Cal	
		Cut Rotating	
		Iris	
		Cut1 Zero	
		Cut2 Zero	
		Cut3 Zero	
		Cut4 Zero	

		Cut5 Zero	
		Cut6 Zero	
		Cut7 Zero	
		Cut8 Zero	
		Cut1 Range	
		Cut2 Range	
		Cut3 Range	
		Cut4 Range	
		Cut5 Range	
		Cut6 Range	
		Cut7 Range	
		Cut8 Range	
	LED Calibration	Power Calibration	128~255
		LED1 Calibration	-128~+127
		LED2 Calibration	-128~+127
		LED3 Calibration	-128~+127
		LED4 Calibration	-128~+127
	Fan Speed Calibration	Focus Fan Set	000~255
		LED Fan Set	000~255

08/ DMX Protoco

CH35-CHANNEL MODE:

Channels		DMX value	Description
CH1	Pan	000-255	0-540°
CH2	Pan Fine-tuning	000-255	0-2.1°
CH3	Tilt	000-255	0-270°
CH4	Tilt Fine-tuning	000-255	0-1°
CH5	XY Speed	000-255	From fast to slow
CH6	Dimmer	000-255	0-100% dimmer
CH7	Strobe	000-003	Turn off the lights
		004-103	From slow to fast Strobe
		104-127	From slow to fast Pulse strobe
		128-131	Turn on the light
		132-251	From slow to fast Random strobe
		252-255	Turn on the light
CH8	Color	0-9	White
		10-19	White+Red
		20-29	Red
		30-39	Red+Orange
		40-49	Orange
		50-59	Orange+Yellow
		60-69	Yellow
		70-79	Yellow+Green
		80-89	Green
		90-99	Green+Blue
		100-109	Blue
		110-200	Forward rotating Fast - Slow
		201-255	Invert rotating Slow - Fast
CH9	Cyan	0-255	None-Cut in
CH10	Magenta	0-255	None-Cut in
CH11	Yellow	0-255	None-Cut in
CH12	CTO	0-255	None-Cut in
CH13	Gobo2	0-4	White circle
		5-9	Gobo1
		10-14	Gobo2
		15-19	Gobo3
		20-24	Gobo4
		25-29	Gobo5
		30-34	Gobo6
		35-39	Gobo7
		40-54	Gobo1 shake from slow to fast

	55-69	Gobo2 shake from slow to fast
	70-84	Gobo3 shake from slow to fast
	85-99	Gobo4 shake from slow to fast
	100-114	Gobo5 shake from slow to fast
	115-129	Gobo6 shake from slow to fast
	130-144	Gobo7 shake from slow to fast
	145-199	Rainbow effect forward rotating Fast - Slow
	200-255	Rainbow effect invert rotating Slow - Fast
CH14 Gobo2 Rotating	0-127	Angle 0-340°
	128-191	Forward rotating Slow - Fast
	192-255	Invert rotating Slow - Fast
CH15 Gobo1	0-4	White circle
	5-9	Gobo1
	10-14	Gobo2
	15-19	Gobo3
	20-24	Gobo4
	25-29	Gobo5
	30-34	Gobo6
	35-39	Gobo7
	40-51	Gobo7 shake from slow to fast
	52-63	Gobo6 shake from slow to fast
	64-75	Gobo5 shake from slow to fast
	76-87	Gobo4 shake from slow to fast
	88-99	Gobo3 shake from slow to fast
	100-111	Gobo2 shake from slow to fast
	112-123	Gobo1 shake from slow to fast
	124-189	Rainbow effect forward rotating Fast - Slow
	190-255	Rainbow effect invert rotating Slow - Fast
CH16 Effect	0-0	None
	1-127	Effect bar
	128-255	From slow to fast forward and backward flowing effect
CH17 Iris	0-110	From large to small
	111-127	Stop
	128-255	Open the effect
CH18 Prism1	0-127	No Prism
	128-255	Prism
CH19 Prism1 RT	0-127	Angle 0-360°
	128-187	Forward rotating Fast - Slow
	188-195	Stop
	196-255	Invert rotating Slow - Fast

CH20 Prism2	0-127	No Prism
	128-255	Prism
CH21 Prism2 RT	0-127	Angle 0-360°
	128-187	Forward rotating Fast - Slow
	188-195	Stop
	196-255	Invert rotating Slow - Fast
CH22 Forst	0-127	No Forst
	128-255	Forst
CH23 Zoom	0-255	Near - Far
CH24 Focus	0-255	Near - Far
CH25 Cut1	0-255	Open - Off
CH26 Cut2	0-255	Open - Off
CH27 Cut3	0-255	Open - Off
CH28 Cut4	0-255	Open - Off
CH29 Cut5	0-255	Open - Off
CH30 Cut6	0-255	Open - Off
CH31 Cut7	0-255	Open - Off
CH32 Cut8	0-255	Open - Off
CH33 Auto cut	0-7	None
	8-127	Fixed pattern
	128-255	Auto Slow - Fast
CH34 Cut Rotation	0-255	0 - 90°
CH35 Reset	0-209	None
	210-219	Reset XY after 6 seconds
	220-239	Reset the effect motor after 6 seconds
	240-255	Reset all in 6 seconds

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.	Inspect 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.



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