



SPL-LED-1400



User Manual

Please read the instruction carefully before use

CONTENTS

01/ Safety Information.....	3-4
02/ Technical Specifications.....	5-6
03/ Connecting Power and Data.....	7
04/ Connecting Data.....	8
05/ Address Setting.....	9
06/ Overview.....	10
07/ Display and operation.....	11-16
08/ DMX Protoco.....	17-39
09/ Troubleshooting.....	40
10/ Fixture Cleaning.....	41

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

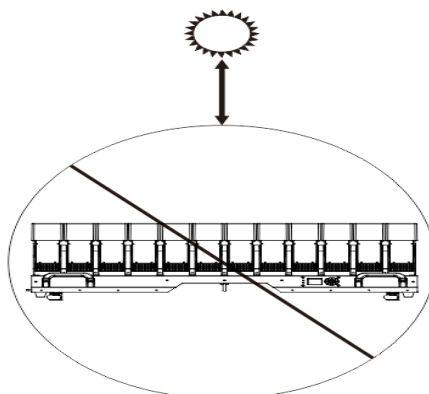
the damaged parts replaced by an authorized technician at once.

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

Input voltage: AC100-240V 50/60Hz

Power consumption: 800W

LED type: 12PCS 60W RGBW 4in1

LED QTY: 12pc

Average lifespan: 50000 hours

Beam angle: 4°- 14°

Electronic Dimming: 0-100%

Strobe: 1S/25

Focus: Yes

Rotate: Yes

Tilt: 270° 16bits

DMX channel: 20CH/53CH/101CH/155CH/169ACH/169BCH/179CH

Control mode: DMX /RDM

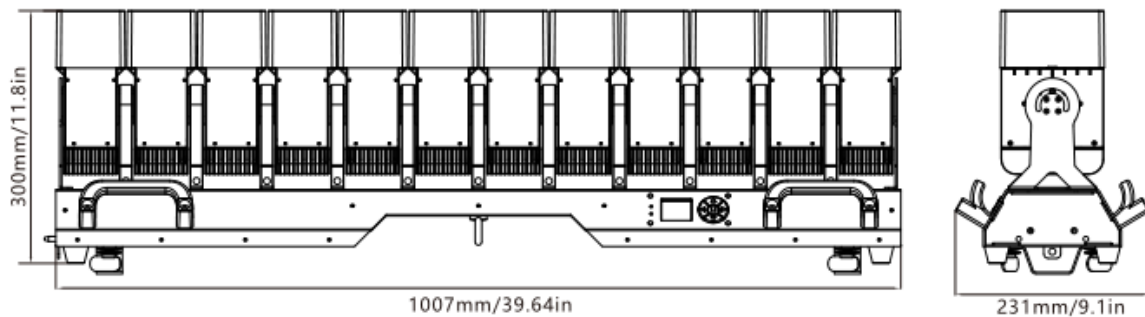
Display mode: LED

IP rating: IP20

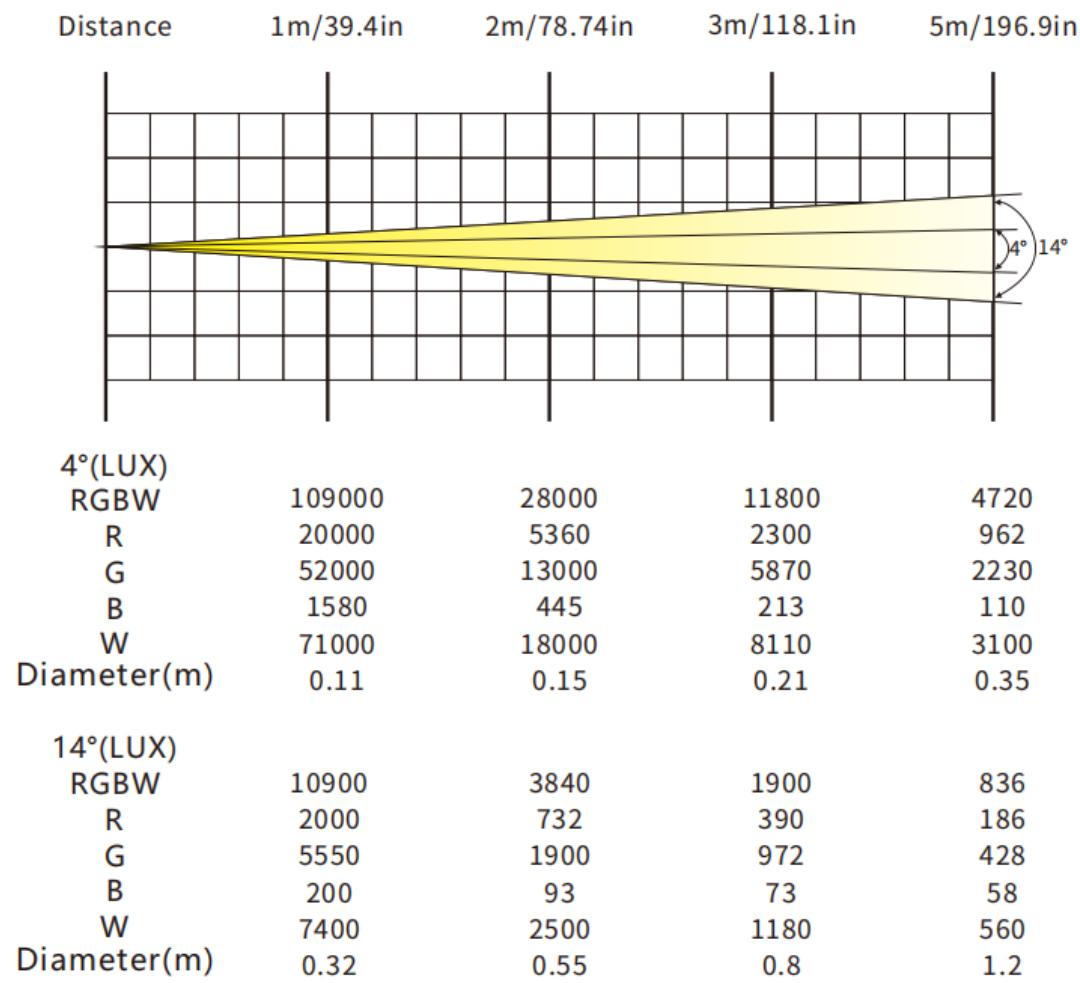
Max ambient temp: 45°

Product dimension: 1007*231*300 mm

N.W: 25kG



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 950W.

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.

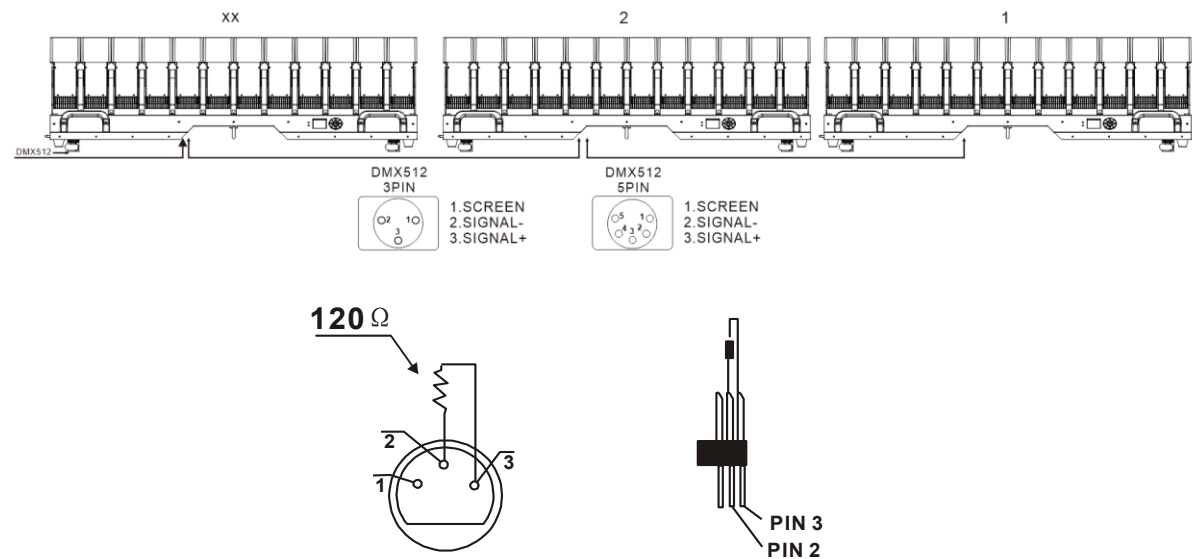
Connect

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.

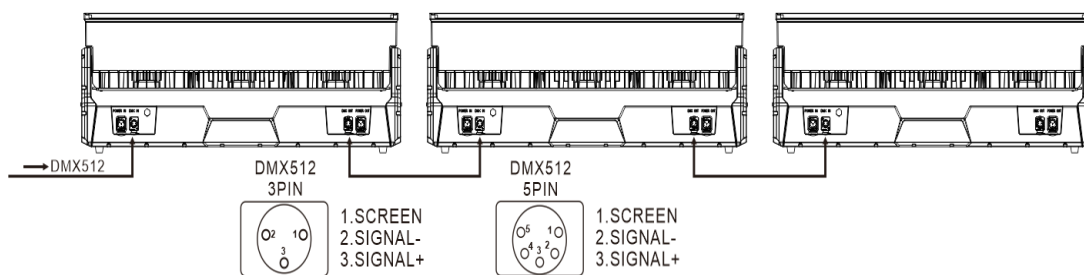
You can set the same starting address for all fixtures or a group of fixtures, or set different addresses for each individual fixture.

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.

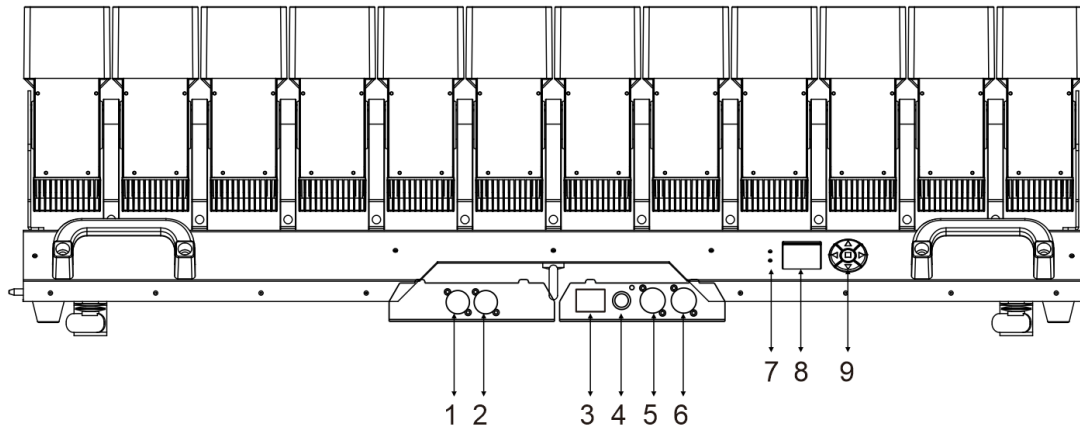
For example, if the first fixture is set to 43 ch DMX mode with a start DMX address of 1, the following fixture in the DMX chain should then be set to a DMX address of 44. As the first fixture uses all the first 43 DMX channels, the next available channel is 44 ($43+1=44 \gg 44$).

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. DMX input: Used for DMX512 connection, connect the console and lighting fixtures with a 3/5-core XLR signal cable, and input DMX signals (optional 3-core)
2. DMX output: Used for DMX512 connection, connect the next light fixture with a 3/5-core XLR signal cable and output DMX signal (optional 3-core)
3. Power switch
4. Insurance seat: 12A Fuse
5. Power output: Connect to the next light fixture
6. Power input: Connect the power supply for power supply
7. Signal indicator light
8. Display screen: Display various functional menus
9. Button: Up key: Menu function up selection/Parameter increment
Down arrow key: menu function down selection/parameter increment
Left button: Menu left selection/Return/Main menu
Right arrow key: Select/Confirm menu to the right
Confirm key: Select the menu function and make a confirmation and save when modifying the menu function parameters

07/ Display and operation

Main Menu	Secondary menu	Tertiary menu/parameter
1 、 System settings	1 、 DMX Address	Modify the DMX address code up or down (optional range of address code 001-512), press the confirm key to save, default to 001.
	2、 Encoder	On/Off
	3、 Y reversal	Modify Y reversal up or down to turn on/off, confirm key to save, default to turn off.
	4 、 Enlarge and Reverse	On/Off
	5、 No signal	Reset/Keep
	6 、 Voice sensitivity	001-099
	7、 Reset	No/Yes
	8 、 Restore factory settings	No/Yes
	9、 advanced setting	
2、 Operation mode	1. Operation mode	Select up or down the operating mode of DMX/voice control/automatic, press the confirm button to save, default to DMX.
	2. Channel selection	Select channel 20CH.53CH.101CH.155CH.169ACH.169BCH.179CH up or down and press the confirm button to save
	3. Y mode amplitude	000-255
3、 Manual Control	1 Y	Modify the operating parameter values of Y motor up or down (adjustable range 000-255), press the confirm button to save, default to 000.
	2. Y fine-tuning	Modify the Y fine-tuning parameter value up or down (adjustable range 000-255), press the confirm key to save, default to 000.
	3. Y speed	Modify the speed parameter value of Y motor up or down (adjustable range 000-255), press the confirm button to save, default to 000.
	4. Y mode	Modify the Y mode parameter values up or down (adjustable range 000-255), press the confirm key to save, default to 000.
	5 CTC	Modify CTC parameter values up or down (adjustable range 000-255), press the confirm key to save, default to 000.
	6. Color Macro	Modify the color macro parameter value up or down (adjustable range 000-255), press the confirm key to save, default to 000.
	7. Pattern	Modify the pattern parameter values up or down (adjustable range 000-255), press the confirm key to save, default to 000.

	8 、 LED mode	Modify the LED mode parameter values up or down (adjustable range 000-255), press the confirm button to save, default to 000.
	9 、 LED speed	Modify the LED speed parameter value up or down (adjustable range 000-255), press the confirm button to save, default to 000.
	10. LED tail	Modify the LED trailing parameter value up or down (adjustable range 000-255), press the confirm button to save, default to 000.
	11. Background color	Modify the background color parameter value up or down (adjustable range 000-255), press the confirm key to save, default to 000.
	12. Background dimming	Modify the background dimming parameter value up or down (adjustable range 000-255), press the confirm key to save, default to 000.
	13. Dimming	Modify the dimming parameter value up or down (adjustable range 000-255), press the confirm key to save, default to 000.
	14. Strobe light	Modify the strobe parameter value up or down (adjustable range 000-255), press the confirm key to save, default to 000.
	15. Zoom	Modify the zoom parameter value up or down (adjustable range 000-255), press the confirm key to save, default to 000.
	16. Function	Modify the function parameter values up or down (adjustable range 000-255), press the confirm key to save, default to 000.
	17. Red	Adjust the brightness of the red light bead up or down (adjustable range 000-255), press the confirm button to save, default to 000.
	18. Green	Adjust the brightness of the green light bead up or down (adjustable range 000-255), press the confirm button to save, default to 000.
	19. Blue	Adjust the brightness of the blue light bead up or down (adjustable range 000-255), press the confirm button to save, default to 000.
	20. White	Adjust the brightness of the white light bead up or down (adjustable range 000-255), press the confirm button to save, default to 000.
4. Display Settings	1. Language selection	Select Chinese/EN (English) up or down, press the confirm button to save, default to Chinese.
	2. Inverted Display Settings	Select up or down to turn off/on the reverse display setting, press the confirm button to save, and it will be turned off by default.
	3. Screen saver settings	Select up or down to turn off/on the screensaver settings, press the confirm button to save, and it will be turned on by default.
	4. Software version	R2.B
5. Information settings	1. Sensors	Whole lamp optocoupler, Hall information status
	2. Error message	Error message or system normal
	3. Channel information	View the numerical values used in the channel
	4. Time information	LED time: X: X: X LED lighting usage time

6. Factory settings	Please enter your password! Change up or down to 138, then press the confirm button to enter the factory settings.	1 、 Y1	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		2 、 F1	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		3 、 Y2	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		4 、 F2	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		5 、 Y3	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		6 、 F3	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		7 、 Y4	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		8 、 F4	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		Y5	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		10. F5	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		11. Y6	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		12. F6	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		13. Y7	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		14. F7	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		15. Y8	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		16. F8	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		17. Y9	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		18. F9	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		19. Y10	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		20. F10	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		21. Y11	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		22. F11	calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.

		23. Y12 calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		24. F12 calibration	Modify parameters up or down (range 000-255), press the confirm key to save, default is 128.
		25. Y itinerary	Modify the Y travel parameter (range 000-255) up or down, press the confirm key to save, default is 128.
		26. Focusing stroke	Modify the focusing stroke parameter (range 000-255) up or down, press the confirm button to save, default is 128.
		27. Red 1	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		28. Green 1	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		29. Blue 1	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		30. White 1	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		31. Red 2	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		32. Green 2	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		33. Blue 2	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		34. White 2	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		35. Red 3	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		36. Green 3	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		37. Blue 3	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		38. White 3	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		39. Red 4	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		40. Green 4	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		41. Blue 4	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		42. White 4	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		43. Red 5	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		44. Green 5	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.

		45. Blue 5	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		46. White 5	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		47. Red 6	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		48. Green 6	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		49. Blue 6	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		50. White 6	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		51. Red 7	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		52. Green 7	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		53. Blue 7	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		54. White 7	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		55. Red 8	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		56. Green 8	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		57. Blue 8	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		58. White 8	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		59. Red 9	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		60. Green 9	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		61. Blue 9	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		62. White 9	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		63. Red 10	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		64. Green 10	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		65. Blue 10	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
		66. White 10	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.

	67. Red 11	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
	68. Green 11	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
	69. Blue 11	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
	70. White 11	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
	71. Red 12	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
	72. Green 12	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
	73. Blue 12	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
	74. White 12	Modify parameters up or down (range 000-255), press the confirm key to save, default is 252.
	75 、 LEDYF direction	Modify the LED direction parameter (range 000-255) up or down, press the confirm button to save, default to 000.
	76、 Current	Modify the current parameter up or down (range 000-255), press the confirm button to save, default is 225.
	77、 LOGO	LOGO switching, 000-001
	78.Temperature	Temperature modification Default 55
	79.Temperature Control - Fan	Quiet/Standard/Off, default off.
	80、 LED	LED sequence switching, LEDA-LEDB
	81 、 Color mixing mode	RGBW turn to CMY
	82 、 PWM frequency	1200HZ/600HZ/15000HZ/6000HZ/4000HZ/2000HZ
	83. Dimming curve	83. Dimming curve linear/S-curve/inverse square rate/square rate
	84. Dimming mode fast/smooth	84. Dimming mode fast/smooth
	85. Sports light off/on	85. Sports light off/on
	86. Time reset No/Yes, default No	86. Time reset No/Yes, default No

08/ DMX Protoco

CH20-CHANNEL MODE:

Channel I	name	value	describe
1	Y	000-255	0-200 degrees (Y direction, used with 4 channels)
2	Y fine	000-255	0-1 度 (Y mode amplitude, used with 4 channels)
3	Y macro velocity	000-255	From slow to fast
4	Y macro	000-003	No function
		004-255	4 values and 1 effect, a total of 63 effects
5	CTC	000-009	No function
		010-255	2100K-6500K
6	Color macro	000	No function
		001- 002	White 2700K R=156 G=118 B=0 W=63
		003- 004	White 3200K R=156 G=141 B=5 W=89
		005- 006	White 4200K R=156 G=141 B=14 W=255
		007- 008	White 5600K R=156 G=207 B=54 W=255
		009- 010	White 8000K R=130 G=255 B=96 W=255
		011	Blue R=0 G=0 B=255 W=0
		012- 048	+ Green R=0 G=0-255 B=255 W=0
		049	Cyan R=0 G=255 B=255 W=0
		050- 086	-Blue R=0 G=255 B=255-0 W=0
		087	Green R=0 G=255 B=0 W=0
		088- 124	+ Red R=0-255 G=255 B=0 W=0
		125	Yellow R=255 G=255 B=0 W=0
		126- 162	-Green R=255 G=255-0 B=0 W=0
		163	Red R=255 G=0 B=0 W=0
		164- 200	+ Blue R=255 G=0 B=0-255 W=0
		201	Magenta R=255 G=0 B=255 W=0
		202- 238	-Red R=255-0 G=0 B=255 W=0
		239	Blue R=0 G=0 B=255 W=0
		240- 247	Color fade, fast to slow
		248-255	Color snap, fast to slow
7	Pattern	000	No function
		001-255	One value, one effect, a total of 255 patterns
8	LED effect	000-001	No function
		002-253	Two values and one effect, a total of 126 effects
		254-255	All effect loops
9	LED effect speed	000-255	From slow to fast

10	LED effect trailing	000-255	From fast to slow
11	LED background color	000-255	RGBW
12	LED background color tone light	000-255	0-100%
13	Total dimming	000-255	0-100%
14	Total Strobe	000-019	Off
		020-024	On
		025-064	Strobe, fast to slow
		065-069	On
		070-084	Strobe 100-0%, fast to slow
		085-089	on
		090-104	Strobe 0-100%, fast to slow
		105-109	On
		110-124	Random strobe, fast to slow
		125-129	On
		130-144	Random strobe 100-0%, fast to slow
		145-149	On
		150-164	Random strobe 0-100%, fast to slow
		165-169	On
		170-184	Pulse strobe, fast to slow
		185-189	On
		190-204	Random pulse strobe, fast to slow
		205-209	On
		210-224	Strobe 0-100-0%, fast to slow
		225-229	On
		230-244	Random pulse strobe, fast to slow
		245-255	On
15	Enlarge	000-255	Linear adjustment from width to width
16	Special Features	000-009	No function
		010-014	Blackout on tilt on
		015-019	Blackout on tilt Off
		020-024	RGBW (additive) colormixing mode
		025-029	CMY (subtractive) colormixing mode
		030-034	Combine heads
		035-039	Disable combine heads
		040-044	Reserved for future use
		045-049	Reserved for future use
		050-054	Reserved for future use
		055-059	Tilt reset

		060-064	Zoom reset
		065-069	Quiet zoom reset
		070-074	All reset
		075-079	Cell order 1-12
		080-084	Cell order 12-1
		085-089	Reserved for future use
		090-094	Tilt reverse
		095-099	Reserved for future use
		100-104	Disable tilt reverse
		105-109	Reserved for future use
		110-114	Reserved for future use
		115-119	Reserved for future use
		120-134	Reserved for future use
		135-139	Dimmer fast
		140-144	Dimmer smooth
		145-149	Linear
		150-154	Square
		155-159	I Squa
		160-164	S-Curve
		165-169	Reserved for future use
		170-174	Reserved for future use
		175-179	PWM 600HZ
		180-184	PWM 1200HZ
		185-189	PWM 2000 HZ
		190-194	PWM 4000 HZ
		195-199	PWM 6000 HZ
		200-204	PWM 15000 HZ
		205-255	Reserved for future use
17	red	000-255	0-100%
18	green	000-255	0-100%
19	blue	000-255	0-100%
20	white	000-255	0-100%

CH53-CHANNEL MODE:

Channel	Name	Value	Describe
1	Y1	000-255	0-200 degrees (Y direction, used with 26 channels)
2	Y1 fine	000-255	0-1degrees
3	Y2	000-255	0-200 degrees (Y direction, used with 26 channels)
4	Y2 fine	000-255	0-1degrees

5	Y3	000-255	0-200 degrees
6	Y3 fine	000-255	0-1degrees
7	Y4	000-255	0-200 degrees
8	Y4 fine	000-255	0-1degrees
9	Y5	000-255	0-200 degrees
10	Y5 fine	000-255	0-1degrees
11	Y6	000-255	0-200 degrees
12	Y6 fine	000-255	0-1degrees
13	Y7	000-255	0-200 degrees
14	Y7 fine	000-255	0-1degrees
15	Y8	000-255	0-200 degrees
16	Y8 fine	000-255	0-1degrees
17	Y9	000-255	0-200 degrees
18	Y9 fine	000-255	0-1degrees
19	Y10	000-255	0-200 degrees
20	Y10 fine	000-255	0-1degrees
21	Y11	000-255	0-200 degrees
22	Y11 fine	000-255	0-1degrees
23	Y12	000-255	0-200 degrees
24	Y12 fine	000-255	0-1degrees
25	Y macro velocity	000-255	From slow to fast
26	Y macro	000-003	No function
		004-255	4 values and 1 effect, a total of 63 effects
27	CTC	000-009	No function
		010-255	2100K-6500K
28	Color marco	000	No function
		001- 002	White 2700K R=156 G=118 B=0 W=63
		003- 004	White 3200K R=156 G=141 B=5 W=89
		005- 006	White 4200K R=156 G=141 B=14 W=255
		007- 008	White 5600K R=156 G=207 B=54 W=255
		009- 010	White 8000K R=130 G=255 B=96 W=255
		011	Blue R=0 G=0 B=255 W=0
		012- 048	+ Green R=0 G=0-255 B=255 W=0
		049	Cyan R=0 G=255 B=255 W=0
		050- 086	-Blue R=0 G=255 B=255-0 W=0
		087	Green R=0 G=255 B=0 W=0
		088- 124	+ Red R=0-255 G=255 B=0 W=0
		125	Yellow R=255 G=255 B=0 W=0
		126- 162	-Green R=255 G=255-0 B=0 W=0

		163	Red	R=255	G=0	B=0	W=0
		164- 200	+ Blue	R=255	G=0	B=0-255	W=0
		201	Magenta	R=255	G=0	B=255	W=0
		202- 238	-Red	R=255-0	G=0	B=255	W=0
		239	Blue	R=0	G=0	B=255	W=0
		240- 247	Color fade, fast to slow				
		248-255	Color snap, fast to slow				
29	Pattern	000	No function				
		001-255	One value, one effect, a total of 255 patterns				
30	LED effect	000-001	No function				
		002-253	Two values and one effect, a total of 126 effects				
		254-255	All effect loops				
31	LED effect speed	000-255	From slow to fast				
32	LED effect trailing	000-255	From fast to slow				
33	LED background color	000-255	RGBW				
34	LED background color tone light	000-255	0-100%				
35	Total dimming	000-255	0-100%				
36	Total Strobe	000-019	Off				
		020-024	0n				
		025-064	Strobe, fast to slow				
		065-069	0n				
		070-084	Strobe 100-0%, fast to slow				
		085-089	on				
		090-104	Strobe 0-100%, fast to slow				
		105-109	0n				
		110-124	Random strobe, fast to slow				
		125-129	0n				
		130-144	Random strobe 100-0%, fast to slow				
		145-149	0n				
		150-164	Random strobe 0-100%, fast to slow				
		165-169	0n				
		170-184	Pulse strobe, fast to slow				
		185-189	0n				
		190-204	Random pulse strobe, fast to slow				
		205-209	0n				
		210-224	Strobe 0-100-0%, fast to slow				
		225-229	0n				
		230-244	Random pulse strobe, fast to slow				

		245-255	On
37	Enlarge 1	000-255	Linear adjustment from width to width
38	Enlarge 2	000-255	Linear adjustment from width to width
39	Enlarge 3	000-255	Linear adjustment from width to width
40	Enlarge 4	000-255	Linear adjustment from width to width
41	Zoom in 5	000-255	Linear adjustment from width to width
42	Magnify 6	000-255	Linear adjustment from width to width
43	Magnify 7	000-255	Linear adjustment from width to width
44	Enlarge 8	000-255	Linear adjustment from width to width
45	Enlarge 9	000-255	Linear adjustment from width to width
46	Zoom in 10	000-255	Linear adjustment from width to width
47	Enlarge 11	000-255	Linear adjustment from width to width
48	Enlarge 12	000-255	Linear adjustment from width to width
49	Special Features	000-009	No function
		010-014	Blackout on tilt on
		015-019	Blackout on tilt Off
		020-024	RGBW (additive)colormixing mode
		025-029	CMY(subtractive)colormixing mode
		030-034	Combine heads
		035-039	Disable combine heads
		040-044	Reserved for future use
		045-049	Reserved for future use
		050-054	Reserved for future use
		055-059	Tilt reset
		060-064	Zoom reset
		065-069	Quiet zoom reset
		070-074	All reset
		075-079	Cell order 1-12
		080-084	Cell order 12-1
		085-089	Reserved for future use
		090-094	Tilt reverse
		095-099	Reserved for future use
		100-104	Disable tilt reverse
		105-109	Reserved for future use
		110-114	Reserved for future use
		115-119	Reserved for future use
		120-134	Reserved for future use
		135-139	Dimmer fast
		140-144	Dimmer smooth

		145-149	Linear
		150-154	Square
		155-159	I Squa
		160-164	S-Curve
		165-169	Reserved for future use
		170-174	Reserved for future use
		175-179	PWM 600HZ
		180-184	PWM 1200HZ
		185-189	PWM 2000 HZ
		190-194	PWM 4000 HZ
		195-199	PWM 6000 HZ
		200-204	PWM 15000 HZ
		205-255	Reserved for future use
50	Red	000-255	0-100%
51	Green	000-255	0-100%
52	Blue	000-255	0-100%
53	White	000-255	0-100%

CH109-CHANNEL MODE:

Channel	Name	Value	Describe
1	Y1	000-255	0-200 degrees (Y-axis direction, used with 26 channels)
2	Y1 fine	000-255	0-1 degree
3	Y2	000-255	0-200 degrees (Y-axis direction, used with 26 channels)
4	Y2 fine	000-255	0-1 degree
5	Y3	000-255	0-200 degrees
6	Y3 fine	000-255	0-1 degree
7	Y4	000-255	0-200 degrees
8	Y4 fine	000-255	0-1 degree
9	Y5	000-255	0-200 degrees
10	Y5 fine	000-255	0-1 degree
11	Y6	000-255	0-200 degrees
12	Y6 fine	000-255	0-1 degree
13	Y7	000-255	0-200 degrees
14	Y7 fine	000-255	0-1 degree
15	Y8	000-255	0-200 degrees
16	Y8 fine	000-255	0-1 degree
17	Y9	000-255	0-200 degrees
18	Y9 fine	000-255	0-1 degree
19	Y10	000-255	0-200 degrees
20	Y10 fine	000-255	0-1 degree

21	Y11	000-255	0-200 degrees
22	Y11 fine	000-255	0-1 degree
23	Y12	000-255	0-200 degrees
24	Y12 fine	000-255	0-1 degree
25	Y macro velocity	000-255	From slow to fast
26	Y macro	000-003	No function
		004-255	4 values and 1 effect, a total of 63 effects
27	CTC	000-009	No function
		010-255	2100K-6500K
28	Color Macro	000	No function
		001- 002	White 2700K R=156 G=118 B=0 W=63
		003- 004	White 3200K R=156 G=141 B=5 W=89
		005- 006	White 4200K R=156 G=141 B=14 W=255
		007- 008	White 5600K R=156 G=207 B=54 W=255
		009- 010	White 8000K R=130 G=255 B=96 W=255
		011	Blue R=0 G=0 B=255 W=0
		012- 048	+ Green R=0 G=0-255 B=255 W=0
		049	Cyan R=0 G=255 B=255 W=0
		050- 086	-Blue R=0 G=255 B=255-0 W=0
		087	Green R=0 G=255 B=0 W=0
		088- 124	+ Red R=0-255 G=255 B=0 W=0
		125	Yellow R=255 G=255 B=0 W=0
		126- 162	-Green R=255 G=255-0 B=0 W=0
		163	Red R=255 G=0 B=0 W=0
		164- 200	+ Blue R=255 G=0 B=0-255 W=0
		201	Magenta R=255 G=0 B=255 W=0
		202- 238	-Red R=255-0 G=0 B=255 W=0
		239	Blue R=0 G=0 B=255 W=0
		240- 247	Color fade, fast to slow
		248-255	Color snap, fast to slow
29	Pattern	000	No function
		001-255	One value, one effect, a total of 255 patterns
30	LED effect	000-001	No function
		002-253	Two values and one effect, a total of 126 effects
		254-255	All effect loops
31	LED effect speed	000-255	From slow to fast
32	LED effect trailing	000-255	From fast to slow
33	LED background color	000-255	RGBW
34	LED background color tone light	000-255	0-100%
35	Total dimming	000-255	0-100%

36	Total strobe	000-019	Off
		020-024	On
		025-064	Strobe, fast to slow
		065-069	On
		070-084	Strobe 100-0%, fast to slow
		085-089	on
		090-104	Strobe 0-100%, fast to slow
		105-109	On
		110-124	Random strobe, fast to slow
		125-129	On
		130-144	Random strobe 100-0%, fast to slow
		145-149	On
		150-164	Random strobe 0-100%, fast to slow
		165-169	On
		170-184	Pulse strobe, fast to slow
		185-189	On
		190-204	Random pulse strobe, fast to slow
		205-209	On
		210-224	Strobe 0-100-0%, fast to slow
		225-229	On
		230-244	Random pulse strobe, fast to slow
		245-255	On
37	Enlarge 1	000-255	Linear adjustment from width to width
↓	↓	↓	↓
48	Enlarge 12	000-255	Linear adjustment from width to width
49	Special Features	000-009	No function
		010-014	Blackout on tilt on
		015-019	Blackout on tilt Off
		020-024	RGBW (additive)colormixing mode
		025-029	CMY(subtractive)colormixing mode
		030-034	Combine heads
		035-039	Disable combine heads
		040-044	Reserved for future use
		045-049	Reserved for future use
		050-054	Reserved for future use
		055-059	Tilt reset
		060-064	Zoom reset
		065-069	Quiet zoom reset
		070-074	All reset
		075-079	Cell order 1-12
		080-084	Cell order 12-1
		085-089	Reserved for future use

		090-094	Tilt reverse
		095-099	Reserved for future use
		100-104	Disable tilt reverse
		105-109	Reserved for future use
		110-114	Reserved for future use
		115-119	Reserved for future use
		120-134	Reserved for future use
		135-139	Dimmer fast
		140-144	Dimmer smooth
		145-149	Linear
		150-154	Square
		155-159	I Squa
		160-164	S-Curve
		165-169	Reserved for future use
		170-174	Reserved for future use
		175-179	PWM 600HZ
		180-184	PWM 1200HZ
		185-189	PWM 2000 HZ
		190-194	PWM 4000 HZ
		195-199	PWM 6000 HZ
		200-204	PWM 15000 HZ
		205-255	Reserved for future use
50	Red	000-255	0-100%
51	Green	000-255	0-100%
52	Blue	000-255	0-100%
53	White	000-255	0-100%
54	Red 1	000-255	0-100%
55	Green 1	000-255	0-100%
56	Blue 1	000-255	0-100%
57	White 1	000-255	0-100%
↓	↓	↓	↓
98	Red 12	000-255	0-100%
99	Green 12	000-255	0-100%
100	Blue 12	000-255	0-100%
101	White 12	000-255	0-100%

CH155-CHANNEL MODE:

Channel	Name	Value	Describe
1	Y1	000-255	0-200 degrees (Y direction, used with 26 channels)
2	Y1 fine	000-255	0-1degrees
↓	↓	↓	↓

23	Y12	000-255	0-200 degrees
24	Y12 fine	000-255	0-1degrees
25	Y macro velocity	000-255	From slow to fast
26	Y macro	000-003	No function
		004-255	4 values and 1 effect, a total of 63 effects
27	CTC	000-009	No function
		010-255	2100K-6500K
28	Color Macro	000	No function
		001- 002	White 2700K R=156 G=118 B=0 W=63
		003- 004	White 3200K R=156 G=141 B=5 W=89
		005- 006	White 4200K R=156 G=141 B=14 W=255
		007- 008	White 5600K R=156 G=207 B=54 W=255
		009- 010	White 8000K R=130 G=255 B=96 W=255
		011	Blue R=0 G=0 B=255 W=0
		012- 048	+ Green R=0 G=0-255 B=255 W=0
		049	Cyan R=0 G=255 B=255 W=0
		050- 086	-Blue R=0 G=255 B=255-0 W=0
		087	Green R=0 G=255 B=0 W=0
		088- 124	+ Red R=0-255 G=255 B=0 W=0
		125	Yellow R=255 G=255 B=0 W=0
		126- 162	-Green R=255 G=255-0 B=0 W=0
		163	Red R=255 G=0 B=0 W=0
		164- 200	+ Blue R=255 G=0 B=0-255 W=0
		201	Magenta R=255 G=0 B=255 W=0
		202- 238	-Red R=255-0 G=0 B=255 W=0
		239	Blue R=0 G=0 B=255 W=0
		240- 247	Color fade, fast to slow
		248-255	Color snap, fast to slow
29	Pattern	000	No function
		001-255	One value, one effect, a total of 255 patterns
30	LED effect	000-001	No function
		002-253	Two values and one effect, a total of 126 effects
		254-255	All effect loops
31	LED effect speed	000-255	From slow to fast
32	LED effect trailing	000-255	From fast to slow
33	LED background color	000-255	RGBW
34	LED background color tone light	000-255	0-100%
35	LED background color tone light fine	000-255	background color tone light fine

36	Total dimming12	000-255	0-100%
37	Total dimming fine12	000-255	dimming fine
38	Strobe	000-019	Off
		020-024	On
		025-064	Strobe, fast to slow
		065-069	On
		070-084	Strobe 100-0%, fast to slow
		085-089	on
		090-104	Strobe 0-100%, fast to slow
		105-109	On
		110-124	Random strobe, fast to slow
		125-129	On
		130-144	Random strobe 100-0%, fast to slow
		145-149	On
		150-164	Random strobe 0-100%, fast to slow
		165-169	On
		170-184	Pulse strobe, fast to slow
		185-189	On
		190-204	Random pulse strobe, fast to slow
		205-209	On
		210-224	Strobe 0-100-0%, fast to slow
		225-229	On
		230-244	Random pulse strobe, fast to slow
		245-255	On
39	Enlarge 1	000-255	Linear adjustment from width to width
↓	↓	↓	↓
50	Enlarge 12	000-255	Linear adjustment from width to width
51	Special Features	000-009	No function
		010-014	Blackout on tilt on
		015-019	Blackout on tilt Off
		020-024	RGBW (additive)colormixing mode
		025-029	CMY(subtractive)colormixing mode
		030-034	Combine heads
		035-039	Disable combine heads
		040-044	Reserved for future use
		045-049	Reserved for future use
		050-054	Reserved for future use
		055-059	Tilt reset
		060-064	Zoom reset
		065-069	Quiet zoom reset

		070-074	All reset
		075-079	Cell order 1-12
		080-084	Cell order 12-1
		085-089	Reserved for future use
		090-094	Tilt reverse
		095-099	Reserved for future use
		100-104	Disable tilt reverse
		105-109	Reserved for future use
		110-114	Reserved for future use
		115-119	Reserved for future use
		120-134	Reserved for future use
		135-139	Dimmer fast
		140-144	Dimmer smooth
		145-149	Linear
		150-154	Square
		155-159	I Squa
		160-164	S-Curve
		165-169	Reserved for future use
		170-174	Reserved for future use
		175-179	PWM 600HZ
		180-184	PWM 1200HZ
		185-189	PWM 2000 HZ
		190-194	PWM 4000 HZ
		195-199	PWM 6000 HZ
		200-204	PWM 15000 HZ
		205-255	Reserved for future use
52	Red	000-255	0-100%
53	Red fine	000-255	Red fine
54	Green	000-255	0-100%
55	Green fine	000-255	Green fine
56	Blue	000-255	0-100%
57	Blue fine	000-255	Blue fine
58	White	000-255	0-100%
59	White fine	000-255	White fine
60	Red 1	000-255	0-100%
61	Red fine1	000-255	Red fine
62	Green 1	000-255	0-100%
63	Green fine1	000-255	Green fine
64	Blue	000-255	0-100%
65	Blue fine 1	000-255	Blue fine
66	White	000-255	0-100%

67	White fine 1	000-255	White fine
↓	↓	↓	↓
148	Red 12	000-255	1-100%
149	Red fine 12	000-255	Red fine
150	Green 12	000-255	1-100%
151	Green fine 12	000-255	Green fine
152	Blue 12	000-255	1-100%
153	Blue fine 12	000-255	Blue fine
154	White 12	000-255	1-100%
155	White fine 12	000-255	White fine

CH169-CHANNEL MODE:

Channel	Name	Value	Describe
1	Special Features	000-009	No function
		010-014	Blackout on tilt on
		015-019	Blackout on tilt Off
		020-024	RGBW (additive)colormixing mode
		025-029	CMY(subtractive)colormixing mode
		030-034	Combine heads
		035-039	Disable combine heads
		040-044	Reserved for future use
		045-049	Reserved for future use
		050-054	Reserved for future use
		055-059	Tilt reset
		060-064	Zoom reset
		065-069	Quiet zoom reset
		070-074	All reset
		075-079	Cell order 1-12
		080-084	Cell order 12-1
		085-089	Reserved for future use
		090-094	Tilt reverse
		095-099	Reserved for future use
		100-104	Disable tilt reverse
		105-109	Reserved for future use
		110-114	Reserved for future use
		115-119	Reserved for future use
		120-134	Reserved for future use
		135-139	Dimmer fast
		140-144	Dimmer smooth
		145-149	Linear

		150-154	Square
		155-159	I Squa
		160-164	S-Curve
		165-169	Reserved for future use
		170-174	Reserved for future use
		175-179	PWM 600HZ
		180-184	PWM 1200HZ
		185-189	PWM 2000 HZ
		190-194	PWM 4000 HZ
		195-199	PWM 6000 HZ
		200-204	PWM 15000 HZ
2	Y macro velocity	000-255	From slow to fast
3	Y macro	000-003	No funtion
		004-255	4 values and 1 effect, a total of 63 effects
4	CTC	000-009	No funtion
		010-255	2100K-6500K
5	Color Macro	000	No funtion
		001- 002	White 2700K R=156 G=118 B=0 W=63
		003- 004	White 3200K R=156 G=141 B=5 W=89
		005- 006	White 4200K R=156 G=141 B=14 W=255
		007- 008	White 5600K R=156 G=207 B=54 W=255
		009- 010	White 8000K R=130 G=255 B=96 W=255
		011	Blue R=0 G=0 B=255 W=0
		012- 048	+ Green R=0 G=0-255 B=255 W=0
		049	Cyan R=0 G=255 B=255 W=0
		050- 086	-Blue R=0 G=255 B=255-0 W=0
		087	Green R=0 G=255 B=0 W=0
		088- 124	+ Red R=0-255 G=255 B=0 W=0
		125	Yellow R=255 G=255 B=0 W=0
		126- 162	-Green R=255 G=255-0 B=0 W=0
		163	Red R=255 G=0 B=0 W=0
		164- 200	+ Blue R=255 G=0 B=0-255 W=0
		201	Magenta R=255 G=0 B=255 W=0
		202- 238	-Red R=255-0 G=0 B=255 W=0
		239	Blue R=0 G=0 B=255 W=0
		240- 247	Color fade, fast to slow
		248-255	Color snap, fast to slow
6	Pattern	000	No funtion
		001-255	One value, one effect, a total of 255 patterns
7	LED effect	000-001	No funtion

		002-253	4 values and 1 effect, a total of 63 effects
		254-255	All effect loops
8	LED effect speed	000-255	From slow to fast
9	LED effect trailing	000-255	From fast to slow
10	LED background color	000-255	RGBW
11	LED background color tone light	000-255	1-100%
12	LED background color tone light fine	000-255	LED background color tone light fine
13	Total dimming12	000-019	Off
		020-024	On
		025-064	Strobe, fast to slow
		065-069	On
		070-084	Strobe 100-0%, fast to slow
		085-089	on
		090-104	Strobe 0-100%, fast to slow
		105-109	On
		110-124	Random strobe, fast to slow
		125-129	On
		130-144	Random strobe 100-0%, fast to slow
		145-149	On
		150-164	Random strobe 0-100%, fast to slow
		165-169	On
		170-184	Pulse strobe, fast to slow
		185-189	On
		190-204	Random pulse strobe, fast to slow
		205-209	On
		210-224	Strobe 0-100-0%, fast to slow
		225-229	On
		230-244	Random pulse strobe, fast to slow
		245-255	On
14	Y 1	000-255	0-200 degrees (Y direction, used with 26 channels)
15	Y fine 1	000-255	0-1 degree
16	Enlarge 1	000-255	Linear adjustment from width to width
17	Dimming 1	000-255	1-100%

18	Dimming fine 1	000-255	Dimming fine-tuning control
19	Red 1	000-255	1-100%
20	Red fine 1	000-255	Red fine
21	Green 1	000-255	1-100%
22	Green fine 1	000-255	Green fine
23	Blue 1	000-255	1-100%
24	Blue fine 1	000-255	Blue fine
25	White 1	000-255	1-100%
26	White fine 1	000-255	White fine
↓	↓	↓	↓
157	Y 12	000-255	0-200 degrees
158	Y fine 12	000-255	0-1degrees
159	Enlarge 12	000-255	Linear adjustment from width to width
160	Dimming 12	000-255	0-100%
161	Dimming fine 12	000-255	Dimming fine
162	Red 12	000-255	0-100%
163	Red fine 12	000-255	Red fine
164	Green 12	000-255	0-100%
165	Green fine 12	000-255	Green fine
166	Blue 12	000-255	0-100%
167	Blue fine 12	000-255	Blue fine
168	White 12	000-255	0-100%
169	White fine 12	000-255	White fine

CH169-CHANNEL MODE:

Channel I	Name	Value	describe
1	Y 1	000-255	0-200 degrees
2	Y fine 1	000-255	0-1degrees
3	Enlarge 1	000-255	Linear adjustment from width to width
4	Dimming 1	000-255	0-100%
5	Dimming fine 1	000-255	Dimming fine
6	Strobe 1	000-019	Off
		020-024	On
		025-064	Strobe, fast to slow
		065-069	On
		070-084	Strobe 100-0%, fast to slow
		085-089	on
		090-104	Strobe 0-100%, fast to slow
		105-109	On
		110-124	Random strobe, fast to slow

		125-129	0n
		130-144	Random strobe 100-0%, fast to slow
		145-149	0n
		150-164	Random strobe 0-100%, fast to slow
		165-169	0n
		170-184	Pulse strobe, fast to slow
		185-189	0n
		190-204	Random pulse strobe, fast to slow
		205-209	0n
		210-224	Strobe 0-100-0%, fast to slow
		225-229	0n
7	Red 1	000-255	1-100%
8	Red fine 1	000-255	Red fine
9	Green 1	000-255	1-100%
10	Green fine 1	000-255	Green fine
11	Blue 1	000-255	1-100%
12	Blue fine 1	000-255	Blue fine
13	White 1	000-255	1-100%
14	White fine 1	000-255	White fine
↓	↓	↓	↓
155	Y 12	000-255	0-200 degrees
156	Y fine 12	000-255	0-1degrees
157	Enlarge 12	000-255	Linear adjustment from width to width
158	Dimming 12	000-255	0-100%
159	Dimming fine 12	000-255	Dimming fine
160	Strobe 12	000-019	Off
		020-024	0n
		025-064	Strobe, fast to slow
		065-069	0n
		070-084	Strobe 100-0%, fast to slow
		085-089	on
		090-104	Strobe 0-100%, fast to slow
		105-109	0n
		110-124	Random strobe, fast to slow
		125-129	0n
		130-144	Random strobe 100-0%, fast to slow
		145-149	0n
		150-164	Random strobe 0-100%, fast to slow
		165-169	0n
		170-184	Pulse strobe, fast to slow

		185-189	On
		190-204	Random pulse strobe, fast to slow
		205-209	On
		210-224	Strobe 0-100-0%, fast to slow
		225-229	On
		230-244	Random pulse strobe, fast to slow
		245-255	On
161	Red 12	000-255	1-100%
162	Red fine 12	000-255	Red fine
163	Green 12	000-255	1-100%
164	Green fine 12	000-255	Green fine
165	Blue 12	000-255	1-100%
166	Blue fine 12	000-255	Blue fine
167	White 12	000-255	1-100%
168	White fine 12	000-255	White fine
169	Special Features	000-009	No function
		010-014	Blackout on tilt on
		015-019	Blackout on tilt Off
		020-024	RGBW (additive) colormixing mode
		025-029	CMY (subtractive) colormixing mode
		030-034	Combine heads
		035-039	Disable combine heads
		040-044	Reserved for future use
		045-049	Reserved for future use
		050-054	Reserved for future use
		055-059	Tilt reset
		060-064	Zoom reset
		065-069	Quiet zoom reset
		070-074	All reset
		075-079	Cell order 1-12
		080-084	Cell order 12-1
		085-089	Reserved for future use
		090-094	Tilt reverse
		095-099	Reserved for future use
		100-104	Disable tilt reverse
		105-109	Reserved for future use
		110-114	Reserved for future use
		115-119	Reserved for future use
		120-134	Reserved for future use
		135-139	Dimmer fast
		140-144	Dimmer smooth

		145-149	Linear
		150-154	Square
		155-159	I Squa
		160-164	S-Curve
		165-169	Reserved for future use
		170-174	Reserved for future use
		175-179	PWM 600HZ
		180-184	PWM 1200HZ
		185-189	PWM 2000 HZ
		190-194	PWM 4000 HZ
		195-199	PWM 6000 HZ
		200-204	PWM 15000 HZ
		205-255	Reserved for future use

CH179-CHANNEL MODE:

Channel I	Name	Value	describe
1	Y 1	000-255	0-200 degrees (Y direction, used with 26 channels)
2	Y fine 1	000-255	0-1 degree
↓	↓	↓	↓
23	Y 12	000-255	0-200 degrees
24	Y fine 12	000-255	0-1 degree
25	Y macro velocity	000-255	From slow to fast
26	Y macro	000-003	No function
		004-255	4 values and 1 effect, a total of 63 effects
27	CTC	000-009	No function
		010-255	2100K-6500K
28	Color Macro	000	No function
		001- 002	White 2700K R=156 G=118 B=0 W=63
		003- 004	White 3200K R=156 G=141 B=5 W=89
		005- 006	White 4200K R=156 G=141 B=14 W=255
		007- 008	White 5600K R=156 G=207 B=54 W=255
		009- 010	White 8000K R=130 G=255 B=96 W=255
		011	Blue R=0 G=0 B=255 W=0
		012- 048	+ Green R=0 G=0-255 B=255 W=0
		049	Cyan R=0 G=255 B=255 W=0
		050- 086	-Blue R=0 G=255 B=255-0 W=0
		087	Green R=0 G=255 B=0 W=0
		088- 124	+ Red R=0-255 G=255 B=0 W=0
		125	Yellow R=255 G=255 B=0 W=0
		126- 162	-Green R=255 G=255-0 B=0 W=0
		163	Red R=255 G=0 B=0 W=0

		164– 200	+ Blue R=255 G=0 B=0–255 W=0
		201	Magenta R=255 G=0 B=255 W=0
		202– 238	–Red R=255–0 G=0 B=255 W=0
		239	Blue R=0 G=0 B=255 W=0
		240– 247	Color fade, fast to slow
		248–255	Color snap, fast to slow
29	Pattern	000	No function
		001–255	One value, one effect, a total of 255 patterns
30	LED effect	000–001	No function
		002–253	Two values and one effect, a total of 126 effects
		254–255	All effect loops
31	LED effect speed	000–255	From slow to fast
32	LED effect trailing	000–255	From fast to slow
33	LED background color	000–255	RGBW
34	LED background color tone light	000–255	0-100% dimming
35	LED background color tone light fine-tuning	000–255	0-100% dimming fine
36	Total dimming 12	000–255	Linear dimming from dark to bright
37	Total dimming adjustment 12	000–255	Dimming fine-tuning control
38	Total flicker	000–019	Off
		020–024	0n
		025–064	Strobe, fast to slow
		065–069	0n
		070–084	Strobe 100–0%, fast to slow
		085–089	on
		090–104	Strobe 0–100%, fast to slow
		105–109	0n
		110–124	Random strobe, fast to slow
		125–129	0n
		130–144	Random strobe 100–0%, fast to slow
		145–149	0n
		150–164	Random strobe 0–100%, fast to slow
		165–169	0n
		170–184	Pulse strobe, fast to slow
		185–189	0n
		190–204	Random pulse strobe, fast to slow
		205–209	0n

		210-224	Strobe 0-100-0%, fast to slow
		225-229	On
		230-244	Random pulse strobe, fast to slow
		245-255	On
39	Enlarge 1	000-255	Linear adjustment from width to width
↓	↓	↓	↓
50	Enlarge 12	000-255	Linear adjustment from width to width
51	Special Features	000-009	No function
		010-014	Blackout on tilt on
		015-019	Blackout on tilt Off
		020-024	RGBW (additive) colormixing mode
		025-029	CMY (subtractive) colormixing mode
		030-034	Combine heads
		035-039	Disable combine heads
		040-044	Reserved for future use
		045-049	Reserved for future use
		050-054	Reserved for future use
		055-059	Tilt reset
		060-064	Zoom reset
		065-069	Quiet zoom reset
		070-074	All reset
		075-079	Cell order 1-12
		080-084	Cell order 12-1
		085-089	Reserved for future use
		090-094	Tilt reverse
		095-099	Reserved for future use
		100-104	Disable tilt reverse
		105-109	Reserved for future use
		110-114	Reserved for future use
		115-119	Reserved for future use
		120-134	Reserved for future use
		135-139	Dimmer fast
		140-144	Dimmer smooth
		145-149	Linear
		150-154	Square
		155-159	1 Squa
		160-164	S-Curve
		165-169	Reserved for future use
		170-174	Reserved for future use
		175-179	PWM 600HZ
		180-184	PWM 1200HZ

		185–189	PWM 2000 HZ
		190–194	PWM 4000 HZ
		195–199	PWM 6000 HZ
		200–204	PWM 15000 HZ
		205–255	Reserved for future use
52	Red	000–255	0–100%
53	Red fine	000–255	Red fine
54	Green	000–255	0–100%
55	Green fine	000–255	Green fine
56	Blue	000–255	0–100%
57	Blue fine	000–255	Blue fine
58	White	000–255	0–100%
59	White fine	000–255	White fine
60	Dimming 1	000–255	0–100%
61	Dimming fine 1	000–255	Dimming fine
62	Red 1	000–255	0–100%
63	Red fine 1	000–255	Red fine
64	Green 1	000–255	0–100%
65	Green fine 1	000–255	Green fine
66	Blue 1	000–255	0–100%
67	Blue fine 1	000–255	Blue fine
68	White 1	000–255	0–100%
69	White fine 1	000–255	White fine
↓	↓	↓	↓
170	Dimming 12	000–255	0–100%
171	Dimming fine 12	000–255	Dimming fine
172	Red 12	000–255	0–100%
173	Red fine 12	000–255	Red fine
174	Green 12	000–255	0–100%
175	Green fine 12	000–255	Green fine
176	Blue 12	000–255	0–100%
177	Blue fine 12	000–255	Blue fine
178	White 12	000–255	0–100%
179	White fine 12	000–255	White fine

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.

