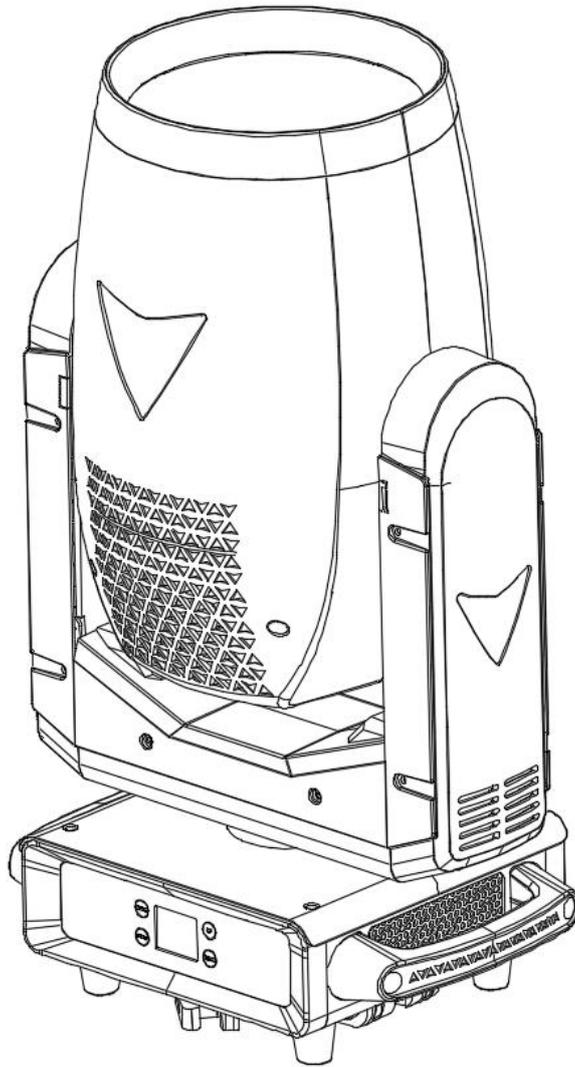# T913 Potency

User Manual

1. Safety Instructions

Please read the instruction carefully which includes important information about the installation, usage and maintenance.

Please keep this User Guide 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 for indoor use only. Use only in a dry location.
DO install and operate by qualified operator.
DO NOT allow children to operate the fixture.
Use safety chain 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: 0℃. 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.
During initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective, and it will decrease gradually within 15 minutes.
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 85℃. 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 12 meters.

Disconnect mains power before fuse/lamp replacement or servicing.

Replace fuse/lamp only with the same type.

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.

Hot lamp explosion hazard. DO NOT open the unit within 15 minutes after switching off.

DO replace the bulb once it is damaged, deformed or life-expired.

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

Never touch bulb with bare fingers, as it is very hot after using.

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

Installation:

The fixture should be fixed on the clamp. Always ensure that the unit is firmly fixed to avoid vibration and slipping off during operation. Ensure that the trussing or area of installation must be able to hold 10 times the weight without any deformation. Always install a safety cable that can hold at least 12 times the weight of the fixture when installing.DO install and operate by qualified operator. It must be installed in a place where there is out of the reach of people.

2.INSTALLATIONS

 installations Note: In order to increase protection, please install the lamp on the sidewalk, outside the seating area, or an area where unauthorized persons may touch the lamp

Before installing the fixture on any surface, make sure that the installation area can bear the minimum point load above 10   points of the weight of the equipment. The installation of the fixing device must always be fixed with auxiliary safety accessories (such as a suitable safety rope)

Do not stand directly under the equipment when installing, removing, or servicing fixtures

From the ceiling or set on a flat surface (see the picture below). Ensure that this fixture is kept at least 0.5m (1.5 feet) away from any flammable materials (decorations, etc.)

Be sure to use and install the supplied safety rope to ensure safety and prevent accidental damage and/or injury in case the fixture is damaged

Installation point: Overhead installation requires a wealth of experience, including calculation of working load limits, in-depth understanding of the installation materials used, and regular safety inspections of all installation materials and fixtures. If you do not have these qualifications, please do not try to install it yourself. Improper installation can cause personal injury

Before connecting the main power cord to an appropriate wall outlet, make sure to complete all assembly and installation procedures

Lamp installation: LED shaking head provides a unique mounting bracket assembly, which integrates the bottom of the base and the fixing point of the safety cable into one unit (see the figure below). When installing the fixture to the truss, make sure to use the appropriate tools to fix it on the attached bracket, and use the M10 screw that passes through the center hole of the "bracket" to fix it. As an additional safety measure, make sure to use at least one safety cable integrated in the base assembly to connect at least one appropriately rated safety cable to the fixture.
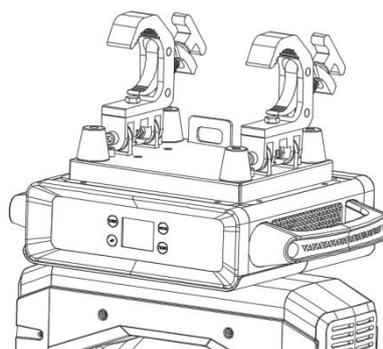
3. DMX-512 control connections

Connect the provided XLR cable to the female 3-pin XLR output of your controller and the other side to the male 3-pin XLR input of the moving head. You can chain multiple

Moving heads be connected together through serial linking. The cable needed should be two core, screened cable with XLR input and output connectors.

For installations where the DMX cable has to run a long distance or is in an electrically noisy environment, such as in a discotheque, it is recommended to use a DMX terminator. This helps in preventing corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR plug with a 120 Ω resistor connected between pins 2 and 3,which is then plugged into the output XLR socket of the last fixture in the chain. Please see illustrations below
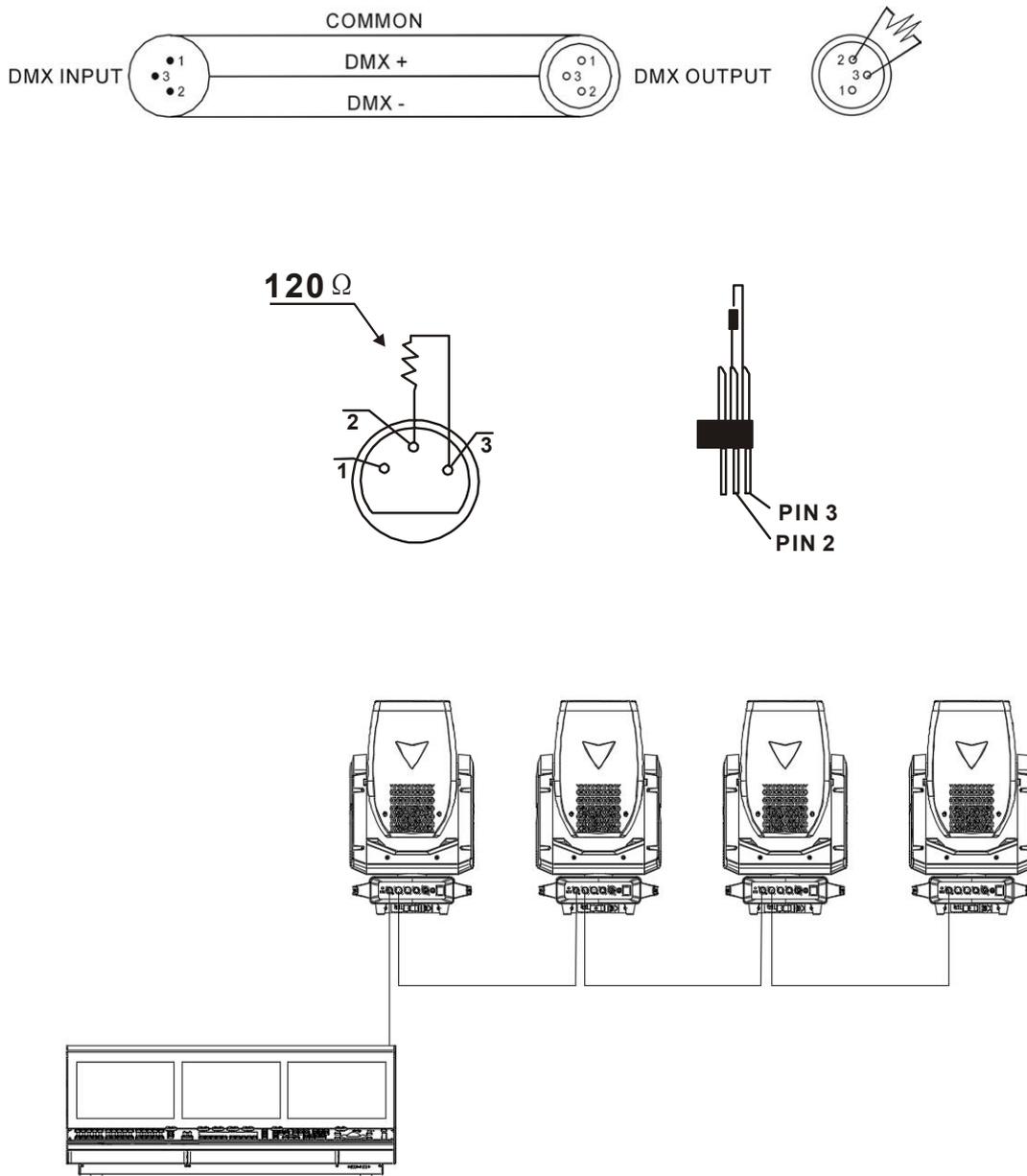
4.Address code setting

If you use a universal DMX controller to control the units, you have to set DMX address from 1 to 512 so that the units can receive DMX signal.

Press the MENU button to enter menu mode, select DMX Settings, press the ENTER button to confirm, use the UP/DOWN button to select DMX Address, press the ENTER button to confirm, the present address will blink in the display, use the UP/DOWN button to adjust the address from 001 to 512, press the ENTER button to store. Press the MENU button back to the last menu or let the unit idle 30 seconds to exit menu mode.Please refer to the following diagram to address your DMX512 channel for the first 4 units.

Channel MODE	UNIT1 ADDERSS	UNIT2 ADDERSS	UNIT3 ADDERSS	UNIT4 ADDERSS
16CH	1	17	35	51
21CH	1	22	43	64

5.Fixture size

6.Illuminance chart:

Distnace(m)		10m	20m	40m	60m	80m	100m
1.2° LUX		926100	231800	64360	25725	14900	9350
Diameter(m)		0.2	0.38	0.84	1.27	2.4	2.8
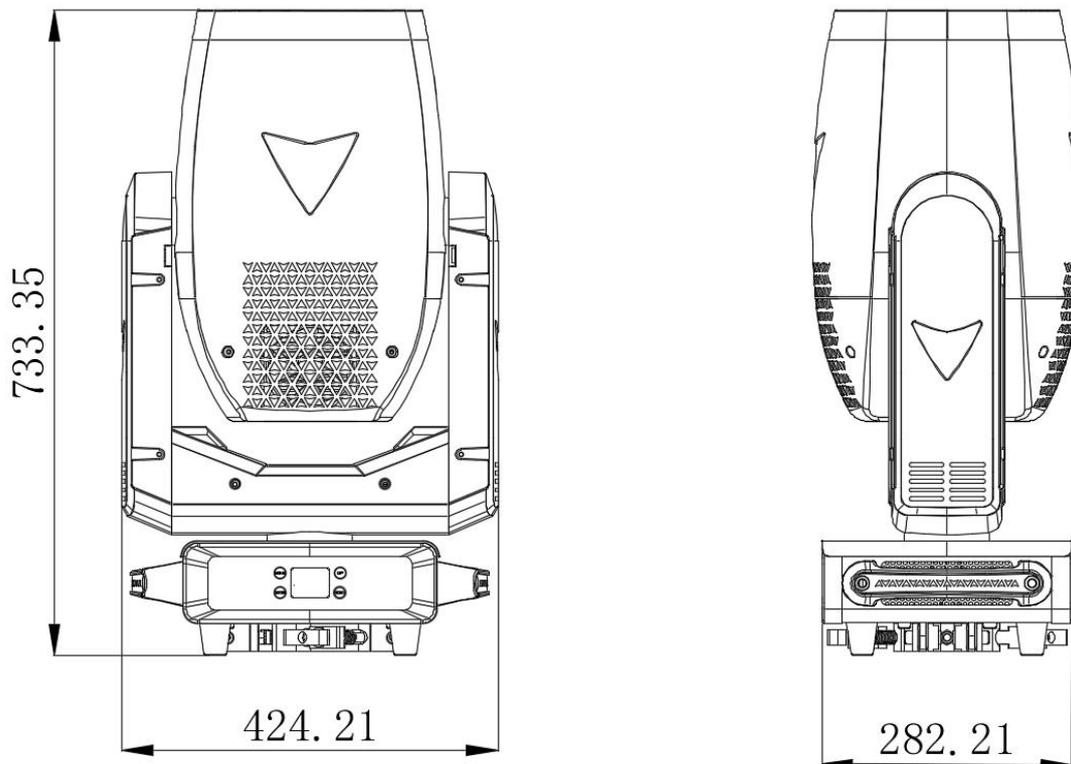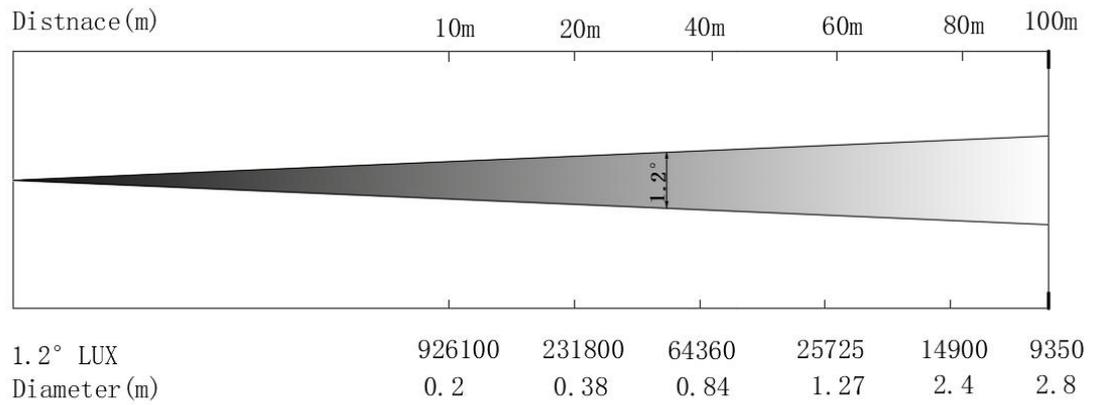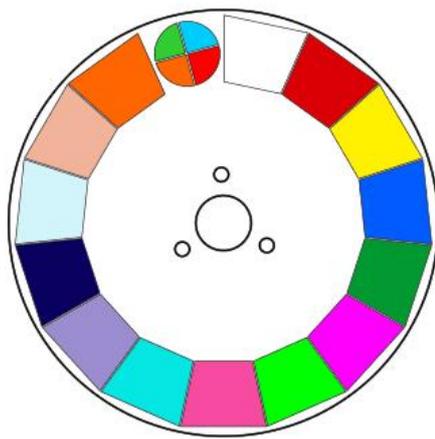
7. Effect Wheels
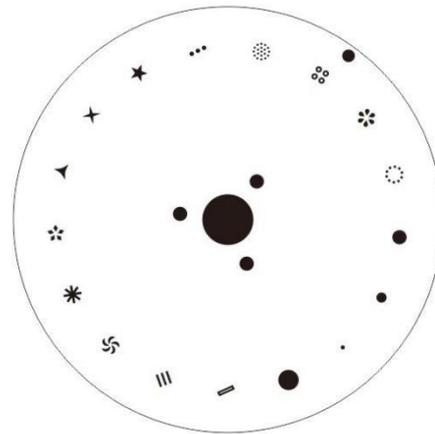
COLOR Wheel   **STATIC GOBO Wheel**
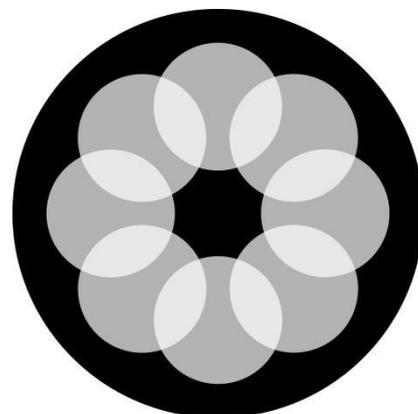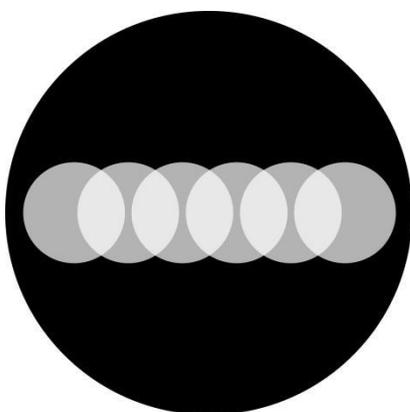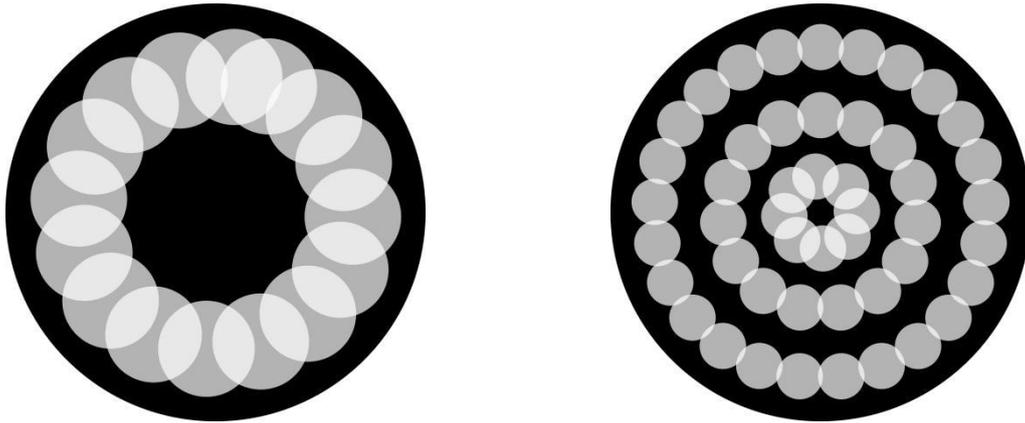
Prisms Effect
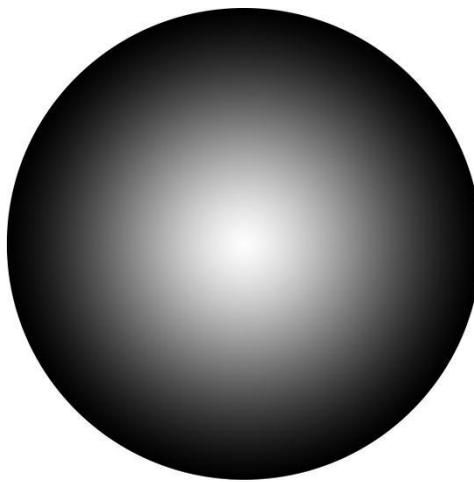
frost

8.Light Source

USHIO   NSL420S

To protect the lamp, always turn off the lamp first (via control panel or DMX controller) and let the unit run at least five minutes to cool down before switching off the mains supply. Never handle the lamp or luminary when it is hot. Do not touch the bulb with bare hands. If this happens, clean the lamp with denatured alcohol and wipe it with a lint free cloth before installation. The lamp generates UV radiation. Never operate the lamp without

Do not touch the bulb with bare hands. If this happens, clean the lamp with denatured alcohol and wipe it with a lint free cloth before installation. When lighting up, the lamp operates at high pressure and there is a slight risk of arc tube rupture. The risk increases with age, temperature and improper handling of the lamp. Do not use the lamp longer than its lifespan. Make sure the lamp is located in the center of the reflector for the best projection.

9.Lamp technical parameters

Input Voltage: 100-240V, 50/60Hz
Output Voltage: V1:48V(Master board), V2:24V(cooling fan) , V3:380V(lamp)
Power consumption: 560 W
Power supply: 600W
Light source: USHIO NSL420S (4000 hours)
Color temperature: 7600K
Diameter of optic lens: 200mm
Beam angle: 1.2°
Color wheel: 1 color wheel, 13 fixed colors+4 color effects+white, two-way
rainbow effect
Static gobo: 18 gobos plus 1 white circle
Electronic frost effect
Prisms: equipped with 8 prisms, 6 rows of prisms, 16 prisms, 48 prisms, and
achieving 8 combination effects
can be stacked and rotated in both directions
DMX Channel: 16/21CH
Operate mode: DMX512, Auto, master/slave, RDM
Electric focusing system
Outstanding strobe effect with variable speed
0-100% smooth dimming
Control panel: LCD Touch screen
Overheating self-energy protection bulbs, extending lamp life
X-axis rotation angle: 540°
Y-axis rotation angle: 270°
Three phase motor with SY Brand
XY axis magnetic coding positioning is more accurate
Power Outlet: Power Connector Input
Signal Outlet: standard 3 Pin XLR   5 pin XLR socket
Installation: 2x fast lock folding clamp
Fixture size: 424.2x282.2x733.3mm
Features:
This beam lamp adopts an imported light source, featuring large aperture and
high light efficiency. The 1.2 °   beam angle can release sharp, bright, full,
and powerful penetration, forming a strong visual impact effect. The rich color
wheels and Gobo color wheels provide excellent macro and dynamic color
effects. Equipped with 6 rows of prisms, 8 prisms, 16 prisms, and 48
honeycomb prisms, it can combine 8 effects and can be rotated and stacked in
both directions. The prisms have a large angle, clear and sharp lines, wide
area, and can create bright and varied beam effects. Dual chip strobe, variable
frequency flash speed, linear dimming, and the shell is made of
high-temperature and flame-retardant materials, which can meet the needs of
various outdoor and high-altitude places

10.Menu Description

1level menu	2 level menu	3 level menu	4 level menu	5 level menu
DMX SET	DMA address	1 - 497/492		
	Channel mode	mode1（16）		
		mode2（21）		
Effect settings	Pan reverse	no		
		yes		
	Tilt reverse	no		
		yes		
	P/T Feedback	off		
		open		
	Power ON LAMP	off		
		open		
	LAMP OFF/NO	off		
		open		
	Dimming curve	Straight line		
		Square law		
		Inverse square law		
		s-curve		
	Dimmer speed	Fast		
		slow		
	No signal mode	Black field		
		keep		
	Display Settings	Display direction	normal	
			Rotate 180°	
		Display brightness	1-100	
		language	English	
			Chinese	
	Restore factory setting	no		
		yes		
Motor reset	ALL	no		
		yes		

	PAN/TILT	no		
		yes		
	head	no		
		yes		
	Effect reset	no		
		yes		
	prism reset	no		
		yes		
	Focus reset	no		
		yes		
	Motor sleep	no		
		yes		
device detection	ALL test	test...		
	Effect test	pan		
		tilt		
		dimmer		
		strobe		
		color		
		Fixed gobo		
		Prism 1		
		prism1 rotation		
		Prism 2		
		Prism 2rotation		
		focus		
		frost		
DMX Facts	pan	0 - 255		
	Pan fine	0 - 255		
	tilt	0 - 255		
	Tilt fine	0 - 255		
	p/t speed	0 - 255		
	dimmer	0 - 255		
	Dimmer fine	0 - 255		
	strobe	0 - 255		

	color	0 - 255		
	Color fine	0 - 255		
	Fixed gobo	0 - 255		
	Prism 1	0 - 255		
	Prism 1rotion	0 - 255		
	Prism 1rotion fine	0 - 255		
	Prism 2	0 - 255		
	Prism 2rotion	0 - 255		
	Prism 2rotion fine	0 - 255		
	focus	0 - 255		
	Focus fine	0 - 255		
	frost	0 - 255		
	function control	0 - 255		
manual	pan	0 - 255		
	Pan fine	0 - 255		
	tilt	0 - 255		
	Tilt fine	0 - 255		
	p/t speed	0 - 255		
	dimmer	0 - 255		
	Dimmer fine	0 - 255		
	strobe	0 - 255		
	Fixed gobo	0 - 255		
	Prism 1	0 - 255		
	Prism 1rotion	0 - 255		
	Prism 2	0 - 255		
	Prism 2rotion	0 - 255		
	focus	0 - 255		
	frost	0 - 255		
AUTO Effect	Effect1	speed	000 - 255	
		Gradient	000 - 255	
	Effect2	speed	000 - 255	
		Gradient	000 - 255	
	Effect3	speed	000 - 255	

			Gradient	000 - 255	
	Effect4		speed	000 - 255	
			Gradient	000 - 255	
	Effect5		speed	000 - 255	
			Gradient	000 - 255	
	Effect6		speed	000 - 255	
			Gradient	000 - 255	
	Effect7		speed	000 - 255	
			Gradient	000 - 255	
	Effect8		speed	000 - 255	
			Gradient	000 - 255	
serve	Password （XXX）	check	Pan calibration	-128 -> 127	
			Tilt calibration	-128 -> 127	
			Color calibration	-128 -> 127	
			Gobo calibration	-128 -> 127	
			Prism 1 Overall calibration	-128 -> 127	
			8Prism calibration	-128 -> 127	
			48prism calibration	-128 -> 127	
			prism1 rotation calibration	-128 -> 127	
			Prism 2 Overall calibration	-128 -> 127	
			row mirror calibration	-128 -> 127	
			16 Prism calibration	-128 -> 127	
			Prism 2 rotation calibration	-128 -> 127	
			Focus calibration	-128 -> 127	

			Frost calibration	-128 -> 127
			Strobe calibration	-128 -> 127
		Clear device runtime	No	
			yes	
		Clear bulb running time	no	
			yes	
	password （XXX）	Fan settings	Opening the gate	0 - 255
			Closing the gate	0 - 255
			color	0 - 255
			Off lamp	0 - 255
Device Information	Fixture running time	xxxxxH		
	Lamp running time	xxxxxH		
	Device version	1U：Vx.x		
		2U：Vx.x		
		3U：Vx.x		
	RDM UID	0x07EF-XXX XXXX		
	Fan speed	lamp fan		
		Fan1		
		Fan2		
		Color Fan		

12. DMX512

16CH

CH	Function	Value			Effect
1	Pan	000	-	255	Pan scan
2	Pan Fine	000	-	255	Pan Scan fine
3	tilt	000	-	255	tilt scan
4	Tilt fine	000	-	255	Tilt Scan fine
5	P/T speed	000	-	255	Fast-slow
6	Dimmer	000	-	255	0% - 100%
7	Strobe	000	-	032	No function
		033	-	063	OPEN
		064	-	095	strobe (Slow-Fast)
		096	-	127	OPEN
		128	-	159	Pulse strobe (Slow-Fast)
		160	-	191	OPEN
		192	-	223	Random strobe
		224	-	255	OPEN
8	Color	000	-	005	white
		006	-	009	white + red
		010	-	013	red
		014	-	017	red + yellow
		018	-	021	yellow
		022	-	025	yellow + blue
		026	-	029	blue
		030	-	033	blue+ green
		034	-	037	green
		038	-	041	green + Rose red
		042	-	045	Rose red

		046	-	049	Rose red + light green
		050	-	053	light green
		054	-	057	light green + Purplish red
		058	-	061	Purplish red
		062	-	065	Purplish red + Blue Green
		066	-	069	Blue Green
		070	-	073	Blue Green + Light blue purple
		074	-	077	Light blue purple
		078	-	081	Light blue purple+ fluorescence
		082	-	085	fluorescence
		086	-	089	Fluorescence + Cool color
		090	-	093	Cool color
		094	-	097	Cool color + 4500K
		098	-	101	4500K
		102	-	105	4500K + orange
		106	-	109	orange
		110	-	113	orange + Four colors
		114	-	117	Four colors
		118	-	121	Four colors + white
		122	-	192	Any position on the color tray
		193	-	223	Forward rotation, fast to slow
		224	-	224	stop
		225	-	255	Reverse rotation, slow to fast
9	Fixed GOBO	000	-	005	White
		006	-	009	GOBO 1
		010	-	013	GOBO 2
		014	-	017	GOBO 3
		018	-	021	GOBO 4
		022	-	025	GOBO 5
		026	-	029	GOBO 6
		030	-	033	GOBO 7

		034	-	037	GOBO 8
		038	-	041	GOBO 9
		042	-	045	GOBO 10
		046	-	049	GOBO 11
		050	-	053	GOBO 12
		054	-	057	GOBO 13
		058	-	061	GOBO 14
		062	-	065	GOBO 15
		066	-	069	GOBO 16
		070	-	073	GOBO 17
		074	-	084	GOBO 18
		085	-	090	GOBO 1 shake，slow-fast
		091	-	096	GOBO 2 shake，slow-fast
		097	-	102	GOBO 3 shake，slow-fast
		103	-	108	GOBO 4 shake，slow-fast
		109	-	114	GOBO 5 shake，slow-fast
		115	-	120	GOBO 6 shake，slow-fast
		121	-	126	GOBO 7 shake，slow-fast
		127	-	132	GOBO 8 shake，slow-fast
		133	-	138	GOBO 9 shake，slow-fast
		139	-	144	GOBO 10 shake，slow-fast
		145	-	150	GOBO 11 shake，slow-fast
		151	-	156	GOBO 12 shake，slow-fast
		157	-	162	GOBO 13 shake，slow-fast
		163	-	168	GOBO 14 shake，slow-fast
		169	-	174	GOBO 15 shake，slow-fast
		175	-	180	GOBO 16 shake，slow-fast
		181	-	186	GOBO 17 shake，slow-fast
		187	-	192	GOBO 18 shake，slow-fast
		193	-	223	Forward rotation, fast to slow
		224	-	224	stop

		225	-	255	Reverse rotation, slow to fast
10	Prism 1	000	-	005	No function
		006	-	127	8 prism
		128	-	255	48 prism
11	prism1 rotation	000	-	005	No function
		006	-	128	0-360°
		129	-	191	Forward rotation, fast to slow
		192	-	192	stop
		193	-	255	Reverse rotation, slow to fast
12	Prism2	000	-	005	No function
		006	-	127	6-row prism
		128	-	255	16 prism
13	prism1 rotation	000	-	005	No function
		006	-	128	0-360°
		129	-	191	Forward rotation, fast to slow
		192	-	192	stop
		193	-	255	Reverse rotation, slow to fast
14	focus	000	-	255	From near to far
15	frost	000	-	255	Frost gradually enters
16	Control	000	-	009	No function
		010	-	019	Linear（3s）
		020	-	029	Square Law（3s）
		030	-	039	Inverse Square Law（3s）
		040	-	049	S-Curve（3s）
		050	-	059	No function
		060	-	069	Fast Dimmer（3s）
		070	-	079	Slow Dimmer（3s）
		080	-	089	No function
		090	-	099	ALL Reset（5s）
		100	-	109	XY Reset （5s）
		110	-	119	Head reset (5s)

		120	-	129	No function
		130	-	139	No function
		140	-	149	No function
		150	-	180	No function
		181	-	199	Lamp open（5s)
		200	-	254	Lamp off（5s)
		255	-	255	No function

21CH

CH	Function	Value			Effect
1	Pan	000	-	255	Pan scan
2	Pan Fine	000	-	255	Pan Scan fine
3	tilt	000	-	255	tilt scan
4	Tilt fine	000	-	255	Tilt Scan fine
5	P/T speed	000	-	255	Fast-slow
6	Dimmer	000	-	255	0% - 100%
7	Dimmer fine	000	-	255	Dimmer fine 16BIT
8	Strobe	000	-	032	No function
		033	-	063	OPEN
		064	-	095	strobe (Slow-Fast)
		096	-	127	OPEN
		128	-	159	Pulse strobe (Slow-Fast)
		160	-	191	OPEN
		192	-	223	Random strobe
		224	-	255	OPEN
9	Color	000	-	005	white
		006	-	009	white + red
		010	-	013	red
		014	-	017	red + yellow
		018	-	021	yellow

		022	-	025	yellow + blue
		026	-	029	blue
		030	-	033	blue+ green
		034	-	037	green
		038	-	041	green + Rose red
		042	-	045	Rose red
		046	-	049	Rose red + light green
		050	-	053	light green
		054	-	057	light green + Purplish red
		058	-	061	Purplish red
		062	-	065	Purplish red + Blue Green
		066	-	069	Blue Green
		070	-	073	Blue Green + Light blue purple
		074	-	077	Light blue purple
		078	-	081	Light blue purple+ fluorescence
		082	-	085	fluorescence
		086	-	089	Fluorescence + Cool color
		090	-	093	Cool color
		094	-	097	Cool color + 4500K
		098	-	101	4500K
		102	-	105	4500K + orange
		106	-	109	orange
		110	-	113	orange + Four colors
		114	-	117	Four colors
		118	-	121	Four colors + white
		122	-	192	Any position on the color tray
		193	-	223	Forward rotation, fast to slow
		224	-	224	stop
		225	-	255	Reverse rotation, slow to fast
10	Color fine	000	-	255	Color position fine 16BIT
11	Fixed GOBO	000	-	005	White

		006	-	009	GOBO 1
		010	-	013	GOBO 2
		014	-	017	GOBO 3
		018	-	021	GOBO 4
		022	-	025	GOBO 5
		026	-	029	GOBO 6
		030	-	033	GOBO 7
		034	-	037	GOBO 8
		038	-	041	GOBO 9
		042	-	045	GOBO 10
		046	-	049	GOBO 11
		050	-	053	GOBO 12
		054	-	057	GOBO 13
		058	-	061	GOBO 14
		062	-	065	GOBO 15
		066	-	069	GOBO 16
		070	-	073	GOBO 17
		074	-	084	GOBO 18
		085	-	090	GOBO 1 shake，slow-fast
		091	-	096	GOBO 2 shake，slow-fast
		097	-	102	GOBO 3 shake，slow-fast
		103	-	108	GOBO 4 shake，slow-fast
		109	-	114	GOBO 5 shake，slow-fast
		115	-	120	GOBO 6 shake，slow-fast
		121	-	126	GOBO 7 shake，slow-fast
		127	-	132	GOBO 8 shake，slow-fast
		133	-	138	GOBO 9 shake，slow-fast
		139	-	144	GOBO 10 shake，slow-fast
		145	-	150	GOBO 11 shake，slow-fast
		151	-	156	GOBO 12 shake，slow-fast
		157	-	162	GOBO 13 shake，slow-fast

		163	-	168	GOBO 14 shake，slow-fast
		169	-	174	GOBO 15 shake，slow-fast
		175	-	180	GOBO 16 shake，slow-fast
		181	-	186	GOBO 17 shake，slow-fast
		187	-	192	GOBO 18 shake，slow-fast
		193	-	223	Forward rotation, fast to slow
		224	-	224	stop
		225	-	255	Reverse rotation, slow to fast
12	Prism 1	000	-	005	No function
		006	-	127	6-row prism
		128	-	255	16 prism
13	prism1 rotation	000	-	005	No function
		006	-	128	0-360°
		129	-	191	Forward rotation, fast to slow
		192	-	192	stop
		193	-	255	Reverse rotation, slow to fast
14	prism1 Rotation fine	000	-	255	Prism1rotation anywhere fine 16BIT
15	Prism 2	000	-	005	No function
		006	-	127	6-row prism
		128	-	255	16 prism
16	Prism2 rotation	000	-	005	No function
		006	-	128	0-360°
		129	-	191	Forward rotation, fast to slow
		192	-	192	stop
		193	-	255	Reverse rotation, slow to fast
17	Prism2 Rotation fine	000	-	255	Prism2rotation anywhere fine 16BIT
18	focus	000	-	255	From near to far
19	Focus fine	000	-	255	Focus fine 16BIT

20	frost	000	-	255	Frost gradually enters
21	Control	000	-	009	No function
		010	-	019	Linear（3s）
		020	-	029	Square Law（3s）
		030	-	039	Inverse Square Law（3s）
		040	-	049	S-Curve（3s）
		050	-	059	No function
		060	-	069	Fast Dimmer（3s）
		070	-	079	Slow Dimmer（3s）
		080	-	089	No function
		090	-	099	ALL Reset（5s）
		100	-	109	XY Reset （5s）
		110	-	119	Head reset (5s)
		120	-	129	No function
		130	-	139	No function
		140	-	149	No function
		150	-	180	No function
		181	-	199	Lamp open（5s)
		200	-	254	Lamp off（5s)
		255	-	255	No function

13. Equipment cleaning

Keeping the luminaire clean is absolutely necessary to maintain the best performance of the luminaire and ensure the best light effect. Lamps must be cleaned regularly to avoid

Dust, dirt and fume residues accumulate on or inside the luminaire, and the frequency of cleaning depends on the application environment. If due to installation and construction

The environment causes dust to enter the lamp, please clean it immediately to avoid damage to the optical part of the lamp due to excessive dust.

* A soft, lint-free cloth and a good quality glass cleaning solution are recommended, no solvents should be used under any circumstances.

* Dry the parts carefully.

* Wipe the outside of the lens at least every 20 days. Wipe the inside at least

every 30 days.