LED 800W BEAM SPOT WASH FRAMING
USER MANUAL

COMET 800W 4 IN 1

Version 1.0

PLEASE READ OVER THIS MANUAL BEFORE OPERATING THE LIGHT FIXTURE

1. SAFETY INSTRUCTION

The fixture is designed and manufactured to meet the requirements of People's Republic of China and international safety regulations. Modifications to the product could affect safety and render the product non-compliant to relevant safety standards.
Instructions pertaining to continued protection against fire, electric shock, and injury to persons are found throughout this manual. Please read all instructions prior to assembling, mounting, and operating this equipment.

IMPORTANT

ALWAYS READ THE USER MANUAL BEFORE OPERATION. PLEASE CONFIRM THAT THE POWER SUPPLY STATED ON THE PRODUCT IS THE SAME AS THE MAINS POWER SUPPLY IN YOUR AREA.

- This product must be installed by a qualified professional.
- Always operate the equipment as described in the user manual.
- A minimum distance of 1m must be maintained between the equipment and combustible surface.
- The product must always be placed in a well ventilated area.
- Always make sure that the equipment is installed securely.
- DO NOT stand close to the equipment and stare directly into the LED light source.
- Always disconnect the power supply before attempting and maintenance.
- Always make sure that the supporting structure is solid and can support the combined weight of the products.

ATTENTION

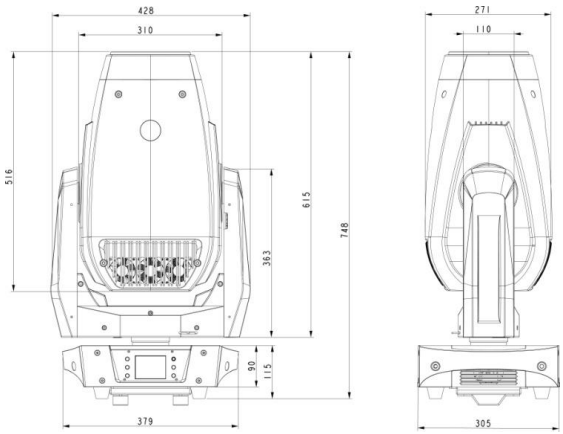
This product left the place of manufacturer in perfect condition. In order to maintain this condition and for safe operation, the user must always follow the instructions and safety warnings described in this user manual.

- Avoid shaking or strong impacts to any part of the equipment.
- Make sure that all parts of the equipment are kept clean and free of dust.
- Always make sure that the power connections are connected correct and secure.
- If there is any malfunction of the equipment, contact us immediately.
- When transferring the product, it is advisable to use the original packaging in which the product left the factory.
- Shields, lenses or ultraviolet screens shall be changed if they have become damaged to such an extent that their effectiveness is not conformable.

2. SPECIFICATION

Input Voltage:100-240V 50/60 Hz
Light Source:800W white LED, 8000K
LED lifetime: 10000 hours
CRI: 73-90
Movement：Pan 540°；Tilt 270°； auto X/Y repositioning, fast, quiet and smooth
Framing:4 groups and eight directions of blade, multiple design
Gobos： one static gobo wheel: 8 gobos + open
one rotating gobo wheel: 6 gobos + open, interchangeable, indexable
one animation wheel: dynamic effect like flame or water, etc.
Color: one color wheel, 7 colors+ Open;
CTO： Independent CTO, color temperature can be linear adjusted
CMY: Independent CMY, with linear color change, limitless color mixing
Prism： 3 facet linear prism，6 facet linear prism
Focus: Automatic focus
Zoom: 5°～ 55° linear zoom
Iris: 5%-100% motorized linear iris adjustment
Dimming：0～100% linear dimming
Strobe：0-20Hz, With strobe effect, 1-25 times/second
Frost： 35°-65° With frost effect, with 3 frost lever-heavy, medium and light
Display: LCD display
Control Mode: DMX 512, RDM, Artnet (Optional), Auto-running, Master/salve, Sound active, Built-in program
Channel: 36CH
Gross weight: 42KG
Net Weight：38KG
Packing size：90.5x56x45.5CM

3. DIMENSION (MM)



3.1 Color wheel

CMY+CTO

3.2 Gobo

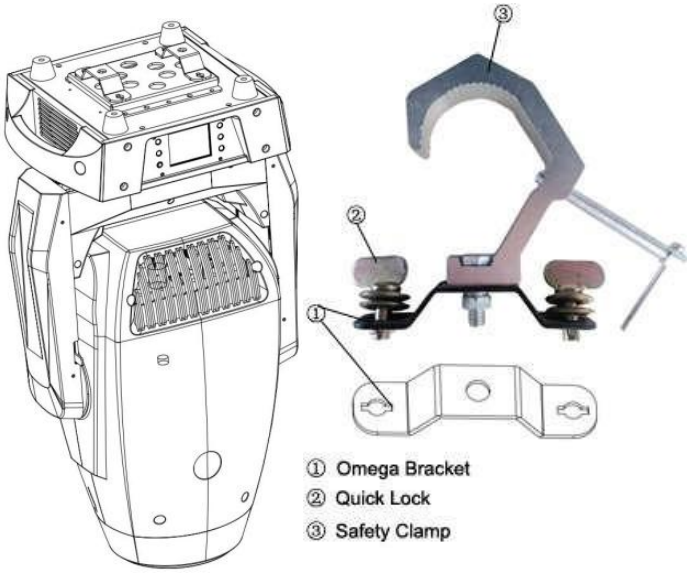
Fix gobo

Rotation gobo

Effect wheel

4. MOUNTING AND INSTALLATION

- The fixture can be mounted in any position.
- Always ensure that mounting surface can withstand 10 times the weight of the fixture.
- Always use a safety cable when mounting the fixture in any elevated position.


③
②
①
① Omega Bracket
② Quick Lock
③ Safety Clamp

IMPORTANT SAFETY NOTE!!

Always use a safety cable when installing this unit!

Be sure that the safety cable is connected to a solid load-bearing structure!

5 Menu operation

1） **Summary**

Like picture 3（its 4 keys in this picture），left is TFT display that support touch operation; right is 4 keys or 5 keys or encoder knob, you can control light directly or setup system parameter by them.

Display and operation likes Android system. You can operate item by fingers if you choose the item with touch screen.

Note：Don't use sharp thins to touch display.

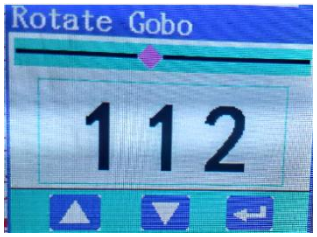
Operation

Control item by touch screen or console

- The left is TFT display and touch area. You can setup the parameter or check status by touching menu contents.
- The right is rotary encoder. Please swirl encoder to setup or check menu if you don't use TFT touch screen.

Value input

When the chosen parameter needs value input, the windows will be opened like picture4:

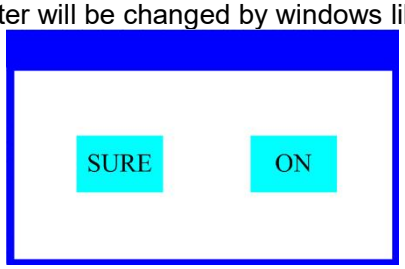


- Picture 1 Value setup

- **Set value: can move slider to set needed value fast, also can click UP or DOWN right-side or swirl the encoder to set value.**
- **Use value: After setup, please press "apply" key at left bottom, then the value is sent to light without saving.**
- **Save value: Press "Enter" at right bottom to save setup anytime.**

Value setup

- When the value is ON or OFF, please click the corresponding item to change parameter values, and it will be saved inside storage directly. Press parameter options on right, the corresponding item will become to gray. Once release it, the item will be changed and saved. If you don't want to change parameter, please move fingers to other place on screen.
- The important bole parameter will be changed by windows like Picture 5 as following:

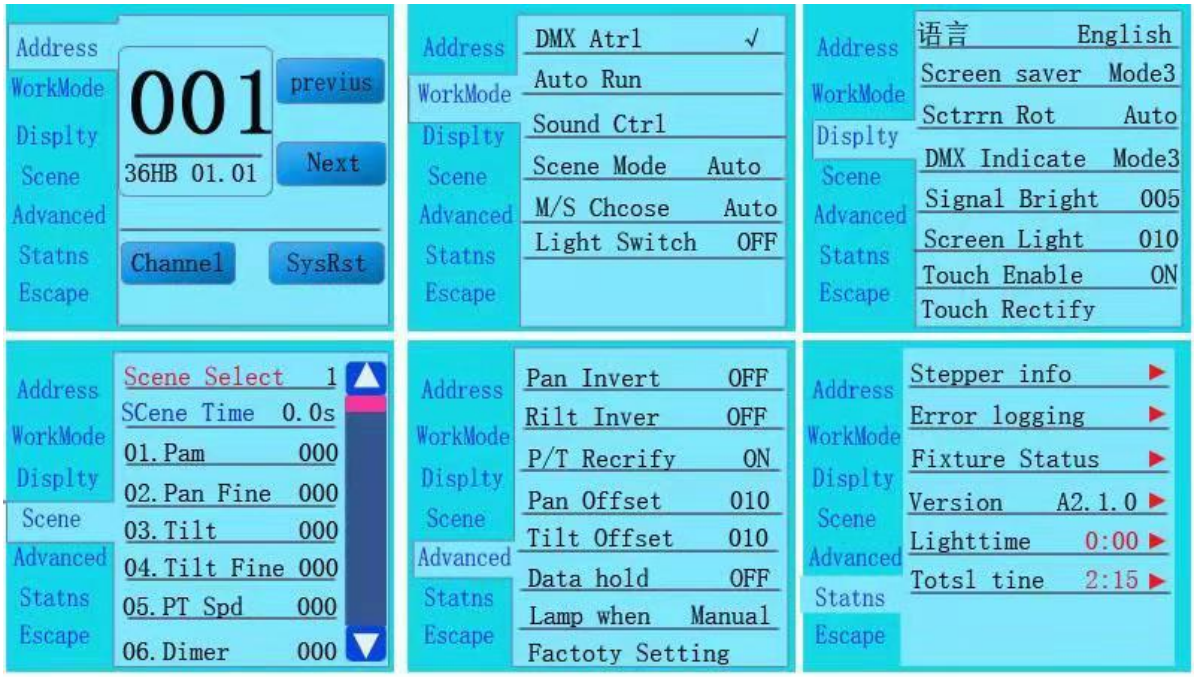


Picture 2 Sure input windows

Subpage parameter

Press primary menu to get into submenu. There are 6PCS subpage with different parameter or status as picture 6:

- ADDRESS：set the DMX add；
- WORKMODE：set the work mode, master/slave mode ;
- DISPLAY： Set the parameter on display, like language, screen protection;
- TEST：For lighting test, simulate the value of corresponding DMX channel；
- ADVANCE：set operating parameter；
- STATUS：check current status.
-



Picture 3 Submenu

Function operation and parameter setup

Get into menu like picture 6:

- In primary menu, can get into corresponding submenu by touching 6 different button.
- Press left blue option can change to other interface fast.

1. Set DMX address code

Press and choose "ADDR" to get into the set page. The range of address code is 1-512, the code can't be bigger than 512, otherwise, the light can't be controlled. The detail is as following:

Get into the DMX interface like picture 7, click the right white area, then the parameter set windows is opened like picture 4. Please pull the red blocks of progress bar to set DMX address code, or set code by touch “UP” and “DOWN” keys; then press ENTER to save code.

The unit support RDM, can setup the address code by RDM

Set work mode

Please set the work mode, control lamp and channel mode like picture . The light has four mode-DMX mode, auto run mode, sound active mode and master/slave mode. The detail parameter is as following:

DMX Mode	Console mode, receive DMX signal, RDM signal	
Autorun Mode	Automatically run according to the built-in program	
Voice control mode	When the lamp detects a strong sound, the lamp automatically runs a scene according to the built-in program, otherwise the last scene is maintained	
Scene Mode 01	Run in the set scene mode, support up to 10 scenes of custom editing	
	1~10	Output the specified scene
	Automatic	Automatically output scenes in sequence with the set scene time (non-zero), and scenes with time 0 are automatically skipped and ignored
Master-slave choice	Effective in non-DMX mode, select the data output mode, the lamp automatically detects the DMX state and automatically switches the output to prevent data conflicts	
	Host	The lamps and lanterns operate as built-in, if DMX has no signal, output data (synchronization), otherwise do not output
	Slave	Fixtures run as built-in and do not output data (do not synchronize other fixtures)
	Automatic	If the DMX has no signal, the lamp operates as built-in, otherwise, the lamp operates according to the DMX signal

Set menu display

There are two language-Chinese and English like picture 9.

Language	Set the display language	
	English	English display
	Chinese	Chinese display
screen protector	Set the screen display content or method after no operation within 30 seconds	
	shut down	Keep the last operation page, screen on
	Mode 1	Screen off
	Mode 2	Screen off, Show the address code of the current fixture in the lower left corner
	Mode 3	Display trademark information, address code and operating mode
Screen rotation	Set the display orientation of the screen	
	shut down	Non-inverted display
	Open	Reverse display
	Automatic	Automatically detect the hanging direction of lamps and automatically switch the display direction
DMX	Set the indication method of DMX signal indicator	

instructions	Mode 1	Lights when there is a signal, and turns off when there is no signal
	Mode 2	Off when there is a signal, on when there is no signal
	Mode 3	Flashes when there is a signal, and turns off when there is no signal
Signal indicating brightness	Set the brightness of the signal indicator	
	1~10	10 levels
Screen backlight	Set the brightness of the screen backlight after 10 seconds of no operation, all bright during operation	
	1~10	10 levels
Touch screen switch	Choose whether to disable the touch screen, when the screen touch is accidentally damaged, you can disable the touch function and use the auxiliary input to set the lamp	
Touch correction	When the screen touch is not accurate, you can enter the correction page to correct the screen	

For lamps that support touch operation, if there is bad touch, you can enter the calibration page to recalibrate the touch accuracy of the touch screen. Under normal circumstances, please do not enter this page. If the touch is damaged, choose to disable the touch switch.

Scene mode

Enter the page shown in Figure 6-4, the fixture enters the scene editing mode, under this page, the fixture does not receive DMX console data, and the edited data is immediately reflected on the fixture.

The content of the page depends on the currently selected channel, and the displayed channel content and sequence are consistent with the lamp channel table. Through this page, 10 scenes can be edited, as shown in the following table:

Scene mode

Scene selection	Select the current operation scene	
	1~10	10 scene setting formats
Scene time	Set the retention time of the current scene in automatic mode, the unit is 0.1 second	
	0	The current scene does not participate in automatic scene output
	1-255	0.1 second to 25.5 seconds
1. Pan	0-255	Set the data of each channel, the display content and sequence correspond to the channel table of the fixture
……	0-255	
……	0-255	
N. Function	0-255	

If the effective reset data is edited in the reset channel in the scene, the lamp will be reset, but after reset, the corresponding reset channel value will be automatically cleared to prevent multiple consecutive resets.

View this page, you can get the current channel table order of the fixtures. For specific channel data, please refer to the detailed channel description.

Setup work parameter

Get into page like picture 11, can adjust the scene parameter to make easier installation.

Pan invert	Set the rotation direction of Pan	
	OFF	clockwise
	ON	Anti-clockwise
Tilt invert	Set the rotation direction of Tilt	
	OFF	clockwise
	ON	Anti-clockwise
Hall	Set unit if self-correction of XY	

correction	OFF	Without self-correction after out of step
	ON	Self-correction after out of step and record the default
Pan offset	set deviation angle of X motor initial position	
	4-150	
Tilt offset	set deviation angle of Y motor initial position	
	4-48	
Data keep	Set the output status without DMX signal	
	OFF	Without FMX signal，all motor and LED lamp will keep the position after reset
	ON	Without DMX signal, keep the last step pf DMX output

Data retention	When the fixture has no DMX signal, the output status of the fixture	
	shut down	No signal, so the motor and the light source return to the position and state when the reset is completed
	Open	No signal, keep the last frame of DMX data output

When the power on mode is selected, the lamp will wait for 30 seconds after the power is turned on to allow the light bulb to fully start. After the internal voltage is stable enough, the reset procedure will be started. If the on-site power capacity is stable, it is recommended to turn on the light bulb mode.
When the luminaire cannot calibrate the position, please first check whether the "optocoupler calibration" is turned off.
When the signal is unplugged, if the position of the lamp is not output as expected, please check the "Data Hold" setting first.
When setting the XY offset, after completing the setting, please control the XY with the maximum stroke to check the setting, X Y will not hit the positioning rod or the housing.
View the current status of the fixture
Enter the page shown in Figure 6-6, you can view the information and real-time status of the lamp to know the status of the lamp. If the lamp needs to be sold, please provide the status information displayed on this page as a basis for judgment.

Check current status

Get into page like picture 12：

- In this page, can check the current status and version information of light；

Motor information	Show the information of all motors and signal in unit	
	Hall	No information，Indicates that the motor has no Hall correction, 0 indicates that the motor leaves the correction position, and 1 indicates that the motor is at the correction position
	status	Display the motor reset completion status
	Pan	Display real-time position value of Pan optocoupler feedback
	Tilt	Display real-time position value of Tilt optocoupler feedback
	Hall	Display the level status of the two signals of the Pan and Tilt optocouplers, binary
Fault / status recording	Display the last 8 fault records during lamp reset and operation. The fault records are not saved after power off, and the current power-on cycle is valid	
	Fault data	The total number of faults detected after power on
	12：:03	The power-on time when the fault occurs, in minutes
	Hall fault	When the corresponding motor is reset, the motor does not detect a valid Hall signal
	Hall short	Corresponding to the motor reset, the detected Hall

	circuit	signal of the motor is always valid
	Optocoupler failure	No valid optocoupler signal detected when the corresponding motor is reset
	Out of step	Corresponding motor out of step during operation
	Bumper	Corresponding to hitting the positioning rod when the motor is reset
	Lamp failure	Bulb unexpectedly extinguished
	Sensor failure	The temperature sensor signal is abnormal,
	Fan failure	The main fan is not working properly
Lamp status	Display the key status data of the current fixture for reference	
	Communication	0 ~ 100%, the communication quality of the internal data link of the lamp
	Error count	The total number of error frames detected after power on, accumulated
	Light source temperature	Display the current light source temperature, "---" means no detection
	Display panel temperature	Display the current temperature of the display panel or the surrounding temperature
	Sensor 1 temperature	Display the current motherboard temperature or the ambient temperature of the motherboard installation location
Version Information	Display the current lamp information and version, an important reference for after-sales maintenance	
	device	The name of the lamp, the same as the RDM equipment information
	model	The model number of the lamp is the same as the model information of RDM
	display board	Display board firmware version and serial number
	board 1	board 1 firmware version and serial number
Light source time	Records the total accumulated time for turning on the light source, in minutes, the user manually clears it as a time reference for regular maintenance of the light source	
Lamp time	Record the total accumulated time for turning on the lamp, in minutes, which cannot be cleared	

6.DMX CHANNEL ASSIGNMENTS

This product has 36 DMX channels as below:

Channel	Function	Value	Description
CH1	**X**	0-255	0-540 degree
CH2	**X fine**	0-255	0-2 degree
CH3	**Y**	0-255	0-270 degree
CH4	**Y fine**	0-255	0-1 degree

CH5	**XY speed**	0-255	From fast to slow
CH6	**Strobe**	0-3	OFF
		4-127	Pulse strobe from slow to fast
		128-191	Gradual strobe from slow to fast
		192-251	Random strobe from slow to fast
		252-255	ON
CH7	**Dimmer**	0-255	0-100% linear dimmer
CH8	**C**	0-255	
CH9	**M**	0-255	
CH10	**Y**	0-255	
CH11	**CTO**	0-255	
CH12	**Color**	0-127	Linear color
		128-137	Color 1
		138-146	Color 2
		147-155	Color 3
		156-164	Color 4
		165-173	Color 5
		174-182	Color 6
		183-191	Color 7
		192-222	Clockwise flowing water effect from fast to slow
		223-224	Stop
		225-255	Anti-clockwise flowing water effect from slow to fast

CH13	**CRI**	0-127	Mover away
		128-255	Insert
CH14	**Fixed gobo**	0-9	White
		10-19	Gobo 1
		20-29	Gobo 2
		30-39	Gobo 3
		40-49	Gobo 4
		50-59	Gobo 5
		60-69	Gobo 6
		70-79	Shaking gobo 1 from slow to fast
		80-89	Shaking gobo 2 from slow to fast
		90-99	Shaking gobo 3 from slow to fast
		100-109	Shaking gobo 4 from slow to fast
		110-119	Shaking gobo 5 from slow to fast
		120-129	Shaking gobo 6 from slow to fast
		130-190	Clockwise flowing water effect from fast to slow
		191-192	Stop
		193-255	Anti-clockwise flowing water effect from slow to fast
CH15	**Rotation gobo**	0-9	White
		10-19	Gobo 1
		20-29	Gobo 2
		30-39	Gobo 3
		40-49	Gobo 4
		50-59	Gobo 5
		60-69	Gobo 6

		70-79	Shaking gobo 1 from slow to fast
		80-89	Shaking gobo 2 from slow to fast
		90-99	Shaking gobo 3 from slow to fast
		100-109	Shaking gobo 4 from slow to fast
		110-119	Shaking gobo 5 from slow to fast
		120-129	Shaking gobo 6 from slow to fast
		130-190	Clockwise flowing water effect from fast to slow
		191-192	Stop
		193-255	Anti-clockwise flowing water effect from slow to fast
CH16	**Gobo rotation**	0-127	0-400 degree
		128-190	Clockwise flowing water effect from fast to slow
		191-192	Stop
		193-255	Anti-clockwise flowing water effect from slow to fast
CH17	**Effect insert**	0-10	Mover away
		11-255	Linear insert
CH18	**Gobo wheel**	0-2	Stop
		3-128	Clockwise flowing water effect from fast to slow
		129-255	Anti-clockwise flowing water effect from slow to fast
CH19	**Focus**	0-255	From far to near
CH20	**Focus fine**		
CH21	**Zoom**	0-255	From small to big
CH22	**Prism 1**	0-63	Move prism away
		64-127	Prism 1

		128-191	Prism 2
		192-255	Prism 1+prism 2
CH23	**Prism 1 rotation**	0-127	0-400 degree
		128-187	Clockwise flowing water effect from fast to slow
		188-195	Stop
		196-255	Anti-clockwise flowing water effect from slow to fast
CH24	**Prism 2 rotation**	0-127	0-400 degree
		128-187	Clockwise flowing water effect from fast to slow
		188-195	Stop
		196-255	Anti-clockwise flowing water effect from slow to fast
CH25	**Frost**	0-127	No
		128-255	Frost
CH26	**Blade 1**	0-255	Linear insert
CH27	**Blade 2**	0-255	Linear insert
CH28	**Blade 3**	0-255	Linear insert
CH29	**Blade 4**	0-255	Linear insert
CH30	**Blade 5**	0-255	Linear insert
CH31	**Blade 6**	0-255	Linear insert
CH32	**Blade 7**	0-255	Linear insert
CH33	**Blade 8**	0-255	Linear insert
CH34	**Blade wheel**	0-255	Blade degree 0-90
CH35	**Iris**	0-255	From big to small
CH36	**Function**	210-215	Reset XY after 3 seconds
		220-	Reset effect motor after 4 seconds

		235	
		240-255	Reset whole unit after 5 seconds

7. CLEANING

In order to make the fixture in good condition and extend the life time, we suggest a regular cleaning to the fixture.

● Clean the inside and outside lens each week to avoid the weaknesses of the fixture due to accumulation of the dust.

● Clean the fan each week.

● A detailed electric check by approved electrical engineer each three month, make sure that the circuit contacts are in good condition, prevent the poor contact of circuit from overheating.

We recommend a frequent cleaning of the device. Please use a moist, lint-free cloth. Never use alcohol or solvents. There are no serviceable parts inside the device. Should you need any spare parts, please order genuine parts from us.

8 Normal faulty and using attention

1) Normal faulty solution

There are professional parts like mainboard, power supply in lights. Non-professionals mustn't disassemble item and parts without authorization.

1. Beam seems dim

Possible reason：service time of lamp is long or light patch is not clean, the solution is as following：

Check if the lamp is out of life or not, change new lamp；

Check if the optical part and lamp is clean or not. Please clean the lamp and other parts regularly.

2. Gobo is not clear

Check if the channel value of focus is suitable the current projection distance or not.

3. Light works intermittently.

Possible reason：The internal wiring is in protection state. The solution is as following:

Check if the fan works or is dirty；

Check the switch of temperature control is on or off；

Check if the lamp is out of life or not, change new lamp

4. The light can't be controlled after reset.

Possible reason：problem signal line or the value of channel is wrong, the solution is as following:

Check the initial address code and connection state of DMX signal line(the signal line is good or not, the XLR is loose or not)；

Add signal amplifier, and 120-ohm terminal resistance；

5. Light can't be started

Possible reason：power circuit is poor，solution is as following：

Check if the fuse is broken or not, change new fuse；

Check if there is the poor connection because of long transportation;

Check the input power supply, mainboard and other parts.

2) Using attention

Check if the local power is suitable for the rated voltage or not, leakage protector and over-current protector is suitable for the electrical load or not ；

Don't use the power line with damaged insulating layer, don't connect the power line with other guide wire；

Please clean the fans and parts every month. Otherwise the bad cooling system will cause some problem;

In installation, the fixed screw must be fastening and there is must with safety rope with regular check；

Easily flammable materials, e.g. decoration material and other surfaces and objects, must maintain a minimum distance of 3m to the housing! walls must maintain a minimum distance of 50cm to the housing! The device must be installed on a fireproof surface only (no carpet)! Always ensure a proper circulation of air;

The continuous working hours should not be more than 10 hour and the interval time should be more than 10 minutes before restarting, otherwise the lamp will not be on because of over temperature protection;

If you want the shutter for a long time, please use controller to close lamp;

In order to make many lights follow scene effect, the light shouldn't stay in unfinished scene for more than 3 minutes, then many lights can work on same step.

Please stop it if there is abnormal during usage.

3）. The caution of RDM

RDM is the extend version of DMX512-A protocol，and it is Remote Device Management protocol. The traditional DMX512 is the simplex communication that based on RS-485 bus.RS-485 is the time-sharing and half-duplex protocol, it only allows one interface as the unit output at same time. Therefore, please following the next caution:：

Please use the controller what support RDM protocol；

Please use the duplexing signal amplifier；

Please set all lights on DMX mode and keep only on master unit with signal line to controller；

Between pin 2 and 3 of terminal plug, please insert one 120ohm resistance. Then signal will be very stable；

When the lights can be controller by DMX, but can't search items by RDM, please check the signal amplifier firstly, then check if there is poor contact between the Pin 2 and 3 of signal line