lighting PLUS

User manual

400 LED BSW

Please read the instructions carefully before use

TABLE OF CONTENTS

1. **Safety Instructions……3**

2. **Technical Specifications……4**

3. **Control Menu ……5-11**

4. **DMX Channel ……11-13**

5. **Trouble Shooting……14**

6. **Fixture Cleaning…… ……14**

STATEMENT

The product has well capability and intact packing when leave factory. All of the user should comply with warning item and manual, any misuse cause of the damages are not included in our guarantee, and also can not be responsible for any malfunction & problem owing to ignore the manual.

1.Safety Instructions

Please keep this User Guide for future consultation. If you sell the unit to another user, be sure that they also receive this instruction booklet.

•Unpack and check carefully there is no transportation damage before using the unit.

•Before operating, ensure that the voltage and frequency of power supply match the power requirements of the unit.

•It's important to ground the yellow/green conductor to earth in order to avoid electric shock.

•The unit is for indoor use only. Use only in a dry location.

•The unit must be installed in a location with adequate ventilation, at least 50cm from adjacent surfaces. Be sure that no ventilation slots are blocked.

•Disconnect main power before replacement or servicing.

•Make sure there are no flammable materials close to the unit while operating as it is fire hazard.

•Use safety cable when fixes this unit. DO NOT handle the unit by taking its head only, but always by taking its base.

•Maximum ambient temperature is Ta: 40℃. DO NOT operate it where the temperature is higher than this Unit surface temperature may reach up to 85℃. DO NOT touch the housing bare-hand during its operation. Turn off the power and allow about 15 minutes for the unit to cool down before replacing or serving.

•the event of serious operating problem, stop using the unit immediately.Never try to repair the unit by yourself. Repairs carried out by unskilled people can lead to damage or malfunction. Please contact the nearest authorized technical assistance center. Always use the same type spare parts.

•DO NOT touch any wire during operation as high voltage might be causing electric shock.

Warning:

•To prevent or reduce the risk of electrical shock or fire, do not expose the unit to rain or moisture.

•The housing, the lenses, or the ultraviolet filter must be replaced if they are visibly damaged.

Caution:

•There are no user serviceable parts inside the unit. DO NOT open the housing or attempt any repairs yourself. In the unlikely event your unit may require service, please contact your nearest dealer.

Installation:

•The unit should be mounted via its screw holes on the bracket. Always ensure that the unit is firmly fixed to avoid vibration and slipping while operating. And make sure that the structure to which you are attaching the unit is secure and is able to support a weight of 10 times of the unit's weight. Also always use a safety cable that can hold 12 times of the weight of the unit when installing the fixture.

•The equipment must be fixed by professionals. And it must be fixed at a place where is out of the touch of people.

2.Technical Specifications

400W LED BSW 3-in-1 moving head

Optics:

Light Source:400W white LED

Life:>30000H

beam angle:4°-35°

power:430W

Input voltage:AC100-240V 50-60HZ

Pan movement:540° (16bit precision scan) electronic error correction

Tilt movement:270°(16bit precision scan) electronic error correction

Color:

8colors + white light. Color half-color function

Color mixing system: linear CMY+CTO color mixing system.

Fixed patterns: 12 fixed patterns + white light

Rotating pattern: 7 glass patterns, each glass pattern can be independently forward and reverse

Prism: standard 6 facet prism and 8 facet prism, each prism can be independently forward and reverse

High-speed strobe: 0-30 times/sec. Adjustable speed strobe effect. Strobe macro function

Dimming system: 0-100% linear adjustment

Display mode: LCD display, key + touch dual operation mode

Features:

Appearance material: high temperature resistant plastic

DMX Channels:23 channels

Control: DMX 512/ master-slave/self-propelled/console reset/RDM

Dimension: 380*270*650 mm, NW:22.5kg

3.Control Menu

The light panel diagram show as Figure 3, Left area is TFT Displayer, support touch, and right area is KEY, both of touch and KEY can operate light and setting. Display & operation just like ‘Android operation system’, touch the item will set or modify setting. Note: Prevent damage the touch or TFT displayer, Can not use sharp objects chick displayer.

Figure 3 Panel diagram

Operate light with touch or KEY

The left area is TFT Displayer and touch, chick item or value with finger will to complete operation of set light setting(parameters) or view light state.

The area on the right hand side is 4 KEY, As auxiliary input interface, if disable touch function,, the KEYr can been choose to set the parameter.

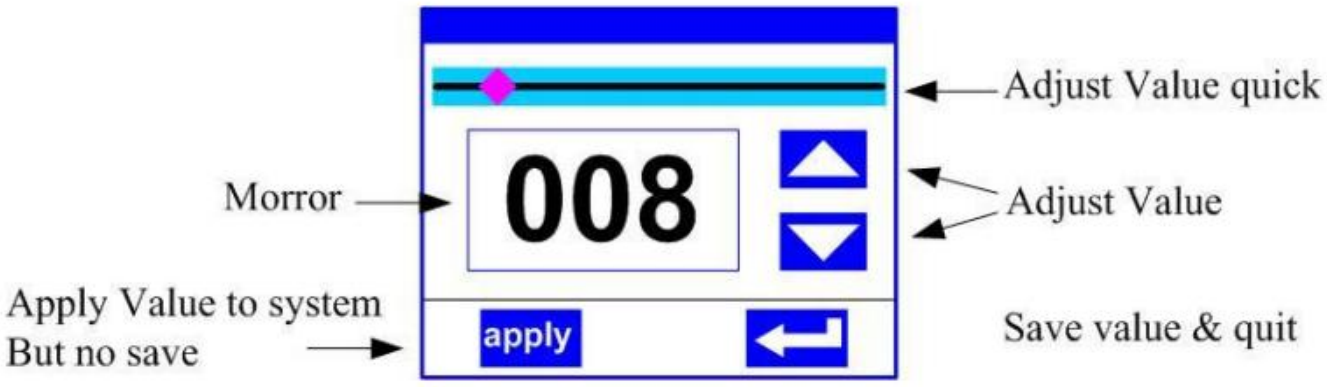


Figure 4 Dialog of value setting

Modify value：Can quickly modify value via pull the slider to the desired position, or click the button of ‘up’ or ‘down’ whit finger on the right side to set the exact desired value, another way is roll encoder on the right hand side of panel

Apply value：When Value had been modified, Then press the bottom of ‘apply’ in the left corner to apply to the light, but hav’t saved；

Save Value：Any time, click on the lower right corner of the "OK" button, the setting will been saved into internal memory.

Boolean parameter setting

when the selected parameters is a Boolean value (such as ON or OFF), can directly modify setting by chick corresponding item, the setting will been saved right now.

When the parameter is a key item, chick corresponding item, a dialog shown in Figure 5 will been popup ask for the confirm. Chick ‘sure’ to confirm.

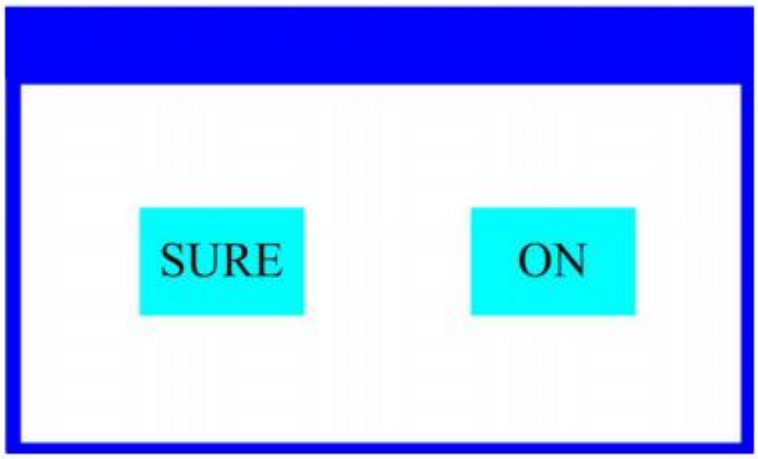


Figure 5　Dialog of confirm

Sub Menu（Parameter）

Chick item of main menu, enter corresponding sub menu, shown in Figure 6, total 6 sub menu, includes class of parameter and status:

ADDRESS：Set light DMX address.

WORKMOD：Set light work mode, master or slave mode when in auto run mode.

DISPLAY： Set display parameter, eg. select language.

TEST：Used for test light, modify DMX channel data to test function， the corresponding function of reference channel function table.

ADVANCE：Set light running parameter.

STATUS：view light current status.

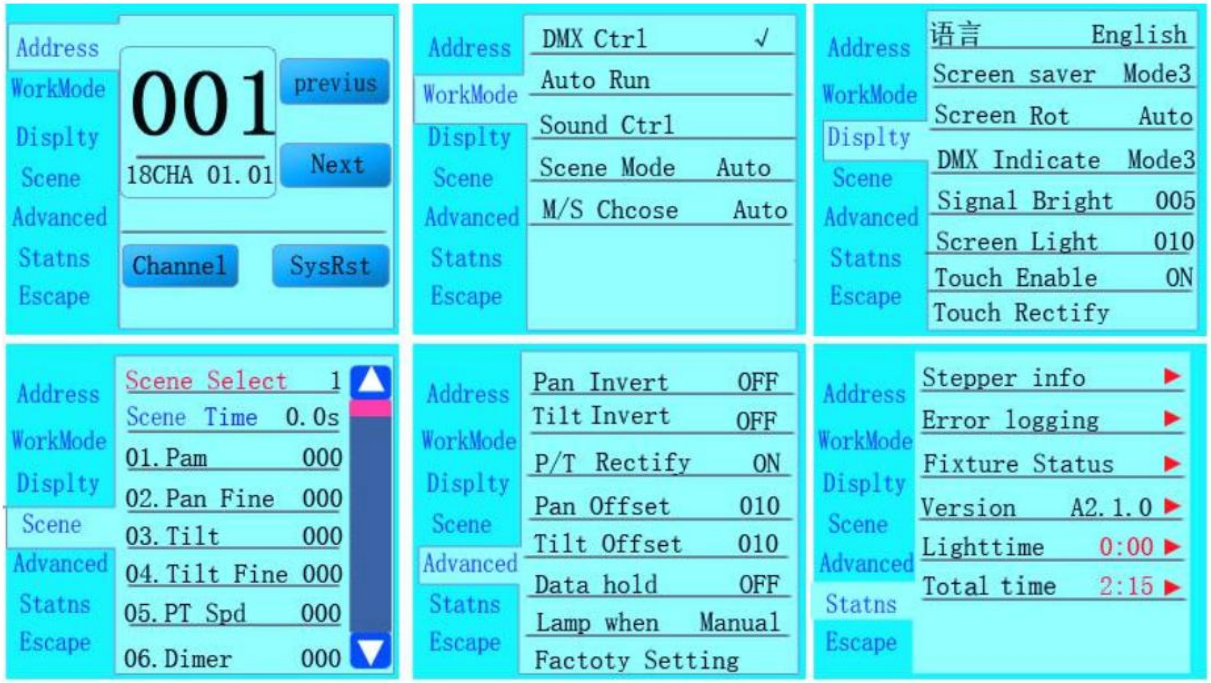


Figure 6 Parameter menu

Operation and parameter instruction

Via following operation, enter sub menu(parameter menu) shown in Figure 6

In main menu, chick 1/6 function button into corresponding parameter menu.

In sub menu(page), chick main item on the left side of displayer, can shift to corresponding sub menu(page) quickly.

ADDR--> Address: Set DMX Address

Click and select the "ADDR", can enter the page of DMX address setting, range from 1 to 512, the address code shouldn't is not greater than (512- channels quantity), otherwise the light will not been controlled. Following is the operation:

Enter the page of DMX address, as shown in Figure 7, click the blank area in right side of display will pop-up diglog as in Fig. 4, modify value, then click 'ENTER' to confirm and save DMX address code.

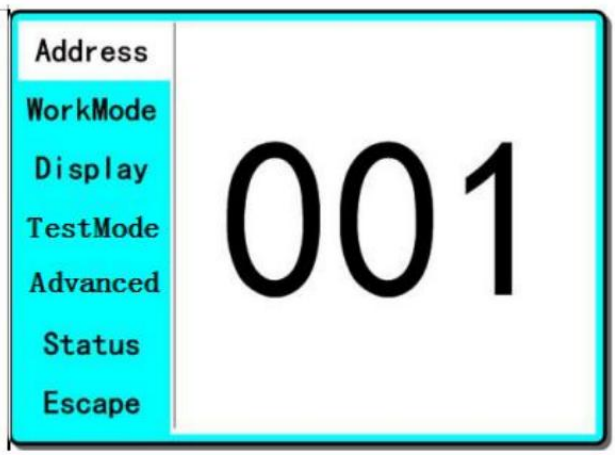


Figure 7 page of DMX Address

MODE--> WorkMode: Set Light work mode

Enter the page of 'WorkMode' as shown in Figure 8 and modify setting. Can set light work mode, control lamp and DMX channel mode.

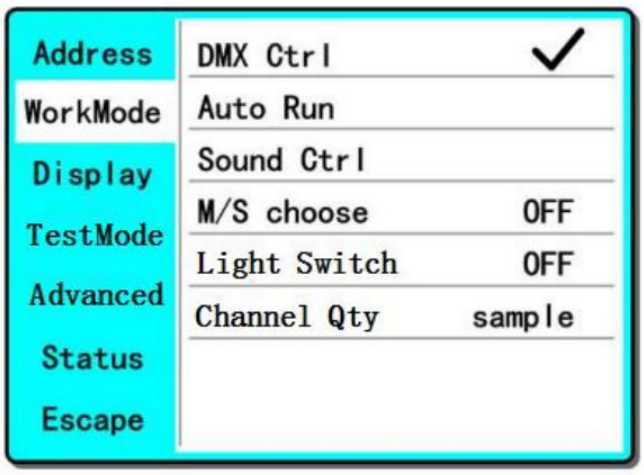


Figure 8 page of work mode

◆ DMX Ctrl: Choose to set DMX Mode,

◆ Auto Run: Choose to set Auto Mode,

◆ Sound Ctrl: Choose to set Sound Mode,

◆ M/S Choose:Available just in 'AUTO RUN' or 'SOUND Ctrl' mode.

ON--> Master. (Data will be send to other slave lamp immediately.) OFF--> Slaver.(NOT send data to other lamp via DMX Cable).(Default)

◆ Light Switch: ON--> Turn on the light, OFF--> Turn off the light.

◆ Channel Qty: Light support 2 DMX Channel mode: sample or extend。 Simple --> 16CH.(Default) Expand--> 20CH(or null).

DISP-->DISPLAY: Set display

Light support 2 language, rotation display ， Enter page as shown in Figure9 to set parameter following:

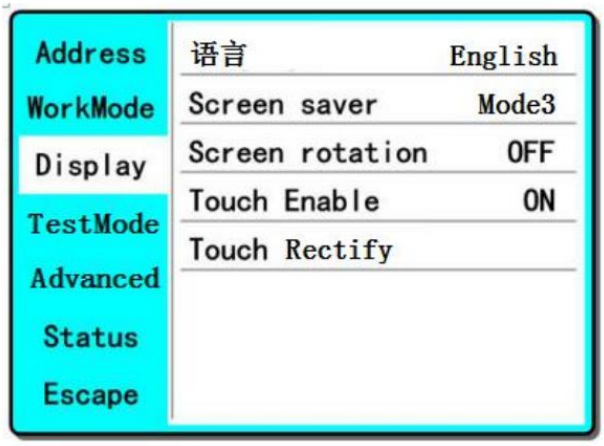


Figure9 page of display

◆ Language: English / 中文.

◆ Screen Saver: when panel is idle(these is no operation in 10 second), displayer will enter saver status.

OFF--> No screen saver.

Mode1--> Power-saving mode, turn off the display.

Mode2--> Displays the current address.

Mode3--> Displays the icon and the current working mode.(Default)

◆ Screen Rotion: To turning display.

ON--> Normal display.(Default) OFF--> 180° turning display.

◆ Touch enable：Disable or enable touch function,. ON--> Enable touch function.(Default) OFF--> Dosable touch function.

◆ Touch adjust：Adjust touch function. Normally, not enter this item.

TEST--> TestMode

Enter the page as shown in Figure 10, Light will into test mode, in this mode, the light does not receive the data for DMX controller.:

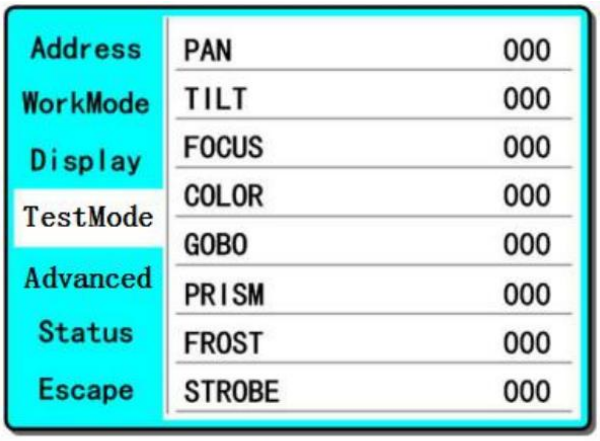


Figure 10 page of Test

◆ **PAN:**
range for 0 to 255;
◆ **TILT:**
range for 0 to 255;
◆ **FOCUS:**
range for 0 to 255;
◆ **COLOR:**
range for 0 to 255;
◆ **GOBO:**
range for 0 to 255;
◆ **PRISM:**
range for 0 to 255;
◆ **FROST:**
range for 0 to 255;；
◆ **STROBE:**
range for 0 to 255;

ADVA-->Advanced: Set light run parameter

Enter the page as shown in Figure 10, set the parameter of light:

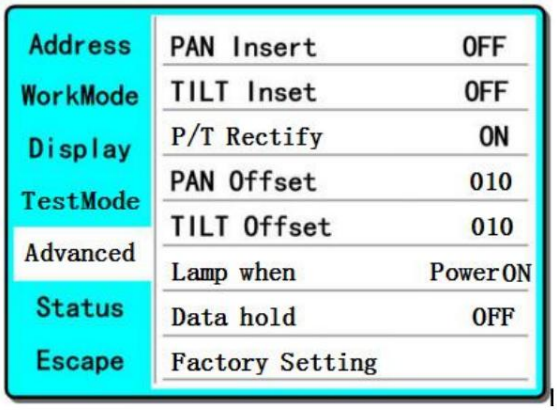


Figure 11 page of run parameter

◆ **Pan Invert**: **Reverse PAN move**

OFF--> Pan Normal move.(**Default**)

ON--> Reverse PAN move.

◆ **Tilt Invert: Reverse TILT move**

OFF--> Tilt Normal move.(**Default**)

ON--> Reverse Tilt move.

◆ **P/T Rectify: Disable or enable position rectify function.**

OFF--> Disable P/T rectify

ON--> Enable P/T rectify-(**Default**)

◆ **Pan Offset:**

Set PAN original position. **Default: 10**

◆ **Tilt Offset:**

Set TILT original position. **Default: 10**

◆ **Lamp when:**

PowerON--> Turn on the lamp when power on.(**Default**)

RstDone--> Turn on the lamp after reset.

Manual--> Manually turn on the lamp.

◆ **Data hold:**

OFF--> When no DMX signal,return to middle position.(**Default**)

ON--> When no DMX signal,stop in the final position.

◆ **Factory Setting:** Restore all parameter to factory setting.

STAT-->Status: View status

Enter the page as shown in Figure 12:

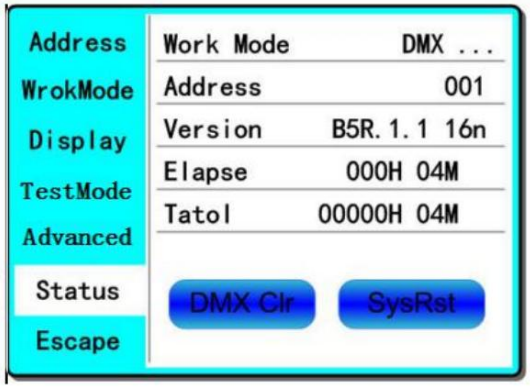


Figure 12 page of status

◆ **Work Mode:** Show the current working mode.

◆ **Address:**

Show the current address.

◆ **Version:**

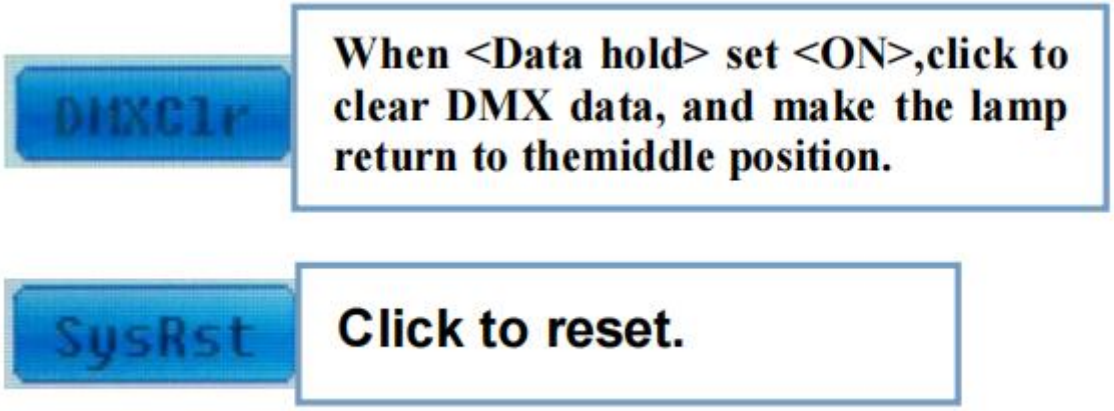
Show the version of the lamp.

◆ **Elapse:**

Working hours after turn on.

◆ **Tatol:**

Cumulative hours of operation



4.DMX Channels

DMX channel´s functions and values (23DMX channels)

Channel	Features	DMX value	Function
CH1	Pan	0--255	0-540°
CH2	Pan 16bit	0--255	
CH3	Tilt	0--255	0-270°
CH4	Tilt 16bit	0--255	
CH5	XY Speed	0--255	Fast to slow
CH6	Dimmer	0--255	0-100%
CH7	Strobe	0--3	Drak
		4--103	Slow strobe to fast strobe
		104--107	White
		108--207	Slow strobe to fast strobe(mode 2)
		208--212	White
		213--251	Free strobe
		252--255	White
		0--9	White
		10---19	Color1
		20--29	Color2
		30--39	Color3
		40--49	Color4
		50--59	Color5

CH8	Color	60--69	Color6
		70--79	Color7
		80--89	Color8
		90--99	Color1 Haif
		100--109	Color2 Haif
		110--119	Color3 Haif
		120--129	Color4 Haif
		130--139	Color5 Haif
		140--149	Color6 Haif
		150--159	Color7 Haif
		160--169	Color8 Haif
		170--179	Color9 Haif
		180--215	Rotate forward (fast to slow)
		216--220	Stop
		221--255	Rotate reverse (slow to fast)
CH9	CTO	0--255	
CH10	C	0--255	
CH11	M	0--255	
CH12	Y	0--255	
CH13	Gobo	0--4	White
		5--9	Gobo1
		10--14	Gobo2
		15--19	Gobo3
		20--24	Gobo4
		25--29	Gobo5
		30--34	Gobo6
		35--39	Gobo7
		40--44	Gobo8
		45--49	Gobo9
		50--54	Gobo10
		55--59	Gobo11
		60--64	Gobo12
		65--69	Shake slow to fast Gobo2
		70--74	Shake slow to fast Gobo3
		75--79	Shake slow to fast Gobo4
		80--84	Shake slow to fast Gobo5
		85--89	Shake slow to fast Gobo6
		90--94	Shake slow to fast Gobo7
		95--99	Shake slow to fast Gobo8
		100--104	Shake slow to fast Gobo9
		105--109	Shake slow to fast Gobo10
		110--114	Shake slow to fast Gobo11
		115--119	Shake slow to fast Gobo12
		120--127	Gobo12
		128--190	Rotate forward (fast to slow)
		191--192	Stop

CH13	Gobo	193--255	Rotate reverse (slow to fast)
CH14	Amplify	0--255	From big to small
CH15	Focus	0--255	From far to near
CH16	Gobo Revolve	0--9	White
		10--19	Gobo1
		20--29	Gobo2
		30--39	Gobo3
		40--49	Gobo4
		50--59	Gobo5
		60--69	Gobo6
		70--79	Gobo7
		80--84	Shake slow to fast Gobo1
		85--89	Shake slow to fast Gobo2
		90--94	Shake slow to fast Gobo3
		95--99	Shake slow to fast Gobo4
		100--104	Shake slow to fast Gobo5
		105--109	Shake slow to fast Gobo6
		110--127	Shake slow to fast Gobo7
		128--190	Rotate forward (fast to slow)
		191--192	Stop
		193--255	Rotate reverse (slow to fast)
CH17	Gobo Rot	0--127	0-400°
		128--187	Rotate forward (fast to slow)
		188--195	Stop
		196--255	Rotate reverse (slow to fast)
CH18	Prism1	0--63	None
		64--127	Prism1
CH19	Prism1 rot	0--127	0-400°
		128--187	Rotate forward (fast to slow)
		188--195	Stop
		196--255	Rotate reverse (slow to fast)
CH20	Prism2	0--63	None
		64--127	Prism2
CH21	Prism2 rot	0--127	0-400°
		128--187	Rotate forward (fast to slow)
		188--195	Stop
		196--255	Rotate reverse (slow to fast)
CH22	Frost	0--127	
		128--255	Insert frost
CH23	Reset	210--215	Reset effect motor over 3 seconds
		220--235	Reset XY motor over 3 seconds
		240--255	Reset over 3 seconds

6.Trouble Shooting

Following are a few common problems that may occur during operation. Here are some suggestions for easy troubleshooting:

A. The unit does not work, no light and the fan does not work

1. Check the connection of power and main fuse.
2. Measure the mains voltage on the main connector.
3. Check the power on LED.

B. Not responding to DMX controller

1. DMX LED should be on. If not, check DMX connectors, cables to see if link properly.
2. If the DMX LED is on and no response to the channel, check the address settings and DMX polarity.
3. If you have intermittent DMX signal problems, check the pins on connectors or on

PCB of the unit or the previous one.

4. Try to use another DMX controller.
5. Check if the DMX cables run near or run alongside to high voltage cables that may cause damage or interference to DMX interface circuit.

C. One of the channels is not working well

1. The stepper motor might be damaged or the cable connected to the PCB is broken.
2. The motors drive IC on the PCB might be out of condition

7.Fixture Cleaning

The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surrounding can cause greater accumulation of dirt on the unit's optics.

Clean with soft cloth using normal glass cleaning fluid.

Always dry the parts carefully.

Clean the external optics at least every 20 days. Clean the internal optics at least every 30/60 days.