BSW280

BEAM SPOT WASH MOVING HEAD LIGHT

USER MANUAL

（TFT DISPLAY & TOUCH）

Please read over this manual before operation

www.alsprolight.com

CONTENTS

Chapter 1 Installation and attention

1. Maintenance

- To reduce the risk of electrical shock or fire, do not expose this unit to rain or moisture.
- Intermittently using will extend this item's service life.
- Please clear the fan ,fan net , and optical lens in order to keep good work state.
- Do not use the alcohol or any other organic solvent to wipe the shell.

2. Statement

The product has perfect performance and integrity packing. All users should be strictly complying with the warning and operating instructions as stated. Or we aren't in charge of any result by misusing. Any damage resulting by misuse is not within the Company's warranty. Any fault or problem caused by neglecting the manual is also not in the charge of dealers.

Note: All information is subject to change without prior notice.

3. Safety Precaution

- In order to guarantee the product's life, please don't put it in the damp places or even the environment over 60degress.
- Always mount this unit in safe and stable matter.
- Install or dismantle should operate by professional engineer.
- Using lamp，the change rate of power voltage should be within±10%，If the voltage is too high，it will shorten the light's life; If it's not enough, will influence the effect.
- Please restart it 20 minutes later after turning off light , until full-cooling. Frequent switching will reduce the life span of lamps and bulbs; intermittent using will improve the life of bulbs and lamps.
- In order to make sure the product is used well, please read the Manual carefully.

4. Product Instruction

- Lamp: 280W(10R) (life:2200 hours Color temperature: 8000K)
- Channel mode:16/24 DMX512 Channel
- Pan scan：540°(16bit) Electric correction
- Tilt scan：270° (16bit) Electric correction
- Amazing dot matix, four tact switch, 180° turning show
- Color wheel: one color wheel, 13 kinds of color chips in one color wheel
- Gobo: 14 static gobos, 9 rotating gobos.
- Effect Wheel: Rotation eight prism, effect move , frost
- 0-100% mechanical dimming, mechanical dimming and free dimming available.

- strobe macro control available.
- Lens optical system achanical fouce .beam angle 0～4°
- Over heat protection
- Power Input: 100-240V，50/60Hz
- Power Dissipation：400W
- IP level :IP20
- Magnetic ballast and AC/Dc power supply

5. Cable connection（DMX）

Use a cable conforming to specifications EIA RS-485: 2-pole twisted, shielded, 120Ohm characteristic impedance, 22-24 AWG, low capacity. Do not use microphone cable or other cable with characteristics differing from those specified. The end connections must be made using XLR type 3 or 5-pin male/female connectors. A terminating plug must be inserted into the last projector with a resistance of 120Ohm (minimum 1/4 W) between terminals 2 and 3.

IMPORTANT: The wires must not make contact with each other or with the metal casing of the connectors. The casing itself must be connected to the shield braid and to pin 1 of the connectors.

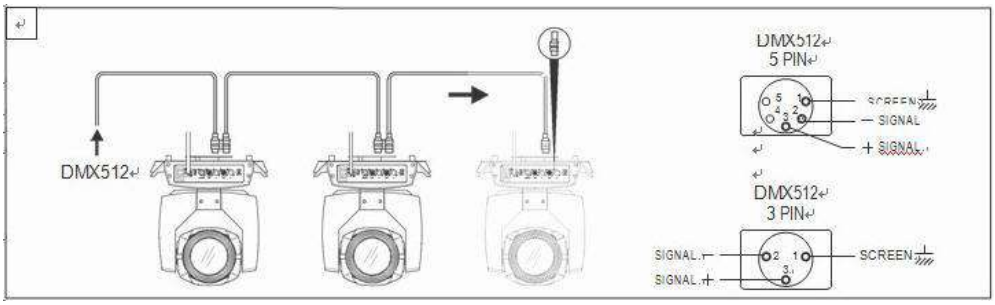

Figure 1 DMX Cable connection

6. Rigging (Optional)

This equipment can be positioned and fixed by clamp in every direction of the stage. Locking system makes it easy to fasten to the bracket.

Attention! Two clamps is needed to fix the equipment. Every clamp is locked by fastener of 1/4 kind. Fastener can only be locked clockwise.

Attention! Fasten a safety string to the additional hole of side aluminum piece. The secondary accessory can not hang on the delivery handle. Nip the equipment on bracket.

- Check if rigging clamp (not including the one inside) damaged or not? If stand ten times weight as the equipment. Make sure the architecture can stand ten times weight as all the equipments, clamps, wirings and other additional fixtures.
- Screws for clamping must be fixed firmly. Take one M12 screw (Grade 8.8 or higher) to

clamp bracket, and then screw the nuts.

- Level the two hanging points at the bottom of clamp. Insert fastener to the bottom, lock the two levers by 1/4 rotating clockwise; then install another clamp.
- Install on safety string which stands at least ten times weight as equipment. Terminal of the accessory is designed for clamps.
- Make sure pan/tilt lock unlocked or not. Keep the distance more than 1M from equipment to flammable material or lighting source.

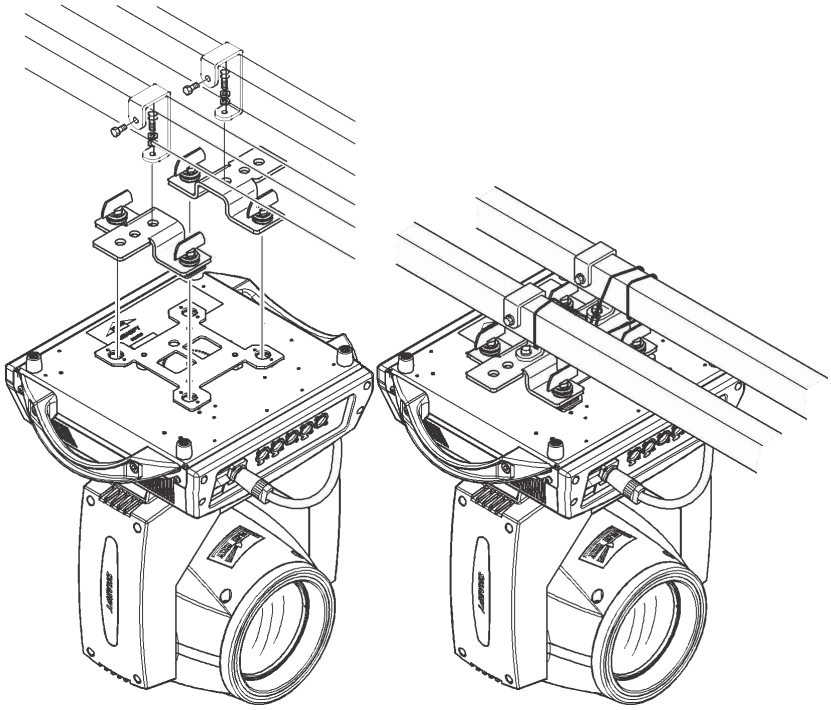

Figure 2 Installation

Chapter 2 Panel operation

1. Brief

The light panel diagram show as Figure 3, Left area is TFT Displayer, support touch, and right area is encoder button, both of touch and coder button 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.

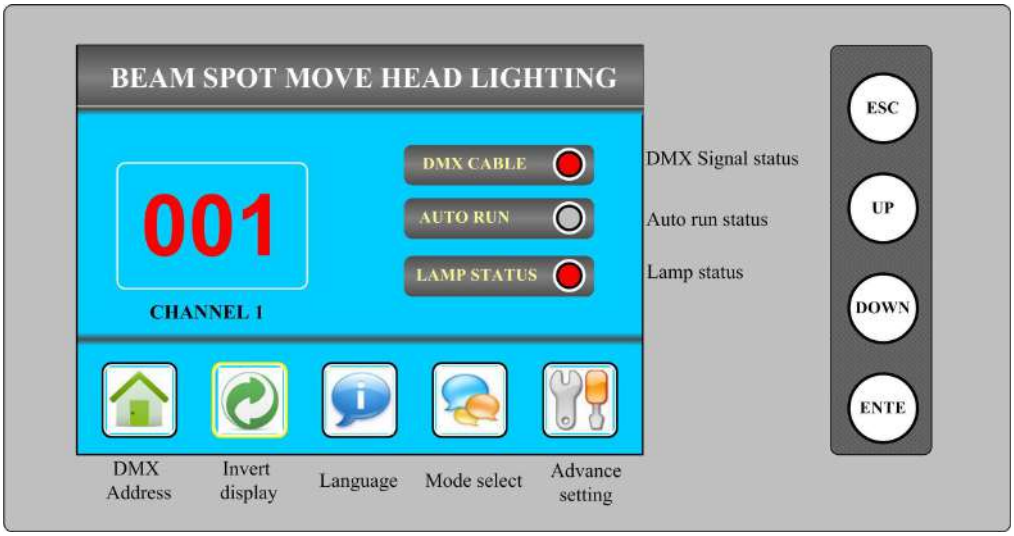

Figure 3 Panel diagram

2. Operation

1. Operate light with touch or encoder button

- 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 rotary encoder with button, As auxiliary input interface, if disable touch function,, the encoder can been choose to set or view the item, and then press the encoder button to confirm the selection, rotary encoder again set the parameter value, finally, Press encoder button one again to save value or setting.

2. Parameter value setting

When the selected item is value need to been modified, the dialog shown in Figure 4 will popup.

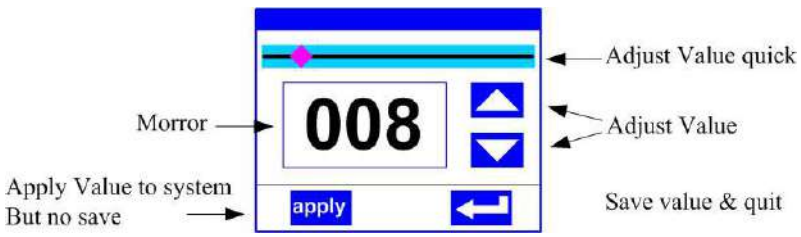

Figure 4 Dialog of value setting

- **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.

3. 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.

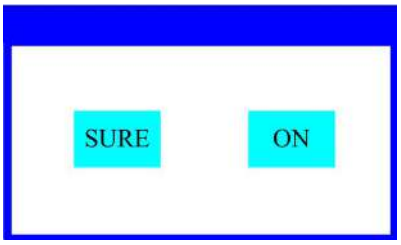

Figure 5 Dialog of confirm

4. 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.

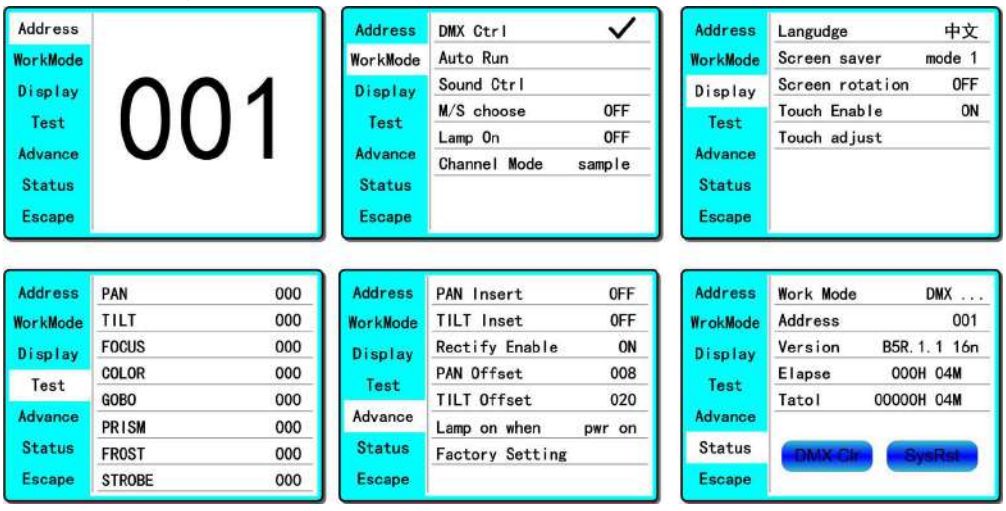

Figure 6 Parameter menu

3. 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.

1. 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.

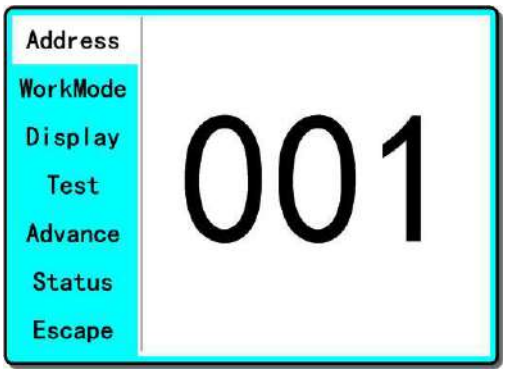

Figure 7 page of DMX Address

2. Set Light work mode

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

Light includes 3 work mode: DMX MODE, AUTO RUN and SOUND MODE, Parameter definition as following:

- **DMX Mode：** Under this mode, the light receive data from the DMX controller and move.
- **AUTO RUN：** Under this mode, light will run with inside code(data), ignore data from DMX controller.
- **SOUND Ctrl：** Under this mode, light ignore data from DMX controller., When there is a strong sound in stage, the light will run a scene, otherwise it will keep the last scene.
- **M/S Choose：** 'M/S Choose' is available when light just in 'AUTO RUN' or 'SOUND Ctrl' mode. If this item is set as 'OFF', the light don't send data to other light via DMX Cable. When 'ON', the data will send to other slave light immediately.
- **Lamp control：** Turn on lamp when this item is set 'ON', otherwise, turn off lamp. The gap between operation is limited to 30 second.
- **Channel mode：** Light support 2 DMX Channel mode: sample or extend。

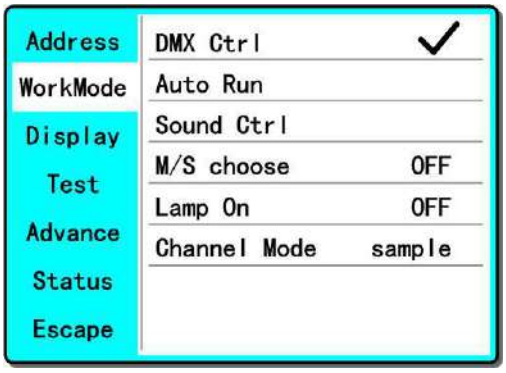

Figure 8　page of work mode

3. Set display

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

- **Language：** Select display as simplified Chinese or English.
- **Screen Saver：** when panel is idle(these is no operation in 10 second), displayer will enter saver status. When set as ‘mode 1’， saver status is close display, as ‘mode 2’ saver status will display DMX address code(DMX MODE) or display LOGO(AUTO RUN or SOUND CTRL). As ‘OFF’, keep light up displayer and show main menu。
- **Screen Rotation：** rotate displayer.
- **Touch enable：** Disable or enable touch function, when disable, use encoder to operate light and set parameter.
- **Touch adjust：** adjust touch function, normally, not enter this item.

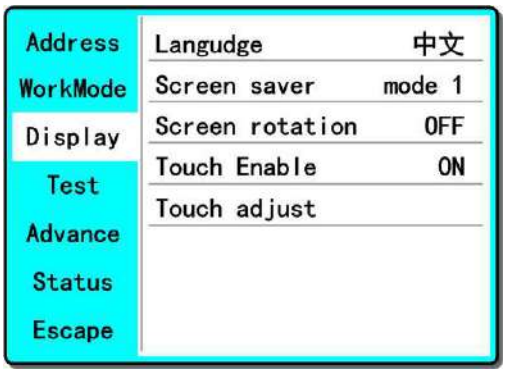

Figure9　page of display

4. Test light

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.:

- 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;。

Figure 10 page of Test

5. Set light run parameter

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

- Pan Invert: Reverse PAN move.
- Tilt Invert: Reverse TILT mover.
- Rectify enable： set as 'OFF', PAN or TILT will disable position rectify function. As 'ON', when PAN or TILT lose steps, light will rectify auto.
- Pan Offset: Set PAN original position.
- Tilt Offset: Set TILT original position.
- Lamp up when: Select lamp on mode, includes 3 mode: power on, after reset done and manual；
- Factory setting: restore all parameter to factory setting.

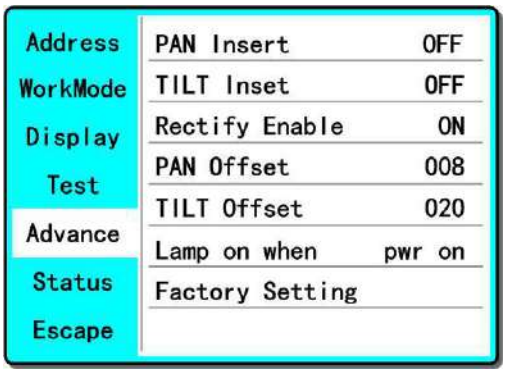

Figure 11 page of run parameter

6. View status

Enter the page as shown in Figure 12:

- View light current status, version；
- DMXClr: Click to clear all DMX data to '0'.
- SysRst：Click to reset light.

Figure 12 page of status

Chapter 3 Channel description

1. Channel table

Light support 2 DMX mode: 24ch (Standard) and16ch (sample), as shown in Table 1:

Table 1 Channel brief

Mode 1	Mode 2	Function	Value	Description
1	2			
1	1	**Pan**	0~255	Pan movement by 540
2		**Pan Fine**	0~255	Fine control of pan movement
3	2	**Tilt**	0~255	Tilt movement by 270
4		**Tilt Fine**	0~255	Fine control of tilt movement
5	3	**P/T Speed**	0~255	Fast to slow
6	4	**Function Reset Lamp**	0~89	none
			90~99	Blackout when color wheel moving
			100~109	Blackout when gobos wheel moving
			110~119	Blackout when prisms moving
			120~129	Blackout when color, gobos, prisms moving
			130~139	Lamp on（Over 3 seconds）
			140~149	Reset Pan/Tilt（Over 3 seconds）
			150~189	Reset Effect motor (Over 3 seconds)
			200~209	Reset All (Over 3 seconds)
			210~229	none
			230~239	Lamp Off (Over 3 seconds)
			240~255	none
7	5	**Color**	Linear color select	
			0~8	White（100%~10%）
			9~17	Color1（100%~10%）
			18~26	Color 2（100%~10%）
			27~36	Color 3（100%~10%）
			37~45	Color 4（100%~10%）
			46~54	Color 5（100%~10%）
			55~63	Color 6（100%~10%）
			64~72	Color 7（100%~10%）
			73~81	Color 8（100%~10%）
			82~90	Color 9（100%~10%）
			91~100	Color 10（100%~10%）
			101~109	Color 11（100%~10%）
			110~118	Color 12（100%~10%）
			119~127	Color 13（110%~10%）
			128~129	White
			130~134	Color 1

			135~138	Color 2
			139~143	Color 3
			144~147	Color 4
			148~152	Color 5
			153~157	Color 6
			158~161	Color 7
			162~166	Color 8
			167~171	Color9
			172~176	Color 10
			177~180	Color 11
			181~185	Color 12
			186~189	Color 13
			190~215	Forwards rainbow effect from fast to slow
			216~217	Stop, white
			218~243	Backwards rainbow effect from slow to fast
			244~255	Auto color selection from fast to slow
8		**Color Fine**	0~255	Fine positioning
9	6	**Effect Speed**	0~255	Speed of Rotating gobo, fast to slow
10	7	**Static Gobo Wheel**	0~3	Beam(Hole)
			4~9	Gobo 1
			10~15	Gobo 2
			16~21	Gobo 3
			22~27	Gobo 4
			28~33	Gobo 5
			34~39	Gobo 6
			40~45	Gobo 7
			46~51	Gobo 8
			52~57	Gobo 9
			58~63	Gobo 10
			64~69	Gobo 11
			70~75	Gobo 12
			76~81	Gobo 13
			82~87	Gobo 14
			88~95	Gobo 1 Shake（Slow to fast）
			96~103	Gobo 2 Shake（Slow to fast
			104~111	Gobo 3 Shake（Slow to fast
			112~119	Gobo 4 Shake（Slow to fast
			120~127	Gobo 5 Shake（Slow to fast
			128~135	Gobo 6 Shake（Slow to fast
			136~143	Gobo 7 Shake（Slow to fast
			144~151	Gobo 8 Shake（Slow to fast
			152~159	Gobo 9 Shake（Slow to fast

			160~167	Gobo 10 Shake（Slow to fast
			168~175	Gobo 11 Shake（Slow to fast
			176~183	Gobo 12 Shake（Slow to fast
			184~191	Gobo 13 Shake（Slow to fast
			192~199	Gobo 14 Shake（Slow to fast
			200~201	Beam/hole
			202~221	Forwards gobo rainbow from slow to fast
			222~223	stop
			224~243	Backwards gobo rainbow from fast to slow
			244~255	Auto gobo selection from fast to slow
11	8	**Rotating Gobo Wheel**	Rot.gobo Index	
			0~4	White
			5~7	Gobo 1
			8~10	Gobo 2
			11~13	Gobo 3
			14~16	Gobo 4
			17~19	Gobo 5
			20~22	Gobo 6
			23~25	Gobo 7
			26~28	Gobo 8
			29~31	Gobo 9
			Rot. Gobo rotation	
			32~34	Gobo 1
			35~37	Gobo 2
			38~40	Gobo 3
			41~43	Gobo 4
			44~46	Gobo 5
			47~49	Gobo 6
			50~52	Gobo 7
			53~55	Gobo 8
			56~59	Gobo 9
			Rot.gobo Index	
			60~67	Gobo 1 Shake (slow to fast)
			68~75	Gobo 2 Shake (slow to fast)
			76~83	Gobo 3 Shake (slow to fast)
			84~91	Gobo 4 Shake (slow to fast)
			92~99	Gobo 5 Shake (slow to fast)
			100~107	Gobo 6 Shake (slow to fast)
			108~115	Gobo 7 Shake (slow to fast)
			116~123	Gobo 8 Shake (slow to fast)
			124~129	Gobo 9 Shake (slow to fast)
			Rot. Gobo rotation	

			130~137	Gobo 1 Shake (slow to fast)
			138~145	Gobo 2 Shake (slow to fast)
			146~153	Gobo 3 Shake (slow to fast)
			154~161	Gobo 4 Shake (slow to fast)
			162~169	Gobo 5 Shake (slow to fast)
			170~177	Gobo 6 Shake (slow to fast)
			178~185	Gobo 7 Shake (slow to fast)
			186~193	Gobo 8 Shake (slow to fast)
			194~199	Gobo 9 Shake (slow to fast)
			200~201	White
			202~221	Forwards gobo rainbow from slow to fast
			222~223	stop
			224~243	Backwards gobo rainbow from fast to slow
			244~255	Auto goo selection from fast to slow
12	9	**Rot. Gobo**	Gobo index	
			0~255	0~200
			Gobo rotation	
			0	No rotation
			1~127	Forwards gobo rotation from fast to slow
			128~129	No rotation
			130~255	Backwards gobo rotation from slow to fast
13		**----**		
14	10	**Prism**	0~19	Open position (hole)
			20~49	6-facet linear rotating prism -indexing
			50~75	6-facet linear rotating prism- rotation
			76~105	8-facet circular rotating prism- Indexing
			106~127	8-facet circular rotating prism-rotation
			Prism/Gobo macro	
			128~135	Macro 1
			136~143	Macro 2
			144~151	Macro 3
			152~159	Macro 4
			160~167	Macro 5
			168~175	Macro 6
			176~183	Macro 7
			184~191	Macro 8
			192~199	Macro 9
			200~207	Macro 10
			208~215	Macro 11
			216~223	Macro 12
			224~231	Macro 13
			232~239	Macro 14
			240~247	Macro 15

			248~255	Macro 16
15	11	**Rot.Prism**	Rot.Prism Index	
			0~255	0~200 degree
			Rot.Prism rotation	
			0	No rotation
			1~127	Forwards gobo rotation from fast to slow
			128~129	No rotation
			130~255	Backwards gobo rotation from slow to fast
16	12	**Frost**	0~127	Open
			128~255	Frost
17	13	**Zoom**	0~255	Zoom from max. to min.beam angle
18		**Zoom Fine**	0~255	Fine Zoom
19	14	**Focus**	0~255	Continuous adjustment from far to near
20		**Focus Fine**	0~255	Fine Focus
21		**---**		
22	15	**Strobe**	0~31	Shutter closed
			32~63	Shutter open, Full lamp power
			64~95	Strobe-effect from slow to fast
			96~127	Shutter open
			128~159	Opening pulse in sequences from slow to fast
			160~191	Closing pulse in sequences from fast to slow
			192~223	Shutter open
			224~255	Random strobe-effect from slow to fast
23	16	**Dimmer**	0~255	Dimmer intensity from 0% to 100%
24		**--**		