## 280W MOVING HEAD



## User Manual

Please read this user manual before using this product.


## INDEX

STATEMENT ..... 4
ACCESSORIES ..... 4
SAFETY INSTRUCTION ..... 4
GENERAL GUIDELINES ..... 5
INSTALLATION ..... 7
TECHNICAL SPECIFICATION ..... 10
PHOTOMETRIC DIAGRAMS ..... 12
CONTROL SYSTEM ..... 17
PANEL OPERATION ..... 17

1. BRIEF ..... 17
2. Operation ..... 18
3. OPERATE LIGHT WITH TOUCH OR ENCODER BUTTON ..... 18
4. Parameter value setting ..... 18
5. Boolean parameter setting ..... 19
6. Sub Menu (Parameter) ..... 20
7. Operation and parameter instruction ..... 20
8. Set DMX Address ..... 21
9. Set Light work mode ..... 21
10. Set display ..... 22
11. Test light ..... 23
12. Set light run parameter ..... 24
13. View status ..... 25
CLEANING AND MAINTENANCE33

## 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 cannot be responsible for any malfunction \& problem owing to ignore the manual.

## ACCESSORIES

These items are packed together with the product:

| Name | Quantity | Unit | Remark |
| :--- | :--- | :--- | :--- |
| USER MANUAL | 1 | PCS |  |
| DMX CABLE | 1 | PCS |  |
| OMEGA | 2 | PCS |  |
| CLAMP | 2 | PCS |  |
| SAFTY CABLE | 1 | PCS |  |
|  |  |  |  |

## SAFETY INSTRUCTION

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.


## GENERAL GUIDELINES

## - NEVER OPEN THIS FIXTURE WHILE IN USE!

- During the initial operation of this fixture, a light smoke or smell may emit from the interior of the fixture. This is a normal process and is caused by excess paint in the interior of the casing burning off from the heat associated with the lamp and will decrease gradually over time.
- This fixture is a professional lighting effect designed for INDOOR / DRY

LOCATIONS ONLY on stage, in nightclubs, theatres, etc.

- Please make sure there are NO FLAMMABLE MATERIALS close to the fixture while operating, to prevent any fire hazard.
- The fixture must be installed in a location with adequate ventilation, at least 1.5 feet $(.5 \mathrm{~m})$ from adjacent surfaces. Be sure no air ventilation slots are blocked.
- DO NOT attempt installation and/or operation without knowledge how to do so.
- DO NOT permit operation by persons who are not qualified to operate this type of fixture. Most damages are the result of operations by nonprofessionals. Consistent operational breaks may ensure the fixture will function properly for many years to come.
- DO NOT shake fixture, avoid brute force when installing and/or operating fixture.
- Always install the fixture with an appropriate safety cable. When installing the fixture in a suspended environment, always use mounting hardware that is no less than M10 x 25 mm , also be sure the hardware is insert in the pre-arranged screw holes in the bracket of the fixture.
- Use the original packaging and materials to transport the fixture in for service.
- DO NOT TOUCH the housing bare-hand during its operation. Turn OFF the power and allow approximately 15 minutes for the fixture to cool down before replacing or serving.


## INSTALLATION



## FLAMMABLE MATERIAL WARNING <br> Keep fixture at least 5.0 ft ( 1.5 m ) away from any flammable materials, decorations, pyrotechnics, etc.

## 今

ELECTRICALCONNECTIONS
A qualified electrician should be used for all electrical connections and/or installations.

## CAUTIONS

- For added protection, mount the fixture in areas outside walking paths, seating areas, or in areas were unauthorized personnel might reach the fixture.
- Ambient operating temperature range for this fixture is $5^{\circ}$ to $113^{\circ} \mathrm{F}$. $\left(-15^{\circ}\right.$ to $45^{\circ} \mathrm{C}$ ) Do not use the fixture under or above this temperature.
- Before mounting the fixture to any surface, make sure the installation area can hold a minimum point load of 10 times the weight of the fixture.
- Fixture installation must always be secured with a secondary safety attachment, such as an appropriate safety cable.
- Never stand directly below the device when mounting, removing or servicing.

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.

## Clamp mounting

The moving head provides a unique mounting bracket assembly that integrates the bottom of the base, the included 'Omega Bracket' and the Safety Cable rigging point in one unit (see the illustration below). When mounting this fixture to truss be sure to sere to secure an appropriately rated clamp to the included Omega Bracket using a M10 screw fitted through the center hole of the 'omega bracket'. As an added safety measure be sure to attached at least one properly rated Safety Cable to the fixture using one of the safety cable rigging point integrated in the base assembly.


## DMX-512 control connection:

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 head together through serial linking. The cable needed should be two core, screened cable
with XLR input and output connectors. Please refer to the diagram below.

DMX Output
3-Pin XL.R Socket


DMX Input 3-Pin XLR Socket


## DMX-512 connection with DMX terminator:

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 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.


## TECHNICAL SPECIFICATION

Light Sources: 280W(10R)
Live Fsue:T5 A/250
Neutral Fuse: T5 A/250
Power Voltage: AC $100-240 \mathrm{~V}, 50 / 60 \mathrm{~Hz}$
Max Power Consumption: 470W at 230V( $\mathrm{I}=2.05 \mathrm{~A}$,Power factor 0.96)
Typical Power Consumption : 230W at $230 \mathrm{~V}(\mathrm{I}=1.8 \mathrm{~A}$, Power factor 0.95$)$
Allow for a deviation of +/-10\%

## Lamp:

Lamp : YODN 280W
Base Fap2.5
Lamp life : 2000hrs (Stand mode)
3000hrs (Eco mode)

## Optical System:

High luminous-efficiency glass reflector
Beam angel : $5^{\circ}-20^{\circ}$ (spot application)
$2.5^{\circ}-10^{\circ}$ (beam application)

## Color Wheel:

one color wheel, 14 kinds of color chips in one color wheel

## Static Gob Wheel:

10 metal gobos \& 4 beam reducers

## Rotation Gob Wheel:

9 Glass gobos can be indexed and rotated in both directions at different
speeds
Gobo wheels continuous rotation
Glass gobos: outside diameter=15.9mm, image diameter=12.5mm, thickness $=1.1 \mathrm{~mm}$

## Prisms:

Rotation 6-facet linear prism with continuous rotation in both directions
Rotation 16-facet circular prism with continuous rotation in both directions

## Frost filter :

Separate, variable frost filter

## Zoom:

Linear motorized zoom

## Strobe:

Strobe effect with variable speed (max. 15 flashes/sec)

## Control

Graphic touch screen for fixture setting and addressing
Gravitation sensor for auto screen positioning
Battery backup of the touch screen
Readout fixture and lamp usage, receiving DMX values, temperatures. Etc
Built-in analyzer for easy fault finding, error messages
Remotely switching on/off the lamp
Built-in demo sequences
Black-out while head moving, color or gobo changing.
Self-resettable thermos-fuse
DMX Channel: 16/24 Channel
Control Modes: DMX
Pan/Tilt
Pan/Tilt: 540 ${ }^{\circ}$ 270
Pan/Tilt Resolution: 16 bit, Electric correction
Movement control: tracking and vector
Pan/Tilt-lock mechanism
Temperatures:
Maximum ambient temperature : $45^{\circ}$
Maximum surface temperature : $90^{\circ}$
Minimum Distances:
Min distance from flammable surface : 1 mMin distance to lit objects (Stand Mode-280W):10mMin distance to lit objects (Eco Mode-230W):7.5m
Total Heat Dissipation:1600 BTU/h (calculated)469 Wh (calculated)

## PHOTOMETRIC DIAGRAMS

All diagrams are for full power of the lamp (Standard Mode)

Min. Zoom (Beam application)

| $\begin{array}{r} 0 \\ 30 \end{array}$ | $\begin{array}{r} 6596 \\ 82400 \\ \hline \end{array}$ | $\begin{gathered} 1746 \\ 18800 \\ \hline \end{gathered}$ | $\begin{array}{r} 776 \\ 8355 \\ \hline \end{array}$ | $\begin{array}{r} 437 \\ 4700 \\ \hline \end{array}$ | 279 Foot-candies (center) 3000 Lux (center) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| E 2 |  |  |  |  |  |
|  |  |  |  |  |  |
| 51 |  |  |  | 2.5 |  |
| \% 0 |  |  |  |  |  |
| $\text { E } 1$ |  |  |  |  |  |
|  |  |  |  |  |  |
| 30 | 20 0.9 | 40 17 | 60 26 | 80 3.5 | 100 Distance (m) 4.4 Olameter (m) |

Min. Zoom with frost



Min. Zoom (Spot application)

| 0 0 | $\begin{array}{r} 2090 \\ 22500 \\ \hline \end{array}$ | $\begin{gathered} 929 \\ 10000 \end{gathered}$ | $\begin{aligned} & 523 \\ & 5625 \end{aligned}$ | $\begin{array}{r} 334 \\ 3600 \end{array}$ | $\begin{gathered} 232 \\ 2500 \end{gathered}$ | $\begin{aligned} & 170 \\ & 1837 \end{aligned}$ | 131 Foct-candles (certer) <br> 1406 Lux (center) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| $E^{2}$ |  |  |  |  |  |  |  |
| 㖘 |  |  |  |  |  |  |  |
| , |  |  |  |  |  | $5{ }^{\circ}$ |  |
| 8 |  |  |  |  |  | ) |  |
| 唇 1 |  |  |  |  |  |  |  |
| 82 |  |  |  |  |  |  |  |
| 30 | 10 | 15 | 20 | 25 | 30 | 35 |  |
| 0 | 0.9 | 1.3 | 1.7 | 2.2 | 2.6 | 3.1 | 3.5 Diameter (m) |

Min. Zoom with frost



Max. Zoom (Beam application)


Max. Zoom with frost


Illuminance distribution
Diatance $=5 \mathrm{~m}$


Max. Zoom (Spot application)



Illuminance distribution
Diatance $=5 \mathrm{~m}$


## CONTROL SYSTEM

The DMX512 is widely used in intelligent lighting control, with a DMX 512 controller. Connect several lights together dmx in and dmx out, 3 pin XLR connectors: Pin 1: GND, Pin 2: Negative signal (-), Pin 3: Positive signal (+)


Figure2


| XLR Pin Configuration |
| :--- |
| pint-6tound |
| pin2-2nta Longlisent (negative) |
| pin3-D2ta true (positive) |

## Panel operation

## 1. Brief

The light panel diagram show as Figure 1, 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 1 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 2 will popup.


Figure 2 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 3 will been popup ask for the confirm. Chick 'sure' to confirm.


Figure 3 Dialog of confirm

## 4. Sub Menu (Parameter)

Chick item of main menu, enter corresponding sub menu, shown in Figure 4, 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.



| Address | Langudge | 畃女 |
| :---: | :---: | :---: |
| SorkMode | Screen saver | mode 1 |
| Display | Soreen ratation | OFF |
| Test | Touch Enable | 0 O |
|  | Touch ndjust |  |
| Status |  |  |
| Epester |  |  |


| Addrenti | PAN | 000 |
| :---: | :---: | :---: |
| Worilliode | THLT | 000 |
| Display | FOCuS | 000 |
| Test | Cocor | 000 |
| Atrance | G000 | 000 |
|  | PRISU | 000 |
| Status | FROST | 000 |
| Escspe | STMOBE | 000 |


| Address | PAN Invert | OFF |
| :---: | :--- | ---: |
| Workllode | TILT Inset | OFF |
| Diaplay | Rectify Enable | CN |
| Test | PAN Offeet | 008 |
| Advance | TILT Offset | 020 |
| Statue | Lamp on when | per on |
| Eactory Setting |  |  |
|  |  |  |


| Address <br> Wrotillode | Work Node | DEXX... |
| :---: | :---: | :---: |
|  | Address | 001 |
| Display | Veraion | BSR 1.116n |
|  | Elapeo | 000 0 OM |
|  | Tatal | 00000H 0ay |
| Advance |  |  |
| Status | Weyef | - |
| Escspe |  |  |

Figure 4 Parameter menu

## 3. Operation and parameter instruction

Via following operation, enter sub menu(parameter menu) shown in Figure 4

- 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 (512channels quantity), otherwise the light will not been controlled. Following is the operation:

Enter the page of DMX address, as shown in Figure 5, 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 5 page of DMX Address

## 2. Set Light work mode

Enter the page of 'WORK MOD' as shown in Figure 6 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。

| Address | DMX Ctr I |  |
| :---: | :--- | :--- |
| WorkMode | Auto Run |  |
| Display | Sound Ctrl |  |
| Test | M/S choose | OFF |
| Advance | Lamp On | OFF |
| Channel Mode | sample |  |
| Status |  |  |
| Escape |  |  |

Figure 6 page of work mode

## 3. Set display

Light support 2 language, rotation display, Enter page as shown in Figure7 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.

| Address | Langudge | 中文 |
| :---: | :--- | ---: |
| WorkMode | Screen saver | mode 1 |
| Display | Screen rotation | OFF |
| Test | Touch Enable | ON |
| Advance | Touch adjust |  |
| Status |  |  |
| Escape |  |  |

Figure7 page of display

## 4. Test light

Enter the page as shown in Figure 8, 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 ;

| Address | PAN | 000 |
| :---: | :--- | ---: |
| WorkMode | TILT | 000 |
| Display | FOCUS | 000 |
| Test | COLOR | 000 |
| Advance | GOBO | 000 |
| Status | PRISM | 000 |
| Escape | FROST | 000 |
|  | STROBE | 000 |

Figure 8 page of Test

## 5. Set light run parameter

Enter the page as shown in Figure 8, 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.

| Address | PAN Insert | OFF |
| :---: | :--- | ---: |
| WorkMode | TILT Inset | OFF |
| Display | Rectify Enable | ON |
| Test | PAN Offset | 008 |
| Advance | TILT Offset | 020 |
| Status | Lamp on when | pwr on |
| Escape |  |  |

Figure 9 page of run parameter

## 6. View status

Enter the page as shown in Figure 10:

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

| Address | Work Mode | DMX . . |
| :---: | :---: | :---: |
| WrokMode | Address | 001 |
| Display | Version | B5R. 1.1 16n |
| st | Elapse | 000H 04M |
|  | Tatol | 00000 H 04M |
| Advance |  |  |
| Status | BMXEI EyaRts |  |
| Escape |  |  |

Figure 10 page of status

## Channel description:

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

Table 1 Channel brief

| MODE/CHS |  |  |  |  |
| :---: | :---: | :---: | :--- | :--- |
| STAND | BASIC | FUNCTION | VALUE |  | DESCRIPTION


|  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| 6 | 4 | Function <br> Reset <br> 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 |  |
|  |  |  | 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 col | lect |
|  |  |  | 0~1 | White (100\%~10\%) |
|  |  |  | 2~9 | Color 1 (100\% ~10\%) |
|  |  |  | 10~19 | Color 2 (100\% ~10\%) |
|  |  |  | 20~28 | Color 3 (100\% ~10\%) |
|  |  |  | 29~37 | Color 4 (100\% ~ 10\%) |
|  |  |  | 38~47 | Color 5 (100\% ~10\%) |
|  |  |  | 48~55 | Color 6 (100\% ~10\%) |
|  |  |  | 56~65 | Color 7 (100\% ~10\%) |
|  |  |  | 66~74 | Color 8 (100\% ~10\%) |
|  |  |  | 75~83 | Color 9 (100\% ~10\%) |


|  |  |  | 84~92 | Color 10 (100\% ~ 10\%) |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | 93~101 | Color 11 (100\%~10\%) |
|  |  |  | 101~110 | Color 12 (100\% ~ 10\%) |
|  |  |  | 110~119 | Color 13 (110\%~10\%) |
|  |  |  | 119~129 | 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 | Color 9 |
|  |  |  | 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 | 0~3 | Beam(Hole) |


|  | Gobo <br> Wheel | 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 |



|  |  |  | 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 | tion |
|  |  |  | 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 |



|  |  |  | 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 |  |
|  |  |  | 0~255 | 0~200 degree |
|  |  |  | Rot.Prism | tion |
|  |  |  | 0 | No rotation |
|  |  |  | 1~127 | Forwards prism rotation from fast to slow |
|  |  |  | 128~129 | No rotation |
|  |  |  | 130~255 | Backwards prism rotation from slow to fast |
| 16 | 12 | Frost | 0 | Open |
|  |  |  | 1~179 | Frost from 0\% to 100\% |
|  |  |  | 189~189 | 100\% frost |
|  |  |  | 190~211 | Pulse closing from slow to fast |
|  |  |  | 212~233 | Pulse opening from slow to fast |
|  |  |  | 234~255 | Rambing from fast to slow |
| 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 |  | --- | 0~255 | Resered |
| 22 | 15 | Strobe | 0~31 | Shutter closed (Lamp power |



## CLEANING AND MAINTENANCE



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

## CLEANING

Frequent cleaning is recommended to insure proper function, optimized light output, and an extended life. The frequency of cleaning depends on the
environment in which the fixture operates: damp, smoky or particularly dirty environments can cause greater accumulation of dirt on the fixture's optics.

- Clean the external lens surface at least every 20 days with a soft cloth to avoid dirt/debris accumulation.
- Never use alcohol, solvents, or ammonia based cleaners.


## MAINTENANCE

Regular inspections are recommended to insure proper function and extended life. There are no user serviceable parts inside this fixture, please refer all other service issues to an authorized service technician. Should you need any spare parts, please order genuine parts from your local dealer.

Please refer to the following points during routine inspections:

- A detailed electric check by an approved electrical engineer every three months, to make sure the circuit contacts are in good condition and prevent overheating.
- Be sure all screws and fasteners are securely tightened at all times. Lose screws may fall out during normal operation resulting in damage or injury as larger parts could fall.
- Check for any deformations on the housing, color lenses, rigging hardware and rigging points (ceiling, suspension, trussing).
Deformations in the housing could allow for dust to enter into the fixture. Damaged rigging points or unsecured rigging could cause the fixture to fall and seriously injure a person(s).
- Electric power supply cables must not show any damage, material fatigue or sediments. Never remove the ground prong from the power cable.

