

MOVING HEAD™

OB Y-5

# User manual

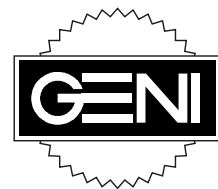


  
**BEGLEC**



**CAUTION!**

Risk of electric shock  
Read instructions before installing  
or connecting to power



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200503U

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## **Congratulations!**

Thank you for purchasing OBY Series that elaborate manufactured by Geni abundant experience of stage-lights. Hereafter you can get high quality and low breakdown products on the market from *Geni Electronics Co., Ltd.*; OBY Series concentrated unexpectedly lighting effects for animating stages.

If any question or suggestion you have, please offer the precious recommendation for improving our products and designs better; and create perspective and expectancy about future lighting.

## **Features**

### ***Great effect variety***

- Smooth and silent revolving of a big range of 570-degree in X axis and 270-degree in Y axis, automatic electronic sensor to zero.
- Two separated 11-dichroic color + white wheels, creating moving colors as beautiful as the rainbow.
- 9+1 fixed gobos and 6+1 rotating gobos allocated in two different gobo wheels; and all gobos are easily changed.
- Various kinds of glass gobos are available for clients' choices.
- Rotating three facet prism.
- 10,000K and 6500K Temperature correction filter.
- 3200K temperature correction filter.
- 1-7Hz fast flashing and 0-100% linear dimmer.
- IRIS linear adjustment.
- Remote-controlled focus.
- Remote-controlled lamp switch ON/OFF.

### ***Sophisticated appearance and structure design***

- Stylish, high impact resistant polymer shell, which is lighter than anyone else of the same class in the market.
- Solid square base is convenient set on the TRUSS, or directly stand on the ground or stage for uses.
- Systematic modular construction design has all inner function wheels and PCBs modularized, which allows version update or customization more convenient.
- Sophisticated optical system makes light output more bright and sharp.

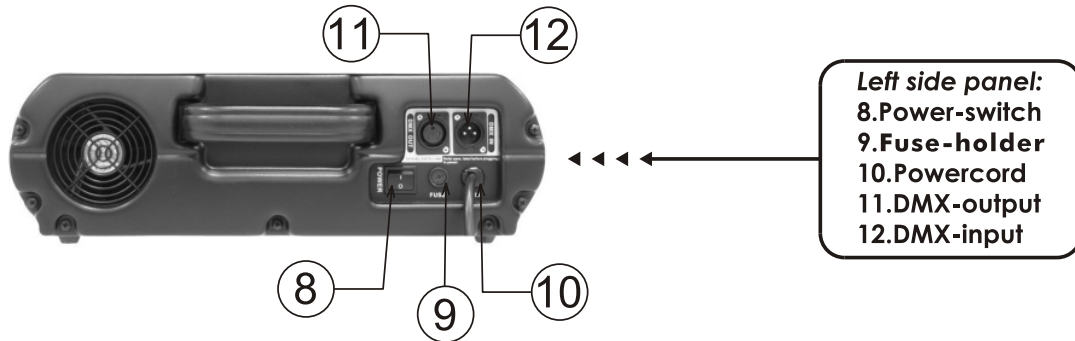
### ***Simple and easy operation***

- Standard USITT DMX512 protocol, 16 or 14 DMX Channel.
- High-torque stepper motors, smooth and precise micro-stepping control.
- LED screen controls DMX coding and built-in functions' election, as well as also display lamp's time usage.

# Description of the appearance



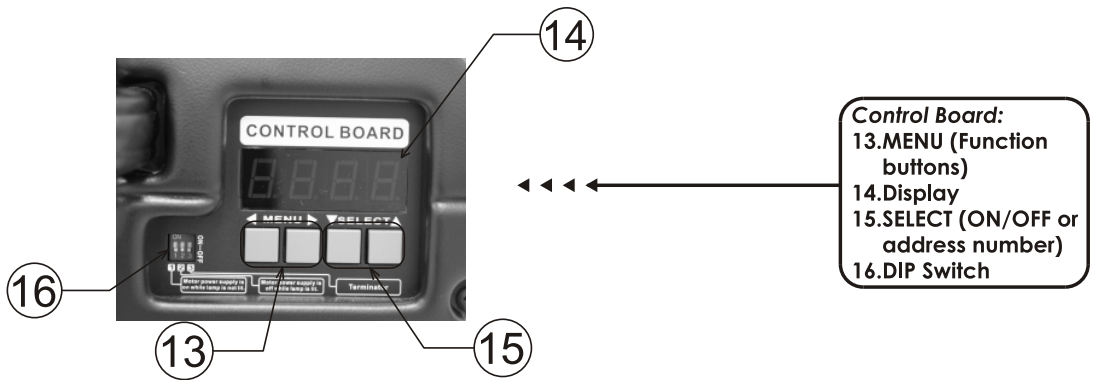
- 1. Projector-head
- 2. Yoke
- 3. Left side panel
- 4. Base
- 5. Control Board
- 6. Right side panel
- 7. Carrying handles



- Left side panel:*
- 8. Power-switch
  - 9. Fuse-holder
  - 10. Powercord
  - 11. DMX-output
  - 12. DMX-input



- Right side panel:*



- Control Board:*
- 13. MENU (Function buttons)
  - 14. Display
  - 15. SELECT (ON/OFF or address number)
  - 16. DIP Switch

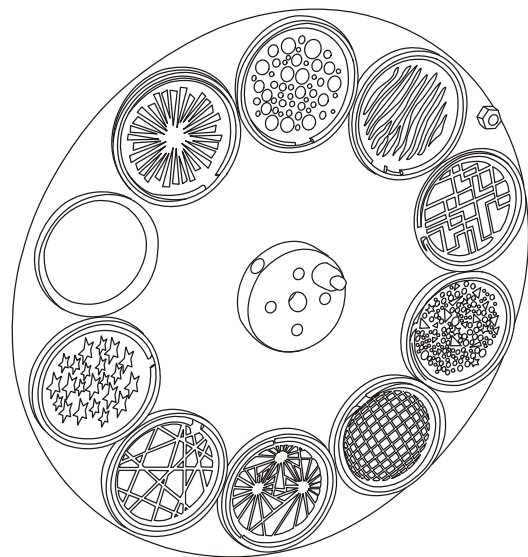
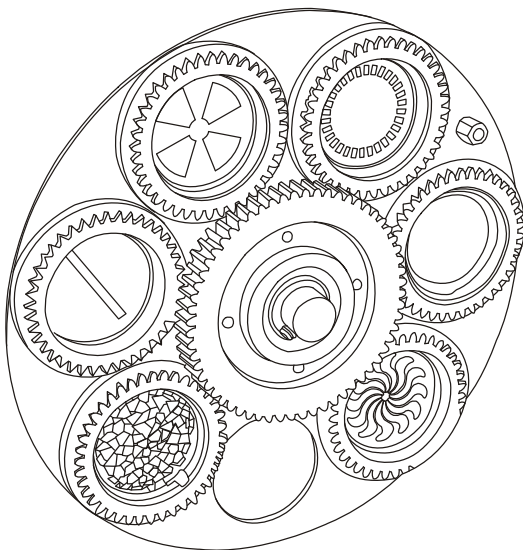
## **Inspection**

Carefully unpack the carton, and make sure if any damage or loss caused by transportation.

Contact your Geni dealer to assure your right by telephone or facsimile immediately if damage has occurred or if something is missing.

## **Packing List:**

- A. OBY-5 Moving Head
- B. Operating Manual
- C. Bracket
- D. GOBO
- E. Lamps (Optional)



## **Safety instructions**

- This appliance must be earthed (grounded).
- Disconnect power before removing covers or servicing.
- Keep case closed while operating.
- OBY-5 contains no user serviceable parts. Refer servicing to qualified technicians only.
- Lamp and components become hot during operation. Allow time to cool before handling.
- Keep flammable material at least one meter away from unit.
- Do not operate in wet conditions or near liquids.
- Keep air vents clear to avoid overheating.
- Lamp produces hazardous UV light. Do not look directly at lamp when lit.
- Replace any blown or damaged fuses only with those of identical values.

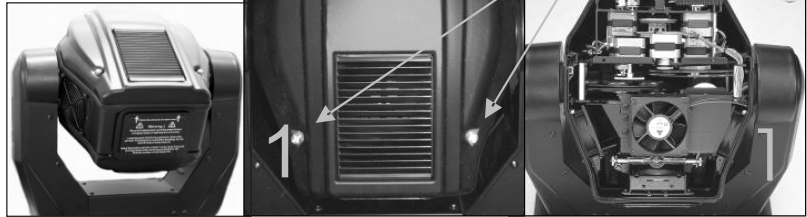
## Lamp Installation

### Warning!

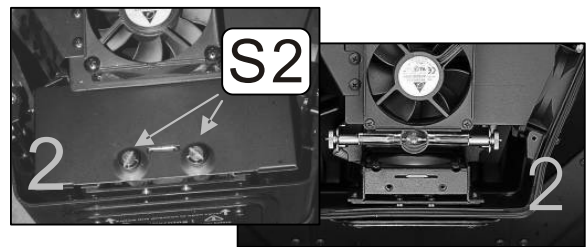
*When replacing the lamp, please wait 15 minutes after powering down to allow the unit to cool down! Always disconnect from main power prior to lamp replacement.*

*Do not touch the envelope (glass area) of the bulb with bare hands. If this happens, clean the lamp with alcohol and wipe it with a lint free cloth before installation.*

1. Keep projector-head upward . Unscrew thumbscrews (S1) to detach the top cover.

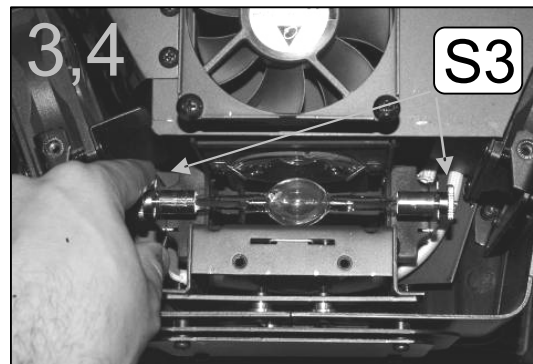


2. Unscrew screws (S2) to remove lamp cover and expose lamp compartment.



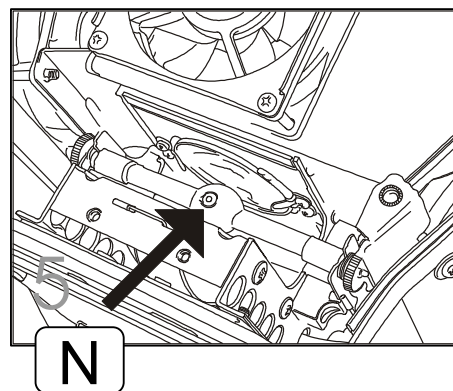
3. If installing a new lamp, loosen both screws on the double ended lamp to allow for the lamp to slide into the lamp socket slots. Lower lamp evenly.

4. If replacing a lamp, loosen both lamp screws (S3) to relieve tension from lamp socket slots so you can slide the lamp freely, upwards and out of lamp socket. Raise lamp evenly to remove.



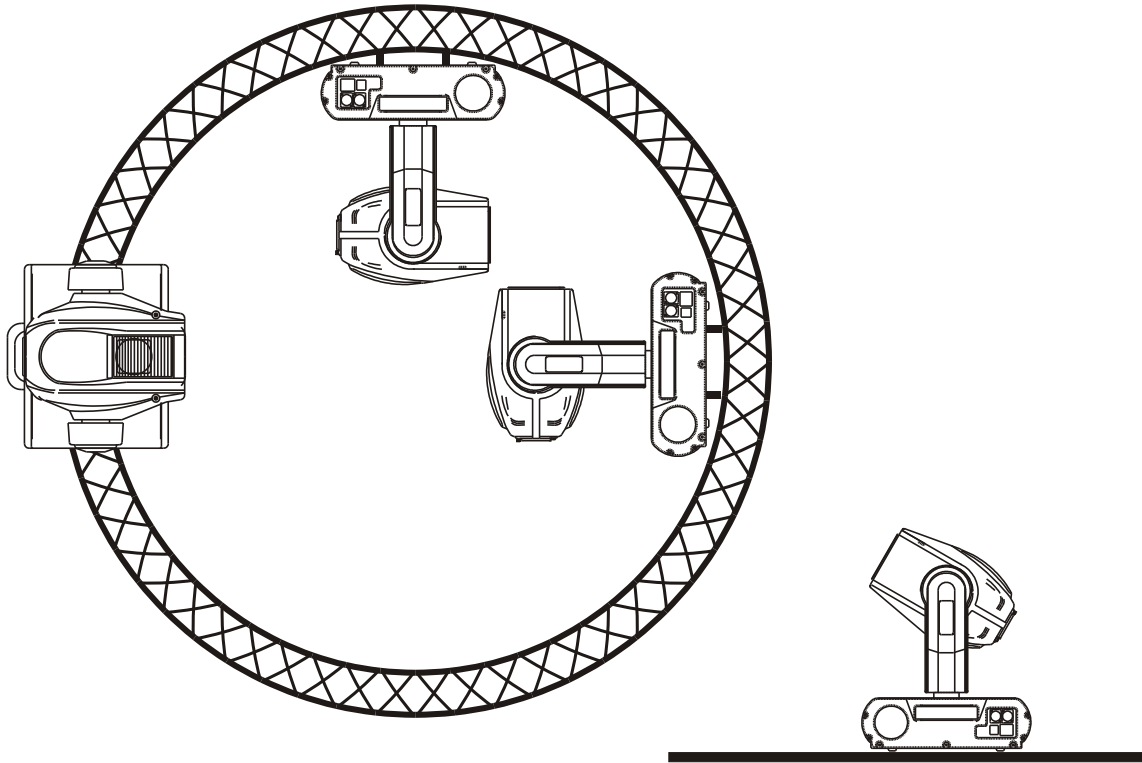
5. Before you tighten the lamp end screws, rotate the bulb until the nipple on the envelope (N) of the bulb is facing upwards as illustrated.

6. If you are replacing the lamp, you may want to log the fixture hours in order to track the lamps use. Navigate to the (LPTi) on the menu display to obtain this information.

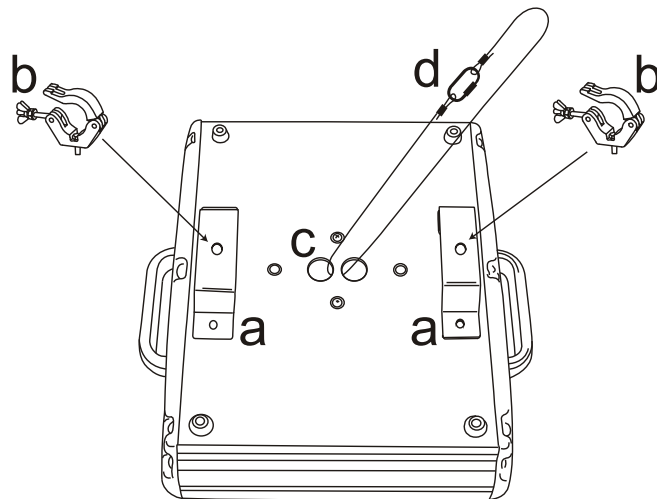


## **Rigging:**

OBY-5 can be set on the flat stage floor directly or use clamp to mount on any kinds of trusses for fitting the mobility of various venues.




Mount two attached brackets(a) on the bottom (See Figure ), and collocate the appropriate clamps(b) to rig with trusses. Must use the safety ropes that can hold the ten times as heavy as the fixture through the eye bolts(c) on the bottom of the base and trusses; then join the safety ropes with screw-on carabines(d).





## Connection with the mains

Connect the device to the mains with the power-plug.  
*The occupation of the connection-cables is as follows:*

Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	

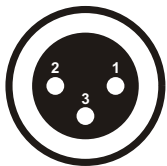
The earth has to be connected! In general, lighting effects should not be connected to dimming-packs.

## Linking

Use 3-pin XLR data cables to link the controller to DMX lighting equipment.

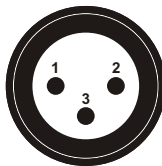
**3-pin XLR connectors are follows:**

DMX-output  
XLR mounting-socket:



1:Ground  
2:Signal(-)  
3:Signal(+)

DMX-input  
XLR mounting-plug:



1:Ground  
2:Signal(-)  
3:Signal(+)

**Building a serial DMX-chain:**



Connect the DMX output of the first fixture with the DMX input of the next fixture. And execute all the setups following the above-mentioned instruction.

Flip the DIP SWITCH #3 of last fixture to ON position for terminal confirmation.

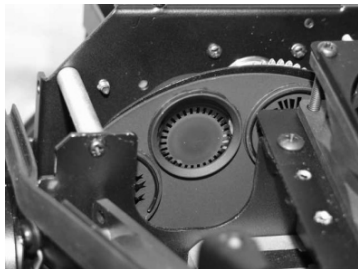
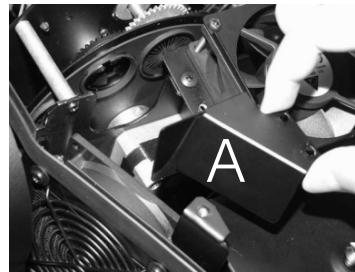
## **Instructions for gobo replacement**



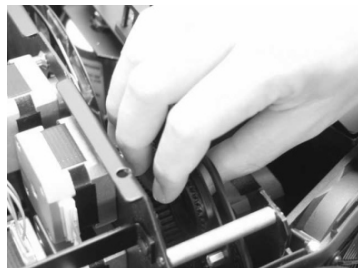
Please choose the suitable gobo dimensions of this fixture. (Appendix A)

### **Rotating GOBO wheel**

1. Open the top cover (\*Refer to the steps of lamp installation.), and loosen the screws with appropriate tools then extract A. (See the figures below.)



2. Turn the open (circle) of the GOBO wheel to "U" shape gap in order to extract the rotating GOBO easily.



3. Push GOBO & the spring ring out with the fingers carefully. (\*Caution: Avoid falling the spring ring into the fixture.)

4. Insert the new GOBO and the spring ring (\*Press the spring ring tight with the appropriate tools in order to keep GOBO compact), put A back and screw up the top cover.

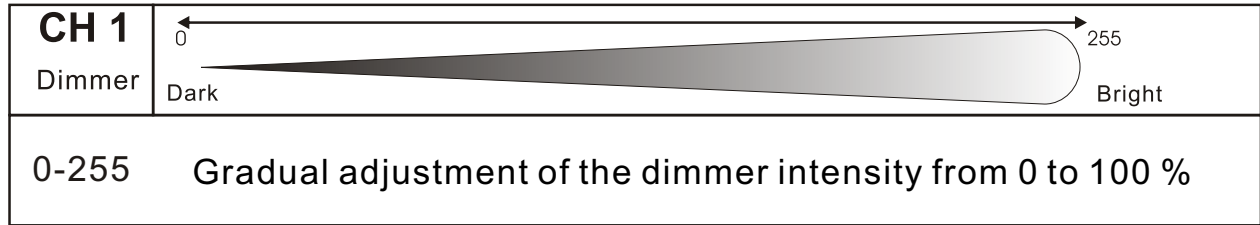
### **Fixed GOBO wheel**

The instructions are the same as changing the rotating GOBO; only winkle the spring ring out with appropriate flat screw driver before push GOBO out.

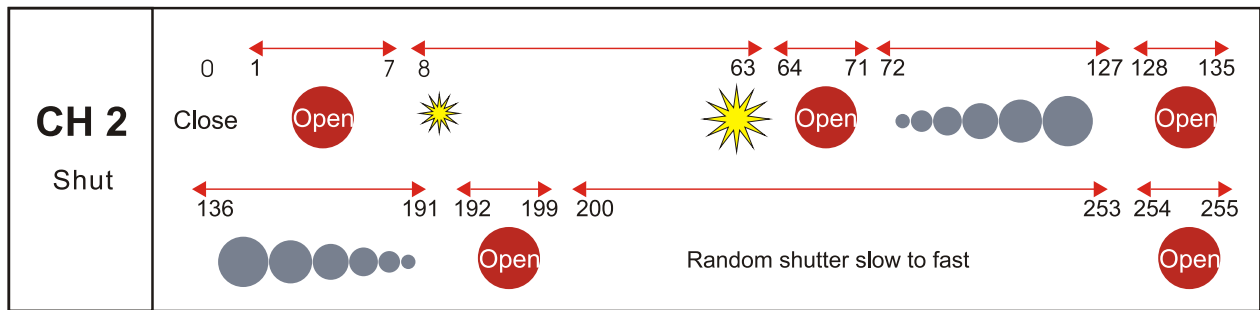
# DMX Channel chart

## Function of the control channels - 16 bit protocol

### Channel 1 - Dimmer intensity













### Channel 2 - Shutter, Strobe














### Channel 3 - Color wheel 1

<b>CH 3</b>	0-13	14-27	28-41	42-55	56-69	70-83	84-97	98-111	112-125	126-139	140-153	154-167	168-255
Color 1													
	0 – 13	14 – 27	28 – 41	42 – 55	56 – 69	70 – 83	84 – 97	98 – 111	112 – 125	126 – 139	140 – 153	154 – 167	168 – 255
	Open/white	Steel Blue	Orange	Green Blue	Bright Blue	Bright Pink	Red	Deep Blue	Yellow	Dark Pink	Moss Green	Light Blue	Color wheel rotation slow to fast









## Channel 4 - Color wheel 2

<b>CH 4</b>	0-13	14-27	28-41	42-55	56-69	70-83	84-97	98-111	112-125	126-139	140-153	154-167	168-255
Color 2													
	0 – 13	Open/white											
	14 – 27	Steel Blue											
	28 – 41	Rose Pink											
	42 – 55	Yellow											
	56 – 69	Pale Blue											
	70 – 83	C.T Orange											
	84 – 97	Pale Blue- C.T Orange											
	98 – 111	Steel Blue-Orange											
	112 – 125	Green-Yellow											
	126 – 139	Rose Pink-Moss Green											
	140 – 153	Rose Pink-Yellow-Steel Blue-Green											
	154 – 167	Yellow-Moss Green-Orange-Steel Blue											
	168 – 255	Color wheel rotation slow to fast											

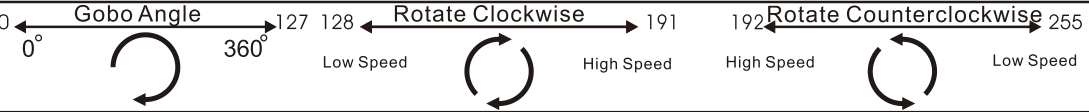
## Channel 5 - Fixed gobo wheel

<b>CH 5</b>	0-15	16-31	32-47	48-63	64-79	80-95	96-111	112-127	128-143	144-159	160-255
Gobo 1											

## Channel 6 - Rotating gobo wheel

<b>CH 6</b>	0-23	24-47	48-71	72-95	96-119	120-143	144-167	168-255
Gobo 2								

## Channel 7 - indexing & Rotating gobo rotation

<b>CH 7</b>									
Gobo 2 Rotate	0	127	128	191	192	255			
	0 – 127	Rotating gobo angle adjustment from zero to 360 degrees.							
	128 – 191	Forwards gobo rotation from fast to slow							
	192 – 255	Backwards gobo rotation from slow to fast							

## Channel 8- Prism-wheel

<b>CH 8</b> Prism & Rotate						
	<p>0 – 1      Open position</p> <p>2 – 7      Triple prism static</p> <p>8 – 132   Triple prism forwards rotation from fast to slow</p> <p>133 – 253 Triple prism backwards rotation from slow to fast</p> <p>254 – 255 Triple prism static</p>					

## Channel 9- Iris

<b>CH 9</b> Iris						
	<p>0            Closed</p> <p>1 – 159    Min. Diameter to max. diameter</p> <p>160 – 207 Iris-in from slow to fast</p> <p>208 – 253 Iris-out from fast to slow</p> <p>254 – 255 Open</p>					

## Channel 10- Focus

<b>CH 10</b> Focus			
	<p>0 – 255    Focus adjustment from far to near</p>		

## Channel 11- Pan reguration

<b>CH 11</b> Pan Cors.			
	<p>CH-11 The “head” of the unit is allowed to turn horizontally from zero to 570 degrees.</p>		

## Channel 12 Tilt reguration

<b>CH 12</b> Tilt Cors.	
The “head” of the unit is allowed to turn vertically from zero to 270 degrees	

## Channel 13 Pan fine-tune

<b>CH 13</b> Pan Fine	While rotating horizontally the “head” is allowed to be fine tuned from zero to 2.2 degrees.
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## Channel 14 Tilt fine-tune

<b>CH 14</b> Tilt Fine	While rotating vertically the “head” is allowed to be fine tuned from zero to 1 degree.
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## Channel 15 - Control

<b>CH 12</b> Control	
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## Channel 16- Lamp switch

<b>CH 16</b> Lamp SW											
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; text-align: center;">0 – 47</td> <td>Standby</td> </tr> <tr> <td style="text-align: center;">48 – 95</td> <td>Lamp "on" 3 seconds later</td> </tr> <tr> <td style="text-align: center;">96 – 159</td> <td>Standby</td> </tr> <tr> <td style="text-align: center;">160 – 207</td> <td>Lamp "off" 3 seconds later</td> </tr> <tr> <td style="text-align: center;">208 – 255</td> <td>Standby</td> </tr> </table>		0 – 47	Standby	48 – 95	Lamp "on" 3 seconds later	96 – 159	Standby	160 – 207	Lamp "off" 3 seconds later	208 – 255	Standby
0 – 47	Standby										
48 – 95	Lamp "on" 3 seconds later										
96 – 159	Standby										
160 – 207	Lamp "off" 3 seconds later										
208 – 255	Standby										

## ***Channels arrangement***

Selected function	CHn1 OFF	CHn1 OFF	CHn1 ON	CHn1 ON
	16bit OFF	16bit ON	16bit OFF	16bit ON
CH 1	Dimmer	Dimmer	Pan coarse	Pan coarse
CH 2	Shut	Shut	Tilt coarse	Tilt coarse
CH 3	Color 1	Color 1	Dimmer	Pan fine
CH 4	Color 2	Color 2	Shut	Tilt fine
CH 5	Gobo 1	Gobo 1	Color 1	Dimmer
CH 6	Gobo 2	Gobo 2	Color 2	Shut
CH 7	Gobo 2 rotate	Gobo 2 rotate	Gobo 1	Color 1
CH 8	Prism with rotate	Prism with rotate	Gobo 2	Color 2
CH 9	Iris	Iris	Gobo 2 rotate	Gobo 1
CH 10	Focus	Focus	Prism with rotate	Gobo 2
CH 11	Pan coarse	Pan coarse	Iris	Gobo 2 rotate
CH 12	Tilt coarse	Tilt coarse	Focus	Prism with rotate
CH 13	Control	Pan fine	Control	Iris
CH 14	Lamp SW	Tilt fine	Lamp SW	Focus
CH 15		Control		Control
CH 16		Lamp SW		Lamp SW

## Control Board



<i>Addr</i>	Press ▲ to increase DMX Address; ▼ to decrease. Press ▲▼ simultaneously to zero DMX address.
<i>L.P.T.</i>	Lamp used timer Press ▲▼ simultaneously for 3 seconds to zero lamp time . Unit : hour
<i>Shut</i>	Off: Normal, but shutter closes only when iris is fading in/out. On: Shutter closes during changing color1 · color2 · gobo1 · gobo2 · prism or iris . Shutter opens after color1 · color2 · gobo1 · gobo2 · prism and iris are properly positioned.
<i>Col.1</i>	Off: Color1 wheel linear movement On: Color1 wheel fixed step advance
<i>Col.2</i>	Off: Color2 wheel linear movement On: Color2 wheel fixed step advance
<i>iris</i>	Off: Iris dims from narrow to wide On: Iris dims from wide to narrow
<i>Focu</i>	Off: Normal On: Focus adjustment
<i>r.PAn</i>	Off: Adjust X-axis from 0° to 570°. On: Adjust X-axis from 570° to 0°.
<i>r.tilt</i>	Off: Adjust Y-axis from 0° to 270°. On: Adjust Y-axis from 270° to 0°.
<i>l.b.br</i>	Off: 8bit control model On: 16bit control model
<i>dENo</i>	Off: Normal On: Self-demonstration
<i>SoFT</i>	Off: Quick paced function demonstration. On: Slow paced function demonstration.
<i>dP.SE</i>	Off: Display off ; On: Display on While 'Off', press any key to turn on the display
<i>rSET</i>	Off: Normal On: Self-zero all motors once
<i>dF.SE</i>	Off: Normal On: Reset the unit as ex-works.Default returns to "OFF" position.
<i>LAMP</i>	Off:Lamp off                      Con : Lamp off & on via DMX control On:Lamp on
<i>turn</i>	Off:Usually watch display. On:Reverse watch display.
<i>CHnL</i>	Off: Assign Pan & Tilt's DMX address to channel 11-14 On: Assign Pan & Tilt's DMX address to channel 1-4
<i>F.t.</i>	Fixture used timer, Press ▲▼ simultaneously for 3 seconds to zero the timer. Unit : hour

- ◎ Press ◀▶ simultaneously returning to " Addr " .
- ◎ Press ◀▶ simultaneously in advance before switching on the unit, release ◀▶ to erase all recorded data after switching the unit as ex-works.
- ◎ Once operation stopped, the unit stores all data. When restarting the unit, it starts with the latest play of last operation before turning off the unit.



## **Maintenance**

Refer maintenance to qualified technicians. Please disconnect power and signal wire before maintaining fixtures.

In order to preserve OBY-5 in good condition, keep the routine maintenance by following date.

The steps are as follows:

- The dichroic colour-filters, the metal gobo-wheel, the internal lenses and cooling fans should be cleaned with soft brush monthly.
- The interior of the fixture should be cleaned at least half-yearly using a vacuum-cleaner or an air-jet.

**Caution:** Be careful not to damage the interior mechanical structures or circuits when using the air-jet.

- To ensure a proper function and smooth rotation of the gobo-wheel, we recommend lubrication in six-month intervals.

**Caution:** Avoid the damage of interior structures when fixtures rotated, do not use excess lubrication.

Due to emit fog frequently, the optical lens and gobos would be oily; thus luminosity would be weak. We recommend using moist cloth or a trace of detergents to wipe them every two weeks. (Prohibit using the detergents consisted of alcohol and solvents.)

## **Replacing the Fuse**

If the fixture does not function, that may be the fuse was burned out. It may be time to replace the fuse of same type and specification for eliminating this fault.

Remove the electric power and flip the switch to " off " position before replacing the fuse.

Replace the fuse as follows:

Step 1: Unscrew the screw of the fuse holder on the housing counterclockwise with appropriate tools.

Step 2: Remove the broken fuse and then replace the new fuse.

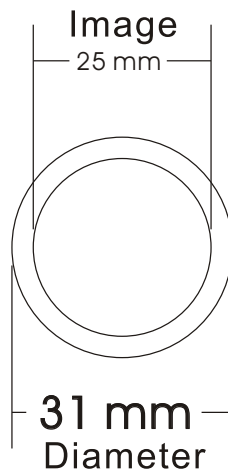
Step 3: Reinsert and tighten the screw on the fuse-holder.

Step 4: Turn the power on for test.

Please contact with the dealer if the fixture still cannot work or the fuse burns out again.

## **Appendix A**

### GOBO Size



# Product Specifications

## **Physical**

Dimension(L x W x H): 400 x 380 x 540mm  
 Weight: 26kg

## **AC supply**

AC input: Certified power cord with plug or without plug  
 Voltage: 220V, 230, 240V 50/60Hz: 100V,120V 50/60Hz  
 Fuse: AC 230V: 7A/250V AC 100V~120V:15A/250V  
 Power Consumption: 800W

## **Control and programming**

Signal pinout: pin 1 shield, pin 2 (-), pin 3 (+)  
 Setting and addressing: LED control panel  
 Protocol: USITT DMX-512  
 Pan/tilt resolution: 8 or 16 bit  
 DMX channels: 14-16  
 Signal input: 3-pin XLR male  
 Signal output: 3-pin XLR female

## **Source**

Lamp: 575W discharge  
 Base: SFC10-4  
 Approved models: Philips MSI-575/HR (1000 hr; 6000K)  
 Philips MSI-575/2 (1000 hr; 6500K)  
 Control: Automatic and DMX remote on/off

## **Electromechanical effects**

Color wheel 1: 11 dichroic colors+white  
 Color wheel 2: 11 dichroic colors+white  
 Fixed gobo wheel: 9 replaceable gobos+white  
 Rotating gobo wheel: 6 replaceable gobos+white  
 Gobo rotation: adjustable speed and position direction  
 Dimmer: 0-100% linear dimmer  
 Strobe: 1-7Hz fast flashing  
 Rotating 3-facet prism: in/out variable speed and direction  
 Focus: 2m-infinity  
 Iris: Mini 4° -Max 15°  
 Pan: 0° ~570°  
 Tilt: 0° ~270°  
 Wheel control: auto-electronic reset

## **Gobos**

Metal gobo: Diameter:31 mm  
 Maximum image diameter:25 mm  
 Metal type:white iron  
 Glass gobo: Diameter:31 mm  
 Maximum image diameter:25 mm  
 Glass type:heat-resistant and intensify glass  
 Glass coating:dichroic

