MOVING HEAD™ OBY-5

User manual

CAUTION!

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

contents

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

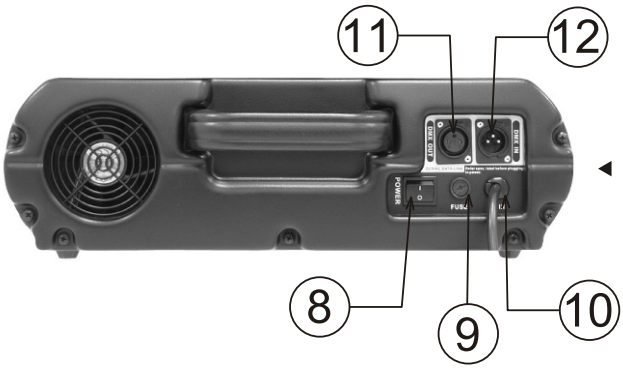
Stylish, high impact resistant polymer shell, which is lighter than anyone else of the same class in the market.
Solid square base is convenient set on the TRUSS, or directly stand on the ground or stage for uses.
Systematic modular construction design has all inner function wheels and PCBs modularized, 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.

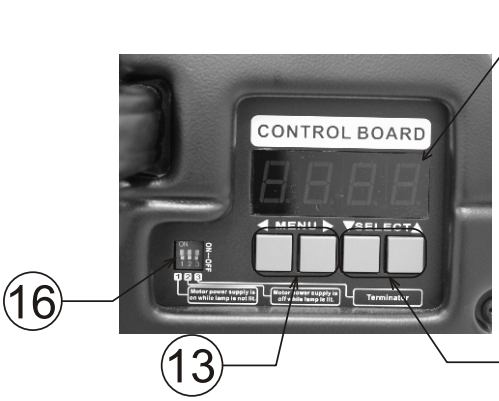
Description of the appearance

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

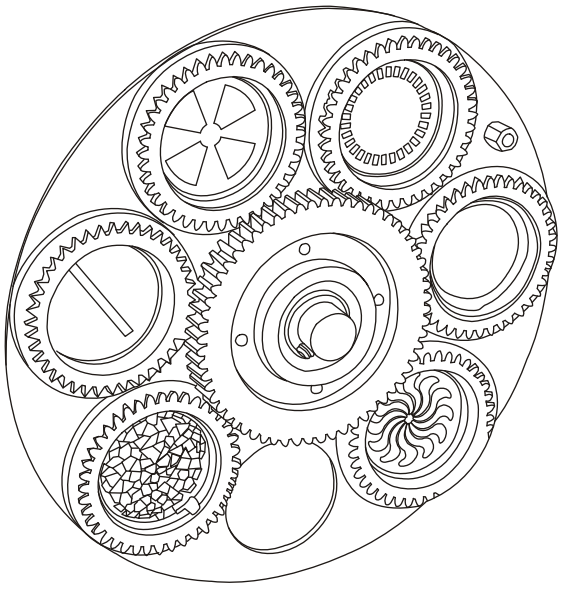
Inspection

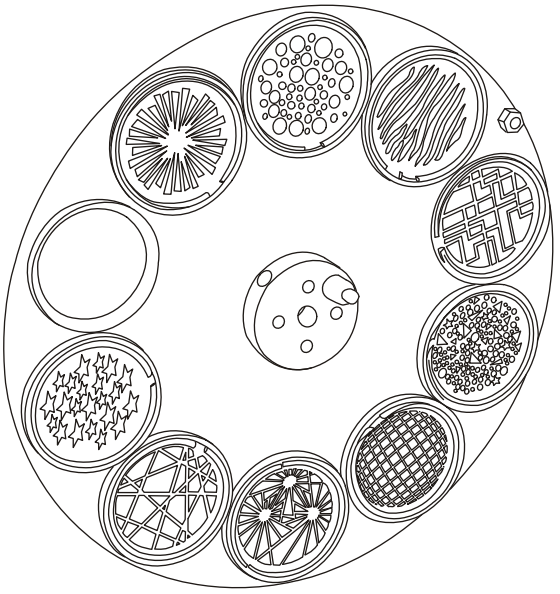
Carefully unpack the carton, and make sure if any damage or loss caused by transportation.

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

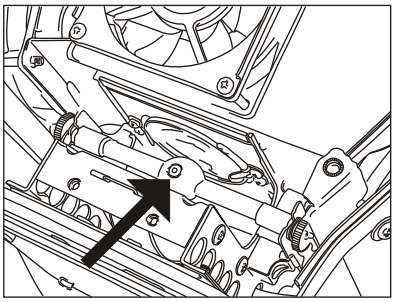
- This appliance must be earthed (grounded).
- Disconnect power before removing covers or servicing.
- Keep case closed while operating.
- OBY-5 contains no user serviceable parts. Refer servicing to qualified technicians only.
- Lamp and components become hot during operation. Allow time to cool before 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 !
Remove the power cord before installing the lamp.

Keep projector-head upward (See Figure below.) and loosen three screws on the cover with appropriate tool then open the top cover and put it aside.

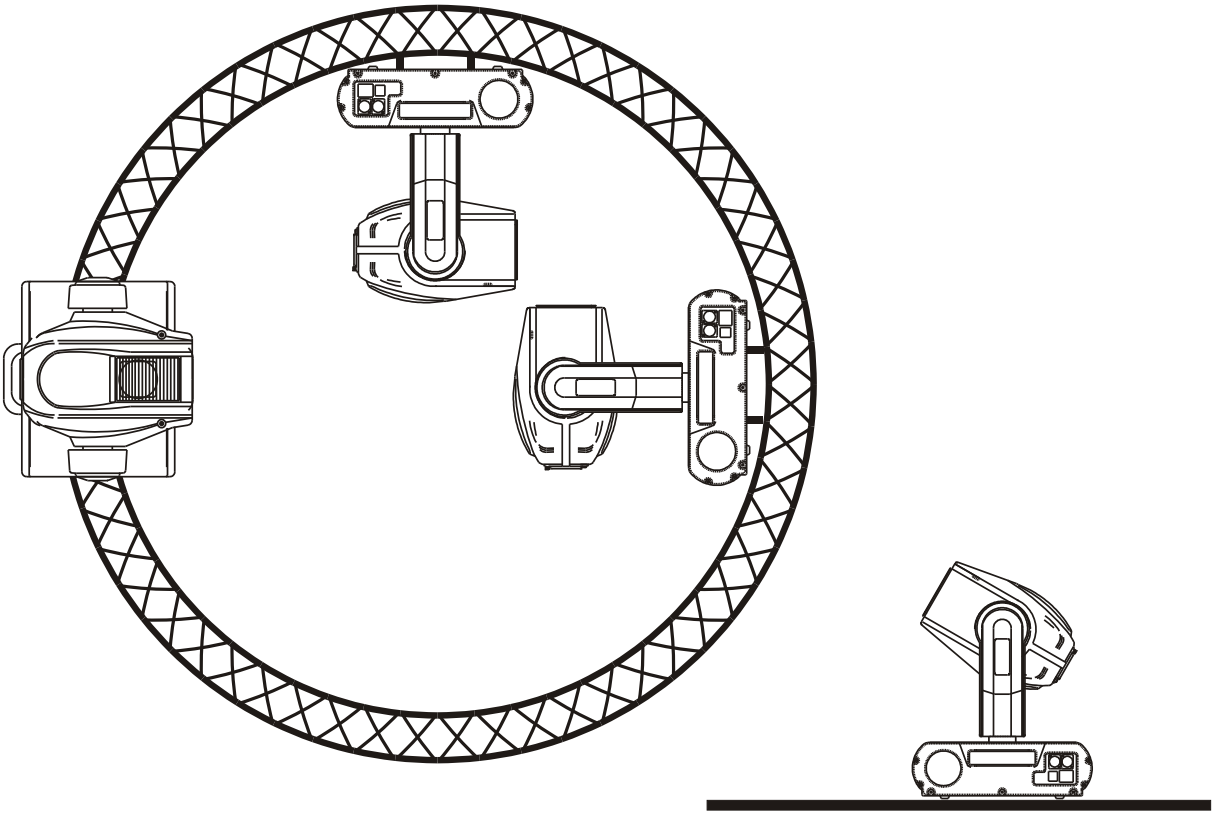
Loosen and grab the screws on the shutter cover with appropriate tool.



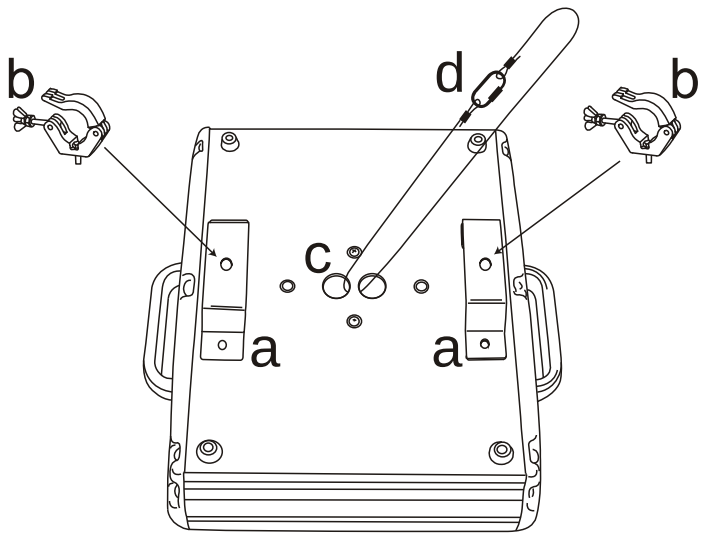
Wear the gloves and extract the lamp from the package, loosen the screws on both sides of the lamp, then slide the lamp paralleled into the lamp socket. Adjust the round point of the lamp upward (See Figure.) and fasten the screws snugly.
Reverse the above-mentioned processes for the complete installation.

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:

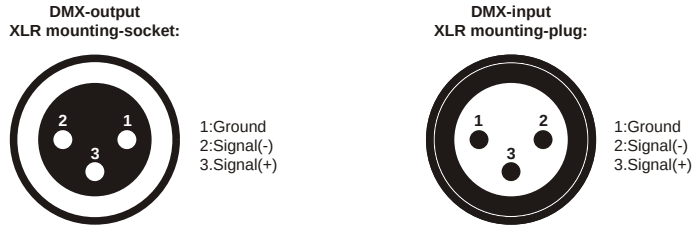
Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	⏚

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:



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.

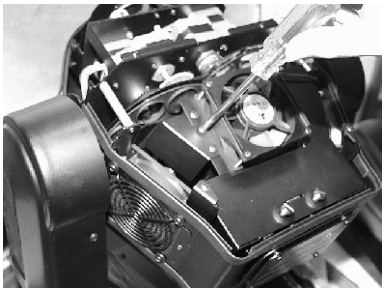
Instructions for gobo replacement

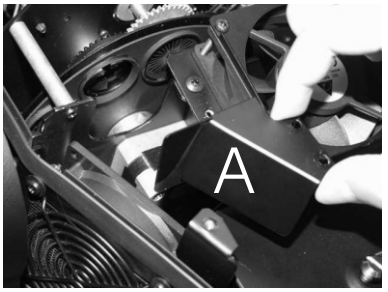
DANGER!
Install the gobos with the device switched off only. Unplug from mains before!

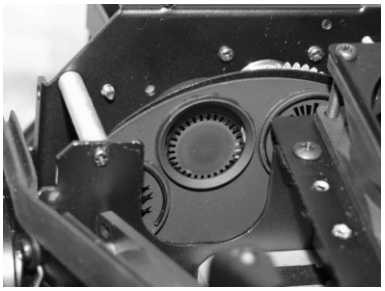
Please choose the suitable gobo dimensions of this fixture. (Appendix A)

Rotating GOBO wheel

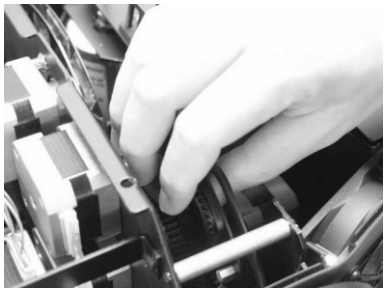
1. Open the top cover (*Refer to the steps of lamp installation.), and loosen the screws with appropriate tools then extract A . (See the figures below.)







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.

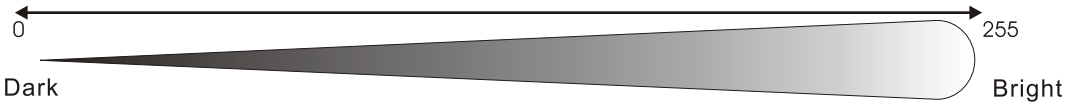
Fixed GOBO wheel

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.

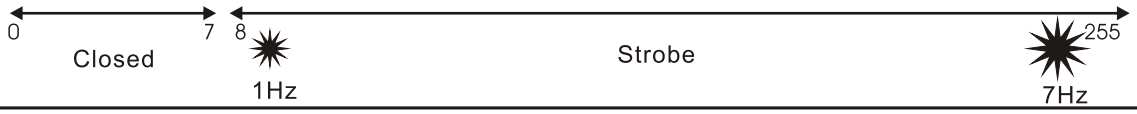
DMX Channel chart

Function of the control channels - 16 bit protocol

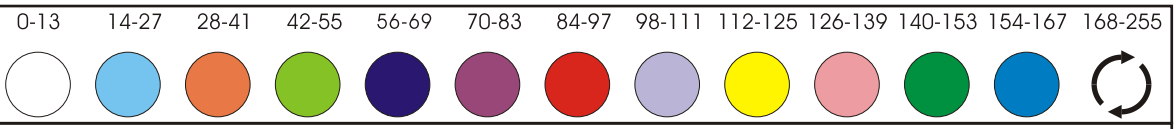
Channel 1 - Dimmer intensity

CH 1 Dimmer	
0-255	Gradual adjustment of the dimmer intensity from 0 to 100 %

Channel 2 - Shutter, Strobe

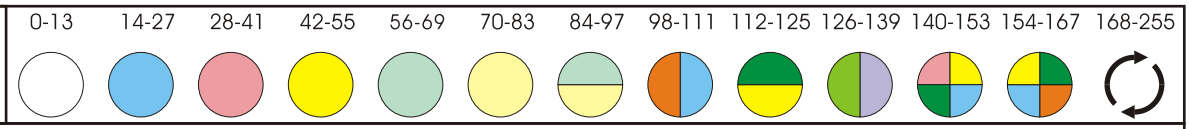
CH 2 Shut	
0-7	Shutter closed
8-255	Strobe-effect from slow to fast (max. 7 flashes/second)

Channel 3 - Color wheel 1

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

Channel 4 - Color wheel 2

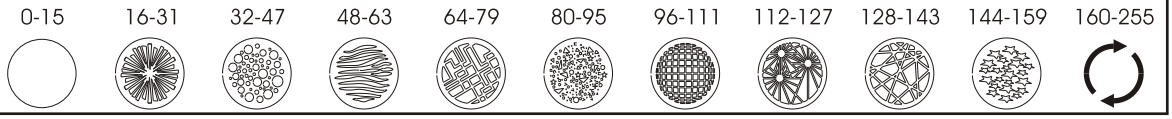
CH 4
Color 2



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

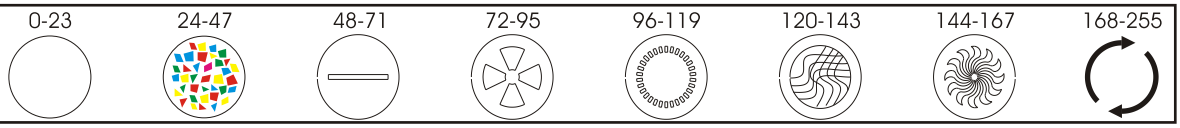
Channel 5 - ixed gobo wheel

CH 5
Gobo 1



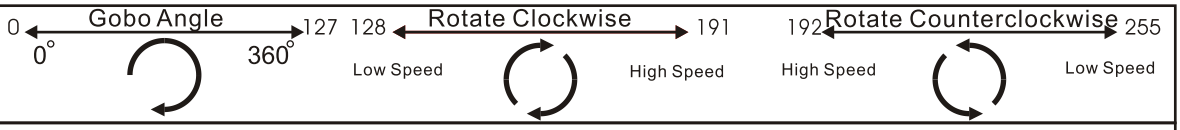
Channel 6 - Rotating gobo wheel

CH 6
Gobo 2



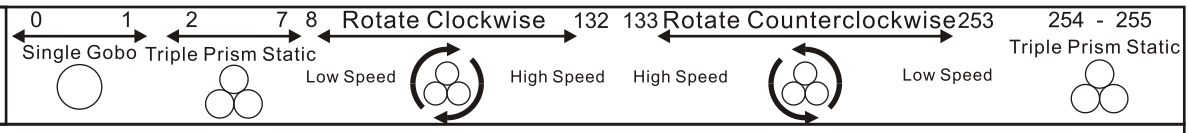
Channel 7 - indexing & Rotating gobo rotation

CH 7
Gobo 2
Rotate



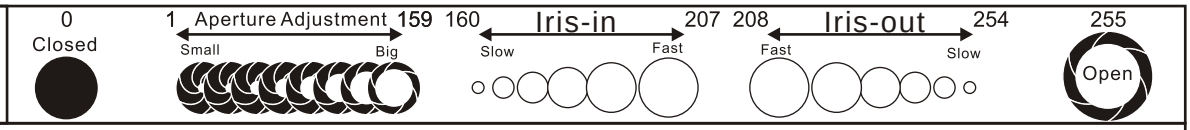
0 – 127	Rotating gobo angle adjustment from zero to 360 degrees.
128 – 191	Forwards gobo rotation from fast to slow
192 – 255	Backwards gobo rotation from slow to fast

Channel 8- Prism-wheel



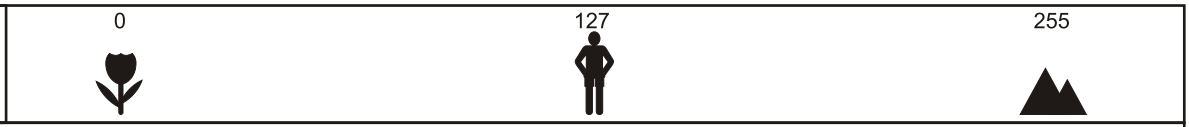
0 – 1	Open position
2 – 7	Triple prism static
8 – 132	Triple prism forwards rotation from fast to slow
133 – 253	Triple prism backwards rotation from slow to fast
254 – 255	Triple prism static

Channel 9- Iris



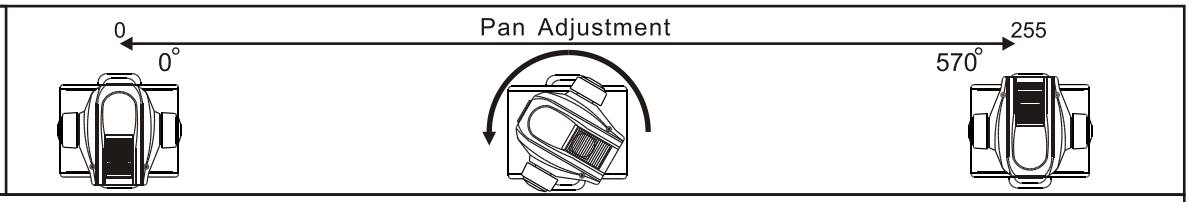
0	Closed
1 – 159	Min. Diameter to max. diameter
160 – 207	Iris-in from slow to fast
133 – 253	Iris-out from fast to slow
254 – 255	Open

Channel 10- Focus



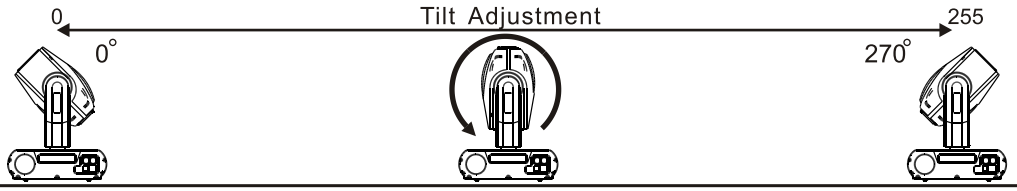
0 – 255	Focus adjustment from far to near

Channel 11- Pan reguration



CH-11 The "head" of the unit is allowed to turn horizontally from zero to 570 degrees.

Channel 12 Tilt reguration

CH 12 Tilt Cors.	
The "head" of the unit is allowed to turn vertically from zero to 270 degrees	

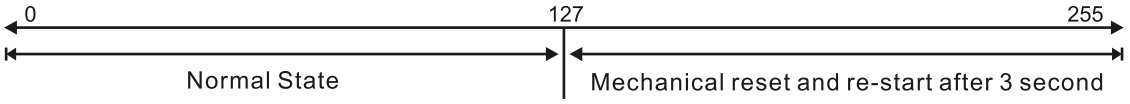
Channel 13 Pan fine-tune

CH 13 Pan Fine	While rotating horizontally the "head" is allowed to be fine tuned from zero to 2.2 degrees.

Channel 14 Tilt fine-tune

CH 14 Tilt Fine	While rotating vertically the "head" is allowed to be fine tuned from zero to 1 degree.

Channel 15- Reset

CH 15 Reset	

0 – 127	Normal state
127 – 255	Mechanical reset and re-start after 3 seconds

Channel 16- Lamp switch

CH 16 Lamp SW	

0 – 47	Standby
48 – 95	Lamp "on" 3 seconds later
96 – 159	Standby
160 – 207	Lamp "off" 3 seconds later
208 – 255	Standby

Function of the control channels - 8 bit protocol

DMX Channel	Function
1	DIMMER
2	SHUT
3	COLOR 1
4	COLOR 2
5	GOBO 1
6	GOBO 2
7	GOBO 2 ROTATE
8	PRISM AND ROTATE
9	IRIS
10	FOCUS
11	PAN COARSE
12	TILT COARSE
13	AUTO RESET
14	LAMP ON/OFF

Control Board

Addr	Press ▲ to increase DMX Address; ▼ to decrease. Press ▲▼ simultaneously to zero DMX address.
LP.ti	Used lamp time Press ▲▼ simultaneously to zero lamp time , unit: hour
Shut	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.
CoL.1	Off: Color1 wheel linear movement On: Color1 wheel fixed step advance
CoL.2	Off: Color2 wheel linear movement On: Color2 wheel fixed step advance
iri S	Off: Iris dims from narrow to wide On: Iris dims from wide to narrow
Focu	Off: Normal On: Focus adjustment
r.PAn	X-axis- Off: left to right On: right to left
r.tilt	Y-axis- Off: down to up On: up to down
16bit	Off: 8bit control model On: 16bit control model
dEMo	Off: Normal On: Self-demonstration
SoFt	Off: Quick paced function demonstration. On: Slow paced function demonstration.
dP.SE	Off: Display off ; On: Display on While 'Off ', press any key to turn on the display
rSEt	Off: Normal On: Self-zero all motors once
dF.SE	Off: Normal On: Reset the unit as ex-works. Default returns to "OFF" position.
LAMP	Off: Lamp off On: Lamp on

- 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.

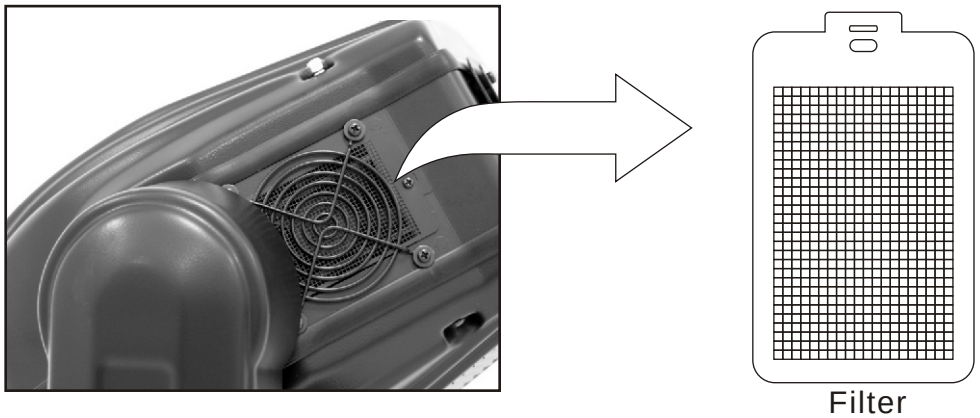
Maintenance

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:

- Take the filter out (See Figure.) and clean it every two weeks.



Filter

- 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.

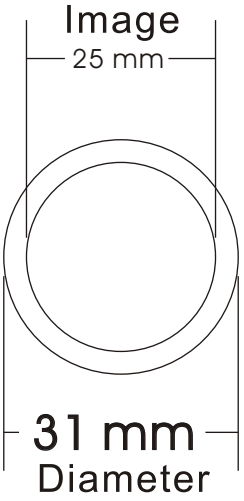
Step 3: Reinsert and tighten the screw on the fuse-holder.

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

Dimensions： 400x380x540mm (LxWxH)
Weight：26 kg
Voltage：230V 50/60Hz
Fuse: 10A/250V
Signal：USITT DMX512
Lamp：MSI 575 / 2