MOVING HEAD™ OBY-3

User manual

BEGLEC

CAUTION!

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

Exclusive Distribution:

WWW.BEGLEC.COM

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

Ideal & powerful effects

- 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.
- 11 sharp dichroic colors + white.
- 6+1 easily replaceable rotating gobos.
- Various kinds of glass gobos are available for clients' choices.
- Rotating three facet prism.
- 1-7Hz fast flashing and 0-100% linear dimmer.
- Remote-controlled focus.
- Remote-controlled lamp switch ON/OFF.

Attractively smooth design

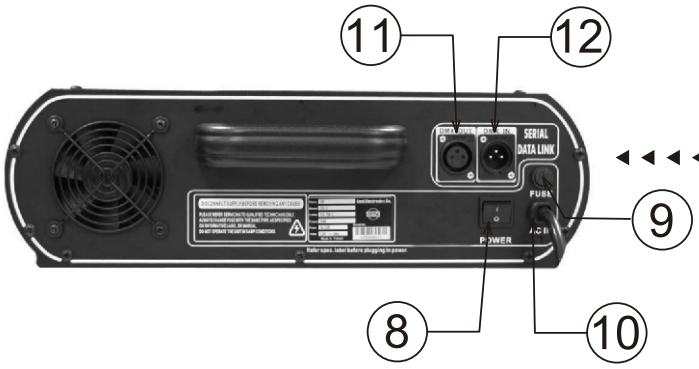
- Stylish, high impact resistant polymer shell, which is lighter than any one else of the same class in the market.
- Solid square base is convenient set on the TRUSS, or directly stand on the ground or stage for uses.
- Systematic modular construction design has all inner function wheels and PCBs modularized, 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, 13 or 11 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.

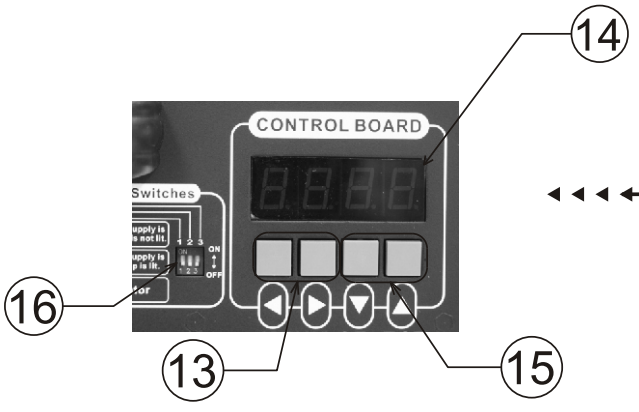
Description of the appearance

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-3 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-3 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!

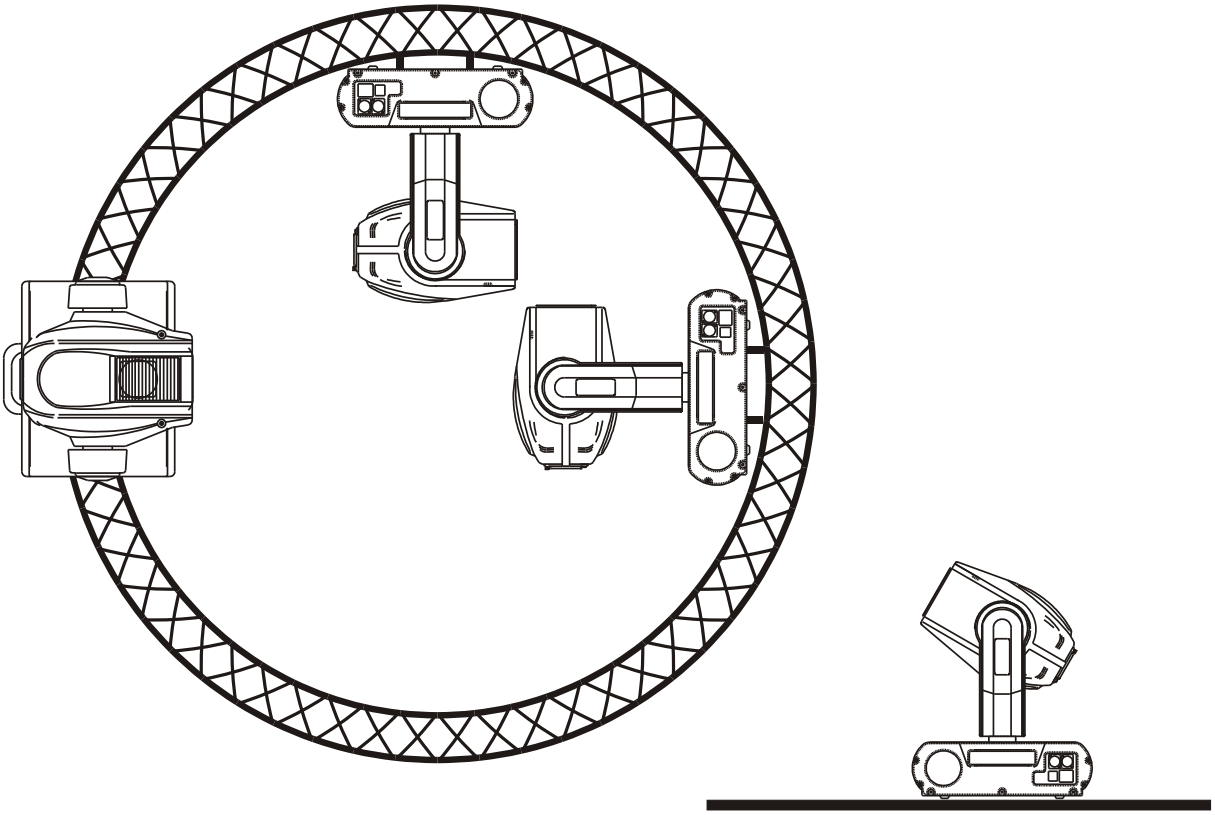
When replacing the lamp, please wait 15 minutes after powering down to allow the unit to cool down! Always disconnect from main power prior to lamp replacement.

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.

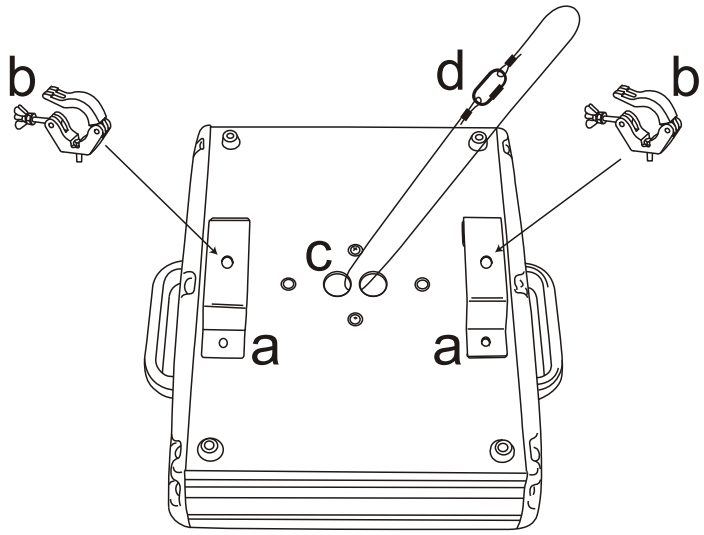
1. Remove screws (S1) and (S2) as Shown in the illistration to remove lamp top cover.
2. Remove the 2 thumbscrews (S3) to remove lamp lower cover as illustrated.
3. If replacing the lamp, remove old lamp first.
4. With a clean cloth or napkin, hold the new lamp by the glass top end, align the pins on the lamp with the holes in the socket and insert the lamp squarely until the lamp socket secures the lamp tightly.
5. Clean the glass/envelope of the bulb with an alcohol wipe or equivalent.
6. Replace lamp lower cover, align the screw holes and fasten the thumbscrews back onto the lamp lower cover.
7. If you are replacing the lamp, you may want to log the fixture hours in order to track the lamps use.
8. Replace lamp top cover and fasten with screws.

Rigging:

Oby-3 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:

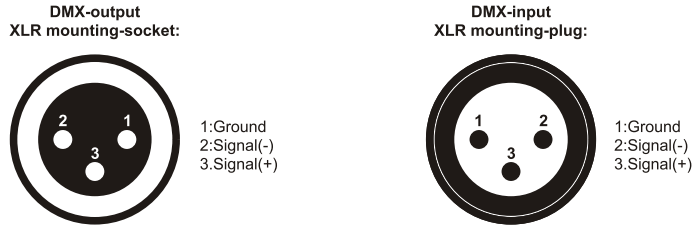
Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	⏚

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.

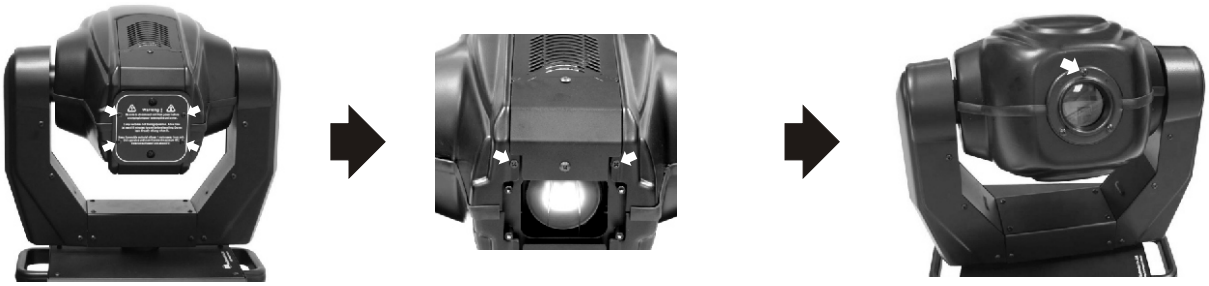
Instructions for gobo replacement

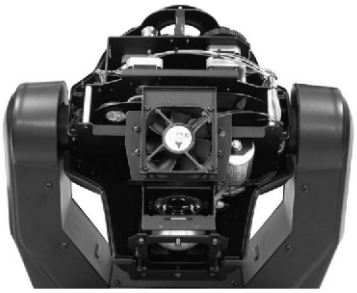
DANGER!
Install the gobos with the device switched off only. Unplug from mains before!

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

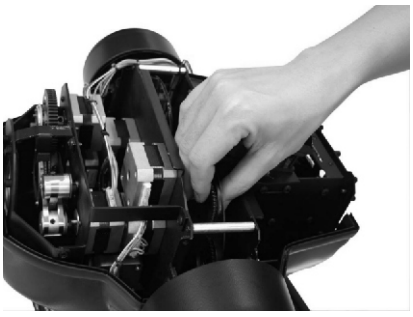
Rotating GOBO wheel

1.Loosen the arrow-indicated screws in order with appropriate tools.





2.Open the top cover.



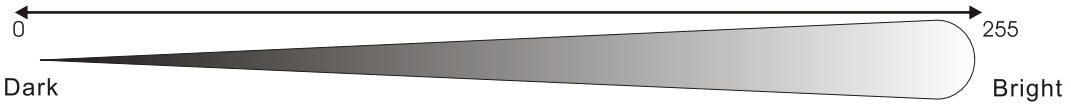
3.Push GOBO & the spring ring out with the fingers carefully. (*Caution: Avoid falling the spring ring into the fixture.)

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

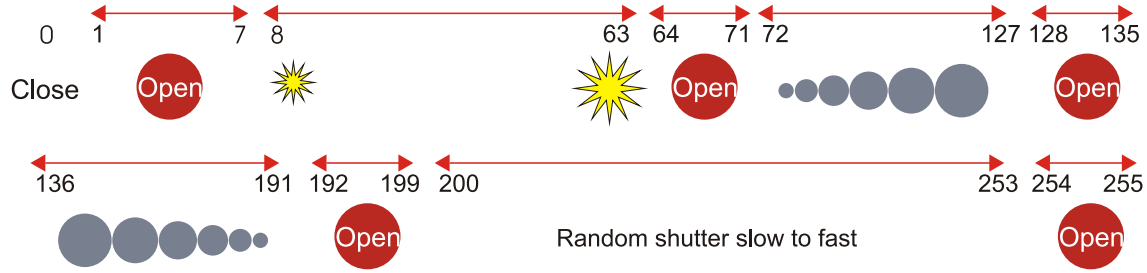
DMX Channel chart

Function of the control channels - 16 bit protocol

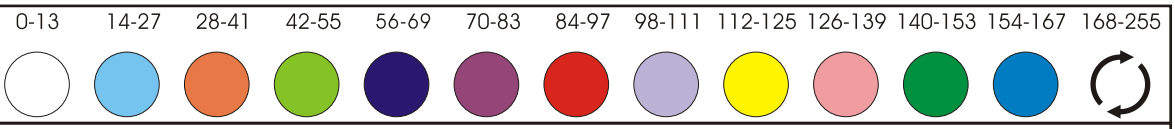
Channel 1 - Dimmer intensity

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

Channel 2 - Shutter, Strobe

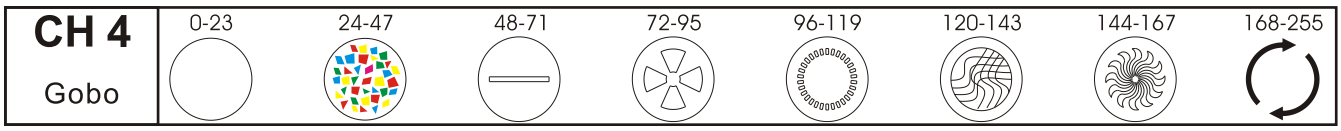
CH 2 Shut	

Channel 3 - Color wheel

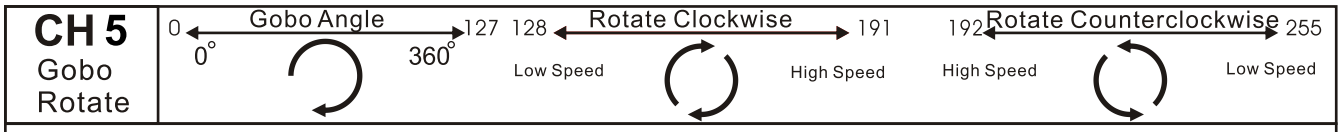
CH 3 Color	

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 - Rotating gobo wheel

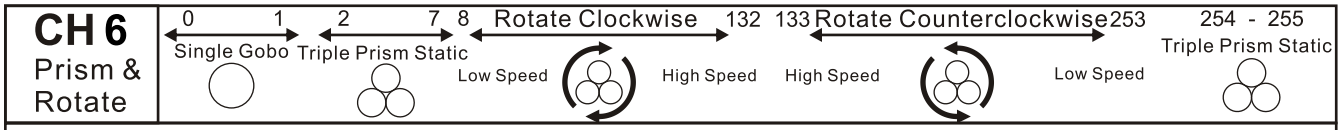


Channel 5 - indexing & Rotating gobo rotation



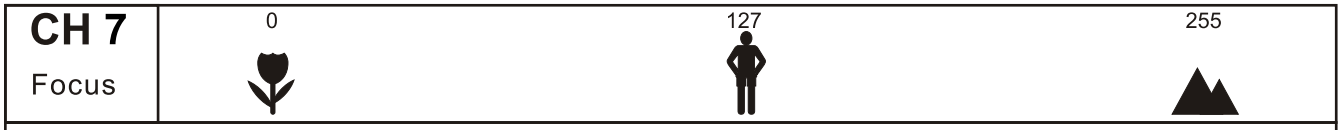
0 – 127	Rotating gobo angle adjustment from zero to 360 degrees.
128 – 191	Forwards gobo rotation from fast to slow
192 – 255	Backwards gobo rotation from slow to fast

Channel 6- Prism-wheel



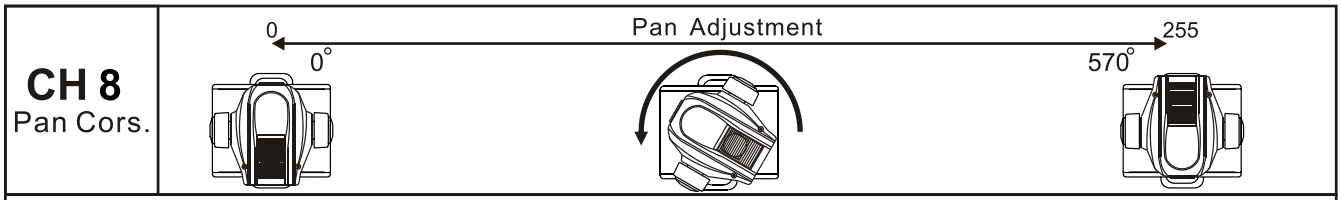
0 – 1	Open position
2 – 7	Triple prism static
8 – 132	Triple prism forwards rotation from fast to slow
133 – 253	Triple prism backwards rotation from slow to fast
254 – 255	Triple prism static

Channel 7- Focus



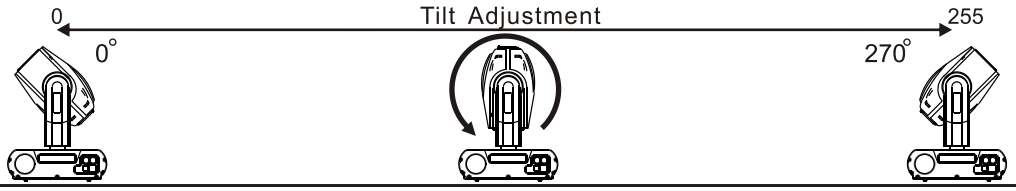
0 – 255	Focus adjustment from near to far

Channel 8- Pan reguration



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

Channel 9 Tilt reguration

CH 9 Tilt Cors.	
The “head” of the unit is allowed to turn vertically from zero to 270 degrees	

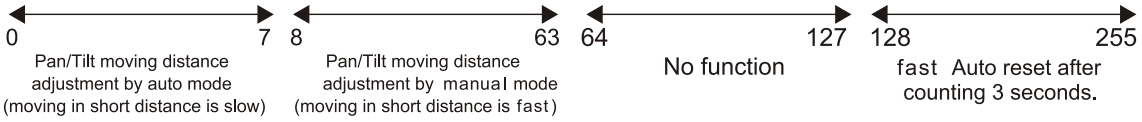
Channel 10 Pan fine-tune

CH 10 Pan Fine	While rotating horizontally the “head” is allowed to be fine tuned from zero to 2.2 degrees.

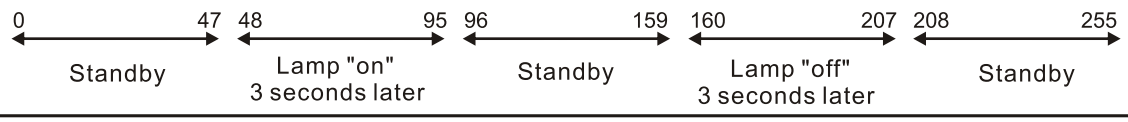
Channel 11 Tilt fine-tune

CH 11 Tilt Fine	While rotating vertically the “head” is allowed to be fine tuned from zero to 1 degree.

Channel 12 -Control

CH 12 Control	

Channel 13- Lamp switch

CH 13 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

Channels arrangement

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

Control Board

Addr	Press ▲ to increase DMX Address; ▼ to decrease. Press ▲▼ simultaneously to zero DMX address.
LP.ti	Lamp used timer Press▲▼simultaneously for 3 seconds to zero lamp time. Unit : hour
Shut	Off : Normal On: Shutter closes during changing color、gobo or prism. Shutter opens after color、gobo and prism are properly positioned.
CoLo	Off: Color wheel linear movement On: Color wheel fixed step advance
Focu	Off: Normal On: Focus adjustment
r.PAn	Off: Adjust X-axis from 0˚ to 570˚. On: Adjust X-axis from 570˚ to 0˚.
r.tilt	Off: Adjust Y-axis from 0˚ to 270˚. On: Adjust Y-axis from 270˚ to 0˚.
16br	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 Con : Lamp off & on via DMX control On:Lamp on
turn	Off:Usually watch display. On:Reverse watch display.
CHnL	Off: Assign Pan & Tilt's DMX address to channel 8-11 On: Assign Pan & Tilt's DMX address to channel 1-4
Fi.ti	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-3 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.

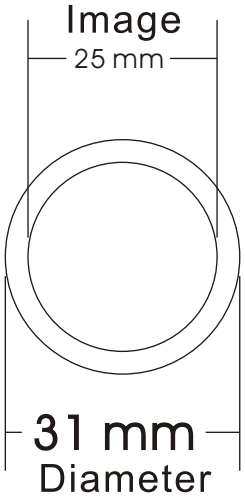
Step 3: Reinsert and tighten the screw on the fuse-holder.

Step 4: Turn the power on for test.

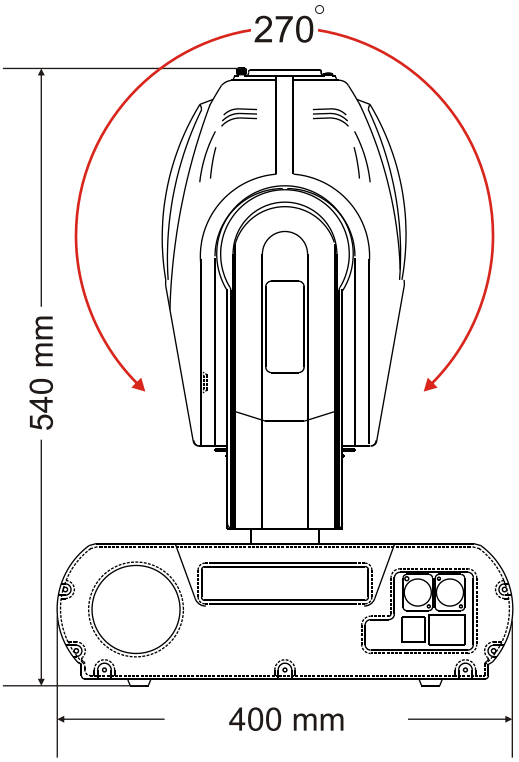
Please contact with the dealer if the fixture still cannot work or the fuse burns out again.

Appendix A

GOBO Size



Product Specifications



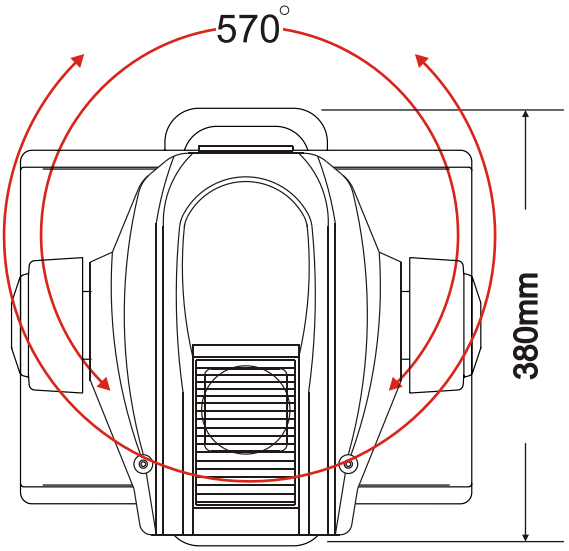
Physical
Dimension (L x W x H); 400 x 380 x 540 mm
Weight: 24 kg

AC supply
AC input: Certified power cord with plug or without plug
Voltage: 100V, 120V, 220V, 230V, 240V 50/60Hz
Fuse: 120V: 8A. 230V: 5A
Power Consumption: 350VA

Control and programming
Signal pin out: pin 1 shield, pin 2 (-), pin 3 (+)
Setting and addressing: LED control pane)
Protocol: USITT DMX-512
Pan/tilt resolution: 8 or 16 bit
DMX channels: 11-13
Signal input: 3-pin XLR male
Signal output: 3-pin XLR female

Source
Lamp: 250 W discharge
Base: GY9.5
Approved models: Philips MSD-250/2 (2000 hr; 8500K)
Philips MSD-250 (2000 hr; 6700K)
Osram HSD-250/2 (2000 hr; 7800K)
Osram HSD-250 (2000 hr; 6000K)
Control: Automatic and DMX remote on/off

Electromechanical effects
Color wheel : 11 dichroic colors + white
Rotating gobo wheel:6 replaceable gobos + white
Gobo rotation: adjustable speed and direction
Dimmer:0-100 linear dimmer
Strobe: 1-7Hz fast flashing
Rotating 3-facet prism: in/out variable speed and direction
Focus: 2m - infinity
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

Accessories
Half-coupler clamp