



→ USER MANUAL



Please read these user manual carefully before use

? Installation

Make sure all parts for fixing the projector are in a good state of repair .

Make sure the point of anchorage is stable before positioning the projector.

The safety chain must be properly hooked onto the fitting and secured to the framework, so that, if the primary support system fails, the fitting falls as little as possible.

If the safety chain gets used, it needs to be replaced with a genuine spare.


 MINIMUM DISTANCE OF ILLUMINATED OBJECTS

The projector needs to be positioned so that the objects hit by **12 metres (39.4)** from the lens of the projector.

 Minimum distance from flammable materials

The projector must be positioned so that any flammable materials are at least 0.20 metres (8") from every point on the surface of the fitting.


 Mounting surfaces

It is permissible to mount the fitting on normally flammable surfaces.

t_a 40°C

 Maximum ambient temperature

Do not operate the fixture if the ambient temperature (T_a) exceeds 40°C (104° F).

IP20

 IP20 protection rating

The fitting is protected against penetration by solid bodies of over 12mm (0.47") in diameter (first digit 2), but not against dripping water, rain, splashes or jets of water (second digit 0).


 Protection against electrical shock

Connection must be made to a power supply system fitted with efficient earthing (**Class I** appliance according to standard EN 60598-1).

It is, moreover, recommended to protect the supply lines of the projectors from indirect contact and/or shorting to earth by using appropriately sized residual current devices.

 Connection to mains supply

Connection to the electricity mains must be carried out by a qualified electrical installer.

Check that the mains frequency and voltage correspond to those for which the projector is designed as given on the electrical data label.

This label also gives the input power to which you need to refer to evaluate the maximum number of fittings to connect to the electricity line, in order to avoid overloading.

t_c 100°C

 Temperature of the external surface

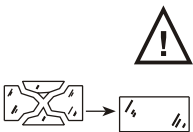
The maximum temperature that can be reached on the external surface of the fitting, in a thermally steady state, is 100°C (212°F).

 Maintenance

Before starting any maintenance work or cleaning the projector, cut off power from the mains supply.

After switching off, do not remove any parts of the fitting, to avoid getting burnt for at least 35 minutes. After this time the likelihood of the lamp exploding is virtually nil.

The fitting is designed to hold in any splinters produced by a lamp exploding. The lenses must be mounted and, if visibly Damaged, they have to be replaced with genuine spares.


 Lamp

The fitting mounts a high-pressure lamp that needs an external igniter. This igniter is fitted onto the apparatus.

-Carefully read the "operating instructions" provided by the lamp manufacturer.

-Immediately replace the lamp if damaged or deformed by heat.



? Battery

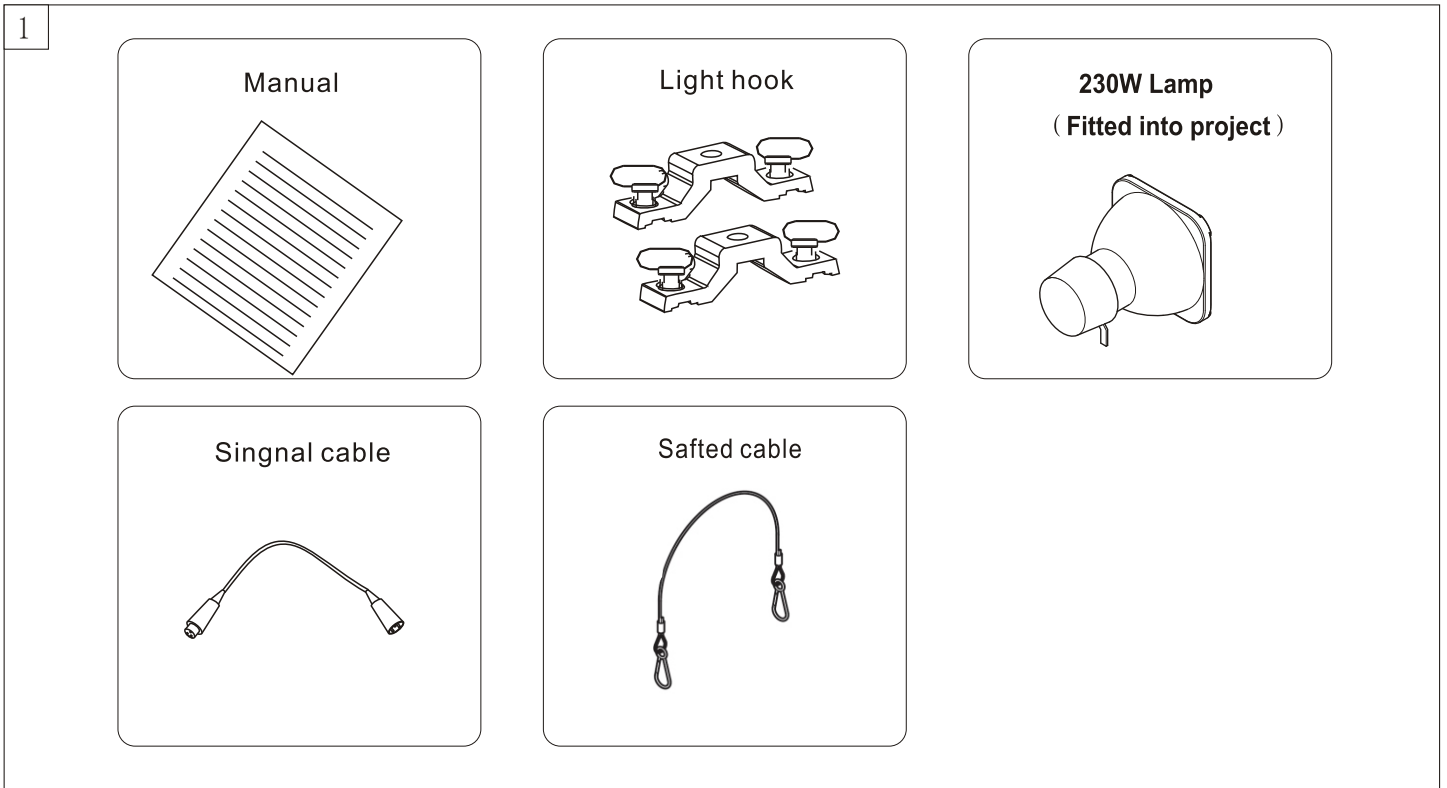
This product contains a rechargeable lead-acid battery. To preserve the environment, please Dispose the battery at the end of its life according to the regulation in force.



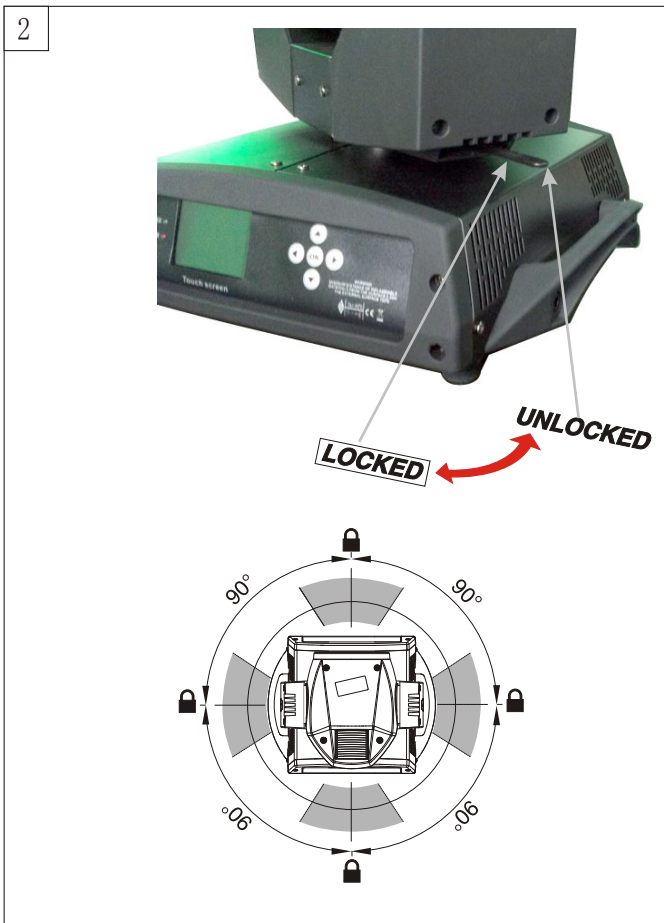
The products referred to in this manual conform to the European Community Directives to which they are subject:

Low Voltage 2006/95/CE

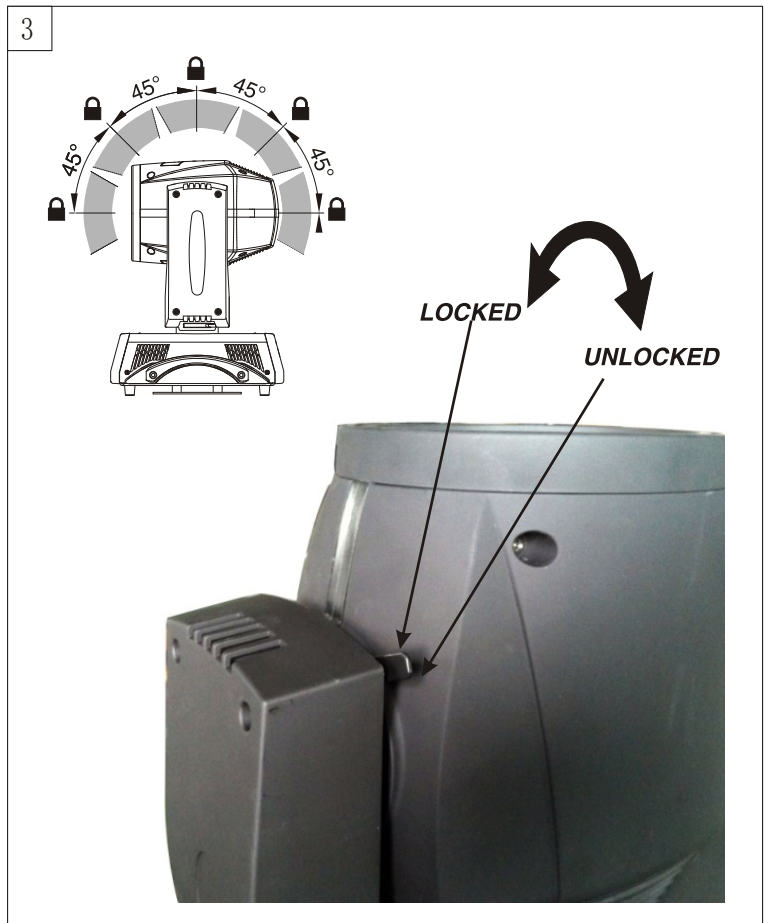
Electromagnetic Compatibility 2004/108/CE



Packing contents- Fig. 1

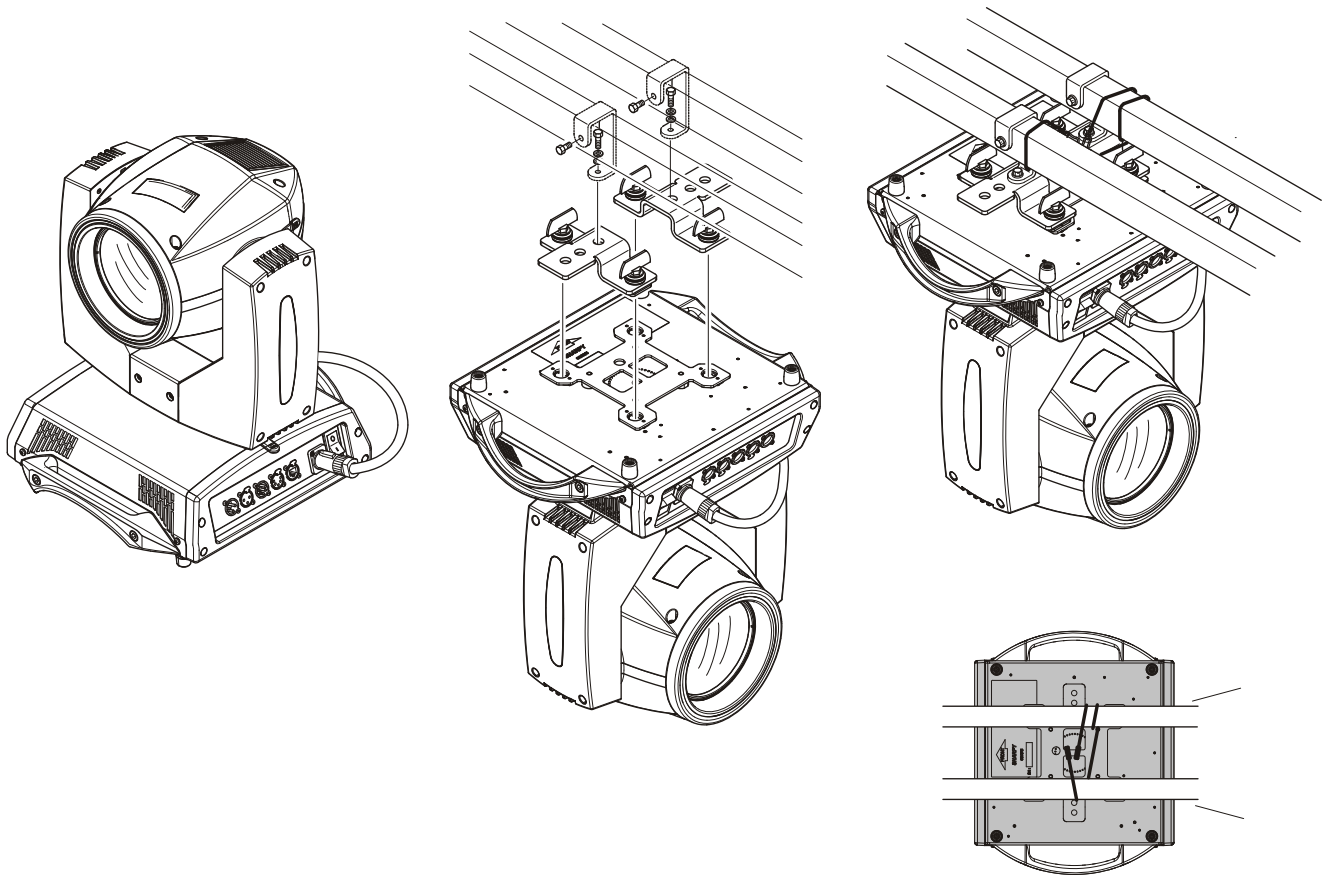


PAN Mechanism Lock and Release (every 90 °) -Fig. 2



TILT Mechanism Lock and Release (every 45 °) -Fig. 3

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Installing the projector- Fig. 4

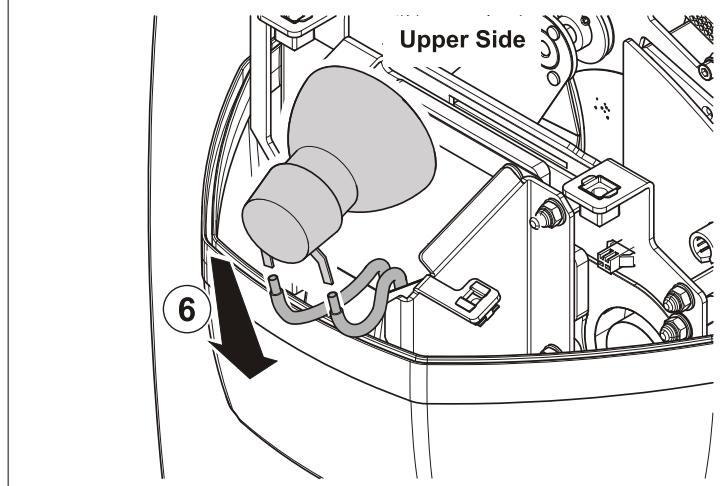
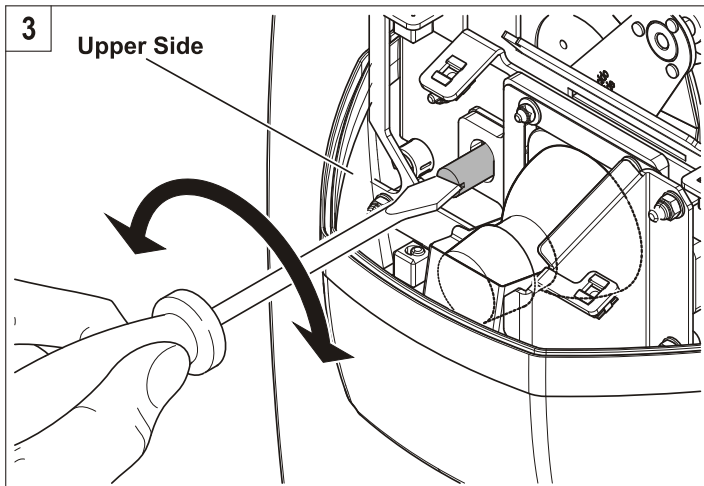
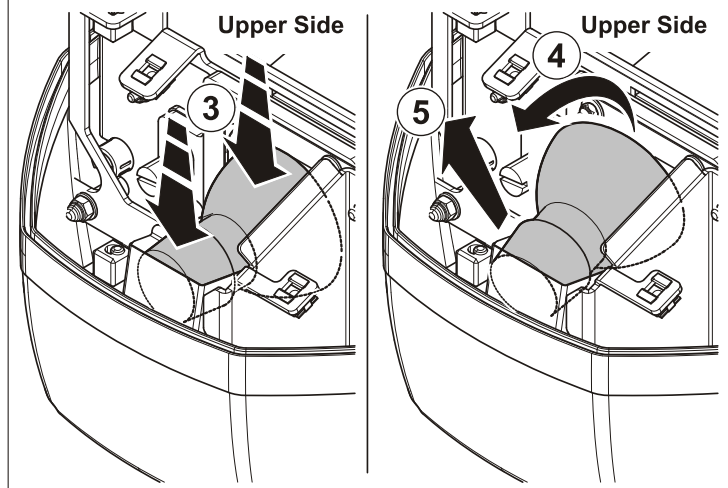
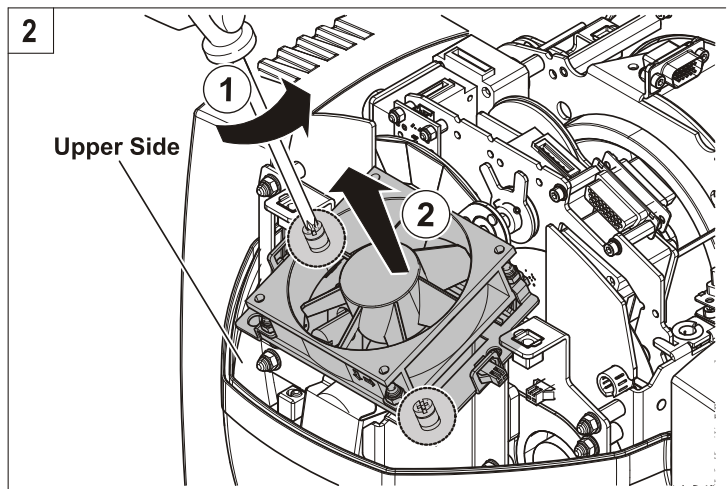
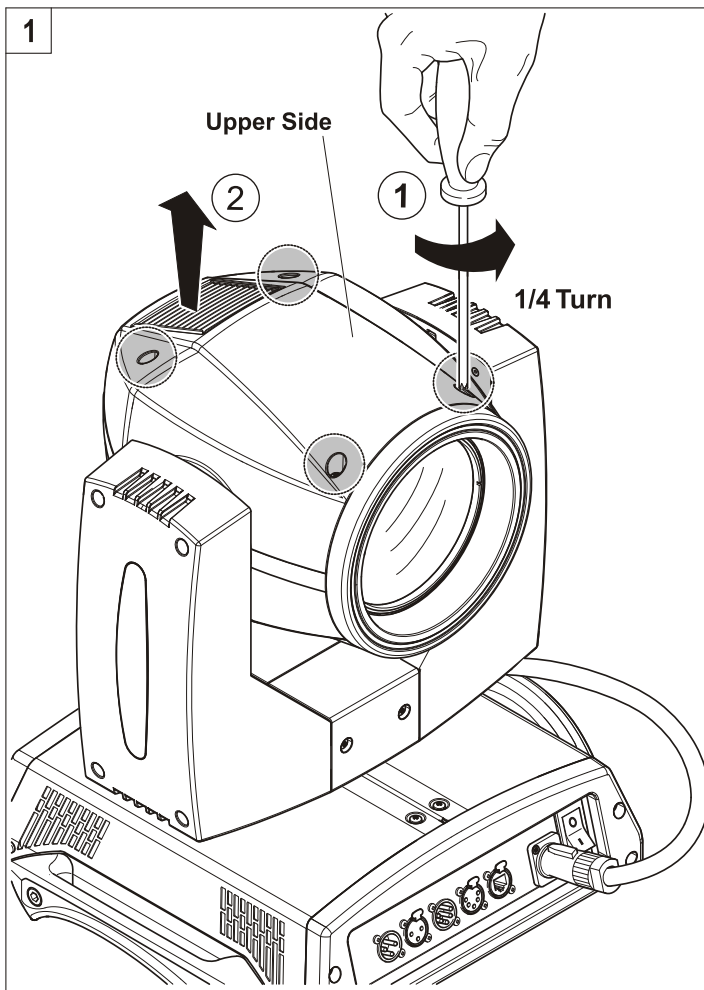
The projector can be installed on the floor resting on special rubber feet, on a truss or on the ceiling or wall.

WARNING:with the exception of when the projector is positioned on the floor, the safety cable must be fitted. (Cod. 105041/003 available on request). This must be securely fixed to the support structure of the projector and then connected to the fixing point at the centre of the base.

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Connecting and disconnecting power cable- Fig. 5



Opening and closing lamp compartment - Fig. 12

Lamp change- Fig 13

Take the new lamp out of its package and insert in the fitting.

WARNING:do not touch the lamps envelope with bare hands. Should this happen, clean the bulb with a cloth soaked in alcohol and dry it with a clean, dry cloth.

Lamp regulation- Fig. 14

To centre the lamp, turn the adjusting screw as shown in the figure.

WARNING:The lamp must be adjusted with the projector switched off. After adjusting, close the effects covers, switch on the projector and check that the adjustment has been correctly made. If necessary, switch off the projector, remove the effects covers and repeat lamp adjustment.

NOTE: To adjust the lamp vertically (with regard to the Y axis) after having replaced it, it may be necessary to operate the calibration in the menu advanced on the fixed gobo wheel channel.

TECHNICAL INFORMATION

Power supplies available

- 110V □ 220V □ 100-240V 50/60Hz

Lamp:

- Lamp system with a short arc burner in a reflector
- Type SIRIUS HRI 230W VS60 OSRAM or 180W OSRAM
 - Output Lamp power: 230W or 180W
 - Colour temperature 8000 K
 - Average life 2000 h
 - Any working position

Motors:

13 stepper motors, operating with microsteps,
Totally Microprocessor controlled.

Channels:

Standard 16 control channels, Max 20 control channels.

Zoom:

0° - 3.8°

Inputs:

- DMX 512/WIRELESS DMX 512(Apolegamic)

Movable body:

- Movement by means of two stepper motors,
Controlled by microprocessor.
- Automatic repositioning of PAN and TILT after
accidental movement not controlled by control
Unit
- Travel:
 - PAN = 540°
 - TILT = 250°
- Maximum speeds:
 - PAN = 3.5S (normal)/ 2.7S (fast)
 - TILT = 2.1S (normal)/ 1.6S (fast)
- Resolution:
 - PAN = 2.11°
 - PAN FINE = 0.008°
 - TILT = 0.98°
 - TILT FINE = 0.004°

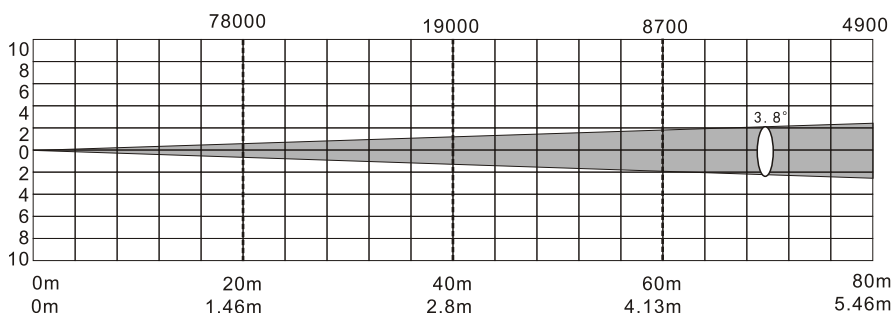
IP20 protection rating:

- Protected against the entry of solid bodies larger
than 12mm.
- No protection against the entry of liquids.

CE Marking:

In conformity with the European Union Low
Voltage
Directive 2006/95/CE and Electromagnetic
compatibility
Directive 2004/108/CE.

Photometric Data:



Safety Devices:

- Bipolar circuit breaker with thermal protection.
- Automatic break in power supply in case of
overheating or failed operation of cooling system.

Cooling:

Forced ventilation with axial fans.

Body:

- Aluminium structure with die-cast plastic cover.
- Two side handles for transportation.
- Device locking PAN and TILT mechanisms for
transportation and maintenance.

Working position

Functioning in any position.

Weights: 17.5 Kg.

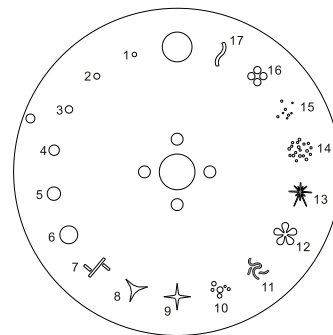
Box Size: 450x430x530(mm)

Flycase Size:

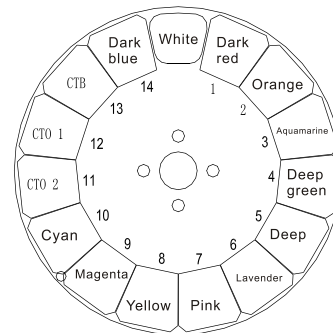
2PCS:755x660x680(mm)

4PCS:1025x810x680(mm)

Gobo Wheel(please refer to the actual material):



Color Wheel:



CHANNEL FUNCTION



CHANNEL	CHANNEL MODE	
	STANDARD (16)	VECTOR (20)
1	COLOUR WHEEL	COLOUR WHEEL
2	STROBE	STROBE
3	DIMMER	DIMMER
4	FIXGOBO	FIXGOBO
5	PRISM INSERTION	PRISM INSERTION
6	PRISM ROTATION	PRISM ROTATION
7	PRISM MOVE	PRISM MOVE
8	FROST	FROST
9	FOCUS	FOCUS
10	PAN	PAN
11	PAN FINE	PAN FINE
12	TILT	TILT
13	TILT FINE	TILT FINE
14	FUNCTION	FUNCTION
15	RESET	RESET
16	LAMP ON/OFF	LAMP ON/OFF
17		PAN/TILT TIME
18		COLOUR TIME
19		BEAM TIME
20		GOBO TIME

• COLOUR WHEEL- channel 1



BIT	EFFECT
255	FAST ROTATION
150	SLOW ROTATION
145-149	DARK BLUE / WHITE
140-144	DARK BLUE
135-139	CTB / DARK BLUE
130-134	CTB
125-129	CTO 1 / CTB
120-124	CTO 1
115-119	CTO 2 / CTO 1
110-114	CTO 2
105-109	CYAN / CTO 2
100-104	CYAN
95-99	MAGENTA / CYAN
90-94	MAGENTA
85-89	YELLOW / MAGENTA
80-84	YELLOW
75-79	PINK / YELLOW
70-74	PINK
65-69	LAVENDER / PINK
60-64	LAVENDER
55-59	GREEN / LAVENDER
50-54	GREEN
45-49	DEEP GREEN / GREEN
40-44	DEEP GREEN
35-39	AQUAMARINE / DEEO GREEN
30-34	AQUAMARINE
25-29	ORANGE / AQUAMARINE
20-24	ORANGE
15-19	DARK RED / ORANGE
10-14	DARK RED
5-9	WHITE / DARK RED
0-4	WHITE

• STROBE- channel 2



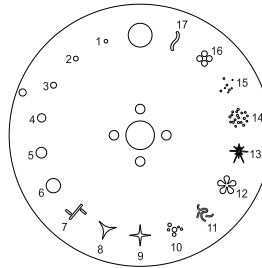
BIT	EFFECT
252 - 255	OPEN
213 - 251	RANDOM FROM SLOW TO FAST STROBE
208 - 212	OPEN
207	FAST PULSATION
108	SLOW PULSATION
104 - 107	OPEN
103	FAST STROBE
4	SLOW STROBE
0 - 3	CLOSED

• DIMMER- channel 3



BIT	EFFECT
255	
0	

• FixGOBO - channel 4



BIT	EFFECT
255	GOBO 17 SHAKE FAST SPEED
251	GOBO 17 SHAKE, SLOWS PEED
250	GOBO 16 SHAKE FAST SPEED
246	GOBO 16 SHAKE, SLOWS PEED
245	GOBO 15 SHAKE FAST SPEED
241	GOBO 15 SHAKE, SLOWS PEED
240	GOBO 14 SHAKE FAST SPEED
236	GOBO 14 SHAKE, SLOWS PEED
235	GOBO 13 SHAKE FAST SPEED
231	GOBO 13 SHAKE, SLOW SPEED
230	GOBO 12 SHAKE FAST SPEED
226	GOBO 12 SHAKE, SLOW SPEED
225	GOBO 11 SHAKE FAST SPEED
221	GOBO 11 SHAKE, SLOW SPEED
220	GOBO 10 SHAKE FAST SPEED
216	GOBO 10 SHAKE, SLOW SPEED
215	GOBO 9 SHAKE FAST SPEED
211	GOBO 9 SHAKE, SLOW SPEED
210	GOBO 8 SHAKE FAST SPEED
206	GOBO 8 SHAKE, SLOW SPEED
205	GOBO 7 SHAKE FAST SPEED
201	GOBO 7 SHAKE, SLOW SPEED
200	GOBO 6 SHAKE FAST SPEED
196	GOBO 6 SHAKE, SLOW SPEED
195	GOBO 5 SHAKE FAST SPEED
191	GOBO 5 SHAKE, SLOW SPEED
190	GOBO 4 SHAKE FAST SPEED
186	GOBO 4 SHAKE, SLOW SPEED
185	GOBO 3 SHAKE FAST SPEED
181	GOBO 3 SHAKE, SLOW SPEED
180	GOBO 2 SHAKE FAST SPEED
176	GOBO 2SHAKE, SLOW SPEED
175	GOBO 1 SHAKE FAST SPEED
171	GOBO 1 SHAKE, SLOW SPEED
170	FAST ROTATION
135	SLOW ROTATION
130-134	STOP
129	SLOW ROTATION
90	FAST ROTATION
85-89	GOBO 17
80-84	GOBO 16
75-79	GOBO 15
70-74	GOBO 14
65-69	GOBO 13
60-64	GOBO 12
55-59	GOBO 11
50-54	GOBO 10
45-49	GOBO 9
40-44	GOBO 8
35-39	GOBO 7
30-34	GOBO 6
25-29	GOBO 5
20-24	GOBO 4
15-19	GOBO 3
10-14	GOBO 2
5-9	GOBO 1
0-3	WHITE

• PRISM INSERTION - channel 5

BIT	EFFECT
255	
128	PRISM INSERTED
127	
0	PRISM EXCLUDED

• PRISM ROTATION - channel 6



BIT	EFFECT
255	FAST ROTATION
193	SLOW ROTATION
191 - 192	STOP
190	SLOW ROTATION
128	FAST ROTATION
127	POSITION 180°
0	POSITION 0°

• PRISM MOVE- channel 7

BIT	EFFECT
255	FROM SMALL TO BIG
0	

• FROST-channel 8



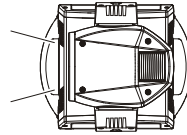
BIT	EFFECT
255	FROST INSERTED
0	FROST EXCLUDED

• FOCUS-channel 9

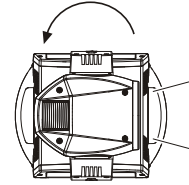


BIT	EFFECT
255	NEAR
0	DISTANT

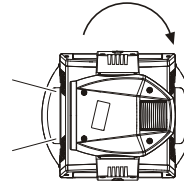
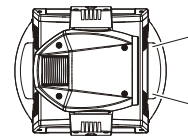
• PAN-channel 10



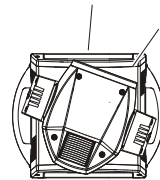
BIT	EFFECT
255	540°
0	



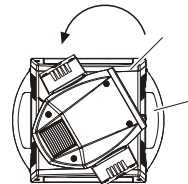
BIT	EFFECT
255	
0	



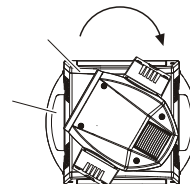
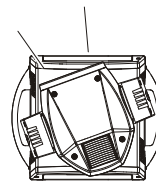
• PAN FINE-channel 11



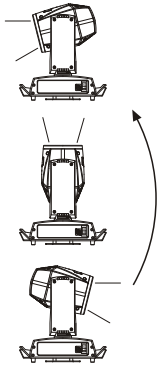
BIT	EFFECT
255	
0	



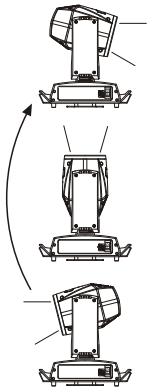
BIT	EFFECT
255	
0	



• TILT- channel 12

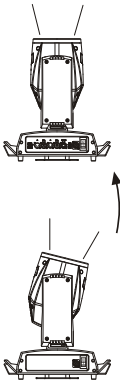


BIT	EFFECT	
255		
.....		
128		250°
.....		
0		

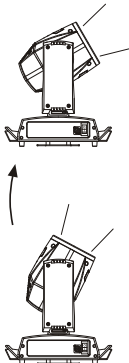


BIT	EFFECT	
255		
.....		
128		
.....		
0		

• TILT FINE- channel 13



BIT	EFFECT	
255		
.....		
0		



BIT	EFFECT	
255		
.....		
0		

•FUNCTION- channel 14

BIT	EFFECT	
255		
.....		
63		UNUSED RANGE
.....		
51-62		LINEAR (Default) ——— DIMMER CURVE FUNCTION
38-50		CONVENTIONAL ——— DIMMER CURVE FUNCTION
25-37		NORMAL ——— PAN-TILT FUNCTION
12-24		FAST (Default) ——— PAN-TILT FUNCTION
0-11		UNUSED RANGE

•RESET -channel 15

BIT	EFFECT	
255		
.....		
128		COMPLETE RESET
127		
.....		
77		PAN / TILT MOTOR RESET
76		
.....		
26		HEAD RESET
25		
0		UNUSED RANGE

•LAMP On/Off - channel 16



BIT	EFFECT	
255		
.....		
101		LAMP ON
100		
.....		
10		LAMP OFF
9		
0		UNUSED RANGE

TIMING CHANNELS

	TIMING CHANNEL	CHANNEL FUNCTION
17	X / Y time	1-255 X Y speed from fast to slow
18	Colour time	1-255 colour speed from fast to slow
19	Beam time	1-255 dimmer-prism-frost speed from fast to slow
20	Gobo time	1-255 gobo speed from fast to slow

CLEANING AND MAINTENANCES

- In order to ensure the projector could work normally. It should be kept clean always. It is recommended that the fans and ventilation in let should be cleaned every 15 days. The lens and dichroic colour filters should also be regularly cleaned to maintain an optimum light output. Do not use any type of solvent on dichroic colour filters. It will damage the projector.
- Suggestion: The continue usage of the light don't exceed 4 hours. Or it will shorter the usage of the lamp. Please use the alternative operation to solve this problems.
- Please disconnect the power supply when begin to maintenace or takedown the light. Please let the parts cool down 10 minute at least then begin to install. If need to replace the lamp, please wait 10 minute again at least to let the lamp cool down completely or which maybe burned down.
- Please inspect the lens or other moving parts timing and keep them clear and static. If find anything damaged or losseness, must change a lamp or fix the lamp in order to avoid the accident.
- The light use the strong cool system. It is easy for the dirty to be collected. Please do clear the hot-sak one time two week at least.
- After you use the light, please check the intake place whether there are some wastepaper, please clean it up, or the windmill will break down and causing fire.

TROUBESHOOTING

It is recommended some solution for some normal trouble shooting. Any unsolved problems should always be handle by the professional person. Disconnect the power supply before maintenance the light.

■ Lamp off:

- ⊙ Please check if install the suitable lamp.
- ⊙ Please check the connection of the power supply or switch is ok.
- ⊙ Please check whether the lamp will reach the end of their life can explode, please replace a same description lamp.
- ⊙ Please check if the power supply is enough.
- ⊙ Please check if the operation is correct. Please wait 30 minutes at least till the lamp cool down enough, then could the connect the power supply, which could be normal work.
- ⊙ Please check whether the DMX 512 controller pass the "turn on" order
- ⊙ Please check the connection of the trigger circuit is loose contact.
- ⊙ Please check whether the connected point of the trigger point is loose contact, faster the connect cable.
- ⊙ Please check whether the trigger is damaged or change the same description trigger.
- ⊙ Please check if the switch of the temperature and the trigger protect temperature is damaged.

■ The light beam is dark, not inhomogeneous:

- ⊙ When the lamp is to the usage life, the light is not enough, please change a new one for the same description.
- ⊙ Please check the reflector parts is dirty. Keep them clear.
- ⊙ Please check if the power supply is enough.
- ⊙ Small adjusting is suitable for change the lamp angle, height or screw system till get a ideal light beam.

■ The projector shadow is fogging:

- ⊙ Please check the data on the DMX 512 controller is suitable for the electric focus.
- ⊙ Small adjusting is suitable for change the light angle, height of the screw system till get the light.
- ⊙ Please check the mechanical parts is jamming. After cleaning, please add some temperature-durable juice.

■ **The light works interruptly:**

- ⊙ Please check if the fan works normally or mote clogging.
- ⊙ Please check whether the abstract heat have the mote clogging.
- ⊙ Please check if the lamp is to the usage life.
- ⊙ Please check if the power supply is enough, the connection of the power supply or the circuit are good.
- ⊙ Please check if the switch of the sup-temperature and the trigger protection are good.

■ **Though the light is lighting, but it couldn't accept the control order:**

- ⊙ Please check the start code address and the function option are correct.
- ⊙ Please check whether the communicate control cable is on good connection or the cable is too long or interrupt.
- ⊙ Please check the control system is not valid, check the signal amplifier of chain connected is valid.
- ⊙ Please check whether the communicate cable is too long or the other equipment is mutually conjugate.
- ⊙ Please arrange the wire well, Shorter the signal cable, put the high voltage cable and low voltage cable separately.
- ⊙ Add the signal amplify isolator.
- ⊙ Signal cable is used the excellent screening doublet (Resistance 75 Ω)
- ⊙ The end of the light end and the end resistance.
- ⊙ When the lamp don't cool down enough but do the incorrect operation will let the trigger up to super-high voltage leak.
It will damage the electric circuit and communicate IC or CPU. Under this condition, please change the PCB board.

■ **the light can't move:**

- ⊙ Please check if the power supply is suitable for the light voltage data.
- ⊙ Please check the fuse of input voltage is defective.
- ⊙ Please check the light if they are deforming, inside parts is broken, become wet...etc will lead the loose contact.
- ⊙ Please check if the inside lead wire and the connector is loose.
- ⊙ Please check the electric parts (such as the switch, transformer, ballast, electric capacity, piezoresistor, filter, PCB board, controller to motor) is short-circuit or burn down.

■ **Part of the projector couldn't be responsed to the controlling order:**

- ⊙ Please check the order is correct to the moving.
- ⊙ Please check the mechanical part is deformation or loose.
- ⊙ Please check the function to the motor socket is loose or drive chip is burn down.
- ⊙ Please check the wire of the motor is cut at zig point.
- ⊙ Please check these function to the motor is damaged.

■ **On working, the pan & tilt couldn't work normally:**

- ⊙ Please check according to the above step by step.
- ⊙ Please check the belt of the X.Y is broken.
- ⊙ Please check the X/Y direction data to the receiver is damage.

DUTY EXONERATIVE AND COPYRIGHT PROTECTION

- ◇ The lamp belongs to consumption products that is not guarantee to keep it in good repair
- ◇ Any products broken that didn't according to the instruction is not guarantee to keep it in good repair
- ◇ The commentary for all the instruction belongs to the supplier in final
- ◇ No authorize can't copy