10.Maintenance and cleaning

It is absolutely essential that the fixture is kept clean and that dust, dirt and smoke-fluid residues must not build up on or within the fixture. Otherwise, the fixture's light-output will be significantly reduced. Regular cleaning will not only ensure the maximum light-output, but will also allow the fixture to function reliably throughout its life.A soft lint-free cloth moistened with any good glass cleaning fluid is recommended, under no circumstances should alcohol or solvents be used!

DANGER !
Disconnect from the mains before starting any maintenance work

The front objective lens will require weekly cleaning as smoke-fluid tends to building up residues, reducing the light-output very quickly. The cooling-fans should be cleaned monthly.

The interior of the fixture should be cleaned at least annually using a vacuum-cleaner or an air-jet. gobo and graphic wheels and the internal lenses should be cleaned
monthly. Remove dust and dirt from the fans and cooling vents using a soft brush and vacuum-cleaner.

Important! Check the air filters periodically and clean before they become clogged!

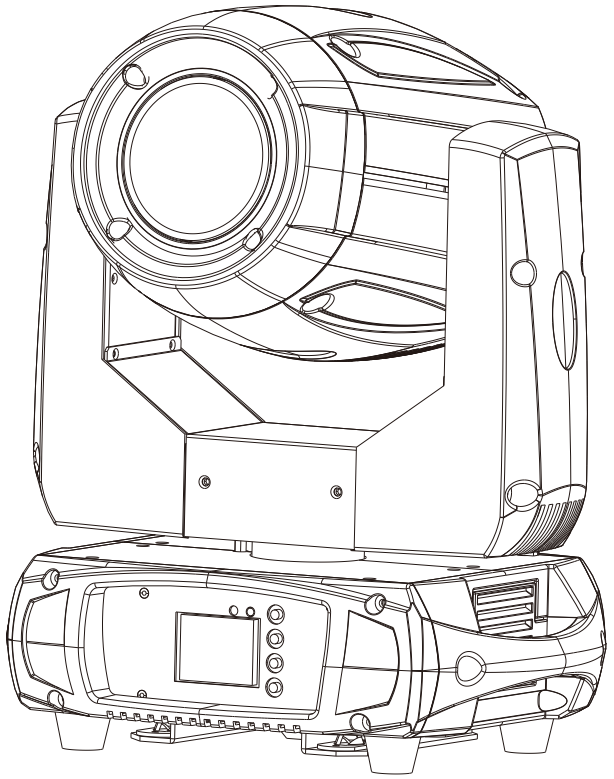
Clean two air filters placed in the fixture's covers and two in the fixture base. Use a vacuum cleaner, compressed air or you can wash them and put back dry.

After replacing the air filters, reset the elapsed time counter in the menu "Information" (Information--->Air Filters--->Elapsed Time).

Replacing the fuse. Before replacing the fuse, unplug mains lead.

1) Remove the fuse holder on the rear panel of the base with a fitting screwdriver from the housing (anti-clockwise).
2) Remove the old fuse from the fuse holder.
3) Install the new fuse in the fuse holder (only the same type and rating).
4) Replace the fuseholder in the housing and fix it.

COBRA 200 BSW



Version 1.0

USER MANUAL

- Be sure to read the USER MANUAL carefully before using this product.
- Be sure to keep the USER MANUAL properly for future needs.
- Use this product correctly when you can fully understand the User Manual

1.Safety instructions

Thank you for choosing our Smart BSW 200 . for your own safety, please read this user manual carefully

BEFORE YOU INITIAL START - UP!

CAUTION!
Be careful with your operations.
With a high voltage you can suffera dangerous electric shock when touching the wires!

This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

CAUTION!
Keep this device away from rain and moisture!
Unplug mains lead before opening the housing!

Important:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the device.

Please consider that damages caused by manual modifications to the device are not subject to warranty.

During the operation the housing becomes hot). Allow the fixture to cool approximately 20 minutes prior to manipulate with it.

Make sure that the available voltage is not higher than stated on the rear panel.

WARNING! This unit does not contain an ON/OFF switch. Always disconnect power input cable to completely remove power from unit when not in use or before cleaning or servicing the fixture.

Make sure that the power-cord is never crimped or damaged by sharp edges. Check the device and the power-cord from time to time.

Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power-cord by the plug. Never pull out the plug by tugging the power cord.

This device falls under protection class I. Therefore it is essential to connect the yellow/green conductor to earth.

The electric connection, repairs and servicing must be carried out by a qualified employee.

Do not connect this device to a dimmer pack.

Do not switch the fixture on and off in short intervals as this would reduce the lamp's life.

During the initial start-up some smoke or smell may arise. This is a normal process and does not necessarily mean that the device is defective.

Do not touch the device's housing bare hands during its operation (housing becomes hot)!

For replacement use lamps and fuses of same type and rating only.

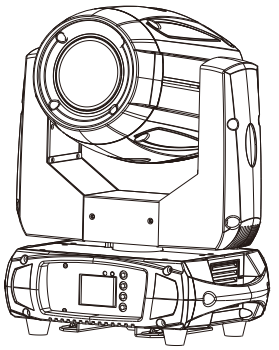
CAUTION ! EYE DAMAGES !
Avoid looking directly into the light source
(meant especially for epileptics) !

14	12	14		Speed pan/tile
			0..225	max to min speed
			226..235	blackout by movement
			236..245	blackout by all wheel changing
			246..255	no function
15	13	15		Special function
			0..19	No function
			20..29	No function
			30..39	No function
			40..79	No function
			80..84	All Motor reset
			85..87	Scan motor reset
			88..90	Colors motor reset
			91..93	Gobo motor reset
			94..96	no function
			97..99	Other motor reset
			100..108	Internal program 1
			109..117	Internal program 2
			118..126	Internal program 3
			127..135	Internal program 4
			136..144	Internal program 5
			145..153	Internal program 6
			154..162	Internal program 7
			163..171	Internal program 8
			172..180	Internal program 9
			181..189	Internal Sound program 1
			190..198	Internal Sound program 2
			199..207	Internal Sound program 3
			208..216	Internal Sound program 4
			217..225	Internal Sound program 5
			226..234	Internal Sound program 6
			235..243	Internal Sound program 7
			244..252	Internal Sound program 8
			253..255	Internal Sound program 9
Vector Mode			Value	Function
		16		Color Time
			0..255	max to min speed
		17		Gobo Time
			0..255	max to min speed

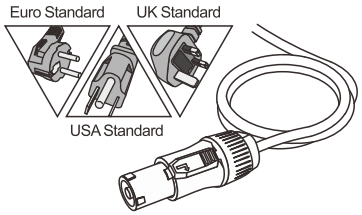
8	6	8		Gobo wheel 2
			0..8	Open
			9..17	gobo 1
			18..26	gobo 2
			27..35	gobo 3
			36..44	gobo 4
			45..53	gobo 5
			54..62	gobo 6
			63..71	gobo 7
			72..80	gobo 8
			81..89	gobo 9
			90..98	gobo 10
			99..107	gobo 11
			108..116	gobo 12
			117..125	Gobo 1 shake slow to fast
			126..134	Gobo 2 shake slow to fast
			135..143	Gobo 3 shake slow to fast
			144..152	Gobo 4 shake slow to fast
			153..161	Gobo 5 shake slow to fast
			162..170	Gobo 6 shake slow to fast
			171..179	Gobo 7 shake slow to fast
			180..188	Gobo 8 shake slow to fast
			189..197	Gobo 9 shake slow to fast
			198..206	Gobo 10 shake slow to fast
			207..215	Gobo 11 shake slow to fast
			216..224	Gobo 12 shake slow to fast
			225..255	Rot. gobo wheel cont. rotation slow to fast
9	7	9		Shutter
			0..31	Shutter closed
			32..63	shutter open
			64..95	Strobe effect slow to fast
			96..127	shutter open
			128..159	Pulse-effect in sequences slow to fast
			160..191	shutter open
			192..223	Random strobe effect slow to fast
			224..255	shutter open
10	8	10		Dimmer
			0..255	Dimmer 0%...100%
11	9	11		Focus
			0..255	In(near) to out(far)
12	10	12		Zoom
			0..255	In(near) to out(far)
13	11	13		Rrotating prism, Prism
			0..5	OFF
			6..127	ON
			128..189	Forwards rotation from fast to slow
			190..193	Prism rotation stop
			194..255	Forwards rotation from fast to slow

2.UNPACKING

The Smart BSW 200 adopts a 200W LED lamp which features high brightness and stability. Please carefully unpack it when you receive the fixture and check whether it is damaged during the transportation. And please check whether the following items are included inside the box:



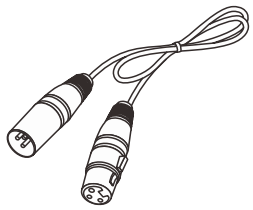
▲ Smart BSW 200*1



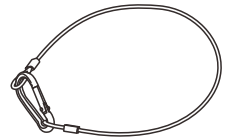
▲ Power Cable*1

▲ User Manual*1

▲ Hanging Kit *2



▲ Signal Cable *1



▲ Safety Cable*1

The Smart BSW 200 is made of a new type of high temperature strength of engineering plastics and cast aluminum casing with nice outlook . The fixture is designed and manufactured strictly following CE standards, complying with international standard DMX512 protocol. It's available independently controlled and linkable with each other for operation. And it is applicable for large-scale live per formances, theater, studio, nightclubs and discos.

This manual covers the important information on installation and applications. Meanwhile, please keep this manual well for future needs.

3.TECHNICAL INFORMATION

Light Source
- 1* 200W white led lamp, 7500K, 50000 hours life span.

Power Supply
- Input Voltage:AC90-260V 50/60Hz
- Power Consumption: 300W

Construction & Weight
- Dimensions: 308*224*431(mm)
- Packing Dimensions:510*470*650 (mm)
- Net Weight:13.3kgs
- Gross Weight:16kgs

Optics
- Zoom range: 2.5°-14° beam application; 8°–36° spot
- application
- Improved optics and flat beam field
- No need for adjustment of reflector or lamp
- Anti-reflection 136mm front lenses

Control
- Control Signal:DMX512, master-slave and sound
- activated or auto operation
- Control Channel:17/15/13 DMX channels USITT DMX-512
- DMX recorder and function integrated

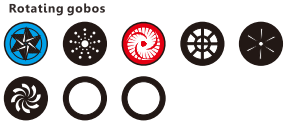
Movement
- 630° /540° /360° PAN and 270°/180° /90° TILT movement optional
- Smooth and precise resolution for PAN/TILT movement
- Scan position memory, auto preposition after unexpected movement.

Colors Wheel&Gobos Wheel:
- 1 Color wheel with 10 colors plus open.
- 1 Static gobo wheel with 13 gobos plus open
- 1 Rotating gobo wheel with7 gobos plus open

Working Environment
- Fan cooling system
- -35-45°C max ambient temperature
- Constant temperature readout and management function.
- Protection Rating : IP 20

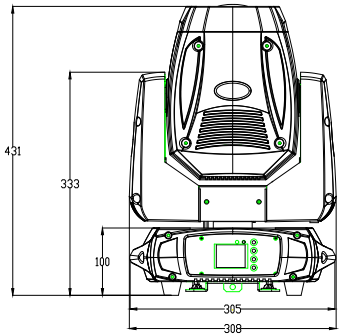
Features
- Anti-reflection lenses
- No need for adjustment of reflector or lamp
- Dual flag mechanical dimming system
- 20T/sec high speed shutter/strobe effect with variable
- speed
- 0-100% Linear LED shutter
- Frost filter available
- Motorized focus from near to far(2m-20m)
- Linear motorized Zoom
- Automatic Pan / Tilt position correction and automatic
- Pan/Tilt mechanical lock function
- 3-facet prism with variable speed and direction
- 2.4' TFT LCD display (320*240pix)
- Display reversible for up side down application
- Vector mode with blackout MIB function
- Electronic ballast and power supply
- Power con IN/OUT
- 3-Pin XLR connectors IN/OUT
- Lamp using time readable on the display
- 55dB at 3'dB rating
- 2*1/4 turn fastening Omega clamps
- 1*Safety attachment point available

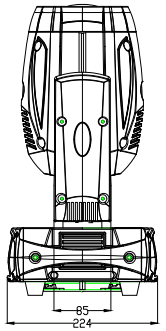
Rotating gobos



Static gobos

Color Wheel

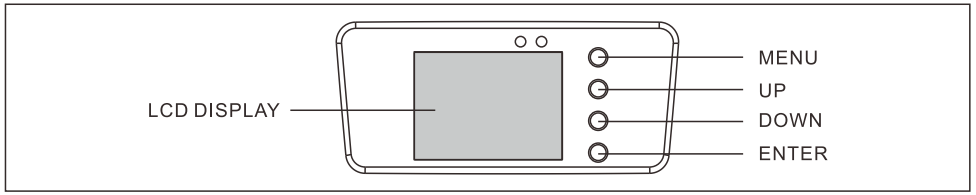




9.DMX PROTOCOL

Mode/Channel			Value	Function
15CH	13CH	17CH		
1	1	1		Pan
			0..255	PAN Movement
2		2		Pan-fine
			0..255	Fine control of Pan movement
3	2	3		Tilt
			0..255	Tilt Movement
4		4		Tile-fine
			0..255	Fine control of Tilt movement
5	3	5		Color wheel
			0..9	Open / white
			10..19	Color 1
			20..29	Color 2
			30..39	Color 3
			40..49	Color 4
			50..59	Color 5
			60..69	Color 6
			70..79	Color 7
			80..89	Color 8
			90..127	Color 9
			128..189	Forwards rainbow effect from fast to slow
			190..193	Color rotation stop
			194..255	Backwards rainbow effect from slow to fast
6	4	6		Gobo wheel 1
			0..9	Open
			10..19	gobo 1
			20..29	gobo 2
			30..39	gobo 3
			40..49	gobo 4
			50..59	gobo 5
			60..79	gobo 6
			80..99	Gobo 1 shake slow to fast
			100..119	Gobo 2 shake slow to fast
			120..139	Gobo 3 shake slow to fast
			140..159	Gobo 4 shake slow to fast
			160..179	Gobo 5 shake slow to fast
			180..219	Gobo 6 shake slow to fast
			220..255	Rot. gobo wheel cont. rotation slow to fast
7	5	7		Gobo1 rotation
			0..3	no function
			4..127	Forwards gobo rotation from fast to slow
			128..131	Gobo rotation stop
			132..255	Backwards gobo rotation from slow to fast

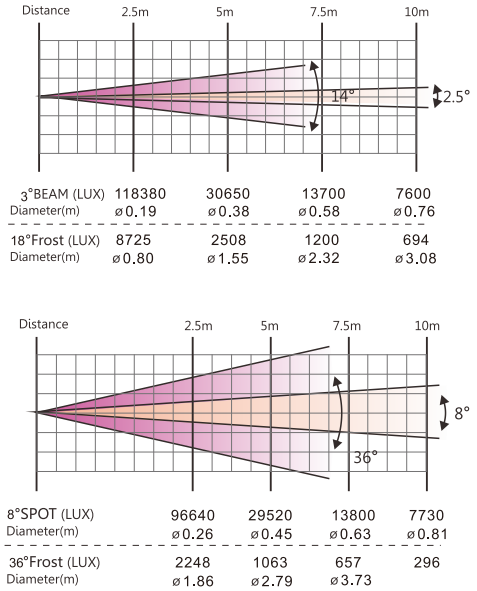
8.MENU OPERATIONS



MENU	Description		
DMX (Function Mode)	Dmx Address	A001~AXXX	
	Channel Mode	15CH	
		13CH	
		17CH	
	Auto Run	Program 1~9	Master/Alone
	Music Run	Program1~9	Master/Alone
SET (Fixture Set)	Reset Default	Yes/No	
	Signal Set	Wire	
	Reverse Pan	(On/Off)	
	Reverse Tilt	(On/Off)	
	Select Pan	630° /540° /360°	
	Select Tilt	270° /180° /90°	
	Mic sensitivity	0~99%	
	OFF Signal Mode	(On/Off)	
	Fast scan	(On/Off)	
Manu (Manual)	Reset	Total Reset Scan Reset Color Reset Gobo Reset Others Reset	
	Channel	PAN=XXX……	
ADV (Advanced) (Access Code 088)	Calibration UID Code	PAN=XXX…… XX XX XX XX XX XX	

Special button instruction: press "UP" and "DOWN" for 3 seconds, display menu turns upside down

4.PHOTOMETRICS DIAGRAM



5.OPERATION INSTRUCTIONS

- The Smart BSW 200 is for beam effect for on-site decoration purpose.
- Don't turn on the fixture if it's been through severe temperature difference like after transportation because it might damage the light due to the environment changes. So make sure to operate the fixture until it is in normal temperature.
- This light should be keep away from strong shaking during any transportation or movement.
- Don't pull up the light by only the head, or it might cause damages to the mechanical parts.
- Don't expose the fixture in overheat, moisture or environment with too much dust when installing it. And
- don't lay any power cables on the floor. Or it might cause electronic shock to the people.
- Make sure the installation place is in good safety condition before installing the fixture.
- Make sure to put the safety chain and check whether the screws are screwed properly when installing the fixture.
- Make sure the lens are in good condition.It's recommended to replace the units if there are any damages or severe scratch.
- Make sure the fixture is operated by qualified personnel who knows the fixture before using.
- Keep the original packages if any second shipment is needed.
- Don't try to change the fixtures without any instruction by the manufacturer or the appointed repairing agencies.
- It is not in warranty range if there are any malfunctions from not following the user manual to operate or any illegal operation, like shock short circuit, electronic shock , lamp broke, etc.

6.INSTALLATIONS

Cautions:

For added protection mount the fixtures in areas outside walking paths, seating areas, or in areas were the fixture might be reached by unauthorized personnel.

Before mounting the fixture to any surface, make sure that the installation area can hold a minimum point load of 10 times the device's weight.

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 fixture.

from a ceiling, or set on a flat level surface (see illustration below). Be sure this fixture is kept at least 0.5m (1.5 f t) away from any flammable materials (decoration etc.).

Always use and install the supplied safety cable as a safety measure to prevent accidental damage and/or injury in the event the clamp fails.

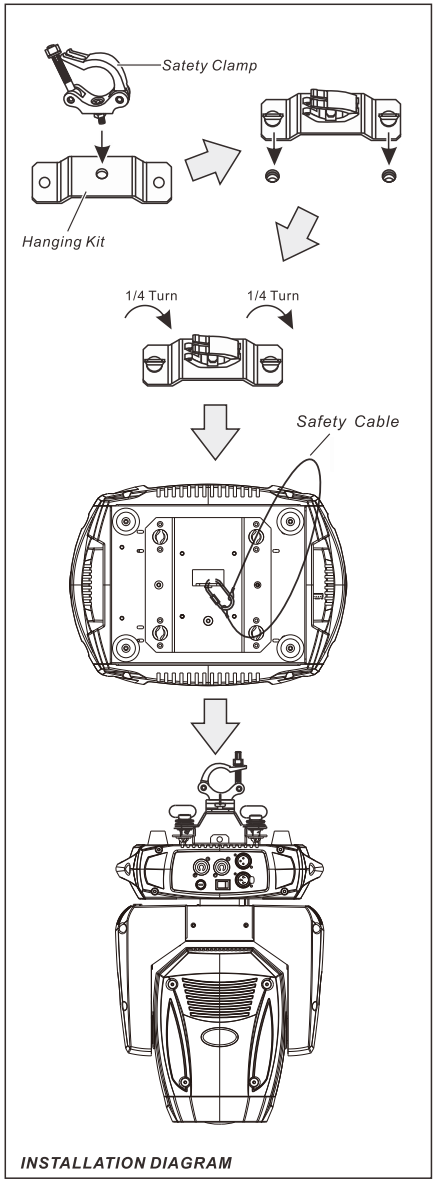
Mounting points:

Overhead mounting requires extensive experience, including amongst others calculating working load limits, a fine knowledge of the installation material being used, and periodic safety inspection of all installation material and the fixture. If you lack these qualifications, do not attempt the installation yourself. Improper installation can result in bodily injury.

Be sure to complete all rigging and installation procedures before connecting the main power cord to the appropriate wall outlet.

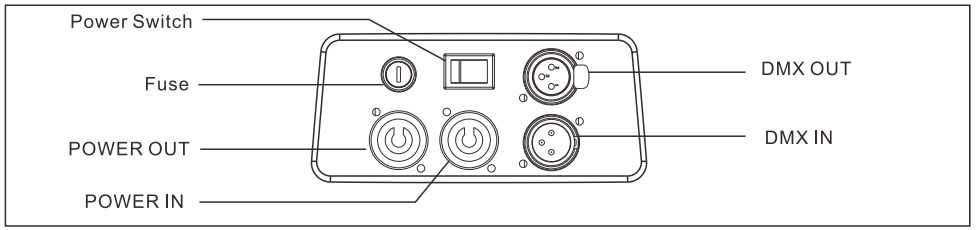
Clamp Mounting:

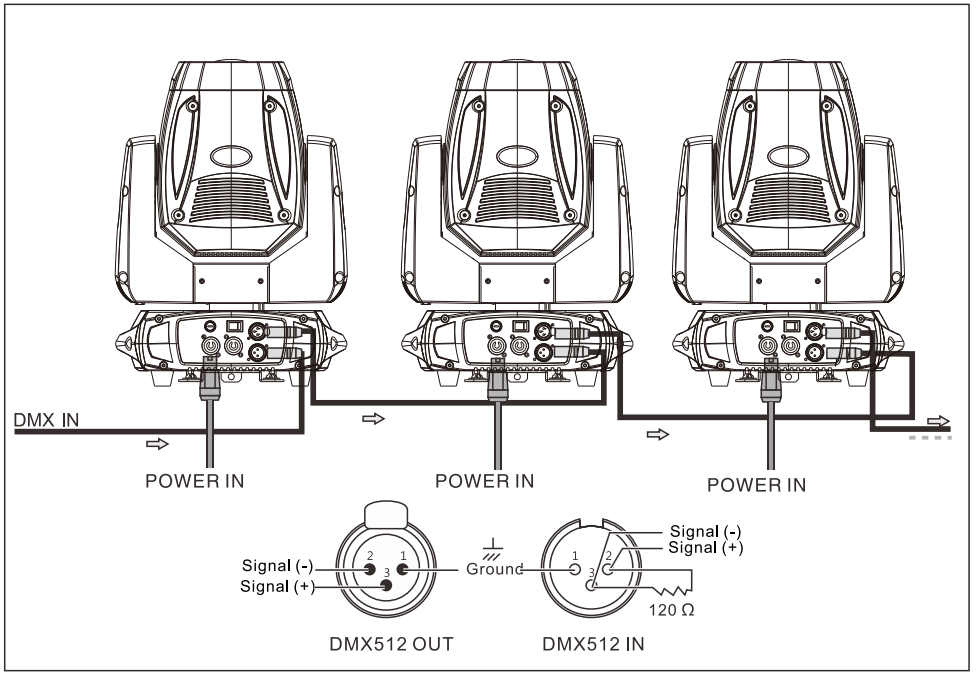
Smart BSW 200 provides a unique mounting bracket assembly that integrates the bottom of the base, and the safety cable rigging point in one unit (see the illustration below). When mounting this fixture to truss be sure to secure an appropriately rated clamp to the included omega bracket using a M10 screw fitted through the center hole of the "Hanging Kit". As an added safety measure be sure to attached at least one properly rated safety cable to the fixture using on of the safety cable rigging point integrated in the base assembly .



INSTALLATION DIAGRAM

7.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-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 a3 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.