

AS 330

Osram Sirius HRI 330W

Spot Moving Head

User Manual

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Contacting Conic Lighting Designs™

Sales Department

*Conic Lighting Designs.
803A, 8/F Far East Consortium Building
121 Des Voeux Rd. Central, Hong Kong
e-mail: conic@conicld.com
sales@conicld.com*

Customer Service

*Conic Lighting Designs
803A, 8/F Far East Consortium Building
121 Des Voeux Rd. Central, Hong Kong
e-mail: support@conicld.com*

Website

<http://www.conicld.com>

Important Safety Information

Instructions pertaining to continued protection against fire, electric shock, and injury to persons are found in Appendix A. Please read all instructions prior to assembling, mounting, and operating this equipment.

Información Importante De Seguridad

En el Apéndice A se encuentran instrucciones sobre protección continua contra incendios, descarga eléctrica, y lesiones personales. Lea, por favor, todas las instrucciones antes del ensamblaje, montaje y operación de este equipo.

Symbols

The following international caution and warning symbols appear in margins in this manual



CAUTION: This symbol appears next to Caution messages. Ignoring these messages could result in personal injury and/or damage to equipment.



WARNING: This symbol appears adjacent to high voltage warning messages. Ignoring these messages could result in serious personal injury.



This symbol indicates the minimum distance from a lighted object

Warranty information

Limited Warranty

Unless otherwise stated, your *product* is covered by a one year parts warranty to be counted from shipment date. The buyer must provide receipts or invoices for verification of purchase and date. If purchase date cannot be proved, date of manufacture will be used to determine warranty period.

Freight

All shipping costs will be paid by the purchaser. Under any circumstances freight collect shipments will be accepted.

Warranty will be absolutely invalid if the product is damaged, modified in any way, or if the item has been negligently repaired.

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Chapter 1

Product Overview

The AS 330 is a very powerful luminaire, able to work as a spot. Offering from very narrow and bright 4° beam to an impressive 25° spot beam, its scan movement runs smoothly and fast. It comes with 2 gobo wheels, one fixed and one rotating, color wheel, 2 bi-directional rotative prisms, smooth dimming from 0-100%; strobe with pulse and random effects, iris, zoom, focus and frost functions.

Features

Operation

- 540° pan and 240° tilt movement
- Color wheel, static gobo & rotating gobo wheels
- Smooth dimmer from 0 to 100%
- Auto-switching power supply
- 100-240 V AC power input
- ZOOM, FOCUS, IRIS, FROST and strobe

Construction

- Neutrik PowerCon input.
- 5 or 3 pin XLR DMX connectors
- Thermo plastic housing (black)

Related products and accessories

The following table lists related products and accessories available for the EBS 280 fixture. For more detailed information, contact your Conic Lighting Designs™ dealer/distributor or Conic Lighting Designs Sales Team (see contacts section on page 2)

Item Description	Ordering code
Flight case for 2 fixtures	FC-AS330-2
NEUTRIK PowerCon input connector, cable mount (blue)	PWRCON-IN-B
C-Clamp	CLAMP-C
Safety cable	SAFECAB

Specifications

Physical specifications

Fixture Dimensions: 375 mm x 461 mm x 662 mm

Fixture Weight: 22,5 kg

Shipping dimensions & weight

Single fixture carton

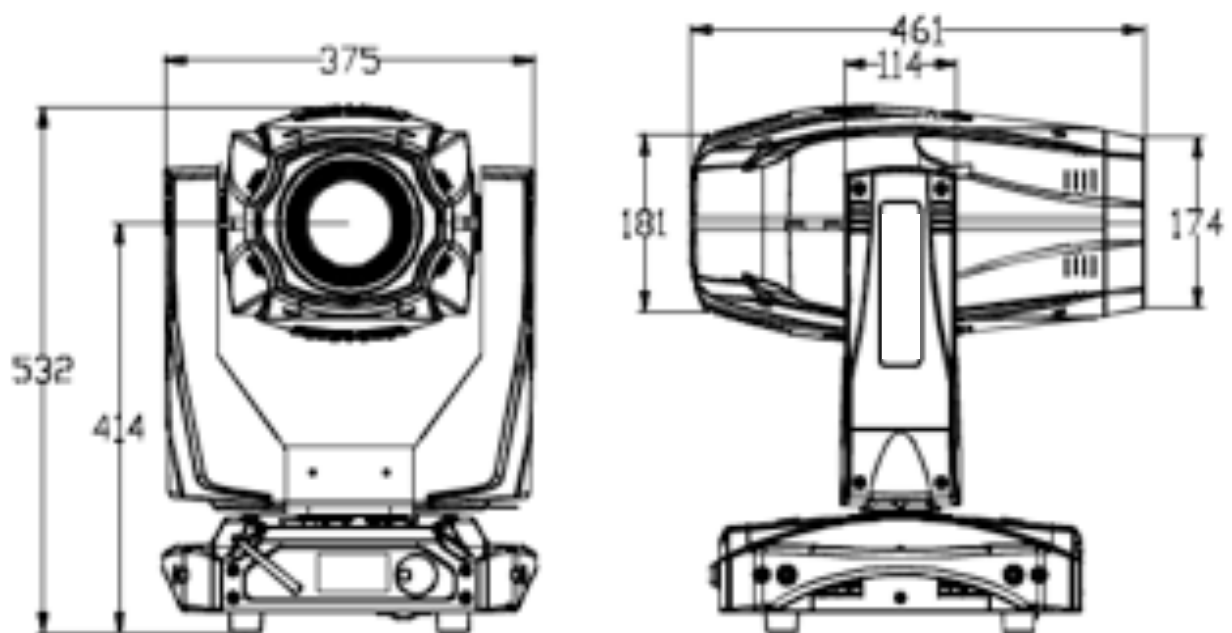
Dimensions: 450 mm x 430 mm x 730 mm

Weight: 27,5 kg

Flight case dimensions (2 pcs/case):

Dimensions: 920 mm x 690 mm x 785 mm

Weight: 96 Kg (Case + 2 Fixtures)



Mounting information

EBS330 can be truss mounted using suitable clamps. Clamps and accessories for truss mounting installation should be ordered separately. It can also stand upright on a suitable and stable surface.

Electrical/Optical information

- Power Input: 100-240 VAC; 50-60 Hz; 460 W
- Light Source: Osram Sirius HRI 330 watt
- Beam Angle: 4° to 25°

Operation

- Pan 540°; Tilt 240°
- Control: DMX 512
- Minimum distance to lighted object: 1 meter
- DMX connectors: 3 or 5-pin male and female XLR connectors
- Maximum ambient operating temperature: 40° C
- Minimum ambient operating temperature: -30° C

Chapter 2

Setup and Configuration

Use the following steps to set up and configure your fixture:

1. Unpack the fixture.
2. Install power cord cap for your location.
3. Mount the fixture upright or suspended from a standard truss.
4. Connect the fixture to a DMX controller via DMX cabling.
5. Connect the fixture to power.
6. Configure the fixture for DMX control.

Unpacking the fixture

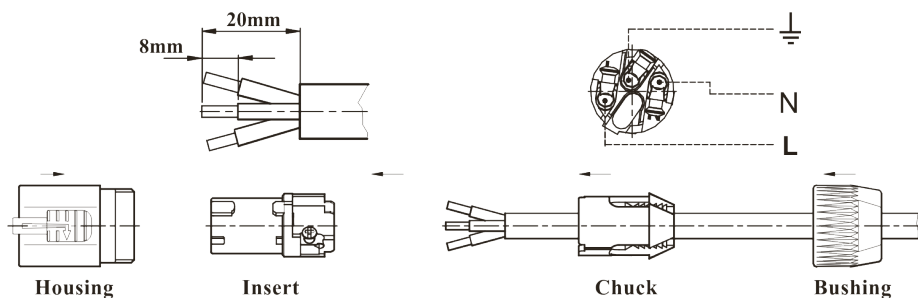
The fixture is transported in a shipping box or flight case specifically designed to protect the product during transportation. When unpacking, inspect the fixture for physical damage of its components. Conic Lighting Designs assumes no responsibility for products that are damaged during transport. Always transport a product in its shipping box or flight case.

Installing a power cable cab

The fixture is shipped without a power cable although it is ordered by customer. When installing the power cord, be sure you chose the right input connector as main power input and chose the correct cord cap for your area. Please note that our standard cores in the mains lead are colored according to the following criteria:

- green and yellow = earth
- blue = neutral
- brown = live

Installing a Neutrik PowerCon



1. Place bushing and chuck onto the cable.
2. Prepare cable as shown above. The power cable must be a three-conductor 2.5mm² cable.
3. Insert wires into the terminals and fasten the clamping device by a flat screwdriver.
4. Push insert and chuck into housing (pay attention to the guiding keyway.)
5. Fasten bushing.

Mounting the fixture

This fixture can be mounted suspended from a support system (as a truss) or freestanding on its base.



WARNING

This equipment is suitable for dry locations only. Do not expose this equipment to rain or moisture.



CAUTION:

Always use a secondary safety cable when mounting this fixture. This fixture must be installed and operated by trained personnel only.



Maintain a minimum distance of 1 meter from a lighted object

Mounting the fixture upright

To mount the fixture upright, place the fixture on a stable non-flammable surface that will support more than the weight of the fixture. If the surface is above floor height, use safety cables to secure the fixture to the surface.

Mounting the fixture on a truss

To mount the fixture on a truss, use a reliable and certified truss that will support more than the weight of the fixture.

Safety Cable

We strongly recommends that you use a safety cable when mounting any fixture. You must supply your own safety cable and verify that the cable is capable of supporting the weight of the fixture. You can order safety cables from your Conic Lighting Designs dealer/distributor. (see *Related Products and Accessories* on page 5).

Clamp

You must supply your own clamps and verify the clamp is capable of supporting the weight of the fixture. You can order C-clamps for truss mounting from your Conic Lighting Designs dealer/distributor (see *Related Products and Accessories* on page 5).

Mounting Procedure

To mount fixtures on a truss:

1. Disconnect power to the fixture. If the fixture has been operating, allow the fixture to cool before handling.
2. Always stand on a firm, stable surface when mounting a fixture to its support. The fixture should be at a height where you can comfortably work on it, and should either be resting on a stable surface, or held securely.
3. Attach suitable clamp in the clamp attaching holes on the fixture.
4. Tighten the clamps firmly to the fixture's base and to the support.
5. Loop one or more suitable safety cables around the support, through the safety wire holes in the fixture.

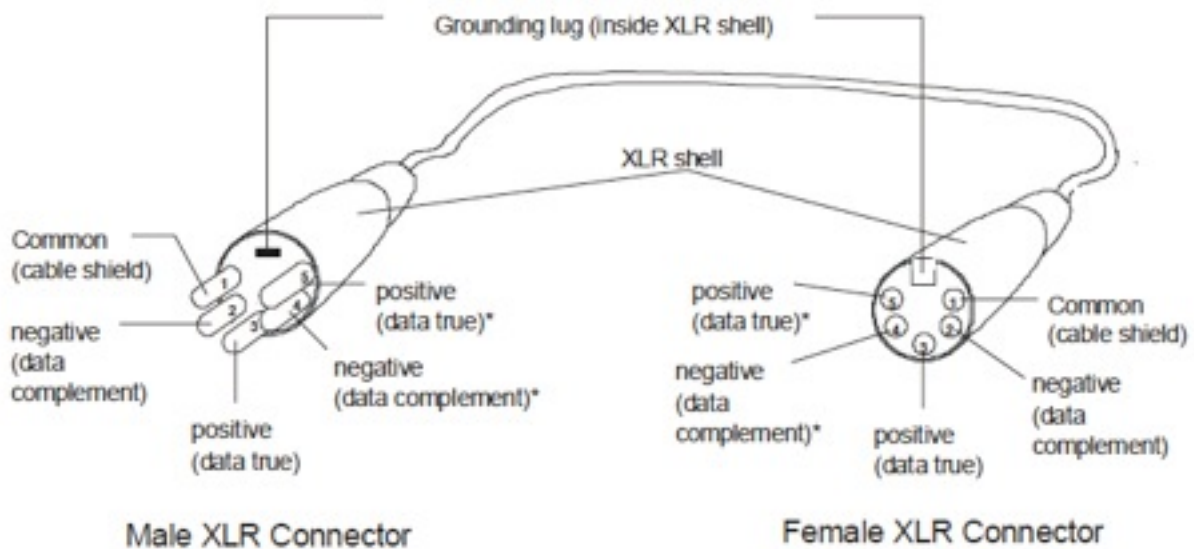
Linking Fixtures

Fixtures operate on a standard DMX512 link controlled by a DMX console. The number of fixtures on a link will be determined by the combined number of channels required by all the fixtures. A EBS 280 fixture using Standard protocol requires a maximum of 25 channels on a DMX512 link. Attach the fixture to the link using data-grade cable and 3/5-pin XLR cable connectors.

Cable Connectors

The fixture accepts 3/5-pin XLR cable connectors. Cabling must have a male XLR connector on one end of the cable and a female XLR connector on the other end.

Pin one is the common (cable shield), pin two is the data complement (negative), pin three is the data true (positive). Pins four and five are not used, but they allow a secondary data link to pass through the fixture.



Test each cable with a voltage/ohm meter (VOM) to verify correct polarity and to make sure that the negative and positive pins are not grounded or shorted to the shield or to each other.



CAUTION:

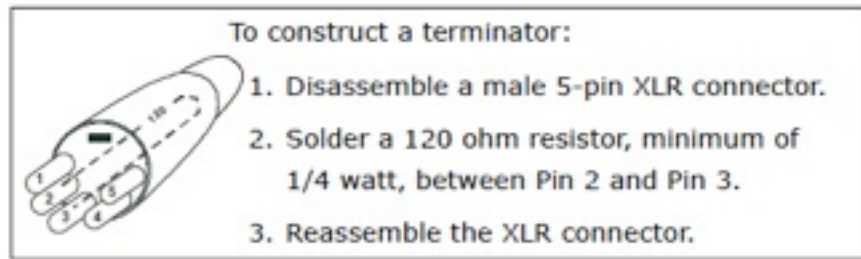
Do not connect anything to the ground lug on the XLR connectors. Do not connect or allow contact between the common (cable shield) and the fixture's chassis ground. Grounding the common could cause a ground loop and/or erratic behavior.

Connecting to the Link

To link one or more fixtures to a DMX controller:

1. Connect the male XLR connector of a DMX Data cable to the controller's DMX Data Out connector.
2. Connect the Data cable's female XLR connector to the Data In connector of the first (or next) fixture on the DMX link.
3. Continue linking the remaining fixtures connecting a cable from the Data Out connector of each fixture to the Data In connector of the next fixture on the link.

4. Terminate the link by installing a 120 ohm, 1/4 watt (minimum) terminator in the fixture's Data Out (female) cable connector in the last fixture on each DMX link. A terminator on the last fixture of the link prevents data reflection, which can corrupt the data communication on the link.



Powering On the Fixture



CAUTION:

Do not power on the fixture until verifying that the line cord cap is suitable for the power source in your location. For more information, see [Installing a Power Cord Cap on page 8](#).

To power on the fixture, simply connect it to a 100-230 V AC power source.

Once the fixture is connected to a power source, it automatically begins a homing procedure to verify the major functions of the fixture.

Setting the DMX Start Channel

Each fixture requires a block of consecutive channels on a 512-Channel DMX link. The number of channels depends on the protocol you are using.

To set the Start Channel on an fixture:

1. Access the fixture's menu system via the on board display of the fixture. For a detailed description of the menu system, see *Chapter 3: The Menu System*.
2. Press and hold the **Menu** button until AddR appears on the display. Press the **Enter** button to select.
3. The display will show the start channel currently assigned to the fixture.
4. Use the **Up** and **Down** arrow buttons to select a new DMX start channel. The display will show a new option ready for selection.
5. Press the **Enter** button to store the new DMX Start channel. The display will stop flashing when a new option is entered.

When setting the Start channel on a fixture, remember:

- A fixture's physical location on the link does not have to coincide with the order of channel range assignments in the link.
- The fixture's channel range must not overlap any other device's channel range on the link. When two devices on the same DMX link have overlapping channel ranges, one or both devices will be disabled or behave erratically. The single exception would be if two or more fixtures need to respond to controller commands in exactly the same way. In that case, those fixtures must be the same type and must share the *entire* channel range.

Shutting Down the Fixture

To shoot down a fixture you can simply switch off power.

Chapter 3

The Menu System

Menu navigation

Access the menu system via the jog wheel on the fixture. The display will show the menu items you can select from the menu map.

To access the menu system: press the <Enter>.

To scroll the menu items: use the wheel.

To return to the previous option *without changing the value*: Select <Exit> on the menu.

To select/store option/value: press <Enter>.

Menu map

Level 1	Level 2	Level 3		Description
Setup	DMX Address			Start address
Option	Invert	Invert Pan	OFF	Sets reverse pan OFF
			ON	Sets reverse pan ON
		Invert Tilt	OFF	Sets reverse tilt OFF
			ON	Sets reverse tilt ON
	Display	Reversal	OFF	Set display in normal mode
			ON	Set display in reversal mode
		Backlight	Open	Keeps display backlight always open
			Auto	Closes after 15s
Information	System version			Shows sw version information
	Fixture hours			Shown time info of the fixture
	Lamp hours			Show time info of the lamp
	Time clear			Clear
	Fans monitor			Shows fan monitoring information
	DMX monitor			Shows DMX information of all the functions
Manual control	Lamp	OFF		Switch the lamp OFF
		ON		Switch the lamp ON
Factory default	Load password	1111		Restores the factory parameters

Level 1	Level 2	Level 3		Description
		2222	Color adjust	
			R.Gobo adjust	
			S Gobo adjust	
			Pan Adjust	
			Tilt adjust	

Chapter 4

DMX Programming Basics

DMX Programming Overview

DMX512 Links

A lighting console typically uses a DMX512 protocol to communicate with automated lighting fixtures and conventional dimmers. This protocol consists of 512 unique channels of control per output link (universe). Typically a lighting fixture or device will use a channel for each parameter's function. Each channel consists of 256 values ranging from 0 to 255. The lighting console is programmed to transmit a corresponding DMX value for the desired function of each parameter. All DMX values are stored within in the lighting console, and typically are referred to as cues, scenes, or presets. A lighting console locates a device on the link by it's DMX Start Channel.

8-bit vs. 16-bit DMX Parameters

Most parameters of an automated light use one channel of DMX providing 256 values of control (0-255). This is known as 8-bit DMX. Although most parameters use 8-bit DMX, several require a more accurate range of values than can be provided with a single DMX channel.

By utilising two DMX channels for a single parameter, 65535 values become available for controlling and adjusting parameter functions. This is known as 16-bit DMX. You can adjust 16-bit DMX values in both coarse and fine increments. The first channel of the pair provides coarse control changes of the DMX value in increments of 256. The second channel provides fine control and changes of the DMX value in increments of 1.

Individual access of the two DMX channels used with 16-bit parameters varies by lighting console. Most modern DMX consoles bind these two channels into a single 16-bit parameter to accurately perform 16-bit crossfades. Consult your lighting console manual for further information.

Determining a DMX Start Channel

The DMX Start Channel is the first channel of a device's channel range on a DMX link. There are 512 available channels on each DMX universe divided among all the devices in a particular universe. A device must have a unique DMX Start Channel number in order to respond independently to controller commands.

To determine each device's DMX Start Channel, identify the footprint of every device on the universe. The device's footprint is the number of consecutive DMX channels a device requires and is determined by the channels in the fixture's protocol. The fixture's DMX channel range must not overlap any other device's channel range on the link. When two devices on the same DMX universe have overlapping channel ranges, one or both devices will be disabled or behave erratically.

Select the protocol level in the fixture's onboard menu system. The tables on the following pages list the parameters included in each protocol mode.

Protocol modes

You can choose from several protocol modes for variable programming styles. Conic Lighting Designs is distributing the detailed DMX protocols as requested to console manufacturers to ensure that the fixture libraries are created in a method that allows optimum control of the fixture. The charts below provide only an outline of each channel's function. If your console does not provide a library for Conic Lighting Designs, please contact the console manufacturer to have one created or contact your dealer/distributor to get the latest version available for the luminaire you are using.

DMX Protocols

DMX-1 mode: 16 channels

Ch. #	Function	DMX Value	Description
1	Cyan	000-255	0-100%
2	Magenta	000-255	0-100%
3	Yellow	000-255	0-100%
4	CMY macros	000-003 004-195 196-255	Empty CMY Color gradual Macros speed slow to fast
5	Color	000-004 005-009 010-014 015-019 020-024 025-029 030-034 035-174 175-255	White Red Green Blue Orange Yellow Magenta Color gradual Rainbow slow to fast
6	Strobe	000-003 004-007 008-097 098-101 102-151 152-155 156-205 206-209 210-249 250-255	Close Open Slow to fast Open Opening Pulse, slow to fast Open Closing Pulse, fast to slow Open Random strobe, slow to fast Open
7	Dimmer	000-003 004-255	Off Linear dimmer

Ch. #	Function	DMX Value	Description
8	Fixed gobo wheel	000-003 004-007 008-011 012-115 016-019 020-023 024-027 028-031 032-035 036-039 040-043 044-047 048-051 052-101 102-143 144-151 152-159 160-167 168-176 177-184 185-191 192-199 200-207 208-215 216-223 224-231 232-239 240-247 248-255	Open Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 Gobo 8 Gobo 9 Gobo 10 Gobo 11 Gobo 12 Wheel rotation fast to slow Wheel rotation slow to fast White Gobo 1 shake slow to fast Gobo 2 shake slow to fast Gobo 3 shake slow to fast Gobo 4 shake slow to fast Gobo 5 shake slow to fast Gobo 6 shake slow to fast Gobo 7 shake slow to fast Gobo 8 shake slow to fast Gobo 9 shake slow to fast Gobo 10 shake slow to fast Gobo 11 shake slow to fast Gobo 12 shake slow to fast White
9	Rotating gobo wheel	000-007 008-015 016-023 024-031 032-039 040-047 048-055 056-063 064-071 072-127 128-143 144-159 160-175 176-191 192-207 208-223 224-239 240-255	Open Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 Gobo 8 Rotation slow to fast Gobo 1 shake slow to fast Gobo 2 shake slow to fast Gobo 3 shake slow to fast Gobo 4 shake slow to fast Gobo 5 shake slow to fast Gobo 6 shake slow to fast Gobo 7 shake slow to fast Gobo 8 shake slow to fast
10	R Gobo rotation	000-063 064- 127 128-191 192-207 208-223 224-239 240-255	Gobo angle adjustment Counter clockwise fast to slow Clockwise slow to fast Swing slow to fast 90° Swing slow to fast 180° Swing slow to fast 270° Swing slow to fast 360°
11	Iris	000-087 088-127 128-167 168-207 208-247 248-255	Min to max Zoom open, Increasing speed Zoom closed light -open, Increasing speed Slow open, fast close, increasing speed Fast open, slow close, Increasing speed Min Iris
12	Animation	000-255	Fire panel entry

Ch. #	Function	DMX Value	Description
13	Animation rotation	000-003 004-097 098-191 192-207 208-223 224-239 240-255	Empty Clockwise rotation, decreasing speed Counter clockwise, Increasing speed Swing, Increasing speed (1,8°) Swing, Increasing speed (7,2°) Swing, Increasing speed (28,8°) Swing, Increasing speed (57,6°)
14	Prism	000-084 085-169 170-255	Empty 8-facet prism 3-facet prism
15	Prism rotation	000 001-063 064- 126 127-128 129-191 192-207 208-223 224-239 240-255	Empty 0° to 90° angle adjustment Clockwise, increasing speed Stop Counter clockwise, increasing speed Swing slow to fast 90° Swing slow to fast 180° Swing slow to fast 270° Swing slow to fast 360°
16	Frost	000-255	Linear frost
17	Zoom	000-255	Max to min
18	Focus	000-255	Linear focus
19	Pan	000-255	0-540°
20	Pan Fine	000-127 128-178 179-204 205-255	0-1,8°
21	Tilt	000-033 034-036 037-152 153-155 156-218 219-221 222-246 247-249 250-255	0 - 240°
22	Tilt Fine		0 -1,8°

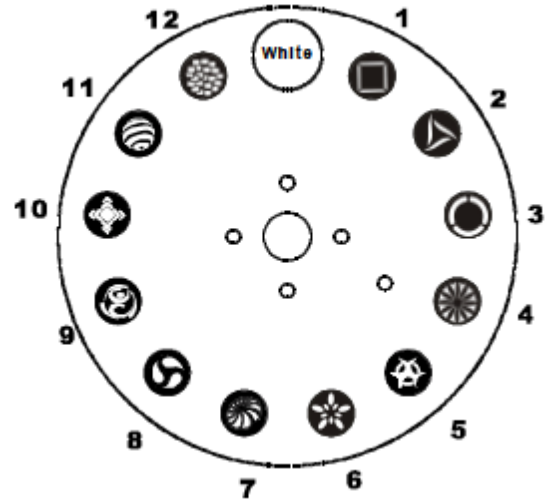
Ch. #	Function	DMX Value	Description
23	Function	000-013 014-024 025-035 036-046 047-'57 058-068 067-079 080-090 091-101 102-112 113-123 124-134 135-145 146-156 157-163 164-170 171-177 178-184 185-191 192-198 199-205 206-212 213-219 220-226 227-233 234-240 241-255	Empty XY movement blackout Gobo, Iris shortcut blackout Color blackout Prism blackout Frost blackout Empty XY, Gobo, color, prism, frost blackout Gobo, color, prism, frost blackout LCD light (5s) LCD close (5s) LCD reverse (5s) LCD positive (5s) Fixture reset (5s) R. Gobo Reset (5s) S- Gobo reset (5s) Colour reset (5s) CMY reset (5s) Animation reset (5s) Strobe reset (5s) Iris reset (5s) Prism reset (5s) Zoom reset (5s) Focus reset (5s) All functions reset (5s) XY reset (5s) Empty
24	Lamp	000-031 032-063 064-159 180-191 192-223 224-255	Empty Reduced power (50W) Empty Lamp OFF (after 5s) Empty Lamp ON (after 5s)
25	XY speed	000-001 002-255	Speed controlled by lighting desk Fast to slow

Gobo & color index

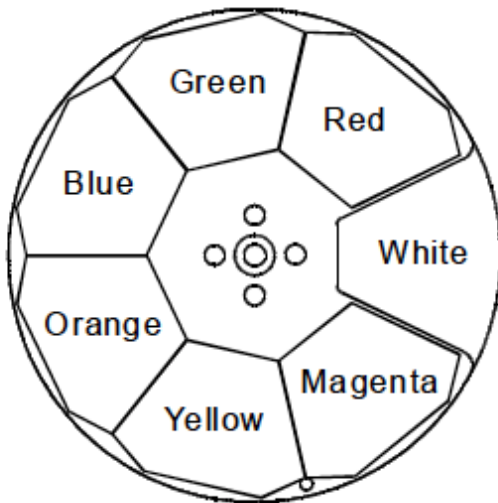
Rotating Gobo wheel



Fixed Gobo wheel



Color wheel



Appendix

Important Safety Information

Warning: For Continued Protection Against Fire

1. This equipment is designed for use with specified components only. Use of any other type components may be hazardous and may void the warranty.
2. Do not mount on a flammable surface.
3. Maintain minimum distance of 1.0 meter from combustible materials.
4. Replace fuses only with the specified type and rating.
5. Observe minimum distance to lighted objects of 1 meter.

Warning: For Continued Protection Against Electric Shock

1. If this equipment was received without a line cord plug, attach the appropriate line cord plug according to the following code:
 - brown–live
 - blue–neutral
 - green/yellow–earth
2. In different countries, the colors of the cores in the mains lead of this equipment may not correspond with the colored markings identifying the terminals in your plug, proceed as follows:
3. This equipment must be earthed.
4. Equipment suitable for dry locations only. Do not expose this equipment to rain or moisture.
5. Disconnect power before servicing.
6. Refer servicing to qualified personnel only.

Warning: For Continued Protection Against Injury To Persons

1. Use secondary safety cable when mounting fixtures.
2. Equipment surfaces may reach very high temperatures. Allow a minimum of 10 minutes for cooling before handling.

Apéndice : Información Importante De Seguridad

Advertencia: Para la protección continua contra incendios

1. Este equipo se ha diseñado para ser usado únicamente con componentes específicos. El uso de cualquier otro tipo de component puede resultar peligroso, y anula la garantía.
2. No monte el equipo sobre una superficie inflamable.
3. Mantenga una distancia mínima de 1 metro a materiales combustibles.
4. Cambie los fusibles únicamente por otros que sean del tipo y la clasificación especificadas.
5. Guarde una distancia mínima de 1 metro a objetos iluminados.

Advertencia: Para la protección continua contra shock eléctrico

1. Si recibió el producto sin un enchufe de alimentación eléctrica, monte el enchufe correcto siguiendo el código siguiente:
 - marrón-línea
 - azul-neutro
 - verde/amarillo-tierra
2. Desconecte el suministro de energía antes de cambiar lámparas o dar servicio de reparación.
3. Este equipo debe ser conectado a tierra.
4. Este equipo debe usarse únicamente en ambientes secos. No lo exponga a lluvia ni a la humedad.
5. El servicio de reparación de este equipo debe ser realizado únicamente por personal qualificado. El interior no contiene repuestos que puedan ser reparados por el usuario.

Advertencia: Para Protección Continua Contra Lesiones Corporales

1. Utilice cables secundarios de seguridad para instalar el equipo.
2. La superficie del equipo puede alcanzar temperaturas muy altas. Deje que se enfríen durante 10 minutos antes de tocarlas.