Cobra HEX1210

Multi-Colour LED Par Light

Cobra HEX1210 ®   LED Par Light

Dear Customer,

Thank you for purchasing the Cobra lighting HEX1210, LED flat Par. With decades of experience in design and production, Cobra is one of the leading manufacturers of professional accessories, bags, cases, lighting and audio equipment.

This unit has been designed and manufactured to the highest of standards so you can be assured you have made a good investment.

For your safety and to ensure you make full use of all the HEX1210 features, please make sure you read this manual in full.

Before Use

- Before you start using this unit, please check if there's no transportation damage. Should there be any, do not use the device and consult your dealer first.
- Important: This device left our factory in perfect condition and well packaged. It is absolutely necessary for the user to strictly follow the safety instructions and warnings in this user manual. Any damage caused by mishandling is not subject to warranty. The dealer will not accept responsibility for any resulting defects or problems caused by disregarding this user manual.
- Keep this booklet in a safe place for future consultation. If you sell the amplifier, be sure to add this user manual.
- To protect the environment, please try to recycle the packing material as much as possible.

Safety Instructions:

- Read this manual in full before operating this product.
- Keep this manual in a safe place for future reference.
- Heed all warnings and instructions, both in this manual and on the product.
- Carry and transport this product with care. Dropping this product may result in serious mechanical failure.
- The manufacturer accepts no responsibility for injury or damage caused as a result of not following the manual provided.
- Turn off and unplug this light from mains supply when not in use.
- This light is not water proof and should not be used outside.
- Do modify this product in any way.
- In the event of any liquid entering the housing, unplug immediately & contact a qualified engineer.

Protection from Electric Shock:

- Only connect this unit to a mains socket with suitable trip and RCD protection.
- To disconnect from the mains socket, always remove by the mains plug. Do not attempt to remove by pulling the mains cable.
- Disconnect the unit from the mains supply before cleaning. Cleaning should be carried out with a soft, dry cloth.
- Do not expose this unit to any liquids.
- To prevent damage to the product or electric shock do not expose this device or its power supply to rain or moisture.
- Choose a suitable route for mains cables, ensuring trip hazards are avoided and the mains cable is not at risk of being crushed.
- Do not open this unit to service. There are no user serviceable parts inside. Any servicing or repairs should be carried out by a qualified engineer only. Any attempt to service or adapt this unit will leave your warranty void and could result in serious malfunction or injury.

Protection from Fire:

- Do not place near sources of heat or ignition.
- Do not cover or block any ventilation holes.
- Check your AC wall socket will take the power you are applying to avoid overloading the mains supply.

Important Precautions & Instructions

Protection from Injury and Damage:

- Do not attempt to modify this unit.
- Always install the unit in a suitable location where vibrations to the unit are avoided.
- Check this unit matches the mains voltage and frequency before plugging it in to your mains socket.
- In the event that any object or liquid enters the machine, switch off immediately, remove from mains and consult a qualified engineer.
- Should you experience any malfunction or damage to the mains cable, disconnect from the mains supply immediately and consult a qualified engineer.
- All parts should be replaced with genuine spare parts and carried out by a qualified engineer.

Overhead Rigging:

- The installation must be carried out by a qualified engineer only. Improper installation can result in injuries or damage to property.
- Overhead rigging requires experience. Working loads should be a heard to, certified materials should be used.
- The installed device should be regularly inspected for safety.
- Make sure the working area is clear from people and obstructions during rigging, de rigging and servicing.
- Locate the light in a well ventilated area away from flammable materials and liquids.
- When mounting make sure the installation point can take the weight.
- Make sure a safety chain or wire is always used and can take the weight of the light.
- The light should be well fixed and free from swinging.
- Do not cover any ventilation holes.
- The light must not be powered when it is not to be use for an event.
- The operator must make sure the light fitting has been installed correctly to all the necessary guidelines before each use.
- The installation should be inspected every 6 months.

Contents & Unpacking:

Before beginning your initial setup check the unit has not been damaged in transit. In the event there is damage to the housing, cable or internal components contact your dealer immediately.

1 x RGBAWUV Par Light
1 x Mains Lead
1 x User Manual
1 x IR Hand Remote Control

Description:

A high power RGBAW and UV fixture, this Cobra lighting fixture uses 12 x 10 watt HEX LED's that colour mix at the source which allows the unit to produce many vibrant colours with no colour shadows. This fixture is suitable for many applications including illuminating medium size stages, band lighting, solo performers and it can also be used to colour wash walls.

The flexibility of daisy chaining both the DMX signal and the power supply, plus a dual bracket makes it easy to install from a lighting bar or use as an up-lighter.

There is an easy to use display menu on the back of the unit which allows adjustment of all user settings. There is a built in fade, auto and sound programme. The sound mode has 8 variations, fade has 15 and the auto/jump function has 15. An IR hand remote is supplied with light which gives basic control over blackout, colours and programmes, useful for when used as up-lighters. The remote can be pointed at the back or the front of the light to make changes.

For stage work there is a choice of 10 or 6 DMX channel modes to choose making it suitable for every requirement. A cost effective and well-designed fixture with a high output level which will compare to a 500w conventional lamp.

Specification

Power Supply: 230Vac, 50Hz
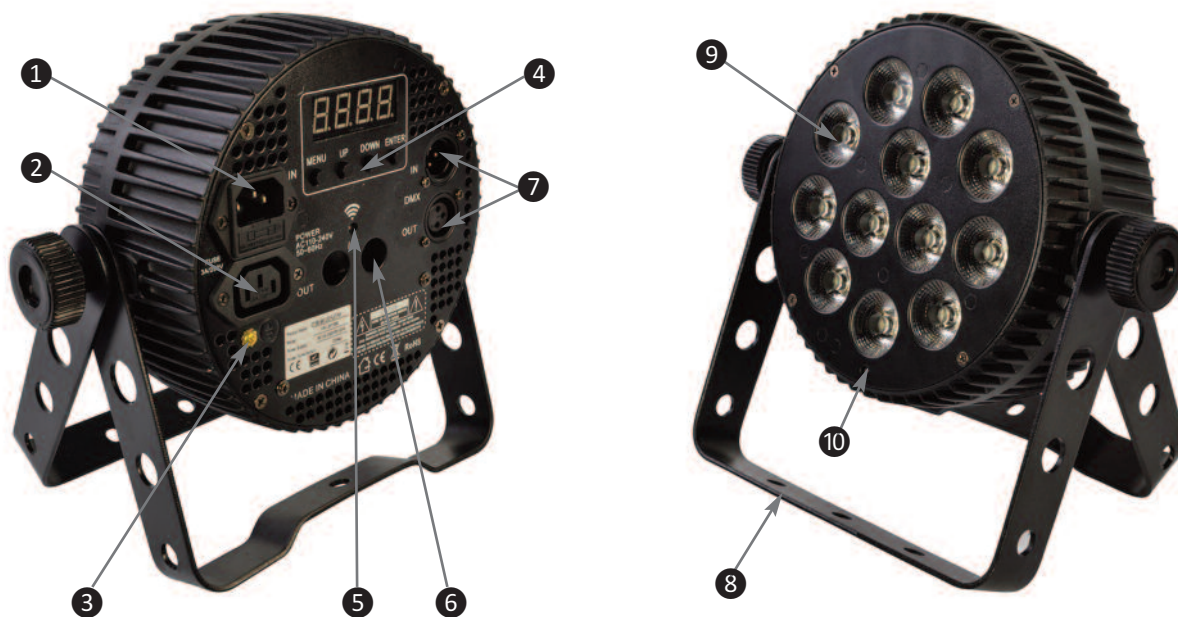Power Consumption: 70w
LED: 12 x 10w RGBWA & UV
Beam Angle: 25 Degrees
DMX Channels: 6 or 10
Dimensions: 270 x 252 x 90mm
Weight: 3Kg

Functions

1. IEC power Input.
2. IEC Power Output. Maximum of 10 of the same unit.
3. Earth Point.
4. 4 button menu.
5. IR sensor - Back.
6. Safety wire point.
7. 3 pin DMX Inputs and Outputs.
8. Dual Bracket for hanging and floor mounting.
9. RGBAWUV LEDs
10. IR sensor - Front.

Menu Layout

Top Menu	Secondary Menu	Discription
Addr	A001-A512	Used to st DMX address
CHnd	6CH-10CH	Select either 6 or 10 channel mode
SLAU		Set this light as a slave
SOUn	Sd01-Sd08	Sound mode sensitivity: 1 to 8
JUnP	JU01-JU08	Jumping chase speed: 1-15
	JF-0-JF-4	Strobe for jumping chase speed: -04
FAdE	Fd01-Fd15	Fade programme speed: 1-15
AUtO		Automatic programme
COLO	C000-C255	selectic a static colour
	CF-0-CF-4	Strobe for static colour 0-4
nAnU	r000-r255	Manual brightness for RED LED
	G000-G255	Manual brightness for GREEN LED
	b000-b255	Manual brightness for BLUE LED
	U000-U255	Manual brightness for WHITE LED
	y000-y255	Manual brightness for AMBER LED
	P000-P255	Manual brightness for UV LED
disp	NO-yES	Inversion of the menu display

Important Precautions & Instructions

DMX Channel Mode:

There are two different DMX configurations, 6 or 10 channel modes.

To access the DMX channel mode, press the "MENU" button on the rear of the unit until "CHnd" is displayed on the LED display.

Now press the "ENTER" button and use the "UP" and "DOWN" buttons to set the desired channel mode.

Now press the "ENTER" button to choose either one, 6 or 10 channel mode.

DMX Layout Chart
6 channel Mode

Channel	Value	Function
CH1	0-255	Red dimmer
CH2	0-255	Green dimmer
CH3	0-255	Blue dimmer
CH4	0-255	White dimmer
CH5	0-255	Amber dimmer
CH6	0-255	UV dimmer

DMX Layout Chart
10 channel Mode

Channel	Value	Function
CH1	0-255	Master dimmer
CH2	0-255	Red dimmer
CH3	0-255	Green dimmer
CH4	0-255	Blue dimmer
CH5	0-255	White dimmer
CH6	0-255	Amber dimmer
CH7	0-255	UV dimmer
CH8	0-255	Strobe speed for jump mode and static colour
CH9	0-255	Static colour selection/Fade and jump speed/Sound sensitivity
CH10	0-59	Channels 1-7 active
	60-119	Static mode
	120-179	Jump mode
	180-239	Fade mode
	250-255	Sound mode

Master/slave mode:

To set the master light, press the "MENU" button on the rear of this light then select your desired program (Sound Active, Jump, Fade, Auto, Static or Manual).

To set the other lights in slave mode, press the "MENU" button on the rear of the light to show "SLAU" on the LED display and press the "ENTER" button to confirm the setting. The unit will now run in sequence with the master light.

Please ensure that all slave lights are set to the same DMX channel mode as the master unit.

Sound Active Mode:

To access the sound active mode, press the "MENU" button on the rear of the light to show "SOUN" on the LED display.

Now press the "ENTER" button and use the "UP" and "DOWN" buttons to set the sound sensitivity level from Sd01 ~ Sd08 and press the "ENTER" button to confirm the setting.

Value: 01 - 08 (01 = low, 08 = high)

Jump Mode:

To access the Jump mode press "MENU" until JUMP shows on the LED display.

To adjust the speed use the "UP" and "DOWN" buttons to select any value from JU01 ~ JU15.

To select the strobe mode press "ENTER", the display will change to JF--, using the "UP" and "DOWN" buttons to select any value from JF-0 ~ JF-4.

Value: 0 - 4 (0= no strobe, 4 = fast strobe speed)

Important Precautions & Instructions

Fade Mode:

To access the colour fade mode press "MENU" until the display shows "FAde" on the LED display.
To adjust the speed press "ENTER" use the "UP" and "DOWN" buttons to select any value from Fd01 ~ Fd15.
Value: 01 - 15 (01 = slow, 15 = fast)

Auto Mode:

To access the auto run mode, press the "MENU" button to show "AUt0" on the LED display.
The fixture will then automatically scroll through colour fade and colour change. The speed/flash rate is not adjustable.

Static Colour Mode:

To access the static colour mode press "MENU" until "C0L0" shows on the LED display.
To adjust the colour press "ENTER" and use the "UP" and "DOWN" buttons to select any value from C000 ~ C255.
To select the strobe mode press "ENTER", the display will change to CF--, using the "UP" and "DOWN" buttons to select any value from JF-0 ~ JF-4.
Value: 0 - 4 (0= no strobe, 4 = fast strobe speed)

Manual Mode:

To access the static colour mode press "MENU" until "MAnU" shows on the LED display.
To adjust the brightness of a colour press "ENTER" until the desired coloured appears
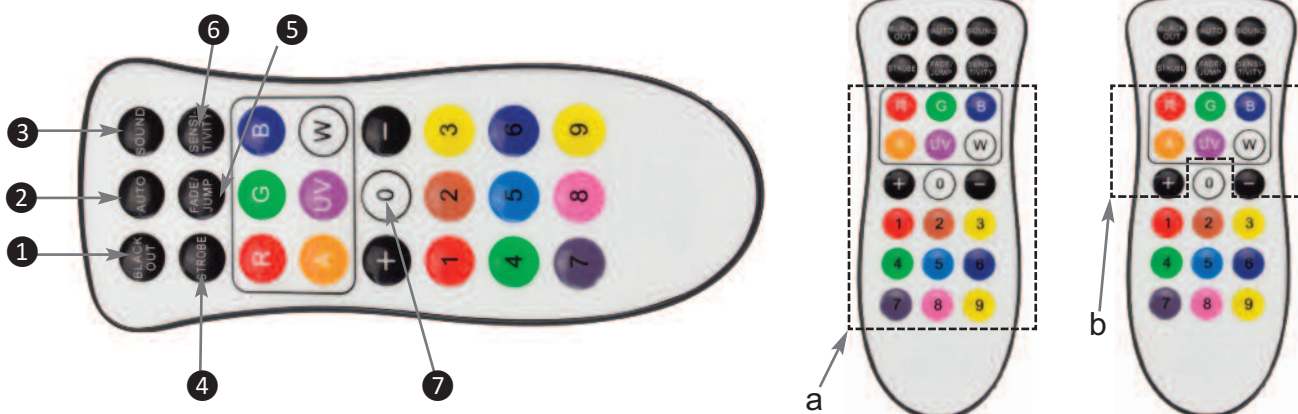 ie. "r..." for red, use the "UP" and "DOWN" buttons to select any value from r000 ~ r255.
Repeat until the desired colour and brightness is produced.

Inverting the Menu Display:

To invert the menu display press "MENU" until "dI5p" shows on the LED display.
To adjust press "ENTER" and use the "UP" and "DOWN" buttons to select "YES" or "NO"

Infra Red Hand Remote Control:

1. Black Out: turns the light on and off.
2. Auto: Selects the auto show.
3. Sound: Selects sound active mode.
4. Strobe: Only works for jump and static colour mode. Use the + and – buttons to adjust the strobe speed.
5. Fade/Jump: Press until in jump or fade mode. Use the + and – buttons to adjust the programme speed.
6. Sensitivity: Use to adjust the sound sensitivity. Use the + and – buttons to adjust the sensitivity.
7. Manual Colour and preset colour mode, There are two options here:
a - Press 0 button until "CL" is displayed then you can set a preset colour by pressing one of the colour buttons or using the up and down buttons.
b - Press the 0 Button until "r..." is displayed then using the colour buttons you can select a colour and use the + and – buttons to adjust the brightness.

Important Precautions & Instructions

Setting a DMX Address:

To set a DMX address press "MENU" until the display shows "Addr" on the LED display.
To adjust the address press "ENTER" use the "UP" and "DOWN" buttons to select any value from A001 to A512.

DMX BASICS:

DMX is short for "digital multiplexer", which is a universal protocol designed for the entertainment industry. It allows control of intelligent fixtures like scanners, moving heads, LED par cans, dimmer packs & effects machines etc.
DMX allows you to control many fixture channels, normally up to 512, with varying channels from 0-255 (0-100%).
This will give control of channels such as gobo selection, movement, colours, dimming and timing to name just a few.

DMX is a very good system, as all this information can be sent down one cable. Used in conjunction with a DMX controller with memory, all of your channel settings can be saved and recalled easily.

DMX was designed so that all manufacturers can use the same protocol/language to control their fixtures, allowing the end user to use any make of fixture from their DMX controller as long as both are DMX compatible, and the controller has enough channels to control the fixture that is attached.
Fixtures have an input and output DMX socket, allowing you to connect from the controller to the first fixture then from that fixture to the next (this is often referred to as "daisy chaining").
Sockets are normally 3 pin XLR but can be 5 pin XLR.

DMX fixtures need to have a DMX address set, this is so they can then decode the correct information from the controller. This is normally done by a digital display panel, where the address can be changed by simple up and down buttons; the address ranges from 1-512. Alternatively it may be controlled by a row of small switches, called dip switches; on this type system, the required address is then converted to a binary number.
To work out your dip switch settings you can simply download a DMX calculator from the internet.
The order in which fixtures are connected in a DMX line does not influence the DMX address, a fixture set to DMX address 1 can be put in a DMX line anywhere from beginning, middle to end. As long as it has its address set to 1, it knows to take information from that point onwards.

3 Pin	5 Pin
Pin 1 GND	Pin 1 GND
Pin 2 -	Pin 2 -
Pin 3 +	Pin 3 +
	Not Used
	Not Used

120 Ohm
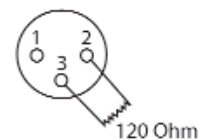
DMX Wiring and Connections

3 pin DMX wiring is more common, although using a 5 pin connecter is better to stop confusion with with audio leads. With 5 pin connections, not all pins are used, though it is worth checking your manual for your fixture, as some lights use the unused pins for low voltage control.
When making cables always use suitable DMX cable and do not connect pin 1 GND to the outer casing of the connector as you might do with audio cables, as this may cause erratic behaviour from your fixture.
Do not make "Y" leads to split cables to fixtures; always use the in and out sockets or a DMX splitter, as again this may cause erratic behaviour from your fixture.
We recommend you to put a DMX terminator in any fixture which hasn't got a DMX lead connected from the output socket to another fixture; this again is to reduce unexpected behaviour. A DMX terminator is simply a male XLR plug with 120 ohms, ¼ watt resistor soldered across pin 2 & 3 or you can buy one pre-made.

Example of a DMX line

DMX 512 (controller)

120ohm 1/4W (terminator)

120 Ohm
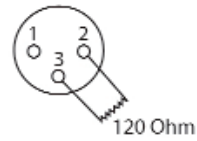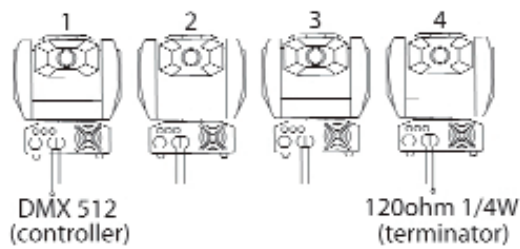
Ch1	Ch2	Ch3	Ch4	Colour	
Pan	**Tilt**	**Shutter/Shaking**	**Gobo**	**Normal**	**Split**
540°	270°	246-255 Open	255 Fastest speed Gobo change	255 Fastest speed Rainbow Effect	255 Fastest speed Rainbow Effect
		247 Fastest speed shaking	128 Slowest speed Gobo change	128 Slowest speed Rainbow effect	128 Slowest speed Rainbow effect
			120-127	118-127 Pink	121-127 Pink
			111-119	107-117 Yellow	113-120 Yellow+Pink
			103-110	096-106 Orange	106-112 Yellow
			094-102	086-095 Light Green	098-105 Orange+Yellow
		132 Slowest speed shaking	086-083	075-085 UV Purple	091-097 Orange
		131 Fastest speed shutter	077-085	064-074 Blue	083-090 Light Green+Orange
			069-076	054-063 Red	076-082 Light Green
			060-068	043-053 Amber	068-075 UV Purple
			052-059	032-042 Light Blue	061-067 Blue
			044-051	022-031 Magenta	053-060 Red+Blue
			035-043	011-021 Green	046-052 Red
		16 Slowest speed shutter	0-26-034	000-010 White	038-045 Amber
			018-025		031-037 Light Blue
		008-015 Open	009-017		023-030 Magenta
			000-008		016-022 Green+Magenta
		000-007 Blackout			008-016 Green
0°	0°				000-007 White

Each fixture takes up 5 DMX Channels (See Above)

You have a cable from the controller to the first fixture cable, then from first to second and so on. The last light then has a DMX terminator plugged in.

Fixture 1 would be set to DMX address:

DMX address 1.

Fixture 2 would be set to DMX address:

DMX address 6.

Fixture 3 would be set to DMX address:

DMX address 11.

Fixture 4 would be set to DMX address:

DMX address 16.

We recommend you to read manuals for your DMX fixture and controller in full. Some controllers tell you what each fixture address needs to be, and some lights need other settings changed before they will work.

When setting your DMX address, you must ensure fixtures don't overlap from one to the next.

You can set 2 fixtures to the same address, and as long as they are the same fixture (i.e. same channel layout) then they will then do the same as each other.