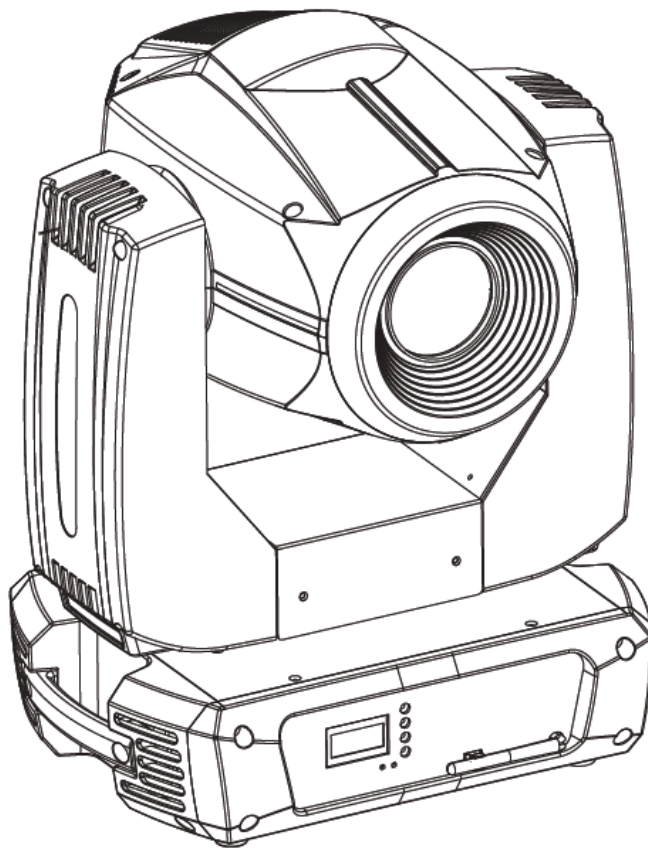


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MANUAL



LED Cobalt Plus Spot 180W

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1. Safety instructions



- This device is suitable for indoor use (not outdoors) only.
- All modifications to the device will void the warranty.
- Repairs are to carry out by skilled personnel only.
- Use only fuses of the same type and original parts as spare parts.
- Protect the unit from rain and humidity to avoid fire and electric shocks.
- Make sure to unplug the power supply before opening the housing.

1.1. FOR SAFE AND EFFICIENT OPERATION

Be careful with heat and extreme temperature

Avoid exposing it to direct rays of the sun or near a heating appliance.

Not put it in a temperature bellow 32°F /0°C, or exceeding 104°F /40°C.

Keep away from humidity, water and dust

Do not place the set in a location with high humidity or lots of dust.

Containers with water should not be placed on the set.

Keep away from sources of hum and noise

Such as transformer motor, tuner, TV set and amplifier.

To avoid placing on un-stable location

Select a level and stable location to avoid vibration.

Do not use chemicals or volatile liquids for cleaning

Use a clean dry cloth to wipe off the dust, or a wet soft cloth for stubborn dirt.

If out of work, contact sales agency immediately

Any troubles arose, remove the power plug soon, and contact with an engineer for repairing, do not open the cabinet by yourself, it might result a danger of electric shock.

Take care with the power cable

Never pull the power cable to remove the plug from the receptacle, be sure to hold the plug.

When not using the device for an extended period of time, be sure to disconnect the plug from the receptacle.

Important: Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems. Make sure the electrical connection is carried out by qualified personnel. All electrical and mechanical connections have to be carried out according to the European safety standards.

1.2. Further safety instructions



IMPORTANT

Keep away from water and humidity!

Make sure to unplug the power supply before opening the housing!

Please read careful through this manual before the first start-up.

All persons which are entrusted with installation, start-up, operation, maintenance and repair of this device have to:

- Show a corresponding competence.
- Follow the lines of this manual.
- Face this manual as part of the product.
- Keep this manual over the lifetime of the product.
- Pass this manual to new owners of the device.
- Download the latest version of the manual.

Safety-related red flags



IMPORTANT!

Handle with the dangerous electric voltages carefully.

With this voltage there is the danger to get a life-threatening electric shock.

Always observe

After taken the device from a cold room to a warm room, it is not allowed to activate the device.

It is possible that thereby emerged condensed water damages the device. Activate the device not until it reached ambient temperature.

Prevent that the power cable has contact with other cables. Handle carefully with power cables and power connections. Don't touch them with clammy hands.

Make sure that the voltage which is to connect not exceeds the specified values.

Make sure that it isn't possible to squeeze or damage the power cable with sharp edges. Assure yourself with regular checks that there are no damages to the power cable or the device.

Don't switch the device in short time intervals (e.g. in second cycle) on or off.

Keep away children and laymen off the device.

**Health risk!**

Don't look directly into the light source. At certain circumstances it is possible that some people get epileptic seizures. This is especially true for individuals whose epilepsy was determined by a doctor.

Designated use

This device was developed for professional use on stages, in discos, theatres etc. The device is only approved for a connection up to 230V 50/60 Hz AC voltage and only for indoor use.

Regular breaks during operation increase the lifetime of your device.

Avoid convulsions or any form of forceful impact during the installation or the start-up of the device.

Make sure that the device is not exposed excessive heat, humidity or dust at the place of installation. Take care that no cables are lying around. You would endanger your own safety and also the safety of a third party.

It is not allowed to operate or store the device in an environment in which spray water, rain, humidity or fog is expected. Humidity or very high atmospheric humidity could reduce the isolation of the device and could cause deathly electric shocks. If you use fog devices the device has not be exposed to a direct smoke jet. There has to be a safety distance of at least 0.5m between this device and the fog machine. Make sure that the saturation of the fog has to enable a visibility of at least 10m.

The ambient temperature has to be between 0°C and +40°C. Avoid direct sunlight and close proximity to heaters. You have also to attend it during the transport in closed motor vehicles.

You have to attend that with an ambient temperature von 40°C it is not allowed that the relative humidity exceeds 50%.

Operate the device not during thunderstorms. Surge voltages could destroy the device. Unplug the power supply during thunderstorms.

During the installation the use of the mounting bracket is obligatory.

Surrounding objects or surfaces should not be in contact with the device.

Make sure that during the installation and removal of the device the area below the place of installation is basically cordoned off. This also applies to implementation of service.

The device has basically been protected by a suitable safety.

Make familiar yourself with the functions of the device before start-up. People without the experience should not handle with the device. The most cause of functional disorder is inappropriate handling.

Do not use chemicals or volatile liquids for cleaning. Use a clean dry cloth to wipe off the dust, or a wet soft cloth for stubborn dirt.

For transport use the original packing or designated accessory to avoid damages during the transport.

For reasons of safety unauthorized changes are forbidden.

A usage of the device which differs from usages which are described in this manual can cause damages of the device. In that case the warranty expires. Additionally you should notice that every differed usage is related with dangers and can cause e.g. an electrical short, fire, electric shock or crash.

Overhead installation



Danger of life!

You have to observe the regulations of BGV C1 (formerly VBG 70) and EN60598-2-17 Installations are to carry out by skilled personnel only.

The suspension devices have to be build and measured so they can withstand for an hour the tenfold of the payload without suffering a permanent detrimental deformation.

Basically installation has to be made by using a second separate suspension. This can be e.g. a suitable net. The second suspension must be designed and attached so no part of the installation can fall down in case of failure.

During construction, reconstruction and deconstruction unnecessary stay in the range of moving areas, on lightning bridges, under elevated work stations or any other danger zones is forbidden.

The operator is obliged to following safety-related and mechanical facilities:

- Before the first start-up or after critical changes before restarting it has to be checked by an expert.
- Review in the frame of the inspection test at least all four years by an expert. .
- Review by a qualified person at least once a year.

How to carry out the overhead installation:

In tidal fall you should install the device out of the lounge area of people

IMPORTANT! Overhead installation requires a high level of experience. This includes knowledge of calculating the payload, used installation material and safety inspections of the used material and the projector whereas the required experience is not limited to this. Do not try to carry out installation yourself under any circumstances if you are not qualified. Contact a professional installer. An inappropriate installation can lead to injuries and/or damaged properties.

It is not allowed to install the device in the grip area of people.

If the device may hang from the ceiling or from high beams, the use of truss systems is mandatory. The device may not be installed so it can swing freely in the room.

Please note: Crashing down items can cause serious injuries! Do not install the projector, if you doubt the safety of a possible installation form!

Before installation make sure that the mounting surface has the ability to carry the tenfold point load of the own weight of the device.

Mount the device with the mounting-bracket to your trussing system using an appropriate clamp.

During overhead installation the device must be always secured by a safety rope which is designed to hold the twelvefold weight of device. Only safety ropes with quick-release safety fastener elements may be used. Hang up the safety rope in the hole of the mounting bracket. Direct the rope over the truss or an appropriate fastening point. Hang up the end in the fastening element and tie up the locking nut. A safety rope once exposed to failing load or damaged may not be used furthermore.

The maximum drop exceed must not exceed 20cm.

A safety rope once exposed to failing load or damaged may not be used furthermore.

Adjust the desired inclination angle via the mounting bracket and tighten the screw.

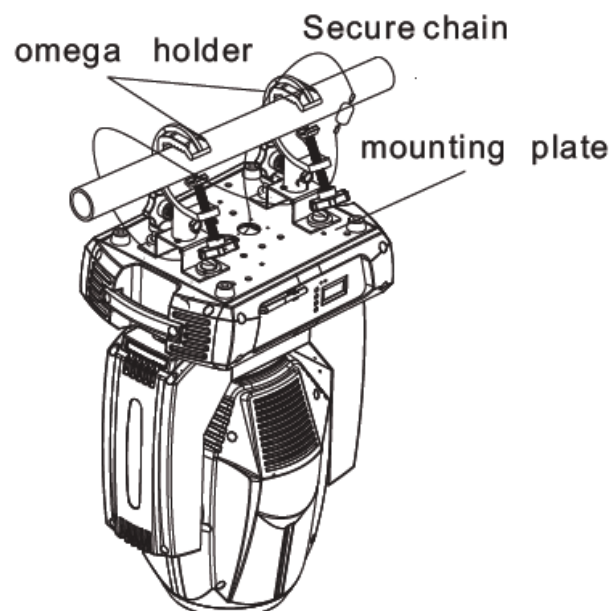
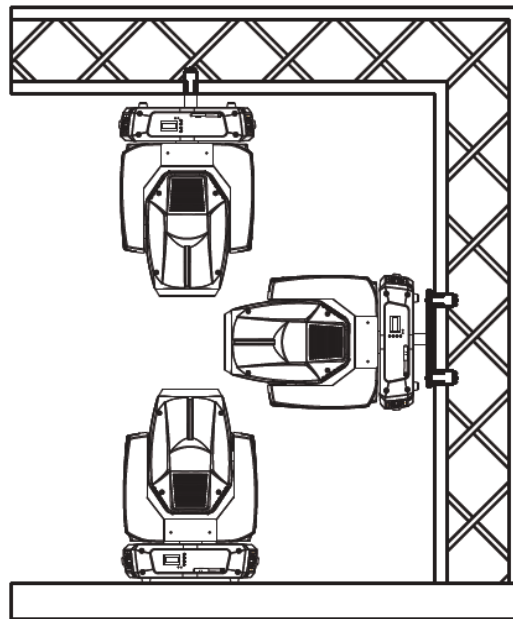
The lamp which is used in this device is a gas discharge lamp. If you turn off the lamp you have to wait at least 15 minutes before turn it on again. Fast on and off of the lamp reduces the lifetime drastic. Breaks increase the lifetime.

1.3. Mounting

Basically you can operate the device in every position



Take care of the CE regulations! The installation should be made by professionals.

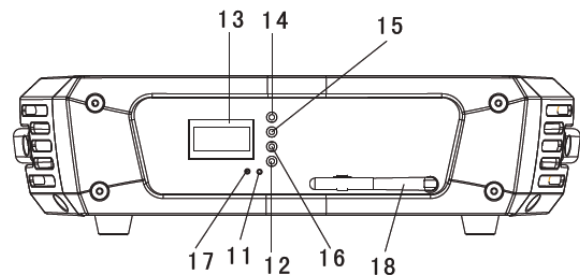
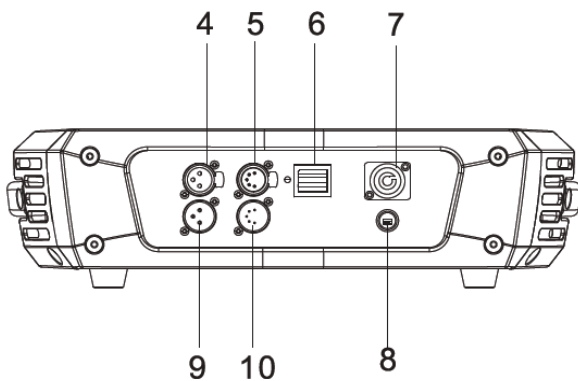
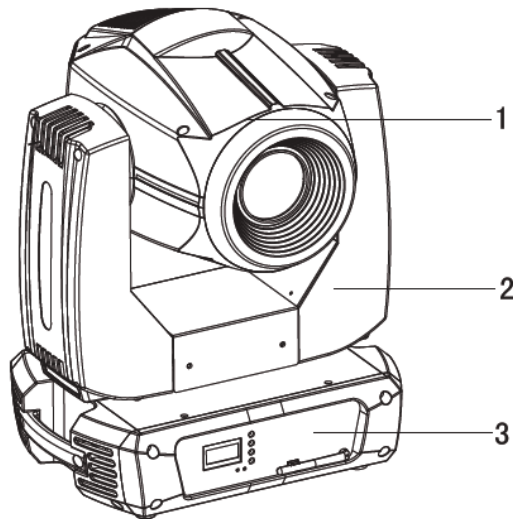


2. Introduction

Thank you for buying the **LED Cobalt plus Spot 180W**. It is a powerful device.

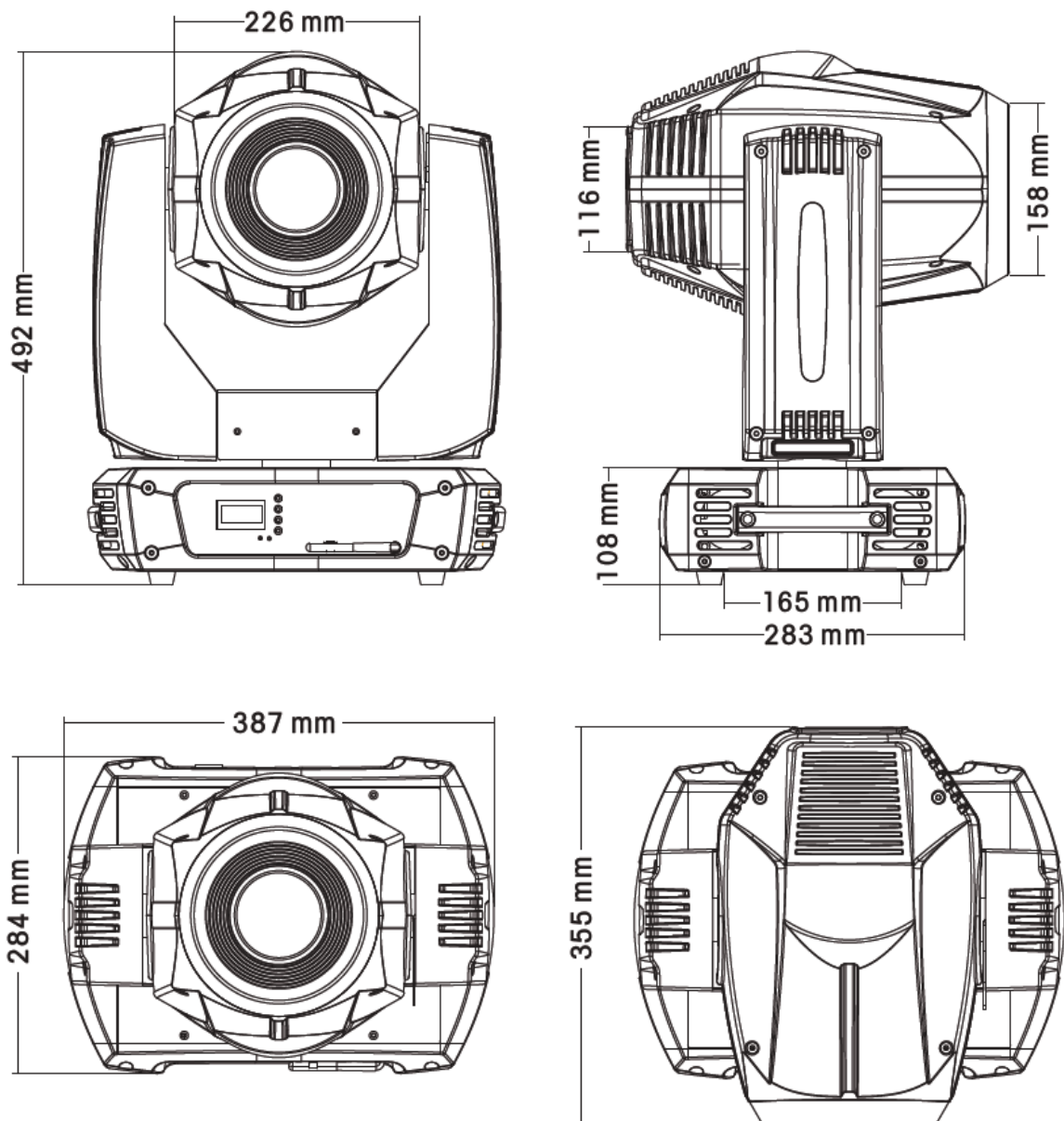
For a successful installation and operation, please read this manual carefully.

2.1. Product overview



- | | |
|---------------------|--------------------|
| 1. Head | 10. 5-Pin XLR male |
| 2. Arm | 11. Microphone LED |
| 3. Base | 12. ENTER button |
| 4. 3-Pin XLR female | 13. LCD Display |
| 5. 5-Pin XLR female | 14. MODE button |
| 6. Power switch | 15. UP button |
| 7. Power socket | 16. DOWN button |
| 8. Fuse | 17. WDMX LED |
| 9. 5-Pin XLR male | 18. WDMX antenna |

2.2. Dimensions



3. Connections

3.1. Electrical connections

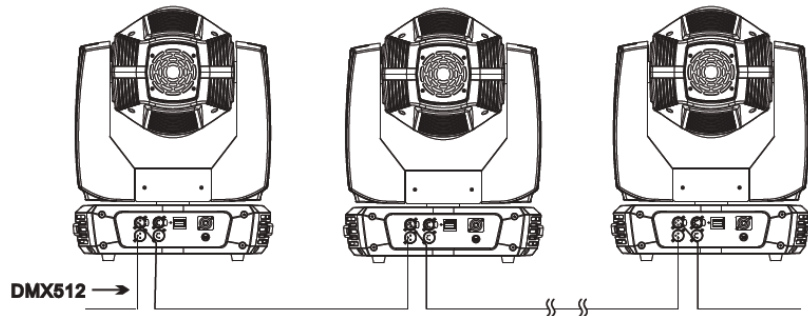
If you wish to change the power supply settings, see the chapter Appendix. Connect the fixture to the mains with the enclosed power cable and plug. The earth has to be connected.

Cable (EU)	Cable (US)	Pin	International
Brown	Black	Live	L
Light blue	White	Neutral	N
Yellow/Green	Green	Earth	⊕

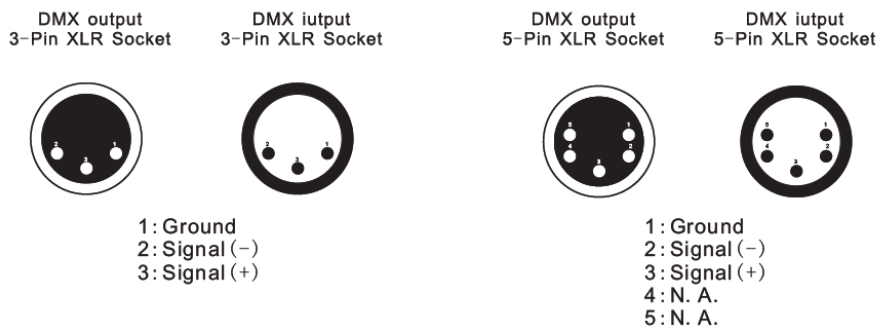
3.2. DMX connections

To make a DMX512 connection go ahead like it is described in the picture. Make sure that you use shielded cable. 3pole or 5pole XLR cables are suitable.

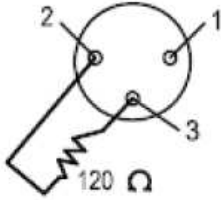
Important! After the last device the line has to be terminated. In order to do this you have to solder a 120Ω resistor between the pins Data + and Data -. You can solder this end resistor on a 3pin or 5pin XLR: Plug this adapter into the DMX output of the device.



3.3. Pin allocation



3.4. DMX terminator diagram



At installation where the cable has to span long distances, or can be disturbed by other cables, it is useful to use end resistors. The DMX terminator is a XLR plug which has a 120Ω resistor between pin2 and pin3. This is plugged in the last device of a DMX chain.

4. Control

Using touch control switch and LCD display, and this can be simply and easily set the address code and functions code.

If you view or modify the lighting feature set, then press MODE button, the LCD display will enter the menu interface. Both there is a sub menu corresponding to the functional operation of the main menu. Each of the menus is representative of the specific features of the lamp. The specific content shows as the table menu below. Set or browse lighting function, press UP or DOWN button.

Press ENTER to save your changes or enter the submenu. Press the UP or DOWN can change the numerical (increase or decrease in value).

Press the MODE button to return to menu.

4.1. Structure of the menu

Function	Addr	001-512	
	Value	Free Ch	
	Auto	Alone	
		Master	
		OFF	
	Music	Alone	
Master			
Off			
Info	Time	Current	xxxx
		Total	xxxx
		Clear	ON/OFF
	Temp	Head T	xxxx
	Product	Vxx	
Personal	Status	Addr DMX	ON/OFF
		No DMX	Clos
			Hold
			Auto
			Musi
		Pan R	ON/OFF
		Tilt R	ON/OFF
		DMX Mod	Mod1/Mod2
		Feed	ON/OFF
		Mic	0-99

	Display	Close T	02-59
		Rev	ON/OFF
	Default		
Reset	All		
	Pan/Tilt		
	Else		
Adjust	Test	Pan.....xxx	xxx
	Regulate	Sn	xxx
		Pan	xxx

5. DMX chart

Mode 1	Mode 2	Value from	Value to	Function
1	1	0	255	Pan
2		0	255	Pan fine
3	2	0	255	Tilt
4		0	255	Tilt fine
5	3	0	255	Speed Pan/Tilt fast-slow
6	4			Color wheel 1
		0	7	White
		8	15	White + Color 1
		16	23	Color 1
		24	31	Color 1 + Color 2
		32	39	Color 2
		40	47	Color 2 + Color 3
		48	55	Color 3
		56	63	Color 3 + Color 4
		64	71	Color 4
		72	79	Color 4 + Color 5
		80	87	Color 5
		88	95	Color 5 + Color 6
		96	103	Color 6
		104	111	Color 6 + Color 7
		112	127	Color 7
		128	187	Rainbow effect forwards fast-slow
188	193	No rotation		
194	255	Rainbow effect backwards slow-fast		
7	5			Color wheel 2
		0	7	White
		8	15	White + Color 1
		16	23	Color 1
		24	31	Color 1 + Color 2
		32	39	Color 2
		40	47	Color 2 + Color 3
		48	55	Color 3

		56	63	Color 3 + Color 4
		64	71	Color 4
		72	79	Color 4 + Color 5
		80	87	Color 5
		88	95	Color 5 + Color 6
		96	103	Color 6
		104	111	Color 6 + Color 7
		112	127	Color 7
		128	187	Rainbow effect forwards fast-slow
		188	193	No rotation
		194	255	Rainbow effect backwards slow-fast
8	6			Gobo wheel 1
		0	8	No function
		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	69	Gobo 7
		70	89	Shake Gobo 1 slow-fast
		90	109	Shake Gobo 2 slow-fast
		110	129	Shake Gobo 3 slow-fast
		130	149	Shake Gobo 4 slow-fast
		150	169	Shake Gobo 5 slow-fast
		170	189	Shake Gobo 6 slow-fast
		190	209	Shake Gobo 7 slow-fast
210	255	Rotation gobo wheel slow-fast		
9	7			Rotation gobo wheel 1
		0	127	Gobo indexing (0-540°)
		128	190	Gobo rotation forwards fast-slow
		191	192	No rotation
		193	255	Gobo rotation backwards slow-fast
10	8			Gobo wheel 2
		0	12	No function
		13	25	Gobo 1

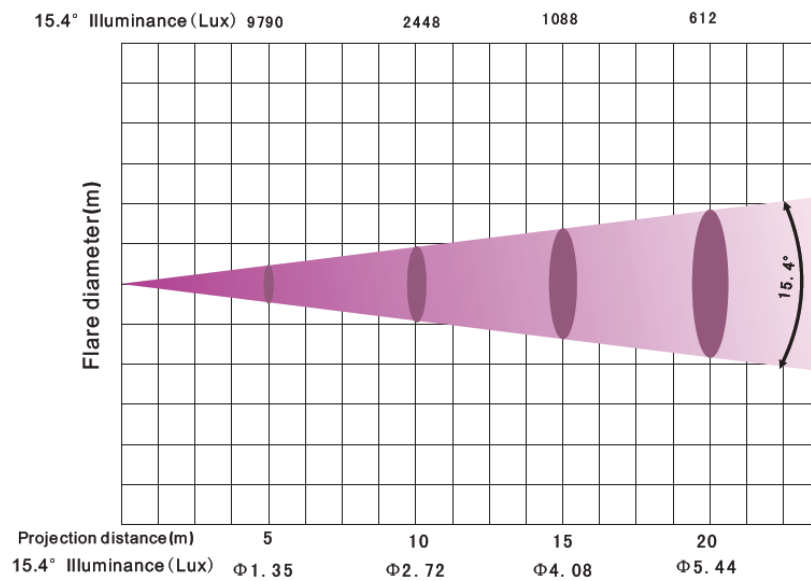
		26	38	Gobo 2
		39	51	Gobo 3
		52	64	Gobo 4
		65	77	Gobo 5
		78	90	Gobo 6
		91	103	Gobo 7
		104	119	Gobo 8
		120	129	Shake Gobo 1 slow-fast
		130	139	Shake Gobo 2 slow-fast
		140	149	Shake Gobo 3 slow-fast
		150	159	Shake Gobo 4 slow-fast
		160	169	Shake Gobo 5 slow-fast
		170	179	Shake Gobo 6 slow-fast
		180	189	Shake Gobo 7 slow-fast
		190	199	Shake Gobo 8 slow-fast
		200	255	Rotation gobo wheel slow-fast
11	9			3-fach prism
		0	127	No function
		128	255	3-fach prism
12	10			Rotation prism
		0	127	Prism indexing (0-540°)
		128	190	Rotation forwards
		191	192	No rotation
		193	255	Rotation backwards
13	11			Macros prism
		0	15	No function
		16	31	Macro 1
		32	47	Macro 2
		48	63	Macro 3
		64	79	Macro 4
		80	95	Macro 5
		96	111	Macro 6
		112	127	Macro 7
		128	143	Macro 8
		144	159	Macro 9
		160	175	Macro 10

		176	191	Macro 11
		192	207	Macro 12
		208	223	Macro 13
		224	239	Macro 14
		240	255	Macro 15
14	12			Iris
		0	191	Diameter max.-Diameter min.
		192	223	Pulse opening fast-slow
		224	255	Pulse closing slow-fast
15	13	0	255	Focus
16	14			Strobe
		0		No function
		1	95	Strobe slow-fast
		96	127	No function
		128	159	Pulse effect
		160	191	No function
		192	223	Random Strobe
		224	255	No function
17	15	0	255	Dimmer 0-100%
				Reset
18	16	0	19	Normal
		20	79	No function
		80	84	Motor reset (all)
		85	87	Motor reset (Scan)
		88	90	Motor reset (other)
		91	255	No function

6. Technical data

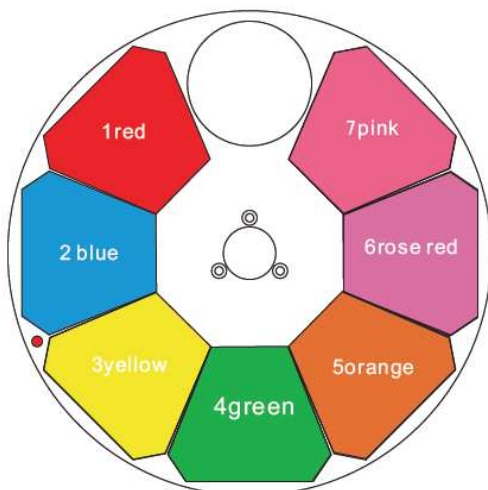
Voltage	AC100-250V 50/60 Hz
Power consumption	255W
Dimensions	386x355x492mm
Weight	18,5kg

6.1. Lux

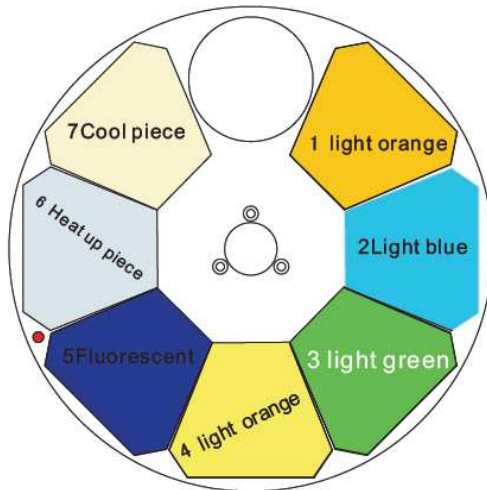


6.2. Color wheels

Color disk1

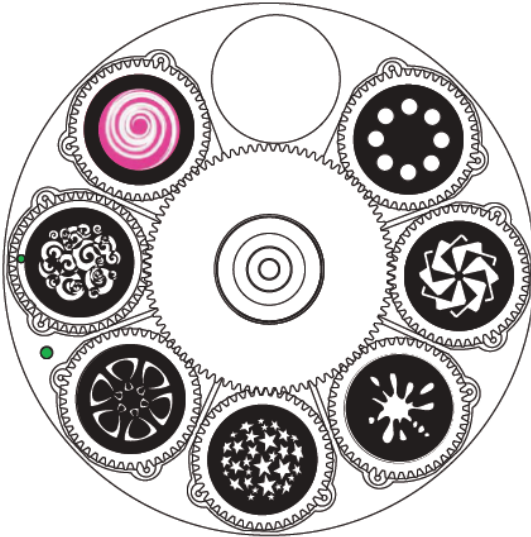


Color disk2

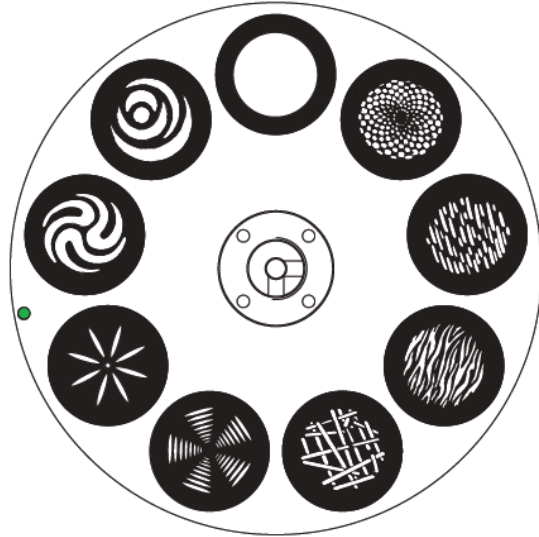


6.3. Gobo wheels

RGOBO WHEEL



GOBOR WHEEL



Importer:

B&K Braun GmbH
Industriestraße 2
D-76307 Karlsbad-Ittersbach

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