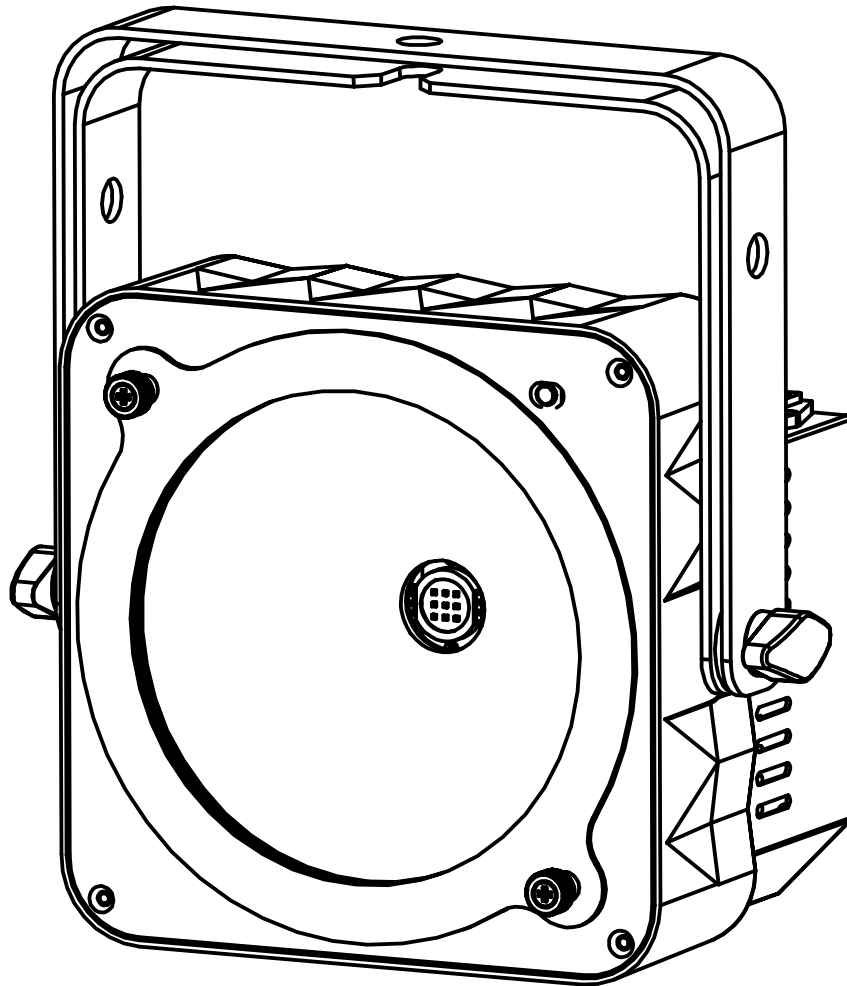


COB-PLANO



ENGLISH Operation Manual

Other languages can be downloaded from:
WWW.JB-SYSTEMS.EU



Version: 2.0

JB SYSTEMS



EN - DISPOSAL OF THE DEVICE

Dispose of the unit and used batteries in an environment friendly manner according to your country regulations.

FR - DÉCLASSER L'APPAREIL

Débarrassez-vous de l'appareil et des piles usagées de manière écologique Conformément aux dispositions légales de votre pays.

NL - VERWIJDEREN VAN HET APPARAAT

Verwijder het toestel en de gebruikte batterijen op een milieuvriendelijke manier conform de in uw land geldende voorschriften.

DU - ENTSORGUNG DES GERÄTS

Entsorgen Sie das Gerät und die Batterien auf umweltfreundliche Art und Weise gemäß den Vorschriften Ihres Landes.

ES - DESHACERSE DEL APARATO

Reciclar el aparato y pilas usadas de forma ecologica conforme a las disposiciones legales de su país.

PT - COMO DESFAZER-SE DA UNIDADE

Tente reciclar a unidade e as pilhas usadas respeitando o ambiente e em conformidade com as normas vigentes no seu país.

OPERATION MANUAL

Thank you for buying this JB SYSTEMS® product. To take full advantage of all possibilities and for your own safety, please read these operating instructions very carefully before you start using this unit.

FEATURES

This unit is radio-interference suppressed. This product meets the requirements of the current European and national guidelines. Conformity has been established and the relevant statements and documents have been deposited by the manufacturer.

- This device was designed to produce decorative effect lighting and is used in light show systems.
- Extremely compact energy saving COB LED-projector !
- NO separate LEDs: equipped with a 36W COB LED assuring perfect color mixing and the look of a traditional lamp !
- Two different beam angles: 100° wide angle or 15° when using the supplied lens.
- IR-remote controller included: no difficult controllers needed, perfect for DJ's !
- Different working modes:
 - **Standalone with IR-remote:** automatic / beat synchronized color patterns.
 - **Master/slave mode:** several projectors can be used together for wonderful preprogrammed, music synchronized lightshows.
 - **DMX-controlled:** different channel modes with program selection and individual RGB control.
 - Can be used with **LEDCON-02 Mk2** and the **LEDCON-XL** easy controllers !
- Perfect for mobile applications: extremely small and very low power consumption
- Many applications possible: Discotheques, DJs, rental companies, ...
- 0-100% dimming and ultra-fast strobe function (no additional strobes needed!)
- 4digit LED-display for easy menu navigation
- Double bracket: easy for use as floor spot !
- Can even be installed inside QUATTRO 290 ALU-truss AFTER the truss is installed !

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 fixture, be sure to add this user manual.

Check the contents:

Check that the packing contains the following items:

- Operating instructions
- COB-PLANO + Filter frame with narrow beam lens
- IR Remote control
- Power Cable

SAFETY INSTRUCTIONS:



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: To reduce the risk of electric shock, do not remove the top cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.



The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the user or the presence of un-insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying this appliance.



This symbol means: indoor use only



This symbol means: Read instructions



This symbol determines: the minimum distance from lighted objects. The minimum distance between light-output and the illuminated surface must be more than x meters



The device is not suitable for direct mounting on normally flammable surfaces. (suitable only for mounting on non-combustible surfaces)

RISK GROUP 2
CAUTION:
Do not stare at operating lamp

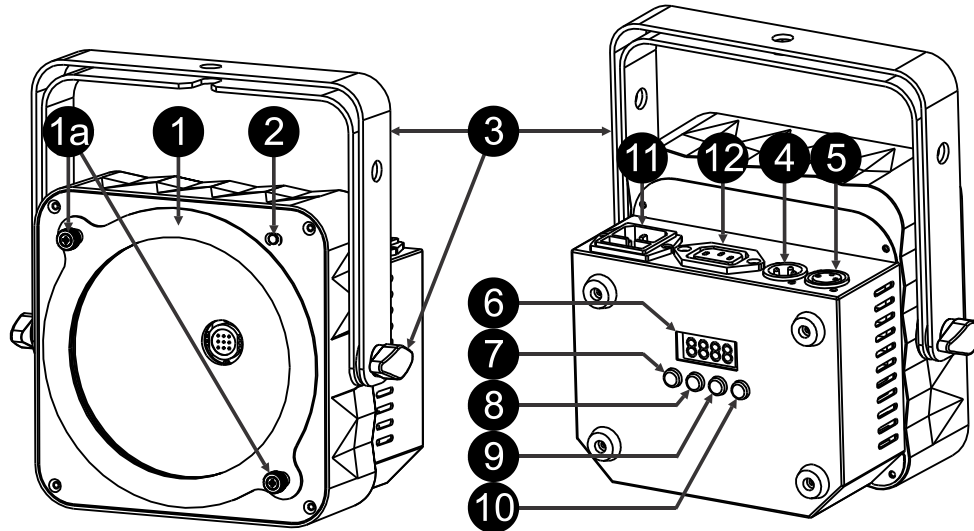
CAUTION: Do not stare at operating lamp.
May be harmful to the eyes.

- To protect the environment, please try to recycle the packing material as much as possible.
- To prevent fire or shock hazard, do not expose this appliance to rain or moisture.
- To avoid condensation to be formed inside, allow the unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condense sometimes prevents the unit from working at full performance or may even cause damages.
- This unit is for indoor use only.
- Don't place metal objects or spill liquid inside the unit. Electric shock or malfunction may result. If a foreign object enters the unit, immediately disconnect the mains power.
- Locate the fixture in a well ventilated spot, away from any flammable materials and/or liquids. The fixture must be fixed at least 50cm from surrounding walls.
- Don't cover any ventilation openings as this may result in overheating.
- Prevent use in dusty environments and clean the unit regularly.
- Keep the unit away from children.
- Inexperienced persons should not operate this device.
- Maximum safe ambient temperature is 40°C. Don't use this unit at higher ambient temperatures.
- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- Allow the device about 10 minutes to cool down before to start servicing.
- Always unplug the unit when it is not used for a longer time or before to start servicing.
- The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.
- Check that the available voltage is not higher than the one stated on the unit.
- The power cord should always be in perfect condition. Switch the unit immediately off when the power cord is squashed or damaged. It must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Never let the power-cord come into contact with other cables!
- This fixture must be earthed in order to comply with safety regulations.
- Don't connect the unit to any dimmer pack.
- Always use an appropriate and certified safety cable when installing the unit.
- In order to prevent electric shock, do not open the cover. There are no user serviceable parts inside.
- **Never** repair a fuse or bypass the fuse holder. **Always** replace a damaged fuse with a fuse of the same type and electrical specifications!
- In the event of serious operating problems, stop using the fixture and contact your dealer immediately.
- The housing and the lenses must be replaced if they are visibly damaged.
- Please use the original packing when the device is to be transported.

- Due to safety reasons it is prohibited to make unauthorized modifications to the unit.

Important: Never look directly into the light source! Don't use the effect in the presence of persons suffering from epilepsy.

DESCRIPTION:



1. **FILTER FRAME:** if in some cases, you need a beam that is much wider to lighten up a large surface, you can take off the frame with the narrow beam lens. Just unscrew the 2 knobs (1a) to do this.
2. **IR RECEIVER:** for the wireless remote control.
3. **DOUBLE BRACKET:** with 2 knobs to fasten the unit in the desired position and a mounting hole to fix a truss clamp.
4. **DMX INPUT:** 3pin male XLR-connector used to connect the projector with the DMX controller or with the previous unit in the DMX chain.
5. **DMX OUTPUT:** 3pin female XLR-connector used to connect the projector with the next unit in the DMX chain.
6. **DISPLAY** shows the various menus and the selected functions.
7. **MENU button:** used to browse the different functions in the menu
8. **ENTER button:** used to confirm your choice or to enter the setup mode of a function.
9. **UP button:** to increase the values shown on the display.
10. **DOWN button:** to lower the values shown on the display.
11. **Mains input:** with IEC socket and integrated fuse holder, connect the supplied mains cable here..
12. **Mains output with IEC socket:** you can use a special IEC power cable to connect this output with the mains input of the next COB PLANO for easier linking up to 10A.

OVERHEAD RIGGING

- **Important:** The installation must be carried out by qualified service personal only. Improper installation can result in serious injuries and/or damage to property. Overhead rigging requires extensive experience! Working load limits should be respected, certified installation materials should be used, the installed device should be inspected regularly for safety.
- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- The device should be installed out of reach of people and outside areas where persons may walk by or be seated.
- Before rigging make sure that the installation area can hold a minimum point load of 10times the device's weight.
- Always use a certified safety cable that can hold 12times the weight of the device when installing the unit. This secondary safety attachment should be installed in a way that no part of the installation can drop more than 20cm if the main attachment fails.
- The device should be well fixed; a free-swinging mounting is dangerous and may not be considered!
- Don't cover any ventilation openings as this may result in overheating.

- The operator has to make sure that the safety-relating and machine-technical installations are approved by an expert before using them for the first time. The installations should be inspected every year by a skilled person to be sure that safety is still optimal.

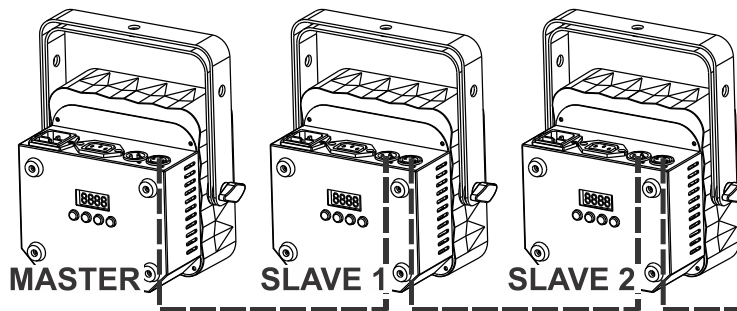
ELECTRICAL INSTALLATION

⚠ Important: The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.

Electrical installation for 1 standalone unit:

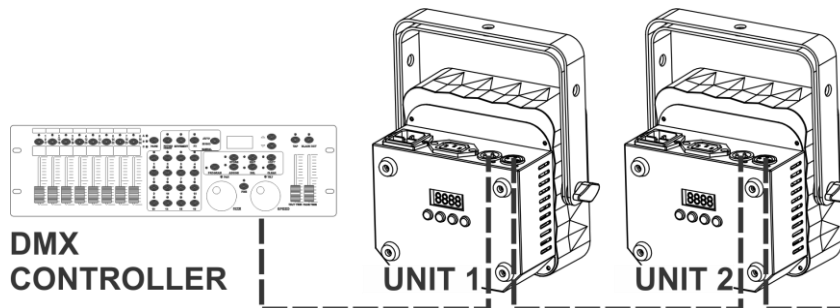
- Insert the mains cable. The unit starts working immediately in the last selected mode.
- Refer to chapter HOW TO SETUP to learn how to switch between the different working modes.

Electrical installation for two or more units in master/slave:

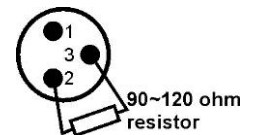


- Connect several units together using good quality balanced microphone cables. The unit that has no cable connected to its DMX-input is the “master”, the others are the slave units.
- Make sure that all units are connected to the mains.
- Refer to chapter HOW TO SETUP for more information.
- Done!

Electrical installation for two or more units in DMX-mode:



- The DMX-protocol is a widely used high speed signal to control intelligent light equipment. You need to “daisy chain” your DMX controller and all the connected units with a good quality balanced cable.
- To prevent strange behavior of the light effects, due to interferences, you must use a 90Ω to 120Ω terminator at the end of the chain. Never use Y-splitter cables, this simply won’t work!
- Make sure that all units are connected to the mains.
- Each light effect in the chain needs to have its proper start address so it knows which commands from the controller it has to decode. In the section HOW TO SETUP you will learn how to set the DMX addresses. If for example you use the 4 channel DMX mode, a possible address setup could be: unit1 = 001 ~ unit2 = 005 ~ unit3 = 009 ~ unit4 = 013 ~ etc.



HOW TO SETUP:

DMX512 Address Setting

Used to set the start address in a DMX setup.

- Press the MENU button until **Axxx** (A followed by 3 numbers) is shown on the display.
- Use the DOWN and UP buttons to change the DMX address.
- Once the correct address is shown on the display, press the ENTER button to confirm.
- The channel mode will now appear on the display (03CH – 04CH or 06CH)
- Use the DOWN and UP buttons if you would like to change the working mode
- Press the ENTER button to confirm

DMX Channel Mode

The unit has 3 different DMX channel modes. With this function you can choose the DMX mode you want to use. Refer to the DMX-charts to see the differences.

- Press the MENU button until **A...** (A followed by 3 numbers) is shown on the display.
- Use the DOWN and UP buttons if you want to change this DMX start address.
- Press the ENTER button to confirm.
- The channel mode will now appear on the display (03CH – 04CH or 06CH)
- Use the DOWN and UP buttons if you would like to change the working mode
- Press the ENTER button to confirm

SLAVE MODE

Used to set the unit in slave mode when you want to have synchronized effects with the master unit. (when no controller is used and the first unit is running it's automatic programs or is set in a fixed color)

- Press the MENU button until **SLAVE** is shown on the display.
- Press the ENTER button to confirm.

STATIC COLOR MODE:

Used to set a static color for the projector.

There are 2 ways to do this:

- **Select one of the preprogrammed colors:**
 - Press the MENU button until **P..** (P followed by 2 numbers) is shown on the display.
 - Use DOWN and UP buttons to select one of the 7 fixed colors (01 to 07).
 - (P08-P09-P10-P11-P00 are automatic chases)
 - Press the ENTER button to confirm → now you can set the speed for the automatic chase (SP-0 to SP-9 on the display). If you have selected a fixed color in the previous step (Pr01 –Pr07) then you don't need to set a speed because this will have no influence at all.
 - Press the ENTER button to confirm → now you can set the speed for the stroboscope function. (F on the display)
 - Use DOWN and UP buttons to change the flash rate (F- - 0 = slow, F- - 9 = fast).
- **Set the 3 basic colors (red-green-blue) manually to compose precisely the exact color you need:**
 - Press the MENU button until **r...** (r followed by 3 numbers) is shown on the display
 - Use DOWN and UP buttons to change the intensity of the Red color (r on the display).
 - Press ENTER to confirm → now you can set the intensity of the next color
 - Use DOWN and UP buttons to change the intensity of the Green color (G on the display).
 - Press ENTER to confirm → now you can set the intensity of the next color
 - Use DOWN and UP buttons to change the intensity of the Blue color (b on the display).
 - Press ENTER to confirm → now you can set the speed for the stroboscope function
 - Use DOWN and UP buttons to change the flash rate (F on the display).
 - When this is done, press the ENTER button to confirm.

AUTOMATIC SOUND MODE

Used to set the automatic Sound Mode so colors will change automatically to the sound of the music.

- Press the MENU button until **SU..** (SU followed by 2 numbers) is shown on the display.
- Use DOWN and UP buttons to change the sensitivity of the build-in microphone (00 = minimal sensitivity, 99 = maximal sensitivity).
- Press the ENTER button to confirm.

AUTOMATIC CHASE MODE:

Used to set the automatic Chase Mode so colors will change automatically at a constant speed.

- Press the MENU button until P.. (P followed by 2 numbers) is shown on the display.
- Use the DOWN and UP buttons to select one of the 5 automatic programs (P08-P09-P10-P11-P00).
- (01 to 07 are fixed colors)
- Press the ENTER button to confirm → now you can set the speed for the automatic chase (SP-0 to SP-9 on the display). If you have selected a fixed color in the previous step (P01 – P07) then you don't need to set a speed because this will have no influence at all.
- Press the ENTER button to confirm → now you can set the speed for the stroboscope function. (F on the display)
- Use DOWN and UP buttons to change the flash rate (F- - 0 = slow, F- - 9 = fast).

OPERATING INSTRUCTIONS

A. Standalone 1unit:

- Just connect the projector to the mains.
- Select one of the automatic, sound or static color modes
- Refer to chapter HOW TO SETUP to learn how to make the settings.

B. Two or more units in master/slave setup:

- Connect the units together. Refer to the chapter “electrical installation” to learn how to do this.
- Select one of the automatic, sound or static color modes on the master (the first projector in the DMX chain)
- Set all the other projectors in SLAVE mode
- The projectors will now follow the program of the master projector so they all work synchronously.

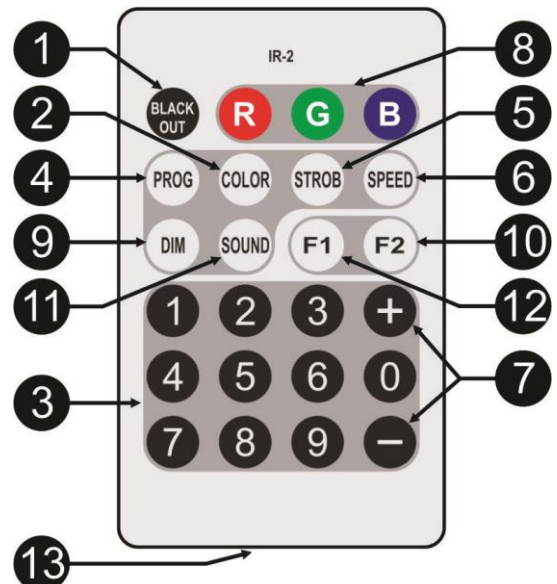
C. Controlled by the wireless remote controller:

To be able to use the wireless remote control, you need to enable this option in the projector:

- Press the MENU button until rC.. (rC followed by on or oF) is shown on the display.
- Use the DOWN and UP buttons to enable or to disable the remote control option (rCon = remote control enabled, rCoF = remote control disabled).
- Press the ENTER button to confirm

Functions:

- BLACKOUT-button:** used to switch the output ON/OFF
 - COLOR-button:** used to select one of the pre-programmed static colors of the projector. First press the COLOR-button, followed by one of the 9 number buttons to select the desired color.
 - COLOR (NUMBER) buttons:** each buttons represents a color.
 - 1-button: warm white
 - 2-button: cold white
 - 3-button: red
 - 4-button: orange
 - 5-button: yellow
 - 6-button: green
 - 7-button: cyan
 - 8-button: blue
 - 9-button: purple
 - 0-button: not used
 - PROG-button:** used to select one of the effect programs. With each press you go to the next effect:
 - Press 1x: Color change 7colors selected
 - Press 2x: Color change 3colors selected
 - Press 3x: Color fade effect selected
 - STROB-button:** used to switch the strobe function ON/OFF. First press the STROB-button, followed by the ±buttons (7) to adjust the strobe speed.
- Remark: works on the effect programs.*



6. **SPEED-button:** used to adjust the speed of the effect programs. First press the SPEED-button, followed by the ±buttons (7) to adjust the program speed.
7. **±-Buttons:** used to increase / decrease the value of the selected function.
8. **CUSTOM COLOR ADJUST-buttons:** press one of these buttons to select the static custom color and adjust one of its color components:
 - **Press the R-button:** followed by the ±buttons (7) to adjust the red component in the custom color.
 - **Press the G-button:** followed by the ±buttons (7) to adjust the green component in the custom color.
 - **Press the B-button:** followed by the ±buttons (7) to adjust the blue component in the custom color.**Remark: as these settings are very fine, you might have the impression nothing is changing when pressing the + and – buttons.**
9. **DIM-button:** followed by the ±buttons (7) to adjust the GENERAL DIMMER.
10. **F2-button:** not used for this projector
11. **SOUND-button:** used to start the sound activated programs
12. **F1-button:** not used for this projector
13. **Battery compartment:** receives a CR2025 3V-battery (supplied).

Note: Maximum distance between the wireless remote and the fixture = +/- 10m

D. Controlled by a universal DMX-controller:

- Connect all units together. Refer to the chapter “Electrical installation for two or more units in DMX-mode” to learn how to do this (don’t forget to address all units properly!)
 - Connect all units to the mains and turn on the DMX controller.
- Since each unit has its own DMX-address, you can control them individually. Remember that each unit uses 3, 4 or 6 DMX-channels, depending on the DMX-mode you have selected in the menu. See the different DMX charts below:

DMX Chart for the 3 channel DMX-Mode

Simple RGB control without master dimmer.

Channel:	Value:	Function:
1	000-255	Red (0-100%)
2	000-255	Green (0-100%)
3	000-255	Blue (0-100%)

DMX Chart for the 4 channel DMX-Mode

For RGB control with additional Master dimmer and functions like strobe and sound control. Select this DMX-mode while using the LEDCON-02 Mk2 easy controller.

Channel:	Value:	Function:
1	000-255	Red (0-100%)
2	000-255	Green (0-100%)
3	000-255	Blue (0-100%)
4	000-190	Master dimmer (0-100%)
	191-200	Sound control
	201-247	Strobe (slow to fast)
	248-255	Master dimmer full on

DMX Chart for the 6 channel DMX-Mode

The most advanced DMX-mode with RGB-control and additional separate channels for master dimmer, different strobe functions and color fade/sound control.

Channel:	Value:	Function:
1	000-255	Master dimmer (0-100%)
2	000-007	ON / Open
	008-037	Random Strobe
	038-067	Sound Strobe
	068-255	Strobe Speed: Slow to Fast
3	000-007	No Function
	008-247	Color Fade: Slow to fast
	248-255	Sound Chase
4	000-255	Red (0-100%)
5	000-255	Green (0-100%)
6	000-255	Blue (0-100%)

MAINTENANCE

- Make sure the area below the installation place is free from unwanted persons during servicing.
- Switch off the unit, unplug the mains cable and wait until the unit has been cooled down.

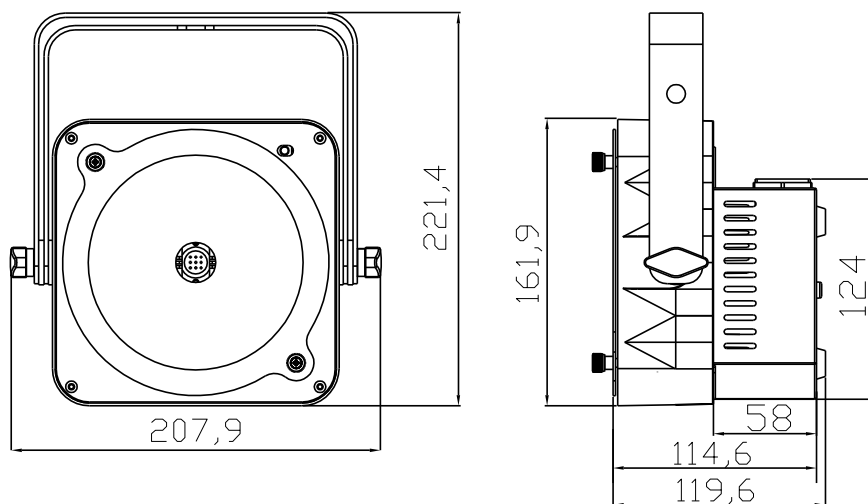
During inspection the following points should be checked:

- All screws used for installing the device and any of its parts should be tightly fastened and may not be corroded.
- Housings, fixations and installations spots (ceiling, truss, suspensions) should be totally free from any deformation.
- When an optical lens is visibly damaged due to cracks or deep scratches, it must be replaced.
- The mains cables must be in impeccable condition and should be replaced immediately when even a small problem is detected.
- In order to protect the device from overheat the cooling fans (if any) and ventilation openings should be cleaned monthly.
- The interior of the device should be cleaned annually using a vacuum cleaner or air-jet.
- The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics.
 - Clean with a soft cloth using normal glass cleaning products.
 - Always dry the parts carefully.

Attention: We strongly recommend internal cleaning to be carried out by qualified personnel!

SPECIFICATIONS

Mains Input:	100-240Vac, 50/60Hz
Power consumption:	40 Watt
Fuse:	250V 1A slow blow (20mm glass)
Power linking (IEC in / out):	max. linking load = 10A
Sound Control:	Internal microphone
DMX connections:	XLR 3pin
DMX modes:	3, 4 and 6 DMX Channels
LED Source:	36W COB LED
Beam angle without lens:	$\pm 100^\circ$
Beam angle with lens:	$\pm 15^\circ$
Size:	See drawing 208x120x221mm
Weight:	2 kg



Every information is subject to change without prior notice

You can download the latest version of this user manual on our website: www.jb-systems.eu



JB SYSTEMS

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EN: Subscribe today to our mailing list for the latest product news!

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NL: Abonneer je vandaag nog op onze mailinglijst en ontvang ons laatste product nieuws!

DE: Abonnieren Sie unseren Newsletter und erhalten Sie aktuelle Produktinformationen!

ES: Suscribete hoy a nuestra lista de correo para recibir las últimas noticias!

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