

LED DIAMOND II



ENGLISH Operation Manual

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



Version: 1.0

JBSYSTEMS



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

- A very attractive and compact DMX-controlled LED effect
- The multiple lenses project lots of sharp colored beams over 360 degrees!
- Dynamic internal programs for wonderful shows
- 0-100% dimming and ultra fast strobe function
- Based on 6 powerful 3Watt LEDs (1 red + 1 green + 1 blue + 1 white + 1 orange + 1 purple)
 - Brilliant colors!
 - Very low power consumption
- Different user modes for maximum flexibility:
 - 6ch DMX-control: rotation + color control + strobe + sound active
 - 1ch DMX-control: for extremely easy DMX operation
 - Standalone: static or sound activated with internal mic
 - Master/slave: wonderful synchronized shows

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 carton contains the following items:

- Operating instructions
- LED Diamond II light effect

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 0,5 meter

RISK GROUP 2
CAUTION:
Do not stare at operating lamp

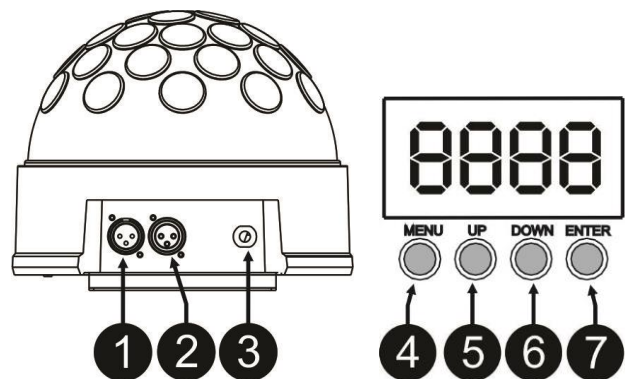
CAUTION: Do not stare at operating lamp.
 May be harmful to the eyes.

- 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 10cm 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 30°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.
- 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. **DMX input**
2. **DMX output**
3. **Mains Cable:** connect this cable to the mains.
4. **MENU button:** Used to scroll the different working modes.
5. **UP button:** Used to select a higher speed or DMX address. See chapter "how to use the unit" for more information.
6. **DOWN button:** Used to select a lower speed or DMX address. See chapter "how to use the unit" for more information.
7. **ENTER button:** used to confirm your selection.



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.
- Locate the fixture in a well ventilated spot, far away from any flammable materials and/or liquids. The fixture must be fixed **at least 50cm** from surrounding walls.
- 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 + ADDRESSING

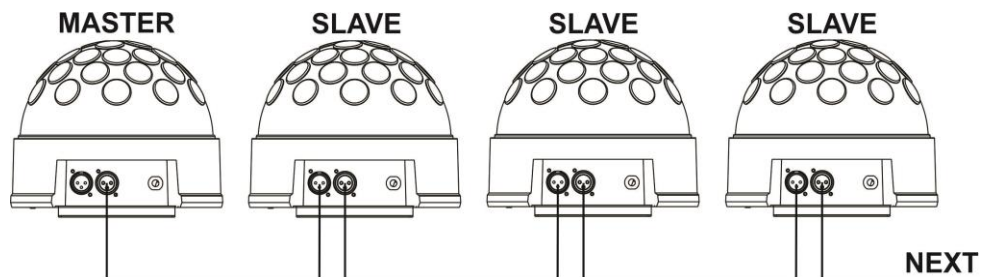
Important: The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.

Electric installation for one unit in Standalone mode:

- Just insert the mains cable. The unit starts working immediately in stand-alone mode.
- See chapter 'STANDALONE MODE' for more information on how to select an automatic or sound controlled program.

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

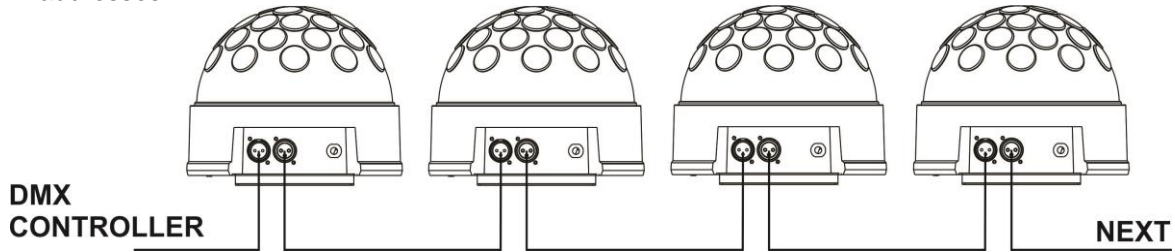
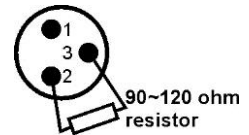
- Connect 2 or more units together using balanced microphone cables of good quality.
- Don't connect any cable to the DMX input of the first unit in the chain: this first unit will be the master.
- The other units must be set to DMX channel 1. See the next chapter for more information about the menu settings.
- Make sure that all units are connected to the mains.
- Done!



Electrical installation 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 balanced cable of good quality.
- Both XLR-3pin and XLR-5pin connectors are used, however XLR-3pin is more popular because these cables are compatible with balanced audio cables.
 - Pin layout XLR-3pin: Pin1 = GND ~ Pin2 = Negative signal (-) ~ Pin3 = Positive signal (+)
 - Pin layout XLR-5pin: Pin1 = GND ~ Pin2 = Negative signal (-) ~ Pin3 = Positive signal (+) ~ Pins4+5 not used.

- 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 starting address so it knows which commands from the controller it has to decode. In the next section you will learn how to set the DMX addresses.



HOW TO OPERATE THE UNIT

YOU CAN OPERATE THE UNIT IN 2 WAYS:

- Standalone + master/slave using the built-in preprogrammed functions
- By using any universal DMX controller (1 & 6 channel DMX mode)

STANDALONE MODE:

The effect can work by its own via several build in automatic modes or music controlled modes.

You can choose between:

- 7 different automatic color modes. The rotation speed can be set at 9 different levels.
- 2 different sound controlled modes. The rotation speed and color changing will be controlled by the build-in microphone.

AUTOMATIC MODES:

- Connect nothing to the DMX input of the LED DIAMOND
- Press the MENU button to browse the different automatic color modes. You can choose one of the following modes:
 - **A1:** red + orange
 - **A2:** green + white
 - **A3:** blue + purple
 - **A4:** alternating colors mode 1
 - **A5:** alternating colors mode 2
 - **A6:** fading colors
 - **A7:** strobe effect
- When you have reached the color mode you would like to use, then use the UP and DOWN buttons to select a rotation speed between 1 and 9.
- When the setting of the speed is done, press the ENTER button to confirm.
- The LED DIAMOND will now run your selection.

SOUND CONTROLLED MODES:

- Connect nothing to the DMX input of the LED DIAMOND
- Press the MENU button to browse the different sound controlled modes. You can choose between the following modes:
 - **So 1:** sound controlled strobe mode
 - **So 2:** sound controlled color mode
- Press the ENTER button to confirm your choice.

MASTER / SLAVE MODE:

Select this function when you want an instant show. By linking the units in master/slave connection, the first unit will control the other units to give an automatic or sound activated, synchronized light show.

- Connect nothing to the DMX input of the first LED DIAMOND, because this will be the Master Unit.
- Select in this Master unit one of the automatic or sound controlled modes like mentioned in the previous chapter 'STANDALONE MODE'

- Set the DMX address of all the other LED DIAMOND units (also called ‘slave’ units) on d.001. Follow these steps to set the DMX address:
 - Press the MENU button until **d.xxx or Axxx** (d. or A followed by 3 numbers) appears on the display
 - Press 2 times the ENTER button. --> the actual DMX address will appear on the screen (a number between 1 and 512)
 - Use the UP & DOWN buttons to select address 001
 - Press the ENTER button to confirm. d.001 or A001 will appear on the display what means that the unit is now in DMX mode, that it has start address 001 and that it is waiting for information from the master unit to be activated.

DMX MODE:

The LED DIAMOND can be controlled by any universal DMX controller via 1 DMX channel or via 6 DMX channels.

This is how you set the DMX channel mode + the DMX start address:

- Press the MENU button until **d.xxx or Axxx** (d. or A followed by 3 numbers) appears on the display
 - **1 Channel mode = d.xxx** (d. followed by the 3 numbers of the DMX address).
 - **6 Channel mode = Axxx** (A followed by the 3 numbers of the DMX address)
- Press the ENTER button.
- Use the UP & DOWN buttons to select the DMX address you would like to use.
- Press the ENTER button to confirm.
- Ready.

DMX CHARTS:

6 CHANNEL MODE

DMX Channel	Function	DMX Value	
CH 1	STROBE	000 - 009	Full ON / Strobe off
		010 - 255	Strobe speed (fast to slow)
CH 2	RED+ORANGE	000	OFF
		001 - 255	Dimmer (low to full power)
CH 3	GREEN+WHITE	000	OFF
		001 - 255	Dimmer (low to full power)
Ch 4	BLUE+PURPLE	000	OFF
		001 - 255	Dimmer (low to full power)
Ch 5	MOTOR	000 - 127	Position
		128 - 255	Rotation (slow to fast)
Ch 6	AUTOMATIC	000 - 009	Manual Mode (CH1 to CH 5 active)
		010 - 197	Automatic Modes (fast to slow)
		198 - 219	Sound Controlled Strobe Mode
		220 - 255	Sound Controlled Color Mode

1 CHANNEL MODE

DMX Channel	DMX Value	
Ch 1	000 - 029	BLACKOUT
	030 - 059	Mode A5 1: Alternating colors at speed 1
	060 - 089	Mode A5 4: Alternating colors at speed 4
	090 - 119	Mode A5 9: Alternating colors at speed 9
	120 - 149	Mode A7 1: Strobe effect at speed 1
	150 - 179	Mode A7 4: Strobe effect at speed 4
	180 - 209	Mode A7 9: Strobe effect at speed 9
	210 - 239	Mode SO1: sound controlled color mode
	240 - 249	Mode SO2: sound controlled strobe mode
	250 - 255	Random Changing Sound Controlled Show (A1 to A7)

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

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.

Mains Input:	AC 110-240V, 50/60Hz
Power consumption:	24 Watt
Sound Control:	Internal microphone
DMX connections:	3pin XLR male / female
DMX channels used:	1 or 6 channels
Lamp:	6x 3Watt LED (1 red + 1 green + 1 blue + 1 white + 1 orange + 1 purple)
Weight:	0,42 kg
Dimensions:	190 x190 x 175mm

The information might be modified without prior notice

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



JB SYSTEMS

MAILING LIST

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

FR: Inscrivez-vous à notre liste de distribution si vous souhaitez suivre l'actualité de nos produits!

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!

WWW.JB-SYSTEMS.EU

Copyright © 2016 by BEGLEC NV

t Hofveld 2C ~ B1702 Groot-Bijgaarden ~ Belgium

Reproduction or publication of the content in any manner, without express permission of the publisher, is prohibited.