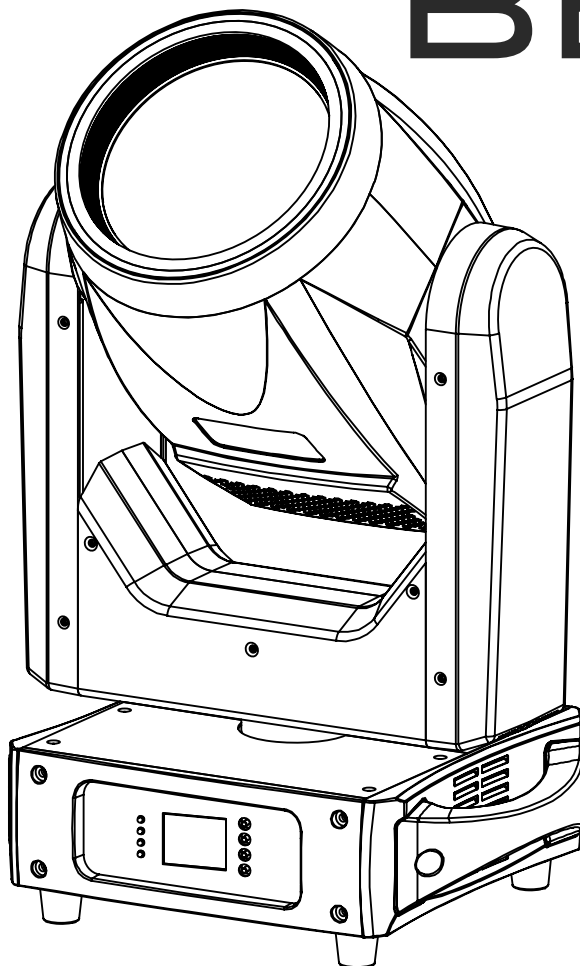


# CHALLENGER BEAM

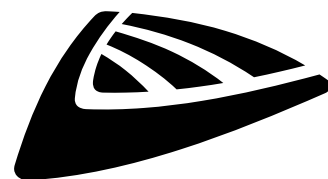


## ENGLISH Operation Manual

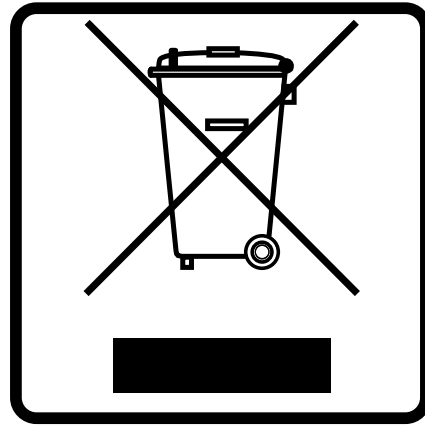
Other languages can be downloaded from:  
[WWW.JB-SYSTEMS.EU](http://WWW.JB-SYSTEMS.EU)



*Version: 1.0*



**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

- Powerful Moving BEAM, based on a 200W high power LED!
- AURA-effect with 36 pixel-controlled RGB leds!
- Sharp and powerful 2.8° beam with 110'500 lux @ 5m
- The 2 separate bi-directional rotating prisms can be mixed for stunning effects:
  - 8 facet prism
  - 16 facet prism
- 0-100% dimming and different strobe effects
- Gobo wheel with 13 fixed gobos + open
- Color wheel with 14 colors (including multi color) + open
- DMX controlled focus
- Excellent built-in programs for wonderful, ever changing, light shows.
- Multiple working modes:
  - DMX-control: via 5, 23 or 27 channels
  - Standalone: sound activated with internal mic
  - Master/slave:
    - Wonderful synchronized shows in standalone mode
    - Very easy 5CH SMART-DMX (audio-controlled pan/tilt + DMX-controlled functions)
- Prepared for wireless DMX: just plug-in an optional WTR-DMX DONGLE ! (Briteq® order code: B04645)
- Color LCD-display for easy menu navigation
- 3p and 5p XLR connectors for DMX in- and output.

## 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:

- CHALLENGER Beam unit
- 2 Omega-brackets
- ProCON compatible power cable
- Operating instructions

## 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

**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.

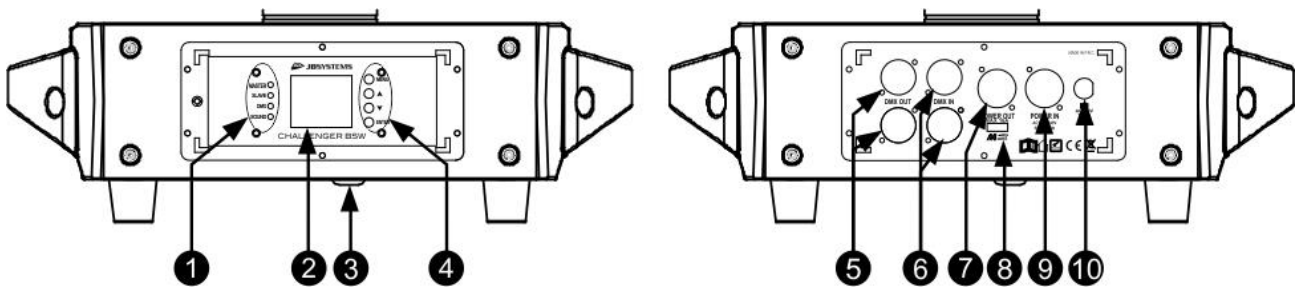
**Important:** Never look directly into the light source! Don't use the effect in the presence of persons suffering from epilepsy.

## 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 12 times 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.

## HOW TO SET UP THE UNIT

### FRONT + BACK PANEL:



1. **Indicator LEDs:** MASTER-SLAVE-DMX-SOUND
2. **DISPLAY:** shows the information on the different modes and functions.
3. Microphone for sound mode.
4. **DISPLAY MODE BUTTONS:**
  - ▼ button : press this button to go down in the menu
  - ▲ button : press this button to go up in the menu
  - **ENTER:** press this button to confirm the selected function in the menu
  - **MENU:** press this button to go back to the main menu or to leave submenus.
5. **DMX OUT:** 3p and 5p XLR Female connector to connect other projectors or use in Master/slave mode.
6. **DMX IN:** 3p and 5p XLR Male connector receive DMX data from a console or use in Master/slave mode.
7. **POWER OUT:** used to daisy chain the power to several other fixtures. Always pay attention to the maximum load while adding fixtures! Special combi cables (power + DMX XLR-cables) are available: see our website!
8. **M-DMX INPUT:** Please note that this USB-connector is NOT used for updates or to connect the unit to a PC! Instead this USB-connector makes it very easy to add wireless DMX to the unit! Just add the (optional) WTR-DMX DONGLE from BRITEQ® and you will get wireless DMX! Moreover you will be able to connect other DMX-controlled equipment to the DMX-output so you can share the wireless DMX function with all connected units! No extra settings to be made in the setup menu, just follow the procedure in the user manual supplied with the WTR-DMX DONGLE from BRITEQ®. *The separate WTR-DMX DONGLE is available from [WWW.BRITEQ-LIGHTING.COM](http://WWW.BRITEQ-LIGHTING.COM) (order code: B04645)*
9. **POWER IN:** Connect the mains input cable here.
10. **FUSE HOLDER:** See technical specification for the exact type and value.

**SETUP MENU:**

- This is the list of all the functions in the machine.
- To select any of these functions, press the MENU button and use the ▲/▼ buttons to browse the menu.
- Select the desired function with the ENTER button.
- Use ▲/▼ buttons to change the mode or value.
- Once the required mode or value is selected, press the ENTER button to select.

Level 1	Level 2	Level 3
DMX Funtions	DMX Address	
	DMX Channel	Mode 1 (5Ch)
		Mode 2 (23Ch)
		Mode 3 (27Ch)
	No DMX	Sound
Freeze		
BlackOut		
View DMX Value		
Show Settings	Show Chase	Show 1
		Show 2
		Show 3
		Show 4
	Slave Mode	Slave 1
	Slave 2	
	Sound Trigger	
Fixture Settings	Pan Invers	Yes/No
	Tilt Inverse	Yes/No
	P/T Feedback	Yes/No
	Dimmer Curve	Liner
		Square
		Inv SQ
		S Curve
Dimmer Speed	Fast/Smooth	
Show Focus	5m/10m/25m	
Display Settings	Display Inverse	Yes/No/Auto
	Backlight Switch	Yes/No
	Backlight Intensity	0-10
	Temperature Unit	C/F
Fixture Test	Auto test	
	Manual test	
Fixture Information	Fixture Use time	
	Firmware version	
Reset	Pan/Tilt	
	Effect	
	All	
Special function	Factory setting	
	Password	

**DMX Functions > DMX Address**

Used to set the desired DMX-address.

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the values can be changed
- Use ▲/▼ buttons to select the desired DMX512 address.
- Once the correct address shows on the display, press the ENTER button to confirm.

**DMX Functions > DMX Channel**

Used to set the desired channel mode.

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the values can be changed
- Use ▲/▼ buttons to select the desired mode:
  - **5MSL mode:** PAN/TILT are music controlled while the dimmer, strobe speed, gobos, colors & PAN/TILT –speed can be set using only 5 DMX channels.
  - **23 CH mode:** Full 8-bit control of the fixture
  - **27 CH mode:** Full DMX-control on all functions.
- Once the correct option shows on the display, press the ENTER button to confirm.

**DMX Functions > No DMX**

Used to set how the projector reacts when the DMX-signal disappears.

- Press the MENU button to access the different functions in the menu.
  - Press the ▲/▼ buttons until the desired function is showing on the display.
  - Press the ENTER button: the values can be changed
  - Use ▲/▼ buttons to select the desired mode:
    - **Sound:** the projector starts working in audio mode.
    - **Freeze:** output based on the last valid DMX-signal is kept on the projector.
    - **Blackout:** output turns black while no DMX is detected.
  - Once the correct option shows on the display, press the ENTER button to confirm.
- Note: as soon as the input detects a DMX-signal, blackout, freeze or audio mode will be cancelled.*

**DMX Functions > View DMX Value**

Shows the value of each function of the fixture on every moment. Used for problem solving.

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.

**Show Settings > Show Chase**

Used to select the installation position of the projector while used in standalone mode.

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button to select the desired show mode.
  - **show 1**
  - **show 2**
  - **show 3**
  - **show 4**
- Once the right mode is shown on the display, press the ENTER button to confirm.

**Show Settings > Slave Mode**

Used to make the slave unit work in opposite to the master or to work in complete sync.

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the values can be changed
- Use ▲/▼ buttons to select the desired mode:
  - **Slave 1:** the slave operates in complete sync with the master.
  - **Slave 2:** the slave operates in the opposite mode as compared with the master.
- Once the correct option shows on the display, press the ENTER button to confirm.

**Show Settings > Sound Trigger**

- **Used to make the unit work in audio mode.**
- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the values can be changed
- Use ▲/▼ buttons to select the desired mode:

**Show Settings > Sound Sense**

- **Used to adjust the sensitivity of the build in microphone.**
- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the values can be changed
- Use the ▼/▲ buttons to choose a value between “000” (very low sensitivity) and “100” (high sensitivity).
- Press the ENTER button to confirm the desired sensitivity.

**Fixture Settings > Pan Inverse**

**Used to select if the PAN movements are inverted or not.**

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the values can be changed
- Use ▲/▼ buttons to toggle between No and Yes.
- Press the ENTER button to confirm.

**Fixture Settings > Tilt Inverse**

**Used to select if the TILT movements are inverted or not.**

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the values can be changed
- Use ▲/▼ buttons to toggle between No and Yes.
- Press the ENTER button to confirm.

**Fixture Settings > P/T Feedback**

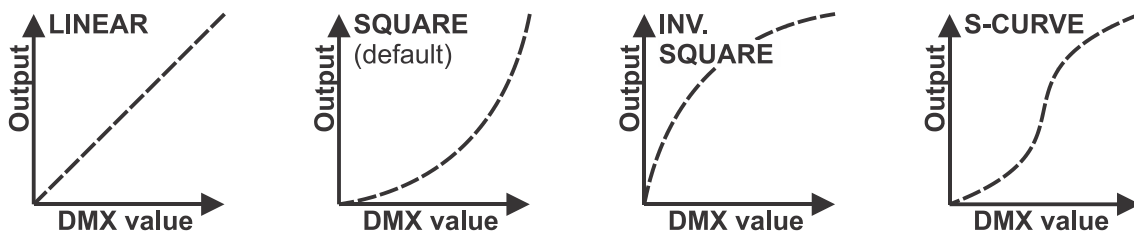
**This function corrects the PAN/TILT positions automatically if someone bumps onto the machine.**

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the values can be changed
- Use ▲/▼ buttons to toggle between No and Yes.
- Press the ENTER button to confirm.

**Fixture Settings > Dimmer Curve**

**Used to set the dimmer curve of the master dimmer.**

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the values can be changed
- Use ▲/▼ buttons to selected the desired curve:



- Once you have the desired curve, press the ENTER button to save it.



**Fixture Settings > Dimmer Speed**

Used to set the dimmer speed of the master dimmer.

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the speed can be changed to Fast or Smooth.
- Use ▲/▼ buttons to selected the desired dimming speed.
- Press the ENTER button to confirm.

**Fixture Settings > Show Focus**

Used to set the focus for a fixed distance. (works only in Show Mode)

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: you can select 5m, 10 or 25m distance.
- Use ▲/▼ buttons to selected the desired dimming speed.
- Press the ENTER button to confirm.

**Display Settings > Display Inverse**

Used to turn the display over 180°. Yes = display is upside-down.

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the display can be turned by selecting Yes or No.
- Use ▲/▼ buttons to select the desired display position.
- Press the ENTER button to confirm.

**Display Settings > Backlight Switch**

Used to adjust whether the display stays lit or not after the last time it was used.

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the Backlight Switch can be turned On or Off.
- Use ▲/▼ buttons to select On (display backlight will turn off after 30s) or Off (display stays lit).
- Press the ENTER button to confirm.

**Display Settings > Backlight Intensity**

Used to set the brightness of the backlight.

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the brightness of the backlight can be set from 000 to 010.
- Use ▲/▼ buttons to select the desired value.
- Press the ENTER button to confirm.

**Display Settings > Temperature Unit**

Used to set the temperature measurement in °C or °F.

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the temperature can be set in °C or °F.
- Use ▲/▼ buttons to select the desired temperature measurement.
- Press the ENTER button to confirm.

**Fixture Test > Auto Test**

Used to start the automatic test function: all functions will be tested.

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the projector starts an automatic AUTOTEST program until you stop it.
- Press the MENU button to stop the program.

**Fixture Test > Manual Test**

Used to test all functions one by one manually.

- Press the MENU button to access the different functions in the menu.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button. A list with all the functions will appear.
- Press the ▲/▼ buttons to select the function you want to test.
- Press the ENTER button to confirm.
- Press the ▲/▼ buttons to change the value for testing.
- Press the MENU button to stop the program.

**Fixture Information > Fixture use time**

**Used to show the number of hours the fixture has been used.**

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the display will show the used time.
- Press the MENU button to stop the program.

**Fixture Information > Firmware Version**

**Shows the current firmware version in the projector.**

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the display shows the firmware versions of the different processors in the projector:  
A-Vxx, B-Vxx, C-3xx

**Note:** The firmware of this unit can be upgraded using the Firmware Updater (order code: B04319) from Briteq with Windows® software.

**Reset > Pan/Tilt**

**Used to reset the Pan and Tilt functions of the projector.**

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the display shows Pan/Tilt
- Press the ENTER button again to start resetting Pan/Tilt functions.

**Reset > Effect**

**Used to reset the effect functions of the projector.**

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the display shows Effect
- Press the ENTER button again to start resetting the effect functions.

**Reset > All**

**Used to reset all the functions of the projector.**

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the display shows ALL
- Press the ENTER button again to start resetting ALL functions.

**Special Function > Factory Setting**

**Used to reset the functions of the projector to the factory settings.**

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the display shows Special Function>Factory Setting.
- Press the ENTER button again to select No or Yes.

**Special Function > Password**

**Used to put a password in the projector.**

- Press the MENU button to access the different functions in the menu.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the display shows Special Function>Password
- Press the ENTER button to set a password (from 000 to 999).

## MOTOR OFFSET MENU

This is a hidden menu where you can fine-tune the offset of several functions. To access this menu do as follows: press the ENTER button for about 2 seconds while you are in the MAIN Menu (any option, not important). Now the Motor Offset menu shows up:

The home position from the following functions can be adjusted (between -128 and 127) :

- Pan
  - Tilt
  - Color
  - Gobo1
  - Frost/Effect
  - Prism1
  - RPrism
  - Prism1
  - RPrism
  - Focus
- Press the ▲/▼ buttons until the desired function is showing on the display.
  - Press the ENTER button to select the desired function to adjust.
  - Press the ▲/▼ buttons until the desired function is showing on the display.
  - Press the ENTER button to confirm the value.

## ELECTRICAL INSTALLATION + ADDRESSING



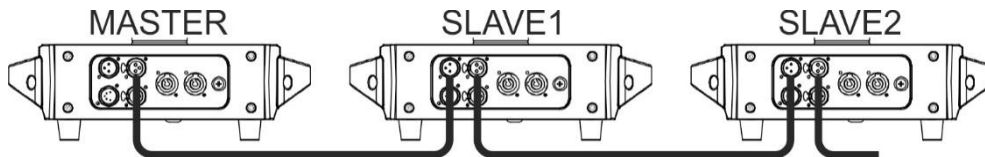
**Important:** The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.

### Electrical installation for 1 standalone unit:

- Just insert the mains cable. The unit starts working immediately in stand-alone mode.

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

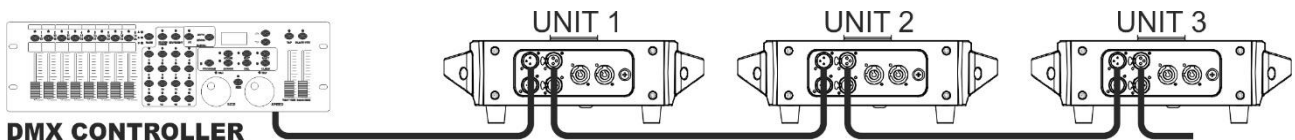
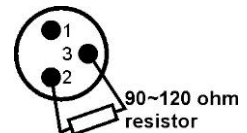
In this mode the units will show a synchronized show, working to the rhythm of the beat.



- Connect 2 to maximum 16 units together using good quality balanced microphone cables. Put the first unit in the chain in master mode (see Setup menu) and the other units as slaves (see Setup menu).
- 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 good quality balanced cable.
- 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 (+)
- 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 SET THE RIGHT STARTING ADDRESS:**

Refer to the setup menu to learn how to set the starting address on this unit. The starting address of each unit is very important. Unfortunately it is impossible to tell you in this user manual which starting addresses you have to set because this completely depends on the controller you will use, the number of fixtures and their number of DMX channel they use.

**DMX-CONFIGURATION OF THE CHALLENGER BEAM IN 5, 23 AND 27CH MODE:**

**5 CHANNEL MODE :**

5Ch	Function	Values	Remarks	
1	Dimmer	0-255		
2	Shutter	0-7	Open	
		8-37	Random strobe	
		38-67	Sound strobe	
		68-255	Strobe	
3	Color	0-14	Open	
		15-29	Color 1	
		30-44	Color 2	
		45-59	Color 3	
		60-74	Color 4	
		75-89	Color 5	
		90-104	Color 6	
		105-119	Color 7	
		120-134	Color 8	
		135-149	Color 9	
		150-164	Color 10	
		165-179	Color 11	
		180-194	Color 12	
		195-209	Color 13	
210-229	Color 14			
230-255	Random color			
4	Gobo	0-9	Open	
		10-24	Gobo 1	
		25-39	Gobo 2	
		40-54	Gobo 3	
		55-69	Gobo 4	
		70-84	Gobo 5	
		85-99	Gobo 6	
		100-114	Gobo 7	
		115-129	Gobo 8	
		130-149	Gobo 9	
		150-164	Gobo 10	
		165-179	Gobo 11	
		180-194	Gobo 12	
		195-209	Gobo 13	
210-255	Random gobo			
5	Pan/Tilt	0-7	Hold (freeze)	Stop moving and hold last position
		8-255	Pan/Tilt sound control	PAN/TILT movements following the Show 1-4

**23 + 27 CHANNEL MODE :**

27Ch	23Ch	Function	Values	Remarks	
1	1	Pan	0-255		
2	-	Pan fine	0-255		
3	2	tilt	0-255		
4	-	Tilt fine	0-255		
5	3	P/T speed	0-255	Fast->slow	
6	4	Show	0-15	No function	
			16-63	Show 1	
			64-127	Show 2	
			128-191	Show 3	
			192-255	Show 4	
7	5	P/T macro	0-7	No function	
			8-15	Macro 1	
			16-23	Macro 2	
			24-255	Macros 3-31	
8	6	P/T macro speed	0-255	Fast-> slow	
9	7	Color	0-9	Open	
			10-14	Open/Color1	
			15-19	Color1	
			20-24	Color1/Color2	
			25-29	Color2	
			30-34	Color2/Color3	
			35-39	Color3	
			40-44	Color3/Color4	
			45-49	Color4	
			50-54	Color4/Color5	
			55-59	Color5	
			60-64	Color5/Color6	
			65-69	Color6	
			70-74	Color6/Color7	
			75-79	Color7	
			80-84	Color7/Color8	
			85-89	Color8	
			90-94	Color8/Color9	
			95-99	Color9	
			100-104	Color9/Color10	
			105-109	Color10	
			110-114	Color10/Color11	
			115-119	Color11	
			120-124	Color11/Color12	
125-129	Color12				
130-134	Color12/Color13				
135-139	Color13				
140-144	Color13/Color14				
145-149	Color14				
150-154	Color14/White				
155-198	Spin CW fast-slow				
199-202	Stop				
203-255	Spin CCW Slow-fast				

<b>10</b>	<b>8</b>	<b>Static gobo</b>	0-9	Open	
			10-14	Gobo 1	
			15-19	Gobo 2	
			20-24	Gobo 3	
			25-29	Gobo 4	
			30-34	Gobo 5	
			35-39	Gobo 6	
			40-44	Gobo 7	
			45-49	Gobo 8	
			50-54	Gobo 9	
			55-59	Gobo 10	
			60-64	Gobo 11	
			65-69	Gobo 12	
			70-74	Gobo 13	
			75-79	Shake gobo 1	
			80-84	Shake gobo 2	
			85-89	Shake gobo 3	
			90-94	Shake gobo 4	
			95-99	Shake gobo 5	
			100-104	Shake gobo 6	
			105-109	Shake gobo 7	
			110-114	Shake gobo 8	
			115-119	Shake gobo 9	
			120-124	Shake gobo 10	
			125-129	Shake gobo 11	
			130-134	Shake gobo 12	
135-139	Shake gobo 13				
140-198	Spin CW fast-slow				
199-202	Stop				
203-255	Spin CCW Slow-fast				
<b>11</b>	<b>9</b>	<b>Frost</b>	0-63	Open	
			64-127	Frost	
			128-255	Multi-color	
<b>12</b>	<b>10</b>	<b>Prism 1</b>	0-7	Open	
			8-255	Prism 1	
<b>13</b>	<b>11</b>	<b>Prism 1 rotation</b>	0-127	Index	
			128-189	CW rotation Fast-slow	
			190-193	stop	
			194-255	CCW rotation slow-fast	
<b>14</b>	<b>12</b>	<b>Prism 2</b>	0-7	Open	
			8-255	Prism 2	
<b>15</b>	<b>13</b>	<b>Prism 2 rotation</b>	0-127	Index	
			128-189	CW rotation Fast-slow	
			190-193	stop	
			194-255	CCW rotation slow-fast	
<b>16</b>	<b>14</b>	<b>Focus</b>	0-255		
<b>17</b>	-	<b>Focus fine</b>	0-255		

<b>18</b>	<b>15</b>	<b>shutter</b>	0-7	Closed	
			8-15	Open	
			16-131	Strobe	
			132-139	Open	
			140-181	Close pulse	
			182-189	Open	
			190-231	Open pulse	
			232-239	open	
			240-247	random strobe	
			248-255	Open	
<b>19</b>	<b>16</b>	<b>Dimmer</b>	0-255		
<b>20</b>	-	<b>Dimmer fine</b>	0-255		
<b>21</b>	<b>17</b>	<b>Effect Ring Red</b>	0-255		
<b>22</b>	<b>18</b>	<b>Effect Ring Green</b>	0-255		
<b>23</b>	<b>19</b>	<b>Effect Ring Blue</b>	0-255		
<b>24</b>	<b>20</b>	<b>Effect Ring Dimmer</b>	0-255		
<b>25</b>	<b>21</b>	<b>Effect Ring Macro</b>	0-2	No function	Same as current channel
			3-119	Fixed colors	
			120-255	Macros	
<b>26</b>	<b>22</b>	<b>Effect Ring Macro speed</b>	0-255		
<b>27</b>	<b>23</b>	<b>Control</b>	000-069	No function	<i>Special functions</i>
			070-079	Pan/Tilt	<i>Blackout enabled</i>
			080-089	Pan/Tilt	<i>Blackout disabled</i>
			090-099	Color changing	<i>Blackout enabled</i>
			100-109	Color changing	<i>Blackout disabled</i>
			110-119	Gobo changing	<i>Blackout enabled</i>
			120-129	Gobo changing	<i>Blackout disabled</i>
			130-139	No function	
			140-149	Pan/Tilt RESET	
			150-159	Effect RESET	
			160-199	No function	
			200-209	RESET all functions	
			210-219	Pan/Tilt/Color/Gobo	<i>Blackout enabled</i>
			220-229	Pan/Tilt/Color/Gobo	<i>Blackout disabled</i>
			230-255	No function	

## **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 is 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.
  - Clean the external optics at least once every 30 days.
  - Clean the internal optics at least every 90 days.

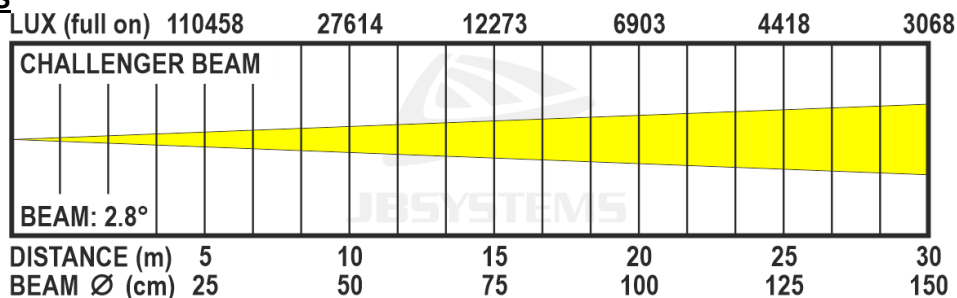
**Attention: We strongly recommend internal cleaning to be carried out by qualified personnel!**

## **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.

<b>Mains Input:</b>	AC 100 - 240V, 50/60Hz
<b>Power consumption:</b>	285 Watt (max)
<b>Fuse:</b>	250V 5A Slow blow (20mm glass)
<b>Power connections:</b>	ProCon - 10A
<b>DMX connections:</b>	Neutrik 3pin-XLR and 5pin-XLR male / female
<b>DMX channels used:</b>	5ch, 23ch, 27ch
<b>Lamp:</b>	200W LED Engine
<b>Color wheel:</b>	14 colors + open
<b>Gobo wheel:</b>	13 fixed gobos + open
<b>Prism:</b>	8 facet circular prism + 24 facet circular prism
<b>Effect Wheel:</b>	Frost + Multi color filter
<b>IP-Rating:</b>	IP20
<b>Pan movement:</b>	540°
<b>Tilt movement:</b>	270°
<b>Beam Angle:</b>	3° (full open)
<b>Operating temperature (T<sub>a</sub>):</b>	0°C to 40°C
<b>Size:</b>	24,5x33x45,3cm (LxBxH)
<b>Weight:</b>	14.5 kg

**LUX CHARTS**

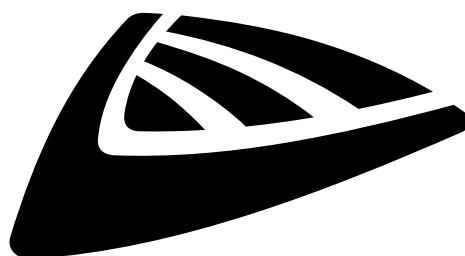












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