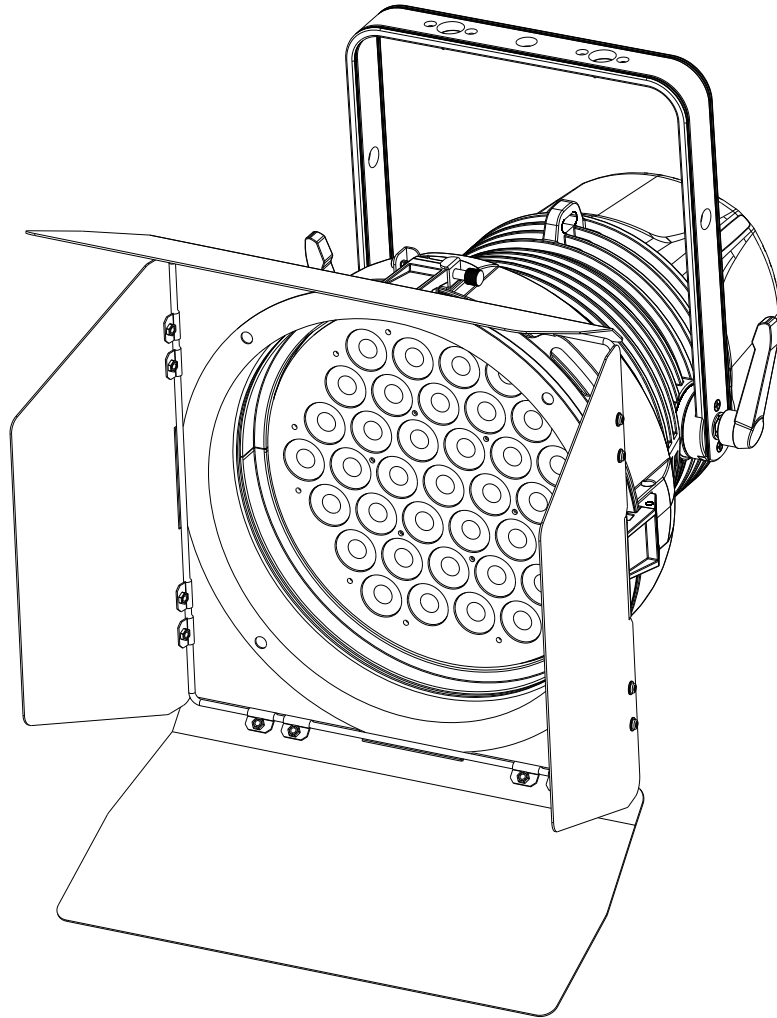


EXPO CANNON



ENGLISH Operation Manual

Other languages can be downloaded from:
WWW.BRITEQ-LIGHTING.COM



Version: 1.0





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 Briteq® 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 very powerful projector is the perfect choice for big showrooms and exhibition booths.
- Very effective for use in car showrooms!
- The 37pcs 10W Cold white (6500K) CREE LEDs produce an extremely powerful 20° beam.
(Different beam angle available on special demand)
- Very high CRI >85, important for perfect color rendering!
 - **Stand alone:** simply set the dimmer level and you're ready.
 - **DMX-control:** with any simple DMX-controller you can easily set the individual dimmer levels on all the projectors in the DMX-line.
 - **1CH mode:** dimmer 0 – 100%
 - **2CH mode:** dimmer 0 – 100% + strobe 0 – 20Hz
- Can be used as powerful, directional LED-strobe!
- Thanks to the low power consumption, only 380W at maximum output, a lot of money can be saved on the electricity bill while preserving nature!
- Silent operation, thanks to the temperature controlled "low airstream" cooling system.
- High contrast OLED-display for easy menu navigation
- Flicker free TV-recordings thanks to 3.6kHz LED refresh rate!
- The lamp behavior can be continuously adjusted from led to halogen.
- Four dimmer curves: linear, square, inverse square, S-curve
- In case of DMX failure you can choose between blackout and freeze mode.
- RDM-functionality for easy remote setup: DMX addressing, channel mode, ...
- Lock function to avoid unwanted altering of the settings.
- Default factory settings + user settings can be saved/loaded.
- 3pin DMX in/outputs + Neutrik PowerCON in/outputs for easy daisy chaining.
- Extruded black anodized aluminum housing, equipped with a very strong bracket
- Frost filter and barn doors included

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
- EXPO CANNON
- Four-leaf barndoor
- Frost filter
- PowerCon® mains 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 1 meters



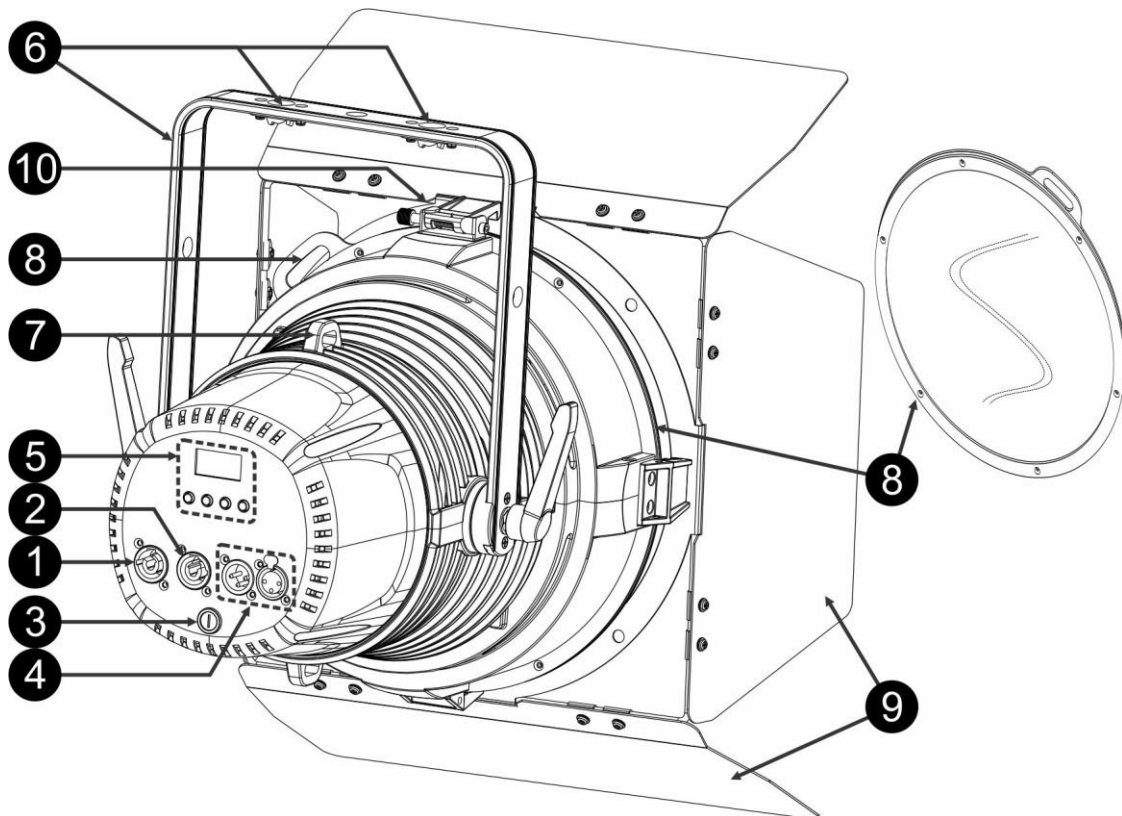
The device is not suitable for direct mounting on normally flammable surfaces. (suitable only for mounting on non-combustible surfaces)

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 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.
- 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. **MAINS INPUT:** equipped with original Neutrik PowerCON®. Connect the supplied mains cable or any PowerCon® extension cable here.
2. **MAINS OUTPUT:** used to daisy chain the power to several other projectors. Always pay attention to the maximum load while adding projectors! Special Multi cables (PowerCON® + DMX XLR-cables are optionally available: see our website!)
3. **MAINS FUSE:** protects the unit in case of electrical problems, always use the prescribed fuse!
4. **DMX IN/OUT:** 3pin in/outputs are available to daisy chain the projector with other units that will be controlled by a DMX-controller.
5. **DISPLAY & BUTTONS:** Backlit alphanumeric OLED-display and four buttons to select different options of the setup menu:
 - **MENU-button:** used to browse the different menu options or to exit a menu option.
 - **▼-button:** used to go to the next menu option or to decrease a parameter value.
 - **▲-button:** used to go to the previous menu option or to increase a parameter value.
 - **ENTER-button:** used to select a menu option or confirm a setting.
6. **HANGING BRACKET:** ready to be used with an optional OMEGA bracket (order code: 2677) and equipped with knobs on both sides to fasten the unit.
7. **SAFETY EYE:** used to attach a safety cable when the unit is rigged, see paragraph “overhead rigging”.
8. **FROST FILTER:** makes the beam more even, with softer edges. Make sure that the locking clip is used to keep the frost filter in place.
9. **BARN DOORS:** They prevent the distinctive scatter of light from spilling into areas where it is not wanted, such as the eyes of audience members. Just rotate the barndoor leafs in the desired position.
10. **LOCKING CLIP:** The clip is used to keep the barndoor and color frame in place. Press the clip aside to open it.

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.



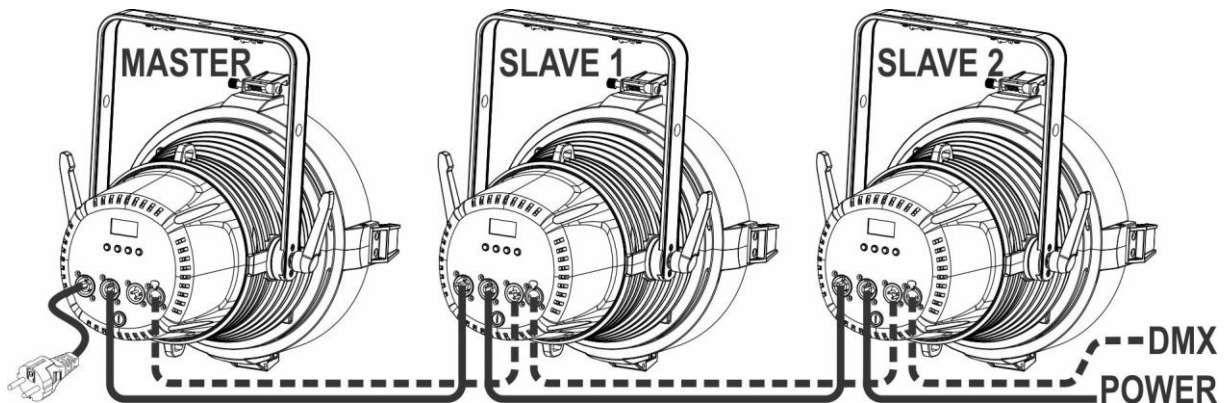
ELECTRICAL INSTALLATION + ADDRESSING

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

Master / Slave mode:

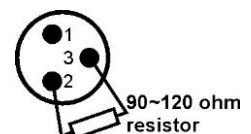
Connect the projectors together as shown on the drawing. Please refer to the paragraph "SETUP MENU" to setup the master. All slaves must be set to SLAVE-mode. You can put as many slaves as you like on condition that the overall power consumption on the power line stays under 10A (2300W).

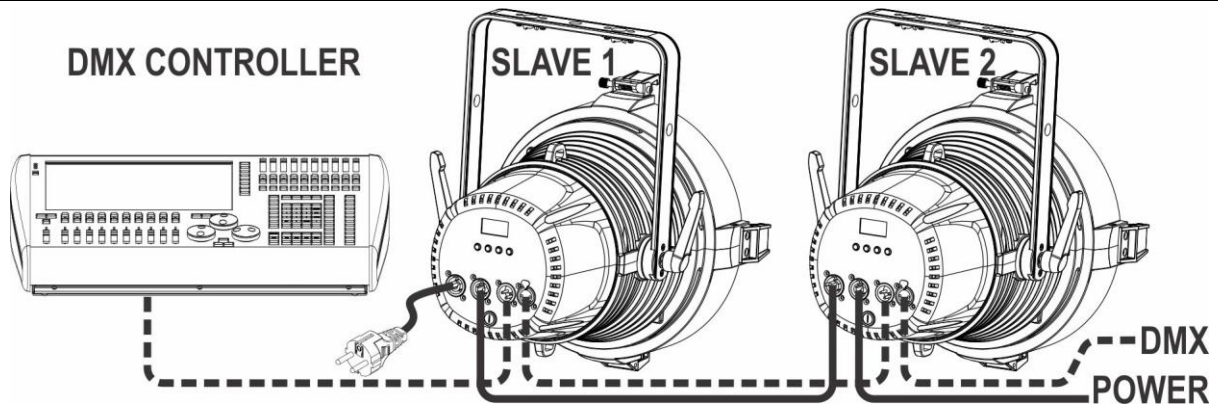
IMPORTANT: make sure that no DMX-controller is connected, this will result in unexpected behavior!



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.
- Use the supplied DMX input conversion cable (IP-cabling to XLR-male) to connect the first unit in the line to the controller.
- Pin layout XLR-3pin: Pin1 = GND ~ Pin2 = Negative signal (-) ~ Pin3 = Positive signal (+)
- To prevent strange behavior of the projectors, 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 unit 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 SETUP:

- To select any of the functions, press the MENU button until the required function is shown on the display or use the ▲/▼ buttons to browse the menu.
- Select the function with the ENTER button .
- Use ▲/▼ buttons to change the values.
- Once the required value is selected, press the ENTER button to confirm.

DMX ADDR

Used to set the desired DMX-address.

- Press the MENU button 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. The last occupied DMX-address is also shown: makes it easier to set the address of the next unit in the chain.
- Once the correct address shows on the display, press the ENTER button to save it.

Note: on RDM-compatible controllers this option can also be remotely set.

CH. MODE

Used to set the desired channel mode.

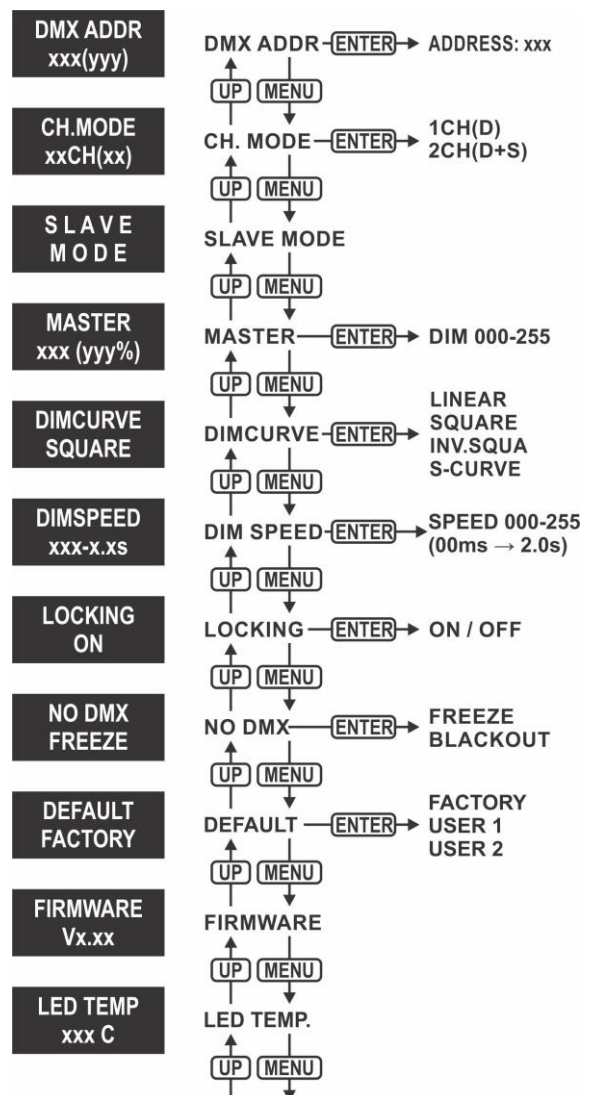
- Press the MENU button until the desired function is showing on the display.
- Press the ENTER button : the values can be changed
- Use ▲/▼ buttons to select the desired mode:
 - 1CH(D) : master dimmer
 - 2CH(D+S) : master dimmer + strobe
- Once the correct option shows on the display, press the ENTER button to save it.

Remark: on RDM-compatible controllers this option can also be remotely set.

SLAVE MODE

Used to set the projector as slave in a master/slave setup.

- Press the MENU button until SLAVE MODE is showing on the display.



MASTER

Used to set the master dimmer while used as master.

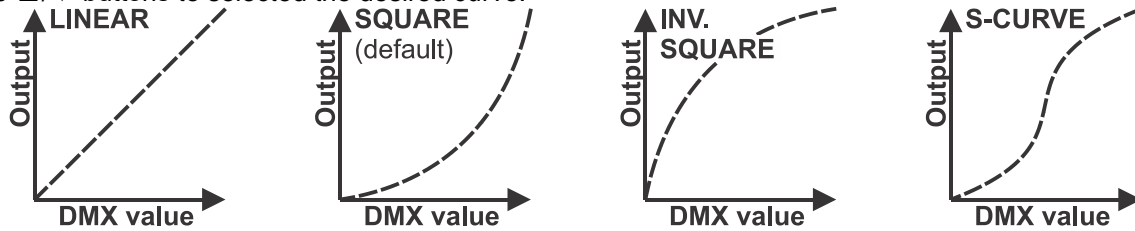
- Press the MENU button until the desired function is showing on the display.
- Press the ENTER button : the values can be changed
- Use ▲/▼ buttons to select the desired level for the master dimmer.
- Once you have the desired level, press the ENTER button to save it.

Note: the setting of this option has NO effect while the projector is used as SLAVE or in DMX-mode.

DIM CURVE

Used to set the dimmer curve of the master dimmer.

- Press the MENU button until the desired function is showing on the display.
- Press the ENTER button : the values can be changed
- Use ▲/▼ buttons to select the desired curve:



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

DIMSPEED

Used to set the speed (smoothness) of the dimmer continuously.

- 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 speed:
 - **000 (0ms)**: The projector follows the instructions instantly, no delay (also called LED behavior).
 - ...
 - **255 (2000ms)**: The projector imitates the behavior of a halogen lamp (slower reaction time).
- Once the desired value shows on the display, press the ENTER button to confirm.

Remark: The default value (100 or 440ms) is the most realistic value to imitate "halogen lamp" behavior. At the same time the light output will be instantaneous while pushing a flash button on your DMX-controller.

LOCKING

Used to lock the setup menu against unwanted altering of the settings.

- Press the MENU button 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:
 - **OFF** The setup menu can be used at any time.
 - **ON** After a short time the setup menu locks automatically, the display shows **LOCKED *******.
Unlock the display by pressing the buttons in this order: ▲, ▼, ▲, ▼, ENTER.
- Once the correct option shows on the display, press the ENTER button to save it.

NO DMX

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

- Press the MENU button 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:
 - **BLACKOUT** output turns black while no DMX is detected.
 - **FREEZE** output based on the last valid DMX-signal is kept on the projector.
- Once the correct option shows on the display, press the ENTER button to save it.

Note: as soon as the input detects a DMX-signal, blackout or freeze mode will be cancelled.

DEFAULT

This is your emergency exit if you really messed up the settings: just return to the Factory (Factory Settings). Also a user setting can be saved/loaded.

- 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 one of these options:

- **Factory:** standard factory settings.
- **USER x:** you can adapt the factory settings and save the new parameters as your personal USER-settings.
- Press the ENTER button:
 - **Factory was selected:** the display shows “LOAD”
 - Press the ENTER button and use ▲/▼ buttons to confirm YES / NO
 - Press the ENTER button to confirm.
 - **USER Def. was selected:** the display shows “LOAD”
 - Use ▲/▼ buttons to select LOAD / SAVE
 - Press the ENTER button and use ▲/▼ buttons to confirm YES / NO
 - Press the ENTER button to confirm.
 - **SAVE was selected:** the current settings of the setup menu are saved to memory.
 - **LOAD was selected:** the previously saved settings are loaded.

Set of Factory default settings:

PARAMETER name	FACTORY defaults	USER defaults
CHANNEL mode	2CH (D+S)	Current setting in the menu
NO DMX mode	Freeze	Current setting in the menu
DIM Curve	Square	Current setting in the menu
Dimmer Speed	100 (440ms)	Current setting in the menu
AUTO LOCK Menu	OFF	Current setting in the menu

FIRMWARE

Used to show the current version of the firmware.

- Press the MENU button until the FIRMWARE is showing on the display.

LED TEMP

Shows the actual temperature of the LEDs.

- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ENTER button: the LED temperature is shown.

The firmware of this unit can be upgraded using a special upgrade tool with Windows® software. (separately available from Briteq).

Each time the projector is switched on, the display shows UPDATE Wait: while this message shows on the display you can start the update using our special upgrade tool. More information about this can be found in the user manual of the upgrade tool and / or our website: www.briteq-lighting.com

RDM FUNCTIONS / REMOTE SETUP

RDM means “Remote Device Management”. This projector works with a brief set of RDM-functions which means that it can setup a bi-directional communication with an RDM-compatible DMX-controller. Some of these functions are briefly explained below, others will be added in the future.

- The DMX-controller sends out a “discovery command”, all RDM devices respond and send their unique device ID.
- The DMX-controller asks each RDM device for some basic data so it knows which devices are connected. The projector will respond:
 - **Device name:** EXPO CANNON
 - **Manufacturer:** Briteq®
 - **Sensors:** actual LED temperature
 - **Service hours:** total used hours since 1st use.
 - **Firmware:** x.x.x.x firmware version of the projector
 - **DMX address:** xxx current DMX start address of the projector
 - **DMX footprint:** xx number of DMX-channels used by the projector
 - **Personality:** xx current personality or DMX-working mode used by the projectors
- The DMX-controller can send certain commands to each RDM device which allow remote setup of the units. Thanks to this the projectors can be setup remotely.

The following functions can be managed remotely:

No more need to take a ladder and set all units one by one!

- **DMX START ADDRESS:** The start address can be set remotely from 001 to xxx.
- **PERSONALITY:** The DMX working mode (DMX-chart) can be set remotely.

These 2 functions make it possible to prepare a complete DMX-patch of all projectors on the DMX-controller and send these data to all projectors at once. More functions will be added later.

OPERATING INSTRUCTIONS

Note: when the projector is switched on the display shows “UPDATE WAIT ...” This message informs you that IF you want to upgrade the firmware, you should do it while this message is shown on the display. For normal use you can ignore this message completely.

A. Standalone 1unit:

- Just connect the projector to the mains.
- Select menu option “MASTER” to set the desired light output.
- Refer to chapter HOW TO SETUP to learn how to set the other menu options.

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 menu option “MASTER” to set the desired light output on the master (the first projector in the DMX chain)
- Set all the other projectors in SLAVE mode
- The projectors will now follow the settings of the master projector so they all work synchronously.

C. Controlled by 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 1 or 2 DMX-channels, depending on the DMX-mode you have selected in the menu. See the different DMX charts below:

DMX Chart for the 1 channel DMX-Mode

Channel:	Value:	Function:	Remarks:
1	000-255	Master dimmer (0-100%)	

DMX Chart for the 2 channel DMX-Mode

Channel:	Value:	Function:	Remarks:
1	000-255	Master dimmer (0-100%)	
2	000-005	Open	No strobe
	006-255	Increasing strobe speed	006 = slow 255 = fast

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:

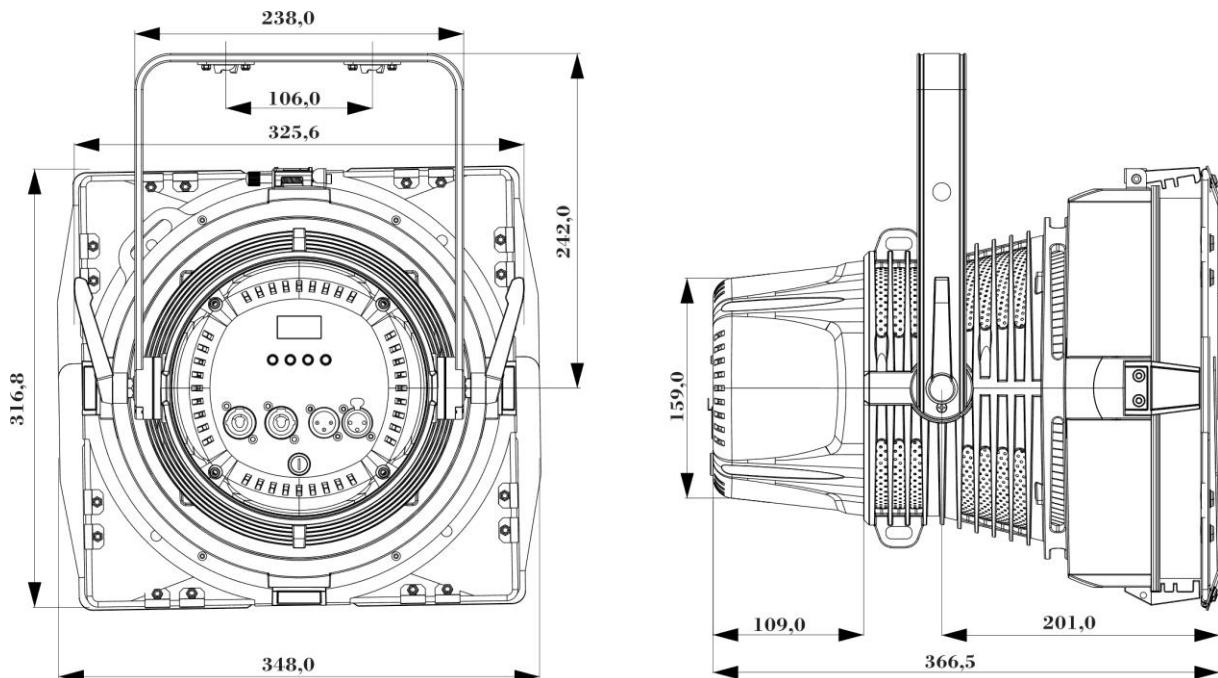
- All screws used for installing the device and any of its parts should be tightly fastened and may not be corroded.
- Housings, fixations and installations spots (ceiling, truss, suspensions) should be totally free from any deformation.
- When an optical lens is visibly damaged due to cracks or deep 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 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 technician!

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.

Mains Input:	AC 110V - 240V, 50/60Hz
Power consumption:	380 Watt max.
Power Factor:	94
Fuse:	250V T4A (20mm glass)
DMX connections:	3pin XLR male / female
DMX channels used:	1+2 channels
Lamp:	37pcs CREE XM-L 10Watt
CCT:	6500 K
CRI-factor:	> 85
LED Refresh rate:	3,6 kHz (flicker free TV-recordings)
Beam Angle:	20°
Size:	see drawing
Weight:	8,5 kg



The information might be modified without prior notice

You can download the latest version of this user manual on our website: www.briteq-lighting.com



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

PT: Inscreva-se hoje na nossa mailing list para estar a par das últimas notícias!

WWW.BRITEQ-LIGHTING.COM

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t Hofveld 2C ~ B1702 Groot-Bijgaarden ~ Belgium

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