

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 pais.

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

- Powerful 130W white COB projector (3000K) with amber drift effect, behaves exactly like a halogen blinder!
- Rugged die-cast ALU-housing with waterproof IP65 rating!
- The fast exchange of different lenses makes this a super multifunctional projector for many applications:
 - IP-BLINDER: for outdoor stages: IP65 protection, special blinder lens, high output and amber drift, ...
 - EXPO light: easily exchangeable beam angles, very high CRI, removeable barndoors, ...
 - LED STROBE: high light output, super-fast and random strobe effects, ...
- Preprogrammed amber drift effect and/or separate control for white/amber!
- Tunable CCT: from 1700K to 3000K
- Very high CRI-factor (CRI: 97 R9: 89) for perfect color rendering.
- 4 DMX-modes (1 to 6ch): 2 Blinder modes (8+16bit) + 2 EXPO light modes (DTW + white)
- Control channel with remote DMX-control for "red shift", dimmer speed/curves, fan speed, ...
- Very high 16kHz LED refresh rate, perfect for HD-TV recording studios.
- RDM-function for: channel mode, DMX-address, temperature monitoring, ...
- OLED display with backlit touch buttons for easy configuration, even in the dark.
- Different accessories included:
 - 2 compound eye lenses with beam angles: 15° and 35°
 - 1 blinder glass (authentic blinder look)
 - 1 Gel frame (install optional CTO / CTB / COLOR filters)
 - 1 Glare shield (anti-glare and better beam)
- Optional Barndoor available (BT-BARN 4 RAY-series, code: 05527)
- Easy truss installation, thanks to the fixing points for "omega bracket small" (code: 02677)
- Double bracket for easy ground installation
- Easy daisy chaining: waterproof 3pin XLR + Neutrik® PowerCON TRUE1[®] in/out
- Optional modification kit available to modify IP 3pin XLR to 5pin (BT-XLR3TO5 KIT code: 5523)
- 100V~240V 50/60Hz Power supply.

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
- BT-SUNRAY 130R
- 1 Compound eye lens beam angle: 15 °
- 1 Compound eye lens beam angle: 35 °
- 1 blinder glass
- 1 Gel frame
- 1 Glare shield (anti-glare and better beam)
- Neutrik[®] PowerCON TRUE1[®] 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 use 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 lightoutput and the illuminated surface must be more than x meters

RISK GROUP 2 CAUTION:

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

Do not stare at operating lamp

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. 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. AIR PRESSURE VENT:** for improved performance and service life, this special vent equalizes the pressure inside the projector while blocking water and preventing condense from being formed.
- 4. DMX IN: 3pin XLR connector used to connect the projector with other units or a DMX-controller. The DMX-input is also used to update the firmware of the projector, see the upgrade instructions on our website.
- DMX OUT: 3pin XLR connector used to daisy chain the projector with other units.
 Remark: a separate modification kit ("BT-XLR3TO5 KIT" order code: 5523) is available to easily change the current 3pin XLR-connectors into 5pin XLR-connectors: this takes only 2 minutes!)
- 6. **DISPLAY & BUTTONS:** alphanumeric OLED-display and backlit touch keys to select different options of the setup MENU:
 - **MENU-button:** used to enter/exit the setup MENU.
 - ▼-button: used to go to the next MENU option or to decrease a parameter value.
 - **A-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.

Remark: to rotate the display over 180°, press the \blacktriangle -button while the standard display is shown.

- **7. HANGING BRACKET:** with nuts for the use of the (optional) Briteq Omega Bracket Small (code: 02677). You can use the hole in the center of the bracket to fix a hook or truss clamp.
- 8. SAFETY EYEBOLT: used to attach a safety cable when the unit is rigged (see paragraph "overhead rigging"
- 9. OMEGA BRACKETS: use these holes to install a Briteq® Omega Bracket Small (code: 02677).
- **10. MOUNTING FRAME:** used to install the different accessories that are included. When you use these, always make sure that the safety clip is well closed and located on the upper side before you install the projector!
- 11. BLINDER GLASS: to be installed when the projector is used as blinder to give a special "retro" effect.
- **12. COMPOUND EYE LENSES:** two different lenses (15° and 35°) can be installed to narrow the beam while the projector is used as EXPO projector.
- **13. GEL FRAME:** since this projector only produces white light, the gel frame can be used to install optional CTO / CTB / COLOR filters when needed.
- **14. GLARE SHIELD:** used to make a better aligned beam and/or avoid unwanted glare. Can be used in combination with the lenses or gel frame.
- **15. BARNDOORS:** (optional part: order code: 05527) can be installed to delimit the beam in certain directions. Can be used in combination with the lenses or gel frame.

SETUP MENU:

The setup MENU of this projector was deliberately kept very simple to allow quick installation with less risk of incorrect settings. In addition, a number of important settings are made via a DMX control channel.

Press the MENU-button to enter the setup MENU.

- Use the ▼/▲ buttons to browse the MENU until the required function shows up.
- Select the function with the ENTER-button.
- Use ▼/▲ buttons to change the values.
- Press the ENTER-button to confirm the selected value.

ADDRESS

Used to set the desired DMX-address.

- Use the ▼/▲ buttons to browse the MENU until the required function shows up.
- Use ▼/▲ buttons to select the desired DMX512 address.
- Once the correct address shows on the display, press the ENTER-button to save it.

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

CH. MODE

Used to set the desired channel mode.

- Use the ▼/▲ buttons to browse the MENU until the required function shows up.
- Select the function with the ENTER-button.
- Use ▼/▲ buttons to select the desired mode:
 - BLIND 8b: 4 channel mode for full control in 8bit mode.
 - BLIND 16b: 6 channel mode for full control in 16bit mode.
 - EXPO WW: 1 channel 8bit mode, 3000K without red shift halogen effect.
 - EXPO DTW: 1 channel 8bit mode, with red shift halogen effect.
- 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.

ST.ALONE DIMMER

Used to set the dimmer level while used in standalone mode.

- Use the ▼/▲ buttons to browse the MENU until the required function shows up.
- Select the function with the ENTER-button.
- Use ▼/▲ buttons to set the desired dimmer level
- Once the correct dimmer level shows on the display, press the ENTER-button to save it.

Remark: this option can only be used while the NO DMX behavior is set to ST.ALONE

DIMMER CURVE

- Used to set the dimmer curve of the individual pixels.
- Use the \mathbf{V}/\mathbf{A} buttons to browse the MENU until the required function shows up.
- Select the function with the ENTER-button.
- Use ▼/▲ buttons to select the desired curve:



• Once you selected the desired curve, press the ENTER-button to save it. *Remark:* this option can be overruled using the DMX-control channel.

LOCKING MODE

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

- Use the ▼/▲ buttons to browse the MENU until the required function shows up.
- Select the function with the ENTERbutton.
- 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 BEHAVIOR

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

- Use the V/▲ buttons to browse the MENU until the required function shows up.
- Select the function with the ENTERbutton.
- 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.
 - **ST.ALONE:** light output depends on dimmer value in the ST.ALONE option.

• 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.



FAN

Used to set the working mode of the cooling system.

- Use the ▼/▲ buttons to browse the MENU until the required function shows up.
- Select the function with the ENTER-button.
- Use ▼/▲ buttons to select the desired mode:
 - SILENT The fans are temperature controlled, low fan speed for use in a quiet location. Note that the light output is reduced when the LED temperature becomes too high.
 - AUTO The fans are temperature controlled, high fan speed for increased cooling.

Once the correct option shows on the display, press the ENTER-button to save it.

Remark: this option can be overruled using the DMX-control channel.

TEMP

Used to show the temperature of the LEDs.

- Use the ▼/▲ buttons to browse the MENU until the required function shows up.
- Select the function with the ENTER-button.
- Use ▼/▲ buttons to select the desired mode: °C / F

DEFAULT SETTINGS

Used to quickly select the basic settings for BLINDER or EXPO functions

- Use the ▼/▲ buttons to browse the MENU until the required function shows up.
- Select the function with the ENTER-button.
- Use ▼/▲ buttons to select the desired mode:
 - **BLINDER:** most obvious settings for use as a BLINDER
 - **EXPO:** most obvious settings for use as an EXPO projector
- Once the correct option shows on the display, press the ENTER-button to save it.

PARAMETER name	BLINDER mode defaults	EXPO mode defaults
CHANNEL mode	BLIND 8b	EXPO WW
NO DMX mode	BLACKOUT	ST.ALONE
DIM Curve	Square	Square
Dimmer Speed	100 (440ms)	100 (440ms)
FAN Set	Auto	Silent
Backlight	1 min.	1 min.
AUTO LOCK MENU	OFF	OFF
no DMX blink display	ON	OFF
Temp C/F	Celcius	Celcius

FIRMWARE VERSION

Used to show the current version of the firmware.

- Use the ▼/▲ buttons to browse the MENU until the required function shows up.
- Select the function with the ENTER-button: the current firmware version is shown.

Note: The firmware of this unit can be upgraded using our special "Firmware Updater 2" (separately available from Briteq[®]). More information about this can be found in the user manual of the firmware updater or our website: https://briteq-lighting.com/firmware-updater-2

OVERHEAD RIGGING

- <u>Important:</u> 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.



ENGLISH

- 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.

INSTALLATION OF THE ACCESSORIES

Possible combinations depending on the application



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 TWO OR MORE UNITS IN DMX-MODE:

Use this function when you want to control the projectors by any DMX controller.

• Connect the projectors as shown in the drawing below.



- First put the projectors in the desired DMX-mode: see the different DMX-charts and choose the one that suits you best.
- Give all projectors a start address: each projector shows its start + end address, make sure that the addresses do not overlap!

Some general information on DMX:

- 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 DMX-cable. Both XLR-3pin and XLR-5pin connectors are used, however XLR-3pin is more popular.
- 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 90 Ω to 120 Ω 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 has its proper starting address so it knows which commands from the controller it has to decode.

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.

STANDALONE OPERATION

- Connect the projector(s) to the mains.
- Make sure that the option NO DMX BEHAVIOR in the setup MENU is set to: ST.ALONE
- In the setup MENU select the option ST.ALONE and set the desired dimmer level.
- If used in a quiet environment: select the option FAN and chose SILENT mode.

DMX OPERATION

- 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 can use a different number DMX-channels, depending on the DMX-mode you have selected in the MENU.

BLIND	BLIND	EXPO	EXPO	DMX	FUNCTION	REMARKS
8b	16b	WW	DTW	VALUES	FUNCTION	
1	1	1	1	000-255	DIM WHITE coarse	See control channel for RED SHIFT
	2			000-255	DIM WHITE fine	
2	3			000-255	DIM AMBER coarse	RED SHIFT ACTIVE: not used
	4			000-255	DIM AMBER fine	RED SHIFT ACTIVE: not used
3	5				STROBE CHANNEL	
				000-007	Open (no strobe)	
				008-126	Random strobe (slow $ ightarrow$ fast)	
				127-131	Open (no strobe)	
				132-250	Normal strobe (slow $ ightarrow$ fast)	
				251-255	Closed (no output)	
4					CONTROL CHANNEL	
				000-005	RED SHIFT (amber drift) ACTIVE	NO 3s delay used !
				006-010	RED SHIFT (amber drift) OFF	NO 3s delay used !
				011-026	No function	
				027-127	DIMMER SPEED: $(0,0s \rightarrow 1,5s)$	selected after 3 sec
				128-151	No function	
	6			152-157	FAN SILENT: temp. controlled, low speed	selected after 3 sec
	U			158-161	FAN AUTO: temp. controlled, high speed	selected after 3 sec
				162-167	No function	
				168-173	LINEAR dimmer curve	selected after 3 sec
				174-179	SQUARE dimmer curve	selected after 3 sec
				180-185	INVERSE SQUARE dimmer curve	selected after 3 sec
				186-191	S-CURVE dimmer curve	selected after 3 sec
				192-255	No function	

RDM FUNCTIONS / REMOTE SETUP

RDM means "**R**emote **D**evice **M**anagement". 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: BT-SUNRAY 130R
 - Manufacturer:
 - Category:
 - **Firmware:** x.x.x.x (firmware version of the projector)

Briteq®

• DMX address: xxx (current DMX start address of the projector)

fixture fixed

- 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 projector 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 DMXcontroller and send these data to all projectors at once. More functions will be added later.

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 1

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.





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

SPECIFICATIONS 2







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!

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