BTX-SATURN
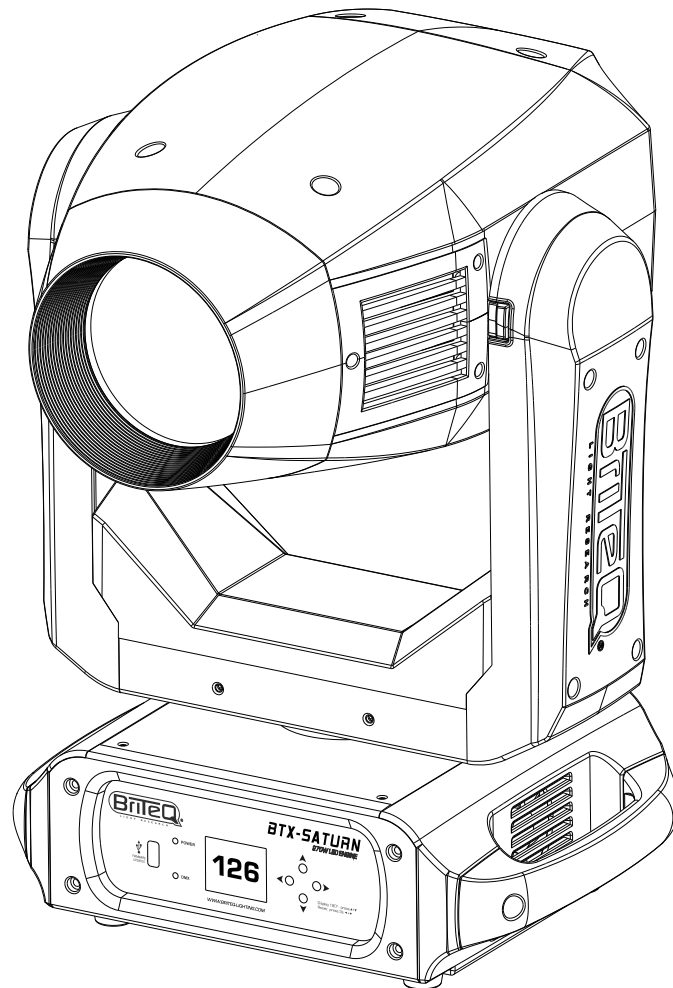
270W LED ENGINE

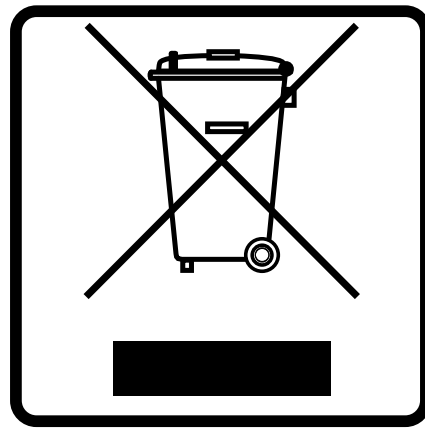# ENGLISH

Operation Manual

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

CE

Version: 1.2

BriteQ®
LIGHT RESEARCH

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

- High efficiency moving head projector based on a powerful 270W LED engine!
- Wide range electronic zoom, from 8° to 45° + motorized focus.
- Silence mode for theater applications.
- Fast 540° pan and 270° tilt movements.
- 16bit resolution pan/tilt resolution with position correction and pan/tilt speed channel.
- CMY color mixing to create lots of saturated and pastel colors.
- 9 extra fixed colors including 2 CTO, one CTB and UV.
- 7 replaceable rotating gobos with fine indexing.
- 9 fixed static gobos for gobo morphing.
- Rotating 3 facets prism.
- Iris module for dynamic effect.
- Variable frost filter for perfect wash effect.
- Aperture diaphragm for excellent logo projection.
- Opening/closing pulse, ramp and random effects on zoom, iris and frost channels.
- Four dimmer curves: linear, square, inverse square, S-curve, fast and slow dimming mode.
- Accurate strobe with built in random, pulse and burst effects.
- 3 focus compensate distances to always keep the focus according to the zoom opening.
- Uses 25 DMX channels + RDM-functionality for easy remote setup.
- Easy USB firmware update to keep the moving head up-to-date at all times.
- The matrix LCD-display assures easy navigation in the different setup menus
- 3 & 5pin DMX in/outputs + Neutrik PowerCON TRUE1 in/outputs for easy daisy chaining.
- Equipped with omega brackets for fast installation.

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:
- English operating instructions, other languages can be downloaded from our website.
- BTX-SATURN
- 2 Omega brackets
- PowerCON TRUE1® 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 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 light-output and the illuminated surface must be more than 1 meters

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. Apart from the mains fuse 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:
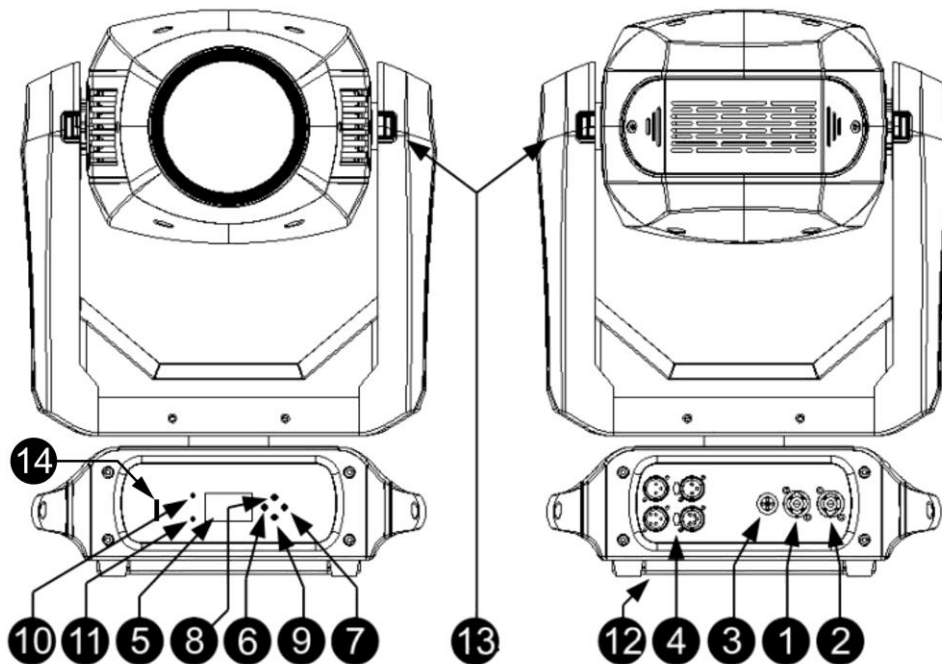
1. **MAINS INPUT:** equipped with original Neutrik PowerCON TRUE1®. Connect the supplied mains cable or any PowerCON TRUE1® extension cable here.
2. **MAINS OUTPUT:** used to daisy chain the power to several other projectors. Always pay attention to the maximum load while adding projectors! Special Multi cables (PowerCON TRUE1® + 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:** both 3pin and 5pin in/outputs are available to daisy chain the projector with other units that will be controlled by a DMX-controller.
5. **DISPLAY:** shows the various menus and the selected functions.
6. **◄-button:** used to enter and exit the setup menu or to jump to a higher level in the setup menu (if the display is inverted, this buttons acts as a ENTER button).
7. **►-button:** used to select a menu option or confirm a setting (if the display is inverted, this buttons acts as a MENU button).
8. **▲-button:** used to go to the previous menu option or to increase a parameter value.
9. **▼-button:** used to go to the next menu option or to decrease a parameter value.
10. **POWER LED:** shows that the unit is powered.
11. **DMX LED:** shows that unit receives DMX signal.
12. **MOUNTING BASE:** the strong metal base is designed to be used with 2pcs "OMEGA BRACKET BIG" (included) and an optional safety cable (use the safety eye).
13. **TILT LOCK :** locks and releases the tilt axis every 45°.
14. **USB-input:** only used for software updates, see further in this user manual.

!!! IMPORTANT: the arm must be unlocked before operation !!!

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.**

1. Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
2. 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.
3. The device should be installed out of reach of people and outside areas where persons may walk by or be seated.
4. Before rigging make sure that the installation area can hold a minimum point load of 10 times the device's weight.
5. 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.
6. The device should be well fixed; a free-swinging mounting is dangerous and may not be considered!
7. Don't cover any ventilation openings as this may result in overheating.
8. 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.
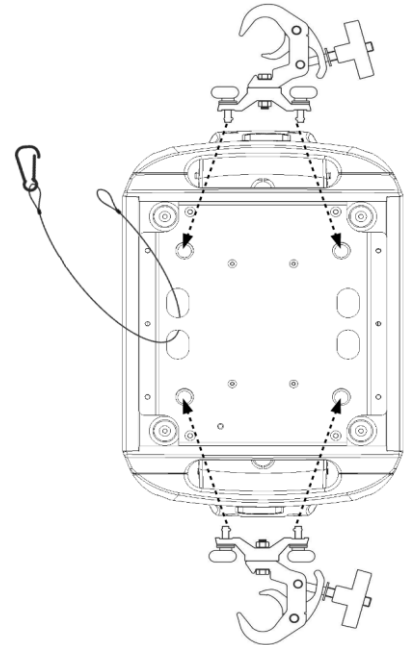
SETUP MENU / HOW TO SETUP

With the setup menu you can fully configure the projector. All settings are preserved when the unit is disconnected from the mains.

General instructions for setup.
The SETUP-menu has three logically structured levels, see the menu structure.
- Press the ◄ button to enter the SETUP-menu.
- Press the ▲/▼ buttons to browse the different functions of the setup menu until the required function is shown on the display.
- Press the ► button to access the function and change its parameters.
- Use ▲/▼ buttons to change the value.
- Press the ► button again confirm.
- To jump to a higher menu level: press the ◄ button.
- To exit the SETUP-menu: press the MENU button several times until the standard display is shown.
Remark: to make things easier you will always enter the SETUP-menu at the last used location.

DMX FUNCTION
Used to configure the DMX parameters of the projector.

DMX Address
Used to set the desired DMX-address. *(on RDM-compatible controllers this option can be set remotely)*
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed
- Use ▲/▼ buttons to select the desired DMX512 address.
- Once the correct address shows on the display, press the ► button to confirm.

DMX Channel Mode
Used to set the desired channel mode. *(on RDM-compatible controllers this option can be set remotely)*
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed
- Use ▲/▼ buttons to select the desired mode:

- **25Ch :** full control of the moving head, 16bits pan and tilt, dimmer, focus and gobo indexing.
- Once the correct option shows on the display, press the ► button to confirm.

<u>**NO DMX Mode**</u>
Used to set how the projector reacts when the DMX-signal disappears.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► 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 ► button to confirm.
Note: as soon as the input detects a DMX-signal, blackout or freeze mode will be cancelled. When no DMX signal is detected, the display start blinking and the DMX LED is off.

LEVEL 1	LEVEL 2	LEVEL 3
DMX FUNCTION	**DMX Address**	001 - XXX
	DMX Channel Mode	25Ch
	NO DMX Mode	Blackout
		FREEZE
FIXTURE SETTINGS	**Pan Inverse**	Yes/No
	Tilt Inverse	Yes/No
	P/T Feedback	Yes/No
	BL.O. P/T Move	Yes/No
	BL.O. Color Move	Yes/No
	BL.O. Gobo Move	Yes/No
	Dimmer Curve	Linear
		Square Law
		Inv SQ Law
		S Curve
	Dimmer Mode	Fast
		Slow
	Silent Mode	Yes/No
	Focus Compensate	Disable
		Near
		Medium
		Far
DISPLAY SETTINGS	**Display Inverse**	Yes/No
	Backlight Switch	Yes/No
	Backlight Intensity	1 - 10
	Temperature Unit	°C
		°F
FIXTURE TEST	**Auto Test**	
	Manual Test	List of all the DMX channels
FIXTURE INFORMATION	**Fixture Use Time**	xxx
	Temperature	Led / processor A, B, C, D, E
	USB Upgrading File	Select the firmware on your USB key
	Firmware Version	Processor A, B, C, D, E
RESET FUNCTION	**Pan & Tilt**	Yes/No
	Effect	Yes/No
	All	Yes/No
SPECIAL FUNCTION	**Factory Settings**	Yes/No

FIXTURE SETTINGS
Used to configure different parameters of the projector.

Pan Inverse
Used to select if the Pan movements are inverted or not.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

Tilt Inverse
Used to select if the Tilt movements are inverted or not.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

P/T feedback
This function corrects the PAN/TILT positions automatically if someone bumps into the machine.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

BL.O P/T Move
Used to turn off the LED while Pan/tilt movements.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

BL.O. Color Move
Used to turn off the LED while changing the position of the fixed color wheel.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
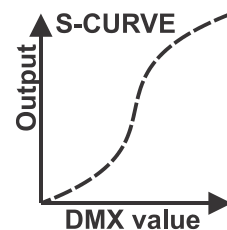- Press the ► button to confirm.

BL.O. Gobo Move
Used to turn off the LED while changing the position of the gobo wheels.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

Dimmer Curve
Used to set the dimmer curve of the master dimmer.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.

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

Silent Mode
Used to turn on the silent mode. When this mode is enabled, the light output is reduced to 80% of the maximum intensity.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
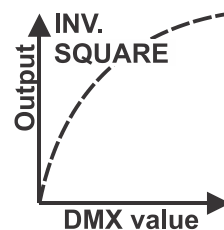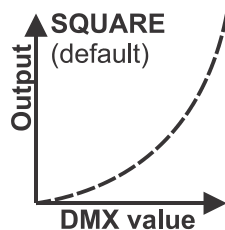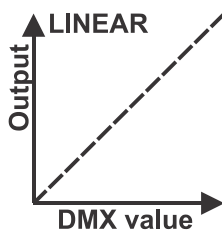- Press the ► button to confirm.

Focus Compensate
Used to adjust the focus according to the zoom setting.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed between Disable, Near, Medium and Far to adjust the focusing distance or to disable this feature.
- Use ▲/▼ buttons to select the desired option
- Once you have the desired option selected, press the ► button to save it.

Display Settings
This level contains all display related settings.

Display Inverse
Used to turn the display over 180°: Yes = display is upside-down.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.
  Note: to quickly invert the display, hold down and at the same time the ▲ *and* ▼ *buttons. When the display is inverted, the function of each button is inverted as well to allow easy navigation in the menus.*

Backlight Switch
Used to adjust if the display stays lit after the last time it was used. No = display is always lit.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to toggle between Yes and No.
- Press the ► button to confirm.

Backlight Intensity
Used to adjust the display's intensity between 1 (low intensity) and 10 (high intensity).
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed.
- Use ▲/▼ buttons to set the backlight's intensity.
- Press the ► button to confirm.

Temperature Unit
Used to select if the LED-temperature is shown in degrees Celcius °C or Fahrenheit °F.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the values can be changed
- Use ▲/▼ buttons to to toggle between °C and °F.
- Press the ► button to confirm.

FIXTURE TEST
This level controls all the testing functions.

Auto Test
Used to start the automatic test function: all functions will be tested.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the automatic test sequence will begin. When the sequence is over, the display comes back to the FIXTURE TEST menu.

Manual Test
Used to test a particular function of the moving head. When entering in this menu, the pan and tilt will be set in the center position, the intensity will be maximum and the shutter will be open.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the display shows all features of the moving head that can be tested.
- Use ▲/▼ buttons to navigate to the feature to be tested.
- Press the ► button to select the required feature.
- Use ▲/▼ buttons to set the parameter between 0 and 255.
- Press the ► button to store the value and come back to the features of the moving head.

Note: exit this menu and the moving head will listen again to its DMX signal or go back to the default position if no DMX signal.

FIXTURE INFORMATION
This level shows all the information relative to the moving head.

Fixture Use Time
Shows how long the projector has been used (in hours).

Temperature
Used to monitor the temperature of the moving head.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the display shows the LED and processors temperatures.

USB Upgrade File
Used to upgrade the moving head with a USB key.
- First plug a USB key with the firmware V0.0 (initial firmware) AND the latest firmware V0.xx. The files MUST be located at the root of the USB key.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the display shows the 2 firmware versions present on the USB key.
- Use the ▲/▼ buttons to select the firmware V0.0.
- Press the ► button and select Yes to downgrade the moving head to its initial version. The display shows the progression of the installation. Once the downgrade process is finished the moving head resets.
- Use the ▲/▼ buttons to select the new firmware V0.xx.
- Press the ► button and select Yes to upgrade the moving head to the latest version. The display shows the progression of the installation. Once the upgrade process is finished, the moving head resets and is up to date.

Firmware Version
Used to monitor the temperature of the moving head.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: the display shows the version of each processor.

RESET FUNCTION
Used to reset certain functions of the projector. When the reset is done the display shows the RESET FUNCTION menu again.

Pan & Tilt
Used to reset pan and tilt only.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: select Yes to reset the pan & tilt.
- Press the ► button to confirm.

Effect
Used to reset color and beam functions only.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: select Yes to reset the effect section.
- Press the ► button to confirm.

<u>All</u>
Used to reset the entire moving head.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: select Yes to reset the moving head.
- Press the ► button to confirm.
  Note: to quickly reset the entire moving head, press at the same time the ◄ & ► buttons *for 3 seconds*.

SPECIAL FUNCTION
Used to set special functions.

<u>Factory Settings</u>
This is your emergency exit if you really messed up the settings: just return to the Factory Settings.
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button: select Yes to restore factory settings
- Press the ► button to confirm.

Set of Factory default settings:

PARAMETER name	FACTORY defaults
DMX address	001
DMX Channel Mode	25Ch
DMX State	Blackout
Pan Inverse	No
Tilt Inverse	No
P/T Feedback	Yes
BL.O. P/T Moving	No
BL.O. Color Moving	No
BL.O. Color Moving	No
Dimmer Curve	Square Law
Dimmer Mode	Fast
Silent Mode	No
Focus Compensate	Disable
Display Inverse	No
Backlight Switch	Yes
Backlight Intensity	10
Temperature Unit	°C

CALIBRATION 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 ► button for about 3 seconds while you are in the main menu (any option, not important). Now the display shows all the features that can be adjusted:
- Press the ▲/▼ buttons until the desired function is showing on the display.
- Press the ► button to select the feature to be calibrated.
- Use ▲/▼ buttons to adjust the value between -128 and 127.
- Press the ► button to confirm the changes.
- Press the ◄ button to exit the hidden menu.

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:
- 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.
- 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 unit in the chain needs to have its proper starting address so it knows which commands from the controller it has to decode.
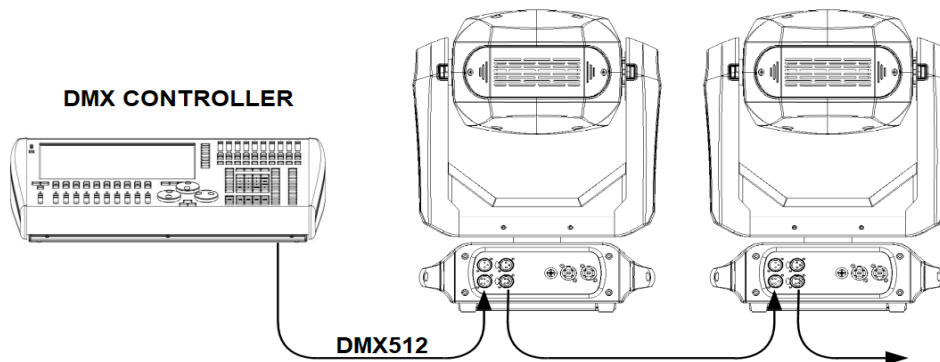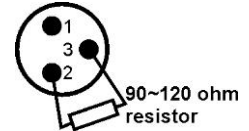
RDM FUNCTIONS / REMOTE SETUP

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:**   BTX-SATURN
  - **Manufacturer:**   Briteq®
  - **Category:**   Moving Yoke
  - **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)
  - **Mode:** 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 DMX-controller and send these data to all projectors at once. More functions will be added later.

OPERATING INSTRUCTIONS

- 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. See the different DMX charts:

DMX Chart for the 25Ch DMX-Mode

CHANNEL	VALUE	FUNCTION
1	000-255	**Pan**
2	000-255	**Pan Fine**
3	000-255	**Tilt**
4	000-255	**Tilt Fine**
5	000-255	**Pan / Tilt Speed (000 = fast ~ 255 = slow)**
6		**Special Functions**
	000-019	Null
	020-029	BlackOut Pan/Tilt Move Enable
	030-039	BlackOut Pan/Tilt Move Disable
	040-049	BlackOut Color Move Enable
	050-059	BlackOut Color Move Disable
	060-069	BlackOut Gobo Move Enable
	070-079	BlackOut Gobo Move Disable
	080-089	Linear dimmer curve
	090-099	Square law dimmer curve
	100-109	Inverse Square law dimmer curve
	110-119	S dimmer curve
	120-129	Fast dimmer mode
	130-139	Slow dimmer mode
	140-149	Silent Mode Enable
	150-159	Silent Mode Disable
	160-169	Focus Compensate Disable
	170-179	Focus Compensate Near
	180-189	Focus Compensate Medium
	190-199	Focus Compensate Far
	200-219	Null
	220-229	Reset All
	230-239	Reset Effect
	240-249	Reset Pan/Tilt
	250-255	Null
7		**Color Wheel**
	000-006	Open
	007-012	Red
	013-018	Aqua Marine
	019-025	Orange
	026-031	Green
	032-037	CTB 8000K
	038-044	CTO 5600K
	045-050	CTO 3200K
	051-056	Lime Green
	057-063	UV
	064-127	Color Index
	128-190	Clockwise color wheel rotation (fast → slow)
	191-192	Stop
	193-255	Counter-clockwise color wheel rotation (slow → fast)
8	000-255	**Cyan**
9	000-255	**Magenta**

10	000-255	**Yellow**	
		Color Macro	
	000-009	CMY color mixing using channels 8 to 10	
	010-014	LEE 790 - Moroccan pink	
	015-019	LEE 157 - Pink	
	020-024	LEE 332 - Special rose pink	
	025-029	LEE 328 - Follies pink	
	030-034	LEE 345 - Fuchsia pink	
	035-039	LEE 194 - Surprise pink	
	040-044	LEE 181 - Congo Blue	
	045-049	LEE 071 - Tokyo Blue	
	050-054	LEE 120 - Deep Blue	
	055-059	LEE 079 - Just Blue	
	060-064	LEE 132 - Medium Blue	
	065-069	LEE 200 - Double CT Blue	
	070-074	LEE 161 - Slate Blue	
	075-079	LEE 201 - Full CT Blue	
	080-084	LEE 202 - Half CT Blue	
	085-089	LEE 117 - Steel Blue	
	090-094	LEE 353 - Lighter Blue	
	095-099	LEE 118 - Light Blue	
11	100-104	LEE 116 - Medium Blue Green	
	105-109	LEE 124 - Dark Green	
	110-114	LEE 139 - Primary Green	
	115-119	LEE 089 - Moss Green	
	120-124	LEE 122 - Fern Green	
	125-129	LEE 738 - JAS Green	
	130-134	LEE 088 - Lime Green	
	135-139	LEE 100 - Spring Yellow	
	140-144	LEE 104 - Deep Amber	
	145-149	LEE 179 - Chrome Orange	
	150-154	LEE 105 - Orange	
	155-159	LEE 021 - Gold Amber	
	160-164	LEE 778 - Millennium Gold	
	165-169	LEE 135 - Deep Golden Amber	
	170-174	LEE 164 - Flame Red	
	175-179	Open	
	180-201	Clockwise color macro rotation (fast → slow)	
	202-207	Stop (this will stop wherever the color is at the time)	
	208-229	Counter-clockwise color macro rotation (slow → fast)	
	230-234	Open	
	235-249	Random color macro (fast → slow)	
	250-255	Open	
		Gobo wheel 1 – select (rotating gobos)	
	000-007	Open	
	008-015	Gobo 1	
	016-023	Gobo 2	
	024-031	Gobo 3	
	032-039	Gobo 4	
	040-047	Gobo 5	
	048-055	Gobo 6	
12	056-063	Gobo 7	
	064-072	Gobo 1 Shaking (slow → fast)	
	073-081	Gobo 2 Shaking (slow → fast)	
	082-090	Gobo 3 Shaking (slow → fast)	
	091-099	Gobo 4 Shaking (slow → fast)	
	100-108	Gobo 5 Shaking (slow → fast)	
	109-117	Gobo 6 Shaking (slow → fast)	
	118-127	Gobo 7 Shaking (slow → fast)	

	128-190	Clockwise gobo wheel rotation (fast → slow)
	191-192	Stop rotation
	193-255	Counter-clockwise gobo wheel rotation (slow → fast)
13		**Gobo wheel 1 - rotation**
	000-127	Indexed positioning : 0 - 360
	128-190	Clockwise gobo rotation (fast → slow)
	191-192	Stop rotation
	193-255	Counter-clockwise gobo rotation (slow → fast)
14	000-255	**Gobo wheel 1 – rotation fine**
15		**Gobo wheel 2 – select (static gobos)**
	000-006	Open
	007-012	Gobo 1
	013-018	Gobo 2
	019-025	Gobo 3
	026-031	Gobo 4
	032-037	Gobo 5
	038-044	Gobo 6
	045-050	Gobo 7
	051-056	Gobo 8
	057-063	Gobo 9
	064-070	Gobo 1 Shaking (slow → fast)
	071-077	Gobo 2 Shaking (slow → fast)
	078-084	Gobo 3 Shaking (slow → fast)
	085-091	Gobo 4 Shaking (slow → fast)
	092-098	Gobo 5 Shaking (slow → fast)
	099-105	Gobo 6 Shaking (slow → fast)
	106-112	Gobo 7 Shaking (slow → fast)
	113-119	Gobo 8 Shaking (slow → fast)
	120-127	Gobo 9 Shaking(slow → fast)
	128-190	Clockwise gobo wheel rotation (fast → slow)
	191-192	Stop rotation
	193-255	Counter-clockwise gobo rotation (slow → fast)
16		**Prism**
	000-010	No Effect
	011-127	Prism
	128-135	Macro 1
	136-143	Macro 2
	144-151	Macro 3
	152-159	Macro 4
	160-167	Macro 5
	168-175	Macro 6
	176-183	Macro 7
	184-191	Macro 8
	192-199	Macro 9
	200-207	Macro 10
	208-215	Macro 11
	216-223	Macro 12
	224-231	Macro 13
	232-239	Macro 14
	240-247	Macro 15
	248-255	Macro 16
17		**Prism – rotation**
	000-127	Indexed positioning : 0 - 360
	128-190	Clockwise prism rotation (fast → slow)
	191-192	Stop rotation
	193-255	Counter-clockwise prism rotation (slow → fast)
18		**Zoom**
	000-129	Narrow → Wide
	130-154	Pulse opening effect (fast → slow)

	155-159	Wide
	160-184	Pulse closing effect (fast → slow)
	185-189	Wide
	190-214	Ramp effect (fast → slow)
	215-219	Wide
	220-244	Random effect (fast → slow)
	245-255	Wide
19	000-255	**Focus**
20	000-255	**Focus Fine**
		Frost
	000-099	No frost → frost (linear)
	100-124	Pulse opening effect (fast → slow)
	125-129	No frost
	130-154	Pulse closing effect (fast → slow)
21	155-159	No frost
	160-184	Ramp effect (fast → slow)
	185-189	No frost
	190-214	Random effect (fast → slow)
	215-219	No frost
	220-244	depth of field enable
	245-255	depth of field disable
		Iris
	000-129	Open → Closed
	130-154	Pulse opening effect (fast → slow)
	155-159	Big
	160-184	Pulse closing effect (fast → slow)
22	185-189	Big
	190-214	Ramp effect (fast → slow)
	215-219	Big
	220-244	Random effect (fast → slow)
	245-255	Big
		Strobe / Shutter effect
	000-019	Shutter closed (no output)
	020-024	Shutter open
	025-064	Strobe 1: fast → slow
	065-069	Open
	070-084	Strobe 2: opening pulse, fast → slow
	085-089	Open
	090-104	Strobe 3: closing pulse, fast → slow
	105-109	Open
	110-124	Strobe 4: random strobe, fast → slow
	125-129	Open
23	130-144	Strobe 5:random opening pulse, fast → slow
	145-149	Open
	150-164	Strobe 6:random closing pulse, fast → slow
	165-169	Open
	170-184	Strobe 7:burst pulse, fast → slow
	185-189	Open
	190-204	Strobe 8:random burst pulse, fast → slow
	205-209	Open
	210-224	Strobe 9:sine wave, fast → slow
	225-229	Open
	230-244	Strobe 10:burst, fast → slow
	245-255	Open
24	000-255	**Dimmer (0 to 100%)**
25	000-255	**Dimmer fine**
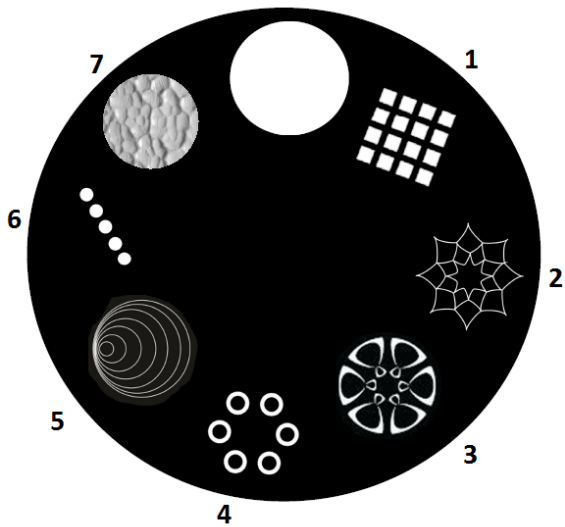
ROTATING GOBO   STATIC GOBO
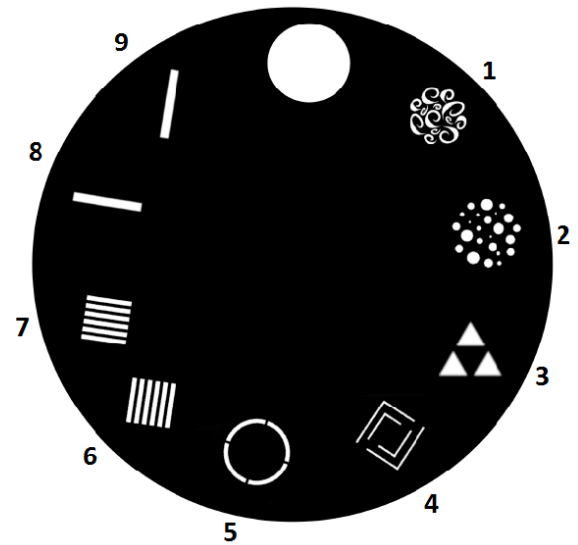
MAINTENANCE

- 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.
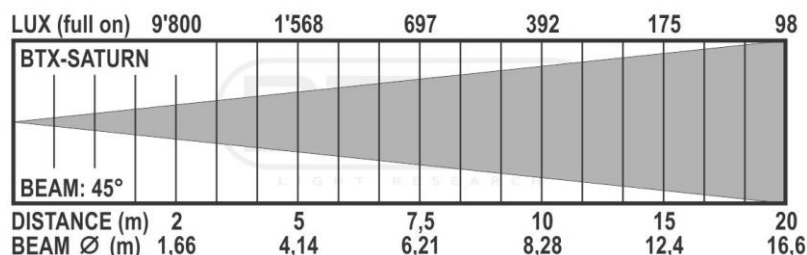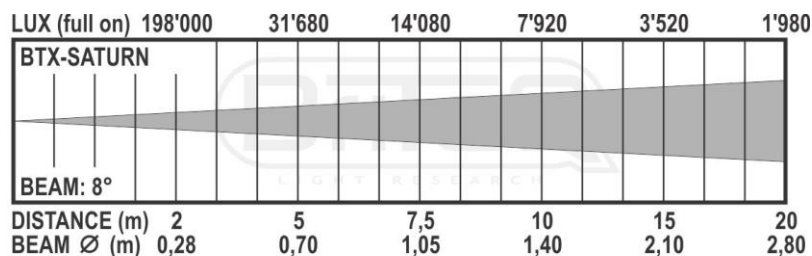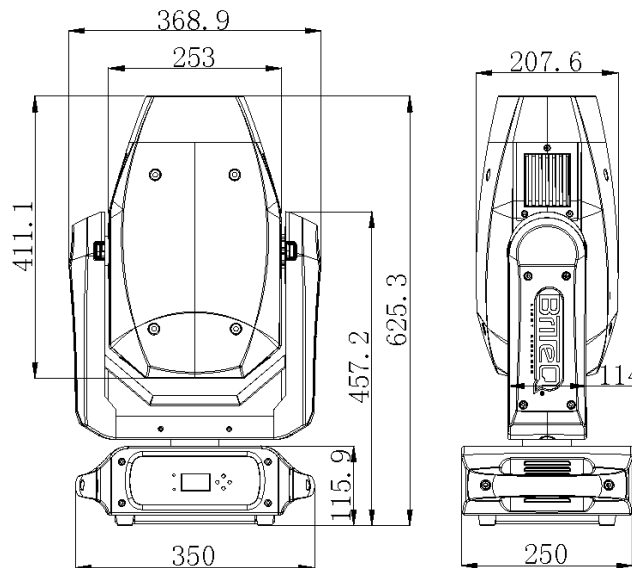   - Always dry the parts carefully.

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

Ventilation openings
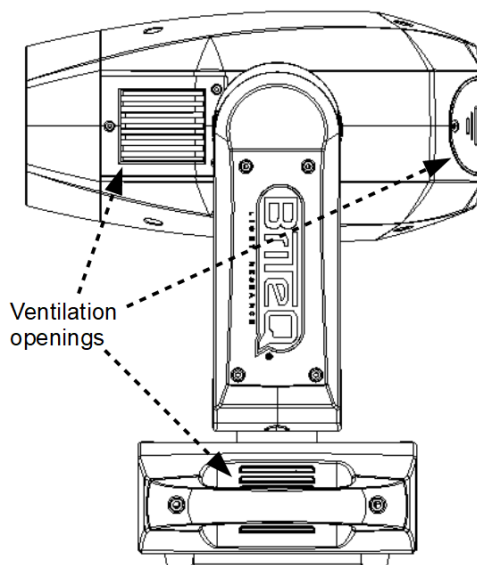
SPECIFICATIONS

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 110 - 240V, 50/60Hz
Power consumption:	392 Watts
Fuse:	250V 6,3A slow blow (20mm glass)
Power connections:	PowerCon True1 input / output
DMX connections:	3&5 pin-XLR inputs / outputs
DMX channels used:	25ch
Lamp:	LED, 270W (CCT 7500K)
Beam Angle:	Electronic zoom 8° ~ 45°
Focus:	Electronic
Color:	CMY color mixing + 9 fixed colors
GOBO wheel 1:	7 rotating gobos, replaceable by metal and glass gobos
	Outer diameter 26,80 mm – Image diameter: 22 mm
GOBO wheel 2:	9 fixed gobos
Special effects:	Iris, 3-facet rotating prism, frost filter, aperture diaphragm
IP-Rating:	IP20
Operating temperature (T_a):	0°C to 40°C
Installation:	2 quarter turn quick clamps
IP-Rating:	IP20
Size:	See drawing
Weight:	22,7 kg

LUX (full on)	198'000	31'680	14'080	7'920	3'520	1'980
BTX-SATURN						
BEAM: 8°						
DISTANCE (m)	2	5	7,5	10	15	20
BEAM ⌀ (m)	0,28	0,70	1,05	1,40	2,10	2,80

LUX (full on)	9'800	1'568	697	392	175	98
BTX-SATURN						
BEAM: 45°						
DISTANCE (m)	2	5	7,5	10	15	20
BEAM ⌀ (m)	1,66	4,14	6,21	8,28	12,4	16,6

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