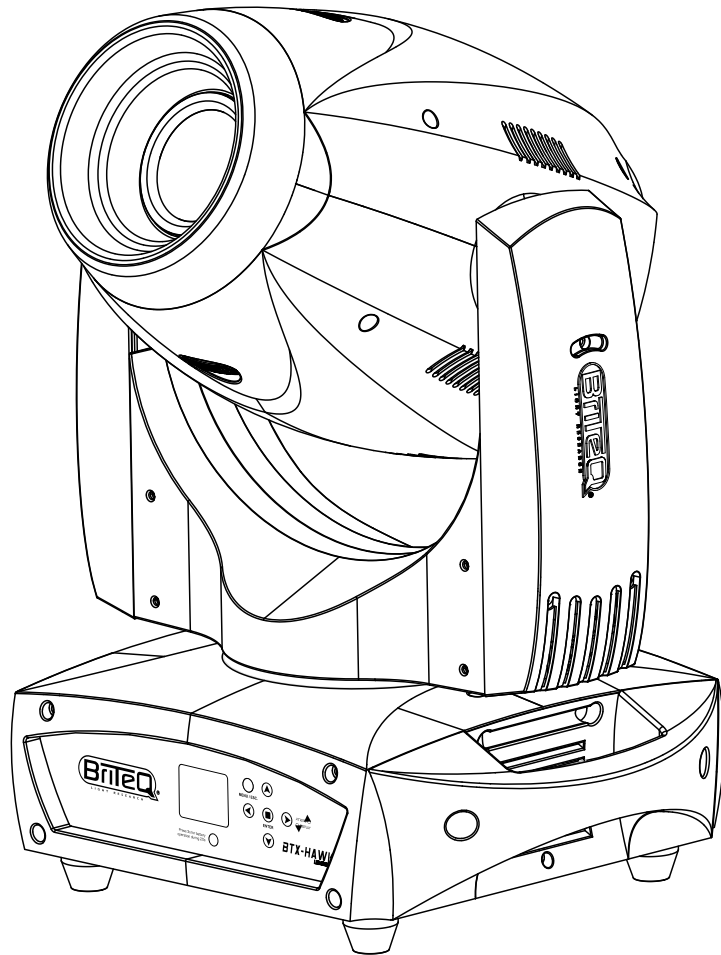# BTX-HAWK
LED ENGINE

ENGLISH
Operation Manual

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

CE

Version: 1.0

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

- A very bright moving head projector based on a powerful 180W LED engine!
- Highly polished 13° optics guarantees an incredibly sharp and bright output: 49500 lux @ 1m!
- Extremely low noise: perfect for theatres, rental companies, stage, discotheques, …
- The very fast pan/tilt movements (540° or 630°/270°) assure very dynamic show programming.
- 8 or 16bit resolution pan/tilt resolution with X/Y position correction and pan/tilt speed channel.
- Uses 13 or 15 DMX channels for an excellent range of possibilities and specs:
  - DMX-controlled electronic focus
  - 2 gobo wheels for nice gobo overlay effects:
    - 7 fast rotating gobos + open
    - 9 fixed gobos + open
  - color wheel with 7 carefully selected dichroic colors + open
  - Extremely fast electronic dimmer/shutter
  - Rotating 3facet + linear prism effects
  - Frost filter for wash effect
  - Different strobe effects
  - Effect channel: different blackout functions, etc.
- Works also in standalone & DMX 5MSL master/slave mode: the internal mic triggers the preprogrammed shows, while the user still has full control over colors, gobos, dimming, strobe and pan/tilt speed.
- Three different default settings, easy for rental companies:
  - **PRO-defaults:** basic settings for use on professional DMX-controllers.
  - **AUTO-defaults:** basic settings for easy master/slave use.
  - **USER-defaults:** save and recall your own preferred settings!
- Neutrik PowerCON® in/outputs: easy daisy chaining of several units up to 16A.
- Neutrik 3pin & 5pin XLR in/outputs for maximum flexibility in a professional environment
- Special USB-connection for use with an optionally available Wireless DMX-dongle.
- Easy firmware updates keep your machine up-to-date at all times (optional firmware updater needed)
- The matrix LCD-display assures easy navigation in the different setup menus
- High efficiency and low power consumption.
- 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:
- Operating instructions
- BTX-HAWK
- PowerCON mains cable
- 2 omega brackets

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

The device is not suitable for direct mounting on normally flammable surfaces. (suitable only for mounting on non-combustible surfaces)
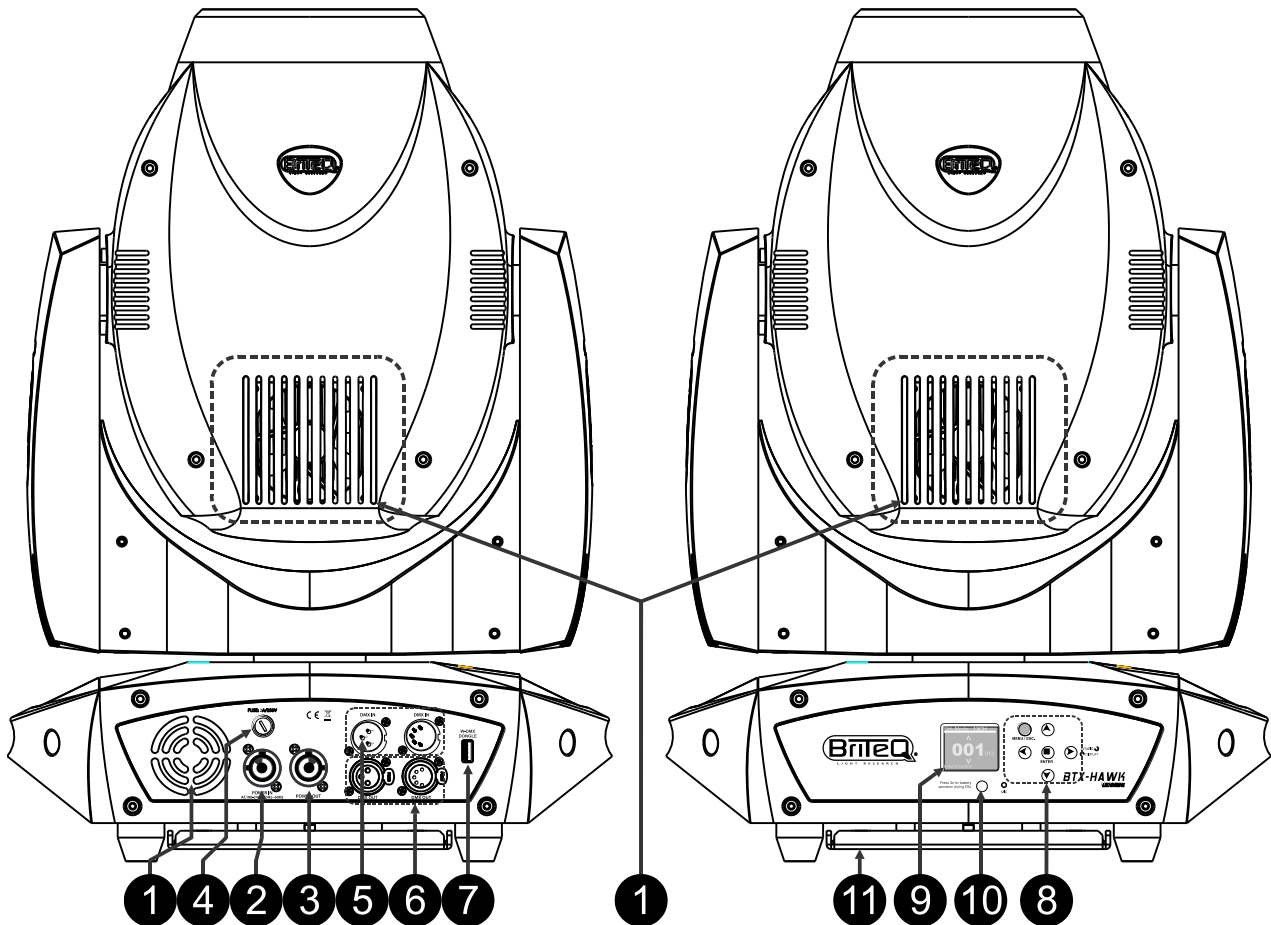
**RISK GROUP 2
CAUTION:
Do not stare at operating lamp**

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 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.
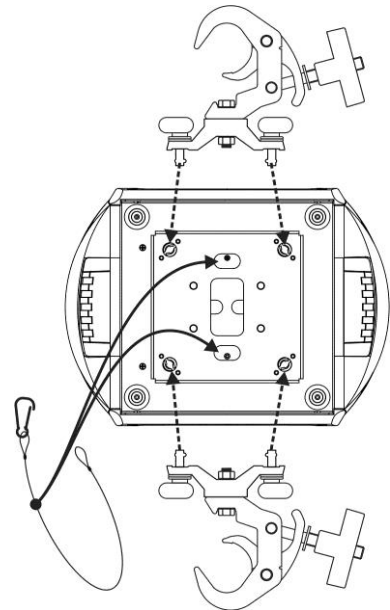

DESCRIPTION:

1. **COOLING FANS:** during its operation the projector produces heat that must be dissipated. The fans inside the projector must be able to evacuate the heat in the most effective way. Therefore is it very important not to cover any of the ventilation openings as this may result in overheating.
2. **MAINS INPUT:** equipped with original Neutrik PowerCON®. Connect the supplied mains cable or any PowerCon® extension cable here.
3. **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!)
4. **MAINS FUSE:** protects the unit in case of electrical problems, always use the prescribed fuse!
5. **DMX IN:** both 3pin and 5pin inputs are available to daisy chain the projector with other units that will be controlled by a DMX-controller. The DMX-inputs are also used to update the firmware of the projector, see the upgrade instructions on our website.
6. **DMX OUT:** both 3pin and 5pin outputs are available to daisy chain the projector with other units that will be controlled by a DMX-controller.
7. **W-DMX DONGLE INPUT:** this USB-input can be used to connect an (optionally available) wireless DMX-dongle. With this dongle you can control the projector via wireless DMX.
8. **[MENU] buttons:** used to browse the different options of the setup menu.
   - **MENU/ESC. Button:** has several functions:
     - **Enter the SETUP-menu:** press shortly.
     - **Enter the SETUP-menu while the display lock function is active:** press during 3s.
     - **Go 1 level up in the SETUP-menu:** press shortly to go 1 level up.
     - **Leave the SETUP-menu:** press several times until the standard display is shown.
   - **◄/►Buttons:** mainly used to navigate in the SETUP-menu. The ►button is also used to rotate the display over 180° (upsidedown).

- ▲/▼**Buttons:** mainly used to change the values of the selected function.
- **[ENTER]-button:** used to confirm the current action.

9. **DISPLAY:** the backlit matrix LCD-display shows important information like: channel mode, DMX-start/end address, ... The backlight is lit soon as one of the buttons is pressed. The display blinks while the DMX or Art-Net signal is lost.

10. **BATTERY OPERATION Button:** thanks to the internal battery you can browse the SETUP-menu and change settings while the projector is disconnected from the mains.

11. **MOUNTING BASE:** the strong metal base is designed to be used with 2pcs "OMEGA BRACKET BIG" (included) and an optional safety cable.

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.
- 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.

SETUP MENU

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

Level 1	Level 2	Level 3	
SET CONFIG	**DMX-Address**	**001 - XXX**	
	CHAN. Mode	**5MSL audio**	
		13CH 8bit	
		15CH 16bit	
	SHOW Config	**NO DMX Mode**	Blackout
			Freeze
			Audio
		ShowMode	Floor 180°
			CeilingHung
			Stage Floor
			Stage Hung
		SlaveMode	Slave 1
			Slave 2
		FOCUS Set	
	FIXTURE Set	**DIM Curve**	Linear
			Square
			Inv. Square
			S-Curve
		TILT Invert	ON / OFF
		PAN Invert	ON / OFF
		PAN Range	540 / 630
		SPLIT Color	ON / OFF
		FEEDBACK	ON / OFF
		MIC Sense	0 - 99%
		STANDBY	OFF, 01M-99M
		FUNC. Delay	NO Delay
			1s Delay
			2s Delay
			3s Delay
	FAN Set	**HEAD Fan**	Auto High Low
		BASE Fan	Auto High Low
	DISPLAY Set	**Backlight**	ON, 02-60M
		Flip 180°	ON / OFF
		AUTO LOCK	ON /OFF
		noDMX blink	ON /OFF
		Temp C/F	Celcius/Fahrenheit
	DEFAULTS	**PRO Use**	LOAD ?
		AUTO Use	LOAD ?
		USER Def.	LOAD / SAVE ?
INFORMATION	**TIMERS**	**Total Time**	xxxx Hrs
		Last JOB	xxxx Hrs
	LED Temp.	**xxx °C / °F**	
	ERROR info	**xxxxxxxx**	
	DMX values	**PAN, TILT, ...**	
	Model Name	**BTX-HAWK**	
	Firmware V.		
TEST	**AUTO TEST**		
	RESET Menu	**Reset ALL**	
		Pan / Tilt	
		ColorWheel	
		Rot. Gobos	
		Fixed Gobos	
		Focus	
		Other	

General instructions for setup.
The SETUP-menu has three logically structured levels, see the menu structure on the previous page.
- Press the [MENU] button to enter the SETUP-menu. (Press about 3s while Menu [LOCK] function is active)
- Press the ▲/▼/◄/► buttons to browse the different functions of the setup menu until the required function is shown on the display.
- Press the [ENTER] button to access the function and change its parameters.
- Use ▲/▼ buttons to change the value.
- Press the [ENTER] button again confirm.
- To jump to a higher menu level: press the [MENU] 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.

[SET CONFIG > ADDRESS Set]
All functions in this level are related to addressing of the unit.

[DMX-Address]
Used to set the desired DMX-address.
- Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
- Press the [ENTER] button: the values can be changed
- Use ▲/▼ buttons to select the desired DMX512 address. 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 confirm.

[SET CONFIG > CHAN. Mode]
Used to set the desired channel mode.
- Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
- Press the [ENTER] button: the values can be changed
- Use ▲/▼ buttons to select the desired mode:
  - **5MSL mode:** [PAN/TILT] are music controlled while the dimmer, strobe speed, gobos, colors & [PAN/TILT] –speed can be set using only 5 DMX channels.
  - **13 CH mode:** Full DMX-control for all functions.
  - **15 CH mode:** same as the 13CH mode but with 16bit [PAN/TILT] movements .
- Once the correct option shows on the display, press the [ENTER] button to confirm.

[SET CONFIG > SHOW Config]
All functions in this level are related to the automatic shows.

[NO DMX Mode]
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 [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.
  - **AUDIO:** the projector starts working in audio mode.
- Once the correct option shows on the display, press the [ENTER] button to confirm.

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

[ShowMode]
Used to select the installation position of the projector while used in standalone mode.
- Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
- Press the [ENTER] button to start editing.
- Use the ▼/▲ buttons to select one of the available installation positions:
  - **[Floor 180°]:** Fixture is placed **on the floor**. [PAN/TILT] movements are not limited.
  - **[CeilingHung]:** Fixture is fixed **on the ceiling**. [TILT] movements are limited to ±60°.
  - **[Stage Floor]:** Fixture is placed **on a stage, in front of the audience.** The spot is always projecting towards the audience's direction; i.e. in front of the stage. [PAN] movement angle (left to right to left): 160°. [TILT] movement angle: 90° (60° above horizon; 30° below horizon.)

- • **[Stage Hung]:** Fixture **is fixed upside-down on the ceiling of a stage**. The spot is mainly projecting towards the audience in front of the stage. [PAN] movement angle (left to right to left):160°. [TILT] movement angle: 90° (vertically, front 75°; back 15°)
- Once the right mode is shown on the display, press the [ENTER] button to confirm.

[SlaveMode]
- **Used to make the slave unit work in opposite to the master or to work in complete sync.**
- Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
- Press the [ENTER] button: the values can be changed
- Use ▲/▼ buttons to select the desired mode:
  - • **Slave 1:** the slave operates in complete sync with the master.
  - • **Slave 2:** the slave operates in the opposite mode as compared with the master.
- Once the correct option shows on the display, press the [ENTER] button to confirm.

[FOCUS Set]
Used to help you adjusting the focus of the gobos while the fixture is used in standalone or master/slave mode.
You can set the focus of the gobos in different directions. While working in auto/audio mode the fixture will continuously try to keep the gobos sharp in the different directions. Please note that this is not always possible, so the gobos will not always be perfectly sharp.
- Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
- Once you press the [ENTER] button the focus adjustment starts: for each position use the ▲/▼ buttons to adjust the sharpness of the projected gobo.
  - • **Focus 1:** the beam points upward, use the ▲/▼ buttons to adjust the sharpness of the projected gobo. Press [ENTER] to go to the following position.
  - • **Focus 2:** the beam is horizontal and projects the gobo behind the unit, use the ▲/▼ buttons to adjust the sharpness of the projected gobo. Press [ENTER] to go to the following position.
  - • **Focus 3:** the beam turns 90° clockwise, use the ▲/▼ buttons to adjust the sharpness of the projected gobo. Press [ENTER] to go to the following position.
  - • **Focus 4:** the beam turns 90° clockwise, use the ▲/▼ buttons to adjust the sharpness of the projected gobo. Press [ENTER] to go to the following position.
  - • **Focus 5:** the beam turns 90° clockwise, use the ▲/▼ buttons to adjust the sharpness of the projected gobo.
- Press [ENTER] to stop the focus adjustment and save the focus parameters for the different positions.

Remark: if the audio or 5MSL modes are used, you have to use the [FOCUS Set] procedure each time the projector is used in a different location. No need to use this function when the projector is controlled via full DMX-control.
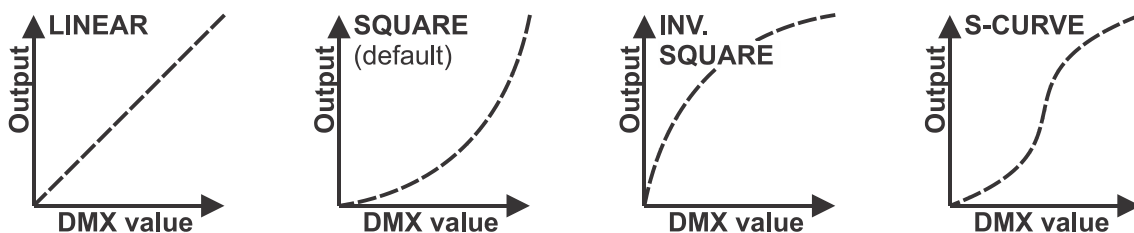
[SET CONFIG > FIXTURE Set]
Used to configure different parameters if the projector.

[DIM 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 [ENTER] button: the values can be changed
- Use ▲/▼ buttons to selected the desired curve:

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

[TILT Invert]
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 [ENTER] button: the values can be changed
- Use ▲/▼ buttons to toggle between [ON] and [OFF].

- Press the [ENTER] button to confirm.

[PAN Invert]
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 [ENTER] button: the values can be changed
- Use ▲/▼ buttons to toggle between [ON] and [OFF].
- Press the [ENTER] button to confirm.

[PAN Range]
Used to select the maximum range for the PAN movements.
- 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 PAN range:
  - **540°**   PAN range = 540° (or 1 ½ rotations)
  - **630°**   PAN range = 630° (or 1 ¾ rotations)
- Press the [ENTER] button to confirm.

[SPLIT Color]
You can select if the unit can only show full colors or also split colors.
- Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
- Press the [ENTER] button: the values can be changed
- Use ▲/▼ buttons to toggle between [ON] and [OFF].
- Press the [ENTER] button to confirm.

[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 [ENTER] button: the values can be changed
- Use ▲/▼ buttons to toggle between ON and OFF.
- Press the [ENTER] button to confirm.

[MIC Sense]
Used to set the sensitivity of the internal microphone
- Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
- Press the [ENTER] button: the values can be changed
- Use the ▼/▲ buttons to choose a value between "0%" (very low sensitivity) and "99%" (high sensitivity).
- Press the [ENTER] button to confirm.

[STANDBY]
To save energy the projector goes in sleep mode after a certain time when no DMX is detected.
- 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:
  - **[OFF]**   standby function not used
  - **[0xxM]**   The time (from 001 to 099 minutes) before the standby function is activated.
- Press the [ENTER] button to confirm.
Remark: when during standby mode a DMX-signal is detected, the projector first performs a reset.

[FUNC. Delay]
On the Function channel (last channel of the DMX chart) you can select some special functions, like "blackout during PAN/TILT" and others. With this option you can select the delay before a selected function becomes active.

*IMPORTANT INFORMATION: the function delay can only be set to zero seconds (no Delay) when you are using a DMX-controller or DMX-software using presets for the DMX-values of the special functions.
Never use "no Delay" while using a simple DMX-controller with faders to set the functions manually!*

- 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:

- **[NO Delay]**   special function is immediately activated
- **[1s Delay]**   special function is activated when the DMX-value is unchanged for 1s.
- **[2s Delay]**   special function is activated when the DMX-value is unchanged for 2s.
- **[3s Delay]**   special function is activated when the DMX-value is unchanged for 3s.
- Press the [ENTER] button to confirm.

[SET CONFIG > FAN Set]
On some occasions fan noise should be reduced to a minimum. Therefore you can set three different fan speed modes.
- Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
  First select one of the two fans:
  - **[HEAD Fan]:** fan used to cool the LED in the head.
  - **[BASE Fan]:** fan used to cool the Powersupply in the base.
- Press the [ENTER] button: the values can be changed
- Use ▲/▼ buttons to select one of these options:
  - **[Auto]:** the fan speed will be automatically adjusted to always have the best balance between fan noise and performance (light output).
  - **[Low]:** the fan speed will always be low to reduce fan noise to a minimum. (use in theatres, conference rooms, …). However this means that the LED temperature could become too high: in that case the LED current will be reduced automatically to protect the LED. Light output will also be lower.
  - **[High]:** the LED will be well cooled so maximum light output can be guaranteed under all conditions. However this means that fan noise will be higher than usual. While used in discotheques and in hot summertime conditions this should not be a problem.
- Press the [ENTER] button to confirm.

[SET CONFIG > DISPLAY Set]
This level contains all display related settings.

[Backlight]
Used to adjust how long the display stays lit after the last time it was used.
- 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:
  - **[ON]:** display is always lit.
  - **[0xxM]:** you can set the number of minutes before the display turns dark after it was last used.
- Press the [ENTER] button to confirm.

[Flip 180]
Used to turn the display over 180°: [ON] = display is upsidedown.
- Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
- Press the [ENTER] button: the values can be changed
- Use ▲/▼ buttons to toggle between ON and OFF.
- Press the [ENTER] button to confirm.
Remark: you can also turn the display by pressing the ► button while the standard display is shown.

[AUTO LOCK]
Used to lock the setup menu against unwanted altering of the settings.
- Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
- Press the [ENTER] button: the values can be changed
- Use ▲/▼ buttons to toggle between ON and OFF.
- Press the [ENTER] button to confirm.
Remark: while the display is locked you have to press the [MENU]-button for 3s to enter the setup menu.

[noDMX blink]
Used to select of the display should blink or not when the DMX signal was lost.
- Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
- Press the [ENTER] button: the values can be changed
- Use ▲/▼ buttons to toggle between ON and OFF.
- Press the [ENTER] button to confirm.

[Temp C/F]
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 [ENTER] button: the values can be changed
- Use ▲/▼ buttons to select one of these options:
    - **[Celcius]:** LED-temperature is shown in degrees Celcius [°C].
    - **[Fahrenheit]:** LED-temperature is shown in degrees Fahrenheit [°F].
- Press the [ENTER] button to confirm.

[SET CONFIG > DEFAULTS]
This is your emergency exit if you really messed up the settings: just return to PRO or AUTO preset.
Also 2 user settings 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:
    - **[PRO Use]:** optimized standard settings for professional control of the unit.
    - **[AUTO Use]:** optimized standard settings for easy automatic control of the unit.
    - **[USER Def.]:** you can adapt the PRO or AUTO settings and save the new parameters as your personal USER-settings.
- Press the [ENTER] button:
    - **[PRO Use] or [AUTO Use] 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.

PARAMETER name	PRO defaults	AUTO defaults	USER defaults
[CHAN mode]	15 ch	5 MSL	Current setting in the menu
[Install POS]	Floor 180°	Floor 180°	Current setting in the menu
[NO DMX mode]	Freeze	Audio	Current setting in the menu
[Slave Mode]	Slave 1	Halogen	Current setting in the menu
[DIM Curve]	Square	Square	Current setting in the menu
[MIC Sense]	85%	85%	Current setting in the menu
[PAN invert]	OFF	OFF	Current setting in the menu
[TILT invert]	OFF	OFF	Current setting in the menu
[PAN Range]	540	540	Current setting in the menu
[SPLIT Color]	ON		Current setting in the menu
[FEEDBACK]	ON	ON	Current setting in the menu
[FUNC. Delay]	3 sec	3 sec	Current setting in the menu
[STANDBY]	15 M	OFF	Current setting in the menu
[HEAD Fan]	AUTO	AUTO	Current setting in the menu
[BASE Fan]	AUTO	AUTO	Current setting in the menu
[Backlight]	5 min.	ON	Current setting in the menu
[AUTO LOCK] Menu	OFF	OFF	Current setting in the menu
[no DMX blink] display	ON	OFF	Current setting in the menu
[Temp C/F]	Celcius	Celcius	Current setting in the menu

[SET CONFIG > TIMERS]
Shows the time the projector was used.
- 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:
    - **[Total Time]:** The total time the unit was used since it was used for the 1st time, non resettable.
    - **[Last JOB]:** The time the unit was used on the last job. This timer can be reset in the (hidden) calibration menu.

• Press the [ENTER] button to confirm.

[INFORMATION > 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.

[INFORMATION > ERROR info]
Shows information about eventual errors.
• Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
• Press the [ENTER] button:
   • **No errors:** display shows [NONE]
   • **Errors to report:** the error will be shown on the display so you can take action.

[INFORMATION > DMX values]
Shows the function and DMX-value for the last used DMX channel: used for problem solving
• Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
• Press the [ENTER] button: the display shows the function and DMX-value of the last used channel.
• Use a DMX-controller to control the projector: every time a value on one of the DMX-channels was changed, the information will be shown on the display.

[INFORMATION > Model Name]
Shows the name of the projector.
• Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
• Press the [ENTER] button: the display shows [BTX-HAWK].

[INFORMATION > Firmware V.]
Shows the current firmware version in the projector.
• Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
• Press the [ENTER] button: the display shows the firmware versions of the different processors in the projector: 1U01, 2U01, 3U01
Note: The firmware of this unit can be upgraded using a special upgrade tool with Windows® software. (separately available from Briteq). More information about this can be found in the user manual of the upgrade tool and / or our website: www.briteq-lighting.com

[TEST/RESET > AUTO TEST]
Used to start the automatic test function: all functions will be tested.
• **Important: use the projector in STANDALONE (NO DMX connection)**
• Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
• Press the [ENTER] button: the projector starts an automatic AUTOTEST program until you stop it.
• Press the [MENU] button to stop the program.

[TEST/RESET > RESET Menu]
Used to reset certain functions of the projector.
• Press the ▲/▼/◄/► buttons until the desired function is showing on the display.
• Press the [ENTER] button: the display shows [Reset ALL]
• Press the [ENTER] button again to start resetting ALL functions or press the ◄/► buttons to select the desired function to reset and press [ENTER] to confirm.

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 [ENTER] button for about 3seconds while you are in the SETUP menu (any option, not important). Now the calibration menu shows up:

[Reset JOB]
Used to reset the [Last JOB] timer.
• Press the ◄/► buttons until the desired function is showing on the display.
• Press the [ENTER] button: the values can be changed

- Use ▲/▼ buttons to toggle between NO and YES.
- Press the [ENTER] button to confirm.

[Calib. LED]
- **Due to tolerances in the production process, not all LEDs have exactly the same brightness, therefore you can use this option to match the Brightness of different machines.**
- Press the ◄/► buttons until the desired function is showing on the display.
- Press the [ENTER] button: the values can be changed
- Use the ▼/▲ buttons to select a value between "50" (lowest brightness) and "100" (highest brightness).
- Once the desired brightness is found, press the [ENTER] button to confirm.

Reset JOB	NO /YES
Calib. LED	50 → 100
Set Pan	-127 → +128
Set Tilt	-127 → +128
SetRot. Gobo	-127 → +128
Set Focus	-127 → +128
Set Color	-127 → +128
SetFix. Gobo	-127 → +128
Set Prism	-127 → +128

[Set PAN]
Used to adjust the home position of the PAN movement.
- Press the ◄/► buttons until the desired function is showing on the display.
- Press the [ENTER] button: the values can be changed
- Use ▲/▼ buttons to adjust the home position of the PAN movement: -127 to +128
- Press the [ENTER] button to confirm.

Set the other functions
Several other parameters of the machine can be adjusted: see the list.
- Simply follow the exact same procedure as we explained above for the [Set PAN] function.

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.
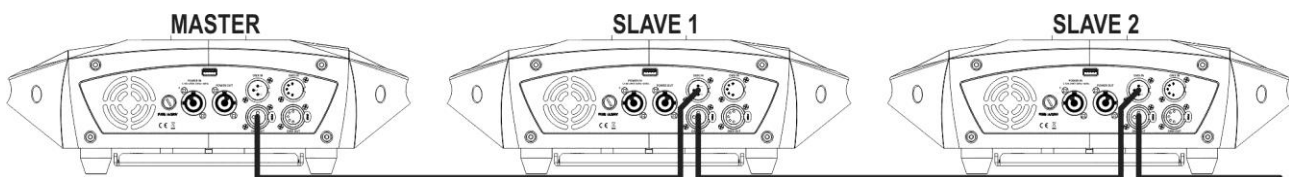
STANDALONE WITH BUILT-IN CHASES:
Use this function when you want an instant show on only 1 projector.
- Connect the projector to the mains and turn it on.
- In the setup menu:
  - Load the **[AUTO Use]** defaults.
  - If needed: adapt the **[ShowMode]** and **[MIC Sense]** settings.

ELECTRICAL INSTALLATION FOR TWO OR MORE UNITS IN MASTER/SLAVE:
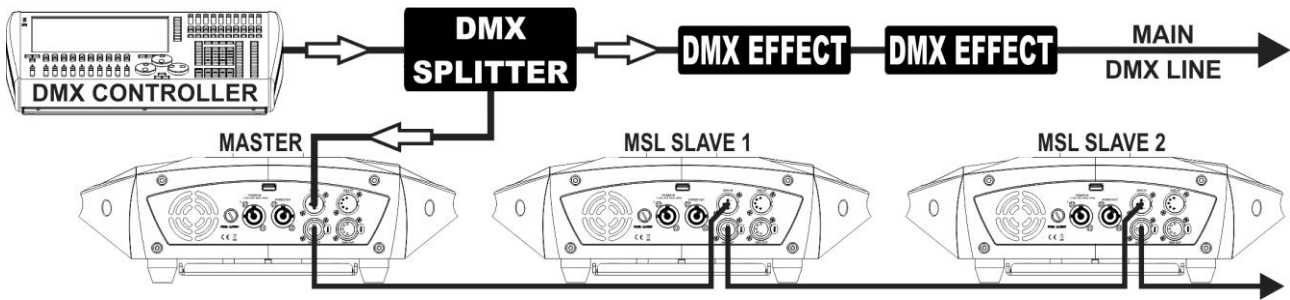In this mode the units will show a synchronized show, working to the rhythm of the beat.

- Connect 2 to maximum 16 units together using good quality balanced microphone cables. The first unit in the chain will automatically act as the master, the other units will act automatically as slaves.
- Make sure that all units are connected to the mains.
- Done!

*Remark: if there's no output, please make sure to set the option **[NO DMX Mode]** of the projector to [Audio] (audio mode) and sound sensitivity **[MIC Sense]** to a value over 70 (see previous chapter).*

ELECTRICAL INSTALLATION FOR TWO OR MORE UNITS IN DMX-MASTER/SLAVE:

In this mode the units will show a synchronized show, working to the rhythm of the beat but you can still control some functions on the master using only 5 DMX-channels.
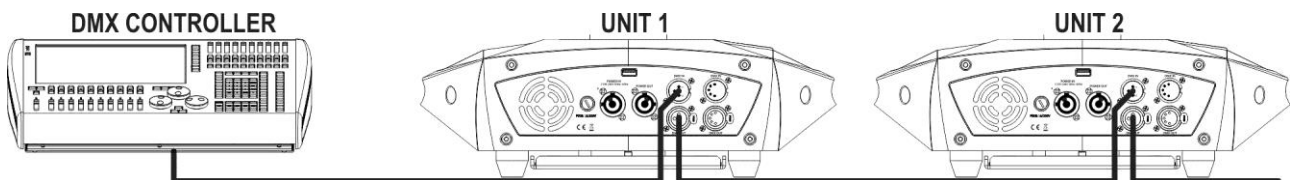

- To assure proper operation you need an optional "DMX-SPLITTER" to isolate the master/slave line from the main DMX-line, see drawing.
- Connect 2 to maximum 16 units together using good quality balanced microphone cables. The first unit in the chain will act as the master, the other units will act automatically as slaves.
- Set the master to 5MSL channel mode (see previous chapter).
- For the DMX-controller the master and its slaves can now be considered as 1 virtual effect that needs a start address so it can be controlled as any other DMX-unit in the DMX chain: see "DMX Address" in the chapter "Main Menu" to see how you can set the DMX-start address.
- Make sure that all units are connected to the mains.
- Set the DMX-controller according to the DMX-chart below.
- Done!

Remark: if there's no output, please make sure to set the option **[NO DMX Mode]** *of the projector to [Audio] (audio mode) and sound sensitivity* **[MIC Sense]** *to a value over 70 (see previous chapter).*

ELECTRICAL INSTALLATION FOR TWO OR MORE UNITS IN DMX-MODE:

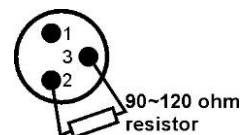Use this function when you want to control the projectors by any DMX controller.
- Connect the projectors as shown in the drawing below.

- 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 balanced cable of good quality.*
- *Both XLR-3pin and XLR-5pin connectors are used, however XLR-3pin is more popular because these cables are compatible with balanced audio cables.*
- *Pin layout XLR-3pin: Pin1 = GND ~ Pin2 = Negative signal (-) ~ Pin3 = Positive signal (+)*
- *Pin layout XLR-5pin: Pin1 = GND ~ Pin2 = Negative signal (-) ~ Pin3 = Positive signal (+) ~ Pins4+5 not used.*
- *To prevent strange behavior of the light effects, due to interferences, you must use a 90Ω to 120Ω terminator at the end of the chain. Never use Y-splitter cables, this simply won't work!*
- *Make sure that all units are connected to the mains.*
- *Each light effect in the chain needs to have its proper starting address so it knows which commands from the controller it has to decode.*

DMX CHARTS

3 Different DMX channels modes are available:

DMX-Chart for 5MSL working mode
This is the ultimate choice for DJs, small clubs without a light jockey or simply if you don't have time to program a complete show: the [PAN/TILT] movements are controlled by the music, while you still have full control over dimming, strobe, colors, gobo's and [PAN/TILT] speed.

CHANNEL	VALUE	FUNCTION
1	000-007 008-255	**DIMMER** Standby 0%~100%
2	000-007 008-037 038-067 068-255	**STROBE:** Open Random Strobe: Slow → Fast Sound Strobe: Slow → Fast Strobe: Slow → Fast
3	000-007 008-037 038-067 068-097 098-127 128-157 158-187 188-217 218-255	**COLOR:** Open (White) Color 1 (Yellow) Color 2 (Purple) Color 3 (Magenta) Color 4 (Blue) Color 5 (Green) Color 6 (Orange) Color 7 (Red) AUTO color changing
4	000-007 008-037 038-067 068-097 098-127 128-157 158-187 188-217 218-255	**GOBO:** Open Gobo 1 Gobo 2 Gobo 3 Gobo 4 Gobo 5 Gobo 6 Gobo 7 AUTO gobo changing
5	000-007 008-255	**PAN/TILT SPEED** Hold AUDIO control slow → fast

DMX-Chart for 13CH and 15CH working mode
Full control over all functions of the projector:

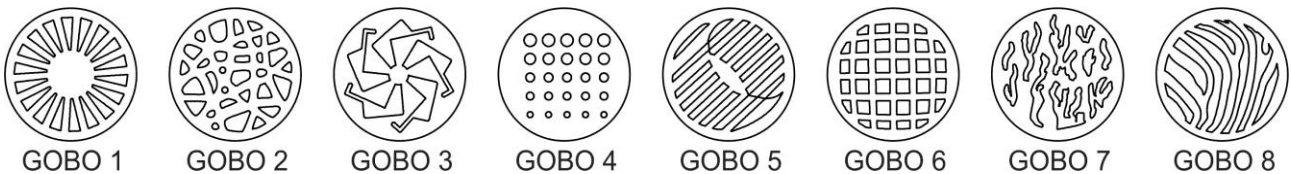| 13 CH	15 CH	VALUE	FUNCTION
1	**1**	000 - 255	**Pan**
	2	000 - 255	**Pan Fine (Least significant bit)**
2	**3**	000 - 255	**Tilt**
	4	000 - 255	**Tilt Fine (Least significant bit)**
3	**5**	000 - 255	**Pan / Tilt Speed (000 = fast ~ 255 = slow)**
4	**6**	000 - 255	**Dimmer (0 to 100%)**
5	**7**		**Strobe / Shutter effect**
		000 - 007	Shutter closed (no output)
		008 - 015	Shutter open
		016 - 131	Strobe 1 (slow → fast)
		132 - 139	Shutter open
		140 - 181	Strobe 2: slow open / instant close (slow → fast)
		182 - 189	Shutter open
		190 - 231	Strobe 3: instant open / slow close (slow → fast)
		232 - 239	Shutter open
		240 - 247	Strobe 4: random strobe
		248 - 255	Shutter open
6 **SPLIT** **COLOR**	**8** **SPLIT** **COLOR**		**Color wheel**
		000 - 007	**OPEN** (White)
		008 - 014	Split color: open + color 1
		015 - 022	**COLOR 1** (Yellow)
		023 - 029	color 1 + color 2
		030 - 037	**COLOR 2** (Pink)
		038 - 044	color 2 + color 3
		045 - 052	**COLOR 3** (Magenta)
		053 - 059	color 3 + color 4
		060 - 067	**COLOR 4** (Blue)
		068 - 074	color 4 + color 5
		075 - 082	**COLOR 5** (Green)
		083 - 074	color 5 + color 6
		083 - 097	**COLOR 6** (Orange)
		098 - 104	color 6 + color 7
		105 - 112	**COLOR 7** (Red)
		113 - 178	Color wheel turning clockwise (fast → slow)
		179 - 189	Color wheel stops turning
		190 - 255	Color wheel turning counter clockwise (slow → fast)
6	**8**		**Color wheel**
		000 - 014	**OPEN** (White)
		015 - 029	**COLOR 1** (Yellow)
		030 - 042	**COLOR 2** (Pink)
		043 - 056	**COLOR 3** (Magenta)
		057 - 070	**COLOR 4** (Blue)
		071 - 084	**COLOR 5** (Green)
		085 - 098	**COLOR 6** (Orange)
		099 - 112	**COLOR 7** (Red)
		113 - 178	Color wheel turning clockwise (fast → slow)
		179 - 189	Color wheel stops turning
		190 - 255	Color wheel turning counter clockwise (slow → fast)

7	**9**			**Gobo wheel 1 - select (rotating gobos)**
			000 - 006	OPEN (no gobo)
			007 - 013	GOBO 1
			014 - 020	GOBO 2
			021 - 027	GOBO 3
			028 - 034	GOBO 4
			035 - 041	GOBO 5
			042 - 048	GOBO 6
			049 - 055	GOBO 7
			056 - 063	GOBO 1 – Shaking (slow → fast)
			064 - 071	GOBO 2 – Shaking (slow → fast)
			072 - 079	GOBO 3 – Shaking (slow → fast)
			080 - 087	GOBO 4 – Shaking (slow → fast)
			088 - 095	GOBO 5 – Shaking (slow → fast)
			096 - 103	GOBO 6 – Shaking (slow → fast)
			104 - 109	GOBO 7 – Shaking (slow → fast)
			110 - 178	Gobo wheel turning clockwise (fast → slow)
			179 - 186	Gobo wheel stops turning
			187 - 255	Gobo wheel turning counter clockwise (slow → fast)
8	**10**			**Gobo wheel 1 - rotation**
			000 - 127	indexed positioning: 0° - 360°
			128 - 189	Gobo turning clockwise (fast → slow)
			190 - 193	Gobo stops turning
			194 - 255	Gobo turning counter clockwise (slow → fast)
9	**11**			**Gobo wheel 2 - select (static gobos)**
			000 - 007	OPEN (no gobo)
			008 - 014	GOBO 1
			015 - 021	GOBO 2
			022 - 028	GOBO 3
			029 - 035	GOBO 4
			036 - 042	GOBO 5
			043 - 049	GOBO 6
			050 - 056	GOBO 7
			057 - 063	GOBO 8
			064 - 071	GOBO 9
			072 - 079	GOBO 1 – Shaking
			080 - 087	GOBO 2 – Shaking
			088 - 095	GOBO 3 – Shaking
			096 - 103	GOBO 4 – Shaking
			104 - 111	GOBO 5 – Shaking
			112 - 119	GOBO 6 – Shaking
			120 - 127	GOBO 7 – Shaking
			128 - 135	GOBO 8 – Shaking
			136 - 143	GOBO 9 – Shaking
			144 - 195	Gobo wheel turning clockwise (fast → slow)
			196 - 203	Gobo wheel stops turning
			204 - 255	Gobo wheel turning counter clockwise (slow → fast)
10	**12**			**Prism on/off**
			000 - 031	Effect OFF
			032 - 063	3 Facet Prism effect ON
			064 - 095	Linear Prism effect ON
			096 - 127	Frost filter ON
			128 – 255	Effect OFF

			Prism - rotation	
11	**13**	000 - 127	indexed positioning: 0° - 360°	
		128 - 189	Prism turning clockwise (fast → slow)	
		190 - 193	Prism stops turning	
		194 - 255	Prism turning counter clockwise (slow → fast)	
12	**14**	000 - 255	**Focus (close to distant)**	
13	**15**		**Special functions**	
		000 - 069	No function	
		070 - 079	Activate blackout during pan/tilt (*)	
		080 - 089	Disable blackout during pan/tilt (*)	
		090 - 099	Activate blackout during color change (*)	
		100 - 109	Disable blackout during color change (*)	
		110 - 119	Activate blackout during gobo change (*)	
		120 - 129	Disable blackout during gobo change (*)	
		130 - 139	No function	
		140 - 149	Pan/tilt reset (*)	
		150 - 159	Color reset (*)	
		160 - 169	Gobo reset (*)	
		170 - 179	No function	
		180 - 189	Focus reset (*)	
		190 - 199	No function	
		200 - 209	Reset all (*)	
		210 - 219	Activate blackout during gobo/color or pan/tilt change (*)	
		220 - 229	Disable blackout during gobo/color or pan/tilt change (*)	
		230 - 255	Sound activated automatic mode sound sensitivity from low to high	

ROTATING GOBO

GOBO1   GOBO2   GOBO3   GOBO4   GOBO5   GOBO6   GOBO7

FIXED GOBO

GOBO 1   GOBO 2   GOBO 3   GOBO 4   GOBO 5   GOBO 6   GOBO 7   GOBO 8

MAINTENANCE

- Make sure the area below the installation place is free from unwanted persons during servicing.
- Switch off the unit, unplug the mains cable and wait until the unit has been cooled down.

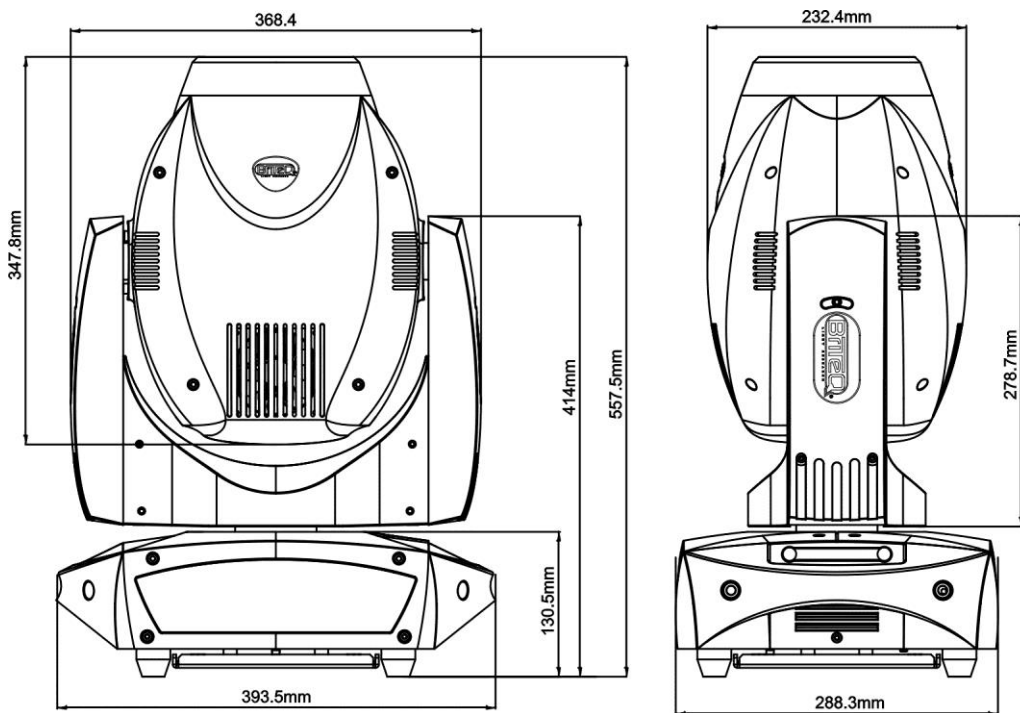**During inspection the following points should be checked:**

- All screws used for installing the device and any of its parts should be tightly fastened and may not be corroded.
- Housings, fixations and installations spots (ceiling, truss, suspensions) should be totally free from any deformation.
- When an optical lens is visibly damaged due to cracks or deep scratches, it must be replaced.
- The mains cables must be in impeccable condition and should be replaced immediately when even a small problem is detected.
- In order to protect the device from overheat the cooling fans (if any) and ventilation openings should be cleaned monthly.
- The interior of the device should be cleaned annually using a vacuum cleaner or air-jet.
- The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics.
    - Clean with a soft cloth using normal glass cleaning products.
    - Always dry the parts carefully.

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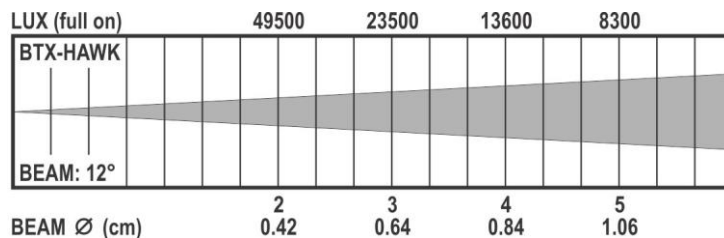
SPECIFICATIONS

This unit is radio-interference suppressed. This product meets the requirements of the current European and national guidelines. Conformity has been established and the relevant statements and documents have been deposited by the manufacturer.

Mains Input:	AC 100 - 240V, 50/60Hz
Power consumption:	230 Watt
Fuse:	250V 6,3A slow blow (20mm glass)
Power connections:	Neutrik® PowerCON® - 16A Power linking capacity.
DMX connections:	3pin-XLR & 5pin-XLR male / female
	USB-input for use with optional W-DMX dongle.
DMX channels used:	13+15ch + 5MSL
Lamp:	180W LED Engine
Beam Angle:	12°
Color wheel:	7 colors + open
GOBO wheel 1:	7 rotating gobos, replaceable by metal and glass gobos
	Outer diameter 20,45 mm – Image diameter: 16,50 mm
GOBO wheel 2:	9 fixed gobos
Special effects:	Linear + 3facet rotating prisms, frost filter
IP-Rating:	IP20
Operating temperature (T_a):	0°C to 40°C
Installation:	2 quarter turn quick clamps
Size:	see drawing below
Weight:	15,5 kg

LUX CHART

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

BriTeQ

LIGHT RESEARCH

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!

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