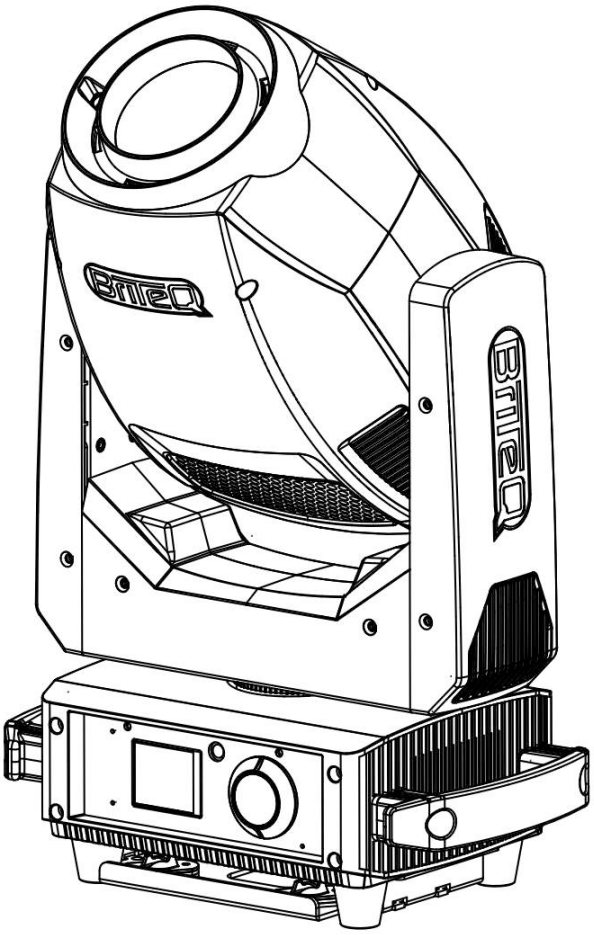
# BT-SHARK

## 200W LED ENGINE



# ENGLISH

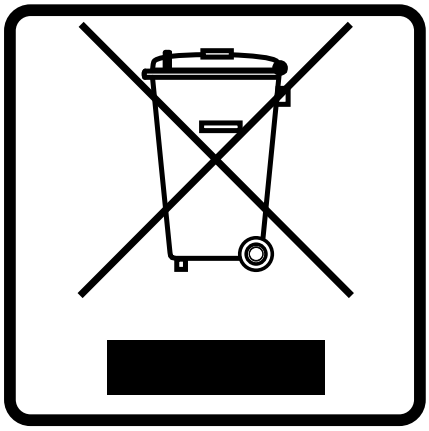
## Operation Manual

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

- Very compact but extremely bright moving head for clubs and rental!
- Equipped with a powerful 200W LED and excellent optics for incredibly sharp images.
- Motorized zoom 10° to 25°
- Motorized focus with auto focus option!
- Two gobo wheels with very nice overlay effects:
  - Gobo wheel 1: 6 fixed gobos + open
  - Gobo wheel 2: 6 rotating gobos + open
- Color wheel: 8 colors + CTO 3800K
- 2 Rotating prisms: 6-facet LINEAR + 6-facet CIRCULAR with overlay effects.
- Linear frost filter to create progressive wash effects.
- DMX-control:
  - **SMART DMX 5CH:** in this master/slave mode the internal mic of the master triggers the preprogrammed shows, while the user still has full control over colors, gobos, dimming, strobe and pan/tilt speed.
  - **14CH & 19CH modes:** for full control.
- Color screen with intuitive setup menu and encoder navigation.
- 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!
- Automatic X/Y “soft” re-positioning
- Prepared for wireless DMX: just plug-in an optional WTR-DMX DONGLE ! (optional, Briteq® code 4546)
- Easy firmware updates via USB and DMX-input.
- DMX-connections: Neutrik® XLR 3/5pin in/out
- Neutrik® PowerCON® in/out.
- 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:

- 1x BT-SHARK projector
- 2x Omega brackets
- 1x Power cable
- 1x Operating instructions

# SAFETY INSTRUCTIONS:


**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

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

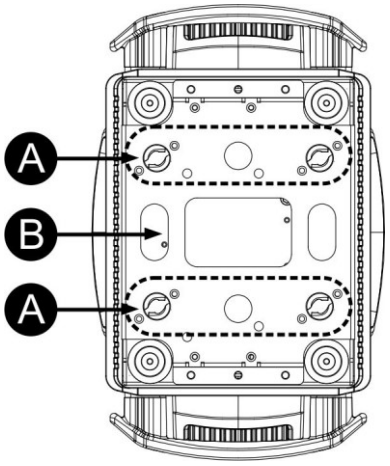

**CAUTION:** Do not stare at operating lamp.
May be harmful to the eyes.

- To protect the environment, please try to recycle the packing material as much as possible.
- To prevent fire or shock hazard, do not expose this appliance to rain or moisture.
- To avoid condensation to be formed inside, allow the unit to adapt to the surrounding temperatures when bringing it into a warm room after transport. Condense sometimes prevents the unit from working at full performance or may even cause damages.
- This unit is for indoor use only.
- Don’t place metal objects or spill liquid inside the unit. Electric shock or malfunction may result. If a foreign object enters the unit, immediately disconnect the mains power.
- Locate the fixture in a well-ventilated spot, away from any flammable materials and/or liquids. The fixture must be fixed at least 50cm from surrounding walls.
- Don’t cover any ventilation openings as this may result in overheating.
- Prevent use in dusty environments and clean the unit regularly.
- Keep the unit away from children.
- Inexperienced persons should not operate this device.
- Maximum safe ambient temperature is 40°C. Don’t use this unit at higher ambient temperatures.
- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.
- Allow the device about 10 minutes to cool down before to start servicing.
- Always unplug the unit when it is not used for a longer time or before to start servicing.
- The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.
- Check that the available voltage is not higher than the one stated on the unit.
- The power cord should always be in perfect condition. Switch the unit immediately off when the power cord is squashed or damaged. It must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- Never let the power-cord come into contact with other cables!
- This fixture must be earthed in order to comply with safety regulations.
- Don’t connect the unit to any dimmer pack.
- Always use an appropriate and certified safety cable when installing the unit.
- In order to prevent electric shock, do not open the cover. There are no user serviceable parts inside.
- **Never** repair a fuse or bypass the fuse holder. **Always** replace a damaged fuse with a fuse of the same type and electrical specifications!
- In the event of serious operating problems, stop using the fixture and contact your dealer immediately.
- The housing and the lenses must be replaced if they are visibly damaged.
- Please use the original packing when the device is to be transported.
- Due to safety reasons it is prohibited to make unauthorized modifications to the unit.

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

# OVERHEAD RIGGING

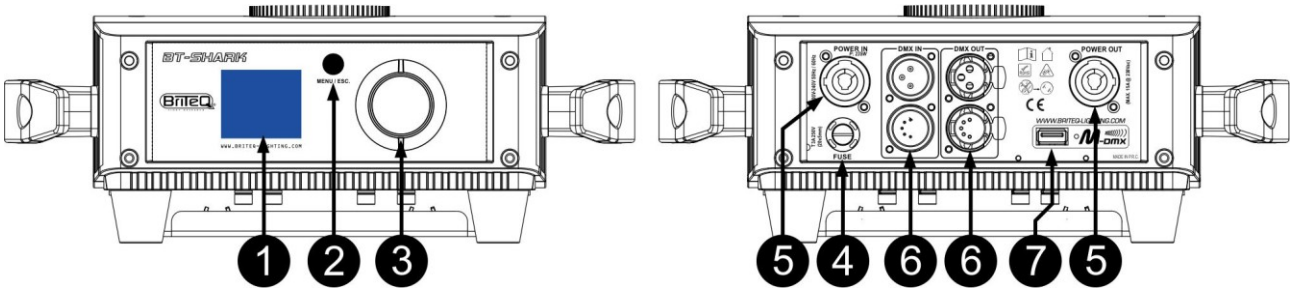
- **<u>Important:</u> The installation must be carried out by qualified service personal only. Improper installation can result in serious injuries and/or damage to property. Overhead rigging requires extensive experience! Working load limits should be respected, certified installation materials should 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 (number 3 on the picture) that can hold 12 times the weight of the device when installing the unit. This secondary safety attachment should be installed in a way that no part of the installation can drop more than 20cm if the main attachment fails.
- The device should be well fixed; a free-swinging mounting is dangerous and may not be considered!
- Don't cover any ventilation openings as this may result in overheating.
- The operator has to make sure that the safety-relating and machine-technical installations are approved by an expert before using them for the first time. The installations should be inspected every year by a skilled person to be sure that safety is still optimal.




**A. Holes to fix the special omega brackets (included)**
**B. Holes to fix an optional safety cable**

# HOW TO SET UP THE UNIT

## CONTROL PANEL:




1. **DISPLAY:** shows the various menus and the selected functions.
2. **MENU / ESC button:** Press to enter the setup menu or jump to the higher menu level.
3. **ROTARY ENCODER:**
   - **While the standard screen is shown:** turn the wheel left/right to flip the display over 180°.
   - **While the setup menu is shown:** turn the wheel in both directions to browse the menu items. Press the wheel to select an item.
4. **MAINS FUSE:** this fuse only protects the electronics of the projector, the mains in/outputs are not fused.
5. **MAINS IN / OUTPUT:** with PowerCON® connectors. Connect the supplied mains cable here, you can daisy chain up to max. 6 units. Input and output are connected to each other without any fuse.
   ***Hint:*** *Please check our website for special cable assemblies that contain both power (3x1.5mm² with Neutrik PowerCON®) and balanced signal (XLR 3pin or 5pin) in one cable. Different lengths are available: 1.3m, 3m, 5m and 10m, very convenient!*
6. **DMX IN/OUTPUTS:** used for DMX512 linking, you can use good quality balanced signal cables with 3pin or 5pin XLR-connectors.
7. **USB-connector:** Please note that this USB-connector has 2 functions. **Important:** the desired function for the USB-connection must be selected in the setup menu first!
   - **Wireless DMX-dongle:** this USB-connector makes it very easy to add wireless DMX to the unit! Just add the (optional) WTR-DMX DONGLE from BRITEQ® and you will get wireless DMX! Moreover,

you will be able to connect other DMX-controlled equipment to the DMX-output so you can share the wireless DMX function with all connected units! Follow the procedure in the user manual supplied with the WTR-DMX DONGLE from BRITEQ®. The separate WTR-DMX DONGLE is available from WWW.BRITEQ-LIGHTING.COM (order code: 4645)

- **Firmware update:** you can download the firmware update files from our website and put these on a (FAT32 formatted) USB-memory. See the option "**USB Update**" in the next chapter.
  ***Note:*** *firmware updates can also be done using the DMX-input and (optional) FIRMWARE UPDATER 2+ (order code: B05019)*

8. **OMEGA BRACKET BASE:** base with fixing points for the included omega brackets + safety cable, see previous chapter "overhead rigging"

## GENERAL MENU OPERATION:

- Press the MENU/ESC button to enter the setup menu.
- Turn the encoder wheel to browse the main menus:
  - **SET CONFIG**
  - **INFORMATION**
  - **TEST**
- Press the encoder wheel to select the desired sub menu.
- Turn the encoder wheel to browse the sub menus & items.
- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to change the parameters.
- Press the encoder wheel to confirm the new parameters.
- Press the MENU/ESC button jump to a higher menu level.

## SET CONFIG menu

**DMX Set**
**Menu with DMX related functions.**

**DMX Set > DMX-Address**
**Used to set the starting address.**
- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to change the parameters.
- Press the encoder wheel to confirm.

**DMX Set > CHAN.Mode**
**Used to set the desired channel setup mode.**
- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option.
- Press the encoder wheel to confirm.

**SHOW Config**
**Menu with functions related to the automatic shows.**

**SHOW Config > NO DMX**
**Here you can decide how the unit should behave when no DMX-signal is detected.**
- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option.
  - **Blackout:** the projector goes in blackout mode and waits until the DMX-signal returns.
  - **Freeze:** the projector shows the last valid DMX-signal and waits in that position until the DMX-signal returns.
  - **Audio:** the projector starts working in sound activated mode (standalone or master/slave mode).
- Press the encoder wheel to confirm.

| Level 1 | Level 2 | Level 3 | |
|---|---|---|---|
| SET CONFIG | DMX Set | DMX-Address | 001 - XXX |
| | | CHAN. Mode | SMART DMX |
| | | | 14CH |
| | | | 19CH |
| | SHOW Config | NO DMX | Blackout |
| | | | Freeze |
| | | | Audio |
| | | ShowMode | Floor180° |
| | | | Ceiling |
| | | | St. Floor |
| | | | St. Hung |
| | | SlaveMode | Slave 1 |
| | | | Slave 2 |
| | | MIC Sense | 0 - 99% |
| | | FOCUS Set | FOCUS 1→5 |
| | FIXTURE Set | DIM Curve | Linear |
| | | | Square |
| | | | I. Square |
| | | | S-Curve |
| | | PWM Freq. | 900 Hz |
| | | | 1200 Hz |
| | | | 1500 Hz |
| | | | 3600 Hz |
| | | | 5400 Hz |
| | | | 7200 Hz |
| | | | 12000 Hz |
| | | | 24000 Hz |
| | | TILT Invert | ON / OFF |
| | | PAN Invert | ON / OFF |
| | | PAN Range | 540 / 630 |
| | | FEEDBACK | ON / OFF |
| | | STANDBY | OFF, 01M-99M |
| | | FAN Speed | Auto High Low |
| | | USB Update | NO / YES |
| | DISPLAY Set | Backlight | ON, 02-30M |
| | | 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. | Vx.x.x | |
| TEST | AUTO TEST | | |
| | RESET Menu | Reset ALL | |
| | | Pan / Tilt | |
| | | ColorWheel | |
| | | Gobos | |
| | | Focus | |
| | | Other | |

**SHOW Config > ShowMode**

**Select the ShowMode that best suits the working position of the fixture.**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option.
  - **Floor180°:** Fixture is placed **on the floor**. PAN/TILT movements are not limited.
  - **Ceiling:** Fixture is fixed **on the ceiling**. TILT movements are limited to ±60°.
  - **St.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.)
  - **St.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°)
- Press the encoder wheel to confirm.

**SHOW Config > SlaveMode**

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

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option.
  - **Slave 1:** slave movements are in sync with the master.
  - **Slave 2:** slave movements are in opposite sync with the master.
- Press the encoder wheel to confirm.

**SHOW Config > MIC Sense**

**Used to set the sensitivity of the internal microphone**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired value.
- Press the encoder wheel to confirm.

**SHOW Config > FOCUS Set**

**Used to help you adjusting the focus of the rotating 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.

- Turn the encoder wheel to select the FOCUS Set option.
- Press the encoder wheel to confirm: the head goes to the "TILT 90°" position (FOCUS1)
- Turn the encoder wheel until the gobo is sharp.
- Press the encoder wheel to confirm: the head goes to the "PAN 0°" position (FOCUS2)
- Turn the encoder wheel until the gobo is sharp.
- Press the encoder wheel to confirm: the head goes to the "PAN 90°" position (FOCUS3)
- Turn the encoder wheel until the gobo is sharp.
- Press the encoder wheel to confirm: the head goes to the "PAN 180°" position (FOCUS4)
- Turn the encoder wheel until the gobo is sharp.
- Press the encoder wheel to confirm: the head goes to the "PAN 270°" position (FOCUS5)
- Turn the encoder wheel until the gobo is sharp.
- Press the encoder wheel to confirm: the 5 focus values are saved and the procedure starts again.
- Press the MENU/ESC-button to stop the function.

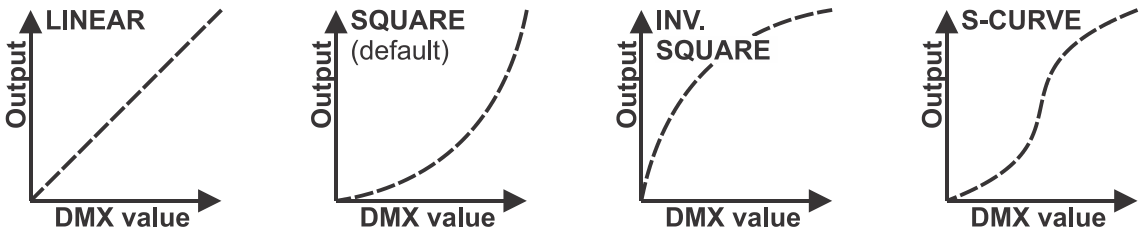
**FIXTURE Set**

**Menu with functions related to the overall settings of the fixtures.**

**FIXTURE Set > DIM Curve**

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

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option:
  - **Linear**
  - **Square**
  - **I.Square**
  - **S-Curve**
- Press the encoder wheel to confirm.




**FIXTURE Set > PWM Freq.**

**Used to set the PWM dimmer frequency of the LED.**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired PWM-frequency (24kHz is default)
- Press the encoder wheel to confirm.

**FIXTURE Set > TILT Invert**

**Normal: TILT movement is not inversed.**
**TILT invert: TILT movement is inversed**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option.
- Press the encoder wheel to confirm.

**FIXTURE Set > PAN Invert**

**Normal: PAN movement is not inversed.**
**PAN invert: PAN movement is inversed**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option.
- Press the encoder wheel to confirm.

**FIXTURE Set > PAN Range**

**Used to select the desired PAN range.**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired range:
  - **540** (standard)
  - **630** (extended)
- Press the encoder wheel to confirm.

**FIXTURE Set > FEEDBACK**

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

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option: ON/OFF
- Press the encoder wheel to confirm.

**FIXTURE Set > STANDBY**

**To save energy the projector goes in sleep mode after a certain time when no DMX is detected.**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option:
  - **OFF** Standby function not used
  - **0xxM** The time (from 001 to 099 minutes) before the standby function is activated.
- Press the encoder wheel to confirm.

**FIXTURE Set > FAN Speed**

**On some occasions fan noise should be reduced to a minimum. Therefore, you set three different fan speed modes.**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option:
  - **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. This means that the 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 encoder wheel to confirm.

**FIXTURE Set > USB Update**

**The USB-connector on the back panel is used to insert the optional WTR-DMX DONGLE for wireless DMX. The USB-connector can also be used to update the firmware of the projector.**

Format a USB memory stick in FAT32 and put the 3 files (1U + 2U + 3U) on the stick:

**Update the files one by one:**

- Put the 3 files in the root of the USB-stick
- Insert the USB-stick in the USB-connector on the backpanel.
- Choose the option FIXTURE Set > USB Update in the setup menu
- Select YES and press the encoder wheel to confirm.
- The projector goes in “Update mode” and shows the files on the screen
- Select the desired file, followed by the option START and press the encoder wheel to confirm.
  → The update starts, followed by a complete reset of the unit.

**Update the 3 files in one time:**

- Create a directory called BT-SHARK
- Put the 3 files in this directory
- Insert the USB-stick in the USB-connector on the backpanel.
- Choose the option FIXTURE Set > USB Update in the setup menu
- Select YES and press the encoder wheel to confirm.
- The projector goes in “Update mode” and shows the directory on the screen
- Select the directory, followed by the option START and press the encoder wheel to confirm.
  → The update of the 3 files in the directory starts, followed by a complete reset of the unit.

**DISPLAY Set**

**Menu with functions related to the display functionality.**

**DISPLAY Set > Backlight**

**Backlight on: display is always lit.**
**Backlight off: display is dark when not used.**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option: ON/OFF
- Press the encoder wheel to confirm.

**DISPLAY Set > Flip 180°**

**Used to flip the display 180° when the fixture is mounted upside-down**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option: ON/OFF
- Press the encoder wheel to confirm.

***Faster shortcut:*** *simply turn the encoder counterclockwise while the standard display is shown.*

**DISPLAY Set > AUTO LOCK**

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

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option: ON/OFF
- Press the encoder wheel to confirm.

**DISPLAY Set > noDMX blink**

**Used to select of the display should blink or not when the DMX signal was lost.**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option: ON/OFF
- Press the encoder wheel to confirm.

**DISPLAY Set > Temp C/F**

**Used to select if the LED-temperature is shown in degrees Celcius °C or Fahrenheit °F.**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option: Celcius / Fahrenheit
- Press the encoder wheel to confirm.

**DEFAULTS**

**Menu with functions related to the default settings.**

The table shows the different parameters with their default settings:

| PARAMETER name | PRO Use defaults | AUTO Use defaults | USER Def. defaults |
|---|---|---|---|
| DMX Channel mode | 19 ch | SMART DMX | Current setting in the menu |
| Show mode | Floor 180° | Floor 180° | Current setting in the menu |
| Slave mode | SLAVE 1 | SLAVE 1 | Current setting in the menu |
| No DMX mode | Freeze | Audio | Current setting in the menu |
| Sound sensitivity | 85% | 85% | Current setting in the menu |
| PAN Range | 540 | 540 | Current setting in the menu |
| PAN inversion | OFF | OFF | Current setting in the menu |
| TILT inversion | OFF | OFF | Current setting in the menu |
| P/T Feedback | ON | ON | Current setting in the menu |
| Backlight | 5 min | ON | Current setting in the menu |
| AUTOFOCUS Adjust | 8m for Gobo1 | 5m for Gobo1 | Current setting in the menu |
| FanSpeed | Auto | Auto | Current setting in the menu |
| Temp °C/°F | °C | °C | Current setting in the menu |
| PWM Frequency | 24 kHz | 24 kHz | Current setting in the menu |
| DIM Curve | Square | Square | Current setting in the menu |
| Standby | 15 M | OFF | Current setting in the menu |
| Auto Lock Menu | OFF | OFF | Current setting in the menu |
| NO DMX blink | ON | OFF | Current setting in the menu |
| Calibrate LED (max output) | 100% | 100% | Current setting in the menu |

**DEFAULTS > PRO Use: LOAD?**

**Most common settings while controlled by DMX lighting controller.**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option:
  - **NO** nothing happens
  - **YES** the PRO default values (see table) are loaded.
- Press the encoder wheel to confirm.

**DEFAULTS > AUTO Use: LOAD?**

**Most common settings while used in automatic audio (master/slave) mode.**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option:
  - **NO** nothing happens
  - **YES** the AUTO default values (see table) are loaded.
- Press the encoder wheel to confirm.

**DEFAULTS > USER Def.: LOAD?**

**Makes it possible to save / load your own preferred default settings.**

- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option:
  - **SAVE?** All current parameters from the default settings table are saved to memory.
  - **LOAD?** All previously saved personal parameters are loaded.
- Press the encoder wheel to confirm.

***Note:*** *the current DMX-address does not change while loading defaults.*

## INFORMATION menu

**INFORMATION**
**Menu with all functions related to information about the status of the fixture.**

**INFORMATION > TIMERS**
**Shows time related information.**
- Turn and press the encoder wheel to show the information:
  - **Total Time** non resettable timer that shows the total working hours of the machine.
  - **Last JOB** resettable timer that shows the working hours during the last job.
- Press the encoder wheel or MENU/ESC button to return.

**INFORMATION > LED Temp.**
**Shows actual LED temperature information.**
- Turn and press the encoder wheel to show the information.
- Press the encoder wheel or MENU/ESC button to return.

**INFORMATION > ERROR Info**
**Shows actual ERROR information.**
- Turn and press the encoder wheel to show the information.
- Press the encoder wheel or MENU/ESC button to return.

**INFORMATION > DMX values**
**Shows actual DMX values received from the DMX-controller.**
- Turn and press the encoder wheel to show the information, scroll down to see the values of all channels.
- Press the encoder wheel or MENU/ESC button to return.

**INFORMATION > Model Name**
**Shows model name of the unit.**
- Turn and press the encoder wheel to show the information.
- Press the encoder wheel or MENU/ESC button to return.

**INFORMATION > Firmware V.**
**Shows actual firmware version information.**
- Turn and press the encoder wheel to show the information: 3 different software versions are shown.
- Press the encoder wheel or MENU/ESC button to return.

## TEST menu

**TEST > AUTO TEST**
**Starts a complete test of all functions.**
- Press the encoder wheel to select the desired menu item.
- Press the encoder wheel or MENU/ESC button to stop.

**TEST > RESET Menu**
**Used to force a full or partial reset of the unit.**
- Press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to select the desired option.
- Press the encoder wheel to confirm.

***Note:*** *you can do a full reset (Reset ALL) or only reset certain parts of the unit. Resets can also be done using the DMX control channel.*

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

- Turn and press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to adjust the calibration.
- Press the encoder wheel to confirm.

Different calibrations can be done:

**CALIBRATION > 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.**

- Turn and press the encoder wheel to select the desired menu item.
- Turn the encoder wheel to adjust the value between “50” (low brightness) and “100” (high brightness).
- Press the encoder wheel to confirm.

***Note:*** *the default value is 100, a new value cannot be saved to the USER-defaults.*

**CALIBRATION > xxx → calibration of several functions**

**Used to adjust the home position of several functions:**

Make sure that the unit is connected to a DMX-controller and make sure that the fixture is lighting up.
If you’re not already in the setup menu, just press the MENU/ESC button shortly to enter the setup menu.

- Turn and press the encoder wheel to select the desired menu item.
  - **Pan:** offset PAN movements
  - **Tilt:** offset TILT movements
  - **Color:** offset COLOR-wheel
  - **Gobo1:** offset GOBO1-wheel
  - **Gobo1 1→6 Rot:** offset of the 6 GOBO positions GOBO1 wheel
  - **Gobo2:** offset GOBO2-wheel
  - **Prism Lin:** offset of the linear prism
  - **Prism Cir:** offset of the circular prism
  - **Prism Rot:** offset of the prism rotation
  - **Focus:** offset of the focus function.
  - **Zoom:** offset of the zoom function.
  - **Frost:** offset of the frost function.
- Turn the encoder wheel to adjust the calibration.
- Press the encoder wheel to confirm.

When all offset adjustments are done, press the **MENU/ESC button** to return to the regular setup menu.

# ELECTRICAL INSTALLATION + ADDRESSING

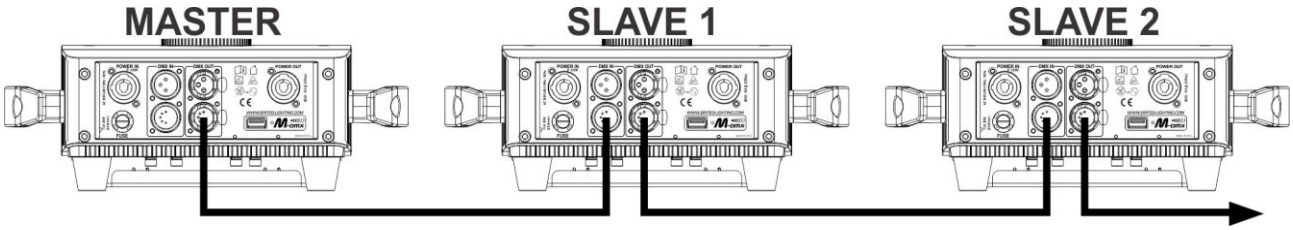
⚠ **<u>Important:</u> The electrical installation should be carried out by qualified personal only, according to the regulations for electrical and mechanical safety in your country.**

**<u>Electrical installation for 1 standalone unit:</u>**

- Just insert the mains cable. The unit starts working immediately in stand-alone mode.
  ***Remark:*** *if there’s no output, please make sure to set the option* ***No DMX*** *of the projector to SOUND (audio mode) and sound sensitivity* ***Sound*** *to a value over 50 (see previous chapter).*

**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.

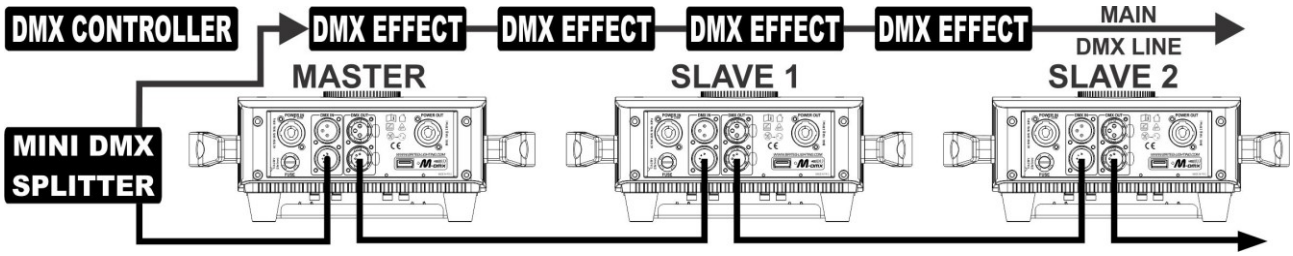



- Connect 2 to maximum 6 units together using good quality balanced microphone cables. The first unit in the chain will automatically act as the master, the other units will act automatically as slaves.

- 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*** *of the projector to* ***Audio*** *(audio mode) and sound sensitivity* ***Audio*** *to a value over 50 (see previous chapter).*

**Electrical installation for two or more units in SMART-DMX:**

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 "Mini DMX-SPLITTER" to isolate the master/slave line from the main DMX-line, see drawing.
- Connect 2 to maximum 6 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 SMART DMX-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!

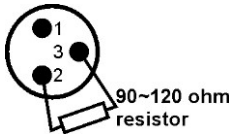
***Remark:*** *in order to work well to the rhythm of the music, make sure to set the* ***No DMX*** *mode of the MASTER projector to Audio and sound sensitivity* ***Audio*** *to a value over 50 (see previous chapter).*

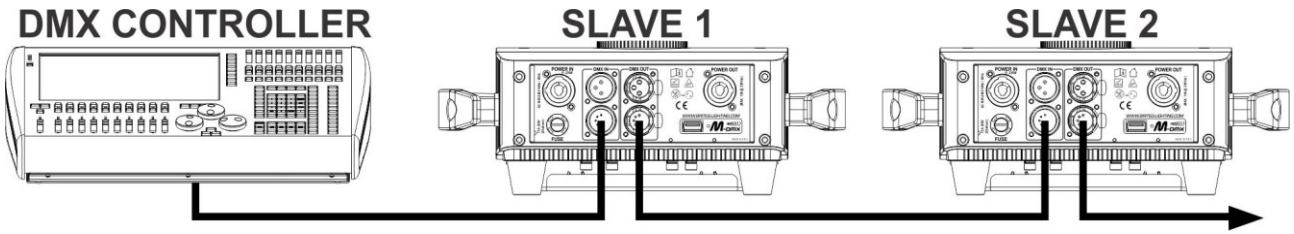
**DMX-Chart for SMART-DMX working mode**

| | 1 – DIM | | 2 - STROBE | | 3 - COLOR | | 4 - GOBO | | 5 - PAN/TILT SPEED | |
|---|---|---|---|---|---|---|---|---|---|---|
| | VALUE | FUNCTION | VALUE | FUNCTION | VALUE | FUNCTION | VALUE | FUNCTION | VALUE | FUNCTION |
| 10 | 255 | 100% | 255 | FAST STROBE | 218-255 | ORIGINAL COLORS | 218-255 | ORIGINAL GOBOS | 255 | AUDIO FAST |
| 9 | | | | | | | | | | |
| 8 | | | | | 188-217 | COLOR 7 | 188-217 | GOBO 7 | | |
| 7 | | | | | 158-187 | COLOR 6 | 158-187 | GOBO 6 | | *RANDOM* |
| 6 | | | | | 128-157 | COLOR 5 | 128-157 | GOBO 5 | | *PROGRAM* |
| 5 | | | | | 098-127 | COLOR 4 | 098-127 | GOBO 4 | | *AUDIO TRIGGERED* |
| 4 | | | 068 | SLOW STROBE | 068-097 | COLOR 3 | 068-097 | GOBO 3 | | |
| 3 | | | 038-067 | SOUND STROBE | 038-067 | COLOR 2 | 038-067 | GOBO 2 | | |
| 2 | 008 | 0% | 008-037 | RANDOM STROBE | 008-037 | COLOR 1 | 008-037 | GOBO 1 | 008 | AUDIO VERY SLOW |
| 1 | 000-007 | STANDBY | 000-007 | OPEN | 000-007 | WHITE | 000-007 | NO GOBO | 000-007 | HOLD (FREEZE) |

**Electrical installation in DMX-mode:**

- The DMX-protocol is a widely used high speed signal to control intelligent light equipment. You need to "daisy chain" your DMX controller and all the connected units with a good quality balanced cable.
- Both XLR-3pin and XLR-5pin connectors are used, however XLR-3pin is more popular because these cables are compatible with balanced audio cables.
  Pin layout XLR-3pin: Pin1 = GND ~ Pin2 = Negative signal (-) ~ Pin3 = Positive signal (+)
  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. In the next section you will learn how to set the DMX addresses.






**HOW TO SET THE RIGHT STARTING ADDRESS:**

Refer to the previous chapter (DMX-512 address setting) to learn how to set the starting address on this unit. The starting address of each unit is very important. Unfortunately, it is impossible to tell you in this user manual which starting addresses you have to set because this completely depends on the controller you will use… So please refer to the user manual of your DMX-controller to find out which starting addresses you must set.

**DMX-CONFIGURATION IN 14CH + 19CH MODE:**

| 14 CH | 19 CH | Values | FUNCTIONS | *Remarks* |
|---|---|---|---|---|
| 1 | 1 | | **PAN Movement 8-bit:** | |
| | | 000 - 255 | Pan Movement By 630/540 | |
| | 2 | | **Pan Fine 16-bit:** | |
| | | 000 - 255 | Fine control of Pan movement | |
| 2 | 3 | | **TILT Movement 8-bit:** | |
| | | 000 - 255 | Tilt Movement | |
| | 4 | | **Tilt Fine 16-bit:** | |
| | | 000 - 255 | Fine control of Tilt movement | |
| | 5 | | **Pan/Tilt Speed** | |
| | | 000 - 255 | Pan/Tilt Fast -> Slow | |
| 3 | 6 | | **Dimmer (intensity):** | |
| | | 000 - 255 | Intensity 0 to 100% | |
| | 7 | | **Dimmer Fine 16-bit:** | |
| | | 000 - 255 | Intensity 0 to 100% | |
| 4 | 8 | | **Shutter, strobe:** | |
| | | 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 (slow → fast) | |
| | | 248 - 255 | Shutter open | |
| 5 | 9 | | **Color Wheel:** | |
| | | 000 - 003 | COLOR 1: White (open) | |
| | | 004 - 007 | COLOR 2: Red (deep red) | |
| | | 008 - 011 | COLOR 3: Orange | |
| | | 012 - 015 | COLOR 4: Yellow | |
| | | 016 - 019 | COLOR 5: Green | |
| | | 020 - 023 | COLOR 6: Light Blue | |
| | | 024 - 027 | COLOR 7: Magenta | |
| | | 028 - 031 | COLOR 8: CTO filter 3800K | |
| | | 032 - 035 | COLOR 9: Congo Blue (dark blue) | |
| | | 036 - 038 | SPLIT COLORS 1+2 | |
| | | 039 - 041 | SPLIT COLORS 2+3 | |
| | | 042 -044 | SPLIT COLORS 3+4 | |
| | | 045 - 047 | SPLIT COLORS 4+5 | |
| | | 048 - 050 | SPLIT COLORS 5+6 | |
| | | 051 - 053 | SPLIT COLORS 6+7 | |
| | | 054 - 056 | SPLIT COLORS 9+1 | |
| | | 057 - 169 | Colour Wheel Pos 0 - 320° | |
| | | 170 - 210 | Color wheel turning CW (fast → slow) | |
| | | 211 - 214 | Color wheel stops turning | |
| | | 215 - 255 | Color wheel turning CWW (slow → fast) | |

| | | | |
|---|---|---|---|
| 6 | 10 | | **GoboWheel 1** |
| | | 000 - 007 | OPEN (no gobo) |
| | | 008 - 015 | GOBO 1 |
| | | 016 - 023 | GOBO 2 |
| | | 024 - 031 | GOBO 3 |
| | | 032 - 039 | GOBO 4 |
| | | 040 - 047 | GOBO 5 |
| | | 048 - 063 | GOBO 6 |
| | | 064 - 073 | GOBO 1 – Shaking (slow → fast) |
| | | 074 - 082 | GOBO 2 – Shaking (slow → fast) |
| | | 083 - 091 | GOBO 3 – Shaking (slow → fast) |
| | | 092 - 100 | GOBO 4 – Shaking (slow → fast) |
| | | 101 - 109 | GOBO 5 – Shaking (slow → fast) |
| | | 110 - 127 | GOBO 6 – Shaking (slow → fast) |
| | | 128 - 189 | Gobo wheel turning clockwise (fast → slow) |
| | | 190 - 193 | Gobo wheel stops turning |
| | | 194 - 255 | Gobo wheel turning counter clockwise (slow → fast) |
| 7 | 11 | | **Gobo 1 Rotation** |
| | | 000 - 127 | indexed positioning: 0° - 540° |
| | | 128 - 189 | Gobo turning clockwise (fast → slow) |
| | | 190 - 193 | Gobo stops turning |
| | | 194 - 255 | Gobo turning counter clockwise (slow → fast) |
| 8 | 12 | | **GoboWheel 2** |
| | | 000 - 007 | OPEN (no gobo) |
| | | 008 - 015 | GOBO 1 |
| | | 016 - 023 | GOBO 2 |
| | | 024 - 031 | GOBO 3 |
| | | 032 - 039 | GOBO 4 |
| | | 040 - 047 | GOBO 5 |
| | | 048 - 063 | GOBO 6 |
| | | 064 - 073 | GOBO 1 – Shaking (slow → fast) |
| | | 074 - 082 | GOBO 2 – Shaking (slow → fast) |
| | | 083 - 091 | GOBO 3 – Shaking (slow → fast) |
| | | 092 - 100 | GOBO 4 – Shaking (slow → fast) |
| | | 101 - 109 | GOBO 5 – Shaking (slow → fast) |
| | | 110 - 127 | GOBO 6 – Shaking (slow → fast) |
| | | 128 - 189 | Gobo wheel turning clockwise (fast → slow) |
| | | 190 - 193 | Gobo wheel stops turning |
| | | 194 - 255 | Gobo wheel turning counter clockwise (slow → fast) |
| 9 | 13 | | **Prism Selection** |
| | | 000 - 005 | Prism off (open) |
| | | 006 - 127 | Prism 1 Linear |
| | | 128 - 255 | Prism 2 Circle |
| 10 | 14 | | **Prism Rotation** |
| | | 000 - 127 | indexed positioning: 0° - 540° |
| | | 128 - 189 | Prism turning counter clockwise (fast → slow) |
| | | 190 - 193 | No rotation |
| | | 194 - 255 | Prism turning clockwise (slow → fast) |
| 11 | 15 | | **Zoom** |
| | | 000 - 255 | narrow to wide |
| 12 | 16 | | **Focus** |
| | | 000 - 255 | 0% to 100% |
| | 17 | | **AUTO Focus** |
| | | 000 - 015 | Auto focus OFF |
| | | 016 - 025 | 2 Meters for Gobo1 |
| | | 026 - 035 | 3 Meters for Gobo1 |
| | | 036 - 045 | 4 Meters for Gobo1 |
| | | 046 - 055 | 5 Meters for Gobo1 |
| | | 056 - 065 | 6 Meters for Gobo1 |
| | | 066 - 075 | 7 Meters for Gobo1 |
| | | 076 - 085 | 8 Meters for Gobo1 |
| | | 086 - 095 | 10 Meters for Gobo1 |
| | | 096 - 105 | 12 Meters for Gobo1 |
| | | 106 - 115 | 14 Meters for Gobo1 |

| | | | | |
|---|---|---|---|---|
| | | 116 - 125 | 16 Meters for Gobo1 | |
| | | 126 - 135 | 18 Meters for Gobo1 | |
| | | 136 - 145 | 2 Meters for Gobo2 | |
| | | 146 - 155 | 3 Meters for Gobo2 | |
| | | 156 - 165 | 4 Meters for Gobo2 | |
| | | 166 - 175 | 5 Meters for Gobo2 | |
| | | 176 - 185 | 6 Meters for Gobo2 | |
| | | 186 - 195 | 7 Meters for Gobo2 | |
| | | 196 - 205 | 8 Meters for Gobo2 | |
| | | 206 - 215 | 10 Meters for Gobo2 | |
| | | 216 - 225 | 12 Meters for Gobo2 | |
| | | 226 - 235 | 14 Meters for Gobo2 | |
| | | 236 - 245 | 16 Meters for Gobo2 | |
| | | 246 - 255 | 18 Meters for Gobo2 | |
| **13** | **18** | | **Frost** | |
| | | 000 - 255 | 0% to 100% | |
| **14** | **19** | | **Device settings / CONTROL channel** | |
| | | 000 - 007 | No Function | |
| | | 008 - 010 | FAN Low | *Activated after 3seconds* |
| | | 011 - 013 | FAN Auto | *Activated after 3seconds* |
| | | 014 - 016 | FAN High | *Activated after 3seconds* |
| | | 017 - 019 | Display ON | *Activated after 3seconds* |
| | | 020 - 022 | Display OFF | *Activated after 3seconds* |
| | | 023 - 025 | PAN invert ON | *Activated after 3seconds* |
| | | 026 - 028 | PAN invert OFF | *Activated after 3seconds* |
| | | 029 - 031 | TILT invert ON | *Activated after 3seconds* |
| | | 032 - 034 | TILT invert OFF | *Activated after 3seconds* |
| | | 035 - 037 | No function | |
| | | 038 - 040 | Activate blackout during pan/tilt | *Activated after 3seconds* |
| | | 041 - 043 | Disable blackout during pan/tilt | *Activated after 3seconds* |
| | | 044 - 046 | Activate blackout during color change | *Activated after 3seconds* |
| | | 047 - 049 | Disable blackout during color change | *Activated after 3seconds* |
| | | 050 - 052 | Activate blackout during gobo change | *Activated after 3seconds* |
| | | 053 - 055 | Disable blackout during gobo change | *Activated after 3seconds* |
| | | 056 - 058 | No function | |
| | | 059 - 061 | Dimmer Curve - LINEAR | *Activated after 3seconds* |
| | | 062 - 064 | Dimmer Curve - SQUARE | *Activated after 3seconds* |
| | | 065 - 067 | Dimmer Curve - INVERSE SQUARE | *Activated after 3seconds* |
| | | 068 - 070 | Dimmer Curve - S-CURVE | *Activated after 3seconds* |
| | | 071 - 073 | No function | |
| | | 074 - 076 | PWM Freq. = 900Hz | *Activated after 3seconds* |
| | | 077 - 079 | PWM Freq. = 1200Hz | *Activated after 3seconds* |
| | | 080 - 082 | PWM Freq. = 1500Hz | *Activated after 3seconds* |
| | | 083 - 085 | PWM Freq. = 3600Hz | *Activated after 3seconds* |
| | | 086 - 088 | PWM Freq. = 5400Hz | *Activated after 3seconds* |
| | | 089 - 091 | PWM Freq. = 7200Hz | *Activated after 3seconds* |
| | | 092 - 094 | PWM Freq. = 12000Hz | *Activated after 3seconds* |
| | | 095 - 097 | PWM Freq. = 24000Hz | *Activated after 3seconds* |
| | | 098 - 100 | No function | |
| | | 100 - 102 | Pan/tilt reset | *Activated after 3seconds* |
| | | 103 - 105 | Color reset | *Activated after 3seconds* |
| | | 106 - 108 | Gobo reset | *Activated after 3seconds* |
| | | 109 - 111 | Prism reset | *Activated after 3seconds* |
| | | 112 - 114 | Focus reset | *Activated after 3seconds* |
| | | 115 - 117 | Reset all | *Activated after 3seconds* |
| | | 118 - 199 | No function | |
| | | 200 - 255 | Sound activated mode, sound sensitivity low → high | |

***Note (*):*** *by default function delay (is set to 3seconds: the selected function will only be active while the corresponding DMX-value is received during at least 3seconds. You can change the function delay time in the setup menu.*

# MAINTENANCE

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

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

- All screws used for installing the device and any of its parts should be tightly fastened and may not be corroded.
- Housings, fixations and installations spots (ceiling, truss, suspensions) should be totally free from any deformation.
- When an optical lens is visibly damaged due to cracks or deep scratches, it must be replaced.
- The mains cables must be in impeccable condition and should be replaced immediately when even a small problem is detected.
- In order to protect the device from overheat the cooling fans (if any) and ventilation openings should be cleaned monthly.
- The interior of the device should be cleaned annually using a vacuum cleaner or air-jet.
- The cleaning of internal and external optical lenses and/or mirrors must be carried out periodically to optimize light output. Cleaning frequency depends on the environment in which the fixture operates: damp, smoky or particularly dirty surroundings can cause greater accumulation of dirt on the unit's optics.
    - Clean with a soft cloth using normal glass cleaning products.
    - Always dry the parts carefully.
    - Clean the external optics at least once every 30 days.
    - Clean the internal optics at least every 90 days.

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

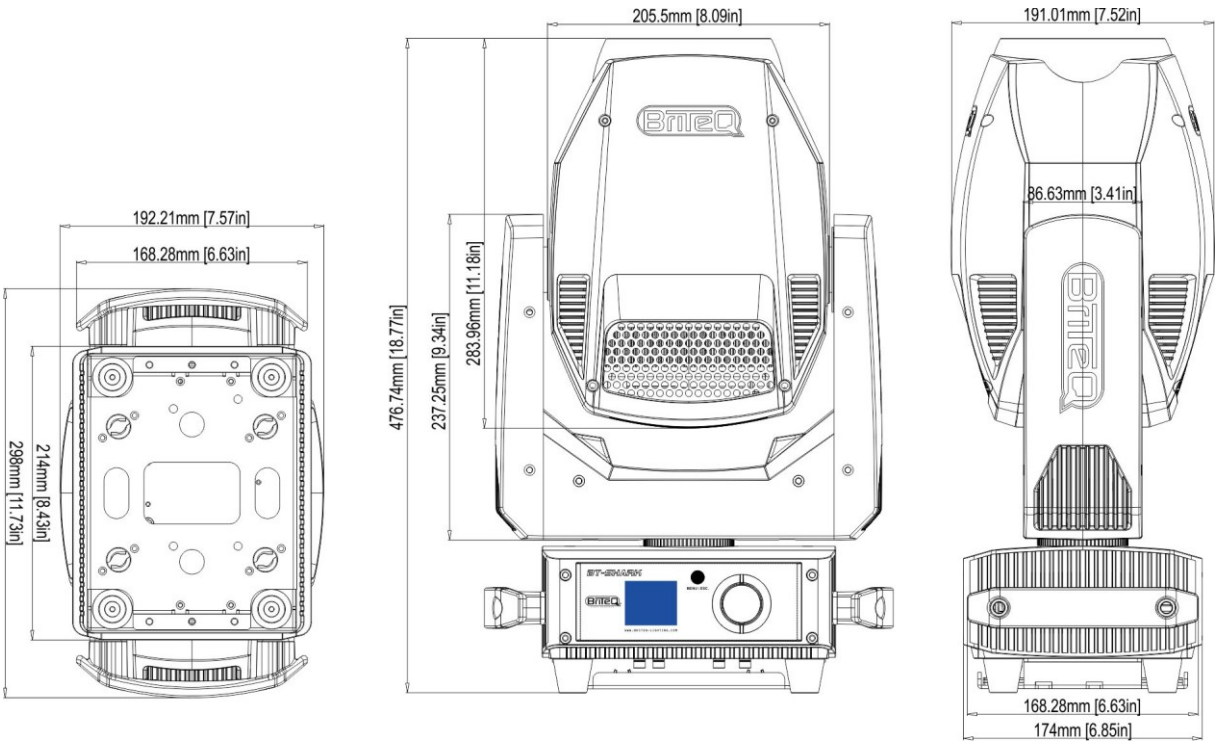
# SPECIFICATIONS

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

| | |
|---|---|
| **Mains Input:** | AC 100 - 240V, 50/60Hz |
| **Power consumption:** | 300 Watt (max) |
| **Fuse:** | 250V 3A slow blow (20mm glass) |
| **Power connections:** | PowerCon - 16A Power linking capacity. |
| **DMX connections:** | Neutrik 3pin & 5pin-XLR male / female |
| **DMX channels used:** | 14ch + 19ch + 5MSL (SMART-MSL) |
| **Lamp:** | 200W LED Engine |
| **Color temperature:** | 20000K |
| **Beam Angle:** | 10° - 25° (motorized zoom with auto focus) |
| **Color wheel:** | 8 colors + open |
| **GOBO wheel:** | 6 rotating gobos, replaceable by metal and glass gobos<br>Outer diameter 22.9 mm – Image diameter: 18.9 mm |
| **Special effects:** | 6facet linear rotating prism<br>6facet circular rotating prism<br>Linear frost filter |
| **IP-Rating:** | IP20 |
| **Operating temperature ($T_a$):** | 0°C to 40°C |
| **Size:** | see drawing |
| **Weight:** | **9**,5 kg |

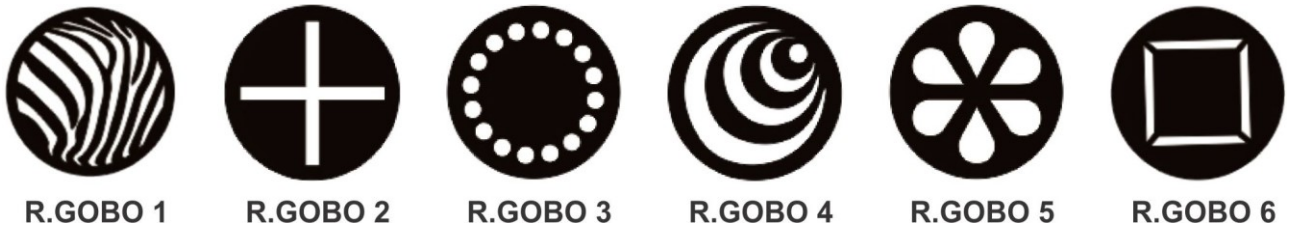
**Every information is subject to change without prior notice**
**You can download the latest version of this user manual on our website: www.briteq-lighting.com**

## DIMENSIONS




## ROTATING GOBO WHEEL (GOBO 1)

- GOBO EXTERNAL DIAMETER: 22,9 mm (IMAGE DIAMETER: 18,9 mm)
- Both metal and thicker glass gobos can be used.




## FIXED GOBO WHEEL (GOBO 2)

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LIGHT RESEARCH

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**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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