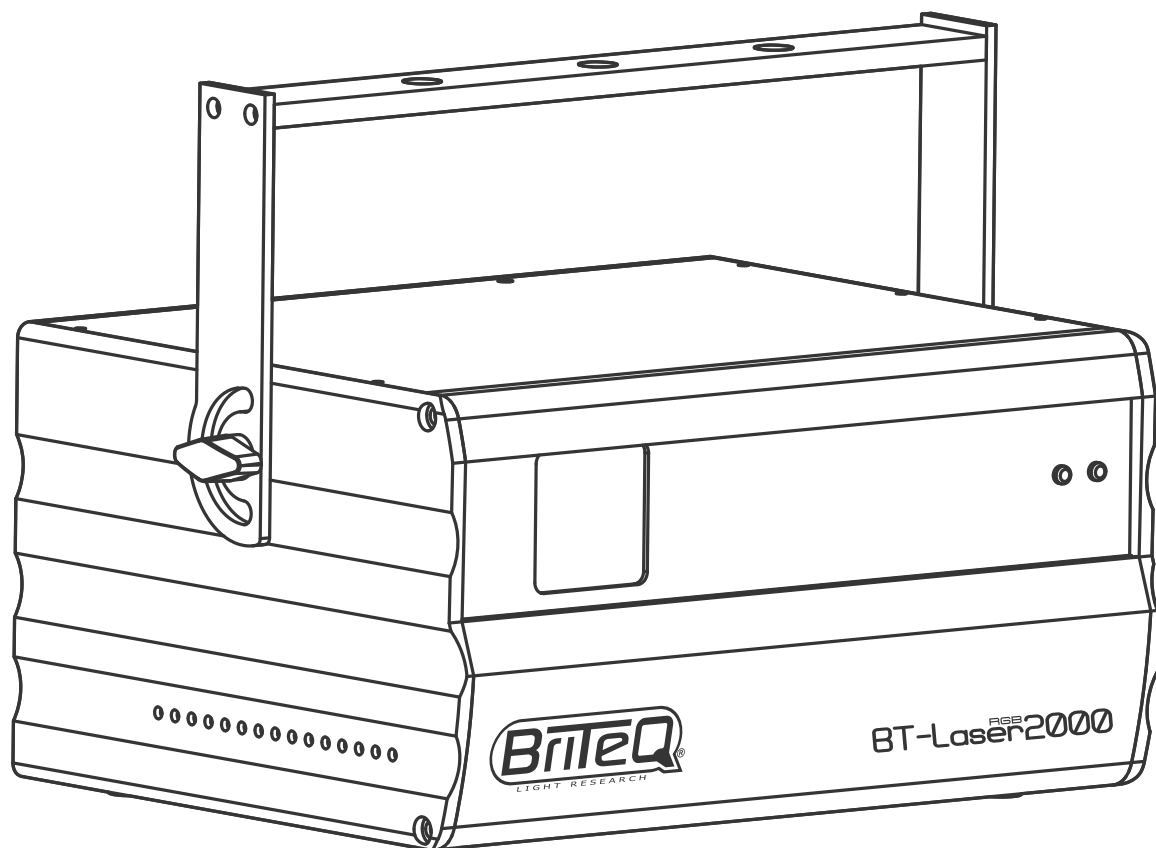


BT-LASER2000 RGB



ENGLISH Operation Manual

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



Version: 1.2





EN - DISPOSAL OF THE DEVICE

Dispose of the unit and used batteries in an environment friendly manner according to your country regulations.

FR - DÉCLASSER L'APPAREIL

Débarrassez-vous de l'appareil et des piles usagées de manière écologique conformément aux dispositions légales de votre pays.

NL - VERWIJDEREN VAN HET APPARAAT

Verwijder het toestel en de gebruikte batterijen op een milieuvriendelijke manier conform de in uw land geldende voorschriften.

DU - ENTSORGUNG DES GERÄTS

Entsorgen Sie das Gerät und die Batterien auf umweltfreundliche Art und Weise gemäß den Vorschriften Ihres Landes.

ES - DESHACERSE DEL APARATO

Reciclar el aparato y pilas usadas de forma ecologica conforme a las disposiciones legales de su país.

PT - COMO DESFAZER-SE DA UNIDADE

Tente reciclar a unidade e as pilhas usadas respeitando o ambiente e em conformidade com as normas vigentes no seu país.

OPERATION MANUAL

Thank you for buying this Briteq® product. To take full advantage of all possibilities and for your own safety, please read these operating instructions very carefully before you start using this unit.

FEATURES

This 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.

- This device was designed to produce decorative effect lighting and is used in light show systems.
- A superb 2Watt Class-IV RGB color laser equipped with 1 powerful, temperature controlled RGB laser:
 - 500mW Red laser (650nm)
 - 500mW Green laser (520nm)
 - 1000mW Blue laser (450nm)
- This single source laser guarantees perfect alignment of the beams and colors with **perfect white** as a result.
- Thanks to 20kHz scanners this "BT-LASER2000 RGB" projects rock steady sharp RGB- images!
- 100% ILDA compatible for full flexibility!
- The internal SD-card reader makes it possible to project your own patterns and logos. On the supplied SD-card you can create up to 100 folders with each up to 255 files.
- The firmware can be updated via the SD-card.
- The 6 user modes make this laser very easy to use:
 - **MUSIC CONTROL:** 100% plug & play, just connect the laser to the mains to start an incredible, music controlled, laser show based on the 86 internal patterns! Perfect for hiring companies!!!
 - **MASTER/SLAVE mode:** Several units can be used in completely synchronized music mode: amazing and very simple to use!
 - **AUTOMATIC mode:** all internal programs will be shown automatically, no music needed. Depending your needs you can choose a fast or soft show.
 - **DMX mode:** three options possible:
 - 1 channel for extremely easy setup and use!
 - 13 channels to take full control of all internal programs!
 - 17 channels to take full control over the color mixing.
 - **ILDA mode:** connect the laser to any PC with ILDA-compatible interface and use any professional laser software to create stunning laser shows, create logos, etc.
 - **SD-CARD mode:** playback of preprogrammed shows, logos, patterns on the SD-card.
- Laser projections can be adapted to the size of the venue with X/Y image zoom controls.
- LCD-display for easy navigation in the setup menu.
- Graphics can be mirrored for projections behind a transparent screen
- Blanking technology for nice separate beams
- Perfect for use in clubs, discotheques, publicity, exhibitions, and many more ...
- **SAFETY FIRST!** Class-IV lasers (more than 500mW output) can damage the human eye very badly so never buy such high power laser without checking if it passed the severe laser safety tests! This laser complies to the European EN 60825-1:2014 for Laser Safety! It is equipped with extra safety measures like:
 - **Scanner control:** if a scanner fails, output is shut down.
 - **Interlock connection with mechanical shutter:** press the safety switch to shut down the output.
 - **Key switch:** only authorized and well trained operators are allowed to use the laser.

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:

- BT-LASER2000 RGB
- 2 keys (for key switch)
- Mains cable
- Operating instructions
- Cable connector for remote interlock

SAFETY INSTRUCTIONS:



CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN



CAUTION: To reduce the risk of electric shock, do not remove the top cover. No user-serviceable parts inside. Refer servicing to qualified service personnel only.



The lightning flash with arrowhead symbol within the equilateral triangle is intended to alert the user or the presence of un-insulated “dangerous voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electric shock.



The exclamation point within the equilateral triangle is intended to alert the user to the presence of important operation and maintenance (servicing) instructions in the literature accompanying this appliance.



This symbol means: indoor use only.



This symbol means: Read instructions.



This symbol determines: the minimum distance from lighted objects. The minimum distance between light-output of this laser and the illuminated surface must be more than 2.5 meters.

- To protect the environment, please try to recycle the packing material as much as possible.
- A new light effect sometimes causes some unwanted smoke and/or smell. This is normal and disappears after some minutes.
- 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 servicing.
- Always unplug the unit when it is not used for a longer time or before replacing the bulb or 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 rear panel of 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 to in order 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 lamp and 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.

LASER SAFETY INSTRUCTIONS:

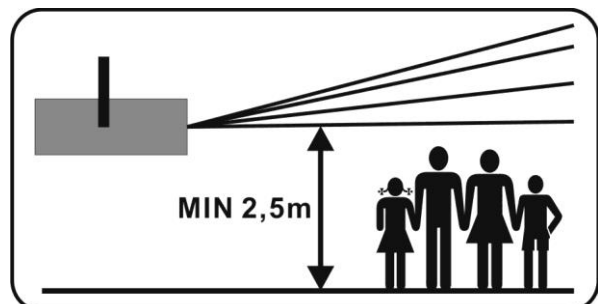
- According to the EN 60825-1:2014 regulations, this laser falls under the classification 4. Direct eye exposure can be dangerous.



DANGER: LASER RADIATION !

Avoid direct eye exposure! Laser radiation can cause eye damage and/or skin damage. All protective measures for a safe operation of this laser must be applied.

- This product is a so-called show laser, emitting radiation with a wavelength spectrum between 400 and 700 nm and producing lighting effects for shows.
- Due to the construction of this laser, the beam is moved so fast, that it can only hit the eye very short. This is why the use of this laser for a Laser-Light-Show can be regarded as safe.
- Never direct the laser beam to people or animals and never leave this device running unattended.
- This laser may only be used for shows. The operation of this class 4 show laser is only allowed if it is done by a professional operator.
- Depending on the classification, operating a laser product can produce laser radiation that may cause permanent eye damage and/or skin damage. The legal instructions for using a laser product vary from country to country. The user must always inform himself on the legal instructions valid in his country and apply them to his situation.



Please note that **BRITEQ** cannot be made liable for damages caused by incorrect installations and unskilled operation!

WARNING LABEL LOCATIONS

A. APERTURE logos



These warning labels indicate the laser emission aperture on the device: the emitted laser light is potentially dangerous. NEVER look directly into the laser beam. Risk of eye injury and / or blinding!

B. WARNING logo

DANGER – CLASS 4 LASER RADIATION WHEN OPEN. Avoid eye or skin exposure to direct or scattered radiation.

C. Multilingual warning sticker

Danger – laser radiation, avoid eye or skin exposure to direct or scattered radiation. Class 4 laser product.

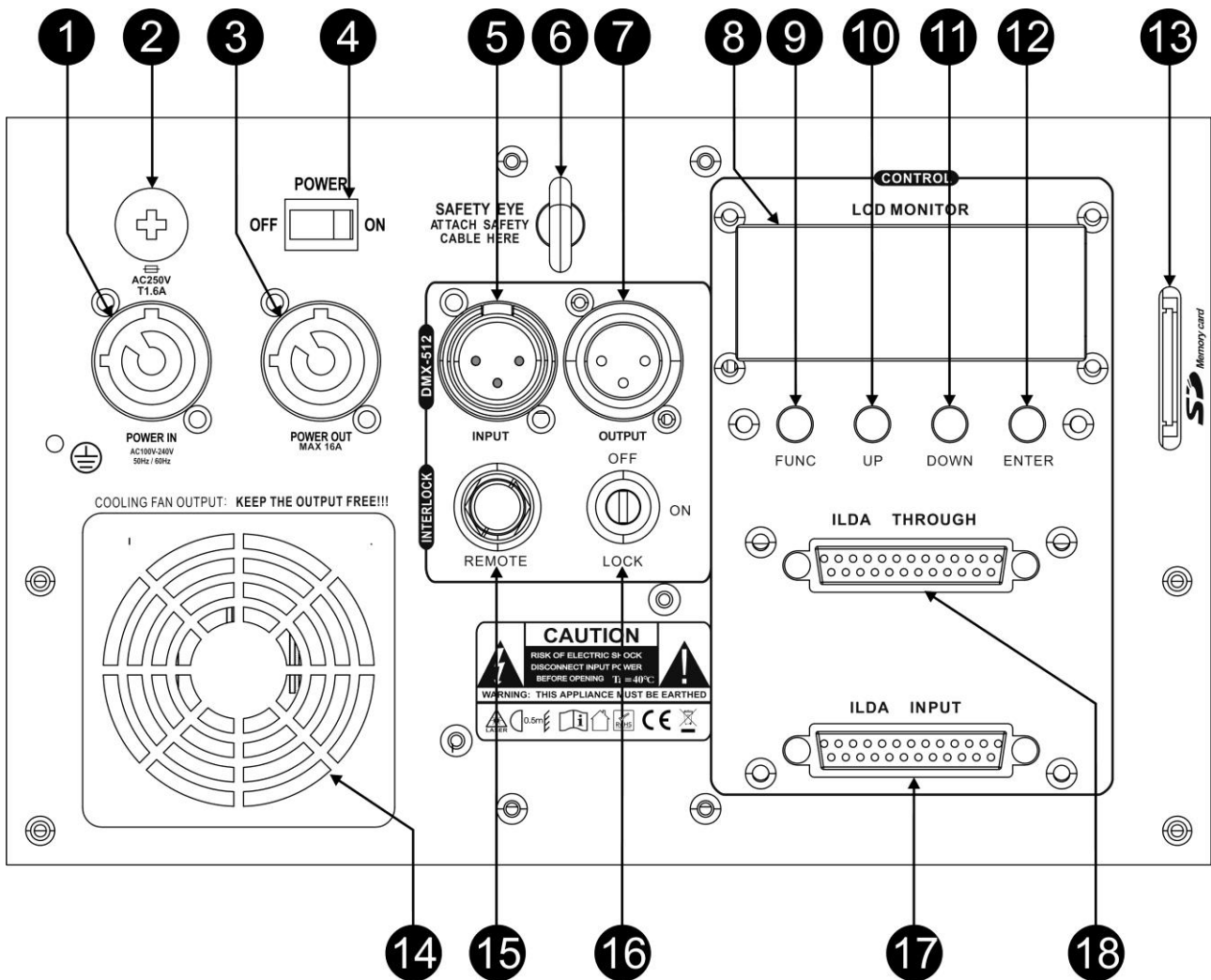
IEC/EN 60825-1:2014

Wavelength: 500mW Red CW laser ($\lambda = 650\text{nm}$)
 500mW Green CW laser ($\lambda = 520\text{nm}$)
 1000mW Blue CW laser ($\lambda = 450\text{nm}$)

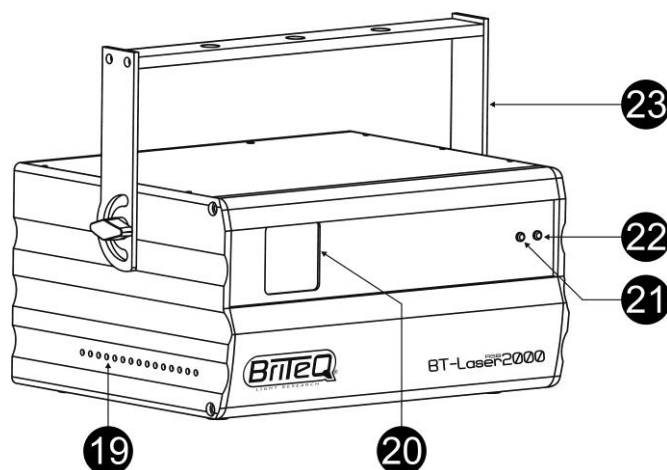
Laser radiation: CW >500mW



DESCRIPTION:



1. **[POWER IN]:** connect the supplied mains cable here.
2. **FUSE HOLDER:** contains 20mm glass fuse (T1.6A)
3. **[POWER OUT] :** used to daisy chain the power to several other fixtures. Always pay attention to the maximum load while adding fixtures! Special combi cables (power + DMX XLR-cables) are available: see our website!
4. **POWER ON/OFF SWITCH:** used to switch the unit on/off.
5. **[DMX INPUT]:** 3pin male XLR-connector used to connect universal DMX-cables. This input receives instructions from a DMX-controller or another fixture.
6. **[SAFETY EYE]:** used to attach a safety cable when the unit is rigged (see paragraph “overhead rigging”)
7. **[DMX OUTPUT]:** 3pin female XLR-connector used to connect the laser with the next unit in the DMX chain.
8. **DISPLAY:** shows the different working modes with their respective options and settings.
9. **[FUNCTION] BUTTON:** used to browse the different functions and working modes in the menu.
10. **[UP] BUTTON:** used to go to the upper option or to increase a parameter of a function or working mode.
11. **[DOWN] BUTTON:** used to go to a lower option or to decrease a parameter of a function or working mode.
12. **[ENTER] BUTTON:** Used to confirm the selected value or function that is shown on the display.
13. **SD CARD SLOT:** used to insert the SD card with ILDA graphics for playback via DMX.
14. **COOLING FAN:** used to cool the components inside the enclosure. Make sure to never cover this fan outlet!
15. **INTERLOCK input:** used to connect the optional emergency stop switch (order code : B04210). When you push this switch it will activate the mechanical safety shutter so the laser beam will disappear immediately.
IMPORTANT! For your own safety we strongly recommend to connect this optional switch!
16. **[LOCK ON/OFF]:** used to switch the laser beam on/off. Use the keys to make sure only an authorized operator is able to switch the laser on.
17. **[ILDA INPUT]:** used to connect the laser to an ILDA certified interface of a computer, see further for more information.
18. **[ILDA THROUGH]:** to link the ILDA signal to the next “BT-LASER2000 RGB” unit.
19. **Cooling inlet:** Make sure to never cover this cooling inlet!
20. **LASER OUTPUT:** Here the laser beam leaves the enclosure, make sure to NEVER look inside the unit through this opening while the laser effect is switched on!
21. **[POWER] LED:** indicates that the unit is switched on.
22. **[MUSIC] LED:** in music mode this LED blinks to the rhythm of the music.
23. **HANGING BRACKET:** with a knob on both sides to fasten the unit and a mounting hole to fix a mounting hook.



OVERHEAD RIGGING

- **Important:** The installation must be carried out by qualified service personal only. Improper installation can result in serious injuries and/or damage to property. Overhead rigging requires extensive experience! Working load limits should be respected, certified installation materials should be used, the installed device should be inspected regularly for safety.
- Make sure the area below the installation place is free from unwanted persons during rigging, de-rigging and servicing.

- Locate the fixture in a well ventilated spot, far away from any flammable materials and/or liquids. The fixture must be fixed **at least 50cm** from surrounding walls.
- The device should be installed out of reach of people and outside areas where persons may walk by or be seated.
- Before rigging make sure that the installation area can hold a minimum point load of 10times the device's weight.
- Always use a certified safety cable that can hold 12times the weight of the device when installing the unit. This secondary safety attachment should be installed in a way that no part of the installation can drop more than 20cm if the main attachment fails.
- The device should be well fixed; a free-swinging mounting is dangerous and may not be considered!
- Don't cover any ventilation openings as this may result in overheating.
- The operator has to make sure that the safety-relating and machine-technical installations are approved by an expert before using them for the first time. The installations should be inspected every year by a skilled person to be sure that safety is still optimal.



CAUTION EYEDAMAGE: Always position the laser in a way that prevents the audience from looking directly into the laser beams. The installation should assure that the beam will not strike the audience.

HOW TO SET UP AND CONTROL THE UNIT

- Regular breaks during operation are essential to maximize the life of this device as it is not designed for continual use.
- Do not switch the unit on and off in short time intervals as this reduces the lifetime of the lasers.
- Always unplug the unit when it is not used for a longer time.
- In the event of serious operating problems, stop using the fixture and contact your dealer immediately.
- **Important:** Never look directly into the laser beam! Don't use the effect in the presence of persons suffering from epilepsy.

You can operate the unit in several ways:

1) STANDALONE MODE USING THE BUILD-IN PROGRAMS (MASTER):

The laser runs a preprogrammed sequence automatically or to the rhythm of the music. Select this mode when only 1 laser is used (standalone) or when the laser is placed as the first (master) unit in a chain with several BT-LASER2000 RGB lasers (master/slave mode).

- Press the [FUNC] button until the display shows ["Internal Show"].
- Press the [UP / DOWN] buttons to choose one of the shows:
 - [AUTO SHOW 1&2]: Ever-changing automatic show
 - [MUSIC SHOW 1&2]: The show will be triggered by the music.
- Press the [ENTER] button to confirm your choice.

You can connect several BT-LASER2000 RGB lasers together: just put the first unit of the chain in one of these standalone modes and all the other units in ["Slave mode"] to make them all work in perfect sync!

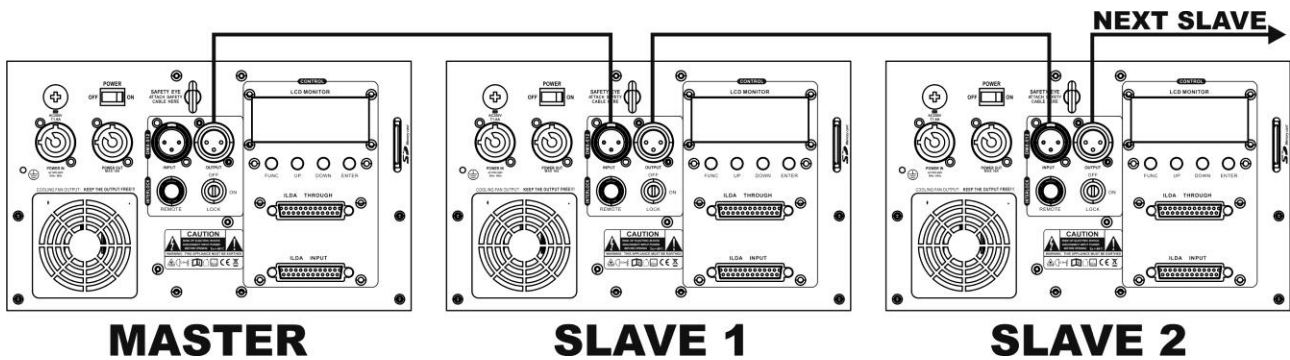
Note: When no music is detected, the laser output will be shut off (blackout).

2) SLAVE MODE:

The laser follows the instructions given by the first BT-LASER2000 RGB laser (master) in the chain.

- Connect the DMX input of the laser to the DMX output of the previous laser in the chain.
- Press the [FUNC] button until the display shows [SLAVE].
- Press the [ENTER] button to confirm your choice.
- When the word ["signal"] appears blinking on the display, it means that there is no signal detected, coming from the master. Check the master and the cabling to correct this.

You can connect several BT-LASER2000 RGB lasers together. Please put the first unit of the chain in "Music or automatic mode" and all other units in "Slave mode" to make them all work in perfect sync!



3) ILDA CONTROL:

This laser can be controlled by any PC equipped with ILDA compatible software + hardware. As soon as the ILDA-input (17) of the laser is connected with an ILDA compatible controller, it will automatically switch to ILDA control mode. From this moment the laser will be completely controlled by the ILDA software: the possibilities of the ILDA software will determine what you can do or not...

ILDA soft- and hardware are available from several independent suppliers. Some possible choices are:

- PHOENIX software (<http://www.phoenix-showcontroller.de>)
- PANGOLIN software (www.pangolin.com/QS/)
- And many other, up to you and your finances to see what is best for your needs ...

4) SD CARD PLAYBACK:

You can install ILDA laser patterns and shows on the SD-Card. Once the SD-Card is installed in the laser, you can recall and play the ILDA files via DMX. Like this you don't need a computer and ILDA cable continuously connected to the laser.

- Press the [FUNC] button until the display shows ["SD SHOW"].
- Press the [ENTER] button to confirm your choice.
- Press the [UP / DOWN] buttons to choose one of the playback modes:
 - [PRG SHOW]: The laser will run all the different shows that are in the selected folder continuously.
 - [ILD SHOW]: The laser will run one single ILDA program of the folder continuously. Press enter to select ILD show, then use the [UP / DOWN] buttons to select the specific ILDA program.
- Press the [ENTER] button to confirm your choice.

IMPORTANT:

- The SD-Card must be formatted in FAT32 !
- You can install maximum 100 folders with maximum 254 files in each folder.
- File name (and folder name) can have maximum 8 digits and 3 extensions like letter, numbers or underscore.
- The systems only supports ILDA files with the "ild" extension. Don't store other types of files on the SD-Card
- For a preprogrammed show, you have to include a Windows TXT file in the same folder as the patterns you will use. Rename this TXT file to ".PRG"
 - EXAMPLE: you have 3 .ild files in a folder called TIGER (TIGER1.ild, TIGER2.ild and TIGER3.ild)
 - To program a show with these files you need to write in the TXT file for example:
TIGER1.ild, 10,3
TIGER2.ild, 20,1
TIGER1.ild, 15,4
 - Save this TXT file and change the name TIGER.TXT into TIGER1.PRG
 - How does it work ?
For example: TIGER1.ild,10,3
TIGER1.ild = the ilda show name
"10" = scanner speed
"3" = the number of times this show should be repeated

5) DMX MODE:

The laser can be controlled by any standard DMX-controller in 2 different DMX-modes:

- **1 CHANNEL MODE:** for extremely easy setup and use! (display shows "DMX CH1")

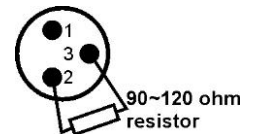
- **13 CHANNEL MODE:** for full control of all possibilities. (display shows “DMX CH13”)
- **17 CHANNEL MODE:** for full control of all possibilities + color mixing (display shows “DMX CH17”)
- Connect the DMX input of the laser to the DMX output of the previous unit in the chain or directly to the DMX-output of your controller.
- Press the [FUNC] button until the display shows: DMX (the word [“signal”] blinks on the display if there is no DMX signal present).
- Press the ENTER-button to confirm your choice.
- The DMX CHANNEL MODE (1CH,13CH or 17CH) can be set in [“SETTING”] (see chapter 6 “[Other settings”])

Please refer to the DMX-chart below for the functions of the different channels.

Some more information on DMX512:

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 light effects with a good quality XLR M/F balanced cable. 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!

Each effect in the chain needs to have its proper starting address so it knows which commands from the controller it has to decode.



1 CHANNEL DMX-CONFIGURATION OF THE LASER:

| CHANNEL | VALUE | FUNCTION |
|-----------|---------|---------------------|
| CH 1 MODE | 000-073 | Laser Blackout |
| | 074-110 | PRG show in SD card |
| | 111-147 | ILD show in SD card |
| | 148-165 | AUTO SHOW 1 |
| | 166-184 | AUTO SHOW 2 |
| | 185-202 | MUSIC SHOW 1 |
| | 203-255 | MUSIC SHOW 2 |

13 CHANNEL DMX-CONFIGURATION OF THE LASER:

IMPORTANT REMARK: DMX Channel1 is used to set the different working modes of the laser.







| CHANNEL | VALUE | FUNCTION |
|-----------|---------|-------------------------------------|
| CH 1 MODE | 000-073 | Laser Blackout |
| | 074-110 | PRG show in SD card |
| | 111-147 | ILD show in SD card |
| | 148-165 | AUTO SHOW 1 |
| | 166-184 | AUTO SHOW 2 |
| | 185-202 | MUSIC SHOW 1 |
| | 203-221 | MUSIC SHOW 2 |
| | 222-255 | DMX MODE (Other channels activated) |

In PRG or ILD show mode (CH1 between 074 and 147):

| CHANNEL | VALUE | DESCRIPTION |
|---------|---------|--------------------|
| CH 2 | 000-255 | Folders |
| CH 3 | 000-255 | Shows (PRG or ILD) |

In DMX MODE (DH1 between 222 and 255)

| CHANNEL | VALUE | FUNCTION |
|--------------|---------|--------------------------------------|
| CH 2 PATTERN | 000-255 | 86 Patterns as shown in PATTERN LIST |
| CH 3 Strobe | 000-005 | Laser Blackout |
| | 006-010 | NO Strobing |
| | 011-199 | Strobing from slow to fast |

| | | | |
|------------------------------------|---------|---|--|
| | 200-255 | Strobing to Sound | |
| CH4 X Moving | 000-125 | X position |  |
| | 126-185 | Moving from slow to fast | |
| | 186-225 | Moving with random speed | |
| | 226-245 | Random position | |
| | 246-255 | Sound to random position | |
| CH5 Y Moving | 000-125 | Y position |  |
| | 126-185 | Moving from slow to fast | |
| | 186-225 | Moving with random speed | |
| | 226-245 | Random position | |
| | 246-255 | Sound to random position | |
| CH6 Zooming | 000-010 | Original size |  |
| | 011-087 | Fixed Sizing | |
| | 088-150 | Zooming out | |
| | 151-200 | Zooming in | |
| | 201-255 | Zooming out and in | |
| CH 7 Y AXIS ROLLING | 000-010 | No rolling |  |
| | 011-128 | Fixed rolled position | |
| | 129-255 | Rolling from slow to fast | |
| CH 8 X AXIS ROLLING | 000-010 | No rolling |  |
| | 011-128 | Fixed rolled position | |
| | 129-255 | Rolling from slow to fast | |
| CH 9 Z AXIS ROLLING | 000 | No rolling |  |
| | 001-128 | Fixed rolled position | |
| | 129-192 | Rolling clockwise | |
| | 193-255 | Rolling anticlockwise | |
| CH 10 CLIPPING | 000-010 | Original pattern | |
| | 010-074 | Fixed clipping | |
| | 075-104 | Clipping out | |
| | 105-144 | Clipping in | |
| | 145-184 | Clipping out and in | |
| | 185-224 | Clipping on | |
| | 224-255 | Clipping off | |
| CH11 WAVE | 000-010 | Original pattern | |
| | 011-189 | Wave effect in pattern with speed control | |
| | 190-255 | Wave effect in pattern with amplitude control | |
| CH12 COLOR | 000-016 | White | |
| | 017-033 | Red | |
| | 034-050 | Green | |
| | 051-067 | Blue | |
| | 068-084 | Yellow | |
| | 085-101 | Purple | |
| | 102-118 | Cyan | |
| | 119-135 | White, red, green, blue 4 fixed colors | |
| | 136-152 | Blue, yellow, purple, cyan 4 fixed colors | |
| | 153-169 | Seven colors | |
| | 170-186 | White, red, green, blue 4 colors looping | |
| | 187-203 | Blue, yellow, purple, cyan 4 colors looping | |
| | 204-220 | Seven colors looping | |
| | 221-237 | Random color | |
| | 238-255 | Color changing to sound | |

| | | |
|-------------|---------|----------------------------|
| CH13 | 000-063 | Original pattern |
| | 064-127 | Pattern with bright points |
| | 128-191 | Pattern with blanking |
| | 192-255 | Points to make pattern |

THIS ADDITIONAL 17CH DMX MODE IS ONLY AVAILABLE FROM FIRMWARE V1.2

17 CHANNEL DMX-CONFIGURATION OF THE LASER:







IMPORTANT REMARK: DMX Channel1 is used to set the different working modes of the laser.

| CHANNEL | VALUE | FUNCTION |
|----------------------|---------|-------------------------------------|
| CH 1 Mode | 000-073 | Laser Blackout |
| | 074-110 | PRG show in SD card |
| | 111-147 | ILD show in SD card |
| | 148-165 | AUTO SHOW 1 |
| | 166-184 | AUTO SHOW 2 |
| | 185-202 | MUSIC SHOW 1 |
| | 203-221 | MUSIC SHOW 2 |
| | 222-255 | DMX MODE (Other channels activated) |

In PRG or ILD show mode (CH1 between 074 and 147):

| CHANNEL | VALUE | DESCRIPTION |
|-------------|---------|--------------------|
| CH 2 | 000-255 | Folders |
| CH 3 | 000-255 | Shows (PRG or ILD) |

In DMX MODE (DH1 between 222 and 255)

| CHANNEL | VALUE | FUNCTION | |
|------------------------------------|---------|--------------------------------------|---|
| CH 2 Pattern | 000-255 | 86 Patterns as shown in PATTERN LIST | |
| CH 3 Strobe | 000-005 | Laser Blackout | |
| | 006-010 | NO Strobing | |
| | 011-199 | Strobing from slow to fast | |
| | 200-255 | Strobing to Sound | |
| CH4 X Moving | 000-125 | X position |  |
| | 126-185 | Moving from slow to fast | |
| | 186-225 | Moving with random speed | |
| | 226-245 | Random position | |
| | 246-255 | Sound to random position | |
| CH5 Y Moving | 000-125 | Y position |  |
| | 126-185 | Moving from slow to fast | |
| | 186-225 | Moving with random speed | |
| | 226-245 | Random position | |
| | 246-255 | Sound to random position | |
| CH6 Zooming | 000-010 | Original size |  |
| | 011-087 | Fixed Sizing | |
| | 088-150 | Zooming out | |
| | 151-200 | Zooming in | |
| | 201-255 | Zooming out and in | |
| CH 7 Y AXIS ROLLING | 000-010 | No rolling |  |
| | 011-128 | Fixed rolled position | |
| | 129-255 | Rolling from slow to fast | |
| CH 8 X AXIS ROLLING | 000-010 | No rolling |  |
| | 011-128 | Fixed rolled position | |
| | 129-255 | Rolling from slow to fast | |
| CH 9 Z AXIS | 000 | No rolling |  |
| | 001-128 | Fixed rolled position | |

| | | |
|-----------------------|---------|-----------------------|
| ROLLING | 129-192 | Rolling clockwise |
| | 193-255 | Rolling anticlockwise |
| CH 10 Clipping | 000-010 | Original pattern |
| | 010-074 | Fixed clipping |
| | 075-104 | Clipping out |
| | 105-144 | Clipping in |
| | 145-184 | Clipping out and in |
| | 185-224 | Clipping on |
| | 224-255 | Clipping off |

| | | |
|--------------------|-------------------------|---|
| CH11 X Wave | 000-010 | Original pattern |
| | 011-189 | Wave effect in pattern with speed control |
| | 190-255 | Wave effect in pattern with amplitude control |
| CH12 Y Wave | 000-010 | Original pattern |
| | 011-189 | Wave effect in pattern with speed control |
| | 190-255 | Wave effect in pattern with amplitude control |
| CH13 Color | 000-016 | White |
| | 017-033 | Red |
| | 034-050 | Green |
| | 051-067 | Blue |
| | 068-084 | Yellow |
| | 085-101 | Purple |
| | 102-118 | Cyan |
| | 119-135 | White, red, green, blue 4 fixed colors |
| | 136-152 | Blue, yellow, purple, cyan 4 fixed colors |
| | 153-169 | Seven colors |
| | 170-186 | White, red, green, blue 4 colors looping |
| | 187-203 | Blue, yellow, purple, cyan 4 colors looping |
| | 204-220 | Seven colors looping |
| | 221-237 | Random color |
| 238-255 | Color changing to sound | |
| CH14 | 000-063 | Original pattern |
| | 064-127 | Pattern with bright points |
| | 128-191 | Pattern with blanking |
| | 192-255 | Points to make pattern |
| CH15* RED | 000-255 | Dimmer RED laser from 100% to 0% |
| CH16* GREEN | 000-255 | Dimmer GREEN laser from 100% to 0% |
| CH17* BLUE | 000-255 | Dimmer BLUE laser from 100% to 0% |

***IMPORTANT NOTE:** Channels 15+16+17 can be considered as the “master dimmers for the 3 colors”. This means that channels 15+16+17 should be closed (000) while selecting color presets on CH13.

PATTERN CHART

With DMX-channels 2 you can select one of the pre-programmed patterns:

| DMX | 000-050 | 051-101 | 102-152 | 153-203 | 204-254 | 255 |
|-----|---------|---------|---------|---------|---------|-----|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |
| 12 | | | | | | |
| 13 | | | | | | |
| 14 | | | | | | |
| 15 | | | | | | |
| 16 | | | | | | |
| 17 | | | | | | |

6) OTHER SETTINGS:

- Press the [FUNC] button until the display shows [SETTING]
- Press the [ENTER] button to confirm your choice.
- Press the [UP / DOWN] buttons to browse the special setting options.
- Press the ENTER-button to confirm the setting option you want to adapt:
 - **[MIRROR]:** press the [UP / DOWN] buttons to set the desired image inverting mode. (mirror 1 to 4) This can be useful for example for projections behind a transparent screen
 - **[COLOR]:** press the [UP / DOWN] buttons to set the desired colour option: [SINGLE COLOR], [DOUBLE COLOR] or [MULTICOLOR].
 - **[SHOW SPEED]:** press the [UP / DOWN] buttons to adjust the speed for the show to run.
 - **[VOIC SENS]:** press the [UP / DOWN] buttons to set the desired microphone sensitivity. (from 0 to 100)
 - **[DMX CH]:** press the [UP / DOWN] buttons to choose between 1CH, 13CH and 17CH mode.
- Press the [ENTER] button to confirm your choice.

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.

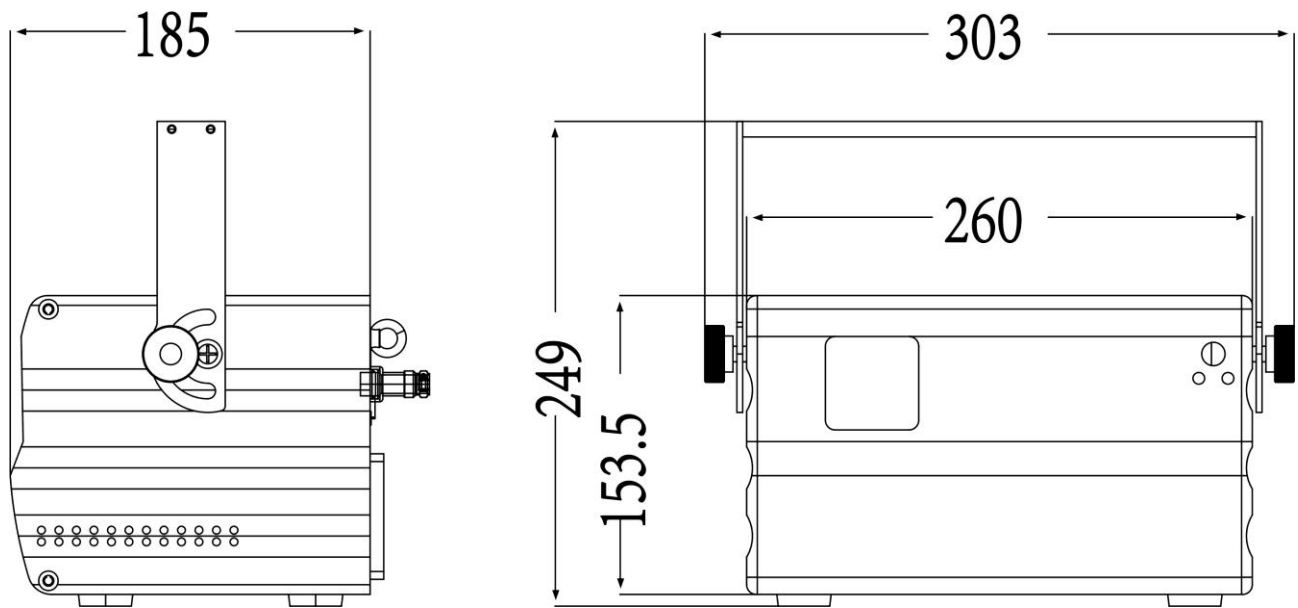
During inspection the following points should be checked:

- 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 and ventilation openings should be cleaned monthly.
- The interior of the device should be cleaned annually by experienced service people.

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

SPECIFICATIONS

| | |
|---------------------------------|---|
| Mains Input: | AC 100~240V, 50/60Hz |
| Fuse: | 250V 1.6A slow blow (20mm glass) |
| Total Power consumption: | 42W |
| Sound Control: | Internal microphone |
| DMX connections: | 3pin XLR male / female |
| DMX channels: | 1, 13 or 17 channels |
| Laser Power: | 500mW Red CW laser ($\lambda = 650\text{nm}$) 500mW Green CW laser ($\lambda = 520\text{nm}$) 1000mW Blue CW laser ($\lambda = 450\text{nm}$) |
| Laser scanners: | high speed 20kHz type |
| Laser radiation class: | Class 4 |
| Laser Safety Standard: | EN 60825-1:2014 for Laser Safety |
| Beam divergence: | 2 mrad |
| MPE / NOHD: | Not relevant, the beam is continuously scattered and moves in all directions (no stationary laser beam) |
| Size (WxHxD): | 26cm x 18,5cm x 15,5cm |
| Weight: | 5,05kg |



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



MAILING LIST

EN: Subscribe today to our mailing list for the latest product news!

FR: Inscrivez-vous à notre liste de distribution si vous souhaitez suivre l'actualité de nos produits!

NL: Abonneer je vandaag nog op onze mailinglijst en ontvang ons laatste product nieuws!

DE: Abonnieren Sie unseren Newsletter und erhalten Sie aktuelle Produktinformationen!

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

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

WWW.BRITEQ-LIGHTING.COM

Copyright © 2022 by BEGLEC NV

't Hofveld 2C ~ B1702 Groot-Bijgaarden ~ Belgium

Reproduction or publication of the content in any manner, without express permission of the publisher, is prohibited.