

User`s Guide

BIOQUANT® LED

Front panel of the device:



Display of the device:

Symbol: battery

POWER

P1-program 1

TIME

FREQUENCIES



Symbol: LED light is on

POWER

TIME

FREQUENCIES

CHARGING – battery is charging

1. General information:

BIOquant LED device was developed and patented by Yalong Trade, s.r.o..

BIOquant LED uses a patented nasal applicator that utilizes optimally-designed LED light and electromagnetic waves.

The product is not invasive, not implanted and poses no risk to the safety of users and other persons.

2. Intended use:

This Device is intended to encourage a general state of health through the physical application of LED generated light and electromagnetic waves in the nasal cavity for brainwave modulation and to support the deliberate wellness effort.

3. Explanation of important terms:

Brainwave modulation/brainwave entrainment/neural entrainment/brainwave synchronization/brainwaves stimulation refer to the hypothesized capacity of the brain to naturally synchronize its brainwaves frequencies with the rhythm of periodic external stimuli.

Diode – Electronic component made from semi-conductor materials.

Light Emitting Diode (LED) – A source of non-coherent electromagnetic waves within a wide or a close waveband around the main wavelength. LEDs can produce visible light as well as invisible electromagnetic waves.

Wellness - The quality of being in good physical and mental health especially when maintained by proper diet and nutrition, daily hydration of fluids, exercise, rest, proper sleep and controlling health risk factors, preventing illness and prolonging life and are the result of deliberate effort.

4. Contraindications:

No contraindications are known for intranasal low power LED applications.

5. Mechanism of the main effect

The mechanism of the main effect is physical and is based on pulses of electromagnetic waves. The method is intranasal. The main effect is brainwave modulation.

6. Users profile:

The device can be operated by persons, who can properly understand the use of the device and follow the instruction of this User's Guide. No limit for Age, Height, Weight or Health. Individuals with altered vision, memory impairment or impaired hearing should not use the device unless under the supervision of an individual who understands the proper use of the device.

7. Connection of device:

- (1) Unpack the device and **remove the protective foil** from the device control panel.
- (2) Insert the Connector of the red light applicator into the left or right opening located on top of the main unit.

8. Placement and location of Nasal Applicator

- Assemble the Nasal Applicator according to **Fig. 1**. Select the Nasal Adapter accordingly to nostril size. Both Nasal Adapter sizes are included in accessories.

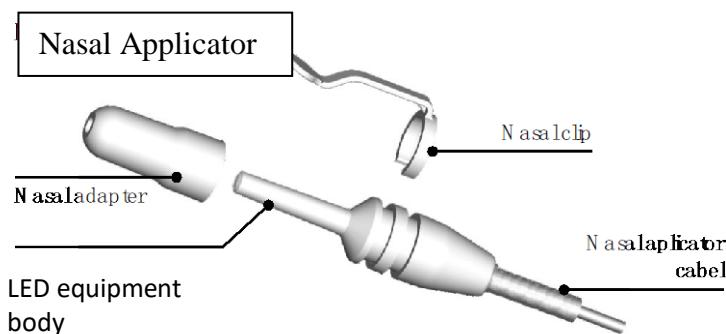


Fig. 1

- Insert the Nasal Applicator into the nasal cavity. The attachment and location of the Nasal Applicator in the nasal cavity opening is important.
- The objective is to expose LED into the nasal cavity (the opening-of the nostril) to achieve a good effect.
- Select the suitable Nasal Adapter (thick or thin according to your comfort).
- The Nasal Clip should be on the outer side of the nose (**Fig. 2**) and hold the Nasal Applicator in the correct position.



Fig.2

If the Nasal Clip pinches the nose, bend it in the center so the pressure is comfortable retaining grip on the nose.

9. The device operation

Note: We recommend drinking at least 8oz of water before starting the application to be properly hydrated during application.

Insert the Nasal Applicator into your nostril.

1, Turn the device on with long pressing .

2, Select the suitable program by pressing the buttons  or .

3, Short press  to start an application.

4, Turn Off the device with a long press  or device will switch off after 1 minute automatically.

10. Applications with Intermittent RED light or NIR electromagnetic waves with frequencies (10-90Hz)

- Commonly used frequency is 10Hz-20Hz for relaxation and support of general wellness effort.
- You can use programs 2x daily.
- Put red light applicator into your nostril.
- Use button  for the following programs:

Table 1:

Program	P1	P2	P3	P4	P5	P6	P7	P8	P9
Types of waves	Alpha waves	Beta waves Middle	Beta waves High	Gamma waves	Gamma waves				
May help with/by:	Relaxation, Meditation	Thinking	Recuperation, Active concentration	Serenity Perception	Focus, activation				
Freq. Hz	10	20	30	40	50	60	70	80	90
Application time min.	12	12	12	12	12	12	12	12	12
Power mW Red light NIR waves	5 10	5 10	5 10	5 10	5 10	5 10	5 10	5 10	5 10

- Start the light for using the device with the  button.
- Programs difference is in the frequency of light/waves pulses from the applicator.
- P1 has the lowest repetition of pulses per second -10Hz and P9 the highest – 90Hz.
- You can choose any frequency from 1-99Hz by choosing the program with the closest frequency, then press the  button three times and the symbol FREQ: will blink on the display and with  or  you can choose the desired frequency.
- Frequencies of 1-99Hz cover range of Alpha – Gamma brainwave frequencies.

11. Applications with RED light or NIR waves with frequency (0Hz)

- The application may help to calm down and with relaxation, good mood, sleep improvement, stress relief and support of deliberate wellness effort.
- You can use the programs twice a day.
- Start with the P3 program for 2 weeks; continue with P2 for 2 weeks and then with P1

for 2 weeks.

- You can continue twice a day with any program (P1...P5) you accept well and feel comfortable.
- Put the red light applicator into the nostril.
- Use the button  for the following programs:

Table 2:

Program	P1	P2	P3	P4	P5
Application time (minutes)	24	12	6	6	6
Power of red light in mW Power of NIR electromagnetic waves in mW	10 20	10 20	10 20	8 16	6 12
Quantity of electromagnetic waves in %	100	50	25	20	15

- Start the light for using the device with the button .
- Programs differ in the number of electromagnetic waves per application.
- P3 has 25%; P2 has 50% of emitted electromagnetic waves in comparison to P1 with 100%.
- The P1 program can be used regularly 2x daily.

12. Use of applicators and device

- You can use device 1x daily with any frequency 1-99Hz and the second time with frequency 0Hz.
- For use of any combination of 2 applicators simultaneously, we recommend reducing application time up to 50%. Press  button 2x and with buttons  and  choose the desired Time. When 2 applicators are used, the display is showing the power of red light. NIR light power is double.



13. Warnings and precautions

- No modifications of this device are allowed.
- Users should continue taking their medications prescribed by their doctor. Only your doctor can instruct the reduction or discontinuation of any medication.
- Users not feeling comfortable during the use of the device, should use program with shorter treatment time and power.
- It is not allowed to carry out the service or maintenance of the device while used by the user.
- A Nasal Adapter used by another person should be replaced with a new one.
- After each use, the Nasal Applicator and Nasal Adapter shall be disinfected with a cotton swab moistened with alcohol.
- If the applicator (with wire) is changed for a new one, the device shall be calibrated by the manufacturer or authorized distributor.
- Keep the device away from heat sources such as radiators and air ducts and protect it from direct sunlight.
- The device should be stored away from corrosive gases in a well-ventilated room to prevent the degradation of components and shortening the device's serviceable life.
- Do not expose to static electricity.
- Should any liquid enter the device, turn off immediately and have it checked by service technicians – contact details at the end of this User Manual.
- Use the device enough distance from strong magnetic fields.
- Do not use the device while it is charging.
- Do not remove the plug from the applicator device unless necessary, to prolong the lifetime of the connectors.
- When moving the device from a cold to warm environment where dew could affect the device components, when moving the device from minimum or maximum storage temperature, ensure that the device temperature is equilibrated to the ambient temperature, leaving the device for 1 hour without switching it.
- Prevent the inhalation or swallowing of small parts.
- Avoid strangulation due to cables and hoses, particularly due to excessive length.
- Store out of reach of children.

14. Extra features:

a) Saving favorite settings:

If you want your program to be displayed after switching the device on, just select the program on display by or and briefly 2x push the push-button . On the next start of the device, these settings will be displayed as the first.

b) Locking push buttons:

If you want to lock push buttons , to avoid their use, you can make it by pressing and holding push-button and short simultaneous pressing push-button . Only push-buttons for switching the device on/off and for light on/off will remain active. For unlocking the locked pushbuttons use the same procedure.

c) **Switching off beeping sound:**

If you want to switch the beeping sound off, when the device is switched on, just push and hold  button and during that briefly press  button. Sound stops beeping. Repeating of action will start beeping again.

15. Charging device

- to charge the device, insert the charger connector into the opening on the underside of the main unit.
- during charging the battery symbol flashes on the display. When charging is complete, the “**CHARGING FULL**” shows on top of the display and the battery symbol stops flashing.
- do not use the device during charging.
- the direct plug-in plug is considered as a disconnect device, please do not place the device in a difficult operation position

16. Specifications and supplied accessories

Specifications

LED type:

Semiconductor LEDs

Wavelength: 660nm LED with red light

Wavelength: 810nm LED with NIR electromagnetic waves

Number of LEDs that can be connected: 2

The output of individual LED:

Used low power electromagnetic waves are LED sources producing non-coherent, high divergent beams. The power decreases with increasing distance. The power of intermittent mode (1-99Hz) is 50% of the continuous mode (0Hz). The used LEDs are safe for use and produce low energy during use. The energy from the device is cold and does not cause any heating of tissue, with the used wavelengths and settings for the application. The device was classified according to the test for photobiological safety as exempt, which means it does not pose any photobiological hazard.

Power:

The 10mW red light by 0Hz, 5mW by 1-99Hz.

The 20mW NIR waves by 0Hz, 10mW by 1-99Hz.

Power of device: < 1W

Operational Conditions:

Operational temperature: 10°C-40°C

Ambient temperature: 20°C-23°C

Relative humidity: 30%-75% (without condensation)

Atmospheric pressure: 800hPa-1060hPa

Altitude: < 2000 m

Storage and Transport

Storage temperature: -20°C-55°C

Relative humidity: 30%-93% (without condensation)

Atmospheric pressure: 700hPa-1060hPa

Battery:

DC 3.7 – 4.2V, rechargeable

Charging time: approximately 3 hours

Typical operation time: approximately 10 hours

Supplied accessories:

- Nasal Applicator cable – (1) LED applicator with Red light 660nm and one NIR LED with 810nm electromagnetic waves
- Nasal Clips – 6,
- Nasal Adapters – 6,

17. Signs and labeling

Symbols used:



Manufacturer



Date of production



Follow Operating Instructions



Serial number



Waste handling



Warning



Directional current



Type BF applied part

The back label on the device:

Device name: BIOQUANT ®
Model: BIOQUANT ® LED

 **Yalong Trade s.r.o., M.Bodickeho 1517/14**
05001 Revúca, Slovak republic

 **SN** Printed at the bottom side of the device

Storage: Store in dry conditions

Use for: Brainwave modulation

Rated input Voltage and current: 5V  1A

Battery 3,7V  1400mAh

IP22



The bottom label:

 **2018 LED**  **20-08-006**

18. Safety

The device was tested on the base of international standards and is safe for regular everyday use.

19. Environmental disposal

■ BIOQUANT ® LED is a battery-powered wellness device; do not dispose of the device or components into general waste or fire (battery hazard). Use electrical waste collection points.

20. Maintenance and troubleshooting

Cleaning and disinfection

- Use a cotton cloth moistened in a neutral solution to clean the device. Do not pour any liquids directly onto the device. Do not immerse the device into any liquids, and do not use any abrasive items to clean. Do not clean with any solvents.
- Use a cotton swab moistened in alcohol to clean the Nasal Applicator and nasal adapter.

Troubleshooting

Use the table below to resolve the listed issues that may arise. In the case of an unlisted issue, please contact the nearest authorized distributor.

Error	Cause	Solution
The device does not switch on	Insufficiently pressed  symbol	Press and hold the  symbol for 3 seconds
	Flat battery	Charge the battery
The device does not switch off	Insufficiently pressed  symbol	Press the  symbol
Weak or no device output	Damaged cable to the LED applicator or incorrectly connected jack from wire to device or damaged main unit	Try a new cable. If no improvement, get the main unit repaired

15. Warranty conditions

- Under the laws of the territory, BIOQUANT LED comes with a 12-24 month warranty for personal-use customers. We provide a 6 -month warranty for companies and legal entities that use the product for service provision.
- If defects are caused by a material defect or a defect arising from the production process, and such are notified in writing immediately after discovery, we will ensure the resolution of such defects.
- Defects will be resolved at our discretion either by product repair or replacement.
- Please send the defective product within Slovakia to Yalong Trade, s.r.o., M. Bodického 1517/14, 050 01 Revúca, Slovak Republic, with proof of purchase or validated warranty card. In other countries send the product to an Authorized distributor. Commercial documents such as invoice or receipt can replace the warranty card for warranty repair. When sending the product in a parcel, please indicate the specific product defect that you are claiming in writing.
- The warranty does not cover defects caused by mechanical damage, transport, storage, improper use, external influences, or any interference with the product by unauthorized persons.
- The warranty also does not cover wear and tear of material caused by the common use of device, consumables, i.e. Nasal Applicators, Nasal Adapters, or Nasal Clips and battery.

- Neither the manufacturer nor authorized distributor shall be liable for damage caused by improper product use.
- Yalong Trade, s.r.o. undertakes to perform post-warranty servicing (customer pays post, packaging, spare parts).
- Contact information of the claims department of manufacturer:
Phone: +421 907 173 910
Email: yalongtrade@gmail.com

Disclaimer:

The manufacturer Yalong Trade, s.r.o reserves the right to make technical or design changes as part of the device's continual improvement process.



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FCC

This device complies with part 18 of the FCC Rules

- (a) The interference potential of the device or system
- (b) Maintenance of the system
- (c) Simple measures that can be taken by the user to correct interference.