

# **Gelo Headband**

User Manual



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# About the manual

The user manual describes functionality, specifications, and operation process of the device in detail.

Before using the device, read the manual to ensure safety.

## Symbols and abbreviations used in the manual



Caution – situations that may lead to injury by you or someone around you.



Warning – situations that may cause damage to the device or other equipment.



Note – recommendations or additional information.

This user manual contains the following abbreviations:

OS – operating system;

PC – personal computer/laptop;

SW – software.

## Safety measures



- Do not use a damaged USB cable or improperly secured wall sockets.
- Avoid folding or damaging USB cable while charging the device.
- Do not use the device during a thunderstorm (risk of electric shock increases).
- Do not place the device on or inside of heating devices (microwave ovens, stoves, or radiators).
- Do not allow moisture ingress in the device.



- Do not disassemble or repair the product yourself. In case of product failure, contact the manufacturer's technical support service.
- Remember that excessively high or low temperatures can cause damage to the device.
- Dispose of this device at designated collection points. Contact your local authorities for further instructions on disposing of the product.
- Place the device on skin areas free from all kinds of damage.

# About the device

## Product designation

The device is intended to be used together with the Gelo apps.

The device allows recording bio potentials generated by the brain in real time.

## Technical specifications

Platform support	Android, Windows 10
Connection interface	Bluetooth 5.0
Recorded signal	EEG
Number of channels of registration	4
Range for each channel	+/- 0.4 ln
Noise level	no more than 4 mv from peak to peak
Working time	up to 8 hours
Battery charge current	200 mA
Battery full charge time	up to 4 hours

## Supply package

Description	Q-ty (pcs.)
Gelo Headband device	1
USB 2.0 cable	1
Bluetooth 5.0 adapter*	1
Foam electrodes pads	4

\* Available as an option for PC operation.

## Requirements to the energy source

The USB 2.0 cable can be connected to any power source with a USB connector (5V) providing a charging current of at least 100 mA.

## Marking

The marking on the device contains the following information:

- Device name;
- Serial number;
- Information on the manufacturer.

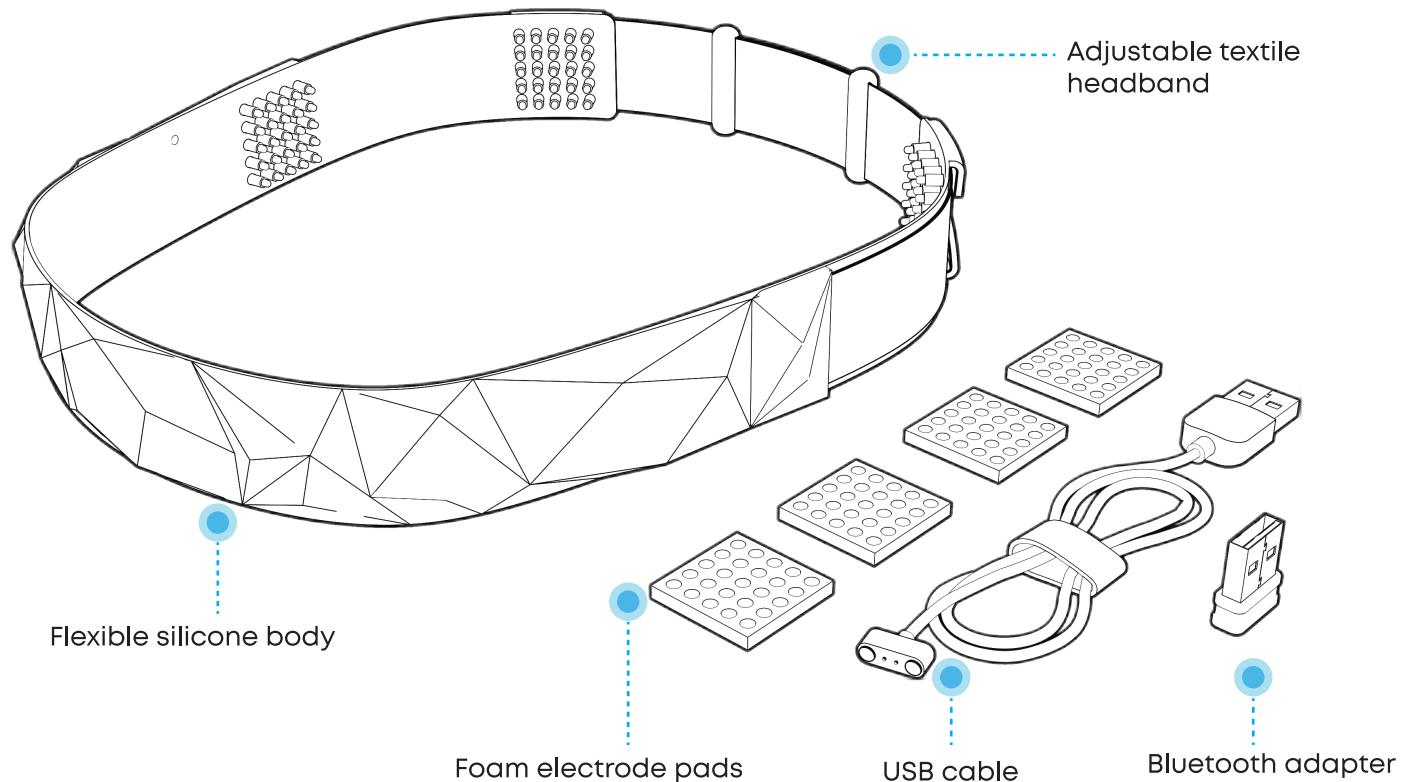
The marking on the package contains the following information:

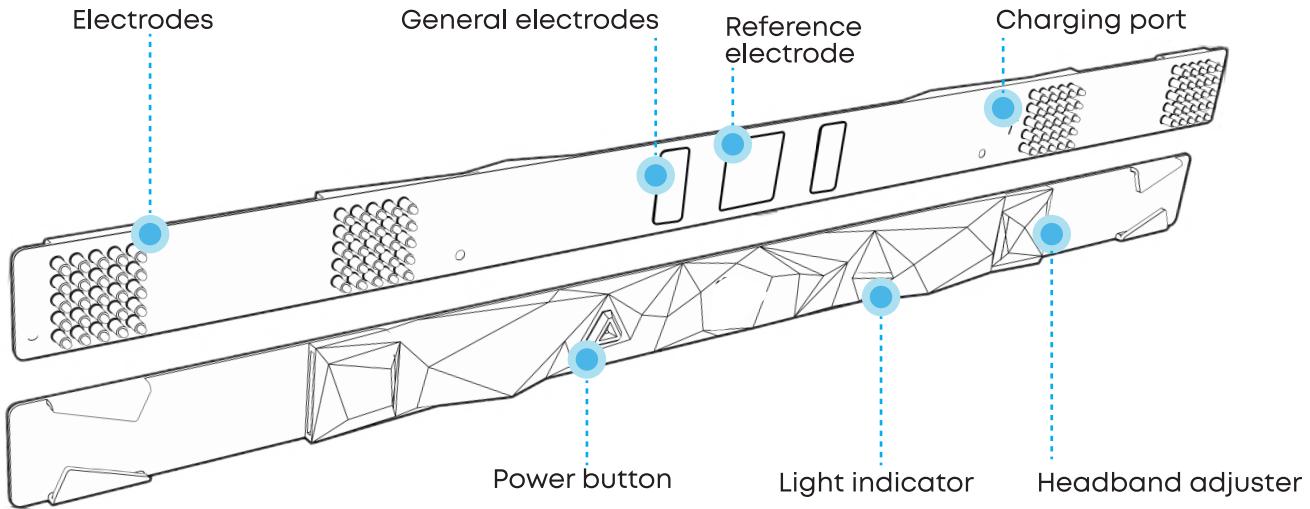
- Manufacturer's name or trade mark;
- Device name;
- Symbols and abbreviations.

# Start of work

## General information about the device

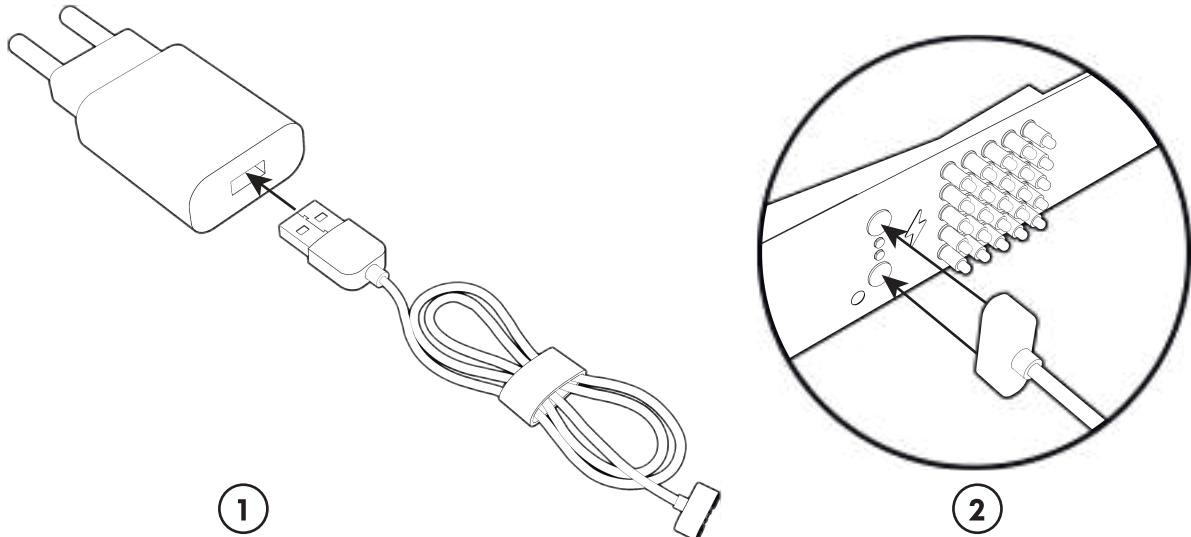
Device appearance and components:





#### Device operation modes:

- Standby mode. The device is not connected. At the moment of device connection, light indicator turns on for 2 seconds, then it flashes once in 2 seconds.
- Connection mode. The device is connected (to a phone or PC). Light indicator flashes continuously.
- Registration mode. The device registers the signal. Light indicator flashes with a long light once in 2 seconds.
- Discharging mode. The device switches to this mode in case of low charge. Light indicator does not flash. The device should be charged.

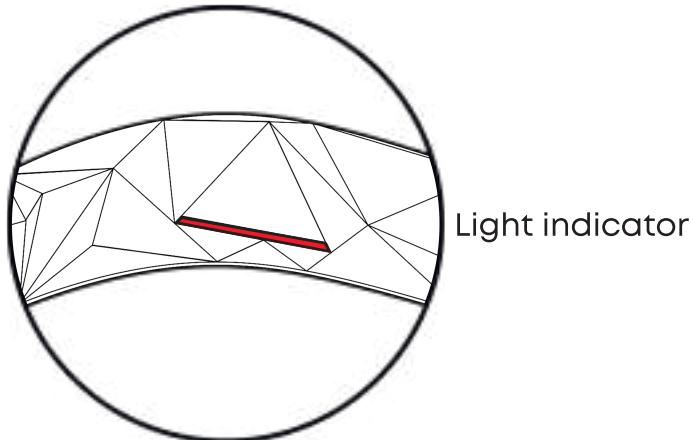


## Device charging

To charge the device, perform the following actions:

1. Connect USB cable to the power-supply unit (plug).
2. Bring the cable to the Gelo Headband device, connect it to the charging place (two dots that are similar to the cable in size), it automatically fits due to the in-built magnet.

 The battery is fully charged in under 4 hours.



#### Modes of the device light indicator operation

- Light indicator is off – charger is not connected to the power source
- Light indicator glows red – charging is complete
- Light indicator flashes red once in 2 seconds – charging is in progress



## Device preparation to operation

Procedure for using the device:

### 1. Unpack the device:

Take the device out of the tray.

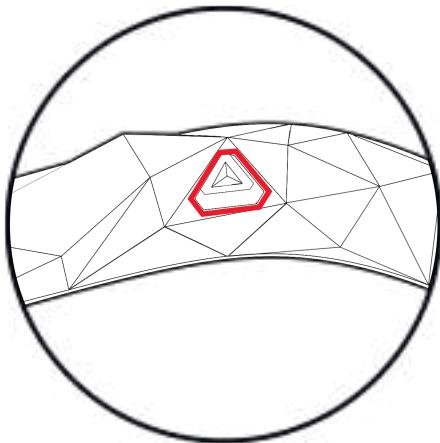
Turn the device on by pressing the triangular power button located on the outside right part of the headband and hold it for a few seconds until green signal.

Place the device on your head, regarding the location of the reference and general electrodes on the forehead and the orientation of the inscription "front" in the area of the general electrode.

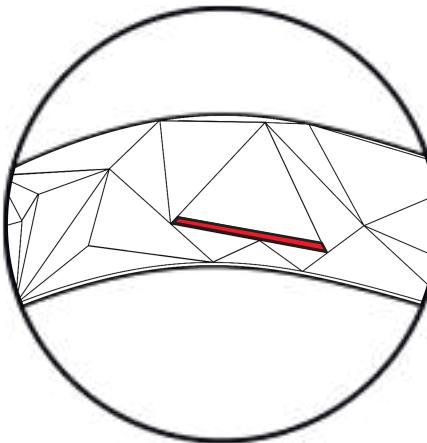


Before using the device, you should wipe your forehead with a wet cloth (the places where the general and reference electrodes contact), as well as all the electrodes of the device.

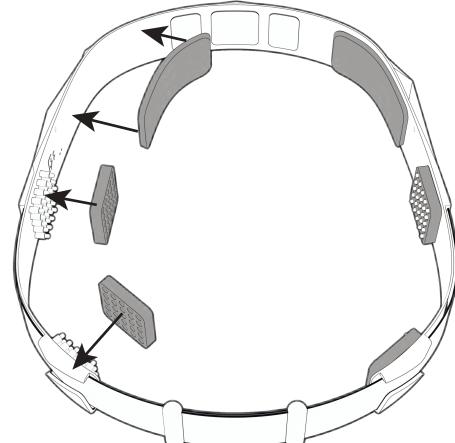
This will allow you to get a high-quality signal.



Device power button



Light indicator



Device with the foam pads attached

2. Ensure that electrodes set in the back of the head and above ears have sufficient contact with the skin.
3. If required, place foam pads on the device by positioning them on the electrodes (4 pcs). They allow reducing electrodes pressure to the head.  
It is advised to install soft pads between the forehead general electrodes and side electrodes for comfortable use.  
To do this, release protective film from the pads and carefully stick them to the inner side of the headband.

 To improve signal quality, it is advised to wipe reference and general electrodes with wet cloth and place wet foam pads, however, it is not mandatory.

## Device maintenance



Time for fully charging the battery is no longer than 4 hours.



Do not allow moisture inside the device!

For periodic preventive cleaning of the electrodes, it is recommended to use wet alcohol wipes

## Manufacturer's warranty

The warranty does not apply:

- if the consumer does not comply with the conditions and rules of operation;
- in case of unauthorized access inside the device,
- when making design changes to the device;
- when self-repairing the device during the warranty period.

The warranty period is 12 months.

The warranty storage period is 6 months from the date of production.

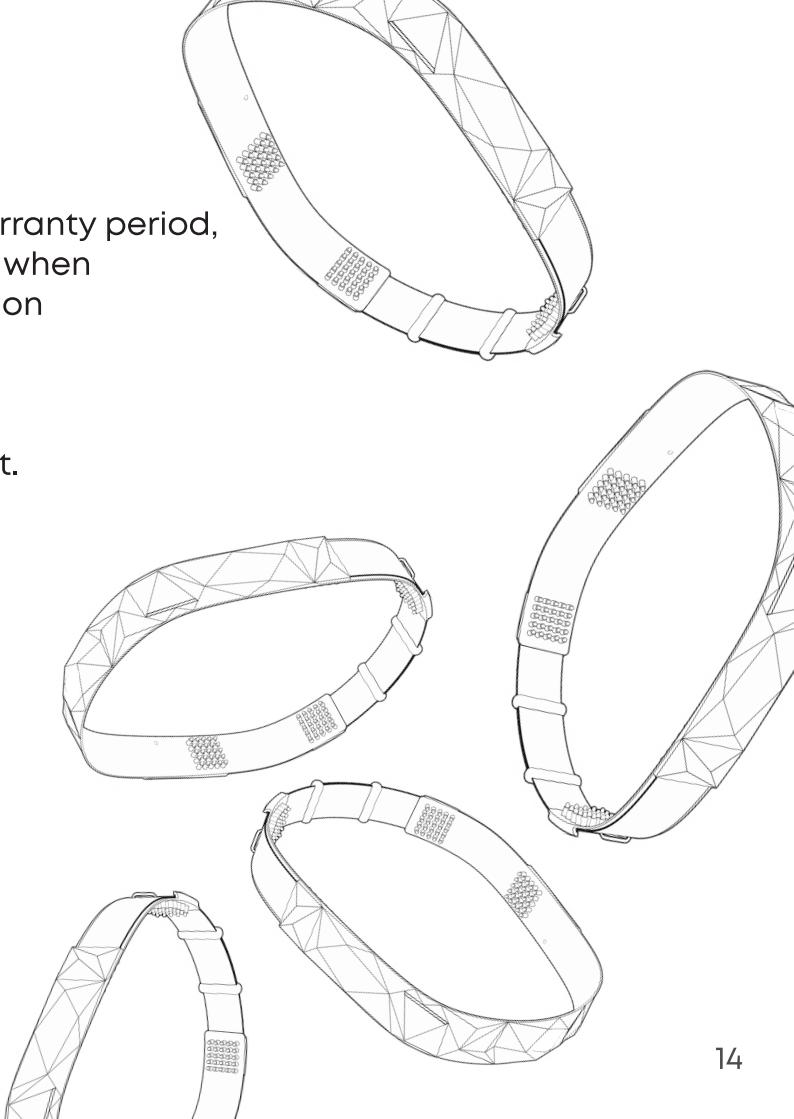
In the case of repair within the established warranty period, the warranty period is extended by the period when the product was not operated due to elimination of the defects detected (repair period).

If the device is replaced, the warranty period is re-established from the date of replacement.

Warranty repair is carried out by the manufacturer at manufacturer's expense.

Post-warranty repair is performed by the manufacturer at user's expense.

If the device fails during the warranty period as a result of improper use, the repair is carried out at user's expense.



## Debugging

Please, read the list of the standard issues and ways of eliminating them, prior to contacting technical support.

Device does not connect to PC or a mobile device:

- Make sure the device is in the connection mode, and light indicator flashes with green light.
- Search the device with your computer again.
- Put in the Bluetooth unit from the device package.

Light indicator:

- The device battery is depleted. Charge it according to the Device Charging section. Then try to switch it on. Ensure that the device is in the standby mode.

In the electrode, some of the contacts have failed:

- it is allowed to sink the spring contact or a complete loss of contact from one electrode in an amount of no more than 4 pieces. This will not affect the quality of the recorded signal.

Manufacturer:

Gelo BCI Ltd., EU

## FCC Warning

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- reorient or relocate the receiving antenna;
- increase the separation between the equipment and receiver;
- connect the equipment into an outlet on a circuit different from that to which the receiver is connected;
- consult the dealer or an experienced radio/TV technician for help.

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.

FCC ID:





