Firstbeat Bodyguard 3 User Manual

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1. Introduction

Firstbeat Bodyguard 3 is a heart rate and motion monitoring device used in Firstbeat Life[™] for monitoring your well-being during daily life. It enables easy, reliable and continuous daily heartbeat monitoring and recording. The Bodyguard 3 is not a medical device, with the help of which diseases could be discovered or cured. This user manual will guide you in using the Bodyguard 3.



- 1. Firstbeat BG3 recorder
- 2. Firstbeat BG3 electrode cable
- 3. USB charging cable.

2. Charging

The battery of Firstbeat Bodyguard 3 is rechargeable by connecting the device to computer's USB port or any USB chargers from reputable, well known mobile phone manufacturers. If you use other types of chargers, do not use cheap off brand chargers and ensure the power output does not exceed 15W.

It is recommended to use only the cable provided in the device package for charging the Bodyguard 3. In absence of the original cable, any standard, good quality USB-C can be used with the charger.

Do not charge the device while it is attached directly to the skin.

The USB-C connector of the device can be accessed by gently pulling off the bottom cover of the Bodyguard 3. Please see pictures below.



a. Using the Firstbeat Bodyguard 3 for the first time

New device will first be in factory mode and it cannot then be paired to Firstbeat Life application. Device needs to be awakened from the factory mode by charging it.

Charge device fully by connecting device to computer or to a USB-wall charger. Suitable chargers are described in the beginning of chapter 2.

When device is fully charged, the green LED will stay on continuously. Then you can pair the device to your Firstbeat Life account as instructed in chapter 3.

b. LED signal indicators when device is connected to USB-port (=during charging):

ignals

LED s		Device state	
••••	Green light blinking	Charging	
	Green light on	Fully Charged	
	Red light on	Error – if your device shows this, contact support (contact info at the end of this manual)	

If Red or Blue lights show during the charging, please unplug device from the USB-port and plug it in again. And if possible try another USB-port.

Note! To ensure the product is functioning to its full potential and to avoid damage to the battery the device must be charged at least once every four (4) months.

3. Pairing Firstbeat Bodyguard 3 with a Firstbeat LifeTM account

- 1. Check in your smartphone's settings that Bluetooth is turned on.
- 2. Install the Firstbeat Life application to your smartphone from the App Store or Play Store (if not already installed).
- 3. Start the Firstbeat Life application and follow the instructions for creating an account, or sign in to your account if you already have an account.
- 4. Follow app instructions for pairing.

4. How to make a measurement

Note! Firstbeat Life measurement is not recommended if you have a serious heart disease or a continuous arrhytmia.

Starting the measurement

- 1. Choose Start new measurement from Firstbeat Life application's HOME tab.
- 2. Follow the app's instructions in case the device firmware needs to be updated before a new measurement.

Application instructs you on the sufficient quantity of electrodes .

Application shows also Firstbeat Bodyguard 3 status. When starting the measurement, device must always be connected via Bluetooth and have at least 60% of battery charge.

3. Follow the below instructions to attach the electrodes correctly and to ensure a successful measurement.

Note! Never wear the Bodyguard 3 during a shower, swimming or sauna. The device is not waterproof.

When you take the device off for going into, for example, the shower, the measurement will automatically be paused and it will continue after you attach the device again after the shower (with new electrodes). Note: Dry your skin carefully and let it dry for some minutes before attaching the electrodes!



Electrodes information

The Firstbeat Bodyguard 3 uses clinical grade medically approved electrodes for heart rate monitoring. This is required to ensure accurate and reliable heart rate variability monitoring with millisecond resolution which is necessary for advanced Firstbeat Life analytics. Careful attachment and use of the electrodes and the device will ensure that your analysis is successful and accurate.

Firstbeat strongly recommends to use the electrodes provided by Firstbeat. Firstbeat provides only widely used medical electrodes which have been clinically tested and approved for human use even for medical purposes. Use of other electrodes may deteriorate measurement accuracy and **Firstbeat is not liable for any use of such other electrodes**. Note! If you have hair on your chest, it is recommended to shave the electrode contact area before attaching electrodes. This will improve contact and also ease the detachment of the electrodes after monitoring.



recorder (the larger end of the device) and to the small circular end of the electrode cable.

. Remove the covers.

 Attach the recorder to the right side of the body under the collarbone and the electrode cable end to the left side of the body on the rib cage.

4. The measurement starts and green LED starts blinking when the device is attached to body and measurement is started from app. Note: The light is easiest to see in a dark room.

- After attaching electrodes make sure that the electrodes hold and the contact to skin is secure.
- It is recommended to change the electrodes once per day, e.g. after taking a shower, after heavy sweating or if they become loose. You can change the electrode location slightly when changing them, if your skin feels irritated.

Electrodes storing and skin care

Store the electrodes in their delivery bag. After opening, close the bag carefully making sure to keep it as air tight as possible in a dry place at room temperature. Correctly stored electrodes are usable about 3 months after bag opening. Electrodes not stored correctly and in contact with air for extended periods of time may lose their accuracy. If the 'use by' date of your electrodes has expired please don't use them.

In rare cases, the electrode adhesive or gel may cause skin irritation in long term use, especially for those with particularly sensitive skin. To minimize any potential problems please follow these instructions:

- Only use electrodes provided by Firstbeat because they are clinically tested, safe and approved even for medical use.
- Clean the electrode placement spots carefully (below right clavicle and left rib cage) before attaching electrodes, especially if there is sweat or some impurity. Only attach electrodes on dry and clean skin. Attaching electrodes on the moist or dirty skin may increase the risk for skin irritation.
- Add a thin layer of non-greasy basic lotion to the spots where you will attach the electrodes and let the basic lotion dry out carefully (at least 10 min) to avoid electrode contact problems to the skin.

- When removing electrodes, it is recommended to do it for example in the shower to minimize mechanical stress to the skin. WARNING: Remove the Bodyguard 3 device and cable before doing this.
- Also when removing electrode adhesive residue from skin it is recommended to do it gently with a mild water and soap solution and to avoid excessively rubbing the skin.
- Change the electrode placement on the skin when replacing electrodes.
- Repeat all the above steps every time when attaching new electrodes or removing old ones.

During the measurement

When Bodyguard 3 is attached correctly and measurement started from Firstbeat Life application, device's blinking green light indicates that measurement is ongoing.

From Life app **HOME** tab user is able to make journal entries during the measurement.

Application doesn't need to be open during the measurement. Also after measurement is started Bluetooth can be turned off, but when synchronizing the data Bluetooth must be on.

LED signals indications when device is not attached to USB port:
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LED s ignals		Device state	
••••	Green light blinking	Measurement ongoing	
	Green light on	 Ready for the measurement. If showing when device is attached to torso: Measurement hasn't started in Firstbeat Life app Device doesn't recognize heart rate (Check there attachment of electrodes and cable) 	
•••	Red light blinking	Device battery is low, requires charging	
	Red light on	Error – if your device shows this, contact support (contact info at the end of this manual)	
••••	Blue light blinking (not easy to see in bright light)	Requires pairing to Firstbeat Life app	

Ending the measurement

When you have completed the intended measurement time, you can end the measurement and after the data has been synchronized from device to Firstbeat Life application and analysed, you will be able to open the measurement report for viewing your results.

Please note that it is recommended to charge device fully after every measurement. See more information from chapter 2.

5. Clearing the data from the Firstbeat Bodyguard

Bodyguard 3 is a personal device. If the user stops using the device, they may unpair the Bodyguard 3 from their Firstbeat Life account, if they want to erase all data from the device. Instructions for doing so can be found in the Firstbeat Life application. If they start using the device again at a later time, they will then need to pair the Bodyguard 3 with their Firstbeat Life account again. If user has erased their account, they may create a new account at a later time.

Note! Unpairing the Bodyguard 3 will clear all user data from the device, even possible measurement data that hasn't been uploaded to the cloud yet. If unpairing hasn't been done and the same person later creates a new account, the user data is cleared when the device is paired to a new account.

6. Signal light explanations

LED signals might indicate different features if device is connect to USB-port or not.

*New device will be in factory mode and cannot be waken with movement, device must connect to USB-port first.

NOTE: Without connection to USB-port or detecting heart rate, Device's light on or blinking period is **20 seconds**. After that LED indications go off, and to get LED signal again, move the device.

	LED s		Connected to USB port	NOT connected to USB port
ign	••••	Green light blinking	Charging	Measurement ongoing
	als	Green light on	Device fully charged	 Ready for the measurement. If showing when device is attached to body: 1. Measurement hasn't started in Life app 2. Device doesn't recognize heart rate (Check there attachment of electrodes and cable)
_	••••	Red light blinking	Not charging, check USB connection	Device battery is low, requires charging
-		Red light on	Error – if your device shows this, contact support (contact info at the end of this manual)	Error – if your device shows this, contact support (contact info at the end of this manual)
-	••••	Blue light blinking (not easy to see in bright light)	Not charging, check USB connection	Requires pairing to Life app
	••••	Magenta light blinking (may look quite similar to red)	Firmware update ongoing	Firmware update ongoing
		No light	Not charging, check USB connection	Move the device to get LED signal*

7. Updating Firstbeat Bodyguard 3 Firmware

Firstbeat Bodyguard 3 firmware can be updated in Firstbeat Life application. The app will notify you if the firmware should be updated.

When device is connected normally to Life app you can update the firmware under "Measurement device paired" in Profile tab.

During the update Magenta light will blink (may look quite similar to red) and after it you may see red blinking because after update it may take some time for the Bodyguard 3 to get again correct battery status.

8. Storing the Firstbeat Bodyguard 3

Before storing, recharge battery of the device. Battery needs to be charged every 4 months, long period of empty battery might reduce battery life.

Store device cable unplugged, and do not pull, tie or knot the cable.

Store the Product in a soft storage/case when possible, in a dry and average room temperature.

Avoid direct sun light to the device.

9. Cleaning the Firstbeat Bodyguard 3

Before cleaning the device make sure that it is not connected to USB cable and that the bottom cover with electrode cable is well attached to the Bodyguard 3.

A lint-free, soft microfiber cleaning cloth is ideal for cleaning your device.

Gently wipe the front, back and cable of your device with the microfiber cloth.

You may dampen the corner of the microfiber cloth with a small amount of water or mild soap water.

Do not use alcohol containing substances for cleaning the device.

Do not introduce water to USB connector area.

10. Technical Information

Size

• Weight: 26 grams

Battery and Storage

- Battery life: up to 7 days in a continuous 24/7 measurement (recommended measurement length is 1 to 5 days), 6 months in standby mode
- Charging time from empty to full: approximately 75 minutes
- Storage capacity: up to 20 days
- Battery capacity can be checked with the Firstbeat Life application.

Other details

- Measurement temperature: +5 +45 C°
- Storage temperature: -20 +60 C°

11. Disposal of the Firstbeat Bodyguard 3

The user may keep the Device in their possession for possible future measurements. Broken or redundant Devices may be discarded at a waste electronic equipment collection facility. Do not attempt to burn or crush the device as it might result in an explosion. Used electrodes are disposed of as household waste.

12. Certification Statements

EC Declaration of Conformity

English: Hereby, Firstbeat Technologies Oy declares that the radio equipment type in Firstbeat Bodyguard 3 Instruments is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following Internet address: <u>https://www.firstbeat.com/en/firstbeat-life-documents/bodyguard3-declaration-of-conformity/</u>

FCC Requirements for Operation in the United States

FCC Information to User

This product does not contain any user serviceable components and is to be used with approved, internal antennas only. Any product changes or modifications will invalidate all applicable regulatory certifications and approvals.

FCC Guidelines for Human Exposure

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Federal Communications Commission Statement

This device complies with Part 15 Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

FCC Radio Frequency Interference Warnings & Instructions

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 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 methods:

- Increase the separation between the equipment and the receiver.
- Connect the equipment into an electrical outlet on a circuit different from that which the radio receiver is connected
- Consult the dealer or and experienced radio/TV technician for help

FCC Caution

- Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
- 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.

Canadian Department of Communications Radio Interference Regulations

This Class [B] digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

Innovation, Science and Economic Development Canada (ISED) regulatory information

This device complies with Innovation, Science and Economic Development Canada's licenceexempt RSS(s). 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.

Ce dispositif est conforme à la norme CNR 'Innovation, Sciences et Développement économique Canada applicable aux appareils radio exempts de licence. Son fonctionnement est sujet aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.

Radiation exposure statement / Déclaration d'exposition aux radiations

This device complies with ISED radiation exposure limits set forth for an uncontrolled environment.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé.

RF Interface:

- Frequency range: 2400 MHz to 2483.5 MHz
- Max RF output power: 0 dBm
- Type of antenna: PWB strip line (IFA)
- Ant. frequency band: 2400 MHz to 2483.5 MHz
- Antenna gain: -2.5 dBi

13. Safety Information

• Do not charge the device when it is attached to the body.

- Do not open, dismantle or modify the device. The device battery is not replaceable by the user. If the device is opened by an unauthorized representative, the warranty will be null and void.
- Do not drop, shock or impact the device.
- Exposing the Bodyguard 3 to extremely high temperature or extremely low air pressure can result in explosion or leakage of flammable liquid gas.
- Do not store the device in wet or humid conditions.
- Don't wear the device in shower, in sauna or when swimming or bathing.
- Do not eat or swallow the device.
- Failure to comply with the instructions may cause damage to the device.

14. Contact Information

In case you encounter any problems, please check the support website <u>www.firstbeatlife.com/support</u> for help or contact Firstbeat support by phone +358 8 415 41 726, Mon-Fri 9am-4pm (GMT/BST+2, Finnish business days) or by email <u>support@firstbeat.com</u>.

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