

# BioBalance



Item no. 462214

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**Operating Manual**  
Item no. 451600-0423

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## **Intended Use**

The BioBalance is a Pulsed Electromagnetic Field (PEMF) Therapy device. It has been designed to generate a specific frequency signal for the applicator, which introduces a magnetic field into the body. It is intended to be used as a health and wellness device.

## **Safety Instructions**

Please read the operating instructions carefully before using the BioBalance.

To ensure safe use of the BioBalance:

- Do not use the BioBalance if it is not working properly or if it has been damaged in any way.
- The USB connector serves exclusively for software updates. Do not connect any device or cord other than a USB flash drive with software update to the USB connector of the BioBalance device. Do not try to charge an external appliance with the USB connector.
- Only use the BioBalance with original accessories.
- Keep the BioBalance away from water or other liquids. Do not drop the BioBalance, use it inappropriately, or expose it to extreme temperatures or high levels of humidity (not less than 10° C/50° F or more than 40° C/100° F or a relative humidity greater than 90%)
- To avoid reciprocal interference, the BioBalance should not be operated in the vicinity of other electronic devices. If this is not possible, various unit functions should be closely monitored during operation so that proper use in accordance with the regulations is ensured.

## **Attention / Contraindications**

Do not use the BioBalance when you have implanted electrical devices including pacemakers, cochlear implants, intrathecal pumps, etc. PEMFs have not been proven safe for pregnant women. People with overactive adrenal or thyroid glands should use PEMFs with caution, as glands can become over-stimulated and fatigued. Conditions with active bleeding should be controlled before PEMFs are applied. Users known to be especially vulnerable to cardiac rhythm disturbances should exercise caution when using high-intensity PEMFs near the heart.

## Technical Information

### Description of the symbols



Manufacturer



Attention: Read accompanying documents, especially user manual!



Class III device



Date of manufacture



Catalogue number



Serial number



Do not dispose of the appliance with the normal household waste at the end of its life, but hand it in at an official collection point for recycling. By doing this you will help to protect the environment.



By labelling with CE mark, the manufacturer asserts that the product fulfils all relevant requirements of the respective EC Directives. A conformation assessment process has been successfully completed.



Stand by



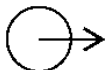
Battery check



Polarity of DC power connector



USB connector



Output

## Technical Data

### Operating voltage

External mains adapter SNT 15-2000	100-240 VAC / 50 - 60 Hz / 700 mA
Max. current consumption on 110 VAC	ca. 49 mA
Max. current consumption on 230 VAC	ca. 34 mA
Internal lithium-ion battery	10.8 V / 2200 mAh
Charging time	5 h

### Output

Maximum Output voltage with $R_L = 220 \Omega$	20V peak-to-peak (+/- 4 V)
Maximum magnetic field Mat-S	10 Gauss
Maximum magnetic field Mat-L	5 Gauss

### Program parameters

Therapy duration	10 min – 12 h
Basic frequency	300, 400, 600, 800 and 1000 Hz
Low frequency modulation	0.5 - 1000 Hz (+/- 1 %)

### Contact control

Contact control turns on at:	$\geq 20$ % of maximum intensity
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### Size and weight

Size (H x B x D):	6.5 x 22 x 17 cm
Weight (without accessories):	830 g

### Working conditions

Temperature range:	10-40 °C
Relative humidity:	30-70 %

### Storing conditions

Temperature range:	-10-55 °C
Relative humidity:	10-90 %

## Delivery Content

<b>Item no.</b>	<b>Description</b>	<b>Quantity</b>
462214	BioBalance	1
462147	Mains Adapter SNT 15-2000	1
462283	Small magnetic field applicator      BioBalance-Mat-S	1
462284	Full body magnetic field applicator      BioBalance-Mat-L	1
451600-0423	Operating manual	1

## Accessories

The BioBalance may only be used together with the accessories referred to in this chapter. The manufacturer cannot guarantee the safety of the BioBalance if it is not used with original accessories.

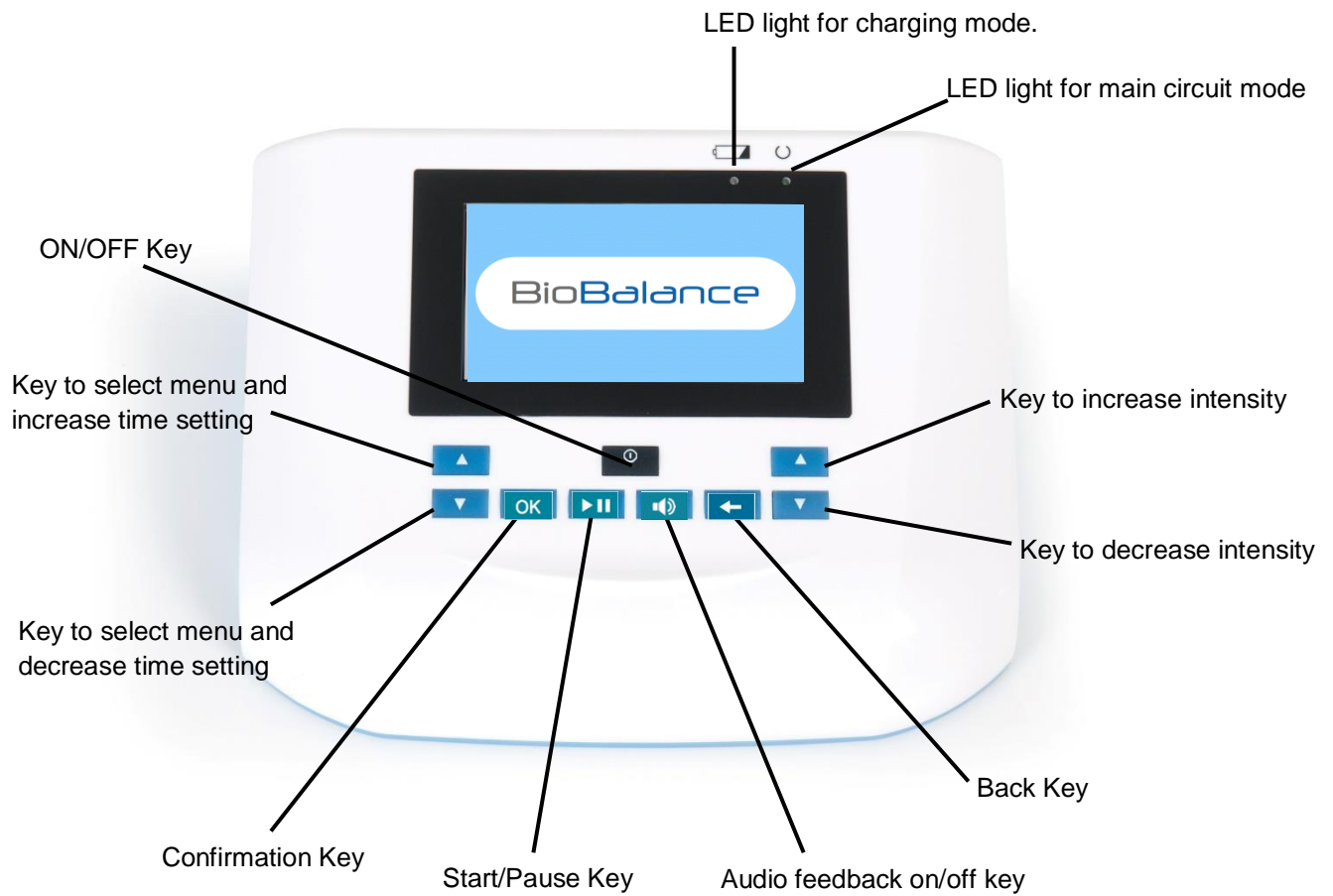
### Mains Adapter and Cables

<b>Item no.</b>	<b>Description</b>	<b>Quantity</b>
462147	Mains Adapter SNT 15-2000US	1
462283	Small magnetic field applicator      BioBalance-Mat-S	1
462284	Full body magnetic field applicator      BioBalance-Mat-L	1

### Combination with Original Accessories

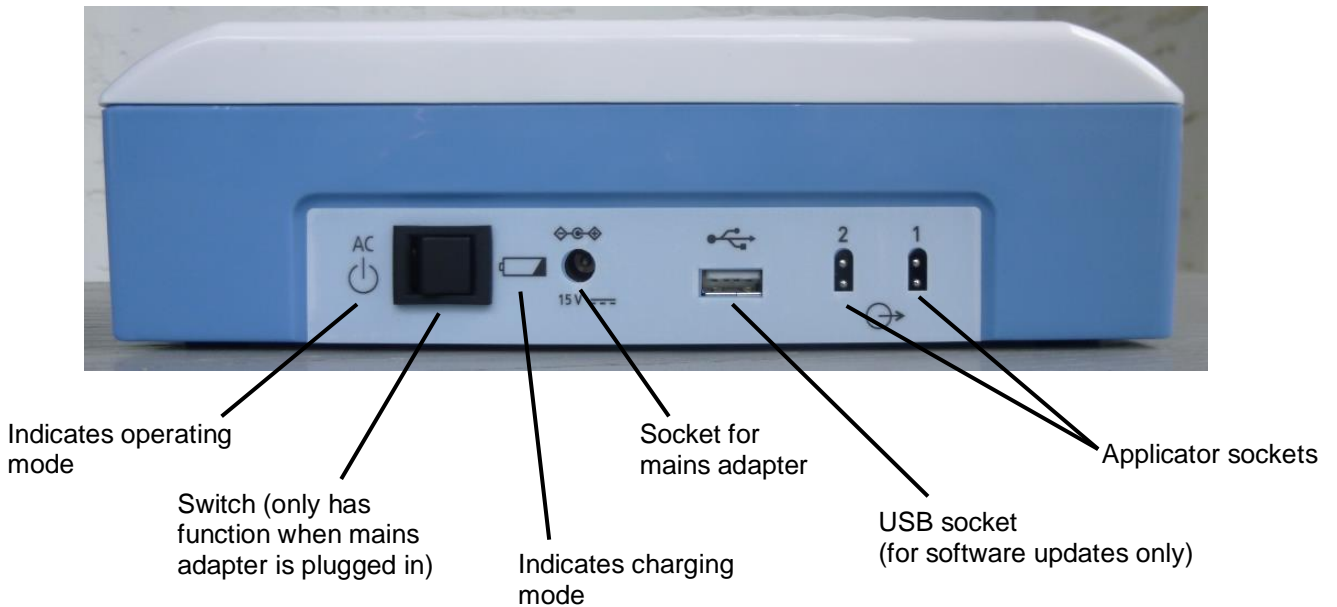
The BioBalance is a CE marked device and may therefore only be used together with the accessories listed in the chapter Accessories of this manual. The manufacturer and dealer cannot guarantee the security of the device if not used with original accessories. Use of non-original accessories may void the warranty.

## Control Unit Functions (Front Panel)



An explanation of key functions is also noted on the bottom of the display screen.

## Control Unit Functions (Rear Panel)



*\*The switch from battery operation to mains operation is automatic if the mains adapter is connected. The unit will not run on battery power if the mains adapter is connected. The unit cannot be charged while in operation.*

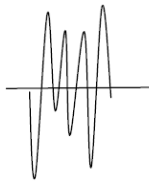


## BioBalance Waveform

The BioBalance signal is made up of two separate waveforms: the Basic Signal and the User Signal. The Basic Signal is present in 3 of the 6 programs and cannot be adjusted. The User Signal varies from program to program and is what the user selects. User Signal frequencies change based on the chosen program. These two signals are layered together to create a unique stimulation pattern.

### Basic signal

The basic signal waveform is a modulated signal with the frequencies of 300, 400, 600, 800 and 1000 Hz.



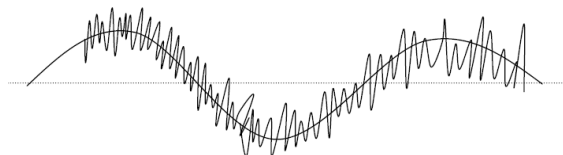
### User Signal

The low frequency form has a range from 0.5Hz to 1000 Hz, depending on chosen program.



### Output signal

The output signal is a modulated signal from the basic signal and the low frequency signal.



## Power Mode

You can use the device directly with the main adapter or with the rechargeable battery in the device. The current power mode is shown in the upper right corner of the display.





The device is operating on mains circuit.





The device is operating on battery.

## Charging the Battery / Battery Operation



If you wish to use the BioBalance on battery, you first need to charge it.

Connect the mains adapter to the socket at the rear side of the device. Turn the power switch to the position “charging battery” . Connect the mains adapter to your mains circuit outlet. The left LED on the upper side of the control box will illuminate red while the device is charging. The LED will illuminate green once the battery is fully charged. **The device cannot be used while charging.** Once the device is fully charged, disconnect the mains adapter from the mains circuit and from the device and store it in the transportation case. Turn the power switch back to the power mode .

The battery level is indicated on the upper right side of the display with the  symbol. The battery needs to be recharged once the battery symbol doesn't have any bars . Please note: The device is automatically in battery operation if the mains adapter is not connected to the device.

Important! Please handle the mains adapter with care and do not drop it.

## Operation on Mains Circuit


Connect the mains adapter to the socket at the rear side of the device. Turn the power switch to the position “power mode” . Connect the mains adapter to your mains circuit outlet. The LED on the right upper side of the case will illuminate green and the plug symbol  in the top right corner of the display screen indicate that the device is operating on mains circuit.

*\*Please note: The battery is not recharged during mains circuit operation.*

**Important!** If you turn the switch to the “battery mode” position while the device is connected to the mains circuit, the device will automatically turn OFF and will not be available for stimulation purpose. The device automatically switches from battery operation to mains circuit operation if a mains adapter is connected to the device.


# Operating the BioBalance

## Switching the device ON

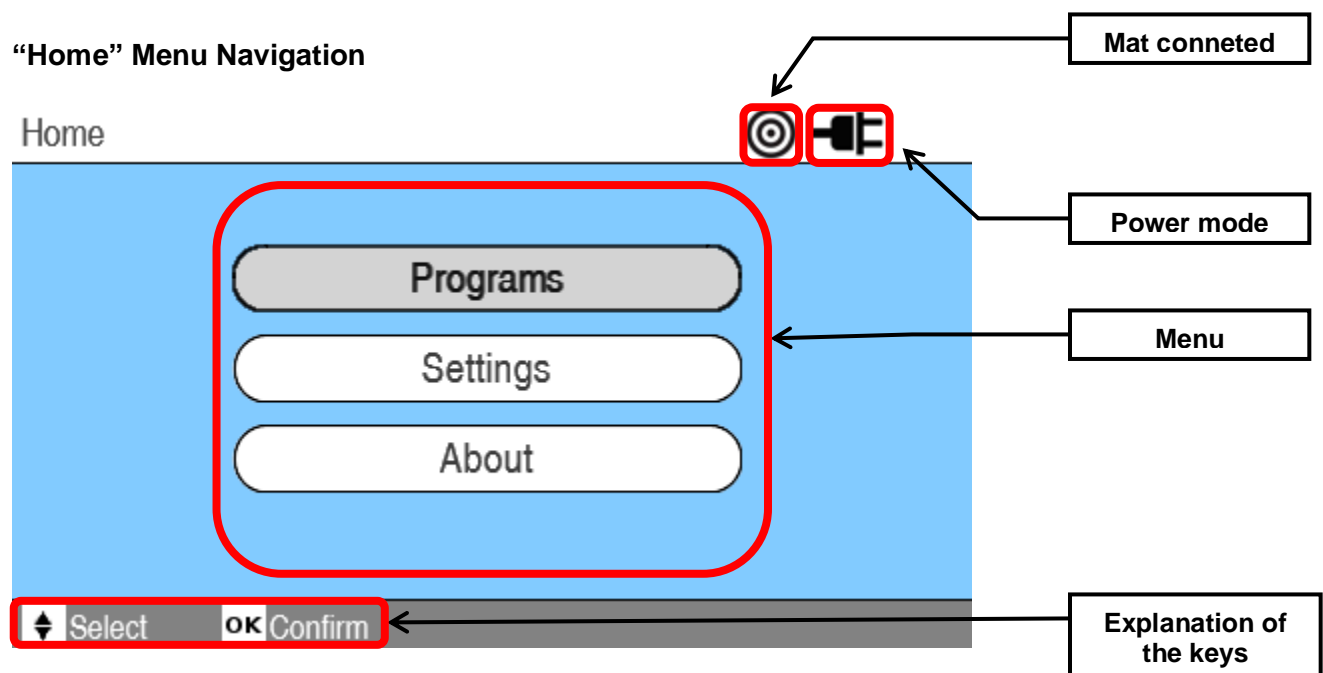
Press the  key to switch the device ON. The device is ready after approximately 13 seconds.

## Connecting the magnetic field applicators

Connect the cable of the desired magnetic field applicator to the correct socket on the rear panel of the BioBalance. Either of the two sockets may be used for either of the two applicators.

The symbol  appears in the top right corner of the display when an applicator is connected. You may connect one or both applicators. If both are connected, both will become active.

## “Home” Menu Navigation





## Home Menu / Choice of Menu

Three different menus can be selected:

Programs, Settings (language, software update), and About

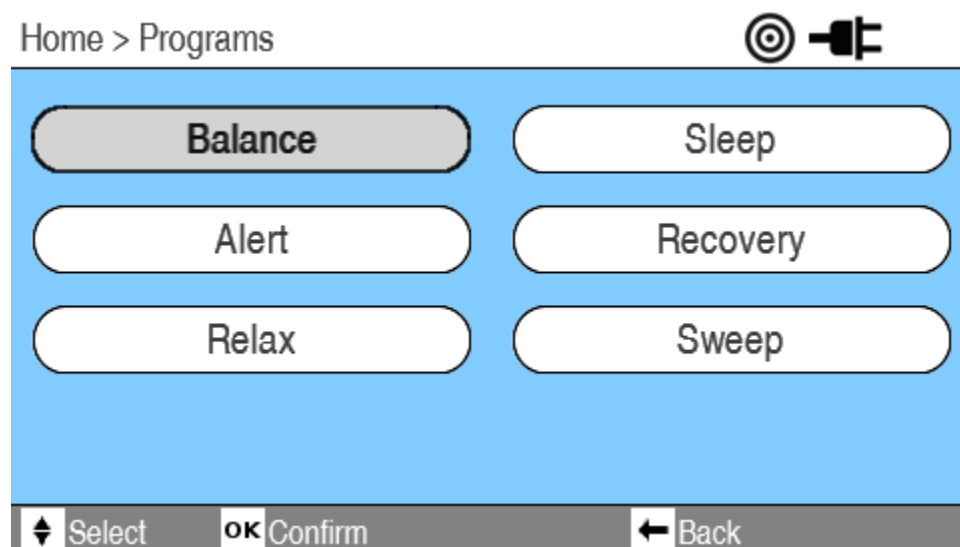
### To select the desired menu:



Use the   keys on the left until you select the desired menu.

Confirm your selection by pressing the  key.


## Selecting a Program

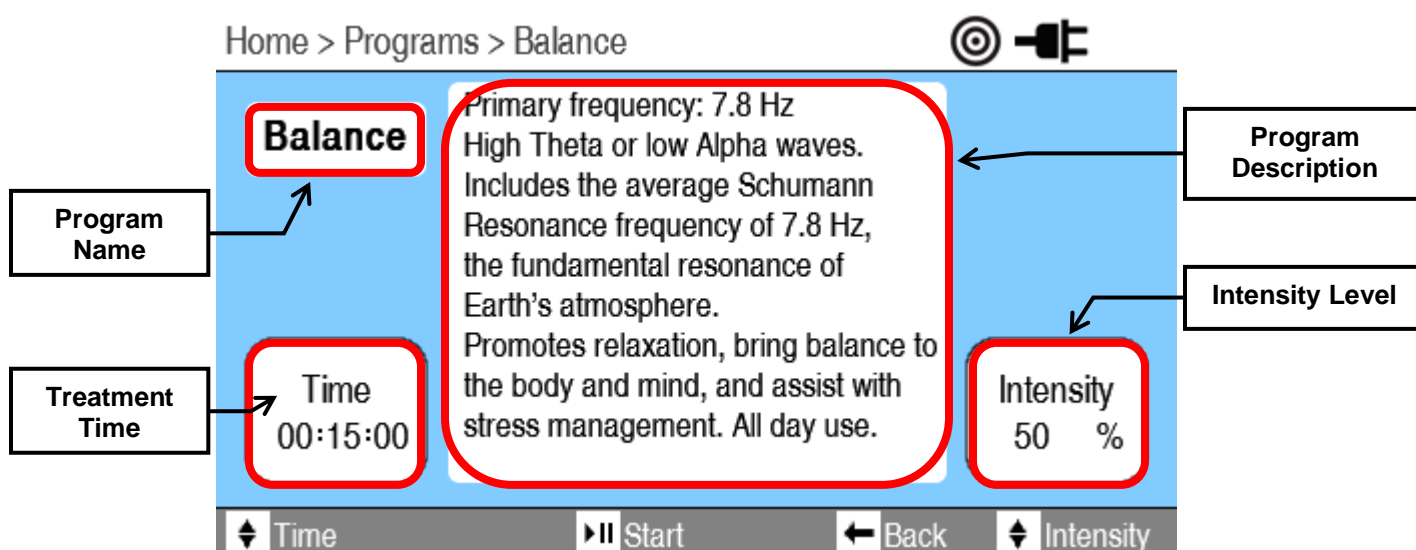
Select the option “Programs” with the left   keys in the “Home” menu. Confirm your choice with the  key. A list of programs is proposed. Press the  key to return to the “Home Menu”.







Use the   keys on the left until you select the desired program.

Confirm your selection by pressing the  key.


Once you confirm the program with the  key, the screen will display program information.

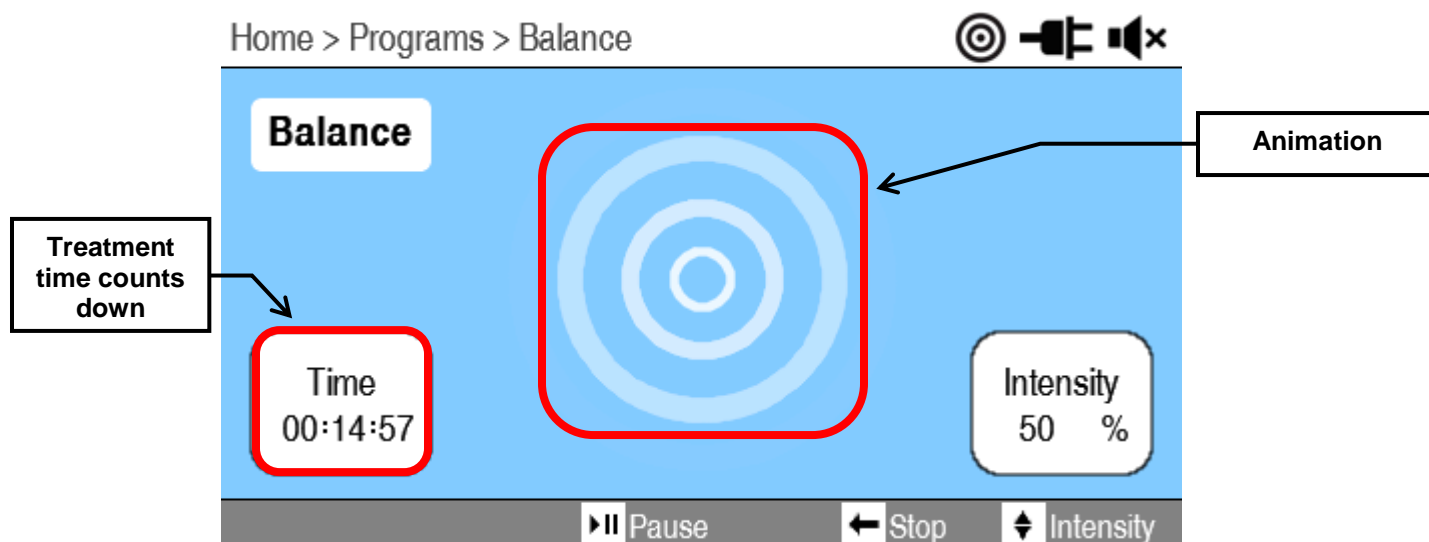


Each program will default to a set time and intensity. You can adjust these parameters easily.



Use the   keys on the left to adjust the treatment time. Use the   keys on the right to adjust the intensity. The intensity is shown as a percentage of the maximum intensity.

## Starting a Program



Once you have selected the desired program and adjusted the treatment time and intensity level accordingly, press the  key to start the stimulation. You will hear one single beep.



While the program is running, you will see an animation on the display screen. The treatment time clock will count backwards.

You have the option to adjust the intensity level during an active treatment. To adjust the intensity, use the   keys on the right. When a program has ended you will hear three beeps.



## Pausing a Program

To pause the treatment, press the  key. Press the  key again to resume the treatment. You will hear two beeps.

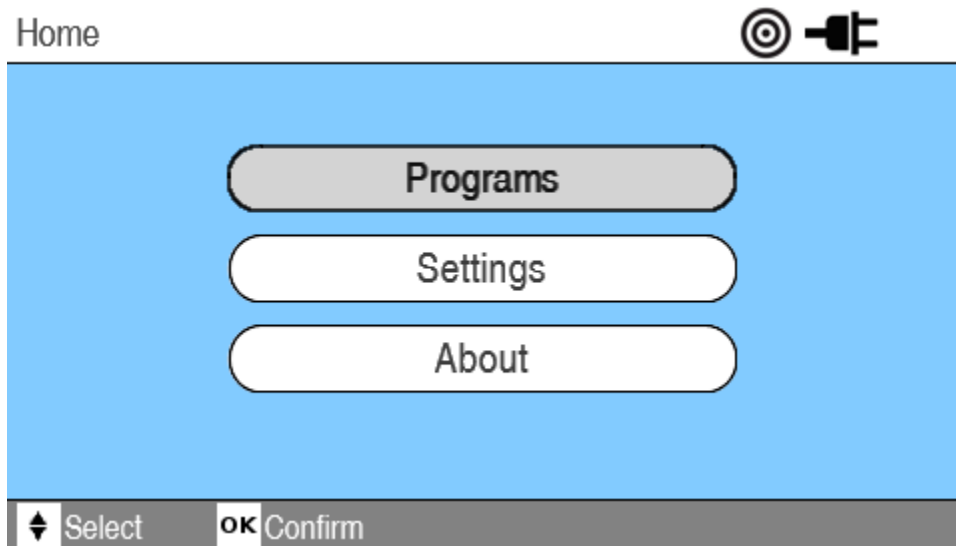
## Stopping a Program

To stop the treatment, press the  key. You will hear three beeps.




## Audio Feedback

The audio feedback sounds as stated above when a program ends, is paused, or is stopped. You can turn the audio function off at any time by pressing the  key. When the audio function is switched OFF, the  symbol shows in the upper right corner of the display screen.




## Other Menu Options







### “Settings” Menu Navigation

Use the   keys on the left until you select the “Settings” menu. Confirm your selection by pressing the  key.






Use the   keys on the left until you select the desired option. Confirm your selection by pressing the  key.

## Setting the Language

The BioBalance defaults to the English Language. To change the language into German or Dutch, use the   keys on the left. Confirm your selection by pressing the  key. Press the  key to return to the “Settings” menu without changing the language.





## Software Update

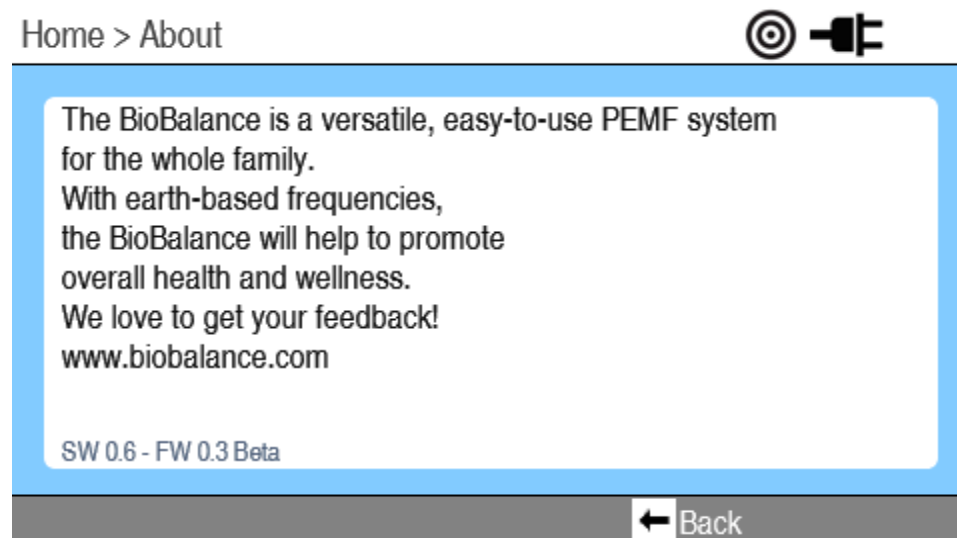
In the main “Settings” menu, use the   keys on the left to select the “Software update” option and confirm by pressing the  key.

Copy all files of the software update to the main directory on an unpartitioned USB flash drive. The USB must be formatted with FAT32. Plug the USB flash drive with the copied files into the USB socket on the rear panel of the control unit. Wait until the device has detected the flash drive, then press the  key to start the software update. The files will automatically be copied and installed. The device automatically restarts. Pull out the flash drive after the successful software update.

**Important note!** Do not connect any other device than a USB flash drive to the USB connector of the BioBalance device. Do not try to charge an external appliance with the USB connector. The battery of the BioBalance cannot be recharged via the USB connector.

## “About” Menu Navigation

The “About” menu shows you information about the BioBalance device, and shows you the currently installed version of the software. From the “Home” menu, use the   keys on the left to select the “About” option and confirm by pressing the  key. Press the  key to return to the “Home” menu.



## BioBalance Programs

Each of the 6 BioBalance programs will default to a certain time and intensity level. Most of these can be adjusted manually. Some of the programs contain both the basic signal and the user signal, and some only contain the user signal.

(See “BioBalance Waveform” for more information.)

### Program Settings

#### Balance

Basic Signal: 300, 600, 800, 1000 Hz

User Signal Frequencies: 7.8 Hz

Default Treatment Time: 15 minutes

#### Alert

Basic Signal: 300, 600, 800, 1000 Hz

User Signal Frequencies: 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23 Hz

Default Treatment Time: 15 minutes

*\*User signal frequencies will spread out evenly over the course of the chosen treatment time.*

#### Relax

Basic Signal: 300, 600, 800, 1000 Hz

User Signal Frequencies: 13, 12, 11, 10, 9, 8, 7, 6, 5, 4 Hz

Default Treatment Time: 15 minutes

*\*User signal frequencies will spread out evenly over the course of the chosen treatment time.*

#### Sleep

Basic Signal? No

User Signal Frequencies: 3.5, 3, 2, 1, 0.5 Hz

Default Treatment Time: 30 minutes

*\*User signal frequencies will spread out evenly over the course of the chosen treatment time.*

#### Recovery

Basic Signal? No

User Signal Frequencies: 10 Hz

Default Treatment Time: 15 minutes

#### Sweep

Basic Signal? No

User Signal Frequencies: 1 Hz to 1,000 Hz in 0.5 Hz increments

Default Treatment Time: 15 minutes fixed

*\*treatment time cannot be adjusted on the Sweep program*



## General Information

### Adjustments, Modifications and Repairs


The manufacturer is only responsible for the safety and performance of the BioBalance when readjustments, alterations and repairs are carried out by authorized persons and when the BioBalance is used in accordance with the operating instructions.

### Classification

The BioBalance is classified as a class III device. **NSR 2014/35/EU**

### Battery Retraction and Disposal

In connection with the sales of products which contain batteries or rechargeable batteries, we are obliged by law (German battery law § 18, section 1) to advise you of the following:

The dustbin symbol () marks batteries with hazardous substances as well as the circumstance that batteries must not be disposed of in the household waste but professionally. The chemical term of the hazardous substance is below the dustbin symbol.

### You are obliged by law to return used batteries.

You may render used batteries at municipal collecting points or in local trade. We are also obliged to take back used batteries, whereat our obligation restricts to those which are or were part of our product range.

Therefore, you may send back used batteries to us adequately stamped by mail or render these at our warehouse free of charge at the following address:

Pierenkemper GmbH, Dreieiche 7, 35630 Ehringshausen, Germany

Please refer to the following figures to see the respective symbols of batteries with hazardous substances:



Battery contains more than 0.002 % cadmium



Battery contains more than 0.0005 % quicksilver



Battery contains more than 0.004 % plumb

## **Warranty and Guarantee**

Legal right of warranty is applied according to German Civil Code.

The manufacturer issues a guarantee of 24 months on the control unit and 12 months for the applicators and power adapter, beginning on the date of purchase.

The guarantee does not apply in the following cases:

- Damage due to improper handling
- Defects the customer is aware of on the date of purchase
- Damage caused by the customer
- For wearing parts and consumable supplies including any battery, cables and electrodes.

## **Maintenance and Cleaning**

No special cleaning or care agents are required for the BioBalance. Clean the stimulator, the cables and the mains adapter with a soft, lint-free cloth. Please ensure that no moisture permeates the stimulator. If moisture does permeate the stimulator, a technical check must be carried out before re-use.

## **Technical Check**

We recommend a technical check on the BioBalance every 24 months. This includes:

1. Confirming that user instructions have been included in the accompanying documentation.
2. Checking the equipment for completeness.
3. Visual check:
  - The type plate, the adhesive label and the inscriptions are complete and readable
  - For mechanical damage
  - For damage to all cables, mains adapter, plugs and sockets
4. Functional Safety
  - Checking the output signals with a load resistance of 220  $\Omega$  real current and voltage
  - Checking the frequency
5. Measurement after EN 62353:2008
  - Equipment leakage current
  - Applied part leakage current

These technical checks may only be performed by suitably qualified persons. The results must be documented with the date and name of the person carrying out the check.

**Manufacturer:**

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35630 Ehringshausen  
Deutschland  
[www.pierenkemper.eu](http://www.pierenkemper.eu)

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