

Hardware requirements to install

- 1 Computer version Windows W7 to W11 with a minimal screen size of 10 inches
- USB key provided by BioparHom
- 1 Z-Metrix
- The USB connection cable



Mesurement are forbidden on

- Pregnant women
- Active implantable medical devices holders
- Children under 6 (no clinical validation)

Golden rules

- Do not leave the device charging, more than 1h - max once a week. Follow the content of your batteries with the battery image in the top right corner. Recharge only when the image is orange or red. Use only the dedicated charger - Mascot type 2115. Recharging and measuring at the same time is not possible.
- The electrodes are for single use only and fear temperature variations. Only use compatible electrodes (see manual). A packet can be kept open for up to 2 months.
- Measure on opposite side of fistula for dialysis patients
- Check that the cable connection is on the same side as the measurement performed (Default right: R and standing position) Do not wrap cables around the device
- Connect and switch on the device, then launch the Z-Metrix software.
- Make regular backup: "Settings", "Export/Backup", "Backup" on an external support (USB stick, Cloud)


INSTALL THE SOFTWARE

1. Insert the USB key into the computer, keep a copy of the documents on the key in your documents.
2. Click on "Installing the Z1 software" and double-click on the file "Setup" in the folder. Follow the instructions on the screen.
3. Connect Z-Metrix to the computer using the USB cable. Turn on the device by pressing the central button on the device (top side).
4. Right-click on the icon , in "properties", "compatibility" tab, tick "run as administrator". Tick on "apply" and "OK".
5. Double click on the icon  to open your software. If the message "Do you want to authorize....." is displayed, you will always have to click on "Yes".
6. In the Settings tab "Device" tick on "Connect automatically" in order to process to the synchronisation between your software and your device. Your device checks its calibration and is ready for measurements.
7. If it doesn't work and your device doesn't appear in your Settings, install the driver corresponding to your Windows version ; you will find it on the given USB stick under the file "drivers". For version 10, launch the **CP210xVCPInstaller*64**. For version 11, make a right click on **silabser.inf** then "Display more options" and "Install".
8. Return in your software and click on "Refresh the list" and then "Connect automatically". Your device checks its calibration and is ready for measurements.


TAKE YOUR FIRST MEASUREMENT

1. To make your first measurement, connect the cables on the right side of the device (with « R ») by matching the numbers on the device connections with those on the cable labels. Make sure that the cables are pushed all the way.



2. Turn on the device by pressing the central button, connect the device with USB cable and double click on  to run the software.



3. Click on **Directory** then **Add** to fill in the main data of the person to be tested (name/surname/age/gender/health and wellness or athletic performance). The * indicates mandatory fields. Select "amateur" for an athlete practicing between 4 and 6 hours per week, "high level" for more than 6 hours per week of intense physical activity). Validate .



4. Click on **Measurements**, check the position of the subject « Standing-up or Lying down » and the measured side. For wheelchair patients, select "standing" position.

5. Fill in the height (in centimetres), the weight (in kg). Click on  to record these values in the patient's chart instead of the data from the first check-up.

6. The patient must take off metal bracelets, watches, keys and phone from his pockets.

7. Stick electrodes on your patient by following the following pictures.

Thighs should not touch; hands should not touch thighs.

The Button "Measuring instructions" shows you how to position the electrodes.

The electrodes must be 4-fingers apart.

8. Click "Measurement" to launch the measurement. Once it's done, validate.

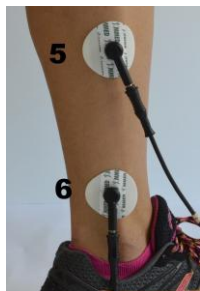
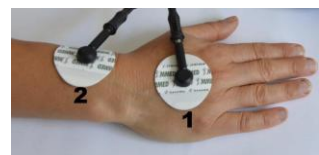
9. Your report is available by clicking on "Results".

The MAI is used to validate that your measurement has been performed correctly. It must be between about 4 and 8 or even up to 10 for athletes. If not, change the electrodes and repeat the measurement, verifying the position of your patient (R or L) and the connection of the cables.

Edit the height and weight of your patient in case of error by clicking on the orange box to the right of observations.

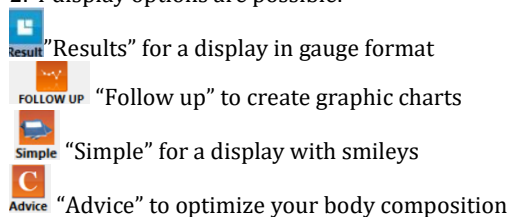
10. Choose the type of report to display: Result, Follow-up, Simple or Advice and print the report by clicking on "PDF".






11. Your device will automatically shut down when you close the software. To force it to shut down, plug in the charger tip or press the central button during 4 sec.



CUSTOMISE YOUR SOFTWARE

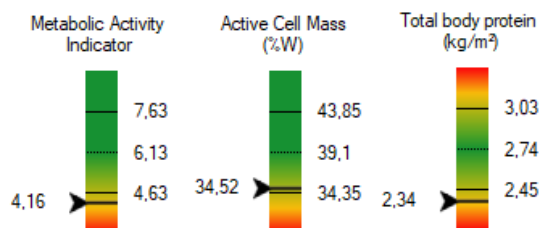
1. Your first measurement is done, you can customize your software.
2. 4 display options are possible:



3. Use  to define, according the targeted Fat Mass in %, the quantity of Fat Mass in kg to loose.
4. Use  to send a brutto report to a practitioner equipped with a Z-Metrix, who then will import the file, through recording it locally ; you should both use the same version of the software.
5. In  in "Option Measurement", select by default the measurement position, side and pre-interpretation display
6. Go to the third tab "User parameters", update your contact details, it will appear on the report. For the logo, click on the Bioparhom picture and add your image.
7. To select the indicators to be printed in the report, go to the fourth tab Indicators, then . Tick the indicators you want to be displayed then name the module at the bottom of the screen. Validate with . Select this default block by clicking on the circle just in front of the created block. You can create as many modules as you need. We recommend to use the "express" module ; however to start your measurements before the training, select the indicators from the "simple" modules.
8. You can add a password in the tab Security ; this password will be requested each time the software is launched.
9. Don't forget to save regularly your measurements on the tab "Export/Back up" then "Back up". You can also merge 2 databases using the tab "Merge Base" or restaure a back up in the tab "Export/back up"?

HOW TO READ RESULTS

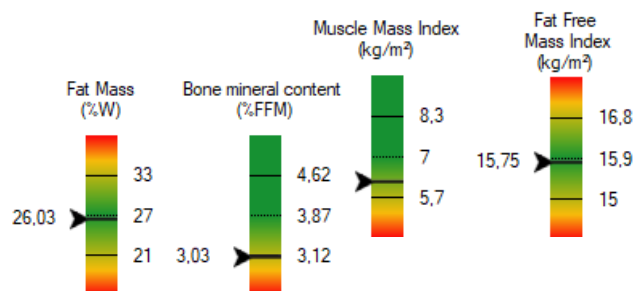
Metabolism



Tissues

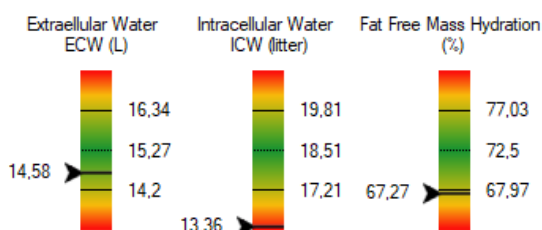
- **Fat Mass:** All fat cells in the body: **overweight** diagnosis (if upper limit up to + 5%), **obesity** (upper limit +5% and more), **underweight** if under lower limit
- **Muscle mass:** muscle mass in the body. In adults : average population in kg, index for **sarcopenia** diagnosis and **undernutrition** diagnosis if Muscle Mass Index is lower than the low limit
- **BMC = Bone Mineral Content:** risk of **osteoporosis** if the index is lower than low value.
- **FFM = Fat Free Mass :** undernutrition diagnosis if FFM Index is less than 17 kg/m² for men and 15 kg/m² for women
- **AMM Appendicular Muscle Mass:** diagnosis of **sarcopenia** and **undernutrition** if lower to low limit, Janssen for 16-69 years, Sergi for >70 y.

- **MAI = Metabolic Activity Indicator,** state of metabolic form, vitality/fatigue index: prognostic factor for patient health status
- **ACM = Active Cellular Mass:** State of physical form correlated to aerobic potential, lifestyle, motivation of the patient to practice physical activity, reflects the number of cells involved in energy metabolism.
- **BPC = Body Protein Content:** Intake of proteins: diagnosis of sufficient intake, to be correlated to the Muscular Mass, reflection of the needs.



Fluids

- **Extracellular water:** Water outside the cell, compensation of water inputs in the last 24 to 72 hours
- **Intracellular water:** Water inside the cell, deep hydration
- **Fat Free Mass Hydration :** Tissue hydration, dehydration or over-hydration, equivalent to the total volume of water in L



For more information, refer to the manual and instructions. Do not hesitate to contact our Training's department.