

# User Manual

# Bio Matrix Scan



Please read the manual before using the tools.

Version 1.0

Update on November 20, 2025

## BASIC INFORMATION

This manual provides the basic information, technical characteristics, and operating instructions for the **Bio Matrix Scan (BMS)**.

### Intended Use and Important Disclaimer

The Bio Matrix Scan (BMS) monitor **is not a medical device** and is **not intended for medical use**. Using the device for any purpose other than those described in this manual is a violation of its proper operating rules.

The BMS monitor is designed to record information about the user's cardiac activity and transmit this data via a USB connection to a personal computer. Specialized software installed on the computer processes this information and provides an interpretation of the cardiac activity readings.

### Key Features and Capabilities

- The BMS monitor works with standard reusable electrodes, such as FIAB F9024 or similar.
- It is suitable for personal, home, and commercial use by a wide range of users.
- It can be used by adults of any age and children aged 10 and above.
- When combined with its dedicated software, the system performs the following functions:
  - Records heart activity signals and transmit them digitally to a computer via USB.
  - Stores and analytically process information about heart activity.
  - Displays a visual, color interpretation of the data on the computer screen.

### Scope of Application

The BMS is used for:

- The express assessment of heart activity in wellness or sports center settings.
- Personal health self-monitoring at home.
- Assessing the effectiveness of various traditional and non-traditional therapy methods.



#### *Attention!*

*The results of automatic interpretation of cardiac activity are of a purely advisory nature. The information provided is useful but cannot be used as a basis for ignoring symptoms of the disease. If you have any symptoms of the disease or feel worse, you should consult a doctor regardless of the result of the automatic interpretation.*

**Contraindications: Do Not Use If...**

- You have skin damage or disease where the electrodes are to be placed.
- You have a known allergy to the specific type of electrodes being used.
- You have heart rhythm disturbances (e.g., atrial fibrillation, extrasystole), as this will make the interpretation unreliable.
- You use a cardiac pacemaker, as this will make the interpretation unreliable.

**Software & System Requirements**

- Download the software here: <https://light-mandalas.com/downloads>
- The application is designed to work on **MS Windows 10 and higher**.
- It can be used on Apple Mac with Windows 10 or higher installed.

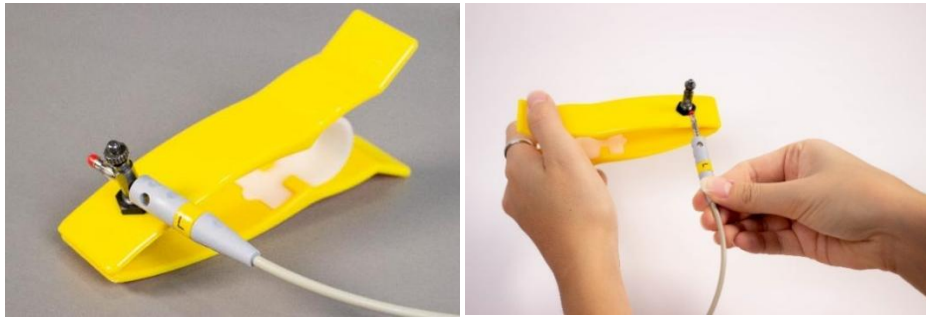
**DELIVERY SET**



<b>1. Bio Matrix Scan</b>	1 pc.
<b>2. Left-sided Electrode</b>	1 pc.
<b>3. Right-sided Electrode</b>	1 pc.
<b>4. USB-C</b>	1 pc.

## Setup and Installation Instructions

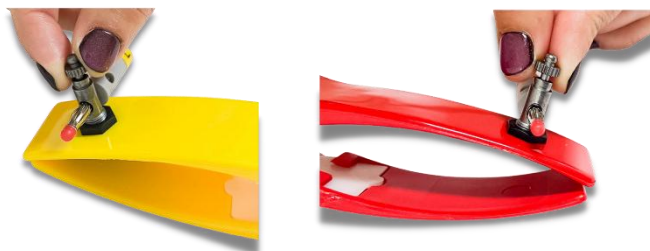
1. Connect the BMS to the Left-sided Electrode and Right-sided Electrode as the pictures.



Plug in the L (yellow) sided cable to the yellow Electrode.



Plug in the R (red) sided cable to the red Electrode.



Tighten a knot on each side properly.

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### 2. Plug in USB-C to BMS



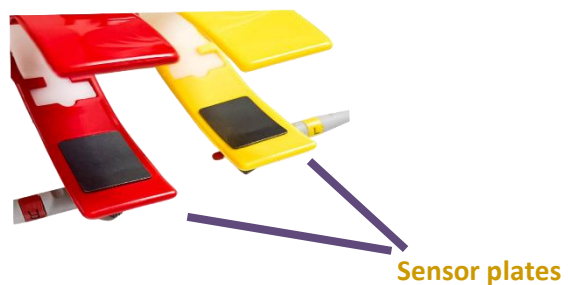
### 3. Connect the BMS to your laptop/computer



### 4. Sit up with your back straight and try to relax while you do a scan.



### 5. Clip the yellow electrode on the left hand and the red electrode on the right hand.





- *When you clip the electrodes, please try to keep the sensor plate in the middle of both of your wrists and try not to move while scanning, as it may cause a failure to scan.*
- *Please do not wear your jewelry, such as rings and bracelets, during the scan.*

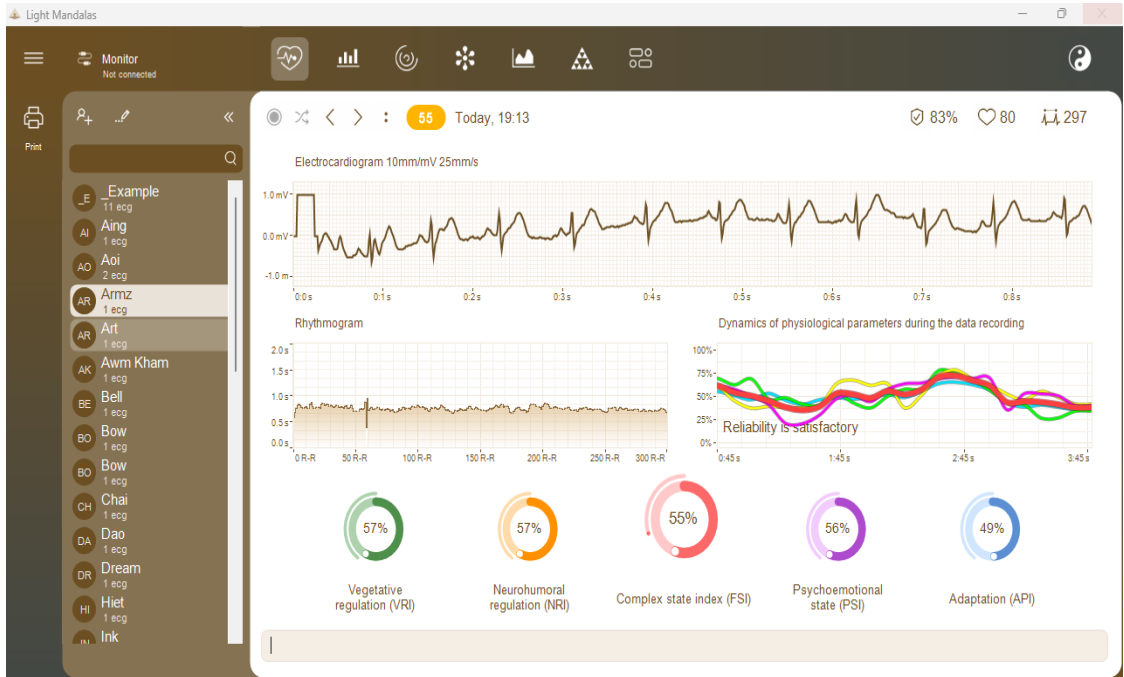
## TECHNICAL CHARACTERISTICS

Heart rate recording range	from 30 to 150 bpm
Input voltage range	0.03-5 mV
Direct current in the human circuit	no more than 0.1 $\mu$ A
Input signal sampling frequency	1000 Hz
ADC bit depth	12 bit
Number of leads	1
Lead cable length	1.1 m
Number of electrodes	2 pcs.
Communication interface	USB 2.0
USB cable length	1.8 – 3.0 m
Power supply	via USB channel, 5 V, 90 mA
Operating temperature	from +5°C to +50°C
Electrical safety	complies with GOST R 50267.0 and GOST 50267.25 (IEC 601) for products of protection class II, type BF
Content of precious metals	No
Housing material	ABS plastic
Housing color	matte white
Dimensions	116 x 54 x 22 mm
Weight	83 g
Service life	at least 10 years

# PREPARATION FOR WORK

## Preparing equipment

Launch the Application using the shortcut on the desktop. After launching, the Application should automatically detect the connected Monitor.

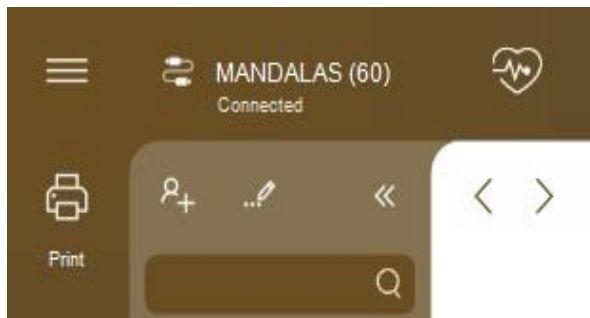


*It is recommended to connect the Monitor to the computer for the first time before installing the software.*

## QUICK START

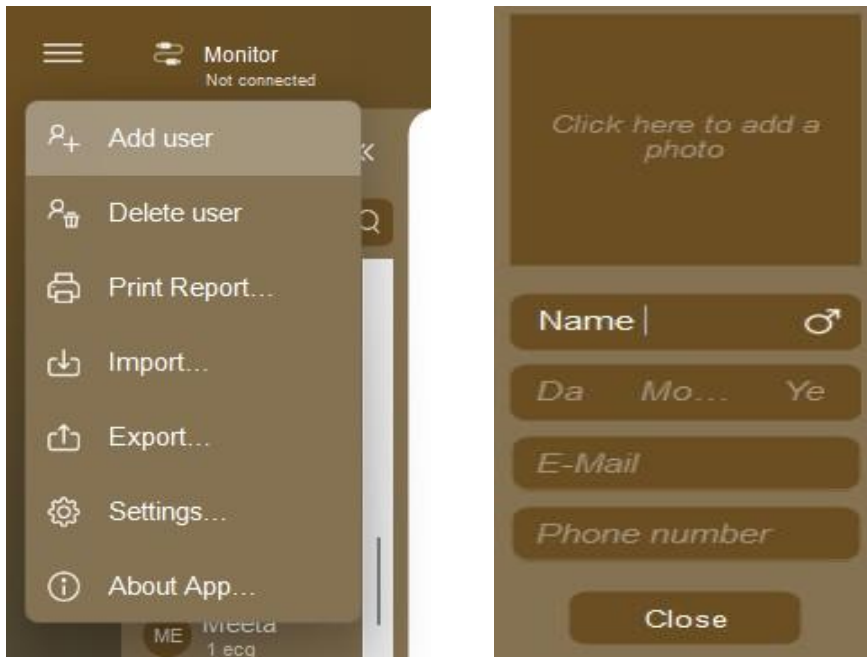
### Preparing for measurement

The upper left part of the Application window should show the name of the connected Monitor and its status: connected, not connected, or incompatible (if the Monitor connected is not the correct type).



## Adding a new user

Click the button with three stripes in the upper left part of the Application window, the main menu of the Application (hereinafter referred to as the Menu) will open. Select "Add User", a new user with empty personal information will be added to the user list.



By default, a new user is given the name "Name". It should be replaced with the user's real last name, first name, and patronymic. To the right of the name is a button for selecting **the user's gender – male or female**.

In the **Date of birth** field, enter the date of birth of the user being added.

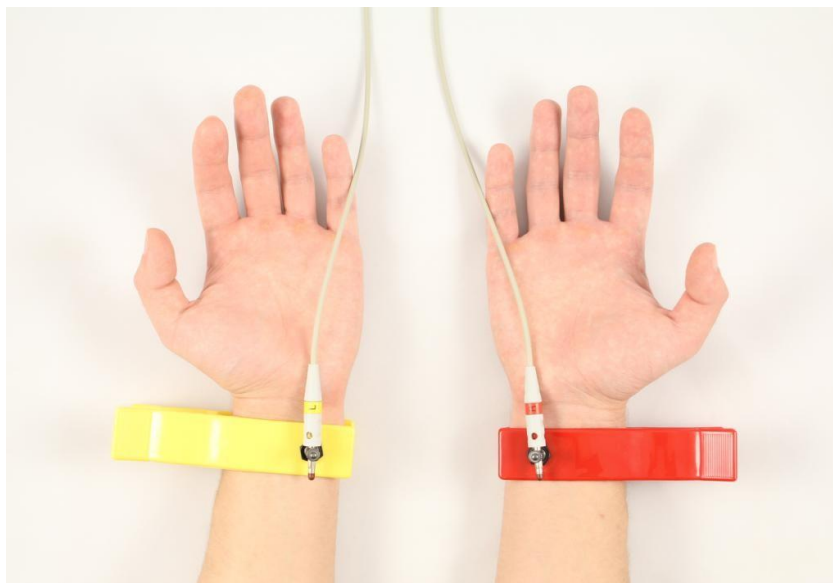
In the **E-Mail** field, you can enter the user's e-mail address. In this case, you can send this user the results of his measurements.

In the **Phone Number** field, you can enter the user's phone number.

Clicking on the **photo** field above the user's name will open a menu for selecting a user photo. Any image file can be used as a user photo without any restrictions on the size of the image. If a webcam is connected to the computer, you can display the video from this camera in the user photo field. Left clicking on this video allows you to save the current frame as a user photo.

## Connecting the Monitor to the user

- The electrodes are applied to the hands in the wrist area, with the contact pad on the inside.
- It is recommended to moisten the wrists with water at the contact point.
- The electrode with the red plug “R” is put on the right hand, with the yellow plug “L” on the left.
- During signal recording, the user must be at rest in a sitting position
- In some cases, with a very low signal amplitude, the electrode with the red plug is placed on the wrist of the right hand, and with the yellow plug on the ankle of the left leg, moistened with water



### *Important!*

*In some laptop models, when operating from the mains (110-220V, 50- 60Hz), interference may occur during ECG recording. To eliminate interference, it is recommended to use a grounded outlet or disconnect the laptop power adapter from the mains during recording and switch to battery power. Also, to eliminate interference during ECG recording, it is recommended to disconnect other devices connected to the mains (printers, routers, etc.) from the computer.*

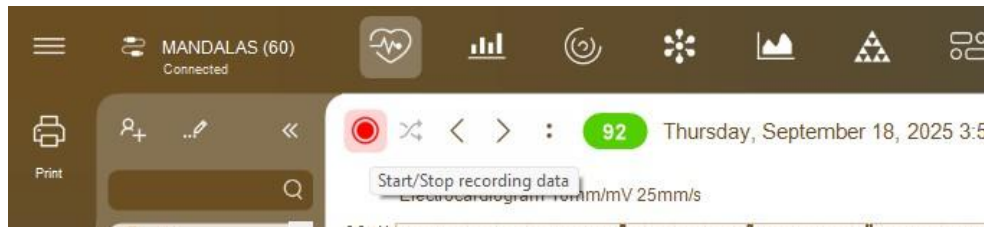
To reduce interference when recording a signal from the Monitor, the following rules must be observed:

- Arms must be motionless and relaxed
- When sitting, place your hands on your knees or on the armrests
- No strangers should be moving within a radius of 1.5-2 meters
- The user must be in a comfortable and relaxed state
- The user's breathing must be calm and natural

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- The user is not recommended to talk or look at the computer screen

### Recording a measurement



Click the Start new measurement button. The ECG signal being recorded should appear in the user's ECG display field. Check the signal polarity and change it as necessary using the 'Change signal polarity' button.

After the Application detects a correct and stable ECG signal, it will automatically start recording it. At the same time, the message "measurement in progress" will appear in the user's ECG display field.

During the measurement, the Application continuously monitors the quality of the recorded signal. Any interference will be displayed on the rhythmogram. If the amount of interference is large, the measurement process will be interrupted, and the Application will start recording the ECG signal again.

To terminate the measurement early, click the End measurement button.

During the measurement, the Application displays the user's pulse rate, as well as, as data is collected, the normalized values of the current functional state indicators. If significant changes in these indicators are observed during the measurement, this means that the user is not at rest.

Also, the number of registered R-R intervals is displayed during the measurement. After recording 300 R-R intervals, the measurement will automatically end, and the Application will switch to the measurement results viewing mode.



*If the user has heart rhythm disturbances (atrial fibrillation, extrasystole, etc.), or if the user uses a pacemaker, the calculation of functional state indicators will be incorrect.*

Examples of such disorders are shown in the following figures:



Atrial fibrillation



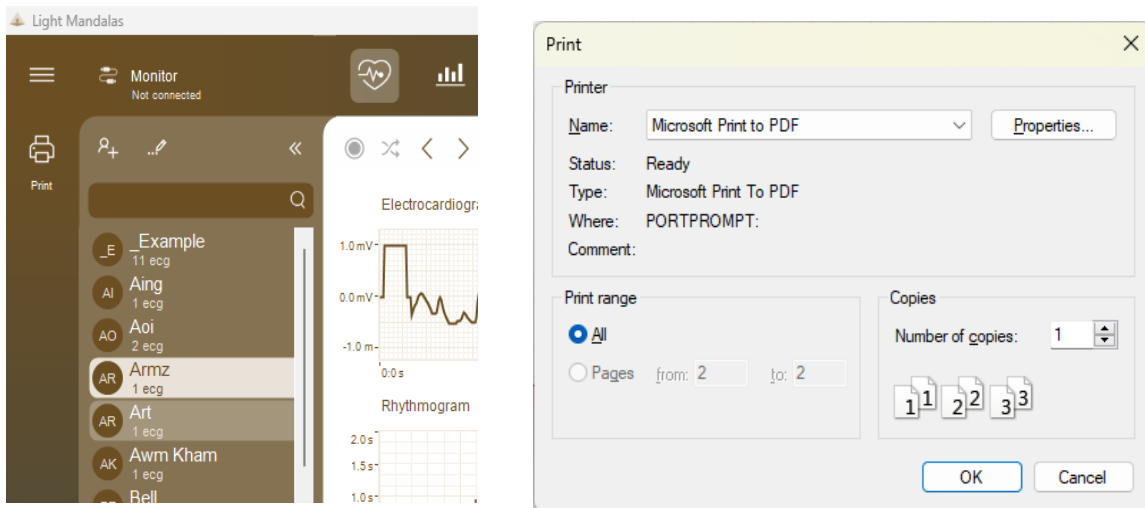
Extrasystole

## Viewing measurement results

To view a user's measurement results, select the user in the user list. If necessary, you can use the quick user search function. To select a different measurement date, use the Next measurement and Previous measurement buttons.

## Printing measurement results

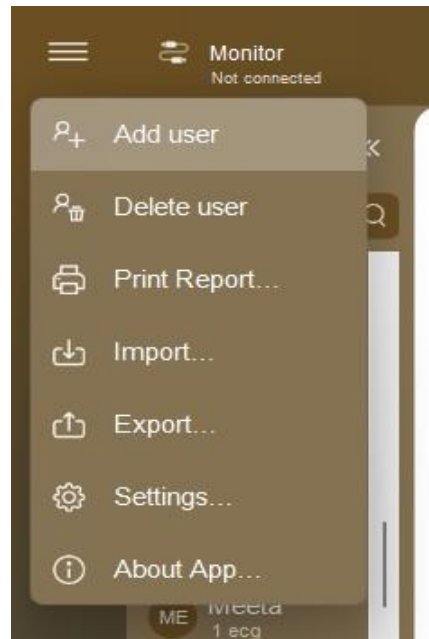
To print the measurement results of a user, select the desired measurement and click the Print button, or select Print report in the Menu. This will open the print settings window.



In this window, you can select and configure the printer on which the report will be printed. After clicking the OK button, the report will be printed on the selected printer.

If necessary, you can print the report not on paper, but as a file. To do this, select one of the virtual printers installed in your operating system, for example, Microsoft XPS Document Writer. You can also use the Export.../Save report... function in the Applications Menu.

## Main Menu



**Add user** – adds a new user “Name” to the list and opens a window for editing his personal information.

**Delete user** – deletes the currently selected user. Be careful: the user’s record is deleted along with all his measurements, including those that could have been made in other Company applications.



*Attention!*

*It is not possible to undo the deletion of a user.*

**Print report** – print the report displayed in the right part of the Application window on a regular or virtual printer.

**Import...** – importing new user records and their measurements from an external file to the Application.

**Export...** – a group of actions related to saving records and measurements of either the current user or all users from the list to an external archive file.

Using the import and export functions, you can transfer user measurements between different copies of the Application on different computers.

**Settings...** – a group of Application settings. Here you can set up an individual signature in reports, specify the settings of the mail account for sending reports by e-mail, turn on or off the sound and check for Application updates, and select the Application language.

**About App...** – shows information about this version of the Application.

## Measurement results

On the right side of the Application window, there is a block for displaying measurement results – one or two at once. This block is a set of several tabs. To switch between them, use the buttons at the top of the block.



The application can display measurement results in two versions – traditional and alternative. In the traditional version, the measurement is analyzed in accordance with scientific, evidence-based medicine. In the alternative version, the measurement is analyzed from the point of view of Ayurvedic practices. To switch between these modes, use the button on the right side of the tab list:



### **ECG Registration and Viewing**

This tab contains controls for registering and displaying the user's electrocardiogram.



### **Variational Analysis**

This tab displays the assessment of the body's autonomic regulation using the methods of variational analysis of heart rhythms.



### **Spectral Analysis**

This tab displays the assessment of the body's autonomic regulation using the spectral analysis method.



### **Neurodynamic Analysis**

This tab displays the assessment of hormonal regulation using the neurodynamic analysis method.



### **Psycho-Emotional State**

This tab displays the assessment of the psycho-emotional state using the method of mapping brain biorhythms.



### **Fractal Analysis**

This tab displays the assessment of the body's adaptation level and determines biological age using the fractal analysis method.



### Dynamics of Functional State Indicators

This tab displays the dynamics of changes in functional state indicators over time, as well as summary information for an individual measurement.



### Energy Potential

This tab displays the assessment of the user's energy potential (aura).



### Chakra Activity Map

This tab displays the estimated state of the user's chakras.



### Meridian Diagram

This tab displays the estimated states of the user's meridians and five Wu Xing elements.



### Doshas

This tab displays the user's measurement to determine their dosha type, as well as the recommended diet.

## Heart Rate Variability

This tab contains controls for recording and displaying the user's electrocardiogram. The upper part of the tab contains controls for recording and displaying the measurement:



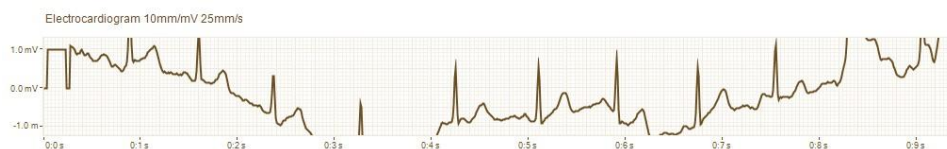
From left to right are the following elements:

- Measurement recording start/stop button
- Button to change the polarity of the recorded ECG signal
- Previous measurement button

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- Next measurement button
- Menu button with actions for this measurement
- The value of the user's functional state in this measurement, as a percentage. It can be from 0 to 100 and red, yellow, or green, depending on the value
- Date and time when this measurement was made
- Measurement reliability – characterizes how high-quality the measurement was
- Average heart rate (HR) recorded in this measurement
- The number of correct R-R intervals in the recorded ECG signal used in the calculations

## ECG

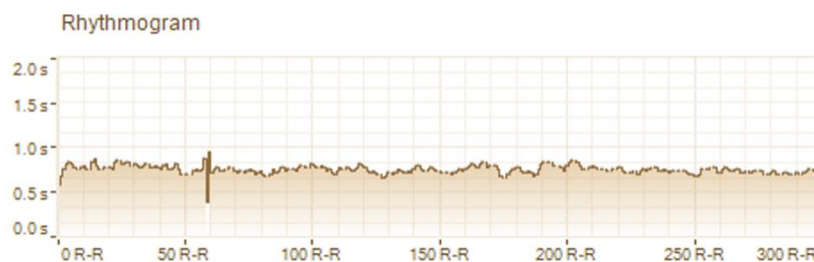


Depending on the Application operating mode, this graph displays either the previously recorded ECG signal during the user measurement or the ECG signal being recorded at the moment.

The horizontal axis shows the time in minutes and seconds from the start of signal recording, and the vertical axis shows the ECG amplitude in millivolts.

The graph is scaled by moving the mouse with the right button pressed. The graph is moved by moving the mouse with the left button pressed.

## Rhythmogram



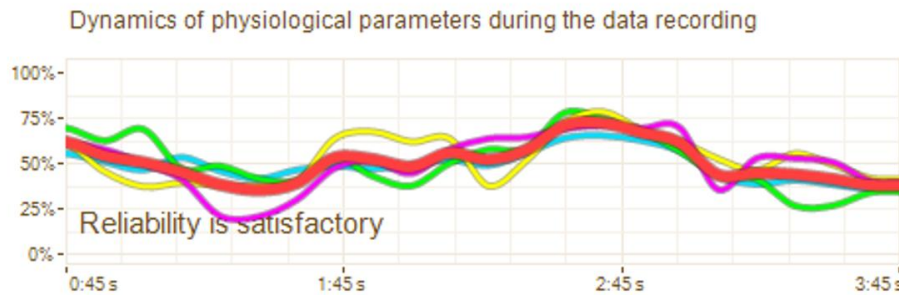
Depending on the Application operating mode, this graph displays either the previously recorded user rhythmogram or the one being recorded at the moment.

The rhythmogram is a graph in which the horizontal axis shows the R-R interval number, and the vertical axis shows the R-R interval duration in seconds.

"Artifacts" – extrasystoles or interference – are highlighted in white on the rhythmogram. The graph is scaled with the right mouse button and moved with the left one. When you double-click on any R-R interval, the corresponding ECG section will be displayed on the

ECG graph.

### Dynamics of physiological parameters during measurement



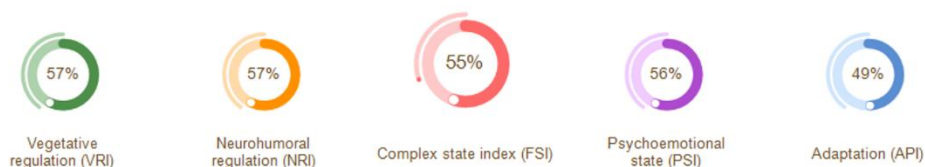
The graph Dynamics of the physiological parameter during measurement clearly show how the functional state parameters changed during the measurement. It allows you to assess the reliability of the results obtained because of the measurement.

If the functional state parameters remain at the same level throughout the measurement, this means that the measurement was performed correctly, and its results can be trusted. If the physiological parameter dynamics graph has sharp level changes, this means that the user was not in a state of complete rest during the measurement, or the ECG signal coming from the user was affected by external interference.

This graph also displays an assessment of the measurement reliability: high, satisfactory, or low.

Measurement results with satisfactory and, especially, low reliability should not be trusted, and it makes sense to re-measure the user, having previously eliminated the factors that negatively affect the quality of the recorded ECG signal.

### Functional state indicators



These indicators display the normalized values of the functional state indicators:

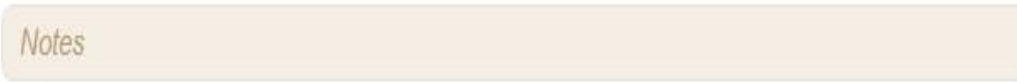
- API – body adaptation level
- VRI – vegetative regulation indicator
- NRI – neurohumoral regulation indicator
- PSI – psycho emotional state indicator
- FSI – functional state – complex state index

On the API, VRI, NRI, PSI, and FSI indicators, a thin strip indicates the norm for a given parameter. At the same time, the norm for the FSI parameter may change depending on

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the user's age at the time of measurement (for this, it is necessary to indicate the user's date of birth on their card).

### Field for notes to the measurement

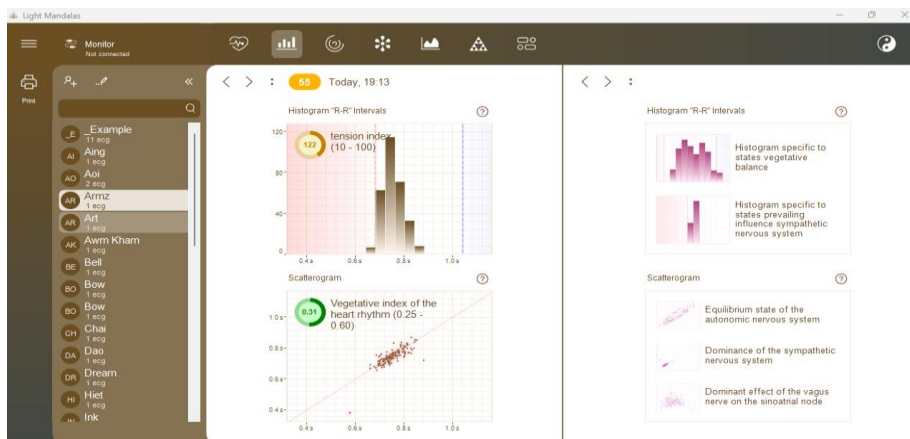


Here, the user can add and change text explanations related to this measurement.

By default, this field displays an automatic output about the user's current measured functional state. You can change it or replace it with your own note.

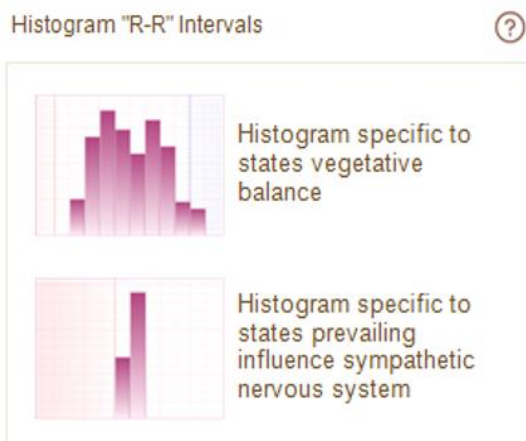
## Variation Analysis

This tab displays information about the user's vegetative regulation parameters.



Vegetative regulation is carried out by the autonomic nervous system, which controls physiological processes independently of human consciousness. It quickly responds to changes in the external and internal environment, affecting the cardiovascular system, the efficient operation of which determines the supply of oxygen and nutrients to the body.

### R-R interval histogram



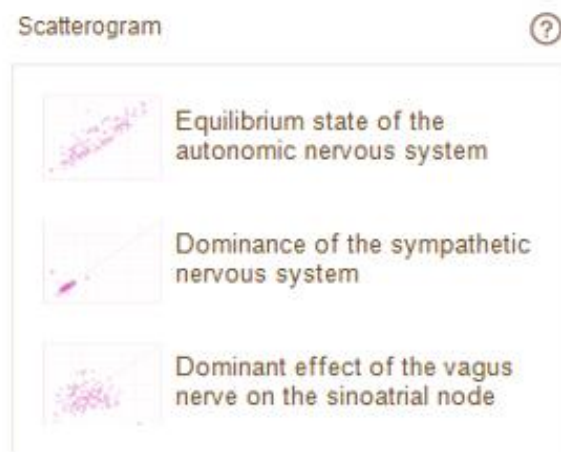
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**The R-R interval histogram** is a diagram of the R-R interval distribution by duration. The abscissa axis shows the duration of R-R intervals, and the ordinate axis shows the number of R-R intervals that fall within the corresponding range. The histogram step is 0.04 sec.

The state of vegetative balance is characterized by the central location of the diagram columns with the localization of the highest column (mode) in the range of 0.7–1.0 sec. In the case of the prevailing influence of the sympathetic division of the autonomic nervous system, a significant shift to the left and narrowing of the histogram base are characteristic. With parasympathetic influence, the opposite effect is observed.

**The tension index** characterizes the degree of tension of the heart muscle, myocardium.

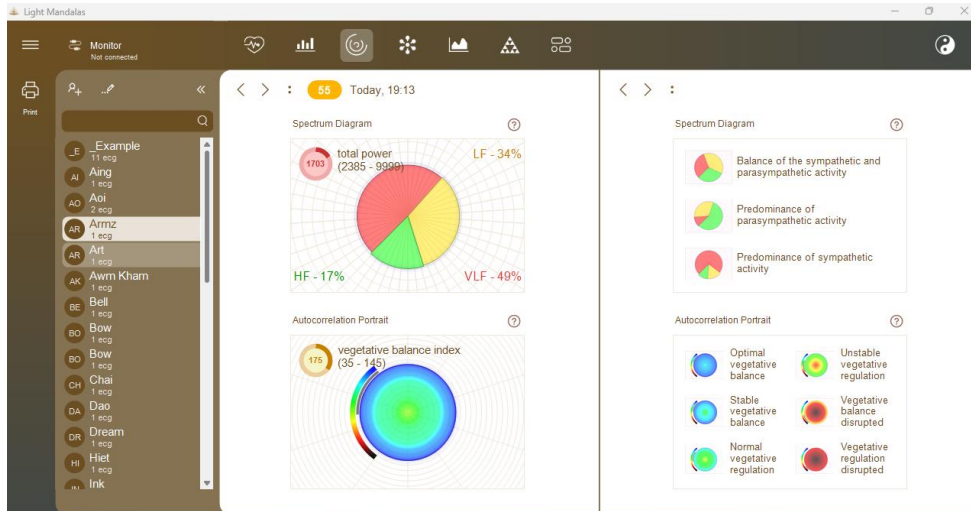
## Scatterogram



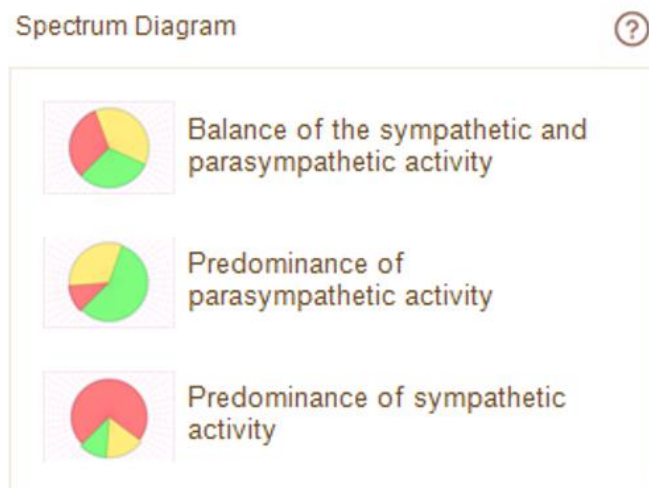
**The R-R interval scatterogram** is a two-dimensional display of the heart rhythm, allowing you to identify heart rhythm disturbances. The abscissa axis shows the R-Ri interval value in seconds, and the ordinate axis shows the R-Ri+1 interval value in seconds. A uniform cloud will indicate an equilibrium state of the autonomic nervous system. The tightness of the scatterogram cloud and its displacement from the center to the lower left corner indicate the predominance of the sympathetic division of the autonomic nervous system. On the contrary, a significant spread of scatterogram points and their displacement to the right indicate the predominance of the influence of the vagus nerve on the sinus node.

## Spectral Analysis

Spectral analysis is based on the physical transformation of cardiac rhythm oscillations into simple harmonic oscillations (fast Fourier transform) with different frequencies.



## Spectrum Diagram



The Spectrum Diagram, consisting of three sectors for different frequency components, is intended for visual assessment of the user's health condition using the spectrogram. It characterizes the ratio of sympathetic and parasympathetic activities.

**High Frequency (HF) – 0.15-0.40 Hz.** The parasympathetic division of the autonomic nervous system plays a predominant role in the formation of oscillations in this frequency range. The power in this frequency range increases during breathing with a certain frequency and depth, and under cold exposure. In athletes and well-trained people, the HF power also significantly exceeds that of untrained people, and should prevail over the power of low frequencies. A decrease in HF power in athletes may indicate tension in the regulatory systems of the heart, overtraining, although its excessive increase indicates the danger of sinus rhythm disturbance.

**Low frequencies (LF) – 0.04-0.15 Hz.** The physiological interpretation of this indicator is ambiguous. It is believed that the power in this frequency range is affected by both changes in the tone of the parasympathetic and sympathetic divisions of the nervous system.

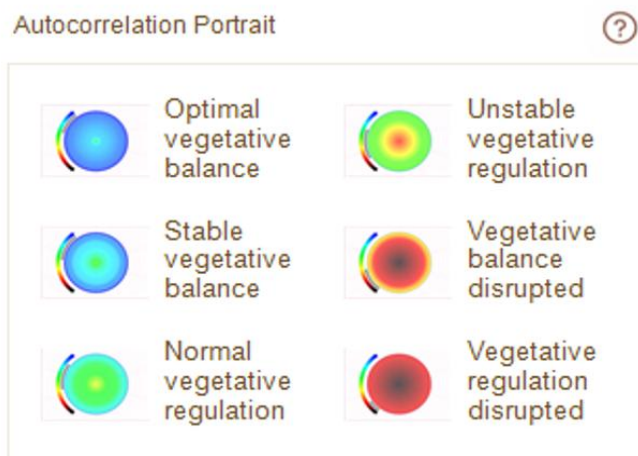
The ratio of sympathetic and parasympathetic influences is characterized by the ratio of LF/HF powers. At the same time, with an increase in the tone of the sympathetic division, this indicator increases significantly, with vagotonia, vice versa. In many cases, reciprocal changes in LF and HF powers are noted. A significant increase in LF power is noted during an orthostatic test, psychological stress, and moderate physical activity in healthy individuals. Therefore, recently, there has been a widespread view that the power in the LF range, as well as the LF/HF indicator, can serve as an indicator of the activity of the sympathetic division of the autonomic nervous system.

**Very Low Frequencies (VLF) – 0.003-0.04 Hz.** The physiological significance of this frequency range has not been clarified. However, there is an opinion that the power of this range increases significantly with the depletion of the body's regulatory systems.

**Total Power-** This indicator is integral and reflects the impact of both the sympathetic and parasympathetic divisions of the autonomic nervous system. In this case, an increase in sympathetic effects leads to a decrease in the total power of the spectrum, and activation of the vagus leads to the opposite effect. This indicator is equivalent to the standard deviation and the variation range.

When interpreting the data of the time analysis of the dynamics of heart rhythms in athletes, it is necessary to take into account that a significant predominance of parasympathetic influences on the sinus rhythm is normal for them. Therefore, it is necessary to adjust the limits of the norm of the numerical values of statistical indicators when measuring athletes. Namely, it is necessary to expand the limit of the norm to that in a state of moderate vagotonia in untrained people. At the same time, values close to moderate sympathotonia will indicate a pronounced violation of the cardiac rhythm regulation system and a decrease in the adaptation reserve of this athlete.

## Autocorrelation portrait

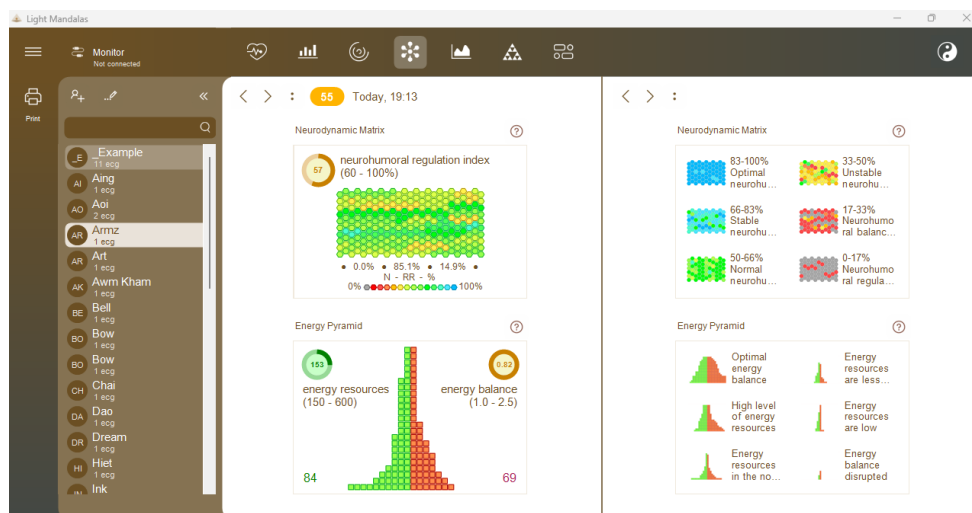


The autocorrelation portrait characterizes the degree of similarity of various fragments of the rhythmogram.

The index of vegetative balance characterizes the relationship between the activity of the sympathetic and parasympathetic divisions of the autonomic nervous system.

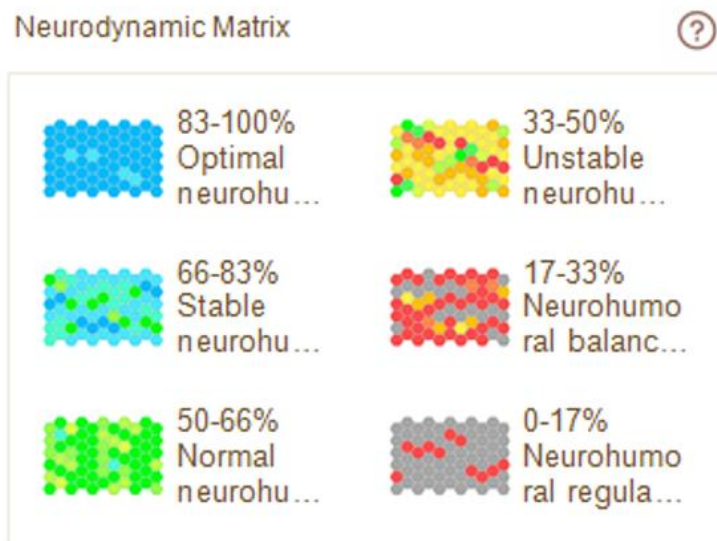
## Neurodynamic Analysis

This tab displays information about the user's neurohumoral regulation parameters.



The neurohumoral regulation system controls the composition and structure of biochemical substances in the body, ensuring the constancy of the internal environment and the body's adaptation to changing conditions of existence in the long term.

## Neurodynamic Matrix



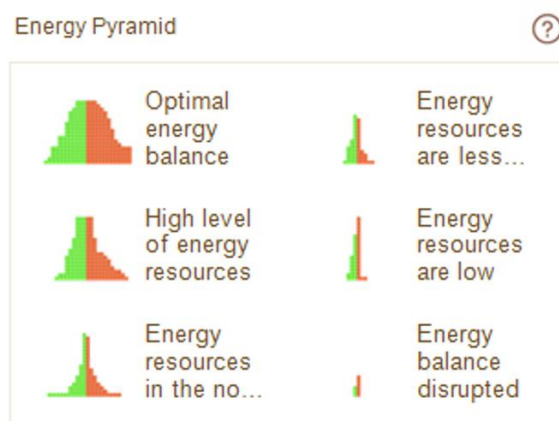
The structure of physiological rhythms is presented in the form of a neurodynamic matrix, each element of which characterizes the dynamics of the corresponding rhythms.

Individual elements of the matrix represent the rhythms of individual body systems, and the color of each element determines the degree to which the parameters of these rhythms correspond to a single universal law of the functioning of living nature – the law of two exponentials.

The parameters of the "ideal exponent" are subject to the "golden section". Compliance with such parameters ensures the most efficient operation of the body's life support systems with minimal energy costs. Yellow-red colors of the matrix elements indicate that the parameters of a given rhythm are far from optimal.

The neurohumoral regulation indicator characterizes the efficiency of the endocrine system and determines how optimally the body uses its energy and physiological resources. The neurohumoral regulation system is responsible for the constancy of the internal environment and the adaptation of the body to changing living conditions.

## Energy Pyramid

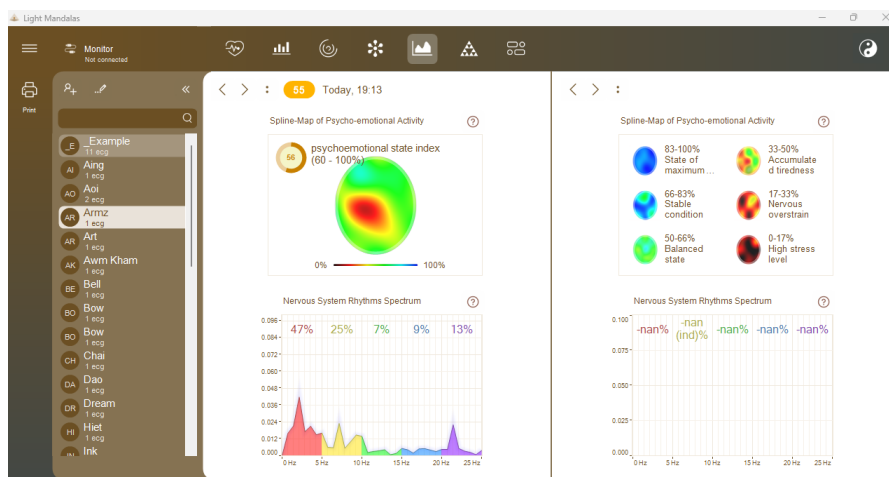


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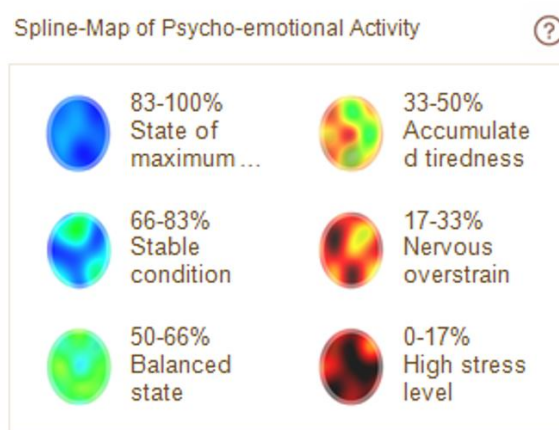
The energy pyramid characterizes the total volume of the body's physiological resources and the balance between the cycles of expenditure and restoration of these resources at the existing rhythm of life. The ratio of the areas of the left and right parts of the pyramid characterizes the dynamics of anabolic and catabolic processes occurring in the body. The volume of the blue part of the pyramid is proportional to the time of resource restoration, the volume of the red part is proportional to the time of resource expenditure. The minimum volume of the entire pyramid signals the depletion of the body's physiological resources.

## Psycho-emotional State

This tab displays information about the parameters of the user's psycho-emotional state.



## Spline Map of Psycho-emotional Activity



The spline map is the result of spline interpolation of dynamic indicators of the psycho-emotional state obtained by neurodynamic analysis of heart rhythms.

Areas with black and yellow-red colors indicate decreased psycho-emotional activity due to a painful condition, nervous exhaustion, or stress.

Spline maps are not an analogue of electroencephalogram mapping and cannot be used

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to diagnose brain pathologies.

The psycho-emotional state indicator characterizes how deeply the destructive impact of stress on the body was.

### Nervous System Rhythm Spectrum

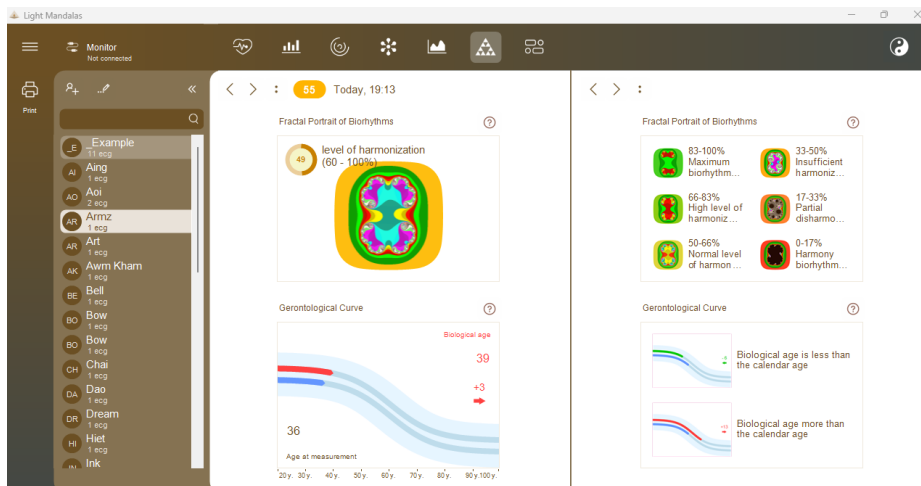


The nervous system rhythm spectrum shows the distribution of various states of the nervous system during the measurement process.

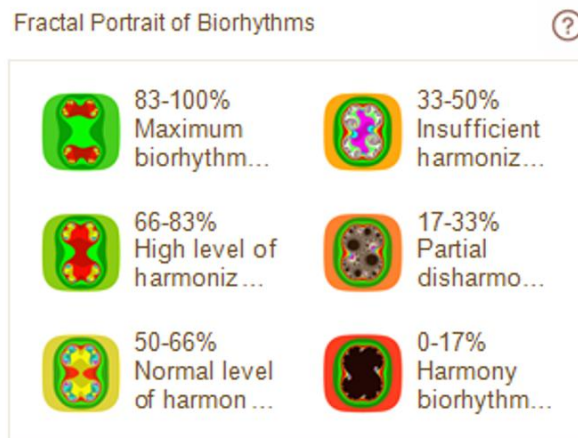
A normal state corresponds to a uniform distribution of rhythms across the entire frequency range. The predominance of stress rhythms indicates a painful condition or nervous exhaustion.

### Fractal Analysis

Fractal analysis is designed to visually assess the degree of harmonization of the rhythms of various organs and systems of the body. The degree of coherence of these rhythms determines the quality of the functioning of the body as a whole. The ability to maintain and preserve such harmony characterizes the body's resistance to changing conditions of the external and internal environment and reflects its adaptive capabilities (immunity).



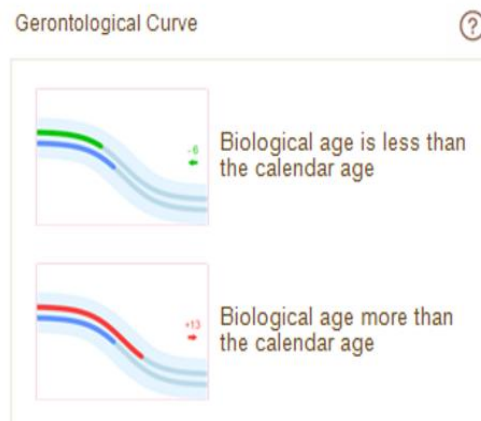
## Fractal Portrait of Biorhythms



The fractal portrait of biorhythms allows you to show changes in the coherence of rhythms during the measurement process.

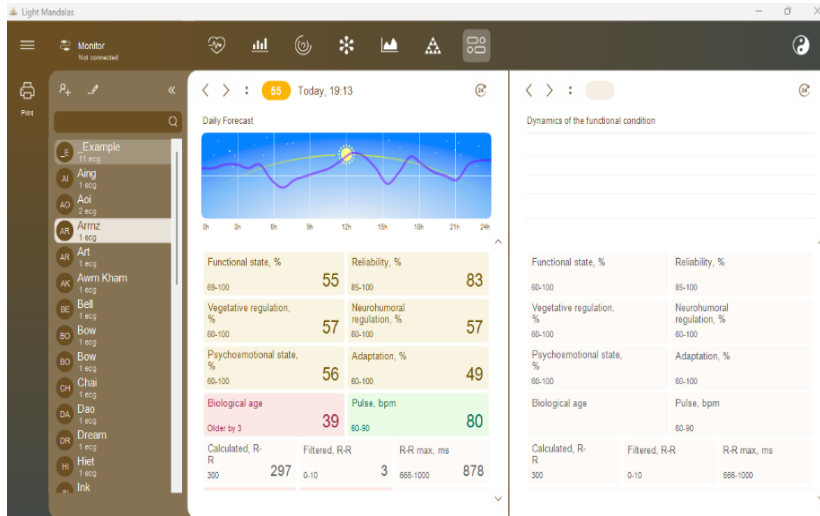
The degree of harmonization of biorhythms is an informational indicator of the immune status of the body, demonstrating its ability to adapt to new conditions.

## Gerontological Curve



The gerontological curve shows how much the functional state of the user's body at the time of measurement corresponds to the average statistical indicators of his age group. Calculation of biological age is possible for users over 20 years old, provided that the user's date of birth is indicated on the user's card. From a biological point of view, an organism can be younger or older than the years actually lived, so diseases and death associated with aging occur at different calendar ages. The differences between calendar and biological age are determined by both genetics and a person's lifestyle. A person's biological age is determined not by the time that has passed since birth, but by indicators that reflect his or her viability.

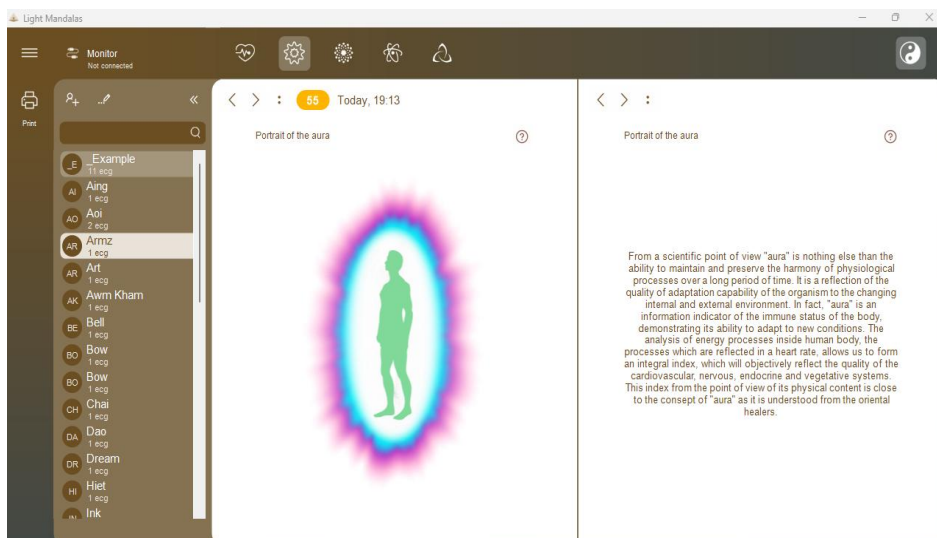
# Functional Status Indicators Dynamics



This tab displays the process of changing functional status indicators over time. At the top of the tab is a graph of the user's functional status changes over several measurements. If the selected user has had a large number of measurements, this graph will display no more than 30 measurements older and newer than the selected one. When you hover the mouse over any point of this graph, it displays the measurement date and the functional status measured in it. If you left-click on any measurement in the Measurement Dynamics graph, all the main parameters of this measurement will be displayed at the bottom of the tab. This table of parameters can be scrolled using the mouse wheel or the buttons to the right of the table. In this case, the measurement tables in the right and left parts of the tab, related to two different measurements, will scroll synchronously, for easy comparison of parameters.

## Energy Potential

Information about the user's aura status is displayed here. The user's aura is represented as a halo around the silhouette of a person, while the color scheme and shape are determined based on measurement and are individual for each user.



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The aura is a multidimensional energy field surrounding a person's physical body, which, according to ancient spiritual traditions and modern esoteric teachings, is a reflection of his inner world. It is a complex structure of vibrational flows that are invisible to the ordinary eye but are detected using special technologies or perceived by people with advanced energy sensitivity.

The aura is not static – it is constantly changing depending on the emotional state, level of health, thoughts, and even external influences. In different cultures, it is called in different ways: biofield, etheric body, panic shell, but the essence remains the same – it is a living energy matrix that connects the physical body with the subtle planes of existence.

The analysis of cardiac rhythms, heart rate variability (HRV), and activity of the autonomic nervous system allows us to deduce an objective indicator that correlates with the state of:

- cardiovascular system
- hormonal balance
- stress level
- general energy tone

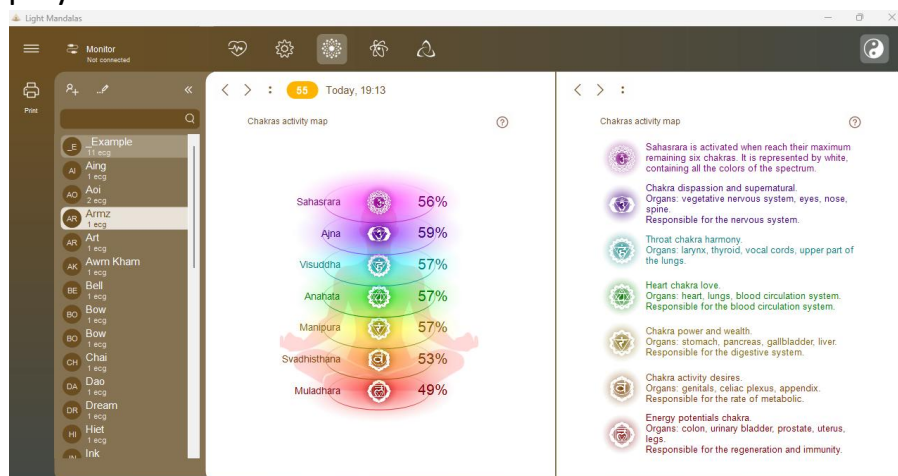
In fact, this is a scientific analogue of the aura – an integral assessment of the vital forces of the body, which Eastern healers have long defined through the concepts of "qi", "prana" or "biofield".

Understanding and working with the aura is not just esoteric, but a deep tool for self-discovery and healing. It helps:

- diagnose hidden emotional and physical imbalances
- strengthen energy immunity by protecting yourself from external influences
- consciously influence your life through vibration control

## Chakra Activity Map

This tab displays information about the state of the user's chakras.



The chakras are represented on the silhouette of a person, while their brightness and size depend on the condition of the corresponding chakra of the user. The relative power of

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each chakra is displayed to the right of the silhouette.

The chakras (from the Sanskrit “चक्र” – "wheel, disk") are powerful energy centers distributed along the spinal column and the human head. These vortex structures, according to ancient Eastern teachings (yoga, Tantra, Ayurveda), are key elements of our subtle energy anatomy, connecting bridges between the physical body and the spiritual consciousness.

Recent research in the field of bioenergetics and quantum physics confirms the existence of energy centers corresponding to the descriptions of the chakras:

The location points of the chakras coincide with the main nerve plexuses

Each chakra resonates with a specific frequency (which corresponds to the color scheme)

an imbalance in the work of the chakras can be detected by special devices

When all the chakras work harmoniously, a person shows:

- high physical health
- emotional stability
- clarity of thinking
- harmonious relationships with others
- spiritual development

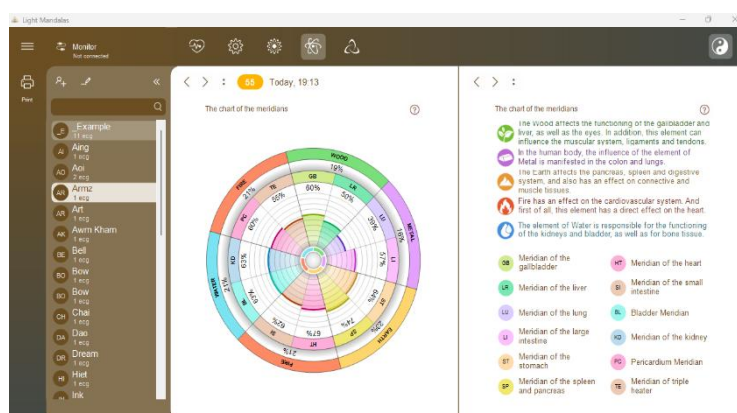
Working with the chakras is a deep process of self-discovery and self-improvement.

Regular practice allows you not only to improve your health but also to reach a new level of awareness, unleash your spiritual potential, and find harmony in all areas of life.

Remember that chakra balance is a dynamic process that requires constant attention and practice.

## Meridian Diagram

This tab displays information about the user's meridian status. The screen displays the relative size of the meridians, the volume of which depends on the user's meridian status.



Traditional Chinese medicine considers the human body as a complex energy system, where the key role is played by meridians (jing-lo) — invisible channels through which the

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vital Qi energy circulates. These pathways form an integral network connecting all organs and systems of the body.

The concept of Wu-xing (five primary elements) is a philosophical and medical model explaining the interrelationships between various aspects of nature and the human body. The five elements—Wood, Fire, Earth, Metal, and Water—are not literal substances, but rather represent archetypal qualities of energy that are in constant interaction.

There are 12 main meridians in the human body, each of which is associated with a specific organ:

Yin meridians (correspond to dense organs of the "tsang"): Lungs (LU), Spleen-Pancreas (SP), Heart (HT), Kidneys (KD), Pericardium (PC), Liver (LR).

Yang meridians (correspond to hollow organs of "fu"): Large intestine (LI), Stomach (ST), Small intestine (SI), Bladder (BL), Triple Heater (TE), Gallbladder (GB).



### Primary element Earth (土, Tu)

Earth occupies a central position in the Wu-xing system, symbolizing stability, nutrition and transformation. It is an element of balance that connects all other elements and ensures their interaction.

Earth is the foundation of health. By strengthening this element, we create the basis for harmony of all body systems. "A man with a strong Earth is like a fertile soil—he nourishes not only himself, but everything around him."



### Primary element Fire (火, Ho)

Fire occupies a unique position in the system of the five elements as an element of maximum activity and transformation. This is the only element represented by two organs (Heart and Small intestine) and two functional systems (Pericardium and Triple Heater).

"The fire in the heart should burn steadily – without burning, but also without fading" – this principle of Chinese medicine reminds us that it is Fire that makes us truly alive. Moderate joy, a passion for knowledge, and the ability to love are the true manifestations of the healthy element of Fire in a person.



### Primary element Metal (金, Jin)

Metal represents the principle of compression, purification, and structuring. It is an element of autumn, the completion of cycles, and wisdom. The human body is responsible for respiration, immunity, and excretion processes.

"Like metal in the hands of a craftsman, we must be able to be both solid and flexible" – this principle reminds us of the need for a balance between structure and fluidity in our

lives.



### Primary element Water (水, Shui)

Water is the primary substance of life, the source of all transformations, and the basis of Yin energy. It is an element of depth, potential, and primordial power. In Chinese cosmogony, Water is the first of the five elements from which everything is born.

"As water takes the form of a vessel, so our essence forms reality" – this principle reminds us of the need for flexibility while maintaining an inner core.



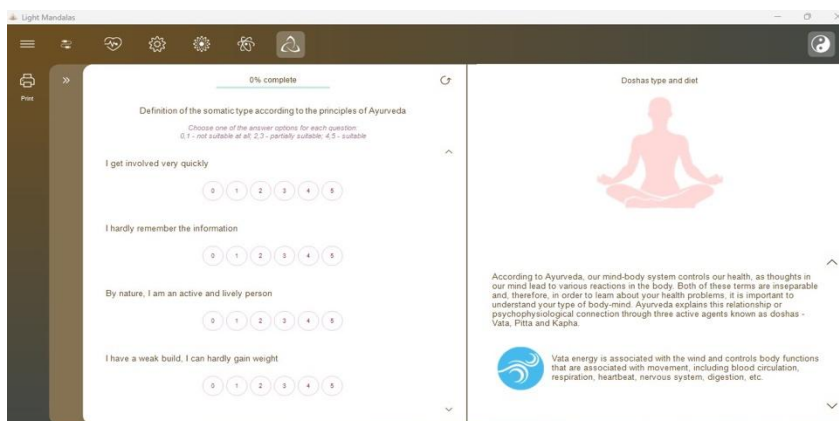
### Primary Element Tree (木, Mu)

The tree represents the principle of growth, expansion, and creative adaptation. This is the first element of the active Yang cycle, symbolizing awakening, development, and flexible strength. In Chinese cosmogony, the Tree is associated with the morning of the year and the east, the direction of the rising sun.

"As a young shoot makes its way to the light, so our will strives for realization" – this principle reminds us of the need to combine perseverance with flexibility on the path of growth and development.

## Dosha Type and Diet

This tab displays information about the user's dosha proportions and the recommended diet. The ratio of doshas – Vata, Kapha, and Pitta – is genetically determined. The ratio of doshas in the body determines the physiological characteristics of the body and the psychological properties of the individual. They change extremely slowly throughout a person's life. Therefore, to determine them, a questionnaire of 60 questions is used instead of measuring the user's functional state:



The user must give evaluative answers to all questions from the questionnaire, from a rating of 0 (completely incorrect) to a rating of 5 (absolutely correct). The list of questions can be scrolled up and down with the mouse wheel or the buttons to the right of the questionnaire. To select an answer, left-click on one of the answer circles. The answer to

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any question can be changed at any time, and you can also completely clear all questionnaire answers – for this, use the Start questionnaire again button:



After marking the answers to all questionnaire questions, the questionnaire result will be displayed on the right side of the tab – the user's predominant dosha (one or more) and the diet recommended for users with this type of dosha.

**Dosha** is a concept in Ayurveda, an ancient Indian system of medicine that describes three main types of energy principles in the body: Vata, Pitta and Kapha. Each dosha is a combination of elements and is responsible for different physical and psychological characteristics.

**Vata:** consists of air and ether. Responsible for movement, communication, respiration, and circulation. Signs of unbalanced Vata: restlessness, dryness, mood swings.

**Pitta:** consists of fire and water. It is responsible for metabolism, digestion, and heat in the body. Signs of an unbalanced Pitta include inflammation, excessive activity, and irritability.

**Kapha:** consists of earth and water. Responsible for the structure, stability, and lubrication of organs. Signs of unbalanced Kapha: laziness, overweight, stagnant energy.

Knowledge of the doshas helps in the diagnosis and choice of treatment to maintain balance in the body.

Doshas play a key role in the Ayurvedic diet, as each nutritional decision must take into account the individual characteristics of the body. When making a diet, it is important to take into account not only the dominant dosha, but also seasonal changes and the current state of health. A proper diet helps restore the balance of the doshas and improves overall health.

"Health is not just the absence of disease, but a state of dynamic balance between body, mind, and consciousness" – this Ayurvedic principle remains relevant in the modern world, offering a holistic approach to well-being through understanding the three doshas.

## ASSESSMENT OF TREATMENT EFFICIENCY

Assessment of Treatment Efficiency can be performed by means of express control as well as by means of long-term observation.

### Express Control

The express control method is applied in such treatments where the effect of treatment exposure can be immediately perceivable.

First initial indices are measured in the user, then the user is exposed to therapeutic intervention of any kind (fast-acting medication intake, physiotherapy, reflex therapy, etc.), and immediately after the therapy exposure, repeated measurement of indices is performed.

Repeated measurement results are compared to the initial measurement.

If the functional state has improved, it means that the therapeutic intervention has had a positive effect.

Therapeutic effect might start the organism's recovery process; in this case, deterioration of indices takes place as the body needs forces to combat the disease. If, after the treatment, the indices have deteriorated, it is recommended to wait for some time (15-30 minutes) and then conduct measurement for the third time.

### Long-Term Observation

Long-term observation is applied with a view to regular control of the functional status of the user under treatment. Before starting the course, it is necessary to gauge the initial indices as well, and then periodical measurements are to be conducted. To obtain objective data, it is desirable that all the measurements be conducted at the same time and at regular intervals.

## TROUBLESHOOTING

### The Application does not start

**Description:** When trying to start the Application, nothing happens, or an error message appears.

#### Check the operating system version

The Application is designed to work only under Microsoft Windows 10 and higher operating systems. The Application can be used on Apple computers either by using the Boot Camp utility and loading the MS Windows 10/11 OS, or by using the Parallels® Desktop utility and starting the Windows 10/11 guest system in it. In this case, to work using the Parallels® Desktop utility, you must use only the DCR-8 Monitor.

#### Reinstall the Application

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The Application files may have been damaged. The easiest way to fix this situation is to reinstall the Application. In this case, no user data will be affected. You can always download the latest version of the Application from the Company's website in the Downloads section.

### **Check your antivirus**

The Application may have been blocked for some reason by the antivirus installed on your computer. This could be caused, for example, by a virus attack on your computer, as a result of which the Application files were infected with a virus and subsequently blocked by an antivirus. It is recommended that you thoroughly scan your computer for viruses and then reinstall the Application. It is also strongly recommended that you re-download the latest version of the Application from the Company's website.

### **The application does not detect the Monitor**

*Description:* The application is running, the Monitor is connected to the computer, but it is impossible to start recording an ECG, because the application thinks that the Monitor is not connected.

### **Check the connection of the Monitor to your computer**

The USB cable connecting the Monitor and the computer should not be longer than 3 meters. Longer cables or various USB extension cables may prevent the Monitor from working correctly.

Check the functionality of the USB port on the computer by connecting any working USB device, such as a USB drive. If the computer has several USB ports, try connecting the Monitor to different USB ports.

### **Check the Monitor**

The Monitor and connecting cables should not have any visible damage. If the USB cable is damaged, you can replace it yourself with a similar one purchased at any computer store. If the Monitor or electrode cables are damaged, contact the Company or its representative in your region.

The LED on the Monitor connected to the computer should be constantly lit or blinking. If this is not the case, the USB cable may be damaged.

Check the model of the Monitor you are using – perhaps you took it from another Application, and its model is not suitable. In this case, use only the Monitor and Application that match each other.

### **Check the Monitor driver**

Make sure that the Monitor is correctly recognized by the operating system of your computer. To do this, open the Windows Control Panel and launch the Device Manager

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from it (it is in the Hardware and Sound group). In the Device Manager:

- **For the DCR-7 Monitor:** expand the USB Controllers group and make sure that the USB Serial Converter device is listed. Then right-click on this item and select Properties from the menu that opens. The device properties window will open. Make sure that the Device Status field says "The device is working properly", then switch to the Driver tab and make sure that the installed driver version is 2.8.14.0 or higher.
- **For the DCR-8 Monitor:** expand the HID Devices group and make sure that a device named "Vendor-defined HID-compliant device" appears in this list when the Monitor is connected. Next, right-click on this device and select Properties from

the menu that opens. The device properties window will open. Make sure that the Device Status field says "The device is working properly".

If any of the above is not true, it is recommended to reinstall the Monitor driver. To do this, open the main Application menu and select Technical Support/Install Driver. You can also download this driver from the Company's website in the Downloads section. Before starting the driver installation, be sure to make sure that the Monitor is connected to your computer.

## Problems with the user list

**Description:** The user list does not contain names; it is impossible to delete some users, and the entered names and dates of birth of users are not remembered.

## Run the Application with the System Administrator rights

This problem occurs because the Application does not receive sufficient rights from the operating system to access the user list on the computer disk.

To work normally with the user list, you must run the Application only with administrator privileges. To do this, find the Application icon on the Windows desktop, right-click on it, and select Run as administrator from the menu that appears. You may need the administrator password – you can find it from the person who installed the operating system on your computer.

## Problems with ECG signal recording

**Description:** The ECG signal is received from the Monitor, but the ECG signal recording does not start or is interrupted during the recording process.

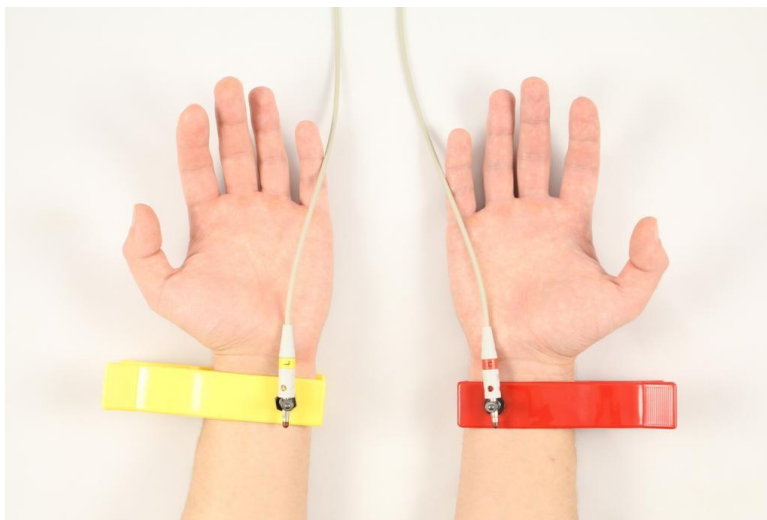
## Check the polarity of the ECG signal

It is important to make sure that the user's ECG signal looks correct – the peaks of the cardiac complexes should be clearly visible and they should be directed upwards. If they are directed downwards, then the polarity of the ECG signal is reversed. In this case, you should swap the electrodes placed on the user or invert the polarity of the signal in the application.



### Check the correctness of the measurement procedure

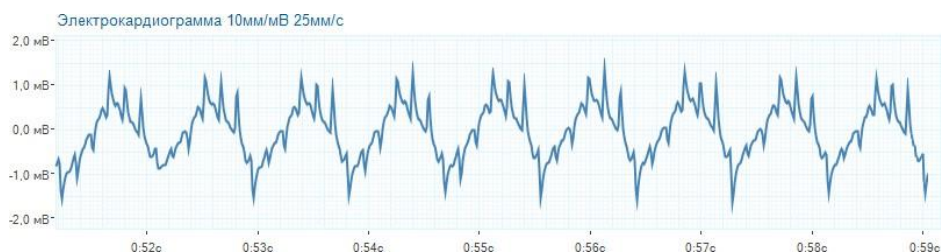
Make sure that the user's measurement procedure is carried out correctly. The user's arms and legs should be motionless and relaxed. When sitting, the user's hands should be on the knees; when lying down, placed along the body. No strangers should move within a radius of 1-2 meters from the user. During the measurement, the user should be in the most comfortable and relaxed state. It is not recommended to distract the user with conversations or show him the computer screen with the recorded ECG. You can also ask the user to close his eyes.



The electrodes should be placed on the user's wrists so that the metal contact pad fits snugly against the inside of the wrist. Before starting the measurement, the user's wrists should be moistened with saline or plain water at the points of contact with the electrode contact pads. The use of distilled water is not recommended, since it practically does not conduct an electrical signal. If even after this the correct ECG signal does not appear on the screen, you can connect the electrode with the yellow plug instead of the left wrist to the left ankle, also having previously moistened the contact area.

### Check for interference in the ECG signal

During the ECG recording, interference from the 220V electrical network is possible. Most often, this occurs due to the absence of grounding in the electrical network. Network interference is also possible due to powerful industrial equipment operating nearby: fans, transformers, air conditioners, etc. In this case, the signal coming from the Monitor looks like a frequently repeating ornament, which has little in common with correct cardiac complexes. Despite the fact that the Application can recognize this interference as an ECG signal, the result of such a measurement will not be correct.

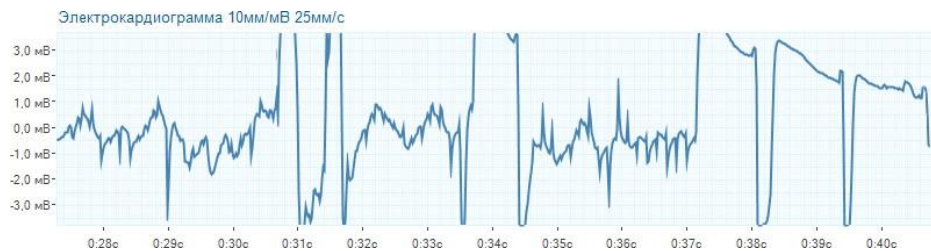


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If you use a laptop to work with the Application, then the easiest way to suppress interference is to disconnect the power cable from it while working with the Application, that is, so that the laptop works from the built-in battery. If you are using a desktop computer, you must use high-quality network wiring with mandatory grounding. You should check with your power supplier about the presence of grounding in your network or the possibility of connecting it. Keep in mind that even if your laptop is powered by a built-in battery, network interference can be transmitted through peripheral devices connected to the laptop and simultaneously to the power supply network. Pay special attention to connected printers and network devices. While searching for the source of interference, it is strongly recommended to disconnect all devices from your laptop, including the mouse, even if it seems to you that interference cannot be transmitted from this device. After detecting the source of interference, it can either be completely disconnected from the computer or temporarily disconnected for the duration of the measurement.

### Check the integrity of the electrode cable

The electrode cable is made of a special thin copper conductor that transmits the smallest changes in electrical potential well, and with prolonged careless use, it can be damaged. A cable break may be completely unnoticeable from the outside, since the braiding of the electrode cable is much stronger than the conductor itself. In this case, the ECG signal is chaotic, regardless of whether the electrodes are on the user or not.

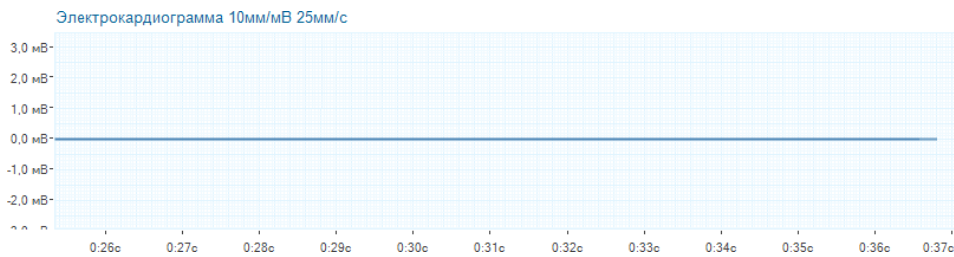


To determine the damage to the electrode cable, you need to do the following simple procedure:

- Launch the Application and start a new measurement. The ECG signal should be visible on the screen, even if its shape is strange, and the Application will report that the signal is incorrect.
- Disconnect the clamps from the electrode cable, and then tightly touch the electrodes to each other. It is the metal parts of the electrodes that must be closed, and not their braiding, so that the electrical signal from one electrode flows to the other.

If the electrode cable is in good condition, then when you connect both electrodes to each other, the ECG signal on the screen should quickly take the form of a perfect straight line. In the first seconds, this straight line will fluctuate from the top to the bottom of the graph, but very quickly it should be located exactly in the center of the ECG graph and then not change its form until you disconnect the electrodes.

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If the electrode cable is damaged, then connecting the electrodes to each other will not affect the shape of the ECG signal in any way – it will still remain chaotic. But even if this does not happen and the signal takes the form of a straight line, it is worth making sure that this is not a coincidence, and the cable is really intact.

To do this, holding both electrodes closed with one hand, with the other hand carefully bend (but do not break them!) the electrode cables along their entire length, while monitoring the shape of the ECG signal on the screen. Most often, the cable is damaged due to careless use near its attachment to the electrode clamps, in the place where the braid of the plug ends and the cable itself begins.

If, in the process of bending the cables, the ECG signal becomes chaotic or the contact of the electrodes with each other does not lead to a smooth line on the ECG graph at all. Then the electrode cable has an internal break and requires replacement. Repeat the above procedure again to make sure that the problem is in the cable, and not, for example, in poor contact between the electrodes.

After this, contact the Company's Technical Support Service and provide the technical support operator with access to your computer. After this, under his guidance, repeat everything described above to exclude the possibility of an error.

After the technical support specialist confirms that the problem is indeed in the damage to the electrode cable, send your Monitor to the Company for repair.

## Disclaimer

Light Mandalas products are designed as energy support tools for relaxation, stress management, and well-being. They are not medical devices and do not replace professional medical treatment or advice.

Any experiences or testimonials shared regarding the use of our products reflect individual responses and are not guaranteed outcomes. Since personal energy and emotional states vary, users may experience different effects, including heightened sensitivity or discomfort. By using our products, you acknowledge that all outcomes are your sole responsibility.

Light Mandalas Co., Ltd. (Thailand) is not liable for any unintended effects, discomfort, or injuries that may arise from product use. If you have any medical concerns, please consult a healthcare professional before using our products.

***For any questions, please reach out to us for further support.***

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