

# User Manual

# Mitochondriak®

## new version



## Contents of the user manual:

Technical parameters of <b>Mitochondriak®</b> devices	3
General recommendations for using red light therapy devices	4
<b>Installation + Starting the device step by step</b>	5
Mitochondriak® devices Basic settings/functions	6
Pre-set programs – how to use it	13
Remote control	14
How red light therapy works	15
<b>Getting started</b> + frequently asked questions	17
<b>Pulsation</b> – uses, benefits and recommendations	21
Whats in the package	24
Warnings and Cautions	25
Maintenance and cleaning instructions, Warranty conditions	26

## Technical parameters –Mitochondriak® devices:

Model:	„Office“	„Maxi“	„Profi“	„Advance“
Dimension (mm):	322*220*71	910x298x65	1159*419*71	1800*600*65
Energy consumption (Watt):	91W	482W	728W	1920 W
LED (pcs):	70*3W	300*3W	560*3W	1200x3W
Weight [kg]:	4,2	11	18,5	50
Cooling fans:	1	2	4	18
Suitable for use:	Local (targeted)	Half Body	Full Body	Full Body
Intensity at 60 cm:	92 mW/cm <sup>2</sup>	95 mW/cm <sup>2</sup>	98 mW/cm <sup>2</sup>	95 mW/cm <sup>2</sup>
Angle of enlightenment:	30°			
Wavelengths::	630, 670, 760, 810, 830, 850, 940 nm			
Pulsation mode:	0-10000 Hz RED and NIR independently			
Brightness mode:	0-100% RED and NIR independently			
Timer:	0-30 minutes			
Pre-set programs:	Yes			
Wireless synchronous mode:	Yes			
Voltage:	AC 110-240 V			
Frequency:	50/60 Hz			
EMF:	at the recommended distance almost zero			
Flicker:	Zero flicker			
Flicker Pct:	0,9 – 3,5 %			
Material:	Metal/Plastic			
Lifespan LED:	50,000 hours (137 years at 60 min./day)			
Warranty:	2 years			
Certificate:	CE, FCC, ROHS			

## General recommendations for using red light therapy devices:

### Recommended use – RED/NIR mode:

#### 1. Test your skin sensitivity for light tolerance:

- Turn on RED+NIR.
- Expose a part of your body (e.g. forearm) from a distance of 15 cm from the device to the light for 2 to 3 minutes.
- It is ideal to repeat for at least 2 to 3 days.
- If you experience any redness or discomfort, you may be photosensitivity and we recommend that you consult your doctor or healthcare provider before using the device.

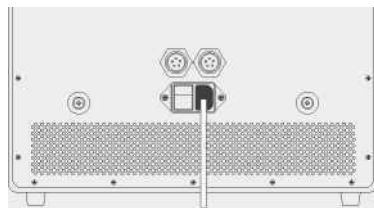
#### 2. Usage itself:

- Ideally, use the device at a distance of 45-60 cm (no closer than 30 cm).
- Turn on RED+NIR and start with 2 to 5 minutes and full intensity for 2 to 3 days.
- Gradually increase to 20 minutes per session. If everything is OK, enjoy the therapy as needed.
- **For treatment of superficial body parts** (wrinkles, collagen production, muscle regeneration, pain, testosterone, thyroid, immune function) apply for **approx. 5 to 15 minutes**.
- **For treatment of deeper parts of the body** (bones, organs, brain performance, fat loss, scarring, sleep quality, muscle regeneration, gut health and microbiome, hair growth, inflammation) apply for **approximately 15 to 30 minutes**.
- Keep your eyes closed or wear protective glasses during therapy.
- Use 5 to 7 times a week (or twice a day if necessary)

## Installation + Starting the device step by step:

### Step 1.

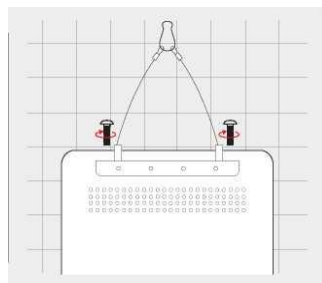
Place the panel on the ground, hang it using a suspension system (see next point) or place it in a suitable stand according to the device type and instructions, and check that the cables are not visibly damaged.



### Step 2.

Plug the power cord into the device and plug the other end into an electrical outlet. Then turn on the main power switch.

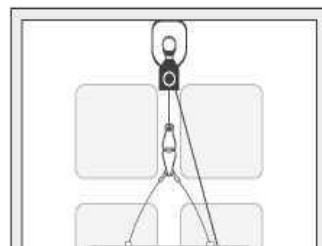
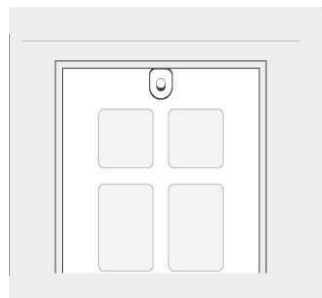
After pressing the power button, the side display lights up. This means the device is ready for use (see the next section "Basic settings/functions").



### Hanging the panel:

The hanging system is included in the package with all infrared panels **Mitochondriak® Maxi and Office**.

1. Screw the bar to the top of the panel (see pictures).
2. Screw the suspension rope to the rail with a carabiner.
3. Place the hinge mechanism on the fixed door and use the mechanism to raise the panel to the desired height.
4. The height of the panel can be adjusted (up and down).



## Mitochondriak® devices - Basic settings/functions:

You control everything simply and intuitively, with a touch/swipe of your finger!

### On/Off/Pause:



Backlight shows

ON/OFF

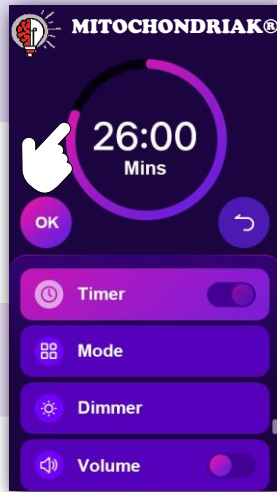
Click for ON/OFF



# Timer:



Click to enter time setting



To set the time, just slide your finger across the screen



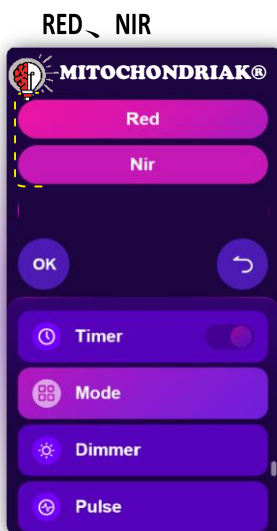
To turn the timer ON/OFF, click on the screen  
Then confirm by clicking OK.

## Choosing a mode:



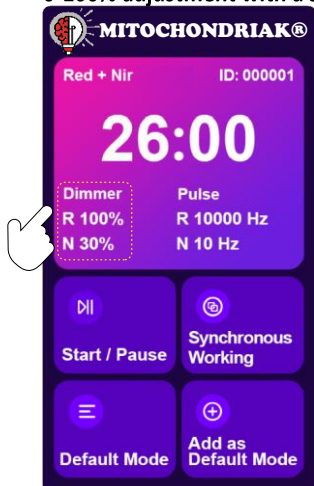
To select RED/NIR just click

Then confirm by clicking OK.

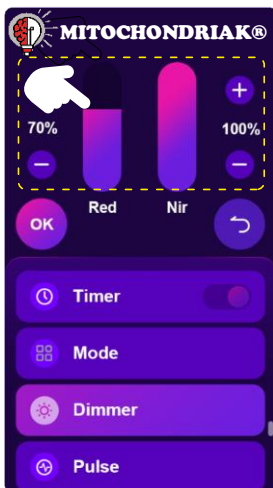


## Intensity selection:

Click to select intensity  
0-100% adjustment with a swipe of finger



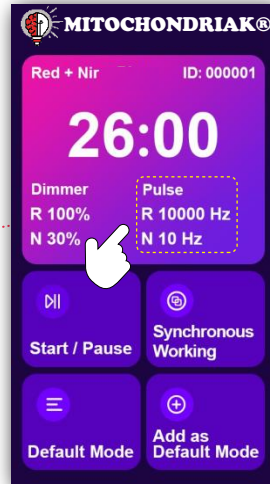
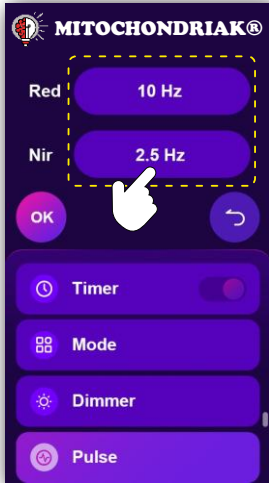
Adjust the intensity by dragging  
your finger or clicking on "+" and "-"



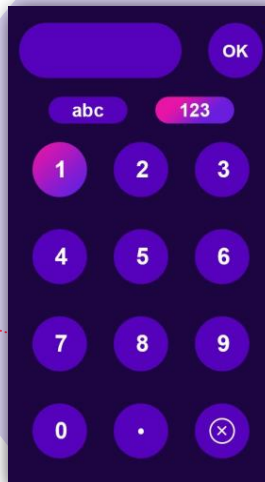
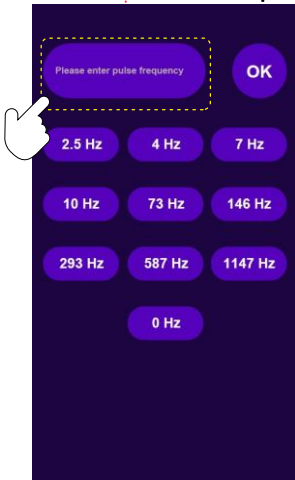
# Pulsation setting:

Click to enter the pulsation

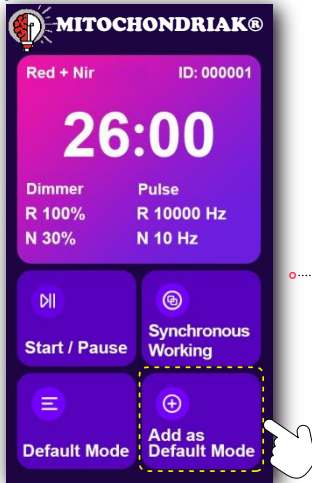
Click on the number



You can choose from presets or type your own number (even decimal)



# Saving your own "default" program/mode:

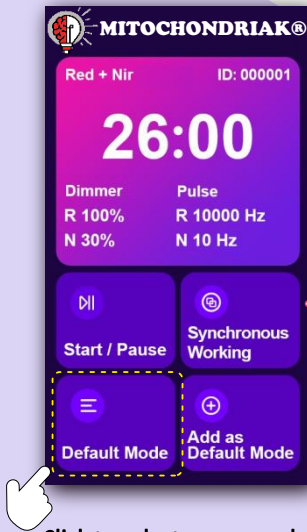


Click on „Add as Default Mode“

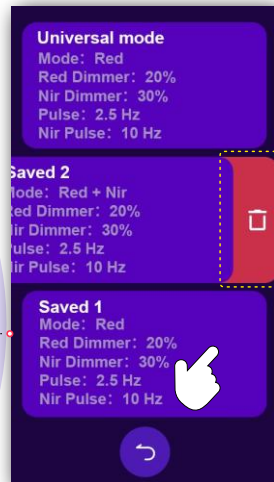


Click „OK“

# Default program - selection/deletion:

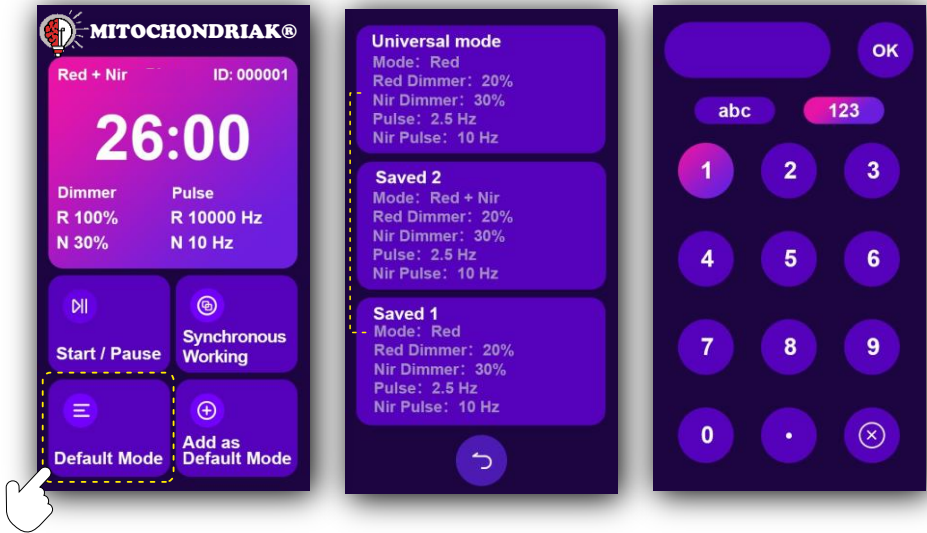


Click to select your saved programs



To delete a program, swipe left and click "DELETE"!

# Default program – custom naming



Click to select your saved programs

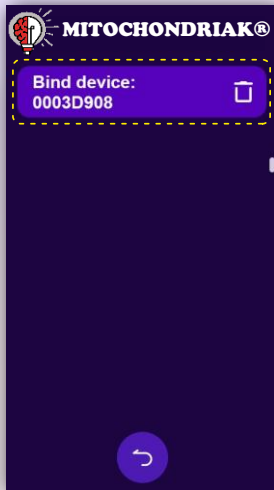
Hold your finger longer to enter name change:  
Then name the program and save!

# Synchronization:

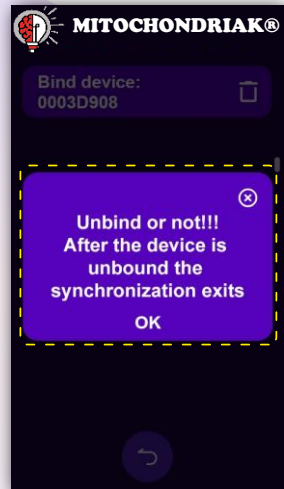


Press and hold the button for 5 seconds to enter synchronization mode.

Do the same on the second device.



Click on the device you want to pair (you can find the device name on the device in the same way) and the devices will pair.



To cancel synchronization, hold down "Synchronous working", click on the trash can icon and confirm by clicking "OK"!

## Pre-set programs – how to use it:

### **Muscle – RED (80% - 146Hz) NIR (60% - 73Hz) – 20 minutes.**

A program designed primarily for the regeneration of muscle fatigue.

The program is suitable for use when you feel muscle fatigue, whether after a hard workout or excessive strain. It is ideal to use the program 1-2 times a day from a distance of 60cm.

### **Joint Pain – RED (50% - 1168Hz) NIR (80% - 73Hz) – 30 minutes.**

The program is designed for joint pain.

If you have frequent joint pain, this program is suitable for you. We recommend practicing consistently 2x a day, 5-7 days a week from a distance of 60cm.

### **Sleep – RED (90%) NIR (50% - 10Hz) – 15 minutes.**

The program is designed to improve sleep quality and make it easier to fall asleep.

We recommend using the program consistently once a day from a distance of 45-60 cm for at least 14 days. The ideal time for therapy is approximately 2-3 hours before bedtime.

### **Skin – RED (50%) NIR (50%) – 30 minutes.**

A program designed mainly for superficial skin treatment (acne, wrinkles, scars, etc.)

We recommend using 1-2x per day from a distance of 45 cm. The ideal time for therapy is anytime during the day, but not right before bedtime.

### **Mood – RED (90% - 146Hz) NIR (0%) – 20 minutes.**

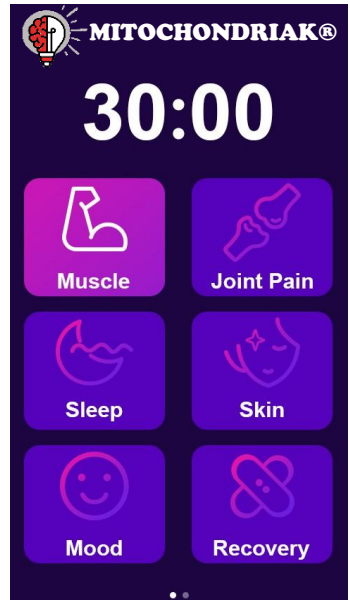
The program is designed to boost mood.

We recommend using it 1-2 times a day from a distance of 45-60cm. It is ideal to use the program in the morning, after sunrise, to improve mood and start the circadian rhythm.

### **Recovery – RED (40% - 292Hz) NIR (40% 292Hz) – 10 minutes.**

A program designed for better regeneration

We recommend using it after training, injury, or after a prolonged stay in strong sunlight to support the regeneration of skin, muscles, bones, tendons, fascia... The recommended distance is 45-60 cm from the device.

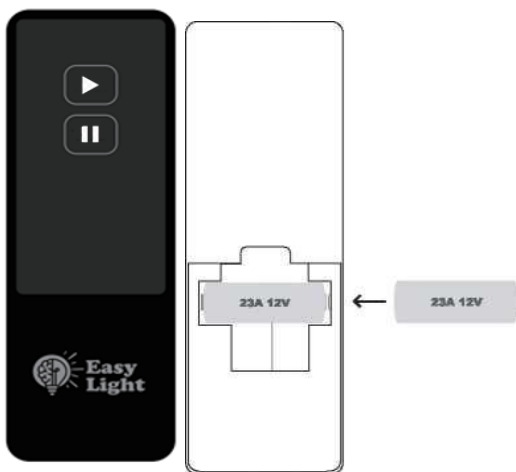


## Remote control:

For the remote control, use a **23A 12V battery**. You can buy it at a regular electrical store. The battery is not included in the package.

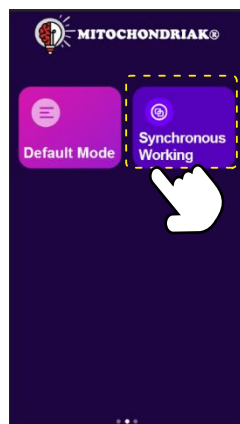
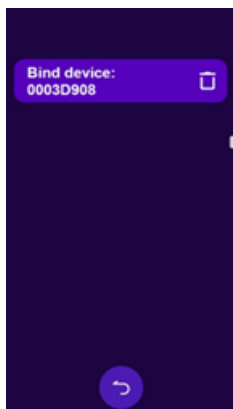
The top button starts the panel and the bottom button stops the program. Programs must be set on the display on the panel, the controller is only for turning on and stopping the already selected program.

**NOTE:** The EMF from the remote control is minimal, but as with any wireless electronics, we recommend holding it in your hand only when switching!



**Synchronizing the remote with the device:** The remote is normally synchronized with the device from the factory, but it may happen that you own a second device of the same generation and want to pair the remote, or the remote has become desynchronized. **The procedure is simple:**

1. Turn on the device and prepare the remote control.
2. On the display, press and hold „**Synchronous working**“.
3. The display will show the name of the panel, e.g. „**0003D908**“. **Click on it with your finger. A tick and countdown will appear.**
4. Then press the top button on the remote control. **Done.**



## How red light therapy works:

### How it works:

Red and infrared light therapy (also known as RLT – Red Light Therapy, or LLLT – Low Level Laser Therapy) is a therapy that uses red or near-infrared light (so-called NIR).

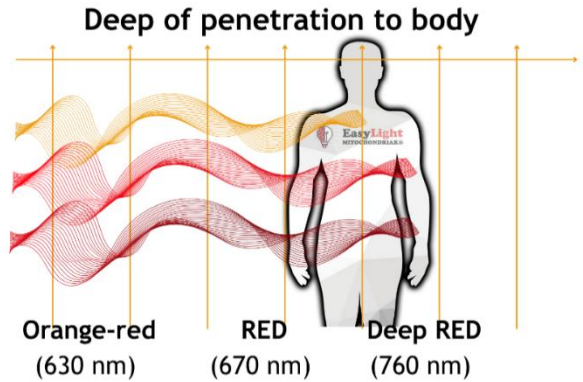
The LEDs in the panels are designed to emit light only at very specific, pre-programmed, therapeutic wavelengths of light. EasyLight panels utilize wavelengths that have been shown to have positive biological results.

The vast majority of clinical literature suggests that light in the mid-600nm to 940nm range is extremely effective, mainly due to its effect on cellular respiration in mitochondria, but also on water, skin, and collagen. This is why EasyLight Mitochondriak® has selected up to 7 wavelengths that have multiple biological effects.

## RED - Penetration: Penetrates to a depth of several cm

### Features:

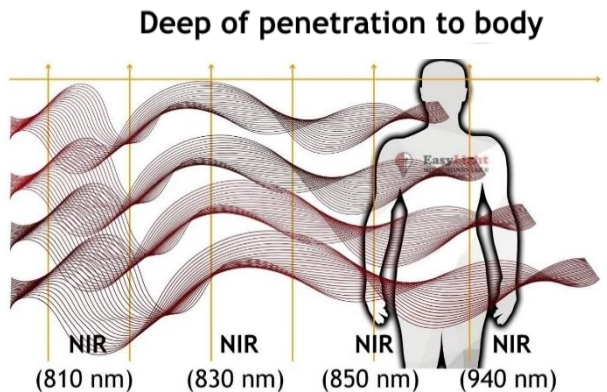
- Stimulates **mitochondria and water production**
- Increases hormone levels and fertility
- Stimulates skin and collagen regeneration
- Stimulates rejuvenation and health



## NIR (near infrared) - Penetration: Penetrates into deeper tissues and the skull (penetrates several cm to tens of cm)

### Features:

- Stimulate mitochondria, collagen production, brain function,...
- Stimulate bones and regeneration
- Stimulates rejuvenation and well-being



## Let's started + Frequently asked questions:

### Are you just starting out with red light therapy?

It doesn't matter. With every order of the EasyLight Mitochondriak® Red Light Therapy Panel, you will receive everything you need to access the amazing health benefits of light therapy.

When ordering any device, you will receive a manual and everything else to enjoy your therapy to the fullest. All it take is to read the entire manual. 😊

### How does red light therapy work?

Red and infrared light photons allow our cells to use oxygen efficiently, minimizing the uptake of nitric oxide by cytochrome C oxidase, and thus create sufficient water and ATP. Only red light therapy can penetrate deep into the body and our mitochondria to stimulate ATP production, healing, regeneration, and subsequently help improve your appearance, performance, and overall well-being.

### Are you sensitive to light?

Before using the red light therapy panel, we recommend that you check your photosensitivity. To do this, follow these steps:

Expose an area, such as your forearm, 15 cm from the device to the light for 3 minutes. If you experience any redness or discomfort, you may be photosensitized and we recommend that you consult your doctor or healthcare provider before using the device.

### What problems can therapy help me with?

Red light therapy is used, for example, to relieve muscle spasms, minor muscle and joint pain, as well as to relieve pain and stiffness associated with arthritis. It is also used during sports or performance to improve regeneration, improve ATP production, or for better overall well-being.

## How long should I be enlightened?

The general recommendation for using our panels is: **In general, for optimal results, we recommend using the panel at a distance of 45 to 60 cm from the body** and illuminating **for approximately 10 to 15 minutes per area** (depending on the size of the panel). **1 to 2 times a day, 5 to 7 days a week.**

You can also easily set the timer on the panel and you don't need to keep track of the time at all. Simply enjoy your therapy, or use it for "meditation" or thinking.

- For treatment of superficial body parts (wrinkles, collagen production, muscle regeneration, pain, testosterone, thyroid, immune function) apply for approx. 5 to 10 minutes (required dose is approx. 1 to 10 Joules)

- For treatment of deeper parts of the body (bones, organs, brain performance, fat loss, scarring, sleep quality, muscle regeneration, gut health and microbiome, hair growth, inflammation) apply for approximately 10 to 30 minutes (required dose is approximately 10 to 60 Joules).

## Results and expectations?

The time it takes to see benefits and improvements depends on your health goals. The benefits of light therapy for cellular health have been thoroughly proven in hundreds of clinical studies (many of which can be found on [easylight.sk](http://easylight.sk)), so trust that your body benefits from each therapy, although the effect may not be immediate like drinking coffee. However, there are many factors that can affect how quickly you feel an improvement in your symptoms. Some people will notice benefits within a few days. But overall improvement in health or skin-related problems may take 8-12 weeks of consistent use. By using a red light therapy panel daily, you can maximize the speed of your body's healing.

## Is consistency really the key?

It's important to remember that, just like with your circadian rhythm and natural exposure to sunlight, it's all about regularity/consistency.

Therefore, we recommend using the red light therapy panel every day or at least 5 times a week. For additional health benefits, including pain relief, aches and tension, even up to 3 treatments per day may be beneficial. Photobiomodulation (PBM) or light therapy is essentially like "food" for your cells and especially the mitochondria.

Therefore, it is important to note that, just like with real food, unfortunately, most people do not get the right amount of healthy light that their body and mitochondria need for optimal well-being. As a result, their body may react with detox-like symptoms. So, if you are experiencing these types of effects, we recommend starting with 1-2 minute treatments per area, slowly working up to 10 minute sessions over 2-3 weeks as your body adjusts to the therapy. As always, if you have any concerns about using photobiomodulation, we recommend consulting your trusted healthcare provider or doctor.

### **Can light hurt eyes?**

The typical human eye responds to wavelengths from 400nm to 700nm. The light from this device is visible red or invisible infrared. So your eyes will only see some of the wavelengths from the panel.

Infrared light is beneficial for the eyes as well as other parts of the body. Protective glasses are not required to use with infrared light, but we recommend using them.

The red light is very bright, so it may be uncomfortable to use with your eyes open. Especially if you are sensitive to light or have damaged eyes. Usually, closing your eyes is sufficient to use the light directly on your face. However, if you are unsure or the light bothers you too much, we recommend consulting a specialist or doctor.

### **Do you have to keep your eyes closed when using the light?**

We recommend keeping your eyes closed. Red light and infrared light penetrate through the thin eyelid. If the light bothers you too much, put on the protective glasses that are included with each panel.

### **Can I shine light from to myself through clothes?**

It is true that a large part of NIR light and some red light penetrate through some types of clothing, but we recommend exposing yourself to the naked body. Of course, if you use the panel as interior lighting, then the clothes are irrelevant.

### **Why can't I see some LEDs light up?**

The Red light therapy panels Mitochondriak contains 7 wavelengths, not all of which are visible to the human eye. But you don't have to worry. They shine and on our website you can find many photos and videos where we measure them with a spectrometer!

### **What if I overdo it with the enlightenment time?**

Since red light therapy does not contain any UV light or produce excessive heat, there are no risks associated with too much red light. However, there is such a thing as "overdosing," and like with anything else (including pure water), if something is good, more is not necessarily better. Overusing red light therapy will most likely simply lead to less positive effects because your cells will be overstimulated.

Therefore, we simply recommend that you follow the instructions in the manual that comes with your device. This way you will know that you are receiving an effective dose.

## **What is light pulsation and what is it good for?**

Light pulsing is a new type of technology that allows LEDs to have a deliberate interruption of radiation (full off interval) followed by a deliberate maximum illumination (on interval). In this way, we achieve that the light is not radiated to the body at full intensity all the time, but in specific intervals (on/off), which makes it possible to achieve additional benefits with red light therapy.

Thanks to such a correct pulsation of light, it is possible, for example, to penetrate deeper into the body and tissues and also to prevent the potential heating of the tissue on the surface of the body.

Pulsation also simulates the release of endogenous light (so-called **biophotons**), which has additional additive effects.

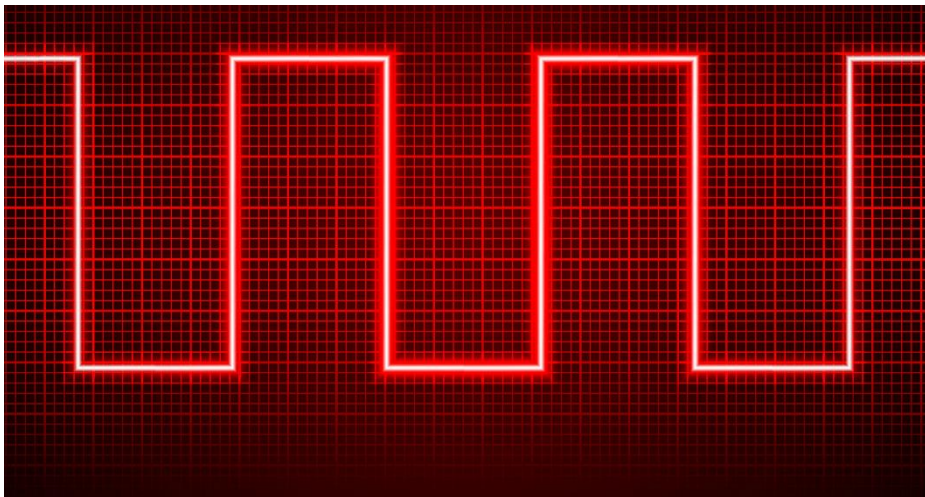
Pulsation of light is still a hot topic today, which is why our devices are unique in that you don't have to use pulsation, but you can (choose from our preset modes, or choose your own).

**General recommendations for using pulsation, including our preset values, can be found in section „Pulsation - uses and general recommendations.“**

You can find more questions and answers on our website [www.mitochondriak.com](http://www.mitochondriak.com)

## Pulsation – uses, benefits and recommendations:

Pulsation is a relatively new technology that can bring additional, additive benefits to therapy. In our new prototype, you can choose the pulsation frequency as you like.



You can also find more information about pulsations on our website.

Many people who deal with alternative medicine or holistic counseling know that frequency, whether in the form of sound or light, has a great influence on a person and they can choose the pulsation easily, according to themselves/the client.

For someone who is dedicated to e.g. acupuncture or sound healing, it can be beneficial to add lighting with the same frequency to the therapy, but for anyone who does not know what pulsation frequency to use, we have prepared a brief summary of general, recommended tips - what frequency to set for the most widespread problems. Some frequencies also fall into the so-called Nogier frequencies.

**Notice:** Frequencies below 60 Hz are visible to the human eye and may be irritating to the eyes. Therefore, we recommend wearing protective glasses or using only invisible NIR light at frequencies lower than 60 Hz.

We also recommend alternating the pulsation modes over time, try one for a few days, then another and find which works better for you.

## Here are general recommendations for pulsation frequency along with a brief explanation and usage (some of the pulsations are preset by us):

### Recommended use of individual pulsation modes that we have preset for you:

- **2,5 Hz** – this is a very slow frequency, such as e.g. our brain waves during the deep DEEP stage of sleep. **They can be suitable in the evening, especially for people who have little deep sleep.** These slow pulsations can reduce stress and anxiety and are associated with deep meditation, deep sleep, pain relief, reduced cortisol and better "access to the subconscious" (fantasy, visualization,...).
- **4 Hz** - **delta to theta waves** are associated with deep to REM sleep, reduced anxiety, relaxation, as well as meditative and creative states. **They are more suitable for people who lack more REM sleep. Use mainly in the afternoon to evening.**
- **7 Hz** – **Theta to alpha waves** to promote deeper REM sleep and relaxation.
- **10 Hz** - **alpha waves**, which are especially suitable for **pain and relaxation/regeneration (induction of slow alpha waves)**. We recommend using NIR in particular or wearing protective glasses when turning on RED/NIR (because you will see the pulsation with your eyes). For pain, beneficial wavelengths, especially 670 and 810 nm, are shown.
- **40 Hz** - especially for the brain and cognitive functions, you can use it directly to illuminate the head (we also recommend using protective glasses, or turning on only NIR). Especially suitable during working hours.
- **73 Hz** - especially for the brain and cognitive functions, supporting thinking/learning.
- **100 Hz** - especially to support mitochondria, fat burning and therefore weight loss. Mitochondria have a frequency of 100 Hz when they "parasitize" on fat and beta-oxidize. We at Mitochondriak® therefore believe that by pulsing RED and NIR light of the same frequency, we can better synchronize the mitochondria and help them with resonance.
- **146 Hz** - especially for muscle support and regeneration.
- **250 Hz** - especially for **improving the microbiome, for people who don't have time to spare**. In some studies (PMID: 30074108) it was shown that after 14 days of abdominal illumination with 810 nm, 3 times a week, with pulsation of 250 Hz, with a total amount of delivered energy of **10 Joules/cm<sup>2</sup>**, the microbiome changed for the better. You can reach this intensity of 10 Joules in just **5 minutes** using pulsation.
- **293 Hz** – promotes wound healing and reduces inflammation. You can use it for common skin injuries or inflammations.
- **587 Hz** - especially suitable for the microbiome and organs of the gastrointestinal tract, such as the gallbladder, but also the lungs, bladder and thyroid gland. The frequency is also generally suitable for a deeper penetration of light into tissues and the subsequent regeneration of organs, joints and fascia.

- **700 Hz** - suitable for **improving the microbiome and diversifying beneficial strains of bacteria**. According to a more recent study (PMID: 34962422), it was shown that light with a **wavelength above 900 nm** and a pulsation **frequency of 700 Hz** at high power applied 3 times a week for 11 weeks to the abdominal area improved the microbiome of the study participants with an increase in the number of known beneficial bacteria .
- **1147 Hz** - Particularly suitable for **improving the microbiome** and for the organs of the gastrointestinal tract. The frequency is also generally suitable for deeper penetration of light into tissues and subsequent regeneration of organs, joints, fascia and muscles.
- **8 000 Hz** - suitable for improving somatic pain. Pulsation of red and infrared light with a frequency of 10 or 8000 Hz had the best effect on reducing the behavioral manifestations of somatic pain. You can't see such a fast pulsation, so you don't need to wear glasses, and we recommend shining the light especially on the area of the spine, where the pain is coming from.

**We recommend alternating the pulsation modes, try one for a few days, then the other and find which works better for you.** For example, someone with frequent back pain will benefit more from 10 Hz pulsation. However, another can turn on 40 Hz and shine with the panel a few cm from the top of the head or from the side (e.g. for memory, learning,...). Someone else can help their intestines and digestion faster with the pulsation of 587 Hz.

We also recommend wearing protective glasses for pulsations up to 100 Hz.

You can find more answers on our website: [www.mitochondriak.com](http://www.mitochondriak.com)

## What's in the package:

### Mitochondriak® Office:

1x LED red and infrared panel	1x Manual
1x Protective glasses	1x Height-adjustable pulley system
1x Power cable	1x Door hanger + hand forging
1x Remote control	1x Adjustable table stand

### Mitochondriak® Maxi:

1x LED red and infrared panel	1x Manual
1x Protective glasses	1x Height-adjustable pulley system
1x Power cable	1x Door hanger + hand forging
1x Remote control	

### Mitochondriak® Profi:

1x LED red and infrared panel	1x Manual
1x Protective glasses	1x Remote control
1x Power cable	

### Mitochondriak® Advance:

1x LED red and infrared panel	1x Manual
1x Protective glasses	1x Remote control
1x Power cable	1x Ground anchor

## Warnings and Cautions:

- Mitochondriak® products, intended for light therapy, are not medical devices. The use of our products does not in any way replace a visit to a doctor or consultation with a specialist.
- Do not look directly into the LEDs or their reflection in the mirror as this may cause temporary eye irritation.
- Do not allow children to use the device without supervision.
- This device is an electrical device. To prevent electric shock, observe the following points.
- Do not throw the device into water or liquids as you could receive an electric shock.
- Do not wash electrical parts with water or liquids.
- Do not touch the device directly or touch plugs or switches with wet hands.
- Do not touch the device if your skin is wet or damp.
- Do not pull, carry or lift the appliance by the cable. If the cable is damaged, do not use the appliance as this could result in electric shock.
- Do not use the device if it has been dropped, damaged, or if it has come into contact with water or other liquids.
- Do not use the device on or near heated surfaces.
- Do not use this device in areas where it may be exposed to flammable materials or products, or in places where fumes may be present. Explosion and fire may occur.
- This device can not be used by sleeping or unconscious persons.
- Do not use the device on open wounds as the heat may increase circulation and cause bleeding.
- Do not use this device in combination with ointments and balms that contain heat-generating ingredients, as this may cause skin burns.
- Use of this device in a manner other than that described in this manual will void the warranty and may result in serious injury.

## Maintenance and cleaning instructions:

### Maintenance

Our panels do not require any maintenance other than regular cleaning and care.

### Cleaning instructions

1. Turn off your device by sliding the power switch on the side of the device to the off position.
2. Unplug the power adapter from the electrical outlet.
3. Clean the surface of the device only with a dry cloth or duster, and make sure the device is dry before use.
4. Avoid using any harsh cleaners or bleach, or wet cloths, as they may damage your device.

### Tips:

- The device is suitable for indoor and dry use only.
- If the panel stops working, disconnect it from the power supply.
- Do not place the panel near a source of heat or moisture.

## Warranty conditions:

We guarantee that this equipment will operate within its specifications for a period of 2 years from the date of delivery..

### What does this warranty cover??

This limited warranty covers all defects in material or workmanship under normal use as described above during the warranty period. During the warranty period, our company will repair or replace, free of charge, the product or parts of the products that prove to be defective due to faulty material or workmanship under normal use and maintenance..

### What the warranty does not cover?

The limited warranty does not cover any problem that is caused by damage or the result of improper maintenance or self-modification. It also does not cover damage to the product due to natural disasters such as flooding, falling of the product from a height or other natural disasters, theft or loss of the product..





*Let's get closer to nature and sunlight and  
discover our full potential!*



[www.mitochondriak.com](http://www.mitochondriak.com)



@mitochondriak.europe