



# Operating Manual

# Important Notes for Getting Started

We congratulate you on your purchase of the “Exagon Brain”, the premier brain wave entrainment system.

Together with the iMRS prime, the Exagon Brain will stimulate the brain waves by using visual and acoustic signals. In doing so, rhythmic visual and acoustic signals will be generated in specifically programmed sequences through LED goggles and headphones. In principle, our brains fluctuate between four different ranges of brain waves, each with its own characteristic set of frequencies (alpha, beta, delta and theta waves). The four frequency patterns determine if we are in a state of extreme concentration or in phases of stress, relaxation, dreaming or deep sleep. The brain has the ability to adjust itself to externally applied fluctuations. By generating a specific fluctuation pattern, stimulation of the phases of being awake, relaxation, deep sleep and dreaming can be achieved with the Exagon Brain system. The Exagon Brain can be used independently as well as together with a PEMF application.

This operating manual is a component of the scope of delivery or can be alternatively downloaded from the available service websites of Swissbionic Solutions.

**Exagon Brain only works with iMRS prime firmware versions from 2.08 upwards! Under „Settings“ followed by „System Information“ you can find the actual version of your uploaded firmware in the second line. If the displayed number is lower than 2.08, a firmware update to 2.08 or higher is mandatory to enable the function of Exagon Brain. If you feel insecure or if you need assistance, please contact your responsible country office (addresses can be found in the annex of this manual) or directly contact your responsible Swissbionic Solutions representative!**

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The details of the content of this manual may deviate from the product or the associated software. All information in this document may be changed without prior notification.

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# 1. Scope of Delivery



Exagon Brain user interface  
*(already pre-installed on the iMRS prime )*



LED goggles incl.  
connection cable



5 Hygienic fleece



Dust Bag



Operating Manual

If one part should be damaged or missing, please contact your consultant at Swiss Bionic Solutions.

# 1.1 Control unit

The Exagon Brain will only function in connection with the iMRS prime control unit. The iMRS prime control device is included in the scope of delivery for all iMRS prime sets available. You will find the operating instructions for the iMRS prime in the special manual that accompanies the control device.



iMRS prime control unit



iMRS prime Connectorbox

## 2. 2. Contraindications and Accompanying Symptoms

DO NOT USE when the person is subject to:

- Photosensitivity
- Epilepsy

In some people, an epileptic crisis or attack of fainting may be triggered by the continuous effect of rhythmic visual and acoustic signals. This phenomenon may also arise without a prior diagnosis of epilepsy or treatment for this condition. The risk of triggering latent cases of epilepsy exists in particular in children younger than the age of 14. The Exagon Brain ww in these cases.

## 3. Installation

Take the individual parts out of the packaging.

- Connect the USB plug of the goggle with one of the four available USB jacks of the iMRS prime. (Two at the left side of the control panel (1), two at the Connectorbox (3)).
- Connect an arbitrary headphone of your choice (3.5-inch plug, pls DO NOT USE Apple headphones due to an incompatible pin allocation) with one of the two available 3.5-inch jacks on the left side of your control panel (2).
- Check the system time (top of the display on the right corner (4)) and eventually adjust to the actual local time, if necessary (see also user manual iMRS prime). The built-in organ clock will adjust automatically to it during an application.



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## 4. Application

Exagon Brain functionality is enabled with all offered application modes (depending on the scope of delivery) of the iMRS prime.

The integrated organ clock will automatically adjust to the time set on your iMRS prime. If you wish to manually overwrite, you may perform this step during the setup sequence.

### Organ Clock morning:

**Beta Waves:** they range from approx. 12 - 30 HZ. These frequencies activate the body and the mind. The faster (higher) frequencies within this spectrum are responsible for cognitive functions such as concentration and memory. The balance of Beta stimulates reduced arousal as well as calms in case of mental hyperactivity.

### Organ Clock noon:

**Alpha Waves:** they range in the spectrum from approx. 8 - 12 HZ. This brain wave form is responsible for being in a relaxed state without losing focus. This is important in order to “wind down”, reduce stress and pain. It also reduces circulating cortisol levels. The Exagon Brain Alpha range should be used after a lunch break to activate the parasympathetic system (regeneration, relaxation) and to give your brain a “little break”.

### Organ Clock evening:

**Theta Waves:** frequency spectrum from approx. 4 - 7 HZ. These waves are connected with total relaxation and improvement of senses and creative forces. Theta wave activation is ideal for relaxation after an exhausting workday. It calms brain activity without getting sleepy. Theta status is a creative status in which thoughts become clearer and are characterized by emotions.

### Organ Clock night:

**Delta Waves:** frequencies up to 4 HZ. These frequencies are responsible for deep sleep and at the same time increase the stability of individual sleep cycles. When the brain is in Delta state, the consciousness is very receptive. For this reason, Delta frequency is ideal to activate cell regeneration for the entire organism.

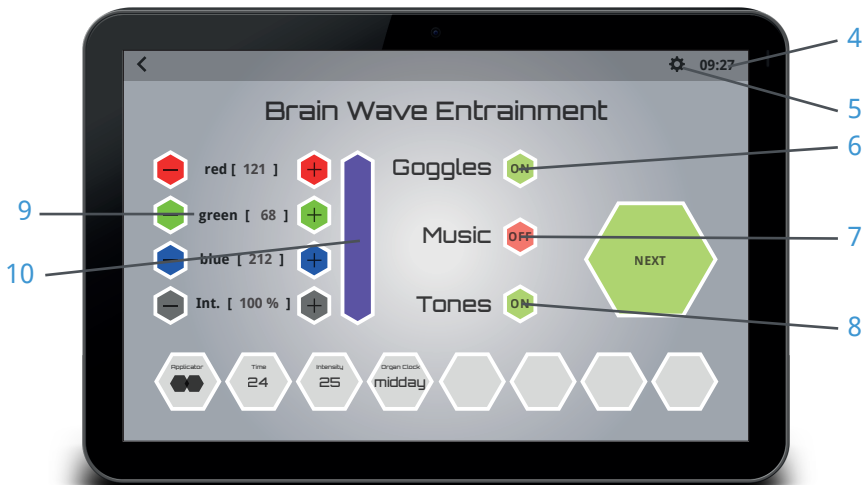
## 4.1. Performing a single application with PEMF

A single application (contrary to a Split Mode application) does not require a special port assignment (left or right for the goggles and the headphones), as all applied signals will be emitted simultaneously.

In order to start a simultaneous Exagon Brain/PEMF application, pls tap on the application mode of your choice at the home screen of the iMRS prime.

**CAUTION:** In "Fast Start Programs" mode, all applicable patterns are already preprogrammed and cannot be manually adjusted!

Over the course of the setting sequence, you will automatically get to the Exagon Brain menu, which provides all adjustable parameters.



### 4.1.1. Color Settings

Tap on the Icon (6) right beside the word "Goggles" until the status "ON" = highlighted in green, will be displayed.

A screen appears allowing you to set the color and intensity level of the LED`s by tapping on the "-" and "+" buttons (9) The chosen color will be displayed in a preview window right beside the color control buttons. By tapping on the preview window, a full spectrum color scheme will open and you may directly choose your preferred color from here as well. Move your finger over the color scheme until you find your favorite

blend. By tapping again on the preview window, you will be redirected to the previous setting mode. Visualizing the color can generate either a sedative or stimulating effect in the brain. Exagon Brain is capable of generating all visible colors within the RGB spectrum through the setting options in the software interface. The following wellness effects can be achieved by using the correct selection of color shades.

### Red Shades:

Contribute to vitality, decisiveness and energy. Red shades strengthen the joy of life, feelings of self-worth and promote assertiveness and the power to go after and overcome hindrances.

Spiritual development, vitality, bravery and power.

**CAUTION:** People with an overstimulated sympathetic nervous system do not tolerate red shades very well.

### Green Shades:

Refresh and generate optimism and strengthen the general feeling of well-being. They promote inner calm and relaxation. Green is the color of the lightening of the heart and of harmonic growth. Green releases creative energy. Green stands for exchange, reconciliation, comfort and compassion.

Self-assertiveness, serenity, endurance and growth.

Green shades are generally well tolerated by all people, without uncomfortable initial reactions.

### Blue Shades:

Color of loyalty and surrender, inner connectedness and emotional security. Blue shades strengthen the life forces. They are considered to be soothing and harmonizing. Blue symbolizes growth, persistence and justice. It promotes the balance of energy, communication and understanding of others. Sympathy, broad thinking and assertiveness.

Blueshades are also generally well tolerated by all people, without uncomfortable initial reactions.

### 4.1.2. Tone Settings

If headphones are connected to the iMRS prime control panel, a specific pattern of tone sequences will be activated and can be heard in conjunction with the pulsating light and color frequencies of the LED`s. The simultaneous exposure will enhance the efficiency of brain wave entrainment. Tap on the icon (8) right beside the word “Tones”, until the status “ON” = highlighted in green, will be displayed.

### 4.1.3. Music Settings

Activate music output by tapping on the icon (7) right beside the word “Music”, until the status “ON” = highlighted in green, will be displayed.

#### **CAUTION:**

Listening to music during a brain wave entrainment application requires the availability of previously uploaded songs (MP3 format) onto your iMRS prime control panel.

In order to upload music files, copy the desired songs from your source (PC, laptop etc.) to an USB stick and plug the stick into one of the two available USB plugs at the left side of your iMRS control panel.

On the home screen, tap on “Settings” (5) (small cogwheel in the right corner of the header menu bar, beside the system clock) followed by a tap on “Music Management”.

A divided screen will appear (left side with the file folder of your iMRS prime control panel (11), right side with the uploaded MP3-files on your USB stick (12).

If you wish to pre-listen to your uploaded music files, please tap on the “musical-note symbol” beside the respected file.

To copy a music file from the USB stick to the iMRS prime control panel, tap on the “+” symbol. The file will be transferred and displayed on the left side (iMRS prime file folder (11)). Repeat the procedure with every file you would like to upload to your iMRS prime control panel. After finishing, please unplug the USB stick.



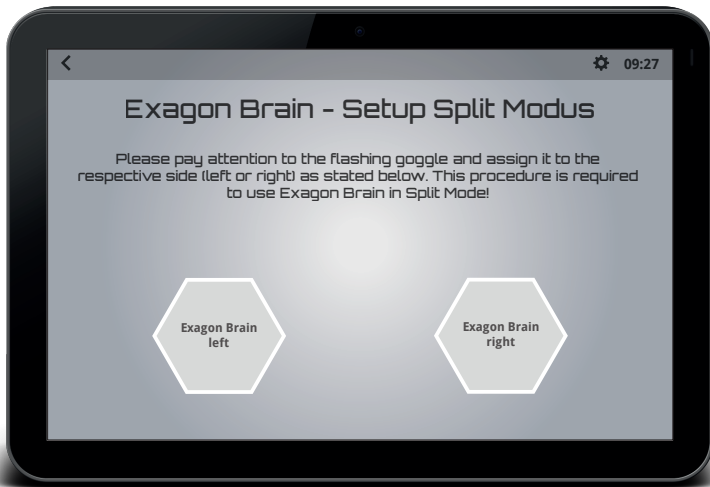
A window will open with all previously uploaded and available music files. To select a song, tap on the white box (15) beside the file name. If you wish to listen to the selected files randomly, please tap on the white box beside "Shuffle" (16). To save your settings, please tap on the button "Save" (17).



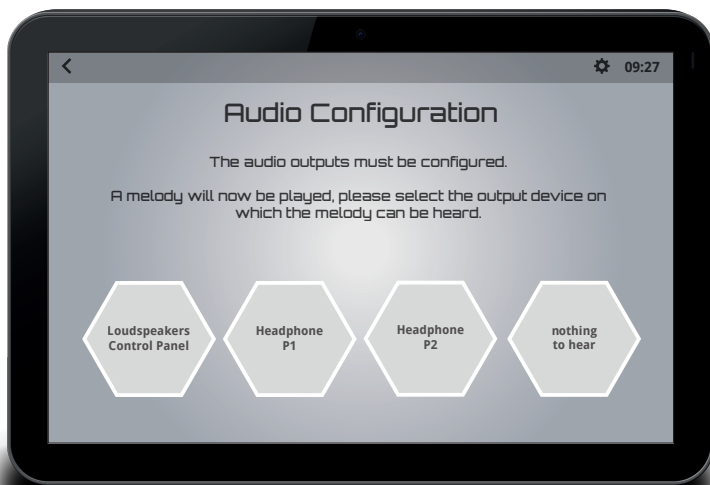
## 4.2. Performing a Split Mode application with PEMF

Plug-in one or two Exagon Brain goggles into one or two of the four available USB jacks of the iMRS prime. (two at the left side of the control panel (1), two at the Connectorbox (3)). Plug-in one or two headphones in one or two of the available 3.5-inch jacks (2) on the left side of your iMRS control panel.

Start your Split Mode setup by tapping on the “Split Mode” button on your iMRS prime home screen. One Exagon Brain goggle will now start flashing. Assign the goggle to the desired side, left or right, by tapping on the respective icon. If a second Exagon Brain goggle has been connected, repeat the process to assign the other side.



The following audio configuration process is only necessary after the initial start of the iMRS prime application (and after every reboot or un- and replug of goggles or/and headphones), and only if two Exagon Brain goggles are connected to the iMRS prime:



iMRS prime will initially and automatically start playing a melody. Please choose, whether you hear the melody through the internal speakers of your control panel or through the plugged headphones. If only one headphone is plugged, you may not hear any melody at all, because it will be emitted via the unused headphone plug. In this particular case, please tap on the button “nothing to hear” The melody will then be automatically directed to the next output. Please repeat choosing the respective assignment (P1 = audio plug 1 and P2 = audio plug 2 at your iMRS prime control panel).

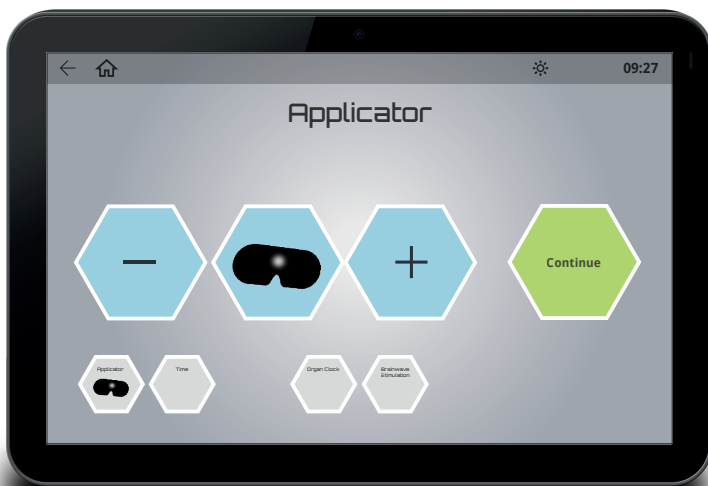
**CAUTION:**

Within Split Mode, while using 2 headphones, audio plug 1 is always assigned to the left and audio plug 2 is always assigned to the right side.

Starting the application(s): You may now select and customize a separate application for each side (left or/and right), tapping on one of the available options within the Split Mode menus (left and right independently). Follow hereby the identical steps as already described at section 4.1 “Single Mode”.

## 5. Performing an application without PEMF

If you would like to use Exagon Brain independently from a combined PEMF application (= brain wave entrainment only), tap on “Manual Mode” on your iMRS home screen. Within the setting sequence, choose the goggle symbol from the applicator selection window and continue to set all displayed parameters as desired.



## 6. Technical Data

Nr.	Designation	Values, unit, type and model
<b>LED Goggles</b>		
1	LEDs per side	9
2	Peak wave lengths (RGB)	620-625nm / 515-520nm / 465-470nm
3	Light intensity (RGB)	85lux / 660lux / 53lux
4	HF frequency	None
5	Cable length (without plug)	2.2 m
6	Weight	230.5 g
Connecting another set of LED goggles is not allowed		

## 7. Warranty

Swiss Bionic Solutions provides the warranty on the material and work for a period of 6 months from the date of purchase.

The warranty can only be maintained by use as intended. For this reason, read the instruction in this operating manual precisely. Warranty claims resulting from errors, damage or consequential damage that result from non-compliance with the operating manual and the safety instruction shall not exist.

Save the purchase receipt for the device in order to demand warranty claims. Repairs and service should only be performed by the manufacturer or the respective local offices of Swiss Bionic Solutions (you will find the addresses at: [www.swissbionic.com](http://www.swissbionic.com)) or by your supporting medical product consultant.

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