

# OMNIBRAIN

Operating Manual

# Important Notes for Getting Started

We congratulate you on your purchase of the OmniBrain brain wave entrainment system.

Together with the Omnium1, OmniBrain will create stimulation of 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 the state of extreme concentration or in phases of stress, relaxation, dreaming or deep sleep. The brain has the property of adjusting 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 OmniBrain system. The OmniBrain can be used independently as well as together with an iMRS one application.

This operating manual is a component of the scope of delivery. It should be kept close to hand and remain with the system when sold.

## Copyright

Copyright © 2014 Swiss Bionic Solutions Holding GmbH  
All rights reserved.

No part of this manual, including the products and software described herein, may be reproduced, transferred, transcribed, stored in a retrieval system or translated into another language, without the express written permission of Swiss Bionic Solutions Holding GmbH. Documentation stored by the purchaser for backup purposes is excluded from this condition. This condition shall not apply for software that has been licensed under the General Public License (GPL) or other free open source licensing systems.

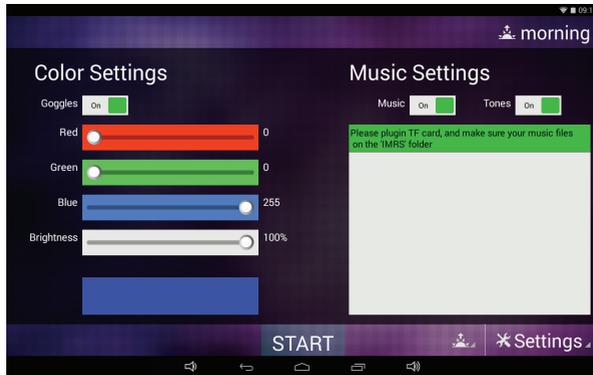
Omnium1, the Omnium1 logo and the iMRS Logo are trademarks of Swiss Bionic Solutions Holding GmbH. All other trademarks are the property of their corresponding owners.

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.

# Table of Contents

1. Scope of Delivery.....	4
1.1 Control unit .....	5
2. Contra-indications and Accompanying Symptoms .....	6
3. Installation.....	6
4. Activation .....	7
5. Starting an Application.....	8
6. Color Settings .....	9
7. Music Settings .....	10
8. Settings .....	11
8.1 About .....	11
9. Updating .....	11
10. Technical Data .....	11
11. Warranty .....	12
12. Owner's Notes.....	13

# 1. Scope of Delivery



OmniBrain Android software  
*(Pre-installed on the Omnium1)*



LED goggles incl. ear-phones and connection cable



5 Hygienic films



Bag



Operating Manual

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

# 1.1 Control unit

The OmniBrain will only function in connection with the Omnium1 control unit. The Omnium1 control device is included in the scope of delivery for all iMRS one sets available. You will find the operating instructions for the Omnium1 in the special manual that accompanies the control device.



Omnium1 Tablet



Charging unit



Earphones



Protective display film



Quick Start Guide

## 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 OmniBrain should not be used in these cases.

## 3. Installation

Take the individual parts out of the packaging.

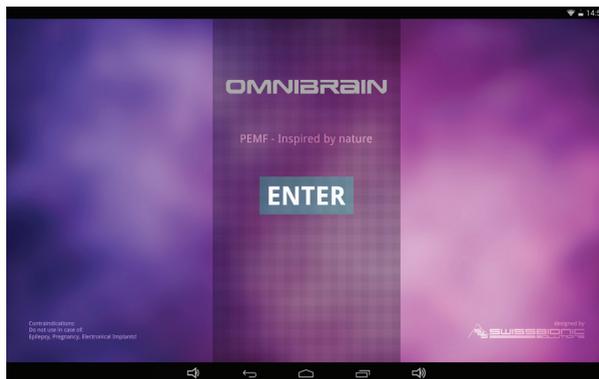
1. Connect the 20-pin plug from the LED goggles with the 20-pin jack of the Omnium1 control device (or when using a magnetic resonance stimulation system simultaneously, with the 20-pin jack of the D/A converter).
2. Make sure that battery for your Omnium1 has been sufficiently charged. The application will not be possible if the battery charge state drops below 5%. In that case, connect the power supply with the Omnium1 (see the Omnium1 operating manual).
3. Check the system time selected (in the upper right corner of the display) and set it to the current time, if necessary (see the Omnium1 operating manual). The built-in organ clock will adjust automatically to this system clock during an application.

## 4. Activation

After you have completely installed the system and checked the battery charge state, activate the OmniBrain app by tapping the program icon (1) on the Omnium1 desktop (2).



Afterwards, the OmniBrain initial screen will display the legal proscribed contraindications. As soon as it has been acknowledged (by tapping ENTER), you will see the user interface for the OmniBrain application.

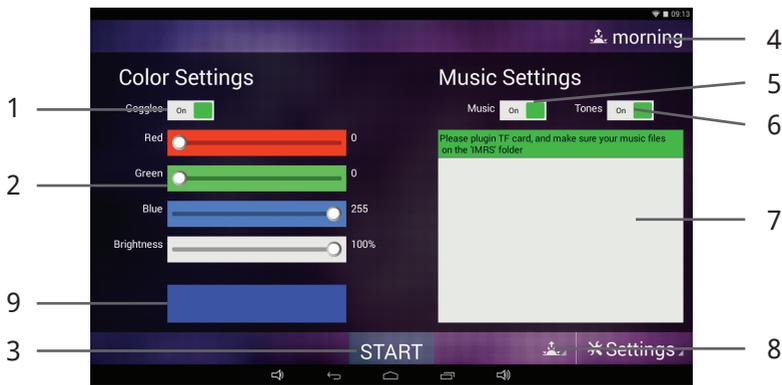


# 5. Starting an Application

The integrated organ clock will automatically adjust to the time set on your Omnium1.

You can see the organ clock setting on the display in the upper right corner (4). However, if you want to change it manually, tap on the organ clock icon (8) and choose the desired organ clock setting (morning, afternoon, evening or night). The application can be started by tapping the Start/Stop button (3).

**Please note: the eyes must be kept closed during an OmniBrain application.**



## 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 activates in case of reduced ability to be stimulated as well calming in case of mental hyper activity.

## 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 OmniBrain-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 work-day. 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 optimal to activate cell regeneration for the entire organism.

# 6. Color Settings

Activate the LED goggles by swiping the Goggles switch to the ON (1) setting. You can define the desired color and brightness using the individual sliders on the left side (2). The color chosen by you will be displayed beneath the slider (9). OmniBrain has respectively twelve color LEDs on each side of the goggles (four red, four green and 4 blue LEDs).

Visualizing the color can generate either a sedative or stimulating effect in the brain. OmniBrain can generate all of the colors in 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, 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:

Are the color of loyalty and surrender, or 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

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

# 7. Music Settings

Activate the playback of music by swiping the Music switch to the ON (5) setting. For the music to be played, a micro-SD card (optional) must be available in the Omnium1.

**IMPORTANT:** First, create a folder on the card named IMRS. Then, store your desired music files in that folder. They will then be displayed in the file window (7) of the OmniBrain user interface and played in sequence. You can also select individual music files directly by tapping on the file name.

An additional feature is the ability to activate sound sequences whose vibrations will be synchronized with the LED frequencies. Thereby, they amplify the effect of the brain wave stimulation. To do this, swipe the Sound switch to set it to the ON (6) setting.

# 8. Settings

Tapping on the „ ✖ Settings“ button will open a sub-menu with menu items. Tap the desired button to open a sub-menu item.

## 8.1 About

From this sub-menu, you will see the software version of the OmniBrain app as well as the serial number for the Omnium1.

# 9. Updating

Whenever your Omnium1 is connected to the internet (via WIFI), your iMRS one App automatically verifies, whether a new software version is available. In this case a notification appears on your screen. Please click on „YES“ followed by clicking on „Install“. The System will automatically update the App to the newest version.

# 10. Technical Data

Nr.	Designation	Values, unit, type and model
<b>LED Goggles</b>		
1	LEDs per side	12
2	Peak wave lengths (RGB)	628nm / 518nm / 468nm
3	Light intensity (RGB)	120mcd / 280mcd / 70mcd
4	HF frequency	None
5	Cable length (without plug)	2 m
6	Weight	100 g
Connecting another set of LED goggles is not allowed		
<b>Earphones</b>		
7	Frequency range	20 - 20.000 Hz
8	Impedance	2 x 32 Ohm
9	Max. performance	2 x 10 mW
Important: only use original accessories.		

# 11. 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.

Manufacturer:  
Swiss Bionic Solutions Schweiz GmbH  
Schulhausstrasse 17  
8834 Schindellegi  
Switzerland

Telephone: +41-62-2955951  
Fax: +41-62-2955952  
Email: [ch@swissbionic.com](mailto:ch@swissbionic.com)

Version: 01/2016









**Swiss Bionic Solutions Schweiz GmbH**

Schulhausstrasse 17 | 8834 Schindellegi, Schweiz  
Telephone: +41 (62) 295 5951 | Fax: +41 (62) 295 5952  
Email: ch@swissbionic.com

**Swiss Bionic Solutions Deutschland GmbH**

Biberacher Str. 87 | 88339 Bad Waldsee, Deutschland  
Phone: +49 (7524) 996 950 | Fax: +49 (7524) 996 9518  
Email: de@swissbionic.com

**Swiss Bionic Solutions USA Inc.**

1200 NE 7Th Ave Suite 7 | Fort Lauderdale, Florida 33304, USA  
Telephone: +1 (954) 766 4153 | Fax: +1 (954) 766 4156  
Email: us@swissbionic.com

**Swiss Bionic Solutions Canada Inc.**

1195 North Service Rd. West | Oakville, Ont. L6M 2W2, Canada  
Telephone: +1 (905) 465 0753 | Fax: +1 (1 866) 792 8182  
Email: ca@swissbionic.com

**Swiss Bionic Solutions Asia Ltd.**

Unit B, 7/F. Office Plus @Mongkok  
998 Canton Road | Mongkok | Kowloon | Hong Kong  
Telephone: +852 2337-8774  
Email: asia@swissbionic.com

**[www.swissbionic.com](http://www.swissbionic.com)**