



# Operating Manual



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## 1. Preliminary comments

We congratulate you on your purchase of the Exagon Sense System.

It enables even more complex functionality of your iMRS prime system.

During a PEMF application, biologically relevant data is read from the user's body via a photo-plethysmographic finger sensor. The iMRS prime processes the data and uses it to calculate the individual heart rate variability in order to actively regulate the intensity (flow density) of an iMRS prime application.

## 2. Scope of Delivery

The scope of delivery of the Exagon Sense includes:

No.	Designation
Basic equipment	
1	Finger sensor with connection cable
2	Operating Manual



1 Finger sensor with connection cable



2 Operating Manual

### 3. Technical Data

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No.	Designation	Values, unit, type and model
<b>Exagon Sense Finger Sensor</b>		
1	Sensortype	AMD-RS-AC0227-L finger clip
2	Cable length (without plug)	3m
3	Material	TPU
4	Transmitter	LED 660/905
5	Detector	090PD silicon wafer
6	Connector	Compatible lemo connector

### 4. Installation

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Remove the Exagon Sense from the packaging. Remove the cable tie from the sensor.

Connect the sensor plug to one of the two sockets (3) of your iMRS prime connector box. For an application in split mode, please ensure that the Exagon Sense is connected on the correct side (left - right).



### 5. Start-Up

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Once you have fully installed the system and connected it to the power supply, switch the system on by pressing the power button on the control unit. The boot screen will first appear on the

display. The system then displays the legally prescribed contraindications. As soon as these have been confirmed (press START), the start menu appears automatically.

Select your desired mode (Exagon Sense is not included in quick start programs).

A further item for activating and deactivating Exagon Sense appears in the settings window.

## 6. Starting an application

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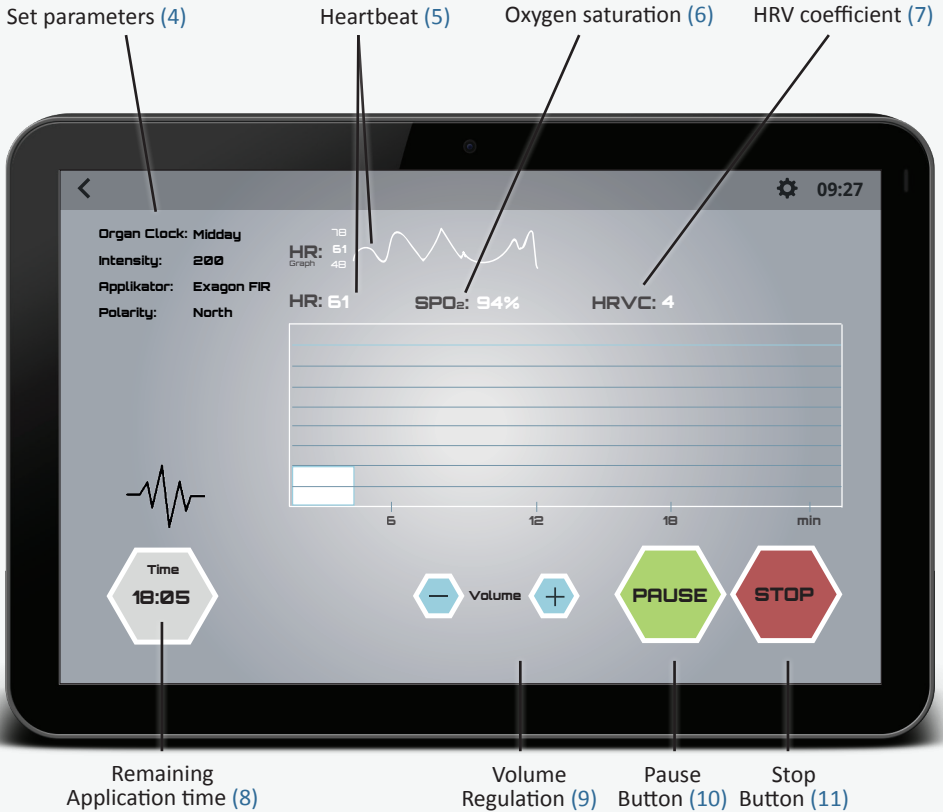
**Note:** The Exagon Sense system only works during an application with the full-body applicator. Select all desired setting parameters as usual on the iMRS prime (see iMRS prime operating instructions).

**Finger sensor:** Attach the finger sensor to the index or middle finger of your hand (right or left). Ensure that the finger and the sensor are clean. If possible, always use the same finger for all measurements!

Please ensure that no direct light falls on the sensor, as this distorts and complicates the measurement procedure. Start the application by pressing the start button on the iMRS prime and ensure that you are lying in a calm and relaxed position.



After starting the application, you will see extended displays on the application screen (with Exagon Sense activated):



Once the sensor is attached, it takes approx. 10-20 seconds, depending on the ambient light, for the sensor to pick up the signal and start the measurement. This is indicated by the pulse rate on the display and a pulsating heart pictogram.

Next, the pulse rate (5) and oxygen saturation (6) are displayed.

After approx. 2 minutes, the HRV coefficient (7) is determined and shown on the display.

- 1 = HRV lower than 5 beats/min
- 2 = HRV lower than als 7 beats/min

- 3 = HRV lower than 9 beats/min
- 4 = HRV lower than 11 beats/min
- 5 = HRV lower than 13 beats/min
- 6 = HRV lower than 15 beats/min
- 7 = HRV higher than 15 beats/min

Note: The quieter the user lies on the system and the weaker the ambient light, the more accurate and faster the determination of the HRV coefficient!

The Exagon Sense system dynamically measures the HRV coefficient during the entire whole-body application and determines the result at approx. 1-2 minute intervals (time depends on the ambient factors). If the HRV increases during a measurement interval, the iMRS prime automatically adjusts the intensity (flow density) upwards; if the HRV remains constant, the intensity (flow density) also remains constant; if the HRV decreases, the intensity (flow density) is also reduced. This results in a dynamic adjustment of the intensity (flow density) during the entire application period

The minimum value of the physiological patient signal should be at least 40 beats/min, as inaccurate results can be expected below this value. The user should weigh more than 30 kg.

During each use of the Exagon Sense, a graph is automatically shown on the display of the control unit. The bar chart (y-axis) describes the progression of the intensity regulated by the system (sens - 400). The x-axis shows the duration of the selected application (here 24 minutes). The graph is only used to visually check whether a dynamic measurement of the HRV and a parallel adjustment of the intensity was carried out by the system. The graph does not allow any medical conclusions to be drawn and is not intended to evaluate the user's state of health.

The HRV measurement data for each application can also be exported and evaluated with external programs (see iMRS prime operating instructions).

## **7. Warranty periods of Swissbionic Solutions products**

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- Exagon Sense: 6 Month

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