

DC-STIMULATOR MOBILE

Measuring and Modulating Brain Activity

for therapeutic application



Transcranial electrical stimulation for use in clinical routines

The DC-STIMULATOR MOBILE is a clinical stimulator designed to be used in clinics, medical practices and research institutes. Using this device, doctors and psychologists can carry out transcranial direct current stimulation (tDCS) using weak currents up to 2mA over 15 to 30 minutes.

tDCS represents part of interventional neurophysiology; the electrical charges and densities administered during tDCS lie far below the threshold for releasing a stimulus and have a modular effect on existing neuronal elements. Depending on the duration, used current, current density and frequency of the stimulation, cortical activity is either stimulated or inhibited. If other established treatments fail, a supporting therapeutic effect of tDCS on depression is probable.

The DC-STIMULATOR MOBILE is intended for use strictly under the supervision of qualified healthcare practitioners.

Use of the DC-STIMULATOR MOBILE:

The DC-STIMULATOR MOBILE can be used as part of the day-to-day routine of therapy centers and practices. The device is best used when:

- therapy is carried out according to a fixed protocol and predefined dosage, which are not changed,
- patients are to be treated within fixed time spans.

DC-STIMULATOR MOBILE Features

Stimulation

- tDCS, DC intensity of $-2,000 \mu\text{A}$ up to $+2,000 \mu\text{A}$
- deviation of the nominal value of DC current: max 2%
- hardware offset: $\pm 10 \mu\text{A}$
- voltage limit: max. $\pm 16 \text{ V}$

General

- power consumption: max. 0.25 W
- power supplied by a built-in, rechargeable, leak-proof battery within the Storage Module, recharges via USB
- runs continuously for around 90 min (dependant on stimulation mode and battery condition)
- graphical display, 1 button

Dimensions in mm

- Stimulator: 71 x 94 x 15, weight 66 g
- Programmer: 71 x 62 x 15, weight 46 g
- Storage Module: 71 x 39 x 15, weight 42 g
- Charge-only device (optional): 71 x 61 x 15, weight 46 g

When ordering the device, the user specifies a stimulation configuration. A configuration can include up to 8 different stimulation sequences, which can then be selected on the stimulator unit. After the device is delivered, the DC-STIMULATOR MOBILE only functions in this mode. This effectively prevents inadvertent or unintended changes to the stimulation parameters and facilitates the use of the device in the daily routine.

Components of the basic set of devices

The DC-STIMULATOR MOBILE is delivered as a set of devices. The basic package can be supplemented as needed for different therapy situations.

6 Storage Modules: The Storage Module stores the parameters of the next stimulation (stimulation sequence(s), number and order of the enabled stimulation sequences and a start time, if desired), as well as the electrical energy necessary for the operation of the Stimulator. The log-data recorded during an stimulation is also stored in the Storage Module.

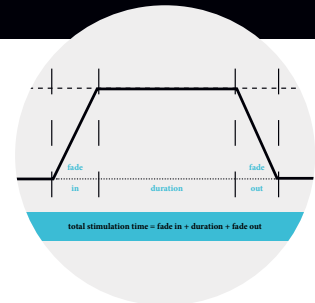
2 Stimulators: The Stimulator only functions in conjunction with a fully configured and charged Storage Module. They apply a current according to the stimulation sequence programmed into the Storage Module.

2 Programmers: The Programmer transfers data between the PC software and the Storage Module and can also charge the battery contained in each Storage Module.

PC software: To operate the DC-STIMULATOR MOBILE, a computer with a stable internet connection and a USB port is required. The software provided by neurocare organises the configuration and charging of the Storage Modules, as well as the transfer of log-data into the databank.

Case: Each set of devices is delivered in a hardshell case. This allows for the devices to be safely transported and conveniently stored.

If you plan to use the DC-STIMULATOR MOBILE in double-blinded studies, please contact the producer for further information.



tDCS: total stimulation time =
fade in + duration + fade out



DC-STIMULATOR MOBILE
Basic set of devices



DC-STIMULATOR MOBILE
application with electrode cap

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