

Medical Devices for Sleep Diagnostics and Therapy

SOMNOmedics

NEW

SOMNOscreen™ EEG 10-20



■ MINIATURISED

■ 45 CHANNELS

■ 22 CHANNEL EEG

■ 24 hr RECORDING TIME

■ DIGITAL VIDEO

■ TELEMETRY DATA
TRANSFER

Why does an EEG Recorder need to be any bigger!

- Ambulatory & Stationary EEG Recording using the 10 - 20 System
- Wireless Signal Transfer - Full Mobility During Epilepsy Monitoring
- Monitoring of all Required Parameters
- Ambulatory & Stationary Polysomnography with Wireless Digital Video

SOMNOscreen™ EEG 10-20: Why does an EEG Recorder need to be any bigger!

MINIATURISED - MOBILE - FLEXIBLE

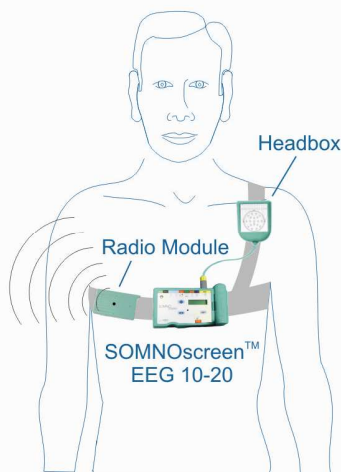
Miniaturisation: The **SOMNOscreen™ EEG 10-20** is the smallest portable Long-term EEG System currently available. With up to 45 channels, the palm sized unit provides a full 10-20 EEG together with 22 Polygraphy Channels.

Mobility: The **SOMNOscreen™ EEG 10-20** is worn entirely on the patient. The data is stored on the internal Compact Flash Card and can be transferred by telemetry to the computer. This ensures unlimited mobility for the patient.

Flexibility: You decide which configuration you wish to start with, from a simple 10-20 EEG Recorder to a full Neurological Sleep Laboratory with wireless on-line data and video recording. The **SOMNOscreen™ EEG 10-20** can also be upgraded at any time.

Signal Quality: Continuous impedance checking, 16-Bit resolution and fully adjustable sampling rates, up to 512/sec, contribute to the high quality of the recorded signals.

Software: **DOMINO**, a complete software analysis suite for all your sleep and EEG applications with automatic adaptation to the signals recorded.



Ambulatory Long Term EEG: The small size and the light weight of the **SOMNOscreen™ EEG 10-20** ensure maximum comfort while recording a full 10-20 EEG for up to 24 hours.

Neurological Diagnostics: The **SOMNOscreen™ EEG 10-20** fills the gap between the Ambulatory Long-term and Stationary EEG Recordings with its 24-channel High Quality ExG Digital Headbox.

Epilepsy Monitoring: With the use of its unique Wireless Data, Video and Audio transmission, the **SOMNOscreen™ EEG 10-20** is a Powerful, Comfortable and Mobile System for use in the diagnosis of Epilepsy.

Intensive Care Monitoring: With the simultaneous on-line transfer of both neurological and vital sign parameters (respiration, ventilation, ECG, blood pressure, etc.) the **SOMNOscreen™ EEG 10-20** can be used in conjunction with video for long-term monitoring in a stroke unit.

Polysomnography: By upgrading the **SOMNOscreen™ EEG 10-20** with the PSG module, the system can perform either domiciliary or in-house sleep studies. Additionally, other parameters such as PLM and Restless Leg Syndrome can be recorded.

8- 45 CHANNELS MODULAR UPGRADEABLE

25 AC: 22 Referential + 1 Differential + GND + REF

10 External: Respiratory Effort, Naso/Oral Flow, Snore, ECG, Activity, PLM L, PLM R, AUX, Naso/Oral Pressure, CPAP/BIPAP Pressure

10 Internal: SpO₂, Pulse Rate, Plethysmography, Ambient Light, Body Position, Button Marker, Thoracic Effort, Activity Sensor (3 Axis)

SENSORS

External Sensors:

- Thermistor for Naso/Oral Flow
- Abdominal Effort
- Activity Sensor (3 Axis)
- Activity Sensor for PLM (left and right)
- Active Electrodes for EMG and/or ECG
- Microphone for Snore Detection
- Temperature Sensor
- EDA-Sensor
- Pressure Sensor (-20 to +20 cm H₂O)
- Naso/Oral Flow (Cannula)
- CPAP-Pressure
- CPAP-Flow
- CPAP-Snore
- Oesophageal Pressure (-100 to +100 cm H₂O)

DATA PROCESSING

Active Filtering

16 Bit ADC

Different Sampling Rates Adjustable (4/s to 512/s)

Continuous Data Acquisition

DATA STORAGE

High Speed Compact Flash Card (up to 1 GB Capacity)

SIZE AND WEIGHT

140 x 70 x 28 mm, 260 g (incl. Battery + Headbox)

POWERSUPPLY

Li-Ion Battery (Rechargeable) up to 24-hour Recording

INTERACTIVE KEYBOARD AND DISPLAY

Signal Check on Backlit Display

Programmable Start and Stop Times

Menu Controlled Display

SOFTWARE - DOMINO

Fast and Accurate Analysis and Scoring Software Including EEG and PSG Standard Analysis

Automatic Pattern and Artefact Detection

OPTIONS

Online Data Transfer: - via Radio Transmitter (up to 100 m)
- via Cable (up to 50 m)

Video:

- Miniaturised and portable Video System
- Radio Transmission of Audio and Video
- Synchronised Video in DVD Quality, 28 frames/sec, Using the latest Data Compression Software
- Audio (20 - 12.000 Hz)
- Black and White Video with IR or Colour Recording in Daylight
- Fully Synchronised with Raw Data
- Playback at Different Frame Speeds
- Digital Zoom Function for Detailed Analysis
- Easy to Edit, Cut and Archive. Store Short Sequences on CD or up to 7 hours on DVD

Upgrade: - Sensor Kit for PSG