

Polysomnography in High Definition SOMNO HD™

Excellent Signal Quality

up to 4 kHz sampling rate / channel,
24 Bit EXG resolution

HD Touch Screen

immediate signal & impedance
check at the patient's bedside

Intelligent Connect™

automatic sensor recognition

Wireless Real Time Data Transfer

to PC, smartphone or tablet

One Device fits All

ambulatory & stationary,
adult & pediatric sensors

Blood Pressure Measurement without Cuff

continuously, systolic / diastolic

Maximum Power

miniaturized, lightweight design

Reliable Support

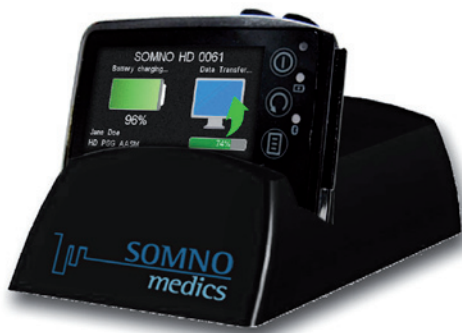
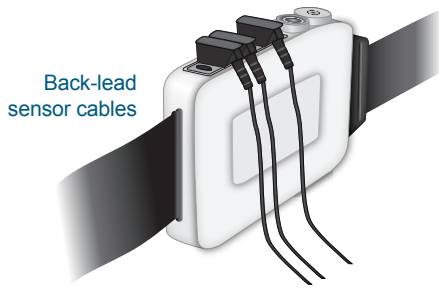
free 24/7 service hotline,
lifetime software updates

Highest German Quality

active sensors, reliable hardware,
clean design



FEATURES



• HD touch screen

- Signal check on screen
- Zoomable signals, selectable time base
- Intuitive, easy handling with gesture control
- Direct start of the measurement on device

• Minimum number of cables

- Professional RIP: built-in for abdominal effort
- Minimum number of cables for highest patient comfort during measurement
- Reversed lead sensor cables prevent unintended disconnection and ensure bend protection

• Intelligent Connect™

- Automatic sensor & electrode recognition
- Freely selectable channels
- Change or add sensors during recordings
- No predefined configurations (montages) needed

• Docking Station

- Charging of the Li-Ion battery (duration 1h/PSG)
- Data transfer (90 s for a full PSG)
- Automatic firmware updates
- Device status displayed on PC
- 3-port docking station: for synchronous and neat usage of up to three SOMNO HD™

• The Power

- Up to 70 channels (10 internal, 28 external on device, 17 EXG with standard PSG headbox, 32 EXG with neurological headbox)

• Highest signal quality

- Sampling rate: up to 4 kHz per channel
- EXG channels with 24 Bit resolution
- Low noise technology (excellent signal-to-noise ratio)
- Continuous impedance check during recording
- Active sensor technology (built-in amplifier and filter)

• Comfort & design

- Lightweight & portable device for highest patient comfort
- Carbon-look housing, colour selectable (black/white)
- Never lose a night: wireless data transfer of all recorded data, simultaneous backup on internal memory



Sleep

- Semi-automatic sleep staging with self-learning, user-specified thresholds for each patient: fast & accurate analysis - 80% time saving, validated
- Automatic analysis of cortical & autonomous arousal
- Sleep fragmentation based on cortical arousal, pleth and PTT changes
- Spindle & K-complex analysis

Respiratory

- Correlation of respiratory events with desaturations, changes in heart rate and arousals

Neurology

- FFT module: EEG data analysis amplitude, spectral & frequency mapping
- 3-D brain mapping - localisation of seizures

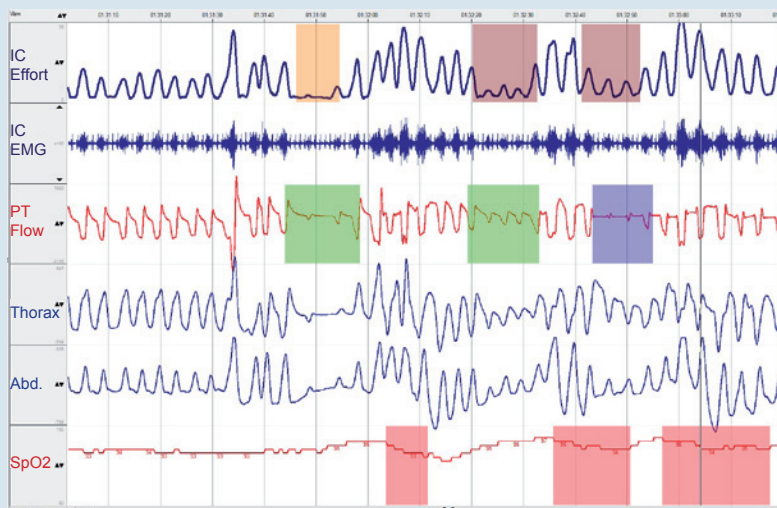
Extensive additional features

- Systolic & diastolic blood pressure based on PTT, patented, validated*
- Heart rate variability
- Snoring topography for localization of snoring source
- Intercoastal EMG (IC EMG): breathing effort analysis for best detection of central apneas
- Flow Limitation - obstruction level analysis
- Automatic detection of RERA events
- Flow detection during PAP therapy based on miniaturized pneumotachograph

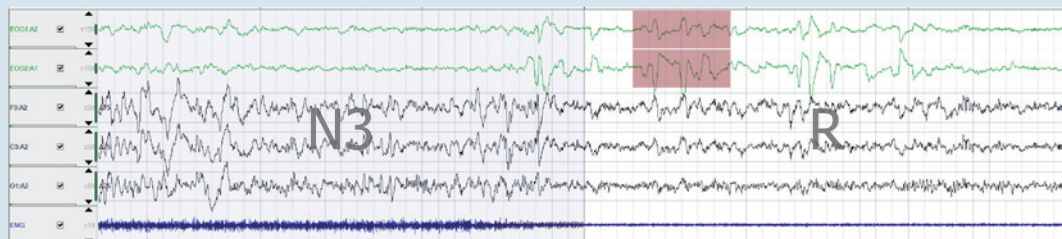
General analyses

- Automatic analysis of all standard signals according to latest AASM standards
- Comfortable and fast manual editing

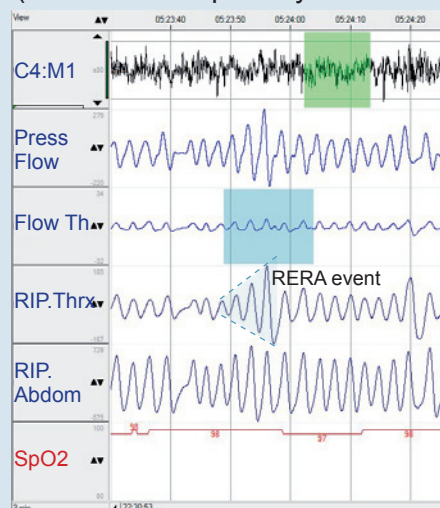
Best effort signal available with IC EMG



EMG noise reduction for clear signals



Automatic detection of RERA (marked as respiratory event in Flow)



Software features

- Re-analysis of data at any time
- Customized reports and form letters
- User definable keys, customized keyboard shortcuts
- Flexible, individual screen layout
- Reports for MSLT and split-night studies
- Inter-Scorer variability

Data exchange

- GDT and HL7 interface
- Export of data in MS Excel, SPSS, EDF+ and ASCII
- Import of data in EDF+
- Archiving to CD, DVD or network drive

Extras

- Integration of any PAP type for therapy titration / control
- Calendar with SOMNO scheduler
- User manager for the assignment of access rights and automatic tracking
- Patient database for efficient organization and statistical evaluation of patient data

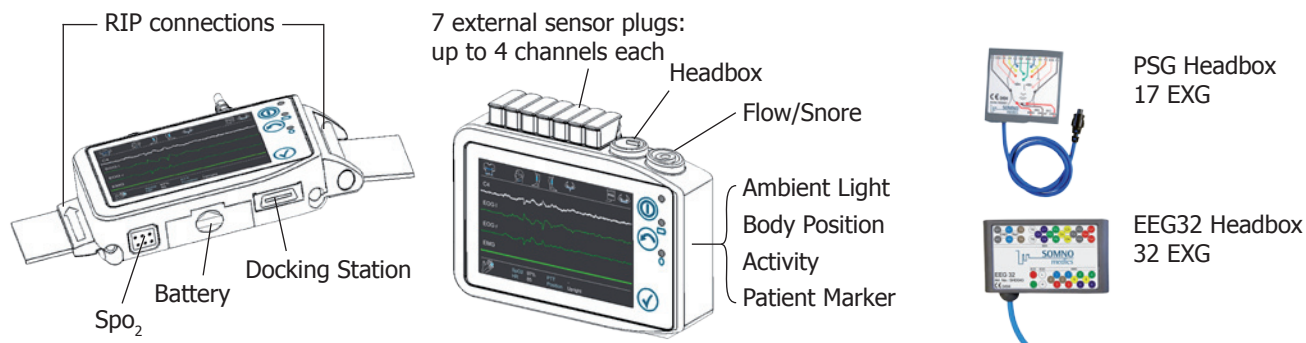
Automatic, free software updates - you will never miss new features

* Bilo, G., Parati, G. et al., Validation of the SOMNOtouch™ NIBP non-invasive continuous blood pressure Monitor according to the European Society of Hypertension International Protocol revision 2010. Blood Pressure Monitoring. 2015

EXAMPLE

SPECIFICATIONS

Channels



Available Sensors

Standard PSG	RIP breathing efforts (thorax, abdomen), flow & snore (nasal cannula), CPAP pressure, thermistor, microphone, SpO ₂ , PLM sensors (l/r), intercostal EMG efforts, PSG headbox
Optional sensors	EEG 32 Headbox for neurological applications, pneumatic effort belts, combi electrode (2 EEG / 2 EOG, ambient light), 1-channel/3-channel ECG, external activity 3-axial, analogue optocoupler, rectal temperature, oesophageal pressure, pH monitoring, EDA, sidestream capnography, high-sampling microphone, pneumotachograph, NPT sensor
Pediatric sensors	pediatric RIP, pneumatic effort belts, thermistor, 1-channel ECG with body position, SpO ₂ , PLM (l/r), external body position

Performance Specifications

Data collection	Sampling rate: 4 kHz / channel in device, 1 kHz / channel in headbox, EXG channels with 24 Bit resolution, low noise technology (EEG 0.2 μ V, EMG 0.3 μ V)
Data transfer	Built-in bluetooth transmitter for wireless real-time data transfer & recording on PC, Transfer of recorded data via docking station
Data storage	Simultaneous storage on 1 GB Micro SD card

Video

Pan/Zoom Camera	Integrated IR illumination & microphone, 18x optical zoom and autofocus, rotatable for different viewing angles, MPEG4 Video-Stream, resolution: 768 x 576 pixels
HD Camera	Integrated IR illumination & microphone, H.264 Video-Stream, display of second, digitally zoomable window during recordings, resolution: 2 592 x 1 944 pixels

App for Tablet or Smart Phone

Features	Connects wirelessly via Bluetooth, biocalibration and impedance check at the patient's bedside, Android-based
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Physical Specifications

Display	Capacitive touch screen with gesture control high resolution, 480 x 320 pixels
Size and weight	Device: 110 x 74 x 24 mm, 190g (incl. battery) headbox: 65 x 65 x 11.5 mm, 70g
Power supply	Li-Ion battery, rechargeable via docking station, charging duration approx. 1 h / PSG

Software & Support

Analysis software	DOMINO, regular software updates free of charge
Firmware	Regular updates and synchronisation via docking station
Service	24/7 service hotline, free of charge