

SOMNOcheck 2 R & K

Polysomnography in accordance with international standards

SOMNOcheck 2 R&K makes stationary and mobile polysomnography possible in accordance with Rechtschaffen and Kales. In stationary use, the data are transmitted to the control room by USB or Bluetooth or optionally via a local network. In mobile use they can be stored on the integrated, interchangeable CompactFlash (CF) card. All data for a complete polysomnography (including video) are visualized and analyzed with SOMNOlab software, which also supports sleep stage analysis with ARTISANA.

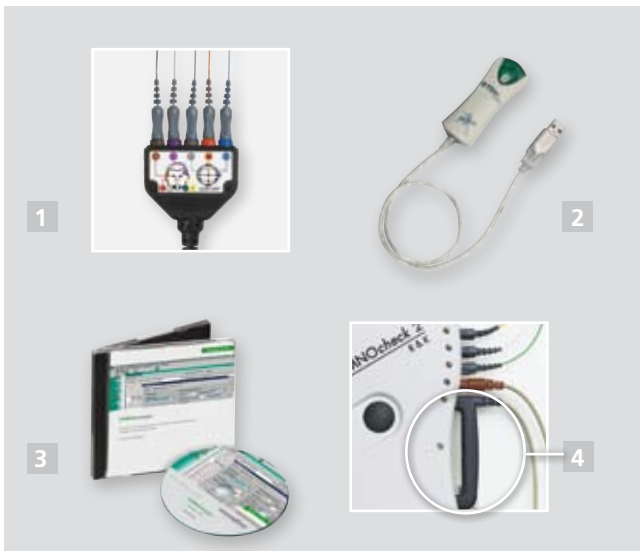


Benefits for you

- Channel combination according to internationally recognized standards for polysomnography
- Use online in sleep lab and clinic (USB or wireless)
- Mobile use up to 20 hours, several recordings possible; with rechargeable battery and interchangeable CF card, almost unlimited mobile use
- Compact, simple application on patient
- Download via USB in about seven minutes (full polysomnography including ECG and two EMGtib, eight hours) or less than one minute (PG, eight hours)
- SOMNOlab software integrated video and audio signals (TCP/IP) for attended polysomnography
- Maximum integration: differential pressure sensor, all amplifiers, pulse oxymetry, position sensor, Bluetooth module, etc., are contained in basic device
- SOMNOmanager helps to administer and archive all patient and recording data
- Complete freedom of movement for the patient with offline and wireless online recordings

Channels SOMNOcheck 2 R & K

Number	Name	Source	Sampling rate
1	Flow	Nasal cannula/Pneumo-T-adapter	32 Hz
2	Flow	Respiratory flow – snore sensor	32 Hz
3	Effort thorax	Thorax belt – piezo	32 Hz
4	Effort abdomen	Abdominal belt – piezo	32 Hz
5	Snore	Nasal cannula/Pneumatic T-adapter	16 Hz
6	Flattening	Nasal cannula/Pneumatic T-adapter	8 Hz
7	Saturation	Finger sensor	16 Hz
8	Pulse PF	Finger sensor	16 Hz
9	Pulse HF	ECG	16 Hz
10	Pressure	Pneumatic T-adapter (diff. pressure)	32 Hz
11	Leakage	Pneumatic T-adapter (diff. pressure)	8 Hz
12	Position	Position sensor, integrated	16 Hz
13	Respiratory rate	Nasal cannula/Pneumatic T-adapter	8 Hz
14	Quality SpO ₂	Finger sensor	10 Hz
15	Plethysmogram	Finger sensor	50 Hz
16	EKG	Electrodes /ECG trunk cable	256 Hz
17	EMG chin	Electrodes/basic device	256 Hz
18 + 19	EMG leg	Electrodes/basic device	256 Hz
20 + 21 + 24	3 EEG	Electrodes / trunk cable R & K or AASM	256 Hz
22 + 23	2 EOG	Electrodes / trunk cable R & K or AASM	256 Hz



Accessories

- 1 **AASM trunk cable – WM 95205**
- 2 **Bluetooth-USB-adapter – WM 95084**
for SOMNOcheck 2 R & K wireless
- 3 **SOMNOmanager**
PC software for administration and archiving of patient data
- 4 **Thorax effort sensor integrated in housing**

Our complete range of therapy solutions, accessories and mask systems and more technical data is at: www.weinmann.de

Technical Data SOMNOcheck 2 R & K



Product class as per 93/42/EWG:	IIa
Dimensions (W x H x D):	80 x 150 x 34 mm
Weight:	about 300 grams (device without sensors)
Power supply	
<ul style="list-style-type: none"> ■ mid-range power consumption: ■ operating time of rechargeable batteries: 	about 340 mW wireless online = about 10 hours mobile = about 20 hours
Signals/Communication	
<ul style="list-style-type: none"> ■ LED: 	battery level, storage card capacity, execution and results of sensor and impedance tests, communication with PC
Position sensor	
<ul style="list-style-type: none"> ■ Position sensor: ■ Position precision: 	integrated in device about 45° ± 15°
Pulsoxymeter (Clipsensor)	
<ul style="list-style-type: none"> ■ SpO₂ measurement range: ■ SpO₂ precision: ■ Pulse rate measurement range: ■ Pulse precision: 	50 % to 100 % 70 % < SpO ₂ < 100 % better than 2% precision, SpO ₂ < 70 % not validated 30 to 250 bpm ±1 bpm up to 2% of displayed value
CPAP- / BiPAP- / smart PAP pressure	
<ul style="list-style-type: none"> ■ Measurement range: ■ Precision: 	0 to 40 hPa ±1 hPa
Respiratory flow – snore sensor	
<ul style="list-style-type: none"> ■ Flow method: ■ Snore method: 	3 thermistors as total signal integrated microphone
Respiratory flow – snore nasal cannula	
<ul style="list-style-type: none"> ■ Method: ■ Sensor: 	inspiratory / expiratory pressure fluctuations pressure sensor
Respiratory flow – mouth sensor	
<ul style="list-style-type: none"> ■ Method: 	thermistor to record mouth breathing or leakage
Effort sensors	
<ul style="list-style-type: none"> ■ Thorax sensor: ■ Abdomen sensor: ■ Method: 	sensor integrated in housing housing can be disinfected; belt is washable piezo-electrical measurement

Electrophysiological Signals

	Basic Device (ExG)	Trunk cable R & K (EEG / EOG)	Trunk cable ECG (ECG)
Dynamic range (physical value range):	± 250 µV to ± 5 mV	± 500 µV	± 5 mV
Resolution:	12 Bit	12 Bit	12 Bit
Amplitude precision:	± 3 %	± 3 %	± 3 %
Rate range precision:	± 15 %	± 15 %	± 15 %
Sampling rate:	256 Hz	256 Hz	256 Hz
Can be configured:	EKG, EEG, EMG, EOG		
Input impedance:	about 40 MΩ		

System Requirements

Hardware:	<ul style="list-style-type: none"> ■ Processor: min. Pentium III starting at 2 GHz ■ Main memory: at least 1 GB (RAM) ■ Available memory: at least 10 GB on hard disk
Operating system:	<ul style="list-style-type: none"> ■ Microsoft Windows 2000 from SP4, Windows XP from SP3 with Internet Explorer 6 or higher
Peripherals:	<ul style="list-style-type: none"> ■ USB port: supported by Windows, USB 1.1 ■ Connections: USB interface for the connection to card-reading device, USB connection cable to basic device and Bluetooth-USB adapter ■ Graphics board supported by Microsoft Windows with minimum resolution of 1024 x 768, color depth 16 bit ■ Monitor: at least 17-inch CRT or 15-inch TFT monitor ■ Mouse: Windows-compatible ■ Printer: supported by Microsoft Windows ■ Network: Network board, 10/100 MBit (only for use of network-USB server)

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