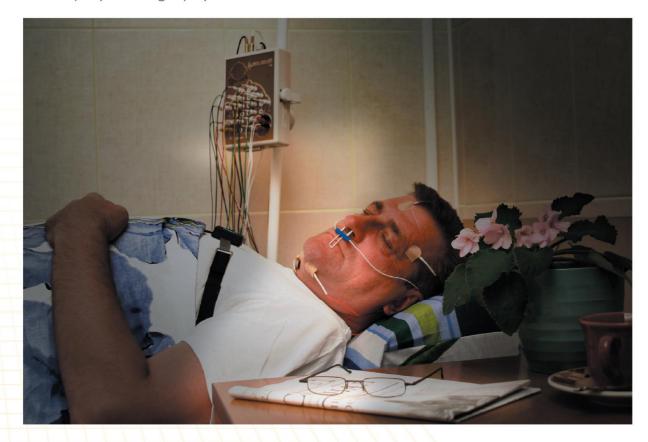
Neuron-Spectrum-PSG

Software and equipment for polysomnography studies

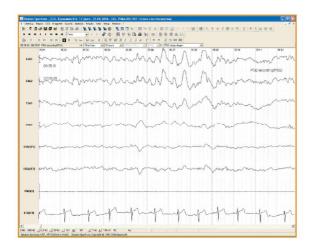


Neuron-Spectrum series by transforming EEG systems of Neuron-Spectrum series by transforming EEG systems to polysomnographers. Long-term synchronous recording of EEG, polygraphic channels, video and audio information, sleep stage analysis and analysis of sleep-disordered breathing arrange a combination required for high-quality PSG study. The convenience and the simplicity for use make Neuron-Spectrum-PSG an indispensable helper during PSG recording and scoring. This system provides new possibilities for diagnostics, prevention and treatment of such widespread diseases as essential hypertension, obesity, arrhythmias, infarctions, strokes.

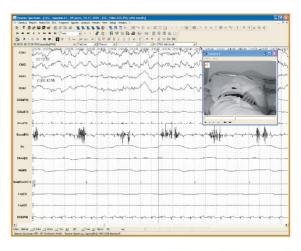
Applications: somnology, cardiology, neurology, epileptology.



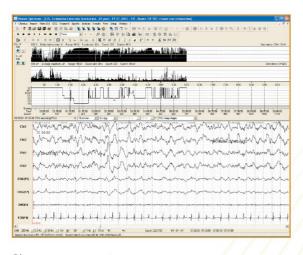
Neuron-Spectrum-PSG Features



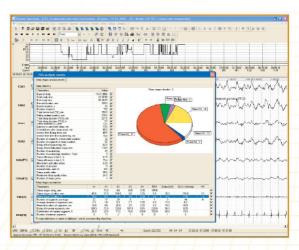
PSG checkup recording (for sleep stage analysis)



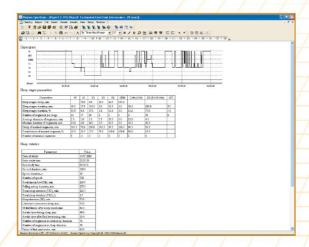
Monitoring of sleep-disordered breathing



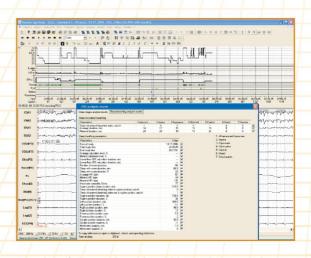
Sleep stage scoring



Sleep stage scoring results



PSG checkup report



Results of sleep-disordered breathing analysis

- Long-term recording of the following channels during a sleep which allow to analyze both the sleep structure (sleep stage) and sleep-disordered breathing include EEG, EOG, EMG from chin area, ECG, airflow, chest movements, abdominal movements, body position, snoring, SpO₂, EMG from limbs (limb movements), etc.
- Manual sleep stage scoring, hypnogram creation, automatic calculation of the large number of sleep parameters, construction of bar chart of sleep stage distribution.
- Automatic search and classification of apnea and hypopnea events, desaturation, snoring, limb movements and periodic limb movements events. HR, body position, SpO₂ trends visualization.
- Calculation of indices of sleepdisordered breathing and desaturations, parameters of snoring, heart rate variability, change of body position during a sleep, indices of sleep-disordered breathing in different body positions during a sleep.

- Generation of PSG checkup report including graphic data (hypnogram, trends, sleep-disordered breathing, desaturation, snoring, limb movements and periodic limb movements events), calculation results of sleep parameters and sleep-disordered breathing parameters, bar charts of sleep stage distribution.
- Possibility of the synchronous recording of video and audio information during PSG recording and also synchronous review of video and audio during PSG scoring as Neuron-Spectrum-Video software is included in Neuron-Spectrum-PSG delivery set.
- Quick disconnection and connection of the patient and the recording equipment which do not result in electrodes position removal if you use the additional switching patient's unit Neuron-Spectrum-PEU4* or Neuron-Spectrum-PEU5* (for example, to provide the patient possibility to go to the lavatory).







The removable patient's unit allows the patient to feel herself/himself more comfortable during the night monitoring.

^{*} are not included in the base delivery set and supplied optionally.

Delivery Set

- Cup electrode with cable:
 - for four-channel EEG recording 8 pcs.
 - for two-channel EOG recording 2 pcs.
 - for one-channel EMG recording 2 pcs.
 - for one-channel ECG recording from chin
- Airflow sensor with cable
- Snoring sensor
- Chest respiratory efforts sensor
- Abdominal respiratory efforts sensor
- Body position sensor
- External unit for SpO₂ recording
- Analog black-and-white video camera (on holder) for night video monitoring
- Highly sensitive patient's microphone on holder
- PCI video capture card
- Software
- Software protection key
- User manual
- Technical manual
- Transportation bag



FFG unit is not included in the base delivery set

Use with Neuron-Spectrum Different Models

| | Number of channels | | | | | Sleep stage scoring | | | | | Monitoring of sleep-disordered breathing | | | | | | | | |
|----------------------|--------------------|-------------|------------------|------------------------------|------------------|---------------------------|-----|-----|-----|---------------------------|--|---------|-----------------|------------------------|---------|------------------|---------------|----------------|------------------------------|
| | EEG | Polygraphic | Breath (airflow) | Direct current (DC) channels | SpO ₂ | Possibility of performing | EOG | EMG | ECG | Available EEG channels | Possibility of performing | Airflow | Chest movements | Abdominal movements | Snoring | SpO ₂ | Body position | Limb movements | Available EEG channels*** |
| Neuron-Spectrum-1 | 8 | 1 | /1 | /-/ | 1* | /+ / | 2 | 1 | /1 | 5 | | / 1 / | -/ | + | - | 1* | | - | 5 |
| Neuron-Spectrum-2 | 16 | 1 | 1 | + | 1* | +/ | 2 | /1 | 1/ | 13 | 1-1 | 1/ | + | - | 1 | 1* | - | 2 | 7 |
| Neuron-Spectrum-3 | 19 | 1 | /1 | 1-/ | 1* | /+ / | 2 | 1/ | 1 | 16 | /-/ | 1 | /- | 1-1 | 1 | 1* | + | 2 | 10 |
| Neuron-Spectrum-4 | 21 | 1 | 1 | - | 1* | / +/ | 2 | /1 | /1 | 18 | 1 | /1 | / - | -/ | 1 | 1* | + | 2 | 12 |
| Neuron-Spectrum-4/P | 21 | 4 | /1 | 2/ |]* | + | 2 | 1/ | 1/ | 18 | + | 1/ | 1 | 1 | 1 | 1* | 1 | 2 | 14 |
| Neuron-Spectrum-4/EP | 21 | 4 | 1 | 2 | 1* | /+/ | 2 | 1/ | 1 | 18 | /+/ | 1/ | 1 | 1 | 1 | 1* | 1 | 2 | 14 |
| Neuron-Spectrum-5 | 32 | 5 | /1 | 2 | 1** | + | 2 | /1 | /1 | 30 | +/ | 1 | /1 | /1 | 1 | 1** | 1 | 2 | 26 |

^{*} if the external unit for SpO₂ recording is available

^{***} number of available EEG channels during PSG recording for both sleep stage scoring and sleep-disordered breathing



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^{**} if the external or built-in unit for SpO_2 recording is available