

ROLAND IOM system[®]

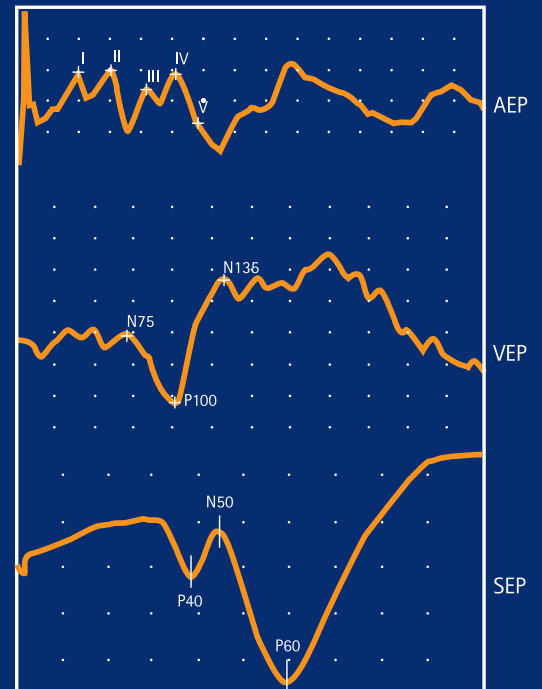
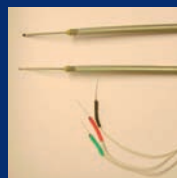
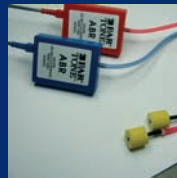
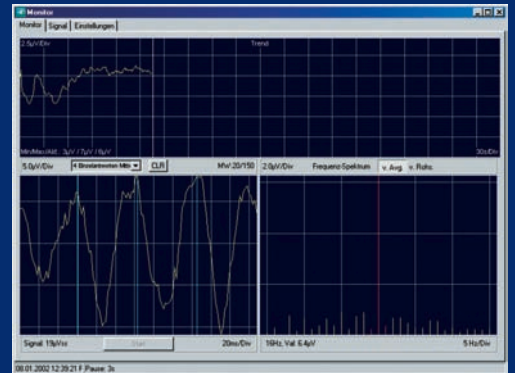
Made in Germany

- EMG Electromyogram
- SEP
- MEP
- VEP special stimulator include special program
- AEP

Neurosurgery Operations at brainstem and spinal cord



Monitoring of motor and sensory nerve functions during operations



EN ISO 9001:2000
EN ISO 13485:2003
CE 0197

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a small high integrated, portabel mobile System for fast and accurate patient information during surgery. Easy to use for Intraoperative Neurophysiological Monitoring in different disciplines:

- ENT surgery
- Urology surgery
- Plastic surgery
- Visceral, Endocrine and General surgery
- Monitoring of motor and sensory nerv functions during operations
- Neurosurgery Operations at brainstem and spinal cord
- Orthopaedics Operations to recover the cerebral oxygen supply

Applications:

General functional diagnostic:

Spinal monitoring with SEP, EMG and MEP in the orthopedic spinal column surgery, e.g. scoliosis surgery and pedicle screw fixation, EMG and recording in brachial plexus surgery and in peripheral nerve surgery, Spinal monitoring with SEP and MEP in aorta aneurysm surgery.

ENT: Facial monitoring in parotid surgery, cranial and acoustic nerve monitoring during the removal of acoustic neurinoms.

General neurosurgery: cranial nerve monitoring in skull base surgery, SEP and MEP in aneurism surgery and when operating at the brainstem and in the surgery of central tumor, Functional neurosurgery SEP monitoring in carotid surgery, Recurrent nerve monitoring in thyroid surgery, Vagus nerve stimulation in mediastinoscopy Muscle stimulation at perineal anal plastic.

EMG-amplifier

- 2 or 4 channel amplifier
- type BF IEC 60601 - medical device
- 24 bit Analog Digital Converter
- digital controlled amplifier
- input impedance 100 MOhm per input
- noise level <4 V ss
- common mode rejection <110 dB
- sensitivity 2 V/Div to 20 mV/Div
- high pass 0,02 Hz to 1 kHz
- low pass 20 Hz to 10 kHz

Computer

- Windows XP, state of the art



Flash Pad

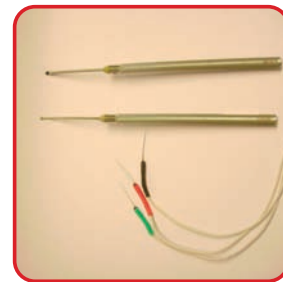
- stimulator for Flash-VEP
- red LED's 2 pads Ø 28 mm
- Flash duration 5µs up to 200ms
- Maximum flash intensity 4.5 cdsm⁻²
- Cable to patient length 3m
- optional small Pattern - VEP Stimultor

Distributor:



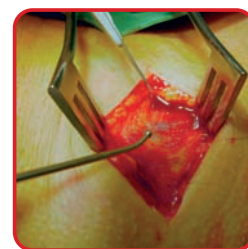
Head Phones

- stimulator for AEP type PD-81
- impedance 300 Ohm
- frequency range 50-10 000 Hz
- sound pressure level 117 dB
- click max. 95dBHL pos./neg./altern.
- masking 0-95dBHL white noise
- rate 0.1-100Hz



Electrical Stimulator

- Type BF acc. to IEC 601 constant current
- programable for all electrical stimulation programs
- Stimulation programs: single pulse, serial pulse, train
- Stimulus intensity: 0-100 mA; stimulus frequenz 0,1 Hz to 50 Hz
- Pulse duration: 50 µs-500 µs
- 2 channel outputs



 **ROLAND**
INSTRUMENTS
Electrophysiological diagnostic systems

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