

Gain
from our
CONFIDENCE
EXPERIENCE

BRACKMANN II™

EMG MONITOR/STIMULATOR SYSTEM

Focusing on the Nervous System Since 1962

WR-MEDICAL ELECTRONICS CO.

The Cost-Effective Advantage in Cranial Motor Nerve Monitoring

- Highly Sensitive • Straightforward and Immediate Feedback

The ultrasensitive Brackmann II™ EMG System is both a stimulator and monitor. The stimulator uses precisely controlled low-energy pulses, allowing direct stimulation of cranial motor nerve tissue without injury. Using bipolar, hooked-wire electrodes, the monitoring system detects EMG activity that may occur due to manipulation, irrigation, or stimulation of the nerve. The activity is amplified and broadcast as audible EMG signals, providing the surgeon with immediate audio feedback, as well as presented on a calibrated bar-graph display. EMG activity may be monitored over the entire length of a surgical procedure to evaluate nerve function. The Brackmann II™ EMG System can monitor two muscle groups simultaneously, and additional monitoring capability can be obtained by stacking two or more units.

FEATURES:

- **Superior Electrocautery Suppression:** The "Mute Sensitivity" feature provides an exceptional cable-free method of speaker muting
- **Improved Stimulator Artifact Suppression:** Results in clearer EMG sound
- **Enhanced Super-High-Fidelity Audio with 20-Watt Amplifier and High-Quality Speaker:** Better allows the surgeon to clearly hear the ongoing EMG activity throughout surgery
- **Integral Electrode Warning Circuit:** An easy-to-use system that verifies the integrity of the monitoring electrodes
- **High-Precision, Low-Voltage, Constant Current Stimulator (Constant Current, 0.01 mA to 4 mA):** Lower voltage means higher resolution and better precision when setting the voltage. Reduces risk of neural fatigue or injury



- **20-Element, Back-Lit Logarithmic Bar-Graph Display with Peak-Hold Indicator:** Offers quick assessment of nerve activity and provides adequate range and sensitivity for a variety of EMG events. Backlighting is easy to read in a darkened operating room. Like the audio feedback system, the display provides immediate, distinct feedback to the surgeon. Peak-hold indicator allows time to see the most important EMG events
- **Battery Powered, Lightweight, and Portable:** Allows continuous use, and is easily transported between operating rooms. Battery eliminates shock hazard

CURRENT CHARACTERISTICS:

The Brackmann II™ uses pulsed, constant-current stimulation, which may be safer than constant-voltage or non-pulsed DC stimulators. The system allows direct stimulation of nerve tissue without injury. Special circuitry limits current to the preset level.

COMPONENTS:

- **Bipolar Hooked-Wire Electrodes:** Allow easy one-step insertion and clearer signals
- **Convenient Stimulator and Monitor Pods:** Can be easily located near operating table. Monitor Pod also has an integral cautery detection system
- **Disposable Monopolar and Bipolar Stimulating Probes:** Have a unique flexi-tip design
- **Battery Packs:** Long-lasting and removable with external quick-charge caddy
- **Quick Reference Card:** Provides immediate answers about controls

BENEFITS:

- **Larger, More Robust Case:** Allows units to be stacked for more channels or combined with other types of monitors
- **Updated Instructional Video and Operator's Manual:** Make learning how to use the system easy

Uses, Specifications, Warnings, and Service



Stimulator Pod and Monitor Pod



Bipolar and Monopolar Probes



Bipolar, Hooked-Wire Electrodes

USES:

The Brackmann II™ has been used successfully to monitor cranial nerves in many procedures, including:

Facial Nerve Surgery

- Otolgic (*Stapedectomy, Tympanoplasty, Tympanoplasty with mastoidectomy, Revision tympanoplasty mastoidectomy*)
- Neuro-otologic Procedures (*Acoustic neuroma excision, Translabyrinthine and retrolabyrinthine vestibular neurectomy, Glomus tumor resection, Placement of the auditory brain stem implant, Skull base procedures, Parotid Gland Surgery*)

Trigeminal Nerve (Motor)

- Intracranial and skull base procedures

Glossopharyngeal Nerve

- Glomus tumor resection
- Placement of auditory brain stem implant

Spinal Accessory Nerve

- Skull base—jugular foramen procedures
- Neck surgery

Hypoglossal Nerve

- Skull base—jugular foramen procedures
- Neck surgery

WARRANTY, SERVICE, AND LOANER PROGRAM:

The Brackmann II™ EMG System is warranted to be free of defects in material and workmanship for a period of two years from purchase, except for probes and cables, which are warranted for 90 days. Batteries are covered under a separate warranty. Warranty is void if unit has been damaged by electrocautery. Because of the specialized circuitry and repair techniques, we recommend you return it to us for any repairs. Loaner instruments are available at a nominal charge plus shipping and insurance, and supplies used. Pack the instrument carefully and ship insured, via UPS.

TECHNICAL SPECIFICATIONS:

Stimulator

- Current Output: 0 to 4 milliamperes
- Pulse width: 0.0002 seconds
- Pulse off time: 0.1998 seconds
- Pulse Frequency: 0.2000 seconds
- Output Display: 1-inch backlit LCD display (100-microampere resolution)

Monitor

- Number of Channels: 2
- Preamplifier Gain: 100 db.
- Frequency Response: 100 to 1000 Hz.
- Input Sensitivity: 10 microvolts
- Output Display: 2 calibrated bar-graph displays (exponential); 3000 μ Volt max.
- Audio Output: 20-watt audio amplifier with 2-channel mixer
- Batteries: 2.2 amp-hour, lead-acid (12 hours average life)

Other

- Batteries: slide-in, lead-acid
- Size: 12 x 4.5 x 11 inches (approx.)
- Weight: 12 lbs. (including battery pack)

TRAINING AND TECHNICAL ASSISTANCE:

To keep our prices low, only limited on-site in-services are provided. Please call WR Medical Electronics Company for a sales representative in your area. Use our toll-free hotline and the video included with the product for a pre-surgery review of how to use the product. Please call between 8:00 AM and 4:30 PM Central Time.

FURNISHED ACCESSORIES AND EQUIPMENT COMPATIBILITY:

See current price list for latest selection. Additional accessories should be purchased for busy OR schedules. Compatible with Silverstein Adapter for Continuous Stimulation (SACS).™ Please order separately.

30-DAY APPROVAL AND TRADE-IN PROGRAMS:

Evaluation units are available for some products. Nominal rental fees apply. We encourage users to adopt new, more effective equipment that will provide better clinical and surgical results. Please contact WR Medical for more information.

STERILIZATION GUIDELINES:

See *Operator's Manual* for specific instructions.

WARNINGS:

ELECTROCAUTERY:

To avoid patient burns and damage to the unit, observe the Electrocautery Precautions located in the *Operator's Manual*. Never allow the electrocautery and stimulator probes to contact each other, and never simultaneously touch tissues or fluids in the surgical field.

OTHER WARNINGS AND CAUTIONS:

- Do not attempt to repair the instrument. Call WR Medical Electronics Co. for servicing instructions.
- Do check battery condition prior to and during use.
- Do recharge overnight before each use.
- Do not use in the presence of explosive gases. This unit is not explosion proof.

AVAILABLE FOR EXPORT

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