

Leksell® Neuro Generator



One for all



ELEKTA

All the functionality you need...

The latest version of Leksell® Neuro Generator now includes pulsed RF. Designed for pain treatment, this feature completes the wide range of functions available for performing functional neurosurgery or pain treatment. In the clean, compact shell Leksell Neuro Generator offers a very high functionality, yet it's easy to learn and effective to work with.



The Active Tissue Characterization further improves the delicate performance of treatment, since the instrument automatically tests specific tissue response to small amounts of current before each treatment. It then optimizes parameters accordingly, enabling safer treatment and better outcome for the patient.

Unique features and capabilities

In addition to Active Tissue Characterization, Leksell Neuro Generator is designed with a number of unique features and capabilities for enhanced flexibility and safety.

The remote control is another unique feature. Used for macro stimulation it allows the clinician to keep a close contact and surveillance of the patient's reactions

Leksell Neuro Generator can be safely and effectively operated while fully draped under full sterility conditions. It is the only neuro generator to be fully integrated with Leksell Stereotactic System®.

Easy to understand,
easy to use

Leksell Neuro Generator is characterized by its easy-to-use graphical user interface with multifunctional keys, compact size and remotely controlled features, allowing the practitioner to work closer to the patient. All stimulation parameters are continuously monitored and adjustable, while the temperature bar graph shows both set and current temperature as well as rate-of-change.



Versatility delivered

Leksell Neuro Generator is a complete system designed for a wide range of treatment techniques and therapies, including:

- Impedance measurement
- Macro stimulation
- Continuous RF pain treatment
- Pulsed RF pain treatment
- Stereotactic brain lesioning
- Bipolar coagulation

Important new benefits

This version of Leksell Neuro Generator provides two significant enhancements: pulsed RF and Active Tissue Characterization.

The pulsed RF feature reduces the side-effects considerably when performing pain treatment.

The system that matters – for patients

What matters for patients is an effective treatment solution. They demand relief of pain, minimally invasive treatment techniques and shorter hospital stays and clinical visits. Leksell® Neuro Generator

is the comprehensive solution that aids neurosurgeons and anesthesiologists in improving the quality of life for patients through its unique, safe and advanced range of features.

Proven technology, worldwide Leksell Neuro Generator is built around well-proven technology and offers a number of important safety features, such as the unique Active Tissue Characterization and protection against overload and overheating. Additional protection is assured by the thermocouple sensor-controlled electrodes.

For the patient, all this adds up to faster, more accurate and effective treatment techniques and increased safety.



Specific electrodes for the particular task

A wide range of specially designed monopolar and bipolar electrodes are available for applications such as impedance measuring, macro stimulation, brain lesioning and pain treatment.



Safe DREZ lesioning

Customized for treating pain due to injury of the dorsal roots, the electrode is manually positioned into the target area and a lesion is performed in the superficial dorsal horn corresponding to the dorsal root entry zone.



Effective pain treatment

The pain treatment electrodes are available in various lengths for different applications in the cervical, lumbar and thoracic region, as well as thermolesioning of the trigeminal nerve roots, occipital nerve and ganglion pterygopalatinum.



Easier lead electrode implantation

Elekta MicroDrive Bipolar MacroElectrode is used in functional neurosurgery for target localization and verification, and lesioning. It is designed for use with Elekta MicroDrive™ when determining the correct target for lead electrode implantation. When performing lesioning the electrode is supported by the high accuracy of Elekta MicroDrive™.



Accurate lesioning and stimulation

Brain lesion electrodes are intended for impedance measurement, macro stimulation and lesioning. They are used for target localization and verification as well as stereotactic brain lesioning.



Both the monopolar and bipolar electrodes have integrated thermocouple-controlled temperature measurement and are fully steam autoclavable.

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TECHNICAL DATA

Lesion

Power	Max 30 W. Automatic temperature control during lesioning
RF frequency	512 kHz
Time range	0–100 s
Temperature range	0–100° C

Stimulation

Current	Constant current 0.03–15 mA Manual or automatic increase during stimulation
Frequency	3–200 Hz
Voltage	Automatically controlled with upper limit 35 V
Pulse duration	0.05–2.5 ms for 3–10 Hz 0.05–1.25 ms for 20–200 Hz

Pulsed RF

RF Frequency	512 kHz
Voltage	0–55 V
Rate	1, 2, 3, 4, 5, 6, 7, 8 Hz
Duration	20, 32 ms
Time range	0–200 s
Temperature range	40–64° C

Impedance monitoring

Impedance	20–1000 Ohm
Impedance reading	Digital and tone

Coagulation unit

Bipolar coagulation	Max 30 W for coagulation using forceps. Foot switch controlled
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Physical characteristics

Mains	230, 115, 100 V
Dimensions	320 (W) x 205 (D) x 130 (H) mm
Weight	5 kg
Remote control	Handheld for stimulation

Accessories

Electrodes	Brain lesion electrodes: Monopolar, Bipolar and Dual (two parallel monopolar electrodes). Pain electrodes and disposable cannulas
Foot switch	Foot switch for coagulation

Fighting serious disease

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