LITEBOX

3-channel NCS, EMG and EP system

- 3 acquisition channels for quickest examination ever
- NCS and needle EMG according to international standards
- All-in-one: stimulators, amplifier, keyboard in single compact and lightweight box
- Electrical stimulator with unipolar and bipolar pulse waveforms
- Premium signal quality due to innovative circuits for sophisticated filtering, noise suppression and stimulus artifact reduction

EMG
EP

Neurosoft

EVERYTHING POSSIBLE IN EMG IS EASY WITH LITEBOX!

For more than a quarter of a century, Neurosoft has been designing and developing medical devices for neurophysiology and electrodiagnostics. And all this time we have been committed to improve our products for making your routine work not only effective but as quick and comfortable.

Today we offer not just another EMG and EP system, but a **comprehensive device to meet the needs of the most demanding users**. If high performance, effectiveness, ergonomics, usability and time-saving is what you strive for, Litebox is the superb solution for you!

STILL WIDER HORIZONS

- Nerve conduction study (NCS)
  motor and sensory conduction velocity, F-wave, H-reflex (also including paired stimulation), motor and sensory inching
- Electromyography (EMG)
  spontaneous activity, interference curve, motor unit potentials (MUP), macro-EMG, **QEMG** NEW
- Neuromuscular junction
  repetitive stimulation, jitter
- Motor unit number estimation (MUNE) including **MUNIX** NEW
- Additional EMG techniques
  blink reflex, sacral reflex, bulbocavernosus reflex, T-reflex[1], galvanic skin response, tremor, **RIII** NEW
- Somatosensory evoked potentials (SEP)
- Flash and pattern-reversal visual evoked potentials (VEP)
- Auditory evoked potentials (AEP)
- Vestibular evoked myogenic potentials (VEMP)
- Cognitive evoked potentials (P300, MMN, CNV, MRCP, **N400, P50** NEW)
- Transcranial magnetic stimulation (TMS)[2]
- Intraoperative neurophysiological monitoring (IONM)
- Heart rate variability (HRV)[3]
- Electroretinography (ERG, including multifocal ERG)[3]

1 if tendon hammer for T-reflex recording is available
2 if magnetic stimulator is available
3 if corresponding equipment is available

NOTABLE

OPPORTUNITIES IN A COMPACT FORM

Bipolar stimulus waveform for next level of artifact reduction!

Two software switchable stimulator outputs
for two stimulating electrodes.

All what you need for evoked potential acquisition: built-in auditory-visual stimulators with outputs to connect pattern monitor, LED goggles for VEP and headphones for AEP. Auditory stimulator features click and tone pulse waveforms.

169 mm

Dedicated keyboard for easy control over the examination through quick access to the main actions without computer keyboard and mouse assistance. The keys for stimulus amplitude adjustment, stimulation start, single pulse delivery, impedance measurement, etc. are always at your fingertips.

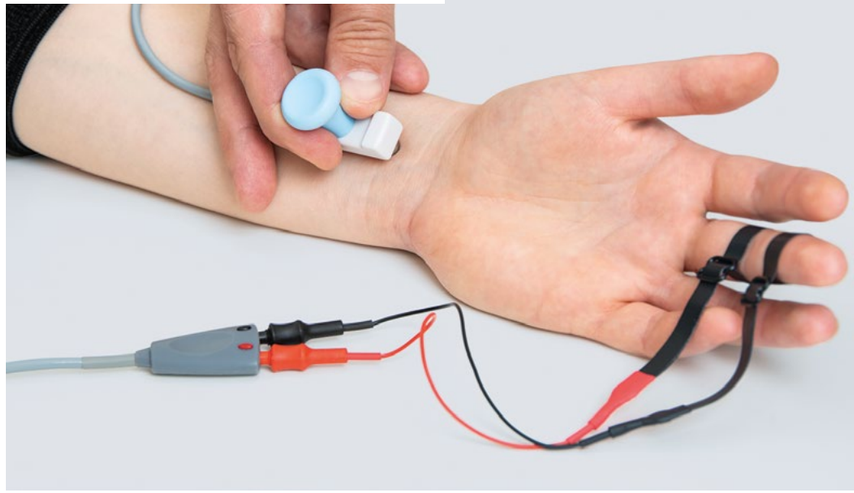
Three acquisition channels for **really quick NCS, EMG and EP studies.**

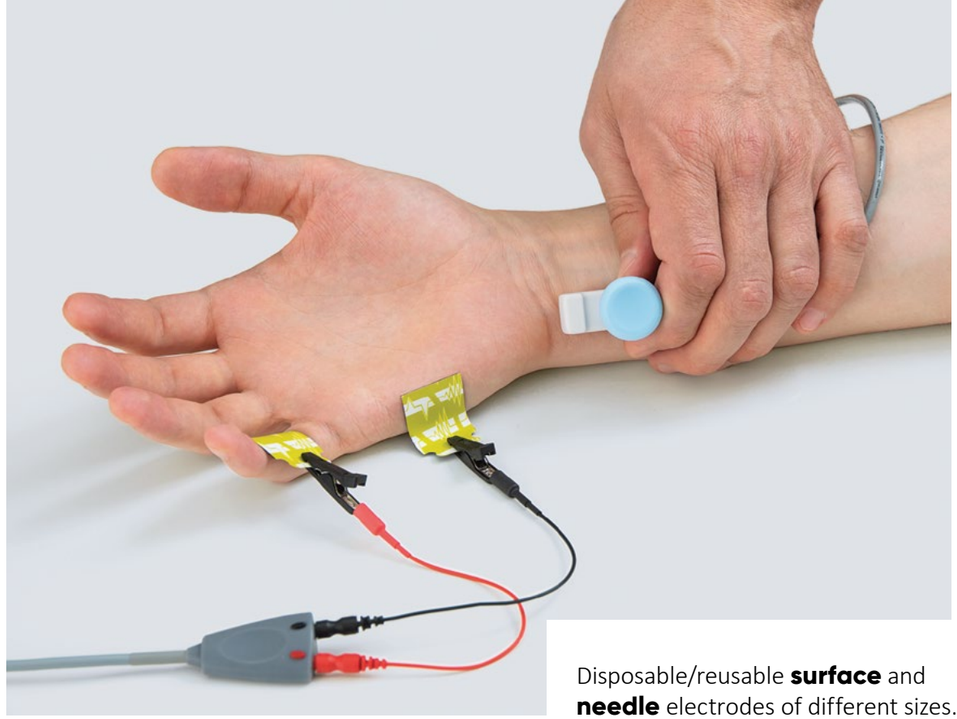
Smooth, quick and simple as one, two, three: record motor response using the first channel, sensory response using the second channel and needle EMG using the third channel. No more cable reconnection, let them serve much longer!

ACCESSORIES

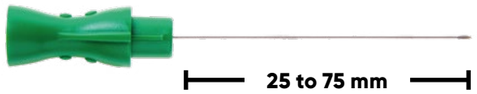
OF ULTIMATE QUALITY

Reliable ring electrodes
for sensory nerve conduction study.





Disposable/reusable **surface** and **needle** electrodes of different sizes.



Several types of **stimulating electrodes**. Simply choose what is the most convenient for you from the best of the kind:

- adjustable electro stimulating probe featuring built-in stimulation controls and rotation mechanism for changing the angle of the steel stimulation tips and distance between them;
- stimulating bar electrode (adult and pediatric);
- stimulation electrode with steel stimulation points (adult and pediatric).

Apart from control keys on the device panel the stimulation control is also possible with the **footswitch**.
You can assign the desired function to the pedal and change it when necessary.

NEURO-MEP.NET

Intelligent EMG software

-15%

less time if compared to the conventional EMG test[4]

NCS

The software features dozens of default templates for the nerve conduction studies: motor and sensory conduction velocity measurement for all nerves accessible for stimulation, F-wave, H-reflex, motor, and sensory inching, etc. That is how all well-known and rare NCS techniques become possible. Thanks to the different useful software options (help window, linked tests, hotkeys, and others) the examination promises to be even more comfortable and less time-consuming.

Needle EMG

Acquisition and analysis of spontaneous EMG activity, interference pattern and MUP is done in one window.
During spontaneous activity analysis, algorithms of automatic phenomena classification can be applied. While MUP recording, the software automatically detects MUPs and selects those that may be related to one and the same motor unit.
When studying interference pattern, the software displays turn/amplitude data cloud in real-time. It allows fine adjusting the muscle contraction and performing this test most properly. On EMG study completion, all main results are shown in one window.

Evoked potentials

For premium-quality EP acquisition Litebox is equipped with highly sensitive and noise-immune amplifiers with very wide bandwidth.
Specific stimulation and averaging algorithms ensure good-quality traces at a minimum number of averagings.

TMS

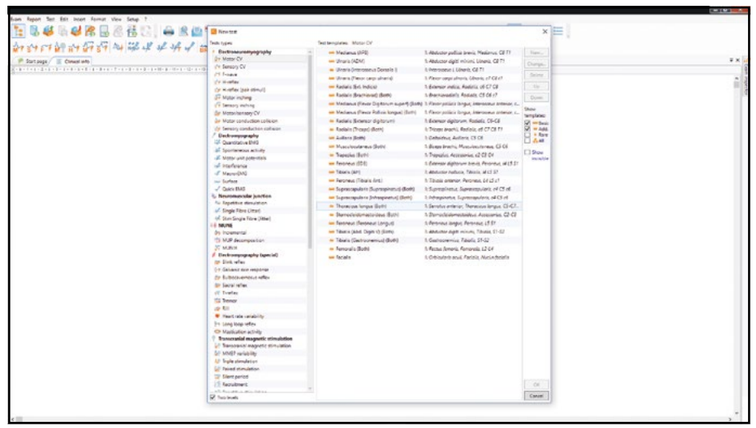
Magnetic stimulation stands out from the other electromyographic techniques. TMS provides valuable information on the descending efferent pathway status. It allows estimating cortical excitability, measuring conduction velocity in the pyramidal tract, motor pathways and motor nerve roots of the spinal cord.
Neuro-MEP.NET software has a wide list of preset TMS test templates with pre-defined automated stimulation sequences, automatic calculation of numerical results and many other pleasant surprises for users who got used to conventional TMS-EMG tests.

4 according to Neuro-MEP.NET user feedbacks

NCS

Measuring motor conduction velocity
in 5 quick steps:

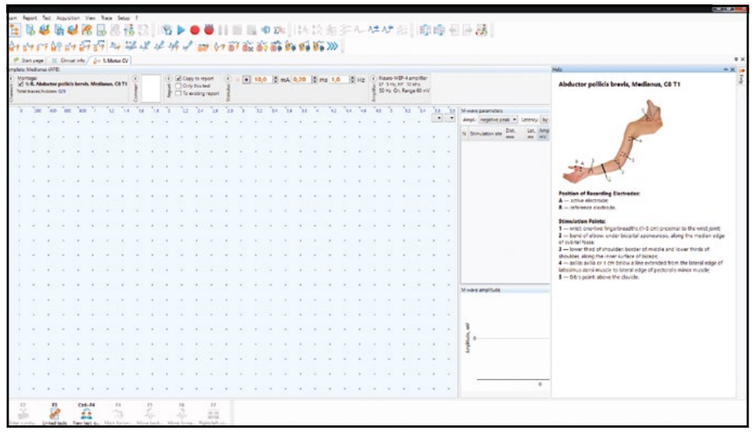
less than
3.5 minutes
for one nerve!



1

Open the software, enter patient's data, select the test, nerve, and side from the list with just one mouse click.

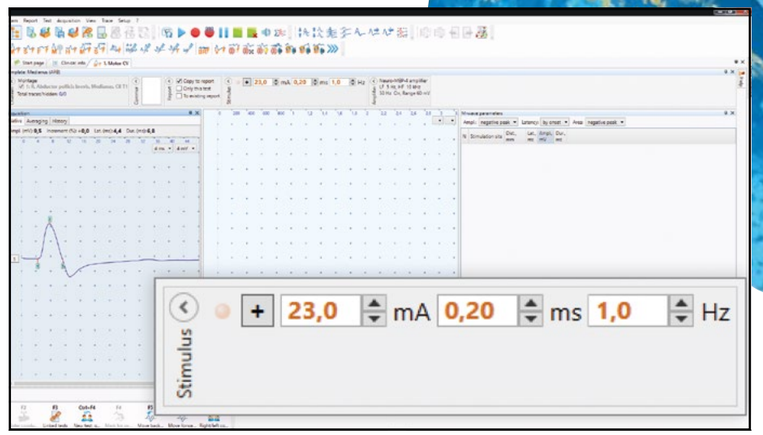
30 seconds



2

Place the electrodes using our anatomical navigator enabled by clicking F1.

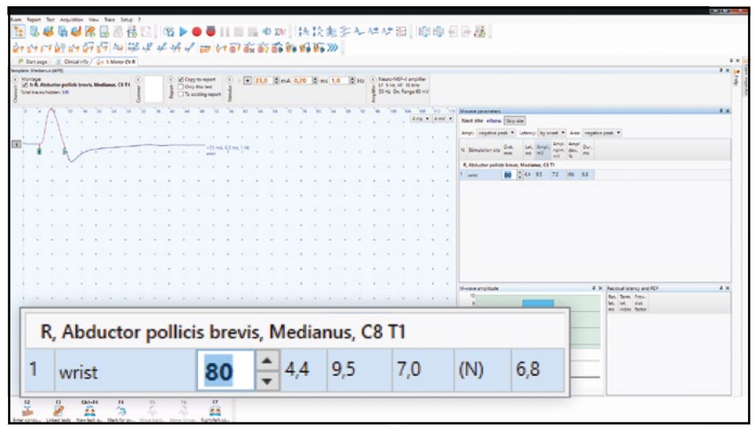
1 minute



3

Set stimulus amplitude, deliver the stimuli and change their intensity on-the-fly by rotating the knob on the keyboard and then record the response.

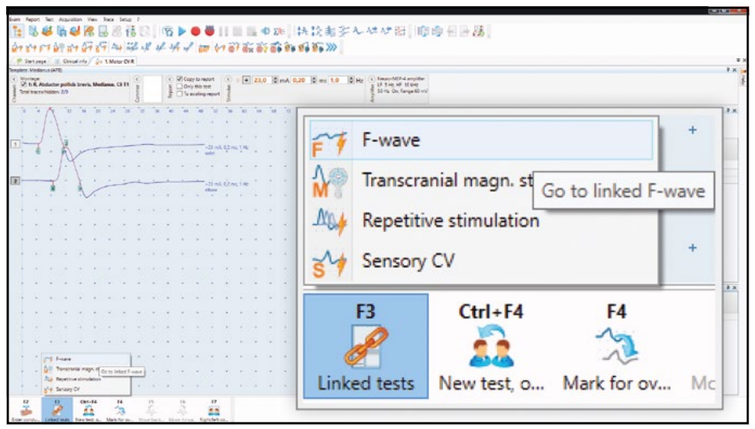
1 minute



4

Do the same for next stimulation points, measure the distances between the recording and stimulation sites and enter them in the input box using PC keyboard or knobs (!) on the Litebox.

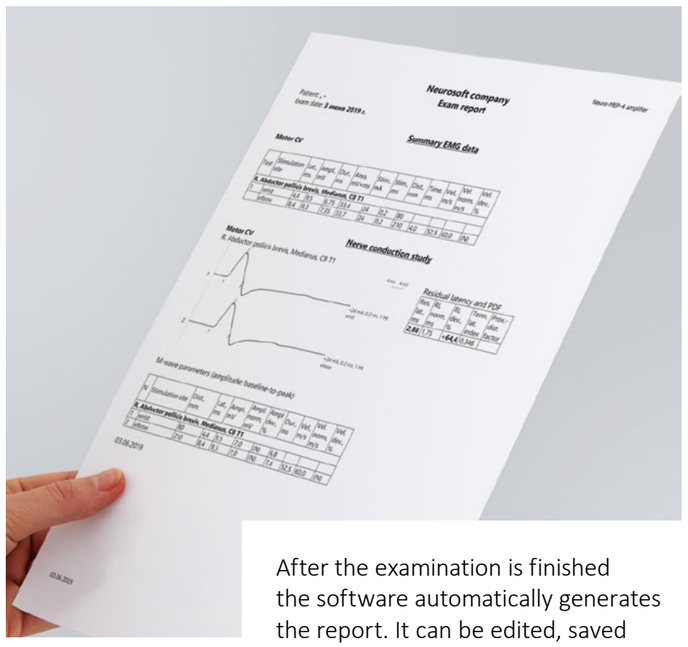
20 seconds



5

Hotkeys on the device panel or in the software allow switching to the next test or linked tests: sensory CV, F-wave, etc.

20 seconds



After the examination is finished the software automatically generates the report. It can be edited, saved or printed.

EMG PRODUCT LINE

	Number of EMG/ EP channels	Number of electrical stimulation channels	Included techniques	Configuration
 Litebox	3	1	EMG	All-in-one, connection to PC and power supply via USB cable
 Neuro-MEP-Micro	2	1	EMG	
 Skybox	5	2	EMG, EP	
 Neuro-MEP-4	4	1/2	EMG, EP	Modular architecture: all units conveniently arranged at workplace are connected via USB and make optimal configuration of your own
 Neuro-MEP-8	8	1/2	EMG, EP	

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