



FUNCTIONAL NEUROSURGERY

ISIS MER system

The key technology for
microelectrode recording

Improving targeting with neurophysiological
localisation to assure accuracy and safety

inomed 



ISIS MER system family

Three basic versions which can be individually equipped according to your needs

ISIS MER system

The key technology for microelectrode recording

- Compact hardware design and an easy-to-use software guarantee a straightforward intraoperative workflow
- Advanced signal processing with filters, LFP spectral map, nRMS calculation, automatic MEP peak detection and data streaming
- Hydraulic height adjustment enables ergonomic working in both sitting and standing positions

NEW

↑
Height-adjustable cart
↓

ISIS Headbox



ISIS Headbox MER

Compact hardware solution for target point localisation with MER recordings and test stimulation

Characteristics:

- 5 channels for MER and test stimulation, 20 kHz, 16 bit
- Adjustable high and low pass filters for hardware and software
- Trigger in/out
- MEP stimulation parameters (triggered window, trains of 5)
- Constant current stimulation from 0.1 to 10 mA between 1-300 Hz



ISIS Headbox EMG

High-performance 16-channel differential amplifier for MEP, LFP and EMG monitoring during MER

Characteristics:

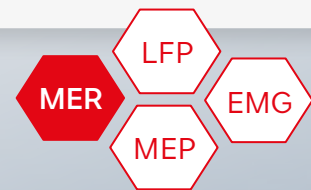
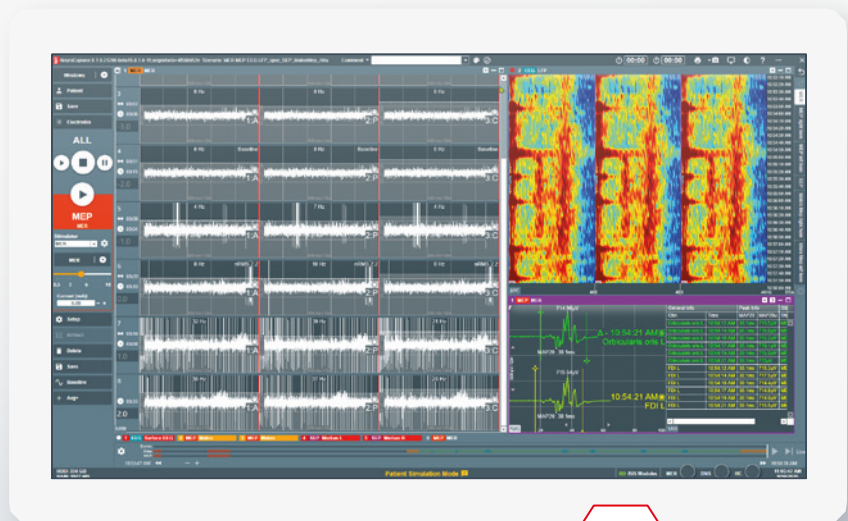
- 16 EMG channels, 20 kHz, 16 bit
- Adjustable high and low pass filters for hardware and software
- Trigger in/out



LFP Module

Parallel microelectrode recording and LFP recording

The combination of the MER and EMG Headbox enables the recording of local field potentials (LFP) for up to five channels



ISIS MER NeuroExplorer – the release of potentials

Precision through synergy – experience the future of intraoperative neurophysiology: Our innovative software combines MER, LFP and MEP technologies in an intelligent platform designed to take precision and safety to a new level.

NeuroExplorer 8 synergy

MER, LFP and MEP technologies in one intelligent software package

Precision through synergy

Quantitative side effect determination by combining MER with motor evoked potentials (MEPs)

Safety through analysis

Online analysis options MER, LFP, MEP to support signal interpretation

Trust through overview

Intuitive display of MER signals with timeline for easy access to historical data

Efficiency through simplicity

The completely redesigned user interface blends modern design with neurosurgical workflow needs.

Flexibility for research

Online data streaming interface enables data transfer and individual evaluation in real time



Flexibility redefined



inomed MicroDrive

Sophisticated instrument for precise electrode positioning during DBS procedures.

Characteristics:

- Highest precision and proven reliability
- Simultaneous insertion of up to 5 electrodes via BenGun alignment
- Haptic feedback for each complete revolution (0.5 mm)
- Reusable with validated processing procedure
- Adaptability to many stereotactic frames and robotic system



Guide tubes

Large selection of different guide tubes:

- Universal guide tube
- MER guide tube
- DBS guide tube

All guide tubes are available in different lengths. Longest tube ends 10 mm before target, shortest tube ends 50 mm before target.

Simplify the procedure with the all-in-one universal guide tube solution:

- Inner part for MER electrodes
- Outer part for DBS electrodes
- No need to change guide tubes when inserting DBS lead



MER accessories

Three MER electrode designs provide flexibility in adjusting to different target structures



MicroMacro electrode

Ideal for brain surgery with electrophysiological determination of the anatomical target point for stereotactic-functional interventions such as deep brain stimulation



MicroMove electrode

A combined electrode for the precise electrophysiological localisation of anatomical target points in the human brain during brain surgery



Macro electrode

This electrode can be used to determine the anatomical target point by selective test stimulation during brain surgery