

## The Neurosign® 800 - Powerful Yet Simple Monitoring Of Motor Nerves During Surgery

Intended for:

**Neuro and Orthopaedic Surgery**

- acoustic neuroma
- skull-base tumours
- cauda equina tumours
- release of tethered cord
- pedicle screw placements
- spinal fixation
- may be upgraded to **Neurosign Spinal** for monitoring of the spinal cord

With 8 EMG channels, a built-in stimulator and a powerful loudspeaker, the **Neurosign 800** is intended to help the surgeon locate and protect motor nerves at the brainstem and to monitor spinal nerve roots below L2. If upgraded to the **Neurosign Spinal** system, simple but effective monitoring of the motor tracts of the spinal cord is achieved.



**Neurosign** is the most widely used monitor in Europe and has been established in the USA market for 15 years.

The Magstim Company, the manufacturer of Neurosign, is based in the UK and is able to provide practical product support, training and advice from experienced technical experts.

### *Neurosign - the sensible choice for an excellent monitor*

- **no additional technical staff needed (for simple applications; a monitoring technician is recommended for complex procedures)**
- **mains powered**
- **powerful audio of raw EMG gives immediate and intuitive feedback direct to surgeon**
- **range of single-use needles and stimulating probes promotes reliability and fixed operating costs**
- **'single button' operation makes setup as simple as possible**



Working to provide intra-operative monitoring solutions

[www.neurosign.com](http://www.neurosign.com)

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All the products carry the CE mark and comply with Medical Device Directive 93/42/EEC and are manufactured to Quality Systems BS EN ISO 13485.

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The **Neurosign 800** provides comprehensive motor nerve monitoring in an easy-to-use package. With a bright display panel and powerful audio amplifier, coupled with a 6" diameter speaker with excellent low-frequency response, the **Neurosign 800** provides all the information a surgeon needs when operating near a motor nerve. The stimulator allows the surgeon to identify and locate neural tissue with accuracy.

The front panel is a flat, wipe clean surface, allowing access to all the more commonly used features in a single key press. The interface is intuitive to use, keeping the learning curve as short as possible.

All the electrodes and probes are single-use devices, ensuring reliability, quality of product, and giving a defined cost to each procedure.



## Key features and benefits:

- line powered - no batteries to charge or run out
- 14W audio amplifier - powerful enough to overcome background noise in the operating theatre
- Constant Current or Constant Voltage stimulator - surgeon's preference
- switches ON in same state as when switched OFF - in many theatres, the only button to press will be the ON/OFF switch
- store data in non-volatile memory, print results at the office
- individual surgeon's setups can be saved, easing theatre staff workload
- keypanel manufactured from bactericidal material to encourage safety in theatre
- Dedicated printer **included** with system

## Specifications:

### Display:

125 x 95mm electroluminescent, 320 x 240 pixels

### Stimulator:

0.05mA to 5mA in 0.05mA steps	Constant Current
0.5mA to 10mA in 0.5mA steps	Constant Current
50mV to 5V in 0.05V steps	Constant Voltage
0.5V to 10V in 0.5V steps	Constant Voltage
200µs pulse width (default); 100µs to 500µs range	

### Preamplifier:

Analogue	10V peak to peak output
Channels:	8
Signal Input Range:	5µV to 10mV peak
Bandwidth:	10Hz to 5kHz ±3dB
Noise:	<10mV p-p at output
Gain:	477

### Consumables:

Twin needle electrodes, 20mm	8 per usage
Single needle electrode, ground, 20mm	2 per usage
Stimulating Probe	1 per usage

### Stimulating Probes (single use):

Bipolar	(general work and will penetrate 3 - 4mm)
Monopolar	(general work, not accurate)
Concentric	(very accurate, no real penetration)
Pedicle Screw Probe	(stimulates pilot hole before screw Insertion)

**For a complete list of available stimulating probes, please visit [www.neurosign.com](http://www.neurosign.com)**

### Main Unit:

Digital signal processing, analogue audio	
Audio	14W rms
115/230V 50/60Hz operation	

### Classification:

Class 1, Type BF applied parts  
EN60601-1; CSA 22.2601-1; CE marked

### Physical:

Size	340 x 210 x 140mm
Weight	8kg

## Available from:

### The Magstim Company Ltd

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**For a demonstration, please contact the Company**