

magstim[®]

Magnetic Stimulators



PIONEERS IN NERVE STIMULATION AND MONITORING

CREATING THE FUTURE THROUGH INNOVATION...

Magnetic nerve stimulators work by inducing electrical currents in tissue using a non-invasive stimulating coil. The stimulating coil is placed near the intended site of stimulation and trigger pulses initiate brief magnetic pulses. The magnetic fields can pass through clothing, tissue and bone to reach otherwise inaccessible areas. One feature of magnetic stimulation is that it is unable to stimulate pain fibers at the skin surface, reducing the discomfort when compared with conventional electrical stimulation. A variety of standard stimulating coils, custom coils and output waveforms are available to suit different areas of application.

- Brain Research
- Functional assessment of central motor pathways in adults and children.
- Early diagnosis, assessment, prognosis and monitoring of nervous diseases such as:
 - Multiple Sclerosis
 - Motor Neurone Disease
 - Cervical Spondylosis
 - Stroke
 - Central Motor Disorders
 - Epilepsy
 - Spinal Injuries

through investigation of the function of the entire central and peripheral motor system.

Magstim 200² • MONOPHASIC STIMULATOR

Magstim 200² Monophasic Transcranial Magnetic Stimulators draw upon the years of knowledge and expertise gathered in both the clinical and research environments, resulting in an innovative design that will establish the new Magstim range as the system of preferred choice.

- **Ergonomic modular approach to design** to complement any operating environment and facilitate simple upgradeability to other Magstim systems such as BiStim².



- **Intuitive highly visible user interface** incorporating system status and online coil temperature indication as well as fully integrated safety diagnostic software system on 'power up'.

- **Total compatibility and flexibility** through additional intelligent hardware; the new range of Magstim stimulators are fully compatible with all existing Magstim coils.

- **Remote control coil functionality** allowing for complete 'single handed' system control. Arm, disarm and amplitude modulation via active microprocessor controlled coils.

- **New microprocessor controlled system hardware** for added system safety whilst also enabling remote software upgrades and PC interfacing capabilities via standard internal serial port.



Magstim BiStim² • PROGRAMMABLE INTERVAL PAIRED PULSE STIMULATION WITH THE ADDED FLEXIBILITY OF A COMBINED PULSE

BiStim² provides an effective upgrade path that allows users to take full advantage of the Magstim 200² modularity. The potential to combine two units offers fully programmable paired pulse stimulation through a single stimulating coil. The ability to change pulse intervals and to control independently the power level of each Magstim 200² allows for sub- and supra-threshold conditioning and secondary pulses to investigate inhibitory and facilitatory circuits.

Two inter pulse spacing options offering maximum controllability:

- 1ms - 999ms in 1ms increments
- 1.0ms - 99.9ms in 0.1ms increments

BiStim² has the added advantage of the ability to summate the two single pulses provided by Magstim stimulators to produce a single High Power pulse.

The interval between stimuli is adjustable using either the integral stimulator controls, remote control coil or externally controlled via triggering software, offering complete user flexibility.

- **BiStim² remote control coil** options allow complete 'single handed' system control including:
 - amplitude manipulation of both stimulators
 - inter pulse space selection.



The new range of Magstim stimulators have been designed for maximum safety and efficiency. All systems have been developed and produced under our ISO 9001 registered Quality System to ensure all customers receive a quality product.

SPECIFICATIONS

	Magstim 200²	Magstim 220²	Magstim BiStim²
Output Type	Monophasic	Biphasic	Monophasic Twin Pulse
Maximum Power as % of Magstim 200 ²	100%	100%	113%*†
Maximum Frequency at Maximum Power	0.25Hz	1Hz	0.2Hz
Upper Frequency	0.5Hz	2Hz	0.2Hz
Maximum Burst Frequency	0.5Hz	2Hz	1000Hz
Minimum Pulse Interval	2 sec	0.5 sec	1 msec

* in Single High Pulse mode

† for those customers who require a higher performance than offered by the standard range of stimulators please contact Magstim directly

For further information on Clinical applications or product specifications please contact your local distributor or Magstim direct at info@magstim.com

All products carry the CE mark and comply with Medical Device Directive 93/42/EEC and are manufactured to Quality Systems **BS EN ISO 9001 BS EN 46001**

Cortical Magnetic Stimulation is currently considered investigational in the USA
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