

# MagPro

Versatility in Magnetic Stimulation



## Magnetic stimulation from a world leader

MagPro is a complete line of non-invasive magnetic stimulation systems designed for clinical examinations and research within the areas of neurophysiology, neurology, rehabilitation and psychiatry.

The first MagPro was introduced in 1992 and the MagPro series of today addresses a wide range of applications including Motor Evoked Potentials (MEP), Transcranial Magnetic

Stimulation (TMS), repetitive Transcranial Magnetic Stimulation (rTMS) and Functional Magnetic Stimulation (FMS).

The name MagVenture is a combination of the words Magnetic Stimulator and Adventure. Adventure is a combination of "adventure" and MagVentures desire to "venture" further into the future as the leading developer and manufacturer of Magnetic Stimulators.

## Long line of benefits

### All-in-one stand-alone solution – no PC necessary

- Automatic sequence setup and user-definable protocols with unique, built-in computer storage
- PC-compliant technology enables transfer of data between the stimulator and a PC, if required

### Wide choice of functions

- Wide range of stimulation forms and two different pulse durations
- Fast stimulation with high-frequency pulse series
- Double stimulation features in the same stimulator
- More waveforms in the same stimulator
- Selectable coil current direction

### Extra Power

- Extra power to overcome high motor threshold in body structures and for deep stimulation, e.g. in the brain

### Ease Of Use

- Ergonomic design with simplified one-hand control using controls built into the coil
- Stimulation control via manual button on the coil handle, or triggers received from external source
- Easy interface with standard EMG and EP equipment



## Freedom of choice

The MagPro series of non-invasive magnetic stimulators is designed for clinical examinations and research within neurophysiology, neurology, rehabilitation

and psychiatry. The series consists of the MagPro X100 addressing a wide range of research purposes, the MagPro R30 primarily for clinical use, the MagPro

R100 for rehabilitation and muscular stimulation and the MagPro Compact for clinical examinations.

# MagPro X100 with Option – For Clinical and Research use

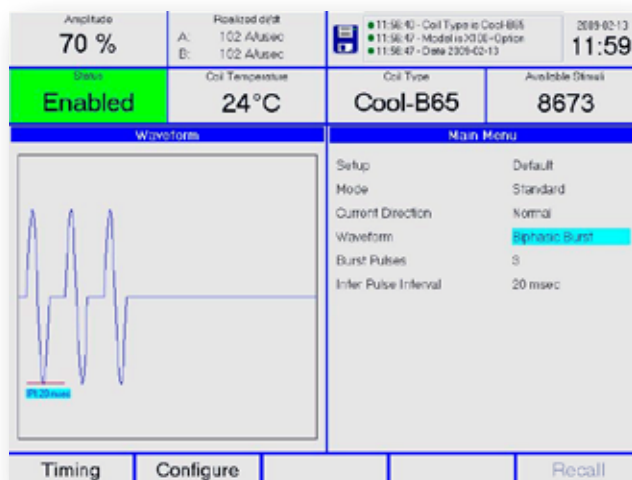


The MagPro X100 with MagOption and Cool-B65 coil and cool unit.

This solution addresses the most demanding customers within research and clinical purposes requiring highest flexibility in waveforms, stimulation trains setups, high intensity and long stimulation protocols.



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## MagPro X100

### Applications

- Examination of the physiology of the motor pathways in the central and peripheral nervous system
- Examination of functional aspects of motor nerve stimulation
- Examination of human cortical physiology

### Features

- Multiple waveforms: Biphasic, Monophasic, Halfsine, Theta burst
- Selectable current direction
- Stimulation rates up to 100 pulses per second
- Programmable input/output triggers
- System operation control via a built-in computer, eliminating the need for an external computer to set up and control the timing of stimulus sequences
- Flexible protocol storage in built-in computer
- Easily connects to an EMG-system



MagPro X 100 has the possibility to generate burst stimulations

### With MagOption

The MagOption can be added to the MagPro X100 for enhanced stimulation capabilities including:

- Dual pulses with up to 20 pulse pairs per second repetition rate
- Advanced power pulse feature adding 40% additional stimulation power
- Additional waveform: Half sine



High-performance, non-invasive magnetic stimulators for use in both the clinic and in medical research

# MagPro R100

## Applications

- Rehabilitation research
- Direct stimulation of muscles
- Research in pain relief
- Examining the physiology of the motor pathways in the central and peripheral
- Examining the functional aspects of motor nerve stimulation
- Monitor diseases by controlling neuroplasticity

## Features

- Biphasic waveform
- Stimulation rate up to 100 pps
- Pulse mode and Train mode with adjustable number of trains and rest periods
- Ramp powered mode with adjustable ramp-up, ramp-down and plateau time
- Sweep mode with variable repetition rate



Amplitude <b>25 %</b>	Actual d/dt <b>28 A/us</b>	Rep. Rate <b>40</b>	
<b>Enabled</b>	Coil Temperature <b>25 °C</b>	Coil Type <b>C-B60</b>	Stimul Available <b>2327</b>
Train Mode		Train Mode	
Ramp up 2.0s	6.0s	Ramp down 2.0s	
Duration: 10.0s			
Elapsed time 0.0s	Estimated time 326.0s		
Stimulations count 0			
Trains remaining 0			
Rep. Rate <b>40</b> pps		Duration <b>10</b> s	
Ramp up time <b>2</b> s		Ramp down time <b>2</b> s	
Number of trains <b>10</b> #		Inter train interval <b>25</b> s	
Continuous	Train	Sweep	Traverse
MEP			

The MagPro R100 is an advanced, high-performance magnetic stimulator ideal for neuronal and muscular stimulation and rehabilitation research

## MEP Monitor Option

The MEP Option can be added to the MagPro X100, R30 and R100 for enhanced Compound Muscle Action Potential recording capabilities including:

- Display MEP's and control settings
- Rasters up to 10 responses with superimpose function
- Latency and amplitude measurements

Amplitude <b>80 %</b>	Realized d/dt <b>149 A/us</b>	Sensitivity <b>1 mV/div</b>	
<b>Enabled</b>	Coil Temperature <b>24 °C</b>	Coil Type <b>MCF-B65</b>	Available Stimul <b>100000</b>
MEP Menu			
Time Base <b>5 ms/div</b>		Sensitivity <b>1 mV/div</b>	
Pacing <b>0 ms</b>		Curve No <b>1-10</b>	
Lower Frequency Limit <b>20 Hz</b>		Upper Frequency Limit <b>10 kHz</b>	
Trigger Mode <b>Stimulus</b>		Display Size <b>Full</b>	
Stay On Top <b>Off</b>			
Exit	TrigLevel	Ampl Cursor	Time Cursor



## MagPro R30

The MagPro R30 is an advanced, high performance magnetic stimulator designed primarily for clinical use.

### Applications

- Examination of the physiology of the motor pathways in the central and peripheral nervous system
- Therapeutic research

### Features

- Biphasic waveform
- Stimulation rates up to 30 pulses per second
- 60 pulses per second upgrade available
- System operation control via a built-in computer, eliminating the need for an external computer to set up and control the timing of stimulus sequences
- Flexible protocol storage in built-in computer
- The MagPro R30 can be connected to an EMG system.



MagPro R30 with option is primarily for research and examination in the clinic

### With MagOption

The MagOption can be added to the MagPro R30 for enhanced stimulation capabilities including:

- Dual pulses with up to 5 pulse pairs per second repetition rate both biphasic and monophasic
- Additional waveform: Monophasic

# MagPro Compact

The MagPro Compact is designed for clinical use as a stand-alone unit or together with EMG equipment.

## Application

- Examination of the physiology of the motor pathways in the central and peripheral nervous system

## Features

- Biphasic stimulation waveform
- Stimulation rate up to 5 pulses per second, independent of output intensity, with no “roll off”
- Output intensity set-up integrated into the coil handle together with the trigger button
- External triggers



MagVenture is your assurance of outstanding product and applications support, servicing and maintenance.

High-performance, non-invasive magnetic stimulators for use in both the clinic and in medical research

	Waveform	Pulse mode	Max. Stimulation rate
MagPro Compact	Biphasic	Standard	5 pps
MagPro R30	Biphasic	Standard	30 pps (60 pps optional)
MagPro R100	Biphasic	Standard	100 pps
MagPro R30 with Option	Biphasic Monophasic	Standard Dual,	30 pps for single pulses 5 pps for dual pulses
MagPro X100	Biphasic Monophasic Halfsine	Standard Theta Burst	100 pps
MagPro X100 with Option	Biphasic Monophasic Halfsine	Standard Burst (x5) Dual Powermode	100 pps for single pulses 20 pps for dual pulses

## MagPro Accessories

MagVenture offers a complete range of coils that can be used on all of the new MagPro magnetic stimulators.

Customized coils can also be supplied for specific applications. For more information, please visit [www.magventure.com](http://www.magventure.com)

North America

Please note that not all products are cleared for sale by FDA in the US.

For further details of which are cleared in the US, please contact local MagVenture distributor



## VERSATILITY IN MAGNETIC STIMULATION

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