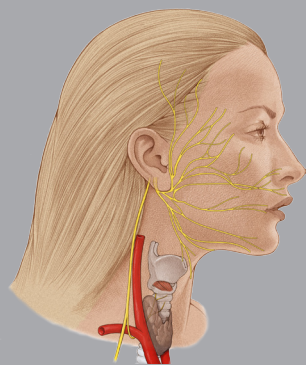




## ***C2 NerveMonitor Intraoperative Neuromonitoring***

### **Applications**

- Thyroid Surgery
- Facial Nerve Monitoring
- Ear, Nose and Throat Surgery
- Skull Base Surgery
- Peripheral Nerve Surgery
- Spine Surgery



***Hitting the Nerve***

inomed is a medical technology company, operating internationally, which develops nerve protection instruments and systems for precisely targeted patient treatment.

***Sharing Knowledge***

Working with doctors and users, inomed develops new tools and methods in the fields of intraoperative neuro-monitoring, neurosurgery, pain therapy and neurological diagnostics.

***Providing Safety***

inomed improves treatment outcomes with high-quality products and uses innovative technologies to ensure safety for both treatment providers and patients.

## Product Overview

*C2 NerveMonitor*

*Art. no. 508 240 (4 EMG channels)*

*Art. no. 508 280 (8 EMG channels)*



### ***Safe Nerve Monitoring with Visual Feedback***

The C2 NerveMonitor is the result of inomed's years of experience in the field of nerve monitoring. It is available as a four or eight channel EMG monitor with high performance differential amplifiers and two independent stimulators: one for direct nerve stimulation with hand held probes and one for continuous monitoring e.g. with the V<sub>3</sub> vagus electrode.

Designed for daily use in the operating room, the C2 NerveMonitor can be easily used after a brief introduction. It combines simplicity with visual feedback. All components of the device have been optimised for safe neuromonitoring in order to achieve the highest quality of signal and feedback.



User-friendly control concept with audio and visual feedback



Thyroid operation using a disposable stimulation probe

### Audio and Visual Feedback with Electrode Check

During surgery, a sound compressor ensures good acoustic reproduction of the EMG signal over a speaker. Visual feedback is given via a graphical representation of the muscle response signal. The amplitude and latency of the signal can be seen clearly. Up to eight EMG curves can be shown simultaneously on the display. Correctly placed electrodes are controlled automatically with an electrode check or impedance measurement.

- 4 differential EMG channels (article no. 508 240)
- 8 differential EMG channels (article no. 508 280)

### Current Sensor Technology

The auto mute function of inomed devices was further developed and improved for the C2 NerveMonitor. The loudspeaker is activated only during stimulation, while noise and coagulation artefacts are suppressed with the mute functions. In addition, the sensitivity of the auto mute function can be adapted. Together these functions represent an easy possibility to perform stimulation.

### Monitoring Programs and Applications

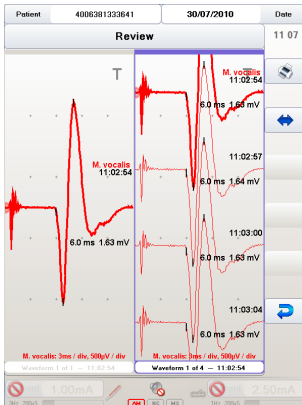
All relevant parameters have been set in predefined programs. Additionally, a program can be created for each surgical procedure and the user can select from these customised programs. All important stimulation and recording parameters can be saved and adjusted to the user's preferences for defined surgical procedures. If required, the factory settings can be reset.

The C2 NerveMonitor can be used in the following fields among others:

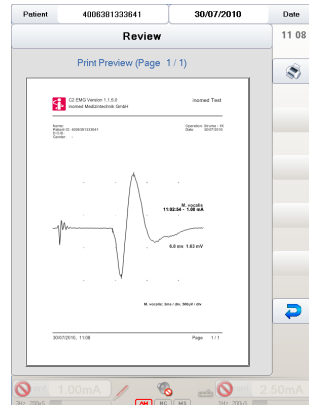
- thyroid surgery
- ear, nose and throat surgery
- facial nerve and parotid surgery
- removal of the acoustic neuroma
- spine surgery, e. g. pedicle screw test
- and many further areas

The C2 NerveMonitor should be used wherever motor nerves are at risk.

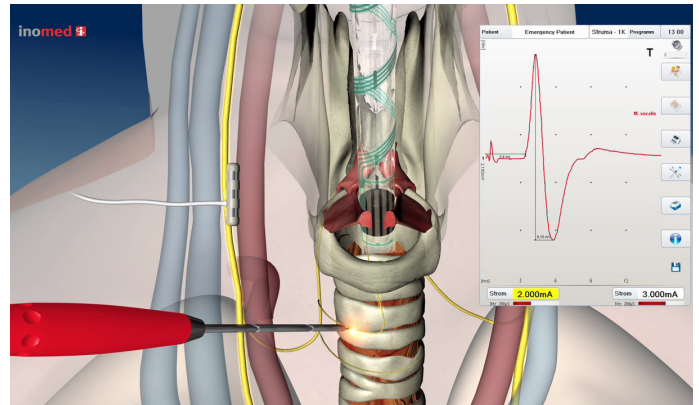




Selection of recordings



Print preview



Stimulation probe and V3 electrode in action

### Patient Management and Bar Code Scanner

At the beginning of an operation, a unique patient ID is created automatically or is read by the integrated bar code scanner.

All important patient information is saved continuously during an operation. Every muscle response is stored in a database for later analysis. During an operation, a response potential can be preselected by pressing a footswitch. Printing out allows a comfortable review for the selection of signals for documentation. Data can be conveniently exported to various formats.

### Interfaces and Accessories

The front of the C2 NerveMonitor is equipped with touch-proof connections for stimulation and recording. For patient data export, a USB port is integrated on the side of the device. A mute sensor can be connected to the back for suppression of coagulation artefacts.

Ports for an external monitor, a network cable and a trigger for stimulation are also provided. Furthermore, an inomed recommended printer and inomed module can be connected for expansion of functionality.

A wide range of disposable and reusable accessories is available for the C2 NerveMonitor, so that the device can work according to the maxim „Switch on, measure and protect“.

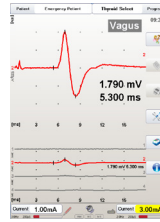


Bar code scanner reading patient data

**Accessories**

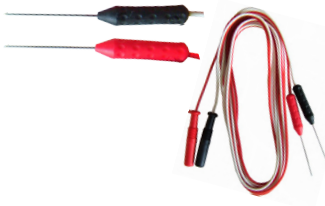


Art. no. 540 415 (2 channel)  
 Art. no. 540 425 (4 channel)  
**EMG electrodes mini box with ground,**  
 4 x 1.5 mm or 8 x 1.5 mm touch-proof connectors DIN 42802, cable 4 m

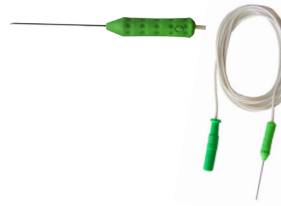


Art. no. 508510  
**Channel Select Software-Module**  
 To make best use of the adhesive laryngeal electrode Select we recommend the use of the software module Channel Select for the C2 NerveMonitor.

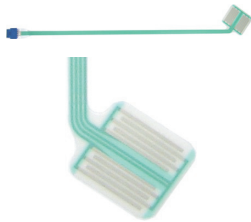
**Recording**



Art. no. 530 626 (10 pieces)  
**2 Subdermal needle electrodes**  
 cable 1.2 m, needle 20 mm with 1.5 mm touchproof connectors red/black  
 • single use  
 • ETO sterilised (universal applications)



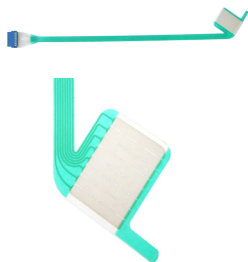
Art. no. 530 627 (10 pieces)  
**Subdermal needle electrode**  
 cable 1.2 m, needle 20 mm with 1.5 mm touchproof connector green  
 • single use  
 • ETO sterilised (ground electrode)



Art. no. 530 655 (10 pieces)  
**inomed adhesive laryngeal electrode for tube of 6 – 7 mm inner diameter**  
 adhesive surface width 29 mm  
 Art. no. 530 656 (10 pieces)  
**for tube of 7.5 – 9 mm inner diameter**  
 adhesive surface width 37 mm  
 length 32 mm, with ground adhesive electrode  
 • single use  
 • ETO sterilised



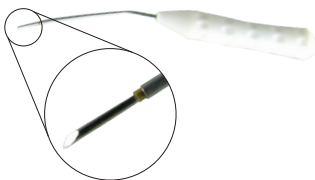
Art. no. 530 667  
**Connecting cable for laryngeal electrodes**  
 cable 4 m, channel 1 and 2 with ground, bend protection: blue  
 • delivered non-sterile  
 • can be disinfected



Art. no. 530 856 (10 pieces)  
**Laryngeal Electrode Select for tube of 7.5 – 9 mm inner diameter**  
 adhesive surface width 37 mm  
 length 32 mm, with ground adhesive electrode  
 • single use  
 • ETO sterilised

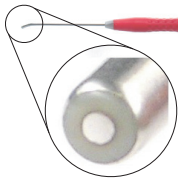


Art. no. 530 867  
**Connecting cable for Laryngeal Electrodes Select**  
 cable 4 m, 4 channel differential with ground, bend protection: blue  
 • delivered non-sterile  
 • can be disinfected



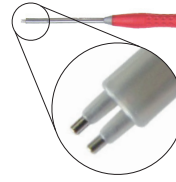
Art. no. 530 666 (10 pieces)  
**Disposable electrode for vocal muscle**  
 bipolar, with ground electrode, needle length 15 mm, 30° angled, 1.5 mm touchproof connectors red/black/green, round cable 1.5 m, individually packaged  
 • single use  
 • ETO sterilised

## Stimulation Probes



**Art. no. 522 603 (10 pieces)**  
**Bipolar concentric stimulation probe, length 4.5 cm**  
 angled, for direct nerve stimulation, cable 3 m, instrument total length with handle 15.5 cm

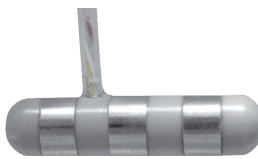
- single use
- ETO sterilised



**Art. no. 522 610 (10 pieces)**  
**Microfork probe, length 4.5 cm**  
 straight, bipolar, for direct nerve stimulation, cable 3 m, instrument total length with handle 15.5 cm

- single use
- ETO sterilised

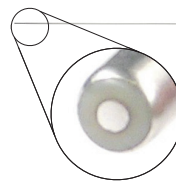
## Continuous Vagus Stimulation



**Art. no. 522 200**  
**V<sub>3</sub> – Tripolar stimulation electrode for the vagus nerve**  
 Work piece: outer diameter 5 mm, length 21 mm, contact ring: width 3 mm, with 4 pole male connector, cable length 40 cm

- delivered non-sterile
- autoclavable

## Minimally Invasive Procedure



**Art. no. 522 128**  
**Bipolar concentric stimulation probe, length 31 cm, straight**  
 for direct nerve stimulation, total length with handle 41.5 cm, work length 310 mm, diameter 1.3 mm

- delivered non-sterile
- autoclavable

## Technical Data of the C2 NerveMonitor

Recording	4 – 8 differential EMG inputs
Frequency range	Selectable in range 0.5 – 5000 Hz
Measuring range	80µV - 800mV
Precision	16 Bit with 20 kHz sampling rate
Stimulator	2 independent stimulation channels
Stimulation frequency	Freely selectable in range of 1 – 30 Hz
Pulse	Negative, 200 µS pulse width
Stimulation current	Constant current, 0.01 mA to max. 25 mA
Stimulation voltage	Max. 100 V
Current sensor	For display of current flow

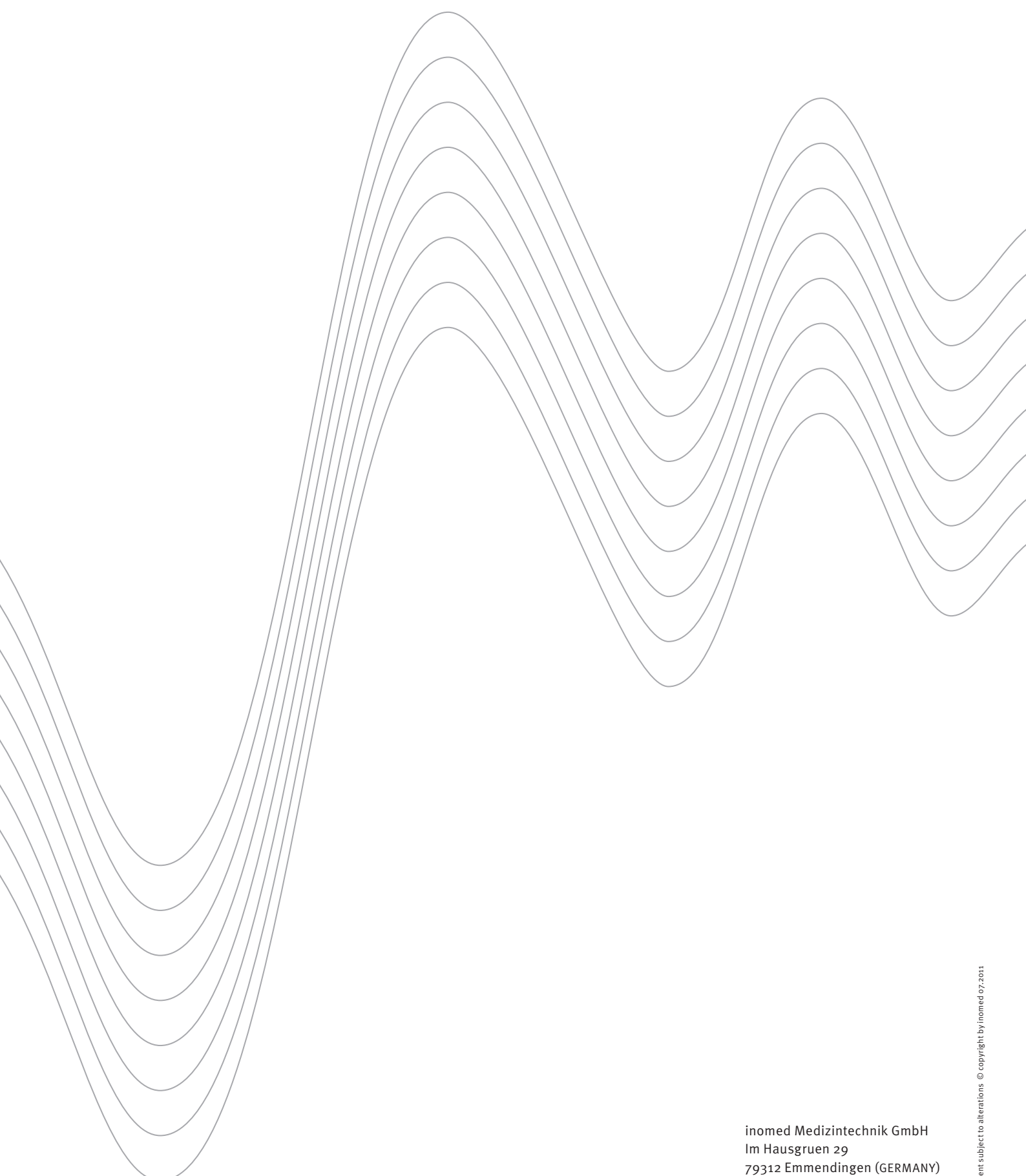
## Connections

- Three USB ports: one on the side and two on the rear
- Optional connection of two inomed USB modules possible
- Mute sensor for suppression of coagulation artefacts
- VGA outlet for connection of a second monitor
- Network connection with 100 MBit LAN/Ethernet
- 4 x Trigger In / 4 x Trigger Out (programmable)



Certified in accordance with  
 DIN EN ISO 13485:2003





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