



myoMOTION



myoVIDEO



myoMETRICS lab



myoMUSCLE



myoPRESSURE

myoTRACE 400

Portable Biofeedback and Telemetry System

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Portable Biofeedback and Telemetry System

Release date: March 2015

ACCURATELY MEASURE AND ANALYZE EMG AND OTHER BIOMECHANICAL SENSORS

The MyoTrace™ 400 is the latest in portable, handheld measurement technology. It operates with two channels in stand alone mode and 4 channels in PC-mode. A wide variety of compatible “plug-in” Noraxon sensors can be used with the MyoTrace 400. In addition to SEMG, force transducers, goniometers, inclinometers, accelerometers, hand dynamometers, and foot switches can be used to objectively evaluate the functional status of the musculoskeletal system.

The MyoTrace system is designed for the busy clinician interested in accurate and quick measurements. The user-friendly, menu driven operation is ideal for clinicians in orthopedic, neurological, clinical sports training and ergonomic settings. While it is completely self contained, the Myo-Trace 400 may be optionally connected to a PC and used for more advanced analysis with our MR3 software.

The Bluetooth data transmission on the MyoTrace allows free motion up to 20 Meters and pre-sents data in real time on the PC monitor. The signal quality meets current recommendations of research societies and is compatible for sophisticated SEMG processing like Onset, Averaged profiles and Frequency analysis. Unfiltered raw or real time processed data can be synchronized with DV video (50/60 Hz).

Line Graph or Bar Graph

Bright Full Color Display



Easy To Use Controls

Stand-Alone, Telemetric or USB Cable to PC mode



PC MODE FEATURES

- Up to 4 channels of SEMG, motion or force sensors
- Bluetooth or USB cable transmission
- Choice of protocols
- Audio and video tutorials
- Video synchronization
- Comprehensive reports and full programmable protocols
- Fully operational with the most current software version of MyoResearch

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BIOMECHANICAL SENSOR APPLICATIONS

EMG: Muscle Function Evaluation & Biofeedback

- + Muscle Function Tests
- + Left – Right Symmetry Tests
- + Clinical Sequence Tests for all major joint regions
- + Template and Biofeedback Training



Inclinometer: ROM Measurements

- + Range of Motion tests for cervical spine and trunk
- + Range for Motion tests for upper and lower extremities
- + Motion trigger when mounted to machine lever arms



Goniometer: Angle/Range Measurement

- + 2 D flexible (no fixed axis) or 1D mechanical goniometer
- + ROM for knee, hip, shoulder, ankle, elbow joint
- + Motion trigger for dynamic SEMG investigations



Linear Force: Force Capacity Measurement

- + Linear force measurement for cable machines
- + Static force testing with Noraxon force test station (accessory)
- + Can be attached to the weight stack cable of strength machines



Foot Switch: Gait Analysis & Jump Testing

- + Single foot switches or foot insoles are available
- + Stand alone gait parameter analysis & vertical jump testing
- + EMG gait analysis when combined with EMG leads



Hand Grip Dynamometer: Force Measurement

- + Hand-arm force transducer
- + Grip and pinch force
- + EMG to force ratio and co-activation analysis

Accelerometer: Tremor & Vibration Impact

- + Tremor analysis for neurological disorders
- + Vibration analysis of human bones
- + Impact analysis on human and other surfaces



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APPLICATION EXAMPLES

- + Biofeedback
- + Muscle Function Evaluation
- + Static Force Tests
- + Handgrip Force Tests

- + ROM Measurement
- + Impact/Acceleration
- + Gait Analysis
- + Jump Test

MOVEMENT - FORCE - MUSCLE ACTIVITY

Supports any combination of Noraxon sensors!



SPECIFICATIONS

Per Channel Bandwidth

- 20-500 Hz for EMG
- DC-500 Hz for other sensors
- 16 bit resolution on all measurements
- Real time sampling at 1000 sample/sec/channel

Settings Available

- Threshold
- Audio (with both speaker and headphone outputs)
- Scale (all measured variables presented in SI or English units)
- Display (Bar or Line Graph Type)
- Mode (biofeedback, work-rest interval, template matching)

Power & Dimensions

- Battery life: 8 hours of continuous use
- 12.2 ounces (345 grams)
- 4.5" W x 6.75" L x 1.25" H (11.4 cm x 17.2 cm x 3.2 cm)

Plug-in Sensor Types Available

- Pre-amplified EMG leads (using disposable elec-trodes)
- 1D Mechanical and 2D Electrical goniometers
- 2D Inclinometers (for head, neck or spine ROM)
- Hand dynamometer
- Load cells (100 Lb Force or 500 Lb Force)
- Accelerometers (2G/6Gg or 16G0g)