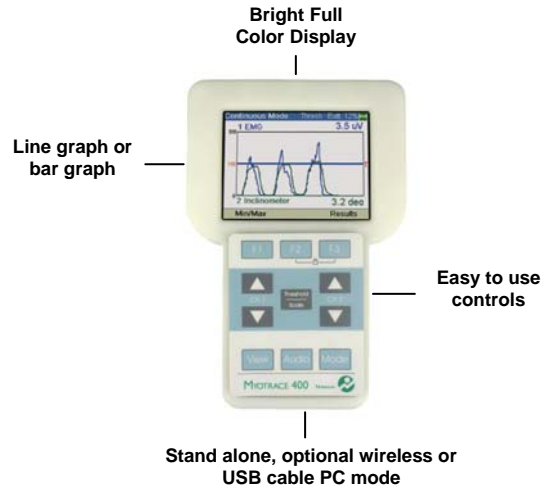


## Portable Biofeedback and Telemetry System for SEMG and other biomechanical sensors



## Stand-Alone Features

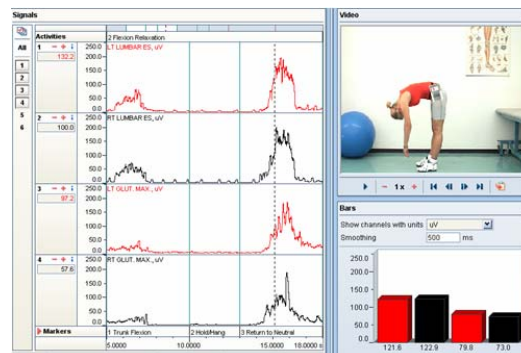
- 2 channels of SEMG
- Works with force / motion sensors
- Quick set-up – “Plug and Play”
- Audio and visual feedback
- Continuous, work/rest, template training/motor copy programs
- Session summary report
- Research quality

## Product Overview

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 MyoTrace 400 may be optionally connected to a PC and used for more advanced analysis with our MyoResearch XP software.

The *Bluetooth* data transmission on the MyoTrace allows free motion up to 20 Meters and presents 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).



MyoResearch XP Clinical Sequence Protocols

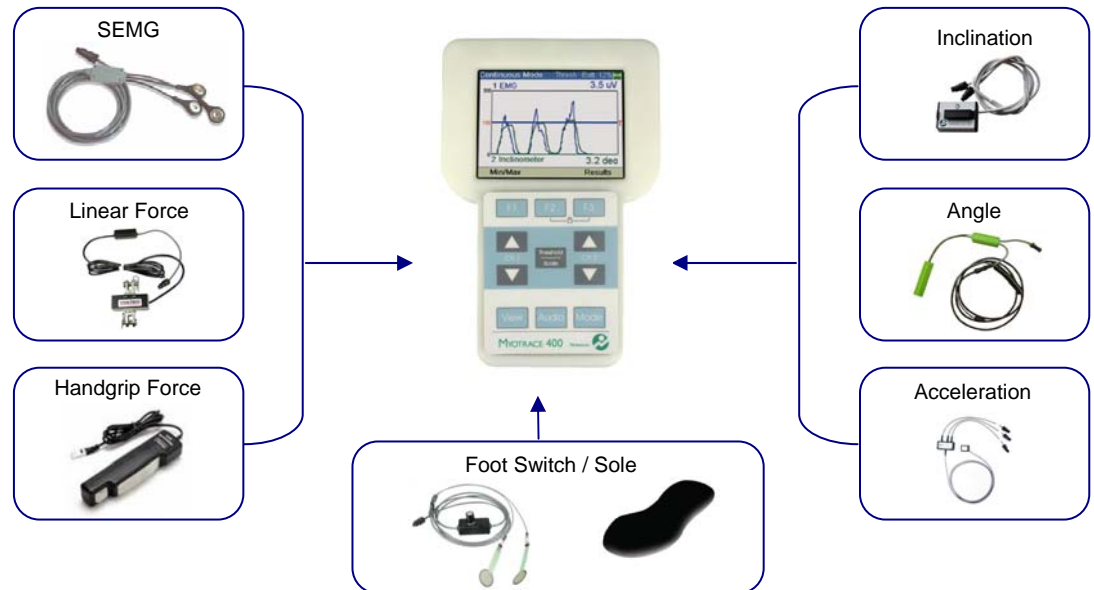
## PC-Mode Features

- Up to 4 channels of SEMG or motion/force sensors
- Bluetooth or USB cable transmission
- Choice of protocols
- Audio and video tutorials
- DV Video synchronization (50/60 Hz)
- Comprehensive reports, programmable sessions
- Fully operational with all Noraxon Software Editions

## The Ultimate Portable Measurement System

### Movement – Force – Muscle Activity

Any Noraxon sensor combination up to 4 channels:



## Application Examples

- SEMG - Biofeedback
- SEMG Muscle Function Evaluation
- Static Force Tests
- Handgrip Force Test
- ROM Measures
- Impact/Acceleration
- Gait Analysis
- Jump Test

## Specifications

### Power

- Battery life: 8 hours continuous use
- Rechargeable battery

### 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 proper SI or English units)
- Display (Bar or Line Graph Type)
- Mode (biofeedback, work-rest interval, template matching)

### Plug-in Sensor Types Available

- Pre-amplified EMG leads (using disposable electrodes)
- 1D Mechanical, 2D Electrical goniometers (for simple or compound joint ROM)
- 2D Inclinometers (for head, neck or spine ROM)
- Hand dynamometer
- Load cells (100 Lb Force or 500 Lb Force)
- Accelerometers (2g or 10g)

### Physical Dimensions

- 4.5" W x 6.75" L x 1.25" H; 12.2 oz. (11.4 cm x 17.2 cm x 3.2 cm; 345 gm)

## Sensor Based Application Examples (Examples)

### 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
- EMG gait analysis when combined with EMG leads
- Vertical Jump testing



### 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

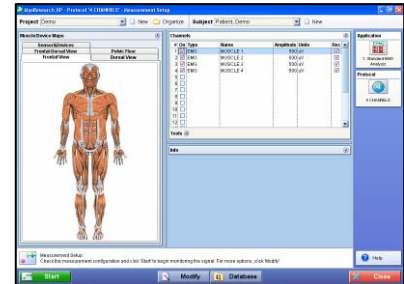
- Tremor analysis for neurological disorders
- Vibration analysis of human bones
- Impact analysis on human and other surfaces



## Compatible Software Editions

### MyoResearch XP Clinical Application Protocols

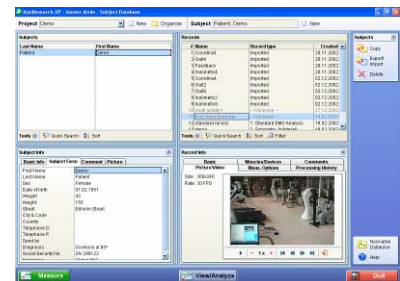
- For the every day use in clinical settings
- Learn to use in 10 minutes or less
- Flexible clinical protocols and Biofeedback options
- Optional digital video synchronization
- Real-time processing, data export functions
- Automatic online analysis reports



**MyoResearch XP Clinical Application Protocols** is the perfect package for clinicians and non-EMG specialists to perform essential EMG and sensor measurements. The package comes pre-configured with a collection of clinical EMG application protocols for quick and easy use. Equipped with an automatic online reporting system, analyzing data has never been easier. The users can work diligently and comfortably while performing EMG measurements, allowing the clinician more time to focus on analyzing the data with patients and working on the recovery process.

### MyoResearch XP Master Edition – Research Version

- Monitors any analog and EMG input channel
- Optional real time processing and feedback
- Synchronized digital video
- Comprehensive analysis functions
- Report Editor for user defined analysis
- Special automatic application protocol mode
- Innovative XP Design and easy handling



**MyoResearch XP Master Edition** is the most comprehensive software solution for EMG and sensor related analysis available on the market. Unlike other packages, MyoResearch XP Master provides all the tools and functions needed for complex scientific research, as well as numerous pre-configured and ready-to-use report solutions for essential EMG and biomechanical sensor related applications. Advanced users can create their own acquiring and analysis routines within seconds. Depending on the hardware configuration, up to 32 channels can be easily combined and classified, processed in real-time, and analyzed by automatic reports. MyoResearch XP Master can be used with all Noraxon amplifier products.

### Software product from cooperation partner

## Contemplas

Application oriented 2 D video analysis documentation and analysis package designed for clinical and medical applications



Direct data recording  
Synchronized to video

