

The zebris EMG Bluetooth Measuring System for Recording Muscle Activity

28 T. R. Punktas



EMG SYSTEM zebris

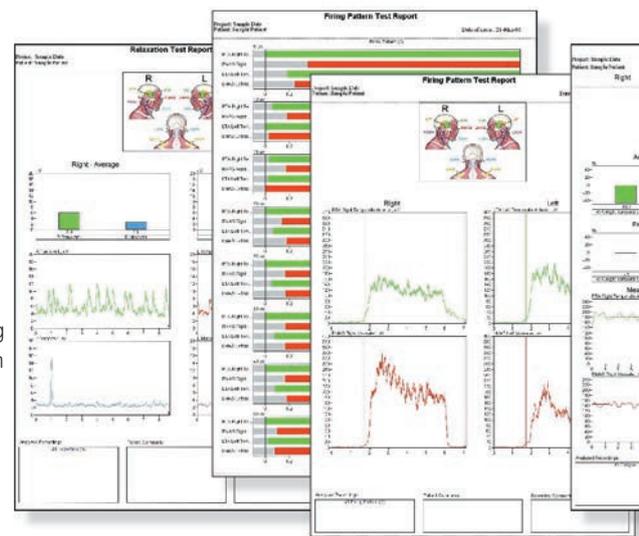
The zebris EMG—an analyzing instrument



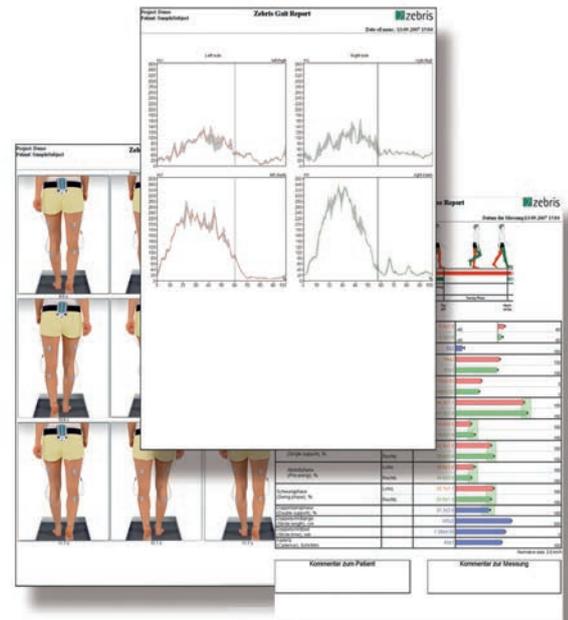
As an alternative to the EMG, joint noises can be recorded and printed out, for instance, as a spectral analysis

Electromyography enables dysfunctional muscle activation to be identified and thereby specific treatment to be given at a hospital or rehabilitation center. The zebris EMG-8 Bluetooth measuring system records muscle action potentials by means of bipolar skin surface electrodes. The system is suitable for measuring up to eight muscle groups simultaneously.

Evaluation Reports of the WinJaw measuring program. The standard examinations comprise the analysis of the muscle resting tonus, maximum muscle activity during bite, the firing pattern and muscle fatigue.

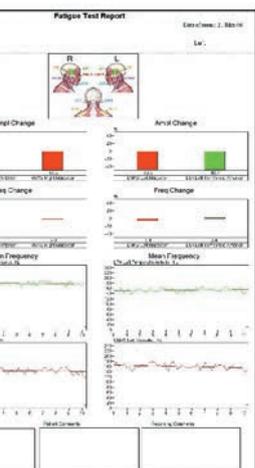


ent with numerous application



The Evaluation Report for gait analysis comprises timenormal-ized step cycles as well as rectified and smoothed EMG signals. The measurement curves are shown with a standard deviation

28 T.R. Punktas



The data transmission to the PC is effected wireless per Bluetooth interface.

An internal buffer memory bridges measurement times outside the reception range, as the case may be.

The measurement results are displayed during the measuring programs in real-time on the PC and can be analyzed in the Evaluation Report.

The program enables different

examinations to be compared for checking the therapy.

The measuring electronics is housed in an adapter that can be carried comfortably on the body.

The EMG electrode cables are fitted with active differential preamplifiers that eliminate interference voltages and cable/movement artifacts to a large extent.

Technical Data

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Basic device

Number of analog channels	8
Number of digital channels	4
Measuring rate	1000 Hz per channel
Resolution	12 bit
Internal backup memory	512 kB
Data backup if reception is interrupted	1 min (4 channels, 1000 Hz)
Power supply	4x batteries type AAA 1,5 V
Dimensions B x H x T	90 x 130 x 38 mm
Weight (without batteries)	150 g



24 T.R. Punktas

25 T.R. Punktas

Active differential electrode cables

(obtainable with or without neutral electrode)

Up to eight electrodes can be connected to the basic device.

Supply voltage	+/-5 V bis +/-15 V
Input impedance	10 E + 12 Ω
CMRR	110 dB
Noise-related input	0.28 μ V
Voltage gain	1000
band width	7 bis 500 Hz (anti-aliasing low-pass filter)
Dimensions B X H x T	23 x 9 x 30 mm
Length of cable	1,45 m

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27 T.R. Punktas

26 T.R. Punktas

System requirements

Microsoft Windows XP Service Pack 2 (minimum requirement), USB interface for Bluetooth adapter included in the delivery

Compatible with Noraxon MyoResearch XP analysis software

Optional

Special cable with patient insulation for connection to a USB interface

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