



# DESKTOP

((DTS))  
Direct Transmission System

The Window to Neuromuscular Activity

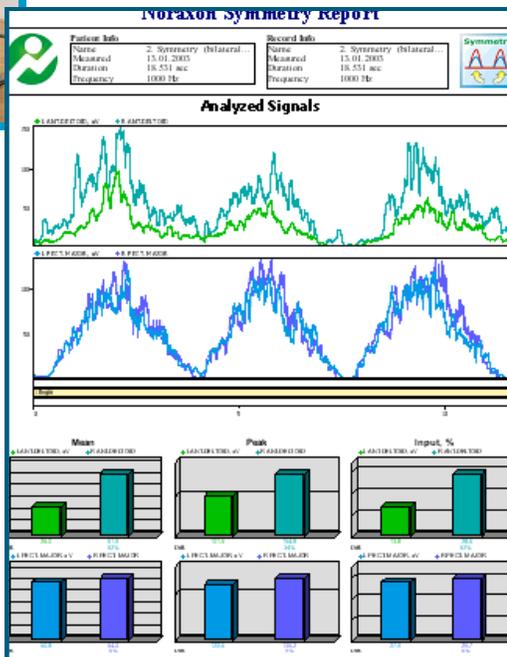
# DESKTOP ((DTS)) Direct Transmission System

The Desktop Direct Transmission System (DTS) for EMG and other biomechanical sensors directly transmits data from the electrode or sensor site to a desktop receiver. This direct transmission concept greatly simplifies the arrangement of EMG measurements by eliminating the need to arrange cable connections between the EMG electrodes and EMG amplifier. The small light weight probes are also beneficial for small subjects like children and small animals.

The DTS system can operate any configuration between 4 and 16 channels. The default system is equipped with EMG preamplifiers but can be upgraded with other biomechanical sensors like goniometers, inclinometers and foot switches. A wireless synchronization system can be used to accurately synchronize the Desktop DTS System to other biomechanical devices. Additionally, the Desk Receiver can operate in stand-alone analog out mode for easy synching with motion capture and other peripheral equipment.

## KEY FEATURES

- ◆ Noraxon's superior signal quality
- ◆ Designed for research or clinical use
- ◆ Captures raw EMG signals
- ◆ Stand-alone operation, with or without analog outputs
- ◆ Complete line of wireless biomechanical sensors
- Optional fine wire amplifiers with selectable band width
- ◆ Precise and flexible wireless synchronization trigger system
- ◆ Easy installation: no Windows wireless drivers to install
- ◆ Display provides status on sensor connection, battery life and a record/pause button
- ◆ Transmits data directly from electrode site
- ◆ Free electrode type selection
- ◆ Portable USB receiver
- ◆ 4, 8, 12 or 16 channel configuration
- ◆ 8 hours of operation time on battery charge
- ◆ Real time transmission up to 30 meters
- ◆ ISEK guideline compliant
- ◆ Optional fine wire amplifiers with selectable bandwidth



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# APPLICATIONS

## Symmetry and Coordination Tests

These various tests allow for the comparison of affected and unaffected sides. Display the EMG and histogram statistics for unilateral, bilateral, multi joint and symmetrical movements. Evaluate the neuromuscular coordination and compare innervation deficiencies between right and left sides.

## Average Activation Patterns

Clinicians can assess repeated movement sequences and exercises while creating averaged and time normalized EMG patterns. Analyze the typical innervation structure of movements.

## Feedback Training

Use the bar graph display of signals to provide precise training of dysfunctional muscle groups with both acoustic and optical automatic training assistance.

## Gait Analysis

The protocol for this analysis was designed for unilateral and bilateral investigation of EMG gait patterns in functional walking and running activities. View typical activity characteristics and coordination of muscle groups during walking/running while analyzing left/right, pre/post test comparisons. Symmetry, timing and curve characteristics are summarized.

## EMG Standard Analysis

The Clinical DTS uses universal protocol for all kinds of EMG setups. View basic amplitude parameters in selected analysis periods. Use standard graphs and histograms designed for general analysis questions.

## Template Training

Use background templates for biofeedback training. Create EMG/angle/force templates using the healthy side. Use biofeedback and motor learning concepts to confirm the accuracy of performance.

## Additional Applications Include:

- Spectrum report
- Frequency/ Fatigue analysis
- EMG and Isokinetic report
- Wavelet analysis
- Timing & Onset analysis
- Ergonomics module
- Jump tests
- Clinical and TMD Sequences

