

Wireless Receiver System

with Analog Input-Output Functionality

- Real time conversion of telemetry data to analog output signals
- Streams from 4 to 32 signal channels
- Additional 8 analog input channels
- Parallel USB mode
- Wireless Sync-Trigger built-in
- Operates with or without a computer



Product Overview

The TeleMyo™ 2400R receiver is an accessory item for the portable TeleMyo 2400T G2 transmitter system. This receiver station enables conversion of the digital telemetry data to analog output signals. Up to 32 telemetry signals can be interfaced with other measurement devices, such as movement analysis or force plate systems. It can also be utilized by those who have developed their own analog data acquisition and analysis system.

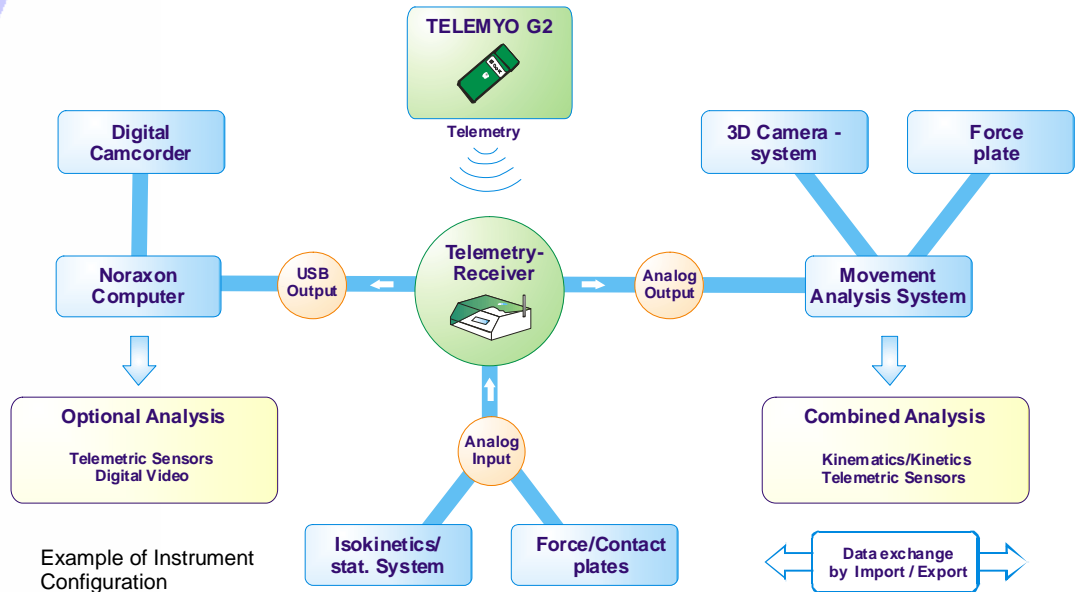
In parallel with the analog output, data can also be acquired digitally by a USB/PC interface and Noraxon's MyoResearch XP analysis software. MyoResearch XP's numerous data export and import functions enable a bidirectional data exchange between various measurement devices. With the MyoResearch XP interface, an optional 8 channels of analog input are available at the receiver. This provides an easy interface to stationary systems, such as isokinetic machines or force plates, while allowing full wireless mobility of the transmitter.

A TeleMyo 2400T G2 transmitter system combined with a TeleMyo 2400R receiver is designed with wireless LAN technology. It can be used in hospitals, research labs, and factory sites, even under the most difficult conditions. Pre-amplified raw EMG signals, force, angle, acceleration, foot switches or any other sensor within the standard measurement range of +/- 5 volts can be interfaced with the 2400R G2 unit.

Combined with the ultra-lightweight, portable 2400T G2 transmitter, the 2400T/R System operates in a range of up to 300 feet (100 meters) in line-of-sight and allows for complete freedom of movement. The transmitter and the receiver can operate stand-alone or with a PC.

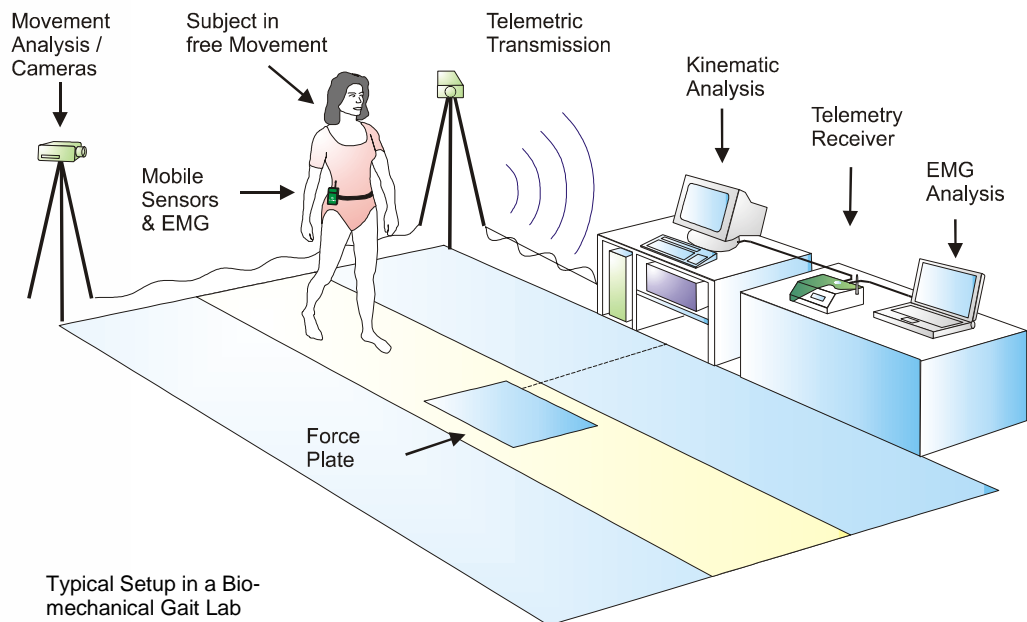
Benefits

- Selectable bandwidths for surface and fine-wire EMG electrode use
- Acquires EMG and other analog data simultaneously for easy synchronization
- Provides scientifically reliable data
- Includes set bandwidths of 10-500 Hz for SEMG and 10-1,500 Hz for fine-wire
- Generates analog signals usable by motion measurement systems



Features

- Wireless transmission provides freedom of movement
- All transmitter inputs available as analog outputs for interfacing to other systems
- An additional 8 channels of analog input at the receiver when used with Noraxon software
- Flexible wireless sync system to simultaneously trigger multiple systems
- Compliant with IEC60601-1 and IEC60601-2-40 electromyography standards (CE approved)



Wireless Sync-Trigger

The Wireless Sync feature includes a small and lightweight Sync Receiver, a start trigger cable with manual button and an output cable to connect to another device. The synchronization function is bidirectional allowing timing signals to be either sent to or received from third party devices. This mode is helpful e.g. in case another biomechanical device cannot be triggered via the output signals but can send or receive a standard TTL sync signal. The synchronization pulse is sent wirelessly to the Wireless Sync Receiver, which is connected to the sync channel of the TeleMyo G2 system. The start trigger cable allows you to comfortably send a start trigger to all connected devices with a "push of one button".



Small and lightweight Wireless Sync Receiver

Specifications

Power Requirements

- Operates on 12 VDC at 450 mA using a 110-240 VAC 50/60 Hz external supply
- Optional 12V rechargeable lead acid battery pack available

Analog Outputs

- 16 BNC connectors and Lower DB25 connector
- All outputs +/- 5V full scale
- Selectable output channel gains of x1, x2, x4, x8
- All reconstructed analog output channels have 10th order low pass smoothing filters to remove sampling frequency artifacts.
- Selectable signal regeneration delay: 50, 100, 150 or 200 ms (± 1 ms)
- Optional analog output expansion to 32 channels

Analog Inputs

- 8 available channels using either the BNC or Upper DB25 connector
- Input range +/- 5V max @ 16 bit resolution
- Input impedance > 1 MOhm
- Software FIR Low Pass filter: 500 Hz, 1000, 1500 Hz

Wireless Sync-Trigger

- TTL compatible sync inputs and outputs
- Pre-specified carrier frequency: 868 MHz or 914 MHz
- Accepts external sync signals or generates its own sync pulse train
- Sync Receiver signal latency (delay) < 0.8ms

USB

- mini-B type connector

Dimensions

- 7-1/2" L x 10-1/2" W x 2-1/2" H; 4.4 lbs. (19.05 cm x 26.67 cm x 6.35 cm; 2 kg)