Mobile human monitoring

- Better Data
- Better Decisions
- Better Performance

The Equivital™ Training and Research (TnR) Product Range
July 2015 - September 2015
The Equivital™ - TnR Product Range

Equivital™ TnR Products combine world class human performance monitoring capability with robust clinical grade data quality.

TnR Products fall into three categories:

- Sense & Transmit
- View & Analyse
- Accessories

Key Use Cases

- Military
- FirstResponder
- Sport
- Healthcare
- Pharmaceutical

- Vital Signs Monitoring
- Activity and Energy Expenditure Research
- Thermoregulatory Monitoring
- Clinical Research
- Sleep and Biorhythmicity
- Human Performance Research

Key Benefits

- End to end solution for physiological sensing, data management and data visualisation
- Pre-synchronised and time stamped multi-parameter data outputs save valuable time in data analysis
- Access to raw ECG data for independent analysis of RR intervals
- Easy check for real time data quality to ensure best results for your research
- Increase subject compliance by measuring thermoregulatory, cardiorespiratory and energy expenditure data using just one lightweight device
- Flexible configuration with accessory sensors to allow for use in multiple research studies
- System supports multiple ingestible core temperature capsule measurements for improved mobile thermoregulatory monitoring
- Streamlined, data management solution ensuring higher controls for data quality availability for high volume or multi-sites

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SENSE & TRANSMIT: Equivital™ EQ02 LifeMonitor

The Equivital™ LifeMonitor is a multi-parameter body worn sensor for logging and transmitting, in real time, mobile human performance data.

**EQ02 Sensor Belt**

*Product code: EQ-02-B1-1-S(SIZE), EQ-02-B2-1-S(SIZE)*

The EQ02 Sensor belt features a system of sensors and electrodes embedded in novel textiles. It connects with the Sensor Electronics Module (SEM) to provide mobile monitoring capability.

Designed to be comfortable when worn for extended periods, the EQ02 Sensor belt enables high quality measurement of physiology even when the wearer is engaged in strenuous physical activity and rapid movement.

**Available sizes:** 1-9 (Circumference at xiphoid sternum: 29 – 47 in / 74 – 119 cm).

- Aesthetically designed for maximum comfort
- Light weight breathable fabric with almost seamless design
- Superior sensor stability for very high data quality

**EQ02 SEM**

*Product code: EQ-02-SEM-007*

The EQ02 SEM is the world’s leading multi-parameter ambulatory monitoring device that senses, records, monitors and intelligently processes data captured from the human and is able to transmit this over a wireless or wired interface. Multiple parameters are measured including high resolution tri-axis accelerometry (256Hz), ingestible core temperature pill and time synchronised photoplethysmography.

The EQ02 SEM weights 38g, is IP67 certified when connected with a sensor belt and has class 1 Bluetooth interface. Available with or without external wired sensor or battery pack connector.

- Light weight and optimised for long wear comfort
- Up to 48hrs battery life in full disclosure logging mode
- 8GB memory gives up to 50 days of data logging

*Dependant on configuration

**Equivital™ LifeMonitor Measurements & Alerts**

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*Requires additional wired or wireless ancillary sensor/device*
VIEW & ANALYSE: Software

Data can be viewed in real time or retrospectively using Equivital™ viewing and analysis software tools.

The TnR Software range includes Equivital™ Manager, a data management and configuration tool, and the eqView Software suite for web, local and mobile access to subject data.

**Product Code: EQ-SW-12**

A PC application used for configuration of SEM’s and Equivital™ data management.

**Product Code: EQ-SW-EQV-P-1**

A local or networked PC application used for monitoring subjects, viewing live data, trends and replaying logged data.
**Product Code:** EQ-SW-ACT-LIC-01

The Activity Module is an analysis and reporting module that works with Equivital™ heart rate, breathing rate and accelerometer data to provide energy expenditure and activity analytics.

The Activity module supports subject specific attributes and follows a simple “Calibrate Measure Analyse” sequence of events.

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**Product Code:** EQ-SW-QSK-01

The Equivital™ Qiosk is a streamlined, device and data management software tool which is configured specifically for your study needs.

Especially suited to studies with larger volumes of subjects or data, multiple sites or multiple site data management staff, Qiosk provides a simplified interface to ensure data security and integrity for clinical research.

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**Product Code:** EQ-SW-EQV-MOB-A-1

An Android based mobile application used for viewing live data from a subject locally. eqView Mobile can also forward data using Wi-Fi, 3G/4G etc.

Current version is for Android enabled devices.
VivoSense® for Equivital™ is an intuitive, fully customisable visualisation and discovery tool that enhances post-processing of data.

Includes: VivoSense® for Equivital™ (import module)

Product Code: EQ-SW-VS-01

Advanced ViviSense® module provides support for users wanting to carry out HRV analysis.

Product Code: EQ-SW-VS-HRV01

VivoSense® Sync and Merge Module aligns data from the SEM with different data streams and sources and synchronises them.

Product Code: EQ-SW-VS-SM01

Equivital™ has a range of simple to use SDKs to suit applications across various operating systems.

The software developers kits are designed to allow developers of all capabilities the ability to embed Equivital™ data into their own applications without expert knowledge or training. The EQ02 LifeMonitor SDK is a simple and cost effective way to integrate EQ02 LifeMonitor data into third party systems. Using simple, standard programming techniques any data recorded by the SEM can be integrated into any .NET or Java application with as few as four lines of code, including streamed ECG, accelerometer, breathing and PPG waveforms. The SDK can interpret data from live SEMs and from recorded SEM files or at high speed for analysis and post-processing. Note: an SDK license is required

Equivital™ works closely with Equivital™ partner program members using SDKs to help develop new application solutions. This ensures both parties benefit from each others support and expertise.
**VIEW & ANALYSE: System configurations**

**EQ02 Starter Kit** system configuration for retrospective data analysis 
(Code EQ02-KIT-SU-4)

PC operating eqView Manager software for live data acquisition, data export and device configuration

**Configurations for live data to local PC with additional sensors**

eqView Pro can be configured for up to 18 subjects employing an Equivital™ Hub and PC operating eqView Pro software (in Partial Disclosure mode)
ACCESSORIES: Equivital™ - LifeMonitor Accessories

VitalSense® Core Temperature Capsule
Product Code: EQ-ACC-023
Ingestible core temperature capsule measures core body temperature and transmits readings to the SEM in real time.

VitalSense® Dermal Patch
Product Code: EQ-ACC-048
Self adhesive dermal temperature patch measures skin temperature and transmits data to the SEM in real time.

EQ Core Temperature Capsule & Dermal Patch Activator
Product Code: EQ-ACC-029
Simply activates the core temperature capsule and the dermal temperature patch.
(Requires the use of a radio receiver or SEM to confirm capsule or patch activation).

Nonin iPod® Sp02
Product Code: EQ-ACC-041
Oxygen saturation probe with SEM connector and finger clip.

Nonin Xpod®
Product Code: EQ-ACC-042*
Low power connection to SEM for various compatible Nonin® sensor probes.

EQ-GSR (Galvanic Skin Response Sensor)
Product Code: EQ-ACC-034*
Wrist mounted sensor for measurement of galvanic skin response.

Equivital™ External Battery Pack
Product Code: EQ-ACC-BAT-1*
Provides up to 5 times operational life

EQ02 M-Dock
Product code: EQ-ACC-MD-1
Enables simultaneous charging and 2-way data transfer communication with up to six SEM's.
5 M-Docks can be daisy chained to support 30 concurrent connections via USB.

EQ02 SEM Lead
Product Code: EQ-ACC-SL-1-SEM
Enables simultaneous charging and 2-way data transfer with a single SEM.

Equivital™ Bluetooth Dongle
Product Code: EQ-ACC-BTA-2
The first easy connection Equivital™ dongle which enables fast communication of 2 SEMs in full disclosure and up to 6 SEMs in partial disclosure directly to a PC in real time. Up to 100m range².

Equivital™ Hub
Product Code: EQ-ACC-032-V3
The Equivital™ Hub is a Bluetooth access point enabling communication with up to 18 SEMs¹ from a PC or LAN in real time. Networkable via WIFI or Ethernet connection. Operates with eqView Professional software.

Omron Blood Pressure 708BT(EU)
Product Code: EQ-ACC-052-BT
The Bluetooth blood pressure cuff measures subject blood pressure data, can be pre-paired with a single EQ02 SEM and can send data to store or be transmitted on from the SEM.

WristOx2 Bluetooth Oxygen Saturation (3150)
Product Code: EQ-ACC-034*
The Bluetooth, wrist worn oxygen saturation monitor measures saturation, can be pre-paired with a single EQ02 SEM and can send data to store or be transmitted on from the SEM.

*Requires EQ02 (B2) Sensor Belt – Product Code: EQ-02-B2-S(SIZE)   ¹Dependent on environment and number of SEM's in full or partial disclosure.   ²Subject to environment.
If you require any further information please contact us at the address below:

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