Actiheart

For ECG, Heart Rate, HRV and Energy Expenditure

Actiheart is a wearable combined single-lead ECG and activity recorder with multiple data endpoints providing a comprehensive personal monitoring device. The latest generation Actiheart benefits from 15 years of research, development and customer input. The Actiheart is one of the most widely used devices for Energy Expenditure measurement in free living. With options for long-term or short-term recording, Actiheart can record full ECG waveform at up to 1024Hz with acceleration waveform at 100Hz.
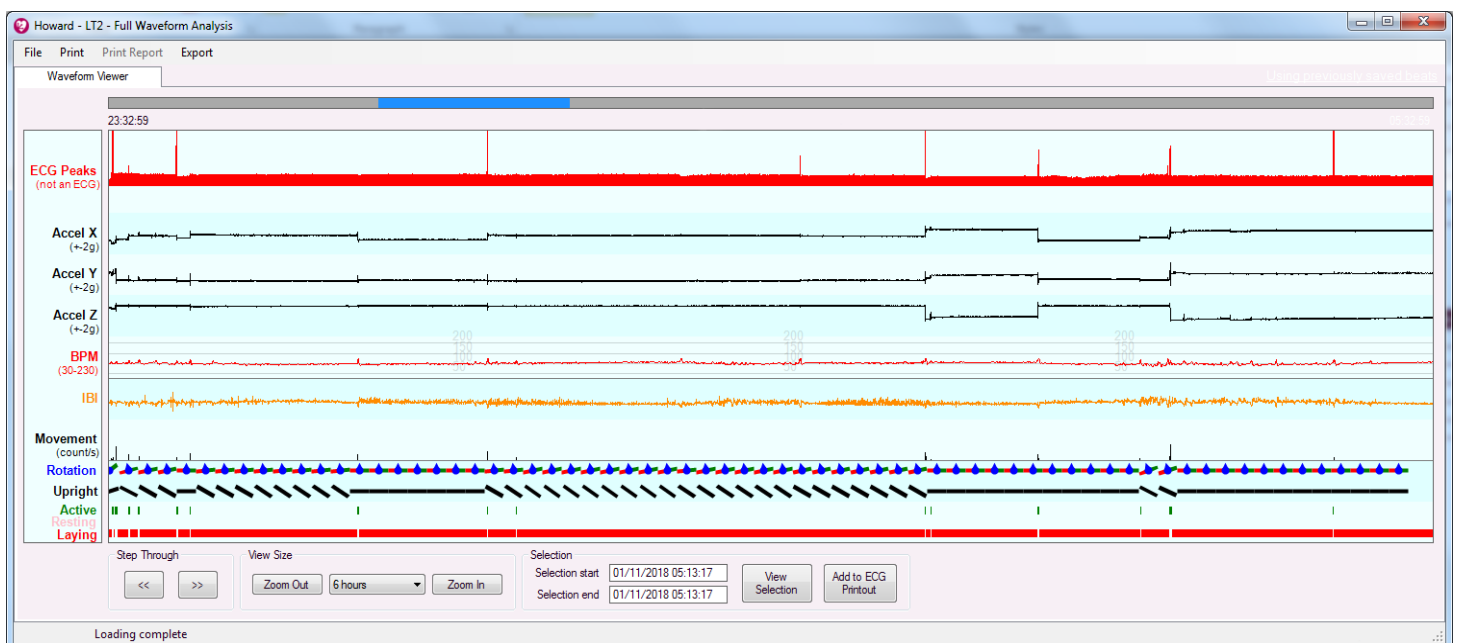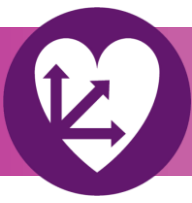
The Actiheart is worn on the chest and is typically attached between two standard self-adhesive ECG electrodes by means of quick release clips. Being self-contained, it is comfortable to wear for ambulatory monitoring for up to 14 days.

Now available with Bluetooth real-time data streaming.

Analysis Software

The Actiheart software uses a branched model to derive PAEE from differentially weighted acceleration and Heart Rate data. This method has been validated against doubly labelled water in multiple subject groups and these models are integrated into the software. It is also possible to perform an individual calibration and customise the model parameters. The Actiheart software also provides analysis and key statistics for Heart Rate Variability which can be recorded for every beat.

Actiheart

What's New?

- Bluetooth Real Time Option
- Tri-axial accelerometer
- Up to 1024Hz ECG sample rate
- Up to 100Hz Accelerometer sample rate
- Large 1Gbit non-volatile memory
- Direct Micro USB download - no reader required
- IBI recording for up to 14 days (1ms resolution)
- Full waveform (ECG & Acc) for 1 week recording
- Small form-factor 39.7 x 30.3 x 9.25mm
- Simple lead replacement

> Record Full ECG and Accelerometer waveform data > Synchronous HR and Activity data
> Advanced Energy Expenditure analysis > Time and frequency domain analysis of HRV
> Tri-axial accelerometer for derived body positon > Validated against doubly labelled water
> Chest band for sports applications > Direct USB connection with Bluetooth option

Typical Applications

> Sports and Exercise Science > Obesity Research > Stress Research
> Epidemiology Studies > Sleep Studies > Cardiology

Specifications	
Size mm:	39.7(l) x 30.3(w) x 9.25(d)
Weight:	10.5 grams (ex. cable)
Accelerometer:	Tri-axial, +/-8g
ECG:	10mV p-p, 0.05-55Hz
Resolution:	ECG: 10 bits, Acc: 12 bits
Memory:	1Gbit non-volatile
Recording:	14 days typ. (IBI Mode)
Waterproof:	IPX7
Comms:	Direct micro USB
Wireless:	Bluetooth LE5 (optional)

Typical Recording Lengths	
Setting	**Length**
IBI Mode	14 days
128Hz ECG, 25Hz Acc	6d, 2h
128Hz ECG, 50Hz Acc	4d, 11h
256Hz ECG, 25Hz Acc	3d, 18h
256Hz ECG, 50Hz Acc	3d, 1h
256Hz ECG, 100Hz Acc	2d, 5h
512Hz ECG, 50Hz Acc	1d, 21h
512Hz ECG, 100Hz Acc	1d, 12h
1024Hz ECG, 100Hz Acc	0d, 22h

Actiheart 5, Accessories and Software	Order Code
Actiheart 5 with standard cable	18-500
Actiheart 5 BT with standard cable and Real-Time Bluetooth module	18-505
Replacement standard cable	18-520
Actiheart 5 software package – Windows® 8 or 10, 64 bit	18-510

www.camntech.com   admin@camntech.co.uk   +44(0)1480 831223