The MotionWatch 8 is the next generation of actigraph from CamNtech, inventors of the Actiwatch. Following discontinuation of the Actiwatch 4 and 7, CamNtech has utilised advances in accelerometer technology to produce the MotionWatch 8 with a tri-axial digital accelerometer. The activity plots coupled with specialised software serve to quantify the intensity and duration of daily physical activity as an indicator of a particular lifestyle or to monitor the effects on mobility of a medical condition as well as the efficacy of treatment for that condition.

Sleep
MotionWare, the new analysis software designed to analyse data from the MotionWatch, allows the user to access data on a full range of sleep and circadian parameters. The MotionWatch uses a new digital tri-axial accelerometer, greatly improved from old Actiwatch devices. Although the activity counts are not identical to activity counts from old Actiwatch devices this gives increased reliability and less variability both between devices and over time.

Validation
The MotionWatch 8 is now validated against polysomnography. Please contact us for further information.

Main Features
- Light-weight waterproof wrist-worn actigraph
- Fast direct USB transfer
- USB data transfer eliminates need for a reader
- Light sensor and event marker included as standard
- User replaceable battery
- Records up to 180 days with a 1 minute epoch*
- Software includes NPCRA function
- All raw and analysed data can be exported to third party programmes

Applications
- Detection of sleep disorders
- Circadian rhythm research
- Paediatric sleep
- Psychiatry
- Health Psychology

Technical Specification
- Size mm: 36(l) x 28.2(w) x 9.4(d) excluding strap
- Weight: 9.1 grams (including battery, excluding strap)
- Sensor: Tri-axial, MEMs technology. 0.01g to 8g range, 3 – 11Hz
- Battery: CR2032 Lithium Coin Cell
- Battery Life: 6 months run time; simple user change
- Memory: 4Mbits non-volatile (182 days recording @ 1min epoch AW mode - uncompressed)
- Waterproof: 3 Bar (suitable for swimming)
- Marker button: Yes – with visual feedback
- Epoch: 2, 5, 15, 30, 60 secs in AW compatible mode
- Comms: Direct USB, uses generic Windows drivers, Micro USB cable.
- Download: All data in 50 secs approx.
- Strap: Bespoke XL 12mm silicone (245mm overall length) or 12mm nylon

Integral Light Sensor
- Type: Digital – human eye response optimised
- Range: Automatic ranging; 0 to 64000lux
- Resolution: 0.25lux (0-1000 lux range)
- Sampling: 1 sample per second – averaged over epoch

*With light enabled, recording times are halved.
Circadian Rhythm Analysis

Sleep Analysis

Ordering Information

<table>
<thead>
<tr>
<th>Part</th>
<th>Description</th>
<th>Order code</th>
</tr>
</thead>
<tbody>
<tr>
<td>MotionWatch 8</td>
<td>MotionWatch 8 including battery</td>
<td>04-111</td>
</tr>
<tr>
<td>MotionWare Software</td>
<td>Compatible with MotionWatch 8 and PRO-Diary. Windows® XP or Vista or Windows®7</td>
<td>04-112</td>
</tr>
<tr>
<td>Batteries</td>
<td>CR2032 Lithium Coin Cell</td>
<td>04-113</td>
</tr>
</tbody>
</table>

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