The PRO-Diary is a wrist-worn activity monitor with integrated Patient Recorded Outcome Diary. The diary user interface consists of a touch sensitive ‘slider’ device and two other buttons. It is designed to be easy to operate, and can ask questions of eight different types.

Utilising CamNtech’s next generation of actigraph technology, the PRO-Diary provides quantifiable activity data alongside patient inputted data on subjective wellbeing.

Using the PC Software, up to 250 questions can be arranged in questionnaires, at fixed or random times of day, with a timetable which varies by the day of the week or weekend.

Motion Analysis

The PRO-Diary shares the next generation actigraphy module with the MotionWatch 8. Advances in accelerometer technology have enabled CamNtech to produce low power tri-axial actigraphs that replace the Actiwatch 4 and 7.

Questionnaires

Up to 250 questions can be arranged in questionnaires at fixed or random times of day with a timetable which varies by the day of the week or weekend. The intuitive PRO-Diary software allows users to configure questionnaires choosing from a variety of question types.

The PRO-Diary interface consists of a touch-sensitive slider, two buttons, and an ultra-bright OLED screen.

Monitoring and Analysis

With motion logging enabled, the PRO-Diary can record with a range of epochs for up to 14 days, assuming 10 minutes of questionnaire interface time per day.

If motion logging is not selected, the PRO-Diary can record for up to 28 days, assuming 10 minutes of interface time per day.

Questionnaire data can be downloaded and viewed within the PRO-Diary software. Motion data can be analysed either in CamNtech’s new MotionWare Software or in the Actiwatch Activity and Sleep Analysis Software.

Validation

The PRO-Diary questionnaire function has been validated against paper diaries in a report prepared for CamNtech by the University of Surrey. The motion module is identical to that used in the MotionWatch 8 and is currently being validated. For further details please contact us.

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The PRO-Diary can be configured with up to eight question types:

**Multiple Choice**
For example:
Q. 'How well did you sleep last night?'
A. 'Very', 'Fairly well', 'Fairly badly', or 'Very badly'

**List Questions**
For example:
Q. 'Which do you find disturbs your sleep at night?'
A. 'Partner', 'Stress', 'Light', 'Children', 'Noise', 'Caffeine'

**Visual Analogue Scale Questions**
For example:
Q. 'Rate your sleep from very good to very poor'
A. 'Very good' ------ 'Very bad'

**Enter a Number**
For example:
Q. 'What is your weight in kilograms?'
A. '0-120Kg'

**Enter a Time**
For example:
Q. 'What time did you wake up this morning?'
A. Select time

**Simple Message**
For example:
'Please remember not to drink any caffeine for at least 4 hours before going to bed'

**Free Text**
For example:
Q. 'How tired are you right now?'
A. Type in any text

**Likert Scale**
For example:
Q. 'How sleepy are you right now on a scale of 1 - 7 with 4 being neither tired nor awake?'
A. '7 point Likert scale from very awake to very tired'
Selected questions of the required types can easily be assimilated in questionnaires and then loaded into schedules in the PRO-Diary software:
The PRO-Diary’s accelerometer can record data on activity, sleep, and circadian rhythm for up to 14 days (assuming 10 minutes of questionnaire interface time per day.) This data can be analysed using MotionWare; some example screen shots are shown below:

### Circadian Rhythm Analysis

![Circadian Rhythm Analysis](image)

**Bed Time Marker**

**Get-up Marker**

**Actual Sleep Time**

**Assumed Sleep - Actual Wake Time**

**Sleep latency**

**Bed Time - Sleep time**

**Fragmentation Index**

**No. of minutes % + Immobility of 1 min %**

### Sleep Analysis

![Sleep Analysis](image)

### Ordering Information

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<td>PRO-Diary</td>
<td>Now includes Motion Module as standard</td>
<td>05-111</td>
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<tr>
<td>PRO-Diary Software</td>
<td>Setup/Control/Analysis Software. Windows® XP or Vista or Windows® 7</td>
<td>05-370</td>
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<tr>
<td>MotionWare Software</td>
<td>Compatible with MotionWatch 8 and PRO-Diary</td>
<td>04-112</td>
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<td>Mains USB Charger</td>
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