FIRSTBEAT
BODYGUARD 2

Accurate and reliable heart rate
variability monitoring

TECHNICAL SPECIFICATIONS

Size: 47mm x 63mm x 11mm
Weight: 24g
IP class: IP52 (connected)

Battery: rechargeable Li-Poly battery
(recharges through inbuilt USB);
battery life: 144h

Recording capacity: > 20 days

Measurement temperature:
between +5 and +50 degrees Celsius

Storage temperature:
between -20 and +60 degrees Celsius

Measurement accuracy:
1ms (sampling rate 1000Hz)

3d accelerometer:
sampling frequency 12.5Hz (max. 40Hz),
resolution 8bit (max. 14bit),
G-scale 4G (configurable to 2G/8G)

FIRSTBEAT ANALYSIS SERVER

Creating custom reports (.pdf)

• stress and recovery, health-promoting physical activity, lifestyle inspection, training effect, physical workload; group summary reports
• graphs include energy expenditure, physical activity (VO2), HRV, stress and recovery intensity, heart rate, and EPOC
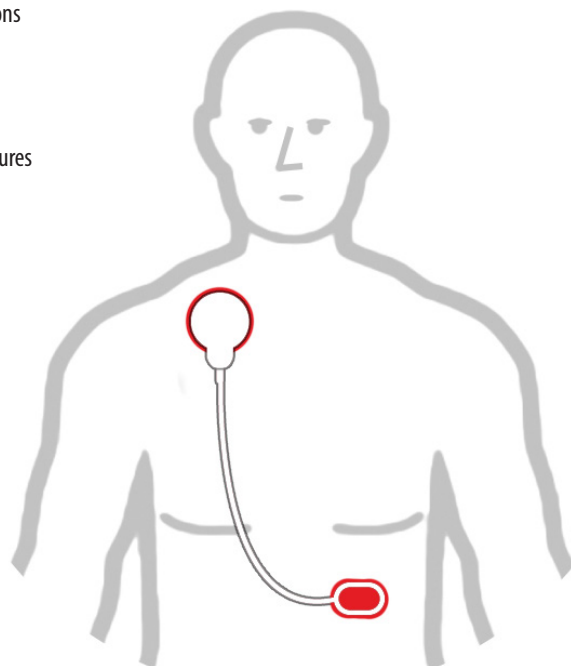
Data collection tools

• data upload from multiple computers to the analysis server (supports multisite research)
• efficient data upload from several devices simultaneously
• web-based electronic diary and personal information request tools, support for email communications

Data export and import

• option to export second-by-second data or summary data for all HR, HRV and physical activity measures
• data export in .csv-files for single and multi measurements
• profile and data exports/imports in FBE-file format

HRV and physiological analysis

• automated correction of measurement errors in beat-by-beat heart rate (required for HRV analysis)
• heart rate, %HRmax, artifact corrected heart rate
• HRV measures: VLF, LF, HF, LF/HF, RMSSD
• HRV-based stress and recovery state classification for 24h data, stress and recovery summary indexes (autonomic balance)
• physical activity measures (indirect): VO2, %VO2max, EPOC, training effect, energy expenditure, respiration rate
• analysis has been developed based on physiological autonomic nervous system (ANS) research

For more information regarding analysis and research, please visit http://www.firstbeat.com/science-and-physiology/.