

Next Generation Physical Activity Monitor For a Healthier Lifestyle

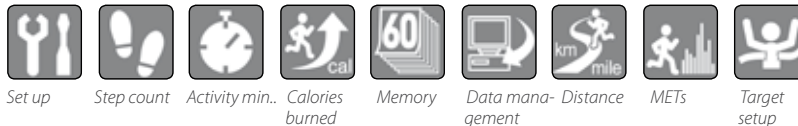
- ▶ One-axial, solid state accelerometer
- ▶ Algorithm validated by more than 200 studies published in main scientific papers
- ▶ User friendly and easy to use interface
- ▶ Internal Memory of up to 60 days
- ▶ PC Software with a full range of activity measurements



Application

- ▶ Diabetes Educators
- ▶ Clinical Nutrition & Weight Management
- ▶ Registered Dietitians
- ▶ University/Research on Physical Activity

Lifecorder PLUS



Related Products

- ▶ Fitmate
- ▶ Fitmate PRO
- ▶ Fitmate MED
- ▶ Fitmate Software 2.0 (Nutrition)

Options

- ▶ Fitmate Software 2.0 (Exercise & Nutrition)
- ▶ PAAS (Physical Activity Analysis Software) Lifestyle Coach

The **COSMED Lifecorder PLUS** Activity Monitor is the perfect companion for professionals willing to record accurate lifestyle information. Intensity (five levels), daily duration of physical activity, Active Energy Expenditure, steps, distance are some of the fundamental information you need to monitor lifestyle and patient's compliance. Lifecorder stores up to 60 days of data. USB port allows easy download of data into the management software. Innovative technology with ceramic bar sensor detects gravity and generates electric frequencies, recording physical activity intensity, not just steps. More than 200 research and validation studies published worldwide testify its value and precision. The **waist-positioning** guarantees superior accuracy in activity measurements compared to wrist/arm devices (as demonstrated by several scientific papers).

The mono-axial technology, eliminates artifacts, which alter reliability of measurements. The large graphic LCD screen displays step counts, distance, calorie expenditure, activity minutes and daily targets. Full range of activity measurement data can be analyzed and recorded, then downloaded to a computer for daily, weekly and monthly tracking. Data could be optionally managed with **Fitmate Software 2.0**, a standalone user-friendly Suite, with full integration with Indirect calorimetry, diet plans, energy balance and comprehensive lifestyle reporting. Also available **Lifecorder e-STEP**, a simpler activity monitor without USB download function, but with the same internal mechanism and accuracy as **Lifecorder PLUS**. Provided with seven days memory is ideal for your patients once educated to monitor their own lifestyle.

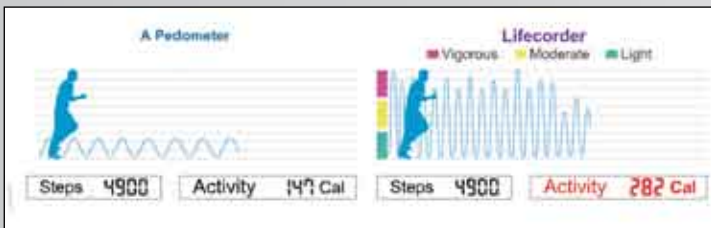
Not all Steps are Equal!

Unlike an inexpensive pendulum sensor pedometer, Lifecorder technology filters out motion and vibration and only counts real steps. It also measures the INTENSITY of physical activity and accurately records how much time is spent at moderate or greater intensity level activities.

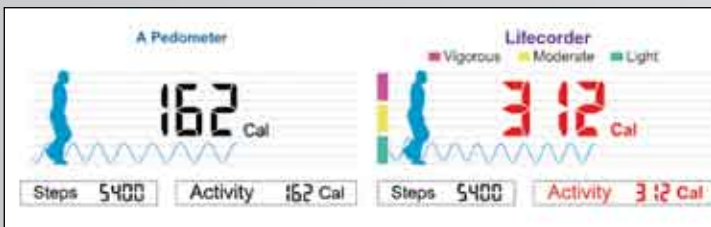
1) Low intensity Activity



2) High Intensity Activity

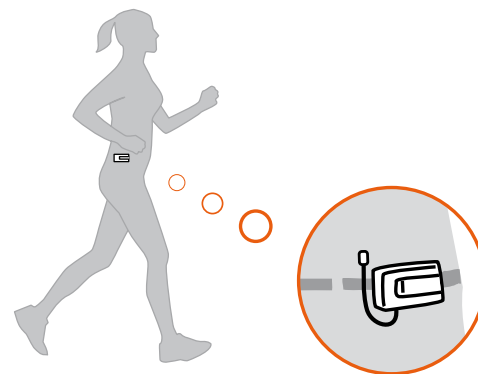


3) Summary



Initialize the Activity Monitor

The user can set: target activity (calories or steps); target activity in minutes; physical activity lower and upper limits (in METs); parameters to be displayed on the Lifecorder, locked parameters on the parameter.



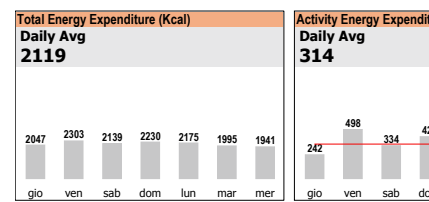
Printout report

Lifecorder data complement Fitmate, an accurate assessment of patient's intuitive Activity Monitor Report provides lifestyle, helping better compliance to

Personal Data

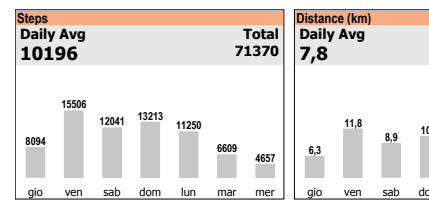
Energy Expenditure

Given RMR values, the report provides detailed information on Activity Energy Expenditure (AEE) and Total Energy Expenditure (TEE).



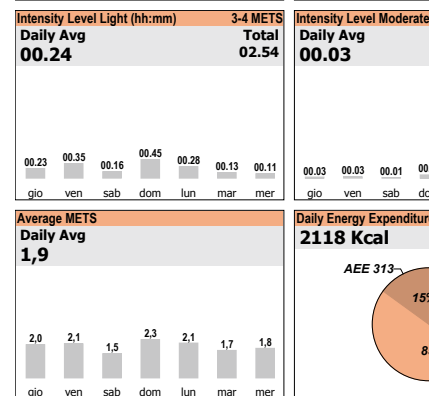
Steps & Distance

The report shows both the weekly average and the day-by-day values.



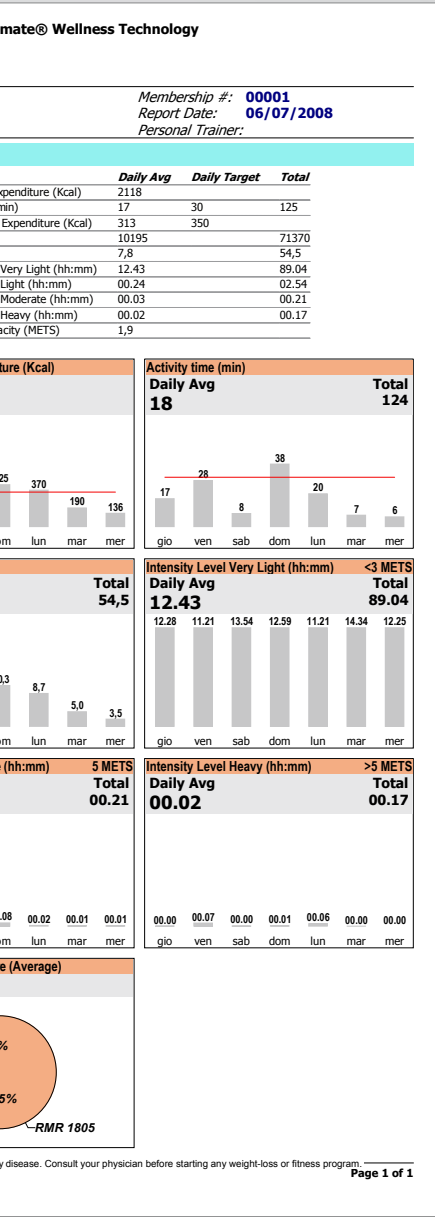
Daily Average METs

The report summarizes the daily average METs (in a week) and the day-by-day values.



These statements are not intended to be used to diagnose, treat, cure or prevent any disease. Fitmate version 2.0 (build 20)

...e metabolic measurements, allowing
total energy expenditure (TEE). The
...vides a detailed evaluation of patient
...o weight management plans.



Lifecorder PLUS

One-axial, solid state accelerometer with USB download function

Customisable Header

Activity Statistics

Detailed information on all data downloaded from the Lifecorder in the monitoring period.

Activity Time

The report shows daily and average time spent in activities with higher level of intensity (above 3 METs) and target levels.

Physical Activity Levels

Lifecorder measures the different intensity levels of activity. Five different levels are identified, based on the Metabolic Equivalent of Task (METs) index. Intensity and energy expenditure of physical activities can be so compared among persons of different weights.

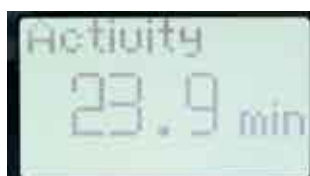
Daily Energy Expenditure

A final pie chart summarizes graphically the average Daily Energy Expenditure and highlights the incidence of activity energy expenditure on overall energy consumption.



Real-time Visualization of Activity Parameters

Activity parameters can be viewed in real-time through the LCD display. The activity monitor has a view memory of 7 days intervals.



Lifecorder e-Step



Set up



Step count



Activity min...



Calories
burned

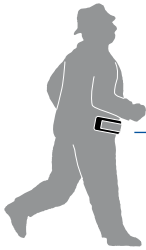


Memory



Lifecorder e-STEP

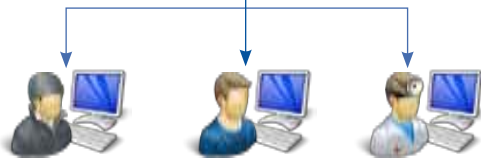
Same technology as Lifecorder PLUS, but without USB download function. Affordable and accurate, it is ideal for private use by clients and by monitored patients, after an education session on how to keep a correct lifestyle.



Lifecorder PLUS



Fitmate Suite



Technical Specification

Main Functions

Lifecorder PLUS

Step counts, Activity minutes, Distance, Activity calories, Total calories, Physical activity intensity graph (METs), Target settings (Step, Activity minutes, Activity calories), Physical activity intensity range setting for activity minutes, Evaluation (Achievement message & Balance to goal for steps, Activity minutes, Activity calories), Clock, Memory (LCD view: 7 days; Total: 7 days), Internal memory (60 days)

Lifecorder e-STEP

Step count, Activity minutes, Total calories, Clock, Memory (7 Days)

Hardware

Size:	W 70.0 x H 42.0 x D 18.6 mm (excluding belt clip)
Weight:	48 gr including battery (Lifecorder e-STEP: 40 gr)
Battery:	1 x button type CR2032 3V
Battery Life:	2 months (Lifecorder e-STEP: 9 months)

PC Software Features: Graphic Charts

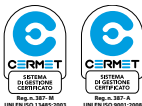
Daily step counts, Weekly average steps, Daily activity minutes, Weekly average activity minutes, Activity level distribution, Activity about 10 minutes or greater, Daily energy expenditure, Daily energy expenditure with intake and weight changes, Weight loss plan and progress, Daily physical activity with all measured values, Physical activity ranking, Log book, Summary report, Comparison report (printout only)

PC Software Features: Settings by PC

Target step, activity minutes and activity calories, Intensity range and food intake, Selecting display mode, Blind display, Key lock, Autostart, Memory lock/Loop

Some Validation Studies

- McClain, et al.; Comparison of Kenz Lifecorder EX and ActiGraph Accelerometers in 10-yr-old children. *Medicine & Science in Sports & Exercise*. 39(4):630-638, April 2007.
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- T.Washington, et al (2006) Comparison of Lifecorder and MTI ActiGraph Accelerometer Estimates of Measuring Physical Activity Energy Expenditure. *Medicine & Science in Sports & Exercise: Volume 38(5) Supplement May 2006 p S103*
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- Thompson, et al. (2004). Relationship between Accumulated Walking and Body Composition in Middle-Aged Women. *Medicine and Science in Sports and Exercise*, 36 (5), 911-914.
- Lauren A. Ewalt, et al.; Validity of Physical Activity Monitors in Assessing Energy Expenditure In Normal, Overweight, and Obese Adults (2008). University of Wisconsin-Milwaukee, Milwaukee, WI.
- Leonard A. Kaminsky, et al. Accuracy of energy expenditure estimates from the Lifecorder physical activity monitor (2008). FACSME.
- James C. Hannon, et al. Comparison of Activity Monitor Output in Free Living Conditions (2008). University of Utah, Salt Lake City, UT. University of Kentucky, Lexington, KY. Hofstra University Hempstead, NY. Weber State University, Ogden, UT.)



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