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

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 Suite, a standalone user-friendly software, 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.

**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 display.

**Printout report**

Lifecorder data complement Fitmate metabolic measurements, allowing an accurate assessment of patient’s total energy expenditure (TEE). The intuitive Activity Monitor Report provides a detailed evaluation of patient lifestyle, helping better compliance to weight management plans.

**Personal Data**

<table>
<thead>
<tr>
<th>Personal Data</th>
<th>Energy Expenditure</th>
<th>Steps &amp; Distance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Name: DEMO</td>
<td>Activity Monitor Report</td>
<td>Total Energy Expenditure (Kcal)</td>
</tr>
<tr>
<td>First Name: FITMATE</td>
<td>Days: 6</td>
<td>Total Energy Expenditure (Kcal) 2119</td>
</tr>
<tr>
<td>Age: 42</td>
<td>Partial Days: 6</td>
<td>Activity Energy Expenditure (Kcal) 314</td>
</tr>
<tr>
<td>Gender: Male</td>
<td>Recorded Period: 06/04/2009 - 09/06/2009</td>
<td>Steps Daily Avg 65</td>
</tr>
<tr>
<td>Height (cm): 184,00</td>
<td>Selected Period: 28/05/2009 - 03/06/2009</td>
<td>Activity Time (min) 15</td>
</tr>
<tr>
<td>Weight (Kg): 69,3</td>
<td>Selected Days: 7</td>
<td>Activity Energy Expenditure (Kcal) Daily Avg 314</td>
</tr>
</tbody>
</table>

**Steps & Distance**

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

**Energy Expenditure**

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

**Daily Average METs**

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

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 display.
Lifecorder PLUS

One-axial, solid state accelerometer with USB download function

**Customisable Header**

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

**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.

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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.

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Fitmate® Wellness Technology

Last Name: DEMO
Age: 42
Membership #: 00001

First Name: FITMATE
Height (cm): 184.00
Report Date: 06/07/2008

Gender: Male
Weight (Kg): 69.3

Personal Trainer: FitMate version 2.0 (build 20)

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These statements are not intended to be used to diagnose, treat, cure or prevent any disease. Consult your physician before starting any weight-loss or fitness program.
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.

### 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 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
- James C. Hannon, et al. Comparison of Activity Monitor Output in Free Living Conditions (2008). University of Ulta, Salt Lake City, UT; University of Kentucky, Lexington, KY; Hofstra University Hempstead, NY; Weber State University, Ogden, UT)

Distributed by:

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COSMED srl
Via dei Piani di Monte Savello 37, Albano Laziale – Rome
00041 ITALY
O +39 06 933-5492
F +39 06 933-4580
info@cosmed.com

COSMED
The Metabolic Company

USA
Concord, CA - Chicago, IL
Phone +1 (935) 676-6602
Fax +1 (935) 676-6601
info@cosmedusa.com

COSMED.com

CHINA
Guangzhou
Phone +86 (20) 8332-4521
Fax +86 (20) 8332-0603
china@cosmed.com