Aipermon

Welcome Your Health

AiperMotion 500

User Manual

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1 Introduction Energy Balance Coach

Dear customer

Thank you for purchasing an Aipermon product. You have chosen a valuable and innovative product to measure, record and analyze your everyday activity.

Your personal energy balance is calculated from energy consumption and nutrition intake, measured up to the minute and tracked daily, as well as long-term.

Goals are more attainable with the right motivation; instantly recognizable symbols will indicate your performance. Exact data on exercise time, distance covered and calorie consumption show progress to date and motivates you to improve.

Best wishes for an active and healthy future!

Sincerely yours,
Aipermon GmbH & Co. KG

1.1 Basic knowledge and function AiperMotion

1.1.1 How is the energy balance calculated?

For an energy balance calculation three values are needed:

First value: The **basal metabolic rate** (BMR) is the amount of energy which a person must spend every day for self-preservation, including respiration, heart beat, body warmth and digesting. It is determined by age, sex, size and weight.

Second value: The second main factor of the energy balance is **activity** and the resulting activity amount. Contrary to the BMR, this can be influenced on a daily basis, plus it will vary greatly. If someone sits all day, it will turn out low.

Third value: the energy **intake by food** through eating and drinking.

Energy consumption is determined through the main factors of basal metabolic rate and physical activity.

A positive energy balance is displayed if one eats more calories than one uses.

1.1.2 How does AiperMotion work?

1. Enter your meals and beverages with a simple digital nutrition protocol.
2. The basal metabolic rate (BMR) is calculated according to a formula based on user input.
3. The device measures the intensity of your movements and calculates, on the basis of your user data, your energy consumption by exercise.
4. For certain kinds of sports, such as swimming, you can enter your activities manually. If you did not wear the AiperMotion during exercise, you can enter values afterwards.

The energy balance is precisely calculated to-the-minute.

You can view your energy balance on a long-term basis, by transmitting the data into the associated PC software AiperView or to a coach/health professional, if you participate in an organized program.

1.1.3 Basis of the energy balance

At the beginning of your AiperMotion use you enter your basic data: sex, birth year, height and weight. These basic data are the foundation for all calculations.

1.1.3.1 Calculation of BMR (basal metabolic rate)

Your daily BMR is calculated in the device using current scientific formulas[1]. In the AiperMotion device, your BMR is re-set everyday in the first hour of the new day.

1.1.3.2 Calculation of energy consumption by activity

All of your activity is measured with a three-axis acceleration sensor. The sensor recognizes movements with and without steps in three-dimensional space: length, width and height.

The integrated, intelligent pattern recognition enables a calculation of your energy consumption with each movement based on the individual data you entered.

1 MD Mifflin, ST St Jeor, LA Hill, BJ Scott, SA Daugherty and YO Koh: A new predictive equation for resting energy expenditure in healthy individuals. American Journal of Clinical Nutrition, Vol 51, 241-247, Copyright © 1990 by The American Society for Clinical Nutrition, Inc.

The AiperMotion classifies physical activities into four different types:

Active	Daily activity without taking steps, for example cleaning windows, raking leaves, etc.
Walking slow	Movement at a speed of up to 3.1 mph (5 km/h)
Walking fast	Movement at a speed of 3.1 – 4.35 mph (5-7 km/h)
Jogging	Movement at a speed higher than 4.35 mph (7 km/h)

The sensor also recognizes:

Passive	Only small vibrations, however no active movement is registered
Not carried	Device for more than 10 min without any movement

1.1.3.3 Precision of the AiperMotion measurements

The accuracy of the activity-type assignment is > 95%.

You achieve a high accuracy of the distance computation, if you enter individually measured step lengths for “Walking slow”, “Walking fast” and “Jogging”.

The calculation of calorie consumption is estimated with 98.5% reliability when you are walking or jogging.

Movements with items such as in-line skates, carrying heavy items, mountain hiking or strongly torso-centered physical activity (for example with weight training) can only partly be measured. These calculations are typically slightly low, since these movements are not completely covered by the method of measurement.

1.1.4 Digital nutrition protocol

Together with nutritional scientists, a simple system was developed for entering your daily calories. The 'meal size' system is based on a percentage of your individual daily requirement. So the calorie input of each meal, for example lunch, is made very easy with just a one click entry. This is especially helpful when the exact calories in a meal, snack or drink are unknown. The efficiency and accuracy of entering calories based on meal size has been validated through numerous scientific studies.

You can also enter food items by indicating exact values in kcal or KJ. We recommend this, if the calories are known.

1.1.4.1 Calculation of daily food requirement

The daily food requirement is calculated as follows:

BMR
+ exercise
= food requirement

The AiperMotion calculates your BMR. For daily movement and exercise, the World Health Organization has set guidelines for a healthy active lifestyle.

1.1.4.2 Distribution of meals

The nutrition input scheme consists of the following entry options:

- Breakfast
- Snack
- Lunch
- Main Meal
- Treat
- Drink (non-diet, with calories; two small or one large)

For the nutrition input scheme in AiperMotion, the following model has been used: The user eats 5 meals per day – breakfast, main meal, lunch and two snacks. Besides water and diet drinks he has one large or two small non-diet drinks. Treats are always “add-ons”.

1.1.4.3 Estimation of meal sizes

The meals are subdivided into “Mini”, “Normal” and “Maxi”.

If a user selects the meal size of “Normal” for each meal and drink throughout the day, and moves sufficiently, theoretically the 'energy balance' at the end of the day would be neutral (neither a positive or negative 'Balance' display).

1.1.4.4 Individual need

A 220 lb (100 kg) man needs more food per day than a woman weighing 110 lb (50 kg).

This is taken into account by each individual's BMR (basal metabolic rate) calculation, and results in specific calorie requirements for each day. While a large 220 lb man may need 3000 kcal per day, a small 110 lb woman only needs 2000 kcal.

hints:

- AiperMotion helps you in documenting and observing the quantity of your nutrition (in kcal or KJ). The composition of your calories is not considered.
- You are free to choose your favorite diet. AiperMotion is suitable to accompany any diet plan.

1.1.5 Weight reduction with AiperMotion

Hint:

- In order to lose two pounds of body weight you have to take in 7000 to 9000 kcal (29.300-37.700 KJ) less than you have consumed.
- For losing weight we recommend you consume at least 500 kcal (approx. 2100 KJ) less every day. To reach a negative balance of 1000 kcal (approx. 4300 KJ) is the optimum daily. This will achieve a healthy weight loss of 2-4 lb weekly.
- To lose weight it is recommended to reach a negative energy balance as follows: one-half by more movement, one-half by reduced food intake.
- To lose weight without professional consultation you should not reduce your food intake under your BMR. If your body does not get enough energy it will switch to an "starvation mode" which will reduce the basal metabolism rate. This promotes a yo-yo dieting after completion of weight reduction.

Users are recommended to seek professional advice and supervision when starting to use the AiperMotion device. This will increase your chances of successful weight loss. The advisor or coach recognizes nutritional challenges, can give you exercise tips, and above all motivate and encourage you through your journey of weight reduction.

1.1.5.1 Movement and exercise increase

The World Health Organization (WHO) recommends that a healthy adult should spend at least 30 minutes of intense physical activity each day in order to maintain good circulation and a healthy body. This can be achieved by walking, fast walking, jogging or doing other similar activities.

With the AiperMotion, this means that each day the device should show at least 30 minutes in the activity classes “walking fast” or “jogging”. Other exercise activities are possible too.

With AiperMotion, any activity is covered - housework, gardening, climbing stairs, tidying up, walking, sports, etc. Ideally, one should consume 50-60% of his basal metabolic rate daily by activity in order to remain healthy and keep at a healthy weight.

Example: For a basal metabolic rate of 1500 kcal (6280 KJ), 750-900 kcal (3140-3770 KJ) should be consumed by activity.

1.1.5.2 Precision of energy balance

The energy balance will be calculated by the device by using measured and entered values. The energy balance is an estimation. The largest sources of errors are forgotten meals and drinks, and an underestimation of meal sizes.
With accurate entry, AiperMotion displays a comprehensive daily and long-term energy balance. Numerous studies, where AiperMotion was used, demonstrated very successful results.

2 Who can use AiperMotion and what is the intended use?

The energy balance coach AiperMotion is a combination measurement, calculation and input device. It provides recording, personal observation and analysis of movement, nutrition, metabolism and weight to determine the daily personal energy balance.

The device can be used in managed programs to increase movement and reduce weight. It can also be used by individuals without a coach.

Hint for use:

- The AiperMotion can be used by adults with normal weight or overweight. It is not suitable for children under 12 years of age (growing children have a higher energy consumption than their body measurements indicate). For teenagers (over the age of 12) and underweight adults it should be used only under professional guidance.
- The AiperMotion is intended for the use under normal everyday conditions in indoor and outdoor environments.
- Treat the device carefully. Electronics can be damaged by being dropped from even small heights.
- Protect the device against humidity, rain as well as immersing in water or other liquids. Electronics are irreparably damaged by water.
- Don't use the AiperMotion during sports where wearing it increases the risk of damage (for example: aggressive ball games).
- It is particularly important for users with heart and/or circulatory problems to consult a doctor or professional about beginning an exercise program.
- Patients with pacemakers: Keep a distance of at least 7.8 in.(20 cm) between the device and the pacemaker.

Hint to the technology:

- Do not use the AiperMotion if the case or the cord is damaged.

2 Who can use AiperMotion and what is the intended use?

2.1 Tips for traveling

Your AiperMotion records data using a universal time system. In the case of significant time differences, as on long-haul flights for example, it may be the case that entered or recorded data does not appear correspond to the correct day in evaluation. The most likely outcome is that the basic metabolic rate is not displayed for one day (24 hour period), or appears with a delay, or that the entry is doubled.

To display accurately, if you are flying through several time zones, set your AiperMotion to the actual local time on arrival. By the following day at the latest, your AiperMotion will display all data correctly.

On travel days, there may be a shift in energy balance, as these are not typical 24 hour days. Depending on time zones and direction of travel, these days may be longer or shorter.

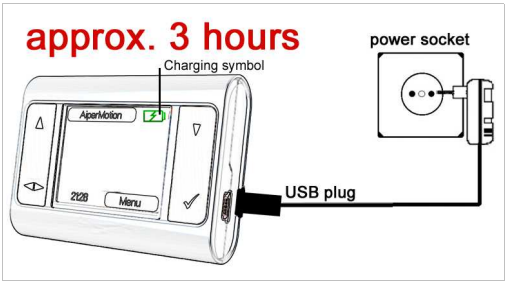
3 Installation and start of operation

3.1 Basic description of keys and functions

No.	Description
1	Navigation button up
2	Display
3	Battery status
4	Navigation button down
5	Computer and power connection
6	Functional button I
7	Menu Display
8	Functional button II

3.2 Charging the battery

The AiperMotion uses a rechargeable battery. This battery must be fully charged before first-time use.



You can plug-in the AiperMotion in an electrical socket or in the USB port of your computer.

A complete charging procedure takes approx. 3 hours. The device turns on automatically when plugged into a power source.

The charging symbol shows how much battery life you have left. When charging is finished, the device shows a “full battery” symbol.

On a full charge, the battery life is approx. 14 full days of use.

 If this symbol appears, you should charge the battery.

Hint for security:

- Avoid charging the battery in a high-temperature environment.
- Do not let the AiperMotion charge unsupervised. If the device becomes unusually warm, stop charging immediately and inform the retail agent.

- Do not cover the device while charging, so as not to impede air circulation around the device.
- Do not place the device on flammable materials while charging.

If the battery charge drops below a certain level, the AiperMotion will turn itself off. No more data will be recorded. The stored data however remain on the device for transmission to the software for a period of time.

3.3 Turning on the device

Press any button approx. 3 seconds. The “start screen” appears with an avatar (graphical character).

3.4 Configuration

The user is guided through the configuration process upon initial use, **automatically**.

Hint:

- Any value entered can be changed upon the completion of the initial setup via menu ***Input***.
- Enter your personal data correctly. Incorrect entries distort the basal metabolic rate calculation, the calculation of food intake, distance and energy balance.
- If any value is unknown, just press ***Save***. The correct value can be entered at any time. Any value accidentally entered incorrectly can also be changed upon the completion of the initial setup.

3.4.1 Enter personal data

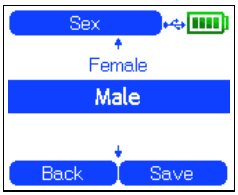
Default values are set in the factory and should be replaced by the correct values for the user upon initial use of the device.

If you don't want to change the value, wait until the menu disappears automatically. The changes won't be saved.

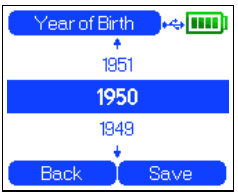
Please enter the following data:

MENU → PERSONAL DATA

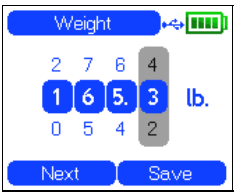
→ SEX



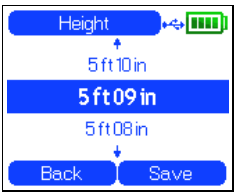
→ YEAR OF BIRTH



→ WEIGHT



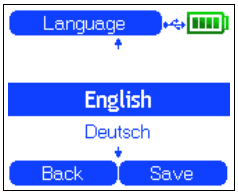
→ HEIGHT



3.4.2 Language settings

MENU → SYSTEM

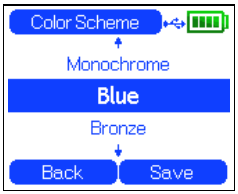
→ LANGUAGE-SETTINGS



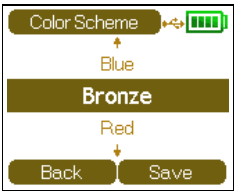
3.4.3 Color scheme

MENU → SYSTEM

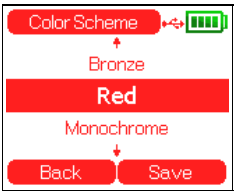
→ COLOR → BLUE



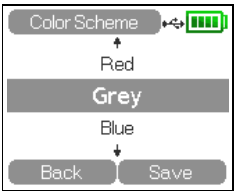
→ COLOR → BRONZE



→ COLOR → RED



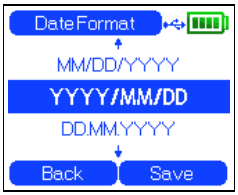
→ COLOR → GREY



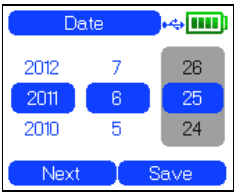
3.4.4 Enter date and time

MENU → SYSTEM → DATE&TIME

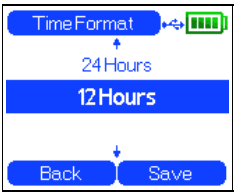
→ DATEFORMAT



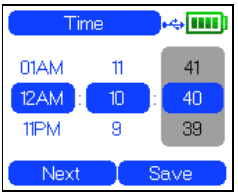
→ DATE



→ TIMEFORMAT



→ TIME



3.4.5 Enter personal goals per day for activity

You can enter the following goals:
The following screens show the default values in AiperMotion.

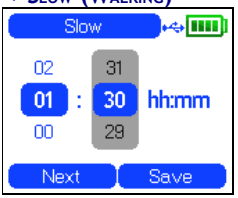
MENU → PERSONAL DATA → GOALS PER DAY

→ DISTANCE

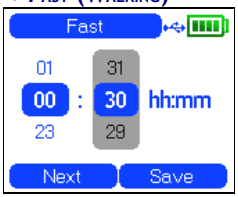
→ MOT. CALORIES

→ ACTIVE

→ SLOW (WALKING)



→ FAST (WALKING)



→ JOGGING

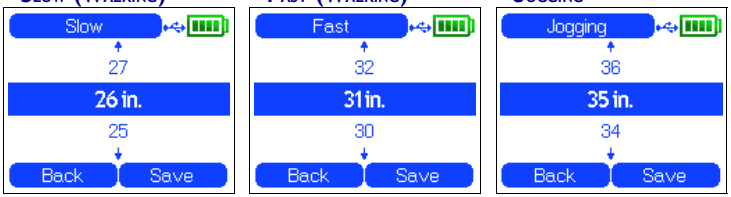
3.4.6 Enter step length

Average step lengths are calculated during initial setup of the device automatically. The values are calculated based on your height.

If your daily distance calculation does not seem exact enough to you, you can measure your step lengths and enter your personal values in this field.

MENU → PERSONAL DATA → STEP LENGTH

→SLOW (WALKING) →FAST (WALKING) →JOGGING



Before entering the values for these fields, please do the following to calculate step length:

1. Measure a distance (for example 328 ft = 100 m).
2. Count the number of steps taken over the distance taken.
3. Divide the distance by the number of steps (for example 328 ft = 3936” divided by 133 steps = 29.59”). Round to the nearest half-inch value. For this example, the value entered into the AiperMotion would be 29.5”.

Tips:

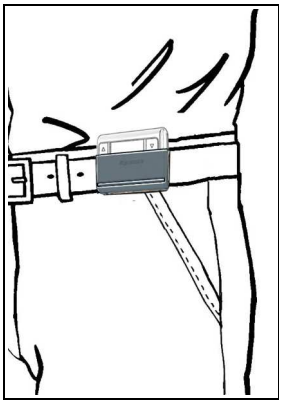
On a standard track, one lap is 1312 ft (400 m) and an indoor track is 656 ft (200 m).
To calculate the step length for “Jogging”, the pace should be one that the user can maintain for at least 10 minutes.
If you do not Jogging, do not change the automatically calculated value in the device.

Calculated values in AiperMotion

Body height [cm] / [ft,in]	Walk Slow [cm] / [in]	Walk Fast [cm] / [in]	Jogging [cm] / [in]
156-165 cm / 5'-5'4"	55 cm / 21	75 cm / 29	80 cm / 31
166-175 cm / 5'4"-5'7"	65 cm / 25	80 cm / 31	90 cm / 35
176-185 cm / 5'7"-6	70 cm / 27	85 cm / 33	100 cm / 39
186-195 cm / 6'-6'4"	75 cm / 29	90 cm / 35	110 cm / 43
196-205 cm / 6'4"-6'8"	80 cm / 31	95 cm / 37	120 cm / 47

4 Using the AiperMotion 500

4.1 Wearing the device



The AiperMotion is worn on the left hip inside its case, included in the box. The screen should face away from your body.

Wearing it on your hip is nearest to the body's center of gravity and offers the most exact measurement results. If you carry the device, for example, in your pant pocket, the step collection becomes distorted and calorie consumption for movement is overvalued.

To save power, the display turns off after 30 seconds automatically. If the AiperMotion device has not been moved within the past 10 minutes, it stops measuring and the display turns off. These times are logged as not worn.

4.2 What can you enter?

MENU → INPUT

- Meals and drinks
  - input
  - postscript – for a meal/drink input missed yesterday
- Movements (certain exercises, for example swimming)
  - input
  - postscript – for exercise input missed yesterday

AiperMotion measures most physical activities automatically.

4.2.1 Input meals and drinks (basic information)

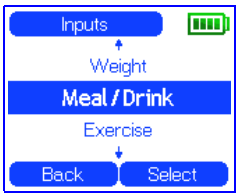
You can enter exact values or use the following pre-set input grid for meal sizes. If you choose to enter food based on meal size, they are calculated individually, based on your BMR:

- Breakfast
- Snack
- Lunch
- Main meal

Fixed values are calculated for

- Drinks
- Treats

Each entry is written with current time and date into a data list. This list is always transferred to the analysis software during data communication.



Proceed inputs as follows:
MENU → INPUTS → MEAL/DRINK

Food and movement entries can later be corrected in the software.

hint:

- The calories you consume fluctuate from day to day. For that reason the calories consumed will sometimes be more or less than the pre-calculated value in the system. On average per week the pre-calculated value is a good approximation of the actual calories you have consumed; assuming you have assessed the size of your meals correctly.

4.2.1.1 Exact value

MENU → INPUTS → MEAL/DRINK → EXACT VALUE

You can enter the kcal/KJ data written on many packaged foods or from calorie tables directly into the AiperMotion device.

Increase or decrease the values by pressing the arrow-navigation buttons. The forward/backward button moves to the next field.

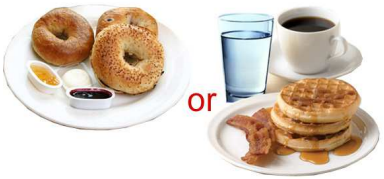
If you don't want to change the value, wait until the menu disappears automatically. The changes won't be saved.

Hint:

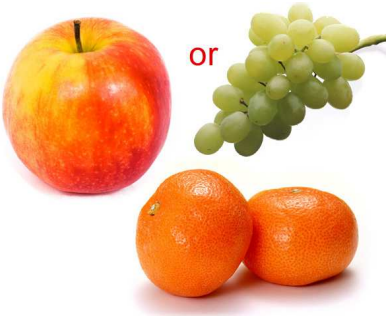
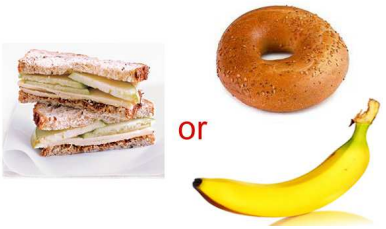
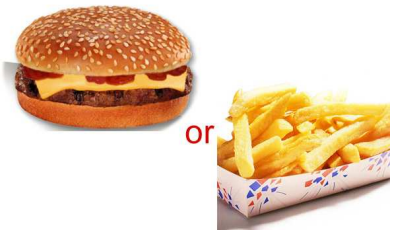
- We recommend to use exact values as often as possible as it makes the energy balance more accurate.
- A list of your last entries can be found if you navigate with the up-arrow from the start screen.

The following **examples** give you an idea of meal sizes for entry into the AiperMotion:

4.2.1.2 Breakfast

	**Mini** 1 toast or bread roll or 1 small dish of cereals incl. a cup of coffee or coffee with low-fat milk (without sugar!)
	**Normal** 2 toasts/bread rolls or 1 bread roll + 1 yogurt or 1 large dish of cereals incl. a cup of coffee or coffee with low-fat milk (without sugar!)
	**Maxi** 3 toasts/bread rolls or 2-3 pancakes incl. a cup of coffee or coffee with milk (without sugar!)
	**Extra large XL** Brunch or Breakfast with sausage or other high-fat foods

4.2.1.3 Snack

	**Mini** **piece of fruits** as big apple or handful of grapes or 2 tangerines
	**Normal** small bagel or bred roll or small sandwich or large banana
	**Maxi** cheeseburger or medium French fries or hot dog

4.2.1.4 Lunch

Some take the lunch-sized meal at noon, others in the evening. In the calculation it is the second largest meal of the day.

	**Mini** as for example taco or slice of pizza or small salad with turkey/cheese/shrimp
	**Normal** as for example burger + small French fries or burrito
	**Maxi** as for example small sized pizza or large salad with meet or cheese or fish & chips

4.2.1.5 Main Meal

Largest meal of the day, mostly warm.

	**Mini** For example 1 plate incl. one side order as rice or noodles or potatoes
	**Normal** For example 1 plate + dessert or 1 plate + additional salad or 1 plate + second time plate
	**Maxi** For example large meal with two or three courses
	**Extra large XL** 1 large pizza buffet or BBQ

4.2.1.6 Treat

"Treats" are understood as all food that should be avoided during a weight reduction period.
They are represented with standardized values (without consideration of personal data).

	**Mini** 150 kcal/620 KJ 3-4 pieces of chocolate or 1 scoop of low-fat ice cream or a handful of some salty snacks
	**Normal** 400 kcal /1670 KJ 1 piece of cake or 1 big candy-bar or 2 scoops of ice-cream
	**Maxi** 800 kcal/3340 KJ 1 piece of creamy cake or 1 sundae or 1 plate of chips or pretzel sticks

4.2.1.7 Drink

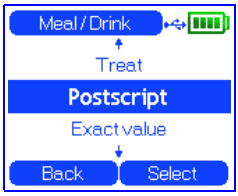
All drinks containing alcohol and/or sugar, especially coke, milk – and yogurt-drinks, lemonades, juices, mixed drinks.

(Don't to enter: water, coffee, tea, drinks without or a very small amount of calories)

6-10 fl. oz./ 0,2-0,3 liters 	**Mini** 125 kcal/520 KJ amount 6-10 fl. oz. (0,2-0,3 liters)
13-20 fl. oz./ 0,5-0,6 liters 	**Maxi** 250 kcal/1040 kJ amount 13-20 fl. oz. (0,5-0,6 liters)

4.2.1.8 Postscript meals and drinks for yesterday

MENU → INPUT → MEAL/DRINK → POSTSCRIPT



If you forgot an entry, you can use “Postscript” and enter exact values for yesterday. Several postscripts for one day are possible.

4.2.2 Movement (additional manual input)

MENU → INPUT → EXERCISE
In this menu you can enter activities manually.

Hint

- When swimming you cannot use the AiperMotion. Enter the values afterwards.
- For sports with intense arm usage (such as rowing, tennis) the energy consumption is underestimated. Calculate your energy consumption and enter your activities manually afterwards.
- There are activities that cannot be measured because of the wearing-position, as for example in cycling. For riding a bicycle we recommend to wear the AiperMotion and register the activity additionally afterwards (see chapter 4.2.2.1)
- Even activities with endurance training devices such as steppers, cross-trainers and bicycle ergometers are not fully measurable by the AiperMotion because of the adjustable resistance levels in the **more intense levels**. We recommend to read off the values from the training devices and register manually in AiperMotion later.
- During sports with the danger of falling (such as ball games) the device shouldn't be used to avoid damaging the device. Enter your energy consumption manually afterwards.

4.2.2.1 Input of exercises with calculation of kcal / KJ

For the most common sports, a calculation is included in the AiperMotion device. The consumption is always calculated based on the entered body weight[2].

Bicycle ride	If you wore the device at the hip, record your bicycle riding as an addition. If you did **not** wear it, select the next level (for example moderate instead of light). Attention: The displayed distance when cycling is incorrect because a pedal-rotation is detected as a step. Cycling is sorted by the AiperMotion in the activity classes “Walking Slow” or “Walking Fast”, depending on how fast you peddle.

2 Basis of these calculations is the MET-compendium 2003: “The compendium of Physical Activities Tracking Guide” published by American Department of Health and Human Services. You can find it under: www.fitness.gov. put in the 'search term' the name of the publication.

	Light	an average 9-11 mph (15-19 km/h)
	Moderate	an average 11.1-13 mph (19.1-22 km/h)
	Vigorous	an average 13.1-15.5 mph (22.1-25 km/h)
	Extreme	more than 15.1 mph (25.1 km/h)
Swimming 	Light	simple lane swimming as leisure activity
	Moderate	swimming with increased effort
	Vigorous	swim practice
Weight training 	Light	invigoration training
	Moderate	heavy dumb-bell training
	Vigorous	intensive training with repetitions
Aerobic 	Enter **only**, **if** you do **not wear** the device for the aerobic training.	
	Light	aerobic without reaching limits
	Moderate	interval training
	Vigorous	power training, reaching limits

hint:

- If you don't want to change the value, wait until the menu disappears automatically. The changes won't be saved.

4.2.2.2 Input of exercises: exact value

MENU → INPUT → EXERCISE → EXACT VALUE

If you want to enter activities or exercises simply use this menu screen to enter how many kcal / kJ you have consumed with exercises.

For the calculation of the sports that are not depicted in the menu list, we recommend the use of Internet to search pre-developed lists of exercise activity.

4.2.2.3 Postscript exercises for yesterday

MENU → INPUT → EXERCISE → POSTSCRIPT

If an activity input was forgotten, simply enter the accurate value of it with the function "Postscript" on the next day. Several postscripts for one day are possible.

Hint:

- A list of your last entries can be found if you navigate with the up-arrow from the start screen (with avatar) twice.
- Manual inputs are marked in AiperView Software with different colors. You can add, change and delete manual inputs in the software.

4.2.3 Input of current body-weight

MENU → INPUT → WEIGHT

Many calculations in the AiperMotion are based on the current value of the user's weight. The values are stored separately and transferred to the software AiperView during synchronization.
AiperMotion can store several inputs daily.

If you don't want to change the value, wait until the menu disappears.

Hint:

- Weigh yourself regularly (1-2 times per week) and adjust your weight in the AiperMotion device.
- If your weight has changed since the last entry, the basal metabolic rate will be adjusted on the following day.

4.3 Analyses Menu

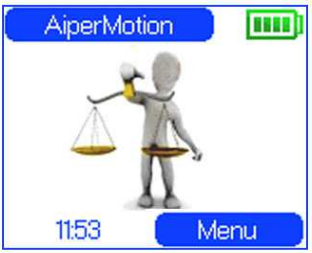
MENU → ANALYSES

You find the analysis of the current day on the first screen level. You will reach this by pressing the “back” key several times until the avatar appears. From there you scroll with the arrow keys.

4.3.1 Meaning of the picture evaluations

The pictures show your status in 'energy balance' and how much movement you - related to your movement goals – have already done today.

The changing avatar refers to your energy balance.

		
Daily start picture energy balance less than - 301 kcal tendency: weight loss	energy balance - 300 kcal to + 300 kcal (- 1256 KJ to + 1256 KJ) no weight change	energy balance more than + 301 kcal tendency: gain weight

Hint:

- At the end of the day, you will find changes in the avatar that reflect how you have done during the day. You still have time at the end of the day to include more movement and create a positive avatar.
- For weight loss it is best to maintain the 'slim king' on all days.

The stars, medal and winner-cup refer to your movements.

Stars for kcal/kJ used by movement each 1 star for 20,40,60,80,100% of target pre-setting in the device: target 600 kcal	movement-medal 120 % of target	movement-winner-cup 150% of target

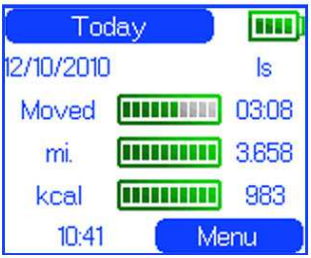
To learn how to set-up your personal movement goals per day, see chapter 3.4.5.

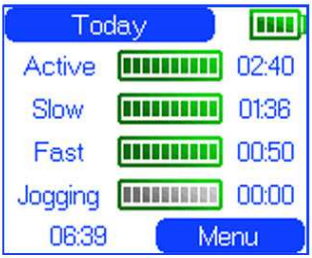
The AiperMotion calculates and indicates your results precisely to-the-minute.

4.3.2 Analyses in figures

MENU → ANALYSES → TODAY

AiperMotion contains three main displays that can help you bring your diet and exercise into the desired balance: Energy balance, Exercise and Activity class.





The bars fill in steps of 10% related to the adjusted goals.

Energy balance		**Exercise**		**Activity classes**	
Meal /Drink:	all inputs	goals per day (default)		goals per day (default)	
BMR:	calculated	moved	03:30 hrs.	Active	01:30 hrs.
Exercise:	calculated and inputs	distance	3.658 mi	Slow walking	01:30 hrs.
		kcal	600 kcal	Fast walking	00:30 hrs.
Balance:	calculated			Jogging	00:00 hrs.

To learn how to set-up your personal movement goals per day, see chapter 3.4.5.

Tips:

- If you want to reduce your weight, try to burn more calories per day by increasing your regular daily activities and exercise. To burn 100-200 kcal (400-800 KJ) per day more is quite easy to reach.

4.3.3 The seven-day history of the major evaluations

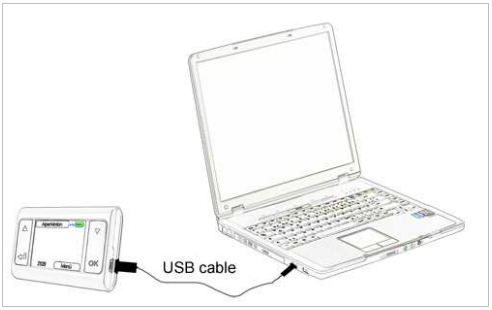
MENU → ANALYSES

The device displays the three main analyses for 7 days.

The data is stored up to 40 days in the device and can be transferred to the optional software AiperView (or to AiperDock in telemonitoring programs).

4.4 Connecting to a computer

The optional software AiperView allows the user to connect the AiperMotion to a computer in order to transfer, analyze and save data.



To transfer data to a computer, please follow these instructions:

1. Connect the USB cable to the AiperMotion.
2. Plug the other end of the USB cable into an empty USB port on the computer.

	Software AiperView	Software AiperDock
Kind of use	individual use local coaching with a health professional	telemonitoring program
Installation	User setup and assignment of device to the user	type in identification-number and password once for data transfer to telemonitoring coaching center
Data transfer	Manually after software is opened	After first installation, data is automatically transmitted to the PC. Fully automatic data retransmission to the care center during Internet connection
Evaluations / analyses	On the PC	In the telemontioring coaching center, user does not see the data

During data communication, the clock of the AiperMotion is synchronized with the computer clock.

How to operate Software AiperView or AiperDock you can find in the operator manuals.

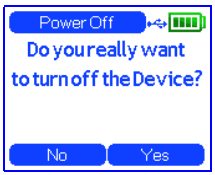
hints

- You can acquire and use the software AiperView after conclusion of your coaching program. But AiperDock must be removed from your computer.

4.5 Turning off the device

MENU → SYSTEM → POWER OFF

To turn off the AiperMotion, please follow these instructions:



1. Go into ***Menu → System → Power Off***.
2. Press ***Select***.
3. Press ***Yes*** to confirm.
4. The shutting down screen appears.

To turn the AiperMotion on again, press any button for about 3 seconds.

5 System and maintenance

In case of a defect in the AiperMotion, please contact your contract partner.

Be aware that any repair or firmware update of the AiperMotion will result in the deletion of all data.

5.1 System information

MENU → SYSTEM → SYSTEMINFO

This menu shows technical information about the AiperMotion such as the software version, serial number (starts with 050...) and the transmission code for telemonitoring.

Please follow these instructions:

1. Go into ***Menu → System → SystemInfo*** to call up the system information, pressing ***Select*** each time to enter the menu.
2. Use the navigation buttons to see more information.

5.2 LCD-brightness

MENU → SYSTEM → BRIGHTNESS

1. Go into ***Menu → System → Brightness*** and change the brightness with the navigation buttons.
2. Save the desired value.

5.3 Cleaning

To clean the AiperMotion, please follow these instructions:

1. Disconnect any cables and the power cord from the AiperMotion.
2. Turn off the AiperMotion (see chapter 4.5).
3. Use a soft, slightly damp, non-piling cloth. Take care not to let any moisture enter the device.

Hint

- Do not use household products such as glass cleaner, surface cleaner, solvents, alcohol or ammonia-based products or scouring agents to clean the device. These can damage the AiperMotion.

5.4 Factory settings

MENU → SYSTEM → FACTORY SETTINGS

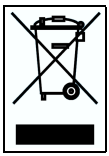
By re-setting the device back to “Factory settings”, you put all of the values back to their original settings.

Hint:

- Please use this function only when giving the device to a new user.
- **ATTENTION**: If you confirm the inquiry “Do you really want to delete your personal settings?” with “Yes”, all records and all personal settings are permanently deleted!

1. Go into ***Menu → System → Factory Settings***.
2. The message “Do you want to delete your personal Settings?” appears. Press ***Yes*** to confirm.
3. If the data should not be deleted, press ***No***.

5.5 Device disposal



Dispose of the device following national specifications for disposal of electronic devices.

6 Technical data

Dimensions	65 x 46 x 15 mm (2.5 x 1.8 x 0.6 in.)
Weight	46 g (0.1 lb)
Display	High-resolution TFT Display with a resolution of 128 x 160 pixels size: 38 x 30 mm (1.5 x 1.2 in.)
Sensor	Three-dimensional digital acceleration sensor
Disc capacity	2 MB internal flash-storage 40 days data recording with ring buffer: oldest data are first overwritten
Battery	Lithium-Ion battery, 700 mAh, 3.7 V Run time approx. 14 days of continuous use; The built-in battery cannot be replaced by the user. The battery has a life of approx. 300 charge cycles. The battery running time shortens in the course of the service life.
Power use	5 V/ 500 mA, 2.5 W
Conditions of use	-10 °C to 38 °C (14°F to 100.4°F); 700 hPa to 1060 hPa 10% - 90% relative humidity
Conditions of storage / transport	-20 °C to 40 °C (-4°F to 104°F); 700 hPa to 1060 hPa 10% - 90% relative humidity
IP-class	IP-30: Resistant to solid bodies with a diameter of ≥ 2.5 mm (0,1 in); not water resistant.

6.1 Symbols

The following symbols appear on the back of the AiperMotion:

Symbol	Description
TYP	Article number and product name
	Do not dispose of in household garbage
CE	AiperMotion 500 complies to the CE guidelines.
	AiperMotion 500 complies to the UL guidelines.

6.2 Used licenses

The register of used licenses and complete terms of licenses can be found on the CD-Rom in the root directory.

6.3 Declaration of conformity

The AiperMotion complies to the Council Directive 2004/108/EG of electromagnetic tolerance.

7 Additional information about purchase

7.1 Warranty

The warranty is valid for two years from the date of purchase. The warranty only covers damages resulting from material or production defects.

7.2 Questions and problem solutions

For questions and problems please contact your contract partner.

7.3 Scope of supply / accessories

AiperMotion 500 (device article number 1688)

- User manual on CD ROM
- Power-supply
- USB-Cable
- Case

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