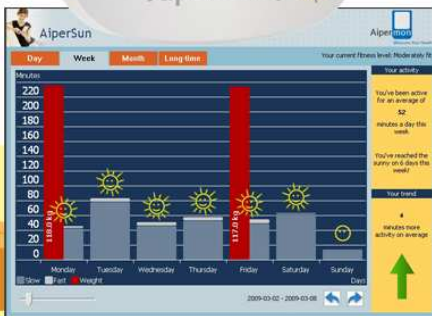


AiperSunny 333

User Manual

including Software AiperSun 333




AiperSunny™

Introduction

Dear customer,

thank you for purchasing an Aipermon product. You have decided to use a high-quality, innovative product to measure, record and analyze your activity time and calorie consumption.

Please take the time to read this manual thoroughly before using your product for the first time.

Best wishes for active and healthy future.

Aipermon GmbH & Co. KG

First steps

Initial operation and setup

The Software AiperSun requires the latest Version of Microsoft Windows XP, Windows Vista or Windows 7. The Software is intended for single PC without user restrictions.

Step 1: Installation of AiperSun

Insert the CD into your PC's CD/DVD drive and follow the instructions. Should installation not start automatically, please start setup.exe found on the CD.

Step 2: Starting AiperSun

Start the application with the Desktop Icon
or Start the application via the Start Menu: Start/All Programs/AiperSun333

Step 3: Basic configuration

You will be notified that the AiperSunny configuration is necessary. After clicking OK, the configuration editor will open. A detailed description of menus can be found in chapter 2.2 .



Fig. 1: Configuration necessary

Step 4: Connect AiperSunny to your PC and register

Connect AiperSunny to your PC using the included USB cable. The device will be recognized as 'New device'. Click 'Yes' to register AiperSunny.

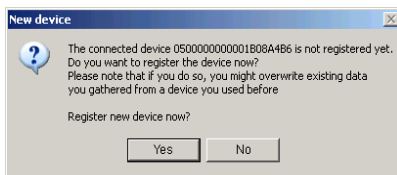


Fig. 2: New Device

In the following window, you will be asked if you would like to delete contained data on the connected AiperSunny. This data has been recorded due to transport. Click 'Yes' to delete.

Disconnect AiperSunny from your PC to finish the setup. Your AiperSunny is now ready to use.

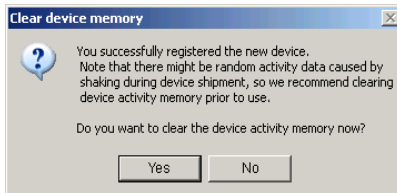
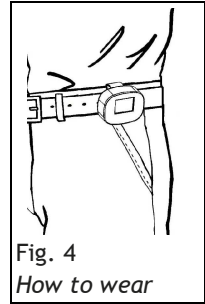


Fig. 3: Delete memory




How to wear AiperSunny

To measure your activity time or calorie consumption, it is necessary to wear AiperSunny continually. The ideal location for this is your center of gravity, e.g. your hip, either left or right side.



Display modes of the AiperSunny device

Your activity time or calorie consumption are displayed as a rising sun symbol on your AiperSunny. The more motion you undergo during a day, the higher the sun symbol will rise. It will reset every day at 12:00am.

	33% of desired fitness level achieved
	66% of desired fitness level achieved
	100% of desired fitness level achieved

Within the configuration editor, you are able to choose between activity time or calorie consumption by activity as desired fitness level. These are the fitness levels to choose from:

Untrained	Activity time:20 minutes, calorie consumption:PAL factor 1,35
Moderately fit	Activity time: 20 minutes, calorie consumption: PAL factor 1,50
Sporty	Activity time: 20 minutes, calorie consumption: PAL factor 1,65

Further information regarding PAL can be found in chapter 2.2.3

The battery symbol



The battery symbol displays the current charge condition. Three bars indicate a fully charged battery, no bar indicates that the AiperSunny will switch off in ca. 30 minutes. A fully charged battery will last at least 1 week.





Charging the battery

Connect the AiperSunny device to one of your PC's free USB slots via the included USB cable. If the PC is switched on, the battery will be charged.

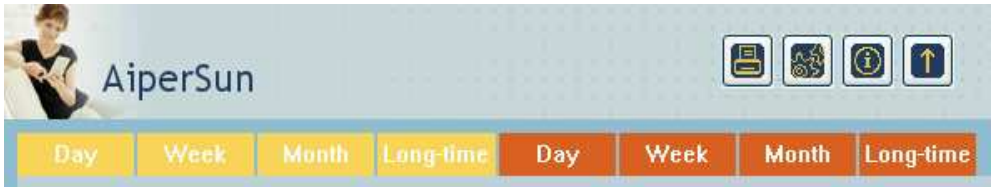
Synchronizing your activity data

Connect the device to your PC. AiperSun will display the message 'Device connected'. Click on 'Synchronize data'. You are now able to view activity time and calorie consumption in the interpretation view of AiperSun.

Buttons in AiperSun

	Clicking this symbol will bring up the print preview, from which you are able to print the current view.
	This symbol will open the configuration editor. Enter your personal data here.
	Here you will find the manual, possible firmware updates and current software version.
	Clicking this symbol will send your measured data to analysis (only possible if you are taking part in automated coaching program)

Analysis in AiperSun



For both activity (yellow) and calorie consumption (red), these views can be displayed in AiperSun:

- Daily analysis view: hourly consumed calories in an entire day or activity time per hour
- Weekly analysis view: consumed calories for each day of the week or entire activity time; also, the reached sun symbol is displayed here
- Monthly analysis view: this view displays the reached sun symbol, weight and entire activity time for each day of the month or entire calorie consumption of a specific day
- Long-term analysis view: choose freely from which period of time you would like to view your activity trend or calorie consumption, displayed by a line.

In each of these views, your weight will be shown as a red line or bar. On the right-hand side, AiperSun will display this development as a trend, shown by arrows in different colors:




	Your level has improved
	Your activity/calorie consumption level has stayed the same
	Your level has decreased

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1 Basics

AiperSunny measures your activity time within the cardiovascular system area (starting from 90 seconds) and calorie consumption by exercise.

Depending on your level of activity, AiperSunny is able to distinguish between 'walking' and 'walking fast'. Also, calories used up by activity are calculated.

This activity time or consumed calories are displayed by a rising sun symbol on your AiperSunny. The more you keep in motion during the day, the higher the sun will rise. It will re-set at 12:00am each day.

	33% of desired fitness level achieved
	66% of desired fitness level achieved
	100% of desired fitness level achieved

Using AiperSunny and the included AiperSun software, you are able to establish a quick overview on how often, how long and how intensively your activity has been.

Please note:

AiperSunny can record activity for 18 days without synchronization. After this 18-day-period, the oldest gathered data in AiperSunny will be recorded over.

1.1 The AiperSunny device

Nr.	Description
1	Clamp strap to secure device to belt or clothing
2	USB slot to charge battery or synchronize data
3	Display (battery status/ reached sun)

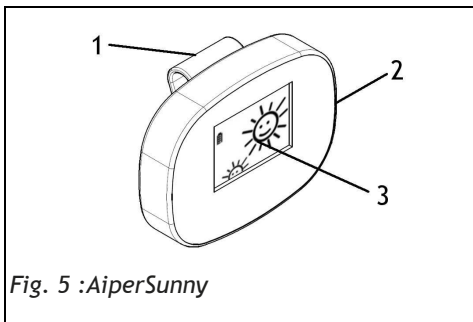


Fig. 5 :AiperSunny

1.2 Charging battery

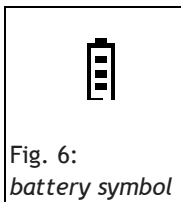


Fig. 6:
battery symbol

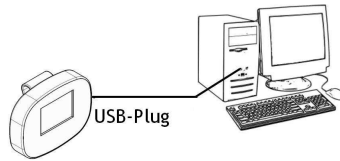
The battery symbol (fig. 6) displays the current charge condition. To charge the battery, connect AiperSunny to your PC’s USB connections. Please note that the PC needs to be switched on during charging. To fully charge the AiperSunny device, an estimated 3hr charging time is needed. Blinking bars within the battery symbol indicate charging of the device. A fully charged battery will last for at least 1 week. A separately sold USB Power supply can be used as well.

Please note:

- If no bars are displayed within the battery symbol, charge condition is very low. The device will shut down in about 30 minutes. Please charge.
- Do not charge AiperSunny unattended. If AiperSunny should heat up exceedingly, abort charging and contact your supplier. Do not wear the AiperSunny.
- Do not cover the device during charging, so air circulation cannot be impaired. Avoid charging at high temperatures.
- Keep the device away from flammable materials during charging.

1.3 Connecting the device to a PC and configuring AiperSun

To configure AiperSunny with your personal preferences, and to charge the battery, you need to connect it to a PC or Laptop computer.



*Fig. 7 :
PC and AiperSunny connected via USB cable*

1.4 Connecting the device to the scale SunnyBalance 100

Optional you can connect the AiperSunny device to the specially made scale SunnyBalance 100, in order to transfer weight data to AiperSunny.

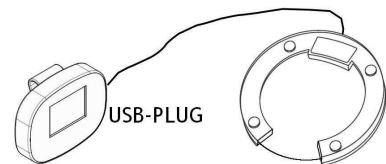


Fig. 8 : AiperSunny connected to scale

Please note:

- If the AiperSunny device does not receive any motion data (e.g. is not moved) over a period of 2 minutes, it will switch into power saving mode. The display will turn blank. It will show up again as soon as you move the device.
- If no symbols will be displayed after you move the device, the battery needs to be charged. Please follow the instructions in chapter 1.2 to charge.
- If charging the device should not work, the device has a malfunction. Please contact your supplier. Do not wear the AiperSunny anymore.
- Do not use the AiperSunny device while swimming or other water activities. Moisture can damage the device.

2 AiperSun

2.1 Installing the Software AiperSun

Insert the CD into your PC's CD/DVD drive and follow the instructions. Should installation not start automatically, please start setup.exe found on the CD.

2.2 Setting up AiperSun

Start the application via the Start Menu: Start/All Programs/AiperSun333 and open the configuration editor by clicking this symbol:

The configuration editor is divided into three different tabs:

- User data
- Communication
- System

2.2.1 Entering user data

Insert personal data here. Weight, abdominal girth, height are used to calculate various data within the program, e.g. calorie analysis.

Save your configuration by clicking 'OK'.

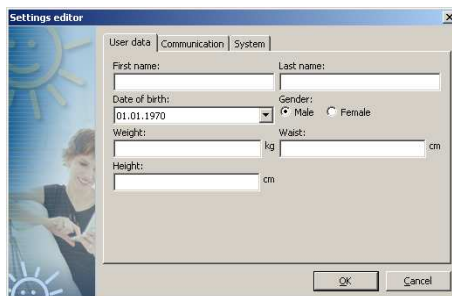
The screenshot shows the 'Settings editor' dialog box with the 'User data' tab selected. The dialog has three tabs: 'User data', 'Communication', and 'System'. The 'User data' tab contains the following fields: 'First name:' and 'Last name:' (text boxes); 'Date of birth:' (calendar icon) and 'Gender:' (radio buttons for 'Male' and 'Female'); 'Weight:' (text box) with units 'kg' and 'cm'; and 'Height:' (text box) with unit 'cm'. There are 'OK' and 'Cancel' buttons at the bottom right. A decorative background image of a woman is visible on the left side of the dialog.

Fig. 9 : Personal Data

2.2.2 Setting up communication for data transfer

If you should happen to take part in an Coaching program, this information is provided by your adviser.

To find out whether to enter proxy server data, please contact your system/network administrator.

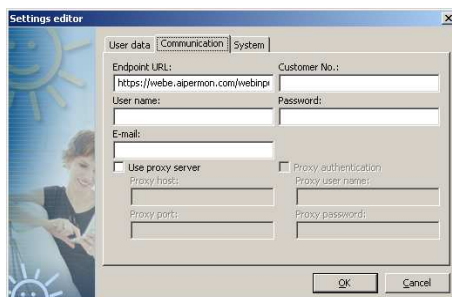
The screenshot shows the 'Settings editor' dialog box with the 'Communication' tab selected. The dialog has three tabs: 'User data', 'Communication', and 'System'. The 'Communication' tab contains the following fields: 'Endpoint URL:' (text box with 'https://webe.aipermon.com/webinp'); 'Customer No.:' (text box); 'User name:' (text box) and 'Password:' (text box); 'E-mail:' (text box); and a 'Use proxy server' checkbox. Below the proxy checkbox are fields for 'Proxy host:', 'Proxy port:', 'Proxy authentication' (checkbox), 'Proxy user name:', and 'Proxy password:'. There are 'OK' and 'Cancel' buttons at the bottom right. A decorative background image of a woman is visible on the left side of the dialog.

Fig. 10: Communication configuration

2.2.3 Configuring System

Within the 'System' tab you can choose the language in which you want to view the program. Also, you are able to choose whether you want the sun symbols to react to activity time or calorie consumption.

The Fitness level is displayed as follows:

- Untrained: at least 20 minutes walking or running per day to achieve full sun symbol
- Trained: least 30 minutes walking or running per day to achieve full sun symbol
- Sporty: at least 40 minutes walking or running per day to achieve full sun symbol

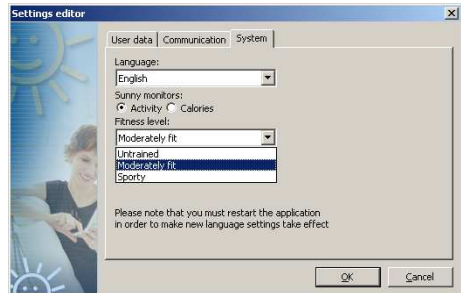


Fig. 11 System configuration → Activity

This will only count the activity minutes within the active area of the cardiovascular system (counting from ca. 90 seconds of activity).

Calorie level is displayed as follows:

- Untrained: PAL-factor of at least 1,35 to achieve full sun symbol.
- Trained: PAL-factor of at least 1,5 to achieve full sun symbol .
- Sporty: PAL-factor of at least 1,65 to achieve full sun symbol.

These values apply to the energy amount your organism transforms via activity over the basal metabolic rate.



Fig. 12 System configuration → Calories

To transfer all configurations to your AiperSunny device, click on the 'Synchronize data' button in the 'Device connected' menu.


Please Note:

- Configuration you have made in chapter 2.2 will be transferred to AiperSunny during the next synchronization.
- The internal AiperSunny clock will be set during synchronization. To ensure that your activities are allocated correct it is necessary that you register your AiperSunny before use.

Background information PAL:

- The Physical Activity Level (PAL- factor) is a measurement unit to express the energy consumption a person consumes by activity over the basal metabolic rate (BMR). In PAL units, the basal metabolic rate is set as factor 1.0 and the consumed calories by activity over this BMR are added to the BMR-factor. Ideally, an adult should reach 50-60% of the BMR additionally by activity to stay healthy in the long term and to hold a normal weight. The PAL-factor here would be 1.5.- 1.6, as recommended by the World Health Organization (WHO).
- Example: With a basal metabolic-rate of 1.500 kcal (6.280 kJ) (Woman, 40y, 69", 165 lbs/75 kg), an additional 750-900 kcal (3.140-3.770 kJ) should be consumed by activity. If AiperSunny is regularly worn, the device allows a good estimation of the PAL-value.
- The World Health Organization recommends a PAL-factor of at least 1,8 to lose weight with sufficient activity. If AiperSunny is regularly worn, the device allows a good estimation of the PAL-value.
- If you are unsure of what level to choose, use 'Untrained'.
- Please enter your personal data correctly into the configuration editor. Otherwise AiperSunny cannot calculate proper activity profiles or calorie consumption profiles.

2.2.4 Information

1. Start the AiperSun software.
2. Open the information window by clicking the symbol. 

The information window will display the current software version.

By clicking the 'Firmware update' button, you can update your AiperSunny device to the latest Firmware version.

Please also see chapter 4.2 for more information 4.2.



Fig. 13 : AiperSun Information window

Clicking 'help' will open this manual.

2.3 Synchronizing data (transfer)

1. Connect the AiperSunny device to a free USB slot on your PC, as described in chapter 1.3
2. If you have already opened the AiperSun software, the message 'Device connected' will appear. If the software is not running, please run it now.
3. Wait for the 'Device connected' message. It will display immediately after AiperSun has detected the AiperSunny device.
4. Click on 'Synchronize data'.
5. The data will now be transferred onto your PC and stored permanently.




Fig. 14 Synchronize data


After successfully saving the data, an analysis diagram will be displayed as mentioned above on your AiperSun screen.

2.4 Synchronizing AiperSun with server (optional)

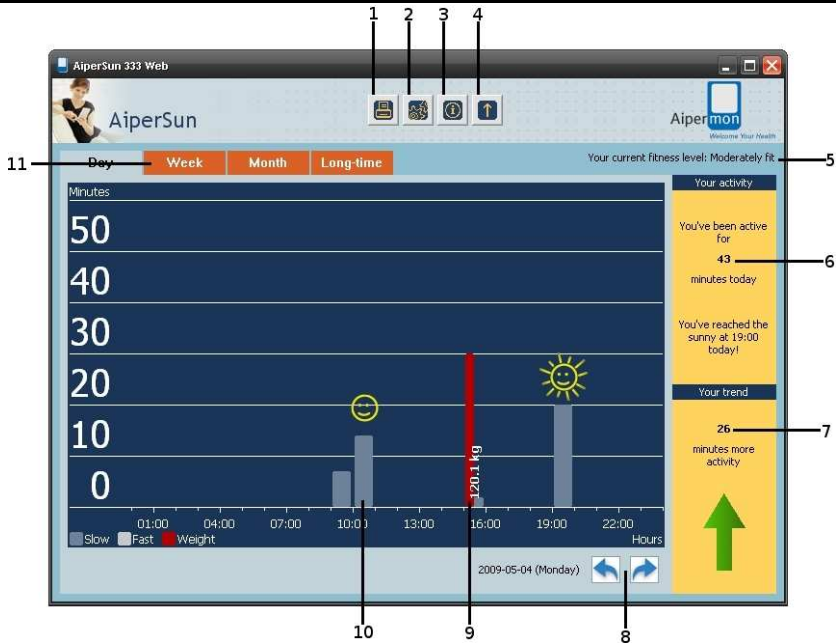
If you are taking part in an coaching program, transmit your activity data as discussed with your advisor.





1. Start the AiperSun software
2. Run Synchronization with AiperSunny, as shown in chapter 2.3 'Synchronizing data (transfer)'.
3. Click this symbol  to transfer data to your advisor.

2.5 Printing current view

1. Start the AiperSun software.
2. Choose the view you wish to print.
3. Left-clicking this symbol  will bring up the print preview screen, from which you can print the desired document

3 Analysis in AiperSun



1	 Print preview: prints the current view
2	 Configuration editor: configure user and communication data. Set up operation mode and daily goals.
3	 Information window: software version, firmware update and manual
4	 Button to synchronize data with the server
5	Your current set activity level/calorie level
6	Physical activity or consumed calories over the current period of time
7	Your trend: This area displays your development, comparing it with prior time periods such as day/week/month, according to view.
8	Arrow buttons to navigate through daily views
9	Bar of your weight
10	Bar of your Physical activity/consumed calories
11	Flag to select Day/week/month/long-term view

3.1 General

Weight values are displayed in red color in the day/month/long-term view. You can either choose to enter your weight manually, or transfer weight data from the scale SunnyBalance 100 into AiperSunny.

3.1.1 Activity duration / calorie level

The displayed sun symbols indicate your achieved goal. This goal refers to your set level, see chapter 2.2.3.

	33% of desired fitness level achieved
	66% of desired fitness level achieved
	100% or more of desired fitness level achieved




Continue wearing AiperSunny after you have reached your set goal to record your activity in an optimal way.

Please note:

Both software and AiperSunny device only show the sun symbols for calorie or activity, according to configuration (see chapter 2.2.3)

3.1.2 Trend arrows

Trend is shown by arrows in various colors.

	Your level has improved
	Your activity/calorie consumption level has stayed the same
	Your level has decreased

3.2.2 Weekly analysis view

This view displays activity and calorie consumption for a selected week. To select a specific week, use the arrow buttons on the lower right side.

For each day of the week, a two-colored bar displaying your activity time will show up. 'Walking' is shown in dark blue, 'walking fast' in light blue. Consumed calories are shown in single color.

If the goal has been reached, the sun symbol will appear above the bar. If only part of your goal has been reached, the according sun symbol will be displayed. If weight data was recorded, it will appear as red bars on the corresponding bar for each day of measuring. Using the slider on the lower left side, you are able to zoom in or out.

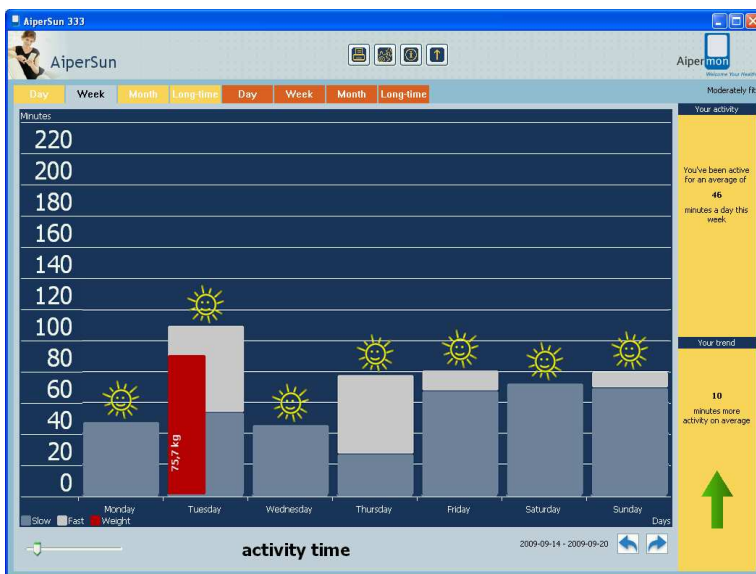


Fig. 16: weekly analysis view

Your activity/your calories	In this area, your average activity time or calorie consumption per week day is displayed as a numerical value. You are also able to view how often you have achieved the sun symbol in the relevant week here.
Your trend	In the lower 'trend' (chapter 3.1.2) area, the average data of the currently shown week is compared with the average of the previous week.

3.2.3 Monthly analysis view

In this view, your activity time /calorie consumption for each day of the month is displayed. For each day, the reached sun symbol, total activity time/total calorie consumption and weight values are shown.

You can change views by clicking the arrow buttons on the lower right side.

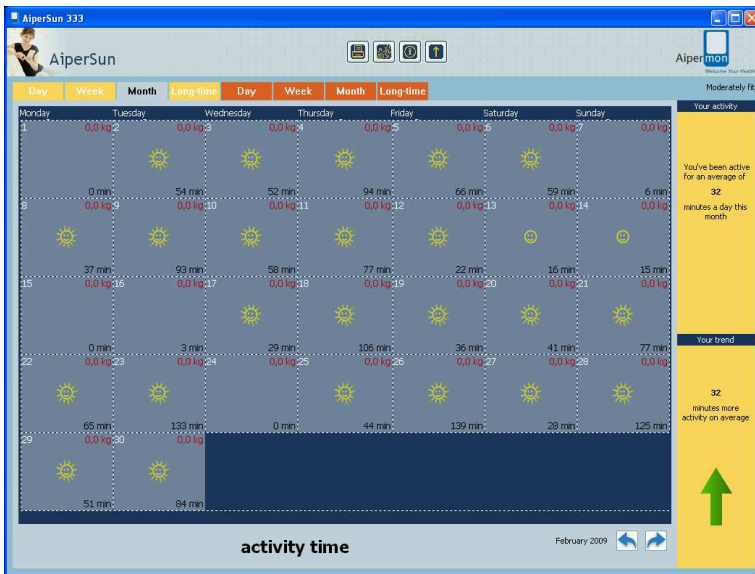


Fig. 17: Monthly analysis view

<p>Your activity/your calories</p>	<p>In this analysis area, the average activity time per day or average calorie consumption per day of the month is displayed as a numerical value. Below this, you can find information on how often you have reached the sun symbols this month</p>
<p>Your trend</p>	<p>In the lower trend area, trend arrows (chapter 3.1.2) show you how much you have changed on average compared to the previous month.</p>

3.2.4 Long-term activity analysis view

The long-term view shows your activity trend and/or calorie consumption trend. The dark line displays your daily activity or calorie consumption, the light line displays the trend. Your weight value appears as a red line (if entered). Arrangement of these scales can be changed by using the slider on the lower left side. The horizontal axis shows calendar data.

To bring up a time period for the long-term view, click on the button and enter your desired time period

Please note:

It is not possible to enter an end date which is set after the latest synchronizing date.

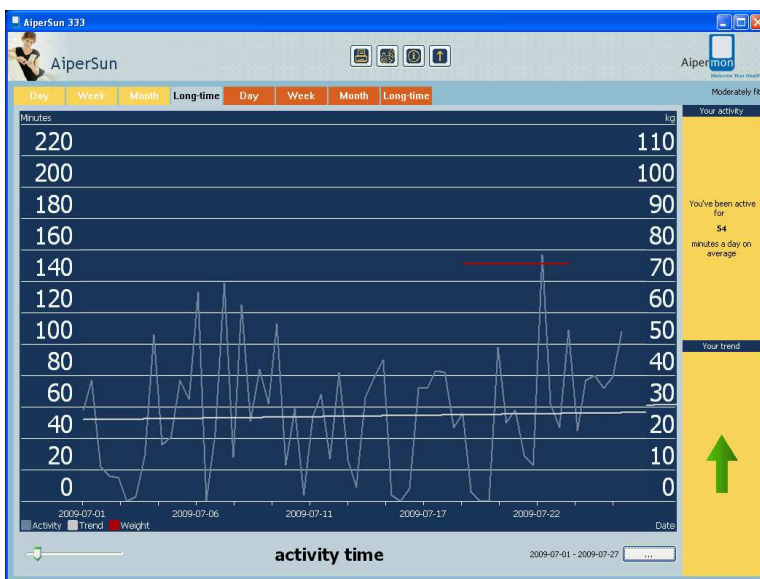


Fig. 18: Long-term view

Your activity/ your calories	In this analysis area, the average activity time per minute/ average calorie consumption per day is displayed.
Your trend	In the lower trend area, trend arrows (chapter 3.1.2) show you how much you have changed over the course of the selected time period.

4 Device maintenance

4.1 Cleaning the device


Before you clean the AiperSunny device, disconnect the USB cable. Use a soft, moist and clean cloth. Make sure that no water can enter the device. Only use water to clean the device, as AiperSunny could suffer damage from detergents.

4.2 Firmware-Update

Via the information window, you are able to update the AiperSunny firmware. To update, follow these steps:



Fig. 19: Update Firmware

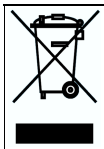
1. Save the new firmware file to a desired location, e.g. the desktop
2. Connect AiperSunny to your PC
3. Connect your AiperSunny with your PC.
 1. Open AiperSun Software
 2. Open the Information window by clicking the symbol 
 3. Click `firmware update`
4. A window will pop up. Choose the current firmware file. A firmware file looks always like "AiperSunny333-RELEASE-0-0-0.hex"
5. Click 'Open'. Your AiperSunny will now update

Please Note:

- Keep in mind not to disconnect the AiperSunny device during firmware updates. Failure in doing so will cause damage to AiperSunny. Firmware updates should only be executed if prompted by Aipermon GmbH & Co. KG.
- Falsely executed firmware updates can cause defects of the AiperSunny device.

4.3 Disposal

Dispose of the device according to national laws regarding the disposal of electrical devices.



The EU directive 2002/96/EC (WEEE) states that electrical and electronic equipment must not be disposed of in household waste, but gathered separately to ensure recovery and recycling as well as optimization of included materials and reduction of hazards to health and environment. The crossed-out wheel bin reminds you of your duty to dispose of the device separately. Further information regarding the waste management system in your area can be gathered from your local recycling facilities or your supplier.

Electromagnetic compatibility (EMC)

The growing amount of electronic devices such as PC's, mobile phones and microwave appliances can lead to exposure of the AiperSunny to electromagnetic interference from other devices. Electromagnetic interferences can cause malfunction and in the worst case a potentially harmful situation. Devices manufactured by Aipermon comply with EU directive 2004/108/EG, according to both immunity and emission issues.

While using the device, refrain from using microwave appliances or other devices which emit intense electric or electromagnetic fields. These could cause malfunction and in the worst case a potentially harmful situation.

5 Frequently asked questions (FAQ)

Q: When and how do I change AiperSunny's battery?

A: The battery of the AiperSunny device is rechargeable and does not need to be changed. Simply connect AiperSunny to a free USB slot on your PC via the included USB cable to charge the battery.

Q: Can I wear AiperSunny while swimming?

A: No. Water penetration will cause damage to the AiperSunny device.

Q: I have used AiperSunny for some time now. However, the AiperSun software does not display anything in the analysis.

A: Have you synchronized AiperSunny with the AiperSun software prior to use? If not, your data is lost. Synchronize your AiperSunny device with AiperSun again, as described in the manual. AiperSunny now contains all required data and is able to start recording activity time.

Check the time settings on your PC AiperSunny and AiperSun use the PC clock to arrange the activity data

If you have synchronized the device before use and still experience no data within the analysis, the device or software could be defective. Please contact your supplier.

Q: All symbols on the display are blinking. Is my AiperSunny defective?

A: Blinking symbols on your display mean that AiperSunny needs to be synchronized. Please connect it to your PC and synchronize it with AiperSun.

Q: Is it able to run AiperSun on other operating systems besides Windows?

A: AiperSun is designed to work with Windows (starting from Windows XP). If you are using Windows Vista or Windows 7, please make sure to run the latest version. If not, please update your operating system.

Q: I do not want to enter my weight and abdominal girth into AiperSun. Does this affect anything?

A: Without entering your weight, a correct calculation of your calorie consumption by activity is not possible. Please enter these values into the software.

Q: I would like to update the firmware. Where do I find new firmware files?

A: Firmware updates are not necessary, as AiperSunny is running the latest system version.

Q: I have updated the firmware. Now my AiperSunny device does not work anymore. What can I do?

A: In general, firmware updates are not required and therefore not directly executable. If you should have attempted to update the firmware using a random file, please follow these steps:

- Connect your AiperSunny device to your PC via the USB cable
- Use a paper clip to press the reset button on the back of the device
- Start the AiperSun software (if not running)
- The ‘Device connected’ window will appear. Click on ‘Close’ (DO NOT CLICK ‘Synchronize data’).
- Click the information button in the top part of the AiperSun software
- Click on ‘Firmware update’
- In the ‘Choose firmware image’ menu, choose the .hex-file
- Click ‘Open’
- A window saying ‘Firmware updated’ will appear.
- Disconnect AiperSunny from your PC and click OK.
- Please synchronize your AiperSunny as usual by connecting to the PC via USB cable prior to use. ‘Device connected’ will appear; please click ‘Synchronize data’.

Q: Is there another method to save my weight value (besides entering it in the user configuration menu)?

A: Alternatively you could enter your weight by using the scale SunnyBalance 100 (Aipermon Art.-No. 1544). This scale is not part of the standard product contents, however you are able to order it from Aipermon GmbH & Co. KG at any time. External weight value entry is only possible with SunnyBalance 100 scales.

Q: I have set my AiperSunny to calories. I cannot see any sun symbol in the activity view.

A: The sun symbols only appear in the chosen operation mode. If you have chosen to view calories, only calorie analysis sun symbols are displayed. If you set the objective achievement view to activity time, you are able to view the sun symbols within this view.

6 Product contents / accessories

Article	Article-No.
AiperSunny 333	1530
Software AiperSun 333 + manual	1539
USB-cable	1191

7 Technical specifications

Dimensions	47 x 62 x 12 mm
Weight	30 g
Sensor technology	three dimensional acceleration sensor
Memory	18 days data storage
Battery	lithium ion battery, 220 mAh, 3,7 V Battery life about 7 days at continuous use, built-in battery cannot be exchanged by user
Current consumption	5 V/ 100mA, 0,5 W
Operation conditions	-10 °C bis 40 °C; 700 hPa, 1060 hPa 10% - 90% relative humidity
Store/Transport at	-20 °C bis 40 °C; 700 hPa, 1060 hPa 10% - 90% relative humidity
IP-Classification	IP30: Protected against solid foreign objects of 2,5 mm. dia. and greater, not protected against water penetration
CE	AiperSunny device complies with regulations of EU directive 89/336/EEG regarding electromagnetic compatibility

8 License information

A list of used licenses and full license conditions can be found in the root directory on the CD-Rom.

Place for Notes:

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