



The Only **Trainer** You'll Ever Need

ACTITRAINER

USERS MANUAL

REV. F
Released 11/28/07

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Revision History

<u>Revision</u>	<u>Date</u>	<u>Comments</u>	<u>Rev'd By</u>
A	6/19/07	Initial Release	J. Wyatt
B	7/24/07	<ul style="list-style-type: none"> - Updated some grammar errors - Updated screenshots of application to match latest version - Added details about MealTracker that have changed since last revision 	J. Wyatt
C	8/16/07	<ul style="list-style-type: none"> - Fixed typos - Figure 14 alignment fixed - Fixed page numbering - Updated Figure 31 	J. Wyatt
D	10/5/07	<ul style="list-style-type: none"> - Added Calibration Section - Added AutoReset Section 	J. Wyatt
E	10/17/07	<ul style="list-style-type: none"> - Added Table 2 to depict valid calibration steps-per-minute ranges - Added comment about minimum of 1 minute for walk/run calibration - Added note about updating firmware (must type "UPGRADE") - Updated screen shots for the new virtual trainer - Added note about calibration running or walking for at least 1 minute 	J. Wyatt
F	11/28/07	<ul style="list-style-type: none"> - Changed "3" to "several" when referring to the number of times the Windows Logo testing screen appears - Updated Figure 21 to show the new upload progress bar 	J. Wyatt

Getting Started

Congratulations on your purchase of the ActiTrainer, the most accurate lifestyle activity monitor available today. This manual will describe how to use your device as well as how to interface with Virtual Trainer, the online companion that helps you determine your overall health profile and review your activity anytime.

ActiTrainer Solution Contents

The ActiTrainer Solution comes with everything you need to get started on the road to a healthy lifestyle. No device in the commercial market today matches the ActiTrainer in caloric burn detection accuracy. We're certain you'll love your ActiTrainer!!

The ActiTrainer comes with...

- The ActiTrainer Activity Monitor (available in pink, yellow, white or black)



- A Polar Wearlink® heart monitoring strap



- A durable elastic armband



- A holster



- One copy of the ActiTrainer client software



Quick Start Guide

- 1) Install the ActiTrainer Client software. Note: The latest software can be downloaded at <http://www.actitrainer.com>. The install instructions are available in the “[Software](#)” section below.
- 2) Register for an account at <http://www.actitrainer.com/register.asp>
- 3) Open the ActiTrainer client software from the Start menu and log in using the username and password you registered with
- 4) Once logged in, create a new user profile by selecting “Add New...” from the user’s box and filling in all the blank fields for that user. Be sure to click “Save” when done.
- 5) Plug the ActiTrainer into the computer. If prompted, allow Windows to install the ActiTrainer drivers for the device
- 6) Once the device is detected by the ActiTrainer software, choose the user you just created from the dropdown list (should already be selected) and click “Initialize Device”. The progress bar at the bottom will indicate when this process is complete
- 7) Unplug the trainer from the PC and wear it on the waist using the provided holster. Periodically, the data log that the trainer generates should be uploaded to the Virtual Trainer using the software.
- 8) Enjoy accurate caloric, step and heart rate data from the ActiTrainer. The Virtual Trainer can be used to give a minute-by-minute view of daily activity.

Hardware Introduction

The ActiTrainer provides a wealth of information. The diagram below outlines the hardware functionality.

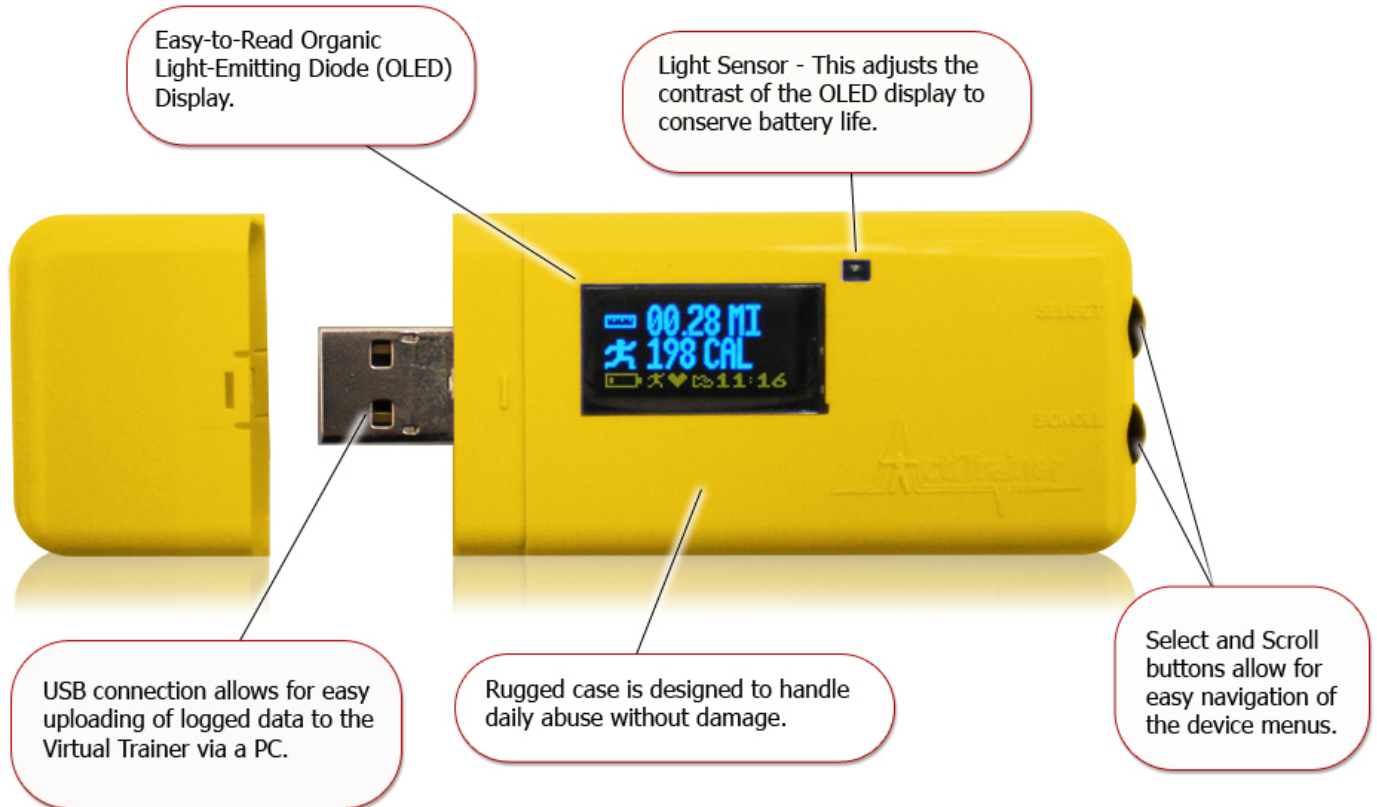


Figure 1 – ActiTrainer Device Features
Physical specifications available in [Appendix A](#)

Theory of Operation

The ActiTrainer utilizes a +/- 5g, two-axis solid state accelerometer to interpret movement of the body to which it is attached. Special algorithms are applied which accurately determine the amount of energy (calories) expended, steps taken, distance traveled and walk or run speed of the user. Because the ActiTrainer is dependent on movement for its measurements, **it is vital that the device fit snugly against the waist or arm while in use.** The data collected while the ActiTrainer is worn is logged in the device's internal memory which can store approximately 64 days of consecutive data before being cleared. In addition, the activity parameters can be reviewed at any time on the ActiTrainer's built-in display.

Display Contents

Lifestyle View

As mentioned in the “Theory of Operation”, activity data is collected continuously by the ActiTrainer and can be viewed at any time. The lifestyle mode displays this cumulative data and is turned on by default. Even when lifestyle mode is manually turned off, data will continue to accumulate. When lifestyle mode is re-enabled, the data shown will be a summary up to the current time. Figure 2 below summarizes the contents of the display for the lifestyle mode.



Figure 2 – Lifestyle Mode View¹

- 1) **Vital Parameters** - The ActiTrainer display will rotate 2 parameters in 3 second intervals. Parameters can be added or removed from the rotation at anytime (see “[Selecting Data to Display](#)”). The parameters include:
 - i) Heart Beats Per Minute (BPM)*
 - ii) Average BPM*
 - iii) Peak BPM*
 - iv) Calories (includes BMR for Lifestyle mode)
 - v) Steps
 - vi) Intensity Level
 - vii) Distance
 - viii) Miles per Hour
 - ix) Pace (Minutes per Mile)

See Section 3 for further explanation of all parameters

* User must wear the Polar WearLink® Heart Strap to see these parameters

For convenience, icons are used to quickly identify the category of the parameter on the display. It is intended to help the user quickly identify the parameters at a glance. These icons are summarized in [Appendix B](#) of this manual.

¹ **About The Display:** The ActiTrainer utilizes the latest in display technology by incorporating an Organic Light Emitting Diode (OLED) display for optimum contrast indoors or outside. The display provides information while the ActiTrainer is in either of its two modes of operation (Lifestyle and Workout)

- 2) **Battery Life** – Displays remaining battery life. Battery life is approximately 1 week under normal usage
- 3) **Mode Icons** – Indicates what data the ActiTrainer is currently collecting (activity, heart, steps)
- 4) **Current Time** – Current time calibrated to the computer that initialized the ActiTrainer

Workout View

The display text increases 2-fold while in Workout mode, thus making it easier for the user to read the display while active



Figure 3 – Workout Mode View

- 1) **Vital Parameter** – Same as Lifestyle mode. In workout mode, only one item is displayed at a time in large font, making it easy to read while active. As in lifestyle mode, the items displayed can be customized.
- 2) **Workout Timer** – Total timer for the current workout (HH:MM:SS)

Menu Navigation

All features of the ActiTrainer discussed in this users' manual can be accessed via the menu structure. Pressing either button twice from an idle state will prompt the menu. The SCROLL button rotates the menu items upward from the bottom (the active item is on top and highlighted). The SELECT button selects the active menu item. Submenus are dictated by < > marks while items that perform a specific action have no delimiters.



Figure 4 – Menu Structure

[Appendix C](#) summarizes the menu structure and gives an explanation of each menu item.

Disabling the Display

The display can be put to sleep to preserve battery life or while sleeping to allow for complete darkness. Navigate the menu structure to the Lifestyle submenu. Highlight “Display ON” and press the “Select” button. The menu item will toggle to “Display OFF”. After a 10 second delay, the display will return to a default mode then shut completely off. Repeat this process to turn the display back on.

NOTE: This does NOT turn off the Lifestyle mode. All buttons and modes still function as they would with the display still on. Lifestyle data will continue to accumulate with the display turned off.

Rechargeable Battery

The ActiTrainer contains a rechargeable Lithium Ion battery. Under normal usage, the battery will last one week on a full charge. The battery can be recharged by simply connecting the ActiTrainer to any USB 1.1 or 2.0 compatible port or charger. A typical recharge time is 2.5 hours from a fully depleted state. When charging, the display flashes the USB logo and the battery icon. When the battery is fully charged, the battery icon will remain constantly on while the USB logo continues to flash.



Figure 5 – Recharging Battery

Polar Wearlink Heart Strap

The Polar Wearlink® chest strap can be worn when desired to collect and/or display heart rate information important for monitoring target heart rates and for analyzing recovery (see “Virtual Trainer” section). The heart strap is simple to use (see “[Polar Heart Strap](#)” for details) and doesn’t require that any special modes be enabled on the trainer.



Figure 6 - Polar Heart Strap

Software Introduction

Installing ActiTrainer Software

Insert the ActiTrainer CD into your computer. (If the Installation Wizard does not start automatically, go to “Run” under the START menu and browse to the CD-ROM drive and open. Select the file called “ActiTrainerClientInstall.exe” and click Open.)



Figure 7 – Installing the ActiTrainer Client Software



Figure 8 – Install ActiTrainer Client Software Step 1



Figure 9 - Install ActiTrainer Client Software Step 1

Follow the Installation Wizard as the ActiTrainer Client application installs. Make sure to click “Install” when you are asked to install the ActiTrainer Bridge Controller Driver.

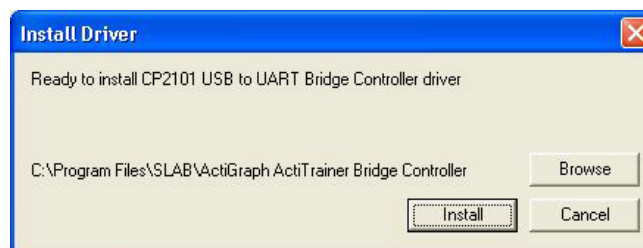


Figure 10 – ActiTrainer Bridge Controller Driver Confirmation

During the installation, you will see the following screen several times. It is important that you select “Continue Anyway” in order for the ActiTrainer software to install correctly.²

² At the time of the ActiTrainer’s release, Microsoft strongly encouraged companies to submit their hardware solutions for certification. If a hardware device driver is not submitted, or does not qualify, for Microsoft certification, a warning message similar to the one shown here appears. You may see the message a number of times while installing the ActiTrainer drivers. When you do, it is safe to click the Continue Anyway button. ActiTrainer has tested this driver on Windows XP, and it does not impair or destabilize your computer.



Figure 11 – Confirm Installation of Unsigned Driver

After the ActiTrainer Client application has finished installing, plug in your ActiTrainer into an available USB port. The Found New Hardware Wizard will then pop up. Select “no, not at this time” and click Next. On the next screen, select “install the software automatically” and click Next. During the installation, you will see the “Continue Anyway” screen.

IMPORTANT

***The ActiTrainer drivers install to the specific port that you originally use. Therefore, you may need to reinstall the drivers in order to use a different port.**

***Immediately following the completion of this installation, a second driver will begin to install. Follow the same instructions as Step 4 to continue.**

Using the Software

Registering a New Account

Open the ActiTrainer Console by navigating to it under “All Programs” in the START bar. At the log in window, select “Register for an account”. Your default web browser will open to the appropriate page for registering for an account. Complete all required fields and submit the registration form.³

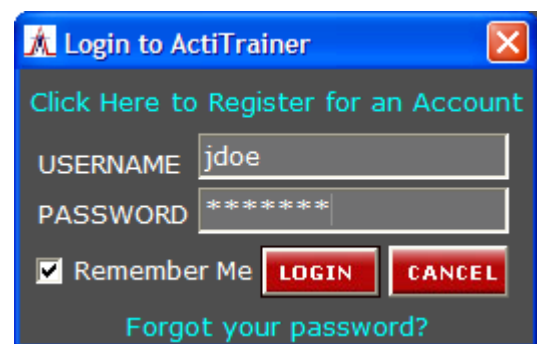
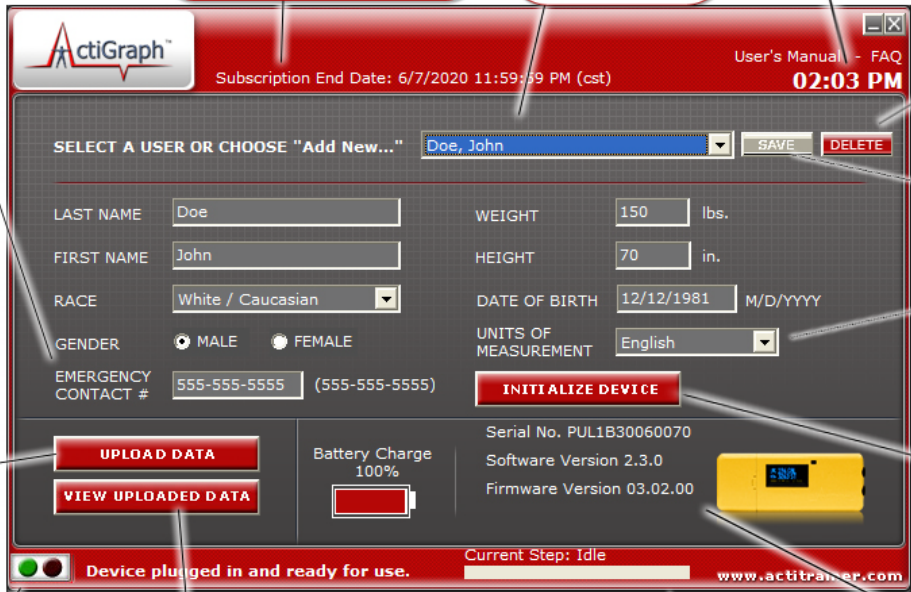


Figure 12 – Login Screen for ActiTrainer Client Software

Software Outline

Figure 12 below describes the various areas of the ActiTrainer software.

³ In order to use the ActiTrainer software or register for an account, an active internet connection is required. The connection is required in all remaining steps of this section



The screenshot shows the ActiTrainer software interface with the following callouts:

- Subscription End Date:** 6/7/2020 11:59:59 PM (cst)
- Current Time:** 02:03 PM
- User Selection:** "SELECT A USER OR CHOOSE 'Add New...'" dropdown menu showing "Doe, John" with "SAVE" and "DELETE" buttons.
- User Information Fields:**
 - LAST NAME: Doe
 - FIRST NAME: John
 - RACE: White / Caucasian
 - GENDER: MALE (selected), FEMALE
 - EMERGENCY CONTACT #: 555-555-5555
 - WEIGHT: 150 lbs.
 - HEIGHT: 70 in.
 - DATE OF BIRTH: 12/12/1981 M/D/YYYY
 - UNITS OF MEASUREMENT: English
- Buttons:** "INITIALIZE DEVICE", "UPLOAD DATA", "VIEW UPLOADED DATA", "SAVE", "DELETE".
- Device Status:** "Device plugged in and ready for use." with a green light indicator.
- Device Info:** Battery Charge 100%, Serial No. PUL1B30060070, Software Version 2.3.0, Firmware Version 03.02.00.
- Progress Bar:** "Current Step: Idle"
- Footer:** www.actitrainer.com

Callout descriptions:

- Subscription:** The date that your Virtual Trainer Console subscription runs out.
- User Management:** List of users. To create a new user, click the arrow and select "Add New...". Clicking Delete will permanently remove the current user from both the Client Software and the Virtual Trainer Console.
- Emergency Contact:** This number will appear on your device as "ICE" (In Case of Emergency.) If you do not wish to use this feature, just fill in 555-555-5555.
- Upload Data:** Most used button. Use the Upload Data button anytime you want to upload data that you currently have on your ActiTrainer to the Virtual Trainer Console.
- Save:** Make sure to click Save when you are finished creating or updating users.
- Units:** Choose English or Metric units of measurement for height and weight.
- Initialize Device:** Least used button. Use the Initialize Device button only when the ActiTrainer is straight from the factory, the battery has died, or you are changing users.
- Device Status:** When device is plugged in, Green Light will show. When no device is plugged in, Red Light will show.
- View Uploaded Data:** You can view your any data that you have uploaded to the Virtual Trainer Console at any time with a valid subscription.
- Progress Bar:** Progress Bar
- Updates:** Device versions of Software and Firmware. When updates are available, you will be prompted to download updates upon Log In.

Figure 13 – ActiTrainer Software Application Outline

Adding a User

After registering your device, return to the ActiTrainer Console and log in (see Figure 11). Choose “Remember Me” if you want to avoid entering this data each time you use the ActiTrainer client. Before using the ActiTrainer, you must create a new user by selecting “Add New...” from the user dropdown box in the ActiTrainer Client. Select this option and fill in all the available fields. If you do not wish to enter an emergency contact number or the format does not match your telephone format (non-US), simply enter the default (555-555-5555). Choose “Save” once this is completed to store the user information. Saving a user at this stage also creates a new user in the Virtual Trainer web application (see “[Virtual Trainer](#)” section).



The screenshot shows the ActiTrainer software interface. At the top, there is a red header with the ActiGraph logo, the text "Subscription End Date: N/A", and "User's Manual - FAQ" with a timestamp of "02:35 PM". Below the header, there is a section for selecting a user, with a dropdown menu currently showing "Add New...". To the right of this dropdown are "SAVE" and "DELETE" buttons. The main area contains a form with the following fields:

- LAST NAME: [text input]
- FIRST NAME: [text input]
- RACE: [dropdown menu]
- GENDER: MALE FEMALE
- EMERGENCY CONTACT #: [text input] (555-555-5555)
- WEIGHT: [text input] lbs.
- HEIGHT: [text input] in.
- DATE OF BIRTH: [text input] M/D/YYYY
- UNITS OF MEASUREMENT: [dropdown menu] English

Below the form is an "INITIALIZE DEVICE" button. At the bottom of the form area, there are two buttons: "UPLOAD DATA" and "VIEW UPLOADED DATA". To the right of these buttons, there is a battery charge indicator showing "Battery Charge 100%" with a full battery icon. Further right, there is a yellow device image and the following text:

- Serial No. PUL1B30060070
- Software Version 2.3.0
- Firmware Version 03.02.00

At the very bottom of the interface, there is a status bar with a green light icon, the text "Device plugged in and ready for use.", "Current Step: Idle", and the website "www.actitrainer.com".

Figure 14 – Adding a New User

Initializing the ActiTrainer

Once a new user has been created and saved, the ActiTrainer can be initialized. Initialization should occur only when the device in use has never been initialized, if the battery dies during use or if a user chooses to allow another person in his account use his device with their parameters.

To initialize the ActiTrainer, plug the unit into the PC's USB 1.1 or 2.0 port (if this has not been done already). You may be prompted to complete the Windows driver initialization process. If so, see "Software" above. Upon detecting the unit, the ActiTrainer software will indicate so with a green light in the lower left-hand corner. Press the "Initialize Device" button to begin initialization. A warning message will appear indicating that any data that is currently on the device will be deleted. The ActiTrainer client will inform you when the unit has been successfully initialized. Remove the device from the USB port and replace the USB cap. Typically, the display on the unit will indicate a countdown timer. Once this timer expires, the unit will begin collecting activity data in Lifestyle mode.

Initializing the device completes the activation of your account and starts your free trial to Virtual Trainer. At the end of the trial, you will be forced to select a subscription package. Subscription package pricing can be found online at <http://www.actitrainer.com/default.asp?Movie=Subscriptions.swf>. You are allowed unlimited users during the trial period.

Congratulations! Your ActiTrainer is now ready for use!

Deleting Users

To remove users from your account, select the user that you would like to delete and press the delete button. You must confirm this action. **Doing so removes the user from your account completely and all data associated**

with that user in the Virtual Trainer will be lost. *Note: User data may be recovered for a small fee.* Visit <http://www.actitrainer.com> for more Tips & FAQs!

Software Updates

From time to time, ActiGraph will release software updates for both the ActiTrainer application software (Client Application) and the ActiTrainer device itself (Firmware). Upon logging into the ActiTrainer application, you will be informed if updates exist and will be given a choice to update the software.

Updating the application involves downloading the latest install file from our website. Note that all release notes for the software applications are available on our download page. Once the latest install file has been downloaded and executed, the old application will automatically be removed.

Updating the firmware is an automated process. It is important to note that an upload should be performed prior to performing a firmware update as **all data on the ActiTrainer will be deleted.** To ensure that this does not happen, the ActiTrainer client software will prompt the user with a special message. Users are required to type the word "UPGRADE" in the box to confirm that they will indeed lose all data when this happens (see figure below). If data has already been uploaded to the Virtual Trainer, this is okay.

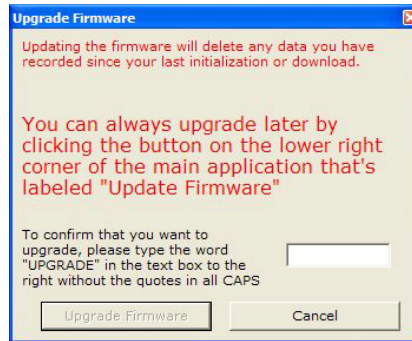


Figure 15 - Upgrading Firmware

Software release notes are available on the ActiTrainer downloads page as shown in the figure below.

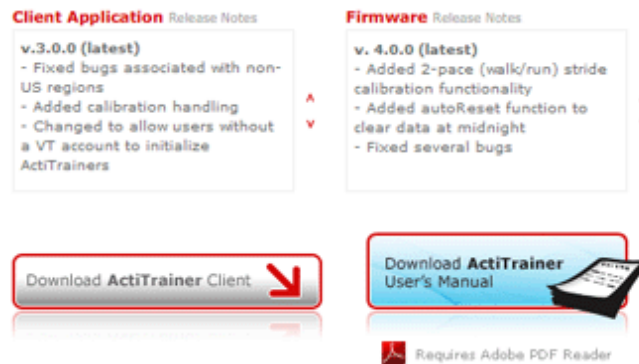


Figure 16 – Downloads Page with Release Notes

Wearing the ActiTrainer

The ActiTrainer is personalized to your biometrics and is designed to be worn 24 hours a day and provide feedback on calories burned, steps taken, distance traveled and average, peak and instantaneous heart rate⁴. Additionally, the ActiTrainer monitors sleep when worn on the wrist at night. When worn properly, the ActiTrainer will accurately measure and log these vital parameters. This information is extremely useful for anyone interested in improving their overall physical wellness.

The ActiTrainer can be worn on the upper arm or the waist. Caloric burn and distance calculations are more accurate when the device is worn on the waist because the unit is closer to the center of mass of the body.

<u>Parameter</u>	<u>Description</u>	<u>Comments</u>
BPM	Instantaneous Beats per Minute (Heart Rate)	Instantaneous Beats per Minute (Heart Rate)
AVG BPM	Average Heart Beats Per Minute	Averaged since the last time the data was reset. Applies to both Lifestyle and Workout modes
PEAK BPM	Peak Beats Per Minute	The highest BPM recorded since the data was last reset
Calories	Total calories burned	Total calories burned since data was last reset. In Lifestyle mode, this includes BMR. In Workout mode, this is only calories above BMR
Steps	Total Steps	Total steps since the data was last reset
Intensity	Activity Intensity Level	Level of activity intensity according to ActiGraph's proprietary algorithm (Light, Moderate, Hard or V. Hard)
Distance	Total Distance	Distance traveled in miles since data was last reset. Functions in Lifestyle and Workout modes
Mi per Hr	Miles/Hour	Current speed in miles per hour
Pace	MPM Pace	Current pace in minutes per mile

Table 1 – All Optional Real-Time Display Parameters

The Polar® Wearlink heart strap must be worn to collect heart rate data.

Modes of Operation



Lifestyle Mode

Lifestyle mode is the devices' primary mode of operation and is always enabled. This mode constantly logs the users' caloric expenditure and other vital parameters and displays them (see Table 1 for options). The contiguous data that the ActiTrainer collects while in Lifestyle mode is displayed on the ActiTrainer's screen in pairs and rotates every 3 seconds. Data parameters can be added or removed from the display by navigating to the "Selections" menu (see "[Menu Navigation](#)" section below). All data that the unit collects is logged regardless of whether it is displayed on the screen. The display can be completely turned off while in Lifestyle mode and the ActiTrainer will continue to log data. Additionally, Lifestyle data also continues to accumulate while the device is in workout mode. The user can view their parameters at any time by simply glancing at the display and can also reset the values. Remember, the ActiTrainer is designed to be worn 24 hours a day and adapt to your lifestyle!

Note: The total caloric burn data on the ActiTrainer display includes Basal Metabolic Rate calories (calories expended by the body at rest). This data will continue to accumulate at all times, even when the ActiTrainer is not being worn or is charging while plugged into a USB port.

Lifestyle AutoReset Feature

By default, the calories burned, steps taken, distance traveled and heart rate information displayed in Lifestyle mode will accumulate indefinitely. To change this mode of operation, the user can select the AutoReset feature of the ActiTrainer. When selected, all values displayed in the Lifestyle mode will be reset each night at midnight. This is very useful when monitoring calories burned, steps taken and/or distance traveled on a daily basis.



To enable the AutoReset feature, browse the ActiTrainer menu structure to the Lifestyle submenu. Scroll down until the Auto Reset option is highlighted. Press the Select button to toggle the Auto Reset mode. After exiting the menu, the mode will be activated.

Workout Mode

Workout mode is used when running, exercising or just when activity is expected to be above normal. This mode presents three advantages: **1)** The display text size is increased making it easier to read while running, walking or working out, **2)** a workout timer is displayed so the user knows how long he or she has been engaged in the “workout”, **3)** data collected during the workout is logged and can be reviewed at any time on the device after the workout is complete and **4)** provides a detailed view of activity in the Virtual Trainer after the data has been uploaded.



To turn Workout mode on, navigate the ActiTrainer device menu and select Start Workout. It will ask to confirm start of Workout, and will then ask you to select whether you will wear the device on your Hip or on your Arm. By Selecting where you are wearing it assures the accuracy of the data that is collected. Note that the ActiTrainer data is more accurate when worn on the hip.

To turn Workout mode off, press either button on the device and select “Yes” when prompted to stop the workout. Selecting “Menu” from this prompt will display the selections menu discussed below. This menu allows the data parameters to be added or removed from the workout display. Workout mode is automatically stopped if the device is plugged into the USB port of a PC for charging or uploading of data.

Similar to Lifestyle mode, data collected during the workout is scrolled through every 3 seconds. Table 1 summarizes the options available for display while in Workout mode. Items can be added to or removed from the scrolling list (see “Selecting Data to Display” below). The default selections for real-time data display during Workout Mode are Calories burned, Steps taken, Current Heart Rate, Pace (minutes per mile), and Distance traveled.

It is important to note that the calories burned during a workout **DO NOT INCLUDE BMR CALORIES** but rather just calories burned above the Basal Metabolic Rate. This differs from the Lifestyle mode, where the display indicates total calories consumed by the user (includes BMR).

Sleep Monitoring

The ActiTrainer can be **worn on the wrist** at night to help determine sleep efficiency. There is no special mode that the device must be placed in; it can simply continue to run in normal lifestyle mode. If desired, the display can be turned off (See “[Turning Off the Display](#)” below) to reduce the light while sleeping. The unit will continue to collect sleep data regardless of the state of the display.

Sleep data can be reviewed by uploading the data to the Virtual Trainer and entering in the “Time in Bed” and “Time out of Bed” in the SleepTracker (see “Virtual Trainer” below). The SleepTracker will provide sleep efficiency and total estimated time asleep as well as a graph of the entire sleep cycle.

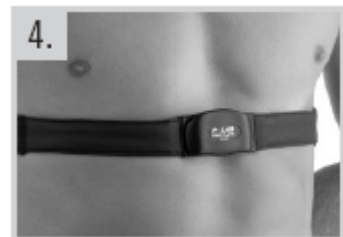
Polar Heart Strap

Purpose

The ActiTrainer Solution comes with one Polar Wearlink® heart monitor strap. This strap can be worn when desired to log heart rate activity data on the ActiTrainer. In normal lifestyle mode, heart rate data can be added to the list of scroll parameters so that the user can see average, peak and instantaneous beats per minute while wearing the heart strap. In workout mode, the same data is available. When uploading data to the Virtual Trainer (see “[Virtual Trainer](#)” below), heart rate data shows up as a red line overlaid on the activity data. When viewing workout data, this is very useful for determining heart rate recovery time and peak heart rate during the workout.

Wearing the Polar Chest Strap

1. Moisten the electrode areas of the strap under running water.
2. Attach the connector to the strap. Position the letter **L** on the connector next to the word **LEFT** on the strap and snap the fastener.
3. Adjust the strap length to fit snugly and comfortably. Secure the strap around your chest, just below your chest muscles, and snap the second fastener.
4. Check that the wet electrode areas are firmly against your skin and that the Polar logo of the connector is in a central, upright position.



To ensure trouble-free heart rate monitoring, start your heart rate monitoring in a place with the fewest possible electromagnetic disturbances (computers, mobile phones, other people using heart rate monitors, high voltage power lines, cars, motor driven exercise equipment, etc.) before going out. After the chest strap has been securely attached it will create a unique coded communication link with your ActiTrainer. This unique link will prevent heart data generated by adjacent Polar chest straps from corrupting your data.

When you put your transmitter on, it starts to detect your heart rate, which is then transmitted to the ActiTrainer. If you have selected any of the BPM options in the selections menu, your heart rate will appear within a maximum of 15 seconds

Note: If the unit does not display your heart rate, check that the transmitter electrodes are wet and that the strap is snug enough.

Menu Navigation

Turning Off the Display

The display can be turned completely off to preserve battery life or while sleeping to allow for complete darkness. Navigate the menu structure to the Lifestyle submenu. Highlight “Display ON” and press the “Select” button. The menu item will toggle to “Display OFF”. After a 10 second delay, the display will return to a default mode then shut completely off. Repeat this process to turn the display back on.

IMPORTANT

Although the LifeStyle mode is turned off, the unit will continue to collect LifeStyle data. The data shown is cumulative since the Trainer’s data was last reset manually.

Resetting Lifestyle Data

The data displayed on the screen while in Lifestyle mode can be reset at any time. This does not clear out the data log and all data prior to the reset can still be uploaded and viewed in the online Virtual Trainer. To reset the parameters on the display, select “<Reset>” from the Lifestyle menu and confirm that this action is correct. All parameters will be reset to zero.

Selecting Data to Display

As mentioned previously, the ActiTrainer can display up to 9 vital data parameters at any given time. In Lifestyle mode, these are displayed in pairs; in Workout mode, they are displayed one at a time using large font for easy reading. Items can be added or removed from the list in either mode by selecting the “<Selections>” menu associated with that mode. Use the Scroll button to highlight a parameter and press the Select button to toggle the parameter on or off as shown below in Figure 14. An “x” indicates that the item will be included on the display.



Figure 17 – Selections Menu for Lifestyle and Workout Display

The default selections for Lifestyle monitoring are Real-time updates of calories burned, steps taken, and distance traveled

Viewing Past Workouts

The ActiTrainer logs the last workout data on internal memory. The workout summary can be recalled again at anytime by selecting “<History>” from the “<Workout>” menu. Figure 17 below shows an example of workout history.



Figure 18 – Workout History

Since not all parameters fit on the display, they can be scrolled through by pressing or holding the Scroll button. Choose “Back” or “Exit” to return to the previous menu or to exit the workout review. To review workouts prior to the last workout, upload the ActiTrainer data to the Virtual Trainer (see “[Virtual Trainer](#)” section below)

ICE

The “ICE” menu option is used to reveal the “In Case of Emergency” contact number entered into the software when the unit was initialized. This can be used if the ActiTrainer is found to contact you or if you are unable to relay an emergency contact number during an actual emergency. Paramedics are often trained to look for an ICE number on cell phones and electronics during emergencies.

Exit and Back

Exit returns to the mode of operation that the ActiTrainer was in prior to entering the menu (workout or lifestyle). Back simply returns the menu structure back a level.

Calibrating the ActiTrainer for Distance

By the nature of its design, the ActiTrainer accurately measures caloric expenditure based on an individual's weight. Proprietary algorithms determine the magnitude of energy exerted over a one minute periods and convert that total to calories. Because weight is a constant over a short period of time, there is very little calculation error from person to person. Determining **distance** and **pace**, however, is not as consistent. Because running and walking styles (specifically, stride lengths) vary from person to person, it is difficult to generalize the distance traveled by all users using one algorithm. To compensate for this inherent deviation, the ActiTrainer can be calibrated to each users running and/or walking style.

With no calibration (straight from the factory), the ActiTrainer makes assumptions of users' stride lengths based on averaged empirical measurements performed at the ActiGraph labs. For most individuals, the distance and pace are accurate to within +/- 10%. Some users may see larger fluctuations in their estimates depending on their own unique walk or run style. After calibrating, most users report an accuracy of +/- 2%.

How Calibration Works

Calibration mode is very similar to the standard [workout mode](#). While in calibration mode, the ActiTrainer monitors steps-per-minute over a given walk or run distance. This information is used to calibrate the device to the users own personal stride length and thus make distance and pace estimates as accurate as possible. Calibration is a three-step process:

- 1) Start a calibration on the ActiTrainer device and walk/run a known distance (minimum of 1 minute).
- 2) Stop the calibration **immediately** after walking/running the known distance (no cool-down or slow walking phase)
- 3) Enter that distance into the client application when prompted after plugging the ActiTrainer into the PC after the walk/run.

Initiating a Calibration

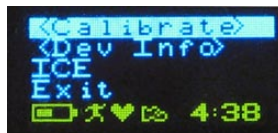
Initiating a calibration is very similar to starting a workout. In fact, a calibration is treated as a workout in the Virtual Trainer and can be analyzed the same as any other workout. Note that the calibration screen looks very similar to the workout mode while the ActiTrainer is in calibration mode.

IMPORTANT

It is highly recommended that the user calibrate the ActiTrainer for both walking and running for best results. If running on a track or a location that is not part of your normal run/walk, it is best to calibrate the walk and the run back-to-back.

Starting a Calibration

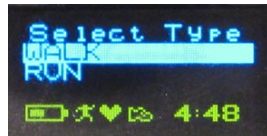
- 1) Browse the ActiTrainer menu structure to the "Calibrate" menu as shown below



- 2) Select “Start Cal” from the Calibrate menu



- 3) Select “Walk” or “Run” as the calibration type depending on which calibration will be performed



- 4) Select where you will be wearing the ActiTrainer during the walk calibration. It is recommended that you calibrate the ActiTrainer for use wherever it is worn the most (on the hip or upper arm)



Begin walking or running immediately. **You must walk or run for at least 1 minute!** When finished with the exercise, stop the calibration immediately by pressing any button and choosing “yes” when prompted to stop the workout. Users must run or walk for at least 1 minute for a valid calibration.

Stopping a Calibration

Stopping a calibration is the same as [stopping a workout](#). Press any button during the calibration. A menu prompting the user to stop the workout is revealed.



Choosing “Yes” stops the calibration. Choosing “No” returns to the previous screen. Choosing “Menu” presents the user with [display options for the workout](#).

IMPORTANT

Calibrations should be terminated as soon as a run or walk is over to prevent inaccuracies in future distance estimations.

Users must walk or run for at least 1 minute.

Clearing a Calibration Workout

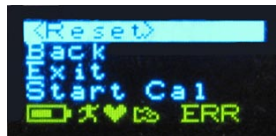
After performing a calibration walk or run, users have the option to clear out the calibrated run prior to connecting the ActiTrainer to a PC and completing the calibration process. This is handy if the user decides they are not happy with their run or walk. Also, this action clears out the “ERR” symbol on the main screen which remains visible when there was a problem during calibration. Any previous completed calibration data remains resident with the ActiTrainer.

To reset calibration data

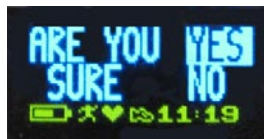
- 1) Navigate the menu on the ActiTrainer to the “Calibrate” menu



- 2) Select the “Reset” option. (Note: This option will only be available if a calibration run or walk has occurred)



- 3) Choose “Yes” when prompted “Are You Sure”



The most recent calibration run and/or walk data is now cleared out.

IMPORTANT

This action is separate from restoring default distance calibration information and will not change existing calibration information currently on the device.

Calibration Guidelines and Errors

Some important things to note about calibration:

- Once a calibration is started, the user should start walking/running (depending on which calibration method was chosen) immediately. The ActiTrainer has a short inherent delay time built in which should give the user time to place the unit on their waist or arm prior to collecting calibration data.
- The user must keep a consistent pace. Varying the pace (steps-per-minute) more than 12% during calibration will result in a **pace error** which will display in the lower part of the Workout screen (see below).



- The user’s **pace for a walk cannot exceed 150 steps-per-minute** throughout the calibration. Also, the user’s **pace for a run cannot drop below 150 steps-per-minute** throughout the calibration. Failing to meet this requirement will result in a **speed error** which will display in the lower part of the Workout screen (see below).



Type of Calibration	Allowed Pace Range (Steps-per-Minute)
Walk	40-152
Run	150+

Table 2 - Valid Pace Ranges for Calibration

- The user must walk or run a known distance. This distance will be needed later in order to complete the calibration.
- The user must walk or run for at least 1 minute. Anything less will result in an error when the calibration is halted.
- Calibration must be stopped **immediately** after running/walking a known distance. Failure to stop the calibration workout or walking/running further than the known distance will result in inaccurate calibration data or an error during the calibration process. Also, doing a cool-down walk after a run will cause the calibration to fail.
- Although recommended, it is not necessary that both a walk and run calibration be performed at the same time. They can be done independently or not at all if one or the other is seldom used (for example, if the ActiTrainer is seldom worn while running)

If an error occurs during calibration, the main screen of the ActiTrainer will periodically flash the “ERR” symbol in the lower right-hand-corner to indicate that there was indeed a problem during calibration. This message can be removed by resetting the most recent calibration run or walk (see “[Clearing a Calibration Workout](#)”) or by simply plugging the ActiTrainer into a PC running the most recent version of the ActiTrainer client application and following the instructions.

Calibration on the ActiTrainer Client

Entering Calibration Distances

In order to complete the calibration process, the ActiTrainer must be connected to a PC running the ActiTrainer client application (version 3.0.0 or later) sometime after completing a calibration workout. When the device is detected, the application will prompt the user to enter the known distance for both the walk and the run.

IMPORTANT

The ActiTrainer is not calibrated until this step is complete. You must complete this step before the distance and pace accuracy will improve.

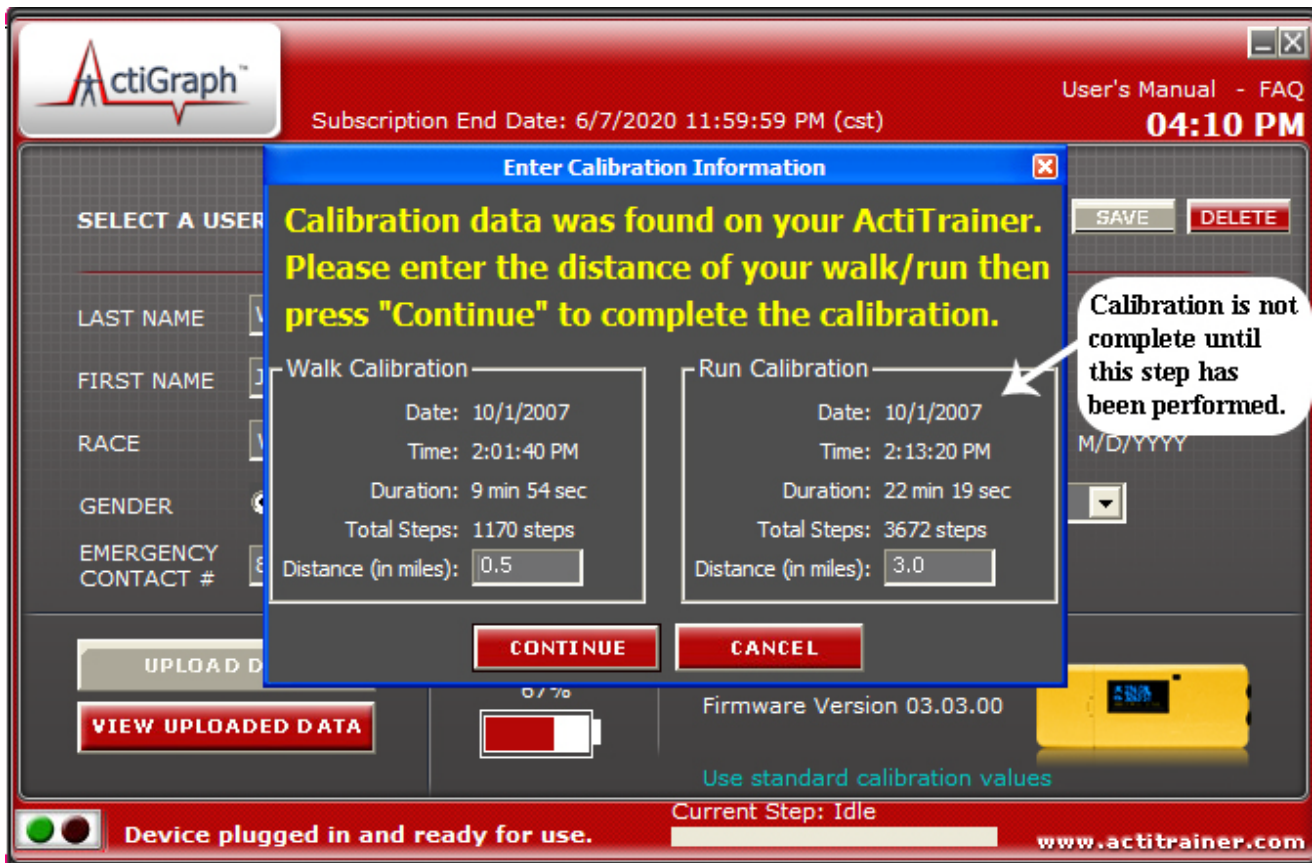


Figure 19 - ActiTrainer client completing calibration

Once this information is entered and the user continues, the ActiTrainer itself is calibrated. All subsequent data uploads will comply with this calibration and the distance/pace displayed on the ActiTrainer display will yield a higher accuracy. Calibrating the device is not retroactive. That is, data that has been previously uploaded to the Virtual Trainer will not be affected by a calibration. Also if calibrations occur in the future, the data since the preceding calibration will remain unaffected.

If only a walk calibration or run calibration is performed (not both), only the relevant distance will be available to enter on the client calibration screen. The uncalibrated technique will be populated with “N/A”. As noted in the previous section, it is not necessary to perform calibration for both a run and a walk. Users are free to choose which calibrations they perform and when they are performed.

Restoring Calibration Defaults

After calibration is completed on the ActiTrainer, users still have the option to restore the default factory settings for distance estimation. When the device is plugged in, a hyperlink will be available at the bottom of the ActiTrainer client as shown below. Clicking this then agreeing to the popup message will reset the calibration coefficients set from the user's latest calibration. All distance calculations performed after this action will revert back to the original technique. Note: The ActiTrainer device can be re-calibrated at any time and does not need to be reset back to its original state prior to performing a new calibration.

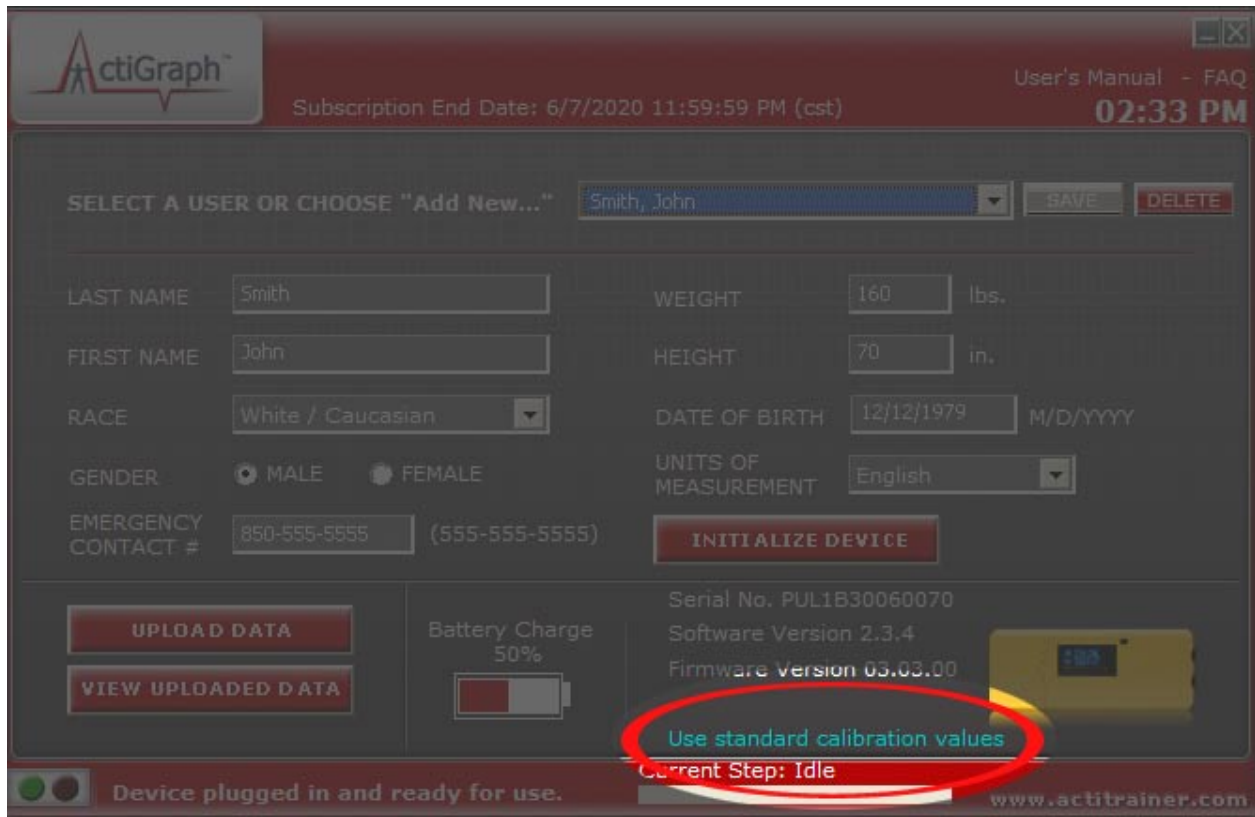


Figure 20 - Restoring standard calibration default values

Data Analysis with Virtual Trainer

IMPORTANT

The Virtual Trainer is constantly being improved. This can be in the form of new features or changes to existing features. ActiGraph will release updates to this manual as necessary to keep our users informed of new features and changes.

The ActiTrainer provides real-time feedback for 9 vital parameters on its display. This is extremely useful for determining how much harder you should push yourself on a run or how active you have been at the end of your work day. ActiTrainer's real power, however, comes in the form of the Virtual Trainer online data analysis tool. The Virtual Trainer provides a minute-by-minute view of activity levels throughout the day, week, month and year and can help you reach your fitness goals by providing a summary view of calories burned, workouts performed and goals achieved.

Virtual Trainer Interface

Uploading the ActiTrainer's Data to the Virtual Trainer

The ActiTrainer monitors movement of the body constantly. This data is logged in the device's internal serial flash memory and can be uploaded to the Virtual Trainer for review by choosing the "Upload Data" option on the ActiTrainer client software application after the device has been plugged in to the PC and detected. The progress bar in the lower right-hand corner of the application indicates how much of the data has been processed. The upload time varies depending on how long it has been since the ActiTrainer's last upload.

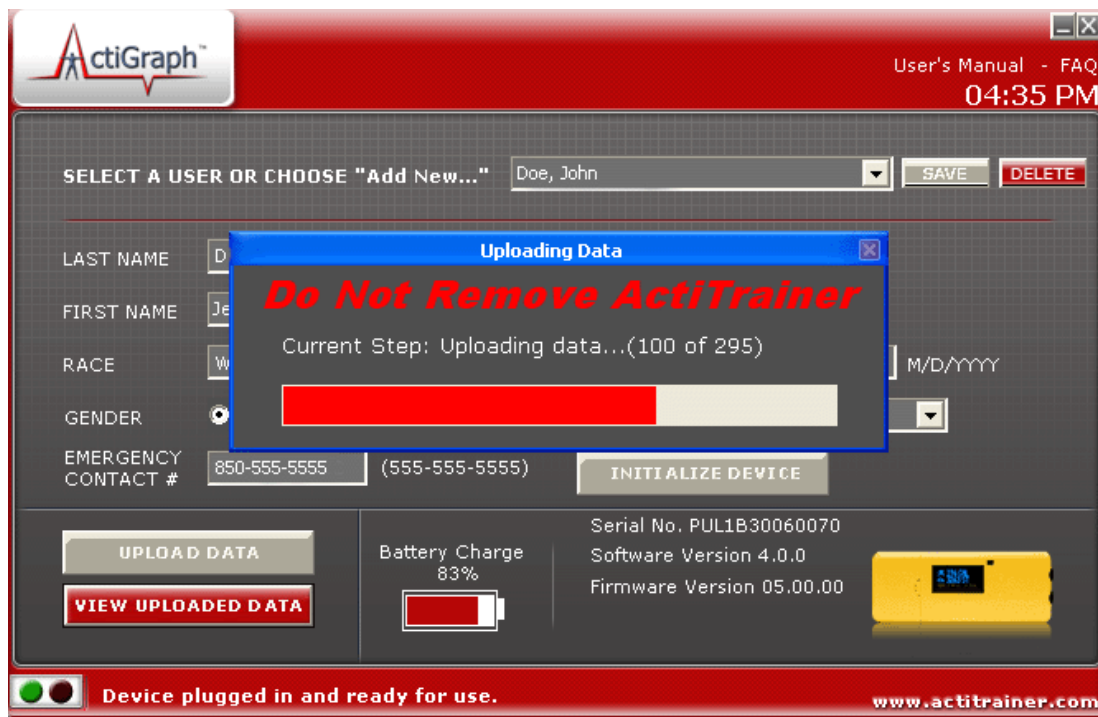


Figure 21 - Uploading to Virtual Trainer from the ActiTrainer Client Software

*****NOTE*****

The ActiTrainer can be worn for extended periods before uploading to the Virtual Trainer. However, it is recommended that data be uploaded every 24-48 hours in order to maintain a steady charge on the device and minimize the upload time. Large data sets (1 week or longer) can take quite a long time to upload depending on internet traffic. After data has been uploaded to the Virtual Trainer server, the ActiTrainer software deletes the logged data from the device.

After uploading your data to the Virtual Trainer, the ActiTrainer can be removed from the USB port and put to use again without initialization. Note, however, that if the user's weight has changed since the last upload, the "Weight" parameter in the ActiTrainer client can be changed by typing in the new weight. Saving this change will update the weight stored on the ActiTrainer and update the user's weight in the Virtual Trainer (see "Updating User Specific Data" below).

Updating User Specific Data

User data can be updated through the ActiTrainer client application at anytime. The ActiTrainer information will be synchronized with the application when the device is plugged in or immediately if the device is already connected to the PC. **It is especially important to use this feature to update changes in weight.** Because the ActiTrainer calculates caloric burn based on the user's weight, this parameter must be updated before or after each upload. This ensures that the calculations seen on the ActiTrainer display are accurate. All weight changes are logged, thus making it easier to keep track of weight gain or loss progress using the Progress Tracker (discussed later).

Logging In

Data uploaded to the Virtual Trainer is stored and can be viewed at anytime by logging into the web-based tool using the same username and password that was created for the account initially. The Log In link can be found at the top of the ActiTrainer homepage (<http://www.actitrainer.com>). If you have a valid subscription, you will immediately be directed to the Virtual Trainer summary page (see "Virtual Trainer Summary Page" below).

Subscriptions

The Virtual Trainer is a subscription based service. All users are given a free trial beginning when the user first initializes the ActiTrainer. After expiration of the free trial, data will be made available after successful subscription activation. This can be done prior to the trial expiration by browsing to the "My Account" portion of the website and choosing "get subscription".

Virtual Trainer Homepage

Virtual Trainer Week View

By default, the Week view is displayed when logging into the Virtual Trainer. This view contains a summary of all data collected by the ActiTrainer for the past week. Red bars indicate that a workout was logged on that particular day. Gold bars indicate normal lifestyle days with no workouts. Hovering the mouse over the bars gives details about that particular day such as calories burned above BMR, total calories burned, total steps taken and total distance traveled.

Note: The values shown above each bar are total calories burned above the BMR and give a good visual of how active or inactive the user was for that particular day. As expected, days with workouts typically have a higher caloric burn value.

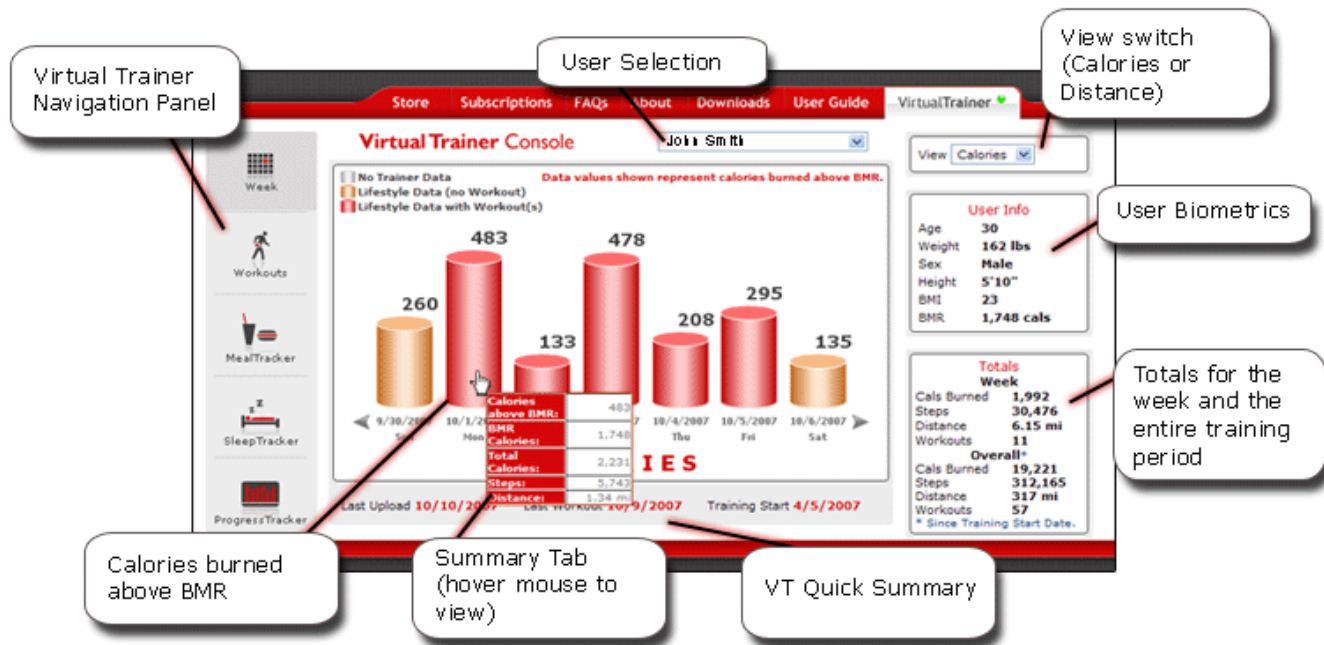


Figure 22 – Virtual Trainer Summary Page

Summary Table

The lower-right-hand corner of the Week view displays a summary table that allows quick reference to overall totals for the week and since the training start date. Total miles for the overall view are rounded to the nearest mile.

Totals Week	
Cals Burned	886
Steps	15,179
Distance	3.73 mi
Workouts	5
Overall*	
Cals Burned	19,221
Steps	312,165
Distance	317 mi
Workouts	57
* Since Training Start Date.	

Figure 24 - Summary Table

Biometric Data

The upper-right-hand corner of the Week view contains the users' biometric data and Virtual Trainer statistics. Hovering over BMI and BMR gives a brief description of what these parameters are. This data is calculated from the information entered into the ActiTrainer client application.

User Info	
Age	30
Weight	162 lbs
Sex	Male
Height	5'10"
BMI	23
BMR	1,748 cal

Figure 24 - Biometric Data

Week Navigation

Clicking the left or right arrows on the bottom of the week view will move the

summary page forward or backward a week per click. To jump to a particular week, hover the mouse over the calendar icon in the upper-right-hand-corner of the Week view. A small calendar will appear. Months can be navigated by clicking the left or right arrows at the top. Once a particular month is selected, navigate to the desired week by clicking any day during that week.

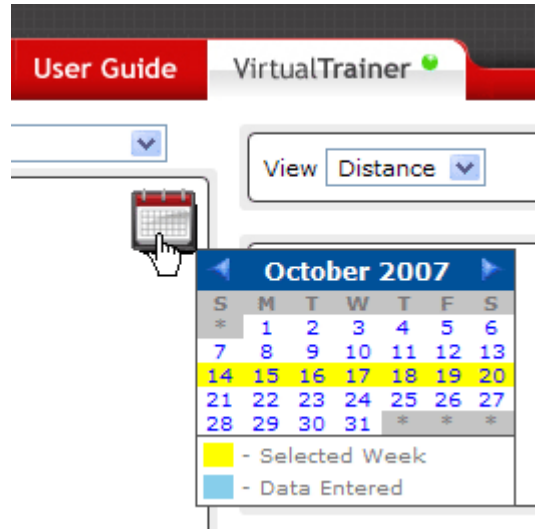


Figure 25 - Calendar Week Navigation

Day View

Clicking on any of the bars in the week view will drill down to the day view summary for that particular day. This view gives an hour-by-hour view of the entire day. It's easy to see periods of high activity. Checking the “distance” and “heart rate” boxes displays the corresponding information. Keep in mind that heart rate data is only displayed if the Polar Wearlink® heart strap was worn (see “[Wearing the Polar Chest Strap](#)”).

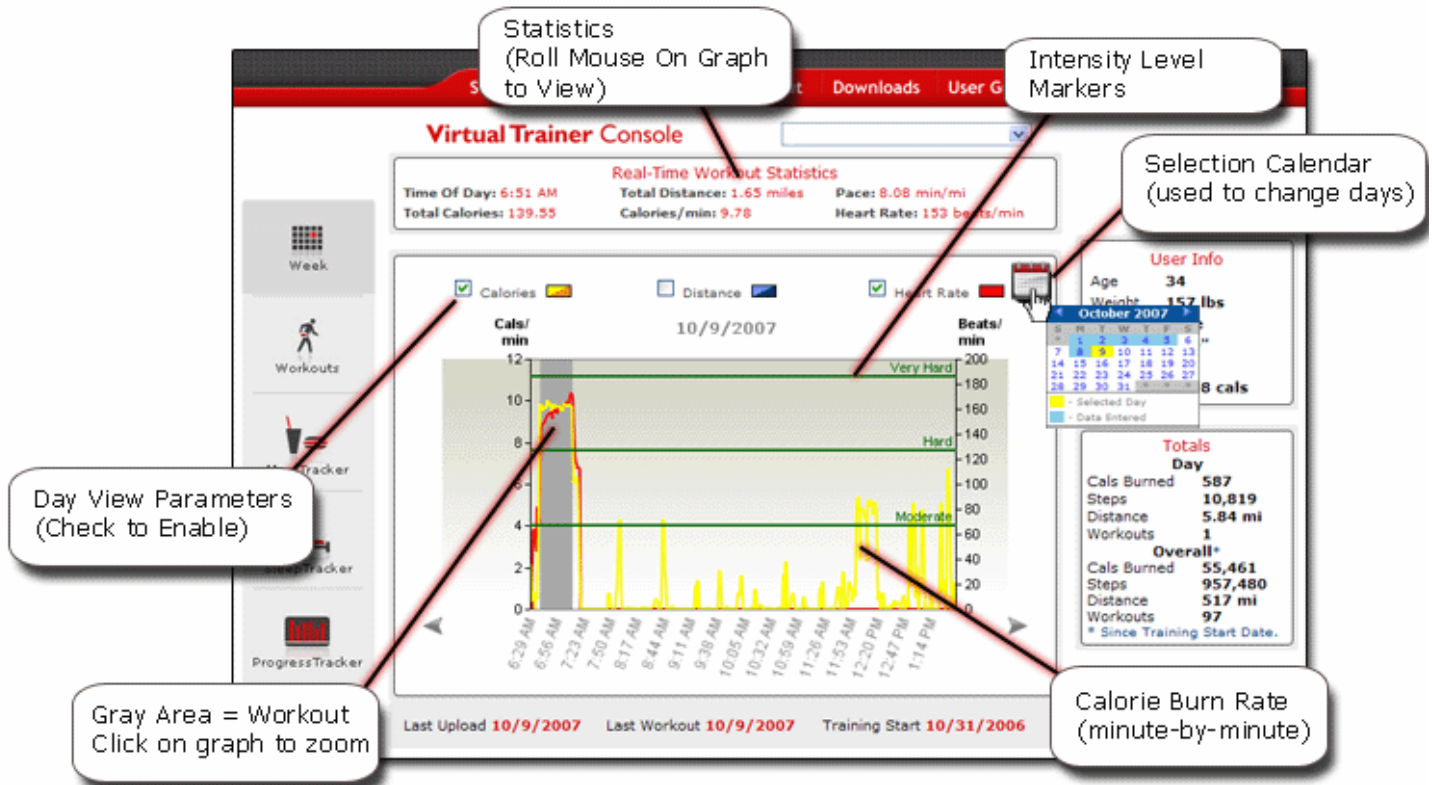


Figure 26 - Virtual Trainer Day View

Day View Details

Details can be viewed at any time of the day by hovering the mouse over a particular location and line. A popup will reveal details about the activity level, heart rate or distance.

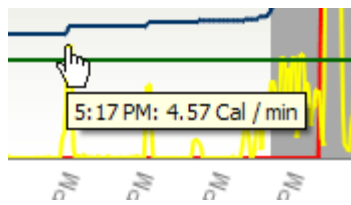


Figure 27 - Details available by hovering

Further details can be seen above the graph while hovering. All parameters are summarized as the mouse moves along any given line. This feature can be used to give an accurate snapshot of activity at any given minute.

Cutlines are overlaid, giving the user a good estimate of activity intensity (Moderate, Hard or Very Hard). These lines are custom for each user and depend on weight. Typically activity greater than moderate will be seen during workout times.

Workout Areas

Note that workouts are highlighted in gray. It's easy to see when a workout was started and how long the workout lasted just by glancing (see figure 23). Details of the workout can be viewed by clicking on any line in the workout area. This will drilldown to the workout view (see "[Workout View](#)" below)

Workout View

The workout view page can be reached by clicking the workout area of a particular day in the Day View or by navigating to the "Workouts" tab at the top of the Virtual Trainer and choosing a particular workout.

Although this view is similar to the day view previously discussed, there are quite a few differences. Note that the Summary Table contains parameters specific to workouts. Additionally, there are two different ways to display workout data: 'Basic Workout Analysis' and 'Advanced Running Analysis'.

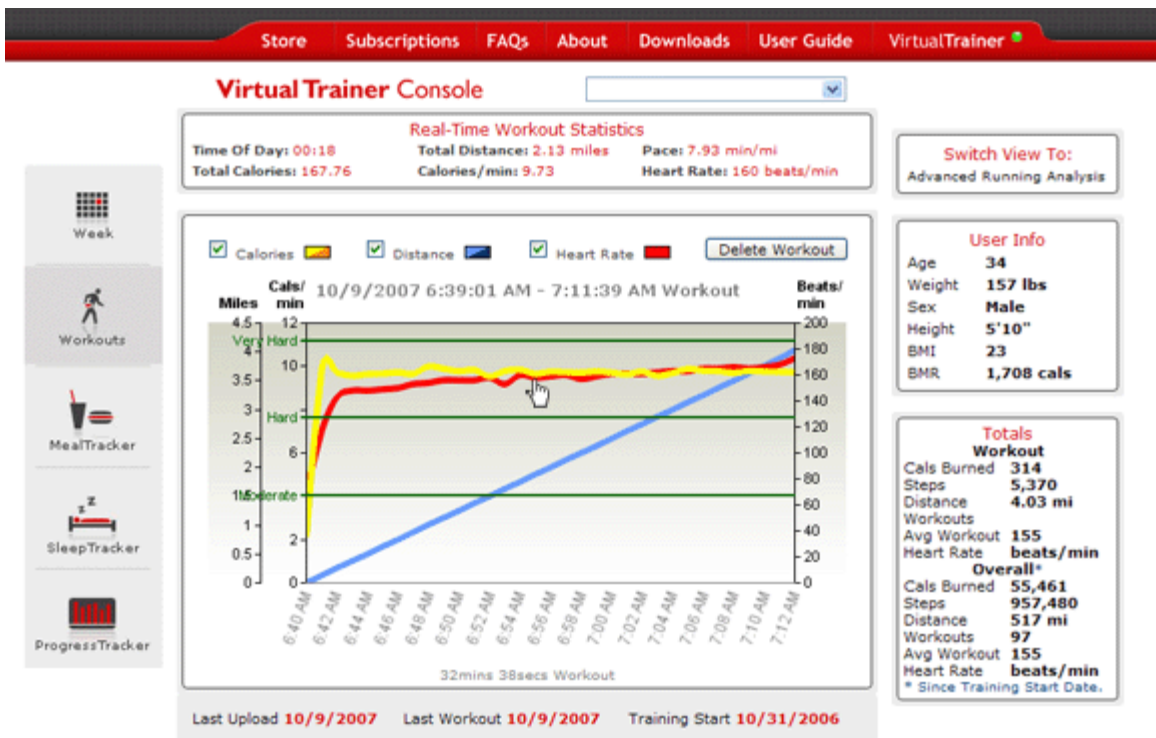


Figure 28 - Workout View

Basic Workout Analysis

Similar to the day view, workout details can be seen by hovering the mouse over any line (as shown in figure 23). Details for that line will appear as a pop up. In addition, a summary of all parameters will appear above the graph.

These details include minutes into workout, calories burned (above BMR) up to that particular time, heart rate and more. Similar to the day view, the calorie view is enabled by default. Heart rate and distance can be added by checking the appropriate boxes above the graph.

Cutlines are used to delimit Moderate, Hard or Very Hard activity levels to give a quick snapshot of the workout intensity. These lines are custom for each person and depend on the user's weight.

The total time of the workout is displayed below the graph in minutes/seconds.

As mentioned in the section "Viewing Past Workouts", a summary of the last workout is available on the ActiTrainer itself. However, the Virtual Trainer provides a detailed view of the entire workout and allows the user to perform a quick analysis of pace, distance, heart rate recovery time and stamina.

Advanced Running Analysis

The Advanced Running Analysis tab provides a detailed look at any given workout from a runner's perspective. The intent of the running analysis view is to provide a Pace vs. Distance view to show a runner how their pace varies throughout the run. Similar to the workout analysis, details of the run can be viewed by hovering the mouse over any particular point in the graph.

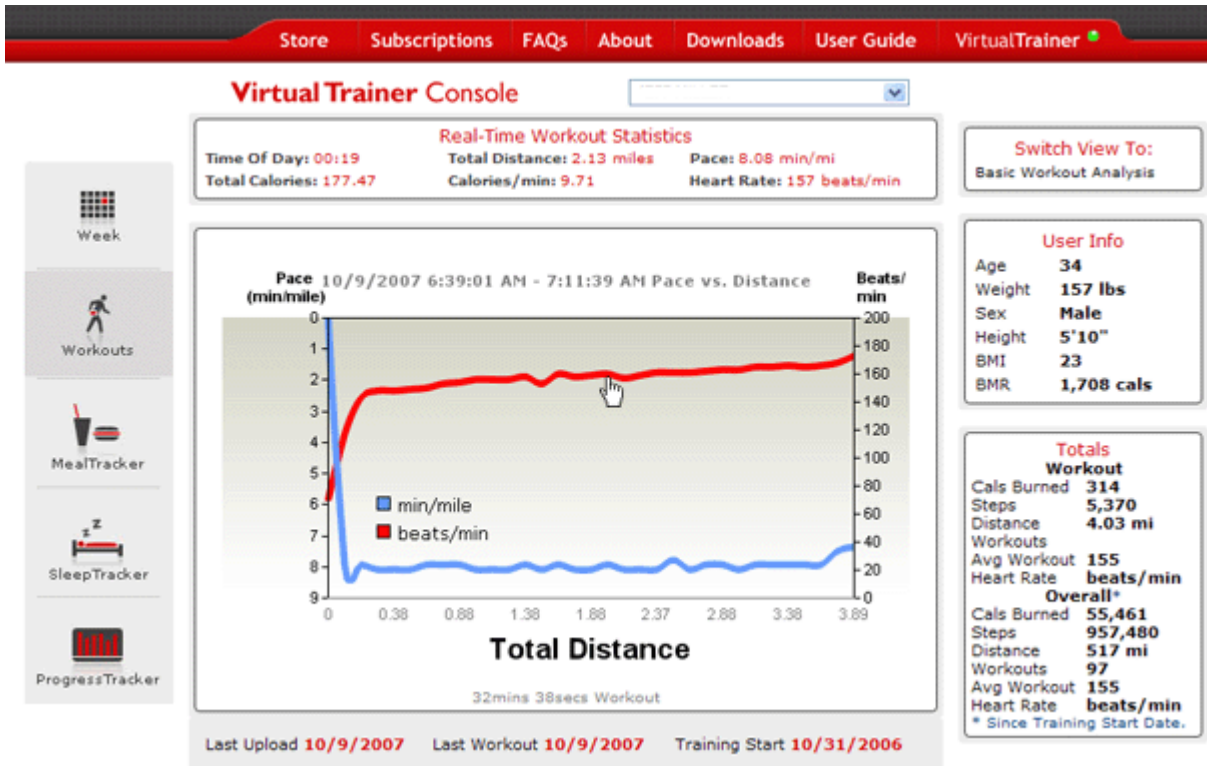


Figure 29 - Advanced Running Analysis, Workout View

Workouts Summary

Clicking the "Workouts" tab gives a summary of all the workouts performed for a given user. Each bar depicts how many calories above the BMR were burned during that workout. This view gives a quick summary of the past

10 workouts (if 10 or more are available). Clicking on any of the bars drills down to the “Workout View” discussed above.



Figure 30 - Workouts Summary View

Meal Tracker

The Virtual Trainer's Meal Tracker is used to keep track of caloric intake on a daily basis. Food can be logged before or after it is eaten and stored as a "favorite" if it is to be used often. In addition, entire meals can be stored as 'favorites' and custom foods can be entered when not found in the Meal Tracker database.

Adding a Meal

To add a meal to the meal tracker:

- 1) Select the day that you would like to add the meal to from the calendar on the left
- 2) Choose "'Add A Meal'" from the top of the page
 - a) You can also choose "Add A Quick Meal" to quickly add a duplicate meal that has been created earlier.
- 3) At this point, there are multiple ways to locate or enter a food item into the Meal Tracker
 - a) Select a category
 - b) Select "Favorite Food" on the left and select a Favorite Food from the list. These include custom foods that have been created manually and favorite foods.
 - c) Search for any food item to see if it is in the database
 - d) Choose "Create a Custom Food" and enter in the custom nutritional information of the food item

New Meal

Title (eg lunch) Meal Time

Meal 1 3:30:00 PM

Search

Favorite Food	<u>Restaurants</u>	<u>Categories</u>	<u>More Categories</u>
	Burger King Wendy's McDonald's Taco Bell Pizza Hut Papa John's Little Ceasar's Domino's	Baby Foods Baked Products Beef Products Beverages Breakfast Cereals Cereal Grains and Pasta Dairy and Egg Products Fast Foods Fats and Oils Finfish and Shellfish Products Fruits and Fruit Juices Lamb, Veal, and Game Products	Legumes and Legume Products Meals, Entrees, and Sidedishes Nut and Seed Products Pork Products Poultry Products Sausages and Luncheon Meats Soups, Sauces, and Gravies Spices and Herbs Snacks Sweets Vegetables and Vegetable Products

Can't find your food in our list?
Create a Custom Food

Calories:	Burned	* Consumed	Net
Today	1084	0	-1084
Yesterday	1719	0	-1719
This Week	4523	0	-4523

*Note: Meals that occur in the future (your local time) will not appear in the summary.

Legend	
<input type="checkbox"/>	Expand Row
<input type="checkbox"/>	Collapse Row
<input type="checkbox"/>	Edit Meal
<input type="checkbox"/>	Delete Meal
<input type="checkbox"/>	(QM checkbox) Add to Quick Meal List

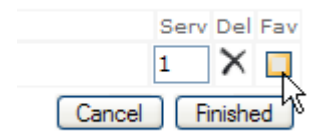
Figure 31 - Adding A Meal

Options 3a) through 3c) result in a dropdown box containing various options to select from. To add an item to the meal, select the food item from the dropdown box, enter the quantity and select “Add”. To see the nutritional information for a particular food item, choose the “info” link to the right of the dropdown. Choosing a ‘Create a Custom Food’ will allow the user to enter the nutritional information for any given food item manually.

Once all food items have been entered, a name for the meal may be entered (the default is ‘Meal x’ where ‘x’ increments for each new meal) and the time that the meal was eaten (or will be eaten). Choose “Finished”. This will save the meal to the Virtual Trainer database and add the calories of the meal to the net caloric intake for the day (discussed in the “[ProgressTracker](#)” section).

Favorite Foods

Foods that are used often can be stored as “Favorite Foods” so that they can be found easily when adding to later meals. Saving favorite foods is easy; simply check the “Fav” box next to the food after it has been added to the meal. To recall the food at a later time, choose “Favorite Food” in the categories section. The food item will be available in the dropdown box and can be added.



Custom foods are automatically added to the favorites. For example, a special protein shake that is not found in the MealTracker database can be created using “Add My Food”. Once it is created and

added, the “Fav” box is automatically checked. To add the shake to another meal, simply choose “Favorite Food” in the category section and select the shake from the dropdown list.

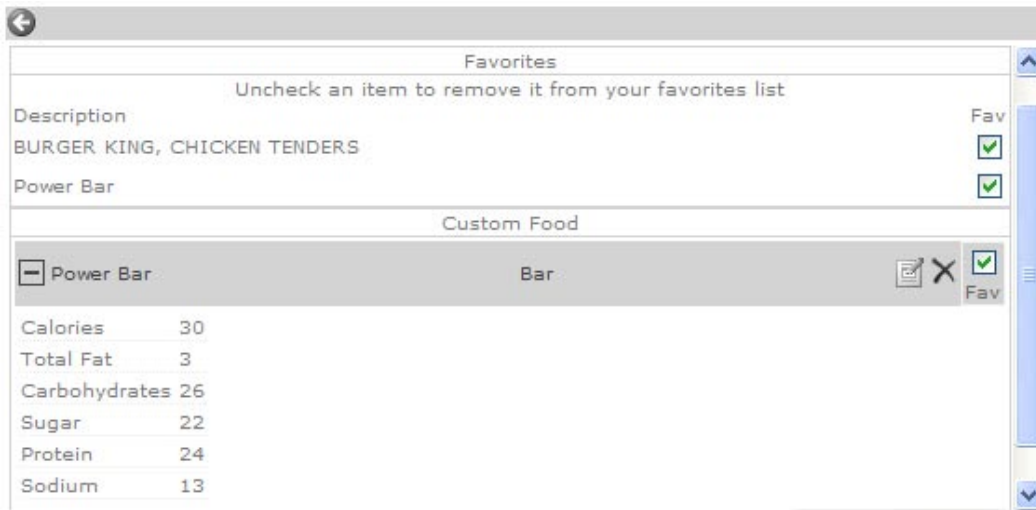


Figure 32 – Favorite Management

Favorites can be managed by choosing “Manage Favorite Foods” on the left. Items can be removed, reviewed or added to the favorites list. The Favorites list contains all foods that have been added to favorites as well as all custom foods manually created by the user. These foods can be edited by clicking the edit button in the custom food header bar corresponding to that food item.

SleepTracker

When worn on the wrist overnight, the ActiTrainer can accurately monitor sleep efficiency. The Virtual Trainer's SleepTracker tool provides feedback of sleep latency, sleep efficiency, time asleep and number of awakenings.

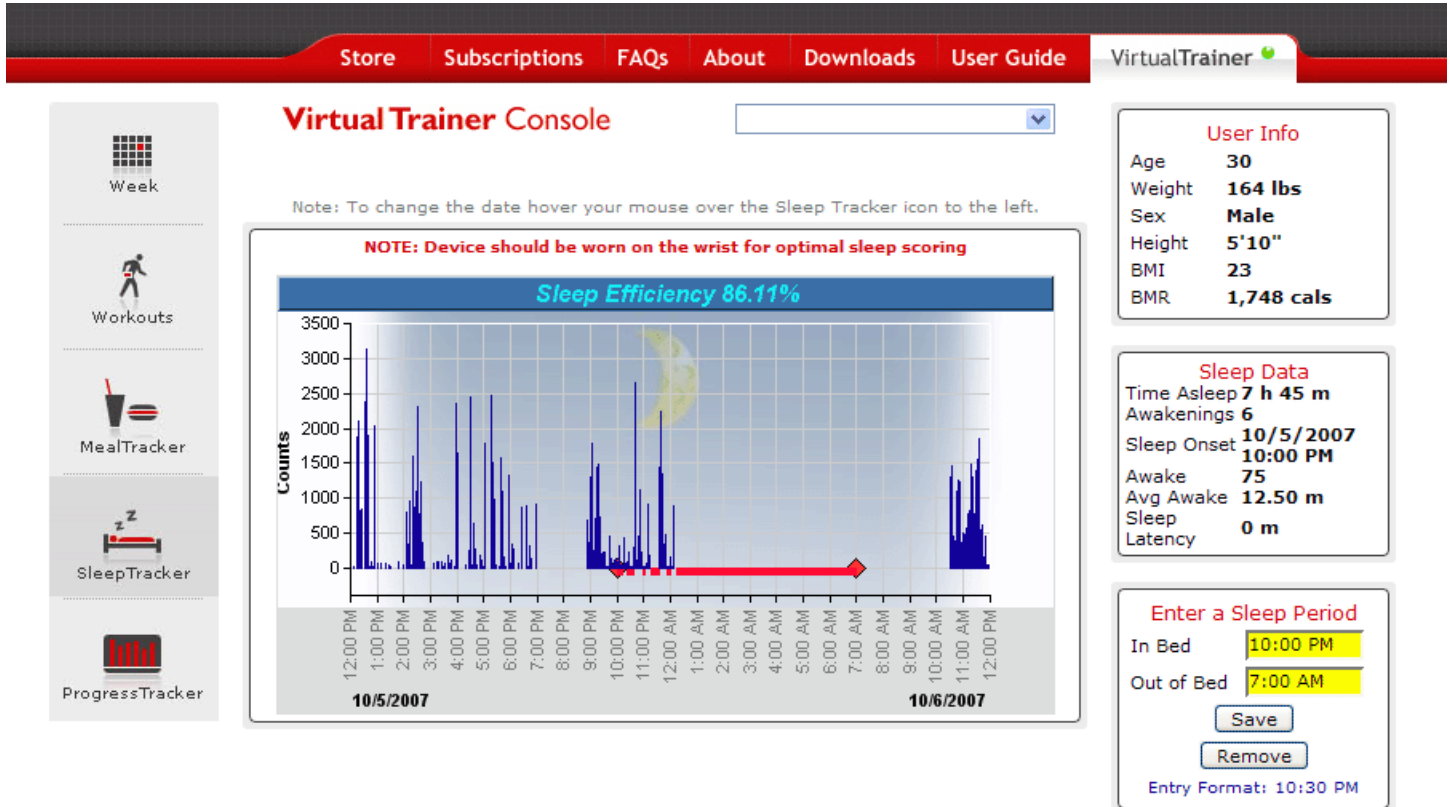


Figure 33 – Virtual Trainer SleepTracker

Entering Sleep Times

There is no special process for collecting sleep data. Simply wear the ActiTrainer on the wrist while sleeping and upload data as normal. Once data has been collected for a particular sleep event, it can be seen by clicking the "SleepTracker" tab in the Virtual Trainer console and selecting the day on which the sleep event occurred. **By default, a sleep analysis is not performed.** To analyze a sleep event, enter the "Time in Bed" and "Time Out of Bed" values as shown in Figure 27 and click "Store times and refresh". This will enable the sleep analysis for the chosen time and provide feedback for the various sleep parameters

Once sleep times are entered, the SleepTracker displays a red line across the graph indicating where the sleep analysis calculations are performed.

Understanding Sleep Data

- **Time Asleep** - Estimated hours and minutes spent during the sleep time
- **Minutes Awake** – Estimated minutes awake during the sleep time
- **Number of Awakenings** – Estimated number of times the user woke up during the sleep time
- **Average Time of Awakenings** – Average time awake for each awakening
- **Sleep Onset** – Time at which the SleepTracker estimates the subject fell asleep
- **Sleep Latency** – Estimated interval of time between "settling in" to go to sleep and the onset of sleep.

Changing Sleep Times

Sleep times can be changed by simply modifying the “Time In Bed” and “Time Out of Bed” variables and clicking the “Store times and refresh” button. This will store the new times and update the calculations.

Comparing Multiple Sleep Days

Coming Soon!

ProgressTracker

The progress tracker gives a quick summary of activity, nutrition and net calories while providing some health goal tracking features to help improve overall fitness. Currently, more goal tracking features are in development (nutrition, sleep and training) and will be implemented shortly.

Summary Page

The Progress Tracker Summary Page provides the user with a high level overview of their nutrition and activity. This feature gives users a snapshot of what can be done to improve activity or eat better.

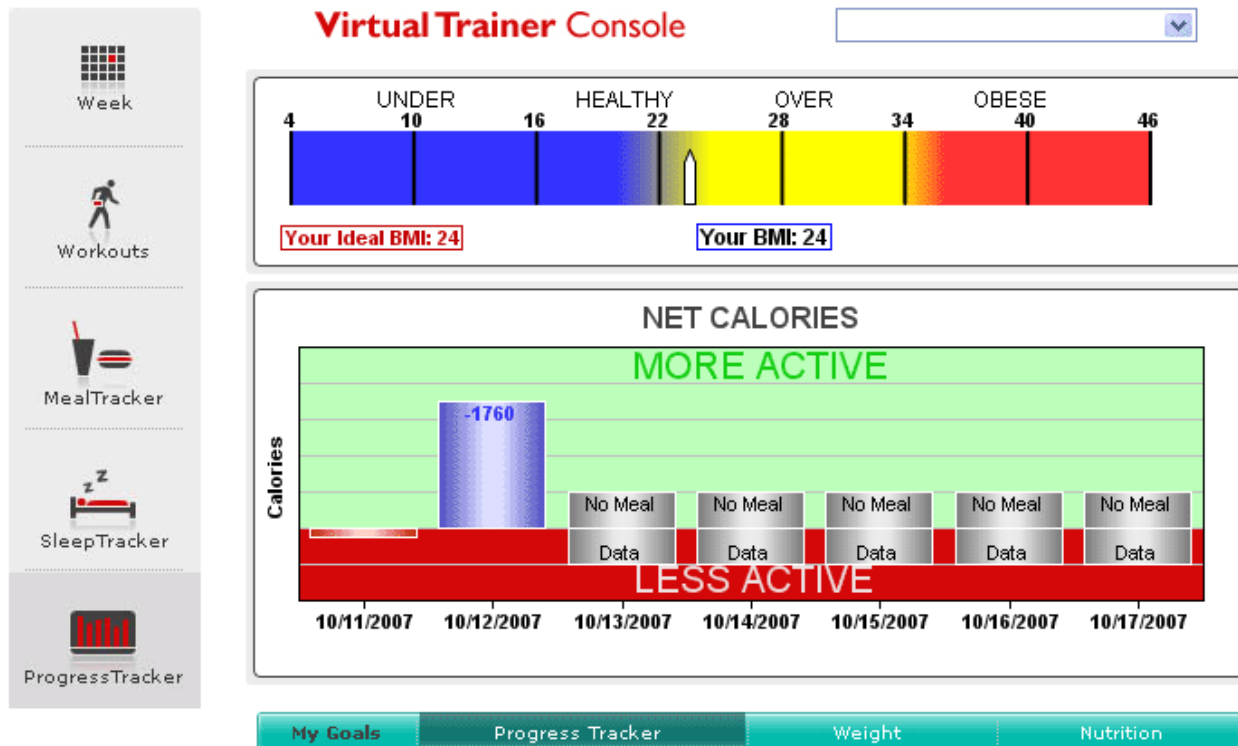


Figure 34 - Progress Tracker Summary Page

The chart at the top indicates where your Body Mass Index falls in the health range and can be used to gauge the progress of your weight loss or gain goals.

Net Calories Consumed gives a summary of how many calories have been consumed versus how many calories have been burned. This data is collected from the meal tracker (see above) on a daily basis. The meal tracker data must be kept up-to-date in order to see a proper summary page in the Progress Tracker.

Weight Goal Tracker

The Virtual Trainer’s Weight Goal Tracker allows you to set a weight loss (or gain) goal and stick to it! Simply enter your weight goal and date and the Weight Tracker does the rest. After saving your goal, a graph depicting your progress is displayed. Weight can be updated daily through the weight tracker by clicking “update” beneath the weight and entering an updated weight.



Figure 35 - Weight Tracker

The display tracks your current weight as well as your target weight. The current weight is compared to the target weight on any given day. The result can be seen graphically. Note also that the deviation from the target zone is written above the graph for immediate feedback.

Appendix A - Specifications

Dimensions

Width: 3.37 in = 8.56 cm

Height: 1.5 in = 3.81 cm

Thickness: 0.6 in = 1.52 cm

Weight

1.7 oz = 0.10625 lbs = 0.048 kg

Battery

Type: 400mAh Lithium Ion Rechargeable

Life: Approx 7 days under normal use

Recharge Time: 2.5 hours

Memory

1 MByte serial flash, non-volatile

Capacity: Approx. 64 days of data

EMI



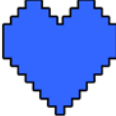





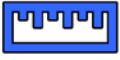










FCC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Industry Canada

ICES-003

Appendix B – ActiTrainer Icon Summary

	STEPS		BATTERY DEAD
	BPM/PEAK BPM/AVG BPM (HEART RATE)		BATTERY EMPTY
	PACE/MPH		BATTERY 1/6
	CALORIES/INTENSITY		BATTERY 1/3
	MILES (DISTANCE)		BATTERY 1/2
	HEART RATE ACTIVE		BATTERY 2/3
	STEP COUNTER ACTIVE		BATTERY 5/6
	CALORIE COUNTER ACTIVE		BATTERY FULL
	HALT MODE ACTIVE MAY BE DEACTIVATED BY INITIALIZING DEVICE		
	HALT MODE ACTIVE WITH DATA RECORDED MAY BE DEACTIVATED BY DOWNLOADING DEVICE		
			

Appendix C – ActiTrainer Menu Outline

Lifestyle

L.Style On (Select to toggle on/ off)

Selections

BPM

Avg BPM

Peak BPM

Calories

Steps

Intensity

Distance

Mi Per Hr

Pace (in minutes per mile)

Back

Exit

Reset (to reset counters only – no data is lost)

Are you sure?

Yes

No

Back

Workout

Start Wrkout

Hip

Arm

StopWrkt?

Yes

No

Menu (shows Workout Selections Menu)

Selections

BPM

Avg BPM
Peak BPM
Calories
Steps
Intensity
Distance
Mi Per Hr
Pace (in minutes per mile)
Back
Exit

History

Avg BPM
Peak BPM
Calories
Steps
Distance
Timer
Back
Exit
Back

Dev Info

Rev Info (Revision Info)

FW Rev (Firmware Revision)

##.##.##

Board Rev _ (Letter is Board revision)

(Serial Number)

ICE

###-###-#### (In Case of Emergency Phone #)

Exit

Exit

Notes:

When the ActiTrainer is plugged into a USB port, shows blinking USB and battery symbol. The battery symbol will stop blinking when the unit is fully charged.

When turning Lifestyle mode off (disabling the display), the ActiGraph logo will appear for 10 seconds. After this time, the display will go blank until another button is pressed.

The ActiTrainer is shipped in a halted state. This is indicated by a HALT sign in the middle of the display. This can be seen by pressing any button. This symbol also appears when the battery is discharged completely, when the unit resets or when the memory is full. At this point, the unit **MUST** be reinitialized. If a “D” appears under the HALT symbol, data is present on the unit and can be uploaded to the Virtual Trainer prior to reinitialization.