# Switch<sup>®</sup> Series

# **User Manual**





MAGELLAN

# Safety

It is strongly recommended to consult a doctor before starting any exercise program. If you have a pacemaker or other implemented device, consult your doctor before using the heart rate monitor.

The Switch<sup>™</sup> GPS watch is a fitness device designed to record and track certain fitness activities such as running, biking or swimming. When using the Switch GPS watch, these safety rules must be followed to prevent accidents that can result in injury or death to yourself or others. The device, its accessories including the heart rate monitor are not medical devices and are for recreational use only. The heart rate reading is for reference only and the device and its accessories cannot be used as a substitute for obtaining measurements that require medical precision.

The Global Positioning System (GPS) is operated by the U.S. Government, which is solely responsible for the accuracy and maintenance of the GPS network. The accuracy of position fixes can be affected by the periodic adjustments to GPS satellites made by the U.S. government and is subject to change in accordance with the Department of Defence civil GPS user policy and the Federal Radio navigation Plan. Accuracy can also be affected by poor satellite geometry and obstructions, like buildings and large trees. Use only Magellan cables and accessories; the use of non-Magellan cables and accessories (other than compatible ANT+ wireless accessories) may severely degrade performance or damage the device, and will void the warranty.

Internal lithium-ion battery: Never store the device or the battery in a high temperature location. Do not disassemble, puncture or incinerate the battery. Do not attempt to remove the battery. Please contact Magellan Technical Center for issues related to the battery.

Do not use the device outside of the following temperature range: -4°F to 131°F (-20°C to 55°C).

The information provided in this document is subject to change without notice. Improvements and enhancements to the product may occur without any formal notification. Check the Magellan website (active.magellanGPS.com/start) for product updates and additional information.



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### **Switch Fundamentals**

#### Switch

The Magellan Switch is a crossover GPS watch for runners looking to track all of their outdoor activities. You choose the sport and Switch will guide you to peak performance with precise GPS satellite data by recording distance, speed/pace, and elevation. It's sleek, yet durable design with 50 metres waterresistance will keep up in any condition.

#### Switch Up

The Magellan Switch Up contains all the features of Switch and includes barometric sensors to improve the accuracy of elevation measurements, thermometer to monitor and display outside temperature, as well as vibrating alerts to notify the user of status changes.



Distance 7.90 k Time 56:23 Pace 7:11 k

- Comfortable crossover GPS watch for multisport activities
- 50 meter water-resistance for swimming and water sports
- 1.26" high-resolution display
- Customisable to any sport with 9 activity profiles
- Comfortable crossover GPS watch for multisport activities
- 50 meter water-resistance for swimming and water sports
- 1.26" high-resolution display
- Customisable to any sport with 9 activity profiles
- Vibrating Alerts
- Barometric altimeter for precise elevation data
- Thermometer to monitor and capture outside temperature

#### **Switch Buttons**

Switch has five buttons, all with multiple functions. The chart below describes the different functions and how they are accessed.

For ease of explanation this manual will refer to the buttons by the names displayed here.



Button	Press		Press and Hold	
Up		Page back through data screens and up on menus.	0	Displays Quick Info screen.
Down	▼	Page forward through data screens and down on menus.		Access Main Menu.
Power	٢	Turn backlight on and off.	Ф	Power on and off.
Back	Ø	Go back or cancel a selection.		Save your current location, advance to
	Ģ	Start a new lap (activity mode).		next session (multisport).
Enter	$\square$	Navigate forward or confirm a selection.	Ð	Reset your current activity.
	۲	Start and stop an activity (activity mode).		

#### Power

#### **Turning Switch On**

- 1. Press and hold **POWER** button for 2-3 seconds.
- 2. The first time you power Switch on follow the on-screen instructions to configure the settings and enter your personal information.

#### **Turning Switch Off**

1. Press and hold **POWER** button for 2-3 seconds.

#### Turning the Backlight On / Off

Note that the backlight causes a severe drain on the battery and will greatly shorten the battery life for each charge. Switch will automatically turn the backlight off at an interval set in "Device Settings". (See Settings.)

- 1. Press the **POWER** button. The backlight will come on.
- The backlight will go off automatically unless the backlight is set to remain on. If so, press the **POWER** button to turn the backlight off.

#### Battery

Switch has an internal lithium-ion battery that is rechargeable using the Switch charging/ data cable. Under normal training activities with the backlight off, the battery should last up to 8 hours. An optional Battery Extender Pack is available as an accessory for Switch which can give up to 16 hours of battery life.

Use of the backlight can help in making the display more readable but is a drain on the internal battery. The factory default for the backlight is auto-off after 15 seconds but can be changed in "Settings > Device Settings > Backlight". It is recommended that the backlight not be set to be always on.

#### Charging the Battery

1. Place the charging/data cradle on the back as shown.



Note: The above image shows the battery charging/data cable being attached to Switch without the Multisport Mount. If you are using the Multisport Mount, remove Switch from the mount before attaching the charging/data cable.

- 2. Connect the USB connector to a USB port on a personal computer or AC power adapter.
- 3. The charging screen is displayed.
- 4. Charge Switch completely to 100%.

#### **Multisport Mounting**

Disregard this section if you don't have the Mulitisport Mount. The Multisport Mount is included with Switch Up and available as an optional accessory for Switch.

The Multisport Mount provides a quick release system with integrated wrist and bike mounts for seamless transitions between sports.

#### Wrist Mount

- 1. Attach the wrist mount around your wrist.
- 2. Snap Switch into the mount by putting the bottom of Switch in first and then pushing down on the top.



#### **Bike Mount**

1. Attach the bike mount to your handlebars or stem using the provided rubber rings.



Handlebar

Handlebar Stem

2. Snap Switch into the mount by putting the bottom of Switch in first and then pushing down on the top.

#### GPS

Before beginning an activity be sure that your Switch is receiving GPS signals from the GPS satellite constellation.

After Switch is turned on it begins searching for signals from GPS satellites. After it acquires enough information to compute your location, Switch will inform you that GPS is found and ready to record your activity.

#### **Checking GPS Status**

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight **Settings**.
- 3. Press ENTER.
- 4. Use the **DOWN** button to highlight "**GPS Settings**". Press **ENTER**.
- 5. The last three lines of "**GPS Settings**" provide information on the GPS Status, the estimated accuracy and the number of satellites that have been found.
- To exit, press and hold the **DOWN** button. Select "Activity" or "Navigation" mode from the popup menu and press ENTER.

#### Checking GPS Status (Shortcut)

- 1. From the Activity screen, press and hold the **UP** button.
- 2. The Quick Info screen is displayed. The first item on the fourth line graphically displays the GPS Status.
  - $\checkmark$  Searching for satellites
  - Satellites found, computing location

#### Tips on Acquiring Initial GPS Signal

- Go outdoors and get a clear view of the sky.
- Place Switch on a stationary object with the face of the watch facing up.
- Avoid blocking the view of the sky with your body.
- Avoid overhanging trees and tall buildings.
- Place Switch under your swim cap on the back of your head before swimming to avoid signal interference under water.

#### **Caring for Switch**

- Clean the Switch display with a dry, nonabrasive cloth.
- Regularly clean the contacts on the back of Switch with a cotton swab dipped in alcohol.

#### In Case of Problems

If you are experiencing problems with your Switch, visit the Magellan Active web site at active.magellangps.com/start and check the Fitness Knowledgebase for information that may solve your problem.

You can also try resetting the device. This will fix most problems.

Warning: A factory reset will delete all activity data and settings.

#### **Resetting Factory Defaults**

- 1. Press and hold the **ENTER** and **DOWN** buttons at the same time.
- 2. After 5 seconds, a menu will appear.



3. Select "Factory Reset" and Press ENTER.

#### **Contacting Magellan**

If you are still experiencing problems after checking the Knowledgebase and a preforming a Factory Reset you can contact Magellan for Customer Support. Go to active.magellangps.com/start and click on the Customer Support link for details on contacting Magellan Customer Support.

# **Activity Mode**

No matter what your activity is, the Activity screens provide you with the information you require to optimise your training workout. The Activity screens can be customised for each Activity Profile and are at your fingertip during your training session. See the *Activity Profile* chapter for details on Customising the screens.



The data displayed as well as the number of available screens can be customised for each activity type.



#### **Button Functions in Activity Mode**

Button	Button Press		Press and Hold		
Up		Page back through Activity screens.	Ø	Display time and status information.	
Down	▼	Page forward through data screens.	:=	Access Main Menu.	
Power	Ċ	Turn backlight on and off.	Ф	Power off.	
Back	Ģ	Start a new lap (activity mode).		Save your current location, advance to next session (multisport).	
Enter	۲	Start and stop an activity.	Ð	Reset your current activity.	

#### **Recording an Activity**

Before the start of an activity, select the Activity Profile that matches the activity type and desired settings of the activity you are performing. Activity Profiles are fully customisable and include: Activity Types (run, bike, swim, other), data screens, alerts, and many more customisable features.

#### Setting the Activity Profile

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "**Settings**".
- 3. Press ENTER.
- Use the **DOWN** button to highlight *"Activity Profiles"*
- 5. The first line displays the currently selected activity. If it needs to be changed, press **ENTER**.
- 6. Use the **UP** and **DOWN** buttons to highlight the activity type and press **ENTER**.

#### **Preset Activity Profiles**

lcon	Name	Full Name
Δ	MULTI	Activity made up of multiple activities.
Я́	ROAD	Running - Road
Я́	MRTHN	Running - Marathon
Я́	TRAIL	Running - Trail
ð6	ROAD	Bicycling - Road
ð6	MNTN	Bicycling - Mountain
ð6	CRIT	Bicycling - Criterium
$\approx$	OPEN	Swimming
*	WALK	Walking
*	HIKE	Hiking

#### Setting the Activity Profile (Shortcut)

1. Press and hold the **UP** and **DOWN** buttons.

2. Use the **UP** and **DOWN** buttons to highlight the Activity Profile and press **ENTER**.

#### Starting the Activity Recording

With the appropriate Activity Profile selected, start recording an activity. If you are already recording an activity, you will need to reset the recording before continuing. (See *Saving the Activity Recording*.)

- 1. While viewing an Activity screen press **ENTER**.
- 2. The New Activity popup is displayed and Switch will begin recording the activity.



3. To Stop recording, press **ENTER**.



- 4. Press **ENTER** again to resume.
- 5. The recording can pause automatically when there is no change in location (i.e.,

stopped). Auto Pause can be turned on or off in the Activity Settings.

**Note:** By default, Auto Pause is active only for biking activities.

#### Saving the Activity Recording

The activity recording can be saved to the history which can then be uploaded to various fitness sites.

1. Press **ENTER** to stop the recording.



2. Press and hold **ENTER**. The Reset popup is displayed.

**Note:** If the recording is not stopped or if there is no active recording, the "Action Not Permitted" popup is displayed.

3. Select "Save & Reset" to store the activity to History or select "Delete & Reset" to erase the recording.

Note: Press the BACK button to cancel.

#### **Start Reminder**

The Start Reminder is displayed whenever you are moving and there is no active recording or if you have stopped recording. This alert is a reminder in case you forgot to start recording. Press **BACK** (Cancel) to close the popup or **ENTER** to begin or resume recording. To turn the Start Reminder on or off go to: Settings > Device Settings > Recording > Smart Reminder.

#### **Multisport Activity**

Multisport (MULTI) is a special activity profile that combines multiple Activity Profiles into multisport event. You can record multiple activities into one recording.

The Activity Profiles can be selected from the Activity Profiles function. (See *Activity Profiles* for details on setting up the Multisport Activity.)

#### Using a Multisport Profile

- 1. Set the activity profile to MULTI. (See *Activity Profiles*.)
- 2. From the Activity screen press **ENTER** to begin the Multisport Activity.

**Note:** MULTI is a collection of Activity Profiles. The data screens, alerts, Activity Pacer, and other settings, are set within the respective Activity Profiles.

3. Begin your activity as normal. To step to the next activity or transition, press and hold the **BACK** button. A popup will be displayed with the profile name, time and distance.

**Note:** waypoints cannot be marked while in Multisport.

 When finished, press ENTER to stop recording. Press and hold ENTER to save (or delete) the recording.

#### All activities begin on Lap 1. The Switch can automatically step to a new lap based upon distance or time or a new lap can be started manually by pressing the **BACK** button.

Laps

**Auto**: The criteria for when the auto lap is triggered is part of the activity profile that is currently being used.

As an example, when using a biking profile the auto lap could be set for every 15 minutes and a running profile could be set for every kilometre.

**Manual:** A new lap can be manually triggered by pressing the **BACK** while a session is active.

You can manual trigger a new lap even while automatic lap triggering is set. For example if you are using a running activity with auto lap set for every kilometre, you can manually trigger a new lap with the **BACK** button and the automatic trigger will set the next lap at a kilometre from that point.

# **Activity Profiles**

The Activity Profile function of Switch provides the means by which you can select the type of activity you are performing and customise the data screens, display preferences, training alerts and Activity Pacer for each Activity Profile.

#### **Activity Profile**

#### Selecting the Active Activity Profile

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "**Settings**".
- 3. Press ENTER.
- 4. Use the **DOWN** button to highlight "Activity Profiles".
- 5. The first line displays the currently selected activity. If it needs to be changed, press **ENTER**.
- Use the UP and DOWN buttons to highlight the Activity Profile and press ENTER.

#### Preset Activity Profiles

lcon	Name	Full Name
Δ	MULTI	Activity made up of multiple (2 - 5) activities.
З <sup>к</sup>	ROAD	Running - Road
З <sup>к</sup>	MRTHN	Running - Marathon
З <sup>к</sup>	TRAIL	Running - Trail
ð6	ROAD	Bicycling - Road
ð6	MNTN	Bicycling - Mountain
ð6	CRIT	Bicycling - Criterium
$\approx$	OPEN	Swimming
*	WALK	Walking
*	HIKE	Hiking

#### **Customising the Activity Profile**

# Selecting the Activity Profile to Customise

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "Settings". Press ENTER.
- 3. Use the **DOWN** button to highlight "Activity Profiles".
- 4. Use the **DOWN** button to highlight "**All Profiles**". Press **ENTER**.
- 5. Use the **DOWN** button to highlight the profile you want to customise. Press **ENTER**.

#### Displaying or Hiding an Activity Profile

- Follow these steps in "Selection the Activity Profile to Customise" to hide or display an Activity Profile from the Activity Profile pop-up menu. You can access pop-up menu by holding the UP & DOWN buttons at the same time).
- 2. Highlight the "**Show**" field and press **ENTER**.
- 3. Press **ENTER** to change the state of showing the profile.

When checked the profile will be displayed in the list of available Activities Profiles. When unchecked, the Activity Profile will be hidden.

#### Changing the Activity Profile Name

- Follow the steps in "Selection the Activity Profile to Customise" to hide or display an Activity Profile from the Activity Profile pop-up menu. You can access popup menu by holding the UP & DOWN buttons at the same time).
- 2. Highlight the "Name" field and press ENTER.
- 3. Press **UP** or **DOWN** to change the character. Press **ENTER** to accept the character and move to the next character or use **BACK** to move to the previous character.

**Note**: Activity Profile names can only be five characters in length.

4. Pressing **ENTER** on the last character accepts the name change.

#### Changing the Activity Type

- Follow the steps in "Selection the Activity Profile to Customise" to hide or display an Activity Profile from the Activity Profile pop-up menu. You can access popup menu by holding the UP & DOWN buttons at the same time).
- 2. Highlight the "**Type**" field and press **ENTER**.
- 3. Highlight the desired type (Run, Bike, Swim or Other) and press **ENTER**.

#### Adding a Data Screen

- Follow the steps in "Selection the Activity Profile to Customise" to hide or display an Activity Profile from the Activity Profile pop-up menu. You can access popup menu by holding the UP & DOWN buttons at the same time).
- 2. Highlight **Data Screens** and press **ENTER**.
- 3. Highlight "Add Screen" and press ENTER.

**Note:** The maximum number of data screens that can be in any Activity Profile is ten.

- Press UP or DOWN buttons to select the number of data items to be displayed (1 6). Press ENTER.
- 5. Press **UP** or **DOWN** buttons to select a field and press **ENTER**.
- 6. Select the **Category** and then the data type. Press **ENTER**.

A complete chart of categories and data types are presented in Addendum B.

#### Customising an Data Screen

- Follow the steps in "Selection the Activity Profile to Customise" to hide or display an Activity Profile from the Activity Profile pop-up menu. You can access popup menu by holding the UP & DOWN buttons at the same time).
- 2. Highlight "**Data Screens**" and press **ENTER**.
- 3. Highlight Screen # and press ENTER.
- 4. Highlight "Edit" and press ENTER.
- Press UP or DOWN buttons to select the number of data items to be displayed (1 6). Press ENTER.
- 6. Press **UP** or **DOWN** buttons to select a field and press **ENTER**.
- 7. Select the **Category** and then the data type. Press **ENTER**.

A complete chart of categories and data types are presented in Addendum B.

#### Deleting a Data Screen

- Follow the steps in "Selection the Activity Profile to Customise" to hide or display an Activity Profile from the Activity Profile pop-up menu. You can access popup menu by holding the UP & DOWN buttons at the same time).
- 2. Highlight "**Data Screens**" and press **ENTER**.
- 3. Highlight Screen # and press ENTER.
- 4. Highlight "Delete" and press ENTER.
- 5. Confirm the deletion by pressing **ENTER** or **CANCEL** to exit without deleting the screen.

#### Setting an Activity Pacer

The Activity Pacer helps complete an activity of a specified goal (distance, time, speed/pace, or all of the above). Once enabled and the goals are set, Switch will present data to help achieve the goal.

- 1. Follow the steps in "Selecting the Activity to Customise" and select the Activity Profile.
- 2. Highlight "Activity Pacer" and press ENTER.
- 3. Enable the Activity Pacer by pressing **ENTER** with the "**Enable**" field highlighted. (When checked, the Activity Pacer is enabled, unchecked and it's turned off.)
- 4. Highlight the "**Goal**" field and press **ENTER**.

Press **UP** or **DOWN** buttons to highlight the desired goal and press **ENTER**.

5. Set the Dist, Time, and/or Pace goals by highlighting the field and press **ENTER**.

Press **UP** and **DOWN** buttons to set the digit and press **ENTER** to step to the next digit.

**Note**: Only those fields that apply to the goal set in step 4 can be accessed.

#### Setting Display Preferences

- 1. Follow the steps in "Selecting the Activity to Customise" and select the Activity Profile.
- 2. Highlight "**Display Prefs**" and press **ENTER**.
- To change the default for Speed or Pace, highlight the Spd/Pace field and press ENTER. Select "Speed" or "Pace" and press ENTER.
- 4. Auto Scroll: When enabled, Auto Scroll will cause Switch to automatically step through the data screens.

Enable Auto Scroll by pressing **ENTER** with the "**Auto Scroll**" field highlighted. (When checked, Auto Scroll is enabled, unchecked and it's turned off.)

# *Setting Recording Preferences (Auto Pause)*

Auto Pause causes Switch to automatically pause when it detects no movement and to resume when it begins to move. Common usage is for biking when it is desired that the recording be paused while stopped for a traffic light and resumed when the activity continues.

- 1. Follow the steps in "Selecting the Activity to Customise" and select the Activity Profile.
- 2. Highlight "**Recording Prefs**" and press **ENTER**.
- Enable auto pause by pressing ENTER with the "Auto Pause" field highlighted. (When checked, Auto Pause is enabled, unchecked and it's turned off.)

#### Setting Recording Preferences (Auto Lap)

Auto Lap causes Switch to automatically finish the current lap and start a new one. The automatic lap trigger can be set for a distance, time or location.

- 1. Follow the steps in "Selecting the Activity to Customise" and select the Activity Profile.
- 2. Highlight "**Recording Prefs**" and press **ENTER**.
- 3. Enable Auto Lap by pressing **ENTER** with the "**Auto Lap**" field highlighted. (When checked, Auto Lap is enabled, unchecked and it's turned off.)
- 4. If enabled, highlight the "**Trigger**" field and press **ENTER**. Select the desired lap trigger, distance, time or location.
- Depending upon which trigger point is selected, options will be displayed to define the trigger duration. (For example: if **Distance** is selected, a **Distance** field is displayed. Highlight the field and press **ENTER** and begin entering the desired distance for each lap.)

#### Setting Training Alerts

Training Alerts are tools to alert you when a predefined training criteria has been met. Alerts can be set for calories burned, distance traveled, session time, pace (minimum and/or maximum) is met, heart rate\* (minimum and/ or maximum) is met and cadence\*\* (minimum and/or maximum) is met.

- Follow the steps in "Selecting the Activity to Customise" and select the Activity Profile.
- 2. Highlight "**Training Alerts**" and press **ENTER**.
- 3. Highlight the category for the alert and press **ENTER**.
- 4. Enable the alert by pressing **ENTER** with the "**Enable**" field highlighted. (When checked, the alert is enabled, unchecked and it's turned off.)
- 5. Highlight the additional data field and set the value that you want the alert to be presented.

#### Copy Settings to another Activity Profile

Settings from one profile can be copied to another profile to shorten the time setting profiles that are similar to another.

- 1. Follow the steps in "Selecting the Activity to Customise" and select the Activity Profile.
- 2. Highlight "Copy Settings" and press ENTER.
- 3. Highlight the Activity Profile for the settings to be copied to and press **ENTER**.

#### **Multisport Activity**

#### Setting the Multisport (MULTI) Activities

A multisport activity can be made up of two to five individual Activity Profiles.

**Note**: all settings (data screens, alerts, Activity Pace, etc.) are inherited from each Activity Profile.

- 1. Follow the steps in "Selecting the Activity to Customise" and select the activity **MULTI**.
- 2. Set the activities and the order that they will be performed. Highlight the Activity Profile and press **ENTER**. Select from the options: Insert, Edit, or Remove.

**Insert**: Select the Activity Profile to be inserted above the highlighted Activity Profile.

**Edit**: Select the Activity Profile that will replace the highlighted Activity Profile.

**Remove**: Removes the highlighted Activity Profile from the MULTI activity.

3. To enable a transition between each activity, highlight the "Transition" field and press ENTER. When checked transitions will be added between the Activity Profiles.

# History

Whenever an activity recording is completed the user has the option of deleting the activity or saving it to history. Once an activity recording has been saved it can be viewed or deleted using the History function.

#### Accessing History Menu

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "**History**".
- 3. Press ENTER.



#### **Activity History**

Activity History provides a way to view the details for a saved activity, the details for each lap in the activity, or the means to delete the activity.

#### Viewing Activity History

- 1. Press and hold the **DOWN** button.
- Use the DOWN button to highlight "History". Press ENTER.
- 3. Highlight "Activity History" and press ENTER.
- The top of the menu displays the number of activities that have been saved. To view a saved activity, highlight "View Activities" and press ENTER.
- 5. A list of activities are displayed, sorted by date. Highlight the desired activity and press **ENTER**.

#### **Activity History Screens - View Activity**

The first screen displayed provided the date and time the activity was started. It also displays the icon and name for the type of activity.

View Activity		
<b>2012-06-01</b>		
💮 08:44:26 AM		
💑 ROAD		
View Summary	۲	
View Laps	Þ	
Delete Activity	Þ	

#### Viewing Activity Summary

1. From the View Activity screen, highlight "View Summary" and press ENTER.

#### **Activity History Screens - Activity Summary**

The Activity Summary screen consists of six data screens that summarise the activity. Time, speed, pace, elevation, grade, temperature (Switch Up only),



heart rate, cadence and power summaries can be viewed by using the **UP** and **DOWN** buttons.

#### Viewing Laps

- 1. From the "View Activity" screen, highlight "View Laps" and press ENTER.
- 2. Highlight the lap to be viewed and press **ENTER**.

#### **Activity History Screens - Lap Summary**

The Lap Summary screen consists of six data screens that summarise the details of the lap chosen. Time, speed, pace, elevation, grade, temperature (Switch Up only), heart rate, cadence and power summaries can be viewed by using the **UP** and **DOWN** buttons.

#### **Deleting the Activity**

- 1. From the "View Activity" screen, highlight "Delete Activity" and press ENTER.
- 2. Confirm the deletion by pressing **ENTER** (or **BACK** to cancel).

#### **Deleting Old Activities**

Activities older than one month can be deleted as a group.

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "**History**". Press **ENTER**.
- 3. Highlight "Activity History" and press ENTER.
- 4. Highlight "Delete Old" and press ENTER.
- 5. Confirm the deletion by pressing **ENTER** (or **BACK** to cancel).

#### **Deleting All Activities**

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "**History**". Press **ENTER**.
- 3. Highlight "Activity History" and press ENTER.
- 4. Highlight "Delete All" and press ENTER.
- 5. Confirm the deletion by pressing **ENTER** (or **BACK** to cancel).

#### **Activity Totals**

Totals for each activity type (run, bike, swim) or all activities can be viewed to see the time, distance and estimated calories burned.

#### Viewing Activity Totals

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "**History**". Press **ENTER**.
- 3. Highlight "Activity Totals" and press **ENTER**.
- Highlight the activity group to view totals for and press ENTER.



#### **Resetting Activity Totals**

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "**History**". Press **ENTER**.
- 3. Highlight "Activity Totals" and press ENTER.
- 4. Highlight the activity group to view totals for and press **ENTER**.
- 5. While viewing the Totals screen, press **ENTER**.
- 6. Confirm the reset by pressing **ENTER** (or **BACK** to cancel).

#### **Location History**

Details about locations that have been marked can be viewed under Location History. When accessed, the date and time the location was marked, the latitude/longitude of the location, and the elevation is displayed.

#### Viewing a Marked Location

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "**History**". Press **ENTER**.
- 3. Highlight "Location History" and press ENTER.
- 4. Highlight "View Locations" and press ENTER.
- Locations are displayed in the order that they were marked. Highlight the desired location and press ENTER.



#### **Deleting All Marked Locations**

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "**History**". Press **ENTER**.
- 3. Highlight "Location History" and press ENTER.
- 4. Highlight "Delete All" and press ENTER.
- 5. Confirm the deletion by pressing **ENTER** (or **BACK** to cancel).

#### **Deleting a Marked Location**

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "**History**". Press **ENTER**.
- 3. Highlight "Location History" and press ENTER.
- 4. Highlight "View Locations" and press ENTER.
- 5. Locations are displayed in the order that they were marked. Highlight the location to be deleted and press **ENTER**.
- 6. Press ENTER.
- 7. Confirm the deletion by pressing **ENTER** (or **BACK** to cancel).

# Navigation

The Navigation function provides a graphical display of your current track and locations you have saved. The current track, or 'breadcrumbs' for the activity, visually displays the path of your activity and provides awareness to the start of the activity as well as any locations you may have marked.

There is the option of displaying simple navigation instructions back to the start of your activity or to the last marked location. When navigation is started, a destination line from your current location to the destination is shown and continually updates as you travel. Additionally, the distance ("as the crow flies") to your destination as well as the direction of the destination is displayed.

#### **Navigation Screen**

This is the standard navigation screen when there is no destination set.

The top of the screen will always point to the direction you are moving, also referred to as Track Up. In the bottom left corner is the map scale which is changed by using the **UP** or **DOWN** buttons. The bottom right is a standard compass which will display the direction you are heading while moving.

The center of the display (triangle) is your current position with the path you have travelled shown with the dashed line. The "S" indicates the start of the activity and the numbered flags indicate locations you have marked along the way.

#### **Navigation Screen with Destination**

When a destination has been selected and the Switch is navigating, three navigation items added.

The heavy straight line displays the "as the crow flies" line from the current location to the destination. (Destinations can be the starting point of the activity or the last location marked.) In the upper right corner is an arrow pointing towards the destination and the upper left is the distance.





#### Accessing the Navigation Screen

- 1. Press and hold the **DOWN** button until the popup menu is displayed.
- 2. Use the **DOWN** button to highlight "Navigation".
- 3. Press ENTER.

#### Changing the Map Scale

 While viewing the Navigation screen use the UP (zoom out) and DOWN (zoom in) buttons to change the map scale.

#### **Navigation Mode**

#### Starting Navigation

- 1. Press and hold the **DOWN** button until the popup menu is displayed.
- 2. Highlight "Settings" and press ENTER.
- 3. Highlight "GPS Settings" and press ENTER.
- 4. Highlight "Navigation" and press ENTER.
- 5. Highlight "**Begin Navigation**" and press **ENTER**.
- Select the destination. "Activity Start" (if a current activity is recording) or "Last Location" (the last location marked).

#### Stopping Navigation

- 1. Press and hold the **DOWN** button until the popup menu is displayed.
- 2. Highlight "Settings" and press ENTER.
- 3. Highlight "GPS Settings" and press ENTER.
- 4. Highlight "Navigation" and press ENTER.
- 5. Highlight "End Navigation" and press ENTER.
- 6. You can select "**Begin Navigation**" or press and hold the **DOWN** button to select viewing the Activity or Navigation screen.

#### **Marking Location**

Whenever the Switch has GPS satellite signal it can capture your current location. This location can be "marked" and stored in Switch until it is turned off.

Marked locations will be denoted on the Navigation screen by a numbered flag. The first location marked will be denoted with the number 1, the next 2 and so on.

There are two ways of marking your location.

#### Marking Location using the BACK button

- 1. Press and hold the **BACK** button.
- 2. A popup will be displayed indicating that the location has been saved and the latitude and longitude of the location.

#### Marking Location using Settings

- 1. Press and hold the **DOWN** button until the popup menu is displayed.
- 2. Highlight "Settings" and press ENTER.
- 3. Highlight "GPS Settings" and press ENTER.
- 4. Highlight "Save Location" and press ENTER.
- 5. A popup will be displayed indicating that the location has been saved and the latitude and longitude of the location.

Switch is compatible with ANT+<sup>™</sup> sensors to provide additional information about your activity.

#### **Supported sensors**

- Heart rate
- Foot pod
- Bike speed/cadence
- Bike speed
- Bike cadence
- Power meter.

Sensor	Run	Bike	Swim	Other
Heart Rate	0	0		0
Foot Pod	0			0
Bike (All)		0		
Power Meter		0		

#### Settings

Speed and cadence can be provided from multiple sensors. Switch needs to know which sensor configuration is in use to know where speed and cadence information will be provided from.

#### Accessing ANT+ Settings

- 1. Press and hold the **DOWN** button.
- Use the DOWN button to highlight "Settings" and press ENTER.
- Use the DOWN button to highlight "Device Settings" and press ENTER.
- Use the DOWN button to highlight "ANT+ Settings" and press ENTER.
- 5. Highlight the option and press **ENTER**.

#### **Options** :

- Bike Spd & Cadence Speed and cadence can be provided by separate sensors or by a combined speed and cadence sensor. Select the option that matches your configuration.
- **Bike Spd Source** Speed can be provided from a bike speed sensor (combined or separate) or from a power meter sensor. Select the option that matches your configuration.
- Bike Cad Source Cadence can be provided from a bike cadence sensor (combined or separate) or from a power meter sensor. Select the option that matches your configuration.

#### Sensors

By default all sensors are disabled. Before using an ANT+ sensor Switch needs to have that sensor type enabled so it can begin connecting with the sensor.

#### Enabling ANT+ Sensors

- 1. Press and hold the **DOWN** button.
- 2. Use the **DOWN** button to highlight "Settings" and press ENTER.
- 3. Use the **DOWN** button to highlight "**Device Settings**" and press **ENTER**.
- 4. Use the **DOWN** button to highlight "**ANT+ Sensors**" and press **ENTER**.
- Highlight the sensor type and press ENTER. (If in ANT+ Settings bike speed and cadence is set as a combined sensor, only "Bike Spd/Cad" is displayed. If set as separate sensors, both "Bike Speed" and "Bike Cadence" are displayed.}

- If the sensor chosen is not compatible with the active Activity Profile, a warning will appear. The sensor can still be enabled, the warning is a reminder that the sensor is not compatible with the current activity type selected.
- 7. Press **ENTER** to toggle the current state of the sensor (enabled or disabled).
- 8. When enabled information on the status of the sensor is displayed.

Once a sensor has been enabled, Switch will begin searching for the sensor. After communication with the sensor has been established a notification will be displayed indicating that the sensor has been found and connected.

#### **Status Definitions :**

- **Connected** Switch has made a connection with the sensor.
- **Searching** Switch is searching for the sensor.
- **Standby** The sensor is enabled but is not compatible with the current activity type. When the activity type is changed to one that is compatible with the sensor, Switch will begin searching automatically.

### **Quick Info Screen**

The Quick Info screen displays some important information that the user will find useful whenever using Switch. It is displayed in two variations, Activity and Navigation depending upon the mode Switch is in when accessed.

#### **Activity Quick Info Screen**

#### Accessing the Activity Quick Info Screen

- 1. While viewing the Activity Screen press and hold the **UP** button until the Quick Info screen is displayed.
- 2. To exit the Quick Info screen press the **BACK** button.



Information Icon		Details		
Time of Day	12:25:20PM	Displays the time of day in the format set in		
		"Device Settings"		
Date	12/24	Displays the date in the format set in		
		"Device Settings" without the year.		
Sunrise / Sunset	* 7.00AM	Sunrise: Displays the time that the sun will		
		rise in the format set in "Device Settings"		
		without seconds.		
		Sunset: Displays the time that the sun will		
	- 7.001 101	set in the format set in "Device Settings"		
		without seconds.		
Battery Life	100%	Displays the remaining battery charge in		
	- 10070	Switch both graphically and percentage.		
Internal Memory		Displays the amount of internal memory		
	- 2070	being used.		
External Battery	Ø	External Battery is not connected.		
	0	External Battery is connected.		
Satellite Status	<b>S</b>	GPS disabled. Not searching for satellites.		
	Ó	GPS satellites not found. Not computing		
		location information.		
	<b>A</b>	GPS satellites found. Computing location		
	•	information.		

#### **Activity Quick Info Screen Details**

Information	lcon	Details
Activity Recording Status		Not recording
	•	Recording
		Recording Stopped
Activity Type	🖈 TRAIL	Displays the icon and name of the current activity type selected.
Heart Rate Monitor	$\otimes$	Heart Rate Monitor not connected.
	•	Heart Rate Monitor connected.
Foot Pod Sensor	8	Foot Pod Sensor not connected.
	-	Foot Pod Sensor connected.
Bike Speed Sensor	1	Bike Speed Sensor not connected.
		Bike Speed Sensor connected.
Bike Cadence Sensor	R	Bike Cadence Sensor not connected.
		Bike Cadence Sensor connected.
Power Meter Sensor	Ø	Power Meter Sensor not connected.
	<b>F</b>	Power Meter Sensor connected.

# Accessing the Navigation Quick Info

- 3. While viewing the Navigation Screen press and hold the **UP** button until the Quick Info screen is displayed.
- 4. To exit the Quick Info screen press the **BACK** button.



Information	lcon	Details
Time of Day	12:25:20PM	Displays the time of day in the format set in " <b>Device Settings</b> "
Date	12/24	Displays the date in the format set in " <b>Device Settings</b> " without the year.
Sunrise / Sunset	* 7:00AM	Sunrise: Displays the time that the sun will rise in the format set in " <b>Device Settings</b> " without seconds.
	<b>7</b> :00PM	Sunset: Displays the time that the sun will set in the format set in " <b>Device Settings</b> " without seconds.
Heading	۲	Displays the current heading in one of eight cardinal headings (N, NE, E, SE, W, NW, S, SW)
Satellite Status	8	GPS disabled. Not searching for satellites.
	¢¢	GPS satellites not found. Not computing location information.
	*	GPS satellites found. Computing location information.
GPS Accuracy	5 ft.	Accuracy of computed GPS location in the format set in " <b>Default Units</b> ".
Current Location	⊖ 34.10360°	Latitude of current location in the format set in " <b>Default Units/Coordinates</b> ".
	⑦ 117.80296°	Longitude of current location in the format set in " <b>Default Units/Coordinates</b> ".

#### **Navigation Quick Info Screen Details**

# Settings

#### **GPS Settings**

#### Accessing GPS Settings

- 1. Press and hold the **DOWN** button.
- 2. Highlight "**Settings**" and press **ENTER**.
- 3. Highlight "GPS Settings" and press ENTER.

**Enabled** : Checked, GPS is enabled; unchecked, GPS is disabled.

- Navigation : Begins or ends navigation. Sets destination, Activity Start or Last Marked. See chapter *Navigation* for more details. (Not shown when GPS is disabled.)
- Save Location : Saves (marks) current location. See chapter *Navigation* for more details. (Not shown when GPS is disabled.)
- **GPS Status** : [Informational] Provides current status of the GPS connection, Searching or Connected.
- **Accuracy**: [Informational] Displays estimated accuracy of the computed location.
- **Satellites** : [Informational] Number of satellites Switch is currently receiving GPS signals from.

#### **Device Settings**

#### Accessing GPS Settings

- 1. Press and hold the **DOWN** button.
- 2. Highlight "Settings" and press ENTER.
- 3. Highlight "Device Settings" and press ENTER.

Language : Options - Deutsch, English, Español, Français, Italiano, or Nederlands. Switch will restart after language selection.

- **Backlight** : Sets the time the backlight will remain on before automatically turning off to preserve battery life. Options - 15 seconds, 30 seconds, Remain On.
- Date & Time : Displays the current date and time. Option to set date format and time format. Option to set time source (Auto or Manual. In manual, time zone and DST needs to be selected.)
- **Default Units**: Options to set the default units of measure for coordinate system, speed/distance, elevation, height/weight, temperature (Switch Up), heart rate, and power.
- **Recording** : Enable or disable "Start Reminders". Enable or disable "Auto Power Off". Select whether the data source for running or biking will come from the GPS or an ANT+ sensor. Select to include or exclude 0s from average cadence and power.
- **ANT+ Settings** : See chapter on *ANT+ Sensors*.

ANT+ Source : See chapter on ANT+ Sensors.

Feedback : Set type of feedback used for alerts and button presses. Switch - sound on or off. Switch Up - sound, vibration, or off.

#### **Training Zones**

#### Accessing Training Zones

- 1. Press and hold the **DOWN** button.
- 2. Highlight "Settings" and press ENTER.
- 3. Highlight "**Training Zones**" and press **ENTER**.

**HR Zones** : Provides means to set up and use Heart Rate Zones for each activity type. Options : Set the heart rate zone method (manual, % Max HR, % HR Reserve), set the resting and maximum heart rate, and view the heart rate zone chart.

**Power Zones** : Provides means to set up and use Power Zones for all activity type. Options : Set the power zone method (manual, % FTP), input the Functional Threshold Power (FTP), and view the power zone chart.

#### **Device Information**

#### Accessing Device Information

- 1. Press and hold the **DOWN** button.
- 2. Highlight "Settings" and press ENTER.
- 3. Highlight "Device Info" and press ENTER.

**Model** : [Informational] Displays Switch or Switch Up.

- **Serial Number** : [Informational] Displays the unique serial number for the device.
- **Software** : [Informational] Displays version of current software firmware.
- **Model** : [Informational] Displays remaining battery life (percentage).
- **Memory** : [Informational] Displays the amount of memory used (percentage).

#### **User Information**

#### Accessing User Information

- 1. Press and hold the **DOWN** button.
- 2. Highlight "Settings" and press ENTER.
- 3. Highlight "User Info" and press ENTER.

**Emergency Details** : The first four lines display the name, phone number, emergency name and emergency phone number entered.

**Contact Information**: Provides means to enter the name, phone number, emergency name and emergency phone that will be displayed in "**Emergency Details**".

**Personal Data** : Provides a method to enter date of birth, gender, height, weight and resting heart beat.

# **Magellan Active Website**



### active.magellangps.com

#### **Overview**

We built Magellan Active to help you get the most out of your Magellan fitness devices. Magellan Active offers a rich activity upload and device software update experience, the ability to view all of the data captured by our fitness devices, a unified approach to supporting multisport activities, and much more. But we understand we can't be all things to all people, so we let you take full control of your data and work proactively with many of the wonderful third party websites to ensure compatibility. Using a supporting software solution such as Magellan Active or a compatible third-party website or application will help you get the most out of your Magellan fitness devices.

#### **Getting Started with Magellan Active**

- 1. Go to active.magellangps.com/start.
- 2. Click "Getting Started," within the Magellan Active section.
- 3. Follow the set by set online instructions to get up and running with Magellan Active.

#### **Activity Files**

#### **Uploading Activity Files**

**Note**: Before uploading, capture an activity with Switch.

- 1. Log in to your Magellan Active account.
- 2. Connect Switch to your personal computer using the charging/data cable.
- 3. Click on the Upload button.

If this is the first time uploading files you will be asked to install the device plugin. Follow the onscreen instructions.

- 4. Select the activities your want to upload from the list displayed. Click "Next".
- Specify the options you want to apply to you activities after they have been successfully uploaded. Also select if you want you activities to be "Public" or "Private".
- 6. Click "Upload".
- 7. Go to your Profile page by clicking on your user name at the top or go to the Activities page by clicking on the Activities link in the top navigation.

#### Profile

	TOTAL	Last 30 Days	This Year Al	l time		
	Activities	Distance	Duration	Elev G	ain	Calories
	3	4.46 mi	02:46:05	248	0 ft	<b>592</b> °
TPROFILE	RECENT ACTIVITIES					
EVICES	ACTIVITY	LOCATION	DISTANCE	DURATION	ELEV GAI	N
Magellan Switch Up Shop Devices	Other 2012-08- 4:52 pm	23 -	2.08 ml	01:20:35	558 *	۵
NNOUNCEMENTS	Other 2012-08- 9:32 pm	22 -	1.43 <sup>ml</sup>	00:38:35	328 *	ß
Magellan Active goes live!	2012-08- 4:37 pm	03 -	0.94 <sup>ml</sup>	00:46:55	354 *	ß
						View All Activities
	UPDATES					
	Uploaded a 0	Other Activity on 2012-08-2	28 at 10:24 pm .			

**Profile Page** 

This is your personal Profile page. The most recent activities, private and public, that you have uploaded are displayed as well as a listing of what updates have been applied to your profile. Click on "EDIT PROFILE" to personalise the profile page for you. This page can be shared to display your public activities. Private activities can only be viewed by you.

Viewing an individual activity is as easy as clicking on the desired activity.



All of the data for the activity are displayed, including a map with line of your activity. . Even the data for the individual laps can be displayed by clicking on the lap from the listing of laps below the graph. When the lap is displayed, click on the "Activity/Lap Selector" [Advity Lep1] button to view a different lap or return to the Activity page.

#### **Activity Page**

Your Profile page displays your recent activities but you can also view all of your activities from the Activity Page. Click on the Activities link in the Navigation Bar to view your Activity Page.

1 s	June 23	<b>3, 2012</b> 23, 4:52:19 pm 23, 6:22:42 pm	<b>5</b> 0 OT	HER Y	Private	Metric St	🗊 DELETE	Export to •
ACTIVITY	SUMMARY							/IEW ALL STATS
Dista	nce	Duration	Avg Speed	Calories	Avg He	art Rate	Elevation	n Gain
2.0	<b>B</b> mi	01:20:35	1.54 mi/h	<b>253</b> °	-		558 #	
Ne	*	5	00:00:00 00:	16:40	00:33:20	00:50:00	01:06	40
© CloudMad CC-BY-SA	e, Map data © US	M contributors,	Elapsed time	Distance				MAXIMIZE VIEW
LAP	DISTANCE	DURATION	AVG SPEED	ELEV GAIN	CALORIES	AVG HR	CADENCE	POWER
1	2.08 ml	01:30:21	1.54 <sup>mi/n</sup>	558 <sup>*</sup>	253 °	-	-	

#### **Exporting Activity Files**

Activities that you have uploaded can be exported to different formats (.FIT, .kml, gpx, or .csv).

- 1. Go to the Activity page.
- 2. Select the desired activity.
- 3. Click on "Export" to select the desired format.
- 4. Follow the onscreen instructions to save the file.

#### Sharing an Activity

- 1. Go to the Activity page.
- 2. Select the desired activity.

Note: Only Public activities can be shared. If the activity is labeled "Private", you need to set it to "Public" before sharing.

- 3. Below the "Export to" button is a listing of social media pages you can share your activity to.
- 4. Follow the onscreen instructions to share your activity.

# **Addendum A - Switch Specifications**

#### **Physical & Performance**

Unit Dimensions (WxHxD)	. 4.5 x 5.8 x 1.7 cm
Display Type	. High Resolution, Monochrome
Display Dimensions (WxH)	. 2.1 x 2.4 cm
Display Resolution	. 144 x 168 (pixels)
Weight	. 69 grams (Switch)
	71 grams (Switch Up)
Water Resistance	. 50 metres
Battery Type	. Rechargeable
	Lithium-ion
Battery Life	. 8 hrs.

#### **Memory & Navigation**

Activity History (Memory)	. 60 hrs (1 second recording)
Data Transfer	. USB
Breadcrumb Navigation	. Yes
Locations	. Yes

#### Features

GPS - High Sensitivity	Yes
Barometric Altimeter	No (Switch) Yes (Switch Up)
Temperature	No (Switch) Yes (Switch Up)
Audio Alert and Feedback	Yes
Vibration Alert and Feedback	No (Switch) Yes (Switch Up)

Alerts (Pace, Heart Rate)	Yes
Auto Lap	Yes
Customisable Activity Screen(s)	Yes
Auto Scroll Activity Screens	Yes
Customisable Activity Profiles	Yes (9)
Quick Info Screens	Yes
Auto Pause	Yes
Multisport Mode	Yes
Activity Pacer	Yes
Heart Based Calories	Yes
Quick Start (Start Activity without GPS fix	Yes

#### Accessories

Heart Rate Monitor	. Yes (some versions)
Foot Pod Compatible (displays data from compatible 3rd party ANT+ sensor)	. Yes
Bike Speed & Cadence Sensor Compatible (displays data from compatible 3rd party ANT+ sensor)	. Yes
Power Meter Compatible (displays data from compatible 3rd party ANT+ sensor)	. Yes

#### Software Analysis

Computer compatibility	Windows & Mac
Compatible with third-party (MapMyFitness, Strava, Training Peaks, SportsTracks)	Yes
File format	FIT

# Addendum B - Available Data Types

Category	Measurement	Description	Units
Cadence Requires a Foot Pod.	Cadence	The number of revolutions of a bicycle crank per minute.	Revolutions per minute (rpm).
Cadence	Avg Cadence	This is the cumulative average for the laps in the current session.	Revolutions per minute (rpm).
Cadence	Max Cadence	Maximum cadence measured during the current session.	Revolutions per minute (rpm).
Cadence	Lap Avg Cad	This is the cumulative average of instantaneous cadence readings for the current lap.	Revolutions per minute (rpm).
Cadence	Lap Max Cad	This is the maximum cadence reading for the current lap.	Revolutions per minute (rpm).
Cadence	Prev Avg Cad	This is the cumulative average of instantaneous cadence readings for the previous lap.	Revolutions per minute (rpm).
Cadence	Prev Max Cad	This is the maximum cadence reading for the previous lap.	Revolutions per minute (rpm).
Calories	Calories	Cumulative count of how many calories have been burned during the session.	Calories (C).
Calories	Lap Calories	Number of calories burned in the current lap.	Calories (C).
Calories	Prev Calories	Number of calories burned in the previous lap.	Calories (C).
Distance	Distance	Total distance travelled in the current session.	Metric or statue.
Distance	Lap Distance	Total distance travelled in the current lap.	Metric or statue.
Distance	Prev Distance	Total distance travelled in the previous lap. M	Metric or statue.
Elevation	Elevation	If using Switch, elevation is measured using GPS calculations, with Switch Up elevation is measured using the internal barometer.	Metric (m) or statue (ft).
Elevation	Avg Elevation	The average elevation for the current session within the activity.	Metric (m) or statue (ft).
Elevation	Max Elevation	The maximum elevation for the recorded session within the activity.	Metric (m) or statue (ft).
Elevation	Min Elevation	The minimum elevation for the recorded session within the activity.	Metric (m) or statue (ft).
Elevation	Elevation Gain	The total elevation gain for the current activity.	Metric (m) or statue (ft).
Elevation	Elevation Loss	The total elevation loss for the current activity.	Metric (m) or statue (ft).
Elevation	Elevation Net	The net elevation change (gain - loss) for the current activity.	Metric (m) or statue (ft).
Elevation	Lap Avg Elev	The average elevation for the current lap.	Metric (m) or statue (ft).
Elevation	Lap Max Elev	The maximum elevation for the current lap.	Metric (m) or statue (ft).
Elevation	Lap Min Elev	The minimum elevation for the current lap.	Metric (m) or statue (ft).

Category	Measurement	Description	Units
Elevation	Lap Elev Gain	The elevation gained in the current lap.	Metric (m) or statue (ft).
Elevation	Lap Elev Loss	The elevation lost in the current lap.	Metric (m) or statue (ft).
Elevation	Lap Elev Net	The net elevation (gain - loss) for the current lap.	Metric (m) or statue (ft).
Elevation	Prev Avg Elev	The average elevation for the previous lap.	Metric (m) or statue (ft).
Elevation	Prev Max Elev	The maximum elevation for the previous lap.	Metric (m) or statue (ft).
Elevation	Prev Min Elev	The minimum elevation for the previous lap.	Metric (m) or statue (ft).
Elevation	Prev Elev Gain	The elevation gained in the previous lap.	Metric (m) or statue (ft).
Elevation	Prev Elev Loss	The elevation lost in the previous lap.	Metric (m) or statue (ft).
Elevation	Prev Elev Net	The net elevation (gain - loss) for the previous lap.	Metric (m) or statue (ft).
Grade	Grade	The amount of incline for the current session.	Percentage (%)
Grade	Avg Grade	The average grade for the current session.	Percentage (%)
Grade	Avg + Grade	The average positive grade for the current session.	Percentage (%)
Grade	Avg - Grade	The average negative grade for the current session.	Percentage (%)
Grade	Max + Grade	The maximum positive grade in the current session.	Percentage (%)
Grade	Max - Grade	The maximum negative grade in the current session.	Percentage (%)
Grade	Lap Avg Grade	The average grade for the current lap.	Percentage (%)
Grade	Lap Avg + Grd	The average positive grade for the current lap.	Percentage (%)
Grade	Lap Avg - Grd	The average negative grade for the current lap.	Percentage (%)
Grade	Lap Map + Grd	The maximum positive grade in the current lap.	Percentage (%)
Grade	Lap Max - Grd	The maximum negative grade in the current lap.	Percentage (%)
Grade	Prev Avg Grade	The average grade for the previous lap.	Percentage (%)
Grade	Prev Avg + Grd	The average positive grade for the previous lap.	Percentage (%)
Grade	Prev Avg - Grd	The average negative grade for the previous lap.	Percentage (%)
Grade	Prev Max + Grd	The maximum positive grade in the previous lap.	Percentage (%)
Grade	Prev Max - Grd	The maximum negative grade in the previous lap.	Percentage (%)
Heart Rate Requires Heart Rate Monitor	Heart Rate	The number of heartbeats per minute.	Beats per minute (bpm)
Heart Rate	Avg HR	The average number of heartbeats per minute for the current session.	Beats per minute (bpm)
Heart Rate	Max HR	The maximum number of heartbeats per minute for the current session.	Beats per minute (bpm)
Heart Rate	Lap Avg HR	The average number of heartbeats per minute for the current lap.	Beats per minute (bpm)
Heart Rate	Lap Max HR	The maximum number of heartbeats per minute for the current lap.	Beats per minute (bpm)
Heart Rate	Prev Avg HR	The average number of heartbeats per minute for the previous lap.	Beats per minute (bpm)
Heart Rate	Prev Max HR	The maximum number of heartbeats per minute for the previous lap.	Beats per minute (bpm)

Category	Measurement	Description	Units
Laps	Lap #	Number of laps in the current session.	
Speed/Pace	Speed <sup>[1]</sup>	Distance traveled divided by the time to travel that distance.	Metric (kph) or statue (mph)
Speed/Pace	Pace <sup>[2]</sup>	Time to travel a distance divided by the distance traveled in that time.	Metric (km) or statue (mi)
Power	Power	Total rate of energy used in the current session.	Watts (w), %FTP (ftp), kjhour (kj/h), Power Zone (z)
Power	Avg Power	Average rate of energy used in the current session.	Same as Power
Power	Max Power	Maximum rate of energy used in the current session.	Same as Power
Power	Lap Avg Power	Average rate of energy used in the current lap.	Same as Power
Power	Lap Max Power	Maximum rate of energy used in the current lap.	Same as Power
Power	Prev Avg Power	Average rate of energy used in the previous lap.	Same as Power
Power	Prev Max Power	Maximum rate of energy used in the previous lap.	Same as Power
Temperature Switch Up only	Temperature	The instantaneous temperature of the current session.	Metric (°C) or statue (°F )
Temperature	Avg Temp	The average temperature for the current session.	Metric (°C) or statue (°F )
Temperature	Max Temp	The maximum temperature for the current session.	Metric (°C) or statue (°F )
Temperature	Lap Avg Temp	The average temperature for the current lap.	Metric (°C) or statue (°F )
Temperature	Lap Max Temp	The maximum temperature for the current lap.	Metric (°C) or statue (°F )
Temperature	Prev Avg Temp	The average temperature for the previous lap.	Metric (°C) or statue (°F )
Temperature	Prev Max Temp	The maximum temperature for the previous lap.	Metric (°C) or statue (°F )
Time	Time	The cumulative amount of time for the current session. Does not include time that the activity was stopped.	mm:ss / hh:mm:ss
Time	Paused Time	The amount of time that the Switch was paused during the current session.	mm:ss / hh:mm:ss
Time	Elapsed Time	The cumulative amount of time for the current session. Includes time that the activity was stopped.	mm:ss / hh:mm:ss
Time	Moving Time	The amount of time that the Switch was moving during the current session.	mm:ss / hh:mm:ss
Time	Lap Time	The cumulative amount of time for the current lap. Does not include time that the activity was stopped.	mm:ss / hh:mm:ss
Time	Lap Psd Time	The amount of time that the Switch was paused during the current lap.	mm:ss / hh:mm:ss
Time	Lap Elpsd Time	The cumulative amount of time for the current lap. Includes time that the activity was stopped.	mm:ss / hh:mm:ss
Time	Lap Mov Time	The amount of time that the Switch was moving during the current lap.	mm:ss / hh:mm:ss
Time	Prev Lap Time	The cumulative amount of time for the previous lap. Does not include time that the activity was stopped.	mm:ss / hh:mm:ss
Time	Prev Psd Time	The amount of time that the Switch was paused during the previous lap.	mm:ss / hh:mm:ss

Category	Measurement	Description	Units
Time	Prev Elsped Time	The cumulative amount of time for the previous lap. Includes time that the activity was stopped.	mm:ss / hh:mm:ss
Time	Prev Mov Time	The amount of time that the Switch was moving during the previous lap.	mm:ss / hh:mm:ss
Vertical Speed	Vertical Speed	Vertical speed is the rate of speed based on a vertical plane from the start of the activity to the current position of the activity. If there is a gain in elevation, vertical speed will be a positive number and a negative number for a loss in elevation.	

<sup>[1]</sup> Speed has the following options: Speed, Avg Speed, Max Speed, Lap Avg Speed, Lap Max Speed, Prev Avg Speed, Prev Max Speed.

<sup>[2]</sup> Pace has the following options: Speed, Avg Pace, Max Pace, Lap Avg Pace, Lap Max Pace, Prev Avg Pace, Prev Max Pace.

# **Addendum C - Resting Heart Rate**

#### **Measuring Your Resting Heart Rate**

The measurement of resting heart rate or pulse rate (the number of heart beats per minute) should be taken after a few minutes upon waking while still lying in bed. Give your body some time to adjust to the change from sleeping before taking your pulse (2-5 minutes). If you are not able to take a measurement first thing in the morning, make sure you lie down for at least 10 minutes before taking a measurement. Take a radial or carotid measurement.

**Carotid Pulse (neck)** - To take your heart rate at the neck, place your first two fingers on either side of the neck. Be careful not too press to hard, then count the number of beats for a minute. **Radial Pulse (wrist)** - place your index and middle fingers together on the opposite wrist, about 1.5cm on the inside of the joint, in line with the index finger. Once you find a pulse, count the number of beats you feel within a one minute period.

For an adult, a normal resting heart rate ranges from 60 to 100 beats a minute. For a well-trained athlete, a normal resting heart rate may be closer to 40 beats a minute. For healthy adults, a lower heart rate at rest generally implies more efficient heart function and better cardiovascular fitness.