

SHOP NOW

AiM Infotech

MyTach
User Manual

Release 1.00







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#### Dear Customer.

Greatly experienced in developing technology for motorsports, AIM now introduces **MyTach**, the new sport training GPS tool, which samples and shows the essential information to constantly monitor the key variables during sport activities. **MyTach** has been designed for all sports that need a displacement along a route like running, cycling, canoe, horse riding, skiing etc. The main parameters it shows are:

- ●instant and average speed
- •run distance from the start line
- ●lap times
- •length, frequency and number of steps
- •altimetric data (height, slope)
- •and more depending on different types of sports

Thanks to its innovative FCHS (Fast Connection High Sensitivity) technology, MyTach will detect satellite signals a few seconds after start up and works perfectly in those out of range open area., for example under trees, in canyons, on river rapids.

We suggest to periodically check on  $\underline{\text{www.aim-sportline.com/MyTach}}$  software and/or firmware new releases to update  $\underline{\text{MyTach}}$ .



## 1 - Checklist

Make sure the package contains the following items



- 1 MyTach
- 2 Docking station
- 3 Plug-adapter
- 4 USB cable
- 5 Rubber bracket
- 6 User manual

NOTE: Sports Agenda software is available on line at www.aim sportline.com/mytach



## 2 - Buttons



- Ö ON/OFF
  - Press and hold (2") to switch ON/OFF MyTach.
    Press to turn ON/OFF back light.
- Mode
  - Press to view in sequence Main Menu, Service Pages, Data Recall.
- GPS on-off Press and hold (2") to Start/ Stop GPS receiver. If GPS is off MyTach works as a watch.
- START/stop Press to Start/Stop data recording.
- Arrows
  Press to scroll pages.
  Press to highlight options.

Note: buttons may have different functions depending on the page displayed and on how long they are pressed.



# 3 - How to charge the battery



MyTach uses a Lithium battery pack.

1 - Snap MyTach into the docking station



2 - Plug the cable to the adapter and in the docking station as follows:

- Mini USB connector in the docking station
- USB connector in the adapter or in the PC (switched on).
- ${f 3}$  When  ${f MyTach}$  is charging, the message "Charging" and the percentage of battery status appears on the display.
- 4 Disconnect MyTach once charging is complete (100%)



By default **MyTach** starts GPS initialization.

When charging is completed the battery indicator has 8 marks and the duration with GPS switched on is of approximately 9 hours.



After 20 minutes of inactivity or if GPS is disabled (keep "GPS on-off" pressed for 2") **MyTach** switches to power save mode and runs only as a watch.

The duration of the battery in power save mode is about 100 hours. To exit power save mode keep "GPS on-off" pressed for 2"

11:44.27

NOTE: To start recording battery charge status must have at least 2 marks.



# 4 – Acquiring Satellite Signals

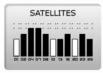
Press "On/Off" button to switch MyTach on.

If **MyTach** battery is flat or if **MyTach** is switched on for the first time during the day, satellites signal detection may take 2 minutes, otherwise **MyTach** starts immediately satellites signal acquisition.

Press "Mode" button to enter Service mode.

Press "Arrow" buttons to select Satellites page.

The black bars represent the strength of each satellite signal received (the number of the satellite appears below each bar) - Figure below on the left.





The signal quality changes following the number of acquired satellites. The signal status range is from 8 (very good quality) to 1 (bad quality signal) marks – Figure above on the right.

The table below shows the correspondence between number of satellites and signal status:

Number of satellites	Signal status	Signal quality
0-2	0 marks	bad
3	1 marks	bad
4	2 marks	weak
5	3 marks	weak
6	4 marks	good
7	5 marks	good
8	6 marks	excellent
9	7 marks	excellent
Over 10	8 marks	excellent



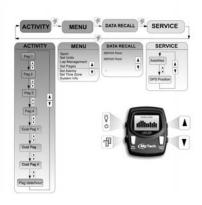
# 5 – MyTach operating Modes

MyTach has 4 different modes.

It is possible to switch between the modes with "Mode" button.

Mode	Function
Menu	Set parameters.
Activity	Shows instantaneous data.
Service	Shows position and satellites status.
Data Recall	Shows recorded data.

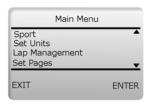
The following diagram shows MyTach menu structure.





## 5.1 - Menu

Menu mode allows to select MyTach setting parameters.



- Press "Mode" to enter.
- •Scroll up and down the menu using "Arrow" buttons to select the options.

Below all the setting parameters are listed:

- Sport
- Set Units
- Lap Management
- Set Pages
- Set Alarms
- Set Time Zone
- System Info



## 5.1.1. - Sport

This page allows to select the desired sport.



- Select "Sport" using "Arrow" buttons.
- Press "START/stop".
- •Scroll the options using "Arrow" buttons, then press "START/stop" to confirm the selection

Note: 4 pages with standard measure units are set by default for each sport. To change the settings refer to "Set Units" and "Select Pages".

## 5.1.2. - Set Units

This page allows to change distance and speed measure units.





- Select "Set Units" and press "START/stop".
- Select the option (Dist or Speed unit) with "Arrow" buttons.
- Press "START/Stop" to confirm the selection.
- Press again "START/Stop" to select unit of measure.
- ●To quit press "GPS On/Off".



In the table below is a detailed description of various options to measure speed and distance.

Measure	Unit of measure	Description
Dst	Km – m – Miles	Kilometres –Meters–Miles
Spd	Km/h – Mph – Mmn – ms – mkm	Kilometres/hours-Miles/hours-Meters/minutes- meters/second-minutes/kilometers

## 5.1.3 - Lap Management

MyTach can record a lap time whenever it reaches a set point or when a certain distance is covered.

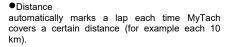


- Select "Lap Management" with arrow buttons
- Press "START/stop" to confirm the selection





 GPS allows to fix starting point and thereby lap time.







#### 5.1.3.1 - Set GPS lap



GPS POSITION

Lat 45°32'16"

Lon 9°20'07"

Alt 192.35

EXIT nSat 8 FIX

#### To fix the GPS lap marker:

- •Select GPS using "Arrow" buttons and press START/stop.
- •Select "set GPS lap" with arrow buttons and press "START/stop".
- Press "START/stop" to fix the point where to set GPS lap marker.

One of the following messages appears:

"LAP FIXED" = operation successfully completed.
"FIX FAILED" = satellites are not detected.

●To quit press "GPS On/off".

Note: If "FIX FAILED" message appears, it is necessary to try again in a more open area.

#### 5.1.3.2 - Set lap by distance



To set lap by distance:

- Select "dist"
- ●Press "START/stop"





- •Increase or decrease the digits using "Arrow" buttons.
- ●To set measure unit press "START/Stop"

## 5.1.4 - Set Pages

**MyTach** allows to set visualization pages for each sport. It permits in fact to enable and disable the pages set by default (see Select Pages paragraph) and configure eight custom pages with personalized layout and measures shown in activity mode (see "Custom pages" paragraph).



- Select Set Pages pressing "Arrow" buttons.
- Press "START/stop" to access Set Pages menu.
- ●To select the options use "Arrows" buttons.
- Press "START/stop" to enter.



## 5.1.4.1. - Select Pages



●Choose "Select Pages"

Enable/disable the selected pages using "START/STOP".

Y=Yes Allows to visualize the correspondent "Activity" page

N=No Hides the correspondent "Activity" page

Note: each option corresponds to the related page (shown according with selected sport) in Activity Mode.

#### 5.1.4.2. - Custom Pages

To Set custom pages select which page to see in Activity mode.



- ●Select "Custom Pages"
- Select the number of the desired page. To do it:





- Select: "Custom Pag Nr."
- •press" START/stop", until the desired number appears.

When the correct number of page to customize set the measures to visualize in" Activity" mode.

Select "Set Custom Pag", then press "START /stop" to enter

Now it's possible to set which measure to see in "Activity" page.



- •Select the measure using the arrow buttons
- ●Press "START/Stop" to confirm the selection

Note: to set measure units refer to "Set Unit" paragraph.



- Select the measure to visualize using "Arrow " buttons
- ●Press "START/stop"
- ●press "GPS On/Off" to quit

Note: it is now necessary to enable the created page from "Select Pages".

(Refer to "Select Pages" paragraph)



The table below shows the channel name (AVG, DST...), its description and the available measure unit of that channel with its description.

Abbr	Measure	Description	Unit of measure	Description
Avg	Avg Spd	Average speed	Kmh –Mph – Mmn – ms – mkm	Kilometers/hours,Miles/ho urs, meters/minutes,meters/se conds, minutes/kilometers
Dst	Distance	Distance	Km –m –mil	Kilometers/meters/miles
Spd	Speed	Instant speed	Kmh –Mph – Mmn – ms - mkm	Kilometers/hours,Miles/ho urs, meters/minutes,meters/se conds, minutes/kilometers
DH	DHeight	High Difference	M	Meters
Alt	Altitude	Altitude	M	Meters
Slp	Slope	Slope	%	Percentage
Rtime	RunTime	Elapsed Time	H –min –sec	Hours/minutes/seconds
SpUp	SpeedUp	Variometer	Kmh –Mph – Mmn – ms - mnkm	Kilometers/hours,Miles/ho urs, meters/minutes,meters/se conds, minutes/kilometres
Filt Spd	Filt Spd	Average Speed last 2 second	Kmh –Mph – Mmn – ms - mkm	Kilometers/hours,Miles/ho urs, meters/minutes,meters/se conds, minutes/kilometres
Max Spd	Max Spd	Max Speed	Kmh –Mph – Mmn – ms - mkm	Kilometers/hours,Miles/ho urs, meters/minutes,meters/se conds, minutes/kilometres
RTimL	RTimeLap	Elapsed time from current lap time	H -min -sec	Hours/minutes/seconds
SpL	SpeedLap	Lap time average	Kmh –Mph –	Kilometers/hours,Miles/ho



		speed			Mmn – ms - mkm	urs, meters/minutes,meters/se conds, minutes/kilometres
DsL	DistLap	Distance Time	of	lap	Km –m –mil	Kilometers/meters/miles

The figures here below show the different layouts of custom pages.

## Note: Custom Page layout depends on the number of selected measures.











## 5.1.5 - Set Alarms

Set alarms page allows to configure speed, average speed, distance and elapsed time training alarms.

To do so: set a threshold value (Target) and (for speed only) a percentage range of tolerance. When this percentage is overcome, the alarm beeps.



- •Select Set Alarms option with "Arrow" buttons
- Press "START/stop" to confirm the selection

#### 5.1.5.1 - Select Alarm Measure

To set alarm measure:





- Select "Measure"
- Select Measure with "Arrow" button
- Press "START/Stop" to confirm the selection



#### 5.1.5.2 - Select Target

To set Target:





#### 5.1.5.3 - Select Work Range

To set Work Range:





- For example:
- Fixed target: 10,2 Km/h
- Range:12%
- Alarm beeps when < 8,9 Km/h Alarm beeps when > 11,4 Km/h
- Alarm beeps when the gap goes 12% over the selected target.

Note: range can be positive or negative and work range function is available only for speed measure.

- Select "Target"
- Press "START/stop"
- •Set threshold alert value using "Arrow" buttons to increase/ decrease digit value.
- Select Unit pressing "START/stop"
- Press "GPS on-off" to guit
- Select "Work Range"
- Press "START/stop"
- Press "Arrow" buttons to increase or decrease digits.
- Press "GPS on-off" to quit



#### 5.1.6 - Set Time zone

This function allows to set the GMT (Greenwich Mean Time) and to enable/disable Legal Time.

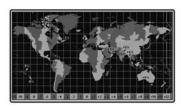






- Select GMT Offset
- Press "START/stop" to confirm the selection
- •Increase or decrease the number pressing "Arrow" buttons
- Select Legal Time
- Press "START/Stop" to enable/disable Legal Time

Here below is GMT map:





## 5.1.7. - System Info



This page allows to visualize MyTach serial number (Ex. S.N. 5555) and MyTach firmware version ( FW v.41.09.03).

Note: to exit press "GPS on-off"

Warning: AIM products are constantly updated, please check periodically new firmware or software at: <a href="https://www.aim-sportline.com/mytach">www.aim-sportline.com/mytach</a>.



## 5.2 - Activity Pages

MyTach shows by default the first activity page for the selected sport.

If MyTach shows other modes press "Mode" until when "Activity" page appears.

- Press "Mode" to enter.
- Press "Arrows" buttons to scroll pages.

A maximum of twelve pages are available: four of them are pre-defined in accordance with the sport requirements and eight of them are user defined (Custom Pages are in common for all sports).

The figure below shows the Activity mode graphic layout.



According to the custom configuration it is possible to see different information. The table here below shows the channel name shown by the display (AVG, DST...), its description and the available measure unit of that channel



Abbr	Measure	Description	Unit of measure	Description
Avg	Avg Spd	Average speed	Kmh –Mph – Mmn – ms – mkm	Kilometers/hours,Miles/ hours, meters/minutes,meters/ seconds, minutes/kilometers
Dst	Distance	Distance	Km –m –mil	Kilometers/meters/mile s
Spd	Speed	Instantaneous speed	Kmh –Mph – Mmn – ms - mnkm	Kilometers/hours,Miles/ hours, meters/minutes,meters/ seconds, minutes/kilometers
DH	DHeight	High Difference	М	Meters
Alt	Altitude	Altitude	M	Meters
Slp	Slope	Slope	%	Percentage
Rtime	RunTime	Elapsed Time	H –min –sec	Hours/minutes/seconds
SpUp	SpeedUp	Variometer	Kmh –Mph – Mmn – ms - mkm	Kilometers/hours,Miles/ hours, meters/minutes,meters/ seconds, minutes/kilometres
Filt Spd	Filt Spd	Average Speed last 2 second	Kmh –Mph – Mmn – ms - mkm	Kilometers/hours,Miles/ hours, meters/minutes,meters/ seconds, minutes/kilometres
Max Spd	Max Spd	Max Speed	Kmh –Mph – Mmn – ms - mkm	Kilometers/hours,Miles/ hours, meters/minutes,meters/ seconds, minutes/kilometres



RTiL	RTimeLap	Elapsed time from current lap time	H –min –sec	Hours/minutes/seconds
SpL	SpeedLap	Lap time average speed	Kmh –Mph – Mmn – ms - mkm	Kilometers/hours,Miles/ hours, meters/minutes,meters/ seconds, minutes/kilometres
DsL	DistLap	Distance of lap Time	Km –m –mil	Kilometers/meters/mile s

#### 5.2.1 - How to start memorization.

Before starting data recording, MyTach GPS signal receiver requires connection to at least 4 Satellites (2 marks on display).

Note: MyTach has a round memory; when memory is full, older data are automatically overwritten.



Press "START/stop" to start/stop data recording (when MyTach is recording, disk icon appears on the screen).

Note: when MyTach is recording it is not possible to enter the Menu "Mode"; it is then suggested to set all the parameters before the training session.



## 5.2.2 – Memory recording duration

Memory recording durations before overwriting (for each sport) are listed below. Duration depends on the different sampling frequency for the acquired measures.

		Duration Memory 1MB
	Generic	around 1h45
RT	Bike	around 8 h
SPORT	Running	around 7h30
	MotorS	around 2h

Note: MyTach has a round memory; when memory is full, older data are automatically overwritten.



## 5.2.2. - How to fix a "Lap"

LAP can be manually set in Activity mode pages.

This setting is labelled "LAP" and appears bottom left in figure below.

LAP is lap timer function. It allows to see the elapsed time between two clicks.



● Press "GPS On/Off" button to start the lap timer.



• Press again "GPS on-off" to visualize elapsed time.

## Note: Gps LAP is independent from Lap management options

Once downloaded data **SportsAgenda** considers and manages manual lap like lap times acquired using "lap management" options.



## 5.3 - Pages Sport Description

"Activity" mode shows the information summary for the current activity. Specific measures are available for each sport in addition to the standard measures. Please refer to the following paragraphs for further information: Generic (includes, hang gliding, trekking, horse riding, kayaking), Bike, Running and MotorS and refer again to "Select sport" paragraph to set the preferred sport.

## 5.3.1.Generic option

Generic option guarantees the maximum accuracy in data acquisition, thanks to the sampling frequency of GPS data (4 HZ) and of the accelerometers (10 HZ). Recording duration before overwriting is about 1h45.

FSdDst Page



It shows distance (Dst), and the average speed calculated in the last 2 seconds. (FSpd);

SpdDstAvgAlt Page

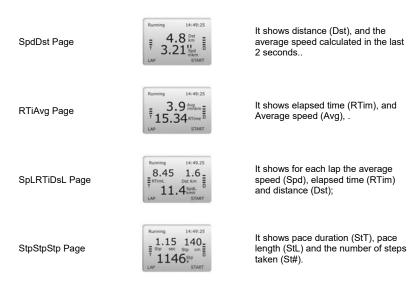


It shows distance (Dst), Average speed (Avg), instant speed (Spd), Altimeter (Alt).



## 5.3.2 - Running option

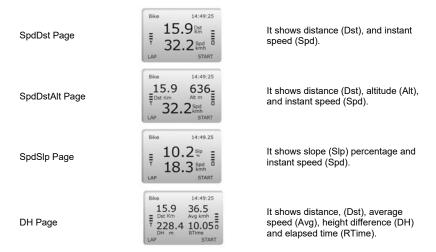
Running option is highly precise in data acquisition as sampling frequency of GPS, step average time and step average distance is 1 HZ. Recording duration before overwriting is about 7h 30. The default running pages are shown here below:





## 5.3.3 - Bike option

Bike option is highly precise in data acquisition as sampling frequency of GPS and accelerometers is 1 HZ. Recording duration before overwriting is about 8h. The default bike pages are shown here below:





## 5.3.4 - MotorS option

MotorS option guarantees the maximum accuracy in data acquisition, thanks to the sampling frequency of GPS (4 HZ) and accelerometers (10 HZ). Recording duration before overwriting is about 2h.

The default running pages are shown below:

Spd Page



It shows instant speed (Spd).

SpdDst Page



It shows distance (Dst) and instant speed (Spd).

RTiAvg Page



It shows average speed (Avg) and elapsed time (RTime).



## 5.4 - Service

Service mode is made up of 2 pages. Press "Mode" to enter and "Arrows" buttons to scroll pages.

# GPS POSITION Lat 45°32'16" Lon 9°20'07" Alt 192.35 nSat 8 FIX

It shows user position (Longitude, Latitude, Height). Moreover it allows to fix GPS lap marker pressing "START/Stop" (see GPS Lap Paragraph).



It displays which GPS signals MyTach is currently receiving.

The black bars represent the strength of each received satellite signal (the satellite number appears below each bar)



#### 5.5 - Data Recall

"Data recall " mode allows to recall acquired data; workouts are listed from the most recent to the oldest

- Press "Mode" until Stored Data page appears then enter
- Press "Arrows" buttons to scroll the tests.



- Select the workout pressing "START/stop"
- The following screen appears

It shows the recalled data workout.



23Ott08 10:20 L 9

Lap 2: 00:15.38 Lap 4: 00:15.85
Lap 6: 00:16.03
Lap 3: 00:16.25 

EXIT NEXT

- ●Top on the screen are displayed workout hour, date and the laps number.
- •central in the screen are shown recorded measures common to all sport.
- Pressing "START/stop " it's possible view the second data recall page that shows specific measure for each sport.
- Pressing again "START/stop "data recall" page of the selected workout laps appears.
- •The first page shows the first four best laps made for the selected workout.





- •The second one shows the specific data of each lap of the selected workout.
- •The displayed measures are:
- Elapsed time, distance, maximum speed, average speed.
- Press "Arrow" to scroll laps.
- Pressing again "START/stop" it's possible to scroll "data recall" pages

Note: MyTach creates a test each time memorization is started.

## 5.5.1 – Clear MyTach memory



To erase data from MyTach memory

●Press "GPS on-off"

WARNING: pressing "GPS on/off" all workouts will be cleared. It is not possible to clear just some of them.



# 6 - MyTach and the PC

It is possible to download and analyze **MyTach** recorded workouts using **Sports Agenda** software (freely downloadable with its user manual from <a href="https://www.aim-sportline.com/mytach">www.aim-sportline.com/mytach</a>).

With **SportsAgenda** software it will be possible to analyze training session and constantly keep under control the training flow.

It is also possible to download data with RaceStudio2 software(free of charge), developed for many motorsport applications.

RaceStudio2 user manual can be downloaded from the official AIM website: <a href="www.aim-sportline.com">www.aim-sportline.com</a>, download/software area.

Note: before downloading data with RaceStudo2 it is necessary to install AIM USB drivers that can be found at: www. Aim-sportline.com/MyTach, download area/software.



# 7 – Firmware upgrading (Firmup)

AIM is always developing new functionalities for all its loggers. It is suggested to periodically check on <a href="https://www.aim-sportline.com/mytach">www.aim-sportline.com/mytach</a> if new firmware/software versions have been released. To upgrade <a href="https://www.aim-sportline.com/mytach">Mytach</a> firmware:

- •connect to www.aim-sportline.com/mytach;
- enter download area;
- •snap MyTach into the docking station and connect it to the PC;
- •select the firmup file and run it.



## 8 – Analyse and export data

**SportsAgenda** software allows to export acquired data in different formats which are compatible with the most popular analysis software:

KML format - it allows to export files to Google Earth®

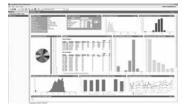
GPX format - it allows to export file to many analysis software

CSV format – it allows to export file to Training Peaks™ software

For further information about file export in the various formats please refer to **SportsAgenda** user manual (freely downloadable from : www.aim-sportline.com/mytach.









# 9 - Mounting the Rubber Bracket

Put rubber bracket on a cylindrical support (i.e. the bike handlebar).

Place MyTach on the rubber bracket.

Tie MyTach strap.





# 10 - Appendix

## 10.1- Cleaning and care

Clean MyTach using a cloth dampened with a mild detergent solution

Avoid chemical cleaners and solvents that may damage plastic components.

Do not store **MyTach** where prolonged exposure to extreme temperatures may occur, as permanent damage may result.

## 10.2- Disclaimers

#### USER RESPONSABILITY

MyTach is intended for recreational use only.

MyTach must not be used to obtain measurements that require professional or industrial precision.

#### CF

The CE mark is used to mark conformity with the European Union EMC directive 89/336/EEC and 99/5/EEC

#### FCC CONFORMITY

MyTach emits radio waves.

If not correctly installed or used (according with the instructions), **MyTach** could cause radio communications interferences. It is suggested to switch it off during air travels.

**AIM** does not supply any quarantee of interference absence in specific cases.

If the device causes negative interferences with other instruments, it's possible to solve the problem moving MyTach.



## 10.3 - Specifications



GPS sampling frequency Other channels sampling frequency Accelerometer

Internal battery Charger power

Battery duration

Battery working temperature Display working temperature

Display dimensions Display resolution

Weight

Memory dimensions

up to 4Hz

up to 10Hz Tri-axial

660mAh

via USB from the PC or from the socket (all

countries)

up to 8 hours recording and up to 10 hours in standby

-20°C/+60°C

-20°C/+70°C 68\*64 pixels

84.6 dpi

82a

1 Mb