ALFANO ®
CHRONOMETRIC SYSTEM

ADSGPS
A1001

GPS *10Hertz*

G Force *3Axles*

Manual (EN)

ADSGPS V2.04

10-2012

ADSGPS

6. [Race](#)

    a. Laptimes
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            3. Analysis of acceleration/deceleration (Laptimes, Time Trial, Slalom, Rally)
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        iii. Analysis by session / average of the 3 best laps « 3 Lap »
        iv. Theoretical times
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8. [Track detection](#)
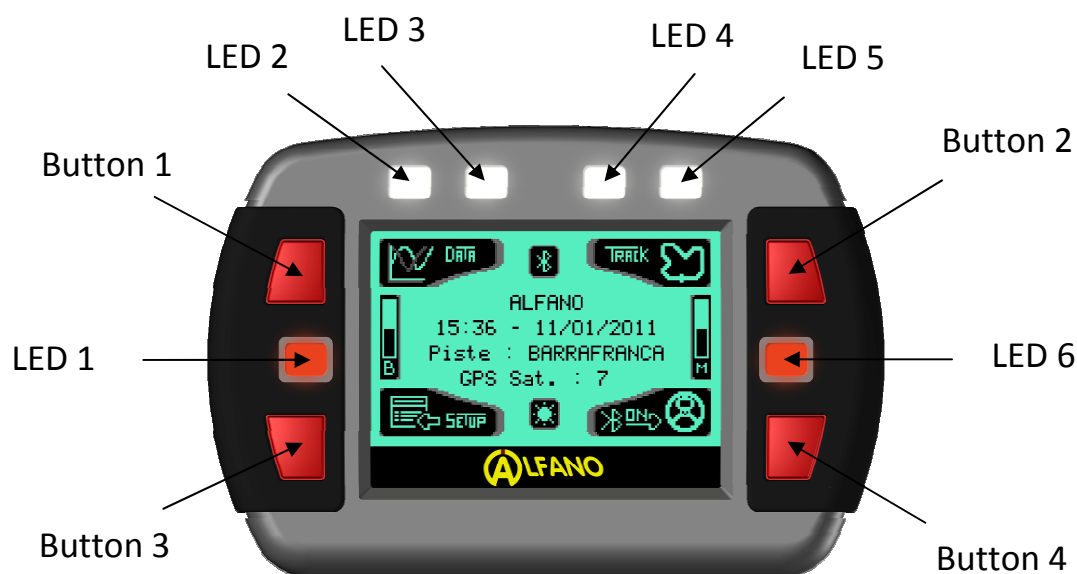9. [Bluetooth / race display](#)

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    a. Memory
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        i. GPS signal
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        iii. Date & hour

13. [G Force sensor integrated](#)

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The ADSGPS is composed of 6 LEDs and 4 buttons. Each button is associated to the correspondent menu displayed on the screen.

1- _Power supply_

The ADSGPS is delivered with 2 batteries of type AA 1.5V but it can also work with 2 recharging batteries of type AA 1.2V that offer very good results or with an external power supply ALFANO (Article ref : A4002) bound to an included tension battery between 6V and 18V. An energy gauge in the « Welcome menu » gives the power supply state. When the power supply is too weak (flat batteries or discharged accumulators), a message warns you.

When this message is displayed, the ADSGPS switches off automatically at the end of 10 seconds.

Remark :

- Think about checking your energy gauge before beginning a race if this one lasts a long time.
- The consumption as well as the speed of discharge of the batteries depends on the quality and type of battery, that's why we strongly recommend to **change the batteries since the message of prevention**. Using nearly flat batteries can driven to a deterioration of the batteries and can damage your ADSGPS.
- Just for your notice, value of completely charged or new batteries :

  - Average consumption in race without backlight :   ~25 hours of autonomy
  - Average consumption in race with backlight at 50% (value 5) :   ~14 hours of autonomy
  - Average consumption in race with backlight at 90% (value 9) :   ~10 hours of autonomy

Attention : These values are just given for your notice, it mainly depends on the quality of the batteries.

2- <u>Switching ON / OFF of the ADSGPS</u>

There are 3 ways to switch ON the ADSGPS :

- A brief pressure on right below button switches ON the ADSGPS without backlight.

- A pressure of 2 seconds on this same button switches ON the ADSGPS <u>with backlight</u>.

- A pressure of 5 seconds on this same button switches ON the ADSGPS in the menu of restoration system.

<u>Remark</u> : The activation (or not) of the backlight can only be done on switching ON the ADSGPS.

The menu of restoration system is only used to restore the factory program in case of problems (problem of display, of logo or of language).

Please push on the top right button corresponding to 'OK' during 3 seconds if you effectively want to restore your system.

For reasons of security, proper to the system, push then successively on the button corresponding to 'OK' while following scrupulously the sequence asked by the ADSGPS.

You have 30 seconds to do the sequence asked in order to finalize the restoration of the ADSGPS.
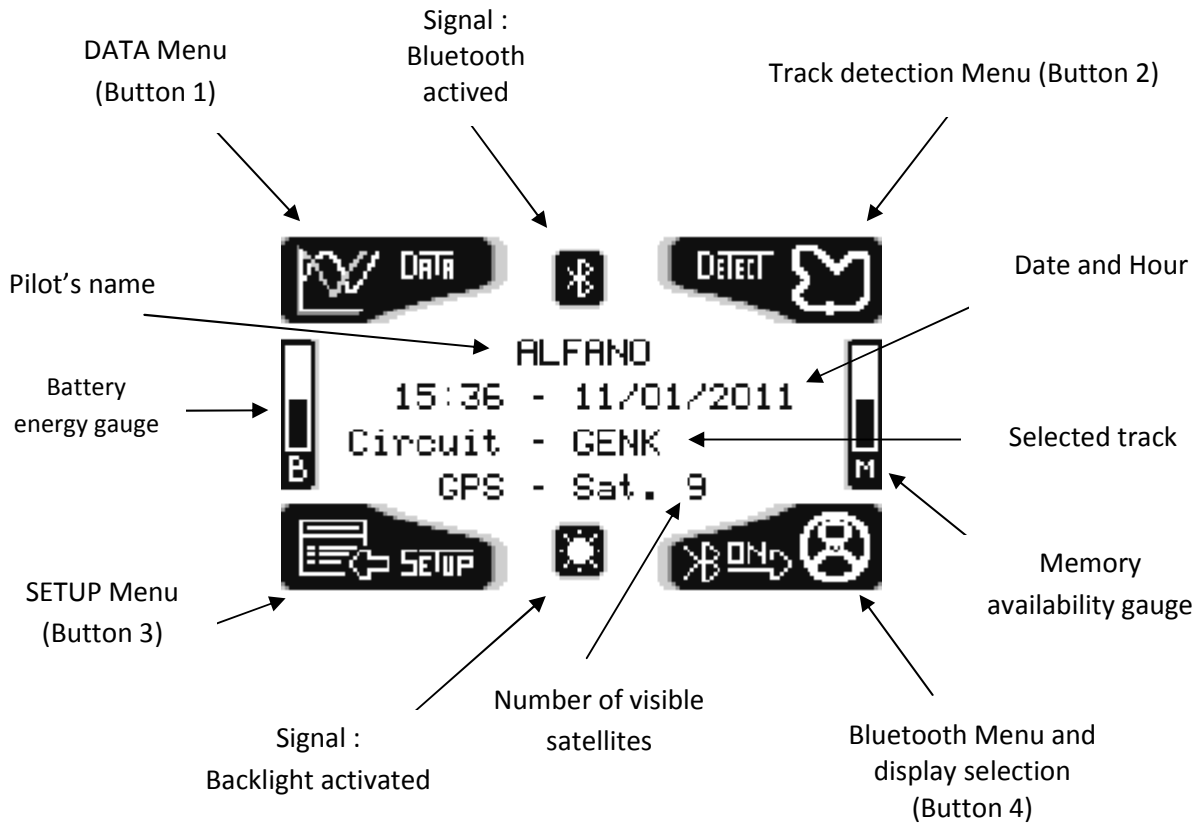

Switching OFF of the ADSGPS :

A pressure of 2 seconds on the right below button in the « welcome menu » allows switching OFF the ADSGPS.

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3- <u>*Welcome menu*</u>

After switching on, the ADSGPS displays the welcome page with several informations, this window is the main display of the ADSGPS. It is from this window that the system can activate the Bluetooth, to stand in race mode and to offer the access to all menus allowing the customizing and the visualization of the recorded data.

DATA Menu
(Button 1)

Signal :
Bluetooth
actived

Track detection Menu (Button 2)

Pilot's name

Date and Hour

Battery
energy gauge

ALFANO
15:36 - 11/01/2011
Circuit - GENK
GPS - Sat. 9

Selected track

SETUP Menu
(Button 3)

Memory
availability gauge

Signal :
Backlight activated

Number of visible
satellites

Bluetooth Menu and
display selection
(Button 4)

Each of the 4 buttons allows to cross the menus and under-menus, to visualize data, to modify the parameters' setting and to configure tracks to return finally in welcome page.
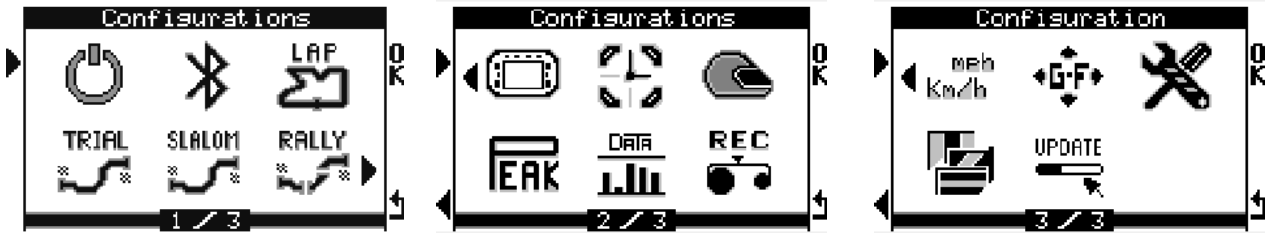
Thanks to the various icons situated close to the buttons, you can move, modify, confirm and return to the previous menu.
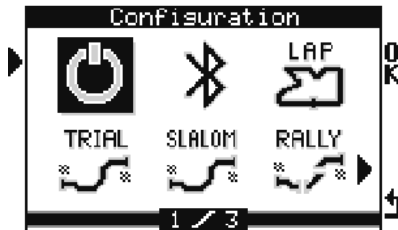
Icons mainly used in the ADSGPS

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4- _Setup menu_

The setup menu allows to adjust the different parameters of your ADSGPS.
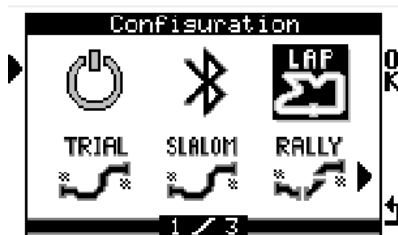

a. **Power off**

To switch off the ADSGPS while pushing on 'OK'

b. **Bluetooth**

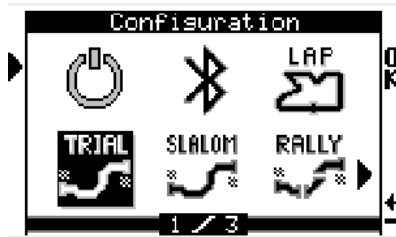Displays the Bluetooth parameters of your ADSGPS for a connection to another ADSGPS or a computer equipped with a Bluetooth peripheral. You can recover here the name of the ADSGPS (example : ALFANO-1133), the pin code/Windows access key (example : 5689) and a personal code that you can modify in order to protect your data when connecting it.

c. **Laptimes**

Laptimes management
(Detailed from page 12)

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d. [TRIAL icon] *Time Trial*

[Configuration screen image]

Time Trial management
(Detailed from page 12)

e. [SLALOM icon] *Slalom*

[Configuration screen image]

Slalom management
(Detailed from page 12)

f. [RALLY icon] *Rally*

[Configuration screen image]
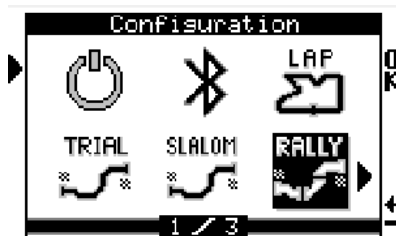
Rally management
(Detailed from page 12)

g. [Display icon] *Display*

[Configuration ADS-GPS screen image]
Rétro-Eclairage : 2
Contraste : 3
Eclairage LED : 5
Extinction (M) : 5
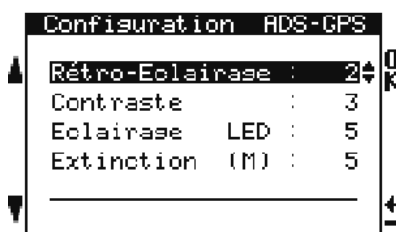
Allows following settings :
- Setting of the backlight power
- Setting of the screen contrast
- Setting of the LEDs power
- Setting of the time of automatic switching off :
  between 1 minute and 30 minutes maximum.

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h. *Setting hour/date*

```
Réglage  Date & Heur
 --- Données  GPS ---
Forme  : 12H - M/J/A
Date   :  05/03/2012
Heur   :       13h34
Fuseau :       +2
```

Allows following settings :
- Setting of the date format
- Setting of the time zone

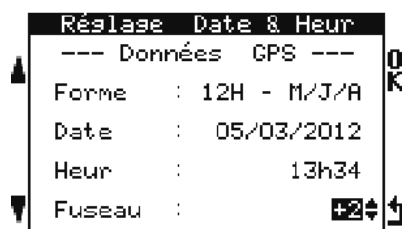**Remark** : The date and the hour are provided by the satellites in GMT, these information are therefore only visible in presence of these.

i. *Pilot*

```
      Pilotes
Pilote  1 :    ALFANO
Pilote  2 :      JOEL
Pilote  3 : A
Modifier     3S. ▶ OK
```

Allows to create until 3 different pilot's names. Every session will be then associated to the chosen pilot. A brief pressure on the corresponding button to 'OK' selects the pilot, a pressure of 3 seconds on the same button allows to modify the pilot's name. The name of the pilot selected will be then displayed in the menu of welcome.

j. *Peak*

```
Affichage    "Peak"
Temps Tour (S) :  01
Temps Sect.(S) : Fixe
Vitesse (S)    : Fixe
```
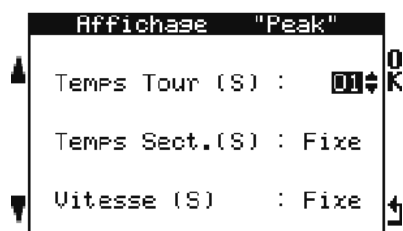
Allows to freeze some information to the screen, during an adjustable time lapse, in order to have the time to visualize them.
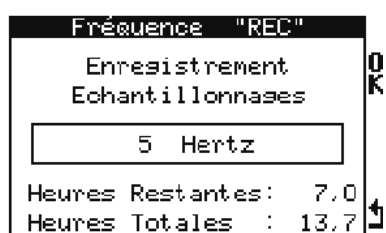- Regulating of the display length for the lap times : from 1 to 60 seconds or fixed.
- Regulating of the display length for the partial times : from 1 to 60 seconds or fixed.
- Regulating of the display length for the points of speed : from 1 to 60 seconds or fixed.

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k. **DATA** **Setting Graph**

DATA Analyse

Réglage Graphique

OK

1.8 Sec.
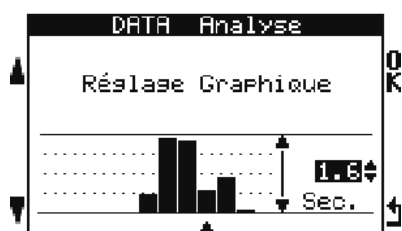
Allows to adjust the graph area from 0.5 second to 10 seconds in order to better visualize the data recorded in the DATA menu.

l. **REC** **Sampling Frequency**

Fréquence "REC"

Enregistrement Echantillonnages

OK

5 Hertz

Heures Restantes: 7,0
Heures Totales : 13,7

Allows to choose the frequency of the data recording in race mode :
- 10 hertz -> Recording all 100 ms
- 5 hertz   -> Recording all 200 ms
- 2 hertz   -> Recording all 500 ms
- 0 hertz -> Only recording lap times and partial times (adapted for endurance races)

m. **Unit**

Unité

Distance

OK
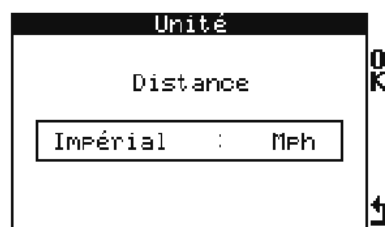
Impérial : Mph

Allows to select the unit : imperial (Mph) or metric (Km/h) for the visualization of the speed and the distance.

n. **G·F** **G-Force**

Force - G

OK

Non Actif
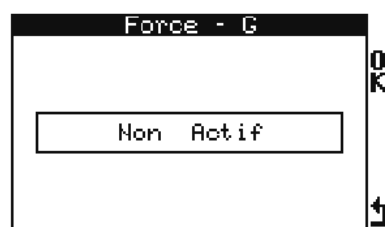
Allows to activate or not the G-Force sensor.

Note : the data of the G-Force sensor will only be analyzed with the Software. The activation of the G-Force sensor shortened the length of the memory of +/- 30%.

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o. **Parameter by default**

```
Paramètre par Défaut          O
                              K
   Pour  Restaurer

Les Paramètres USINE

Presser OK - 3 Secondes
```

Restore the factory parameters of the ADSGPS (Attention, it is different from a restoration system because, in this case, only the parameters will be restored).   Push 3 seconds on the button corresponding to 'OK' to throw the procedure of factory parameters restoration.
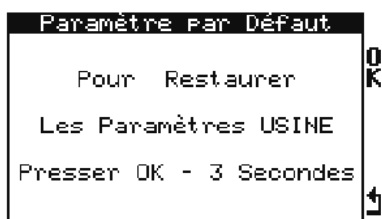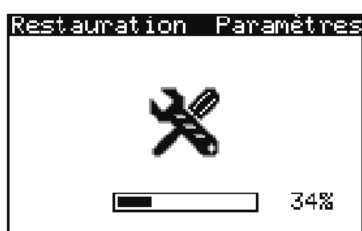
```
Restauration  Paramètres



         34%
```

Attention : This procedure also erases your tracks and data recorded.

p. **Language**

```
     Langues               O
                           K
     Francais
```

Allows to select the language of your choice.

q. **Update**

```
  UPDATE  -  UPDATE
   Attente  Connexion
           =
Serial   :   10-05689
Soft     :       1.01
Code     :     123456
Device   : ALFANO-1133
Pin      :       5689
```
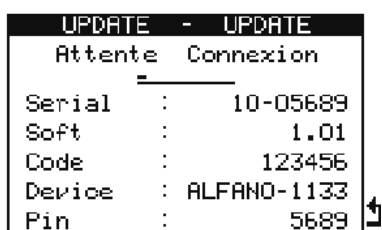
Activates and displays the Bluetooth parameters of the ADSGPS in order to do an update of this one. A computer provided with a peripheral Bluetooth is necessary to be able to do an update (Detailed to the page 28).

<u>Note</u> : in the case your computer has no Bluetooth peripheral, then use an external USB-Bluetooth key.

5- *Tracks Management*

a. Laptimes, Time Trial, Slalom

```
        Circuits
 Nouveau                  O
 Liste                    K
 Supprimer
 ─────────────────
 Envoyer          �ળ
 Recevoir         ✱
```

- The command « new » allows to create a new track (detailed below)
- The command « list » displays all the tracks already created
- The command « delete » allows to delete a track already existing
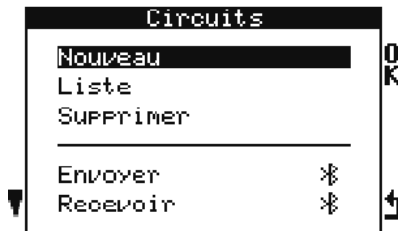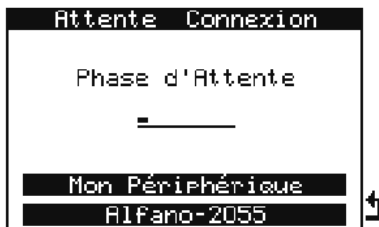- The command « send » allows to send a track existing to another ADS GPS thanks to Bluetooth
- The command « receive » allows to receive, thanks to Bluetooth, a track from another ADSGPS.

b. Creation of a track

There are 3 ways to create tracks on your ADSGPS :

   i. A pilot already has some tracks created in his ADSGPS, he can send them to you thanks to Bluetooth.

```
   Attente  Connexion

   Phase d'Attente

        ▬────────

   Mon Périphérique
     Alfano-2055
```

This first ADSGPS is waiting for a connection to receive a track.

```
 Recherche Périphérique

   Phase de Recherche

        ▬────────

   Mon  Périphérique
     Alfano-1133
```
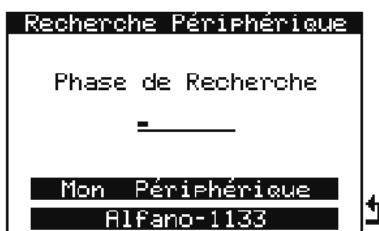
This second ADSGPS is searching for a peripheral to send a track.

```
 Périphérique  Trouvé
 Alfano-2569       ✱    O
 Alfano-5698       ✱    K
 Alfano-2055       ✱
 Alfano-1127       ✱
 Alfano-2222       ✱
         ▼
```

The second ADSGPS found some ADSGPS and asks a connection with the ADSGPS named ALFANO-2055.
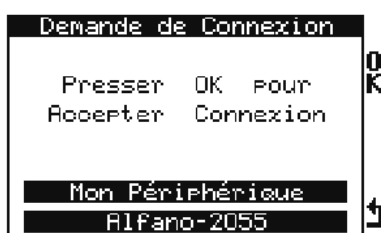
|	
Demande de Connexion Presser OK pour Accepter Connexion Mon Périphérique Alfano-2055	The ADSGPS ALFANO-2055 can accept or refuse the connection with the second ADSGPS named ALFANO-1133.
Connexion Etablie CONCA Presser OK pour Transférer Mon Périphérique Alfano-1133	If there is acceptance of the connection : you can choose the track to send among those recorded in the ALFANO-1133 and validate with 'OK'.
Recevoir Circuit CONCA Presser OK pour Accepter Mon Périphérique Alfano-2055	The ALFANO-2055 accepts or refuses the track sent coming from the ALFANO-1133. If acceptance of the track :
Recevoir Circuit CONCA Transfert Réussi Mon Périphérique Alfano-2055	Successful transfer.
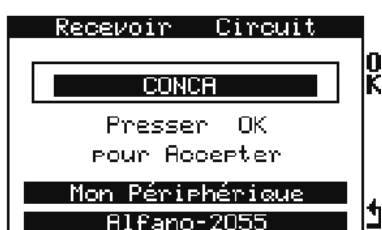
ii. You can download the track from the Database on our website www.alfano.com
This Database is going to be progressively completed.

In order to complete our Database and so make a maximum of pilots taking advantage of tracks' data, you can record your tracks on your computer and then, send them to us via Internet. We will thus complete the Database progressively.

iii. If the track you need doesn't exist yet, you can create it by yourself.

1- Track name
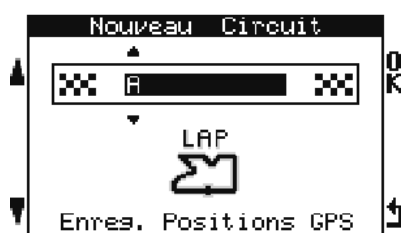
Nouveau Circuit A LAP Enreg. Positions GPS	Push on the button corresponding to 'OK' in order to be able to enter the name of the new track (11 maximum characters), you can use the 26 letters of the alphabet, 10 numbers from 0 to 9 and the space. You must go until the tip of the 11 characters in order to validate the name of the track.

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2- Recording GPS position
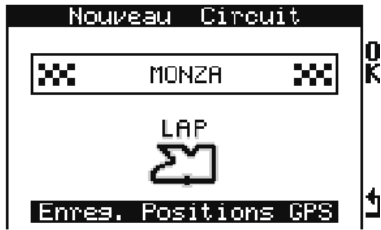
Push on the button corresponding to 'OK' to be able to record the GPS positions.

a) Laptimes

The recording takes place while running. Push on the right top button corresponding to 'Start' as you pass the line of departure to record the GPS coordinates of the start line.
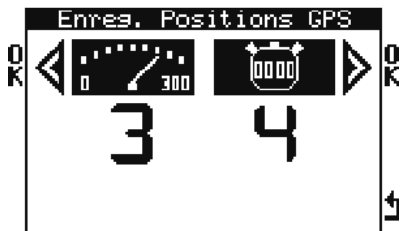
If you want, you can record the GPS coordinates of 4 partial times while pushing on the right top button and the GPS coordinates of 5 points of speed while pushing on the left top button.
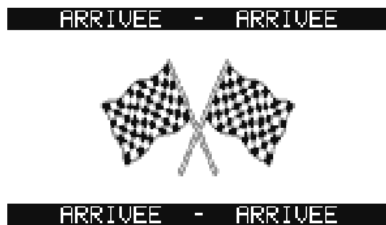
When your lap will be ended, the ADSGPS will recognize your start line and finalize automatically the recording of the track. Your new track will be then recorded in the memory of the ADSGPS.

b) Time Trial

The recording of the start line takes place to the stop. The partial times will take place while running.

Take position on the start line and push on the right top button corresponding to 'OK' to record the GPS coordinates of the departure line.

If you want, you can record the GPS coordinates of 4 partial times while pushing on the right top button and the GPS coordinates of 5 points of speed while pushing on the left top button.

A brief pressure on the left below button records the GPS coordinates of the finish line and finalize the recording of the track. Your new track will be then recorded in the memory of the ADSGPS.
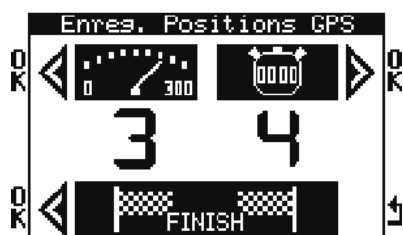

End of recording.

c)   Slalom

The slalom is an opened track with several passages on the finish line.
The number of passages on the finish line (maximum 4) has to be entered while creating the track.

If, for example, the number of finish line passages = 2 : then we will have the start line, 2 passages on the finish line corresponding to the partial times and the 3rd passage on the finish line that will finally end the session.

The recording of the start line takes place to the stop.

Take position on the start line and push on the right top button corresponding to 'OK' to record the GPS coordinates of the departure line.

A brief pressure on the left below button records the GPS coordinates of the finish line.

The partial times will correspond to the number of passages on the finish line.

```
█ ARRIVEE  -  ARRIVEE █
```

End of recording

```
█ ARRIVEE  -  ARRIVEE █
```

```
    Liste  Circuits
▲  ┌─────────────────┐  ▮O
   │▨▨    MONZA    ▨▨│◆ ▮K
   └─────────────────┘
    LAP
     ↗▨   ID:45D8-23G1
▼  Enres.Pos. Chrono : 3  ↴
   Enres.Pos.Vitesse : 2
```

In the tracks' list, the track is displayed with its ID, example : « 45D8-23G1 »
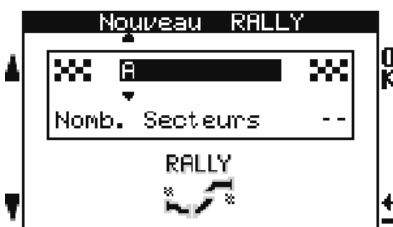
You can change the name of the track (LAP, TRIAL, SLALOM), in « Tracks list ». With a pressure of 1 second on the button 'OK', you activate the following window and you repeat the same operations as when you create a new track.

```
    Liste  Circuits
▲        ▲
   ┌─────────────────┐  ▮O
   │▨▨  A         ▨▨│◆ ▮K
   └─────────────────┘
         ▼
▼  Enres.Pos. Chrono : 3  ↴
   Enres.Pos.Vitesse : 2
```

Note : Only the name can be changed, not the GPS positions and the ID remains the same.

Note : This option will be available from ADSGPS version 2.02.

d)   Rally

```
    Nouveau  RALLY
▲        ▲
   ┌─────────────────┐  ▮O
   │▨▨  A         ▨▨│  ▮K
   └─────────────────┘
         ▼
   Nomb. Secteurs    --
         RALLY
▼       ▨↘↗▨           ↴
```

```
    Nouveau  RALLY
▲  ┌─────────────────┐  ▮O
   │▨▨   TARGA 12  ▨▨│  ▮K
   └─────────────────┘
   Nomb. Secteurs   04◆

▼                      ↴
```

A rally track has several sectors. The sector can be a transfer or a special. Only the times of the special will be memorized in the ADSGPS.

```
    Nouveau  RALLY
▲  ┌─────────────────┐  ▮O
   │▨▨   TARGA 12  ▨▨│  ▮K
   └─────────────────┘
   Nomb. Secteurs    04
   ▉Compositions   ▶▶
▼  Enres. Pos. GPS  ▶▶  ↴
```

Every sector must be beforehand configured in the ADSGPS thanks to the road book. You have to enter the type of sector (transfer or special), the time of the run as well as its distance. The ADSGPS will then give automatically the middle speed in order to respect the regulation of the rally. (« Composition »).

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```
┌─────────────────────────────┐
│ TARGA 12    Secteur  01      │
│S                          O  │
│  Type  : --------------   K  │
│                              │
│  Temps    :   00'00"00       │
│                              │
│  Distance :     00.000       │
│                              │
│  V. Moy.  :       00.0      ↵│
└─────────────────────────────┘
```
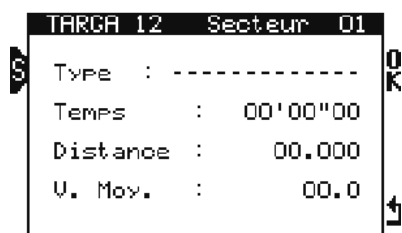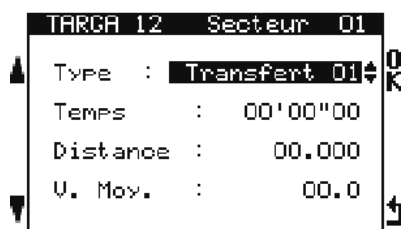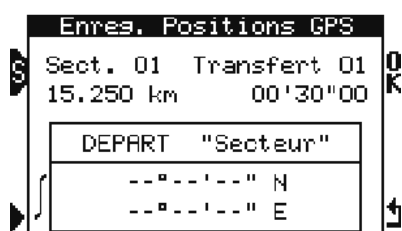
You can make the different sectors scroll with the top left button corresponding to 'S', you can enter into the sector to configure it with the right top button corresponding to 'OK'

```
┌─────────────────────────────┐
│ TARGA 12    Secteur  01      │
│▲                          O  │
│  Type  : Transfert 01↕    K  │
│                              │
│  Temps    :   00'00"00       │
│                              │
│  Distance :     00.000       │
│▼                             │
│  V. Moy.  :       00.0      ↵│
└─────────────────────────────┘
```

Example: you parameter the first sector, you choose «transfer ».

```
┌─────────────────────────────┐
│       Liste  RALLY           │
│▲                          O  │
│ ▨▨      TARGA 12     ▨▨    K  │
│                              │
│ Nomb. Secteurs        04     │
│                              │
│ Compositions        ▶▶       │
│ Enreg. Pos. GPS     ▶▶      ↵│
└─────────────────────────────┘
```
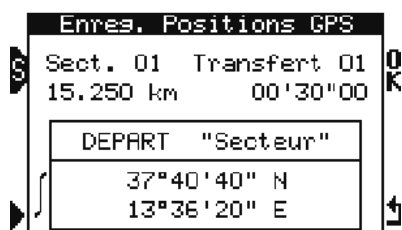
Once the setting of the sectors ended, you can go back to the selection menu pushing on the right below button. Then you select « GPS Pos. Rec. » and you validate pushing on 'OK'. Now you can start the recording of the GPS coordinates of the different sectors. (Operation that can be done at another moment)

```
┌─────────────────────────────┐
│   Enreg. Positions GPS       │
│S                          O  │
│ Sect. 01   Transfert 01   K  │
│ 15.250 km      00'30"00      │
│  ┌───────────────────────┐   │
│  │ DEPART   "Secteur"    │   │
│▶ │  --°--'--" N          │   │
│∫ │  --°--'--" E         ↵│   │
│  └───────────────────────┘   │
└─────────────────────────────┘
```

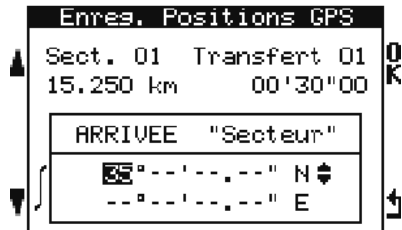Once configured, it is necessary to record the GPS coordinates of the sector (« GPS Pos. Rec. ») that means :
- the departure of the sector
- the arrival of the sector
- If it is a special, the arrival of the special is also necessary and possibly 4 partials and a maximum of 5 speed points, if you want.

```
┌─────────────────────────────┐
│   Enreg. Positions GPS       │
│S                          O  │
│ Sect. 01   Transfert 01   K  │
│ 15.250 km      00'30"00      │
│  ┌───────────────────────┐   │
│  │ DEPART   "Secteur"    │   │
│▶ │  37°40'40" N          │   │
│∫ │  13°36'20" E         ↵│   │
│  └───────────────────────┘   │
└─────────────────────────────┘
```

- You can make the different sectors scroll with the top left button.
- You can make the different points to record scroll with the left below button.

Once the good sector and the good position selected (start, arrival, speed, partials, etc.…), you have two ways to record the GPS positions :

1) Record the GPS positions there while pushing 1 second on 'OK', this way, the ADSGPS captures the GPS positions where it is and memorizes them.

2) Record the GPS positions manually, for it, push 3 seconds on the button 'OK'.

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```
┌─────────────────────────┐
│  Enres. Positions GPS   │
│ Sect. 01  Transfert 01 |O|
│ 15.250 km      00'30"00 |K|
│  ┌───────────────────┐   │
│  │ ARRIVEE "Secteur" │   │
│  │ 85°--'--.--" N ↕  │   │
│  │ --°--'--.--" E    │   │
│  └───────────────────┘   │
└─────────────────────────┘
```

Nearly all promoters of Rally achieve the road book indicating the GPS positions for the departures and arrivals of the transfers and specials.
In this case, it is possible to enter the GPS positions manually.

Tricks : use « Google Earth » to raise the missing GPS positions of the points of speed and partials.

Note : the possibility to record the GPS positions manually will be available from the ADSGPS version 2.02.

Note : A special behaves like an open circuit + the zone of transfer that follows. The times of the special are memorized in the ADSGPS, the parameters of the transfer are displayed only for your information.

Example of display of a special in race.

```
┌─────────────────────────┐
│ Kmh  089      Sect. 1   │
│ 00'05"03  [Lap 0]        │
│ 0'00"00  +0"00 Sect. 0   │
└─────────────────────────┘
```

```
┌─────────────────────────┐
│   12.080  Km             │
│  00:23'47                │
│     ◀◀ ▪                 │
│  Ø   31.4  Kmh           │
└─────────────────────────┘
```

◀◀◀◀◀◀◀ ▪ ▶▶▶▶▶▶▶

Example of transfer display. On top, you can see the remaining distance before the finish line of the sector. To the middle, the remaining time and, below, the average speed to which the pilot must run in order to arrive without penalty. The direction of the arrows indicates to the pilot if he is early (arrows toward the left) or late (arrows toward the right). The number of arrows indicating to the pilot if the advance or the delay is important, is more or less big.

18

a. Tracks managing with the software « TrackManager »

This software has been created to help you managing your tracks :

- Import tracks from an ADSGPS to a computer
- Import tracks from a computer to an ADSGPS
- Import tracks from the website ALFANO.COM
- Create a file of « kml » type to export the track on Google Earth
- Export the files « tracks » with internet, Email etc…
- Create and modify Rally tracks

b. The ID (identification) of the tracks

For each track created with the ADSGPS or with the software « TrackManager », an ID will be assigned to every track, this identification will be composed of 8 alphanumeric (example : 58F4-45K6) to be unique, if several ADSGPS use the same ID track, they will have the advantage to be able to make precise comparisons that's to say that the partial times, the points of speed, the lap times will be captured with the same GPS coordinates.

Note : as soon as a Rally track is modified on the ADSGPS or with the software "TrackManager", another ID is assigned automatically. Only the Rally tracks can be modified. Regarding the other types of circuit, once created, only the names can be changed (the structure and the ID don't change).

Other annotation : With the software "TrackManager" it is possible to lock a Rally track. A small closed padlock will then appear on the right of the name of the Rally.

6- *Race*

Once your track is recorded, go to the welcome menu. It is from this menu that the race mode will begin since the detection of the start line of the chosen track (See Track detection).

      a.   Laptimes

Approaching the start line, the ADSGPS goes in the departure zone and displays this window.
For the laptimes, the recording starts automatically when you clear the start line.
Note : the start line is in the zone of departure.

      b.   Time trial, Slalom, Rally

- For the time trial and slalom, take position to the level of the start line and stop.
- Then push on the right top button corresponding to 'OK' to activate the start.

Note : this window will be available from ADSGPS version 2.02

- For the rally, take position to the level of the start line and stop.

  The system marks the zone of departure automatically and indicates the adherence of this zone. You can see the type and the number of the sector. The Rally can include several identical sectors. For this, the system will display, following the progress of the Rally, the good sector. But if it is not the case, you have the possibility to choose by yourself the correct sector, for it, use the left buttons.

- Push then on the right top button corresponding to 'OK' to activate start.

The departure is now activated. The recording will start since the detection of a speed superior to 5 km/h.

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! GO !

Speed detected, recording begins.

c. Race mode

Kmh 089   Sect. 1

00'05"03 Lap 0

0'00"00 +0"00 Sect. 0

You are now in race.
- A brief pressure on the right below button allows to change the type of display.
- A pressure of one second on the left below button stops the recording.

d. « STOP » End of race

ARRIVEE - ARRIVEE

ARRIVEE - ARRIVEE
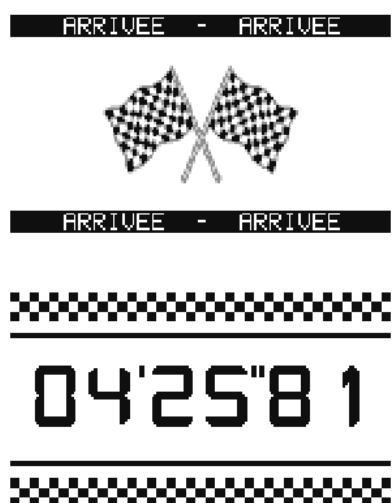
- For the time trial, Slalom and Rally, the ADSGPS stops the recording since the passage on the finish line. Then this window is displayed during 5 seconds.

04'25"81

- After that, will appear the accomplished time of the race during 30 seconds before to return finally to the welcome menu.
- A brief pressure on one of the 4 buttons allows to come back more quickly to the welcome menu before the end of the 30 seconds.

e. « STOP » Race interrupted

Chronométrage STOP Interrompu

- If you want to stop the recording before the end of the race, exercise then a pressure of 1 second on the left below button, this window is displayed during 5 seconds, to finally return to welcome page.

Note : in the case where the race has not been finished and/or the first lap of a closed track has not been curled, no information will be displayed in the DATA menu.

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7- *DATA*

a. **Selection of the track to analyze**

This menu allows to analyze the data recorded during the race mode.

First, select the track that you wish to analyze. The tracks are displayed on a list with the date of last use.

In this example, S1, S2 and S3 represent the sectors of a rally circuit.

Once the track selected, you have access to the 6 detailed menus below.

i. Best

1 Displays the best lap (laptimes) or best session (time trial, slalom, rally) in absolute.
2 Displays the best lap (time trial) or best session (time trial, slalom, rally) of the day.
3 Displays the best lap (laptimes) or best session (time trial, slalom, rally) of the last recording.

A brief pressure on one of the 4 buttons allows to come back to the previous menu 'DATA Analysis'.

ii. Analysis by session / lap by lap

This menu displays all sessions of the track with their dates and hours of recording, as well as the best time done during this session.

We will choose hereafter as example the 4th session of the 29/04.
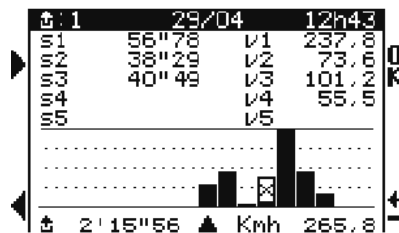
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1- For the laptimes
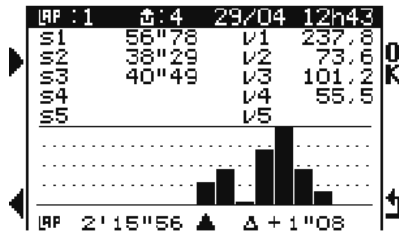
Example :
- 4th session of 29/04
- Display of the partials and points of speed of the 1st lap. Lap time nr 1 : 2'15'56
- Total of 7 laps (7 bars on the graph)
- Best lap : the 3rd one (2'14'48)

Lap gap/best lap : +1.08

Once your session selected, you have the partial times and points of speed displayed for the first lap of your session, you can select and can analyze all laps of your session with the help of the two left buttons. The bar-graphs represent your lap times. The information displayed on the left below indicates your lap time, and the time displayed on the right below indicates the gap between the selected lap and the best lap.

2- For the Time Trial, Slalom, Rally (special) :

Example :
- 1st session of 29/04
- Display of the partials and points of speed of the 1st session. Lap time : 2'15'56
- Total of 7 sessions (7 bars on the graph)
- Best session : the 3rd (lowest bar-graph)
- Worse session : the 5th (highest bar-graph)
- 4th session not ended (cross).

Once your session selected, you have the partial times and points of speed displayed for the first session, you can select and can analyze all sessions with the help of the two left buttons. The bar-graphs represent your times of session. The information displayed below on the right indicates the maximal speed reached during the session.

Note : the results of the times of the sessions gotten with the ADSGPS will be logically lower than the times gotten by the promoters. Indeed, at the time of a departure to the stop (like on lap times), in order to avoid inopportune startings, the ADSGPS starts after the detection of a speed superior to 5Km/h, it implies a shift on the official times of the promoters who throw their meters at the same time as the green light that indicates the authorization to start the vehicle. The time that the pilot reacted and that the vehicle reaches a speed of 5km/h explains, on the whole, this shift of the times between the ADSGPS and the promoters.
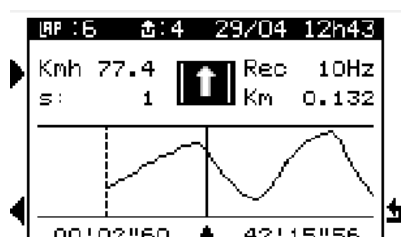
3- Analysis of acceleration/deceleration (Laptimes, Time Trial, Slalom, Rally)
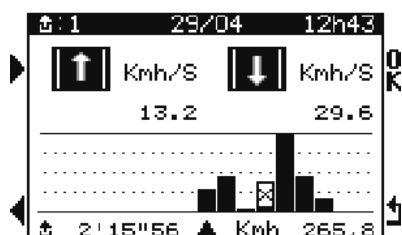
Analysis of your lap or session with the middle acceleration and deceleration.
More the values are big, more the accelerations and the brakings are strong.

4- Graph Analysis

This graph corresponds to the speed curve of the vehicle in real time.

The displacement of the vehicle position is done with the left buttons.

Following the orientation of the arrow during the displacement (icon over the diagram), the vehicle accelerates (arrow upwards) or decelerate (arrow downwards).

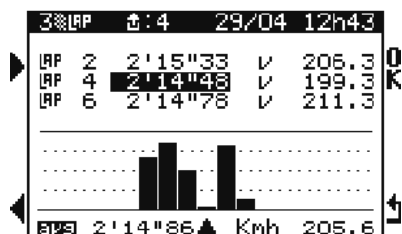i. Analysis by session / average of the 3 best laps « 3 Lap »

Remark : This menu only concerns the laptimes.

This menu displays all sessions of the circuit with their dates and hours of recording, as well as the best time done during this session.

We will choose hereafter as example the 4th session of 29/04.

1- Analysis of the 3 best laps by session

This menu indicates the 3 best laps of your session, the maximal speed reached for these 3 laps, and the average of the time and the maximal speed displayed to the low. The bar-graphs represents the average of the 3 laps of each session. The visualization of these bar-graphs allows you to see your best sessions quickly.

2- Analysis of acceleration/braking of the 3 best laps by session
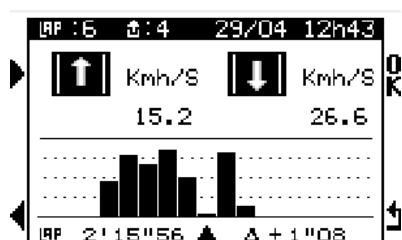
Analysis of acceleration and deceleration of your 3 best laps on the selected session.

iv. Theoretical times

This menu takes the best partials done on the track, and then calculate the theoretical time with these partials. You also recover the information, date and hour, lap, sessions to which belong the partials.
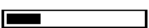
v. Total meter

This menu displays the meters of total time and total distances browsed.
A pressure of 3 seconds on the right top button corresponding to 'OK' put back to zero the selected meter.
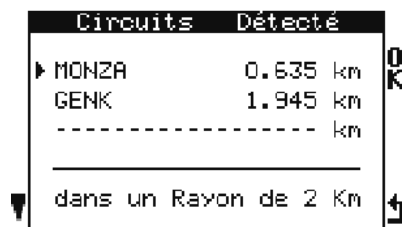
vi. Erasing of the data

This menu allows to erase the totality of the data recorded in the ADSGPS. We usually use this menu when the memory is full. We suggest, beforehand, to record all data of your ADSGPS on a computer via Bluetooth. Indeed, the erasing is irreversible, it will be therefore impossible to recover the data if these have not been recorded on a computer before the erasing.

Remark : the erasing of the data doesn't affect the created tracks nor the parameters of the ADSGPS.

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8- _Track detection_

This menu is accessible while pushing on the right top button when you are in the welcome menu and allows a fast detection of the tracks recorded in the ADSGPS.

```
  Circuits  Détecté
▶ MONZA       0.635 km   O
  GENK        1.945 km   K
  ----------------- km

  _____
  dans un Rayon de 2 Km  ↴
```

This menu indicates you, in a ray of 2 km maximum, the 3 nearest tracks recorded in the ADSGPS. Then, you can choose the track on which you wish to run. Of course, the tracks have to be created beforehand or downloaded from the Database of our website.

Remark : if you select a rally, the ADSGPS chooses automatically the nearest rally sector in a ray of 2km. It does a research of the sectors every 20 seconds and commute automatically on the nearest, so the pilot only chooses his rally, the selection of the special or the transfer will make itself automatically too.

9- _Bluetooth / race display_

```
 DATA    *   DETECT

    Mon Périphérique
 B  Nom    ALFANO-1133  M
    Pin         5689

 SETUP         ON
```

A brief pressure on the right below button in the welcome menu activates the Bluetooth, the name of the peripheral and the pin code/Windows key access is displayed. It allows to communicate with your computer in order to download your data. The downloading is then done since the computer. (See the note on the data analysis Software on computer).

- A second pressure on the same button (after the Bluetooth is activated) activates the following menu that allows to choose between 3 options :

```
  Choisir  Affichages
◀ Performance    Course ▶

◀ Route               ↴
```
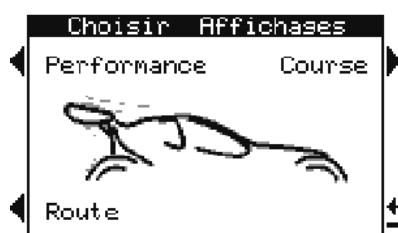
- Performance
- Road
- Race

a. Performance

A special menu exists to measure the performances of your vehicle.

Performance		
0/100 (Kmh) (S)	8.2
0-400m (m) (S)	12.3
0-1000 (m) (S)	25.2
V-MAX (Kmh)	256
80-120 (Kmh) (S)	23.1
80-160 (Kmh) (S)	31.1
100-0 (kmh) (S)	8.1

- 0 - 100km/h in seconds
- 0 - 400 meters in seconds
- 0 - 1000 meters in seconds
- Maximal speed
- 80 - 120 km/h in seconds
- 80 - 160 km/h in seconds
- Deceleration/braking 100 - 0 km/h in seconds

To activate the menu performance, take place on a track and put yourself to the stop.
A pressure on the right top button corresponding to 'OK 'activates the performance menu, the ADSGPS then waits for your start.

As soon as a speed superior to 0 is detected, the ADSGPS calculates the performances of the vehicle. After that, it is necessary to make an acceleration, to reach to the minimum 160 km/h, to browse to the minimum 1000 meters, and to pull up 100 to 0 km/h in order to get THE TOTALITY of the information.

You can also make this test on shorter distances or with less elevated speeds. The parameters 0 - 400 meters, 0 - 1000 meters and 120 - 160km/h will remain empty if you don't reach the minimal values of distance and speed.

Note : it is important to do an acceleration and a braking to the limit of the vehicle to get information close to reality.

b. Road

This menu gives you some values for your information, the speed in real time, the browsed distance as well as the exhausted time. A pressure of one second on the right button allows to put back the distance or the time exhausted to zero. A pressure on the left below button comes back to the welcome menu. This display cannot be used in race mode, no registration is done in this menu.

Remark : This meter is independent from the total meter of the analysis menu.

Note : after a detection of zero km/h during 5 minutes, the system returns automatically back to the welcome page.

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   c.   Race display

4 different display types exist actually. Each pressure on the right above button shows a different display.
A brief pressure on the left below button or a waiting of 5 seconds validates your display by default. It will
be possible to change the race display while running with this same right below button.

1st display : the time above is the best time done since the beginning of the recordings present on the DATA menu for the same track with the gap on the last lap time.

The time showed in the middle is the present lap time, with the number of laps (lap times) or number of sessions (time trial, slalom, rally).
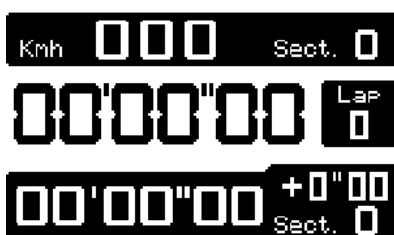
The time showed below is the partial one, with the gap in relation to the best partial in absolute.

2nd display : the time above is the best time done (explained above), on the right side, the speed.

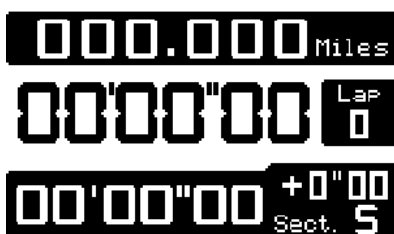The time showed in the middle = same as the 1st display.

The time showed below = same as the 1st display.

3rd display : it shows the speed in real time, and is replaced by the speed detected to the point of speed recorded when you pass on it. The time of display of this point of speed is defined in the PEAK menu. Once this time exhausted, the display indicates again the speed in real time until the next passage on a point of speed.

The time showed in the middle = same as the 1st display.

The time showed below = same as the 1st display.

The 4th display shows the distance browsed since the departure of the session.

The time showed in the middle = same as the 1st display.

The time showed below = same as the 1st display.

10-   LEDs

The ADSGPS has 6 LEDs : 2 reds on the extremities and 4 whites centered. The 4 white LEDs ignite 5 seconds when you do the best lap. These 4 same LEDs blink during 5 seconds when you do the best partial. The 2 red LEDs ignite when you pass on a recorded point of speed. You have the possibility to adjust the power of the LEDs in the Setup/Display menu.

11-   Update

The update menu allows to do the updating of your ADSGPS. The updatings allow to correct possible problems but also to improve your ADSGPS (more and more languages will be available, new menus also, etc.). You need a computer equipped with a Bluetooth peripheral or a key USB/Bluetooth.

Procedure of update :

Go to Update menu through Setup menu.

Download the executable Updater ALFANO available on our website www.alfano.com
New updatings will be available continuously.

Start the executable from your computer and follow the instructions.

Attention: Do not remove the batteries before/during an update.

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12-   *Various*

A message appears when your batteries are (nearly) flat. Think about checking your battery gauge in the welcome menu before beginning the recordings in race.

a- Memory

Also think about checking the available memory with the memory gauge in the welcome menu or the remaining time in the setup menu (--- > rec.) not to saturate the memory during the coming race.

     i.   You can record a maximum of 99 sessions by track.
    ii.   You can record a maximum of 327 sessions on the set of tracks.
    iii.   You can record a maximum of 99 laps by session in lap times, in case of surpassing, a new session will start automatically.
       (Example : in the case of an **Endurance** race of 356 laps $\rightarrow$ 3 sessions of 99 laps and the last one of 59 laps)
    iv.   The maximum time is of 1 hour by lap for lap times, time trial and slalom.

b- GPS

     i.   GPS signal

On switching on your ADSGPS, this one will wait for the GPS signal. The waiting time of receipt depends on several parameters :

- The environment in which the ADSGPS is (buildings, forest, free sky, etc…)
- The Cold Start or Warm Start : The ADSGPS captures the signal more quickly when it is used regularly, indeed, more the GPS remains off a long time, more the waiting time before capturing the signal will be long to the next starting. This is mainly due to the downloading of the GPS (tear-off calendars, etc.) when this one is off during a long time. This waiting time can therefore vary from some seconds to several minutes.

    ii.   Number of satellites

The GPS captures its real position from 3 satellites. The maximal number of satellites that you can capture is of 12 (it is only possible to some hours of the day because the satellites are constantly in movement). More the number of satellites captured is big, more the precision of the position is good, and the times more accurate. We recommend to take your times from 8 satellites received to the minimum, otherwise the accuracy of the times cannot be guaranteed.

    iii.   Date & hour

As mentioned in the Setup menu, the satellite gives us the GMT hour and date, that's why it is necessary to adjust the time zone in the Setup menu (Setting hour/date) according to the position where the ADSGPS is located.

13-   G Force sensor integrated

The ADSGPS is provided with an integrated 3 axles G Force sensor (this sensor will be activated from the version ADSGPS 2.04), you will only have to update your ADSGPS to get this version. These data will be able to be exploited with the Windows SOFTWARE analysis from the version 1.00.

Warranty conditions

All our devices have been subject to in-depth factory tests and are covered by a 24-month warranty against manufacturing defects. The warranty comes into force from the date of purchase. The date of purchase is the date stated on the invoice/till receipt given by the seller at the time of sale. The manufacturer undertakes to repair and replace free of charge any parts which have a manufacturing defect during the warranty period. Any defects which cannot be clearly attributed to the material or the manufacturer will be examined at one of our approved after-sales service centres and invoiced depending on the results. The warranty does not apply in cases of device opening, accidental damage, negligence or misuse, inappropriate or incorrect installation or failure to perform the installation in accordance with the instructions contained in the attention note and in events not associated with the rules of operation and use of the device. The warranty will become null and void in cases of repair or handling carried out by unauthorised third parties. Intervention under warranty does not entitle to the device replacement or warranty extension. Intervention under warranty is carried out at one of our approved after-sales service centres or at our head office. In the latter case, the item must reach our establishment postage paid, that is, transport costs shall be paid by the user. The manufacturer undertakes no responsibility for any damage to persons or goods caused by poor installation or incorrect use of the device.

Product modifications

Alfano SA applies a method of ongoing development. Consequently, **Alfano SA** reserves the right to make changes and improvements to any product described in this document without prior notice.

Damages and responsibilities

The products are used under the customer's sole direction and responsibility and therefore damages suffered or caused by the products shall be borne by the customer. No compensation will be paid for removal of enjoyment, and ALFANO cannot be held responsible for the direct or indirect consequences of their use or rendering useless. ALFANO's obligations are duty of care and not a performance obligation.

Disposal

The device must be disposed of with respect for environment. The chronometer and its accessories contain many plastic parts. When the chronometer or one of its accessories no longer functions, they must be dealt with according to the laws of the country. Used batteries must be disposed of in accordance with the regulations in force in your country.

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