

# Manual for SpeedFix G03C



## GPS Chronometer with Data Acquisition

**BITRAPTOR**

BitRaptor SpeedFix is a GPS digital stopwatch for racing, which show on a LCD display: time, gap time, session time list, and other functions for setting / viewing. The stopwatch is dedicated to the race that should ride in closed circuit, to count the time when the vehicle are passing several times over the start line.

SpeedFix The device is fully stand alone, with battery and GPS module inside, with no external wires.

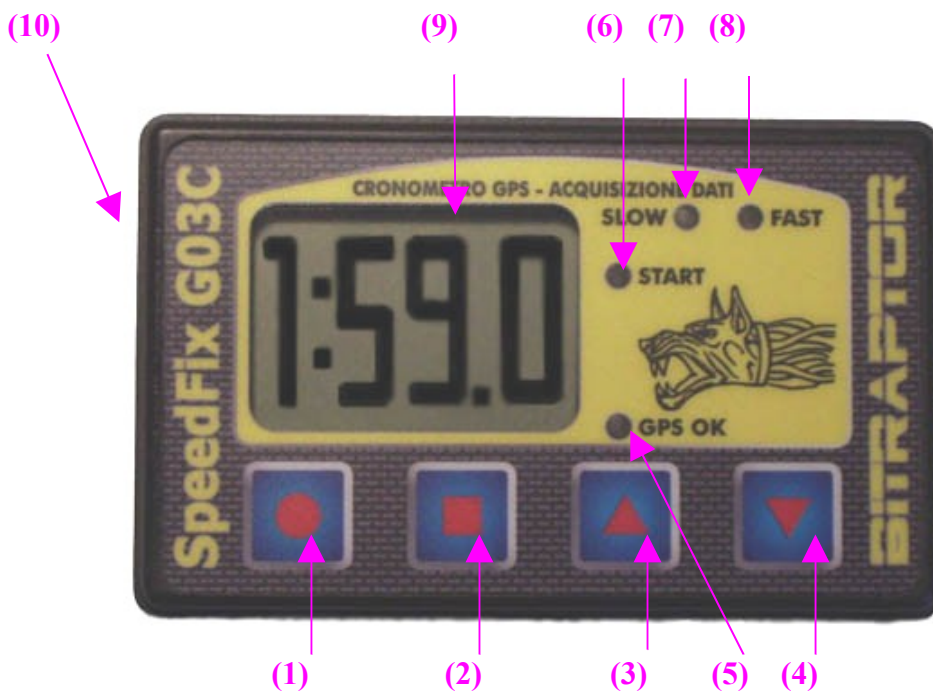
The installation and quick and easy on any vehicle! No wiring needed!

BitRaptor SpeedFix offers the functions of most products in one:





- Index of Performance
- Stopwatch
  - GPS Lap Timing
- Data Acquisition / Logger
  - Split times for each lap
  - PC software for analysis

Other results:

- The acceleration of your vehicle.
- The best lap time.
- G Force reached.



## Description:

1. Button to activate the various functions listed on display 
2. Button to activate the various functions listed on display 
3. Button towards the top (up) 
4. Button towards the bottom (down) 
5. Led GPS OK (blue) indicates GPS signal presence
6. Start LED (orange) indicates ignition timing
7. Led Slow (green), indicates a slower lap
8. Fast LED (red), indicates the best lap
9. Graphic display
10. Attack mini USB charge / discharge data, and battery charger

## Features:

- Record: Time, trajectory, speed, acceleration and line start
- Ability to store up to 99 sessions without downloading data to your PC
- Maximum time of acquisition: 6ore 50min
- USB Connection Cable
- Protected against splashing water, dust, mud, etc ...
- No external wires (GPS module and battery inside)
- PC software post processor, to download, read and interpret the data acquired.  
Compatible with Windows 2000, XP, Vista.



## Displayed:



- Time on each lap in this format 1<sup>m</sup>: 23<sup>s</sup>: 4 (1min, 23sec, 40dec); max 9<sup>m</sup>: 59<sup>s</sup>: 8  
Or 2<sup>h</sup>: 34<sup>m</sup>: 8 (2hours, 34min, 80sec); max 2<sup>h</sup>: 59<sup>m</sup>: 8
- Gap from the best lap in this format +: 01.8 (slower by the best lap then 1sec to 80 dec)
- "Helmet" (Led) Red - for the best lap
- "Helmet" (Led) Green - for every lap slower than the best lap
- Selection of circuits list
- The list of the times made
- Info page to identify the unit (serial number) and the owner

## Size and Weight:



- 90 x 56 x 25 (mm) - GPS module and the battery inside
- About 200g

## Start Up

To turn on the device press simultaneously the buttons  e  (ON). The "Start LED" lights.

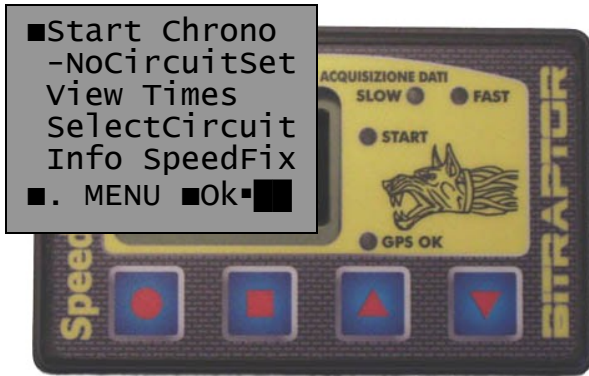
To turn off the unit press the buttons  e  at the same time. (OFF). All LEDs are light off.

When power on the device displays the main menu.

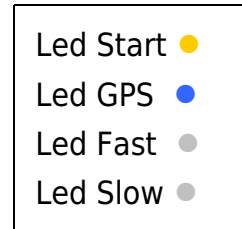
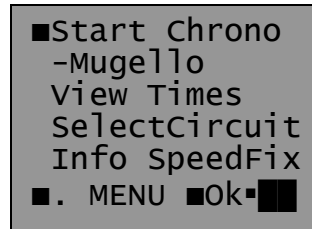
To identify the function that could be followed on the black square on the first column of the display. To change to another mode, use the buttons  o . To turn or exit from the various functions follow the directions on the display on the last line at the bottom, "Ok" to activate, "Esc" to exit. "." Button is not active.

# Chronometer and Data Acquisition

When start the device is positioned on the first row which is to start the stopwatch. The menu displays "Start Chrono" and the second line the name of the circuit is chosen. "Mugello", or "No Circuit Set" after updating the list of tracks and you not yet choose the track you want ride. The display looks like this:



No circuit selected

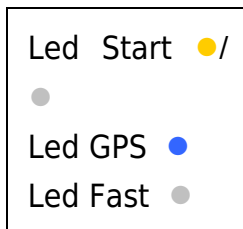


Selected Mugello circuit

**Note:** For an right operation of the stopwatch the "Led GPS" (blue) should be light on, wait first to start two or three minutes, which indicates the presence of the signal from the satellite. Otherwise some of the data acquired could be with errors.

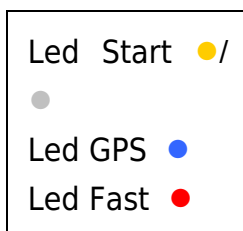
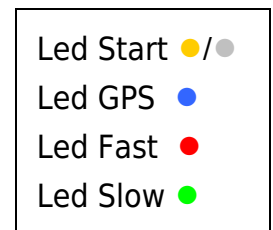
To activate the stopwatch, press the button " ".

The other functions will not be available until the stopwatch is not stopped. On display will be displayed with very large letters (on the whole display) "- GO -", and "Led Start" (orange) will start to flash. The display looks like this:



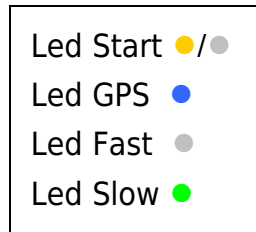
Now is enabled the function of Data Acquisition, which stores the trajectory, and also the stopwatch function, which calculates the moment when pass over the start line.

At first pass over the start line when the stopwatch is activated, the display will appear in large "0:00.0" (min: sec.dec), and "Led Fast" (red) and "Led Slow" (green) are light on.



When have finished the first lap, at the passage over the start line, the display will appear in big letters the time realized es "2:01.2" (2min: 01sec.20dec. sec.), The Fast LED (red) lights on and "Led Slow" (Green) lights off. Time becomes temporarily achieved the best time.

At each next step over the finish line on the display will appear in big letters the time realized es: "1:59.4" the Fast LED (red) and on the "Led Slow" (green) off, if is a better lap than previous, or the display will show the gap from best lap recorded earlier "+: 01.2", the "Led Fast" (red) lights off the Led Slow" (green) lights on. After 10seconds the display will appear in big time realized es: "2:03.8" the Fast LED (red) lights off the Led Slow" (green) lights on.



The timing made are saved in a list that you can see at the end of session (see function "View times").

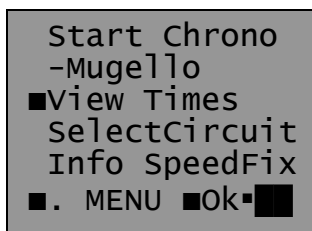
The last time done is shown up till a new detection of the passage over the start line, or until the function of the Stopwatch and Data Acquisition is stopped.

To stop the stopwatch, press the button above "●", on the display is write "Stop". The display turn to shows the Main menu and will be activated all the functions. The Start Led remains constantly lights on.

The data remains saved even if the unit is turned off and turned on again.

To erase the data stored will need to use the PC software with the special features for cleaning memory device, or after downloading the sessions in computer.

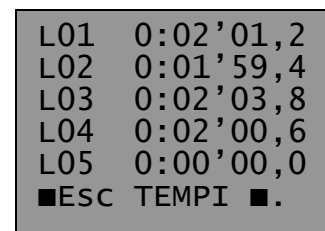
## Display the list of the times



To view the times achieved in the last session using the "View Times". Position the cursor "■" on the third row using the buttons "▲" or "▼". Press the button "■".

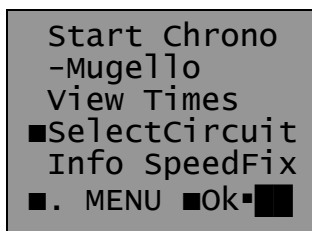
You can display up to 30 rounds in various pages. For each page shows 5 laps in the form "L01 0:02'01, 2".

To view the tours on the next page press "▲". To view the laps of the previous page press the button "▼". To exit, press the button "●" where above is displayed "Esc".



**Note:** The list is cleared each time you start the stopwatch.

## Display the list of circuits / Chose the circuit



To view the list saved in the memory circuits of the device use the "SelectCircuit" function. Position the cursor "■" on the fourth row using the buttons "▲" or "▼". Press the button "■".

You will see the list of 5 tracks (saved previously inside with the computer software). For any name stored is corresponding the coordinates of the start line of each circuit.

To select one of the circuits place the cursor "■" son the desired row with using the buttons "▲" or "▼". Press the button "■" to select a track, or press the button "●" to exit without any changes.

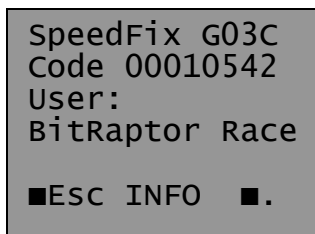


The list of tracks is loaded or changed only with the help of PC software supplied. The procedure is simple and fast. At the end of the list update circuits on the Main menu of the device will appear "No Circuit Set" instead of the circuit name. Follow the steps above to select the desired circuit.

If you want to ride on one circuit that was not previously saved, you can set any circuit and if you start the stopwatch and implicit data acquisition. After the data was downloaded to your PC you can set the start line and then insert it in the list of trajectories of the device. After that you can use the device for full timing on the new circuit.

### About the device

If you need to get some information such as device type, serial number and the name of the owner use the "Info SpeedFix". Position the cursor "■" son the fifth row using the



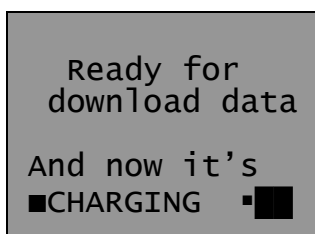
buttons "▲" o "▼". Press the button "■".

This data can not be modified.

Press the button "●" to exit.

### Download the trajectory data / Load circuits list

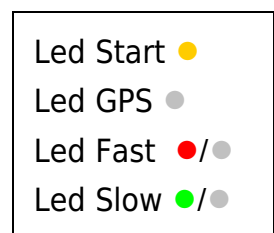
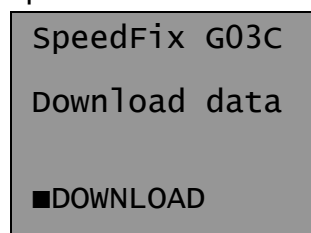
Connect the appropriate cable into the mini USB connector device and the PC. To download the data stored on the device must be powered on. The display looks like this:



Follow the "Download procedure" or "Updated list tracks" from PC SpeedFix software.

Every time you connect the USB cable on the device, the internal battery start the process of charging. See the "Charging Battery" procedure.

When the computer are transferring data from device, the display shows "Download data", the "Led Slow" and "Led Fast" blink until the end of data transfer. Then will return to the page indicated above.



When the USB cable is disconnected the device will return to the Main menu.

## Charging the internal Battery

The procedure for charging the battery is done through the USB cable that also makes data transfer. Connect the cable to the appropriate mini USB connector of the device and the PC or the travel charger battery.

Ready for  
download data

And now it's

■CHARGE OK ■

The device displays the battery status on the Main menu, or when the USB cable is connected. The completion of charging is achieved when the display "**OK CHARGE**".

The battery type Lithium and not suffer of charging memory.

After a full recharge the device works continuously for about 6-7 hours. Used with various breaks operation can prolong the battery life.

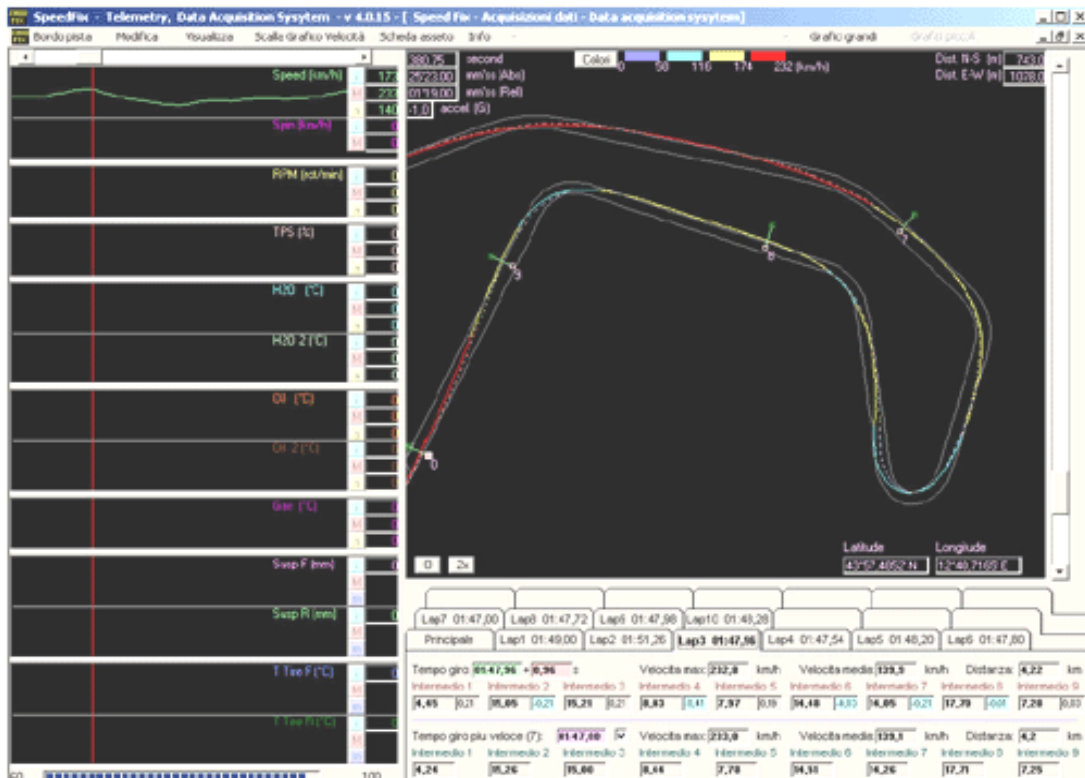
The battery has 4 signs to the level of battery voltage (as a regular phone). When the battery is empty and recommended charging full or partial. If the battery is empty and blinks and request an immediate recharge.

## Mounting

The apparatus SpeedFix G03C contains a high precision GPS module. To detect the signal from the satellite the device must be positioned so that to not be covered by metal objects, preferably mounted on places with greater visibility to the sky.

When the signal was detected, the "Led GPS OK" (blue) turns lights on. Check that the blue LED, and thus the GPS signal, remains constantly lights on. The signal can be hardly found inside the garage or under the metal structures.

**Note:** The device does not operate properly in the absence of GPS signals!



*BitRaptor reserves the right to change the specifications without prior notice.*