

FORMULA STEERING WHEEL

User Manual





FORMULA STEERING WHEEL

Release 1.00

Dear **Formula steering wheel** Owner,

Your Formula steering wheel belongs to the latest generation of AIM dashes for car racing and provides you with a high tech and nice design steering wheel.

With its anodised aluminium chassis, ergonomic shape, hand-woven chamoised leather cover, Formula steering wheel has a real “racing look”.

Thanks to AIM ECT (Easy Connection Technology), the connection with AIM products and expansion modules is made in a click.

Formula Steering wheel allows you to monitor RPM, speed, gear number, lap (split) times and custom sensors.

Moreover your Formula steering wheel can be configured with the powerful AIM Race Studio 2 software.

Thank you for choosing an AIM product!



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Chapter 1 – Your Formula steering wheel



Formula steering wheel merges the quality of a high tech-steering wheel with a smart dashboard. Anodized aluminium frame, ergonomic shape, hand-woven shammy leather as well as an amazing “racing look” are some of the technical features professional drivers appreciate.

Thanks to its integrated amber or green backlighting display, all data are available at a glance:

- Lap time and lap number
- Speed or RPM digital value
- RPM bar graph
- 5 shift light led
- 4 fully configurable alarm led
- 4 (two by two) displayed channels among all available channels.

Moreover, it is possible to remote up to four functions like Neutral, Radio, Speed limiter, Launch control or other functions you may need on your vehicle.



Chapter 2 – Formula Steering Wheel advanced functions

Formula Steering Wheel has some advanced functions designed and developed to satisfy all driver's needs; among all the most innovative are:

- [Main data driving session review](#)
- Predictive lap time (a sub-menu of [Control Panel](#) option).
- [Hour Meter](#)

All function are managed through the steering wheel menu. Pressing “menu/<<” button, main menu page appears:



2.1 – Main driving session data review



At the end of a track day, you can give a look to lap times and RPM peaks (Session summary). To do that:



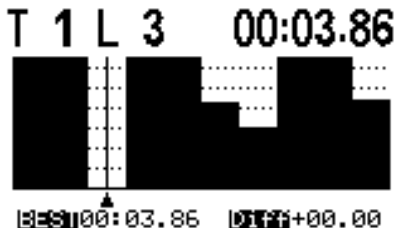
FORMULA STEERING WHEEL

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- Press “Mem/OK” button: **session summary** page appears. It shows max RPM, Speed and max CH_1 and CH_2 values as well as the three best lap times with lap number, highest and lower rpm and maximum speed.

11/20/07		Test 1		Laps 10	
MAX	RPM	SPD			
	16807	65			
LAP	TIME	RPM	SPD		
3	0:03.86	5684			
		5026			
7	0:06.22	5382			
		5160			
6	0:07.16	5378			
		3562			

- “>>” and “<<” buttons, **switch between stored Tests**.
- Pressing **again** “mem/OK” button the display shows Lap Histogram, that means the complete test session in a graphical way, allowing user to compare every lap to best lap. Pressing “>>” and “<<” buttons it is possible to switch between stored laps.



- Pressing “mem/OK” button **again** Lap Details page is shown. It displays Maximum and Minimum speed and RPM values, custom channel from 1 to 4 values and split times (if sampled).

TEST 1 LAP 3		00:03.86	
RPM	SPD		
5684	0		
5026	0		
Ch1	Ch2	Ch3	Ch4
5	0.36	0.3	0.00
5	0.36	0.3	0.00



2.2 – Session mode

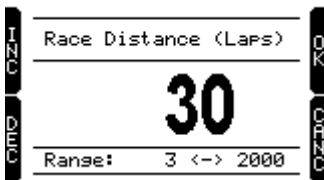
Once entered Session mode menu, you can choose between Lap Counter, Timed and Race.



- **Lap counter:** the display shows lap number increasing it each time a lap is finished until your logger is turned off.
- **Timed:** shows the remaining time until the end of the session. To set it insert the number of minutes you are going to race and press OK button.



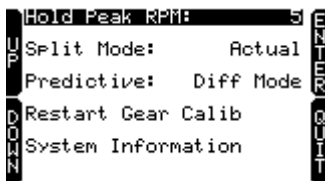
- **Race:** shows the remaining laps until the end of the session. To set it insert the total number of laps you are going to run and press OK button.





2.3 – Control panel

Once entered Control panel you can choose to set: Hold peak RPM, Split Mode, Predictive, Restart Gear Calib, System Information.



2.3.1 – Hold peak RPM

Through “mem/ok” button you can set how long the RPM peak marker is shown on display (accepted values are from 5 to 10 seconds) or disable it selecting OFF function.

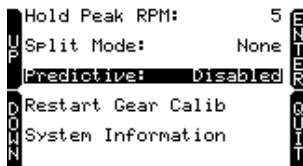
2.3.2 – Split mode:

You can choose:

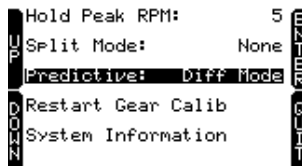
- **+/- Best:** shows the gap between current lap and the best one
- **Actual:** shows actual split time
- **Accumulative:** shows elapsed time from lap counter to last split line.
- **None:** split mode is not active

2.3.3 – Predictive (lap time)

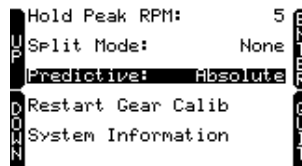
This function needs to be enabled. Available options are:



Disabled: predictive lap time is not active



Diff Mode: predicts gap between next lap time and best one



Absolute: predicts next lap time

2.3.4 – Restart gear calib:

This function allows you to restart Gear Calibration procedure directly from your Steering Wheel. For further information, please refer to the [related](#) (10.2.1) paragraph of EVO3 Pro/Pista user manual.

2.3.5 – System information

This function shows your steering wheel firmware version and serial number. In case you need Technical support from AIM, please remember to always communicate your System Information.

2.4 – Hour Meter

This valuable function allows you to view engine running time. Formula steering wheel can record running time of up to four engines.

```
┌ Tot Run..... h 03:29 ─┐
│                               │
│ Engine #1.... h 01:24      │
│ Engine #2.... h 05:02      │
│ Engine #3.... h 00:00      │
│ ▶ Engine #4.... h 03:03      │
└──────────────────────────┘
```

To **start** running engine time counter:

- press “Menu” button,
- move to Hour Meter Menu,
- press “OK” button,
- select the engine you want to time-count pressing “>” and “<” buttons,
- press “OK” button to confirm

To **reset** engine time counter, once selected the engine:

- press twice “OK” button and engine time counter is reset.

Please note: engine total running time cannot be reset.



2.5 – Configuring your Formula Steering wheel under Race Studio 2.

To **configure** your formula steering wheel:

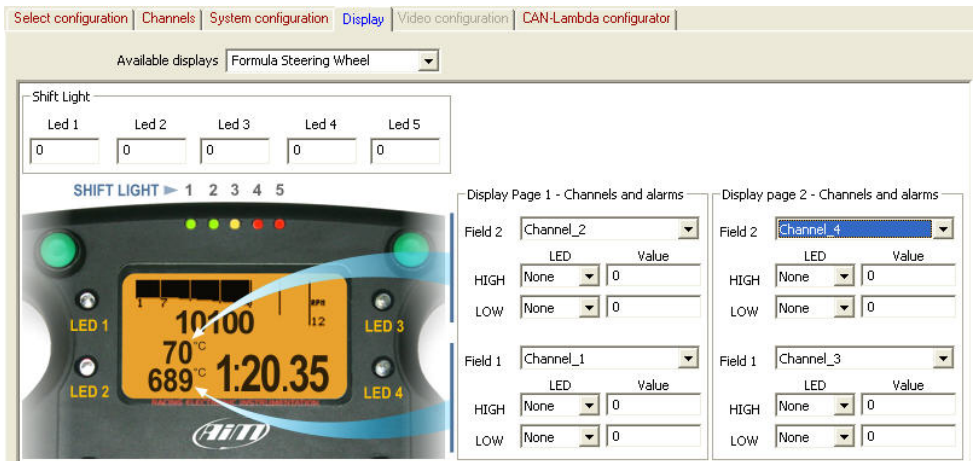
- run Race Studio 2 software
- select the logger your steering wheel is connected to pressing a button on the vertical right toolbar.
- Select the configuration you want to set your steering wheel on
- Activate Display layer; this window appears



- Click on Available displays pop up menu and select Formula Steering wheel option.



- Steering wheel configuration window appears

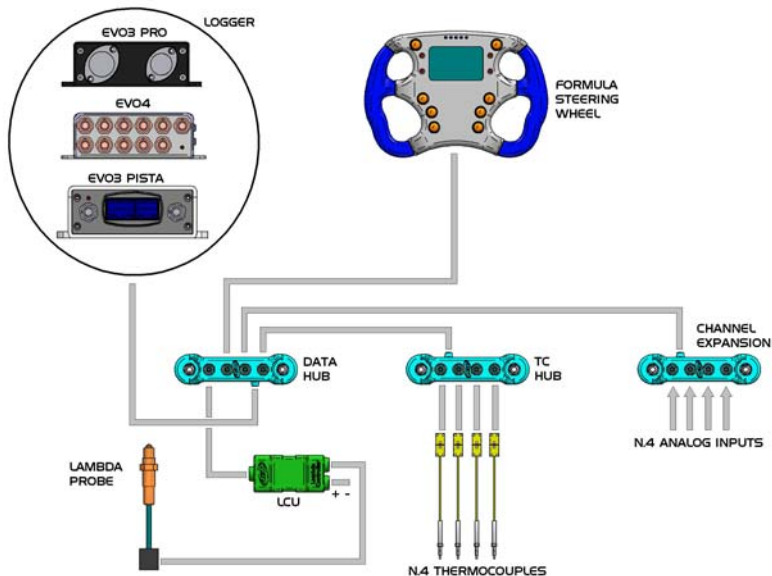


Through this window you can configure:

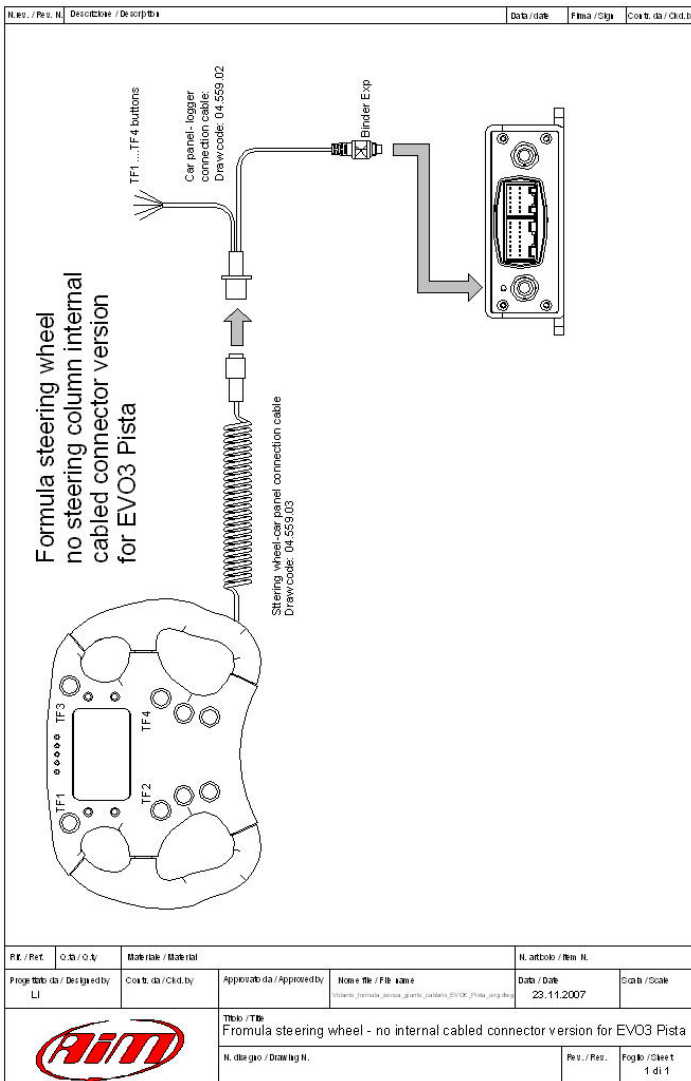
- Shift lights values
- Channels and alarms fields 1 and 2 of display pages 1 and 2; this means you can set the four channels to be displayed (two by two) on Formula Steering wheel display and can link their max/min threshold (High/Low value boxes) to two led that will light up when threshold values are reached.

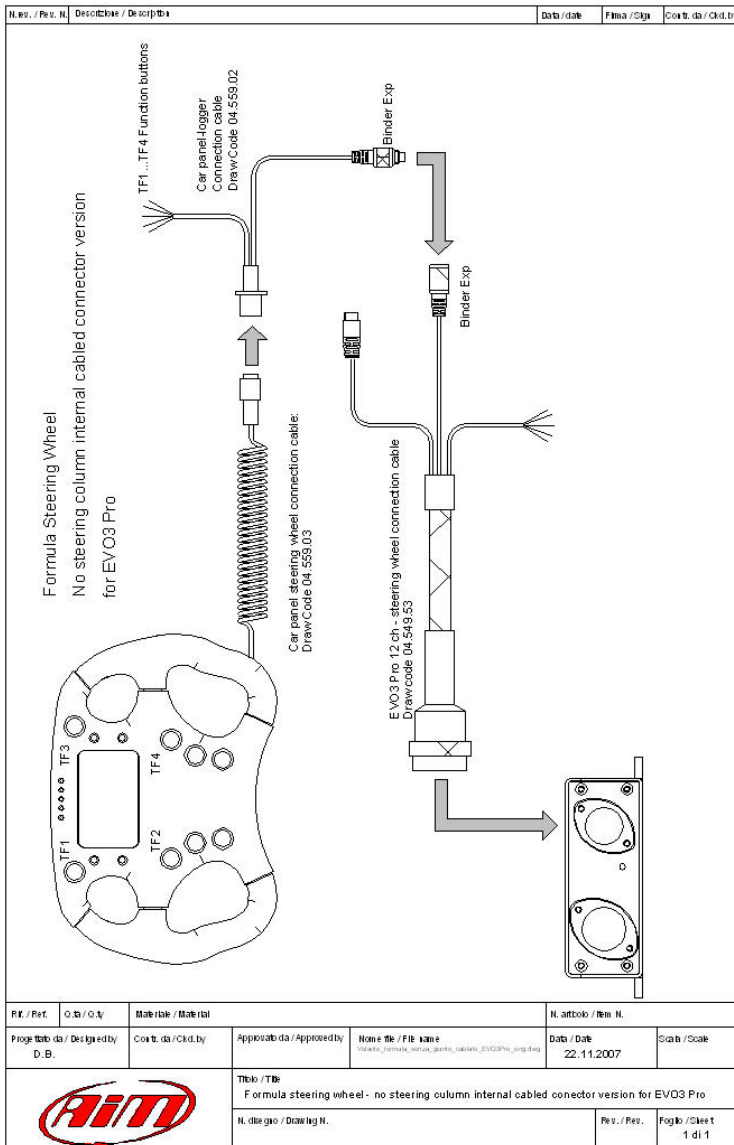
2.6 – Connection Scheme

Here below you can see a possible connection scheme between Formula Steering wheel and AIM dataloggers.



Appendix – Technical draws





N. rev. / Rev. N.		Descrizione / Description		Data / date		Firma / Sign.		Cont. da / Ckd. by	
<p>Formula steering wheel from car panel to logger harness</p>									
Rit. / Ref.		C. di / C. di		Mat. da / Material		N. approb. / Rev. N.			
Progettato da / Designed by		Cont. da / Ckd. by		Approvato da / Approved by		Nome file / File name		Data / Date	
LI						Cavo_pannello_Formula-logger_ty1_eng.dwg		23.11.2007	
		<p>Titolo / Title</p> <p style="text-align: center;">Formula steering wheel from car panel to logger harness</p>							
		N. disegno / Drawing N.		04.559.02		Rev. / Rev.		Foglio / Sheet	
								1 di 2	




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N. inv. / Part. N.	Descrizione / Description	Data / date	Firma / Sign.	Cont. da / Ckd. by
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Table 1 - Channels cabled with connectors							
8 pins ITT female on the panel connector pinout	Cable colour	Destination Connector	Destination Connector pin	Cable type	Lenght	Channel	Label
A B C D	bianco nero rosso blu	Blinder met. Exp.	1 2 3 4 5	4x0.35mm ²	450 mm	CAN G- GND V battery CAN G-	Exp.

Table 2 - channels cabled without connectors					
8 pins ITT female on the panel connector pinout	Cable Colour	Cable type	Lenght	Channel	
H G F E B	white red bleu orange black	5x0.25mm ²	2350 mm	TF1 TF2 TF3 TF4 GND	

Aut. / Rev.	Q. da / O. A.	Disegn. / Drawn	N. articolo / Item N.		
Progettato da / Designed by	Cont. da / Ckd. by	Approvato da / Approved by	Nome file / File name	Data / Date	Scala / Scale
U			Caro_panel_to_Formula-logger_tj2_esp.dwg	23.11.2007	
					
Title / Tit. Formula steering wheel from car panel to logger harness					
N. disegno / Drawing N.			04.559.02	Rev. / Rev.	Foglio / Sheet 2 di 2