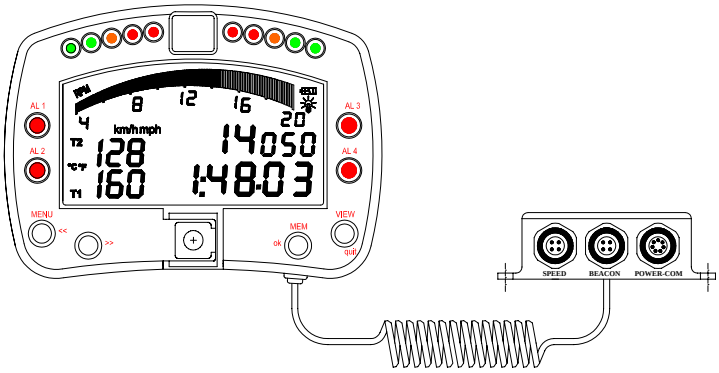


Figure 1: MyChron 3 Visor

Introduction

MyChron 3 Visor represents the new generation of "High-technology" Aim data acquisition systems for car racing.
MyChron 3 Visor samples and displays speed and lap (split) times.
Moreover it can be interfaced with the engine's ECU using a Serial / CAN cable connected to the **POWER/COM** input to sample all the channels acquired from the ECU.
To have a complete list of compatibles ECUs, communication protocol and connection with AIM logger, please refer to "documents" page of our website www.aim-sportline.com, where You find a dedicated datasheet called ECU-AIM logger.

The logger records the following parameters:

- lap and split times;
- 1 speed input;
- All the channels acquired from the engine's ECU.

Data are stored in a the 512 kb internal flash memory and may be downloaded to a PC through an USB cable. Please, refer to Figure 2 to get further information concerning the gauge's display.

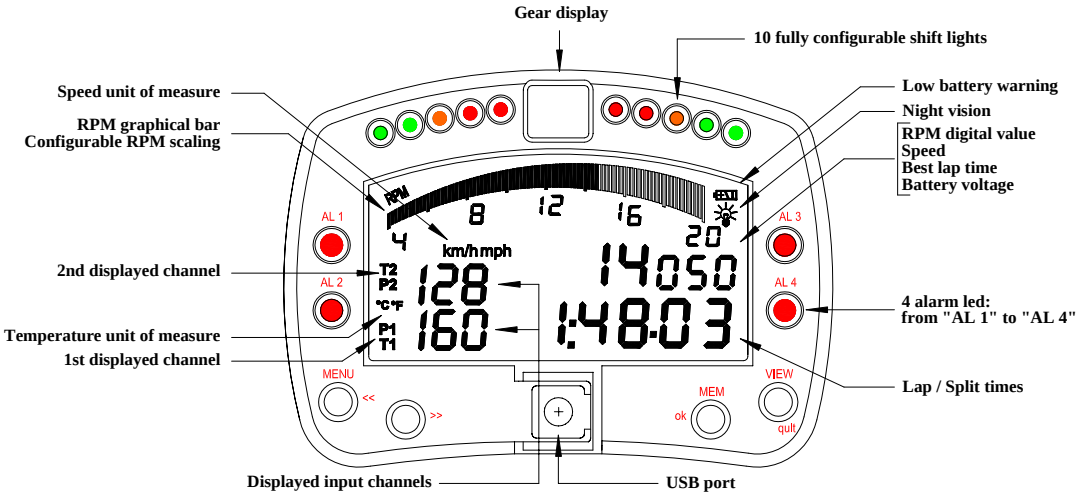


Figure 2: MyChron 3 Visor display

Installation notes

- We recommend You to choose a place where both display unit and “Junction box” are not in contact with oil or fuel; make sure that the gauge is not installed too close to heat sources and protect the instrument from vibrations.
- We remind you that your **MyChron 3 Visor** is not equipped with internal batteries, so it needs to be powered by an external power source (i.e. the car’s battery).
- Once the gauge has been correctly installed, you may plug the speed sensor and the beacon receiver inside the female connectors located on the Junction box’s front panel. Moreover, you may connect the gauge to the engine’s ECU using a serial/CAN cable.

How to connect MyChron 3 VISOR to the ECU

To connect **MyChron 3 Visor** to the ECU, please use a serial/CAN cable connected to the gauge’s **POWER/COM** connector, as shown in **Figure 4**.

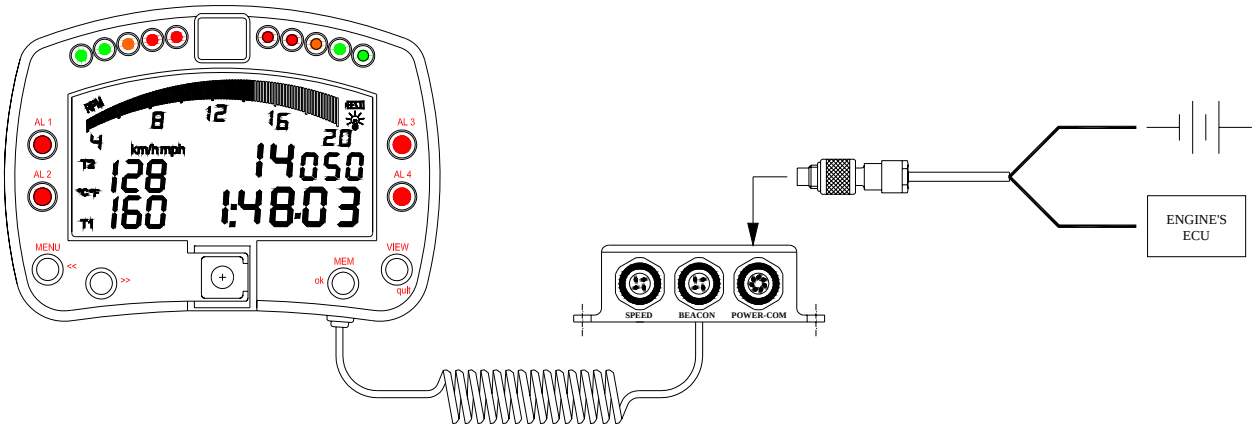


Figure 4: How to connect your MyChron 3 Visor to the engine’s ECU

How to connect MyChron 3 Visor to the PC

In order to connect your **MyChron 3 Visor** to the PC, please use the USB data download cable and plug it both in the gauge’s USB port and in the PC’s USB port, as explained in Figure 5. **Please remember to use a 9-15 Volts external power source** in order to be able to switch the gauge on.

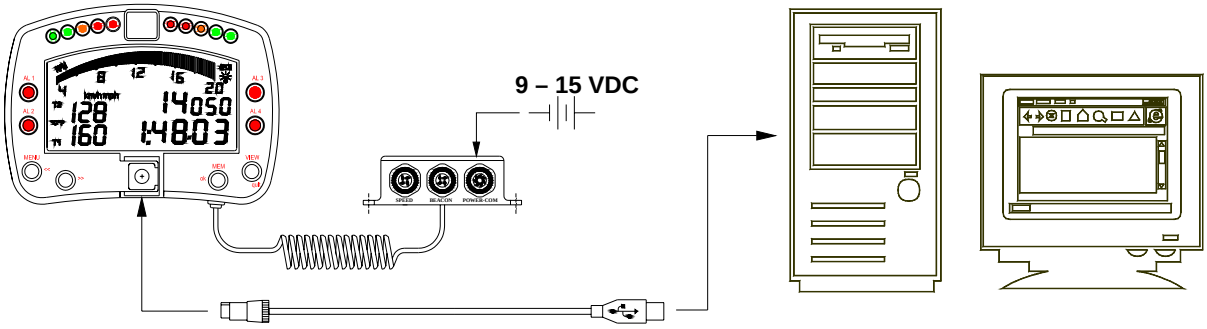


Figure 5: How to connect your MyChron 3 Visor to the PC

Software

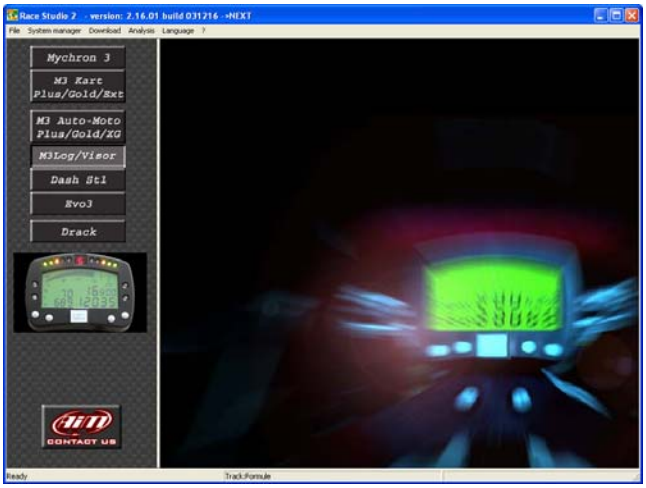
Once the data logger has been installed and the sensors plugged in it, the data logger needs to be configured acquire consistent and correct information.
For a correct configuration, please use **Race Studio 2**, the software properly developed by Aim to configure its instruments and analyze stored data and follow the instructions explained here below.

In **Race Studio 2** main window, shown here below, You can choose your data logger.

Please, select "**M3 Log/Visor**" and then press "System manager" button.

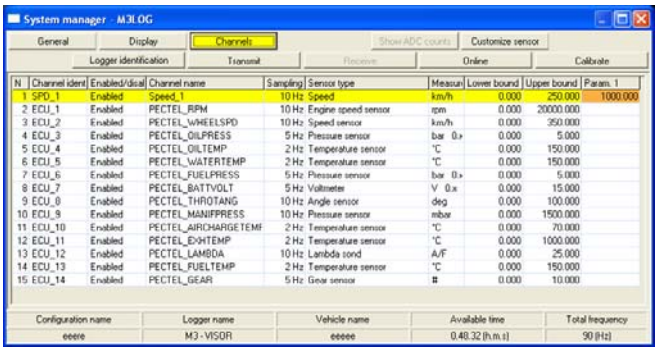
Now, please follow these configuration steps:

1. Set the desired input channels;
2. Configure the input channels;
3. Transmit the configuration to the logger;



1) How to set the input channels

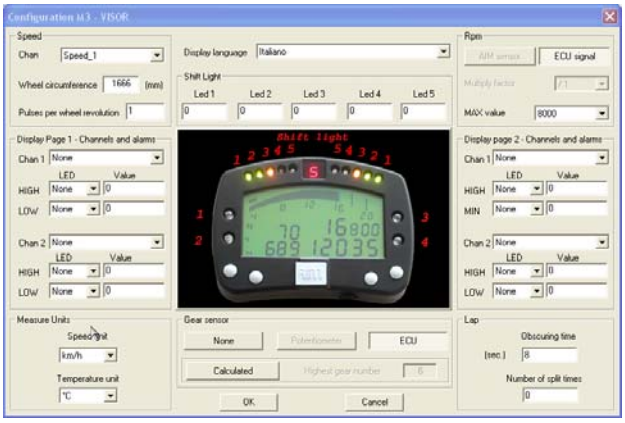
Press "Channels" button to set the sensors you have installed on your gauge. The following screenshot will appear.



This screenshot shows all the input channels sampled by your **MyChron 3 Visor**.

2) How to configure the gauge

Once checked the input channels, press "Configuration" button to set the displayed channels, the alarms etc… The following screenshot will appear.



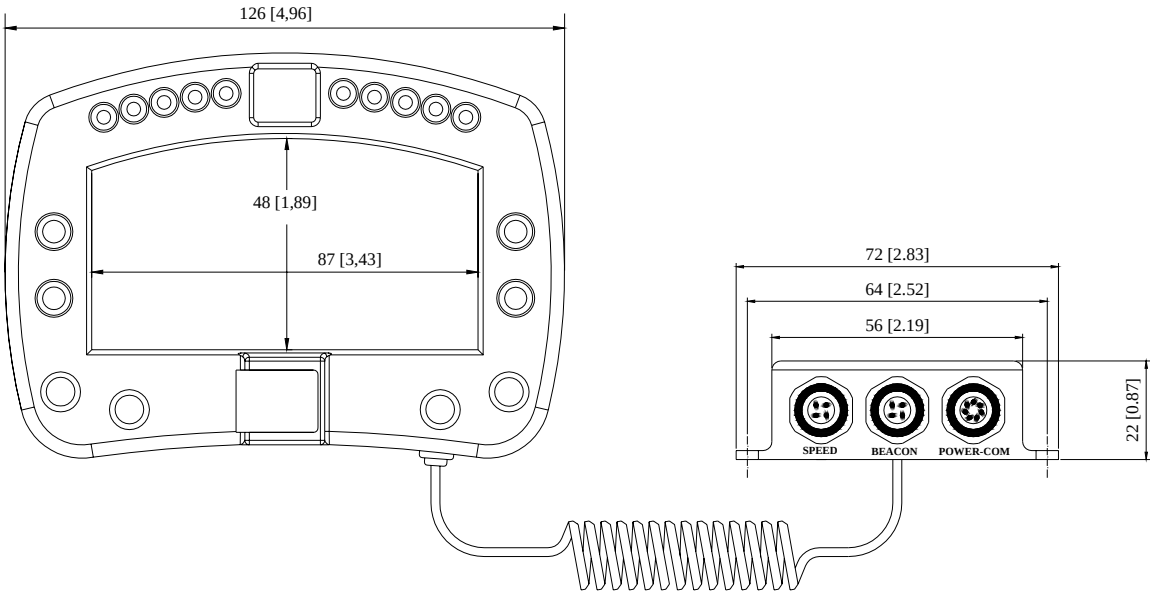
To correctly configure your **MyChron 3 Visor** is necessary to set all the parameters reported in this dialog box:

- Speed channel, wheel circumference and pulses per wheel revolution.
- Display language.
- Shift lights.
- Rpm
- Channels and alarms concerning Display page 2
- Obscuring time and Number of splits
- Gear sensor
- Measure units
- Channels and alarms concerning Display page 1.

3) How to transmit the configuration

Once you have set the input channels and configured them, the configuration needs to be transmitted to the instrument. To do so, please press OK button to save the configuration. The program will take You back to "System Manager" general screenshot: press "Transmit" button.
Please note that, in order to transmit the configuration, the gauge must be switched on and connected to the PC, as shown in Figure 5.

Dimensions



Dimensions in millimeters [inches]

Speed channel pinout

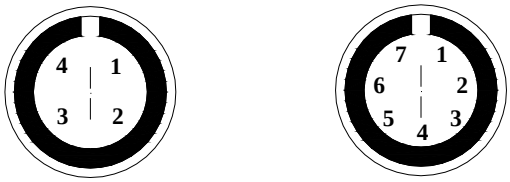
Pin	Function	Pin	Function
1	Speed signal input	3	+V battery
2	GND	4	Not connected

Beacon channel pinout

Pin	Function	Pin	Function
1	Magnetic / Optic codified lap	3	+V battery
2	GND	4	Optic not codified lap

POWER / COM channel pinout

Pin	Function	Pin	Function
1	CAN +	5	Rx 232
2	CAN -	6	N.c.
3	+ V batt. 9 -15V	7	GND
4	Tx 232		



4 & 7 pins female Binder 712 connectors pinout: external view

Technical characteristics

General characteristics	Value
Input channels	1 speed input
Input channels from ECU	Max. 64
Speed sampling frequency	10 Hz
External power	From 9 to 15 VDC
Internal memory	512 kbytes flash EPROM
ECU interface: serial protocol	19.2 bps (Pectel and MBE) 9.6 bps (DTA)
ECU interface: CAN protocol	1 Mbit/sec (EFI EUROPE) 500 kbit/sec (SEAT)
PC interface	300 kbyte/sec USB port

Other characteristics	Value
M3 Visor dimensions	126x92x24 mm
Display dimensions	87x48 mm
Environmental	IP 65