

Figure 1: MyChron 3 BASIC 2T Display unit

Introduction

MyChron 3 BASIC “2 Temperatures” represents the natural evolution of the worldwide-known MyChron 3 BASIC, which provides the user with all the features of the previous logger but with an additional temperature input for a better and more accurate engine tuning.

Its configurable RPM display, the magnetic sensor for kart tracks with magnetic strips installed, the capacity to record up to 250 laps, the possibility of measuring 2 temperatures (water, exhaust gas or cylinder head), the high number of splits per lap (up to 5) and the auto power off feature after 10 minutes of inactivity, make **MyChron 3 BASIC 2T** a great tool for kart engine as well as kart and driver performances monitoring.

The logger records the following parameters:

- 2 temperature inputs (cooling water, cylinder head or exhaust gas);
- engine’s RPM;
- lap times;
- logger battery voltage;
- logger’s temperature;

Data are stored in the 64 kbyte internal flash memory and downloaded to a PC through an optional USB cable.

MyChron 3 BASIC 2T can be internally or externally powered. Internally powered version needs 2 AAA 1,5 V batteries, while externally powered version can be powered by a 9-14,5 V power source (the battery vehicle for instance).

Installation notes

- Most of steering wheels have existing holes in the 3 central arms that will accommodate your **MyChron 3 BASIC 2T** display unit;
- If the steering arms are solid, mark the point where the hole is to be drilled and then indent a drill reference point with a large nail or hole punch, so to minimize drill wander;
- Do not over-tighten the locknut: over-tightening it may seriously damage the display unit chassis;
- We suggest to use plastic washers, furnished as equipment, to keep separate **MyChron 3 BASIC 2T** from the steering wheel;
- Once the gauge has been correctly installed, please plug the sensors (2 temperatures, lap receiver and RPM clip) in the connectors on the instrument's back part.

Display description

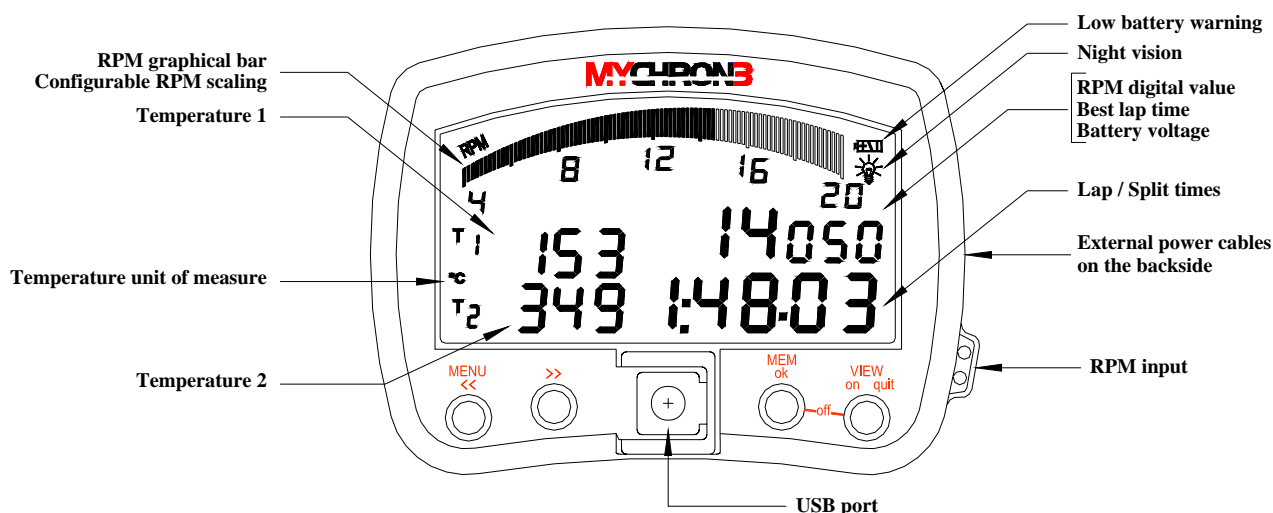


Figure 2: Description of MyChron Basic 2T Display unit

How to connect MyChron 3 BASIC 2T to the PC

To connect **MyChron 3 BASIC 2T** to the PC, please use the USB data download cable (optional) and plug it in the gauge's USB port and in the PC's USB port, as shown in **Figure 3**.

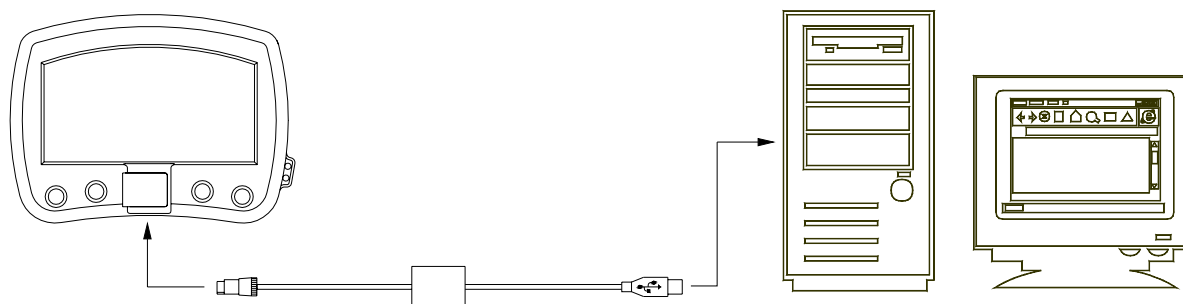
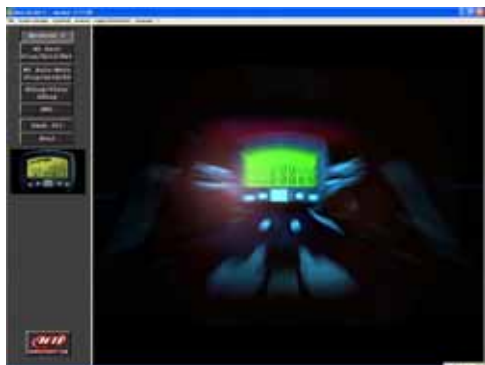


Figure 3 : How to connect MyChron Basic 2T to the Pc

Software

When the logger has been installed and the sensors plugged in it, to acquire consistent and correct information, please configure the logger. To do it correctly, you need **Race Studio 2**, the software properly developed by Aim to configure its instruments and analyze stored data.

In **Race Studio 2** main window, shown below, please select **MyChron 3**, press “System manager” and then “New” button.



Logger configuration

In “System manager” main window, please click on “Configuration” button. The following window appears.



To configure **MyChron 3 BASIC 2T** You need to set all parameters reported in this dialog box.

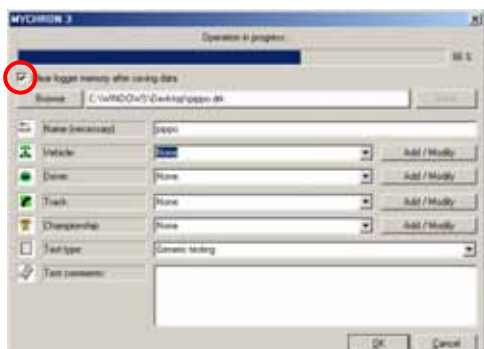
- **Display language:** messages can be displayed in 6 languages: Italian, English, German, French, Spanish and Slovenian.
- **RPM Multiply factor:** is the number of spark signals per engine revolution. For a 2 stroke, one cylinder engine, the correct value is “x1”.

- **RPM Max value:** sets the maximum scale for the RPM graphic display and for the RPM value acquired by your **MyChron 3**. Available values are: 8000, 10000, 12000, 16000, 20000, 22000.
- **Temperature measure unit:** °C or °F.
- **Threshold temp. for the 2 temperature sensors:** an alarm led switches on when a dangerous temperature is reached.
- **Number of splits:** sets the number of split you wish to divide your track in and is only available on track with multiple magnetic strips or beacon transmitters. Please, remember to fill this box with the number of splits and not with the number of magnetic strips (or beacon transmitters).
- **Obscuring time:** sets the time during which the lap receiver (optic or magnetic) is “obscured” and is not able to capture lap markers. This option is very useful if you do not wish to capture split times on a track where more than one beacon transmitter (or magnetic strip) is positioned: in this case, please set obscuring time to a value of about 5 seconds lower than the track best lap time. Whereas if you wish to capture split times, please set these parameters to a low value: the minimum value the instrument accepts is 3 seconds.

When all the parameters have been set, the configuration has to be transmitted to the instrument; please press “Transmit” button.

Downloading stored data

To download stored data, connect the gauge to a PC, with the optional USB cable and click “Download” button. This screenshot appears.



When the download is finished please insert the name of the downloaded file in the “Name” box and save data pressing “Save” button.

To clear the logger memory after saving data, please place a check in the checkbox beside “Clear logger memory after saving data” red circled in the figure on the left.

MyChron Basic 2T – power notes

MyChron 3 BASIC 2T is available in two versions: the standard one with **internal power** and the optional one with **external power**.

- **MyChron 3 BASIC 2T** with **internal power** is powered by two AAA 1,5 V batteries;
- **MyChron 3 BASIC 2T** with **external power** is powered by an external 9-14,5 V power source (the vehicle battery for instance). This version of **MyChron 3 BASIC 2T** has two cables, one red (power) and one black (GND) coming out from the backside of the gauge, that have to be connected to the external power source as shown in **Figure 4**.

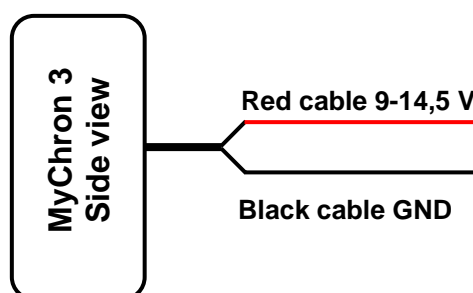
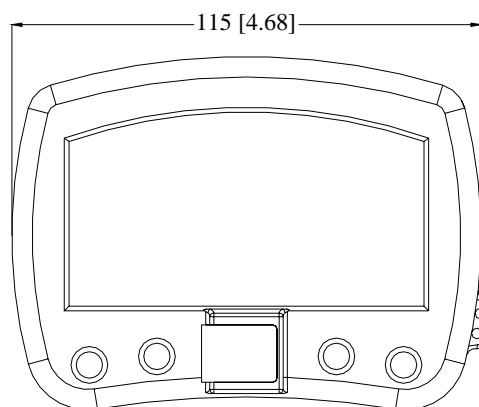
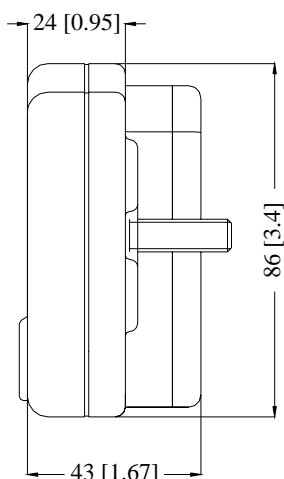


Figure 4 – MyChron 3 BASIC 2T external power cables

Moreover **MyChron 3 BASIC 2T** with **external power** monitors the charge status of the vehicle battery and when this is low, first a battery shaped icon appears on the display and then the gauge shows you a warning message.

Dimensions



Dimensions in millimetres [inches]

Connector details (Beacon channel)

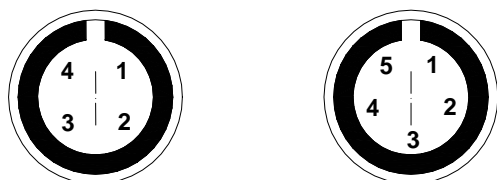
Pin	Function	Pin	Function
1	Magnetic lap	3	V battery
2	GND	4	Optic lap

Connector details (Temperature channel)

Pin	Function	Pin	Function
1	+ TC 1	4	- TC 2
2	- TC 1 / - TR 1	5	+ TC 2
3	+ TR 1		

Note 1: TC = Thermocouple
TR = Thermoresistor

Note 2: MyChron 3 Basic 2T may sample 2 thermocouples or 1 thermocouple and 1 thermo resistor.



Female binder connectors pinout (external view): 4 pins (left) and 5 pins (right)

Specifications

General characteristics	Value
Input channels	4 (Lap, RPM, 2 Temperatures)
Internal battery	2 AAA 1.5 V, alkaline
External power	9-14,5 V
Working time	About 40 hours of use (internal power only)
Internal memory	64 kbyte
PC interface	USB port
Sampling frequency	10 Hz per channel
Total sampling frequency	40 Hz

Other characteristics	Value
Weight	300 g (battery included)
Display dimensions	85x50 mm
Environmental	IP 65