Dear MyChron 3 Owner

The **MyChron 3** represents the new generation of AiM data acquisition systems that provides the kart racer with a sophisticated and easy to use display normally reserved for premium sports cars.

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

Our Customer Service is available every day from 9 to 5 and at most all the major races throughout the country to provide you with personal service. Please call our toll free number (800.718.9090 in the USA) or visit our website **www.aimsports.com or www.aim-sportline.com** if you have any questions, need help, or want to give us feedback.

Thank you for your **MyChron 3** purchase.

Aim HeadQuarter in Cernusco sul Naviglio – Italy

Table of contents

Getting Started with MyChron 3

Here are the parts of your system (see figure 1.1 on the next page):

- **MyChron 3** Display Unit (1).
- RPM sensor (2).
- Thermocouple – You may choose Water Sensor (5), Exhaust Gas Sensor (9) or Underspark Temperature Sensor (10). The Water Temperature Sensor may be provided with an M5 connection or a 1/8 connection.
- Optional water thermocouple M5 fitting (11).
- Thermocouple extension cable (not shown).
- Lap Timer, which can be optical (3) or magnetic (8). The optical one is provided with the optical transmitter (4), while the second one may work only in the kart tracks provided with a magnetic strip.
- External power wire for Infrared transmitter (6) for IR version.
- Optional USB data download cable (7)

Fig 1.1 Packing list

Also available

MyChron 3 and its parts

Before installing **MyChron 3**, please read these installation instructions carefully.
It is very important that your **MyChron 3** is correctly installed to capture consistent and accurate data. Incorrect installation may result in system malfunction.
In the following drawing a **MyChron 3** is shown mounted on a kart steering wheel.

The Display

RPM display — Low battery warning — Night Vision — Temperature — Temperature measure unit — RPM digital display — Lap number — Lap time
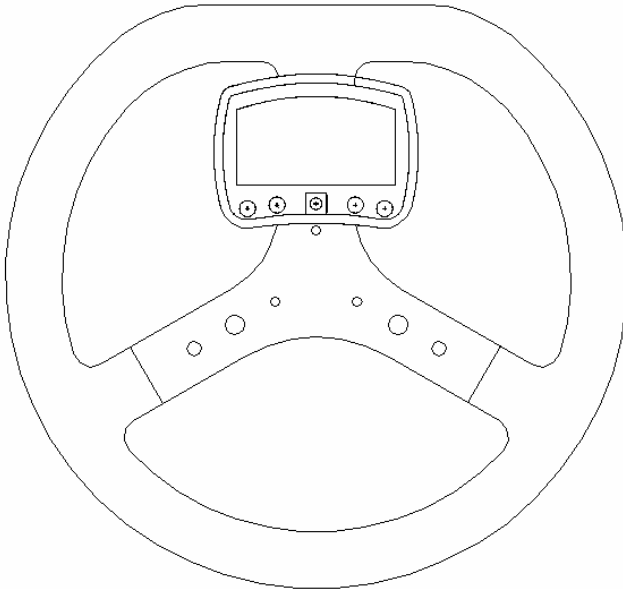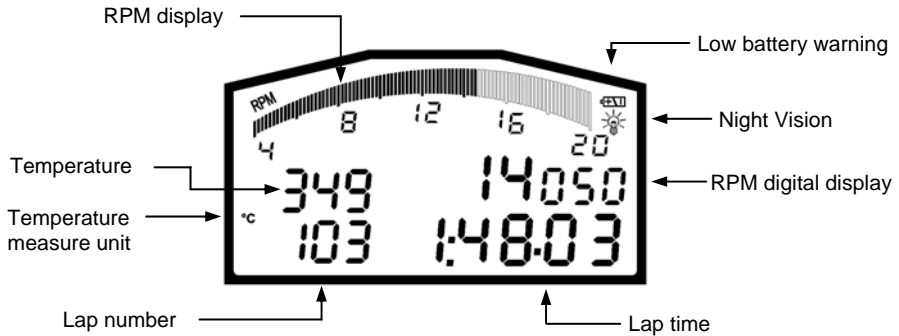
The wide display with backlight generally shows RPM, temperature, completed lap number and, when the kart passes in front of the beacon, it shows the Lap Time (or Split Time). It is also possible to configure a second page (using button **VIEW**) in order to see RPM digital value (as showed in the previous drawing) or best lap time. When you are not running it is also possible (using button **VIEW**) to see the battery voltage.

The display also shows some small icons, showing the configured Temperature Measure Unit (Celsius [°C] or Fahrenheit [°F]), the Night Vision option and the Low Battery Warning, which appears when the batteries are down.

Your MyChron 3 has also an automatic power down feature that turns the power off after 10 minutes of inactivity

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The Keyboard
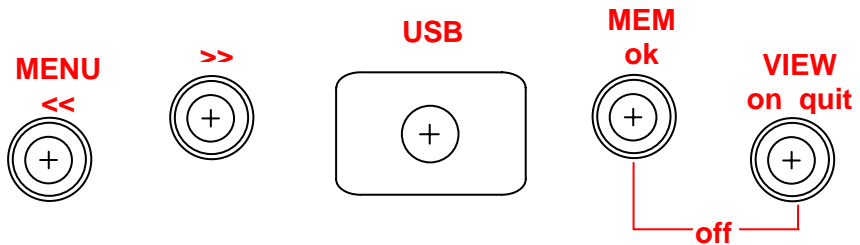
The Keyboard, composed by four push-buttons, is used for turning the power ON and OFF, configuring the system, recalling the recorded data and clearing the internal memory.

The four pushbuttons are used for:

MENU/<< Used in configuration to switch to previous option and to turn on backlight during a test

>> Used in configuration to switch to next option.

MEM Used to CONFIRM a configuration and to retrieve recorded data.

VIEW Used to TURN ON the instrument, to exit configuration menu, or to switch the display from "digital RPM" value to "battery voltage" or to "best lap time"

To switch the gauge OFF press **MEM** and **VIEW** at the same time

To run the system in DEMO MODE, press the **VIEW** button while holding down the **MENU/<<** and **>>** buttons.

The RPM Cable

This clip wire is designed to be plugged directly on the spark plug wire and it is used for RPM pick up from single cylinder **2-4 stroke engines**.

When running the RPM cable along the chassis between the **MyChron 3** display unit and spark plug wire, the RPM cable should be positioned as far as possible from the thermocouple wire.
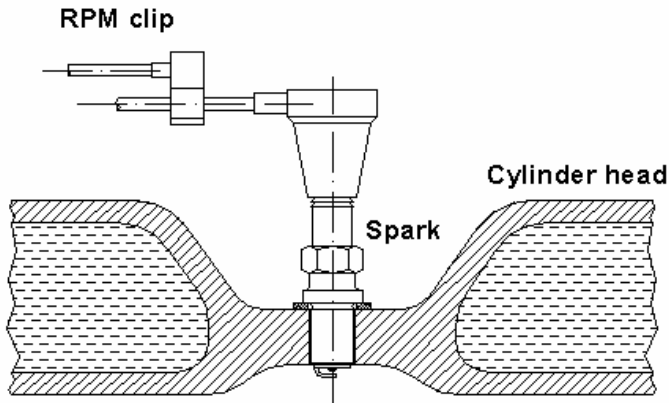
The Thermocouple

The **MyChron 3** Basic model supports one temperature sensor. There are 4 types of thermocouples (temperature sensors) that are available for selection or subsequent purchase:

1. H_2O - Water thermocouple1/8 inches type.
2. H_2O - Water thermocouple M5 type
3. EGT - Exhaust gas thermocouple
4. CHT - Cylinder head thermocouple

All AiM thermocouple are K-type sensors.

Thermocouple from 2 to 4 are provided with an extension cable (length: 45 inches/1.5m) Thermocouple 1 doesn't need extension wires (length: 45 inches/1.5m).

The LAP receiver

The lap receiver may be *infrared* or *magnetic* and is used to recognise a lap marker. The Optic receiver requires an Infrared Transmitter (beacon), at the side of the track; for magnetic receiver, the track must have a magnetic strip installed.

The **Infra Red receiver** has to "see" the transmitter placed on the trackside; the grey point is the receiver eye.

The **Magnetic receiver** has to be installed on the floor of the kart, with two tyre wraps. The arrows on the magnetic receiver need to point to the front and rear of the kart

The MyChron 3 automatically recognises the lap receiver (optic or magnetic) and so no beacon type configuration is needed.

The Optical beacon

The optical Beacon Transmitter has to be placed trackside to mark laps. Ensure that the infrared receiver eye faces the side of the track where the Beacon has been placed, otherwise the system will not record lap time.

The Beacon transmitter is powered using 8 AA batteries or an external 12V power cable. If you are using 8 AA batteries, unscrew the back cover of the Beacon transmitter and place the battery pack into the transmitter casing.
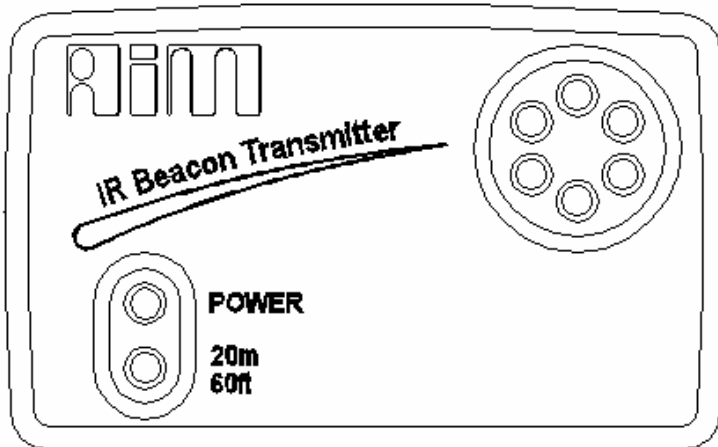
The transmitter has two operating modes: Low power and High power. The Low Power Mode can to be used when the track is less than 30 feet / 10 meters wide, while the High Power mode has to be used when the track is wider than 30 feet / 10 meters.

To activate this function, open the Beacon transmitter with a screw driver and move the jumper (located directly below where the battery pack is attached to the beacon transmitter board) over either one of the two connectors (for low power mode) or over the two connectors (for high power mode).

When the Beacon transmitter operates on high power mode, both the power led lights will light up when the transmitter is turned on.
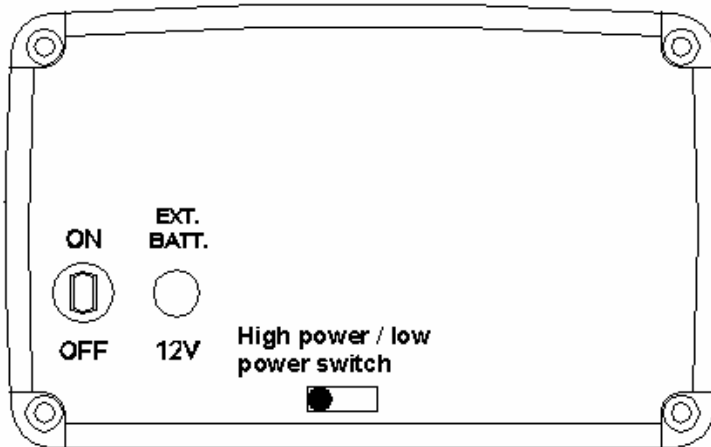
Please, take note that, in High Power Mode, the transmitter has to be powered by an external 12 Volts battery.

How to install MyChron 3

Now you can start installing **MyChron 3** on your kart. It is recommended to follow these instructions in order to preserve your instrument and to capture consistent and accurate data.

Installing and changing the display batteries

Two AAA alkaline batteries power **MyChron 3**. The batteries provide approximately 40 hours of use. When the batteries require replacement (< 2 Volt), a battery indicator will appear in the top right hand corner of the display.

If battery voltage is very low (< 1.7 Volt) it will also appear the text:

<div align="center">

LOW BATTERY

</div>

If battery voltage is really too low, the system will automatically shut down.

Replace both batteries when the battery indicator appears to avoid the system's shutting down during a test.

To change batteries, remove the two screws on the back of the display unit. To remove the battery pack, hold each corner of the circuit board and pull the board away from the display unit. When inserting the battery pack, ensure that the batteries face the center bolt and the circuit board faces the side of the unit. The white connector should be positioned in the top right hand corner of the display unit, if looking at the display unit from behind.

Do not over-tighten the screws when mounting the battery cover to the back of the display unit.

Installing MyChron 3 on the steering wheel

Most of steering wheels have existing holes in the three central arms that will accommodate the **MyChron 3** display unit. If the steering wheel 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, to minimize drill wander. It is recommended that an 8 to 10 mm drill bit be used. Do not over-tighten the 8 mm nut. Over-tightening the nut may cause damage to the display unit casing.
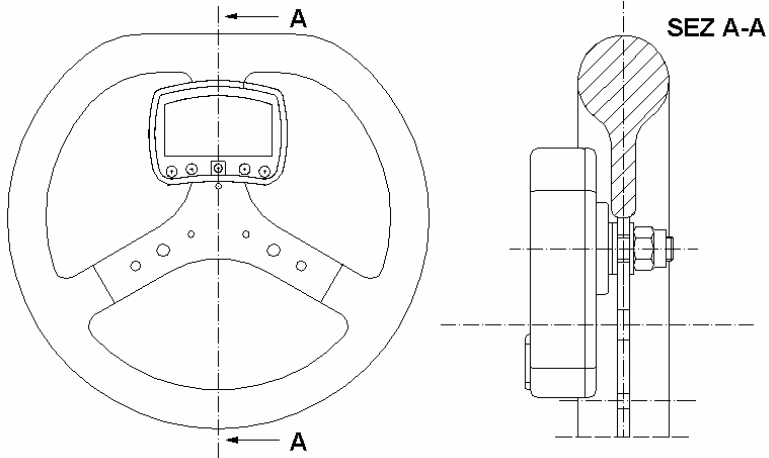
As showed in the previous drawing, we suggest using the plastic washers furnished as equipment to keep your MyChron 3 separate from the steering wheel, in order to avoid possible damage to the display unit.

Installing the RPM clip

The RPM sensor clips directly on the spark plug wire. While running the RPM cable along the chassis between the MyChron 3 display unit and the spark plug wire, the RPM cable should be positioned as far as possible from the thermocouple wire, to prevent interference.

RPM clip

Cylinder head

Spark
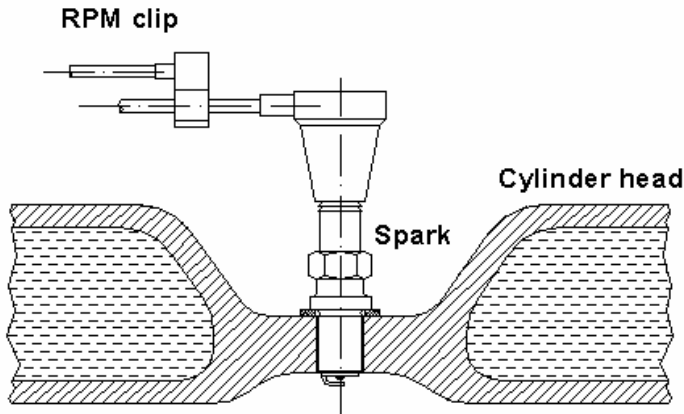
It is suggested to use cable ties to securely attach the RPM cable along the chassis to prevent damage.

Installing the water thermocouple

The H_2O thermocouple can be installed directly into the cylinder head (if the engine accommodates the thermocouple) or by using the water thermocouple M5 fitting (sold separately) for the M5 type.

The drawing below shows how to correctly install the water thermocouple for the M5 type.

SEZ A - A

The water thermocouple must be placed here

A   A

Water thermocouple

Junction must be hanged here with two wiring wraps
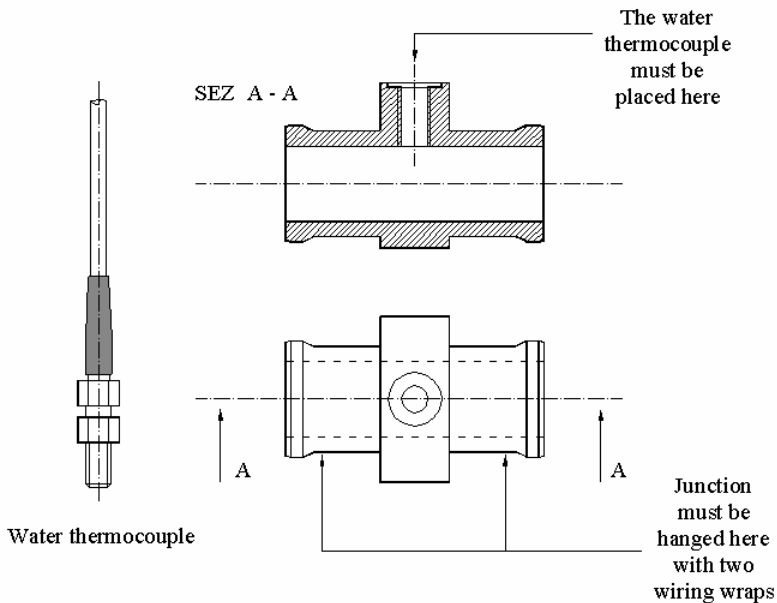
Installing the EGT thermocouple

The Exhaust Gas Thermocouple (EGT) should be positioned inside the exhaust header pipe at a distance of 150 mm (5.9 inches) from the exhaust port.
The following drawing shows a correct installation of the EGT thermocouple.
It is recommended that the probe be inserted between 25% and 50% inside the exhaust gas header.

150 [5.9]
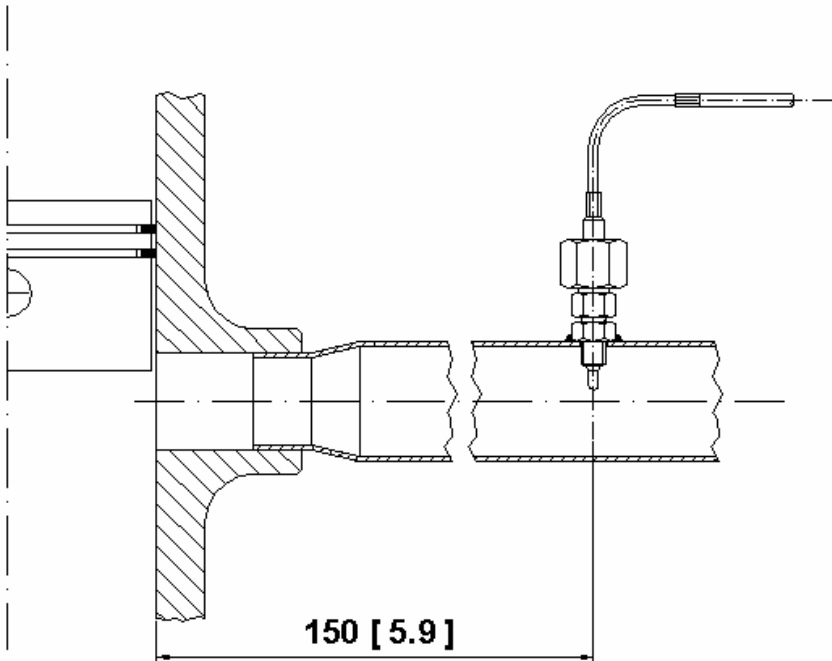
To install the EGT thermocouple, please follow these instructions:

1. Make a 5 mm (0.2 inches) hole inside the exhaust header;
2. Weld the little nut to the exhaust header in the place where the hole has been drilled;
3. Screw in the nut the central part of the EGT thermocouple;
4. Connect the remaining part of the thermocouple and fix it to the exhaust header by screwing the big nut.
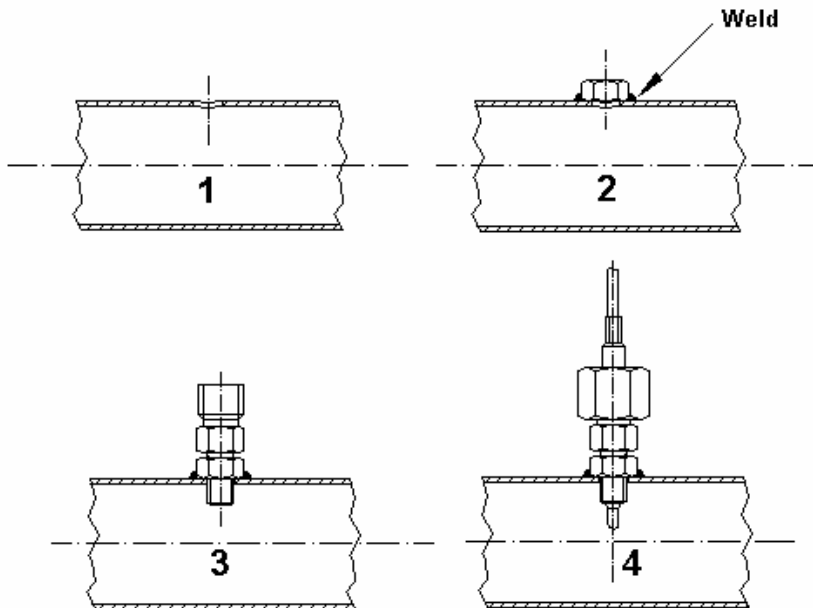
Installing the Underspark thermocouple

When using a Cylinder Head Thermocouple (CHT) sensor, always remove the spark plug washer before inserting the spark plug into the sensor.

When tightening and loosening the spark plug, minimise movement of the sensor to avoid damage.

The following drawing shows the correct installation of the underspark thermocouple.
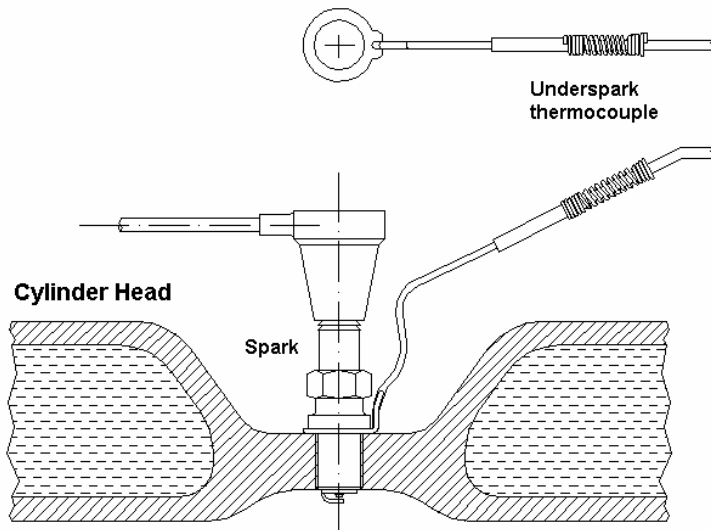
Connecting cables to MyChron 3

Once all the sensors and accessories for your **MyChron 3** are correctly installed, you need to connect them to the main display unit.

On the back of the display unit, connect the temperature cable to the upper binder and the lap cable to the lower one. The RPM cable must be placed inside the two holes on the left of the display unit (as seen from behind).

Temperature

Beacon receiver

RPM
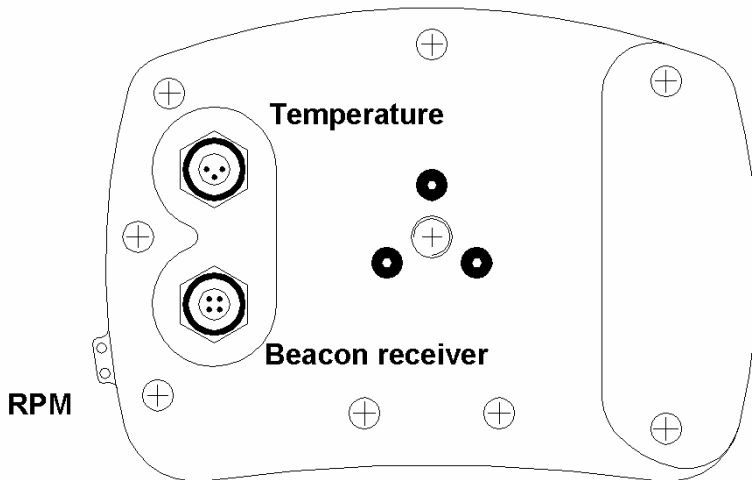
While connecting the cables to the main display unit, it is strongly recommended to keep separate the infrared or magnetic receiver, RPM and thermocouple cables, in order to minimize interference between cables.
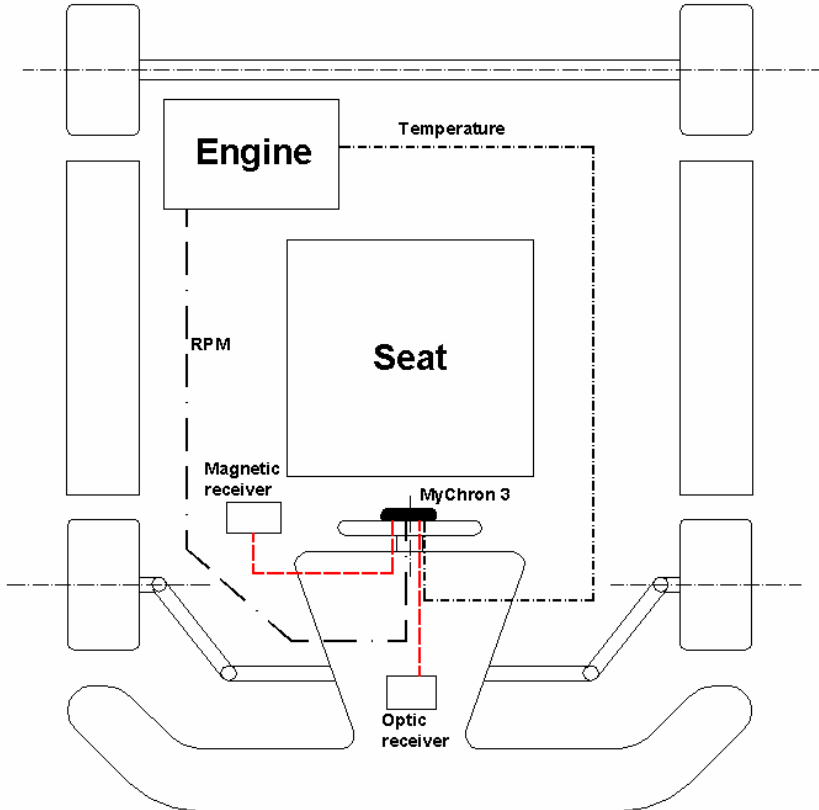
How to use MyChron 3

As you power on your **MyChron 3** some information are displayed: here they are described in the same order as they appear:

1. AIM   1_xy Firmware version.

2. MYCHRON 3 Instrument name.

3. MEMORY TOTAL FREE / TEST X LAP Y   Memory status warning message: if the first message is displayed it means that your **MyChron 3** has no previously recorded data in its memory, otherwise it shows the last lap number Y of the last test session X.

Configuration functions

Before getting started, please configure your gauge in order to get the right data from your system.

After having turned the power ON, please, enter into CONFIGURATION MODE (push **MENU/<<**) for setting the parameters. Use **MENU/<<** (back to previous option) and **>>** (forward to next option) to scroll through the configuration menu. To exit CONFIGURATION MODE and return to MAIN DISPLAY MODE, press **VIEW**.

The parameters you can set in CONFIGURATION MODE are explained in the same order they appear by pressing **MENU/<<**.

Night Vision   The **MyChron 3** display can be set to backlight display so that it is visible during night racing.

To set the Night Vision ON or OFF, press **MEM/OK** until the required selection appears. To return to main display mode press **VIEW**.

When the Night Vision option is activated a light globe will be displayed in the display's top right corner.

To activate Night Vision mode during a test, simply press **MENU/<<**.

Clear test data   The "Clear test data" option clears the data stored in the system's memory.

To run this function, after having entered the CONFIGURATION MODE, push **MENU/<<** until you see:

<div align="center">

CLEAR TEST DATA

</div>

Then press **MEM** twice to erase data or press **VIEW** to quit.

Beacon obscuring time   This function sets the beacon obscuring time. This parameter is important when more than one lap beacon/transmitter is operating, in order to avoid false lap times, or in case of multiple magnetic strips on the track (if magnetic receiver is employed and you don't want to see split times). For example, if your Lap

time is about 1 minute, set this parameter at 50 seconds. The Beacon obscuring time can be set between 3 and 59 seconds. A proper obscuring time helps the **MyChron 3** to know which lap beacon is the correct one to read.

AIM recommends using only one lap transmitter at the track. Additional transmitters should be used for splits (see below)

To run this function, after having entered the CONFIGURATION MODE, push **MENU/<<** until you see:

<p align="center">OBSCURING TIME</p>

Then push **MEM** to enter EDIT MODE: use **MENU/<<** to change numbers and button **>>** to change digit. The blinking number identifies the digit that can be edited.

Press **MEM** to save the changes or **VIEW** to discard the changes.

Split's number

This function sets how many "split beacons" you have on the track. You can place multiple beacons around the track to indicate splits (or segments). This way you can compare your times through one section (like a corner) separate from the rest of the lap. If there is more then one transmitter on the track, you can choose to capture the segment times by setting the "Number of Splits" or ignore the segment times by using the "Obscuring Time Option" (see above).

To run this function, after having entered the CONFIGURATION MODE, push **MENU/<<** until you see:

NUMBER OF SPLITS

Now push **MEM** to enter EDIT MODE, then press **MENU/<<** until the correct number of splits appears on the display's lower right corner.

Press **MEM** to save the changes or **VIEW** to discard the changes.

Total Engine running time This function shows the total engine working time, which will be displayed in hours and minutes, and lets you clear that data.

To run this function, after having entered the CONFIGURATION MODE press button **MENU/<<** until you see

TOTAL RUNNING

To confirm your selection press **MEM** a second time: the sentence "Total are cleared" will appear on the display. Press **VIEW** to exit without deleting total running time

Temperature alarm This function sets the threshold temperature for the thermocouple sensor that triggers the alarm when a dangerous temperature has been reached. You should consult with your engine manufacturer to determine what temperature threshold should be set for your engine and thermocouple sensor.

To run this function, after having entered the CONFIGURATION MODE, push **MENU/<<** until you see

TEMPERATURE ALARM

Then push **MEM** to enter EDIT MODE: use **MENU/<<** to change numbers and **>>** to change digit. The blinking digit identifies the digit that can be edited.

When the required temperature has been set, press **MEM** to save changes or press **VIEW** to discard changes.

The temperature alarm can be set between 0 and 1999 degrees.

When the system displays a temperature greater than the alarm value, the temperature on the display will begin flashing. When the thermocouple temperature falls below the alarm value, it will cease flashing.

Max RPM value

This function sets the maximum scale for the graphical RPM display and the maximum acceptable RPM value captured by **MyChron 3**.

MyChron 3 has five levels for the maximum RPM : 8,000 / 10,000 / 12,000 / 16,000 / 20,000 RPM / 22,000 / 25,000 RPM.

To run this function, after having entered the CONFIGURATION MODE, push **MENU/<<** until you see

MAX RPM VALUE

Then push **MEM** to enter EDIT MODE and use **MENU/<<** or **>>** to scroll between the five standard RPM values. When the required RPM value is displayed, press **MEM** to save the changes or **VIEW** to quit.

Spark for Revs

This option represents the number of spark signals for every engine revolution. A two-stroke engine has one spark signal per revolution, while a four-stroke engine has a spark every two engine revolutions.

To set the Spark for Revs, after having entered the CONFIGURATION MODE, push **MENU/<<** until you see

<div align="center">

SPARK FOR REVS

</div>

Then push **MEM** to enter EDIT MODE and use **MENU/<<** or **>>** to scroll between three standard values: x1, x2 and /2.

The most common setting for two-stroke, one cylinder karting engines is x1.

Press **MEM** to save the changes or **VIEW** to discard the changes.

Temperature measure unit

This function sets the temperature unit; choose between Celsius [°C] or Fahrenheit [°F] degrees.

To run this function, after having entered the CONFIGURATION MODE, push **MENU/<<** until you see

<div align="center">

FAHRENHEIT/CELSIUS

</div>

Then push **MEM** to enter EDIT MODE and use button **MENU/<<** until you see the proper unit, and confirm it pushing **MEM**. Press **VIEW** to discard the changes.

The °C or °F symbol will appear on the left of the display.

Message language

MyChron 3 text can be displayed in English, Italian, German, French, Spanish or Slovenian.

To run this function, after having entered the CONFIGURATION MODE, push **MENU/<<** until you see

MESSAGE LANGUAGE

Then push **MEM** to enter EDIT MODE and use **MENU/<<** or **>>** to change language.

Press **MEM** to save the changes or **VIEW** to discard the changes.

Firmware version

This function shows three numbers, which represent, respectively, the firmware version, the firmware upgrade date and the gauge's serial number.

To run this function, after having entered the CONFIGURATION MODE, push **MENU/<<** until you see

FIRMWARE info

The firmware management window is organized in two different rows: the upper one shows the firmware version on the left, and the firmware upgrade date on the right (dd/mm/yy). The lower row shows the gauge's serial number.

Track type selection

This feature, properly developed for **kart oval racing**, is intended only for those countries (US) where such races are available. As these championships are usually composed of "oval track" and "standard track" races, this function allows the user to set the track type.

The **standard racing** option allows the user to set all the parameters described in the previous paragraphs, while the **oval racing** option sets some of these parameters (RPM factor, Obscuring time, Split number, Display language) to a fixed value.

If you wish to switch from "Standard racing" to "Oval racing", please turn off your gauge and, then, turn it on pressing buttons **>>** and **MEM/OK**. The gauge will automatically switch from "Standard racing" to "Oval racing".

The procedure to step back from "Oval racing" to "Standard racing" is similar to the one previously described: turn off the gauge and, then, turn it on pressing buttons **>>** and **MEM/OK**.

The first time you turn on the gauge after having switched among the 2 available track types, the display will show one of the following texts:

<div align="center">

Standard racing

Oval racing

</div>

The **oval track** option will set the parameters as follows:

- Split times = 0 (i.e. no split times available)
- Obscuring time = 4 sec
- RPM factor = X1
- RPM scales = 8,000 / 12,000 / 20,000
- Temperature unit of measure: Fahrenheit [°F] degrees
- Display language = English

Utility functions

Once your system is configured, you are ready to manage the data you have acquired with your gauge. **MyChron 3** records lap time, RPM and temperature at a sampling rate of 10 Hertz (ten times per second). This data can be retrieved at a later stage for analysis.

MyChron 3 segments data for a session as a test and each test includes the laps completed in that session. To begin recording a new test, please turn off your system off by pressing buttons **MEM** and **VIEW** simultaneously, and then turn the system back on.

<table>
<tr>
<td>

Viewing data while driving

</td>
<td>

The **MyChron 3** will display "Test 01" or the current test number if memory has not been cleared, and "Lap 001" once the magnetic sensor passes over a magnetic strip (or the infrared receiver passes the beacon transmitter).

If the system has been configured to capture back segments using the number of splits option, the system will display "Split Number x", up to the number of splits selected. Once the system records times for each split, the final segment is displayed as a completed lap.

At the same time, the system displays the time difference between the current split time and the split time of the previous lap.

When the system records the best lap time for a test, the text "Best Lap Time" will appear on the display.

</td>
</tr>
</table>

When a test is complete, the system displays the last lap number and last lap time. Using button **MEM** you can access the data stored in system's memory. Here's how to retrieve data after the completion of a test:

Viewing data per best lap time

To view the data for the lap with the best lap time, press **MEM** while in general display mode. The best lap time is displayed for the most recent test.

The system displays the test number, lap number, maximum temperature for the lap and the lap time. The lap time will be flashing, signaling that this is the best lap time for the test.

If **MEM** is pressed a second time, it will show the minimum temperature and RPM values for the lap with the best time.

To return to general display mode, press **VIEW**.

View other completed lap data

To view completed lap data, while in general display mode, press **MEM** to view the best lap time. Then press **MENU/<<** to view a previous lap or **>>** for a following lap. If you have configured the **MyChron 3** to capture splits, **MENU/<<** and **>>** will also scroll through the split times within each lap.

Pressing **MEM** will display the minimum RPM and temperature values for the current lap.

To retrieve previous test data (when more than one test has been recorded) press **MENU/<<** until the required test and lap details (or split details) appear on the display.

To increase scrolling speed through recorded laps hold down **MENU/<<** and **>>**.

Replaying
detailed data
for the lap

If you wish to replay detailed data for a lap, choose Manual or Automatic replay.

Automatic lap replay: while in general display mode, press **MEM**; then, using **MENU/<<** or **>>** choose the lap you wish to see and then press **MEM** twice: the system will automatically replay the graphic and decimal RPM, thermocouple temperature and lap time from start to finish in time intervals of one-tenth of a second (10 Hertz $\rightarrow$ 10 data points per second).

To stop the automatic lap replay press **MEM**. To return to general display mode press **VIEW** again.

Manual lap replay: to manually step through the detailed lap data, while the system is in general display mode, press **MEM**; then, using **MENU/<<** or **>>** choose the desired lap and then press **MEM** twice. The system will go to the "automatic lap replay" mode.

Press **>>** or **MENU/<<** to stop the automatic replay; use **MENU/<<** to decrease the progressive lap time by one-tenth of a second and **>>** to increment the progressive lap time by one-tenth of a second.

Press **MEM**, to return the system to "automatic lap replay" mode. To return to general display mode press **VIEW**.

View data for oval racing

For Oval Racing, the view data is different from the one previously described.

Press **MEM** to enter the "recall data from memory" function: it will show the best lap time for the last test session.
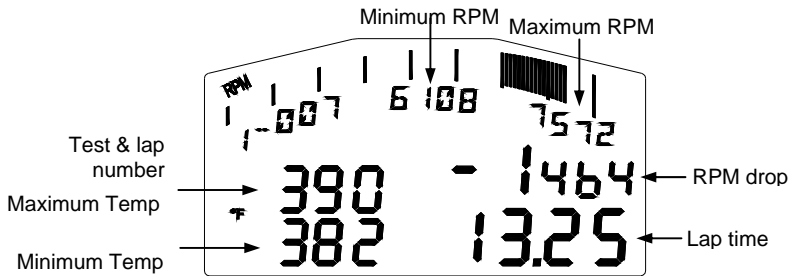
In a single page, it displays the test & lap number (under the bargraph), the maximum and minimum RPM values (under the bargraph), the RPM drop (i.e. Minimum RPM – Maximum RPM), the lap time, the maximum and minimum temperature values (in Fahrenheit degrees).

Moreover, the bargraph shows the RPM range (in the previous drawing, for instance, the RPM range goes from 6108 to 7572 RPMs).

Maintenance

Your MyChron 3 does not require any special maintenance.

Provided adequate care is taken with the display unit and components, the only maintenance will be to upgrade the firmware when upgrades are released by Aim (periodically check www.aimsports.com or www.aim-sportline.com) and to change the display unit batteries when the low battery indicator appears on the top right hand corner of the display.

Upgrading the firmware   To upgrade the firmware, please visit to our website www.aimsports.com or www.aim-sportline.com and download the latest firmware version. The file you have to download is an EXE file, and it is called "**FIRMUP.EXE**" (**FIRM**ware **UP**grade).
Connect the **MyChron** to your PC by using the USB cable.
Now you can launch the **FIRMUP** file by double-clicking on it and the system will automatically upgrade your instrument's firmware.

MyChron 3 and the computer

MyChron 3 has a non volatile RAM memory which guarantees the capacity to record up to 250 laps at a sampling frequency of 10 Hz (ten times per second).
MyChron 3 has been designed and developed to connect with a PC: through a USB cable it is possible to connect **MyChron 3** to a PC in order to both download the data stored in memory and configure your instrument.

AiM reminds all **MyChron 3** owners that, for a correct, complete and easier instrument configuration, it is absolutely necessary to use a PC and our **Race Studio 2** software. This software has been properly developed by AiM in order to interface all its products (**Drack, EVO 3, MyChron 2, MyChron 3, MXL, DaVid and Dash ST1**) with the PC.

New software installation does not either cancel or change the functionalities of **Race Studio**. Once the program is installed, the user will be able to choose to use the new software or the previous installation.

The following pages show how to install the software on your PC and how to correctly configure your MyChron 3 by using a PC.

Software installation

You'll need the USB cable/software kit in order to use the Race Studio 2 software with your **MyChron 3**. This is a separate kit that does not come standard with the MyChron 3 Basic or Basic 2T. Check with your local dealer to purchase this kit.

Once you have the kit, to install the software, insert the CD inside the CD-ROM drive: if the *autorun* option is enabled (most of cases), software installation will automatically start, otherwise click twice on *SETUP* icon.

The 1st screenshot that will appear on your PC's monitor concerns the installation language choice. Through a pop-up menu it will be possible to choose the preferred language.

It is reminded that the installation language choice does not limit the software to working with only that language.

In the following image you can see the 2nd installation step: please read carefully the text and then click on the *Next* icon.

Now choose the type of installation you prefer: as reported in the following screenshot, it is recommended to place a check beside *Typical* and to click on *Next* pushbutton. By using button *Browse*, it is possible to choose the software installation folder: if you do not wish to change the settings, the software will be installed in the default folder "C:\Program files\AIM".
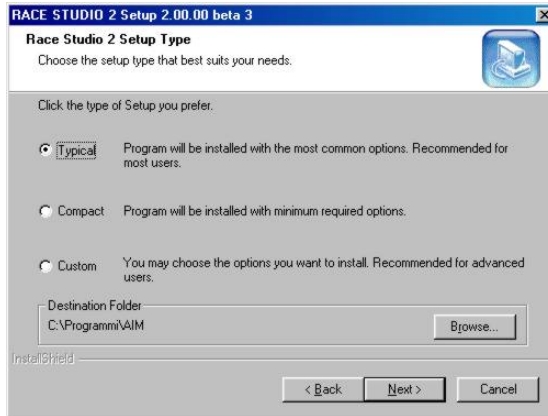
Now you have to choose in which folder of the *Program menu* (click *Start / program*) you prefer to install the software icons. If you click on *Next* button without modifying the settings, the icons will be created in a folder called AIM.
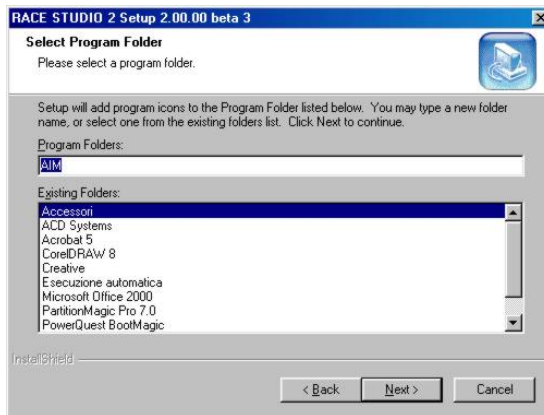
The following window is a summary screenshot: please click on *Next* button to install the software or *Back* to modify some installation parameters.
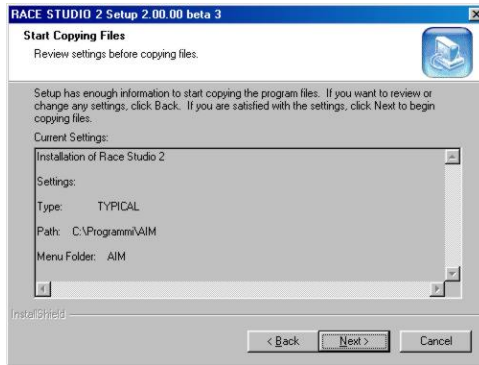
The following screenshot is the final one: please click on Finish button and, then, launch the program.
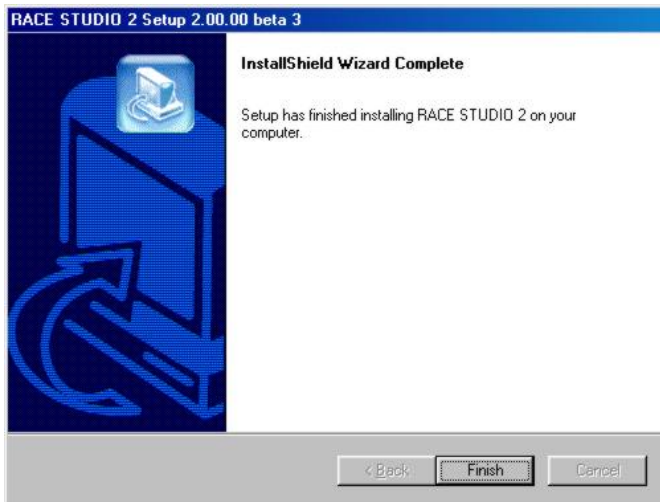
Now, to run the program, click twice on **Race Studio 2** icon, which will appear on your computer's desktop once the installation has finished.

To uninstall **Race Studio 2** from your computer, please enter Check Panel Mode (click start / settings / Control Panel) and click on Software Installation icon. Now select **Race Studio 2** from the program list and push button *Install / Remove*: software will be automatically removed from your computer.

Check our website to see if Race Studio 2 has been updated, the updates are free for you to download. If you wish to update **Race Studio 2**, please check www.aimsports.com or www.aim-sportline.com to download the latest updates. To install the update, click twice on the downloaded file and follow the instructions you see on your PC's monitor.

Our Race Studio 2 software has been designed and developed to guarantee the maximum working reliability and has been tested with the following operating systems: Microsoft Windows 98 ™, Windows 2000 ™, Windows Me ™, Windows Xp ™. Microsoft Windows 95 ™, Windows NT ™. Other operating systems (Linux, Macintosh ™) are not supported.

If you have troubles during installation or normal working time, please check out our website or contact Aim.

Installing the USB drivers

Please, read these instructions carefully in order to correctly install the USB drivers: an incorrect installation may cause serious problems on your computer.

To connect your **MyChron 3** to a PC, use the USB cable that comes with the download kit.

With the PC and the **MyChron 3** turned off, connect the cylindrical connector of the cable to the **MyChron 3** USB port and the other end to your PC's USB port. Now turn on both the computer and **MyChron 3**.

During restart time, the operating system will recognize a new hardware and will ask you to install the proper drivers, drivers that are included in **Race Studio 2** installation CD-ROM.

On the two following pages are two examples concerning the USB driver installation for Microsoft **Windows 98 ™** and Microsoft **Windows 2000 ™**.

How to install the USB Driver for Windows 98 ™:
1. Press [Next] button when the "Add new Hardware wizard" window appears.
2. Select [Search for the best driver for your device] and press the [Next] button again.
3. Place the **Race Studio 2** disk in the computer's CD-ROM drive if it is not already there.

4. If the *autorun* option is enabled the system will try to install **Race Studio 2**. As you have already installed it, please exit installation menu. If the *autorun* option is enabled, go directly to number 5.
5. Place a check beside [CD-ROM drive] and click the [Next] button.
6. Click the [Next] button again.
7. Click the [Finish] button once reached the end of the installation.
8. Restart the computer if prompted.

How to install the USB Driver for Windows 2000 ™:

1. Press [Next] button when the "Found new Hardware wizard" window appears.
2. Select [Search for a suitable driver for my device] and press the [Next] button again.
3. Place the **Race Studio 2** disk in the computer's CD-ROM drive if it is not already there.
4. If the *autorun* option is enabled the system will try to install **Race Studio 2**. As you have already installed it, please exit installation menu. If the *autorun* option is enabled, please go to number 5.
5. Place a check beside [CD-ROM drive] and click the [Next] button.
6. Click the [Next] button again.
7. Click [Yes] if the "Digital Signature Not Found" window appears.
8. Click [No to All] if the "Confirm File Replace" window appears.
9. Click the [Finish] button once reached the end of the installation.
10. Restart the computer if prompted.

Configuration via software

As previously mentioned, **MyChron 3** may be configured both via keyboard and via software, by using **Race Studio 2**.

The "via software configuration" allows the user to configure their **MyChron 3** and set some parameters that cannot be set using the keyboard.

It is reminded that, before starting the configuration via software, you should install Race Studio 2 and the USB drivers as mentioned in the previous chapter. It is also reminded, before configuring the instrument, to connect it to a PC and to switch it on.
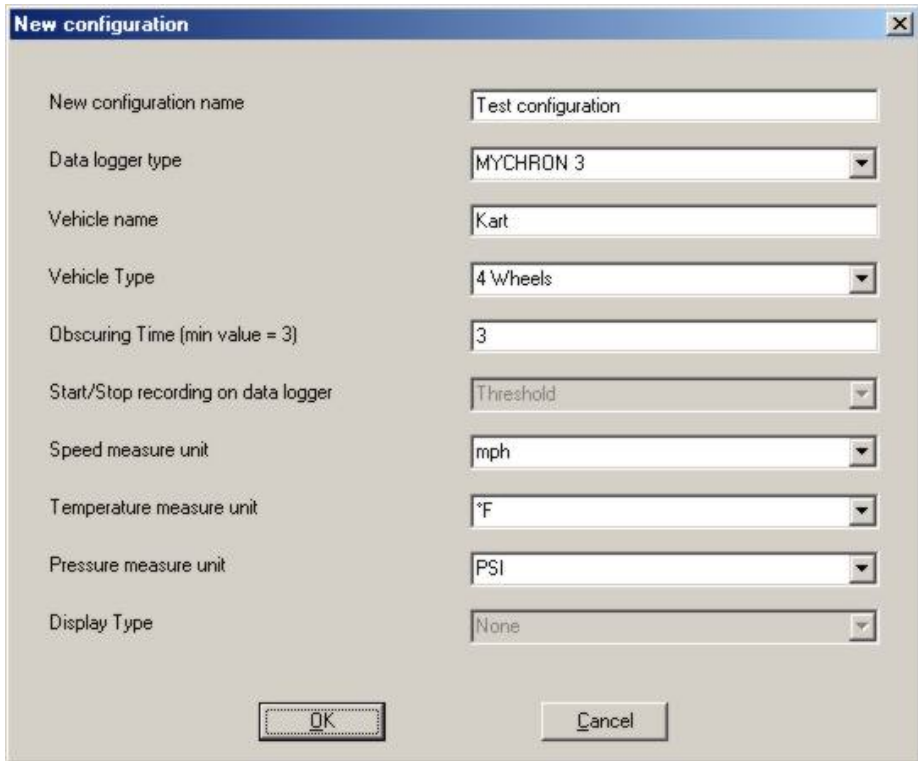
Once launched the program clicking on the **Race Studio 2** icon, the following screenshot will appear:
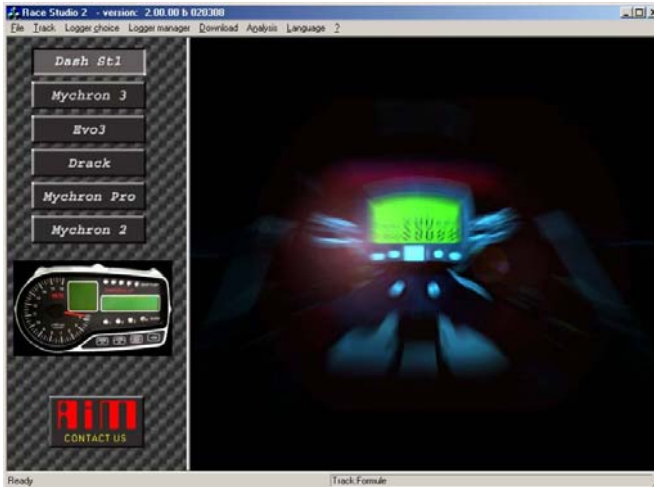
On the left of the window you will see the icons corresponding to all the Aim instruments supported by **Race Studio 2**: **Dash ST1**, **MyChron 3, Evo 3**, **Drack**, **MyChron Pro**, **MyChron 2, MXL, etc**. To select **MyChron 3**, please click on the corresponding icon.

Now it is possible to configure the instrument: in order to start the configuration procedure, please click on the icon *Logger manager*.

It will appear the following screenshot:

The user will have to set some parameters, listed here above:

- New configuration name;
- Data logger type;
- Vehicle name;
- Vehicle's wheels number: at choice between 2 and 4;
- Beacon receiver's obscuring time: minimum value 3 and maximum value 59 seconds;
- Speed measure unit: at choice between km/h and Mph;

- Temperature measure unit: at choice between °C and °F;
- Pressure measure unit: at choice between Bar and PSI.

Once filled all the boxes of the previous screenshot, click on the *OK* pushbutton to save the settings. On your PC's monitor the following window will appear:
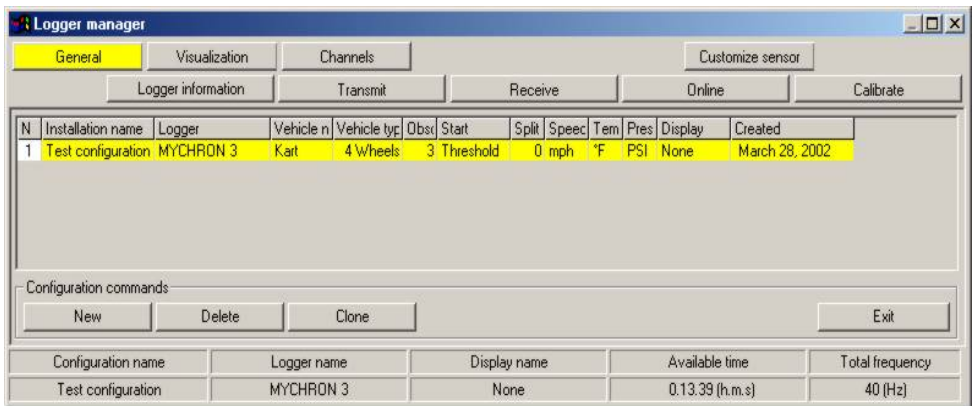
Here is a short description of all the pushbuttons that can be used to configure your **MyChron 3**:

- *General*: with this pushbutton you enter the window on ;
- *Visualization*: this pushbutton allows you to set the pressure and temperature alarms values and to set the RPM changing gear threshold values;
- *Channels*: by using this option you can set how many and which kind of sensors are installed on your vehicle;

- *Logger information*: this button allows the user to detect the characteristics of the MyChron 3 connected to the PC;

- *Transmit*: this button is used to send the configuration over to the MyChron3 once you have finished;

- *Receive*: if you connect to a PC a data logger of whom you do not know the configuration, you may detect its configuration, by clicking the *Receive* button, and to save it in the configuration's database;

- *Online*: the *Online* button allows the user to make a data acquisition simulation, in order to verify if the new configuration is correct and if it has correctly been transmitted to the data logger;

- *New / Delete / Clone*: these three buttons allows the user to create a new configuration, to delete an old one or to clone an existing one;

- *Exit*: this button is used to exit the "Logger manager" menu.

Channels settings

Clicking on the *Channels* pushbutton it will appear the following screenshot:

The only configurable channel is the RPM one: to configure this channel it is necessary to click twice in the box corresponding to the RPM row and the *Param. 1* column. On your PC's monitor it will appear the following screenshot, in which you can set both the *Sparks for revs* (see page 28) and *Maximum RPM value* (see page 27)

Configuration via "Visualization" pushbutton

By clicking on the *Visualization* icon the following screenshot will appear:
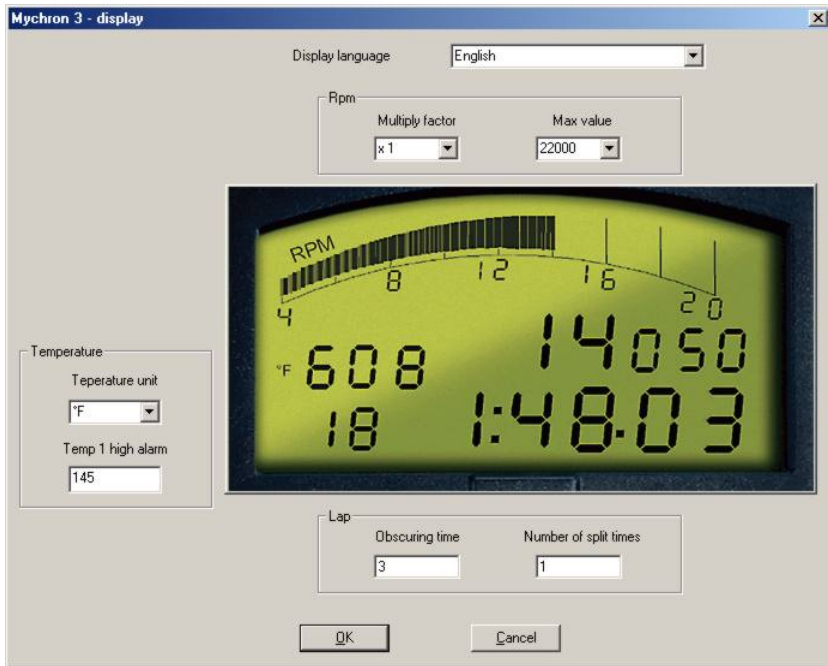
The user can set the following parameters:

- *Display language*: choose English, Italian, French, German, Spanish or Slovenian;
- *Maximum RPM value*: the user can set both the *Sparks for revs* (X1, X2 and /2) and *Maximum RPM value* (8,000 / 10,000 / 12,000 / 16,000 /

20,000 / 22,000 / 25,000 RPM) (see pages 27 and 28 for more information);

- *Temperature*: set both the *Temperature measure unit* (°C or °F) and an *Alarm value*;

- *Lap*: the user can set both the *Obscuring time* (in a range between 3 and 59 seconds) and the number of *Split times* (see page 24 for more information).

Transmitting the configuration to MyChron 3

Once you set all the parameters, it is necessary to transmit the configuration to the instrument. In order to transmit the configuration, you have to press *Transmit* pushbutton and the system will automatically download the configuration from the PC to the MyChron memory.

It is recommended, before transmitting the configuration, to switch on the instrument and to connect it to the PC's USB port.

If a previous configuration is stored in the instrument's memory, when you press the button *Transmit* the following dialog box will appear:

If you wish to delete the previous configuration, please press *Si*, otherwise press *No* and, then, choose the *Receive* option. By using this option you will be able to download and save the configuration previously stored in the instrument's memory.

Once you save the previous configuration on your PC you can restart the configuration transmission procedure.

Once the configuration has been correctly transmitted to the **MyChron**, the following window will appear on your PC screen:

In order to confirm that every channel has been correctly configured, it is suggested to enter *Online* mode and to verify that the channels properly work. If, during configuration or transmission, you notice any problem, it is recommended to repeat the configuration procedure.

Quick reference guide

Configure MyChron 3

- Press **VIEW** to turn the system on.
- Press **MENU/<<** to activate the configuration mode.
- Press **MENU/<<** (previous option) or **>>** (next option) to scroll through the configuration menu.

Setting the number of splits
- Select the "Number of Splits" option.
- Press **MEM** to enter edit mode.
- Press **MENU/<<** or **>>** to set the number of splits.
- Press **MEM** to save or **VIEW** to quit.

Setting the obscuring time
- Select the "Obscuring Time" option.
- Press **MEM** to enter edit mode.
- Press **MENU/<<** to set the correct number of seconds.
- Press **>>** to alternate between digits.
- Press **MEM** to save or **VIEW** to quit.

Setting the maximum RPM value
- Select the "Maximum RPM Value" option.
- Press **MEM** to enter edit mode.
- Press **MENU/<<** or **>>** to set the required RPM.
- Press **MEM** to save or **VIEW** to quit.

Setting the temperature alarm

- Select the "Temperature Alarm" option.
- Press **MEM** to enter edit mode.
- Press **MENU/<<** until the correct number appears.
- Press **>>** to alternate between digits.
- Press **MEM** to save or **VIEW** to quit.

Using MyChron 3

Viewing data per best lap time

- Press **MEM**.
- Press **VIEW** to return to main display mode.

Viewing other completed lap data

- Press **MEM**.
- Press **MENU/<<** to view a previous lap or **>>** to view a following lap.
- Press **VIEW** to return to main display mode.

Viewing detailed data for the lap

- **Automatic:**
  - Press **MEM**.
  - Press **MENU/<<** or **>>** to choose a lap.
  - Press **MEM** twice.
  - Press **MEM** to stop the automatic lap replay.
  - Press **VIEW** to return to main display mode.
- **Manual:**
  - Press **MEM**.
  - Press **MENU/<<** or **>>** to choose a lap.

- o Press **MEM** twice.
- o Press **MENU/<<** or **>>** to stop "automatic lap replay".
- o Press **MENU/<<** to step back by one tenth of a second.
- o Press **>>** to step forward by one tenth of a second.
- o Press **MEM** to return to "automatic lap replay" mode.
- o Press **VIEW** to return to main display mode.