Programming Software

MoPower v1.2

User manual

INDEX
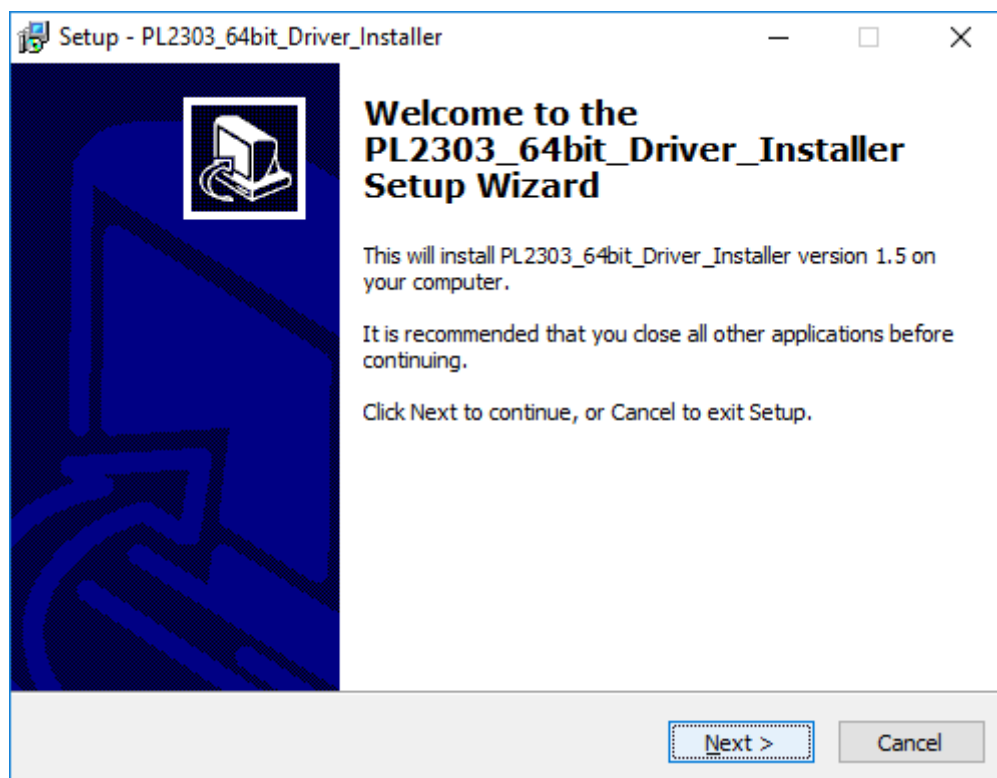
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How to Install

Warning!

Use only official lbr programmers. Never connect to serial ports or usb-serial converters.
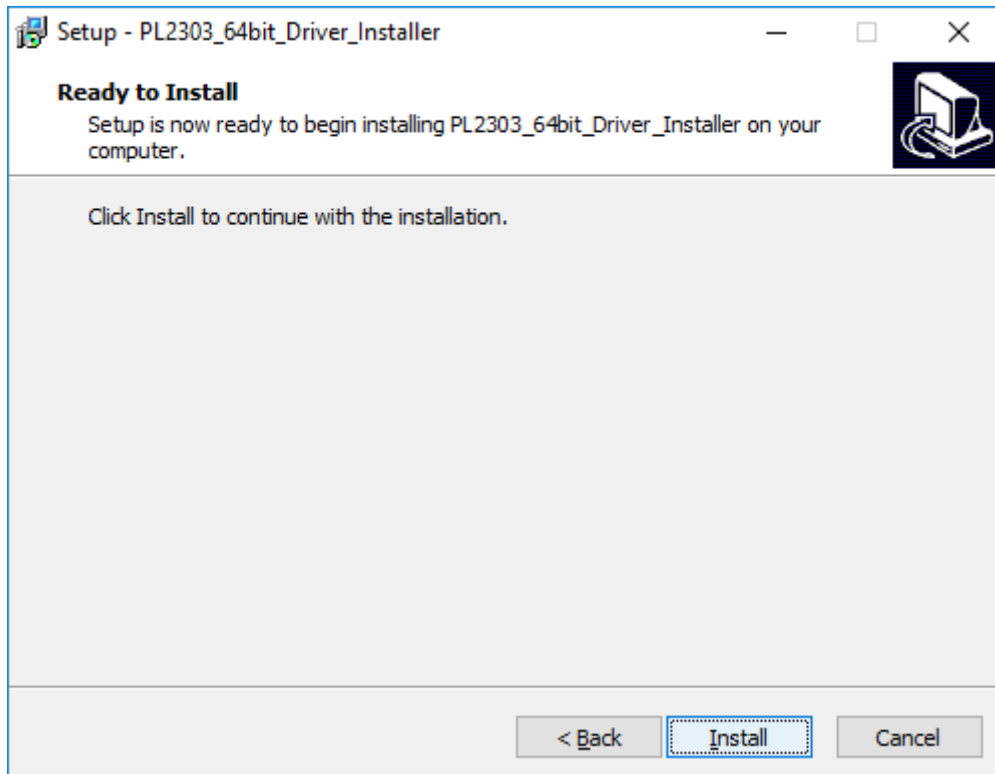
Programmer's driver - v1.0

If the programmer have not a "v2.0" mark on it, then it is the 1.0 version, and you have to read the following instruction. If it says "v2.0" then jump to the next chapter.
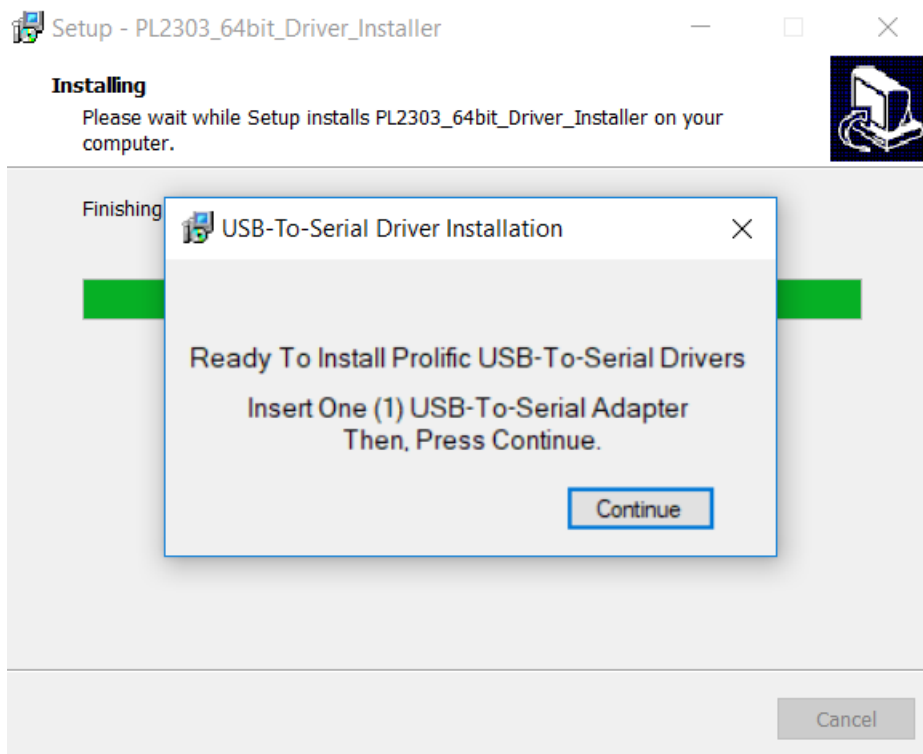
Open the file "DriverInstaller64.exe" in case of 64bit operating system or "DriverInstaller32.exe" in case of 32 bit operating system.
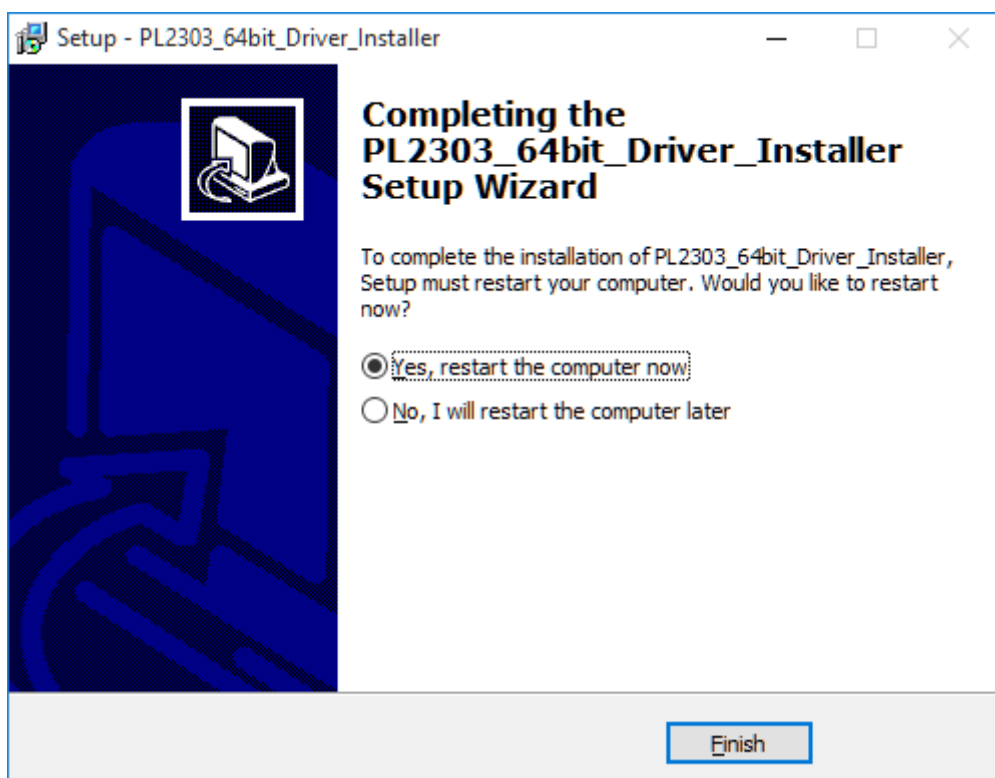

Click on **Next**

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Click on **Install**

When this dialog window appear, connect the programmer in a free USB port, wait for 5-10 second and the click on **Continue**

At the end of the procedure click on **Yes, restart the computer now** for restarting the computer and then click on **Finish**
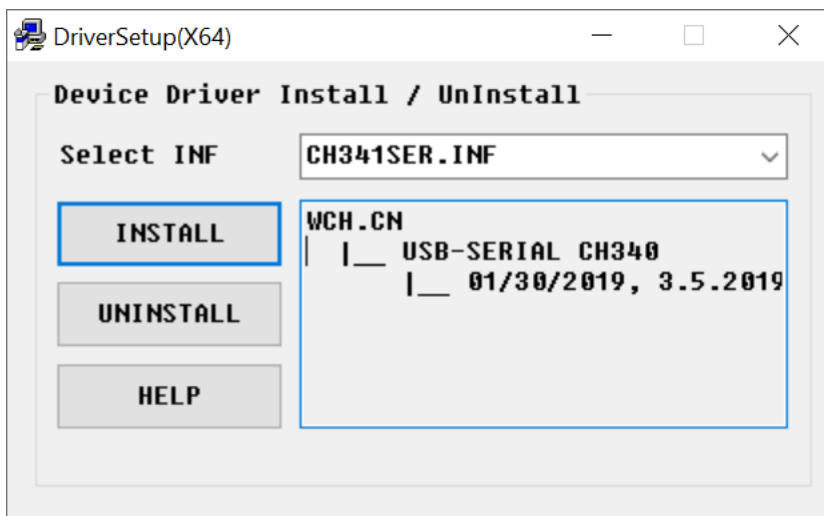
Is now possible to remove the programmer while the computer restart.

WARNING: Before clicking on **Finish** save all your open files!!

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PROGRAMMER'S DRIVER – V2.0

If the programmer has "v2.0" marking then read the following instruction.

Open the "Driver Installer V2.exe" file, the following window will show up. Clic on "INSTALL" to install the driver. At the end of the procedure clic on the "X" to close the window.

PROGRAMMING SOFTWARE - LBR PROGRAMMER

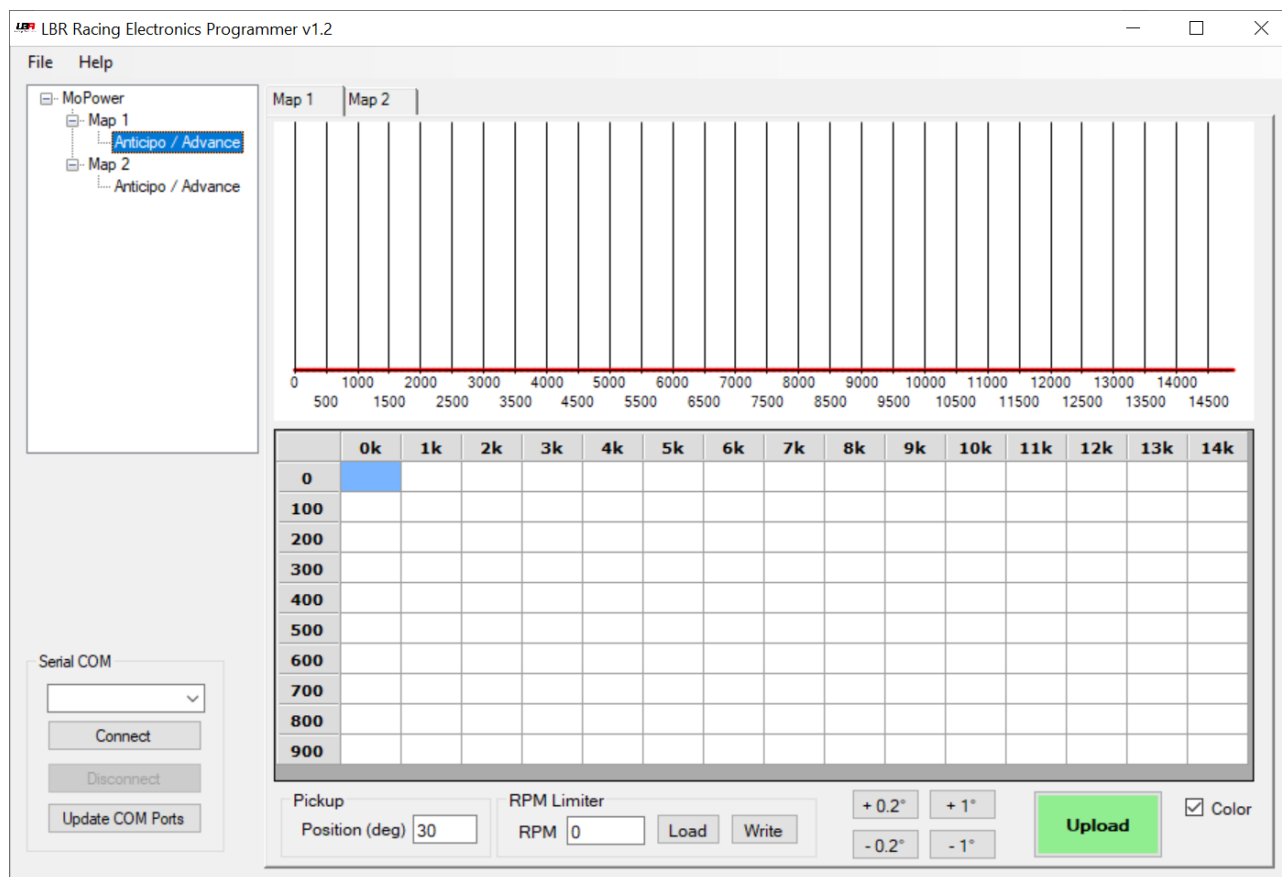The software doesn't need to be installed, just run it.

Requirements: This software require the Microsoft .NET Framework 4.

In case the software doesn't start, install the .NET Framework following one of these link:

- Web Installer: https://www.microsoft.com/en-us/download/details.aspx?id=17851

- Offline Installer: https://www.microsoft.com/it-it/download/details.aspx?id=17718
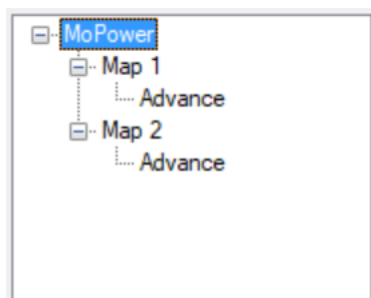
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SOFTWARE WINDOW

The LBR Programmer software allow to define custom advance ignition curves (graphically viewable) for the engine and upload them on a MoPower v1.0.

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SOFTWARE SECTION

MAP SELECTION

In this section are shown the available maps, and for each map all the adjustable parameters.

A map consist of many parameters, in the case of MoPower v1.0 only the advance is adjustable.

SELECTION OF COMMUNICATION PORT

Here are shown the available serial ports on the computer. In case of MoPower is connected to the computer and the software is already open just click on "**Update Ports**". Select the right port and clic on "**Connect**" to begin the connection to MoPower.

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MAIN SCREEN

In the upper half is shown the advance curve, updated in real time, of the map inserted in the lower half.
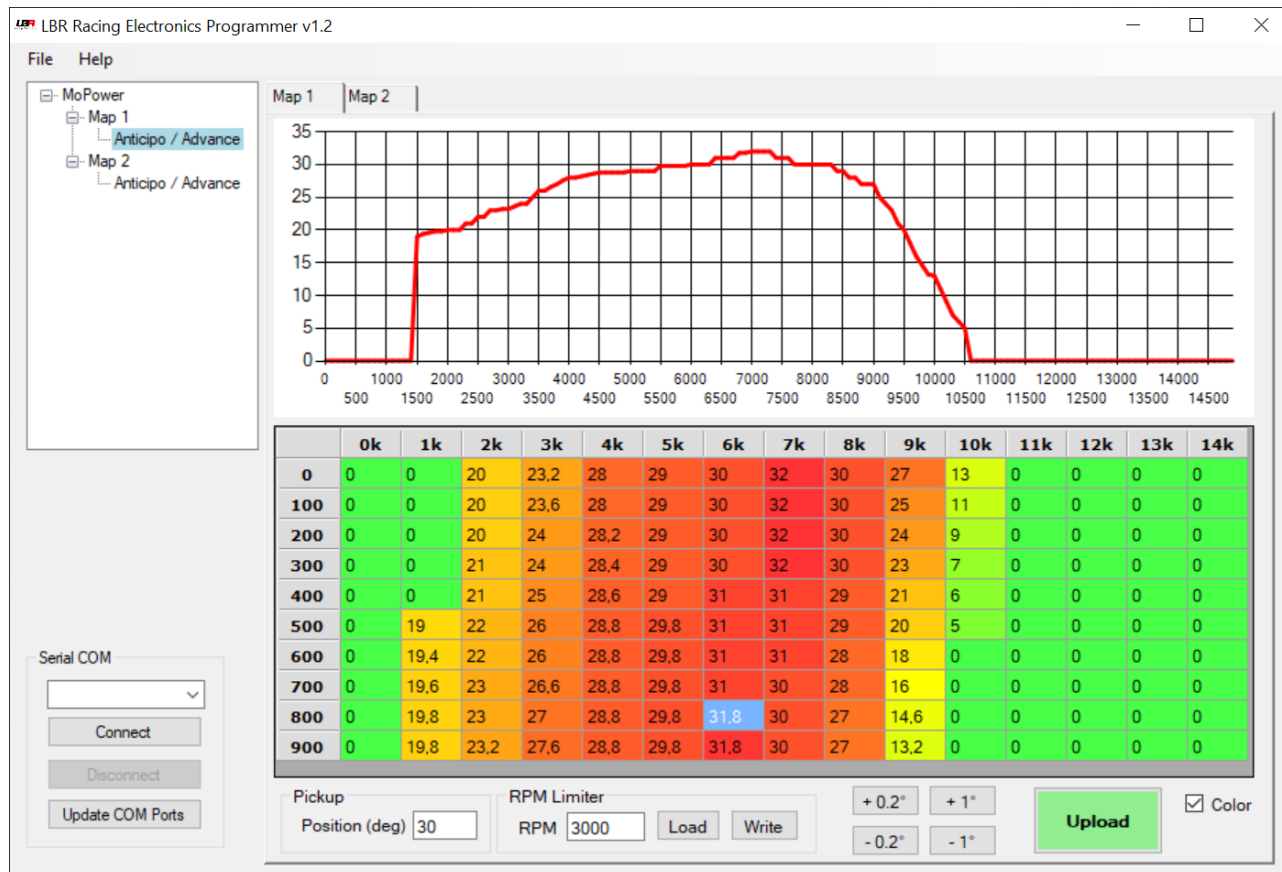
The table is organized with the thousand of rpm in column, and hundred of rpm on the rows.

Example:

- The first cell top left contain the desired advance from 0 to 99 rpm (30 degree).
- The cell in the second column (1k) and in the fourth row (300) contain the desired advance (in this case 0 degree) from 1300 to 1399 rpm.
- The cell in the (7k) column and on the (400) row contain the advance from 7400 to 7499 rpm, in this case 31 degree.

At the bottom are present many buttons and the textbox that contain the pickup position in respect to the top dead center, this parameter change from engine to engine, in case of a stock UNMODIFIED Piaggio stator is 21 degree circa.

If checked, the "color" checkbox changes the background color of the cells based on the advance, passing from red for the boxes with greater advance to green for the boxes with less advance.

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The buttons "**+0.2**", "**-0.2**", "**+1**" e "**-1**" increment/decrement of the quantity written on them the current cell or the cells selected at the moment. For example, if all the first column is selected (all cells contain 30 degree) and the button "+1" is pressed, all the cells in the column now contain 31 degree.

The advance is adjustable in 0.2 degree step, so 23.3 is not a valid value, while 23.2 o 23.4 yes.

The "Upload" button allow you to upload the current selected map onto a MoPower (current map is the one shown on the graph and written in the cells).

Map 1 is selected keeping the blue cable disconnected (and isolated). To select the map 2 you need to connect and keep connected (with a switch) the blue cable on the engine/moped ground.
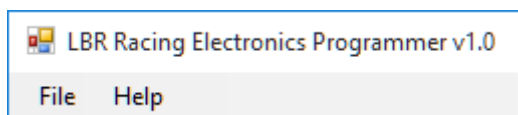
RPM LIMITER

Through this section it is possible to set the rev limiter (only for supported models).

By pressing the "**Load**" button, the number of revs of the limiter currently set on the control unit is read.

Pressing the "**Write**" button the limiter is written on the control unit (for example 3000 rpm as in the photo).

UPPER MENU BAR

With the File menu is possible to save a map on file or load a map from file. Only the current selected map will be saved on file, the one shown on the graph.

To save both maps you need to select each and save it to file one by one with different file name.

In the Help menu there are info on the software, the LBR Racing Facebook page and the user manual.

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MAPS LOADING AND SAVING

In the File menu you can find the option for saving and loading map from file.

At software closing, every changes made to the map will be lost if not saved on file. When opened, the software will start with blank maps.

Is not possible to read the map currently on MoPower, so if you want to modify that map first you need to save it on file, and then load it from file when you want to make changes.

WARRANTY AND SUPPORT

All lbr electronics are intended for agonistic use, in circuits or private roads.

Riding on public roads is prohibited as well as illegal!

Lbr racing electronics assumes no responsibility for the use of its electronics, and is not liable for damage to things or people

Each product has a 6-month warranty, which begins on the day of delivery of the package to your home. It will be the responsibility of the buyer to verify the correct functioning of the control unit within 6 months of delivery. Any request for replacement or assistance that occurs after 6 months will not be covered by the warranty, but will be subject to repair for a fee.

Any modification made to the control unit will void the warranty (eg. Cut the wires etc ...)

Any damage caused by an incorrect connection will not be covered by the warranty and will require paid assistance

Any attempts to open a control unit will invalidate the guarantee, and no assistance, even for a fee, will be carried out on said control units.

Shipments are entirely at the customer's expense. We are not responsible for any lost packages.