Programming Software

MoPower v1.0

User manual

INDEX

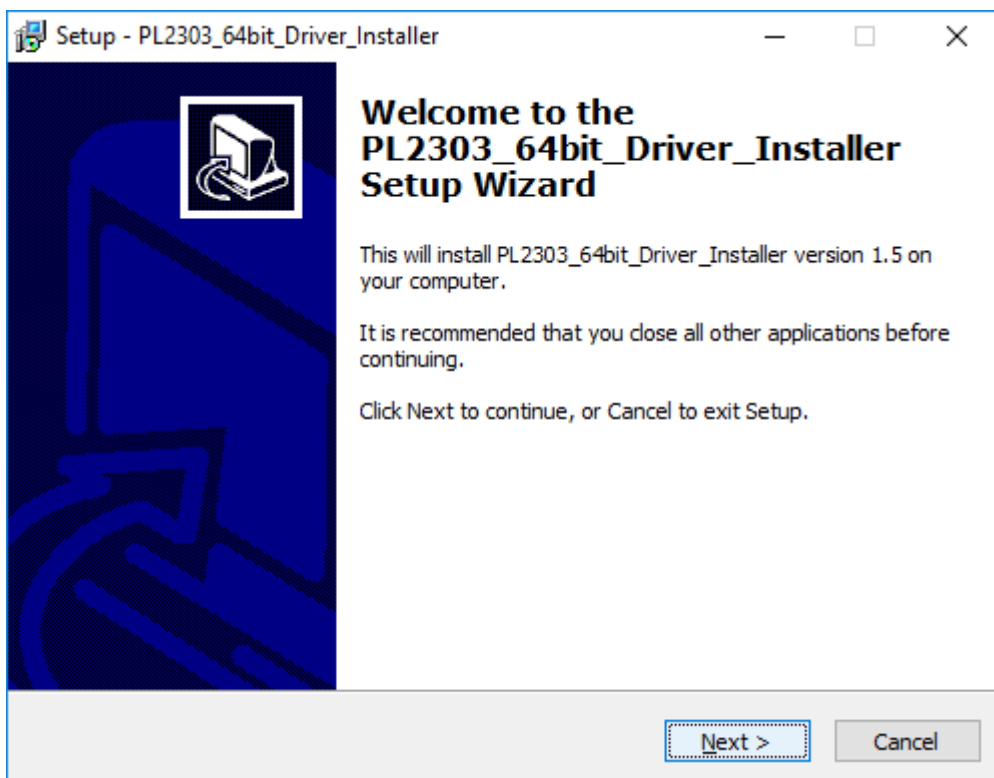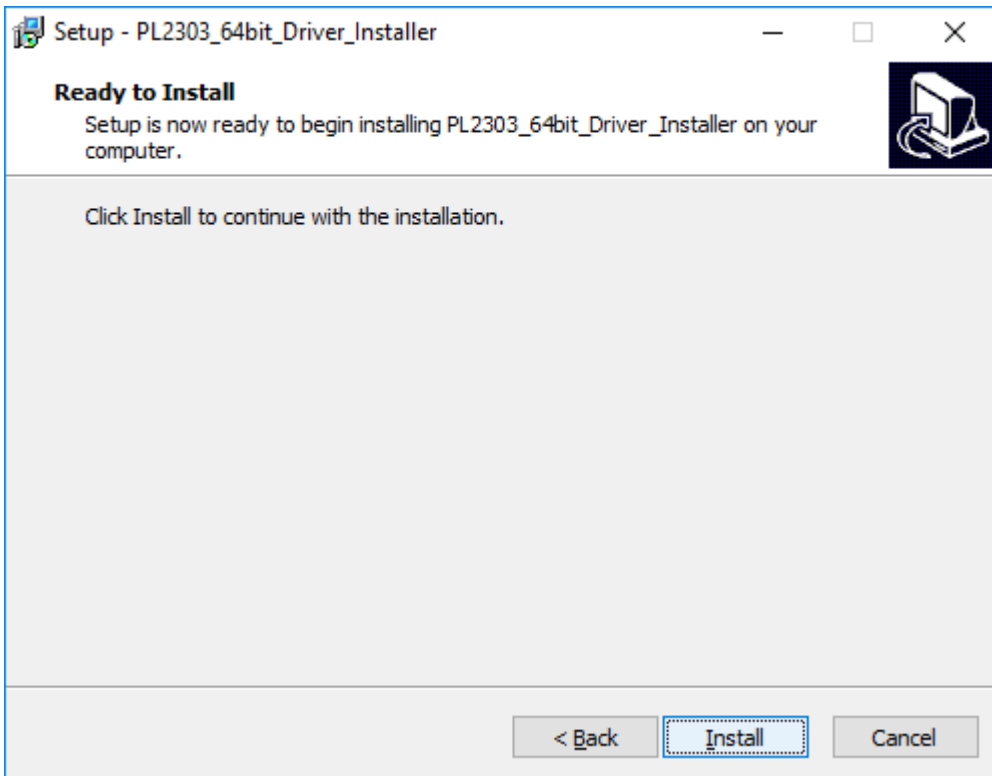racing.lbr@gmail.com

HOW TO INSTALL

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.
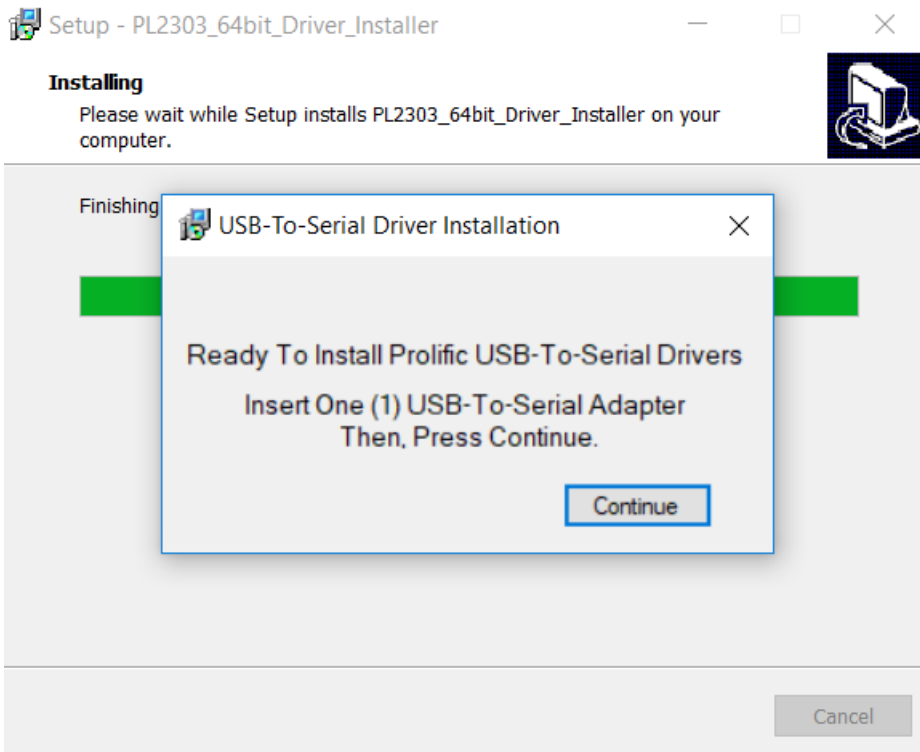
Open the file "DriverInstaller64.exe" in case of 64bit operating system or "DriverInstaller32.exe" in case of 32 bit operating system.

Click on **Next**

racing.lbr@gmail.com
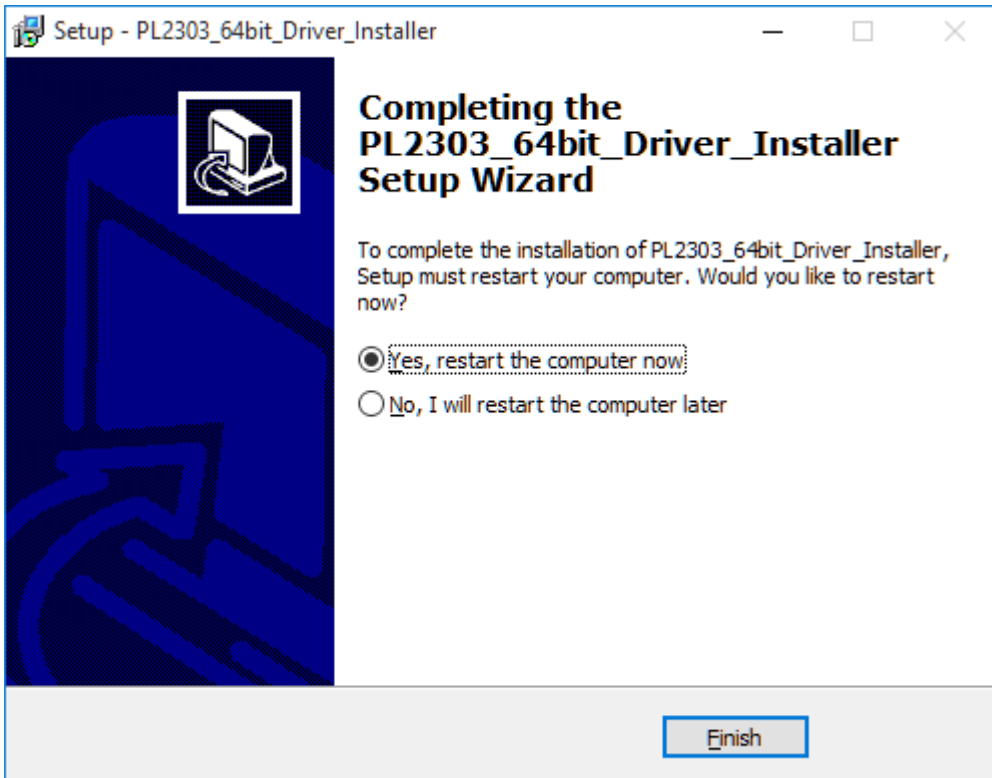
Click on **Install**

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

Copyright © LBR Racing Electronics   racing.lbr@gmail.com

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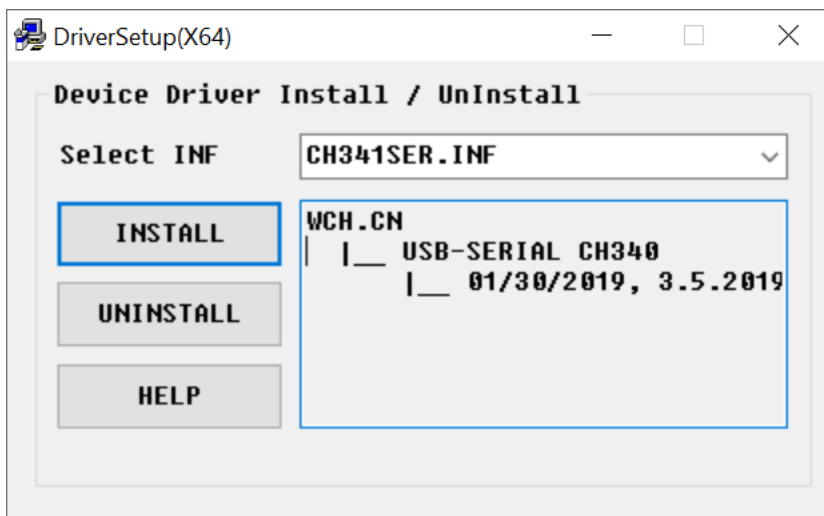
Is now possible to remove the programmer while the computer restart.

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

racing.lbr@gmail.com

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.
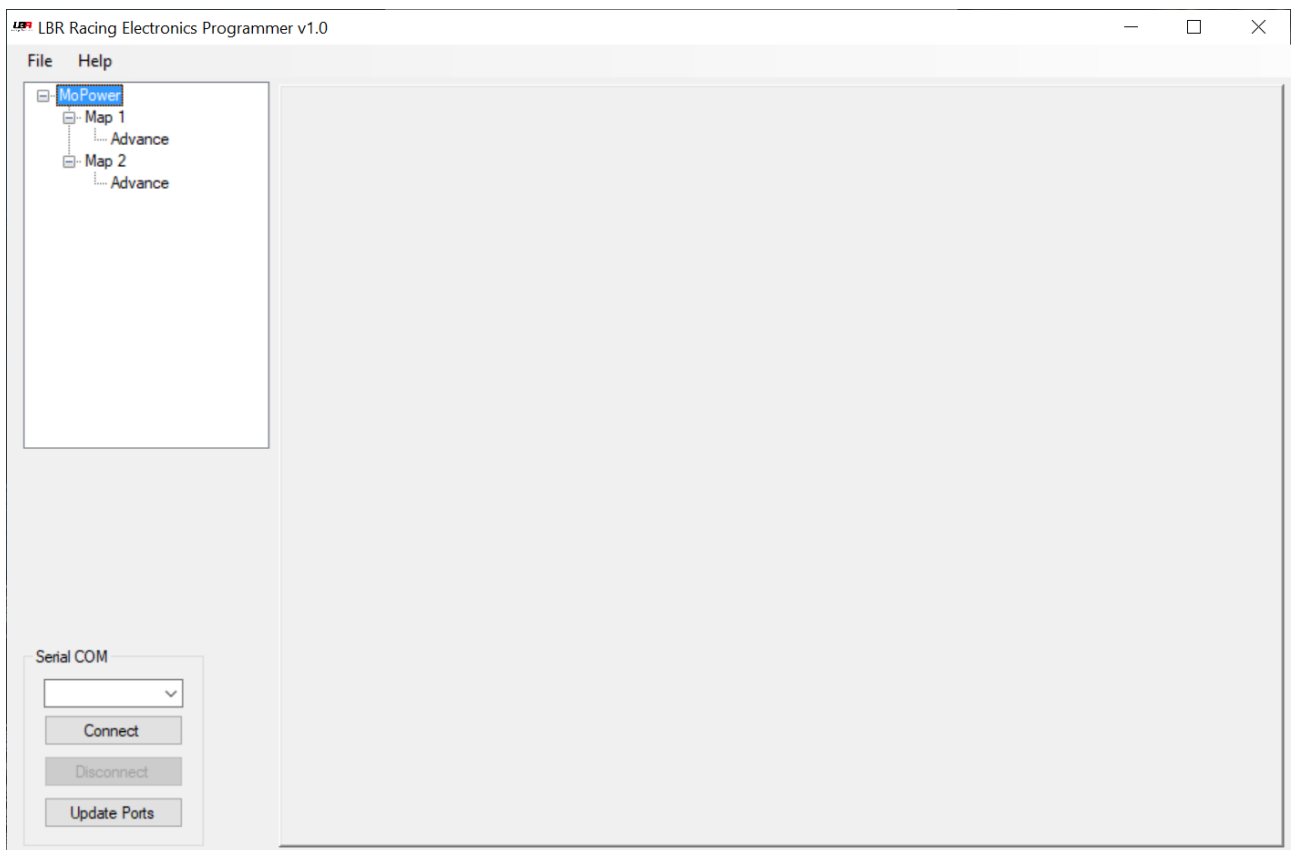

PROGRAMMING SOFTWARE - LBR PROGRAMMER

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
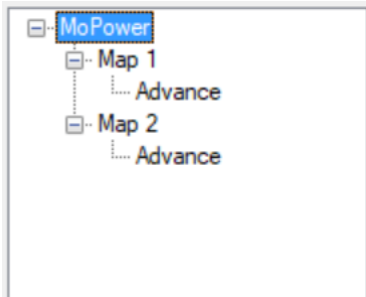
racing.lbr@gmail.com

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.

racing.lbr@gmail.com

SOFTWARE SECTION

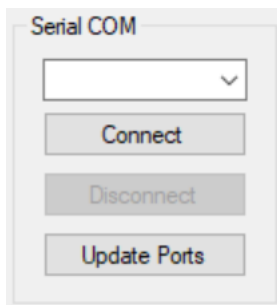## MAP SELECTION

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

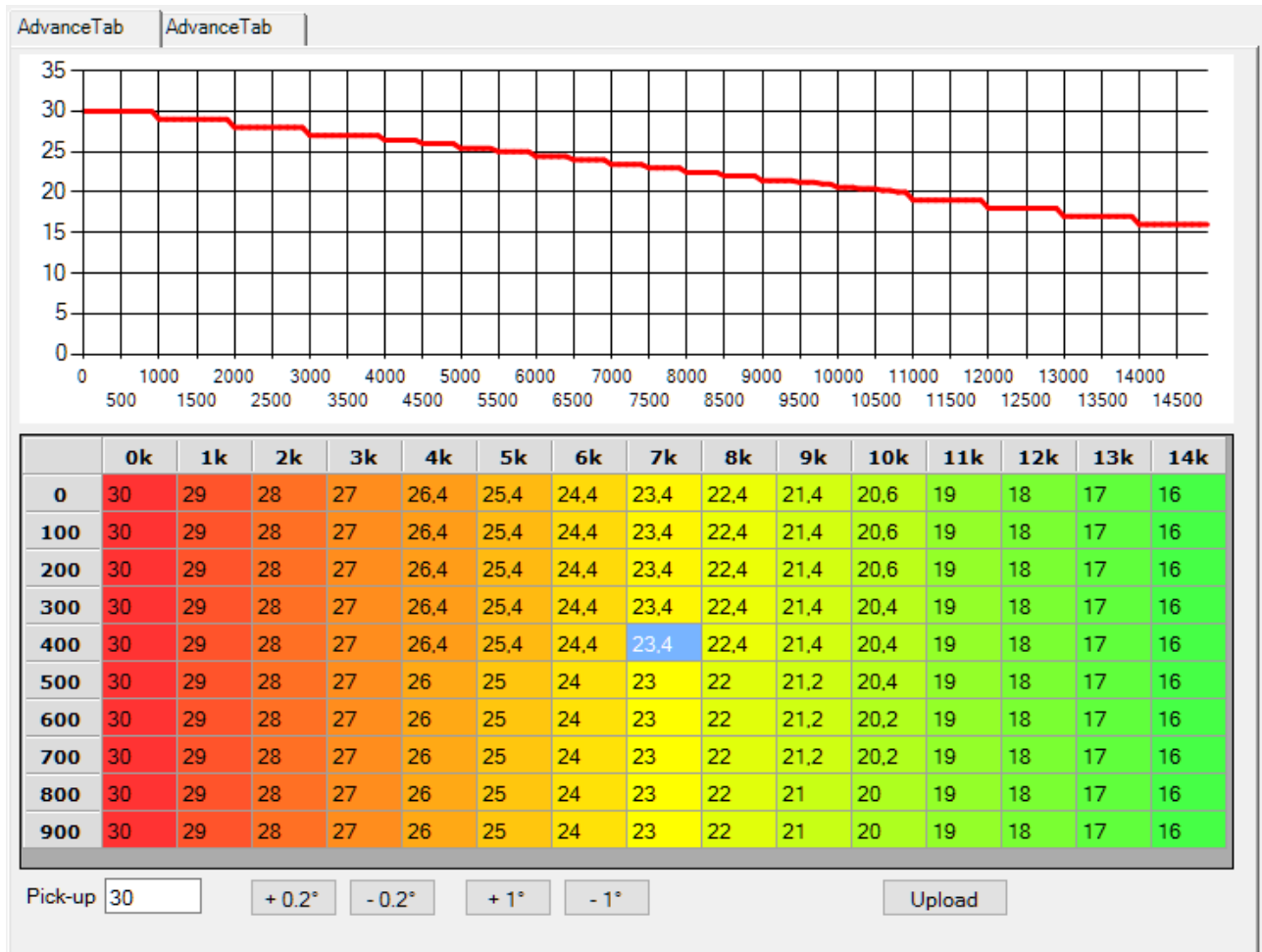A map consist of many parameters, in the case of MoPower v1.0 only the advance is adjustable.

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.

racing.lbr@gmail.com

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 29 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 23.4 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.
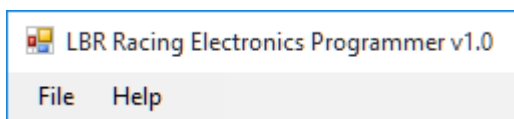
Copyright © LBR Racing Electronics   racing.lbr@gmail.com

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.

UPPER MENU

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.

racing.lbr@gmail.com