

## R-Tune+Driver Installation, Connecting to ECU and Commands

Document Version	1.2	Release Date	04 Aug 2021
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Application information	Generic
Vehicle	Not Applicable
Model	Not Applicable
Year of manufacture	Not Applicable
PowerTRONIC application	All PowerTRONIC ECUs, From Version 2, Firmware version F.3.x onward

### Note:

- Read through all instructions before installation and use.
- Ensure that the bike is switched off and the key is out of the ignition before proceeding with the installation.
- Some parts of the bikes might be hot/sharp and may cause burns/cuts. Proceed with extreme caution or wait until the bike has cooled down. Always wear safety gloves.
- When the installation is complete, make sure to secure the wiring loom away from the movable parts or components which tends to heat up during the normal operation of the vehicle at any chance.
- PowerTRONIC is intended for motorsport use on a closed course, please check with your local laws before using this product. Race Dynamics / PowerTRONIC is not liable for consequences arising out of using the product.

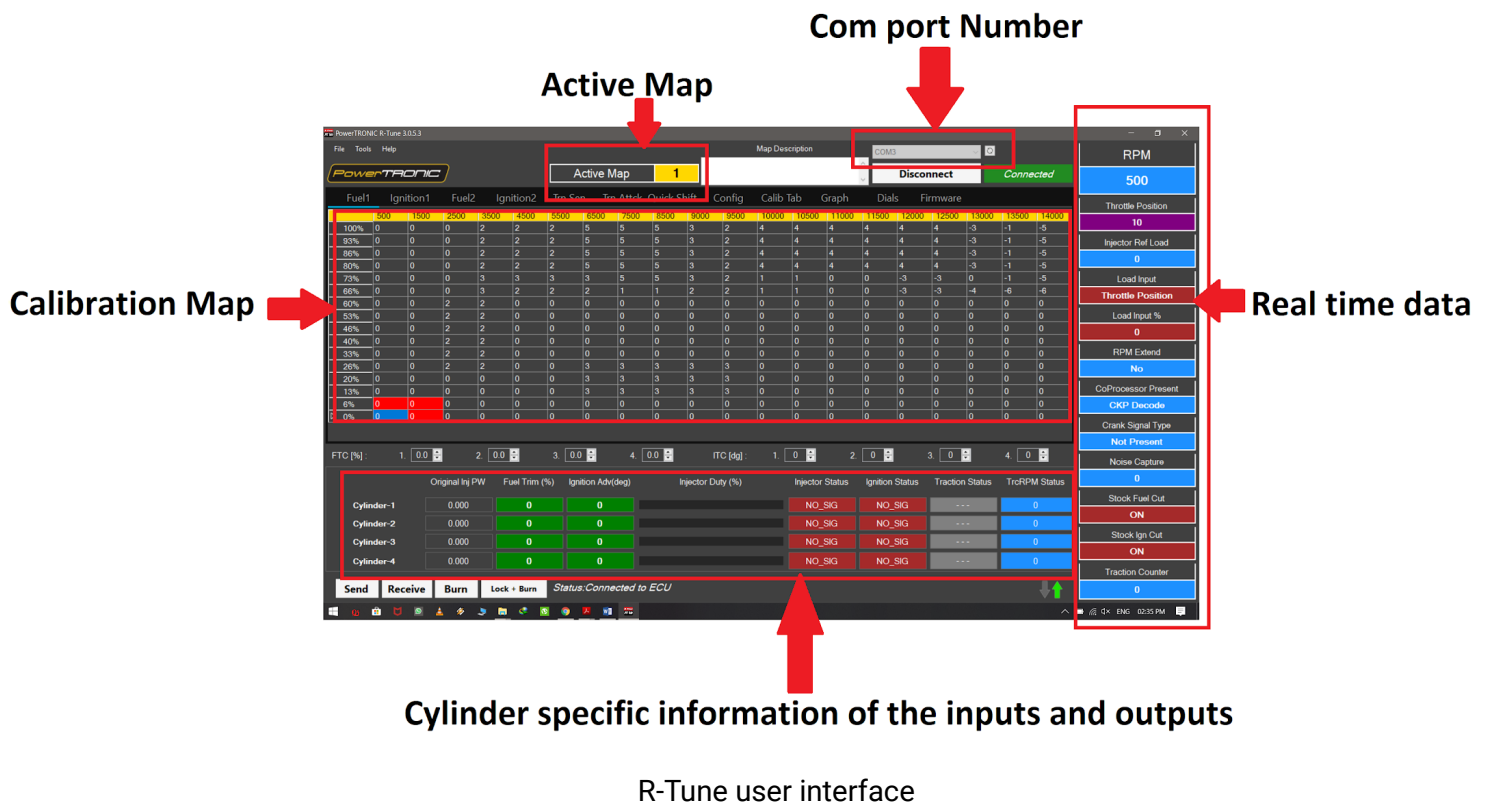
### Support

Call/Whatsapp: +91 99162 29292 / +91 80409 29292

E-Mail: [support@powertronicECU.com](mailto:support@powertronicECU.com)

Website: [www.powertronicECU.com](http://www.powertronicECU.com)

The PowerTRONIC is an open user tunable piggyback ECU. You can either use the provided maps, download maps from our website or create your own maps using the R-Tune tuning software.



## Requirements

- 1) Minimum Recommended system configuration OPERATING SYSTEM: WINDOWS 7/8/10
- 2) Microsoft .NET framework latest version pre-installed
- 3) RAM 512 MB (minimum)
- 4) USB Type A port
- 5) Stable internet connection
- 6) Any file extracting software pre-installed ex: Winrar, Winzip, 7Zip (Mandatory)

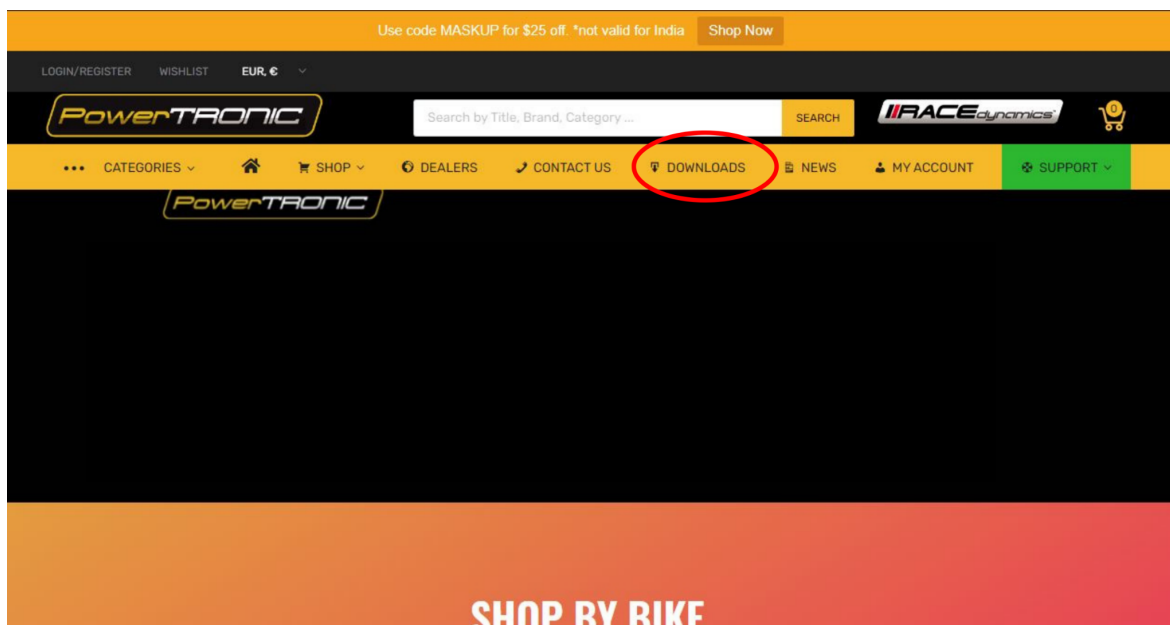
## General information:

- 1) Uninstall any previous versions of R-Tune before proceeding.
- 2) Microsoft .NET framework must be installed on the PC without which R-Tune cannot be installed.
- 3) PowerTRONIC is a USB powered device, so it does not need to be connected to a vehicle or specifically turned on to establish communication with the computer.
- 4) The setup automatically places a shortcut to R-TUNE on your desktop.
- 5) Sometimes the system or installed antivirus does not allow you to download the software setup or the installation process. Temporarily disable the antivirus till the installation process is over.

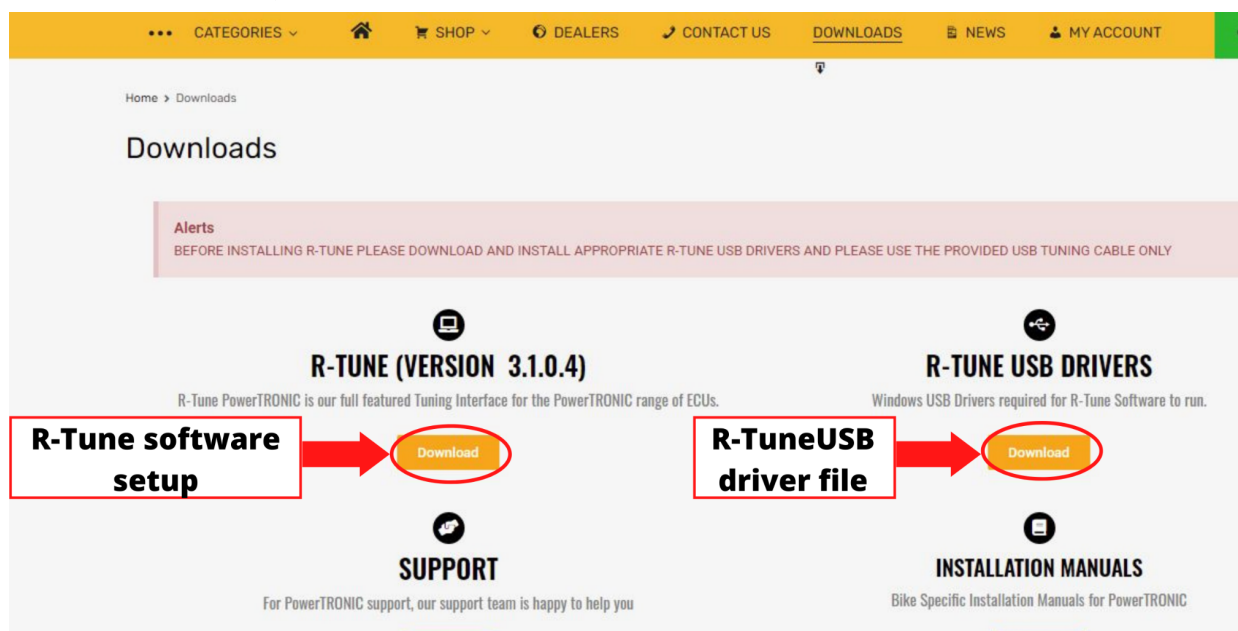
## Downloading R-Tune

To download and install R-Tune software, follow the instructions

1. Go to <https://powertronicecu.com/> and select the **Downloads** option.

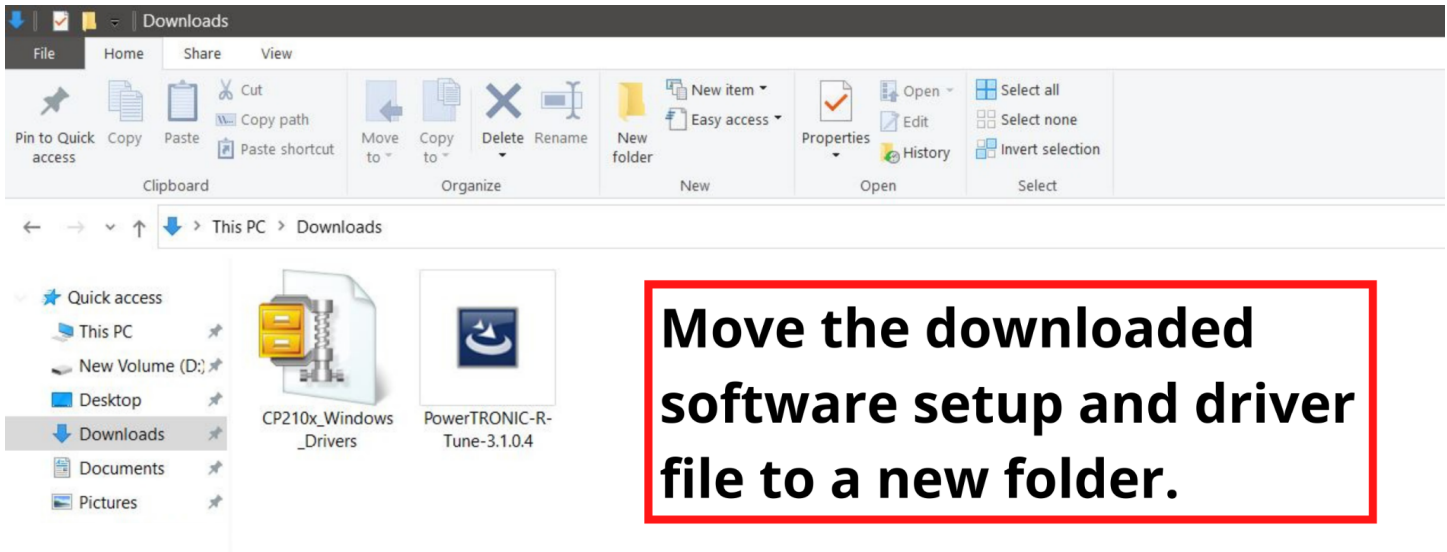


2. Click on the Download R-Tune menu to download the latest version of **R-Tune** setup file. To Download the R-Tune **USB drivers**, click on Download drivers.

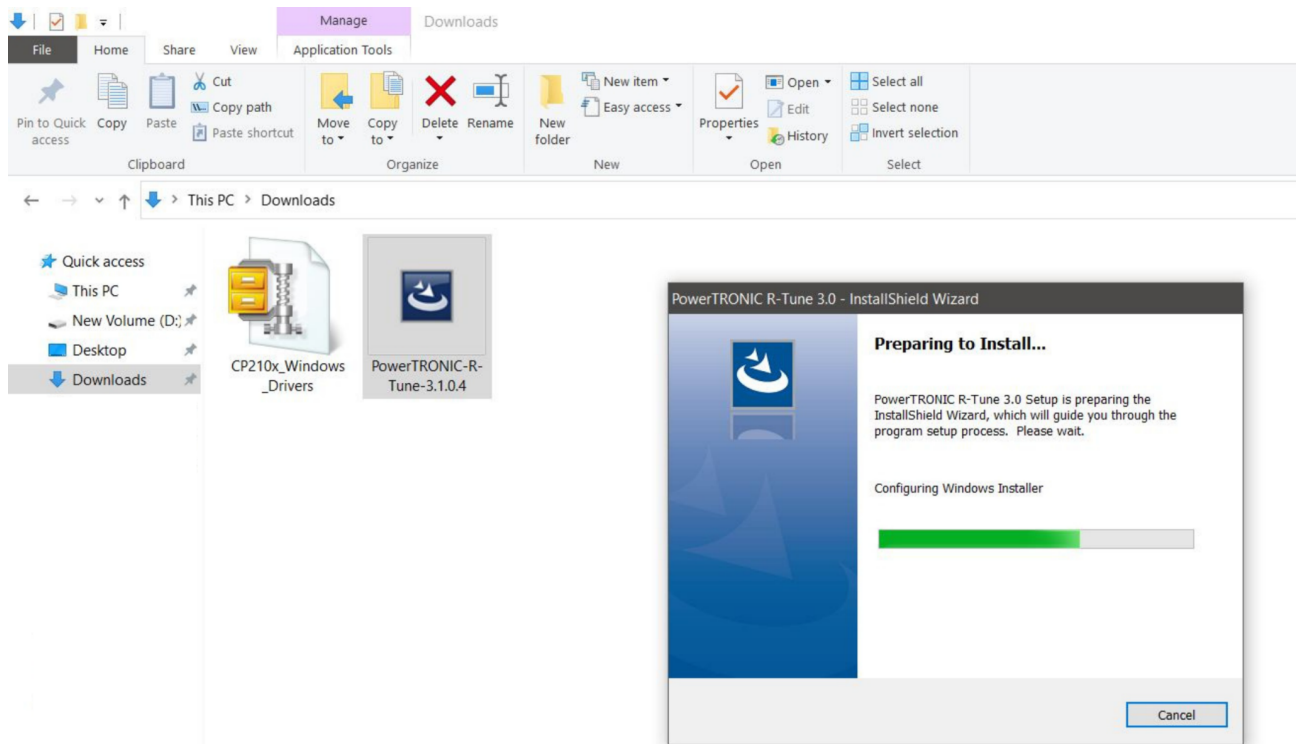


## R-Tune Installation

- Go to the folder where the software setup and driver files were installed. Preferably create a new folder and move the files to the new folder.



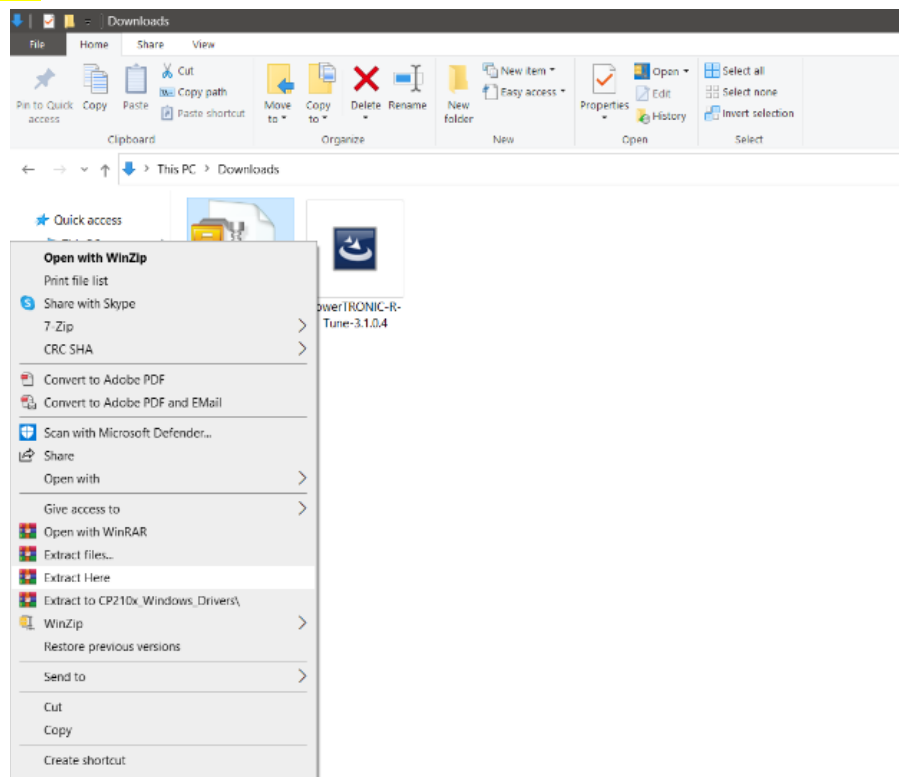
- To install the software, double click on the set up file downloaded and follow the installation wizard to complete the installation process.



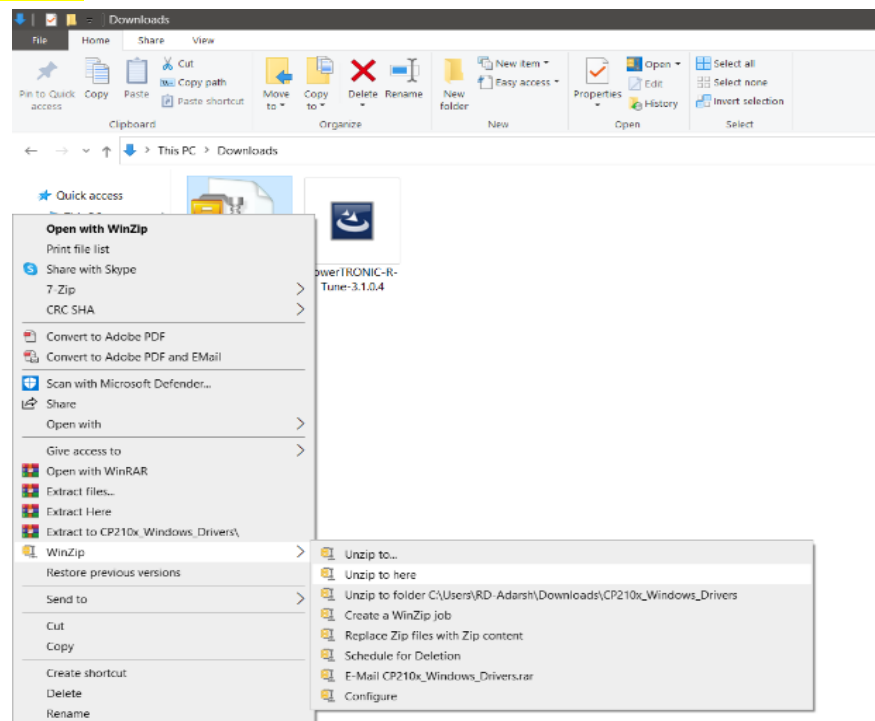


5. Open/Extract (using WinZip/WinRAR/7 Zip etc) the CP210x\_Windows\_Drivers file.

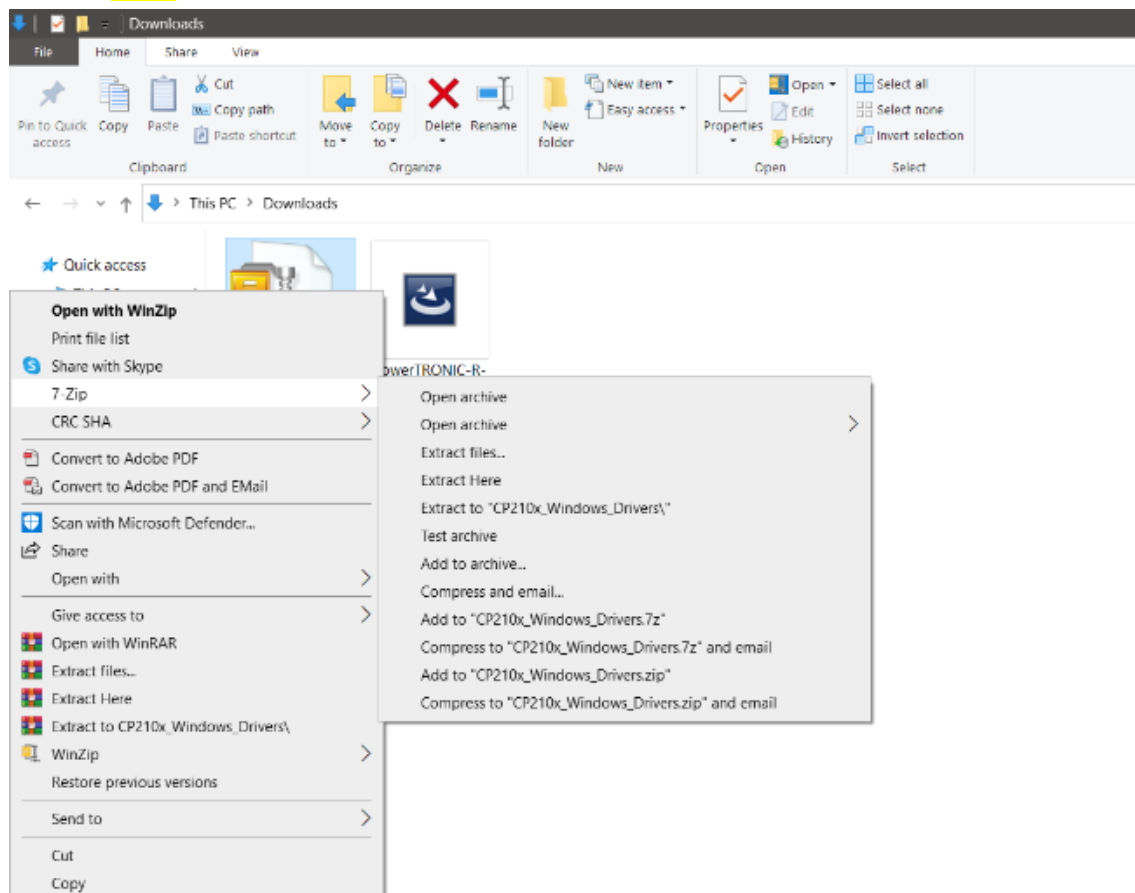
5.1 If you have **WinRAR**, right click on the file and select **Extract Here**



5.2 If you are using **WinZip**, right click on the file and select the **WinZip** option, then select **Unzip to here**.



5.3 If you are using **7 Zip** right click on the file and select the **7 Zip** option, then select **Extract Here**.



6. To install drivers, open the extracted folder, then double click *CP210xVCPInstaller\_x64* (for 64bit system) **or** *CP210xVCPInstaller\_x86* (for 32bit system) **depending on your system configuration**.

Refer figure below. Follow the instructions by Driver Installer Wizard










Manage

drivers

View

Application Tools

s PC > New Volume (D:) > Sw > drivers

Name	Date modified	Type	Size
 x64	15-06-2018 08:43 ...	File folder	
 x86	15-06-2018 08:43 ...	File folder	
 CP210xVCPInstaller_x64	27-09-2017 11:28 ...	Application	1,026 KB
 CP210xVCPInstaller_x86	27-09-2017 11:28 ...	Application	903 KB
 dpinst	27-09-2017 11:15 ...	XML Document	12 KB
 SLAB_License_Agreement_VCP_Windows	27-09-2017 11:16 ...	Text Document	9 KB
 slabvcp	02-06-2018 02:05 ...	Security Catalog	11 KB
 slabvcp	02-06-2018 02:05 ...	Setup Information	8 KB
 v6-7-6-driver-release-notes	16-06-2018 12:21 ...	Text Document	16 KB

**Note:** To check *whether your computer is 32 or 64 bit configuration*,

- 1) **Right click on My Computer** or **This PC** desktop icon and click on **Properties** and check **System type**. (Refer image below)

## About

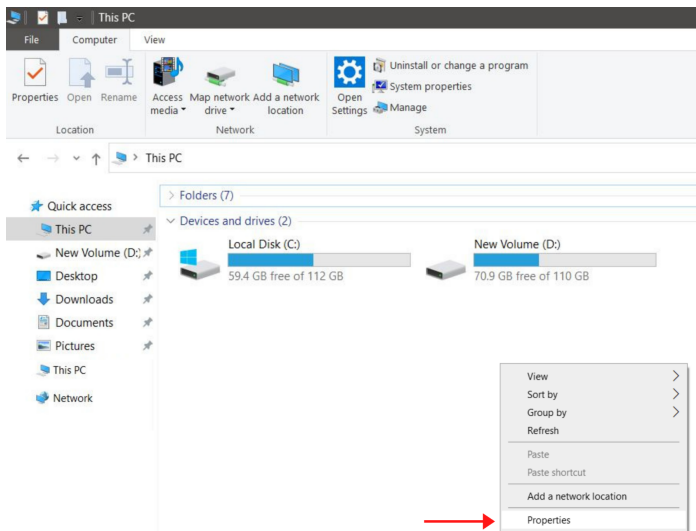
Your PC is monitored and protected.

See details in Windows Security

## Device specifications

Device name	
Processor	
Installed RAM	
Device ID	
Product ID	
System type	64-bit operating system, x64-based processor
Pen and touch	

- 2) Go to **Settings** and select the **About** option.
- 3) Right Click anywhere This PC option in your file manager and check **System type**



### View basic information about your computer

#### Windows edition

Windows 10 Pro

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#### System

Processor:	
Installed memory (RAM):	
System type:	64-bit Operating System, x64-based processor
Pen and Touch:	

#### Computer name, domain, and workgroup settings


Computer name:	
Full computer name:	
Computer description:	
Workgroup:	

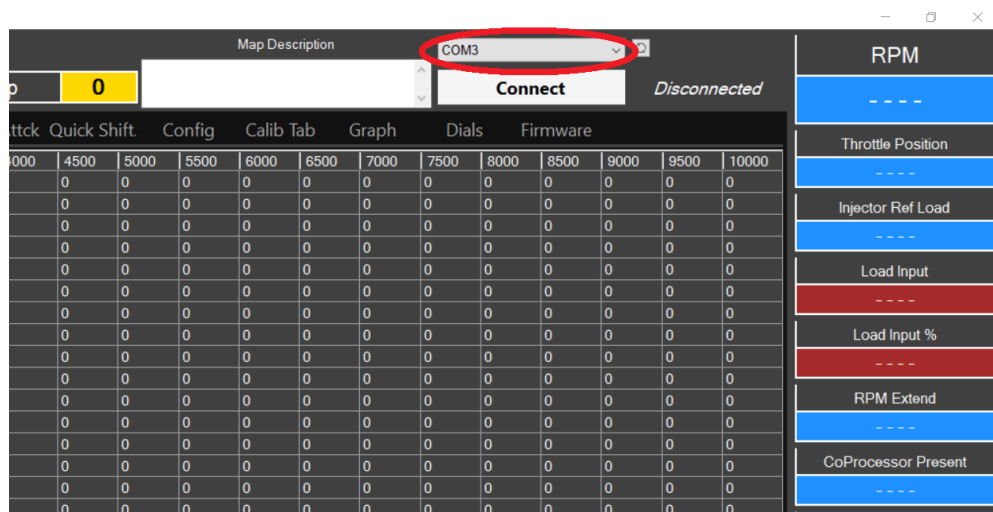
#### Windows activation

Windows is not activated. [Read the Microsoft Software License Terms](#)

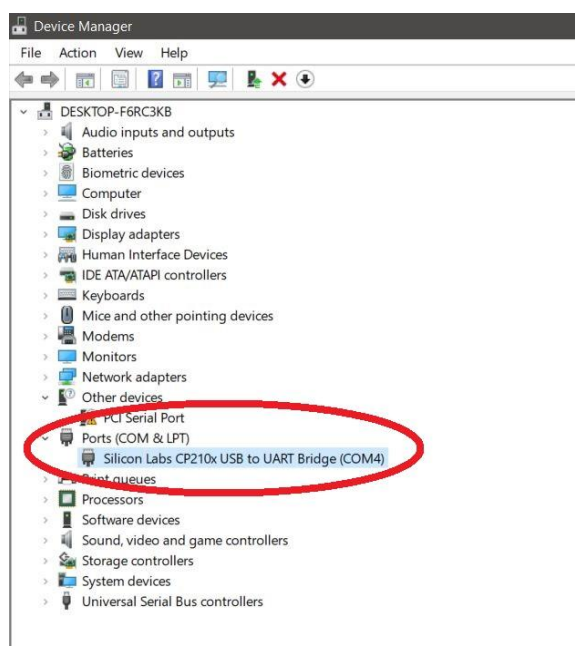
Product ID:

## Connecting R-Tune to ECU

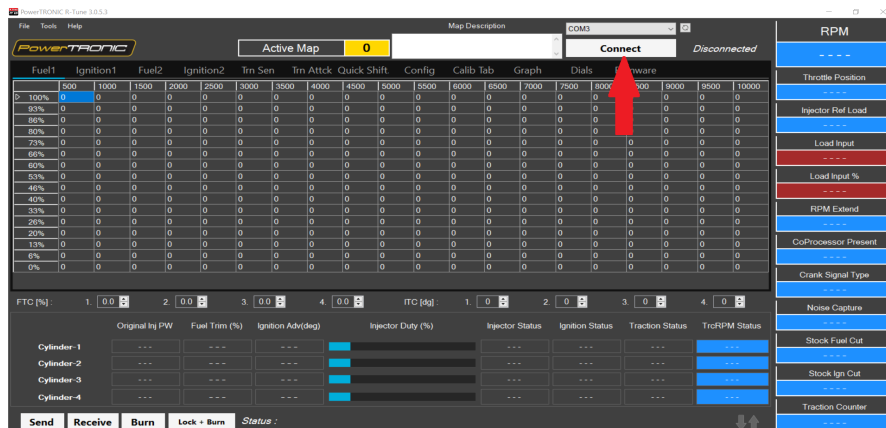
6. Open the R-Tune software by double clicking the icon on the desktop of the PC.
7. With the PowerTRONIC connected to your bike, use the USB cable and connect it to the PC
8. Identify the correct **COM Port** in Device Manager and locate the same COM Port in the RTune software before clicking on Connect. Refresh the list if necessary by clicking the Refresh button [  ]. Refer Figure below



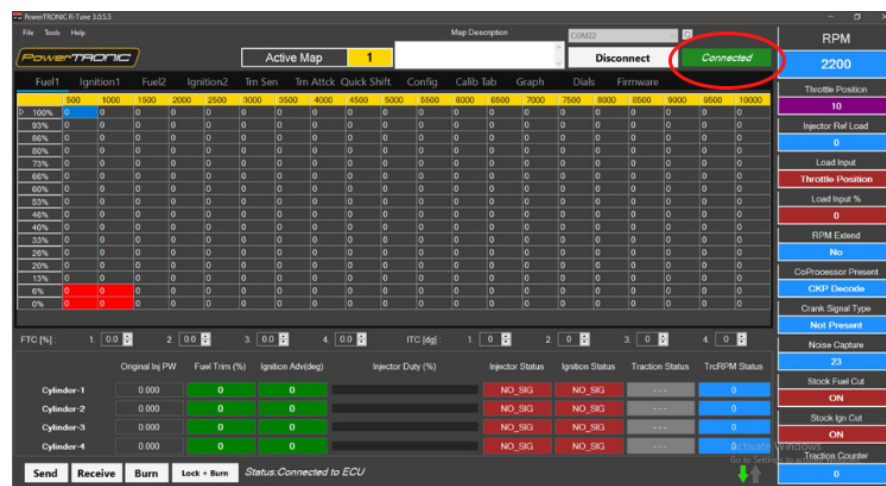
(To check your com port number, go to **Device Manager**, Select **Ports (COM & LPT)** and note the number on the **Silicon labs CP210x USB to UART Bridge**. Refer figure below)



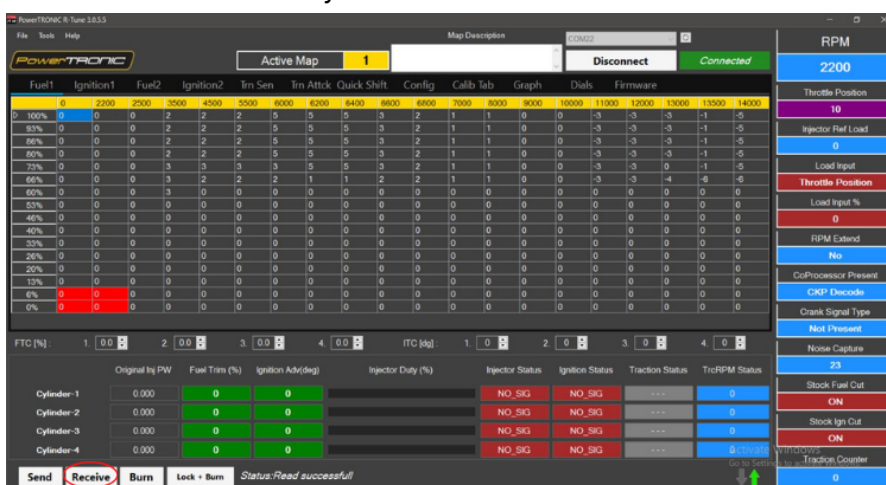
9. Once the appropriate COM Port number is selected, Click on **Connect**.



10. The connection between ECU and R-Tune is established.



11. Click on **Receive** to read the data. Now you can see the contents on the ECU



## R-Tune commands

### 1) Send Command

Sends the content of the maps on the PC to device

**Note:** All maps sent to the device are temporary, they are erased and previously stored maps on the device are loaded on every power in sequence. "Burn" has to be clicked to make any map sent to the device permanent.

	Original Inj PW	Fuel Trim (%)	Ignition Adv(deg)
Cylinder-1	---	---	---
Cylinder-2	---	---	---
Cylinder-3	---	---	---
Cylinder-4	---	---	---

Status :

### 2) Receive Command

Reads the contents on the device and displays on the PC.

	Original Inj PW	Fuel Trim (%)	Ignition Adv(deg)
Cylinder-1	---	---	---
Cylinder-2	---	---	---
Cylinder-3	---	---	---
Cylinder-4	---	---	---

Status :

### 3) Burn Command

Used to store the map permanently on the device

**Important note:** Please turn off the bike before clicking Burn command.

	Original Inj PW	Fuel Trim (%)	Ignition Adv(deg)
Cylinder-1	---	---	---
Cylinder-2	---	---	---
Cylinder-3	---	---	---
Cylinder-4	---	---	---

Status :

### 4) Lock + Burn Command

If you press Lock+Burn, the values and parameters are read-protected for confidentiality purposes. The values on the fuel and ignition table will automatically appear as 0 so that the values are not visible to any other.

**Important Note:** Before enabling the Lock+Burn feature, make sure you have saved the map in your computer file folder. If you want to see the values back on the ECU, you need to reload the same map (which you have saved in your file folder), but this time you need to SEND and BURN instead.

	Original Inj PW	Fuel Trim (%)	Ignition Adv(deg)
Cylinder-1	---	---	---
Cylinder-2	---	---	---
Cylinder-3	---	---	---
Cylinder-4	---	---	---

Status :

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