Throttle Position Sensor (TPS) Calibration

Document Version	1	Release Date	25 November 2022

Application information	**Generic**
Vehicle	**Not Applicable**
Model	**Not Applicable**
Year of manufacture	**Not Applicable**

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 cause burns/cuts. Proceed with extreme caution or wait until the bike has cooled down. Always wear safety gloves.
- When the installation is complete, ensure to secure the wiring loom away from the movable parts or components that tend 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 the consequences of using the product.

Throttle position sensor (TPS) calibration would be required for the **PowerTRONIC** to optimally detect the throttle percentage. We recommend that you complete the throttle calibration after installing the **PowerTRONIC** for smoother running of the bike.

TPS Calibration Procedure

1. Download and Install **Powertronic R-Tune V4** software. **(Refer R-Tune installation manual)**

2. With the PowerTRONIC connected to your bike, use the USB cable and connect it to a windows based PC through R-Tune Software.

3. Select the appropriate com port number. Refer to Figure below
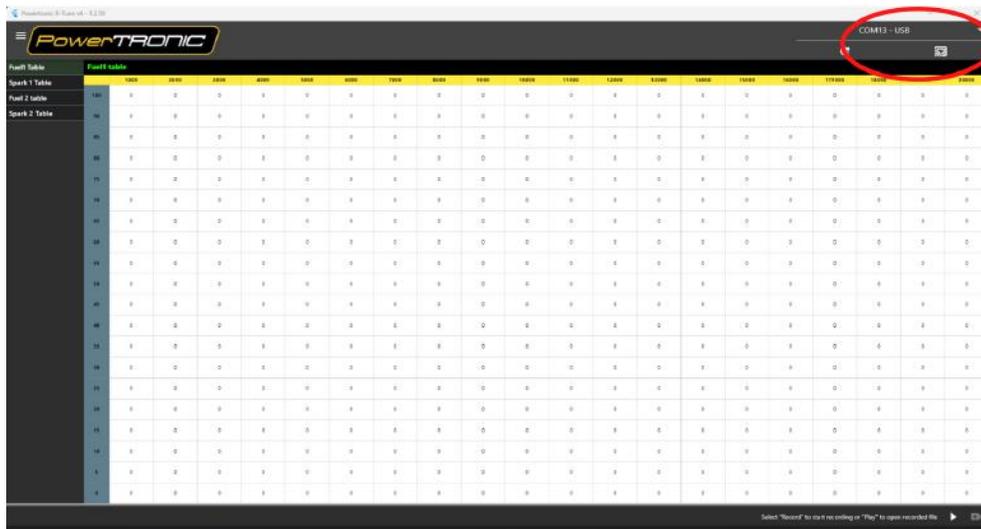
(To check your com port number, go to **Device Manager**, **Select Ports (COM & LPT)**, and note the number on the **Silicon labs CP210x USB to UART Bridge.** Refer to figure)
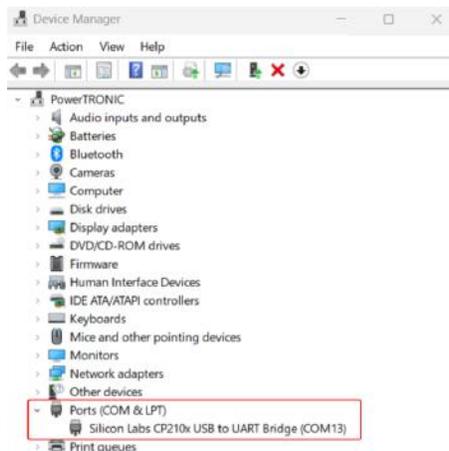
4. Click on **Refresh and Connect (Select the Appropriate COM Portin drop-down menu).**
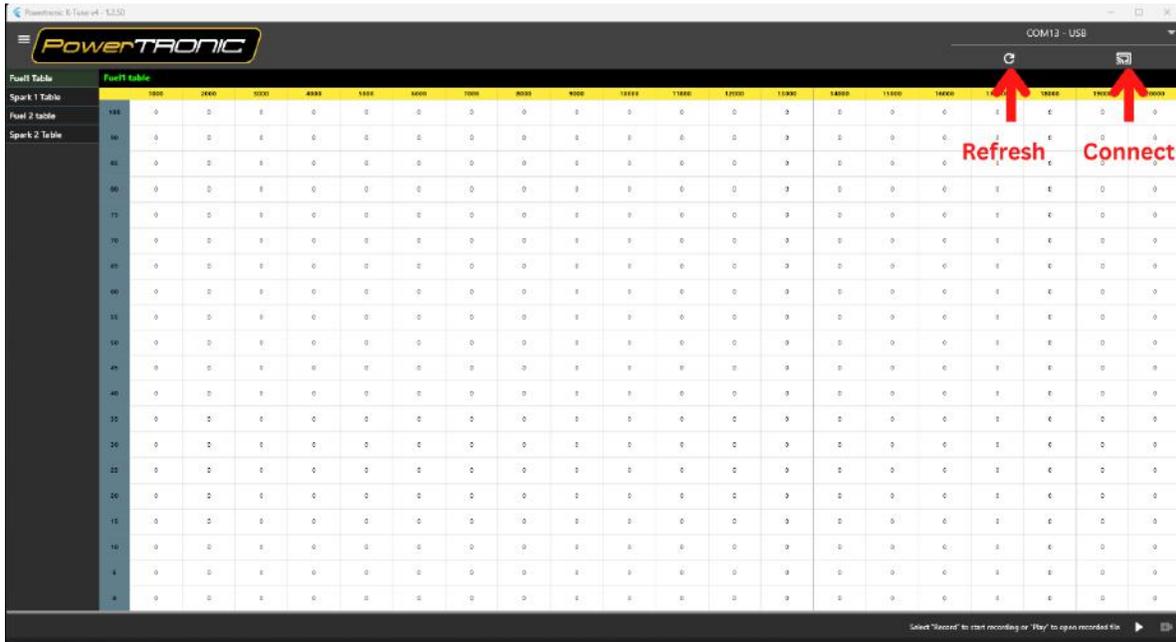
5. Once connected the **Map will be auto-read** and then navigate to the **Control Settings** of the **R-Tune V4** software.

6. Select **Throttle Position/Injection Pulse Width** from the **Load Channel Input** from the drop-down.

Note: Injection Pulse Width has to be selected if the PowerTRONIC Harness doesn't come with a TPS Connector and follow the steps (Eg: RE Himalayan 2021 without choke/Bi-starter)
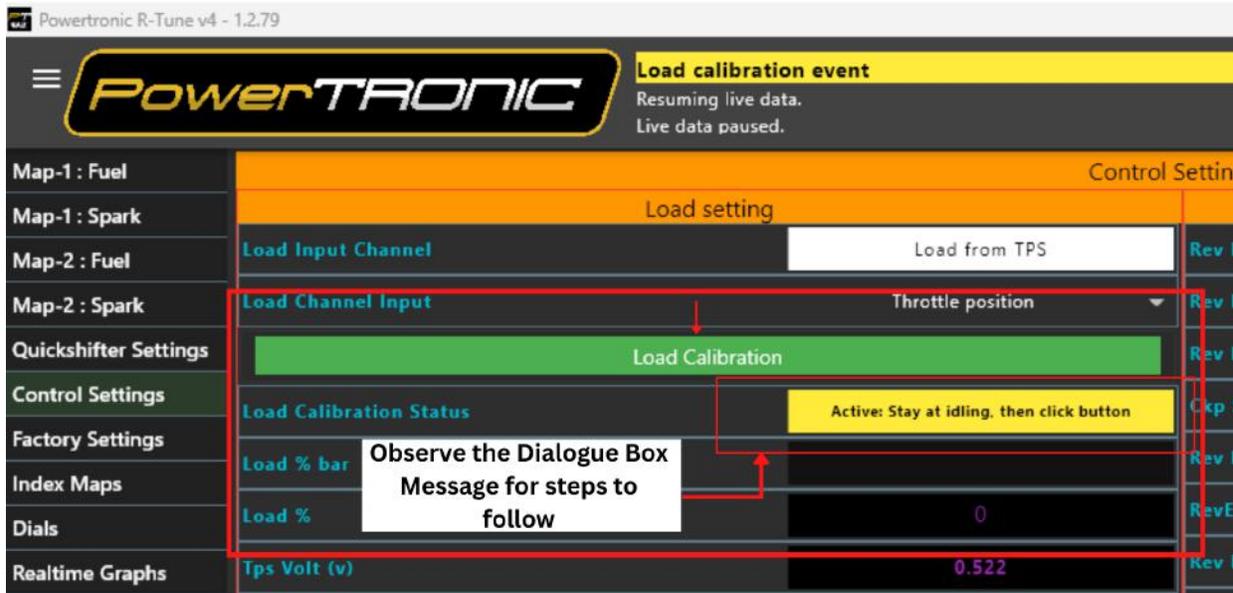
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7. Click on **Load Calibration**. Follow the on-screen instructions in **Load Calibration Status,** Refer Figures below.

8. Click on **Load Calibration** and proceed as per the instruction displayed in the **Dialogue box**
   (This Step is recording the Zero Throttle Position)
   Note: Let the Bike Idle for **10 seconds** before clicking on **Load Calibration** again to proceed to the next step.


9. Click on **Load Calibration** and proceed as per the instruction displayed in the **Dialogue box.**
(This Step is recording the Full Throttle Position)
Note: Wide open the throttle once to complete the process then click on **Load Calibration** to complete the process
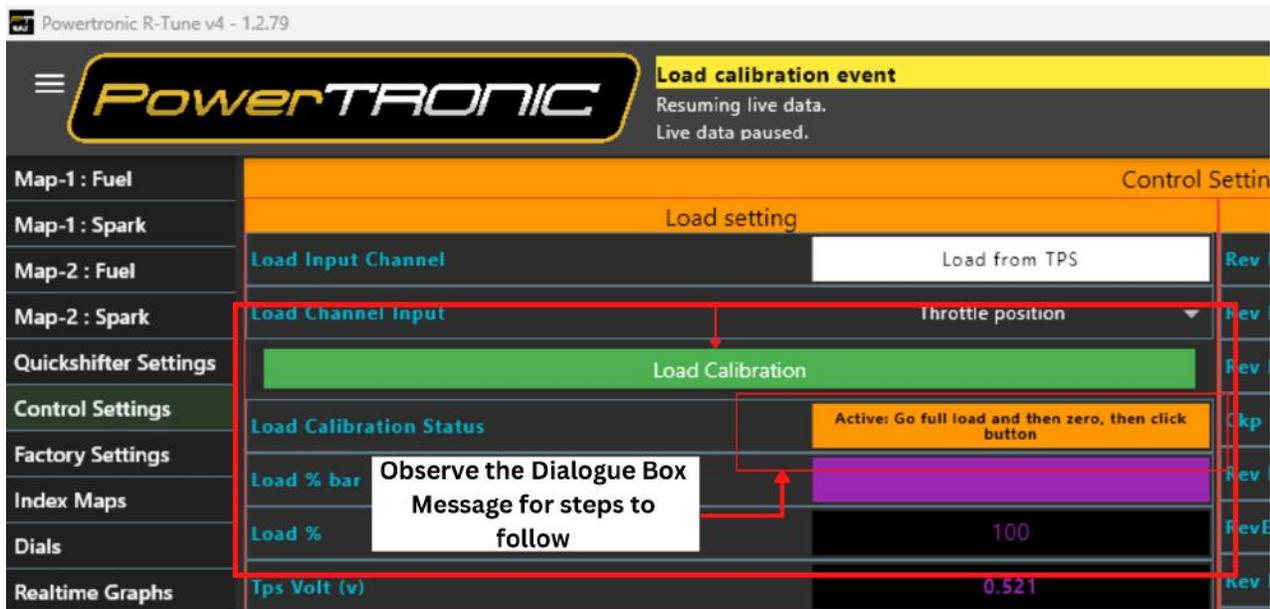
10. Once the Process is complete Monitor the **Load TPS Raw Min** and **Load TPS Raw Max** Values,

Note: Load TPS Raw Min and **Load TPS Raw Max Values have to be different**
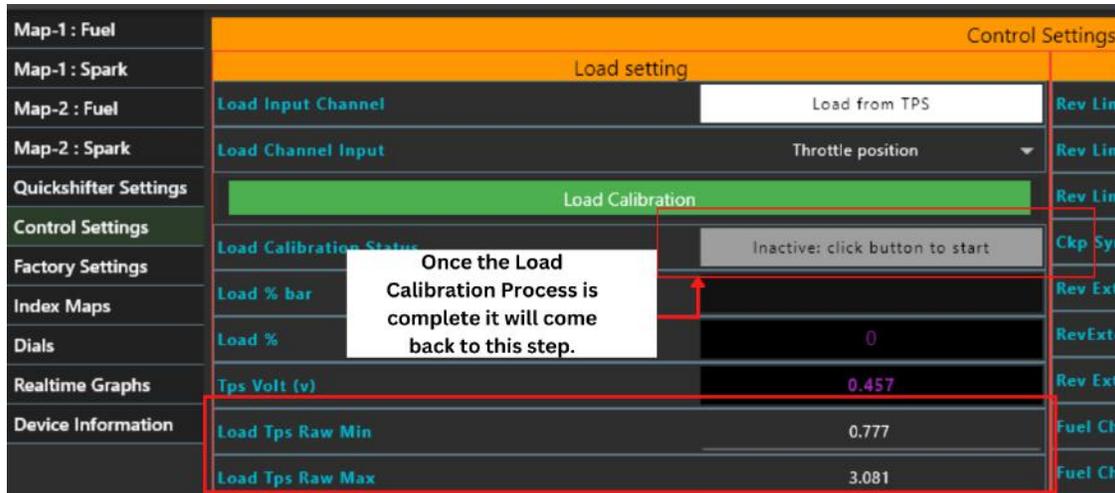
11. Once the Above mentioned steps are complete please click on **Burn to save the change done to the ECU,**
Note: Please Make sure the **Ignition Key is Turned Off before clicking on Burn**