Introduction

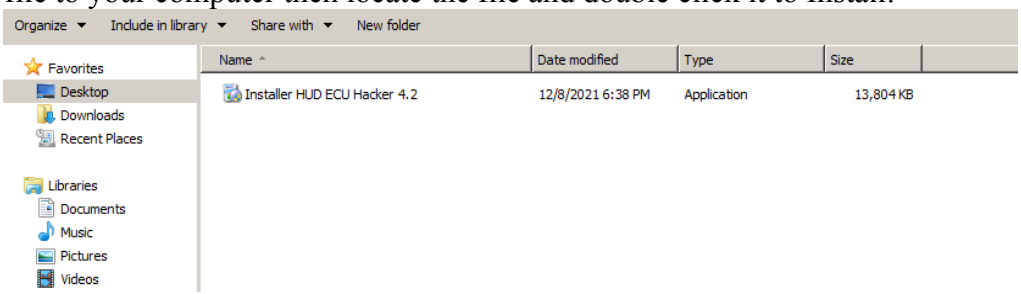
There is currently no documentation on connecting to the diagnostics on the GPX EFI bikes but there is a sharityware program that can assist in seeing diagnostics on these bikes called HUD ECU Hacker. This program is 'free' but if you do find the program helpful please do donate to a cause like the creator asks, I think this is solid software...probably better than some paid versions of this.

Tools Needed:

- VAG KKL OBD cable – Take note that some cheap cables with CH340 chips may send bad data to the ECU and cause problems.
- 6-pin connector to OBD – For connecting to the bike
- HUD ECU Hacker installed on a computer

Install of HUD ECU Hacker:

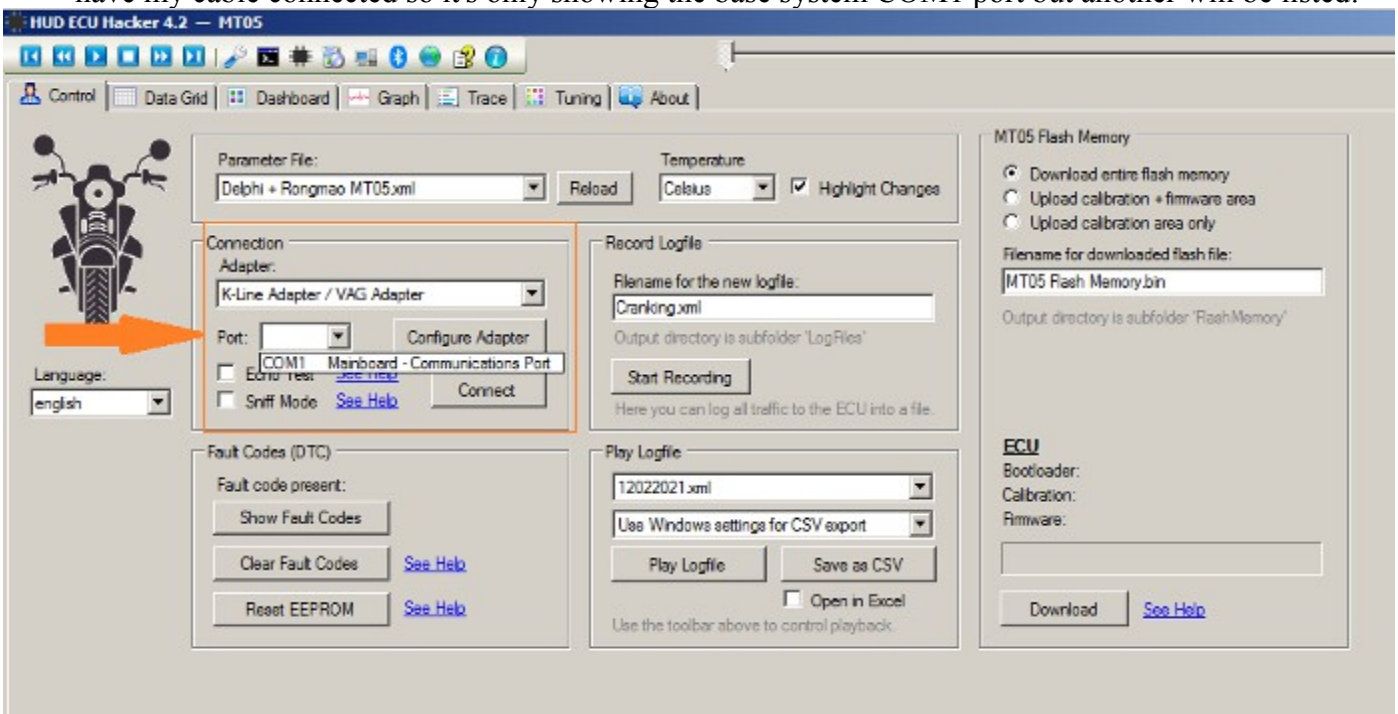
1. Go to the HUD ECU Hacker website and click the download link:
    1. https://netcult.ch/elmue/HUD%20ECU%20Hacker/
    2. Note: The download link is about 80% down the page under "Download and Installation"
2. Save the file to your computer then locate the file and double click it to Install:



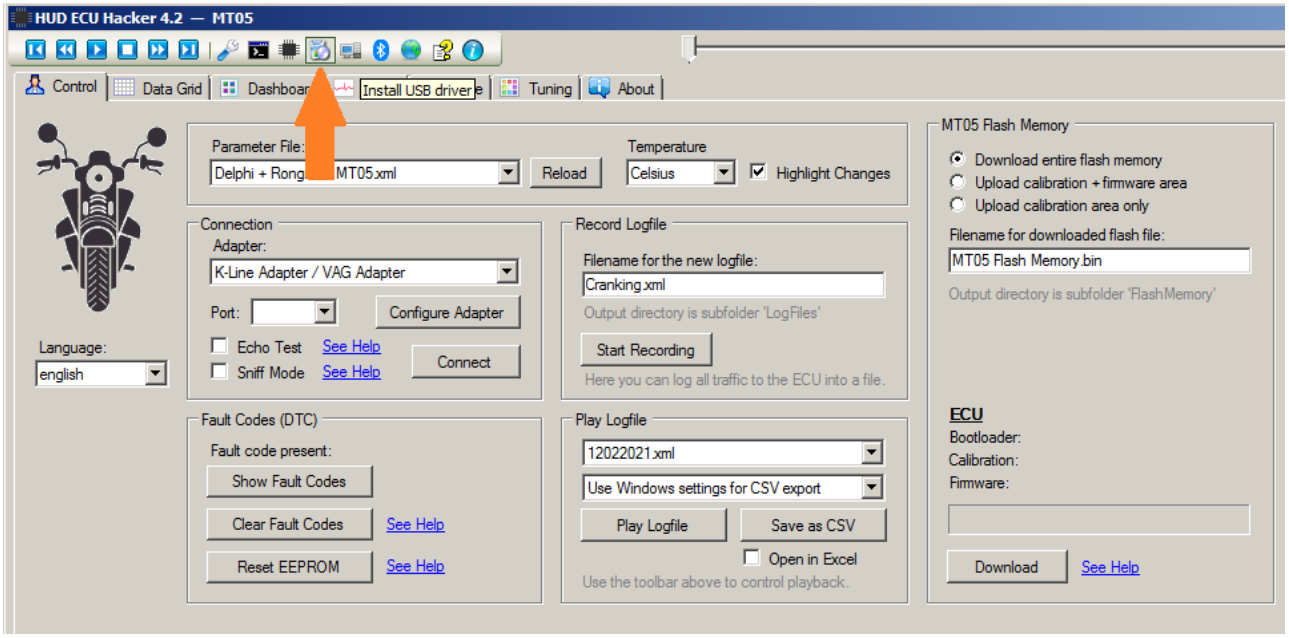
3. Follow the on-screen install instructions and then HUD ECU Hacker will be installed.

Install of VAG KKL Drivers:

1. Open the HUD ECU Hacker program by going to the Start Menu → HUD ECU Hacker
2. In HUD ECU Hacker take note of the Port under Connection as there should be a NEW COM port listed there **after** installing the USB drivers and with the diagnostic cable connected. In this picture I do not have my cable connected so it's only showing the base system COM1 port but another will be listed:



3. Click on the Install USB Driver button:

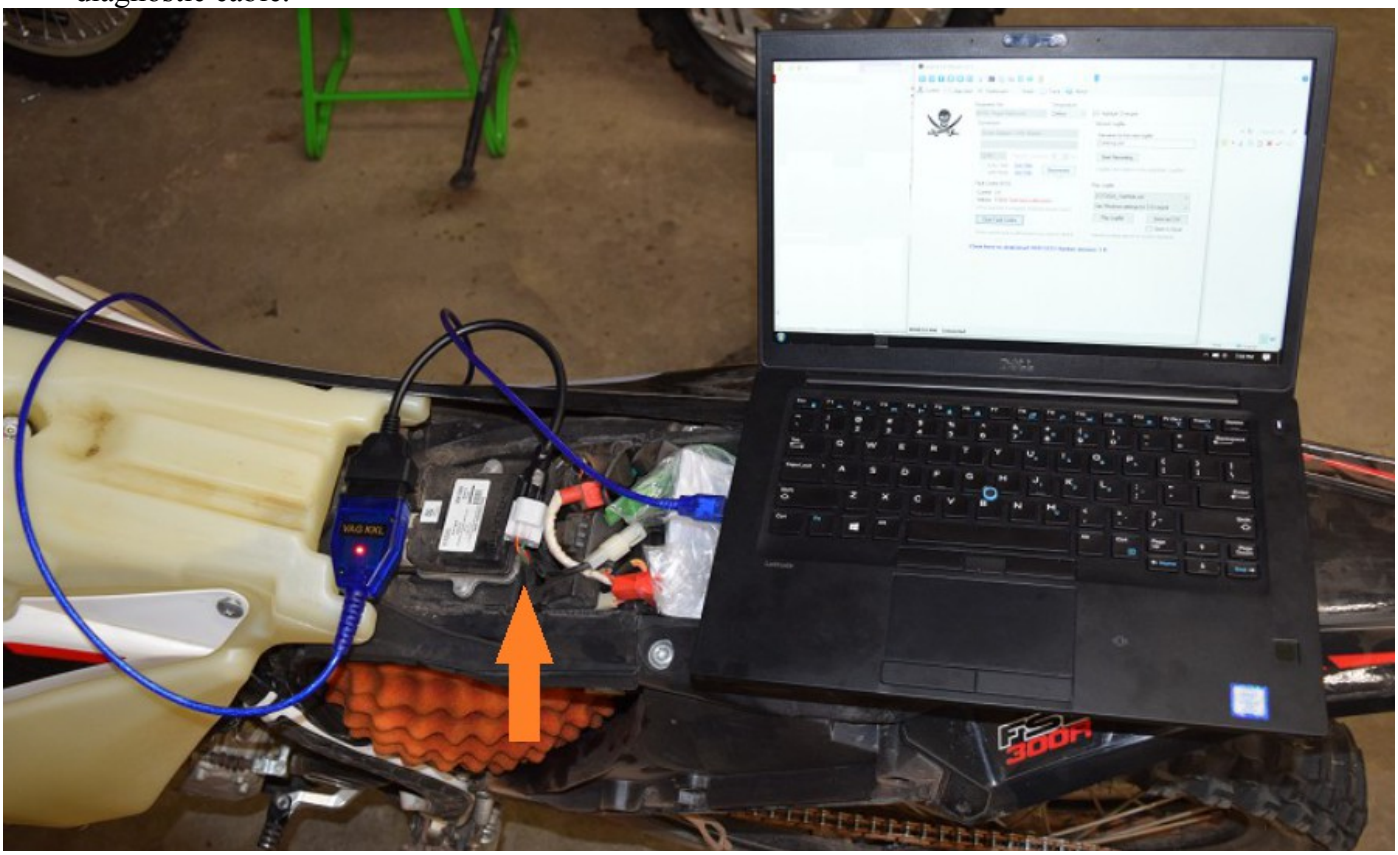


4. Select the driver you need to install, most VAG KKL cables either use CH340 or FTDI chips in them, you can install both/all drivers as well, this is for Windows to properly detect your diagnostic cable.

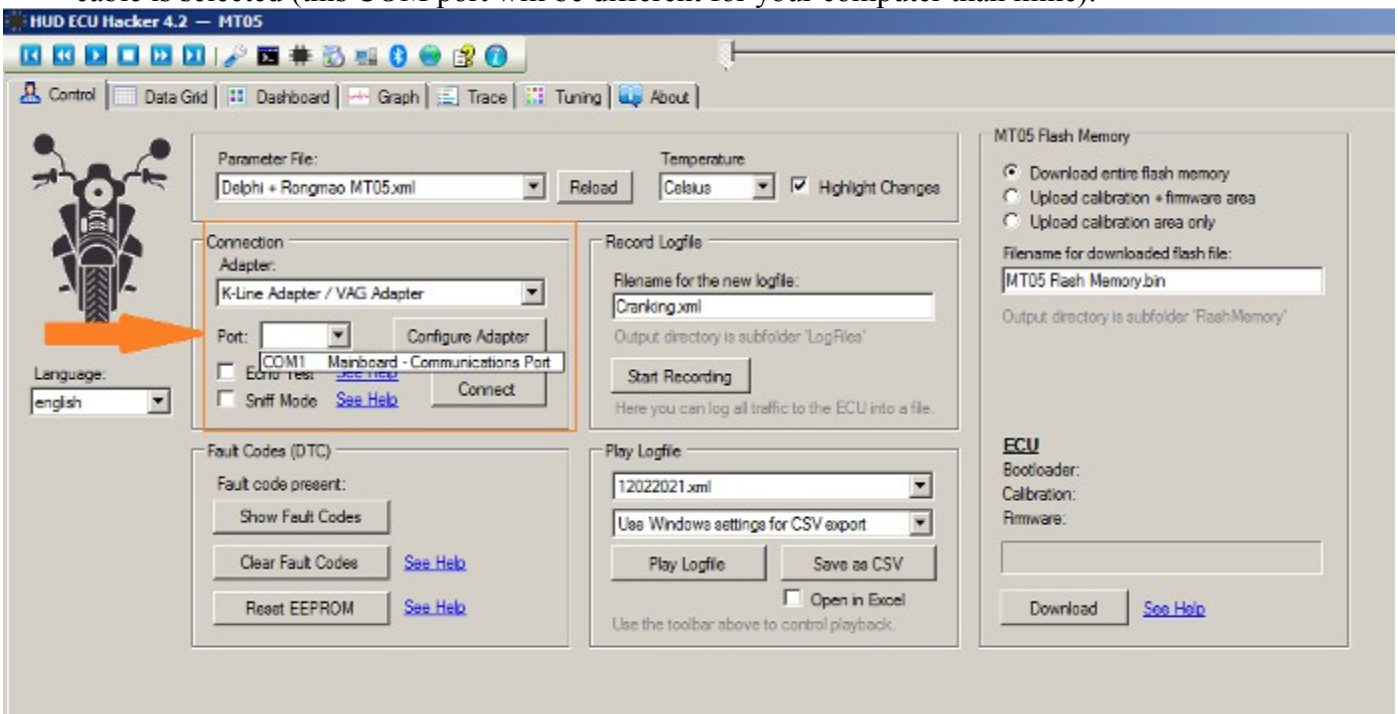
5. Now you can plug-in your diagnostic cable to your computer (doesn't need to be connected to the bike) and you should see a NEW COM port listed in HUD ECU Hacker which you'll need to select.

Connect to the Motorcycle

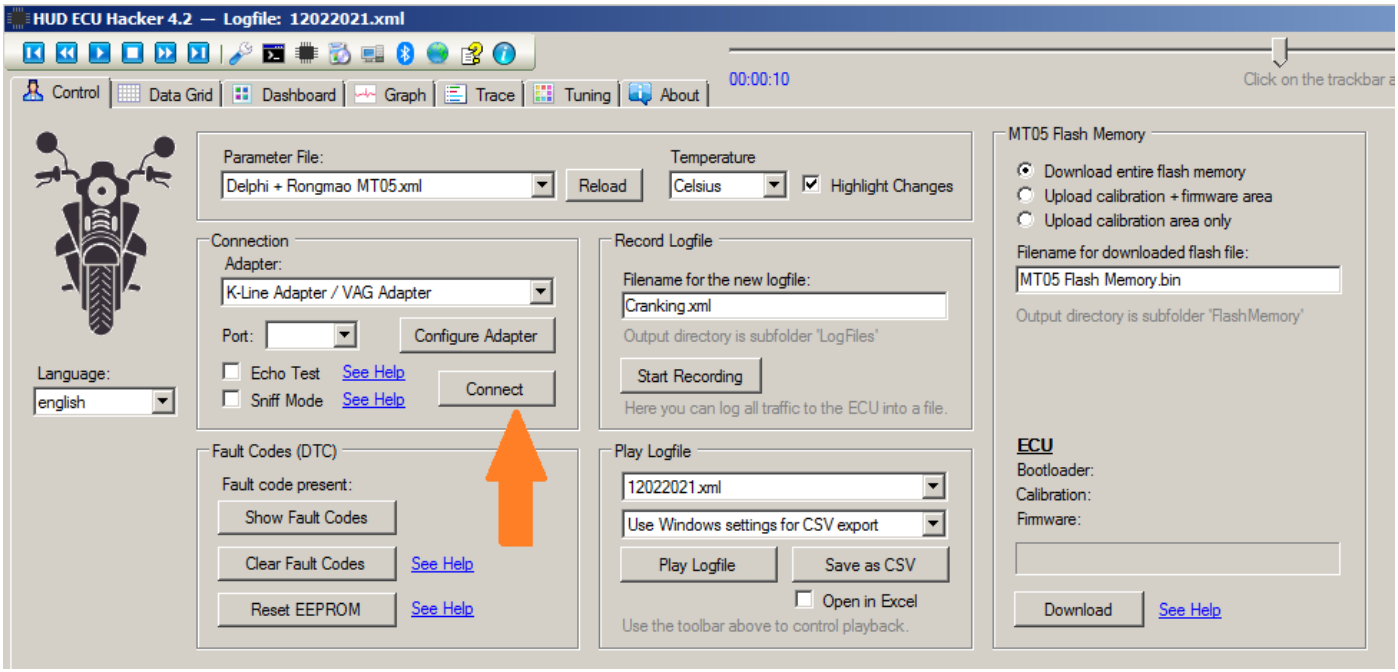
1. After we have HUD ECU Hacker installed on the computer and working to detect the cable, the last step is to connect to the bike.
2. Under the seat is a 6-pin connector that has a blank cap on the end, remove this cap and connect your diagnostic cable.



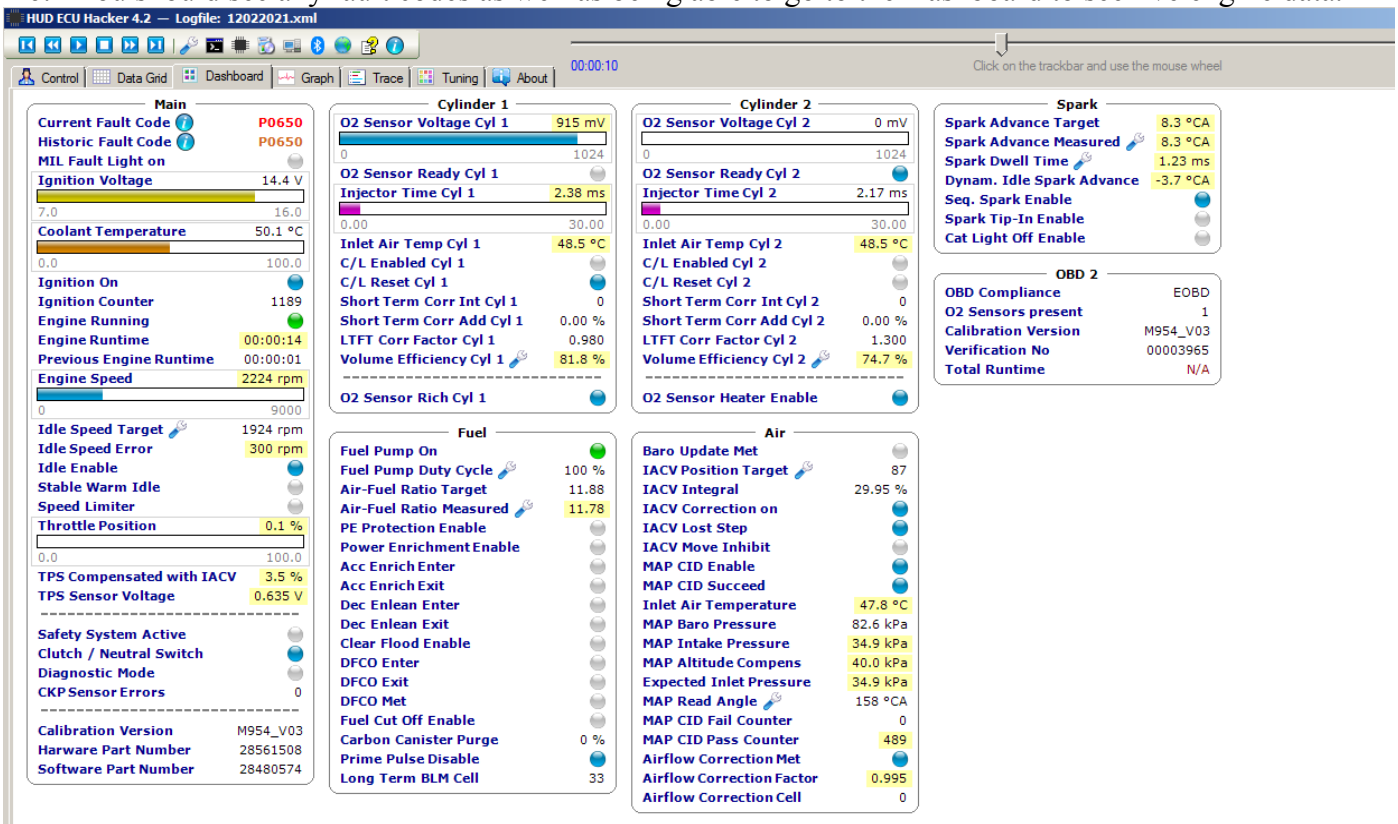
3. Turn the motorcycle ignition ON but you do not need to start the bike, just power things on
4. In HUD ECU Hacker, ensure under Connection, K-Line / VAG is selected and the COM port for your cable is selected (this COM port will be different for your computer than mine):



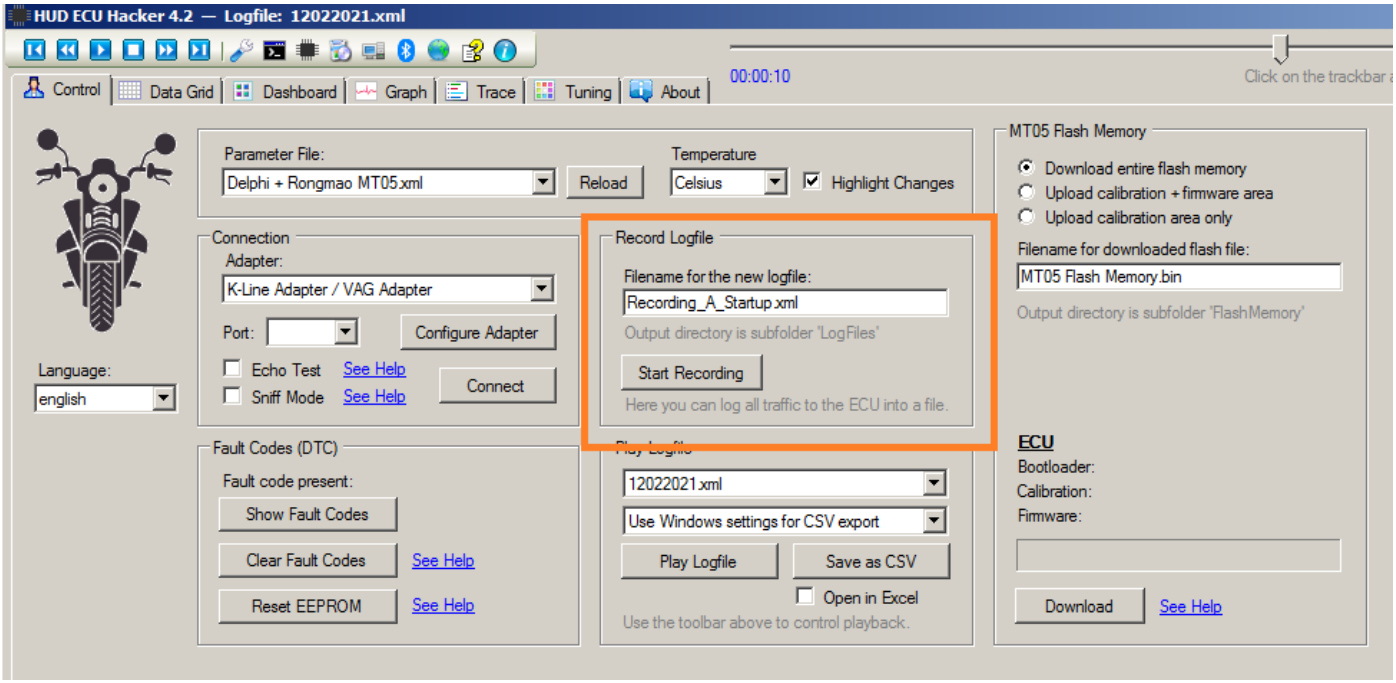
5. Click the **Connect** button and you should start pulling back data from the ECU.



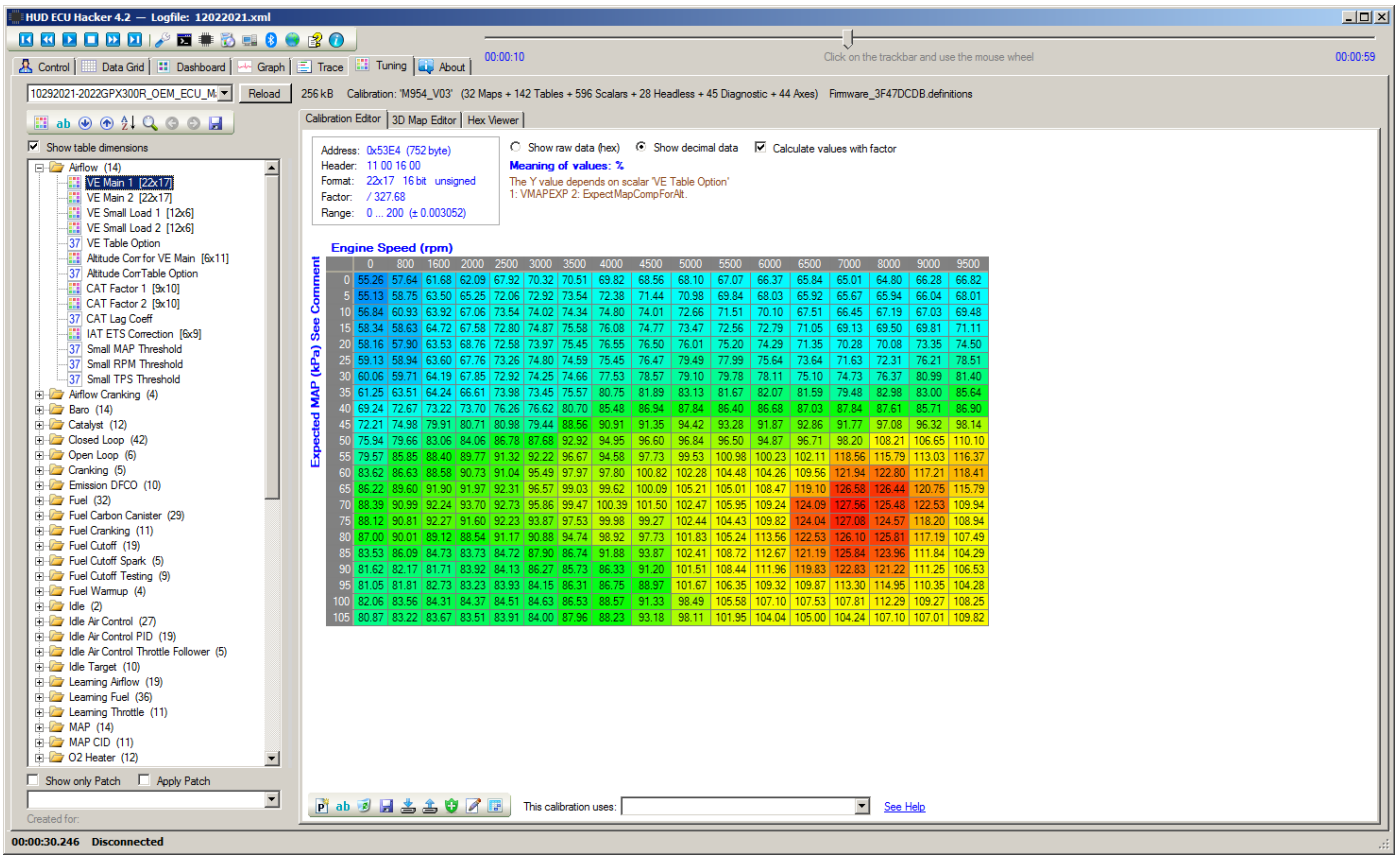
6. You should see any fault codes as well as being able to go to the Dashboard to see live engine data.



7. You can also record diagnostic data by changing the filename to whatever you want to name things and clicking the **Start Recording** button



8. Take note this program does have the ability to flash/change ECU parameters, do take this part seriously as this **could** brick an ECU and changing certain parts of the map can cause engine running issues. I won't go into detail on this as it's pretty easy to figure out and is explained on the HUD ECU Hacker website. I'd rather folks have to do a bit of digging before they enter this area instead of being fed how to do it.



Directories:

HUD ECU Hacker installs to a set directory on your computer which is usually under:

C:\Program Files (x86)\HUD ECU Hacker

Sub-Folders within the above directory:

ECU → MT05 → LogFiles – Storage location for all log files you've created/have
ECU → MT05 → FlashMemory – Any official flash software from an ECU
ECU → MT05 → Tuning – Any patch files you've created for ECU maps

So if you ever get a logfile or ECU map from someone, you just need to copy that file over to these specific directories then restart HUD ECU Hacker to see them yourself.