GuzziDiag for the 7SM ECU

This document will show you how to connect, read (backup) your existing map, write (flash) a new map and relearn the Handle & Throttle. The GuzziDiag 7SM Writer is available for Windows only. **Do not, under any circumstances, use a Windows virtual machine under MacOS or Linux**. Therefore, this instruction will only reference Windows.

The main GuzziDiag program

Copy & paste the link into your browser:

https://www.von-der-salierburg.de/download/GuzziDiag/GuzziDiag_V0.60.zip

The Reader and Writer:

https://www.von-der-salierburg.de/download/GuzziDiag/IAW7SMReader_V0.03.zip

https://www.von-der-salierburg.de/download/GuzziDiag/IAW7SMWriter_V0.08.zip

Each is a standalone program that works independently of each other and does not require any extra software. Note, please do not have any of the programs running simultaneously. One will grab the COM port, and it won't share.

You will also need the two cables. They are available from various resellers on the net, Amazon & eBay.

1. The OBD2 KKL 16 pin to USB cable with the FTDI chip. On the right is the K1-1TALIA from Lonelec in the UK.

2. The Fiat 3 Pin to 16 pin Adapter for the California 1400

3. The V85tt Euro 5 connector.

Lonelec is the best source on the net. They sell a kit that includes both cables and is guaranteed to work

California 1400: https://www.lonelec.co.uk/Guzzidiag-Melcodiag-3pin-Interface-Cable

V85tt: https://www.lonelec.co.uk/Guzzidiag-Euro5-Kit?search=V85

Amazon an eBay are also popular sources.

Wherever you buy it from, please ensure it has the FTDI chip. No other cable will work.

Do not use the drivers that come with the cables. Download the drivers from here:

https://ftdichip.com/wp-content/uploads/2025/03/CDM-v2.12.36.20-WHQL-Certified.zip

Note: It is important to set the COM port latency speed to 1mS. This will ensure the software can respond to the ECU.

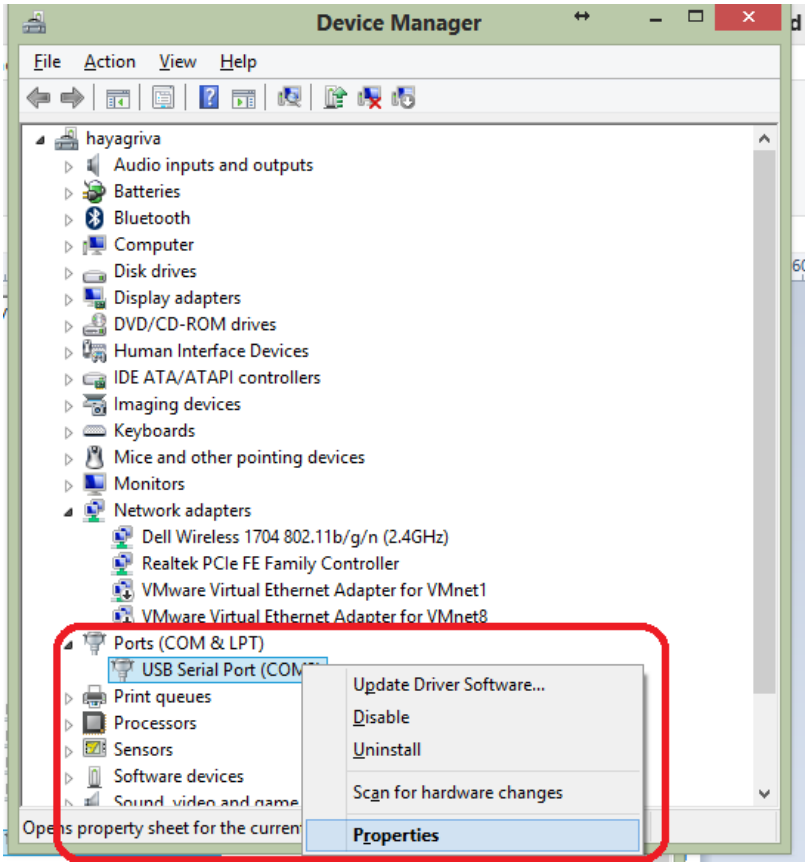
Plug your OBD cable into the USB port.

For Windows 10: Click the **Start** button, type **device manager** in the search box and click **Device Manager** on the menu.

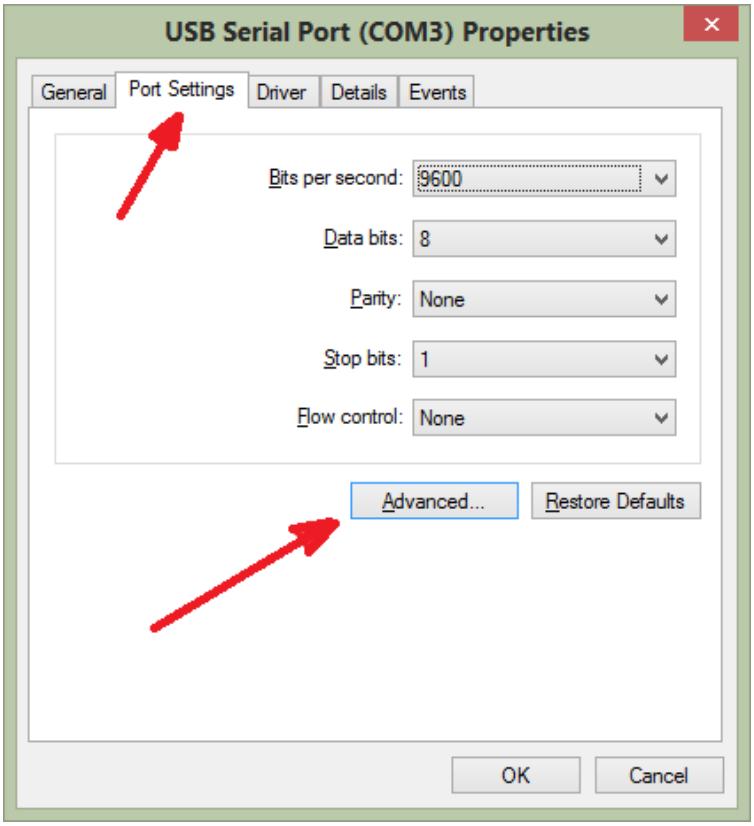
For Windows 7: From the Windows desktop, click Start -> Control Panel -> System and Security -> Device Manager

Select "Ports (COM & LPT)"

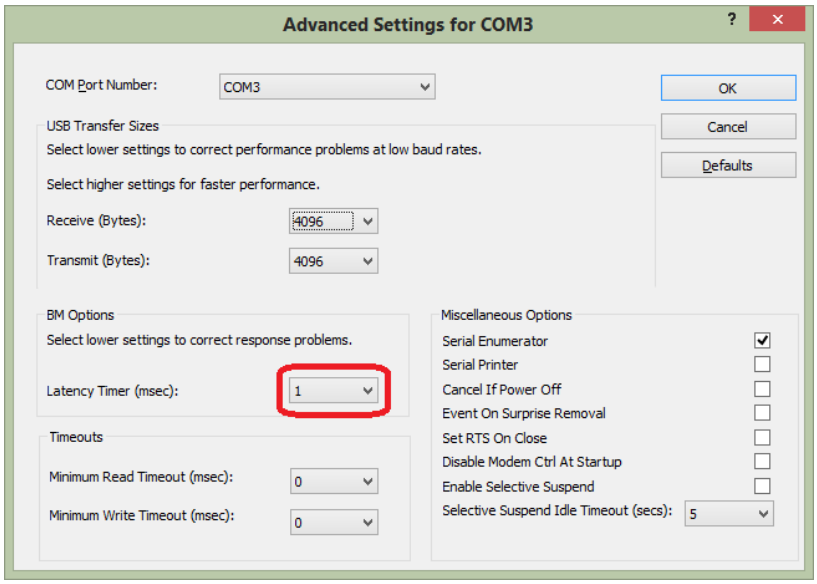
Right-click on the required COM port: USB Serial Port(COMx), where x is the COM port GuzziDiag uses, and select "Properties".



Click on the "Port Settings" tab, then click "Advanced".



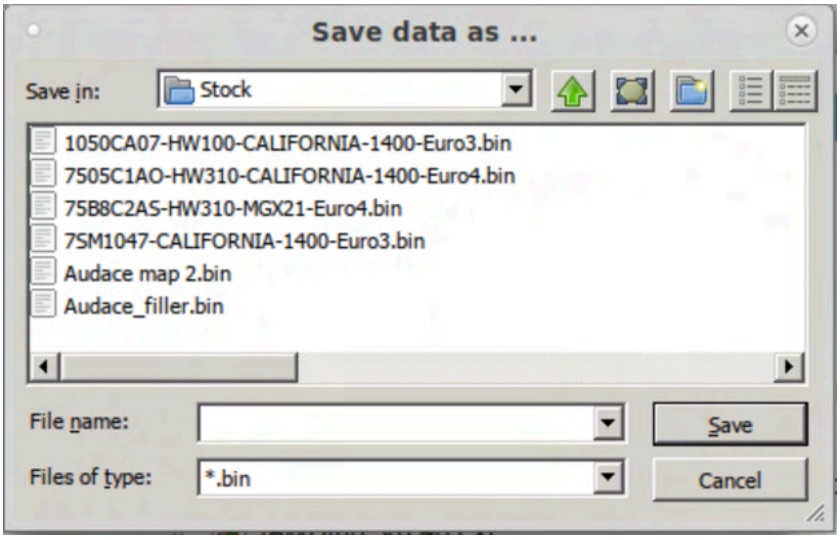
In the "BM Options" section, select "Latency Timer (msec):", and set to 1 (one).



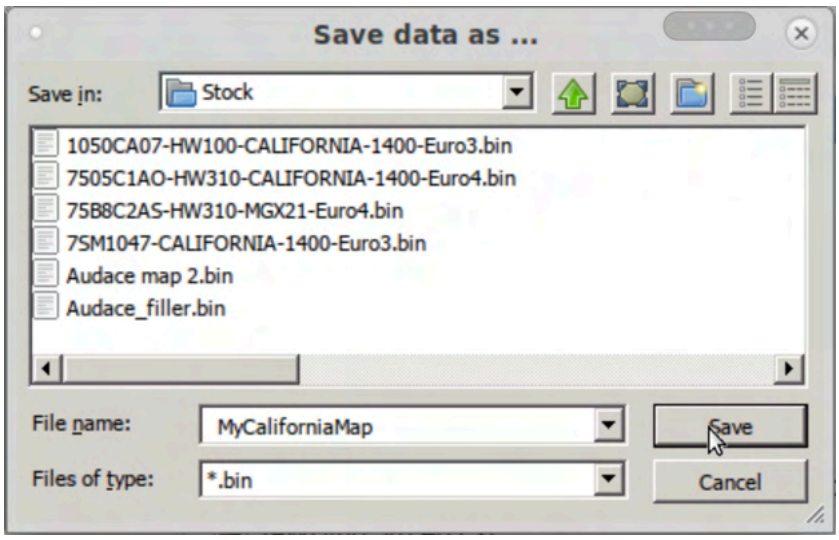
To read your existing map:

Connect the GuzziDiag cable to your Diagnostic port. Run the IAW7SMReader program.

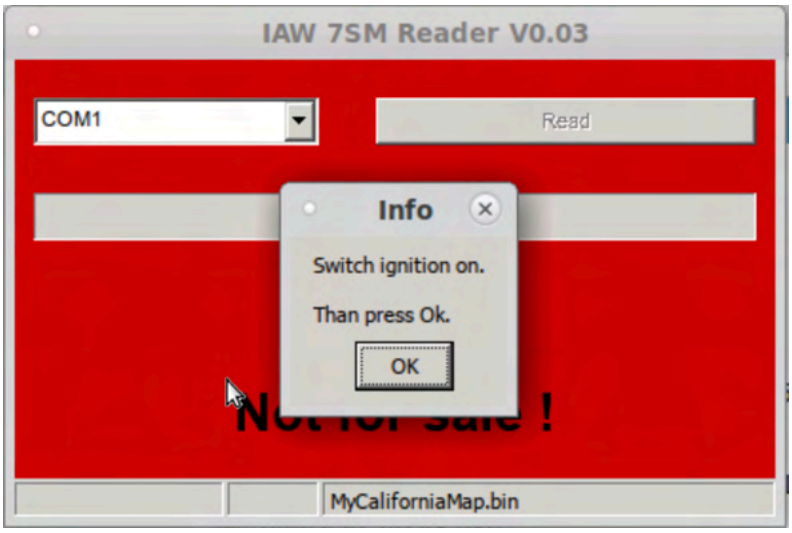
Click "Read". A browser window will open.



Here you can browse to the folder you wish to save the map in. Choose a name for your map. In this example, I have used 'MyCaliforniaMap'. Click 'Save'



You will be prompted to switch the ignition key to 'on'. Do not start the engine.
Click 'Ok'.



The map will be read from the ECU and saved. It takes about 20 minutes.

When the download is finished, switch off the ignition key then click 'Ok'

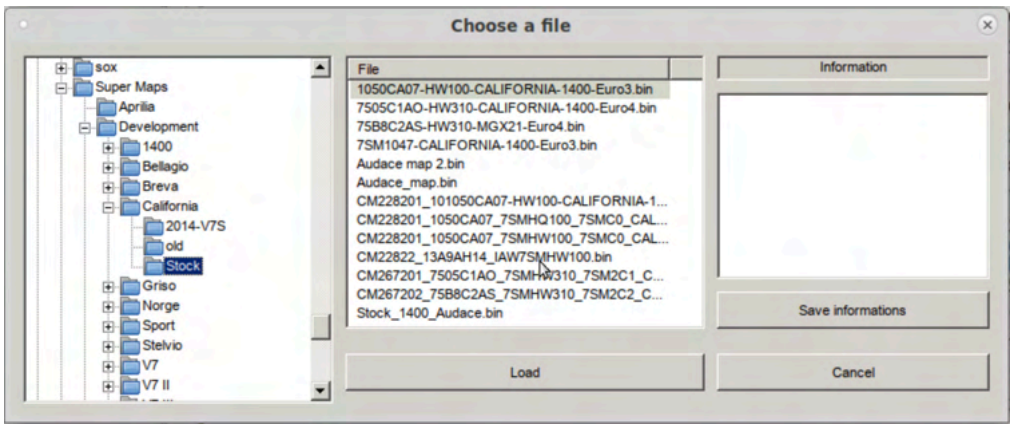
Writing the new map.

Warning: You should attach a battery tender or charger, or remove the headlight fuse. Failure to do so may cause the battery volts to drop too low to maintain a connection. This will cause the write to fail, and you will brick your ECU. Recovery is possible, but it's best not to need to do it.

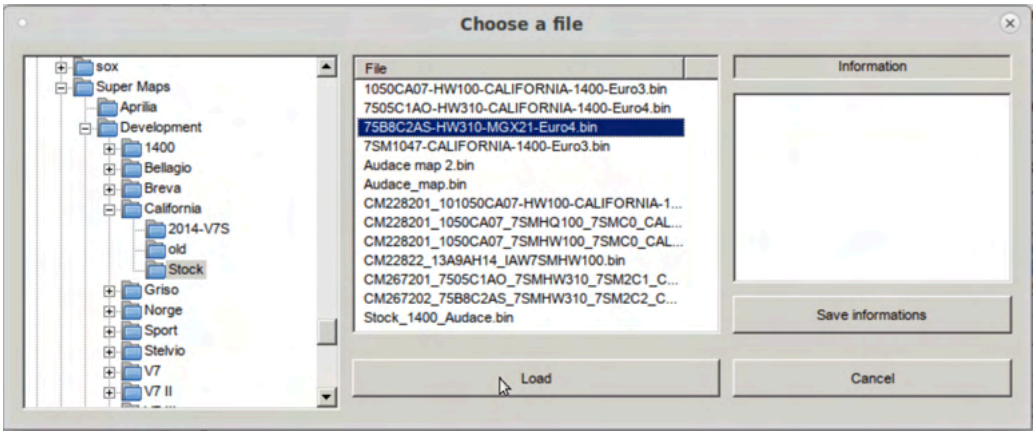
To write a new map to the ECU, run the IAW7SMWriter program. You will receive this warning. Obey! Click 'OK'.

Click on the button with the three dots to browse to the map.

Select the map you wish to load.



Click 'Load'.



Next, click 'Write'.

You will be asked to switch the ignition key to 'on'. Then click 'OK'.

The map will upload. It may take up to 20 minutes.

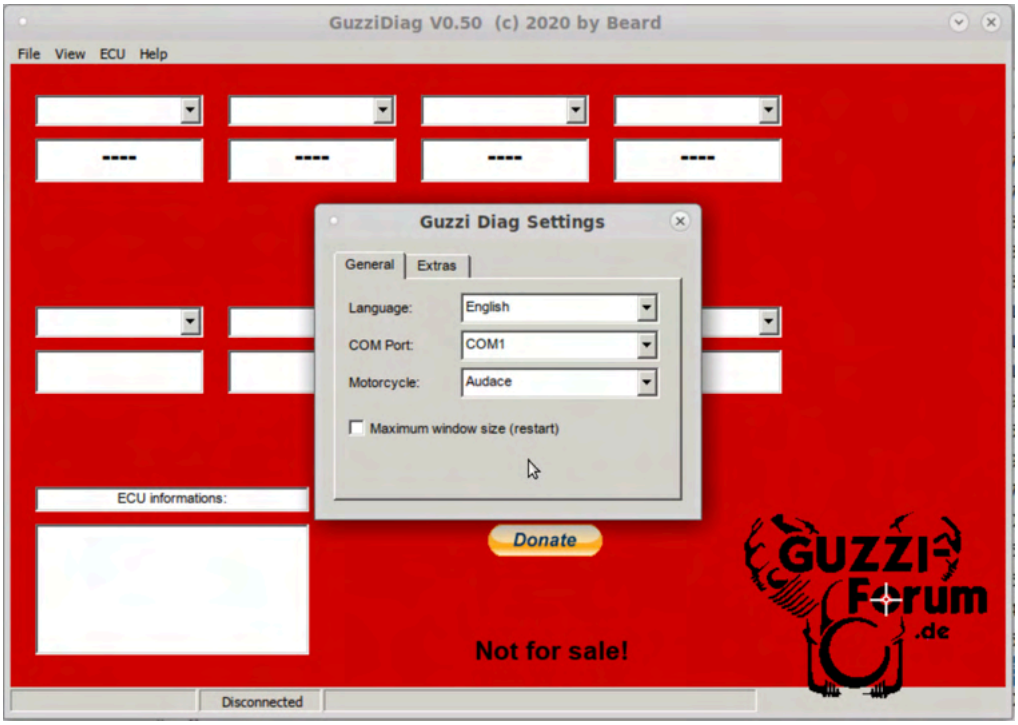
Once completed, it will tell you that programming was successful.

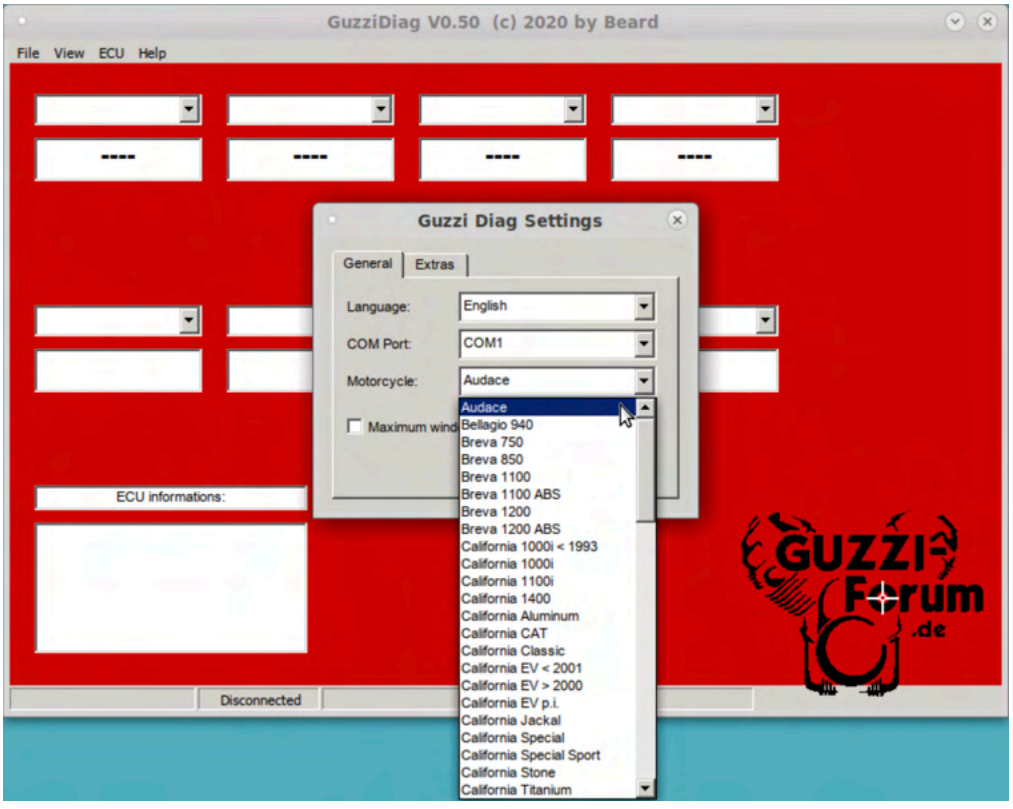
Click 'OK'. You will then be asked to switch off the ignition key.

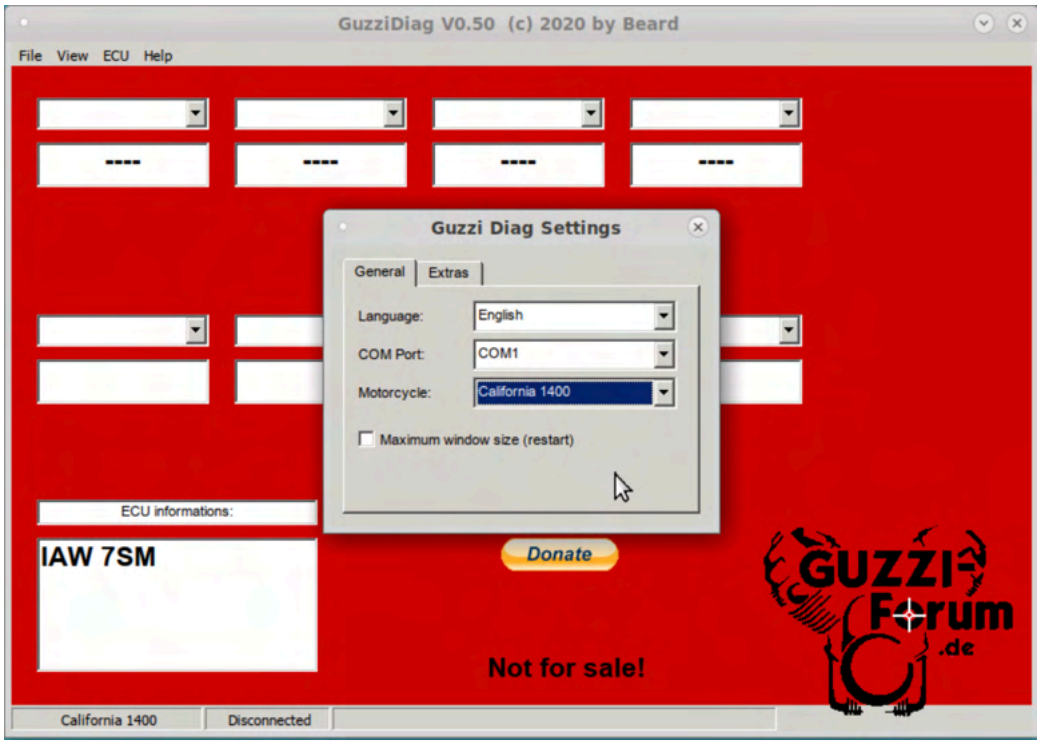
Reset & Self-Learning

After loading a map, we will now perform the Handle and the Throttle self-learning. We will also reset the 'autolearning parameters' (fuel trims).With your OBD USB cable connected, run the GuzziDiag program. The first time you run GuzziDiag, it will ask you to select a language. Select your preferred language and click 'Ok'

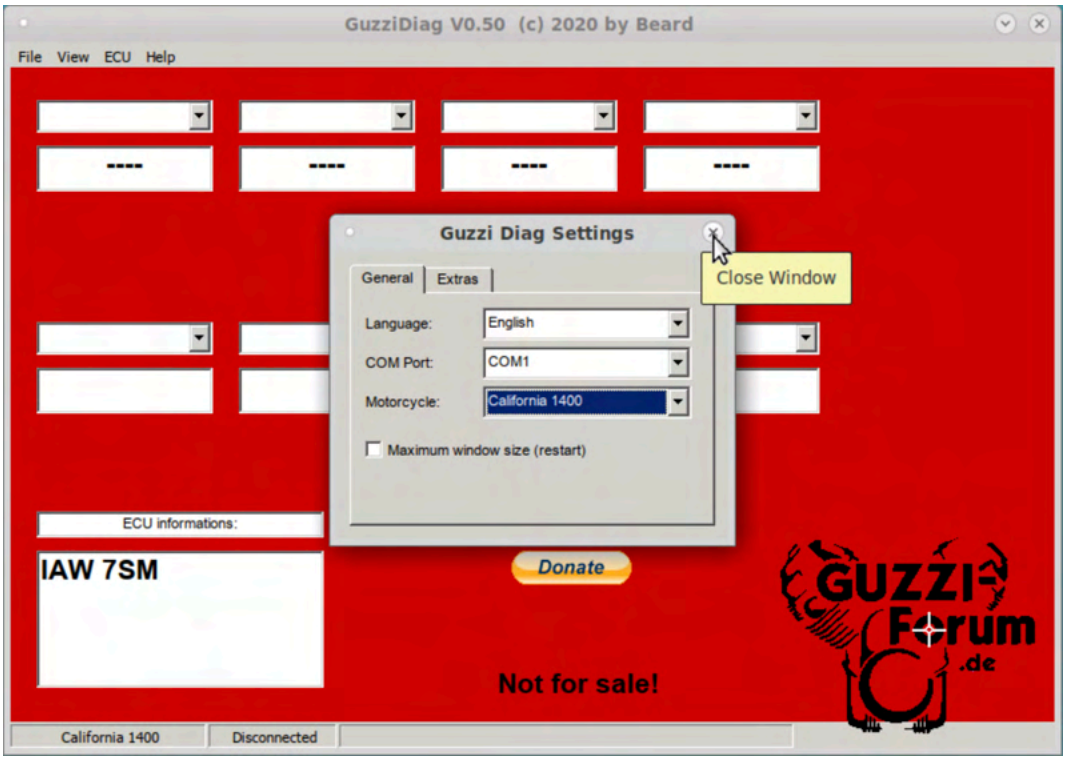
Again, if this is the first time you've run GuzziDiag, the 'Preferences' box will open. It should find the correct COM port automatically , but if not, select the correct port from the drop-down. From the 'Motorcycle' drop-down, select your bike. For the 7SM, you can select 'California 1400', 'Audace', or V85tt.





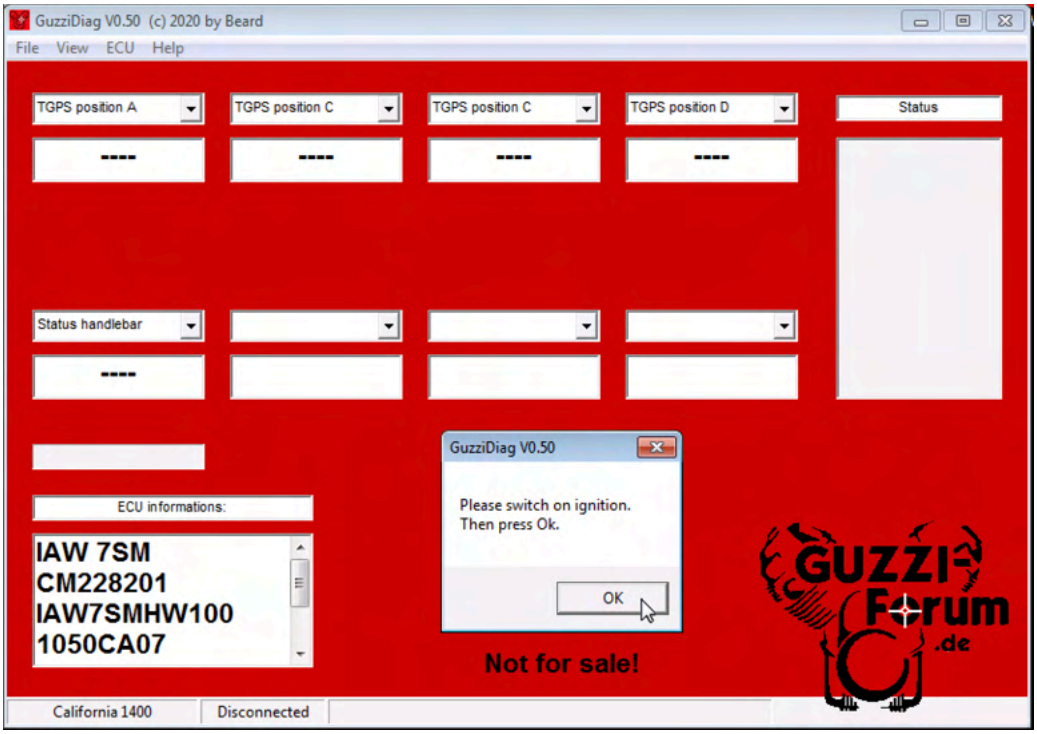


Click 'x' to close the preferences box.

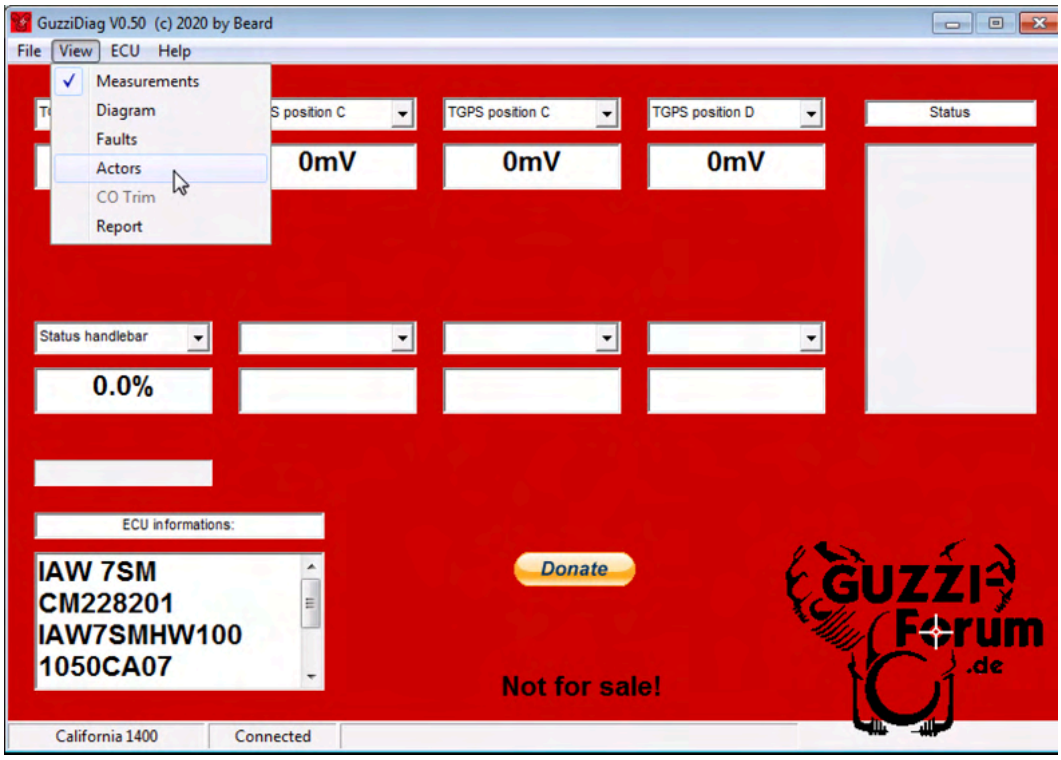


Connect to the ECU by clicking 'File' -> 'Connect'

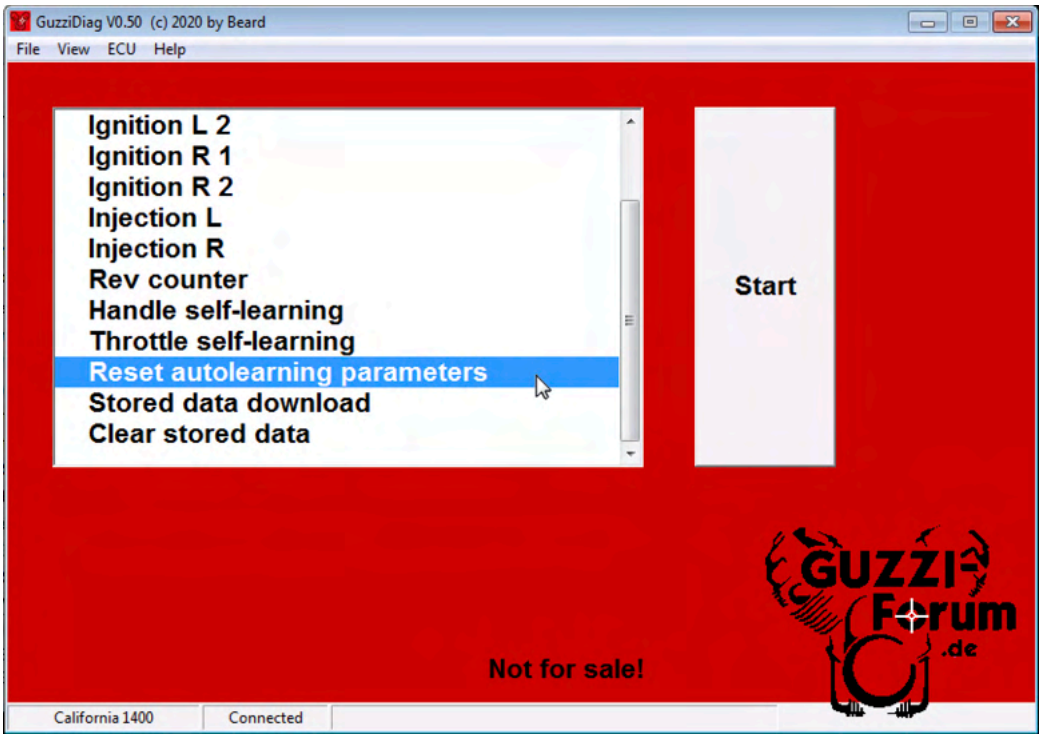
You will be asked to switch the ignition key switch to 'on'. Do not start the engine.



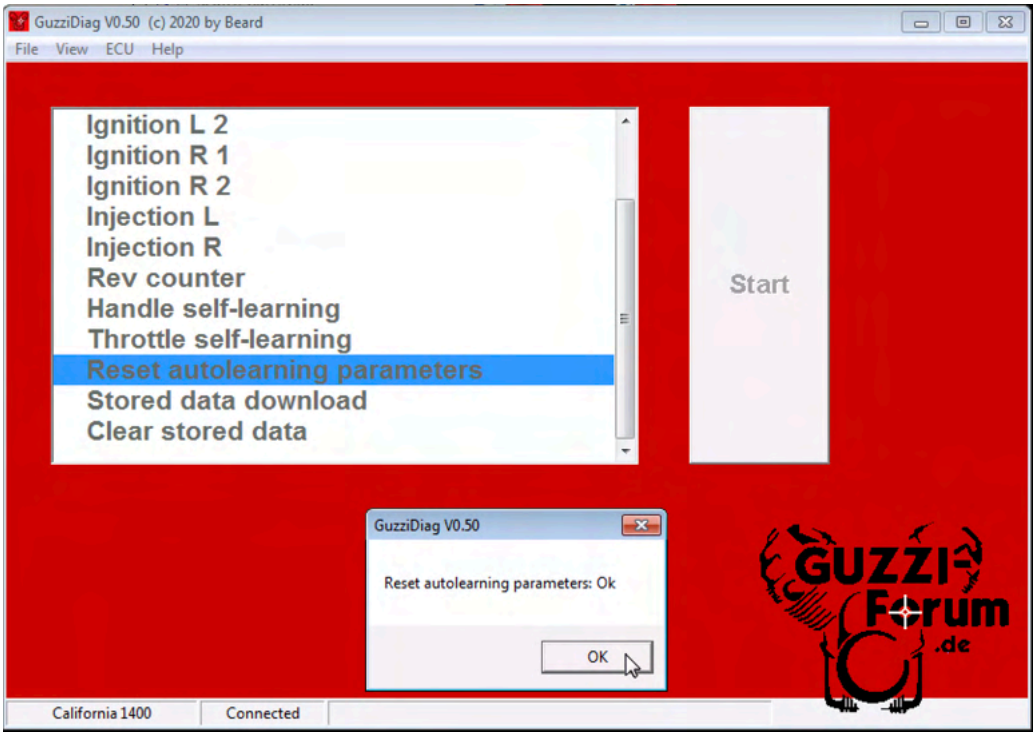
After loading a new map, and BEFORE you start the engine, you must reset the 'Autolearning Parameters' , and perform the 'Handle' & 'Throttle' self-learning. The Handle & Throttle self-learning must be done in that order: 'Handle', then 'Throttle'. Resetting the Autolearning Parameters also wipes out the Handle and Throttle values. You will almost certainly get an URGENT SERVICE warning. Don't panic, this is normal. To perform the Autolearning Parameters reset, and Handle & Throttle self-learning, select 'View' -> 'Actors'.



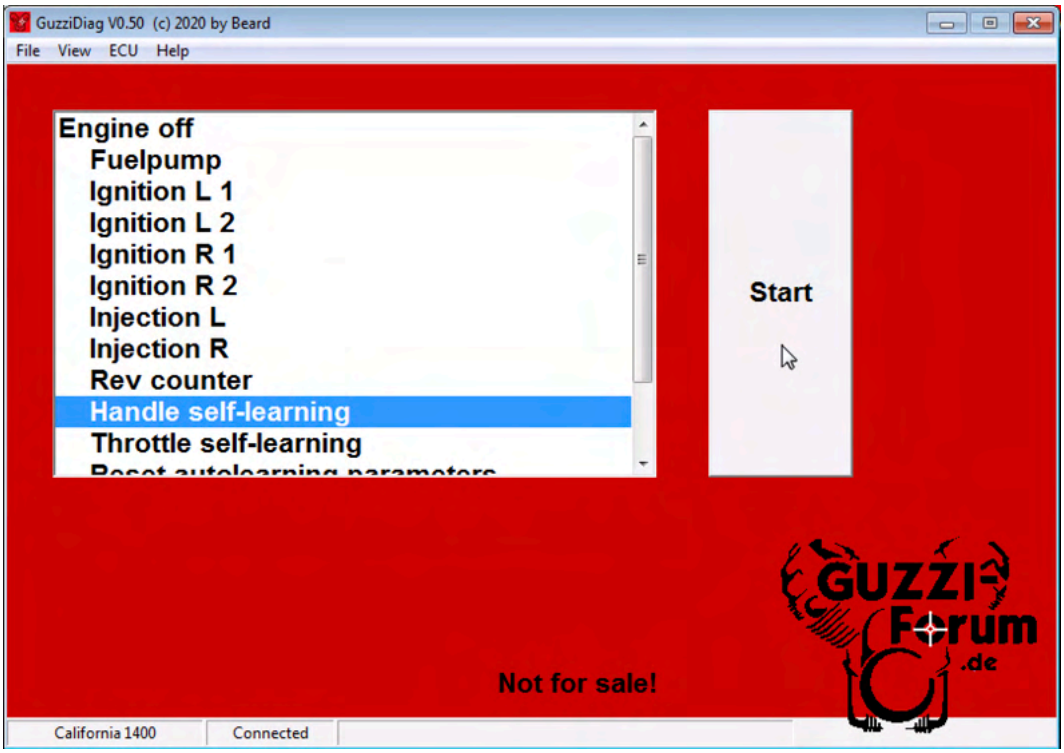
To reset the Autolearning Parameters, scroll down and select 'Reset autolearning parameters'.



Click 'Start'. You will receive confirmation of the reset. Click OK. Wait 30 seconds (important).

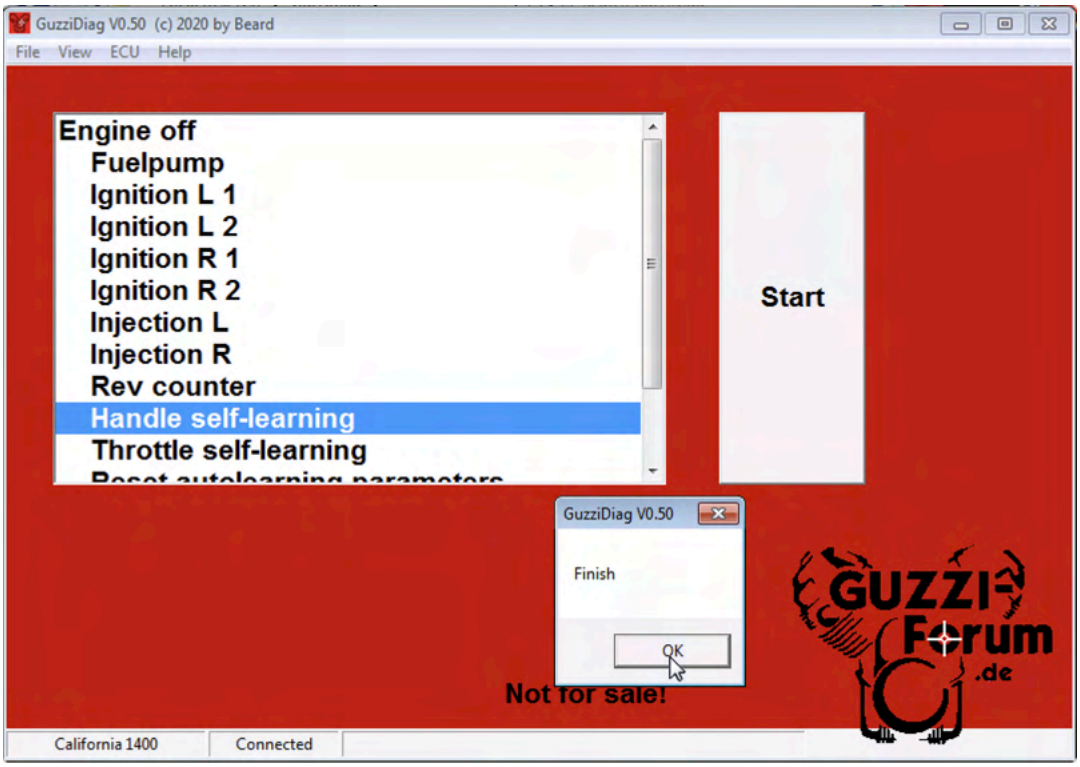


Now, we will perform the Handle & Throttle self-learning. In the Actors menu, select 'Handle Self Learning'.

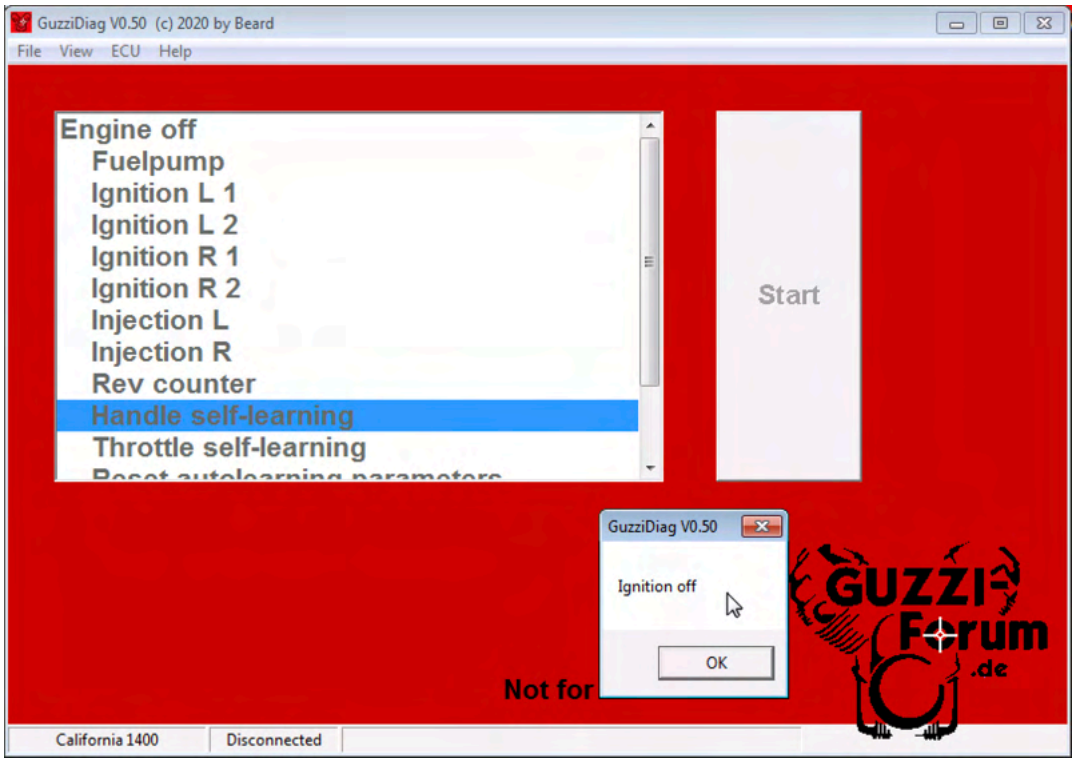


Click 'Start'.

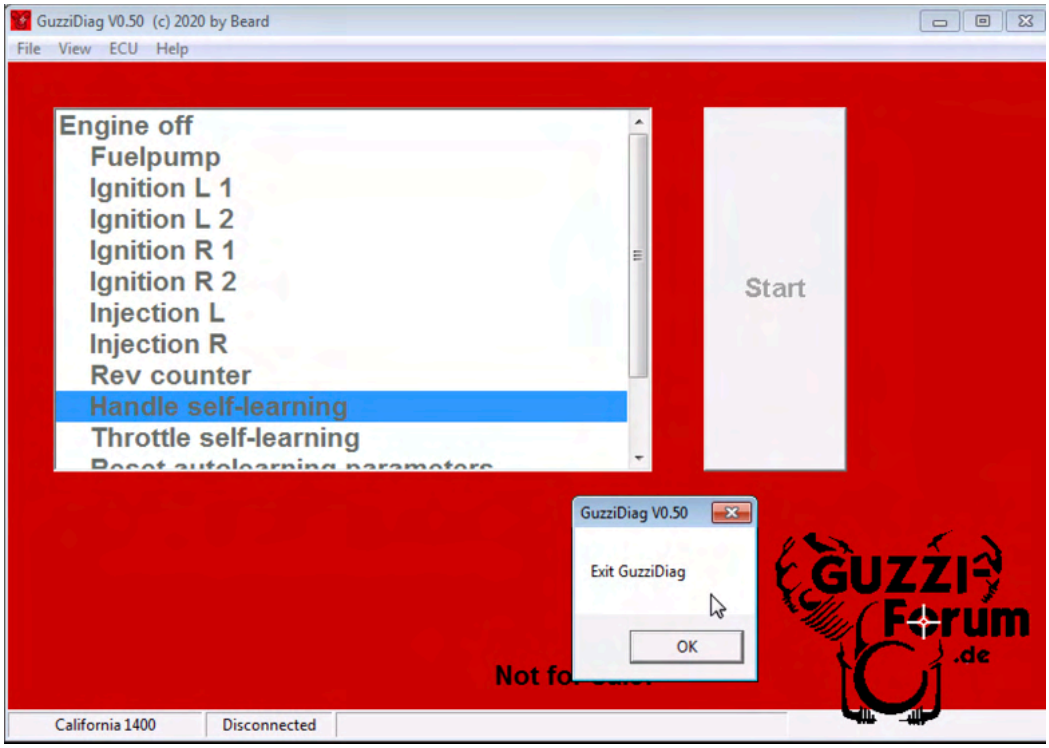
After the self-learning is completed, you will see a 'Finish' dialog box. Click 'Ok'. Wait 30 seconds.



At this time, you will see the following dialog box, 'Ignition Off'. Switch the ignition off.



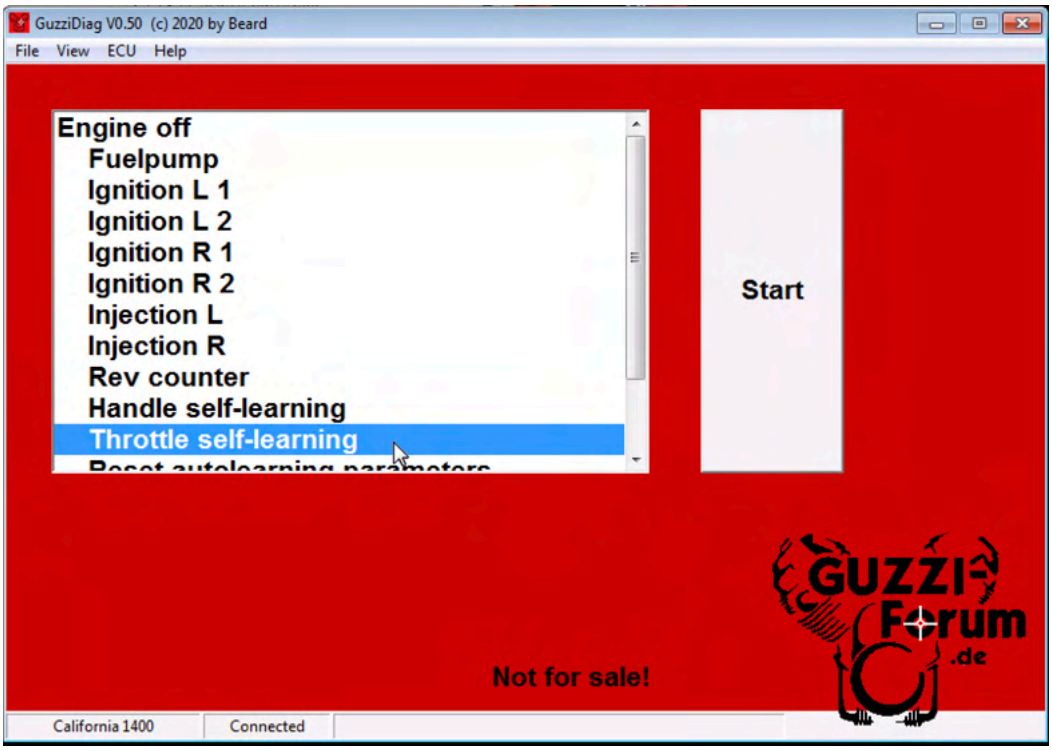
Click 'OK', then GuzziDiag will want to exit. Click 'OK'



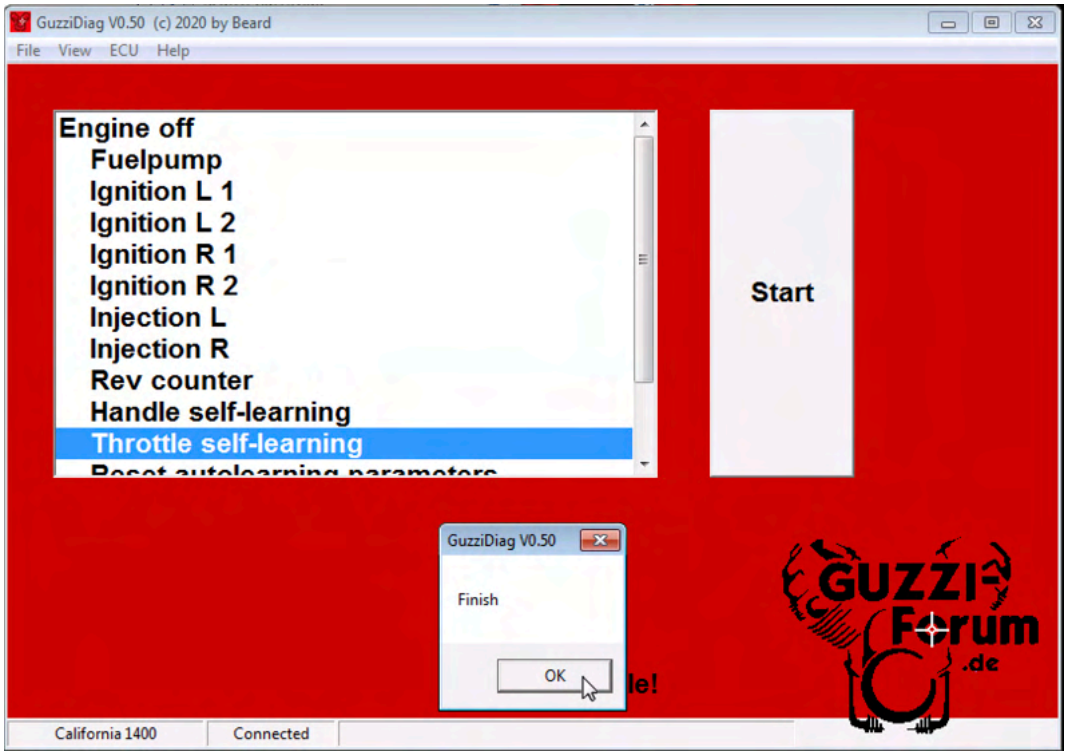
GuzziDiag will close. Reopen GuzziDiag, and reconnect. Switch the key on when asked.

Next, click on 'View' -> 'Actors'. Select ' Throttle Self-learning'.

Click 'Start'



When the self-learning is complete, you will see the 'Finish' box. Click 'OK'. Wait 30 seconds.



Again, you will see the 'Ignition off' box. Click 'OK', and switch the key off. Click 'OK' to exit GuzziDiag.

That's it. You're done. Be aware that it may take two or more attempts to get the Handle and Throttle learning to work. If it hasn't worked, you will get another SERVICE warning. If you need to repeat it, you do not need to perform the autolearning parameters reset again.

You may also need to switch the MGCT off, then on again. Worst case, you may need to perform the MGCT calibration.

Go ride!