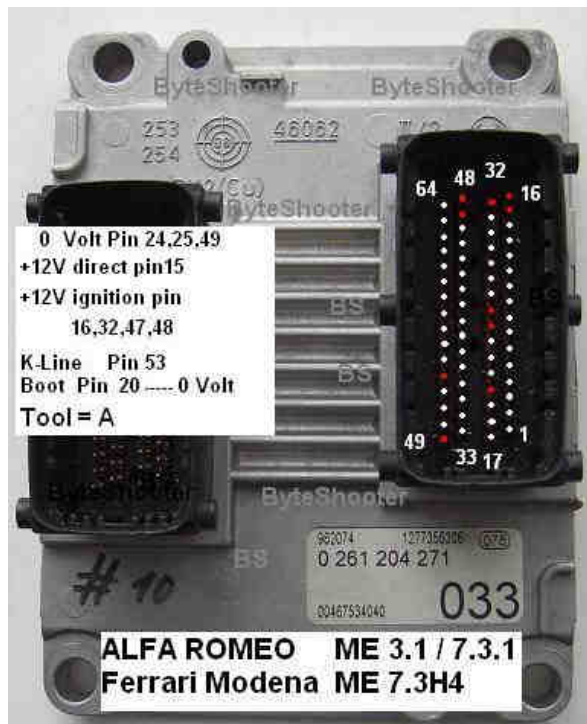


## How to make an Alfa Romeo ME7.3.1 ECU virgin

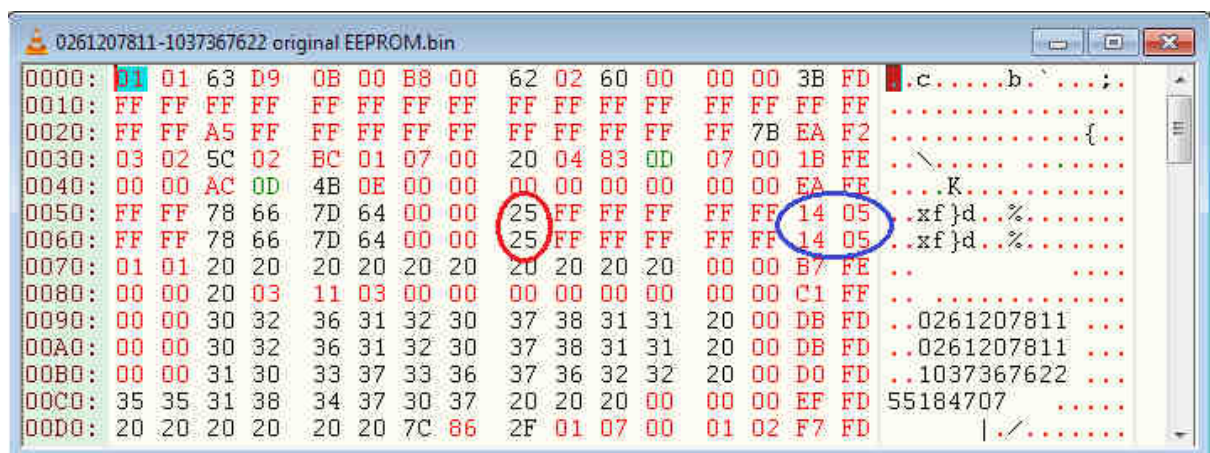
1. Connect the ECU to a VAG 409.1 KKL (or other straight interface) as in picture below



2. Using the ME7\_95040 tool (Google !) read the ECU EEPROM in boot mode (pin 20 connected to ground). You need version 1.4 of the tool. Use the following command line syntax:

```
ME7EEPROM_1.4.exe --bootmode 95080 -r -p2 --CSpin P4.7 filename.bin
```

3. Open the file with a Hex editor of your choice

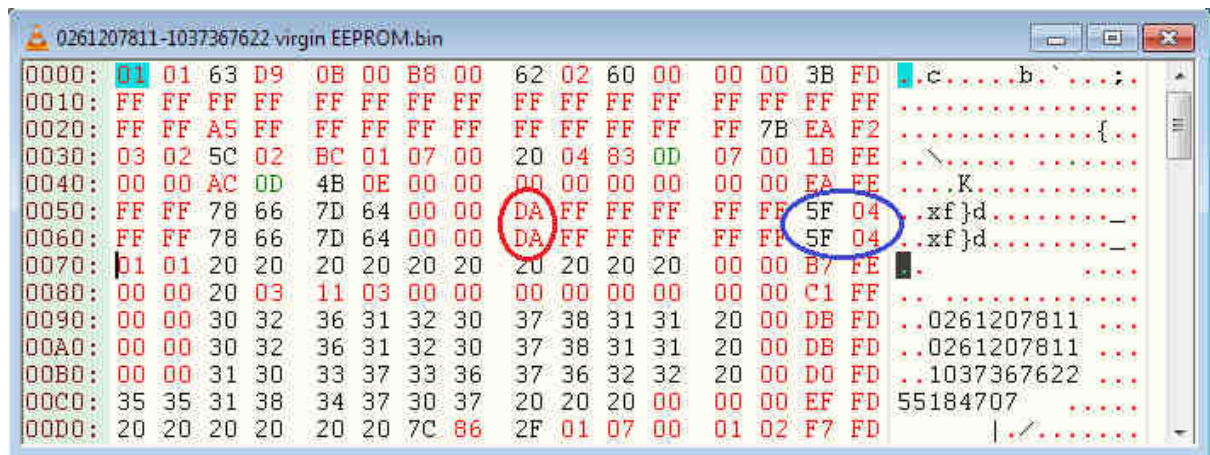


Adress 0058h and 0068h are the virgin bytes (red circle). Change the two bytes to the compliment (DAh) to make the ECU virgin.

Adress 005Eh and 006Eh are the row checksums (blue circle). Bytes are swapped, so the checksum in the example above is 0514h. Checksum for each row is calculated as: (DF1h - sum of 14 first bytes).

To make the checksum valid when you change the virgin byte from 25h to DAh, subtract B5h from the original checksum. In the example above, the new checksum will be: 0514h - B5h = 045Fh, so the last two bytes in the row, 14 05, should be replaced by 5F 04.

Here is the file above corrected to virgin:



4. Save the corrected file.
5. Using the ME7\_95040 tool again, write the corrected file back to the ECU EEPROM in boot mode (pin 20 connected to ground). Use the following command line syntax:

```
ME7EEPROM_1.4.exe --bootmode 95080 -w -p2 --CSpin P4.7 filename.bin
```

You will get an error message since the tool tries to verify the written file, but it seems you need to reboot the ECU before making another read. If you like you can reboot the ECU, read the EEPROM and manually compare that the file has been written correctly.