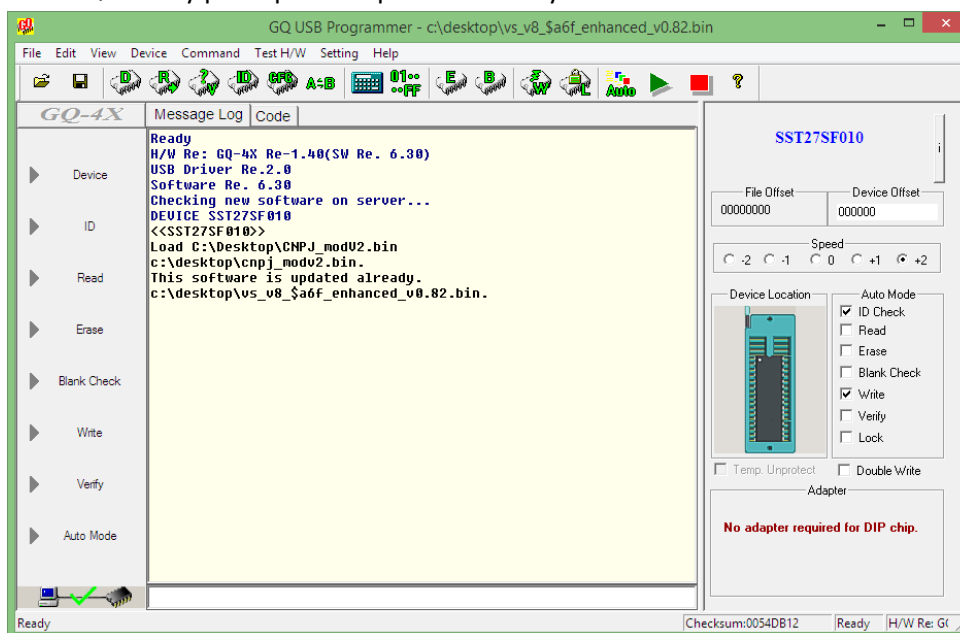


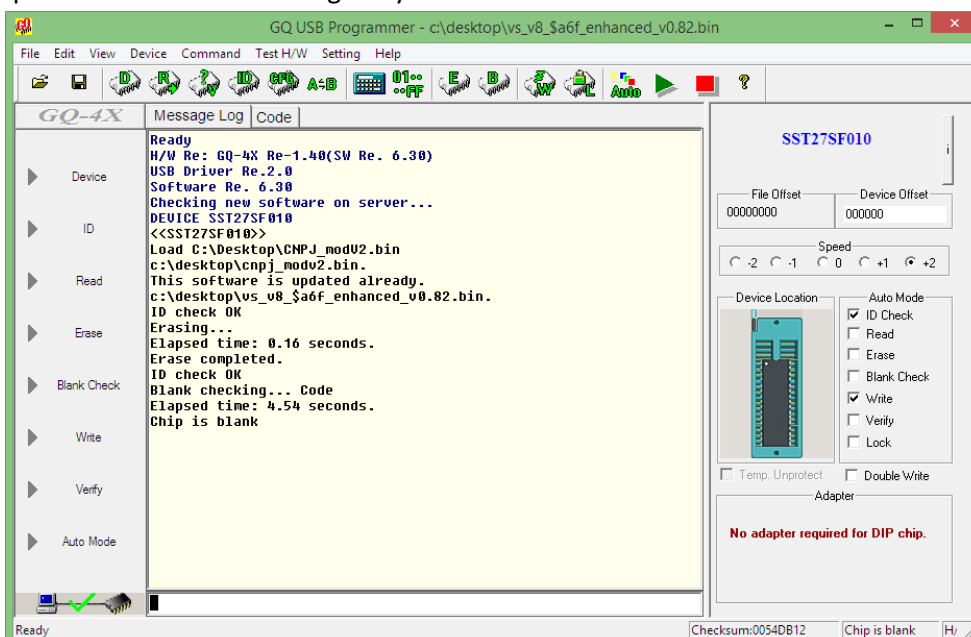
Guide to Burning EEPROM's, Bin Stacking & Verifying Data

This Guide is Based on using a Willem GQ4X & The1's PCM Memcal. It is useful when burning any type of eeprom/ memcal or nvram.

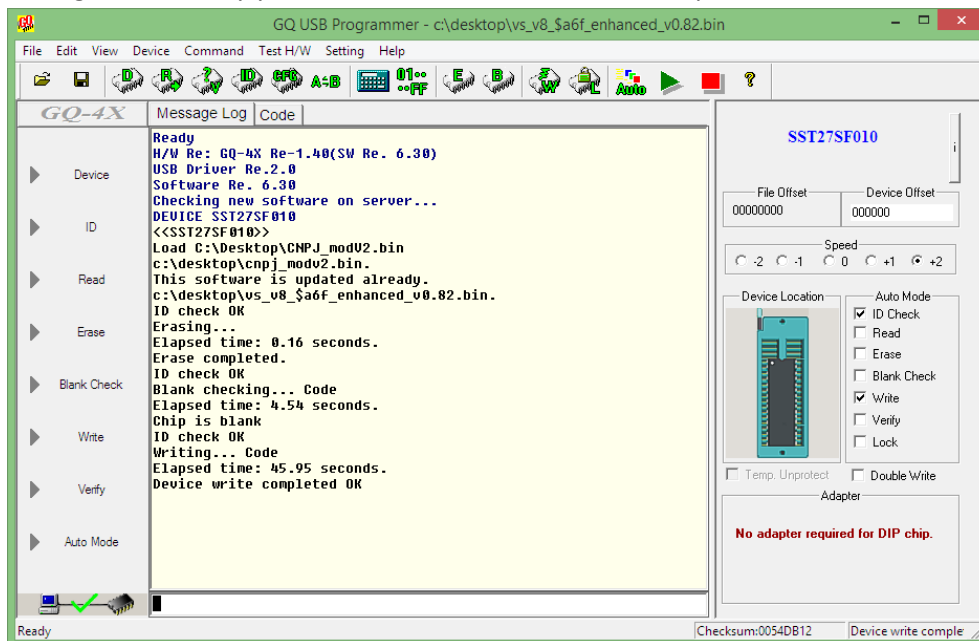
- Insert your chip into the burner and open the burning software.
- Click Device on the left and select our chip type, In my case I have a SST27SF010.
- To check your chip is detected click ID, if your chip isn't showing correctly it may not be mounted in the socket correctly, in which case check your chip mounting vs the Device Location on the right. (Note Some chips don't support ID detect like nvrams), If you don't have any physical markings on the chip to help ID it then for example with a stock memcal VS-VY 1Mbit try a generic 27C010 then hi ID again, if the chip size and type are close GQ-4X may pick up the chip and ID it for you.



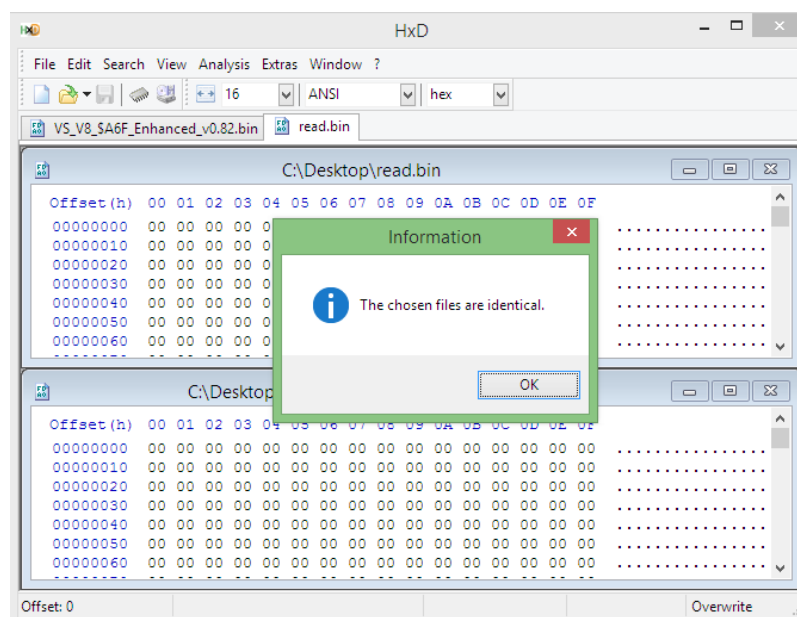
- Being an Eeprom click erase first to make sure the chip is blank, if yours is a nvram it doesn't need erasing, if it's a stock memcal you will need to first erase the eprom with a UV Eraser, Typical Erase Times are less than 10mins.
- To check it erased properly click blank check on the left. If your chip blank check fails then either the chip did not erase properly or your chip is failing, Try erasing the chip again or if UV Type try leaving it for a longer period in the UV Eraser.
- If your chip erases and blank checks good you should have the same screen below.



- You can now drag and drop your bin file into the program, Your options should be set as above, you can now hit WRITE.
- If it goes through successfully your bin file is now written to the chip.



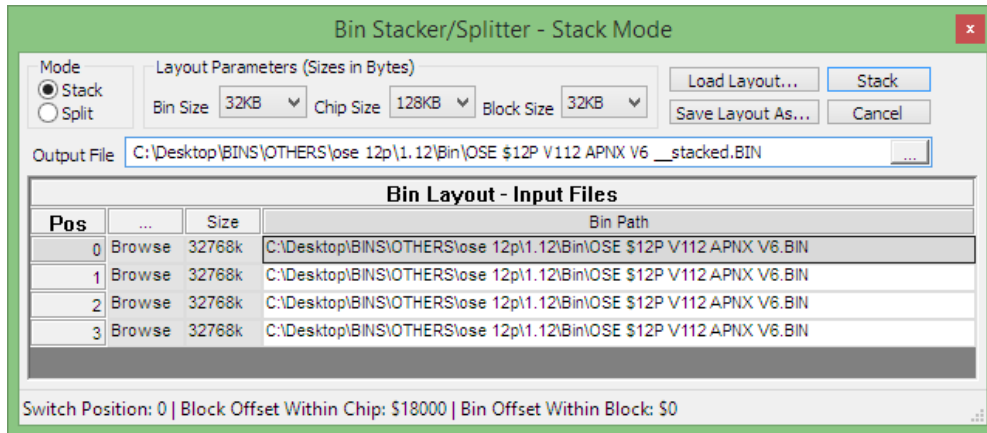
- Now to verify your Bin file burnt correctly to the chip and your chip is functioning correctly we now will click READ. Once the read goes through click the Disk Icon and save the bin file.
- We will use this program <http://mh-nexus.de/> to verify our READ file VS our Original File, if these files match, then our WRITE worked correctly and we also have verified that our chip is Fully functional.
- Open the program and drag and drop both Your Original bin file and Your READ Bin file in and Press CTRL + K then click OK. If the files are identical then the Write was successful and the chip is also working 100%



Bin Stacking

In Some Cases you May need to Bin Stack, this is usually because the eeprom you are using is bigger than the bin file you are using, For the ECM/PCM to read the chip correctly multiple copies of the bin are stacked to fill the eeprom.

The easiest way to bin stack is in Tunerpro. It can be accessed Via Tools Menu, Bin Stacker/Splitter Option.



In the example above we are using a BIN file which is 32KB, originally using a 256KB(0.256Mbit) eeprom, so we select Bin Size & Block Size as 32KB.

Our new eeprom size is 128KB (1.0Mbit) so we select 128KB for Chip Size and load the file into the 4 option slots as shown. Once your Output file is selected then click Stack, you can now go back to Page 1 and burn the stacked file onto your chip.

If there is any confusion with chip sizes and file sizes you can times the file size by 8.

EG:

16KB file * 8 = 128kb or 0.12Mbit

32KB file * 8 = 256kb or 0.25Mbit

64KB file * 8 = 512kb or 0.5Mbit

128KB file * 8 = 1024kb or 1.0Mbit

256KB file * 8 = 2048kb or 2.0Mbit

Memcal Adapters

Using memcal adapters saves having to desolder the eeprom on stock memcals

Mount like below on the adapter and then on the burner, Tang side up you can see in the photo, the bottom most mounted on the burner

