



**ECU FLASHING INSTRUCTIONS FOR:
BMW F8X M3/M4
AUDI R8/ LAMBORGHINI HURACAN (2016-2017)**

SOFTWARE IS NOT CARB APPROVED.
FOR OFF ROAD USE ONLY.

WARNING:

- **CONSUMER AGREES TO ALL VF ENGINEERING, INC. TERMS AND CONDITIONS. VF ENGINEERING, INC. IS NOT RESPONSIBLE FOR PROPERTY DAMAGE, BODILY INJURY OR CONSEQUENTIAL LOSSES.**
- **READ OUT YOUR ECU AND SUBMIT YOUR SOFTWARE REQUEST BEFORE STARTING INSTALLATION. YOUR ECU MUST BE STOCK.**

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Introduction

Thank you for purchasing the Hex Flash ECU Programming Tool, and welcome to Hex Flash Tuning.

To program your vehicle through the OBD2 port using a PC laptop, you will need to use the Hex Flash user programming tool (**Figure 1**) together with our Hex Flash application program (downloaded from our website).

www.vf-engineering.com/hexflashdownloads/.

This instruction manual is a step-by-step guide and terms and conditions of use.

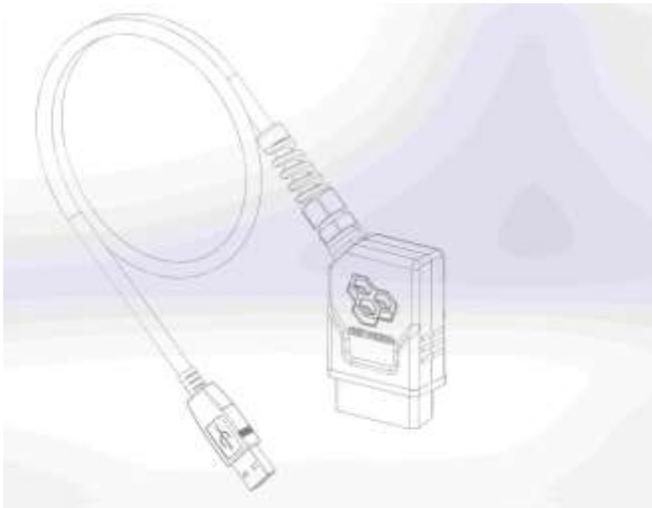
VF Engineering recommends that you do a pre-installation check.

- ECU must contain OEM *stock software* (Contact VF Engineering if otherwise).
- Make sure the vehicle has been correctly serviced and all factory recalls have been performed.
- Vehicle ignition must be *ON*.
- Connect the car to a battery charger.

If you run into any errors during installation, refer to appendix for instructions.

*****Disclaimer*****

VF Engineering, Inc. is not responsible for damage that may occur and/or due to the use of 3rd party “piggyback” units or aftermarket exhaust valve control products installed prior to, during, or after the installation of HEX Tuning Software.



↑**Figure 1**

Chapter 1: Flash Tuning Your BMW

1.1: F8X M3/M4 (MEVD17.2G)



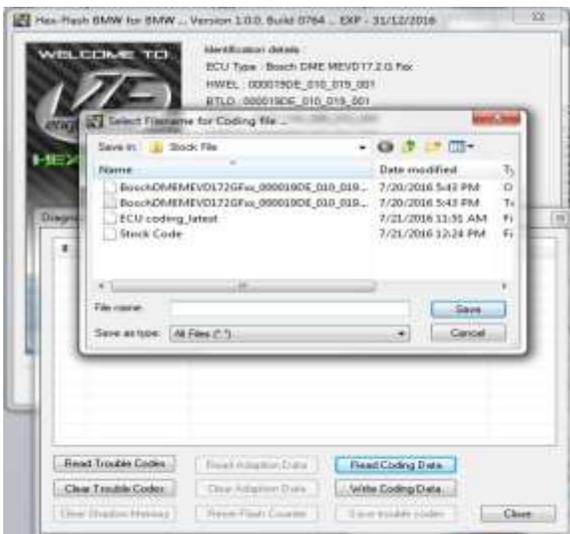
↑Figure 2

1) The application will auto-detect which ECU version you have. Click “next” to proceed to the read/program menu shown in **Figure 2**. Make sure all other electrical components (eg. Headlights, A/C, etc.) are turned off. It is also recommended that a battery charger is connected to the car battery.



↑Figure 3

2) Click “Read ECU memory” and save your stock ECU file to your drive when prompted. **Do not** change the name of the file. See **Figure 3**.



↑Figure 4

3) Click “Diagnostics”, then “Read Coding Data”, and save your stock coding file to your drive when prompted. You may name this file “ECU Coding.” **DO NOT LOSE THIS FILE**. See **Figure 4**.

4) Zip and send the above files to technical@vf-engineering.com, together with your order instructions. A technician will email you a tuned file.



↑ Figure 5

5) Once received, you will note your tuned file name contains your full VIN number. Program this file in by selecting “Program ECU memory” and follow the prompts. See **Figure 5**.



↑ Figure 6

6) When programming is complete, follow the prompt and turn off ignition. Once the progress bar has reduced, turn ignition on, and click “Diagnostic”. See **Figure 6**.



↑ Figure 7

7) Click “Write Coding Data” and select the coding file you previously saved in **STEP 3**.

*****Important*****

You will need to “Write Coding Data” every time you load or switch ECU programming.

Follow the prompts to complete the ECU programming. See **Figure 7**.

8) Start the vehicle to verify that it runs properly.

END.

Chapter 2: Flash Tuning Your VAG/Lamborghini

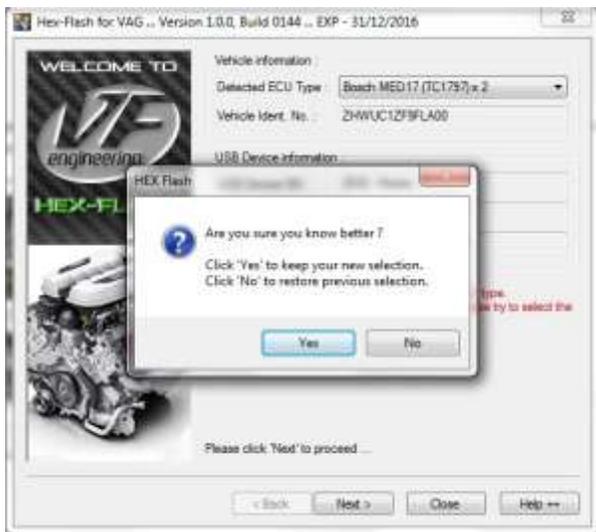
2.1: Audi R8 V10 (Dual Injection) / Lamborghini Huracan (2016-2017)

1) Start the application and follow the prompts. You will arrive at the screen shown in **Figure 8**.



↑**Figure 8**

2) Select “MED17 (TC1797) x2” from the pulldown menu, and click “Yes” when prompted. See **Figure 9**.



↑**Figure 9**

3) Take a screenshot of the ECU ID screen and email it to technical@vf-engineering.com together with your order instructions. A technician will either send you a tuned file, or ask that you send *both* ECU's to VF Engineering. See **Figure 10**.



↑**Figure 10**

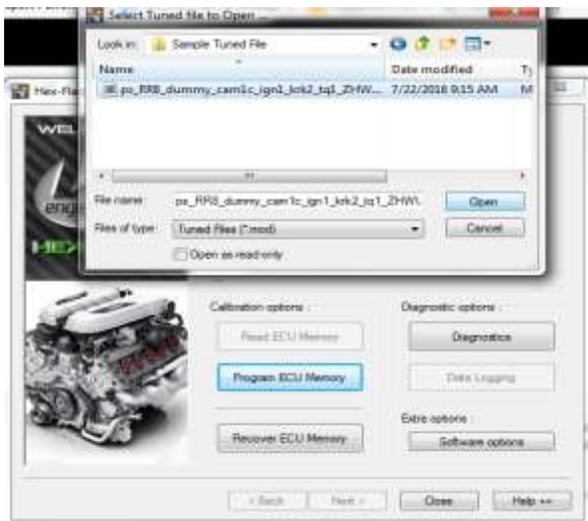
4) In the case that your file version is available, you will be emailed a tuned file with your vehicle's full VIN number in the filename.



↑ Figure 11

5) It is recommended that the vehicle is connected to a battery charger for the duration of the flash. Before programming, click “Software options” and check the box for “Force programming of ECU memory.” See **Figure 11**.

NOTE: DO NOT CHECK THIS BOX IF YOU HAVE ALREADY DONE THIS BEFORE.



↑ Figure 12

NOTE: CHECK “DO NOT correct the checksum on the tuned file” IF FLASHING ECU BACK TO STOCK.

6) Click “Program ECU memory,” then select the file you were sent, then click “Open.” See **Figure 12**.



↑ Figure 13

7) You will now see a progress bar for remaining time. Note: programming will take about 30 minutes. See **Figure 13**.



↑Figure 13

8) When programming is complete, follow the prompt and turn off ignition. Once the progress bar has reduced, ECU programming has finished.

9) Start the vehicle to verify that it runs properly.

END.

Chapter 3: Flash Tuning Your Porsche

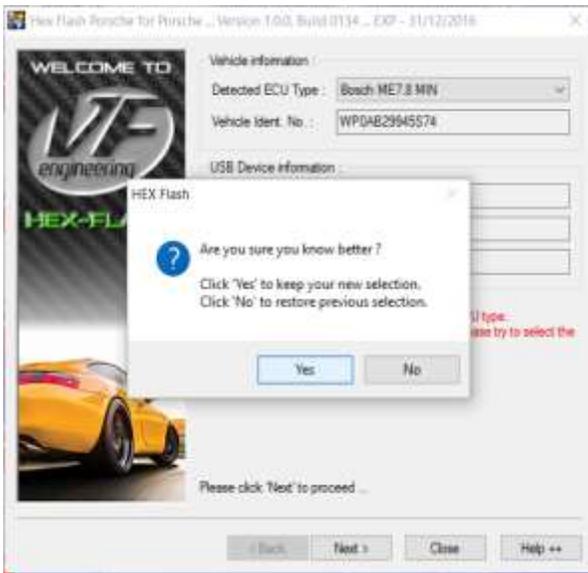
1) Start the application and follow the prompts. You will arrive at the screen shown in **Figure 14**. Click “Next.”



↑ Figure 14

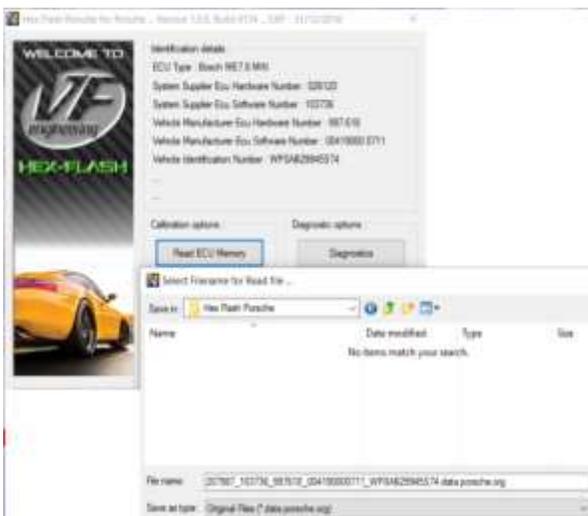
2) Select the correct ECU version for your vehicle from the pulldown menu shown in **Figure 15**, then click “Yes” when prompted. Refer to the table below for your vehicle’s specific ECU version.

Chassis	Year	Engine	ECU Ver.
997.2	2009-2012	3.6/3.8	SDI3
997.1	2005-2008	3.6/3.8	ME7.8 MIN
996	2002-2004	3.6	ME7.8 (1024K)
996	2000-2001	3.4	ME7.xx (512K)
996	1998-1999	3.4 Drive By Cable	M5.2.2



↑ Figure 15

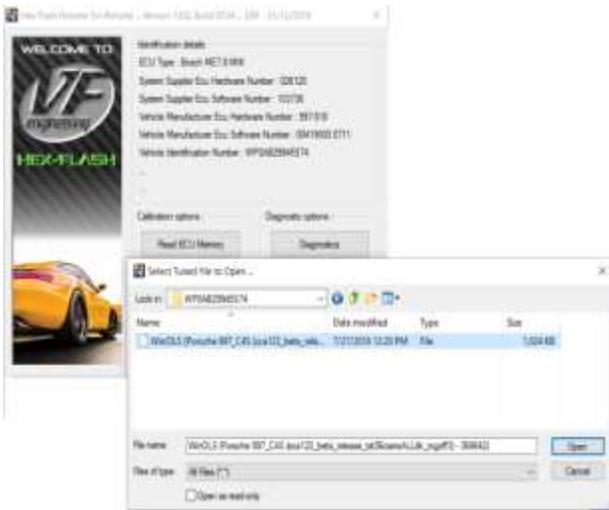
3) Click “Read ECU memory” and save your stock ECU file to your drive when prompted. **Do not** change the name of the file. See **Figure 16**.



↑ Figure 16

4) Zip and send your ECU file to technical@vf-engineering.com, together with your order instructions. A technician will email you a tuned file.

Note: For ME7.8 MIN, you will need to take a screenshot of your ECU Read/Program page (see **Figure 16**) and send it to technical@vf-engineering.com. If your version is unavailable, you will need to send in your ECU.



↑ Figure 17

5) Once received, you will note your tuned file name contains your full VIN number. Program this file in by selecting “Program ECU memory” and follow the prompts. See **Figure 17**.



↑ Figure 18

6) You will now see a progress bar for remaining time. See **Figure 18**.



↑ Figure 19

7) When programming is complete, follow the prompt and turn off ignition. Once the progress bar has reduced, ECU programming has finished. See **Figure 19**.

8) Start the vehicle to verify that it runs properly.

END.

Appendix

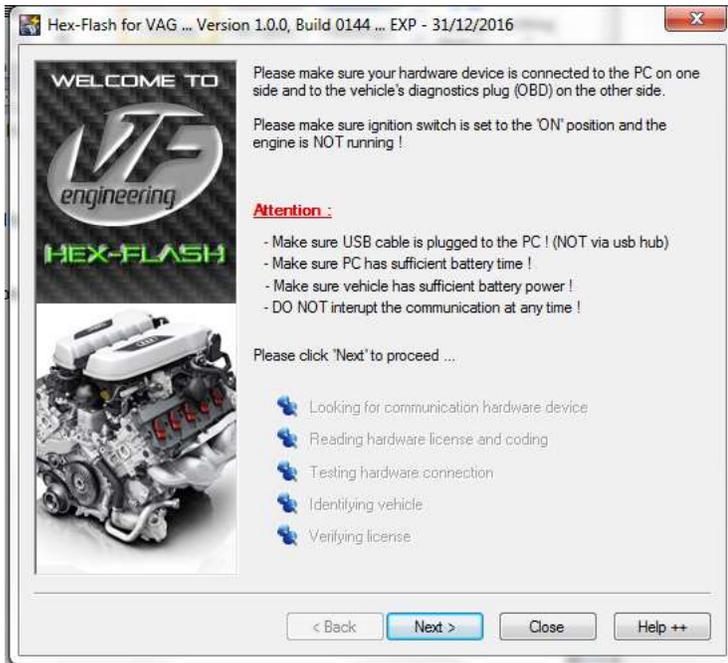
A1: Installing Your Software

Upon executing the application program, you may be prompted with the following security warning: “Do you want to allow program from unknown publisher to make changes to this computer?” Click “allow” to proceed with installation. You will receive a welcome message and be asked to click “next” to continue. Follow the prompted steps until you arrive at the screen shown in **Figure 14**.

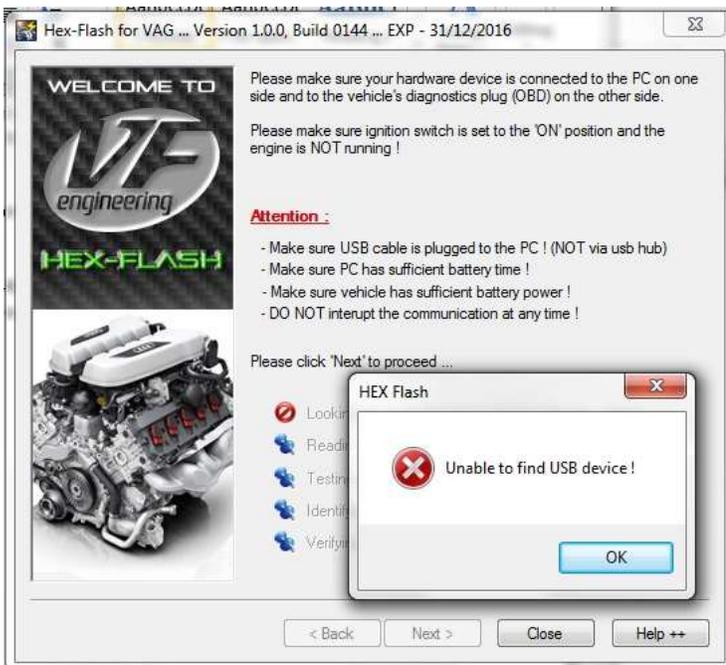
Note: You may encounter an issue with your driver where it does not auto-install and you will see the error message in **Figure 15**. You will need to download the “Hex Flash Device Driver” from www.vfengineering.com/hexflashdownloads/.

- The Hex Flash Device Driver is a supplemental driver to help in the event that the driver for your Hex Flash user programming tool does not self-install.
- Follow the instructions on the device driver setup program, then proceed with the Hex Tuning application.
- For Windows 8 and Windows 10 users, see section 1.1 on disabling driver signature enforcement/checking.

Upon completion, refer to the table of contents for instructions on flash tuning your specific vehicle.



↑ Figure 14



↑ Figure 15

A2: Disabling Driver Signature Checking in Windows 8 and 10

Windows security requires certain versions of drivers. To use your Hex Flash drivers, you will need to temporarily disable this security requirement in your windows settings which may require entering “setup” mode when powering your PC on.

Perform a Google search for the latest steps on “disabling driver enforcement in Window ...” choose your version.

You may wish to enable it after you have successfully completed the flashing process.

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A3: Manual Driver Installation

1) In "Control Panel" click on

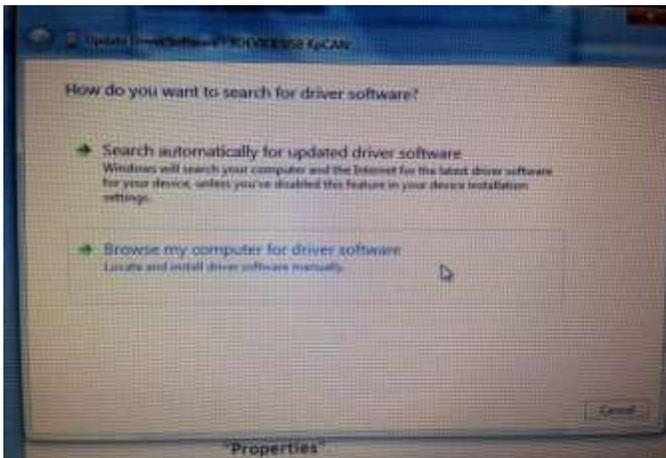
WIN8/10 - "View Devices and Printers"
in Hardware and Sounds heading

WIN7- "Device Manager"

2) Click "Browse my computer for driver software." See Figure 21.

3) Click "Let me pick from a list of device drivers on my computer." See Figure 22.

4) Click "Have Disk." See Figure 23.



↑ Figure 21



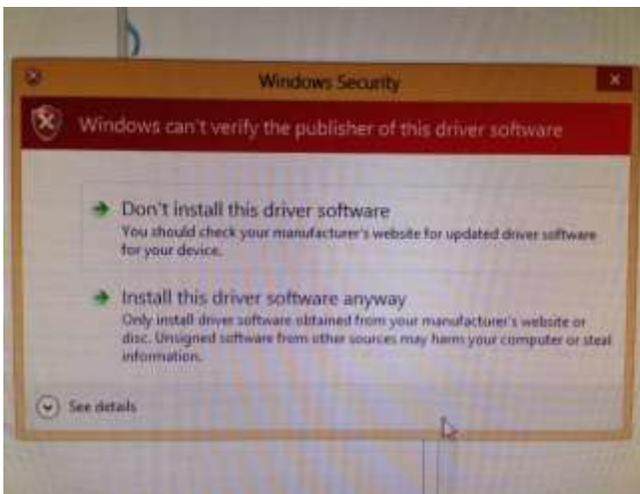
↑ Figure 22



↑ Figure 23



↑ Figure 24



↑ Figure 25

5) Click **“Browse”** in the new pop-up menu and point to location of driver as below:

C:\Program Files (x86)\HEX FLASH\driver

Then click **“ok.”**

Select **“XDEVICE USB KpCAN,”** then click **“Next.”**

6) The message in **Figure 24** will appear. Click **“Yes.”**

7) An additional warning message **“Windows can't verify the publisher of this driver software”** will appear. Click **“Install this driver software anyway.”** See **Figure 25**.

8) You should then see a successfully installed message.

9) Proceed to the Hex Flash application to begin the ECU read/write process.

A3: Troubleshooting Error Messages

“CreateProcess Failed; code 2” – You need to temporarily disable your antivirus software. See **Figure 26**.

“Version expired” – You need to download the newest version of Hex Flash from <http://www.vfengineering.com/hexflashdownloads/>.

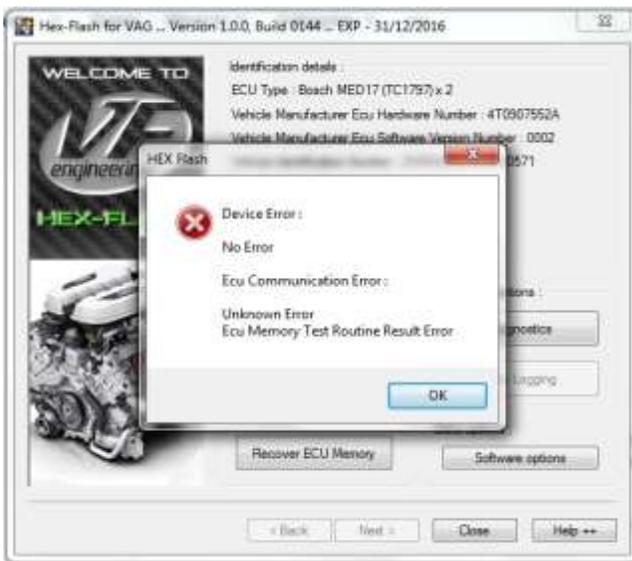
“Security locked” - You need to execute the application “xdcode.” Download the application from <http://www.vfengineering.com/hexflashdownloads/>.

“Ecu Memory Test Routine Result Error” – contact technical@vf-engineering.com for assistance. See **Figure 27**.

“Crypto routine error” - Your tuned file may have been corrupted by your email security routine. If your tune file has been sent to you unzipped, you may wish to request it be resent in a zipped format.



↑ **Figure 26**



↑ **Figure 27**