

## ECU FLASHING GUIDE

This guide contains general information about the ECU Flashing Procedure, basic steps and various details that will aid the users to safely and successfully reprogram their ECUs.

The process is fairly easy, but requires extended attention. Any mistake or missed step can result in an unusable vehicle. Please carefully follow this guide every time you're flashing an ECU. All ECUs are equally important.

**Attention: The flashing procedure can take from 5 minutes up to 1 hour, depending on the ECU you're flashing. The Nanocom should not be disconnected or moved. Movement can affect the connections, resulting in the interruption of the Flashing procedure, resulting in an unusable vehicle. As some ECU take longer to flash, we strongly recommend to connect a power supply to the battery to avoid voltage fluctuations.**

The Flashing Procedure must be done with the Ignition at Stage 2, Engine Off, doors closed. Switch off any auxiliary power consuming items, that includes the head, dome, roof lights, sound system and any other accessories.

### 1. INITIAL RESEARCH AND GATHERING THE REQUIRED INFORMATION

Before starting any Flashing Procedure you should inform yourself as best you can by doing meticulous research on the files you should download from genesis. This research can start from the forums, web search engines, even by physically locating the ECUs and reading the part numbers from the stickers. This is the most important part of the process. Know what you have and what you expect to achieve. Don't flash ECUs just for the fun of it.

The initial steps are to read and save the information of the part you're trying to flash (this will not apply if you are replacing an ECU, like for example, in the case of the Hitachi to AMK Compressor conversion). This can be done from the Nanocom:

Can-Bus -> ECU Information -> Module you want to read -> Save (blue/white diskette next the green right arrow).



The module information will be saved on the SD Card root as a .txt file. Always back-up the saved modules from the SD Card before starting the Flashing procedure. SD Cards are corruptible resulting in the loss of the initial information containing the modules numbers.

## 2. THE GENERAL ECU FLASHING PROCEDURE

Once you have gathered all the information regarding which exact flashing procedure you wish to carry out, you need to follow each of the steps below.

2.1. You need to login to Genesis and find the required ECU that you wish to flash. The login details on Genesis are the same as the Restricted Area on the Nanocom Site.

**Flash File Download**

Ecu:

Assembly Number:

Hardware Number:

AsBuilt Assembly: Not Available

Show  entries

Assembly	Hardware	Software
6H22-5A919-AB	6H22-14D392-AA	5H22-14D396-AA, 6H22-14D394-AB
6H22-5A919-AC	6H22-14D392-AA	5H22-14D396-AA, 6H22-14D394-AC
8H2M-5A919-AA	6H22-14D392-AA	5H22-14D396-AA, 8H2M-14D394-AA
8H2M-5A919-AB	6H22-14D392-AA	5H22-14D396-AA, 8H2M-14D394-AB
9H22-5A919-AA	6H22-14D392-AA	5H22-14D396-AA, 9H22-14D394-AA
9H2M-5A919-AA	6H22-14D392-AA	5H22-14D396-AA, 9H2M-14D394-AA

Showing 1 to 6 of 6 entries

For this guide, the Hitachi to AMK conversion procedure will be used as an example.

The information available specifies that there are 2 generations of AMK Compressors, therefore Genesis will contain multiple files available for download for a specific component. In our case, there are two.

Note the two file names marked in the above image.

- The **red one** is for the 1st AMK Compressor generation.
- The **blue one** is for the 2nd AMK Compressor generation.

This can be also seen from the assembly numbers. The **9H22** is the 1st Gen, the **9H2M** is the 2nd Gen

**Always start flashing with the 1st file, the red one. If that gives an error later on or a warning, then try the blue one.**

**But always flash the ECU with the red one first.**

On newer models, 2010+, the original files that came from the factory are highlighted as in the following example:

**Flash File Download**

Ecu:

Assembly Number:

Hardware Number:

AsBuilt Assembly: AH22-18K463-AB

Show  entries

Assembly	Hardware	Software
AH22-18K463-AA	6G9N-14C242-AE	AH22-14C080-AA, AH22-14C081-AA, AH22-14C083-AA, AH22-14C416-AA
AH22-18K463-AB	6G9N-14C242-AE	AH22-14C080-AB, AH22-14C081-AB, AH22-14C083-AA, AH22-14C416-AA
AH22-18K463-AC	6G9N-14C242-AE	AH22-14C080-AB, AH22-14C081-AC, AH22-14C083-AA, AH22-14C416-AA
IVAH22-18K463-BA	6G9N-14C242-AE	AH22-14C080-AB, AH22-14C081-BA, AH22-14C083-AA, AH22-14C416-AA
IVAH22-18K463-BB	6G9N-14C242-AE	AH22-14C080-AB, AH22-14C081-BB, AH22-14C083-AA, AH22-14C416-AA
IVAH22-18K463-BC	6G9N-14C242-AE	AH22-14C080-AB, AH22-14C081-BC, AH22-14C083-AA, AH22-14C416-AA
IVAH22-18K463-BD	6G9N-14C242-AE	AH22-14C080-AB, AH22-14C081-BD, AH22-14C083-AA, AH22-14C416-AA
IVAH22-18K463-CA	6G9N-14C242-AE	AH22-14C080-AB, AH22-14C081-CA, AH22-14C083-AA, AH22-14C416-AA
IVAH22-18K463-CB	6G9N-14C242-AE	AH22-14C080-AB, AH22-14C081-CB, AH22-14C083-AA, AH22-14C416-AA
IVAH22-18K463-CC	6G9N-14C242-AE	AH22-14C080-AB, AH22-14C081-CC, AH22-14C083-AA, AH22-14C416-AA
IVAH22-18K463-CD	6G9N-14C242-AE	AH22-14C080-AB, AH22-14C081-CD, AH22-14C083-AA, AH22-14C416-AA
IVAH22-18K463-CE	6G9N-14C242-AE	AH22-14C080-AB, AH22-14C081-CE, AH22-14C083-AA, AH22-14C416-AA

Showing 1 to 12 of 12 entries

2.2. Download the **red one**. Make sure that the name shown in the image above is the same with the name of the file you're clicking to download.

If those names are different, then you've selected the wrong category or you are viewing the "Land Rover Part Numbers". This can be fixed by clicking the "Display Ford Part Numbers" Icon.

The download procedure:

**Flash File Download**

Ecu:

Assembly Number:

Hardware Number:

AsBuilt Assembly:

Show  entries

Assembly

- 6H22-5A919-AB
- 6H22-5A919-AC
- 8H2M-5A919-AA
- 8H2M-5A919-AB
- 9H22-5A919-AA
- 9H2M-5A919-AA

Showing 1 to 6 of 6 entries

Assembly

Assembly: 9H22-5A919-AA A.K.A:

Successor: Predecessor:

Notes:

Hardware

Hardware: 6H22-14D392-AA A.K.A: RQT500170

Successor: Predecessor:

Software List

Software: 5H22-14D396-AA A.K.A: NNB500300

Successor: Predecessor:

File Name 5H22-14D396-AA File Type SBL

Software: 9H22-14D394-AA A.K.A:

Successor: Predecessor:

File Name 9H22-14D394-AA File Type EXE

1. Double click the Assembly number you need to download

2. A new detailed Window will appear. Press download.

2.3. Prepare the SD Card that you'll use with the SD Card App from the Restricted Area. **Beware that the APP will format the SD Card.** If you have valuable data on the SD Card, then just download the SD Card Files archive from the Restricted Area and copy the SBL Folder directly to the Root of the SD Card.

2.4. Once the SD Card is prepared, you need to extract/unzip the files downloaded from Genesis then copy the "Flash" Folder, directly on the root of the SD Card or into the BBS Folder. If it doesn't exist, you can create a BBS Folder where you can keep all the Flash Folders in order to keep the SD Card tidy and organized.

**Please make sure you do not use folder names longer than 8 characters in which you place the flash files**

2.5. Insert the SD Card into the Nanocom and connect the Nanocom to the vehicle.

2.6. Go to Can-Bus -> Flash Programming

2.7. In this Menu:

- > select "Open File"
- > open the "Flash" Folder
- > select "Info.enc"
- > ok -> Next

2.8. Strictly follow any prompts displayed by the Nanocom and the procedure should end successfully.

### 3. ERROR MESSAGES OR FAILED PROCEDURE

If for any reason the Flashing Procedure has been interrupted, do not attempt to start the vehicle. Simply turn the Ignition to stage 0, then back to Stage 2 twice, Engine off and retry the procedure.

If the Flashing Procedure ended successfully but there is an error or vehicle issue, then re-check if the Flashed files are the ones required for your vehicle. Most likely you've flashed the wrong files for that specific part. In this case, do the research again and find the correct files for the required part.

If the procedure went wrong and you see no way to recover the ECU, then please see the forum for similar situations or create a new post.