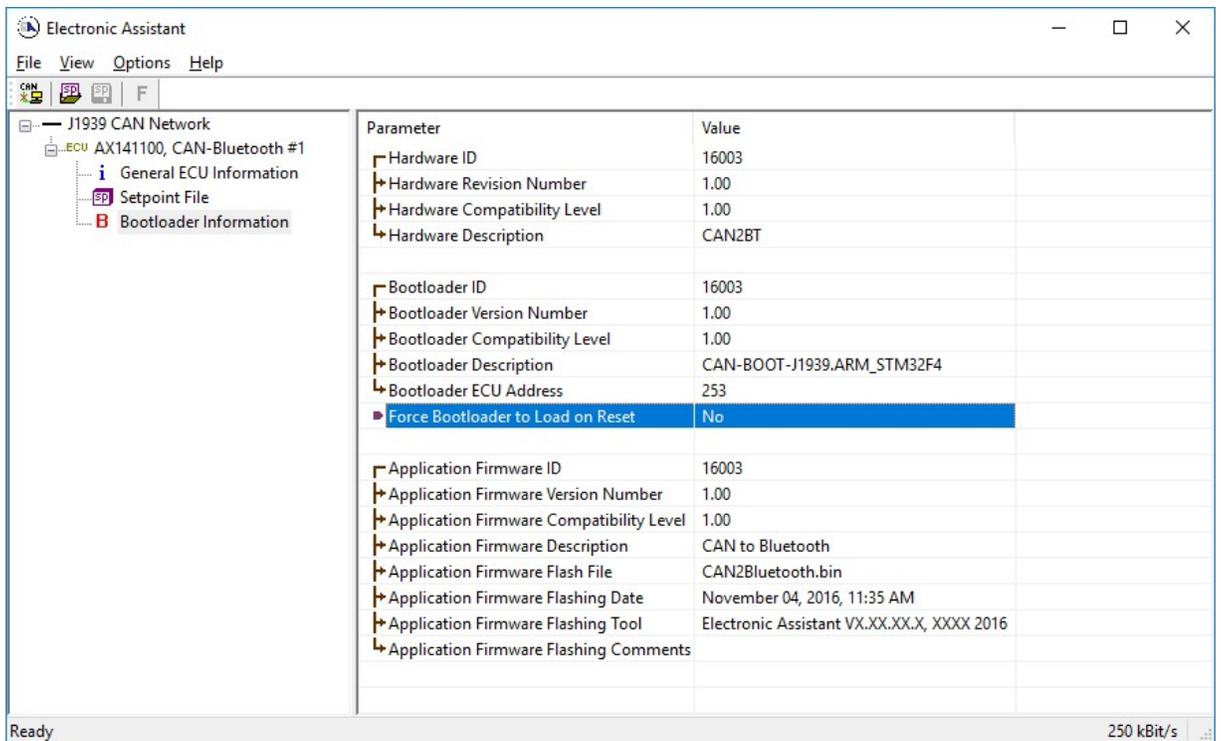# AN702 – Reflashing Firmware Through Electronic Assistant

Introduction

The J1939 devices can be upgraded with new application firmware using the Bootloader Information section. This details the simple step-by-step instructions to upload new firmware provided by Axiomatic onto the unit via CAN, without requiring it to be disconnected from the J1939 network.

Bootloader

1. When EA first connects to the ECU, the Bootloader Information section will display the following information. To use the bootloader to upgrade the firmware running on the ECU, change the variable "Force Bootloader to Load on Reset" to Yes.
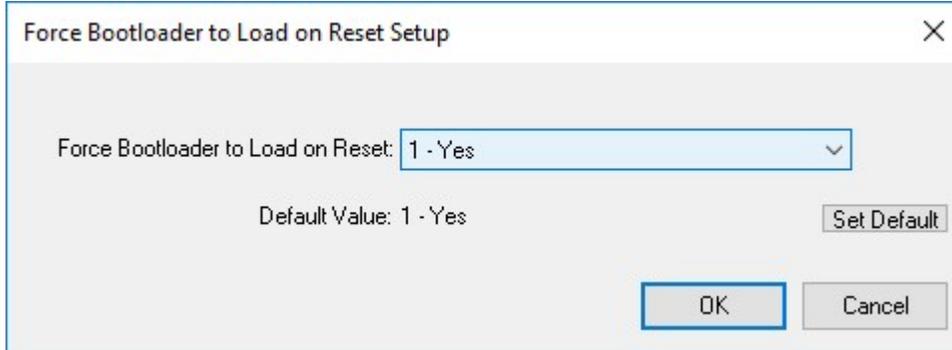
2. When the prompt box asks if you want to reset the ECU, select Yes.

3. Upon reset, the ECU will no longer show up on the J1939 network as an AXnnnnnn device but rather as J1939 Bootloader #1 (or J1939 Bootloader #2, depending on which CAN interface is being used for reflashing).
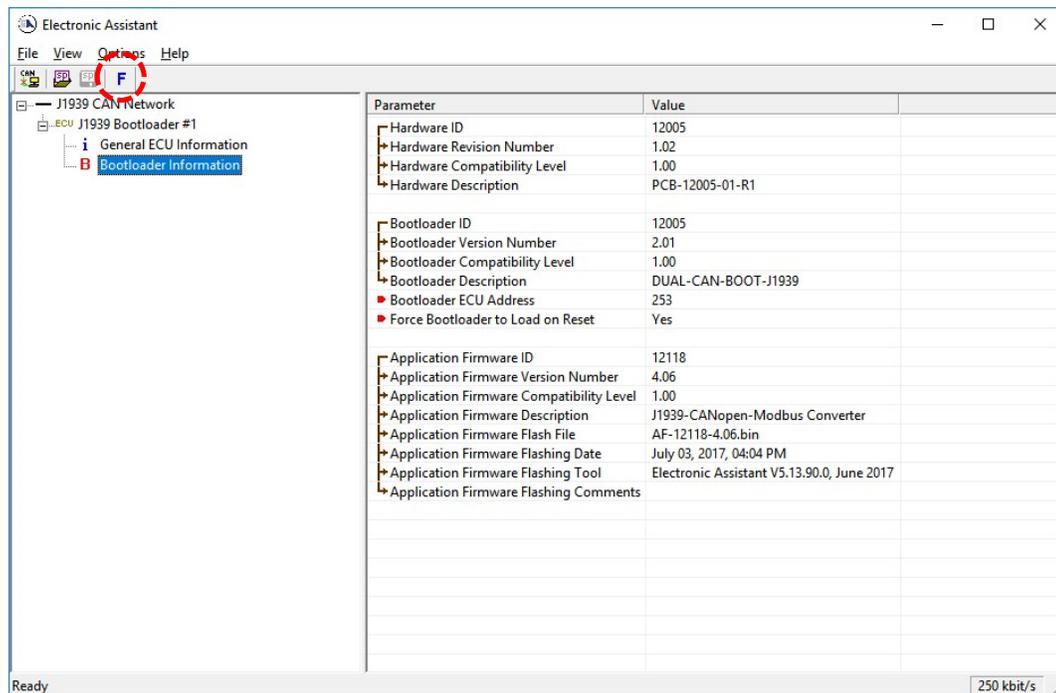
4. When the Bootloader Information section is selected, the same information is shown as when it was running the AXnnnnnn firmware (Application Firmware ID nnnnn), but in this case the Flashing feature has been enabled.

5. Select the Flashing button and navigate to where the .bin file was saved, sent by Axiomatic. (Note: only binary (.bin) files can be flashed using the EA tool).
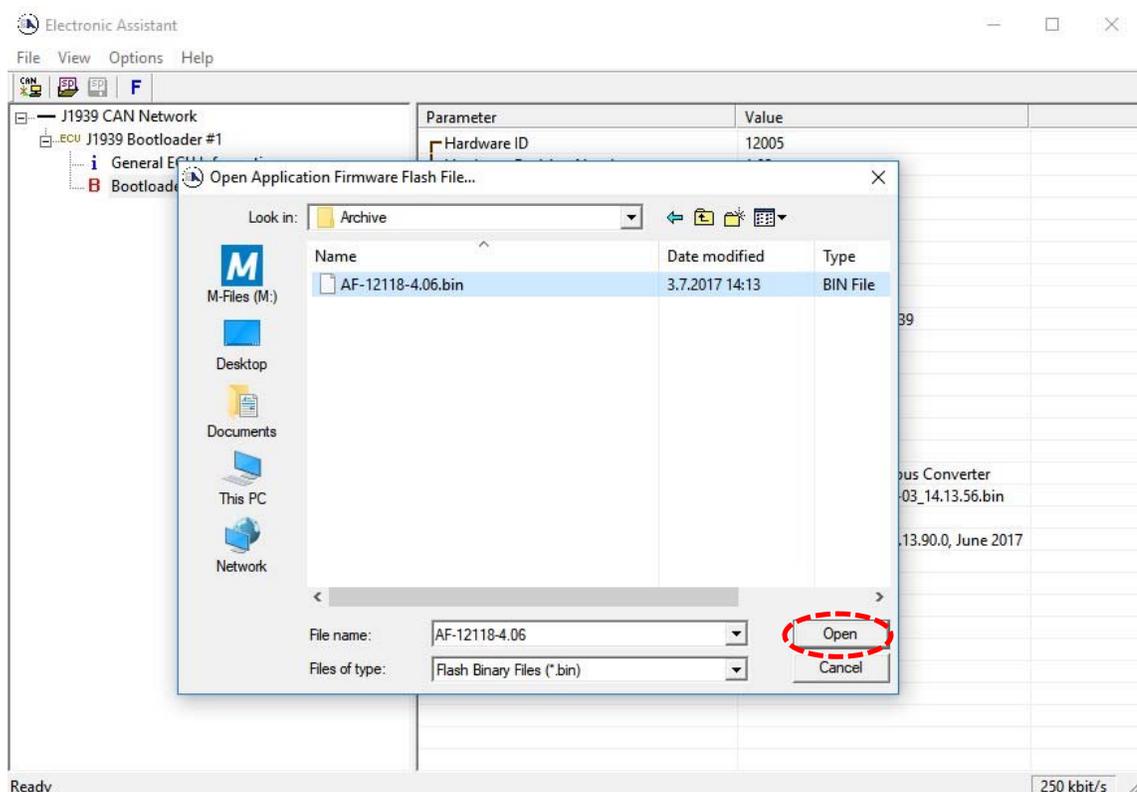

6. Once the Flash Application Firmware window opens, enter comments such as "Firmware uploaded by [Name]" if you so desire. This field can be left blank.

Note: The file does not have to be date/time stamped, as this is done automatically by the EA tool when the new firmware is installed. Please note, that it is always good practice to select the "Erase All ECU Flash Memory" option. This will make sure that the whole application Flash is erased, and proper default settings are written to Flash. Please also note, that selecting this option will erase all settings previously programmed to the Protocol Converter. Thus, the settings should be saved to PC before reprogramming the hardware.

AN702

Version 1.00
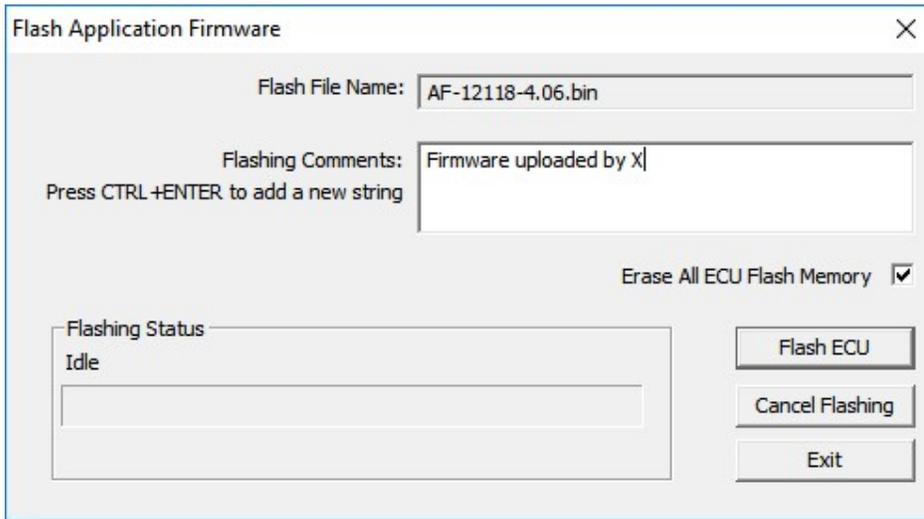
7. A progress bar will show how much of the firmware has been sent as the upload progresses. The more traffic there is on the J1939 network, the longer the upload process will take.
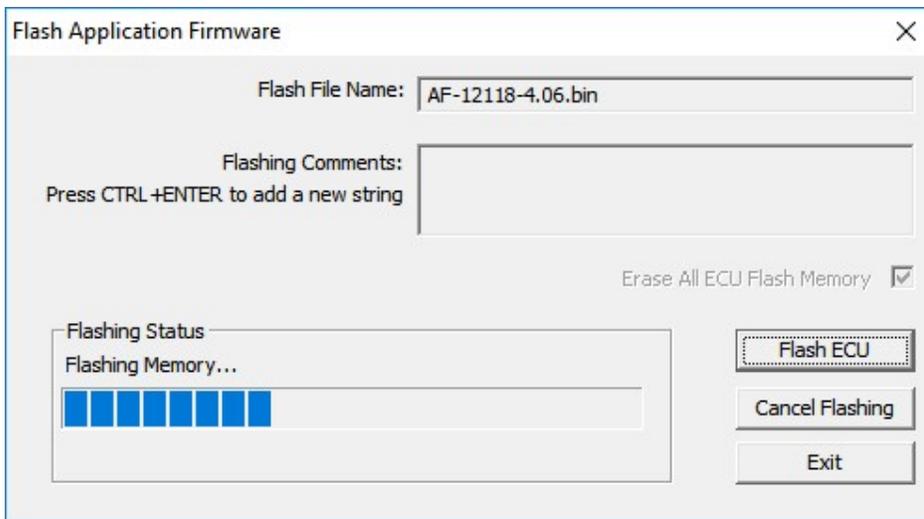
8. Once the firmware has finished uploading, a message will popup indicating the successful operation. Select to reset the ECU, the new version of the AXnnnnnn application will start running, and the ECU will be identified as such by EA. The next time the ECU is power cycled, the AXXXXXXX application will run rather than the bootloader function.

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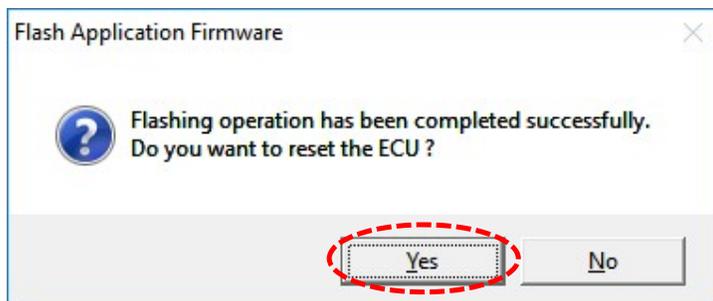
Version	Date	Author	Comments
1.00	March 25, 2020	Greg Laronde / Sue Thomas	