AIM Infotech

Haltech E8-E11V2

Release 1.02

1 Supported models

This tutorial explains how to connect Haltech ECUs to AIM devices. Supported ECU models are:

- Haltech E8;
- Haltech E11v2.

2 How to switch your ECU from serial to the CAN Bus

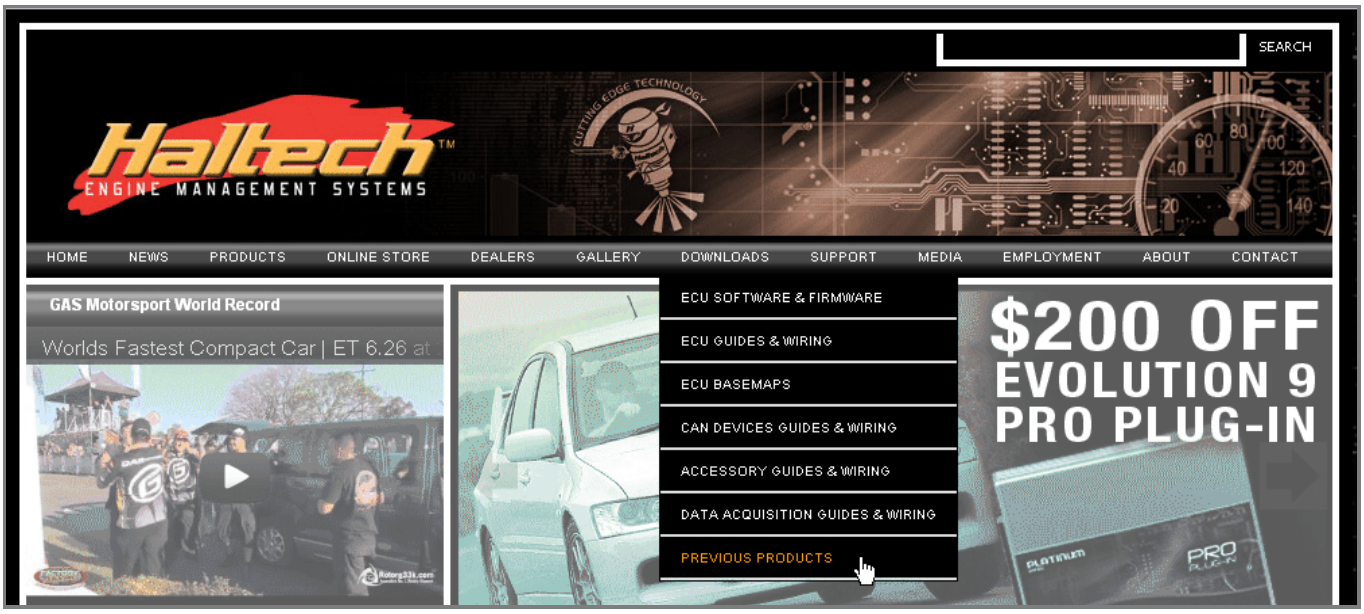
E8 and E11v2 ECU originally communicated through the serial protocol but from “build 32” firmware version onward, CAN Bus communication protocol is supported. This last protocol is more precise and the transmission is faster. You can make your ECU communicating through the CAN bus using Haltech “Halwin” software.

Warning: before attempting this procedure disconnect any igniter or power supply from ignition coils. Moreover ensure that your ECU is turned on but the engine is not running.
ECU outputs should turn to “not connected” safer state and 34 pin connector is to be unplugged before beginning this operation.

Please refer to the ECU manufacturer for any further information concerning firmware/software setting.

2.1
How to install Haltech “Halwin” software

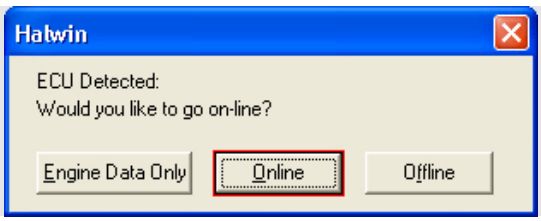
You can download “Halwin” software from Haltech website following this path: “Download –> Previous products” as shown below.



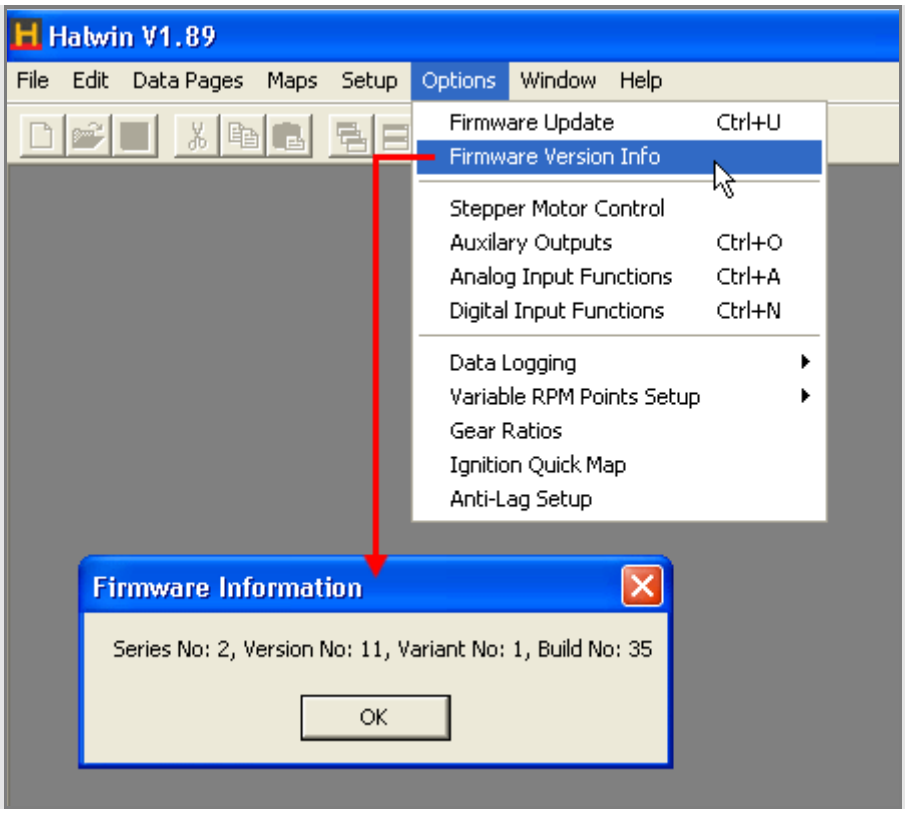
Once reached the desired page select your ECU model (“E8” or “E11”) and the related “Built” firmware version. Download it and follow the installation wizard.

2.2
Erasing the current firmware

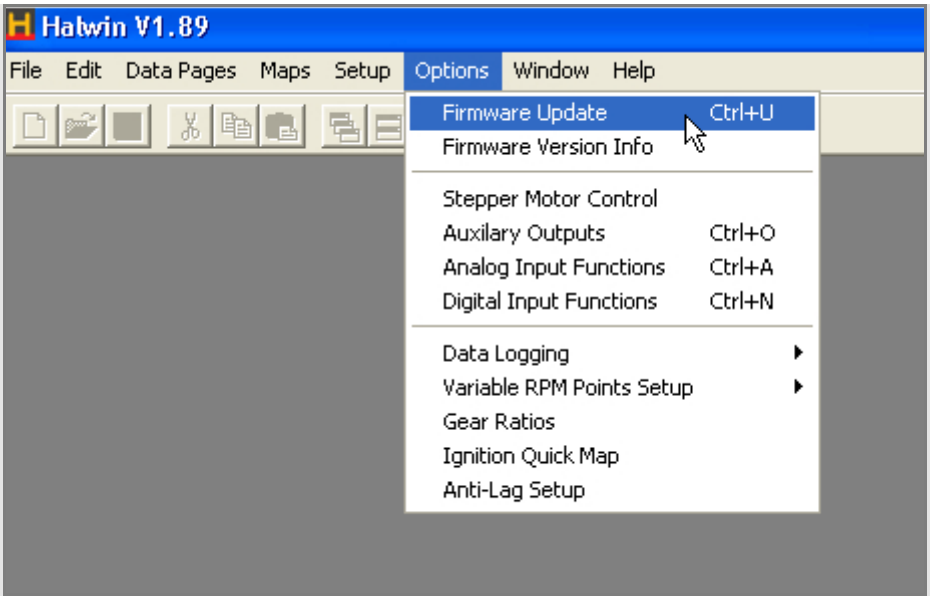
Erasing the current firmware version is the first thing to do. Power on your ECU **but** do not start the engine of your vehicle. Start the PC, run “Halwin” software and go online as shown here below.



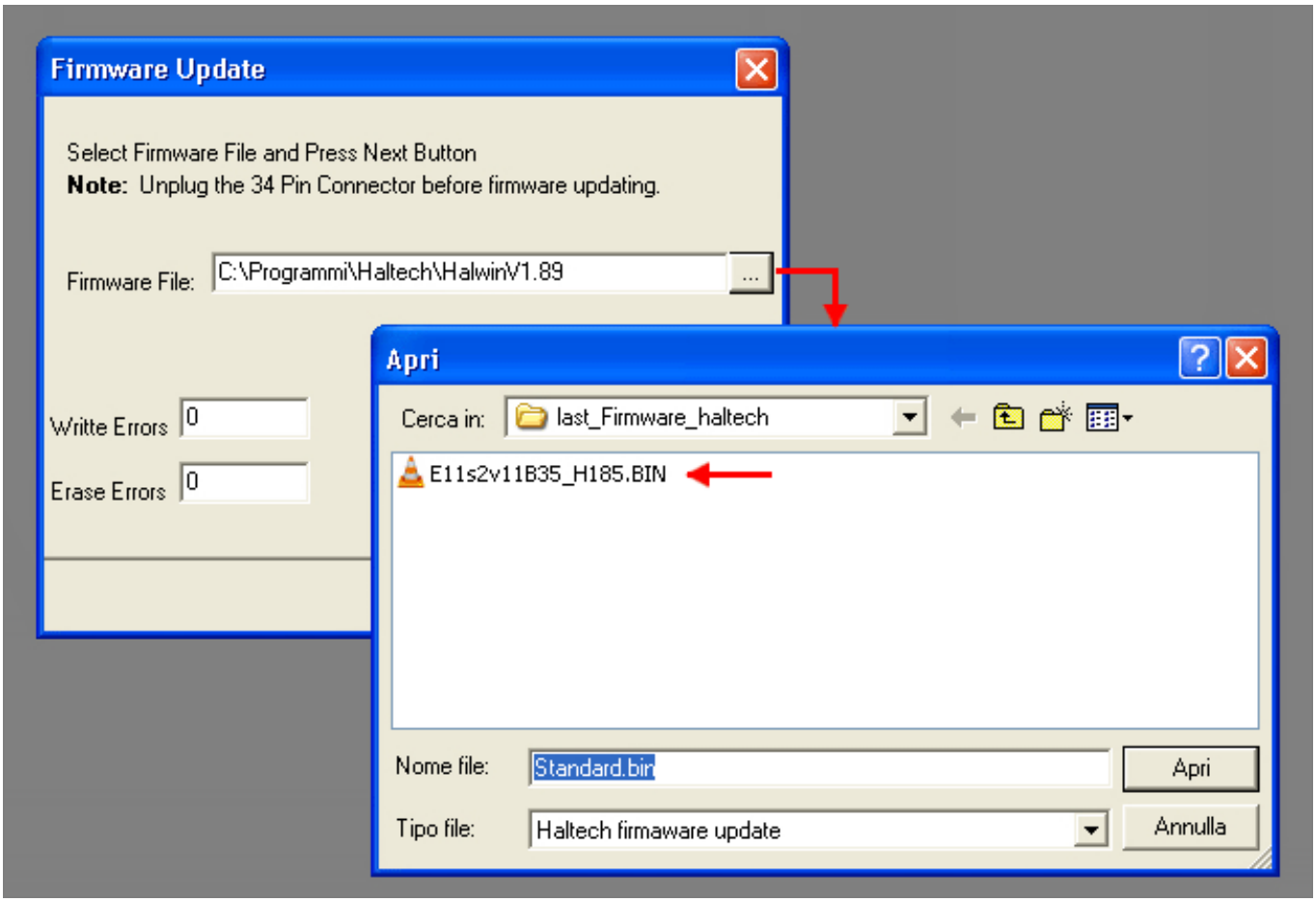
It is now important that you take note of your current firmware version. Follow this path: “Options –> Firmware Version Info”.



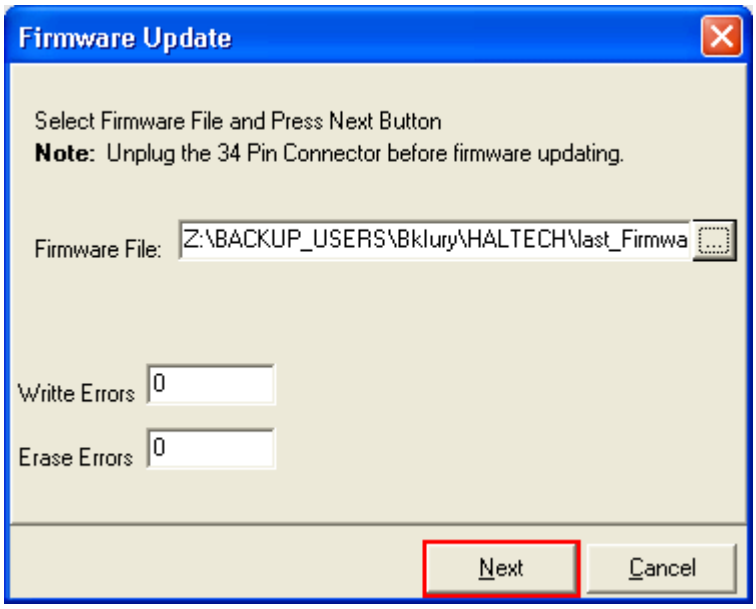
To start firmware deletion follow this path: “Options –>Firmware Update”.



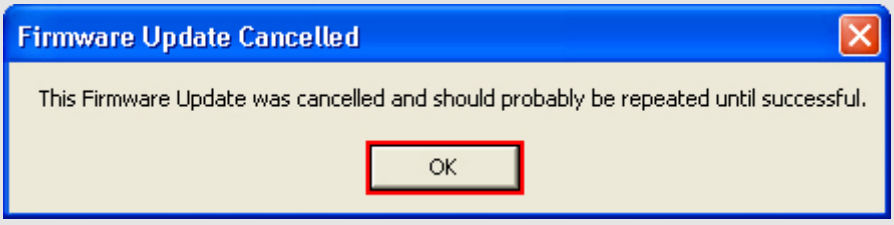
Browse your PC to reach Haltech firmware folder and select the ".BIN" file as shown below.



Click "Next".

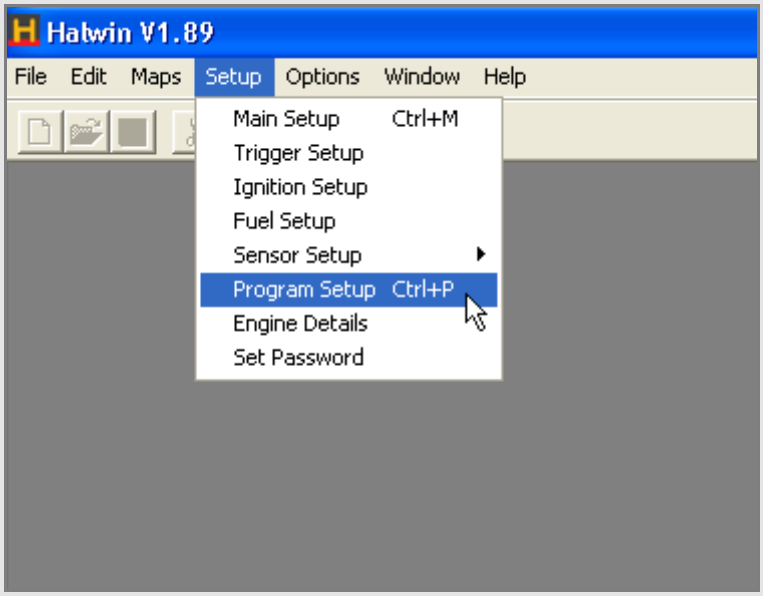


Click “OK”



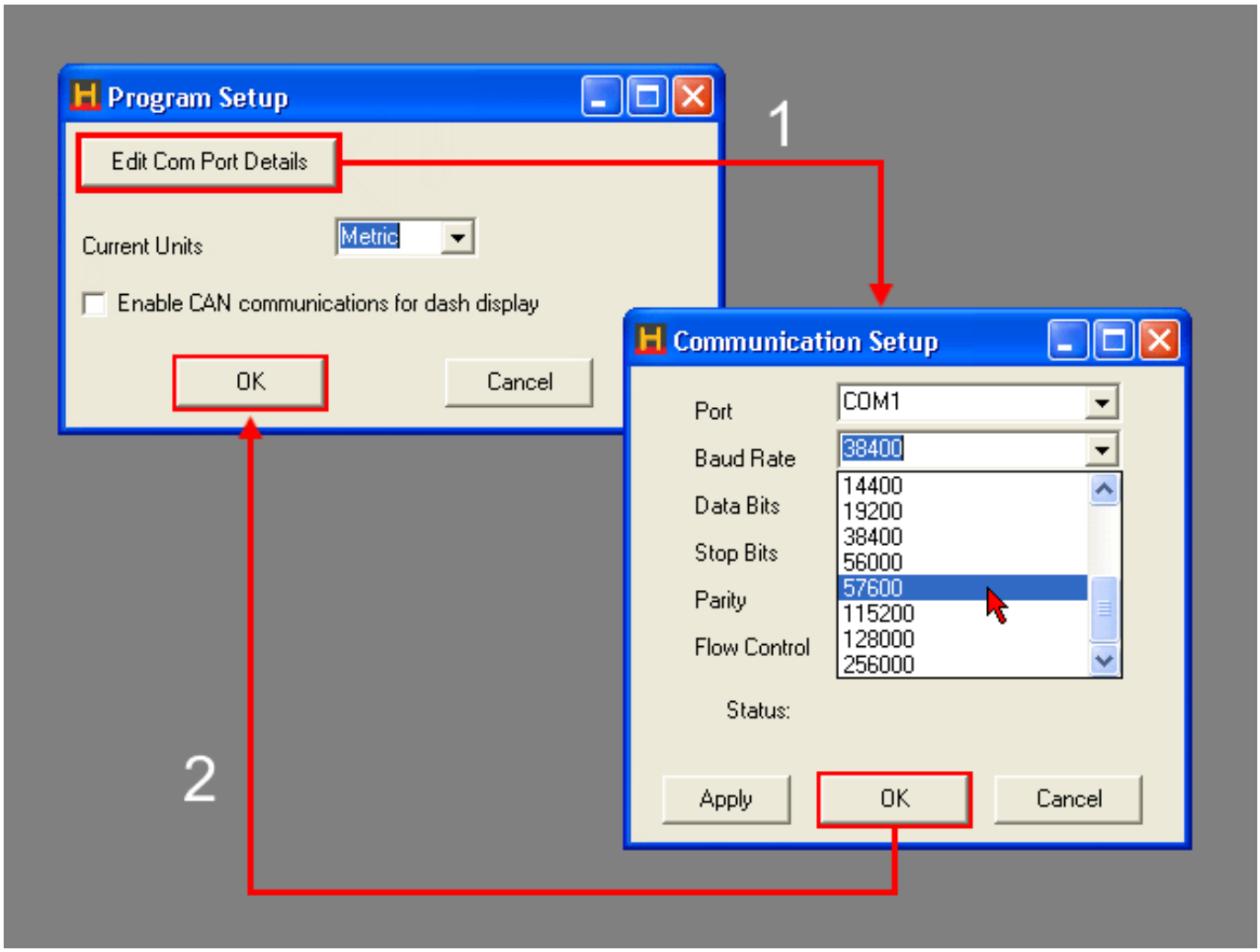
2.3
Setting new baud rate value

When the current firmware version has been erased it is necessary to set the baud rate parameter. Follow this path: “Setup –>Program Setup” as shown below.



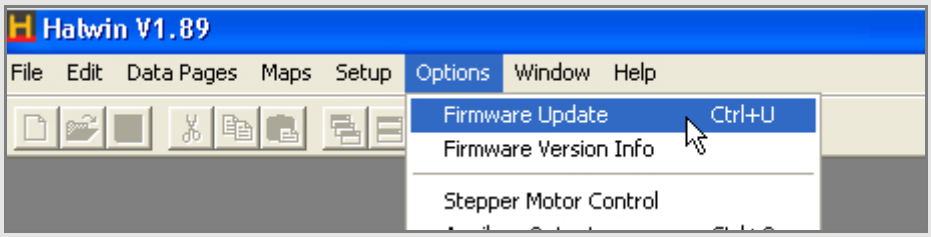
When “Program Setup” panel appears:

- click “Edit Com Port Details” (follow arrow “**1**”);
- “Communication Setup” panel appears: change the selected Baud rate from 38400 to **57600**;
- click “OK”;
- the software comes back to “Program Setup” panel (follow arrow “**2**”): click “OK”.

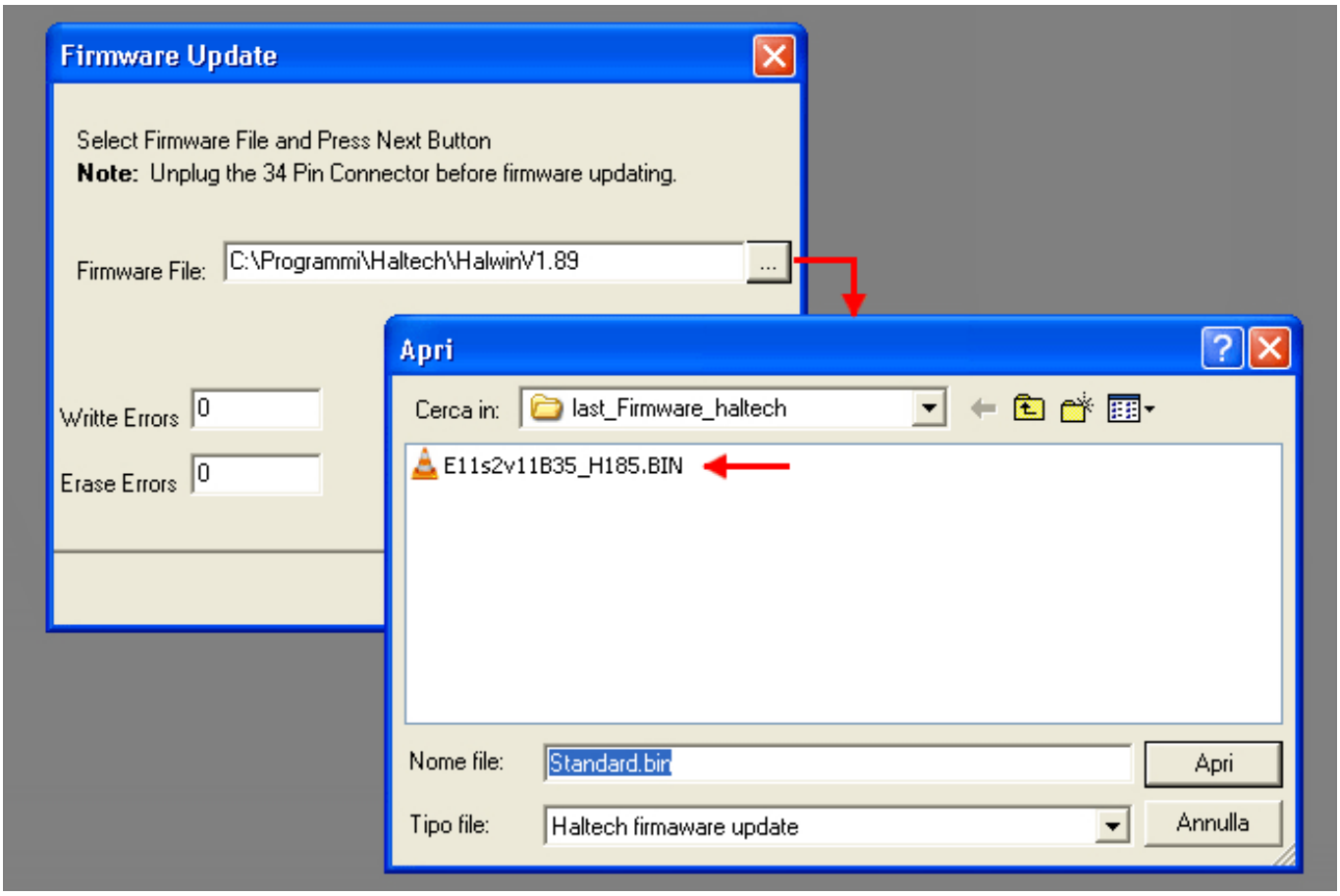


2.4
Loading the new firmware

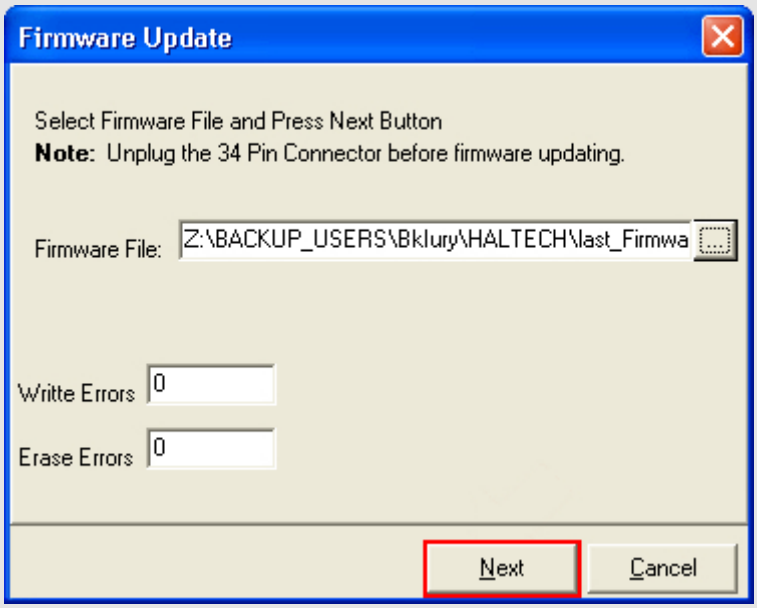
When the new baud rate has been set you have to load the new firmware. First of all turn the ignition key off and then on again to reset the ECU. Then follow this path: “Options –> Firmware Update” as shown below.



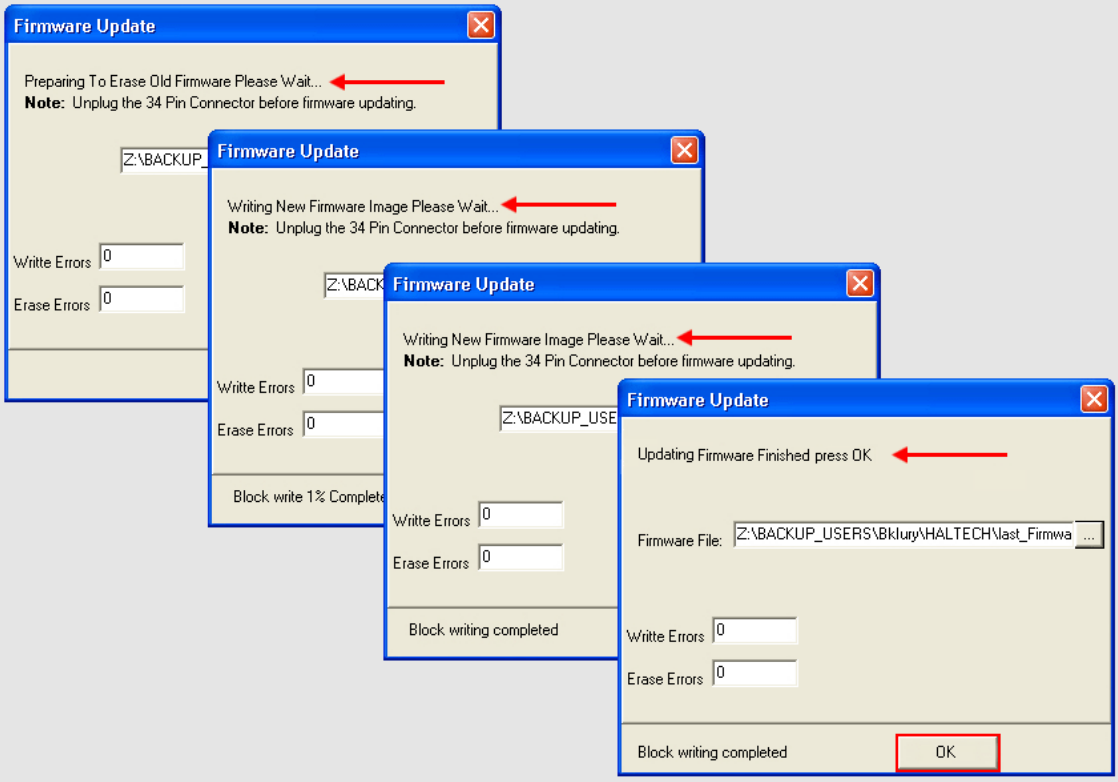
Browse your PC to reach Haltech firmware folder and select the “.BIN” file as shown below.



When the firmware file has been selected press “Next”

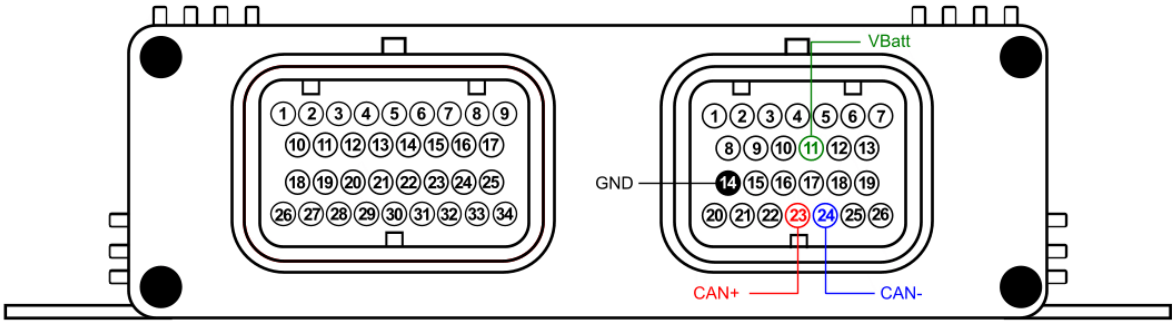


A sequence of four panels appears. Wait, as indicated by the panels, until the last one says “Updating Firmware Finished press OK” and press “OK” as shown here below.



3 Wiring connection

Haltech E8 and E11v2 ECUs are equipped with 2 male connectors: a 34 pins connector on the left and a 26 pins one on the right as shown here below.



When the firmware has been updated – see chapter 1 – the ECU communicates through the CAN bus on the 26 pins connector. This ECU needs GND and Vbatt connection too. Please refer to your AIM device pinout to connect them. ECU connectors pinout and connection table are shown below.

26 pins connector pin	**Pin function**	**AIM cable label**
11	VBatt	VBatt
14	GND	GND
23	CAN+	CAN+
24	CAN-	CAN-

4 AIM device configuration

Before connecting the ECU to AiM device set this up using AiM Race Studio software. The parameters to select in the device configuration are:

- ECU manufacturer “HALTECH”
- ECU Model “E11v2 (Suppressed)”;

5
Available channels

Channels received by AIM devices connected to "Haltech" "E11v2 (Suppressed)" protocol are:

ID	CHANNEL NAME	FUNCTION
ECU_1	HALTECH_RPM	RPM
ECU_2	HALTECH_MAP_3BAR	Barometric manifold air pressure
ECU_3	HALTECH_TPS	Throttle position sensor
ECU_4	HALTECH_LOAD	Engine load
ECU_5	HALTECH_WATER_TEMP	Engine cooling temperature
ECU_6	HALTECH_INTAKE_AIR_TEMP	Intake air temperature
ECU_7	HALTECH_BARO_PRESS	Barometric pressure
ECU_8	HALTECH_ENG_RUNN_SEC	Engine running in seconds
ECU_9	HALTECH_AIR_FUEL_MIX	Air fuel mixture
ECU_10	HALTECH_BATT_VOLT	Battery voltage
ECU_11	HALTECH_ROAD_SPEED	Speed
ECU_12	HALTECH_INJ_TIME_ADV	Advanced injection time
ECU_13	HALTECH_CALC_ADV	Calculated advance
ECU_14	HALTECH_INJ_ADV	Injection advance
ECU_15	HALTECH_SEC_INJ_TIME	Injection time in seconds
ECU_16	HALTECH_SEC_INJ_ADV	Injection advance in seconds
ECU_17	HALTECH_INJ_DUTY	Injection duty
ECU_18	HALTECH_SEC_INJ_DUTY	Injection duty in seconds
ECU_19	HALTECH_GEAR	Engaged gear