



AiM Infotech

Emerald K3 ECU

Release 1.02



ECU

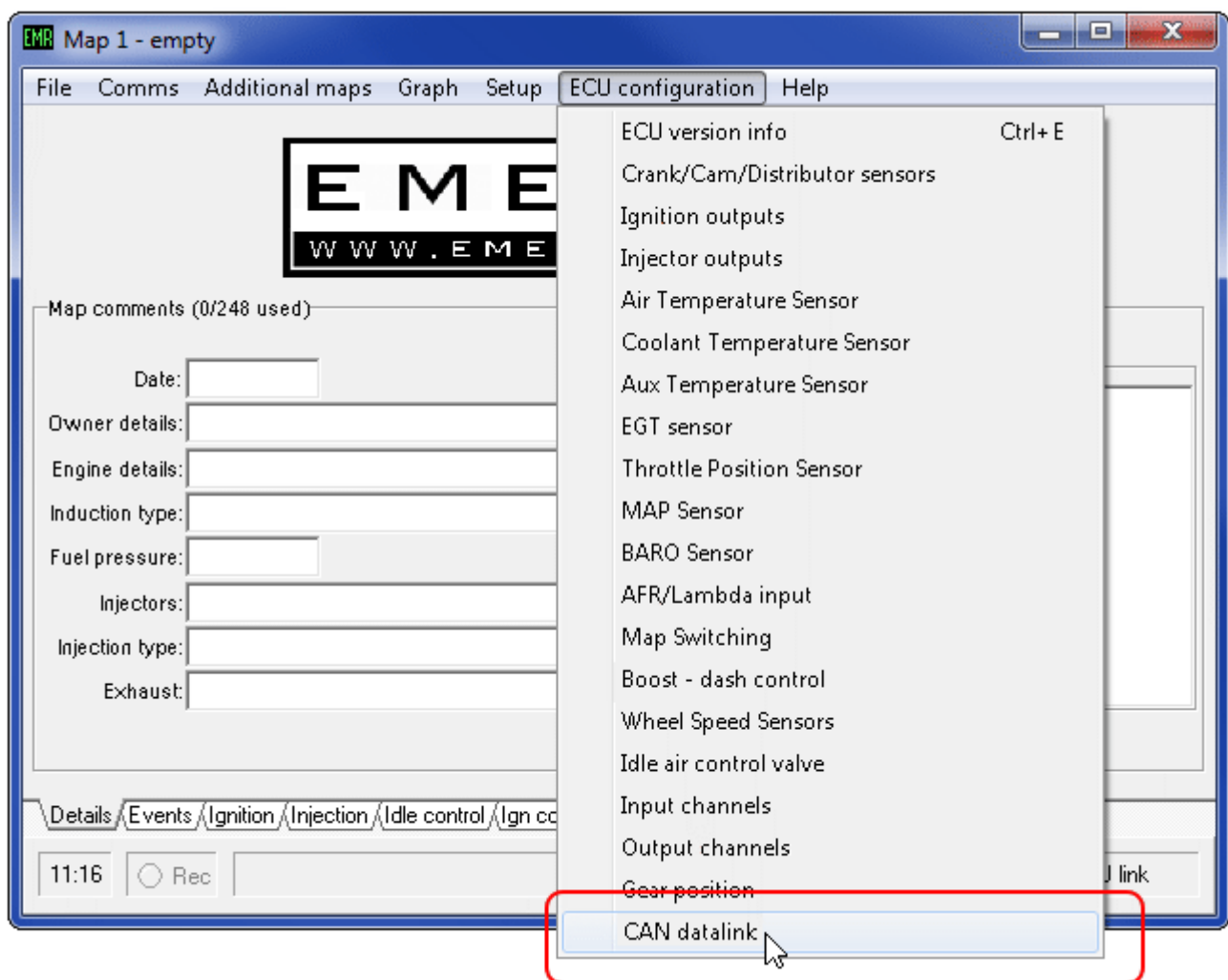
This tutorial explains how to connect Emerald K3 ECU to AiM devices.

# 1

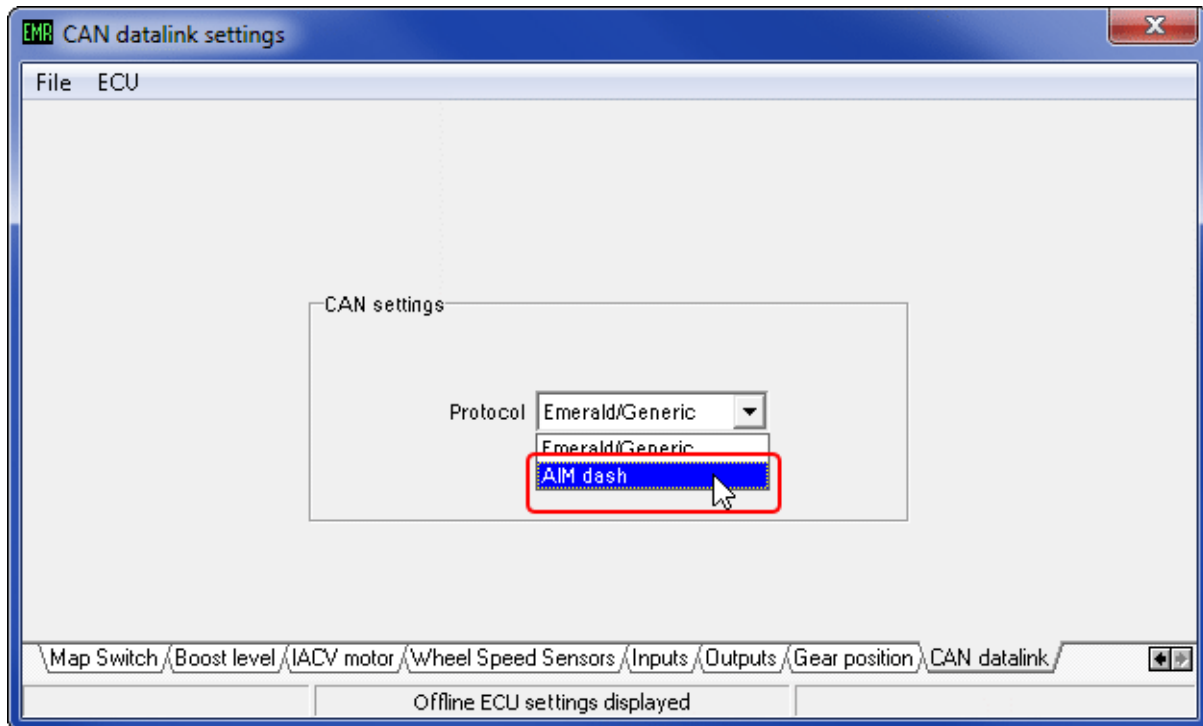
## Software setup

To connect Emerald K3 ECU to AiM devices a software setup is needed. Run Emerald K3 software and follow this path:

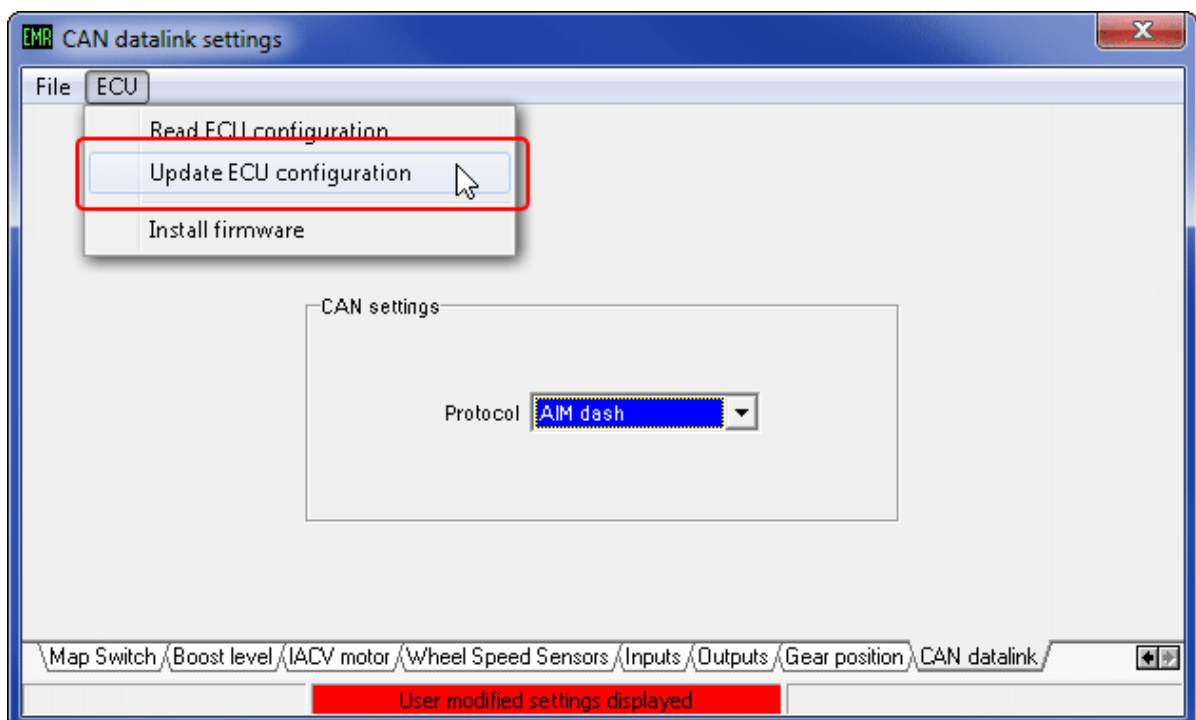
- ECU Configuration -> CAN datalink



- "CAN datalink settings" panel appears: set it to "AiM dash".



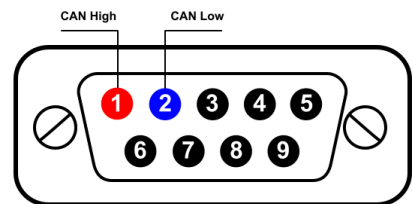
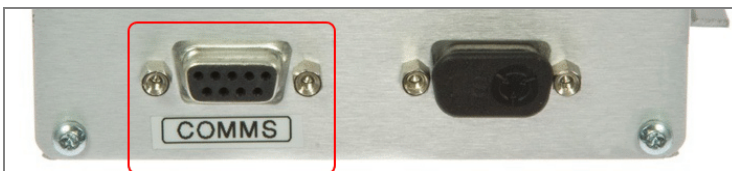
- follow the path "ECU -> Update ECU configuration"



## 2

# Connection to AiM devices

Emerald K3 ECU features a bus communication protocol based on CAN. Rear on the ECU are two DB9 connectors: AiM devices use the one on the left labelled "COMMS". Here below you see DB9 connector on the left, its pinout on the right and the connection table below.



### DB9 connector pin

### Pin function

### AiM cable

1

CAN High

CAN+

2

CAN Low

CAN-

**Please note:** Emerald K3 ECU comes with a programming cable. The images here below show the cable plugged in on the left and an example of cable on the right.



## 3

# AiM device configuration

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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 "Emerald"
- ECU Model "K3"

## 4

# Available channels

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Channels received by AiM devices connected to "Emerald" "K3" protocol are:

ID	CHANNEL NAME	FUNCTION
ECU_1	K3_RPM	RPM
ECU_2	K3_SPEED	Speed
ECU_3	K3_OILPRESS	Oil pressure
ECU_4	K3_OILTEMP	Oil temperature
ECU_5	K3_ECT	Engine coolant temperature
ECU_6	K3_FUELPRESS	Fuel pressure
ECU_7	K3_BATTVOLT	Battery supply
ECU_8	K3_TPS	Throttle position sensor
ECU_9	K3_MAP	Manifold air pressure
ECU_10	K3_AIRCHARGETEMP	Air charge temperature
ECU_11	K3_EXHTEMP	Exhausted gas temperature
ECU_12	K3_LAMBDA	Lambda value
ECU_13	K3_FUELTEMP	Fuel temperature
ECU_14	K3_GEAR	Engaged gear
ECU_15	K3_ERRORFLAG	Error flag