

AiM Infotech

Electromotive  
TEC-GT, TEC S, TEC M ECUs

Release 1.01

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ECU



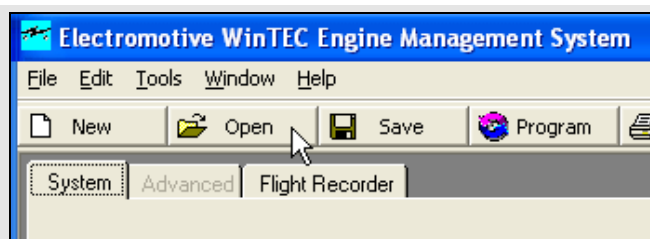
This tutorial explains how to connect Electromotive TEC GT, TEC S and TEC M ECUs to AiM devices.

# 1

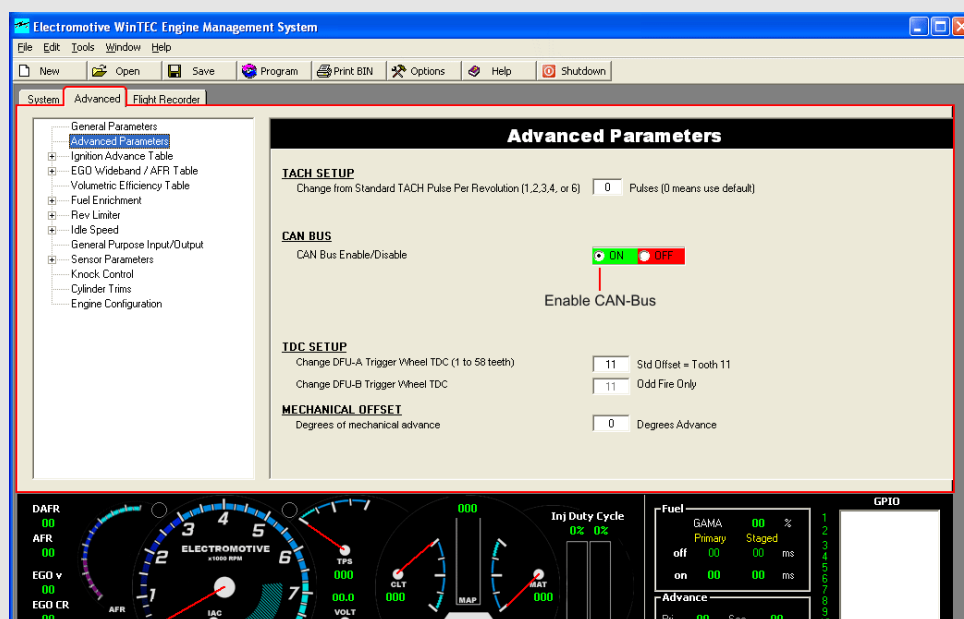
## CAN-mode setting

These Electromotive ECUs communicates using the CAN bus. Before attempting any communication between Electromotive ECU and AiM devices, it is necessary to enable CAN export data on your ECU. This setting is disabled by default. Here is explained how to change it.

- open WinTEC software<sup>1</sup> and click "Open" button to load your file as shown here below.



- Select "Advanced" layer and enable CAN-Bus.



<sup>1</sup> You can download it from Electromotive website

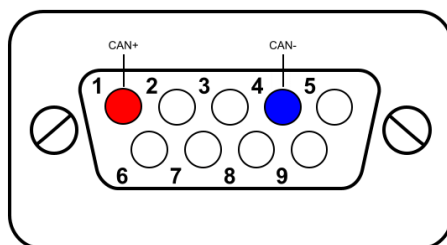
## 2

# CAN Communication setup

Electromotive TEC GT, TEC S and TEC M ECUs have the CAN bus on its DB9 rear connector highlighted here below.



Here follows DB9 pinout as well as connector table.



### DB9 connector pin

1

4

### Pin function

CAN High

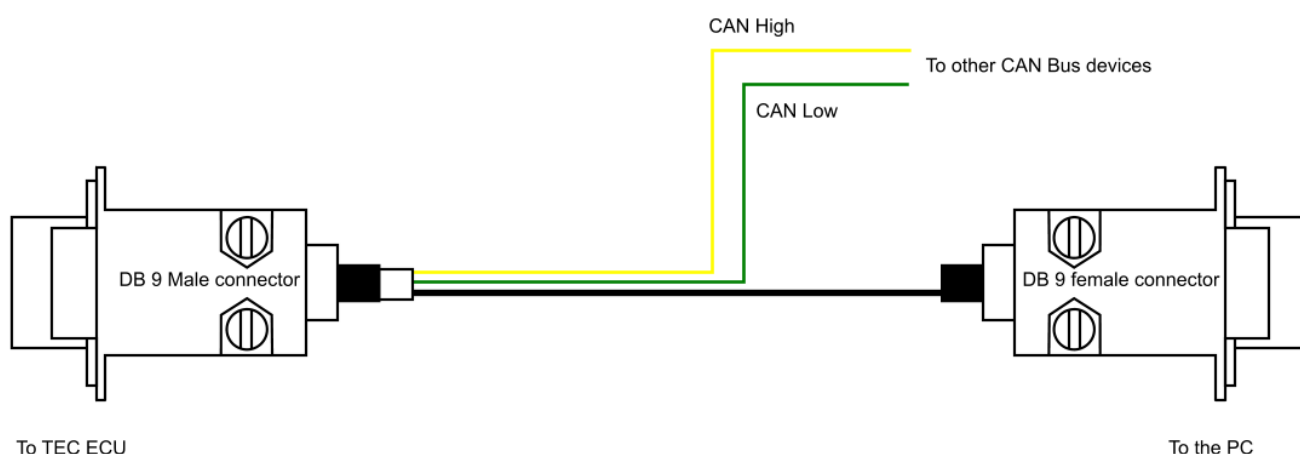
CAN Low

### AiM cable label

CAN+

CAN-

For a better connection we would suggest you to buy **from Electromotive** the dedicated optional CAN breakout cable whose drawing is here below.



### 3

## AiM Logger configuration

Before connecting the ECU to AiM device, set it up as follows:

- Run Race Studio 2 software and follow this path:
- Device Configuration → Select the device you are using;
- select the configuration or press "New" to create a new one;
- select ECU manufacturer "ELECTROMOTIVE" and ECU Model "CAN Bus"
- transmit the configuration to the device pressing "Transmit".

## 4

## Available channels

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Channels received by AiM devices connected to Electromotive "CAN bus" protocol are:

ID	CHANNEL NAME	FUNCTION
ECU_1	ELMCAN_RPM	RPM
ECU_2	ELMCAN_MAP	Manifold air pressure
ECU_3	ELMCAN_TPS	Throttle position sensor
ECU_4	ELMCAN_ADVANCE	Spark advance
ECU_5	ELMCAN_SEC_ADV	Secondary advance
ECU_6	ELMCAN_PRIMARY_PW	Primary power
ECU_7	ELMCAN_SEC_PW	Secondary power
ECU_8	ELMCAN_GAMA	Fuel curve angular coefficient
ECU_9	ELMCAN_EGO_VOLT	Lambda voltage
ECU_10	ELMCAN_KNOCK	Knock sensor
ECU_11	ELMCAN_ACTUAL_AFR	Actual Air/Fuel ratio
ECU_12	ELMCAN_DESIRED_AFR	Desired Air/Fuel ratio
ECU_13	ELMCAN_EGO_CORR	Lambda correction
ECU_14	ELMCAN_KNK_RETARD	Knock retard
ECU_15	ELMCAN_ECT	Engine cooling temperature
ECU_16	ELMCAN_MAT	Manifold air temperature
ECU_17	ELMCAN_BATV	Battery supply
ECU_18	ELMCAN_IAC_POS	Idle air control position
ECU_19	ELMCAN_IAC_DIR	Idle air control direction
ECU_20	ELMCAN_SPEED	Vehicle speed
ECU_21	ELMCAN_INJCTR_DC	Injection control DC
ECU_22	ELMCAN_GPIO1	Custom Channel 01
ECU_23	ELMCAN_GPIO2	Custom Channel 02
ECU_24	ELMCAN_GPIO3	Custom Channel 03
ECU_25	ELMCAN_GPIO4	Custom Channel 04



ECU_26	ELMCAN_GPIO5	Custom Channel 05
ECU_27	ELMCAN_GPIO6	Custom Channel 06
ECU_28	ELMCAN_GPIO7	Custom Channel 07
ECU_29	ELMCAN_GPIO8	Custom Channel 08
ECU_30	ELMCAN_GPIO9	Custom Channel 09
ECU_31	ELMCAN_GPIO10	Custom Channel 10
ECU_32	ELMCAN_GPIO11	Custom Channel 11
ECU_33	ELMCAN_GPIO12	Custom Channel 12
ECU_34	ELMCAN_GPIO13	Custom Channel 13
ECU_35	ELMCAN_GPIO14	Custom Channel 14
ECU_36	ELMCAN_GPIO15	Custom Channel 15
ECU_37	ELMCAN_GPIO16	Custom Channel 16