



AiM Infotech

Electromotive TEC-GT, TEC S, TEC M ECUs

Release 1.02



ECU



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

1

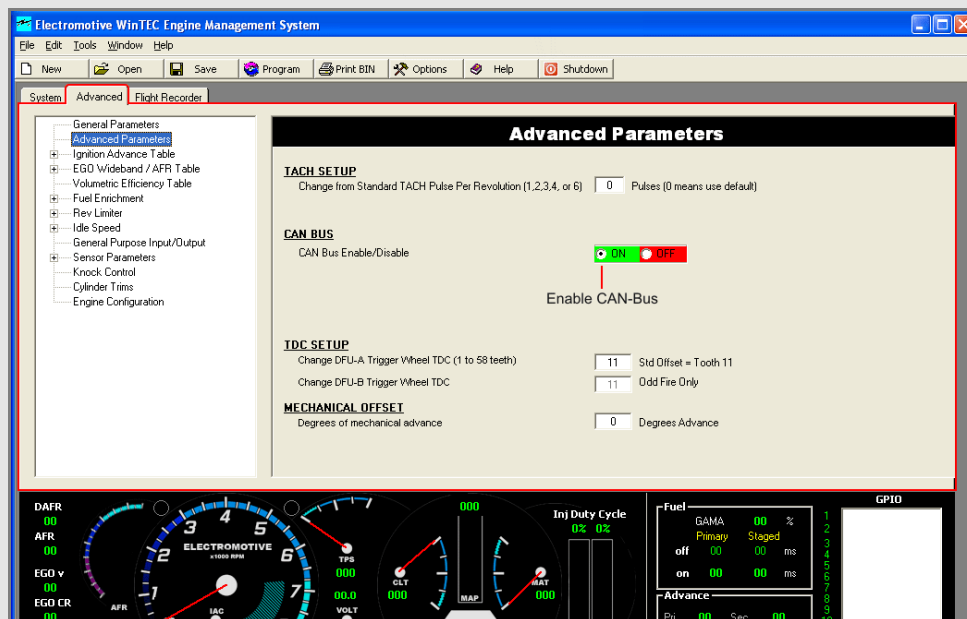
CAN-mode setting

These Electromotive ECUs features a bus communication protocol based on CAN. 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 software¹ and click "Open" button to load your file as shown here below.



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



¹ You can download it from Electromotive website

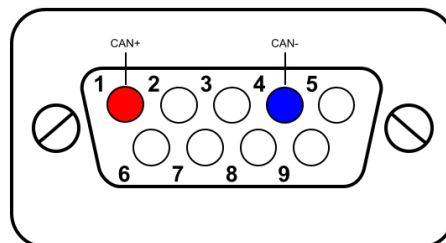
2

Wiring connection

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

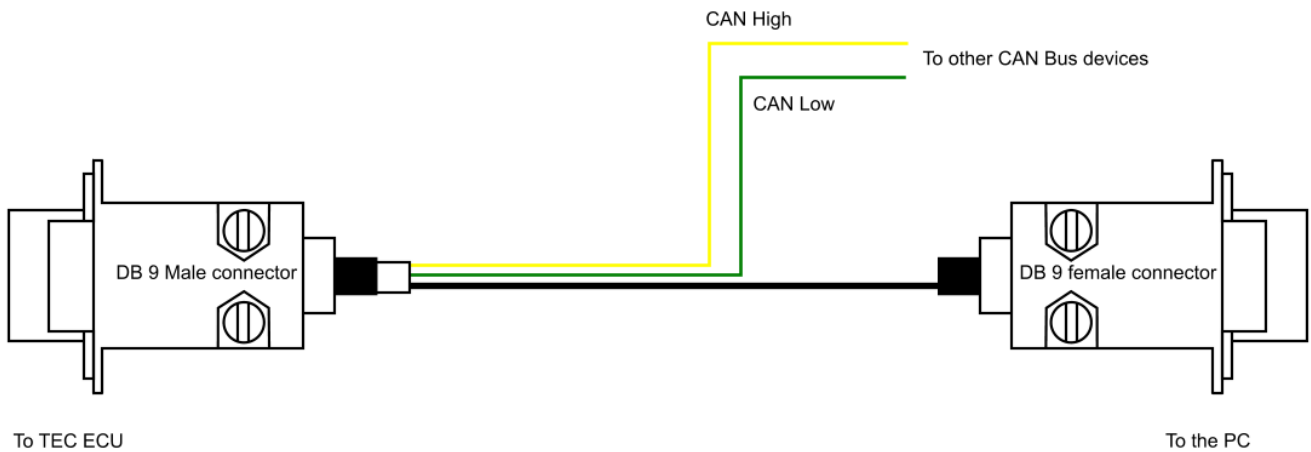
Pin function

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 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 "ELECTROMOTIVE"
- ECU Model "CAN Bus"

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Available channels

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 |