

AiM Infotech

## Electromotive TEC3 and TEC3r

Release 1.01

---

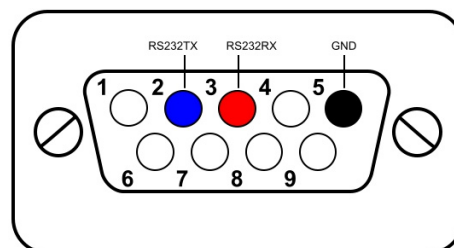
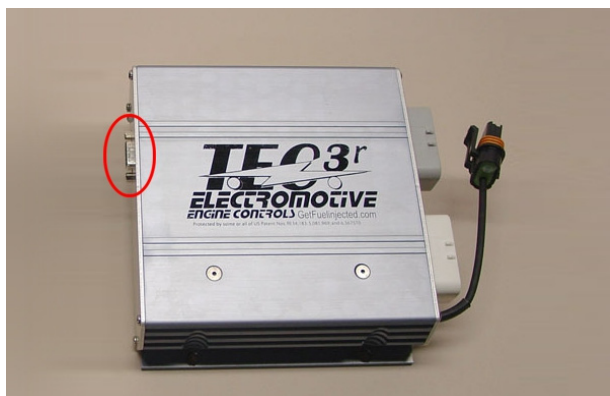


This tutorial explains how to connect Electromotive TEC3 and TEC3r ECU to AIM devices.

# 1

## Serial Communication setup

Electromotive TEC3 and TEC3r feature a serial communication bus on its DB9 rear connector highlighted here below on the left. On the right is connector pinout



Here follows the connection table.

| DB9 connector pin | Pin function | AIM cable label |
|-------------------|--------------|-----------------|
| 2                 | RS232TX      | RS232RX         |
| 3                 | RS232RX      | RS232TZ         |
| 5                 | GND          | GND             |

## 2

# 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 “TEC3”
- transmit the configuration to the device pressing “Transmit”.

## 3

# Available channels

---

Channels received by AIM devices connected to Electromotive "TEC3" protocol are:

| ID     | CHANNEL NAME      | FUNCTION                        |
|--------|-------------------|---------------------------------|
| ECU_1  | TEC3_RPM          | RPM                             |
| ECU_2  | TEC3_ADVANCE      | Spark advance                   |
| ECU_3  | TEC3_MAP          | Manifold air pressure           |
| ECU_4  | TEC3_ECT          | Engine coolant temperature      |
| ECU_5  | TEC3_TFPW         | Total fuel injector pulse width |
| ECU_6  | TEC3_KNOCK        | Knock sensor                    |
| ECU_7  | TEC3_MAT          | Manifold air temperature        |
| ECU_8  | TEC3_TPS          | Throttle position sensor        |
| ECU_9  | TEC3_BATV         | Battery supply                  |
| ECU_10 | TEC3_ENGINE_LIGHT | Shift lights                    |
| ECU_11 | TEC3_GPO1         | General purpose output 01       |
| ECU_12 | TEC3_UAP          | User adjustable pulse width     |
| ECU_13 | TEC3_ACTUAL_AFR   | Actual air/fuel ratio           |



|        |                       |                                   |
|--------|-----------------------|-----------------------------------|
| ECU_14 | TEC3_EGO              | Exhausts gas oxygen               |
| ECU_15 | TEC3_DESIRED_AFR      | Desired air/fuel ratio            |
| ECU_16 | TEC3_EGO_VOLT         | Exhaust gas oxygen sensor voltage |
| ECU_17 | TEC3_TPS_BLEND_OFFSET | TPS and MAP sensor blended offset |
| ECU_18 | TEC3_STAGED_PW        | Staged power                      |
| ECU_19 | TEC3_PRIMARY_PW       | Primary power                     |
| ECU_20 | TEC3_AD_INPUT1        | Analog device input 1             |
| ECU_21 | TEC3_AD_INPUT2        | Analog device input 2             |
| ECU_22 | TEC3_AD_INPUT3        | Analog device input 3             |
| ECU_23 | TEC3_AD_INPUT4        | Analog device input 4             |
| ECU_24 | TEC3_GPO2             | General purpose output 02         |
| ECU_25 | TEC3_GPO3             | General purpose output 03         |
| ECU_26 | TEC3_GPO4             | General purpose output 04         |
| ECU_27 | TEC3_SECONDARY_ADV    | Secondary Advance                 |
| ECU_28 | TEC3_KNK_RETARD       | Knock retard                      |