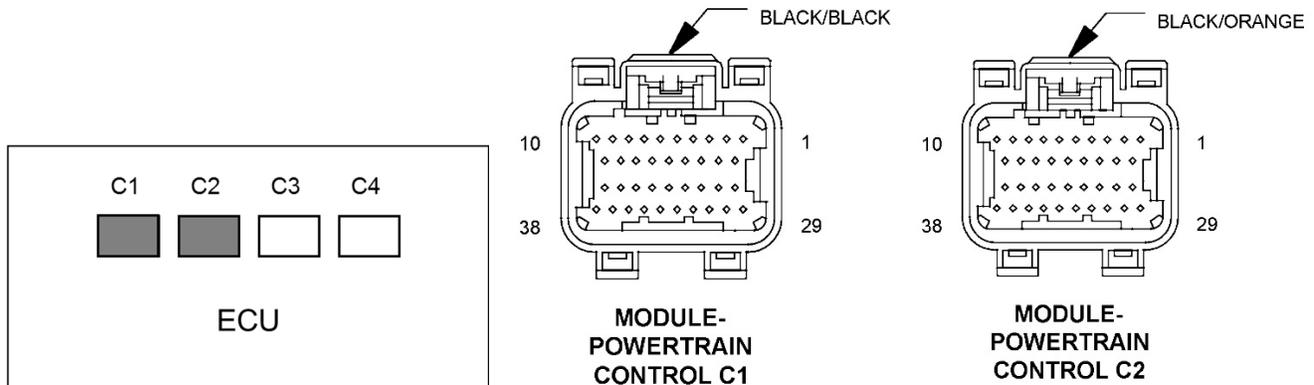


# FTC1-203G Fuel/Timing Calibrator for Jeep 4.0L

## Use and Installation Instructions (ECU pinout for 2005 and 2006 models):



View looking at ECU

View Looking at Mating Connector Terminals.  
Pin numbers increase going left to right when  
viewing the wire side of the connectors.

## Installation Instructions

- 1) We strongly recommend that this unit be installed in the passenger compartment.
- 2) Disconnect the battery before making connections to the factory wiring harness.
- 3) Use solder and heat shrink for the best possible electrical connections.
- 4) Make sure you have the right wires by checking both wire color and pin location.
- 5) Wires colors in bold refer to wires on the FTC1.
- 6) Connect the **BLACK** wire (B-) to the BK/BR wire on C1 pin 9.
- 7) Connect the **RED** wire (B+) to the RD wire on C1 pin 29.
- 8) Connect the **BLUE** wire (+5V) to the PK/YL wire on C2 pin 29.
- 9) Cut the VT/BR map sensor wire leading to C2 pin 23.
- 10) Connect the **GREEN** wire (MAP in) to the sensor side of the cut wire.
- 11) Connect the **VIOLET** wire (MAP out) to the ECU side of the cut wire.
- 12) Cut the BR/LB crank sensor wire leading to C2 pin 35.
- 13) Connect the **GRAY** wire (crank in) to the sensor side of the cut wire.
- 14) Connect the **GRAY/BLACK** wire (crank out) to the ECU side of the cut wire.
- 15) Cut the DB/GY cam sensor wire leading to C2 pin 34.
- 16) Connect the **TAN** wire (cam in) to the sensor side of the cut wire.
- 17) Connect the **TAN/YELLOW** wire (cam out) to the ECU side of the cut wire.
- 18) If your unit has one or more striped **ORANGE** wires, your unit has the data acquisition option. These wires may be connected to 0-5V signals for display and logging.
- 19) Connect the injector plug into the injector.
- 20) Connect the vacuum line to the intake manifold.
- 21) Reconnect the battery.
- 22) If the FTC1 ever needs to be removed, you can connect the two in-line connectors on the ECU side to restore the original wire harness connections.

# FTC1-203G Instructions (continued)

## Programming Instructions

- 1) This unit comes pre-programmed with a base map. It should start and run on this map.
- 2) Use the R4 software to make programming changes.
- 3) Select Vac/Pressure and Additional Injector Controller under system settings. Refer to the AIC1 and FTC1 data sheets for more information.
- 4) Select 3-cylinder, 2-stroke under Engine Settings.
- 5) Program the timing retard in map table A.
- 6) The cell value represents degrees of retard from stock timing.
- 7) The cell values can range from 0 to 20. A value of 10 is the neutral value.
- 8) Cell values can have one decimal place. For example 10.1. There are a total of 200 levels available for cell value.
- 9) Program the additional injector pulse width in Map table B.
- 10) The cell value represents the additional injector on-time in milliseconds. The minimum practical cell value is 1.0. The maximum cell value will have an indicated duty cycle of 40%.
- 11) The highest cell value is 25.5, but you should never get anywhere near that number.
- 12) Cell values can have one decimal place. For example 10.1. There are a total of 200 levels available for cell value.
- 13) The data acquisition inputs will display on the following aux inputs:
  - a. Aux A **ORANGE/BLACK**
  - b. Aux B **ORANGE/YELLOW**
  - c. Aux C **ORANGE/WHITE**
  - d. Aux D **ORANGE/GREEN**
- 14) Refer to the "Tips on setting up Auxiliary Inputs in R4" tech note posted under Tech Notes at [splitsec.com](http://splitsec.com) for more information.