

# FTC1-019D Fuel/Timing Calibrator

## General Installation Instructions for Most Chrysler Applications:

- 1) Use with R4 software
- 2) Select Vac/Pressure and Programmable Signal Calibrator under system settings. Refer to the FTC1 data sheet for more information.
- 3) Select one cylinder and 4 stroke under Options and Engine settings
- 4) Program the fuel in Map table A
- 5) Use the signal modify connection per wiring below
- 6) A cell value of 10 is neutral. Reduce the cell value to lean the mixture. Increase the cell value to make the mixture richer.
- 7) The highest cell value is 20.
- 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 timing retard in Map table B
- 10) The cell values can range from 0 to 20. A value of 20 will result in 20 degrees of retard.
- 11) Cell values can have one decimal place. For example 10.1. There are a total of 200 levels available for cell value
- 12) Disconnect the battery before making connections to the factory wiring harness.
- 13) Connect the **RED** wire (B+) to the fused ignition switch wire
- 14) Connect the **BLACK** wire (B-) to the sensor ground
- 15) Cut the MAP sensor wire leading from the stock MAP sensor to the ECU. Leave the side of the cut wire leading to the sensor disconnected.
- 16) Connect the **VIOLET** wire to the side of the sensor wire leading to the ECU
- 17) Cut the crank sensor signal wire leading to the ECU
- 18) Connect the **GRAY** wire to the wire leading to the crank sensor
- 19) Connect the **GRAY/BLACK** wire to the wire leading to the ECU crank sensor input
- 20) Cut the cam sensor signal wire leading to the ECU
- 21) Connect the **TAN** wire to the wire leading to the cam sensor
- 22) Connect the **TAN/YELLOW** wire to the wire leading to the ECU cam sensor input
- 23) Connect the **YELLOW/BLACK** wire to a 1-cylinder tach rate signal. On many models up to the 2004 model year, you can use the cam sensor signal wire. On later years or models where the cam sensor signal does not pulse at a 1-cylinder rate, you can use either a coil trigger signal or an injector trigger signal. Verify that the RPM reading in the R4 program matches the actual engine RPM.
- 24) An enrichment module is included in the FTC1-019D. Follow steps 25 through 30 to connect the wires for enrichment. These wires may be left disconnected if they are not used.
- 25) Cut the bank1 sensor 1 oxygen sensor signal wire
- 26) Connect the **WHITE** wire to the wire leading to the O2 sensor
- 27) Connect the **WHITE/GREEN** wire to the wire leading to the O2 sensor input
- 28) If you have a bank 2 sensor 1 oxygen sensor, cut the bank 2 sensor 1 oxygen sensor signal wire
- 29) Connect the **PINK** wire to the wire leading to the O2 sensor
- 30) Connect the **PINK/BLUE** wire to the wire leading to the O2 sensor input

- 31) If you would like to control an external load with the R4 software connect the **ORANGE** wire as follows
- 32) Connect the **ORANGE** relay driver wire to the negative side of the relay coil
- 33) Connect the coil positive to a fused B+ circuit
- 34) Switch the load through the relay contacts
- 35) Set up the turn-on threshold for the relay under options, output settings and output B
- 36) The threshold can be set according to any combination of RPM and pressure set points
- 37) Reconnect the battery