

# FTC1-024 Fuel/Timing Calibrator

## General Use and Installation Instructions:

- 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) Set the correct number of cylinders and 4-stroke under engine settings
- 4) Program the fuel in Map table A
- 5) A cell value of 10 is neutral. Reduce the cell value to lean the mixture. Increase the cell value to make the mixture richer.
- 6) The highest cell value is 20.
- 7) Cell values can have one decimal place. For example 10.1. There are a total of 200 levels available for cell value
- 8) Program timing retard in Map table B
- 9) The cell values can range from 0 to 20. A value of 20 will result in 20 degrees of retard.
- 10) Cell values can have one decimal place. For example 10.1. There are a total of 200 levels available for cell value
- 11) Disconnect the battery before making connections to the factory wiring harness.
- 12) Use solder and heat shrink for the best electrical connections
- 13) Connect the **RED** wire (B+) to the switched 12V power to the ECU
- 14) Connect the **BLACK** wire (B-) to ECU sensor ground
- 15) Connect the **BLACK/YELLOW** wire to a tachometer signal
- 16) Cut the MAF sensor wire leading from the stock MAF sensor to the ECU
- 17) Connect the **GREEN** wire to the side of the cut wire that leads to the MAF sensor
- 18) Connect the **VIOLET** wire to the MAF sensor wire leading to the ECU
- 19) Use a digital voltmeter to determine if both wires on the crank sensor carry an active signal. Set the meter to AC volts. Attach the negative probe to chassis ground. Touch the positive probe to each of the crank sensor wires. If there is a reading on both wires, the signal is differential. If the signal is 0V on one wire, that wire is tied to ground and the signal is single-ended.
- 20) Use steps 21 through 26 for differential mode crank sensor connections:
- 21) Cut the crank (+) sensor wire
- 22) Connect the **YELLOW** wire to the cut (+) wire leading to the crank sensor
- 23) Connect the **YELLOW/BLACK** wire to the wire leading to the ECU crank (+) sensor input
- 24) Cut the crank (-) sensor wire
- 25) Connect the **GRAY** wire to the cut (-) wire leading to the crank sensor
- 26) Connect the **GRAY/BLACK** wire to the wire leading to the ECU crank (-) sensor input
- 27) Use steps 28 through 31 for single ended mode crank sensor connections
- 28) Cut the crank (+) sensor wire (the wire with an AC signal)
- 29) Connect the **YELLOW** wire to the cut (+) wire leading to the crank sensor
- 30) Connect the **YELLOW/BLACK** wire to the wire leading to the ECU crank (+) sensor input
- 31) Connect the **GRAY** wire to ground
- 32) Cut the cam sensor wire
- 33) Connect the **TAN** wire to the wire leading to the cam sensor
- 34) Connect the **TAN/BLACK** wire to the wire leading to the ECU cam sensor input
- 35) Reconnect the battery