

FTC1-065 Mazdaspeed Fuel/Timing Calibrator Rev B

Use and Installation Instructions:

- 1) Disconnect the battery before making wire connections.
- 2) Connections are made to the ECU wire harness near its connector.
- 3) The ECU is located under a panel beneath the carpet on the passenger side floor.
- 4) Crimp connectors are provided for convenience. Use solder and heat shrink for best connections.
- 5) T-tap the FTC1 **RED** wire to the White wire on ECU connector pin 97. This is the battery plus switched by the ignition.
- 6) T-tap the FTC1 **BLACK** wire to the Black/Red wire on ECU connector pin 103. This is the ECU sensor ground.
- 7) T-tap the FTC1 **YELLOW/BLACK** wire to the Lavender/Gray wire on ECU connector pin 48. This is the tachometer signal wire.
- 8) Locate the Light Green/Black MAF sensor wire on ECU connector pin 88 and cut that wire.
- 9) Connect the FTC1 **GREEN** wire to the MAF sensor side of the cut wire.
- 10) Connect the FTC1 **VIOLET** wire to the ECU input side of the cut wire.
- 11) Locate the Pink/Blue O2 sensor wire on ECU connector pin 60 and cut that wire.
- 12) Connect the FTC1 **PINK** wire to the O2 sensor side of the cut wire.
- 13) Connect the FTC1 **PINK/BLUE** wire to the ECU input side of the cut wire.
- 14) Locate the Orange/Black crank (+) wire leading to ECU pin 22 and cut that wire.
- 15) Connect the FTC1 **YELLOW** wire to the crank (+) sensor side of the cut wire.
- 16) Connect the FTC1 **YELLOW/GREEN** wire to the ECU input side of the cut wire.
- 17) Locate the Yellow crank (-) wire leading to ECU pin 21 and cut that wire.
- 18) Connect the FTC1 **GRAY** wire to the crank (-) sensor side of the cut wire.
- 19) Connect the FTC1 **GRAY/BLACK** wire to the ECU input side of the cut wire.
- 20) If your unit has the data acquisition option it will have four striped orange wires.
- 21) Analog input channels have a 0-5V range.
- 22) Connect as follows:
 - a. A **ORANGE/BLACK**
 - b. B **ORANGE/YELLOW**
 - c. C **ORANGE/WHITE**
 - d. D **ORANGE/GREEN**
- 23) Connect the vacuum line to intake manifold vacuum.
- 24) Reconnect the battery.
- 25) The FTC1-065 comes pre-programmed for the Mazdaspeed Protégé.
- 26) If necessary, remove the top cover of the FTC1 to access the serial connector for programming.
- 27) Use the R4 software to change the mapping if necessary.
- 28) Under Options and System Settings use Programmable System Calibrator and Vacuum/Pressure.
- 29) Under options and Engine Settings, select four cylinder and four stroke.
- 30) Program fuel in map table A.
- 31) Use the R4 software data sheet for information on programming.

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Use and Installation Instructions (cont.):

- 32) A cell value of 10 leaves the MAF sensor signal unchanged.
- 33) Cell values greater than 10 make the mixture richer. Values less than 10 make the mixture leaner.
- 34) Cell values can have one decimal place e.g. 7.2 is a permissible value.
- 35) Program timing retard in map table B.
- 36) The cell values can range from 0 to 20. A value of 20 will result in 20 degrees of retard.
- 37) Cell values can have one decimal place. For example 10.1. There are a total of 200 levels available for cell value.
- 38) Output B under options and output settings is used to control the ESC feature which provides fuel enrichment at part throttle.
- 39) Refer to the FTC1 data sheet for more information.

THANK YOU FOR CHOOSING SPLIT SECOND