

# FTC1-099 Fuel/Timing Controller for Mazda 3

## ECU Pinout

Connector EM

2BE	2BA	2AW	2AS	2AO	2AK	2AG	2AC	2Y	2U	2Q	2M	2I	2E	2A
2BF	2BB	2AX	2AT	2AP	2AL	2AH	2AD	2Z	2V	2R	2N	2J	2F	2B
2BG	2BC	2AY	2AU	2AQ	2AM	2AI	2AE	2AA	2W	2S	2O	2K	2G	2C
2BH	2BD	2AZ	2AV	2AR	2AN	2AJ	2AF	2AB	2X	2T	2P	2L	2H	2D

Connector E

1BE	1BA	1AW	1AS	1AO	1AK	1AG	1AC	1Y	1U	1Q	1M	1I	1E	1A
1BF	1BB	1AX	1AT	1AP	1AL	1AH	1AD	1Z	1V	1R	1N	1J	1F	1B
1BG	1BC	1AY	1AU	1AQ	1AM	1AI	1AE	1AA	1W	1S	1O	1K	1G	1C
1BH	1BD	1AZ	1AV	1AR	1AN	1AJ	1AF	1AB	1X	1T	1P	1L	1H	1D

## Use and Installation Instructions:

- 1) Use with R4 software
- 2) Under Options and System Settings, select Vacuum/Pressure and Programmable Signal Calibrator
- 3) Under Options and Engine Settings, select 1-cylinder and 4-stroke
- 4) Program Fuel in map table A. Cell values range from 0 to 20.0
- 5) The neutral value is 10
- 6) Cell values less than 10 make the fuel mixture leaner and are used to compensate for larger injectors
- 7) Cell values can have one decimal place
- 8) Program timing retard in map table B
- 9) The cell value represents the retard in degrees from the stock timing
- 10) A cell value of 0 programs no additional retard over the inherent 1.5 degrees
- 11) A maximum of 20.0 degrees is possible
- 12) Use the Output B Mode setting under Output Settings to set the enrichment threshold. A typical setting would be Over Pressure and 1 psi.
- 13) Disconnect the battery before making wire connections
- 14) Connect the **RED** wire to the green/blue wire leading to ECU conn. E pin 1AY
- 15) Connect the **BLACK** wire to the black/yellow wire leading to ECU conn. EM pin 2X
- 16) Connect the **YELLOW/BLACK** wire to the white wire leading to ECU conn. EM pin 2BA
- 17) Cut the white/red MAF sensor wire leading to ECU conn. E pin 1AK
- 18) Connect the **GREEN** wire to the side of the cut wire leading to the sensor
- 19) Connect the **VIOLET** wire to the side of the cut wire that leads to the ECU
- 20) Cut the white/red crank sensor wire leading to ECU conn. EM pin 2W
- 21) Connect the **GRAY** wire to the side of the cut wire that leads to the sensor
- 22) Connect the **GRAY/BLACK** wire to the side of the cut wire that leads to the ECU
- 23) Cut the black/white cam sensor signal wire leading to ECU conn. EM pin 2S
- 24) Connect the **TAN** wire to the side of the cut wire leading to the sensor
- 25) Connect the **TAN/BLACK** wire to the side of the cut wire leading to the ECU
- 26) Connect the **PINK/BLUE** wire to the white/red wire leading to ECU conn. EM pin 2AD
- 27) Reconnect the battery
- 28) Connect vacuum line to intake manifold