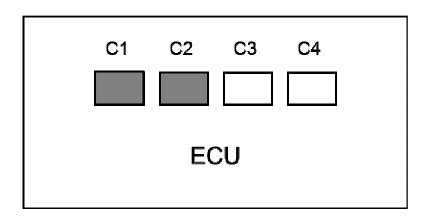


## FTC1-203 Fuel/Timing Calibrator

## Installation Instructions

The FTC1-203 is a complete, plug-and-play fuel solution for supercharged engines that use the NGC Powertrain Control Module (PCM). These instructions apply to Jeep models starting with the 2005 model year.

Installation is done by intercepting the C1 and C2 connectors on the ECU. C1 is the black connector on the left. C2 is the orange connector that is second. Be sure to intercept the correct connector and orient so the writing on the male terminal connectors faces up.



- WARNING! Disconnect the negative terminal of the battery before unplugging the connector on the PCM.
  - 1) Unplug the black C1 connector located on the left hand side of the PCM. Slide the red lock away from the PCM and squeeze the latch to release the connector.
  - 2) Plug the black connector on the FTC1 harness with the female terminals into the PCM in place of the stock black connector. Make sure it latches into place.
  - 3) Plug the stock black PCM connector into the male terminal connector on the FTC1 harness. Make sure it latches into place. The silver BK on this connector should face up and be on the same side as the mating connector latch.
  - 4) Unplug the orange C2 connector located second to the left on the PCM. Slide the red lock away from the PCM and squeeze the latch to release the connector.
  - 5) Plug the orange connector on the FTC1 harness with the female terminals into the PCM in place of the stock orange connector. Make sure it latches into place.
  - 6) Plug the stock orange PCM connector into the male terminal connector on the FTC1 harness. Make sure it latches into place. The silver OR on this connector should face up and be on the same side as the mating connector latch.
  - 7) Locate the FTC1 unit in the open area next to the battery. Route the wire harness along the firewall
  - 8) The FTC1-203 has two vacuum lines. Connect the top line (closest to the silk screened cover) to the intake manifold with a piece of vacuum hose. This line must be connected to a port that measures pressure after the supercharger. Connect the bottom line to the inlet side of the supercharger. The bottom line must see vacuum after the throttle.
  - 9) The stock map sensor vacuum line must be connected to the vacuum port immediately after the throttle. It must read vacuum only.

## FTC1-203 Instructions (continued)

- 10) Plug the injector plug on the FTC1 harness into the additional injector.
- 11) Reconnect the negative terminal of the battery.

The FTC1-203 is pre-programmed to fuel the engine in boost and retard timing.

The FTC1-203 can be reprogrammed with the R4 engine management software.

Typical FTC1-203 settings:

System Settings: Gauge Pressure and Additional Injector Controller

Engine Settings: 3-cylinder, 2-stroke for a 6-cylinder engine

Output Settings: Output B Mode-Over Pressure, Over pressure = 3.5 psi

Timing retard is programmed in map table A. The cell value is a positive number that indicates degrees of retard. The range of retard is from zero to 20 degrees with one decimal place.

The additional injector is controlled by the cell values in map table B. The cell value represents the on-time of the additional injector in milliseconds. The injector is pulsed six times per cam revolution on the 2-stroke setting. Use engine settings of 6-cylinder, 4-stroke to pulse the injector 3 times per cam revolution. This will cut in half the amount of fuel provided by the additional injector.

Refer to the FTC1 and R4 software datasheets for more information.

If you have any difficulty with installation, please call us at (949)863-1359 for assistance.