

GEN3 PRO SEFI



The BigStuff3 GEN3 PRO SEFI system is the first programmable “powertrain” control module for “today’s” SEFI, Coil-on-Plug (COP) engines and electronic controlled transmissions. The GEN3 PRO SEFI system offers many unique features that sets it apart from the competition. Features such as dual “Wide Band Oxygen” (WBO2) air/fuel ratio control, individual cylinder & spark compensation and on-board data acquisition are just the beginning!

The dual WBO2 functionality (currently available as an option for GM powered vehicles; Ford applications in the near future) eliminates “left and right bank” base engine and transient fuel calibration guess work by providing accurate and consistent air/fuel ratio control (9.5:1 to 15.9 :1). The individual cylinder fuel and spark combination allows intake manifold inefficiencies to be “calibrated out”. The on-board data acquisition features allows selected powertrain management variables to be recorded in real-time as fast as 50 times a second, with 10-bit resolutions, for up to 5.5 minutes. Once recorded, the data can be analyzed off-line with the BigComm software. These features, along with many others, make the GEN3 PRO SEFI system “the most” technologically advanced, cost effective SEFI powertrain management system on the market.

The GEN3 PRO SEFI system includes:

- A Powertrain Control Module (PCM)
- Main Wire Harness (MWH)
- Injector Wire Harness (IWH)
- (2) WBO2 sensors
- BigComm Windows compatible calibration software
- 5’ serial communication cable

The intuitive BigComm software enables real-time calibration and measurement of all engine management control variables via a serial PC link. The GEN3 PRO SEFI electronics are housed in a black powder coated aluminum extruded enclosure with integrated rubber isolator mounting provisions. The aesthetically pleasing, nylon braided, MWH and IWH use OEM style Packard and TYCO terminals and connectors. Gold plated terminals are used for the (2) 6-way MWH-to-WBO2 connections.

The GEN3 PRO SEFI system is compatible with most GM style EFI sensors and actuators. The GEN3 PRO SEFI ECM can be “software configured” to be compatible with many OEM and aftermarket electronic and inductive pick-up (IPU) ignition systems.

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Features

- Sequential fuel control for 4, 6, 8, 10, 12 and 16 cylinders
- Capable of driving 16 low impedance injectors---Staged!
- Dual wide band O2 sensors for individual bank, closed loop fuel control
- 128K RAM for internal data logging---40 user selectable channels, 10bit resolution, 50Hz acquisition rate
- Capable of driving smart and dumb Coil On Plug (COP) ignitions with stock sensors (LS1, Mod 4.6L) with current feedback and tach output
- Individual cylinder fuel and timing control
- Injector phasing, at the start or end of injection event
- Programmable “peak and hold” injector drivers with current chopping
- Software configurable ignition interface (GM HEI, Ford TFI, LT1, V6, DIS, IPU)
- GM or Ford IAC control
- Controls GM 4L80E/4L60E transmission (optional)
- Additional data logging capabilities include fuel pressure, driveshaft RPM, clutch or trans brake input, A/C on, input shaft RPM, brake pedal, turbo shaft RPM, MPH, TCC % Slip
- Auxillary control of fuel pump, torque converter clutch, 2 or 3 stage boost control, fan low, fan high, 2 spare high side and low side outputs, 1 spare PWM high side and low side outputs, and reverse lockout
- Configurable load and RPM axis to enable optimization in desired range
- Improved EMI algorithms
- True Speed-Density algorithm allows for easier tuning
- Closed loop PID WBO2 heater control to insure accurate AFR control
- Self learning capabilities
- Improved transient fueling algorithms
- 1,2,3, & 5 BAR MAP sensor compatible
- Seamless decel fuel cut-off
- V10 Viper version coming soon!