HALTECH™
ENGINE MANAGEMENT SYSTEMS

F5 Series

Supplementary Fuel Computer

F5 System Description

*The HALTECH **F5** is a supplementary fuel injector computer designed to control the fuel delivery of an additional injector or injectors fitted to an engine's fuel system as part of an after-market turbocharger or supercharger installation.*

Without additional fuel delivery it is likely that the engine would 'lean-out' under higher boost pressures as a normally aspirated car's fuel system is not designed to deliver additional fuel required once the engine is boosted.

*The **F5 System** is totally independent of the standard fuel system. This makes it universal to most turbocharging or supercharging installations.*

*The **F5** senses two engine parameters and actuates the supplementary injectors accordingly.*

These parameters are:

Engine RPM:
The rpm trigger is taken from the negative side of the ignition coil. For every 2 coil discharges the F5 computer actuates the supplementary fuel injector once.

The fuel delivery is therefore tied to engine rpm. As the rpm doubles for constant load, the number of injector actuations doubles and so the additional fuel injected doubles.

Engine Load:
The engine load is proportional to the amount of air/fuel drawn on each intake cycle which is turn proportional to the pressure in the inlet manifold.

The F5 measures the pressure in the inlet manifold and therefore has feedback relating to engine load which it uses to increase the rate of delivery of fuel as the pressure increases.

F5 Specifications

F5 Kit Contents:
Electronic Control Unit (ECU)
Main Wiring Loom
MAP Sensor (Extra Cost)
Instruction Manual

System Features:
Number of Cylinders
Max Operating RPM
Any >16000 rpm

Trigger Signal Type:
Coil Negative

Trigger Pattern:
Single Pulse per Cycle

Injector Firing Mode:
Staged

ECU inputs:
MAP Sensor

ECU Outputs:
Injector Drivers (2)
The F5 is capable of running a maximum of 2 low impedance or 4 high impedance injectors

The rate of increase is programmable by means of a screw-driver adjustment and the point at which the supplementary fuel system starts to deliver extra fuel is similarily adjusted.

ADJUSTMENTS

Cut-In Pressure
The pressure at which the F5 computer starts to function can be adjusted. The standard pressure sensor operates from absolute vacuum up to a boost pressure of 14.7 psi (100 kpa) above atmospheric pressure. The F5 computer can be adjusted to start delivering fuel anywhere in the range.

Rate of Fuel Delivery
The rate of increase of fuel delivery with increasing inlet manifold pressure can be adjusted. Turning this adjustment screw richens or leans the mixture off by raising or lowering the rate of fuel delivery.

*For more information & free demo software please visit our website at **www.haltech.com** • For any enquiries you are most welcome to contact us at:*
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