

## E6K System Description:

The HALTECH **E6K** is a powerful "real-time" programmable fuel injection and ignition system computer designed to control most ignition type engines. Whether 1-6, 8, 10 or 12 cylinders, 1-2 rotors, naturally aspirated, turbocharged or supercharged, the HALTECH **E6K** can control it. The E6K uses all of the functionality included with the E6S family plus the E6K adds the following:

- doubled microprocessor speed
- an internal barometric pressure sensor
- dedicated PWM outputs (4) to control numerous solenoids, valves, shiftlights, and other devices.
- "intelligent" on-board reductor adaptor to cater for all types of trigger inputs
- immediate software updates via your PC.

The **E6K** is capable of controlling up to 8 low impedance or 16 high impedance injectors. If necessary an additional driver box can be added for more injector outputs. The **E6K System** optimises engine performance through the following capabilities:

- **ignition timing control**
- **fuel control**
- **idle speed control**
- **barometric pressure compensation**
- **closed loop O<sub>2</sub> control**
- **on board reductor adapter**

The **E6K** is much more than a programmable fuel injection computer - it provides logging of engine data and allows access in real time to maximise performance and trouble-shoot problems in a vehicle while running.

### Typical Applications:

- Conversion from carburetion to fuel injection
- Control of fuel injection on modified engines
- Race and rally applications of all description
- Design and development purposes
- Educational use by universities and colleges
- Original equipment in cars and motorcycles.

The patented HALTECH system of programming virtually eliminates the input of numbers. You simply manipulate graphics in the form of bar graphs and by pressing arrows you increase or decrease the amount of fuel or ignition delivered at that particular load point.

## E6K Specification:

### E6K Kit Contents:

Electronic Control Unit (ECU)	Throttle Position Sensor
Main Wiring Loom (Flying)	Communication Cable
Injector Wiring Loom	Programming Software
2 x Power Relays	Instruction Manual
Air Temperature Sensor	MAP Sensor (Extra Cost)
Coolant Temperature Sensor	Ignition Module (Extra Cost)

### System Features:

Number of Cylinders	1-6,8,10,12 and 1-2 Rotors
Max Operating RPM	16000 rpm
RPM Range increments	500/1000 rpm
Max. Range	10500/16000 rpm
Number of Fuel Maps	22/17
Number of Ignition Maps	22/17
Number of Bars per Map	32

### Fuel Correction Maps:

Coolant Temperature	Full Throttle
Air Temperature	Injector Phasing
Battery Voltage	Throttle Pump
Cold Prime	Injector Trim (Seq. only)
Zero Throttle	

### Ignition Correction Maps:

Air Temperature  
Coolant Temperature

### Trigger Signal Type:

Inductive Magnetic-(Internal Signal Conditioning)	Ignition Crank
	Hall Effect Sensor
	Optical Sensor

### Trigger Pattern:

Twin Trigger	Single Pulse per Cycle
Multi-Tooth	Bosch Motronic (60t-2)

### Ignition Configuration:

Twin Distributor	Single Distributor
Twin Rotor (Dist. or DF)	Direct Fire (1-4 )& 6,8
	Cylinder Waste Spark

### Injector Firing Mode:

Throttle Body (Batch)	Multi-Point
Sequential (up to 4 banks)	Staged

### ECU Inputs:

MAP Sensor	Primary Trigger
Coolant Temperature	Secondary Trigger
Air Temperature	Oxygen Sensor
Throttle Position	Spec Purpose Digital
Internal Barometric Sensor	Gen. Purpose Analog

### ECU Outputs:

Injector Drivers (8)	Idle Air Control (IAC)
Fuel Pump Relay Control	Ignition Output
	Dedicated PWM Outputs (4)
	Spec. Purpose Digital (0-2)

### Accessories:

Idle Air Control Motor	RPM Limit
Fuel/Ignition Trim Module	Deceleration Fuel Cut-Off
	Oxygen Sensor

### Engine Data:

US or Metric Units	Map Storage and Retrieval
	Data Logging