

HALTECH™

ENGINE MANAGEMENT SYSTEMS

E6X Series

Fuel & Ignition Control System

E6X System Description

The HALTECH **E6X** is a powerful "real-time" programmable fuel injection and ignition 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 **E6X** can control it.

The E6X features:

- Up to 6 fuel and ignition channels
- 4 dedicated PWM outputs
- 1 auxiliary input
- 1 auxiliary output (tacho output)
- Dedicated closed loop idle control
- Dedicated closed loop o2 correction
- 8 injector drivers as standard equipment
- An internal barometric pressure sensor
- New RA8 reductor adaptor
- Rev Limiter
- Deceleration fuel cut
- Datalogging to laptop
- Flatshift

The **E6X** 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 **E6X** System optimizes engine performance by giving full control over fuel, ignition and auxiliary outputs.

PWM outputs are as follows:

*electronic boost control	*thermofan	*anti-lag	*VTEC
*engine control relay	*NOS enable	*BAC valve	*shiftlight
*intercooler fan	*turbo timer	*stall saver	*air con
*aux. fuel pump	*staging signal	*dual intake valve	
*torque convertor			

(not all functions are available at the same time)

The **E6X** 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 descriptions
- Design and development purposes
- Educational use by universities and colleges
- Original equipment in cars and motorcycles.

The HALTECH **E6X** is easily programmed with an IBM compatible laptop. Our patented system allows the user to alter fuel and ignition timing at a particular load point by changing the height of the column in a bar graph.

E6X Specifications

E6X Kit Contents:

- Electronic Control Unit (ECU)
- Main Wiring Loom (flying lead)
- 2 x Power Relays
- Air Temperature Sensor
- Coolant Temperature Sensor
- Throttle Position Sensor
- Communications Cable
- Programming Software
- Instruction Manual
- Injector Loom (supplied with full harness kit only)

Accessories:

- MAP Sensor (1, 2 or 3 bar)
- Connector kit
- Idle Air Control Motor / Housing
- Electronic Boost Bleed Valve
- Boost/Fuel/Ignition Trim Module
- Ignition Module
- Ignition Coils
- Oxygen Sensor

System Features:

- Number of Cylinders 1-6,8,10,12 and 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
- Air Temperature
- Battery Voltage
- Cold Prime
- Zero Throttle
- Full Throttle
- Injector Phasing (Seq. only)
- Throttle Pump
- Injector Trim (Seq. only)
- Barometric Pressure

Ignition Correction Maps:

- Ignition Crank
- Air Temperature
- Coolant Temperature

Trigger Signal Type:

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

Trigger Pattern:

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

Ignition Configuration:

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

Injector Firing Mode:

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

ECU inputs:

- MAP Sensor
- Coolant Temperature
- Air Temperature
- Throttle Position
- Internal Barometric Sensor
- Primary Trigger
- Secondary Trigger
- Oxygen Sensor
- Spec Purpose Digital
- 2x Gen. Purpose Analog
- Road speed

ECU Outputs:

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