ENGINE MANAGEMENT SYSTEM	M600
GENERAL	
Microprocessor - 3.3V 32 Bit with next generation time co-processor and 32MHz internal operation	✔
Quality Standard	ISO 9002
Manufacturing Standard - IPC-S-815-A Class 3 High Reliability	✔
Warranty Parts and Labour	2 year
Burn in –10 to 70 Deg C, 10 cycles in 32 hours	✔
ECU Control Software stored in updateable Flash memory	✔
High RFI Immunity	✔
Low heat generation when using low ohm injectors	✔
Battery transient protection	✔
Environmentally sealed electronics	✔
Waterproof connector with gold plated contacts	✔
Case Size (mm)	147 x 105 x 40
Weight (kg)	0.500
PC Communications	CAN
Logger and Display Communications	CAN and RS232
Cylinders	1, 2, 3, 4, 5, 6 Sequential
Engines 2 stroke, 4 stroke, Rotary (3 Rotor)	✔
Maximum RPM	> 20,000
OPERATING CONDITIONS	
Internal Temperature Range (Deg C)	-10 ~ 85 Deg
Ambient Temperature (Deg C) (Depending on load and ventilation)	-10 ~ 70 Deg
Operating Voltage	6 ~ 22V DC
Operating Current (ECU only)	0.5 A max.
Reverse Battery Protection	External Fuse
COMPUTER SOFTWARE	
Tuning, setup, diagnostic and utility software (Windows)	✔
Computer Requirements	IBM PC with printer port, Win 95 to XP
Built-in help system	✔
Data Logging Analysis	Opt. 1
User definable screen layouts	✔
INJECTION OUTPUTS	
Switchmode, high efficiency, low heat generation	✔
Type	Peak and hold
Number	6
Injector Resistance	> 0.1 Ohm
User Programmable Current	0.5 ~ 6 Amp peak
User Definable Battery Compensation	✔
FUEL CALIBRATION	
Accuracy	0.000002 sec
RPM and Load Sites are user programmable	✔
Main Table (3D) - RPM sites x Load sites	40 x 21
End of Injection Primary and Secondary (3D) - RPM sites x Load sites	20 x 11
Individual Cylinder Trim	✔
Individual Cylinder Tables (3D) — RPM sites x Load sites	20 x 11
Secondary Injector Balance Table (3D) - RPM sites x Load sites	20 x 11
Auxiliary Compensations (any channel)	2
Adjustable MAP, Engine and Air Temperature, Fuel Pressure, Fuel Temperature and Gear Compensations	✔
Accel./Deccel. Clamp, Decay and Sensitivity	✔
Cold Start (5 parameters)	✔
End of injection compensation (any channel)	2
Adjustable injector dead-time compensation	✔
IGNITION OUTPUTS	
Number	6
Ignition Interface allows connection to most OEM Ignition systems	✔
IGNITION CALIBRATION	
Accuracy	0.1 degree
RPM and Load Sites are user programmable	✔
Main Table (3D) - RPM sites x Load sites	40 x 21
Individual Cylinder Trim	✔
Individual Cylinder Tables (3D) – RPM sites x Load sites	20 x 11
Adjustable MAP, Engine and Air Temperature, Gear Compensations	✔
Auxiliary Compensations (any channel)	2
Gear Compensation	✔
Accel. Adv. Clamp, Decay and Sensitivity	✔
Dwell Time – RPM x Battery Voltage	10 x 11
Odd Fire engine capability (any angle)	✔
Rotary Ignition Split	✔
BOOST CONTROL	
Main Table (3D) - RPM Sites x User Defined Sites	20 x11
Engine, Air and Exhaust Temperature Compensation	✔
Auxiliary Compensation (any channel)	1

ENGINE MANAGEMENT SYSTEM	M600
STANDARD FEATURES	
Narrow Band Lambda Control	✔
Wideband Lambda Control using external meter	✔
Switched Cam Control	✔
Driver Warning Alarm and Shift Light Control	✔
Tacho Output	✔
Gear Detection	✔
Dual RPM Limit	✔
Ground Speed Limiting	✔
Nitrous Oxide Enrich / Retard	✔
Air Conditioner Fan and Clutch Control	✔
Over Run Fuel Cut	✔
Programmable Sensor Calibrations	✔
RPM Limit, Hard or Soft cut, fuel and/or ignition	✔
Turbo Wastegate Control	✔
Intercooler Spray Bars	✔
Idle Speed Control (Pulse Width Modulated, Stepper, Drive by Wire)	✔
RPM / Load Dependent Valves	✔
Fuel Used Output	✔
Fuel Pressure Control	✔
Fuel Pump Relay Control	✔
Alternator Control	✔
Thermatic Fan Control	✔
Slip Warning Light	✔
User Definable 3D Output Tables with selectable axis parameters	✔
OPTIONAL FEATURES *(Necessary for some applications)*	
Data Logging	Opt. 1
Onboard Wideband Lambda Sensor Controller for NTK UEGO & Bosch LSU sensors	Opt. 2
Traction Control and Launch Control (2, 3 or 4 wheel)	Opt. 3
Gear Change Ignition Cut (Flat shifts)	Opt. 3
High/Low Injection (Staged Injection)	Opt. 3
Overrun Boost Enhancement (Anti-lag)	Opt. 3*
Continuously Variable Cam Control	Opt. 4
Drive by Wire Throttle	Opt. 5
AUXILIARY OUTPUTS	
Number of Auxiliary Outputs	8
All outputs are Pulse Width Modulated or Switched capable	✔
4 Wire Stepper Motor capable	✔
Number of Outputs with High and Low Side drive	6
Auxiliary Outputs can be used for standard and optional functions as required	✔
TRIGGER SENSORS	
Directly Compatible with most OEM trigger systems including: Hall, Magnetic and Optical types; Multi-tooth (e.g. Mazda and Toyota); 1 or 2 Missing Teeth (e.g. Porsche); Many other special types incl. Ford narrow tooth, Nissan optical, Harley Davidson	✔
Digital Signal Processing with Advanced Diagnostics	✔
SENSOR INPUTS	
Throttle Position, Manifold Pressure, Engine and Air Temperature	✔
Auxiliary Sensor Inputs	10
Digital/Speed Inputs	4
AIR FUEL RATIO INPUTS	
Narrow Band	✔
Wideband using external meter	✔
Single or dual onboard Wideband, fully temperature compensated using high speed, professional type NTK UEGO or Bosch LSU sensors	Opt. 2
Range – Lambda	0.70 to 32.0
Resolution – Lambda	0.001
Lambda inputs also usable as 0-5V analogue input	2
DATA LOGGING	
Logging of all ECU parameters	Opt. 1
Memory, Non-Volatile Flash	512k
Individual Parameter and Rate Selection	✔
Logging Rate – samples per second	1 to 200
Logging Time – 28 Parameters + Diagnostics at 5/sec	38 minutes
Interpreter Software – Graphical Analysis	✔
Maximum parameters logged	64
Maximum logging throughput	10 kbytes/sec
DIAGNOSTICS	
Injectors Open Circuit, Short Circuit, Peak Current not reached	✔
Sensors Open and Short Circuit	✔
Ref/Sync noise warning and error diagnostics (noise, runt pulses and amplitude)	✔
Operating Errors: RPM Limit Exceeding, Injector Overduty, Over Boost, Low Battery, REF Error etc.	✔

✔: Standard   Opt.1: Logging   Opt.2: Wideband Lambda - Single or Dual   Opt.3: Advanced Functions   Opt.4: Continuously Variable Cam Control   Opt.5: Drive by Wire   *Available as part of Advanced Functions or as a separate option.