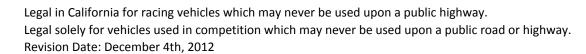


| CENEDAL SPECIFICATIONS   | Infinity-12<br>30-7102  | Infinity-10<br>30-7100                   | Infinity-8<br>30-7101 |  |
|--|---|--|-----------------------|--|
| GENERAL SPECIFICATIONS   |   |  |                       |  |
| Cylinders  | 1 to 12   | 1 to 10                                  | 1 to 8                |  |
| Injectors, Low or High Impedance Coils-0-5V Falling Edge Fire. Must Use External | 12  | 10                                       | 8                     |  |
| Igniters.  | 12  | 10                                       | 8                     |  |
| Internal State Machine- RTOS on CPU  | 32-Bit t  | floating point w/ math co-pro            | ressor                |  |
| Microprocessor-32-Bit, 200MHz CPU Core   |   |  |                       |  |
| Operation  | Yes, 400 MIPS   |  |                       |  |
| Auxiliary Power Management MCU   | Yes   |  |                       |  |
| Connectors   | 129 pins (56-pin & 73-pin) fully sealed automotive type                             |  |                       |  |
| CAN Channels   | 2   |  |                       |  |
| Main Relay Control-Intelligent Power Sequencing                                  |   | Vos                                      |                       |  |
| with Low Power Mode  |   | Yes                                      |                       |  |
| Weather-Resistant Sealed Electronics   | Yes, high performance conformal coating   |  |                       |  |
| PC Communications/Data Logging Storage   | Fully sealed IP67 connection USB  |  |                       |  |
| Enclosure/Dimensions   | Sealed  | Sealed aluminum, 6.030" x 6.030" x .956" |                       |  |
| Weight   | 24 oz./680.4 grams  |  |                       |  |
| Engine Types   | 2-stroke, 4-stroke  |  |                       |  |
|  | Timing sensor characteristics dependent. Timing code speeds tested over 100,000 RPM |  |                       |  |
| Maximum RPM  |   |  |                       |  |
|  | Infinity-12   | Infinity-10                              | Infinity-8            |  |
| FUEL INJECTION   | 30-7102   | 30-7100                                  | 30-7101               |  |
| Injectors, Low or High Impedance   | 12  | 10                                       | 8                     |  |
| Туре   |   | Sequential                               |                       |  |
| Programmable Peak Current  | Yes   |  |                       |  |
| Programmable Hold Current  |   | Yes                                      |                       |  |
| User-Definable Battery Compensation  | Yes   |  |                       |  |
| User-Definable Pressure Compensation   | Yes   |  |                       |  |
|  | Infinity-12   | Infinity-10                              | Infinity-8            |  |
| IGNITION   | 30-7102   | 30-7100                                  | 30-7101               |  |
| Coils-0-5V Falling Edge Fire. Must Use External                                  | 40  | 4.0                                      | •                     |  |
| Igniters.  | 12  | 10                                       | 8                     |  |
| OEM Ignition System Compatible   | Yes, external igniters or smart coils required                                      |  |                       |  |
| User-Programmable RPM & Load Points  | Yes   |  |                       |  |
| 3D Ignition Table RPM x Load   | Yes, user selectable load axis  |  |                       |  |
| Individual Cylinder Trims  | Yes, RPM based  |  |                       |  |
| Adjustable Coolant & Air Temp Compensation                                       | Yes, 3D tables vs. load   |  |                       |  |
| Knock-Software Digital Processing with Individual                                | 2 channels  |  |                       |  |
| Cylinder Windows   |   |  |                       |  |
| Dwell Time Calculation   | Yes, RPM, battery voltage and load compensated                                      |  |                       |  |
| Odd-Fire Engine Capacity   | Yes   |  |                       |  |







| <b>INPUTS</b> Some features below require Advan   | nced Tuning Package for activation (Available at no additional          |  |
|---|---|--|
| charge for a limited time)                        |   |  |
| Analog Voltage Inputs (12 Bit Resolution)         | 11 standard, 6 optional*  |  |
| Analog Temp Inputs (12 Bit Resolution, Software   | 3 standard, 3 optional*   |  |
| Switchable 2.49K Pullup Resistor)                 | · ·   |  |
| Digital Inputs                                    | 7 standard, 1 optional*   |  |
| VR/Mag Input (Precision Amplifier and Comparator, | 4 standard, 2 optional*   |  |
| Adaptive Peak Threshold)                          | 4 Standard, 2 Optional  |  |
| TRIGGER SENSORS                                   |   |  |
| Compatible With:                                  | Typical VR and Hall   |  |
| Digital Signal Processing, With Filters           | Yes   |  |
| AIR/FUEL RATIO INPUTS                             |   |  |
| On-Board Wideband UEGOs-Heater Controlled         | 2   |  |
| Sensor Type                                       | Bosch 4.2 LSU   |  |
| Range In Lambda                                   | 0.65λ∞  |  |
| Accuracy @ Λ = 1                                  | 1.016 ± .007  |  |
| OUTPUTS Some features below require Adv           | vanced Tuning Package for activation (Available at no additional        |  |
| charge for a limited time)                        |   |  |
| High Sides (0.7A Max. Over Temperature            |   |  |
| Shutdown, Over Current Shutdown)                  | 1 standard, 1 optional*   |  |
| Low Sides (Intelligent Power Switches, 4.5A Max.  |   |  |
| Over Temperature Shutdown, Over Current           | 10 standard   |  |
| Shutdown)   |   |  |
| 4-Wire Stepper Motor Control                      | 1   |  |
| H-Bridge Channels for DBW or DC Motor Control     | 2, application dependent, functionality coming soon                     |  |
| Over Current Limited to 5.0A)                     | -, -, -, -, -, -, -, -, -, -, -, -, -, -                                |  |
| USER INTERFACE SOFTWARE                           |   |  |
| User Interface                                    | Custom full floating dockable window controls                           |  |
| Set-Up Wizard                                     | Yes   |  |
| Sensor Calibrations                               | Standard sensors in Wizard, programmable calibration for custom sensors |  |
| User Configurable Layout                          | Yes   |  |
| User Configurable Color Blend & Display           | Yes, configurable by channel  |  |
| Preferences                                       |   |  |
| User configurable Channel Units                   | Yes, selectable by control  |  |
| PC Requirements                                   | Windows XP SP3 or higher, 32 bit color                                  |  |
| PC Graphical Hardware Optimization                | Yes   |  |
| Help File   | Yes   |  |
| Data Logging Analysis                             | Real time and playback modes with map animation                         |  |
| Multiple Graph Overlays                           | Yes   |  |
| X-Y Plots   | Yes, scatter plot   |  |
| Maths Functions                                   | Yes, user definable virtual channels                                    |  |
| Hot Keys  | Yes, user definable and linkable to custom math channels                |  |
| Digital Instrument Display                        | Yes, 3D models with camera angle selection feature                      |  |
| Engine Simulator                                  | Yes   |  |

<sup>\*</sup>The Infinity EMS's Advanced Tuning Package is sold separately. For a limited time, the Infinity EMS Advanced tuning package is available at no additional charge.

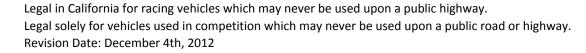
Legal in California for racing vehicles which may never be used upon a public highway. Legal solely for vehicles used in competition which may never be used upon a public road or highway. Revision Date: December 4th, 2012





| AIR/FUEL CALIBRATION                          |  |  |  |
|---|--|--|--|
| Туре  | Airflow based  |  |  |
| Injector PW resolution                        | 0.1 microsecond (0.0000001 seconds)  |  |  |
| User-Programmable RPM & Load Points           | Yes  |  |  |
| 3D VE Table RPM x Load                        | Yes, user selectable load axis   |  |  |
| 3D Injector Phasing RPM x Load Points         | Yes  |  |  |
| Individual Cylinder Trims                     | Yes, RPM based   |  |  |
| Automatic Secondary Injector Flow Calculation | Yes, based on flow, fuel type and split ratio                                    |  |  |
| Coolant & Air Temp Compensation               | Automatic with charge temp blend   |  |  |
| Lambda Target, Multi-fuel Capable             | Yes  |  |  |
| Decel Compensation                            | Yes  |  |  |
| Transient Compensation                        | Yes  |  |  |
| Lambda Cranking Target                        | Yes  |  |  |
| Frequency MAF Compatible                      | Yes  |  |  |
| 0-5V MAF Compatible                           | Yes  |  |  |
| BOOST CONTROL                                 |  |  |  |
| BD Main PW Table RPM x Boost Target           | Yes  |  |  |
| Switched Target, 12 Settings Max              | Yes  |  |  |
| Time Based Target                             | Yes  |  |  |
| ENGINE PROTECTION                             |  |  |  |
| Lean Protection                               | Yes, warning output  |  |  |
| Cold Engine Rev Limit                         | Yes  |  |  |
| Oil Pressure Protection                       | Yes, warning output  |  |  |
| Overboost Fuel Cut                            | Yes  |  |  |
| Fuel Pressure Variations                      | Yes  |  |  |
| IDLE CONTROL                                  |  |  |  |
| Control Type                                  | Closed loop PID  |  |  |
| Compatible with Stepper and PWM               | Yes  |  |  |
| Dashpot Function                              | Yes  |  |  |
| A/C Load Offset                               | Yes  |  |  |
| After Start Offset                            | Yes  |  |  |
| STANDARD FUNCTIONS                            |  |  |  |
| Variable Cam Control                          | Up to 4 channel  |  |  |
| Traction Control (2-Wheel Speed Based )       | Yes  |  |  |
| 2-Step Launch Control                         | Yes  |  |  |
| Wideband UEGO Control                         | 2 channel internal   |  |  |
| Soft/Hard Cut Rev Limiters                    | Fuel or ignition, closed loop PID  |  |  |
| Boost Anti-Lag                                | Yes  |  |  |
| Alarms  | Yes  |  |  |
| Gear Detection                                | Yes  |  |  |
|   | Single stage wet or dry coming soon, 3-stage with Advanced Tuning Package coming |  |  |
| Nitrous Control                               | soon   |  |  |

<sup>\*</sup>The Infinity EMS's Advanced Tuning Package is sold separately. For a limited time, the Infinity EMS Advanced tuning package is available at no additional charge.







| DIAGNOSTICS  |  |  |  |  |
|--|--|--|--|--|
| Sensors  | Open and short circuit detection   |  |  |  |
| MIL Output   | Yes  |  |  |  |
| Fuel Injectors   | Saturation and overflow detection  |  |  |  |
| Spark Timing Overflow  | Yes  |  |  |  |
| DATA LOGGING   |  |  |  |  |
| PC Log All Layout Channels   | Yes, log synchronized with controls  |  |  |  |
| Memory Size-External FAT/FAT 32 Storage Device                                 | 4GB standard, tested up to 64GB. Contact AEM for details.                          |  |  |  |
| Logging Performance (FAT File System)  | Up to 10 channels at 1KHz, Up to 20 channels at 500Hz, Up to 100 channels at 200Hz |  |  |  |
| Logging Performance (Raw File System)  | Up to 100 channels @ 1KHz  |  |  |  |
| Tuning Software Interpretation   | Graphical analysis with log playback and controls sync feature                     |  |  |  |
| Advanced Data Analysis   | AEMdata license included   |  |  |  |
| ADVANCED TUNING PACKAGE (Available at no additional charge for a limited time) |  |  |  |  |
| Drive by Wire (2-Channel)  | Application dependent, coming soon*  |  |  |  |
| Traction Control (4-Wheel Speed Based)   | Yes*   |  |  |  |
| 3-Step Launch Control  | Yes*   |  |  |  |
| No-Lift Shift  | Yes*   |  |  |  |
| 4-Stage Nitrous Control  | Coming soon*   |  |  |  |
| Analog Voltage Inputs (12 Bit Resolution)                                      | 6*   |  |  |  |
| Analog Temp Inputs (12 Bit Resolution, Software                                | 3*   |  |  |  |
| Switchable 2.49K Pull-up Resistor)   |  |  |  |  |
| Digital Inputs   | 1*   |  |  |  |
| High Sides (0.7A max, Over Temperature   | 1*   |  |  |  |
| Shutdown, Over Current Shutdown)   |  |  |  |  |
| VR/Mag Differential Pair Inputs  | 2*   |  |  |  |

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