



# PERFORMANCE ELECTRONICS



## 2018/2019 MASTER CATALOG

WIDEBAND AIR/FUEL CONTROLLERS

ENGINE MANAGEMENT SYSTEMS

DIGITAL DASH DISPLAYS

WATER/METHANOL INJECTION

FUEL DELIVERY COMPONENTS

PERFORMANCE SENSORS

IGNITION COMPONENTS

PERFORMANCE GAUGES

DATA LOGGERS





# ABOUT AEM

Thirty one years ago, we opened our doors as a tuning shop that welcomed vehicles of all kinds. It didn't matter if it was domestic, import, off road or watercraft, or whether it was carbureted or fuel injected. If it was meant to go fast, our goal was to make it faster.

Being racers ourselves, we saw shortcomings in technology in all racing segments, so we made it our mission to create performance electronics and products that are easier on the wallet so that more racers had access to leading edge technology.

While much has changed over the past few decades, our mission has not. We continue to take pride in delivering a combination of quality engineering, robust

construction and industry-leading value with every product we make. Whether you race on four wheels or two, at the track or in the dirt, sand, salt, snow or water, we want to help you go faster, set records and win. It's what inspires us—and we aren't lifting.

## CONSTANT INNOVATION

Last year we introduced the CD-7 Digital Dash, a daylight readable, full color display with professional features at a Sportsman's price. Its ability to easily integrate with existing 3rd party electronics combinations by reading channels from a CAN bus has made it very popular.

We are proud to expand our digital display lineup with the CD-5 Carbon, a five-inch full color display in a beautiful flow-molded carbon fiber composite housing.

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We want everyone to be able to use our CD-7 and CD-5 Carbon dashes, so we in-house validated hundreds of 3rd party devices to work with them, we created 3rd party plug & play harnesses and developed a CAN OBDII adapter harness for racers using stock/reflashed factory ECUs. Our 22 Channel CAN Sensor Module converts sensor signals to AEMnet CAN, so now even carbureted racecar drivers can See Everything with our CD dash displays.

We updated our Fuel Delivery products with a new adjustable fuel pressure design and added a 400LPH Inline High Flow Fuel Pump with metric fittings to our lineup, making it easier than ever to upgrade from the popular "044 style" pump.

Our X-Series Widebands received a patent for its proprietary digital technology - a technology that makes it the fastest responding wideband in independent testing. An average 20ms response time allows our X-Series Widebands to 'see' AFR changes that other controllers may miss, enabling you to achieve the very best possible tune.

Our Infinity ECU has proven itself to be one of the ultimate standalone engine management systems for all types of racing thanks to a robust feature set

and affordable price. It was chosen by professional race series for its flexibility, reliability and durability, powering the TA2 class in SCCA Trans Am, Global Rallycross Lites, FIA RX2, and NASA's Elan NP02 series, and is on many record setting, championship-winning vehicles in domestic and import drag racing, road racing, time attack, open desert, short course, Ultra4 and more. As we strive for continuous improvement through more applications and features, we pass these on to our customers: Once you invest in the Infinity - or any of our other products for that matter - we will never charge to unlock a new feature or get the latest version of software.

And there's more! Visit our New Products section on page 2 to see what's new.

### OUR VISION

Our goal is to be the top competitor in performance electronics, and we accomplish this goal through product innovation, product integrity, being a price/value leader and by putting our customers first. If you ever want to tell us how we are doing, contact us. We will listen. Your faith in our products and critical feedback ensures that we will achieve our Vision.

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### PRODUCT LEGAL RESTRICTIONS

Certain AEM Performance Electronics products may be used solely on vehicles used in sanctioned competition which may never be used upon a public road or highway, unless permitted by specific regulatory exemption.

It is the responsibility of the installer and/or user of this product to ensure that it is used in compliance with all applicable laws and regulations. If this product was purchased in error, do not install and/or use it. The purchaser must arrange to return the product(s) for a full refund.

This policy only applies to installers and/or users who are located in the United States, however customers who reside in other countries should act in accordance with their local laws and regulations.

All AEM products with this designation feature this icon on their respective pages in this catalog.



# NEW PRODUCTS



**CD-5 Carbon Digital Display** - Page 8



**3rd Party Plug & Play Harnesses for CD-7/CD-5 Carbon Displays** - Page 10



**Infinity Series 3 Plug & Play for MEFI-4 Equipped Racecars** - Page 71



**Infinity Series 5 Plug & Play Harness for Polaris RZRs** - Page 68



**22 Channel CAN Sensor Module - Digital & Analog Frequency to CAN Converter** - Page 13



**Flex Fuel Wideband Failsafe Gauge** - Page 18



**Vehicle Dynamics Module and GPS Module** - Page 13



**X-Series OBDII Wideband for Open Source/Reflash Software** - Page 16



**400LPH Metric Fittings Inline Fuel Pump** - Page 36



**AQ-1 OBDII Data Logger** - Page 50

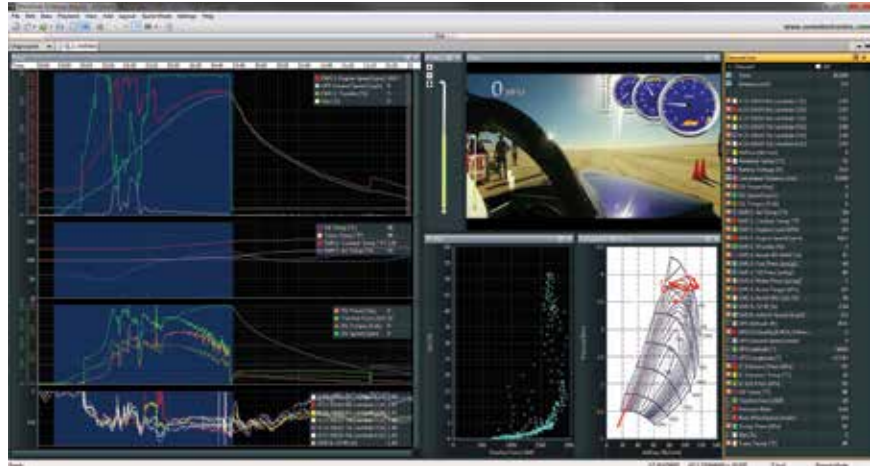


**High Cap Adjustable Fuel Pressure Regulator** - Page 40

## AEMDATA ANALYSIS SOFTWARE

**Powerful, Fully Customizable & Includes Video Encoding for Overlays!**

AEMdata is a custom data analysis package for the Infinity ECU, Series 2 EMS, EMS-4, AQ-1 Data Logger, CD-7L/CD-5L Carbon, and Water/Methanol, Wideband and Flex Fuel Failsafe Gauges. It has a user-friendly interface combined with advanced graphics that allows you to review and playback vehicle, driver or engine data, and overlay this data using charts, dash displays, gauges, or custom displays that you can create. High-speed logging is saved to a file internally or via PC connection.



**Customizable Interface:** Quickly design a workspace of your own or choose from one of our templates. From the layout interface to the gauge styles, it's your call! Users can also create tabs to data for quick reference and store them for future reference.

### AEMdata Features:

- > “Drag & Drop” channel feature - drag the channel to your lane, gauge or graph!
- > User definable alarms with color changing traces make finding critical data easy
- > Log playback mode
- > Track mapping
- > Circuit or stage modes
- > Lap/sector analysis
- > Time/distance plots
- > Multiple channels per lane
- > Multi-lane log trace
- > Channel statistics
- > User-defined reports
- > Unlimited map overlays
- > User-defined maths channels
- > Scatter plots
- > Data export via .csv, Matlab, etc.

## AEMNET—EASILY SHARE CHANNELS ACROSS MULTIPLE DEVICES

AEMnet is our open architecture CAN bus network. Simply put, it allows multiple AEMnet enabled devices to easily communicate with each other through a single cable, eliminating the need to connect multiple devices' analog outputs to another device's analog inputs on a wiring harness. Want to log your Infinity

data and 4-Channel Wideband data in the CD-7L Dash? Connect it all with one plug, choose what you want to log from the channel list and it's ready to go. AEMnet reduces wiring complexity, installation time and saves weight by eliminating additional wiring.

The following AEMnet devices transmit channels via AEMnet:



**22 Channel CAN Sensor Module**



**Wideband Failsafe & Flex Fuel Wideband Failsafe Gauges**



**4-Channel Wideband UEGO Controller**



**X-Series Widebands & X-Series Gauges**



**Vehicle Dynamics Module & GPS Module**

**AEMDATA - CREATE VIDEO FILES WITH OVERLAYS!**

AEMdata’s video encoding feature allows you to import 3rd party video, combine it with live logged data via user customizable gauges and graphic images and then export the final video in full HD resolution.

Visualize data more than ever before by connecting it with what you experienced on the track. Create more compelling videos by adding custom gauges, graphs and graphics, and share videos with your sponsors, customers and social media followers.



**Add and fully customize the following displays:**

- > Round Gauges
- > Vertical & Horizontal Bar graphs
- > Text displays
- > Images
- > BitMask displays
- > Radar (2D & 3D) graphs
- > Track Maps

**The following AEMnet devices receive channels via AEMnet:**



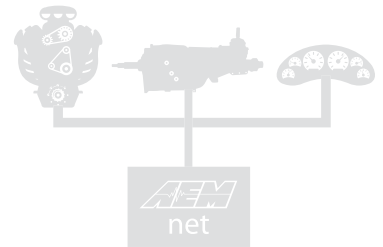
**AQ-1 & AQ-1 OBDII  
Data Loggers**



**CD-7 & CD-7L  
Digital Dashes**



**CD-5 Carbon & CD-5L  
Carbon Digital Dashes**



**The following devices transmit and receive channels via AEMnet:**



**Infinity ECU (all Series)**



**Series 2 EMS**



**EMS-4**



**X-Series Speedometer**





momo

momo



# DIGITAL DASH DISPLAYS



When we developed the CD dash line, we looked at all of the shortcomings of popular dashes and eliminated them. The result? Daylight readability, ease of use and limitless customization, all at a competitive price. Consider the bar raised.



CD-7

CD-5 Carbon

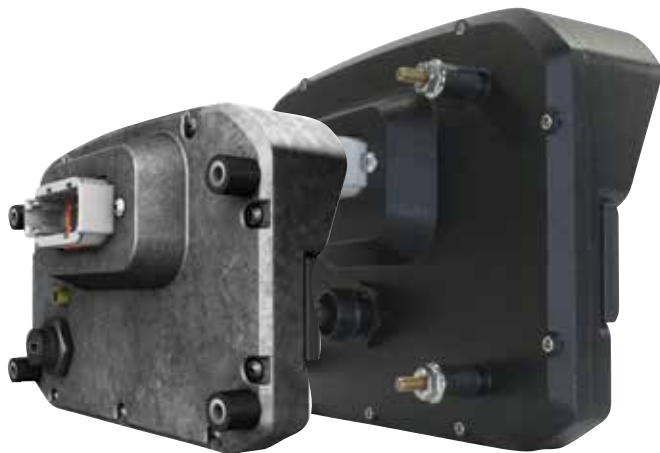
### CD-7 AND CD-5 CARBON DIGITAL DASH DISPLAYS

AEM CD-7 and CD-5 Carbon digital displays are available with a seven-inch diagonal 800x480 screen in a powdercoated aluminum enclosure, and with a five-inch diagonal 800x480 screen in a beautiful, lightweight flow-molded carbon fiber composite housing. Both dashes have ultra-bright displays with integrated glare diffusers and shade hoods so that they are readable in the brightest daylight conditions.

Two CAN bus channels are included so that they can receive and collect data from AEMnet enabled devices such as the Infinity ECU, Series 2 EMS or EMS-4,

and 3rd Party Devices including PDMs, CAN sensor modules and programmable engine management systems (see page 10). Both dashes are ECU CAN ready and do not require external modules for CAN to CAN communication, just load your configuration and go!

We currently have over 150 validated 3rd party applications, and offer an OBDII CAN-based Plug & Play Adapter Cable for racers who are using a stock/reflashed ECU. We have also developed 3rd Party Plug & Play Adapter Cables for certain applications (see page 10 for 3rd party/OBDII CAN info/apps).



Both dashes have 12-pin DTM connectors with 2 independent CAN bus channels, a USB for comms and soft mounts to minimize vibration. The CD-5G/CD-5LG have direct inputs for a GPS antenna (optional upgrade), or users can add GPS through the CAN bus.



Free DashDesign software includes pre-designed templates and CAN configuration files for AEM and many popular 3rd Party CAN-based products. As we add templates, they are free to download, and you can create your own custom designs within the software. Put whatever you want wherever you want to, with whatever backgrounds you desire.

Seven ultra-bright LEDs span the top of the display housings for RPM and shift light indication. Users can program them to ascend in specific increments based on RPM range, and flash when it is time to shift. Two large buttons are included on the face of the display, allowing easy page changing and memory resetting even with driving gloves on. Two additional programmable LEDs are located in each housing.

#### CD-7 & CD-5 Carbon Digital Dash Features:

- > Full color screens
  - > Direct sunlight readable - 1000cd/m<sup>2</sup> brightness and anti-glare filter
  - > IP66 water resistance allows for operation in boats and motorcycles without worry
  - > Accepts channels from two separate user programmable CAN bus connections
    - **works with AEMnet enabled devices and 3rd party devices side by side**
  - > Install our 22 Channel CAN Sensor Module to add channels to dash via AEMnet CAN - **Perfect for carbureted apps!**
  - > ECU CAN bus ready - no external modules needed for CAN to CAN communication!
  - > Available with or without 200Mb internal logging (up to 1000Hz/channel)
  - > Seven programmable pages including four Main pages, Alarm, On-Change and Start-up pages
  - > Dedicated Alarm page quickly identifies problems (user defined)
  - > Unique On-Change page can be used to identify map switching for boost, traction, lap times, etc.
- > Use included page templates and input your channels and text, or create your own custom page templates
  - > Free DashDesign Graphics Editor software
  - > Seven LED RPM/shift light indicators on top of the housing (programmable and dimmable)
  - > Two programmable LEDs above toggle buttons on sides of housing
  - > > CD-7 available bundled with VDM for adding track maps, lap times and vehicle dynamics
  - > CD-5 Carbon available with on-board 10Hz GPS for track mapping/lap timing/odometer function
  - > Over 200 supplied fully programmable warning icons, and you can add your own
  - > 'Headlight-in' connection dims the dash and LEDs during night operation
  - > Two extra switch inputs included for displaying user-triggered events (blinkers, high beams etc.)
  - > User supplied graphics can be changed based on channel values (up to the full screen size)
  - > Convert CAN bus channel values to user-defined text



Seven fully user programmable main pages include a startup page, 4 main pages, dedicated alarm page and on-change page that can be programmed to momentarily change when a user defined event occurs like passing a start/finish line or changing ECU mapping.



Since you aren't always looking at the dash, we included a dedicated alarm page that is designed to grab your attention if any user defined alarm parameters are triggered. Alarms can also be programmed to display in text on the main page with user defined priorities.

## CD DIGITAL DASH 3RD PARTY VALIDATED APPS

### Designed to Work With Virtually Any CAN-Based Device

The CD-5 Carbon and CD-7 Digital Dashes were designed using an open architecture so that they have the ability to display channels from almost any CAN bus-based device. We have validated hundreds of 3rd party devices in house to ensure seamless integration, and created a Power Cable to simplify the power connection for 3rd Party Devices that do not supply power to the dash directly (*see harnesses, below*):



- > Adaptronic M1200, M2000, M6000 ECUs
- > Adaptronic Modular series Plug-in ECUs
- > Autosport Labs AnalogX 4 Ch Analog to CAN Module
- > BigStuff GEN4 Pro Xtreme ECUs
- > Bosch IMU 2-Axis Accel & Yaw Sensor
- > FAST XFI 2.0 ECU
- > gaugeART 31-001, 8 Ch Analog Expansion Module
- > GM/Delphi MEFI-4b ECUs
- > Haltech Elite 550, 750, 1000, 1500, 2000, 2500 ECUs
- > Haltech Platinum Pro, Platinum Sport and Platinum Sprint ECUs
- > Haltech WBC1 & WBC2, 1 & 2 Ch CAN widebands
- > Holley HP EFI, Dominator EFI ECUs  
**(Plug & Play Adapter Cable Available)**
- > Hondata KPro4 and S300 V3 ECUs
- > KMS MD35 ECU
- > KMS Single Ch CAN wideband
- > KMS 4 Ch EGT Module
- > KMS 4 Ch Wheelspeed Module
- > KMS 2 Ch DBW Module

## STOCK ECU- NO PROBLEM!

### Plug & Play Adapter Cable for OBDII CAN bus - Perfect for Reflashed/ Piggyback ECU users!

AEM's OBDII CAN Plug & Play Adapter Harness makes the CD Dashes the perfect racing displays for track day enthusiasts who want to be able to see engine and vehicle data but are running a 2008-up factory ECU, either stock or with re-flashed or open-source software. Combine it with the Vehicle Dynamics Module to add track mapping, lap times, and critical vehicle dynamics data.



PN 30-2217

- > KMS Flex Fuel CAN Module
- > Life Racing F42, F88, F90 & GDI Series ECUs
- > Link G4+ based ECUs (Plug & Play Adapter Cable Available)
- > Megasquirt, MS3 ECU
- > MicroTech LT-9C, LT-10C, LT-15C & LT-16C ECUs
- > Motec M1, M84, M400, M600, M800, & M880 ECUs
- > Motec PDM15, PDM16, PDM30 & PDM32 Power Distribution Modules
- > Motec PLM Lambda Module
- > Motec LTC, LTCD Lambda to CAN Modules
- > Motec E888, E816, CAN Expansion Modules
- > MSD Atomic EFI Throttle Body ECUs (**Plug & Play Adapter Cable Available**)
- > MSD GRID Programmable Ignition
- > PCS EGT-2000, 8 Ch EGT Module
- > ProEFI Pro128, Pro112, and Pro48 ECUs
- > RaceGrade TC8, 8 Ch EGT Module
- > RaceGrade 8 Ch and 15 Ch Keypads
- > Racepak V300SD, V500SD, Sportsman, G2X, & G2XPro Loggers
- > Racepak 220-VM-USM, Universal 4 Sensor Analog Modules
- > Racepak 220-VP-IRXXXX, IR Tire & Brake Temp Modules
- > Racepak 220-VP-JBXXXX, Exhaust Temp Modules
- > Racepak 220-VP-PTXXXX, Pressure Sensor Modules
- > Racepak 220-VP-PTXXXX, Wheelie Bar Force Modules
- > Racepak 220-VP-RIDEHTXX, Laser Ride Height Modules
- > Racepak 220-VP-TCXXXX, Thermocouple Modules
- > Racepak 220-VP-TRXXXX, Coolant/Air/Oil/Trans/Diff Temp Modules
- > Syvecs S6, S6+, S6I, S8, SDI & S12 ECU's
- > Techmor AC-1-4, 4 Ch Analog Expansion Module
- > Techmor IR-1 Non-Contact IR Tire Temperature Module
- > Techmor AP-1, 16 Ch Aero Pressure Sensor Module
- > Techmor SG-1-C, Strain Gauge Amplifier Module
- > Vi-PEC i44-i88 ECUs (**Plug & Play Adapter Cable Available**)

**MORE 3RD PARTY APPLICATIONS BEING VALIDATED!**

### 3RD PARTY PLUG & PLAY ADAPTER CABLES

#### CD Dash Plug & Play Adapter Cable for MSD Atomic TBI

AEM's MSD Atomic EFI TBI CAN bus Communication Harness provides a one-plug connection from CD dashes to MSD Atomic ECUs. Power is provided through the CAN bus connection. This harness is fully terminated and connects the CAN2 input on the CD-7 main harness to the CAN output on the MSD Atomic TBI harness.



PN 30-2213

#### CD Dash Plug & Play Adapter Cable for Holley EFI

AEM's Plug & Play CAN bus Communication Harness for Holley EFI systems is fully terminated and connects the CAN2 input on the CD-7 main harness to the CAN output on a Holley EFI harness.



PN 30-2215

#### CD-7 Plug & Play Adapter Cable for Vi-Pec and Link ECUs

AEM's Plug & Play CAN bus Communication Harness provides a direct connection for Vi-Pec i44 or i88 ECUs, and 29 Link G4+ ECUs! Please visit the forum on our website for hardware validated Link ECUs.



PN 30-2214

#### AEMnet Extension Cables

AEMnet extension cables provide the extra length necessary to make a trouble-free connection when the supplied AEMnet cable will not reach. Available in 2-, 5-, and 10-foot lengths.

2ft. PN 30-3606  
5ft. PN 30-3607  
10ft. PN 30-3608



**CD DASH POLARIS RZR PLUG & PLAY ADAPTER KIT**

**Displays Channels from the Factory ECU!**

AEM's Polaris RZR Plug & Play Adapter Kit for its CD Digital Dash Displays includes RZR specific screen layouts designed to get you out riding with virtually no installation or setup time!

This harness provides a true plug & play connection from the CD Dashes to the Polaris RZR's factory CAN bus through the diagnostic port and receives all available channels from the factory CAN bus system on 2014-up vehicles. 2013 and older vehicles may not have full channel availability including fuel level. The CD-7 may still work

on these apps, but fuel level will not be displayed unless the stock dash is retained. Users

also have the ability to modify AEM's layouts or create custom layouts using AEM's free DashDesign software.



Adapter Harness PN 30-2216. Dash Sold separately.



A dedicated Alarm page triggers for very high coolant temps, and can be programmed to trigger for additional parameters.



An Adventurer layout includes a live compass that ensures you know which direction you are headed in the dunes or forest (requires AEM GPS or VDM module, page 13).



A Race layout features lap time, lap delta, current lap, fastest lap time and lap, and predicted lap time (requires AEM GPS or VDM module, page 13).



A Vehicle Diagnostics page displays all channels for monitoring/troubleshooting.

**22 Channel CAN Sensor Module**

AEM’s 22 Channel CAN Sensor Module converts analog, digital and frequency inputs into an AEMnet CAN bus signal that can be transmitted to the CD-7 and CD-5 Carbon Digital Dashes. Includes four 0-5v analog inputs, four Temp inputs, four user configurable inputs for 0-5v, Temp or RTD, dedicated fuel level input, six digital inputs for switched or duty cycle, Tach input and two VR inputs for crank, wheel or driveshaft speeds. Users can select the CAN speed delivery rate, and the harness is included.



PN 30-2212

**Vehicle Dynamics Module**

The AEM Vehicle Dynamics Module (VDM) has an on-board 50Hz 3-axis accelerometer, 50 Hz 3-axis gyroscope and fast, highly accurate 10Hz GPS + GLONASS receiver that provides pinpoint position. The VDM’s GPS + GLONASS deliver vehicle speed, position, heading and altitude for lap timing and creating track maps using AEMdata’s track mapping software, while the accelerometer and gyroscope provide critical data for chassis tuning thanks to their fast, 50Hz sampling rate. There has never been a more affordable way to capture highly accurate position data for track mapping!



PN 30-2206

PN 30-2207

**CAN bus GPS Module**

AEM’s affordable CAN-based GPS Module allows users to add track mapping capability for viewing lap times, vehicle speed and an odometer function. GPS data is transmitted via AEMnet CAN bus through a one plug connection for fast installation – it’s virtually plug and play. Competition vehicles that are logging vehicle speed, vehicle position and 3-axis accelerometer data should use AEM’s Vehicle Dynamics Module (VDM).

Part Number	Description
<b>CD-7 &amp; CD-5 Carbon Digital Dash Displays</b>	
30-5500	CD-7 Digital Dash Display
30-5501	CD-7L Logging Digital Dash Display
30-5502	CD-7 Digital Dash Display with VDM (30-2206)
30-5503	CD-7L Logging Digital Dash Display with VDM (30-2206)
30-5600	CD-5 Carbon Digital Dash Display
30-5601	CD-5L Carbon Logging Digital Dash Display
30-5602	CD-5G Carbon Digital Dash Display with internal 10Hz GPS and antenna
30-5603	CD-5LG Carbon Logging Digital Dash Display with internal 10Hz GPS and antenna
<b>CD-7 &amp; CD-5 Carbon 3rd Party Plug &amp; Play Adapter Cables/Kits</b>	
30-2213	Plug & Play Adapter Harness for MSD Atomic TBI
30-2214	Plug & Play Adapter Harness for Holley EFI
30-2215	Plug & Play Adapter Harness for Vi-Pec and Link ECUs
30-2216	Plug & Play Adapter Harness for Polaris RZR OBD CAN bus
30-2217	Plug & Play Adapter Harness for OBDII CAN bus, Incl. Power Cable
30-2218	Power Cable for Non-AEMnet Equipped Devices
<b>GPS, Vehicle Dynamics &amp; CAN Expansion Modules</b>	
30-2206	Vehicle Dynamics Module, 10HZ GPS w/ IP67-Rated Antenna, 3-Axis Accelerometer, 3-Axis gyroscope
30-2207	GPS Module, 5Hz
30-2212	22 Channel CAN Expander, Four 0-5v analog Inputs, Four Temp Inputs, Four User Configurable Inputs, Fuel Level input, Six Digital Inputs, Tach Input and Two VR Inputs
<b>AEMnet CAN bus Extension Cables</b>	
30-3606	2-Foot AEMnet Extension Cable
30-3607	5-Foot AEMnet Extension Cable
30-3608	10-Foot AEMnet Extension Cable

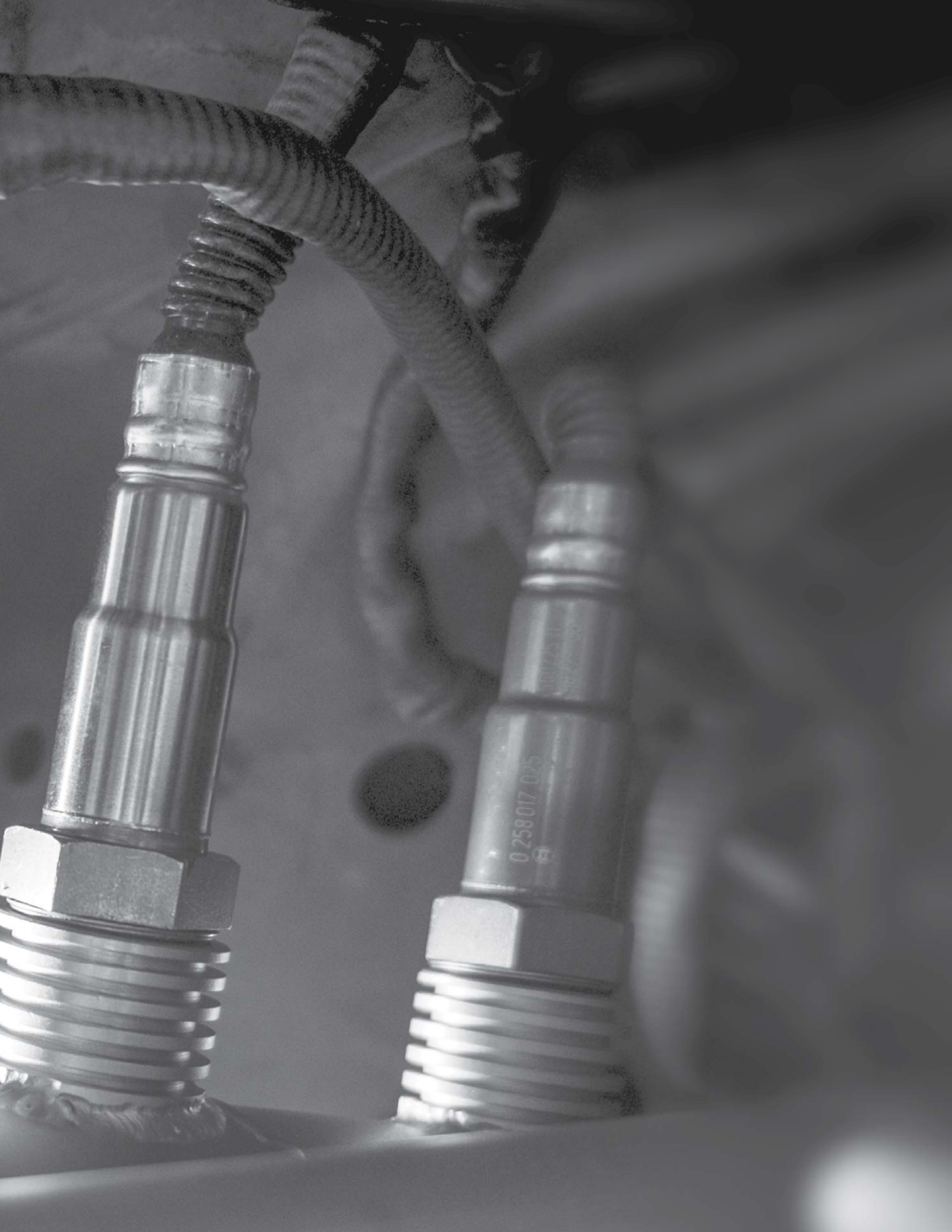


# WIDEBAND AIR/FUEL RATIO CONTROLLERS

A close-up, grayscale photograph of a spark plug. A wideband air/fuel ratio sensor is installed in the center of the spark plug's hexagonal base. The sensor has a white, cylindrical body with a corrugated, braided metal hose extending upwards. The background is dark and out of focus, showing the internal structure of the spark plug.

We created the first affordable AFR sensor controller with a gauge interface in 2002 and it became World renowned, sparking an industry unto itself. But we like to stay on top, and that requires innovation. So we created the X-Series Widebands; the fastest responding AFR sensor controllers available in independent testing. They can 'see' AFR changes other controllers may miss, which means you have the ultimate tool for achieving the best possible tune.







PN 30-0300

### X-SERIES - THE FASTEST RESPONDING WIDEBANDS\*

X-Series Widebands are built upon unique, patented X-Digital technology that is independently tested to have the fastest response time. This technology enables X-Series Widebands to “see” changes in AFR that other controllers may miss, which provides tuners with the ability to create a more optimized engine tune and safer overall operating condition.

#### Factory or Free-Air Calibration

X-Series Wideband Sensor Controllers allow you to use the sensor resistor calibration or free-air calibrate the sensor. This allows users to take advantage of the precise factory resistor calibration when a sensor is new but then allows for free-air calibrations if the user desires when the sensor ages.

#### Feedback Control and Data Logging

X-Series Wideband Sensor Controllers include a 0-5v and RS232 Serial Port output for feedback control and data logging, and an AEMnet (CAN bus) output for data logging and daisy chaining up to 16 X-Series Widebands together to monitor and record AFR in multiple cylinders. It's perfect for use with dynamometers. X-Series Widebands can be used on gasoline, methanol, ethanol, propane, CNG and Diesel engines.

### X-SERIES OBDII WIDEBAND UEGO AFR GAUGE

#### View/Log AFR in Open Source and Piggyback Software!

Our X-Series OBDII Wideband UEGO AFR Gauge provides tuners who are using piggyback tuning modules or open source software with the ability to view AFR through the factory CAN-bus stream that is output by the factory ECU. The OBDII output simulates an auxiliary ECU signal when plugged into a vehicle's OBD port. It is validated to work with HPTuners, EFI Live and DashDaq software.



PN 30-0334

### X-SERIES WIDEBAND UEGO AFR GAUGE

The X-Series Wideband UEGO AFR Gauge measures 2- 1/16" (52mm) in diameter, and features a modern, visually striking faceplate and new seven-segment display that is 87% larger than the original AEM

Wideband Gauge's segment display. Its slim depth (0.825-inches gauge) and ultra slim cup depth of .200-inch makes it easy to install just about anywhere.



Slim design lets you mount it almost anywhere.



3- or 4-digit display in AFR, Lambda or O2%.



Optional silver faceplate with white dual-faced AFR/Lambda faceplate available. (sold separately).

#### X-Series Wideband Uego AFR Gauge & Inline Controller Features:

- > Patented X-Digital technology makes X-Series the fastest responding wideband UEGO AFR sensor controller (see our website for independent test results)
- > Includes Bosch 4.9LSU wideband UEGO sensor
- > Use the factory resistor calibration or free-air calibrate the sensor
- > Compatible with vehicle/system voltages up to 16V
- > 0-5V & RS232 for data logging and feedback control, AEMnet (CAN bus) for data logging and daisy-chaining multiple controllers up to 16 cylinders
- > Auto dimming feature (gauge)

### X-SERIES INLINE WIDEBAND UEGO SENSOR CONTROLLER

The X-Series Inline Wideband UEGO Controller features a weather-resistant, low-profile enclosure with status LEDs.



PN 30-0310

### X-SERIES PRO INLINE 2-CHANNEL WIDEBAND UEGO SENSOR CONTROLLER

AEM's X-Series Pro Inline Wideband features two Lambda controllers in an IP67-rated waterproof billet aluminum enclosure with an Autosport connector. It is designed for professional Motorsports applications and is made to order with user-defined CAN Bit rate, Bit Identifier and Base Arbitration ID. It is intended to be integrated into the vehicle through a dedicated wiring harness, so it does not include sensors, sensor connectors, a wiring harness or mating Autosport connector.

PN 30-0350





PN 30-5130



PN 30-4110



PN 30-4900

### WIDEBAND FAILSAFE GAUGES

**Gauges Can Display Air/Fuel Ratio, Boost/Vacuum and Ethanol Content, and Can Save Your Engine if it Runs Lean!**

The Wideband Failsafe and Flex Fuel Wideband Failsafe Gauges are multiple gauges in one, and so much more. They deliver the ultimate combination of monitoring device, wideband sensor control for engine tuning and engine protection. The Wideband Failsafe Gauge monitors and displays both AFR and manifold pressure (up to 29 PSI boost). The Flex Fuel Wideband Failsafe Gauge monitors and displays AFR, ethanol content and boost (up to 29 PSI).

They also have an internal data logger. The Wideband Failsafe logs RPM, AFR and boost/vacuum, and the Flex Fuel Wideband Failsafe internally logs AFR, boost/vacuum and ethanol content. Logs are viewable in AEMdata data analysis software.

What makes them unique is that they can save your engine if AFRs fall outside of user defined parameters. The gauge's failsafe strategy is completely user definable; from something as simple as making the gauge flash to cutting timing, or boost, or switching to a safety map using a standalone ECU.



### NEW! Flex Fuel Wideband Failsafe Gauge Adds Ethanol Content to the Center Display

Show AFR, Boost and Flex Content all on one Gauge, plus have the protection of accurate, responsive Failsafe Technology (available with/without Flex Fuel sensor).



PN 30-4911

## DIGITAL AND ANALOG WIDEBAND UEGO AFR GAUGES

### A Gauge and Wideband Sensor Controller in One Unit!

AEM's legendary Wideband UEGO AFR Gauges unite accuracy, speed and control with an easy to read interface.

Our digital gauge-type wideband sensor controller features a digital LED display and sweeping LED "needle" that changes colors as AFR changes from rich to lean.

Our analog gauge-type wideband sensor controller features 320 degrees of resolution for detecting even a tenth of a point change in AFR, and has a high-speed electric stepper motor for lightning-fast needle movement. It features seven (7) user-selectable backlighting colors that allow you to match it to most factory gauge clusters. As with all of our Wideband Controllers, they are fast and accurate.

### Digital/Analog Wideband Gauges Features:

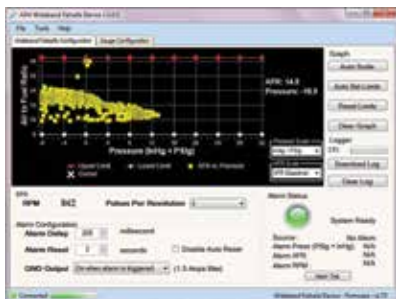
- > Interchangeable black/white faceplates and black/silver bezels included
- > 52mm (2-1/16") gauge housing
- > User-definable backlighting (Analog Only)
- > 0-5 V analog output (10-20 AFR range for 30-4110)



### Wideband & Flex Fuel Wideband Failsafe Features:

- > Failsafe technology can save your engine if it runs lean
- > Bosch Wideband UEGO sensor and weld-in bung included
- > On-Board 3+ hour Datalogging
- > Logs RPM, AFR and boost/vacuum (gasoline version)
- > Log AFR, boost/vacuum and ethanol content (flex fuel version)
- > Intuitive set up software (PC based with USB connectivity)
- > Interchangeable black/white faceplates and black/silver bezels
- > 0-5 V analog outputs for AFR & MAP
- > Data analysis using AEMdata software
- > AEMnet compatible
- > 52mm (2-1/16") gauge housing

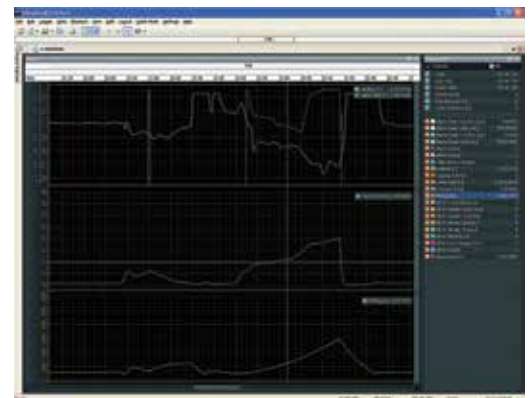
Set your AFR range vs. boost/vacuum to create a safe operating window.



Choose displayed parameters on the OLED screen/bar graph, set the alarm and adjust lighting for a custom look (multiple faceplates included).



View logged parameters in AEMdata.





PN 30-2340

### 4-CHANNEL WIDEBAND UEGO CONTROLLER

**The Ultimate Tool for Monitoring and Controlling Individual Cylinder Fuel Trims**

AEM's 4-Channel Wideband Controller delivers precise feedback of each cylinder's AFR, providing tuners with the ability to tune each individual cylinder to a targeted AFR for maximum engine power and safe operating condition.

The 4-Channel Wideband UEGO Controller will work on up to 12 cylinders by daisy chaining multiple units together via AEMnet (see page 4). The system can be integrated with almost any data logger or engine management system through four differential analog outputs or the AEMnet datastream output.

- > Ideal for engine dynos!
- > Two status lights per sensor for error detection and operating status
- > Compact (4.8" x 4.55" x 1.44"), weather & shock proof enclosure and harness
- > Accurate to 0.1 AFR
- > Specially designed stainless steel bungs (see below)
- > Four 0-5v outputs & AEMnet enabled CAN output



PN 30-2064

### Exhaust Backpressure Compensation Kit for Boosted Applications - Mount Sensors Pre Turbo!

AEM's innovative exhaust backpressure compensation kit allows the wideband sensors to be mounted in each exhaust runner before the turbocharger and deliver accurate AFR readings. Sold separately.



PN 30-4008-4PK

### Stainless Steel Tall Manifold Bungs

These bungs are designed specifically for use on forced induction vehicles using the 4-Channel Wideband UEGO Controller. The tall design keeps the sensor body cool and reduces restriction, and the fins enhance cooling. Sold separately.



### No Weld Bungs

No welding equipment? No problem! AEM's no-weld bungs make it easy to install your wideband UEGO AFR sensor using a drill and the supplied hardware. Fits 1.75" to 3.5" exhaust pipe diameters.



### Bosch 4.9LSU Replacement Sensor

Replacement sensor for Digital Wideband Controller Gauge and X-Series Widebands.

PN 30-2004




### Bosch 4.2LSU Replacement Sensor

Replacement sensor for Infinity ECU, 4-Channel Wideband UEGO Controller and Wideband/Flex Fuel Failsafe Gauges.

PN 30-2001

Part Number	Description
<b>X-Series Wideband UEGO Controllers</b>	
30-0300	X-Series Digital Wideband UEGO Gauge Controller
30-0310	X-Series Single Channel Inline Wideband UEGO Controller
30-0334	X-Series OBDII Digital Wideband UEGO Controller Gauge
30-0300-ACC	X-Series Wideband UEGO Gauge Accessory Kit. Includes Silver Bezel & White AFR/Lambda Faceplate. For use with 30-0300 & 30-0334

 AEM Wideband Failsafe Gauges may be used solely on vehicles used in sanctioned competition which may never be used upon a public road or highway, unless permitted by specific regulatory exemption. Installers/users located outside the United States should act in accordance with their local laws and regulations. It is the responsibility of the installer and/or user of this product to ensure that it is used in compliance with all applicable laws and regulations, and this product must not be purchased if the intent is to use it in an unlawful manner.

<b>Wideband Failsafe Gauge/Flex Fuel Failsafe Gauge</b>	
30-4900	Wideband Failsafe Gauge
30-4910	Flex Fuel Wideband Failsafe Gauge, no Flex Fuel Sensor
30-4911	Flex Fuel Wideband Failsafe Gauge, with Flex Fuel Sensor
30-3439	AEMnet Adapter for Wideband Failsafe 30-4900 & 30-4910
35-3440-F	AEMnet Female Termination Plug
35-3440-M	AEMnet Male Termination Plug

<b>4-Channel Wideband UEGO Controller</b>	
30-2340	4 Channel Wideband UEGO Controller
30-2340-N	4 Channel Wideband UEGO Controller - For use with NASCAR McLaren ECU via CAN

<b>4-Channel Wideband UEGO Accessories</b>	
30-2064	Exhaust Backpressure Sensor Install Kit
30-2063	Wideband UEGO Sensor with Stainless Tall Manifold Bung Install Kit - 4 Channel Wideband
30-4008	4.2LSU Stainless Tall Manifold Bung
30-4008-4PK	Stainless Tall Manifold Bung - 4 Pack

<b>Single Channel Wideband UEGO Controller Gauges</b>	
30-4110	Digital Wideband UEGO Gauge
30-4110NS	Digital Wideband UEGO Controller Gauge, No Sensor (Must use Bosch 4.9LSU Sensor)
30-5130	Analog Wideband UEGO Gauge. 8.5-18 Gasoline AFR
30-5143	Analog E85 Wideband UEGO Gauge. 5.7-11.9 E85 AFR
30-3421	Digital to Analog UEGO Wideband Gauge Wiring Conversion; 30-4400 to 30-5130 & 30-5143

<b>Inline Wideband UEGO Controllers</b>	
30-0310	X-Series Single Channel Inline Wideband UEGO Controller
30-0310N	X-Series Digital Inline Wideband UEGO Controller - For use with NASCAR McLaren ECU via CAN
30-0350	X-Series Pro Digital 2-Channel Inline Wideband UEGO Controller (Call AEM to order)

<b>No-Weld O2 Sensor Bung Mounts</b>	
30-2355-200	1.75"-2" No-Weld O2 Sensor Mount
30-2355-250	2.25"-2.5" No-Weld O2 Sensor Mount
30-2355-300	2.75"-3" No-Weld O2 Sensor Mount
30-2355-350	3.25"-3.5" No-Weld O2 Sensor Mount

<b>Sensors and Accessories</b>	
30-2001	Bosch LSU 4.2 Wideband UEGO "Replacement" Sensor
30-2004	Bosch 4.9LSU Wideband UEGO "Replacement" Sensor
30-2200	Ethanol Content Flex Fuel Sensor for Flex Fuel Failsafe Gauge, 3/8" Barbed Fittings
30-2201	Ethanol Content Flex Fuel Sensor for Flex Fuel Failsafe Gauge, -6 AN Fittings
35-4001	O2 Sensor Bung Plug
35-4005	O2 Sensor Bung Mild Steel
30-8444	Water-Resistant Gauge Boot (30-4110, 30-5130 & 30-5143 only)

## WHAT IS A WIDEBAND UEGO SENSOR CONTROLLER?

AEM's Wideband UEGO (Universal Exhaust Gas Oxygen, pronounced "You-Way-Go") Controllers are powerful, cost effective tuning tools that allow users to accurately monitor the Air/Fuel Ratio (AFR) of an engine.

### Why Use a Wideband Sensor Controller?

Accurate AFR data is critical when tuning an engine. Running rich (very low air/fuel ratio, excessive fuel) can cause a loss in power, while running too lean (very high air/fuel ratio, not enough fuel) may result in serious engine damage. Using a wideband controller during the tuning process allows you to monitor AFR and adjust tuning parameters to optimize them for maximum power and efficiency. AEM has a comprehensive line of highly accurate, reliable wideband controllers that can help ensure your vehicle is optimally tuned.

### Can I Change The AEM UEGO Sensor's Connector?

No. There is a laser-etched, calibrated resistor in the sensor's connector body. This resistor is specifically created for the exact sensor that it is attached to. Modifying this will invalidate the sensor's output.









# HIGH PERFORMANCE GAUGES

The popularity of our original wideband UEGO gauge led to a full line of complementary digital gauges, and eventually analog style gauges. But when we created X-Series, it was time to innovate. The outcome? A gauge line that is Smarter, Slimmer and downright Sexier.



## X-SERIES DIGITAL PERFORMANCE GAUGES

### Incredible Looks Combined with Advanced Technology

X-Series Digital Gauges combine incredible looks and dramatically increased readability with technological feature advancements for today's modern racer. A bright, four-digit LED display is 87% larger than our existing digital gauges for better readability, and a sweeping LED "needle" lines the edge of the gauge

face for quick reference. Its overall display area is 33% larger than our other digital gauges, but is packaged in a standard 52mm diameter for easy integration into gauge pods. With an overall depth of under an inch and a cup depth of just under 1/4-inch, they can be mounted practically anywhere.

## X-SERIES OBDII GAUGE

### Displays OBDII Channels and Reads/Clears Trouble Codes on 08-Up Vehicles!

The X-Series OBDII Digital Gauge connects to a vehicle's OBDII port and can display available OBD channel values on the center and sweeping outer LEDs. Select which channel you want to be displayed and toggle between them using the buttons on the gauge face. When restarting a vehicle, the last channel is remembered and displayed. The number of different parameters available for viewing/display is dependent on the vehicle's readable channels. In DTC Mode, the gauge can display diagnostic trouble codes, allowing you to identify the issue and clear the code once the cause of the code is fixed.



## X-SERIES SPEEDOMETER

### Receives GPS Info to Display Vehicle Speed & Can Send Data to Infinity ECU!

AEM's X-Series Digital Speedometer receives data from the AEM VDM or included 10Hz GPS device and uses it to display MPH on the center LED and sweeping digital "needles". It is AEMnet enabled and has the ability to retransmit this data through the CAN bus stream. This allows users with an Infinity ECU or AQ-1 data logger to record GPS data and use it to create track maps, replay race laps, and combine it with other logged data using AEMdata analysis software!





**AEMnet Daisy Chain Capability**

An optional AEMnet cable for temp and pressure gauges lets users daisy chain multiple gauges together.

**X-Series Gauges Features:**

- > 52mm gauge diameter and slim 0.825" overall gauge depth
- > Gauge cup depth under 1/4" deep - mount them virtually anywhere!
- > Programmable 4-digit or 3-digit center LED
- > 24 outer LEDs
- > Peak/Recall via gauge face buttons
- > User selectable threshold warnings (excl. Volts, AEMnet & OBDII)
- > Optional silver bezel with white faceplate(s) available
- > AEMnet CAN bus-enabled for transmitting data to EMS or data logger
- > 0-5v analog outputs for EMS or data logger
- > Auto dimming
- > Positive locking connectors

**X-SERIES AEMNET CAN BUS GAUGE**

**Displays Multiple Parameters from AEMnet Enabled Devices**

The X-Series Digital AEMnet Gauge is like having multiple data displays all on one gauge! It receives the AEMnet CAN bus datastream from AEMnet-enabled devices including the Infinity ECU, Series 2 EMS, 4-Channel Wideband UEGO AFR Controller and X-Series Widebands, and can display these parameters on the LED display. Users can scroll through the available channels and select what data is displayed, set alarms and view peak/recall for each channel by using the buttons on the faceplate. Available channels below assumes that the relevant sensors are installed.



**Series 2, EMS-4 or Infinity ECU available channels:**

Engine RPM	Throttle	Engine Load	Coolant Temp	Intake Air Temp	Battery Volts
Lambda 1	Lambda 2	Gear	Ignition Timing	Vehicle Speed	

**Additional Infinity ECU available channels (all of the above, plus):**

MAP	Oil Pressure	Fuel Press	Coolant Press	Crank Press	Baro Press
Oil Temp	Trans Temp	Airbox Temp	Flex Content	Boost Control	Boost Target
Knock	Wheel Slip	AFR F/B %	Injector Duty %		

**4-Channel Wideband UEGO available channels:**

Individual AFRs for Cyl 1 through Cyl 8

**X-Series Wideband(s) available channels:**

Lambda 1 through Lambda 8

**Vehicle Dynamics Module (VDM) available channels**

Vehicle Speed (GPS)	Lateral Acceleration	Longitudinal Acceleration	Altitude
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### DIGITAL PERFORMANCE GAUGES

**View and Log Vital Vehicle Information to the Exact Degree!**

AEM Digital Gauges combine unsurpassed accuracy, speed and control with an easy-to-read digital LED interface. They feature a bright, three-digit LED display and a sweeping LED “needle” that lines the edge of the gauge face. Each gauge includes a 0-5 V analog output for use with data loggers and virtually any engine management system, interchangeable silver and black bezels and black and white faceplates to personalize the look of your gauge.

### ANALOG STYLE PERFORMANCE GAUGES

**Unbeatable Viewing Resolution, Accuracy and Looks!**

AEM’s Analog Style Gauges feature quick response and smooth needle movement that is easy to read in all lighting conditions. Each gauge offers a swept area of 320 degrees for the best viewing resolution at almost any angle.

All AEM Analog Style Gauges feature seven backlight colors that allow you to match your OEM or other gauge backlighting, a silver and black bezel and a white and black faceplate to best match the interior of your vehicle. The backlighting is adjustable via a dial on the rear of the gauge to optimize viewing in all lighting conditions.



### UNIVERSAL 52MM SILICONE GAUGE BOOT

Our silicone gauge boot (PN 30-8444) repels water (not waterproof), and protects your gauge from dust and contaminants.

**Digital Performance Gauges Features:**

- > Ideal for carbureted or EFI vehicles
- > Easy-to-install Plug & Play harness and sensor included
- > 24 green LED display lights provide immediate reference to monitored engine function
- > Each gauge comes with interchangeable black/silver bezels and black/white faceplates
- > 0-5 V analog output included for use with data loggers and virtually any engine management system
- > Three-digit digital readout to exact degree
- > Auto-dimming gauge face and read out lighting
- > No laptop required for monitoring
- > Standard 52mm (2-1/16") gauge housing

**Analog Style Performance Gauges Features:**

- > Ideal for carbureted or EFI vehicles
- > Easy-to-install harness and sensor included
- > 320-degrees of viewing resolution
- > Each gauge comes with interchangeable black/silver bezels and black/white faceplates
- > Adjustable backlighting
- > 0-5 V analog output included for use with data loggers and virtually any engine management system
- > Standard 52mm (2-1/16") gauge housing



### TRU-BOOST GAUGE-TYPE BOOST CONTROLLER

**Combines Electronic Boost Controller Precision with Manual Controller Ease-of-Use!**



PN 30-4350

AEM's TRU-BOOST Gauge-Type Controller is an electronic boost controller that combines the simplicity of a manual boost controller with the added ease of adjusting boost levels through a gauge interface. There is no external interface required for set up, and it is fully functional right out of the box.

The gauge includes an on-board 29 PSIG pressure sensor, built-in overboost protection with two timed shutdown levels, a scramble boost setting and a low-side output for a warning light. A 75 PSIA boost sensor for high boost applications is sold separately (see below). AEM's boost control solenoid is included.



See Page 1

#### Tru-Boost Features:

- > No PC required for programming!
- > Two user selectable boost settings with peak boost memory
- > Scramble boost setting allows user to momentarily change boost levels
- > 24 Scalable LEDs
- > Interchangeable black and white bezels, black and silver pin guide and black and white faceplates to customize look of display
- > One (1) low-side output included for warning lights



PN 30-4351

### TRU-BOOST 5 BAR EXTERNAL PRESSURE SENSOR KIT

Read boost levels up to 50PSIG. Sensor kit includes: Stainless-Steel 5BAR/75PSIA Pressure Sensor, 1/8" NPT Female to -4 Male Adapter, 1/8" NPT Female to 3/16" Barb Adapter and Cable.



PN 30-2400

### BOOST CONTROL SOLENOID KIT

AEM's boost control solenoid is the only one specifically manufactured for automotive boost applications. Kit includes: Boost Control Solenoid with 1/8"-NPT Fittings, -4 Adapters, Barb Adapters and Connector Plug with Flying Lead.

#### X-Series Digital Gauges

Part Number	Description
30-0300	X-Series Wideband UEGO AFR Sensor Controller Gauge, Black Bezel & Black AFR/Lambda Faceplate
30-0300-ACC	X-Series Wideband UEGO AFR Sensor Controller Gauge Accessory Kit with Silver Bezel & White AFR/Lambda Faceplate, For 30-0300 & 30-0334
30-0301	X-Series Oil/Fuel Pressure Gauge 0-100psi / 0-7bar, Black Bezel & Black Oil Pressure Faceplate
30-0301-ACC	X-Series Pressure Gauge 0-100psi / 0-7bar Accessory Kit with Silver Bezel, Black Fuel Pressure Faceplate and White Oil & Fuel Pressure Faceplates
30-0302	X-Series Water/Oil/Transmission Temperature Gauge 100-300F / 40-150C, Black Bezel & Black Water Faceplate
30-0302-ACC	X-Series Temperature Gauge 100-300F / 40-150C Accessory Kit with Silver Bezel, Black Transmission & Oil Temperature Faceplates and White Water, Transmission & Oil Temperature Faceplates.
30-0303	X-Series Volts Gauge 8-18V, Black Bezel & Black Faceplate
30-0303-ACC	X-Series Volts Gauge 8-18V Accessory Kit with Silver Bezel & White Faceplate
30-0305	X-Series EGT Gauge 0-1800F / 0-1000C, Black Bezel & Black Faceplate
30-0305-ACC	X-Series EGT Gauge 0-1800F / 0-1000C Accessory Kit with Silver Bezel & White Faceplate
30-0306	X-Series Boost Pressure Gauge -30inHg-35psi / -1-2.5bar, Black Bezel & Black Faceplate
30-0306-ACC	X-Series Boost Pressure Gauge -30inHg-35psi / -1-2.5bar Accessory Kit with Silver Bezel & White Faceplate
30-0307	X-Series Oil Pressure Gauge 0-150psi / 0-10bar, Black Bezel & Black Faceplate

**X-Series Digital Gauges (continued)**

Part Number	Description
30-0307-ACC	X-Series Oil Pressure Gauge 0-150psi / 0-10bar Accessory Kit with Silver Bezel & White Faceplate
30-0308	X-Series Boost Pressure Gauge -30-60psi / -1-4bar, Black Bezel & Black Faceplate
30-0308-ACC	X-Series Boost Pressure Gauge -30-60psi / -1-4bar Accessory Kit with Silver Bezel & White Faceplate
30-0309	X-Series Boost/Fuel Pressure Gauge 0-15psi, Black Bezel & Black Boost/Fuel Faceplate
30-0309-ACC	X-Series Pressure Gauge 0-15psi Accessory Kit with Silver Bezel & White Boost/Fuel Faceplate
30-0311	X-Series OBDII Gauge, Black Bezel & Black Faceplate
30-0311-ACC	X-Series OBDII Gauge Accessory Kit with Silver Bezel & White Faceplate
30-0312	X-Series AEMnet Can Bus Gauge, Black Bezel & Black Faceplate
30-0312-ACC	X-Series AEMnet Can Bus Gauge Accessory Kit with Silver Bezel & White Faceplate
30-0313	X-Series GPS Speedometer Gauge 0-160mph / 0-240kph, Black Bezel & Black Faceplate
30-0313-ACC	X-Series GPS Speedometer Gauge 0-160mph / 0-240kph Accessory Kit with Silver Bezel & White Faceplate
30-0334	X-Series OBDII Wideband UEGO AFR Sensor Controller Gauge, Black Bezel & Black AFR/Lambda Faceplate


**Digital Performance Gauge Applications**

Part Number	Description
30-4110	Digital Wideband UEGO Gauge
30-4110NS	Digital Wideband UEGO Gauge, No Sensor
30-4400	Digital Volt Gauge. 8-18Vs
30-4401	Digital Oil/Fuel/Air Pressure Gauge. 0-100psi
30-4402	Digital Oil/Transmission/Water Temperature Gauge. 100-300F
30-4406	Digital Boost Gauge. -30-35psi
30-4407	Digital Oil Pressure Gauge. 0-150psi
30-4408	Digital Boost Gauge. -30-50psi
30-4900	Wideband Failsafe Gauge
30-4910	Flex Fuel Wideband Failsafe Gauge (no Flex Fuel Sensor)
30-4911	Flex Fuel Wideband Failsafe Gauge (with Flex Fuel sensor)

**Analog Style Performance Gauge Applications**

Part Number	Description
30-3020	Water/Methanol Failsafe Device - SAE 1/4"
30-3020M	Water/Methanol Failsafe Device - Metric 4mm
30-5130	Analog Wideband UEGO Gauge. 8.5-18 Gasoline AFR
30-5131	Analog EGT SAE Gauge. 0-1800F
30-5131M	Analog EGT Metric Gauge. 0-980C
30-5132	Analog Boost SAE Gauge. -30-35psi
30-5132M	Analog Boost Metric Gauge. -1-2.4Bar
30-5133	Analog Oil/Fuel SAE Pressure Gauge. 0-100psi
30-5133M	Analog Oil/Fuel Metric Pressure Gauge. 0-6.9Bar
30-5135	Analog Oil SAE Pressure Gauge. 0-150psi
30-5135M	Analog Oil Metric Pressure Gauge. 0-10.2Bar
30-5137	Analog Boost SAE Gauge. 0-60psi
30-5137M	Analog Boost Metric Gauge. 0-4.1Bar
30-5139	Analog Volts Gauge. 8-18V
30-5140	Analog Oil/Transmission/Water Temperature SAE Gauge. 100-300F
30-5140M	Analog Oil/Transmission/Water Temperature Metric Gauge. 40-148C
30-5141	Analog H2O Flow Gauge. 0-500cc
30-5142	Analog H2O Flow Gauge. 0-1000cc
30-5143	Analog E85 Wideband UEGO Gauge. 5.7-11.9 E85 AFR
30-5144	Analog Boost/Fuel Pressure SAE Gauge. 0-15psi

**Boost Control Gauge/Solenoid Applications**

 AEM Boost Controllers may be used solely on vehicles used in sanctioned competition which may never be used upon a public road or highway, unless permitted by specific regulatory exemption. Installers/users located outside the United States should act in accordance with their local laws and regulations. It is the responsibility of the installer and/or user of this product to ensure that it is used in compliance with all applicable laws and regulations, and this product must not be purchased if the intent is to use it in an unlawful manner.


Part Number	Description
30-4350	Tru-Boost Controller Gauge
30-4351	Tru-Boost Gauge 75 PSIA or 5 Bar Map Sensor Upgrade
30-2400	Boost Control Solenoid Kit. Includes: Boost Control Solenoid, 2 X 1/8" NPT to 3/16" Barb Adapter & Muffler

**Gauge Accessories**

Part Number	Description
30-3420	Digital to Analog; Gauge Wiring Conversion; Pressure/Temp/Voltage; 30-4400 to 30-5139, 30-4401 to 30-5133(M), 30-4402 to 30-5140(M), 30-4406 to 30-5132(M), 30-4407 to 30-5135(M)
30-3421	Digital to Analog Gauge Wiring Conversion; UEGO/Wideband; 30-4400 to 30-5130 & 30-5143
30-8444	Gauge Boot - 52mm. Universal Weather Resistant Gauge Boot

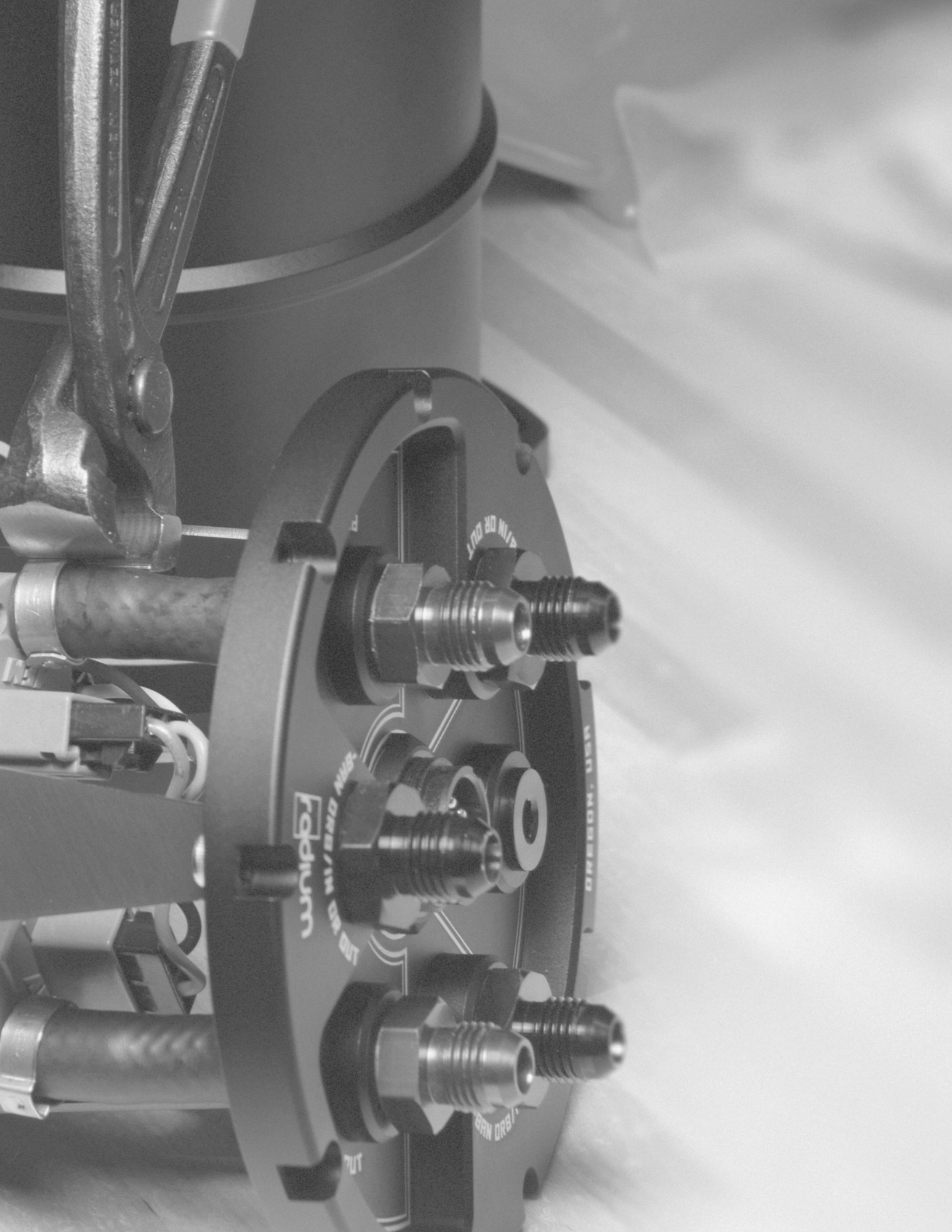


# HIGH FLOW FUEL DELIVERY



Our fuel pumps, regulators, filters and rails deliver big flow at a small price. Your engine will beg for more boost.





## 340LPH HIGH FLOW IN-TANK E85 & GASOLINE FUEL PUMPS

### High Flow and Low Cost Combine for the Ultimate Fuel Pump Upgrade

AEM's High Flow In-Tank Fuel Pumps are designed for high performance naturally aspirated and forced induction EFI vehicles. Our In-tank pumps flow up to 340LPH (90 GPH) at 40 PSI and are capable of supporting over 1,000 HP at 43 PSI.\* Flow curves from 35 to 90 PSI and current draw vs. fuel pressure charts are on the opposite page.

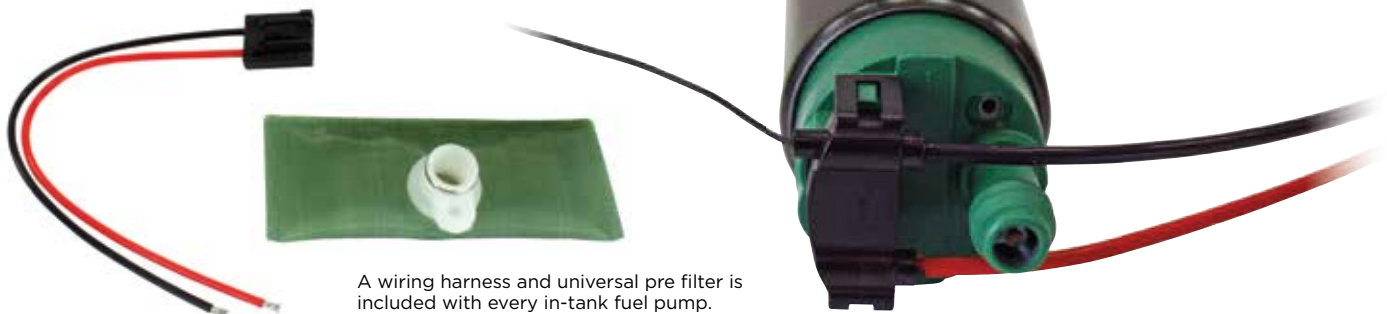
AEM black anodized in-tank fuel pumps are for use with gasoline only and green top 'E85' fuel pumps are compatible with E100 ethanol, M100 methanol and all gasoline types. AEM's E85-compatible High Flow In-Tank Fuel Pumps feature robust internal construction that is designed to withstand the low lubricity characteristics of ethanol and methanol fuels.



#### High Flow In-Tank Fuel Pump Features:

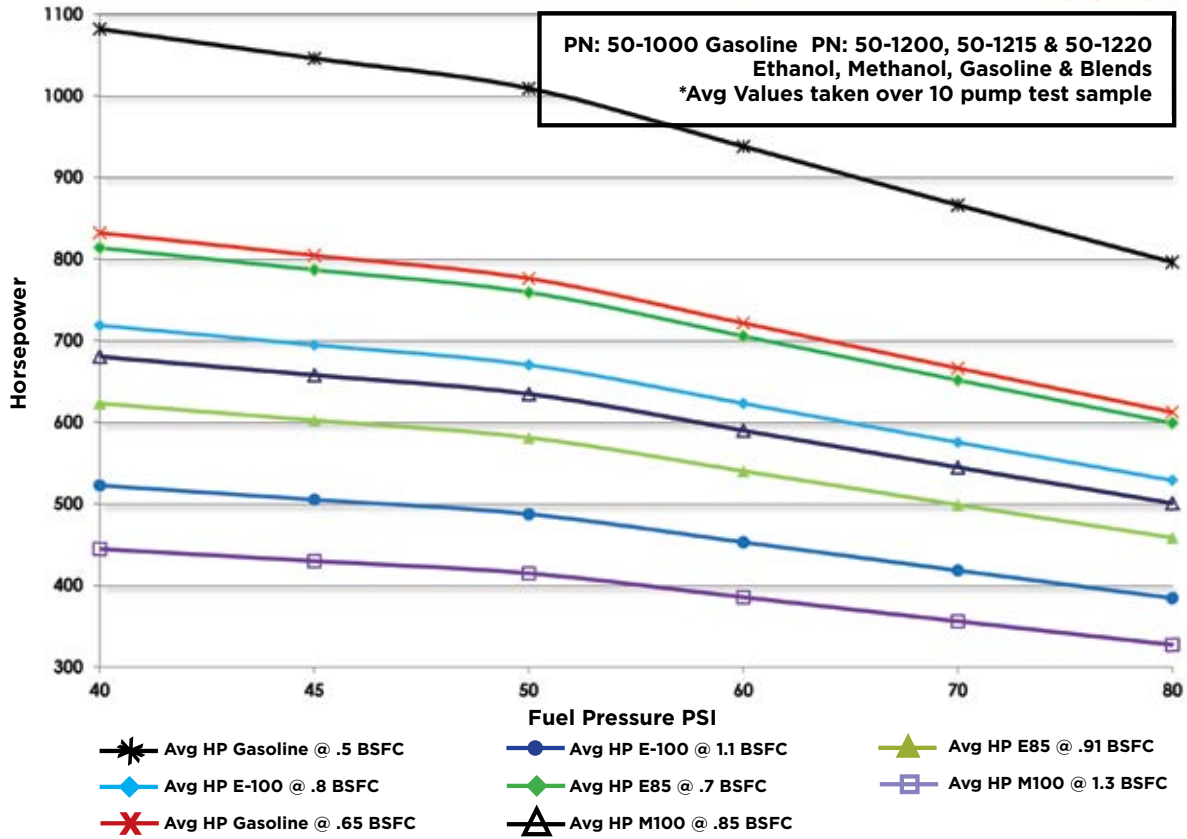
- > Compact 39mm diameter fits most applications
- > Multiple inlet designs to accommodate many vehicles
- > Wiring harness and pre filter are included
- > Every pump is individually tested to flow 340LPH @ 40 PSI before packaging

\*Power rating given at 43 PSI, 13.5v at the pump with a BSFC of .5. Flow capability for horsepower support is ultimately dependent on fuel hose diameter, and system electrical voltage and amperage capabilities.

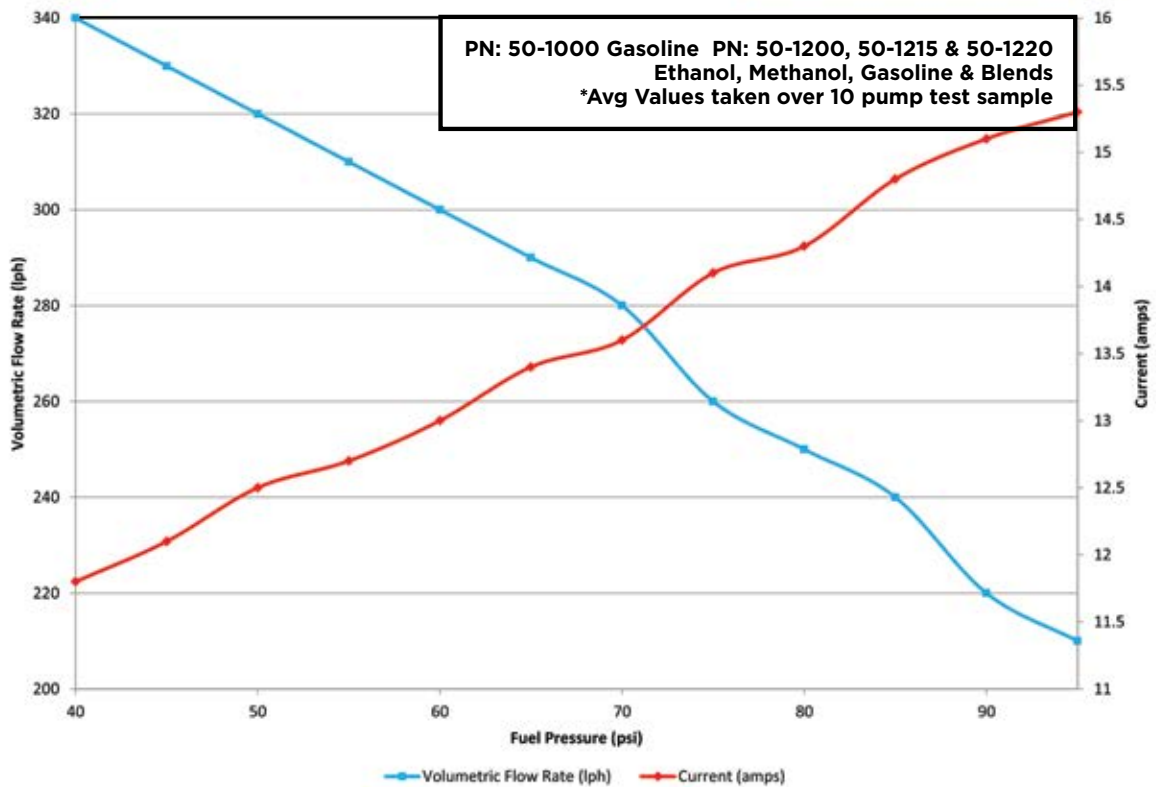


A wiring harness and universal pre filter is included with every in-tank fuel pump.

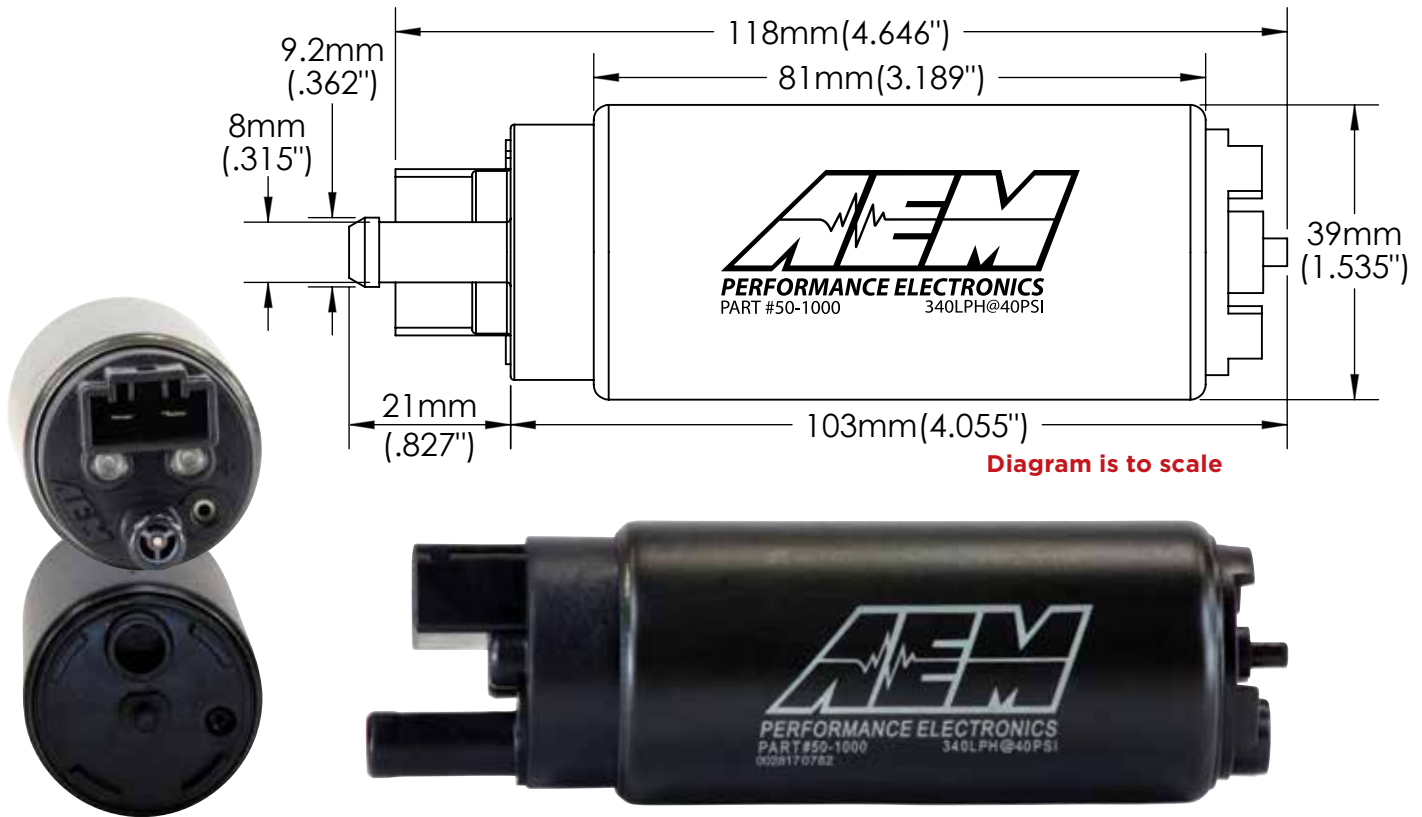
### AEM High-Flow In-Tank Fuel Pump HP vs Pressure



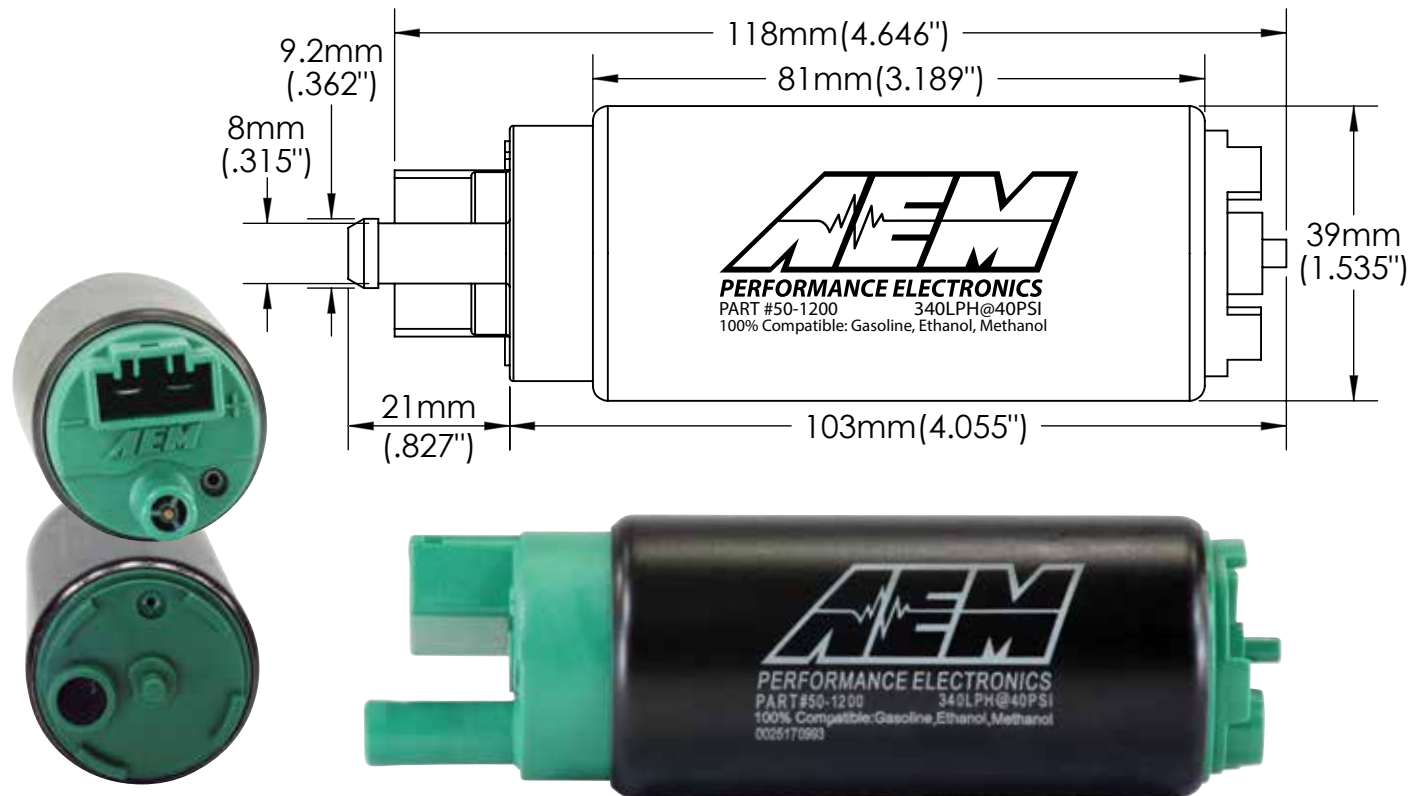
### AEM High-Flow In-Tank Fuel Pumps Flow and Current vs. Pressure



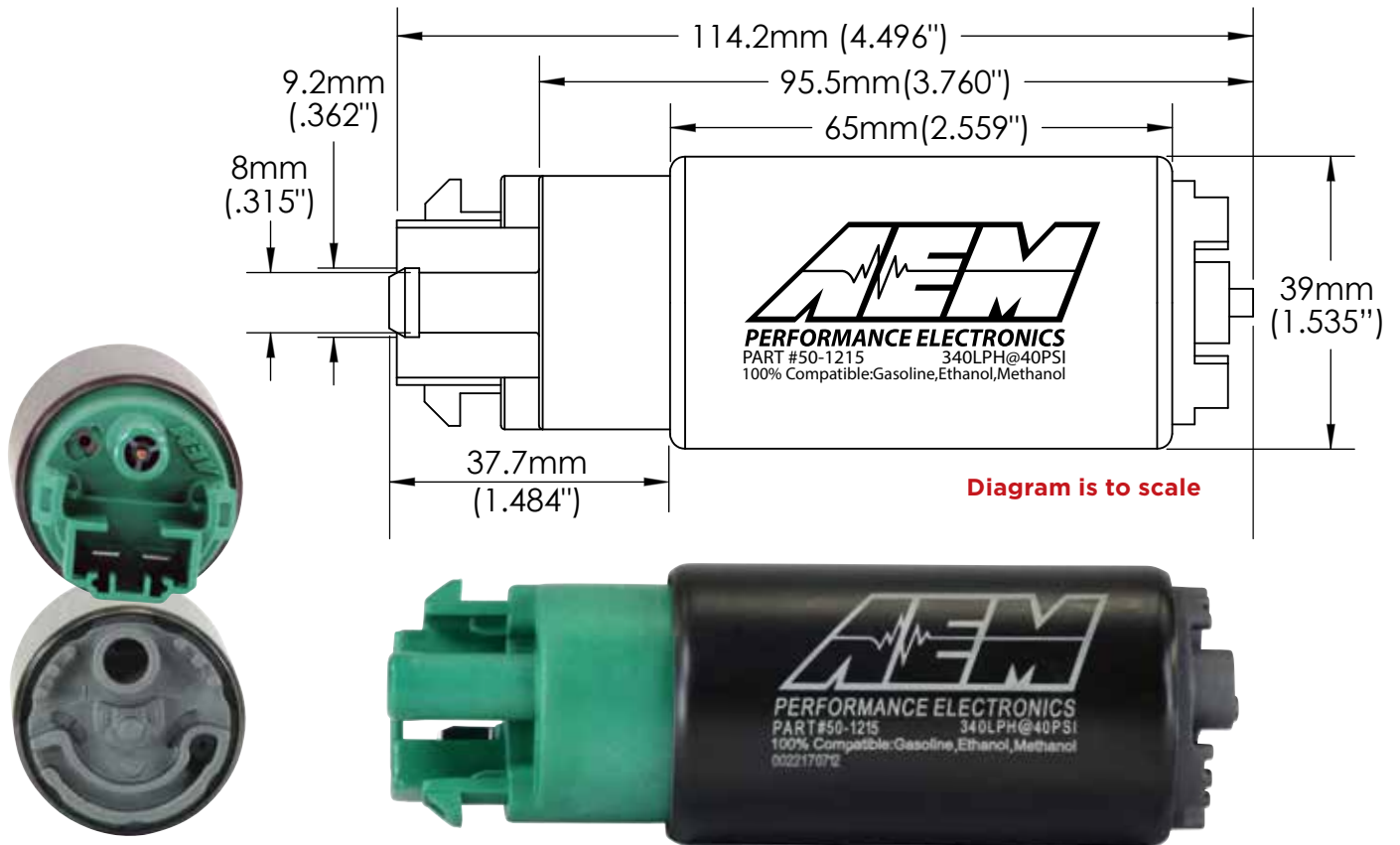
**50-1000 340LPH HIGH FLOW IN-TANK GASOLINE FUEL PUMP DIAGRAM**



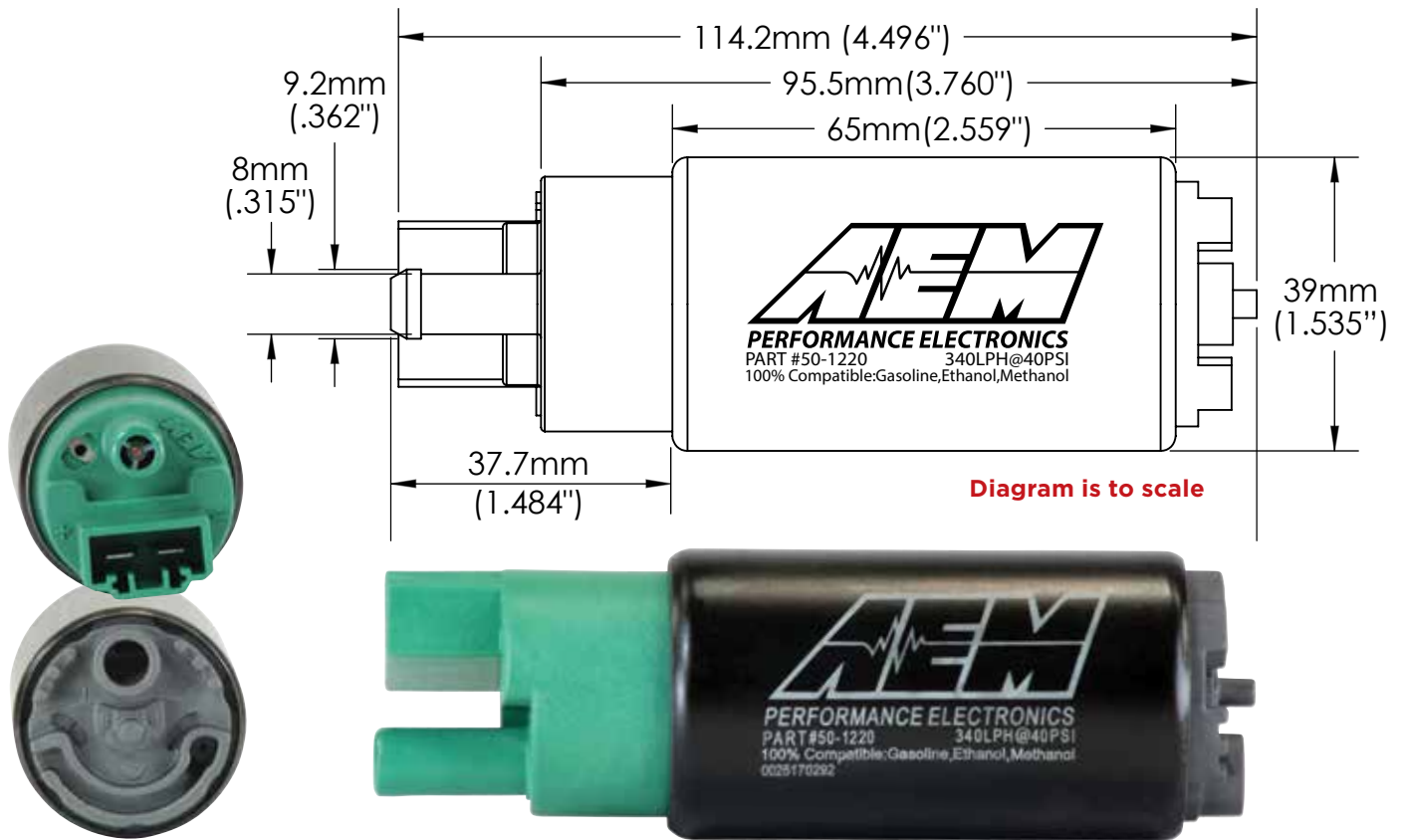
**50-1200 340LPH HIGH FLOW IN-TANK E85 FUEL PUMP DIAGRAM**



**50-1215 340LPH HIGH FLOW IN-TANK E85 FUEL PUMP DIAGRAM**



**50-1220 340LPH HIGH FLOW IN-TANK E85 FUEL PUMP DIAGRAM**



## 400LPH HIGH FLOW INLINE FUEL PUMPS

### Popular Sized High Flow Inline Pumps Available with AN or Metric Fittings!

AEM's 400LPH High Flow, High Pressure Inline Fuel Pumps are capable of supporting over 1,200 HP normally aspirated and a whopping 860 HP at 30 psi boost!\*\* Two versions are available; one with AN fittings for custom lines and one with Metric fittings that makes it the perfect upgrade for existing "O44-style" fuel pump users. These pumps flow 400LPH (105 GPH) at 40 PSI, 340LPH (90 GPH) at 73 PSI, and 270LPH (71 GPH) at 120 PSI.

Our 400LPH Inline Fuel Pumps are designed for inline external installation, however a pre-filter is available for adapting these pumps for in-tank installation. We also have additional AN fittings available in multiple sizes for both the inlet and outlet (*please see application chart on page 40*).

\*\*Power rating given using gasoline and assuming a base fuel pressure of 43 PSI, 13.5v at the pump, 6.2 lbs/gal with a BSFC of 0.65. Boost fuel pressure is assumed to be the base pressure of 43 PSI + boost pressure. Flow capability for horsepower support is ultimately dependent on fuel hose diameter, and system electrical voltage and amperage capabilities.



### Inline 400LPH Fuel Pump Features:

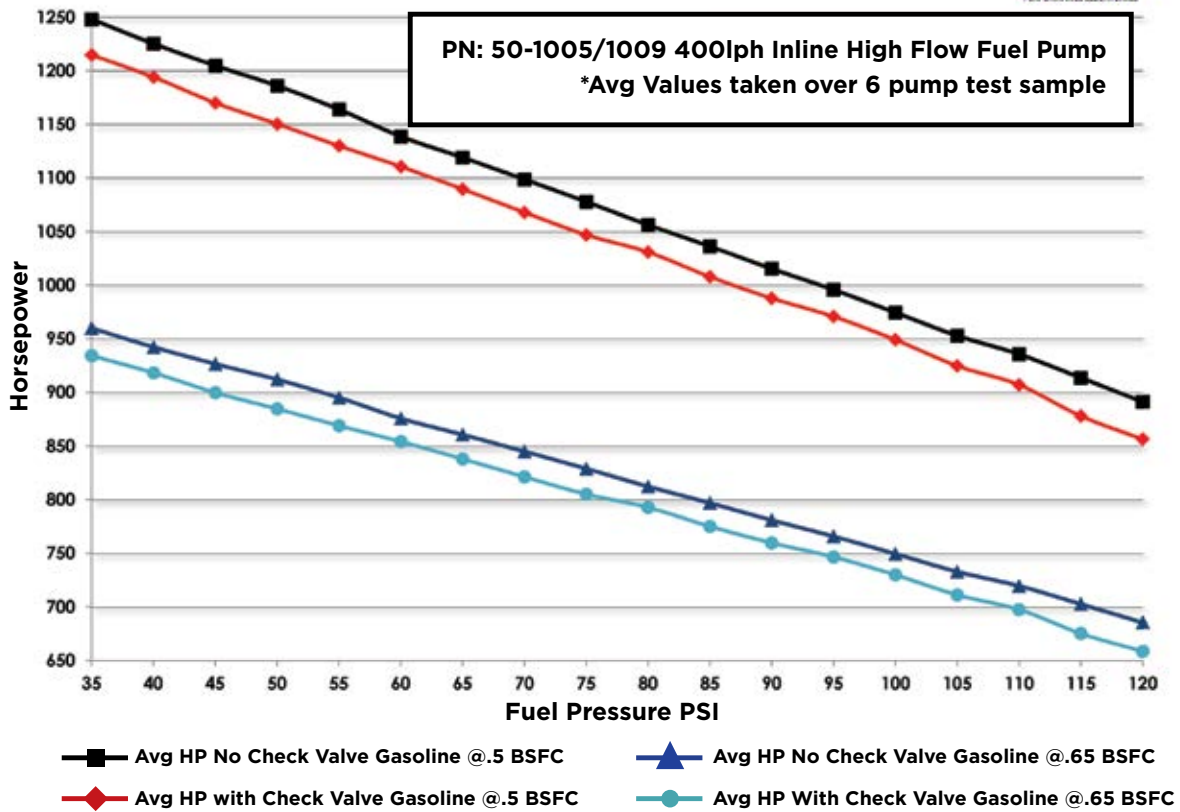
- > Install externally inline or in-tank
- > Uses industry standard "O44" style envelope
- > Metric pump has M18X1.5 female inlet and M12x1.5 male outlet - ideal "O44-style direct replacement upgrade!
- > AN pump has -10 AN female inlet and -8 AN female outlet
- > Optional AN hardware available
- > For use with all types of gasoline (alcohol fuels will diminish pump life)



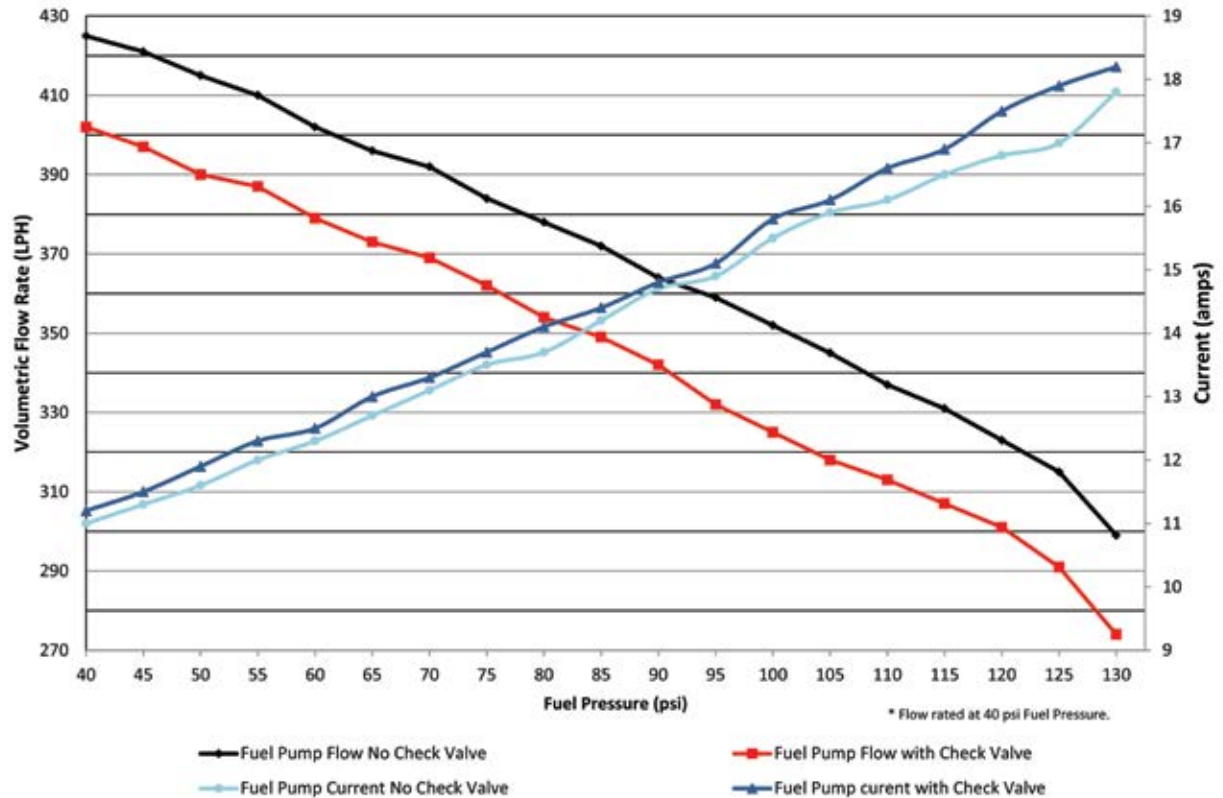
20- and 30-Amp Relay Kits available.

Additional AN discharge and inlet port adapter fittings, and pre-filter for in-tank installation are available for 50-1005.

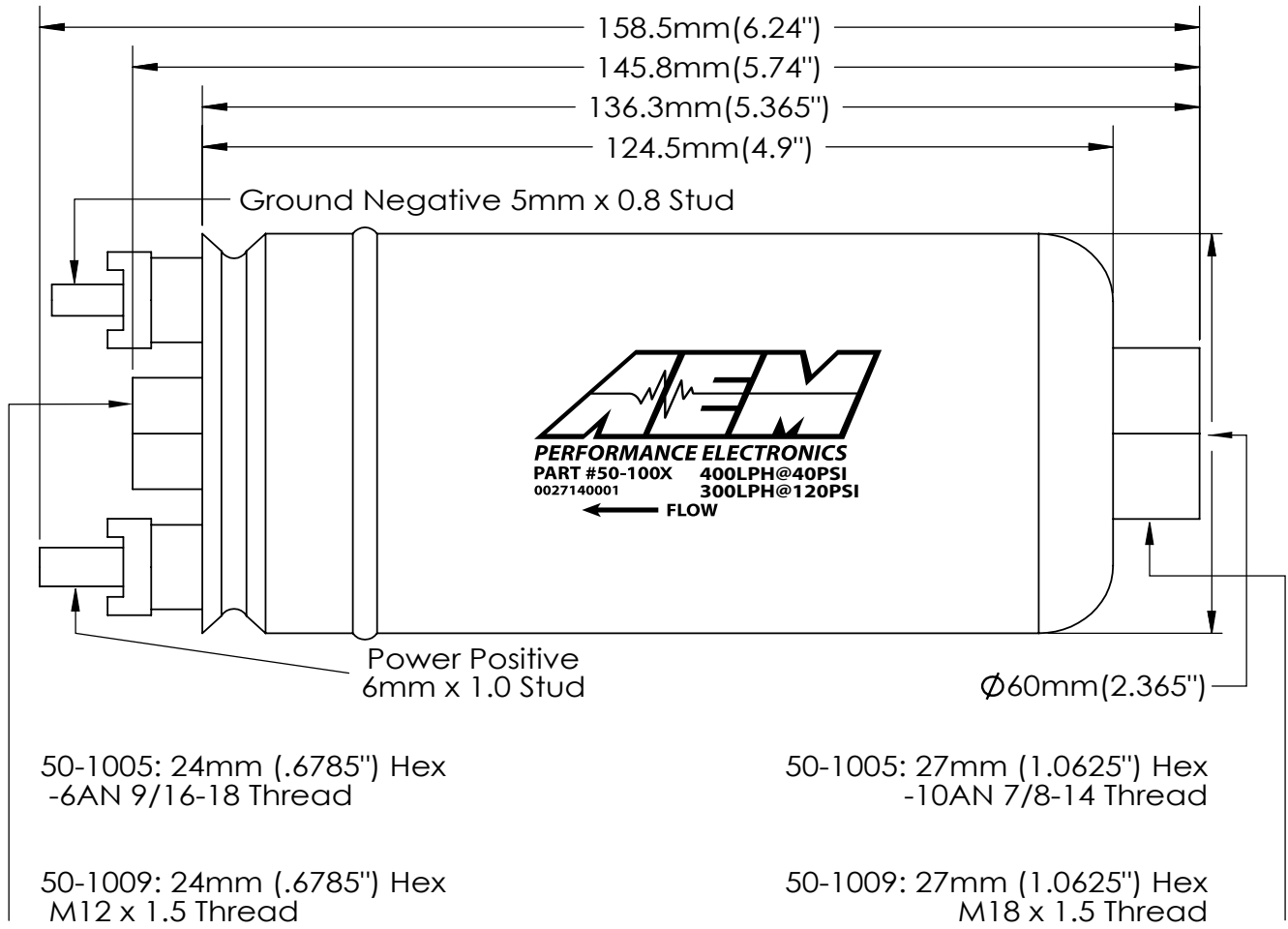
### AEM 400LPH Inline Fuel Pump HP vs. Pressure



### AEM 400 LPH\* Inline High Flow Fuel Pump Volumetric Flow and Current vs. Pressure



**50-1005/50-1009 400LPH HIGH FLOW INLINE GASOLINE FUEL PUMPS DIAGRAM**



**Diagram is to scale**





## UNIVERSAL HIGH FLOW -10 AN INLINE FUEL FILTER

AEM's -10 AN Inline Filter maximizes flow without sacrificing filtration. The end caps are machined with -10AN female fittings that allow for up to 12.32 gpm @ 45 PSI and 2.63 gpm @ 6 PSI of flow. Machined O-ring receiver grooves prevent leaks and all sealing O-rings and gaskets are made of Viton for outstanding performance when using gasoline, alcohol or gasoline/alcohol blended fuels.



### -10AN Inline Fuel Filter Features:

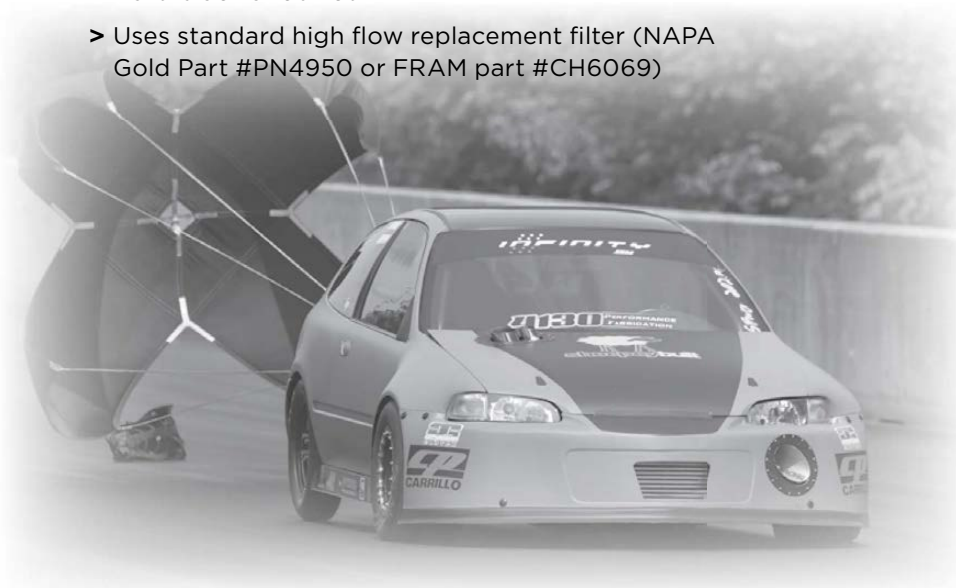
- > Easy mounting virtually anywhere in the vehicle (2" OD x 10" L)
- > Filters out contaminants as small as 7 microns in size
- > Can filter most fuel types including Methanol, blended fuels and all types of gasoline
- > Hard black anodized

## 500 HP HIGH VOLUME FUEL FILTER

AEM's High Volume Fuel Filter is a direct-fit replacement for most Honda/Acura applications, or used as a floating application on most vehicles. The filter body is made from 6061 aluminum with double O-ring seals.

### High Volume Fuel Filter Features:

- > Thread sizes are 12x1.25 top and 14x1.50 bottom
- > Hard black anodized
- > Uses standard high flow replacement filter (NAPA Gold Part #PN4950 or FRAM part #CH6069)



## 1000 HP ADJUSTABLE FUEL PRESSURE REGULATORS

These regulators can support enough fuel flow for engines up to 1000 horsepower. Our patented interchangeable discharge ports enable the regulator's output to match the output of virtually any fuel pump. This unit is tapped to accept a -6 AN, or 9/16"x18 fittings and includes a 1/8 NPT port for a fuel pressure gauge or pressure sensor pick up.



### Adjustable Fuel Pressure Regulator Features:

- > CNC-machined from 6061-T6 billet aluminum
- > Adjustable from 20 psi to maximum fuel pump capacity
- > Interchangeable discharge ports
- > Methanol, blended fuel and gasoline compatible
- > 1:1 rising rate for boost
- > Hard black anodized



### NEW Adjustable Fuel Pressure Regulator Design!

#### High Cap Adjustable FPR Features:

- > Longer spring for wider range of adjustment (40 - 130 PSI)
- > Several spring options for very low or high fuel pressure adjustment
- > Single large return orifice accommodates very high flow rate pumps
- > 9/16-18 ORB O-ring style ports
- > Easy to use adjustment screw
- > Optional AN fitting for high boost applications
- > Alcohol fuel compatible



## FUEL RAILS FOR 4-CYLINDER VEHICLES

AEM High Volume fuel rails feature a 1/2-inch fuel bore to support fuel flow for applications up to 1,000 horsepower and dampen backpressure pulses created by larger injectors. An additional 1/8th NPT port is included to accommodate a nitrous set up or fuel pressure gauge. An included fitting accommodates the factory fuel line and the ends are pre tapped to accept -6 AN, or 9/16"x18 fittings.



**Relay Kits**

Part Number	Description
30-2061	30 Amp Relay Kit with 80" 10-Gauge Harness, Terminals and Connectors
30-2062	20 Amp Relay Kit with 80" 10-Gauge Harness, Terminals and Connectors

**340LPH High Flow In-Tank Fuel Pumps**

Part Number	Description
50-1000	Gasoline 340 lph (@40PSI)
50-1200	E85 340 lph (@40PSI), E100, M100, All Gasolines
50-1215	E85 340lph @40PSI), E100, M100, All Gasolines, 65mm Short Offset Inlet with hooks, Inline
50-1220	E85 340lph @40PSI), E100, M100, All Gasolines, 65mm Short Offset Inlet no hooks, Inline

**High Flow Fuel Filter Applications**

Part Number	Description
25-200BK	High Volume Fuel Filter. Black. Acura & Honda. Inlet: 14mm X 1.5 Outlet: 12mm X 1.25
25-201BK	Universal High Volume Fuel Filter. Inlet: -10AN Outlet: -10AN
35-4006	Replacement Fuel Filter Element for 25-200BK
35-4004	Replacement Fuel Filter Element for 25-201BK



AEM Adjustable Fuel Pressure Regulators, High Flow Inline Fuel Pumps and Fuel Rails may be used solely on vehicles used in sanctioned competition which may never be used upon a public road or highway, unless permitted by specific regulatory exemption. Installers/users located outside the United States should act in accordance with their local laws and regulations. It is the responsibility of the installer and/or user of this product to ensure that it is used in compliance with all applicable laws and regulations, and this product must not be purchased if the intent is to use it in an unlawful manner.

**400 LPH High Flow Inline Fuel Pumps**

Part Number	Description
50-1005	400 LPH Inline High Flow Fuel Pump, (27mm Hex -10 AN 7/8-14 Thread Inlet, 24mm Hex -6 AN 9/16-18 Thread Discharge)
50-1009	400LPH Inline High Flow Fuel Pump (Metric, 27mm Hex M18x1.5 Thread Inlet, 24mm Hex M12x1.5 Thread Discharge)
50-200-06	-6AN Discharge Fitting for Inline High Flow Fuel Pump
50-200-08	-6AN to -8AN Discharge Fitting with Check Valve for Inline High Flow Fuel Pump
50-200-10	-10 Inlet Port Fitting for Inline High Flow Fuel Pump
50-200-11	-10 Inlet Port Filter for Inline High Flow Fuel Pump
50-200-86	-6AN to -8AN Discharge Fitting for Inline High Flow Fuel Pump

**High Volume Adjustable Fuel Pressure Regulator Applications**

Part Number	Description
25-300BK	Acura & Honda Inline Flange with Straight Return Line Fitting
25-301BK	Acura & Honda Offset Flange with Straight Return Line Fitting
25-302BK	Universal , Inlet: 2 X -6 (9/16-18) Outlet: -6 (9/16"-18) Gauge Port: 1/8"NPT
25-303BK	Acura & Honda Inline Flange with 90 Degree Return Line Fitting
25-304BK	Acura & Honda Offset Flange with 90 Degree Return Line Fitting
25-390	Adjustable Fuel Pressure Regulator 90 degree Fitting Kit
25-392	Adjustable Fuel Pressure Regulator Rebuild Kit

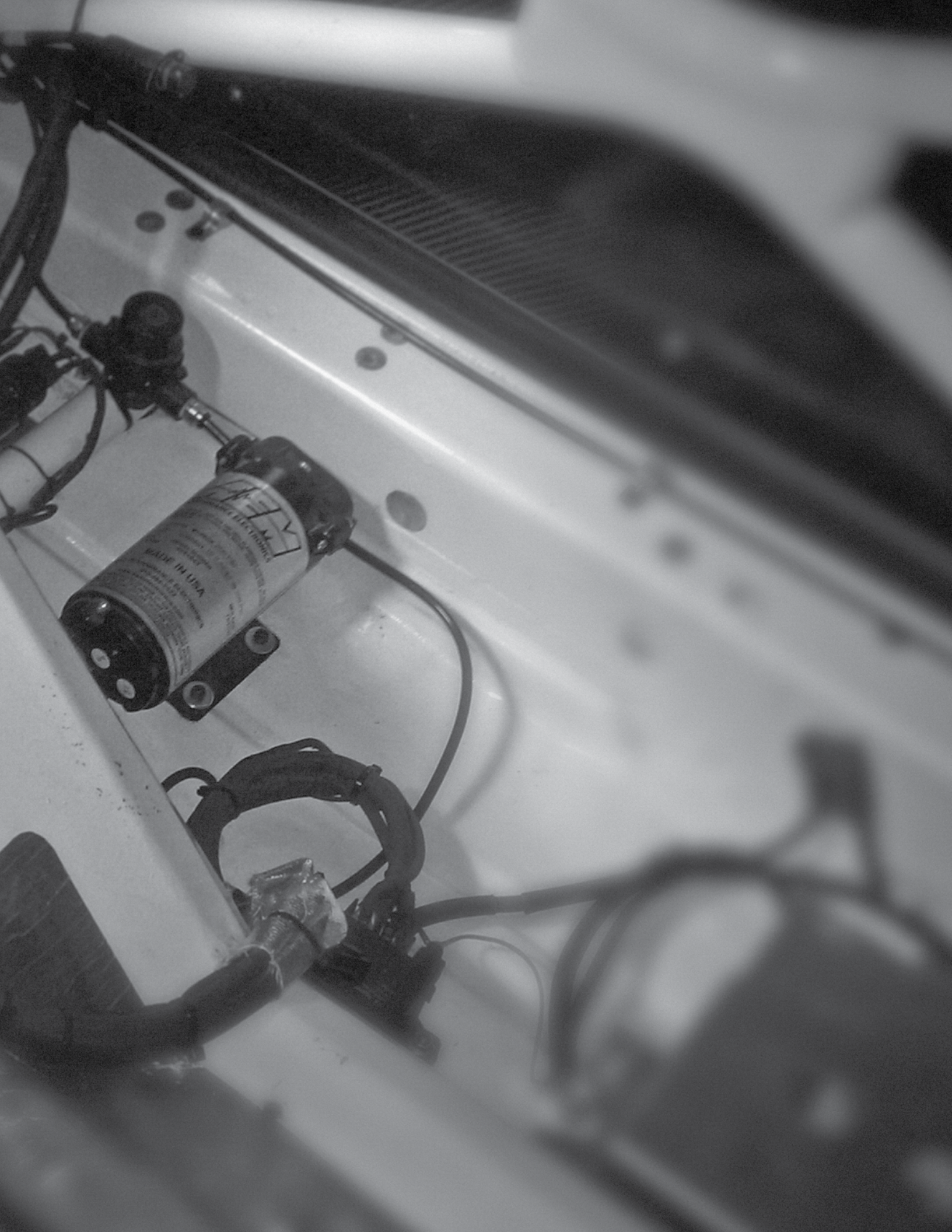
**High Volume Fuel Rail Applications**

Description	Part Number
<b>Acura</b>	
1994-2001 Integra 1.8L I4 [B18B1, B18C1 & B18C5]	25-100BK
2002-2006 RSX 2.0L I4 [K20A2, K20A3 & K20Z1]	25-111BK
<b>Eagle</b>	
1990-1998 Talon TSi 2.0L I4 Turbo [4G63]	25-130BK
<b>Honda</b>	
1990-1996 Accord/Prelude 2.2L I4 [F22A1, F22A4, F22A6]	25-104BK
1990-1996 Accord/Prelude 2.2L & 2.3L I4 [H22A1, H22A4 & H23A1]	25-104BK
1988-1995 Civic/CRX/Del Sol 1.5L & 1.6L I4 [D15B7, D15B8, D16A6 & D16Z6]	25-108BK
1994-2000 Civic/Del Sol 1.6L I4 [B16A2 & B16A3]	25-103BK
1996-2000 Civic/Del Sol 1.6L I4 [D16Y7 & D16Y8]	25-109BK
2002-2005 Civic Si 2.0L I4 [K20A3]	25-111BK
2000-2005 S2000 2.0L & 2.2L I4 [F20C1 & F22C1]	25-112BK
<b>Mitsubishi</b>	
1990-1998 Eclipse/Galant 2.0L I4 Turbo [4G63]	25-130BK
2003-2006 Lancer Evolution VIII & IX 2.0L I4 Turbo [4G63]	25-131BK
<b>Plymouth</b>	
1990-1994 Laser RS 2.0L I4 Turbo [4G63]	25-130BK



# WATER METHANOL INJECTION SYSTEMS

Lower intake and exhaust gas temps,  
suppress knock and increase boost.  
It's like using race gas when you are  
running pump gas.



### WATER METHANOL INJECTION FOR GAS AND DIESEL

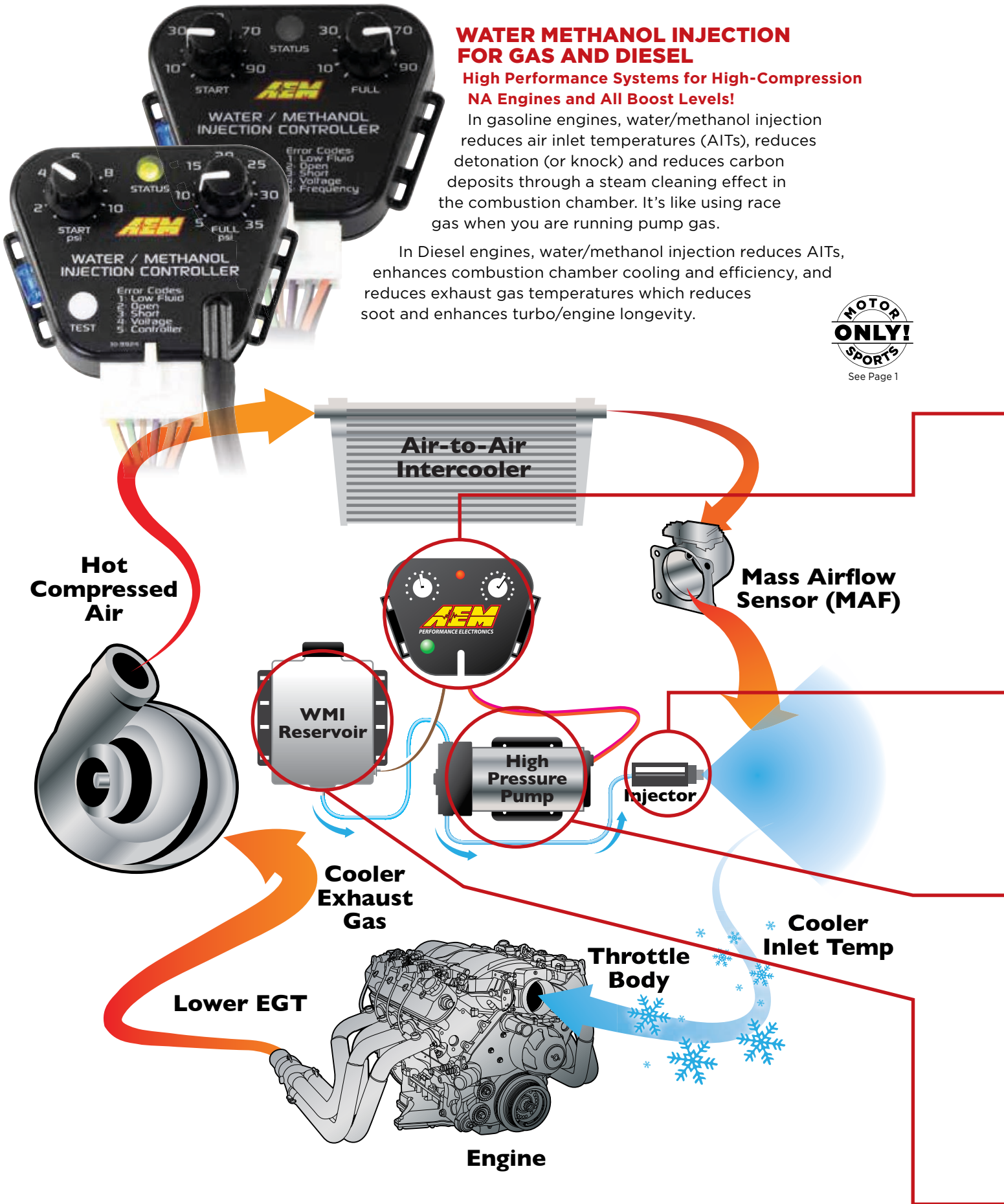
High Performance Systems for High-Compression NA Engines and All Boost Levels!

In gasoline engines, water/methanol injection reduces air inlet temperatures (AITs), reduces detonation (or knock) and reduces carbon deposits through a steam cleaning effect in the combustion chamber. It's like using race gas when you are running pump gas.

In Diesel engines, water/methanol injection reduces AITs, enhances combustion chamber cooling and efficiency, and reduces exhaust gas temperatures which reduces soot and enhances turbo/engine longevity.



See Page 1



AEM Water/Methanol Injection controllers feature large, turn-resistant knobs and larger numbering to easily set accurate start and full activation points, with covered status LED and test buttons for added splash resistance. A positive locking plug is integrated into the controller housing for mating to the wiring harness. The Boost Dependent controller housing has a molded-in, barbed nipple to accept a boost hose and a wiring legend on the back (35 PSI Gas/40 PSI HD Diesel). The Multi Input Controller has dipswitches in the back for setting flow based on MAF, MAP or IDC. Both controller housings feature an easy to access integrated fuse and molded mounting tabs.



AEM includes one precision-machined billet injector for gasoline Water/Methanol Injection kits and two nozzles for its WMI Diesel Kits. It features an integral check valve to prevent unintended fluid flow. Three billet injector nozzles are included for matching water/methanol flow to an engine's horsepower output in Gas systems, and two injectors with two additional nozzles are included with Diesel systems.



AEM's internally-bypassed, 200 PSI water/methanol injection pump does not cycle on and off and provides quiet, smooth operation. It features robust construction including integral hose fittings, EPDM seals and a Santoprene diaphragm that provides consistent and reliable fluid delivery.



AEM's gas Water/Methanol Injection Systems are available with a compact 1.15 gallon tank for gas kits and 5 gallon tank for Diesels. A more accurate, conductive low level fluid sensor is integrated into the tanks and features a positive lock connector with color-matched wires to the wiring harness. The sensor eliminates any chance of incorrect readings due to interference from debris.



## WATER/METHANOL INJECTION SYSTEMS

AEM's Water/Methanol Injection Systems utilize robust hardware and combine it with more advanced features than any other comparably priced system. Our systems feature multiple controller designs to work with low

boost engines (35 PSI gas & 40 PSI Diesel) high boost gas and Diesel engines, and high-compression naturally aspirated engines.



30-3300 1.15-gallon system for gas engines. Boost-Dependent Controller shown. Multi-Input Controller available for high boost and high-compression naturally aspirated engines.



30-3301 HD Diesel system with Boost-Dependent Controller and 5-gallon tank shown.



See Page 1

### Water/Methanol Injection System Features:

- > WMI Controllers have large, turn resistant knobs for start and full pressure activation points, splash resistant status LED and test buttons, integrated fuse and positive-locking connector plug
- > Boost Dependent Controllers for low boost gas and turbo Diesel
- > Multi Input Controllers for high boost via external MAP sensor, or high compression NA via MAF or IDC
- > High pressure 200 PSI injection pump ensures consistent fluid delivery and is internally bypassed for quiet operation, with integral hose fittings, EPDM seals and a Santoprene diaphragm that resists corrosion
- > Machined billet injector(s) (1 in gas and 2 in Diesel kit) with integral check valve to prevent unintended flow
- > Interchangeable injector nozzles to cover a wide variety of HP levels
- > LED dash light for system status and low fluid warning
- > "BoostSafe" failsafe feature warns if system stops flowing
- > All required hardware, fittings and hoses included - everything you need to install your WMI kit the right way!

Derek Putnam's blow-through carbureted, non-intercooled, ProCharger-equipped Drag Nova uses pump gas and AEM WMI for enhanced charge air cooling.





## WATER/METHANOL FAILSAFE GAUGE

### Monitors Entire WMI Injection Flow Curve for Complete Peace of Mind

The Water/Methanol Failsafe Gauge eliminates the potential for engine damage if your water/methanol injection system stops injecting due to an absence of fluid. It actively monitors the entire flow curve independent of pressure, continuously collecting flow vs. injection rate data so that any deviation from a flow curve that you define in the software triggers an alarm output. You can set the output to reduce boost or timing, change maps, add fuel, trigger a two-step or perform practically any action you choose to save your engine. It will work on virtually ANY water/methanol injection system that uses 1/4" OD or 4mm OD tubing.

- > Actively monitors the entire water/methanol injection curve
- > Triggers an alarm output if flow deviates from user defined flow curve
- > "Auto Set" feature automatically creates baseline configuration
- > Built-in warning lights
- > Internal data logger records all injection flow and alarm status data
- > Black/white faceplates and black/silver bezels
- > Programmable for either 0-500cc/min or 0-1000cc/min flow ranges
- > User programmable backlighting
- > PC-based software with USB connectivity
- > Fully adjustable alarm delay and reset period
- > 0-5 V Analog output
- > Auxiliary input for use with AEM Water/Methanol "Boost Safe" feature
- > Precision flow sensor included



## WATER/METHANOL INJECTION FILTER

Filters particulates as small as 40 microns to protect the working parts of your water/methanol system and engine. Installs in-line before the water/methanol pump. Can be used on virtually any water/methanol system using 1/4" OD tubing.



AEM Water/Methanol Injection Systems and Failsafe Gauge may be used solely on vehicles used in sanctioned competition which may never be used upon a public road or highway, unless permitted by specific regulatory exemption. Installers/users located outside the United States should act in accordance with their local laws and regulations. It is the responsibility of the installer and/or user of this product to ensure that it is used in compliance with all applicable laws and regulations, and this product must not be purchased if the intent is to use it in an unlawful manner.

Part Number	Description
<b>Water/Methanol Injection Systems</b>	
30-3300	Boost Dependent 1.15 Gal. 35PSI Max (Gasoline)
30-3301	Boost Dependent 5 Gal. 40 PSI Max (Turbo Diesel)
30-3302	Boost Dependent Tank-Less 35 PSI Max
30-3303	Boost Dependent Tank-Less 40 PSI Max
30-3350	Multi Input 1.15 Gal. N/A or High Boost, MAF/MAP/IDC
30-3351	Multi Input 5 Gal. N/A or High Boost, MAF/MAP/IDC
30-3352	Multi Input Tank-Less N/A or High Boost MAF/MAP/IDC
<b>Water/Methanol Accessories &amp; Parts</b>	
30-3003	Water/Methanol Inline Filter
30-3312	Water/Methanol Injector & Nozzle Kit
30-3015	200 PSI Recirculating Pump
30-2155	Water/Methanol Check Valve Kit
35-4500-20	Injection Tubing 20'
30-3325	1.15 Gal. Tank w/ Conductive Low Fluid Level Sensor
30-3320	5 Gal. Tank w/ Conductive Low Fluid Level Sensor
30-3322	Conductive Low Fluid Level Sensor & Harness
<b>Water/Methanol Failsafe Device/Flow Gauges</b>	
30-3020	Water/Methanol Failsafe Device 1/4"
30-3020M	Water/Methanol Failsafe Device 4mm
30-5141	Analog Water Flow Gauge 0-500cc
30-5142	Analog Water Flow Gauge 0-1000cc





4305

BRISKEUSA  
MagnaFuel

CLEVITE

DW

OLIVE

MOROSO

JPCRACING

SAFETY  
JPC

AEM  
INFINITY

JPR  
PROJECTOR

# AQ-1 DATA LOGGERS

Data. If you want to win, you have to know.  
But it shouldn't cost a fortune.  
With the AQ-1, it doesn't.





## AQ-1 OBDII DATA LOGGER

### The Ultimate Logger for 08-Up Vehicles

The AQ-1 OBDII Data Logger (PN 30-2501) and AQ-1 OBDII wiring harness (PN 30-2907-96) may be the ultimate data acquisition device for racers and enthusiasts with 2008-up model year vehicles. It reads and records data from a 2008-up vehicle's

OBDII port using a supplied connector on the harness, providing critical engine and chassis data with minimal wiring. Just power the unit, configure the OBDII data in the free setup software and it's ready to start logging. It also has the ability to read and clear diagnostic trouble codes (DTCs) from the OBDII port.

In addition to reading data from a vehicle's OBDII port, the AQ-1 OBDII Data Logger includes all of the available inputs on the AQ-1 and an AEMnet CAN bus cable for daisy-chaining AEMnet equipped devices into the logger for storing all data in one file.



"The firmware and template combined with the matching AEM harness and sensors produce as near to a plug-and-play Sportsman logger as anyone has accomplished."

## AQ-1 DATA LOGGER

### Powerful. Affordable. Easy to Use.

Looking for an alternative to expensive data acquisition? You've found it. The AQ-1 installs easily, can read live parameters from ancillary sensors, AEMnet enabled devices like the new Vehicle Dynamics Module (VDM), GPS and more, and put them into a single log to make it easy to view.

#### AQ-1 Data Logger Features:

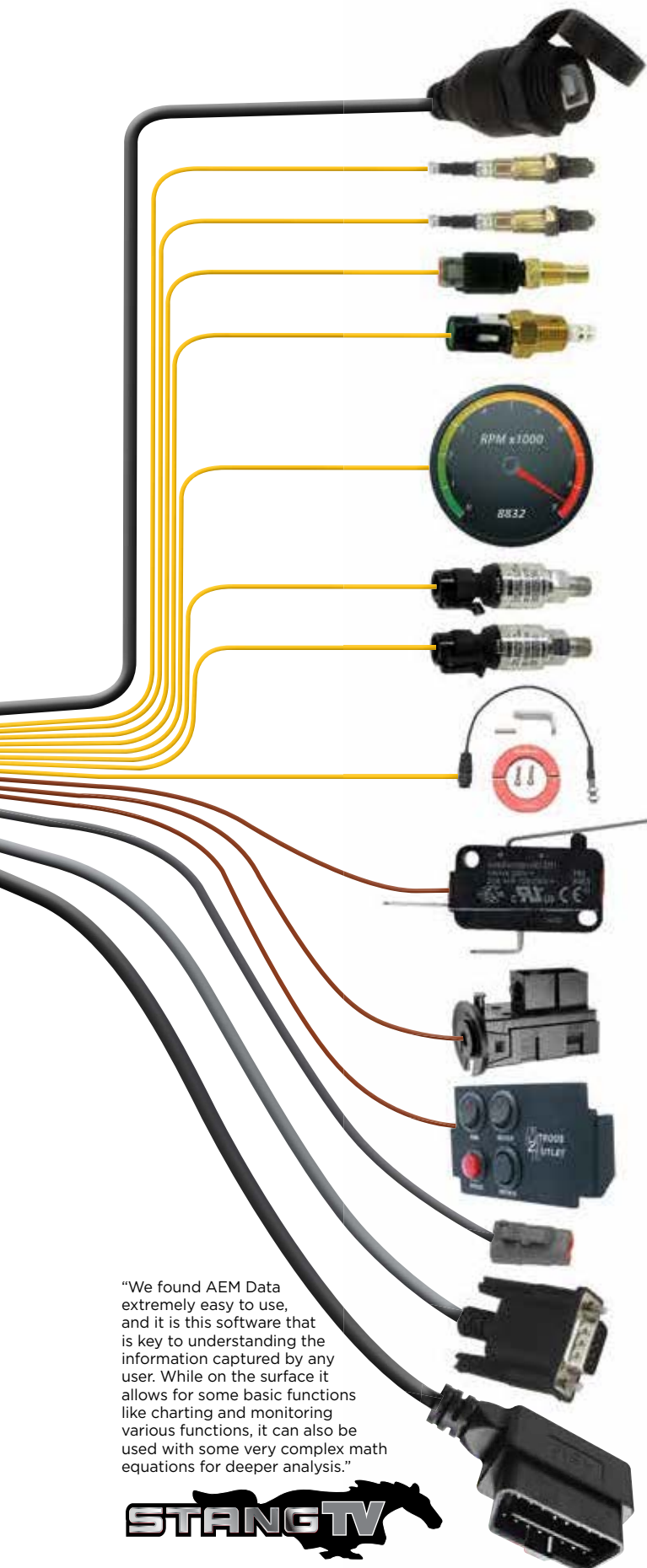
- > Four analog inputs for measuring frequency (RPM), 0-5 V or 0-16.5 V
- > Four 0-5 V analog inputs with optional pullup resistor for RTD/Thermistor-style sensor
- > Three switched digital inputs, 16.5 V MAX
- > AEMnet connection included for easy connection to AEMnet enabled devices (daisy chain)
- > CAN bus IN for decoded channels. Contact us for more info!
- > Compact size (4.8" x 4.55" x 1.44")

The AQ-1 can log at up to 1000HZ (1000 samples/second) per channel and has a removable SD card for virtually unlimited logging (2GB included, up to 32GB). An internal 3-axis accelerometer and RS-232 serial input is included for a GPS device for track mapping. AEMdata, our data software analysis is free.

#### AQ-1 Data Logger & Harnesses

Part Number	Description
30-2500	AQ-1 Data Logging System
30-2501	AQ-1 Data Logging System with OBDII Connectivity
30-2906-18	AQ-1 18" Flying Lead Wiring Harness
30-2906-96	AQ-1 96" Flying Lead Wiring Harness
30-2907-96	AQ-1 OBDII 96" Flying Lead Wiring Harness
35-3440-F	AEMnet Female Termination Plug
35-3440-M	AEMnet Male Termination Plug
30-2206	Vehicle Dynamics Module

See page 84 for sensor part numbers.



**USB COMMUNICATIONS PORT**

**CHOOSE ANY FOUR**

**Channels 1-4 - 0-5V Sensors, RTD/Thermistor Sensors**

- |                             |                      |              |
|-----------------------------|----------------------|--------------|
| AFR 1-4                     | 0-5V Crankcase Press | Air Temp     |
| 0-5V Boost                  | 0-5V Fuel Press      | Coolant Temp |
| 0-5V Boost pre-Intercooler  | 0-5V Oil Press       | Trans Temp   |
| 0-5V Boost post-Intercooler | 0-5V Clutch Press    | EGT 1-4      |
| 0-5V MAP                    | 0-5V Brake Press     |              |
|                             | 0-5V Shock Travel    |              |

**CHOOSE ANY FOUR**

**Channels 5-8 - 0-5V Sensors, Frequency**

- |                             |                   |
|-----------------------------|-------------------|
| Air/Fuel Ratio 1            | 0-5V Fuel Press   |
| Air/Fuel Ratio 2            | 0-5V Oil Press    |
| Air/Fuel Ratio 3            | 0-5V Clutch Press |
| Air/Fuel Ratio 4            | 0-5V Brake Press  |
| 0-5V Boost                  | 0-5V Shock Travel |
| 0-5V Boost pre-Intercooler  | RPM               |
| 0-5V Boost post-Intercooler | Driveshaft Speed  |
| 0-5V MAP                    | Wheel Speed       |
| 0-5V Crankcase Press        |                   |

**CHOOSE THREE**

**3 Switched Inputs**

- Clutch Switch
- Nitrous Switch
- Brake Switch

**EXPAND INPUTS USING AEMNET**

See page 4

**SERIAL/GPS**

GPS for Speed and Position

**EXPAND INPUTS VIA OBDII CAN BUS**

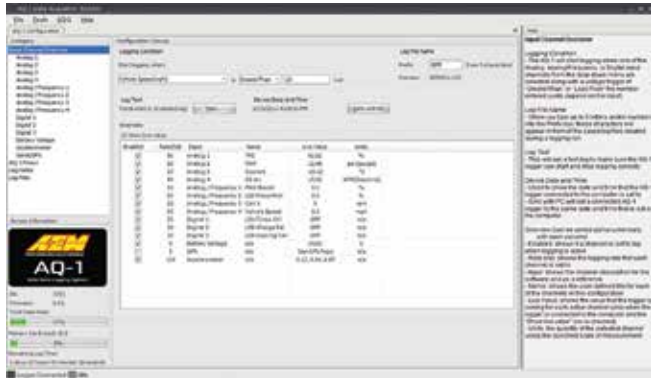
Between 20-40 additional channels. 08 and up vehicles only.

"We found AEM Data extremely easy to use, and it is this software that is key to understanding the information captured by any user. While on the surface it allows for some basic functions like charting and monitoring various functions, it can also be used with some very complex math equations for deeper analysis."

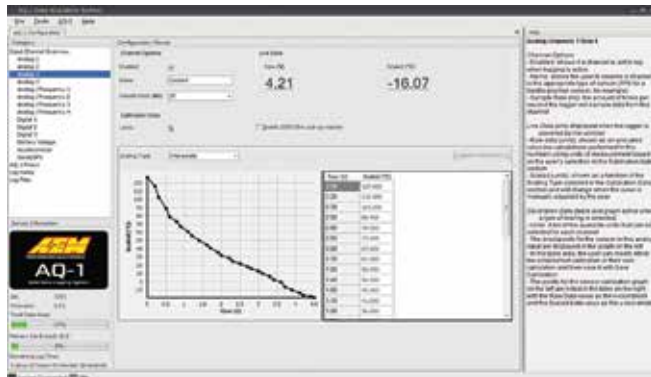


### AQ-1 SOFTWARE SETUP

AQ-1 Data Logger software simplifies configuration of input channels, allows you to scale 0-5V sensors if they are not in the supplied sensor calibration library, orient the built-in accelerometer and more. All files are recorded into one log file for ease of use, and users can select which logged channels they want to view using AEMdata analysis software.



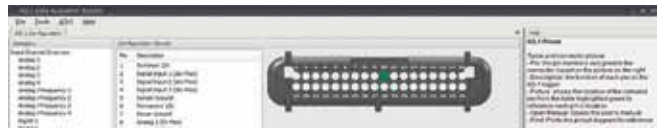
The overview tab provides a channel list where you select which channels you want to log. AEMnet devices like the VDM, 22 Channel CAN Sensor Module, X-Series Gauges and 4-Channel Wideband are recognized by the software when connected and are easily added to the list.



Use the software to scale and configure analog, digital and duty-cycle based sensors that are not included in the AQ-1 Sensor Library.



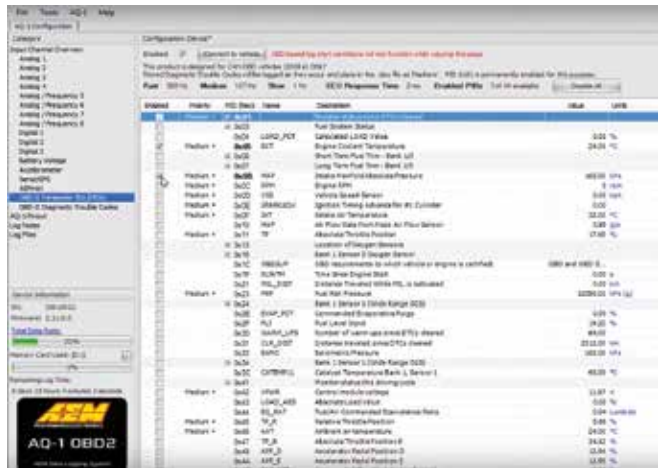
Orient the on-board accelerometer to capture G-load and acceleration data.



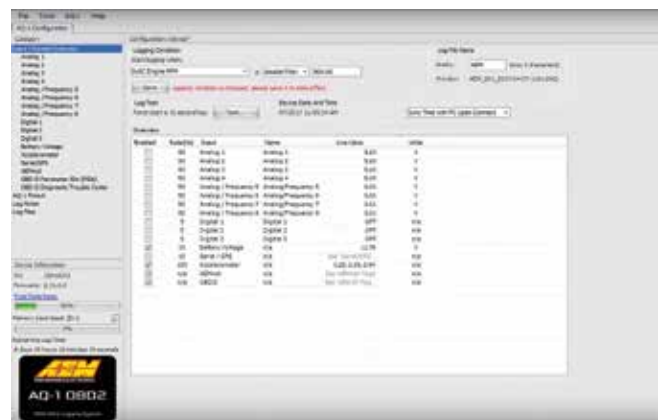
A pinout tab ensures that you successfully wire sensors to the harness correctly.

### AQ-1 OBDII SOFTWARE SETUP

Configuring the OBDII data is as simple as connecting permanent power, switched power and ground, and connecting the AQ-1 OBDII Data Logger to the vehicle using the OBDII connector on the harness.



Once connected to the OBD port, simply select what you want to log from the available channels, set the logging rate for each channel and it is ready to go. On average, 20-40 channels are available.



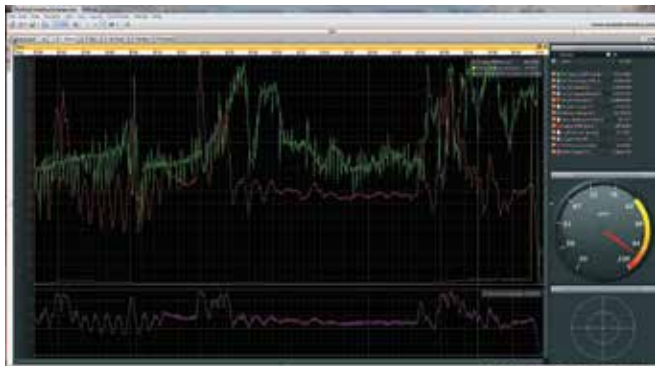
Once you have selected your channels, set the logging conditions from the Input Channel Overview tab. Like the AQ-1, this is where you configure additional analog and frequency sensors that are available as inputs on the harness. Now it's time to race! After completing your session or pass, download the logs and import them in to AEMdata for analysis.

## NEW DRAG RACE AEMDATA TEMPLATE FOR AQ-1 DATA LOGGER!

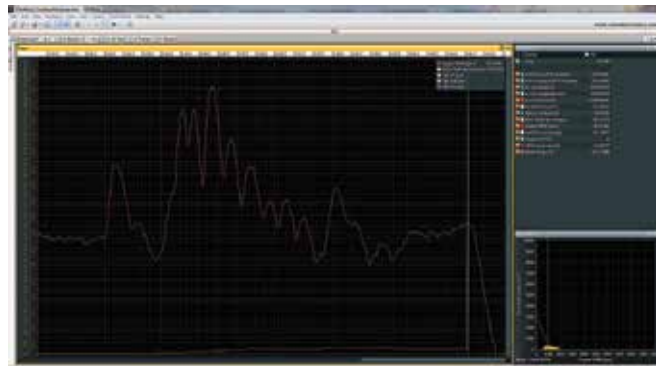
### The Ultimate Sportsman Set Up for the Beginning Data Logger

AEM's "Drag Race" set up file for its AQ-1 Data Logger allows users to quickly begin using their AQ-1 with virtually no setup required. By installing pressure, temperature and other sensors for popularly logged parameters into pre-determined inputs, the "Drag

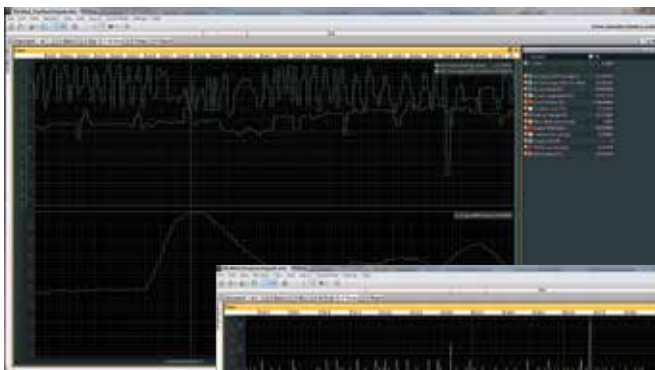
Race" set up software allows you to start logging right away with no need to calibrate any sensors. A downloadable AEMdata analysis "Drag Race" template includes these channels in a pre-defined template so you can start viewing data right away. All input channels remain custom configurable, so any changes you may want to make in the future can be accommodated.



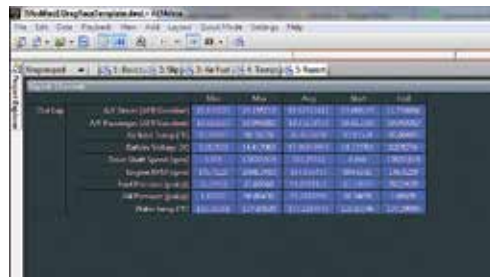
The Drag Race Template in AEMdata has five tabs. The first tab shows the basics and users can drag and/or remove any channels they do not want to see into one of the prebuilt lanes.



Tab 2 has a maths channel for slip that determines slip by gear based on driveshaft speed and engine RPM.



Tabs 3 and 4 highlight AFR and engine temps, respectively.



The 5th tab is a channels report that charts min/max values, averages and start/end log times for all inputs.



"Overall the analysis software is powerful, comprehensive and pretty well bulletproof. After a couple of months trying to find flaws with it, the conclusion is that there are very few things that the software cannot do."

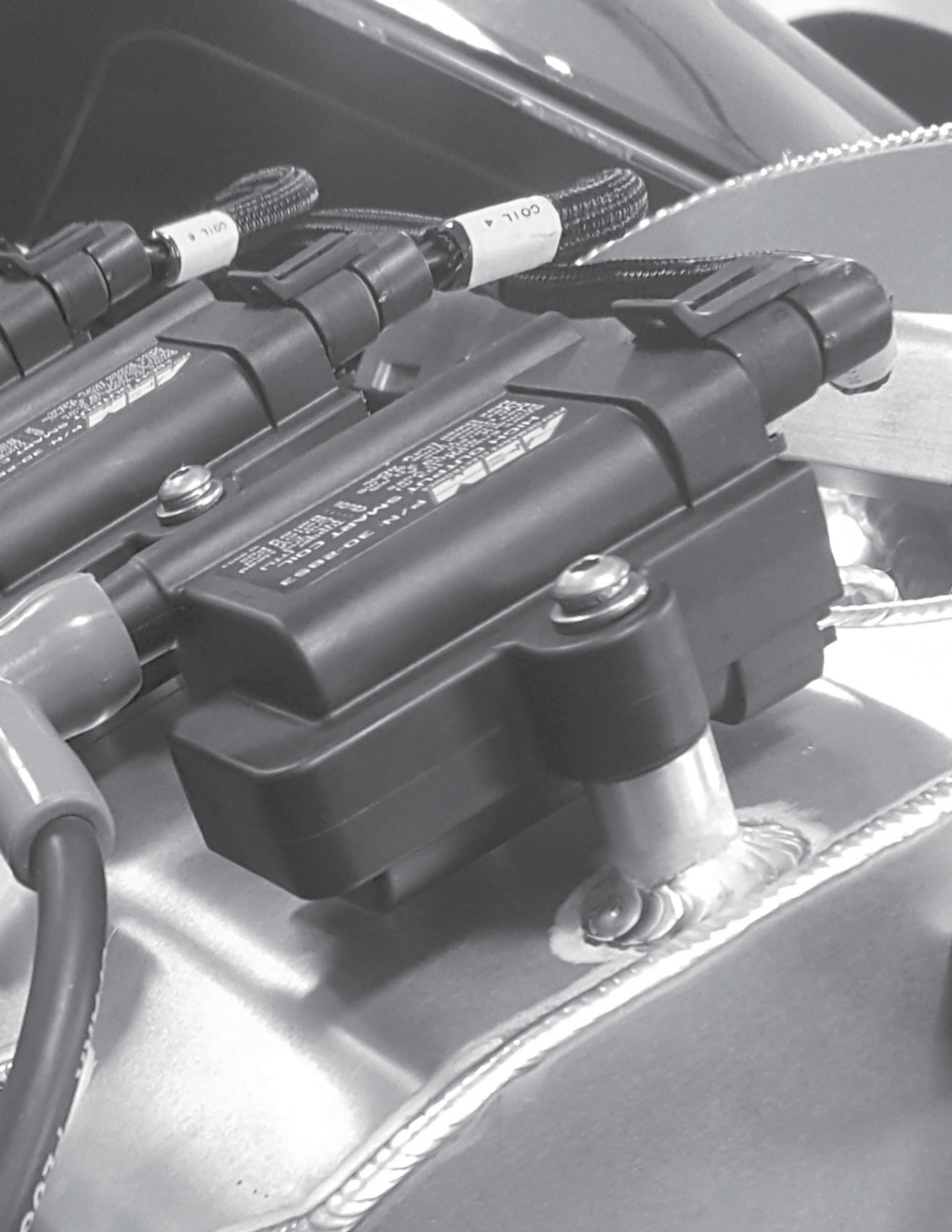


# HIGH PERFORMANCE IGNITION COMPONENTS



High energy ignition solutions  
for lighting off the mixture in  
your combustion chambers.





## HIGH-OUTPUT “SMART” AND “DUMB” INDUCTIVE IGNITION COILS

### CDI-Level Spark Energy Without a CDI!

The trade off between adequate spark energy and adequate spark duration ends with AEM’s High-Output Inductive Coils, the first inductive coils that deliver CDI-like spark energy and voltage, and the long spark duration necessary for vehicles running high compression, high RPM, forced induction and/or nitrous engines.



PN 30-2852  
Dumb Coil



PN 30-2853  
Smart Coil



See Page 1

## HIGH OUTPUT DIRECT-FIT V8 IGNITION COILS

AEM High Output Direct-Fit Ignition Coils for popular late-model Chevy, Ford and MOPAR V8 engines deliver increased spark energy over the factory coils and provide an OE look, fit and finish. They use the OE connectors so there is no additional wiring necessary. Whether your engine is stock or lightly modified, these coils deliver the spark energy you need to optimize combustion for improved performance.

### HO Direct Fit Coil Features:

- > Up to 15% increase spark energy over OE stock ignition coils
- > Direct fit for popular Chevy, Ford and MOPAR V8 engines
- > OE look, fit and finish
- > Uses OE connectors - no wiring necessary
- > Coil boots are pre lubed with dielectric grease (when applicable)



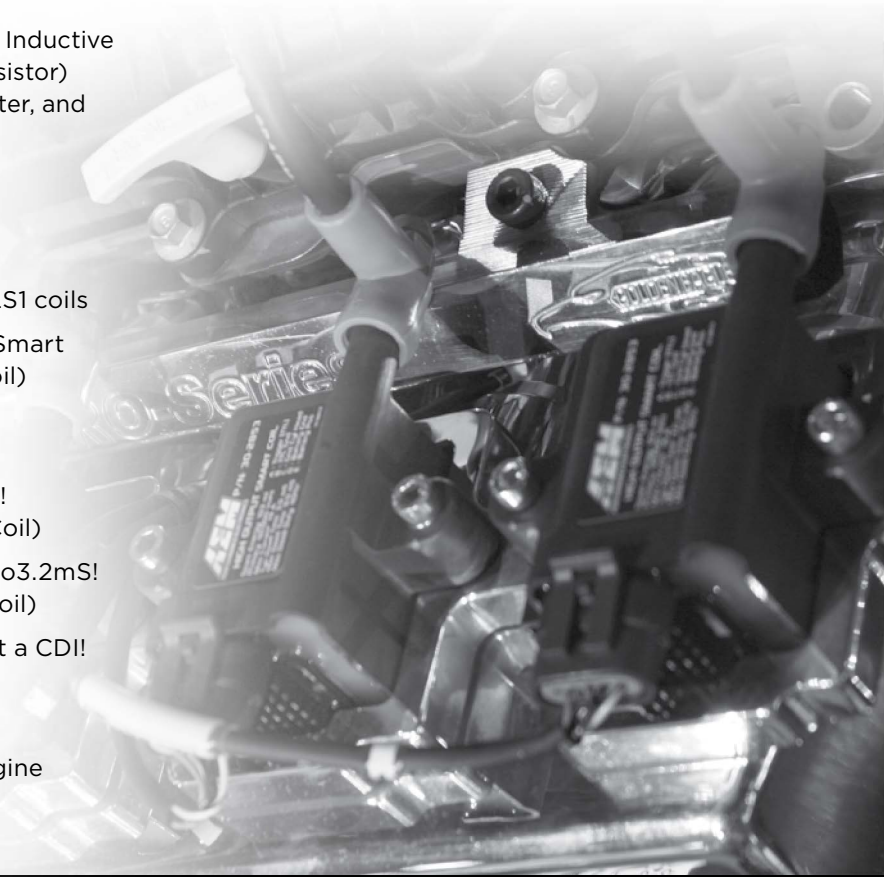
See Page 1

**“Smart” and “Dumb” Coils Come With or Without an Igniter**

AEM offers two versions of its High-Output Inductive Coils; An IGBT (Insulated Gate Bipolar Transistor) ‘smart’ coil for use without an external igniter, and ‘dumb’ coil for use with an external igniter.

**High Output CDI Coil Features:**

- > CDI-like spark energy without the need for a CDI
- > More affordable than aftermarket LS1 coils
- > Compact size (3.8” x 3.62” x 1.87” Smart Coil, 3.53” x 3.62” x 2.65” Dumb Coil)
- > Robust construction allows them to be mounted almost anywhere
- > Massive Spark Energy, up to 118 mJ! (103 mJ Smart Coil, 118 mJ Dumb Coil)
- > Incredibly long spark duration, up to 3.2mS! (2.9 mS Smart Coil, 3.2mS Dumb Coil)
- > Up to 41kV Output Voltage, without a CDI! (40kV Smart Coil, 41kV Dumb Coil)
- > Weather and Shockproof design
- > Can be mounted directly to the engine



High Output Direct Fit Coils for GM LS engines.



High Output Direct Fit Coils for MOPAR Hemi engines.



High Output Direct Fit Coils for Ford Modular engines.



All High Output Direct Fit Coils are available in 8-packs.





Four Channel Coil Driver.  
Combine two for V8 engines.



One Channel Coil Driver for  
distributed engines.



Three Channel Coil Driver for  
Powersports and V6 engines.

## IGNITION COIL DRIVERS

### Affordable Coil-On-Plug Performance without a CDI!

AEM's Ignition Coil Driver can be used for converting to Coil-On-Plug (COP) without using a CDI. Our Coil Drivers drive two-wire ("dumb") coils in COP applications, and can also be used as a replacement for a stock coil driver.



- > Drive ignition coils on a coil-on-plug set-up without a CDI!
- > Ideal for ATVs, motorcycles, snowmobiles and racing vehicles with space limitations or those that do not require additional voltage generated by a CDI
- > The most affordable, reliable way to drive coils on a coil-on-plug set up
- > Simple installation
- > Complete hardware included

## CDI PENCIL COILS

### Combine with a Four-Channel Coil Driver or CDI for Coil-On-Plug Ignition

AEM's CDI Pencil coils are designed for converting your distributed ignition system to a coil-on-plug (COP) system using either a CDI module or AEM Ignition Coil Driver.

All CDI Pencil Coils are two-wire CDI compatible. Single CDI Pencil Coils, 4-pack kits and connector kits are available;

- > Increases spark energy - ideal for high boost, high RPM and high compression engines
- > Compatible with all standard automotive spark plugs (including threaded tip style)
- > CDI Pencil Coil Kits include pencil coil(s), connector pin(s), pin lock(s) and weather seals
- > Two-wire CDI/Igniter compatible coil for use with AEM Coil Driver or CDI



## ENGINE POSITION MODULE

### Replaces Your Distributor for Converting to Coil-Per-Plug Ignition!

AEM's Engine Position Module (EPM) allows users to convert their distributed ignition system to coil-on-plug (COP) or wasted spark. It replaces the factory distributor to allow for the use of COP or wasted spark when used with the necessary additional components (see *CDI Pencil Coils and Ignition Drivers, left*). It provides precise engine position via dual zero-speed optical sensors that deliver immediate signal generation regardless of engine speed (24 and 1 timing signal).

The EPM adapts to any positive-drive, half-engine speed device (cam or distributor drive) and can be used with any engine management system that recognizes a 24 & 1 crank tooth pattern for crank and cam signals.



- > Bolt-on systems for popular Chevy V8s and Honda race engines
- > Easy EMS setup with timing pattern available in AEMtuner/InfinityTuner Wizards
- > 24-tooth crank, 1-tooth cam pattern per engine cycle—easy set up and accurate timing!
- > Simple, weatherproof four-wire connection (12 V, ground, crank signal & cam signal)



AEM Water/Methanol Injection Systems and Failsafe Gauge may be used solely on vehicles used in sanctioned competition which may never be used upon a public road or highway, unless permitted by specific regulatory exemption. Installers/users located outside the United States should act in accordance with their local laws and regulations. It is the responsibility of the installer and/or user of this product to ensure that it is used in compliance with all applicable laws and regulations, and this product must not be purchased if the intent is to use it in an unlawful manner.

### High Performance Ignition Applications

Part Number	Description
<b>High Output Direct Fit V8 Coils</b>	
<b>Ford</b>	
30-2871	Ford 1998-2014 4.6/5.4/6.8 2V SOHC, Direct fit performance ignition coil (single)
30-2872	Ford 2004-2008 4.6/5.4 3V SOHC, Direct fit performance ignition coil (single)
30-2874	Ford 1999-2014 4.6/5.4 4V DOHC, Direct fit performance ignition coil (single)
30-2871-8	Ford 1998-2014 4.6/5.4/6.8 2V SOHC, Direct fit performance ignition coil (8 pack)
30-2872-8	Ford 2004-2008 4.6/5.4 3V SOHC, Direct fit performance ignition coil (8 pack)
30-2874-8	Ford 1999-2014 4.6/5.4 4V DOHC, Direct fit performance ignition coil (8 pack)
<b>GM</b>	
30-2878GM	1998-2006 All engines LS1/LS6, Direct fit performance ignition coil (single)
30-2879	GM 1999-2009 All Engines L-Series Truck, Direct fit performance ignition coil (single)
30-2880	GM 2005-2015 All Engines LS2/3/4/7/9, Direct fit performance ignition coil (single)
30-2878-8	GM 1998-2006 All engines LS1/LS6, Direct fit performance ignition coil (8 pack)
30-2879-8	GM 1999-2009 All Engines L-Series Truck, Direct fit performance ignition coil (8 pack)
30-2880-8	GM 2005-2015 All Engines LS2/3/4/7/9, Direct fit performance ignition coil (8 pack)
<b>MOPAR</b>	
30-2876	MOPAR 2003-2005 5.7 Hemi, Single Boot, Direct fit performance ignition coil (single)
30-2877	MOPAR 2005-2014 5.7/6.1 Hemi, Dual Boot, Direct fit performance ignition coil (single)
30-2876-8	MOPAR 2003-2005 5.7 Hemi, Single Boot, Direct fit performance ignition coil (8 pack)
30-2877-8	MOPAR 2005-2014 5.7/6.1 Hemi, Dual Boot, Direct fit performance ignition coil (8 pack)
<b>High Output IGBT Coils</b>	
30-2852	IGBT "Dumb" Coil
30-2853	IGBT "Smart" Coil
<b>CDI Pencil Coil Applications</b>	
30-2854	Single CDI Pencil Coil
30-2854-4PK	Four-Pack, CDI Pencil Coils
<b>Coil On Plug Conversion Applications</b>	
30-2860	Honda B-Series Engines
<b>Ignition Coil Drivers</b>	
30-2840	Universal 4-Channel Ignition Coil Driver
30-2841	Universal 1-Channel Ignition Coil Driver
30-2843	Universal 3-Channel Ignition Coil Driver
<b>Engine Position Module Applications</b>	
30-3250	Universal EPM (requires custom machining of distributor shaft or mounting bracket for OHC)
30-3251	Chevy All Small & Big Blocks with Distributors
30-3255	Acura B & D Series. Honda B, D, H & F Series





TA2

BUFFOMANTE

FIVE STAR  
AEM 34  
PERFORMANCE ELECTRONICS

TA2

MACHAVERN

FIVE STAR  
AEM 24  
PERFORMANCE ELECTRONICS

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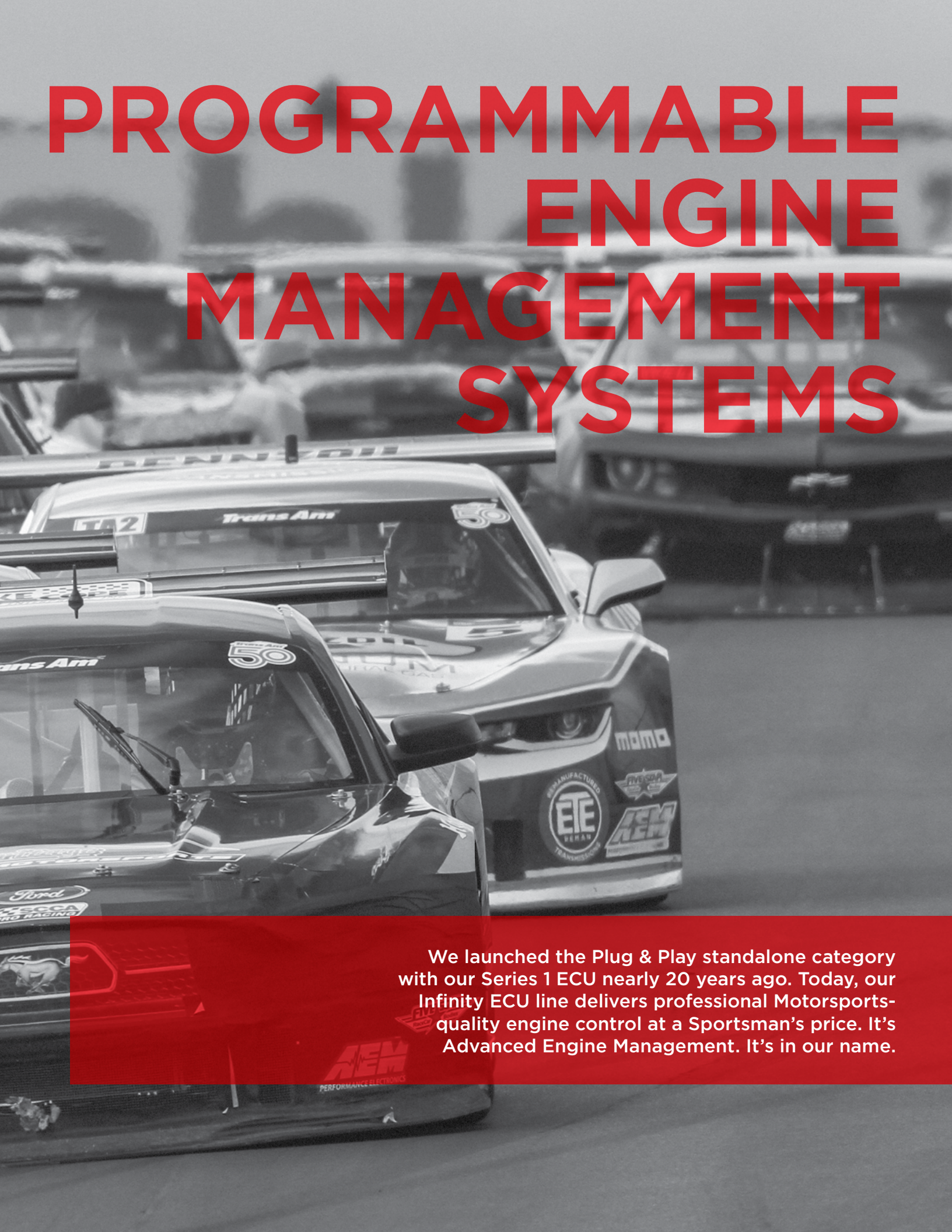
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# PROGRAMMABLE ENGINE MANAGEMENT SYSTEMS



We launched the Plug & Play standalone category with our Series 1 ECU nearly 20 years ago. Today, our Infinity ECU line delivers professional Motorsports-quality engine control at a Sportsman's price. It's Advanced Engine Management. It's in our name.

**AEM**  
PERFORMANCE ELECTRONICS



## INFINITY ECU OVERVIEW

The Infinity ECU delivers high end Motorsports capabilities powerful enough for professional teams at a price that makes it attainable for sportsman racers. Infinity systems come fully enabled without the need for feature add-on purchases. Combined with AEM's industry leading after-purchase support system, including free technical support, the Infinity is the ultimate engine control solution for both professional race teams and weekend track cars.

The Infinity's airflow-based tuning models simplify system installation and speed the tuning process by eliminating many of the setup requirements necessary in previous generation ECUs. By tuning the ECU based on the Volumetric Efficiency and the desired Air-Fuel Ratio for the engine, the resulting calibration values make logical sense to the user.

The Infinity ECU is built around a 200MHz, 32-bit automotive processor and Real Time Operating System (RTOS), which is capable of processing 400 million instructions per second. It is dramatically more powerful than many other current Motorsports ECUs commonly available. This allows the Infinity to do more, faster, in a more stable programming environment.



## INFINITY MODELS



### Infinity Series 3

The new Infinity Series 3 features a single, 73-pin connector and is ideal for basic crate engines and marine applications, as well for as upgrading engines currently using MEFI based systems. *See page 65 for detailed specifications.*

- > **Infinity 308** = 8 (0-5v falling edge) ignition coil outputs and 8 saturated injector drivers plus a single direct drive ignition coil output and 2 low impedance injector drivers. These extra drivers allow the 308 to be retrofitted to older GM TBI engines, which makes the Infinity 308 a great upgrade for users looking to replace their older MEFI-4 system. This system also provides users with an upgrade path to sequential port injection and coil near plug in the future.
- > **Infinity 358** = 8 (direct drive) ignition coil outputs, 8 saturated injector drivers for V8 and other applications. The Infinity 358 is the perfect solution for Ford and MOPAR Hemi applications where the coils need to be driven directly by the ECU.



### Infinity Series 5

The Infinity Series 5 features a single, 80-pin connector with either 6 ignition coil outputs and 6 low-impedance injector drivers, or 8 ignition coil outputs and 8 saturated injector drivers. It is designed for high performance,

late model vehicles, late model crate engines and late model Powersports vehicles that employ sophisticated electronics like variable cam timing and drive-by-wire but do not need the maximum amount of inputs/ outputs. *See page 65 for detailed specifications.*

- > **Infinity 506** = 6 ignition coil outputs and 6 low impedance injector drivers for late model high performance vehicles up to 6 cylinders. Includes two-wheel speed traction control, 2-cam variable cam timing control and one onboard Lambda controller.
- > **Infinity 508** = 8 ignition coil outputs and 8 saturated injector drivers for 8-cylinder engines, including crate engines and popular V8 engine swaps. Includes two-wheel speed traction control, 2-cam variable cam timing control and one onboard Lambda controller.





**Infinity Processor Advantages:**

- > The Infinity's 200MHz processor allows the ECU to update the model more frequently than the competition, allowing the ECU to always use the most accurate, up to date sensor data before injecting fuel or firing the ignition for more accurate engine control.

**Key Features:**

- > Airflow model based (VE) tuning
- > ECU Set Up Wizard simplifies start up
- > Flex fuel compatible
- > Multi fuel capable
- > Drive by wire (Series 5 & 7)
- > Variable valve control
- > Multiple boost control strategies
- > Nitrous control
- > Map switching

- > The Infinity's speed allows for more crank trigger pulses per revolution and at higher RPMs. This provides more accurate ignition timing, which enables an engine to create more power.
- > The Infinity's powerful processor allows it to datalog up to 100 channels at up to 1000 times per second/channel, with no impact on the model processing function or engine operation.
- > Internal Lambda control (Series 5 & 7)
- > Knock sensing circuits
- > Data logging up to 64GB, up to 100 channels at 1KHz (Series 5 & 7)
- > Outputs to 3rd party dashes and data loggers
- > Industry leading data transfer speed (up to 480Mb/sec) (Series 5 & 7)
- > Integrated engine protection strategies
- > Sealed enclosure and IP67 rated comms ports

**Infinity Series 7**

The Infinity Series 7 features dual connectors totaling 129 pins. It is designed for today's late model high-performance EFI engines that use sophisticated electronics like variable cam timing and drive-by-wire and require the maximum amount of inputs/outputs. See page 65 for detailed specifications.

- > **Infinity 708** = 8 ignition coil outputs and 8 low impedance injector drivers for late model high performance vehicles up to 8 cylinders. Includes four-wheel speed traction control, 4-cam variable cam timing control and dual onboard Lambda controllers.
- > **Infinity 710** = 10 ignition coil outputs and 10 low impedance injector drivers for late model high performance vehicles up to 10 cylinders. Includes four-wheel speed traction control, 4-cam variable cam timing control and dual onboard Lambda controllers.
- > **Infinity 712** = 8 ignition coil outputs and 12 low impedance injector drivers for late model high performance vehicles up to 12 cylinders using semi-sequential or wasted spark ignition, six cylinder engines that run sequential secondary injectors and V8 engines that run secondary injectors in pairs using two injectors per output. Includes four-wheel speed traction control, 4-cam variable cam timing control and dual onboard Lambda controllers.



## SELECTING THE RIGHT INFINITY SOLUTION FOR YOUR RACE VEHICLE

Infinity ECUs are designed for maximum flexibility across many types of applications. ECU modules and harnesses are sold separately for both Wire-In and Plug & Play applications. Choose the ideal Infinity ECU based on your application's ignition and fuel injector output requirements using the Infinity Specifications Chart (see page 65), and then choose between our available Plug & Play or Universal harnesses to create the Infinity solution that suits your specific needs.

### Plug & Play vs. Wire-In Applications

The Infinity ECU delivers comparable tuning functionality regardless of application type. It is available for a wide variety of applications in two distinct forms:

#### Plug & Play Applications

Infinity Plug & Play applications are available for select vehicles. Plug & Play applications support a vehicle's engine and most other ancillary vehicle systems, and include application-specific start up calibrations. The Infinity Plug & Play harness (sold separately) connects directly into a vehicle's factory engine harness and requires no additional wiring.



### Wire-In Applications

Infinity Wire-In applications have validated cam/crank timing patterns and many include base calibrations for easy start up. For Wire -In applications without a base map the Set-Up Wizard included with InfinityTuner user interface software dramatically simplifies initial tuning configuration to help ensure successful startup.

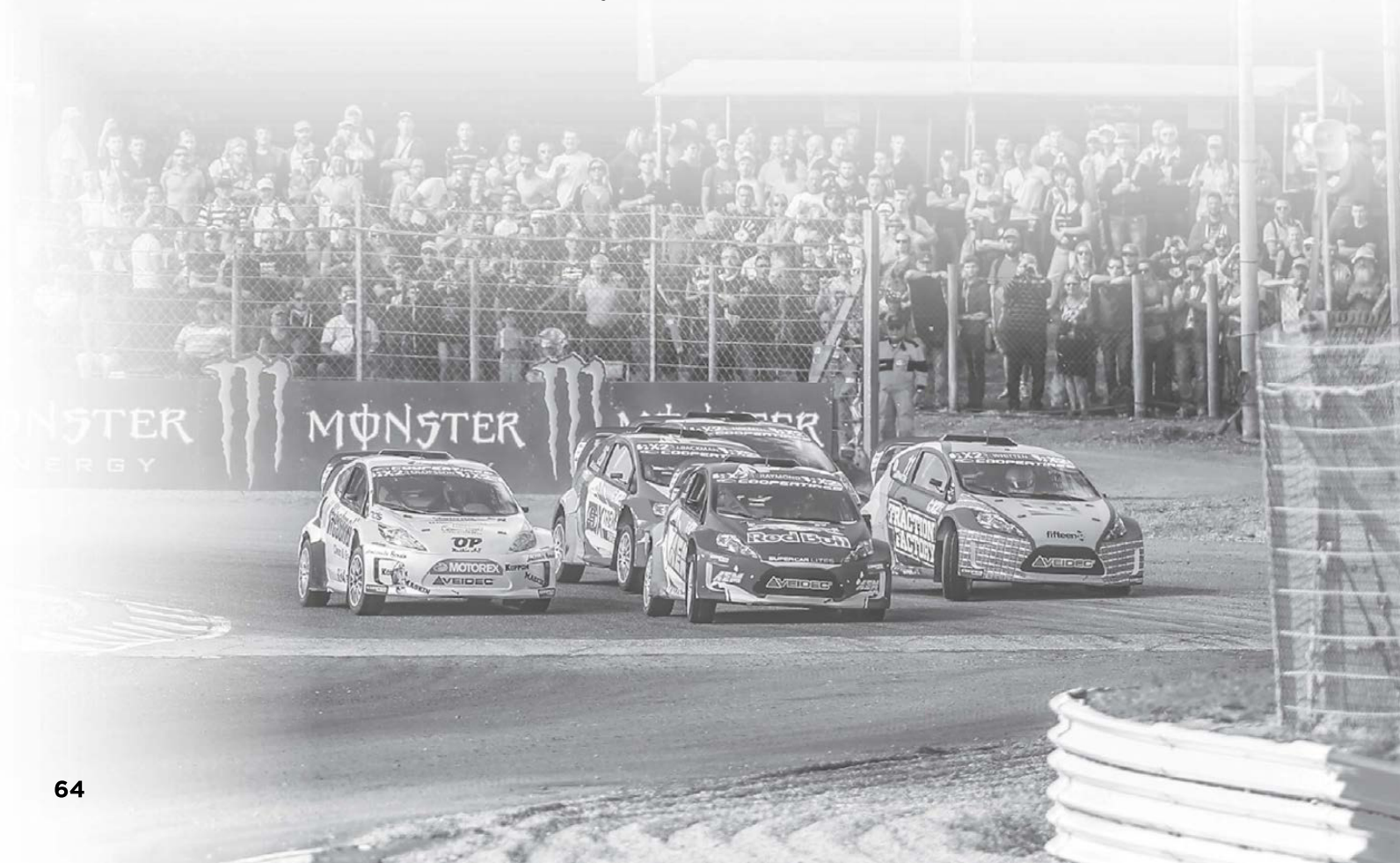
After determining your input/output (I/O) requirements using the Specifications Guide on page 65, confirm that the Infinity ECU supports your application using the Application Guide starting on page 74.

AEM offers Universal wiring harnesses in several iterations and detailed application-specific wiring instructions/schematics (see *Wiring Harness Solutions, below*).

### Wiring Harness Solutions

AEM offers Plug & Play adapter and engine harness solutions for select Japanese, European, Domestic, Crate Engine, Marine and Powersports applications. *Please see pages 68-74 for more information.*

Universal Core & Accessory Wiring Harnesses allow users to create an application specific harness by connecting cam & crank, injector, ignition and other sub harness assemblies for a vehicle to a main engine harness using DTM-style connectors. Plug & Pin kits and Universal Flying Lead harnesses are also available for creating a custom wiring harness. *Please see page 75 for Harness Application and Part Number information.*





AEM Infinity Standalone Programmable ECUs may be used solely on vehicles used in sanctioned competition which may never be used upon a public road or highway, unless permitted by specific regulatory exemption. Installers/users located outside the United States should act in accordance with their local laws and regulations. It is the responsibility of the installer and/or user of this product to ensure that it is used in compliance with all applicable laws and regulations, and this product must not be purchased if the intent is to use it in an unlawful manner.

SPECS	Infinity-712 PN: 30-7111	Infinity-710 PN: 30-7100	Infinity-708 PN: 30-7101	Infinity-508 PN: 30-7108/7112	Infinity-506 PN: 30-7106	Infinity-308 PN: 30-7113	Infinity-358 PN: 30-7114
<b>2-Stroke Engines</b>	yes	yes	yes	yes	yes	yes	yes
<b>4-Stroke Engines</b>	yes	yes	yes	yes	yes	yes	yes
<b>Cylinders</b>	Up to 8	Up to 10	Up to 8	Up to 8	Up to 6	Up to 8	Up to 8
<b>Injector Drivers</b>	12 High or Low Impedance	10 High or Low Impedance	8 High or Low Impedance	8 High Impedance	6 High or Low Impedance	8 High Impedance	8 High Impedance
<b>Low Impedance Injector Drivers</b>	12	10	8	n/a	6	2	n/a
<b>Coils (0-5V Falling Edge)</b>	12	10	8	8	6	8	n/a
<b>Coils (Direct Drive)</b>	n/a	n/a	n/a	n/a	n/a	1	8
<b>Digital Inputs</b>	Up to 8	Up to 8	Up to 8	Up to 6	Up to 6	Up to 3	Up to 3
<b>VR/Mag Inputs</b>	Up to 6	Up to 6	Up to 6	Up to 4	Up to 4	Up to 2	Up to 2
<b>Analog Voltage Inputs</b>	Up to 17	Up to 17	Up to 17	Up to 9	Up to 9	Up to 9	Up to 9
<b>Analog Temp Inputs</b>	Up to 6	Up to 6	Up to 6	Up to 3	Up to 3	Up to 3	Up to 3
<b>Knock Control</b>	2-Channel	2-Channel	2-Channel	2-Channel	2-Channel	2-Channel	2-Channel
<b>On Board Wideband Air/Fuel Controllers</b>	2	2	2	1	1	n/a	n/a
<b>Drive-By-Wire</b>	Dual	Dual	Dual	Single	Single	n/a	n/a
<b>H-Bridge Channels</b>	2	2	2	1	1	n/a	n/a
<b>High Side Outputs</b>	Up to 3	Up to 3	Up to 3	1	1	n/a	n/a
<b>Low Side Outputs</b>	10	10	10	6	8	10	10
<b>Low Side Outputs that can be PWM</b>	7	7	7	3	5	3	3
<b>4-Wire Stepper Motor Control</b>	yes	yes	yes	yes	yes	yes	yes
<b>CAN Channels</b>	2	2	2	2	2	1	1
<b>Boost Control (details in platform specific product pages)</b>	yes	yes	yes	yes	yes	yes	yes
<b>Variable Cam Control</b>	Up to 4	Up to 4	Up to 4	Up to 2	Up to 2	n/a	n/a
<b>Engine Protection**</b>	yes	yes	yes	yes	yes	yes	yes
<b>Launch Control</b>	yes	yes	yes	yes	yes	yes	yes
<b>Nitrous Control</b>	Up to 4-Stage	Up to 4-Stage	Up to 4-Stage	Single Stage	Single Stage	Single Stage	Single Stage
<b>Traction Control</b>	Up to 4-Wheel Speed	Up to 4-Wheel Speed	Up to 4-Wheel Speed	Up to 2-Wheel Speed	Up to 2-Wheel Speed	n/a	n/a
<b>Onboard Data Logging</b>	up to 64 GB	up to 64 GB	up to 64 GB	up to 64 GB	up to 64 GB	PC & Internal Log Book Only	PC & Internal Log Book Only
<b>Weather Resistant Sealed Electronics</b>	yes	yes	yes	yes	yes	yes	yes
<b>Connector Pins</b>	129	129	129	80	80	73	73
<b>Enclosure Dimensions</b>	6.75" x 6.00" x 1.8"	6.75" x 6.00" x 1.8"	6.75" x 6.00" x 1.8"	5.85" x 5.55" x 1.8"	5.85" x 5.55" x 1.8"	7.75" x 6.95" x 1.73"	7.75" x 6.95" x 1.73"
<b>Weight</b>	24 oz / 680.4g	24 oz / 680.4g	24 oz / 680.4g	16.8 oz / 476.27g	16.8 oz / 476.27g	29.9 oz / 848g	29.9 oz / 848g

\*\* Engine protection is programmable and can be coolant temp, oil temp, oil pressure, AFR vs MAP, intake air temp, knock, overboost and fuel pressure-based.



## INFINITYTUNER SOFTWARE

InfinityTuner software is optimized for speed and performance with super high resolution 3D tables. It features user-selectable control types for custom layouts, allowing you to create a layout that best fits your tuning style and globally view unit preferences the way you want throughout the software (kpa or psi, AFR or Lambda, etc.).

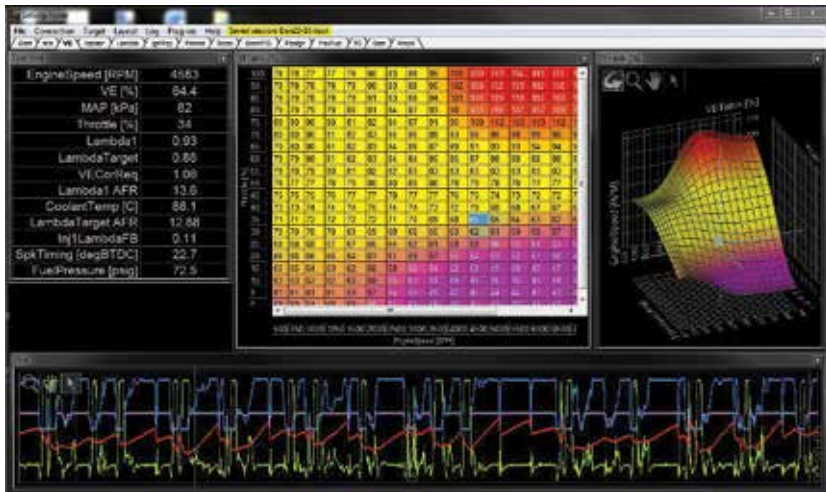
A Setup Wizard simplifies calibration work through a smart interface; simply enter known engine data like

displacement, cylinder count, firing order, etc., and the Wizard does the rest. A Help feature is integrated into the Setup Wizard; press the F1 key and the software launches the tuning guide that highlights displayed information about the Wizard page being used.

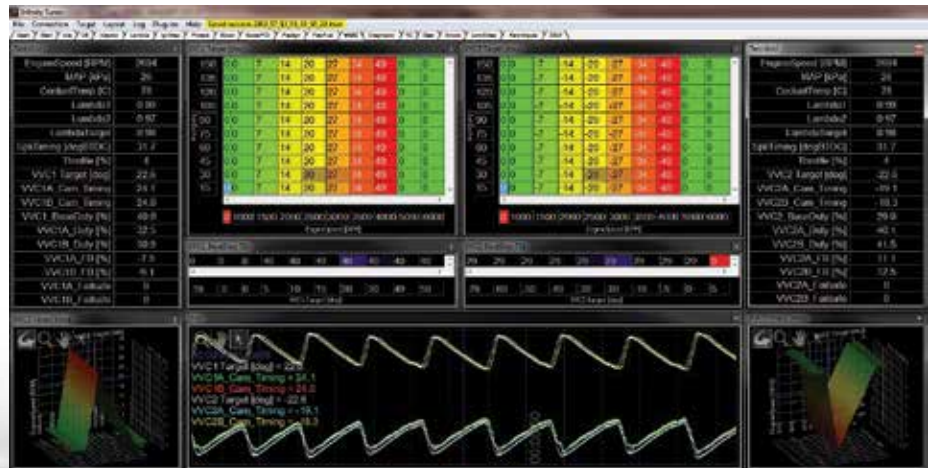
A data logging playback mode in the software syncs all windows and tables to the logged data for calibration editing, which reduces tuning time and allows you to make changes exactly where you need to.



See Page 1

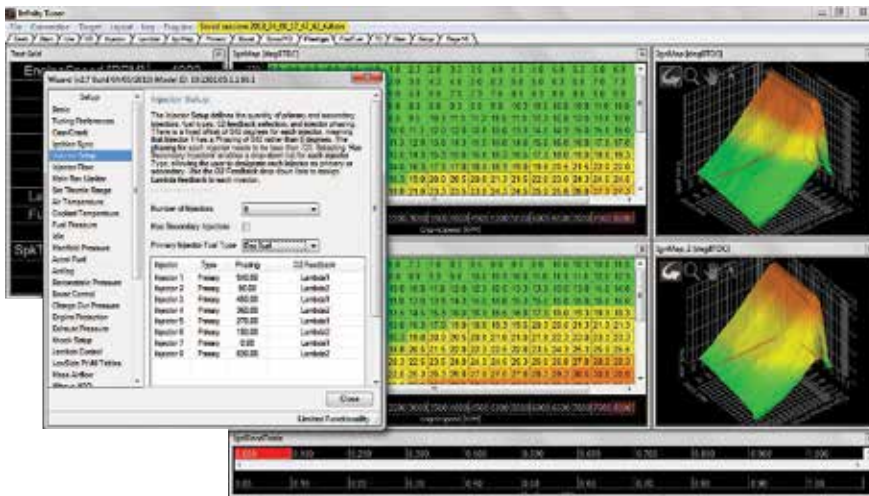


InfinityTuner's fully customizable workspace puts tables and graphs where you want them. Data logging playback mode is synced to controls and lets you edit calibrations right where you need to, speeding up tuning time and improving tuning accuracy.

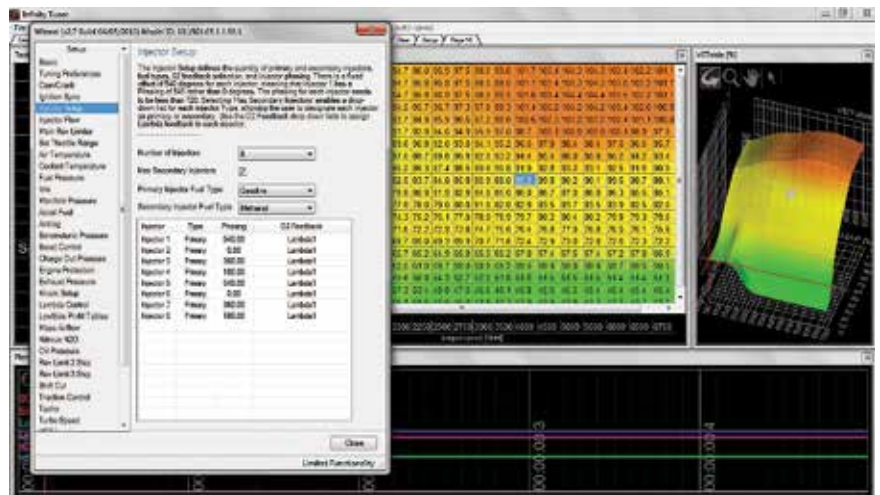


InfinityTuner simplifies complex tuning features like 4-cam variable cam timing control by allowing you to maximize your workspace.

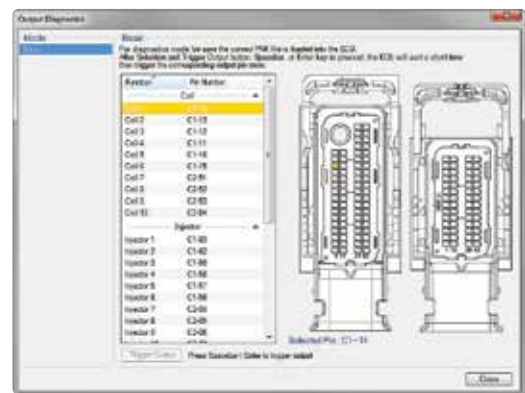




The Setup Wizard simplifies many tasks by allowing the tuner to input known data for virtually every control type. If you need help, pressing the F1 key launches the tuning guide and highlights displayed information about the Wizard page being used.



The Wizard breaks down Drive-by-Wire setup into 6 easy steps. In the background InfinityTuner simultaneously samples multiple inputs while calibrating the pedal positions and throttle position sensors.



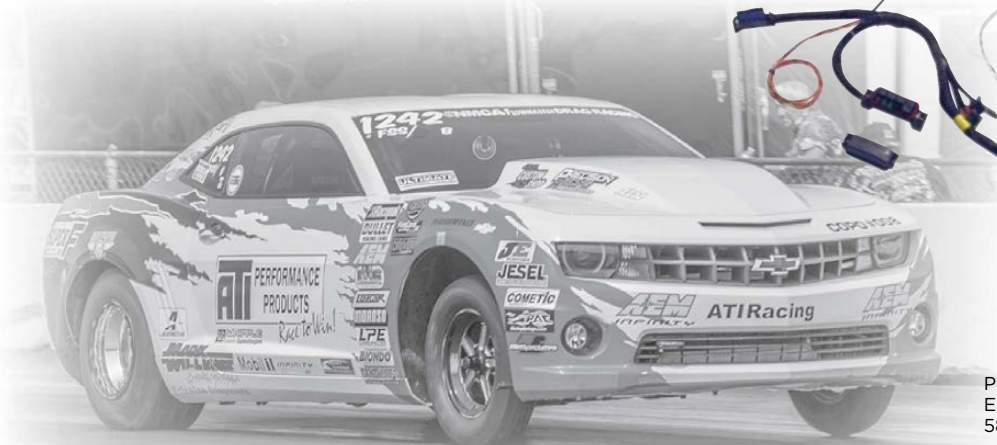
Manually trigger outputs from the Outputs Diagnostics Wizard to verify proper wiring. Select an output to test and the Diagnostics Wizard highlights the pin location in the connector diagram.



## GM LS PLUG & PLAY ENGINE WIRING HARNESSSES

AEM offers Plug & Play engine wiring harnesses that install easily by connecting to a vehicle's factory sensors. These harnesses utilize Automotive-grade, color-coded wiring and shielded inputs for optimum performance. Water and shock-proof factory connectors for the sensors are used throughout the harness, as well as DTM-style connectors for auxiliary components. Connections for a wideband O2 sensor, Drive-by-Wire and pedal, Knock, and AEMnet (AEM's CAN bus) are integrated into the harness.

An integrated fuse and relay panel includes five relays and seven fuses that provides robust power distribution, engine circuit protection, and easier integration of additional features. Relays with flying leads are included for the fuel pump and fans. The panel's housing is weather resistant and panel lid is weatherproof for added protection.



PN 30-3801 LS Plug & Play Engine Adapter Harness for 58X timing pattern.

## POWERSPORTS AND MOTORCYCLE PLUG & PLAY HARNESSSES

### Wiring Solutions for Polaris RZR and Hayabusa

AEM's Plug & Play Adapter Harnesses for Powersports and motorcycle applications supports factory sensors including MAP and AIT, and the factory injectors. Whenever possible, Drive-by-Wire and factory boost control on turbocharged applications are also supported. Full dashboard functionality is retained and an ignition coil driver, MAP sensor and wideband AFR sensor are included to ensure quick installation.



PN 30-3550 Suzuki GSX1300R Hayabusa Plug & Play Adapter Harness.

## FORD COYOTE PLUG & PLAY ADAPTER WIRING HARNESSSES

Some Infinity Plug & Play harnesses are designed to adapt to a factory engine harness or crate engine harness like the Ford Racing Controls Pack harness. A Coyote adapter harness is also available for use with the factory engine wiring harness. Like

all Infinity Plug & Play harnesses, a base map is included. If applicable, variable cam timing control and Drive-by-Wire functionality is retained, and the harnesses include provisions to adapt MAF-sensor equipped engines to speed density.



PN 30-3813 Coyote Plug & Play Engine Adapter Harness provides a connection between the Infinity ECU and factory engine wiring harness.



### Powersports & Motorcycle Plug & Play Harness Key features:

- > Full dashboard functionality
- > AWD control (when applicable)
- > Closed-loop wideband feedback control
- > Flex fuel compatible
- > Multiple programmable boost control strategies
- > Multiple programmable engine protection strategies
- > Uses factory knock sensor
- > Secondary injector control
- > Launch limiter
- > Rolling launch antilag
- > On-the-fly map switching



PN 30-3822 Polaris RZR XP Turbo Plug & Play Adapter Harnesses.

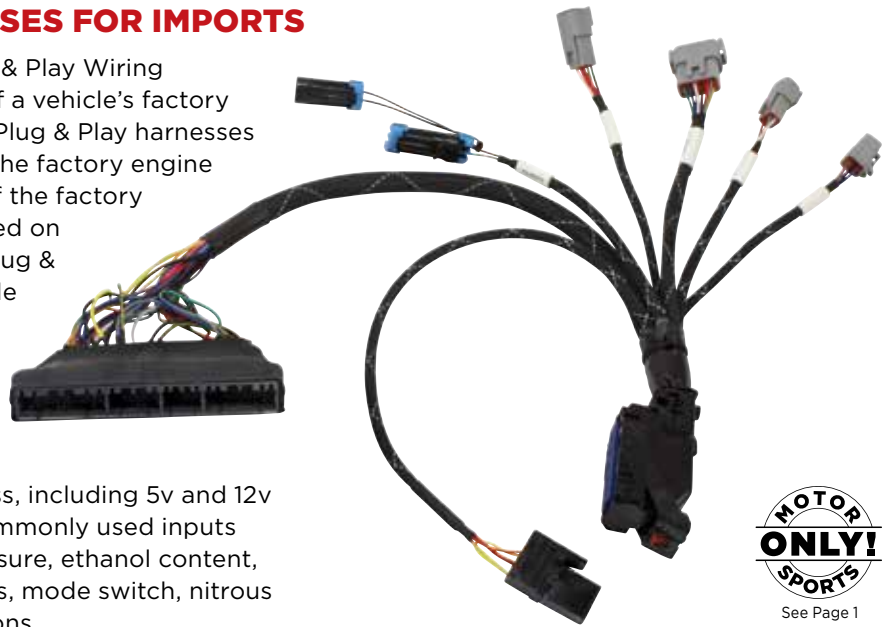


## PLUG & PLAY WIRING HARNESSES FOR IMPORTS

AEM offers several different types of Plug & Play Wiring harnesses depending on the complexity of a vehicle's factory controls and communications system. All Plug & Play harnesses allow you to make a direct connection to the factory engine wiring harness and in most cases use all of the factory sensors (additional sensors may be required on some engines). Applications that have a Plug & Play wiring harness include a downloadable base map for the engine.

### Built In Auxiliary Expansion Port

Infinity Plug & Play harnesses include a DTM-style 12-pin auxiliary expansion port to adapt ancillary inputs and outputs not available in the factory harness, including 5v and 12v sensor power and sensor ground pins. Commonly used inputs and outputs include fuel pressure, oil pressure, ethanol content, wheel speeds, wastegate control solenoids, mode switch, nitrous activation relays and other popular functions.

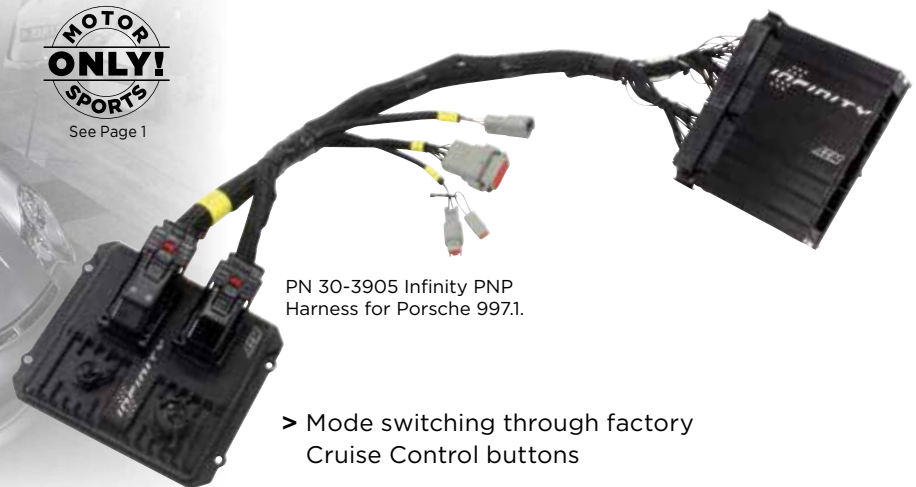


PN 30-3509 Honda PNP harnesses for B-, D, and H Series engines. The ignition connector (far right) has an optional distributor adapter plug for use with distributed systems (sold separately). Whenever possible AEM makes accommodations in its harnesses for both factory and common high performance wiring combinations. K-Series and S2000 harnesses also available.



## PLUG & PLAY WIRING HARNESSES FOR EUROS

For late model vehicles that employ sophisticated vehicle controls and CAN bus systems, AEM Plug & Play harnesses allow the Infinity to employ racing features through the vehicle's CAN bus. This eliminates the need to add ancillary position switches for things like map switching, launch control, Drive-by-Wire profiles and traction control. The Infinity is able to control continuously variable cam timing (up to 4 cams), and full dashboard functionality is retained.



PN 30-3905 Infinity PNP Harness for Porsche 997.1.

- > Mode switching through factory Cruise Control buttons
- > Use factory buttons to change DBW profiles, as a 3-step rev limiter, and for traction control using the factory wheel speed/ABS sensors
- > Designed to fit in a vehicle's factory ECU location and completely replaces stock ECU
- > CAN bus dashboard functionality is retained
- > Uses factory boost control solenoid (when applicable)





PN 30-3512  
PNP harness for  
Mitsubishi EVO IX.



- > Plugs into factory wiring harness
- > Uses factory sensors (additional sensors may be required)
- > Closed loop wideband feedback control via on-board UEGO sensor controller(s)

- > Supports factory variable valve timing (if equipped)
- > Map switching capability using 12-position Trim Pot

## PLUG & PLAY WIRING HARNESS FOR MEFI-4 EQUIPPED ENGINES

Switch from the older MEFI-4 platform to state-of-the-art standalone engine control with built in racing features like boost, nitrous, traction and launch control in about an hour using the Series 3 Infinity MEFI-4 Plug & Play Adapter Harness. This harness includes two Lambda connectors for adding external wideband controllers and sensors, a connector for HEI-distributed engines or the option to run 8 individual AEM smart coils, an AEMnet CAN bus connection for connecting AEMnet enabled devices, an integrated relay and 12-pin DTM style connector for fast and easy integration of auxiliary sensors and switches.



PN 30-3829

- > Full ignition control
- > Closed loop AFR feedback
- > ECU Set Up Wizard simplifies start up
- > Flex fuel compatible
- > Dual knock sensing circuits
- > Engine history
- > Outputs to 3rd party dashes and data loggers
- > Integrated engine protection strategies



## UNIVERSAL CORE & ACCESSORY WIRING HARNESSSES

### Easily Create a Custom Wiring Harness for Your V8 Racecar!

Infinity Series 5/7 Universal Core and Accessory Harnesses enable users to create a custom wiring harness for their 4-, 6- or 8-cylinder engine by connecting engine-specific accessory sub harnesses to a universal core harness using high-quality DTM-style connectors. Core Harnesses include a weather-resistant fuse panel with 5 relays and 7 fuses, and both Core

and Accessory Harnesses are made from automotive-grade wiring wrapped in braided mesh loom.

Select the correct injector, ignition, cam/crank timing, idle motor and drive-by-wire (if equipped) sub harness and mate them to a universal core harness using high-performance DTM-style connectors.



## INFINITY UNIVERSAL WIRING HARNESSSES

AEM offers multiple options for Infinity users who want to design a custom wiring harness for their application that can ease the process. From Plug & Pin Kits to full flying lead harnesses, we have a solution that best fits your wiring goals.



### Plug & Pin Kits

Infinity Plug & Pin kits include Molex connector(s) with covers, pins, weather seals, a micro relay and sealing plugs. These kits are intended for users who want to design a custom harness from the ground up.

#### PN 30-3701 Plug & Pin Kit for Series 7

Infinity includes (1) 73-pin connector with cover, (1) 56-pin connector with cover, 130 small pins, 1 large pin with weather seal, 1 micro relay with pins, and 30 sealing plugs.

#### PN 30-3704 Plug & Pin Kit for Series 5

Infinity includes 80-pin connector with cover, 80 small pins, 1 micro relay with pins and 30 sealing plugs.

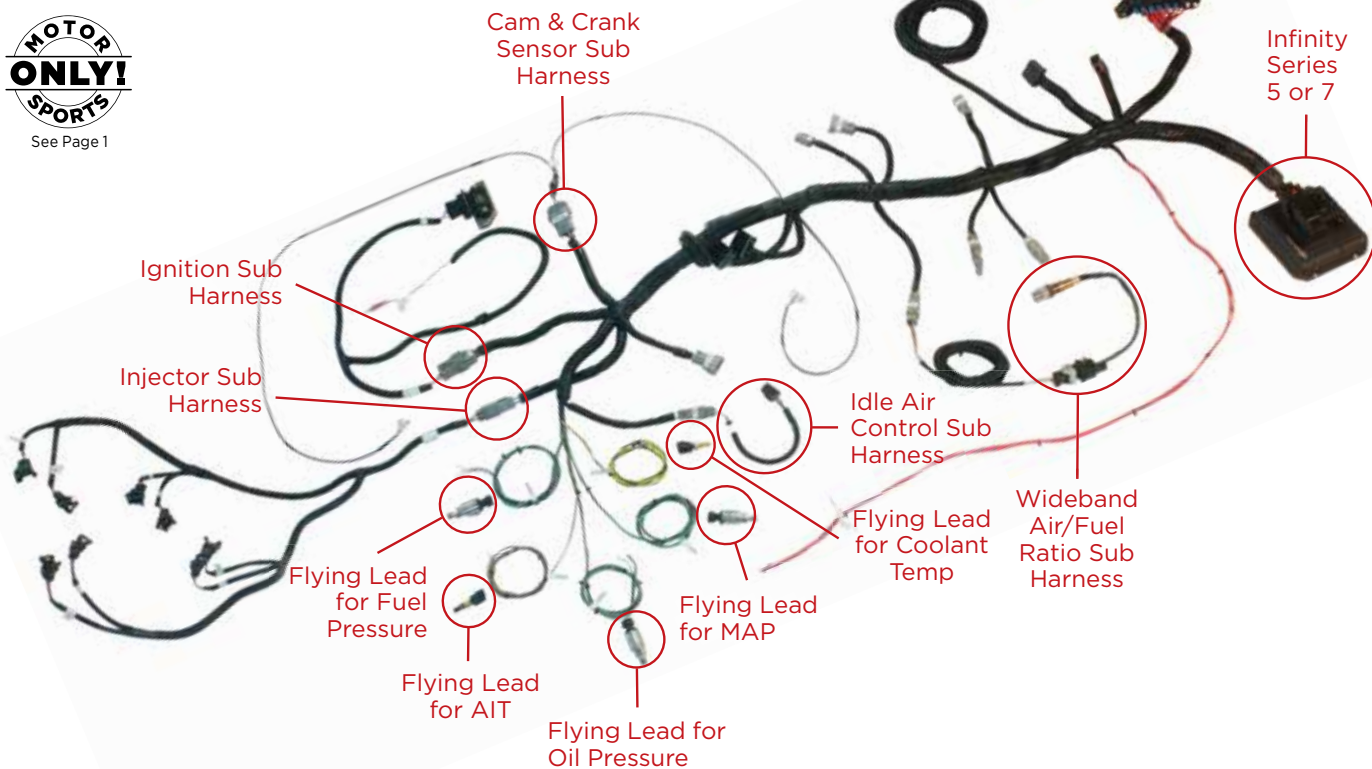
#### PN 30-3708 Plug 7 Pin Kit for Series 3

Infinity includes 73 pin connector with cover, 80 small pins, 80 sealing plugs and 1 micro relay with pins.



PN 30-3701 for Infinity Series 7.

**Create a Custom Harness and Save Money Using Our Universal Core Harness & Accessory Wiring Harness System!**



**Mini Universal Harnesses**

Infinity Mini Harnesses include pre-wired power, grounds power relay, fuse box, wideband and AEMnet, but uses shorter flying lead lengths that allow the user to custom tailor the wire lengths to their application.

**PN 30-3707** Series 3 Infinity Universal Mini Harness. 40 small pins and 40 sealing plugs included.

**PN 30-3705** Series 5 Infinity Universal Mini Harness. 80 small pins and 30 sealing plugs included.

**PN 30-3703** Series 7 Infinity Universal Mini Harness. 100 small pins and 30 sealing plugs included.

**Series 7 Universal Wiring Harness**


**PN 30-3702** Series 7 Infinity Universal Wiring Harness includes pre-wired power and grounds, power relay, fuse box, dual wideband connectors, AEMnet connector and 100 x 96" terminated wires.



PN 30-3702 for Infinity Series 7.



# INFINITY APPLICATIONS & HARNESSES

 Infinity Standalone Programmable ECUs may be used solely on vehicles used in sanctioned competition which may never be used upon a public road or highway, unless permitted by specific regulatory exemption. Installers/users located outside the United States should act in accordance with their local laws and regulations. It is the responsibility of the installer and/or user of this product to ensure that it is used in compliance with all applicable laws and regulations, and this product must not be purchased if the intent is to use it in an unlawful manner.

## Infinity Applications

Type	Make	Year	Model	Engine	Infinity Platform	Infinity Part Numbers	Harness
PnP	BMW	2001-2006	E46 M3	S54 3.2L I6	708, 710	30-7109, 7105	30-3510
Wire-In	BMW	1995-1999	E36 M3 (US Spec)	S50USB30 3.0L I6	506, 508, 708, 710, 712	30-7106, 7108, 7101, 7100, 7111	
Wire-In	Dodge	2003-2008	36-2-2-2 Crank	Hemi 5.7/6.1L V8	358, 508, 708, 710, 712	30-7114, 7108, 7101, 7100, 7111	
Wire-In	Dodge	2009-2012	60-2 Crank (incl VCT)	Hemi 5.7/6.1L/6.4L V8	358, 508, 708, 710, 712	30-7114, 7108, 7101, 7100, 7111	
Wire-In	Dodge	1996-2006	Viper	8.0/8.3L V10	710	30-7100	
Wire-In	Dodge	2008-2010	Viper	8.4L V10	710	30-7100	
Wire-In	Dodge	2013+	60-2 Crank (incl VCT)	Hemi 5.7/6.1L/6.4L V8	358, 508, 708, 710, 712	30-7114, 7108, 7101, 7100, 7111	
PnP	Ford	2011-2014	Ford Racing Controls Pack Only	Coyote 5.0L V8	708, 710, 712	30-7101, 7100, 7111	30-3812
PnP	Ford	2011-2014	Adapts to Stock Coyote Engine Harness	Coyote 5.0L V8	708, 710, 712	30-7101, 7100, 7111	30-3813
Wire-In	Ford	1996-2004		Modular 2V 4.6L V8	358, 508, 708, 710, 712	30-7114, 7108, 7101, 7100, 7111	
Wire-In	Ford	2005-2009		Modular 3V 4.6L V8	358, 508, 708, 710, 712	30-7114, 7108, 7101, 7100, 7111	
Wire-In	Ford	1993-2006		Modular 4V 4.6L/5.4L V8	358, 508, 708, 710, 712	30-7114, 7108, 7101, 7100, 7111	
PnP Engine	GM			LS Engines 24x V8	708, 710, 712	30-7101, 7100, 7111	30-3532
PnP Engine	GM			LS Engines 58x V8	508	30-7108	30-3801
PnP Engine	GM			LS Engines 24x V8	508	30-7108	30-3821
Wire-In	GM		Universal Core/Accy Harnesses Avail.	Small Block V8	308, 508, 708, 710, 712	30-7113, 7108, 7101, 7100, 7111	
Wire-In	GM		Universal Core/Accy Harnesses Avail.	Big Block V8	308, 508, 708, 710, 712	30-7113, 7108, 7101, 7100, 7111	
Wire-In	GM		Small Cap HEI	Vortec 5.7L V8	308, 508, 708, 710, 712	30-7113, 7108, 7101, 7100, 7111	
PnP	Honda	2000-2005	S2000	F20 & F22 non-DBW 2.0/2.2L I4	506, 508	30-7106/7108	30-3508
Wire-In	Honda	2007-2013		J37A1 3.7L V6	506, 508, 708, 710, 712	30-7106, 7108, 7101, 7100, 7111	
PnP	Honda/Acura	1992-1995		B/D/H Series OBD1 I4	506, 508	30-7106, 7108	30-3501
PnP	Honda/Acura	2002-2005		K-Series 2.0/2.4L I4	506, 508	30-7106, 7108	30-3502
PnP	Honda/Acura	1999-2001		B/D/H Series OBD2B I4	506, 508	30-7106, 7108	30-3509
Wire-In	Mazda			13B, 20B Rotary	506	30-7106	
Wire-In	Mazda	2006-2015		MZR 2.0L I4	506, 508, 708, 710, 712	30-7106, 7108, 7101, 7100, 7111	
PnP	MEFI-4	N/A	N/A	N/A	308, 358	30-7113, 7114	30-3829
PnP	Mitsubishi	2003-2005	Lance Evolution VIII	4G63T USDM 2.0L I4	506, 508	30-7106, 7108	30-3511
PnP	Mitsubishi	2006	Lance Evolution IX	4G63T USDM 2.0L I4	506, 508	30-7106, 7108	30-3512
PnP	Nissan	1989-1998	Skyline GT-R	RB26DETT 2.6L I6	506, 508	30-7106, 7108	30-3515
PnP	Nissan	1994-1996	Silvia	SR20DET 2.0L I4	506, 508	30-7106, 7108	30-3517
PnP	Nissan	2003-2006	350Z	VQ35DE 3.5L V6	708, 710	30-7110, 7107	30-3520
PnP	Polaris	2011-2014	RZR 900	900cc I2	558	30-7112	30-3808
PnP	Polaris	2014-2015	RZR XP 1000	1000cc I2	558	30-7112	30-3811
PnP	Polaris	2016+	RZR XP Turbo	925cc I2 Turbo	558	30-7112	30-3822
PnP	Porsche	2001-2005	996 Turbo	3.6L H6 Turbo	708, 710	30-7109, 7105	30-3902
PnP	Porsche	2005-2009	997.1 NA, 997.1 Turbo	3.6L & 3.8L NA, Turbo H6	708, 710	30-7109, 7105	30-3905
PnP	Porsche	2005-2008	987 Cayman/S	2.7/3.4L H6	708, 710	30-7109, 7105	30-3905
Wire-In	Subaru	2002-2007		EJ257 2.5L H4	506, 508, 708, 710, 712	30-7106, 7108, 7101, 7100, 7111	
Wire-In	Subaru	2008+		EZ36D 3.6L H6	506, 508, 708, 710, 712	30-7106, 7108, 7101, 7100, 7111	
PnP	Suzuki	2002-2007	GSXR1300 Hayabusa	1300 1.3L I4	506	30-7106	30-3550
PnP	Toyota	1994-1998	Supra TT	2JZ-GTE 3.0L I6	708, 710, 712	30-7101, 7100, 7111	30-3519
Wire-In	Toyota	1997-2002		2JZ-GTE VVT-i 3.0L I6	506, 508, 708, 710, 712	30-7106, 7108, 7101, 7100, 7111	
Wire-In	Toyota	2005-2012	Intake VVT-i only	2GR-FE 3.5L V6	506, 508, 708, 710, 712	30-7106, 7108, 7101, 7100, 7111	
PnP	VW	2002-2005	MKIV Golf/Jetta	1.8T DBW I4	506, 508	30-7106, 7108	30-3903

\* Infinity Supported applications and Universal applications refer to an engine family or cam/crank pattern for which the Infinity ECU has been tested and validated to run. However, certain ancillary vehicle systems (such as factory instrument clusters, automatic transmissions, and certain drive by wire throttles), may not be supported.

## Infinity Universal Cam and Crank Applications

CRANK Teeth	CAM Pulses	INFINITY PLATFORM**							Notes
		I-308	I-358	I-506	I-508	I-708	I-710	I-712	
4	1	30-7113	30-7114	30-7106	30-7108	30-7101	30-7100	30-7111	Mag or Hall Sensors
8	1	30-7113	30-7114	30-7106	30-7108	30-7101	30-7100	30-7111	Mag or Hall Sensors
8-1	1	30-7113	30-7114	30-7106	30-7108	30-7101	30-7100	30-7111	Mag or Hall Sensors
12	1	30-7113	30-7114	30-7106	30-7108	30-7101	30-7100	30-7111	Mag or Hall Sensors
24	1	30-7113	30-7114	30-7106	30-7108	30-7101	30-7100	30-7111	Mag or Hall Sensors
36-1	1	30-7113	30-7114	30-7106	30-7108	30-7101	30-7100	30-7111	Mag or Hall Sensors
36-2	1	30-7113	30-7114	30-7106	30-7108	30-7101	30-7100	30-7111	Mag or Hall Sensors
60-2	1	30-7113	30-7114	30-7106	30-7108	30-7101	30-7100	30-7111	Mag or Hall Sensors

\*\* Review the Infinity Specifications Chart to determine the appropriate Infinity platform for your application.

**Infinity Universal Flying Lead Harnesses/Plug & Pin Kits**

Type	Infinity Platform	Infinity Part Numbers	Harness PN
Plug & Pin Kit	708, 710, 712	30-7101, 7100, 7111	30-3701
Flying Lead	708, 710, 712	30-7101, 7100, 7111	30-3702
Flying Lead	708, 710, 712	30-7101, 7100, 7111	30-3703
Plug & Pin Kit	506, 508	30-7106, 7108	30-3704
Flying Lead	506, 508	30-7106, 7108	30-3705
Mini-Flying Lead	506, 508	30-7106, 7108	30-3706
Plug & Pin Kit	308, 358	30-7113, 30-7114	30-3708
Flying Lead	308, 358	30-7113, 30-7114	30-3707

**Infinity Universal Core & Accessory Wiring Harnesses**

Type	Make	Model	Infinity Platform	Infinity Part Numbers	Harness PN
Core	Universal		708, 710, 712	30-7101, 7100, 7111	30-3805
Core	Universal		506, 508	30-7106, 7108	30-3809
Core Extension	GM Injector Adapter	EV1	708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-00
Core Extension	Ford Injector Adapter	EV1	708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-01
Core Extension	Single Channel Ignition		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-02
Core Extension	MAG Cam / MAG Crank		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-03
Core Extension	HALL Cam / MAG Crank		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-04
Core Extension	MAG Cam / HALL Crank		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-05
Core Extension	HALL Cam / HALL Crank		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-06
Core Extension	GM Idle Stepper Motor		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-07
Core Extension	PWM Idle	*30-3805 Core harness only	708, 710, 712	30-7101, 7100, 7111	30-3805-08
Core Extension	AEM IGBT Coil Adapter, GM Cyl Numbering		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-09
Core Extension	GM Injector Adapter	EV6	708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-10
Core Extension	Ford Injector Adapter	EV6	708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-11
Core Extension	GM LS Coil Adapter, GM Cyl Numbering		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-12
Core Extension	AEM EPM, 15" for Rr Mounted Distributor		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-14
Core Extension	FAST Dual Sync, 15" for Rr Mounted Distributor		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-15
Core Extension	MSD Dual Sync, 15" for Rr Mounted Distributor		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-16
Core Extension	AEM IGBT Coil Adapter, Ford Cyl Numbering		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-17
Core Extension	GM LS Coil Adapter, Ford Cyl Numbering		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-18
Core Extension	AEM EPM, 35" for Fr Mounted Distributor		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-19
Core Extension	FAST Dual Sync, 35" for Fr Mounted Distributor		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-20
Core Extension	MSD Dual Sync, 35" for Fr Mounted Distributor		708, 710, 712, 506, 508	30-7101, 7100, 7111, 7106, 7108	30-3805-21
Core Extension	GM DBW Pedal Adapter (GM PN: 10367117)	*30-3809 Core harness only	506, 508	30-7106, 7108	30-3809-00
Core Extension	GM DBW Throttle Body Adapter(GM PN: 12570790 & 12580760)	*30-3809 Core harness only	506, 508	30-7106, 7108	30-3809-01

**Infinity Auxiliary Harnesses & Cables**

Type	Infinity Platform	Infinity Part Numbers	Harness PN
Infinity Coil Adapter for use with Distributed Honda/Acura	All	All	30-3501-00
Infinity Auxiliary Plug Speed Density Extension	All	All	30-3510-00
Infinity O2 Sensor Extension Harness, 72"	All	All	30-3600
Infinity IP67 spec comms cable, 39"	All	All	30-3601
Infinity IP67 spec logging cable, 39"	All	All	30-3602
Infinity IP67 spec comms cable, 118"	All	All	30-3604
Infinity Volkswagen 1.8T Map Sensor Harness	All	All	30-3903-00





## SERIES 2 PLUG & PLAY PROGRAMMABLE ENGINE MANAGEMENT SYSTEMS

Powerful Stand-Alone Engine Control That Plugs Into the Factory Wiring Harness!

AEM was the first company to offer complete engine control using a vehicle's factory wiring harness and sensors. Our Series 2 Plug & Play EMS combines robust construction with our proven AEMtuner Software to deliver total engine control for the racing masses.

AEM's Series 2 Plug & Play EMS plugs directly into a vehicle's factory ECU harness and requires no additional wiring or hardware. Windows™ compatible software (XP, Vista, 7, 8) simplifies copying, viewing and data manipulation.



- > Delivers complete control of your racecar's engine and driveline
- > Plugs into your racecar's factory wiring harness and uses existing sensors
- > Systems are unlocked and fully enabled—never pay for upgrades!
- > AEMnet enabled electronics
- > Outputs to 3rd party dashes and loggers
- > Start-up calibrations included
- > Flex Fuel capable

- > Variable cam control (4 cams)
- > 2MB internal data logger
- > Data analysis in AEMdata software
- > Sequential fuel injection
- > Electronic boost control
- > Enhanced programmable traction control features
- > Software-definable knock control
- > Two-step launch control
- > Configurable soft-cut rev limiters
- > Wet or dry nitrous control

## AEMTUNER SOFTWARE

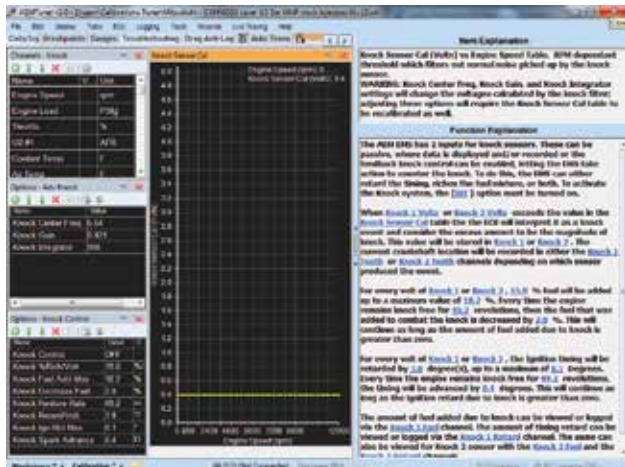
AEMtuner software is intuitive and highly adjustable. It allows tuners to program virtually any combination of engine control, power adders

and auxiliary devices, and accurately delivers proper amounts of fuel and correct ignition timing for any boost level or operating condition.

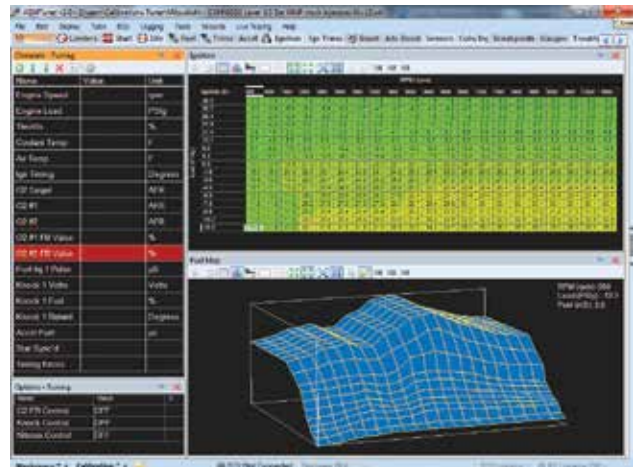


- > Fully customizable workspace, tables and maps
- > Support pane delivers context sensitive help
- > Internal conflict detection for I/O assignments

- > Password protected maps
- > Compare calibrations for easy analysis
- > Data analysis using AEMdata (see page 4)



**Support Pane:** The support pane delivers live, context sensitive help including explanation of items and functions. A link to worksheets from a given function is included for making adjustments.



**Workspace:** AEMtuner puts your tuning world in one space through a fully customizable workspace, allowing you to add what you need and hide what you don't. Password protection is included.

**EMS-4 UNIVERSAL STANDALONE PROGRAMMABLE EMS**  
**A Compact, Weatherproof Engine Management System Designed For 4-Cylinder Racing and Powersports Applications**

AEM's EMS-4 Universal Standalone engine management system is designed for Powersports and 4-cylinder race vehicles. This affordable, lightweight, compact and powerful system features robust Series 2 EMS hardware in a weather and shock proof enclosure, with a 36-pin connector specifically designed to survive harsh racing environments.



- > Durable weather/shock proof enclosure
- > Compact size (4.8" x 4.55" x 1.44")
- > Light weight (7.2 ounces/204 grams)
- > Available flying-lead wiring harness simplifies installation
- > Runs on proven AEMtuner software
- > Works with Mag or Hall crank inputs
- > Can directly drive smart coils or an external igniter
- > 4 saturated injector drivers
- > 4 coil triggers
- > 8 general purpose Inputs/Outputs
- > O2 & knock inputs
- > 8 MB internal data logger
- > VSS Hall input
- > CAN data stream
- > USB comms port



**EMS-4 Wiring Harnesses**

AEM's EMS-4 flying-lead wiring harnesses are available in 96" and mini configurations. See page 78 for application info.



**F/IC-6, F/IC-8 AND PLUG & PLAY F/IC**  
**Piggyback Engine Control for Aftermarket Boosted Vehicles**

AEM's Fuel/Ignition Controllers allow racers to retard ignition and deliver accurate amounts of fuel without the need for outdated FMUs or "boost hiding" controllers. This system works parallel with most factory ECUs (OBD-compatible) on non direct-injected,

gas engine, naturally aspirated or forced induction race vehicles (with or without variable cam timing). It prevents tuning limitations due to complex factory timing patterns. F/IC software is Windows compatible (XP, Vista, 7 and 8).



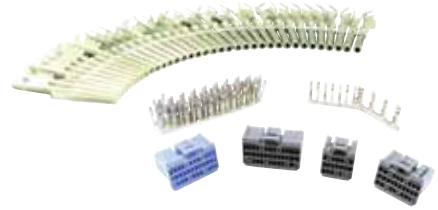
**EMS ACCESSORIES**



**Series 2 AEMnet Adapter Kits**  
Connect your Series 2 EMS to other AEMnet enabled devices.



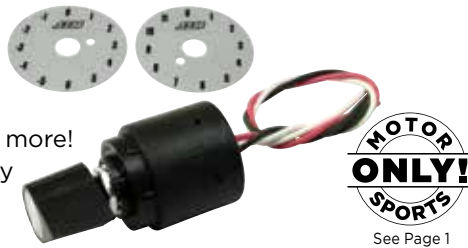
**EMS Patch/Extension Harnesses**  
AEM's EMS Patch/Extension Harnesses make it easy to add ancillary devices like turbo timers, data loggers, gauges, F/IC, etc., without having to cut into your factory wiring harness.



**Series 2 Plug & Pin Kits**  
AEM Plug & Pin Kits essentially allow you to "start over" with your harness to create a new harness or replace your existing factory harness using new plugs and pins.

**Universal 12-Position Trim Pot**

AEM's Universal 12-Position Trim Pot can be used to adjust a number of trims including ignition timing, fuel, boost and more! It can be used with virtually any Engine Management System.



See Page 1

**Micro Relay Kit**

AEM's 12 V Micro Relay kit includes relay, connector and contacts.



EMS-4 and Series 2 Programmable Engine Management Systems may be used solely on vehicles used in sanctioned competition which may never be used upon a public road or highway, unless permitted by specific regulatory exemption. Installers/users located outside the United States should act in accordance with their local laws and regulations. It is the responsibility of the installer and/or user of this product to ensure that it is used in compliance with all applicable laws and regulations, and this product must not be purchased if the intent is to use it in an unlawful manner.

**EMS-4 Engine Management Systems**

Part Number	Description
30-6905	Universal Programmable Engine Management System. EMS 4
30-2905-0	EMS 4 - Mini Harness. Pre-wired for Power, Ground, CAN & USB Coms
30-2905-96	EMS 4 - 96" Flying Lead Harness with Fuse and Relay Panel

**Series 2 Plug & Play Programmable Engine Management Systems**

Year	Model	Engine	Part Number
<b>Acura</b>			
1998	CL	2.3L I4 [F23A1]	30-6050
1999	CL 3.0L Swap	3.0L V6 [J30A1] Swap	30-6051
2001-2003	CL 3.2L Swap	3.2L V6 [J32A1] Swap Auto Harness Only	30-6051
1998-1999	CL Premium	2.3L I4 [F23A1]	30-6050
1992-1993	Integra GS	1.8L I4 [B18A1]	30-6040
2000-2001	Integra GS	1.8L I4 [B18B1]	30-6050
1992-1993	Integra GS-R	1.7L I4 [B17A1]	30-6040
1994-1995	Integra GS-R	1.8L I4 [B18C1]	30-6040
2000-2001	Integra GS-R	1.8L I4 [B18C1]	30-6050
1992-1993	Integra LS	1.8L I4 [B18A1]	30-6040
1994-1995	Integra LS	1.8L I4 [B18B1]	30-6040
2000-2001	Integra LS	1.8L I4 [B18B1]	30-6050
1992-1993	Integra RS	1.8L I4 [B18A1]	30-6040
1994-1995	Integra RS	1.8L I4 [B18B1]	30-6040
1995	Integra Special Edition	1.8L I4 [B18B1]	30-6040
2000-2001	Integra Type R	1.8L I4 [B18C5]	30-6050
2002-2006	RSX	2.0L I4 [K20A3]	30-6030
2002-2003	RSX L	2.0L I4 [K20A3]	30-6030
2002-2004	RSX Type-S	2.0L I4 [K20A2]	30-6030
1999-2003	TL 3.2L Swap	3.2L V6 [J32A1] Swap	30-6051
2002-2003	TL Type-S 3.2L Swap	3.2L V6 [J32A2] Swap	30-6051
	K-Series Swap	2.0L I4 [K20A2 & K20A3] Excl. ESX & Accord	30-6030



Year	Model	Engine	Part Number
<b>Dodge</b>			
1992-1996	Stealth R/T Turbo	3.0L V6 TURBO [6G72]	30-6311
<b>Eagle</b>			
1995-1998	Talon TSi	2.0L I4 TURBO [4G63]	30-6310
<b>Honda</b>			
1990-1993	Accord DX	2.2L I4 [F22A1]	30-6040
1994-1995	Accord DX	2.2L I4 [F22B2]	30-6040
1998-2002	Accord DX	2.3L I4 [F23A5]	30-6050
1990-1991	Accord EX	2.2L I4 [F22A1]	30-6040
1990-1991	Accord EX	2.2L I4 [F22A4]	30-6040
1991-1993	Accord EX	2.2L I4 [F22A6]	30-6040
1994-1995	Accord EX	2.2L I4 [F22B1]	30-6040
1998-2002	Accord EX	2.3L I4 [F23A1]	30-6050
1998-2002	Accord EX	2.3L I4 [F23A4]	30-6050
1990-1993	Accord LX	2.2L I4 [F22A1]	30-6040
1994-1995	Accord LX	2.2L I4 [F22B2]	30-6040
1998-2002	Accord LX	2.3L I4 [F23A1]	30-6050
1999-2002	Accord LX	2.3L I4 [F23A4]	30-6050
1999-2002	Accord V6 Swap	3.0L V6 [J30A1] Swap	30-6051
1993-1995	Civic del Sol S	1.5L I4 [D15B7]	30-6040
1991	Accord SE	2.2L I4 [F22A6]	30-6040
1993-1995	Civic del Sol Si	1.6L I4 [D16Z6]	30-6040
1994-1995	Civic del Sol VTEC	1.6L I4 [B16A3]	30-6040
1992-1995	Civic DX	1.5L I4 [D15B7]	30-6040
1999-2000	Civic DX	1.6L I4 [D16Y7]	30-6050
2001-2005	Civic DX	1.7L I4 [D17A1]	30-6030
1992-1995	Civic EX	1.6L I4 [D16Z6]	30-6040
1999-2000	Civic EX	1.6L I4 [D16Y8]	30-6050
2001-2005	Civic EX	1.7L I4 [D17A2]	30-6030
1992-1995	Civic LX	1.5L I4 [D15B7]	30-6040
1999-2000	Civic LX	1.6L I4 [D16Y7]	30-6050
2001-2005	Civic LX	1.7L I4 [D17A1]	30-6030
1992-1995	Civic Si	1.6L I4 [D16Z6]	30-6040
1999-2000	Civic Si	1.6L I4 [B16A2]	30-6050
2002-2005	Civic Si	2.0L I4 [K20A3]	30-6030
2004-2005	Civic Value Package	1.7L I4 [D17A1]	30-6030
2002-2004	Odyssey V6 Swap	3.5L V6 [J35A4] Swap	30-6051
1992-1995	Prelude S	2.2L I4 [F22A1]	30-6040
1995	Prelude SE	2.3L I4 [H23A1]	30-6040
1990-1991	Prelude Si	2.1L I4 [B21A1]	30-6040
1992-1995	Prelude Si	2.3L I4 [H23A1]	30-6040
1990-1991	Prelude Si 4WS	2.1L I4 [B21A1]	30-6040
1992-1994	Prelude Si 4WS	2.3L I4 [H23A1]	30-6040
1990-1991	Prelude Si ALB	2.1L I4 [B21A1]	30-6040
1993-1995	Prelude VTEC	2.2L I4 [H22A1]	30-6040
2000-2003	S2000	2.0L I4 [F20C1]	30-6052
2004-2005	S2000	2.2L I4 [F22C1]	30-6052
2006-2008	S2000	2.2L I4 [F22C1] Drive-By-Wire	30-6053
	K-Series Swap	2.0L I4 [K20A3] Excl. ESX & Accord	30-6030
<b>Infiniti</b>			
1991-1993	G20	2.0L I4 [SR20DE] 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
<b>Mitsubishi</b>			
1995-1996	3000GT Spyder VR-4	3.0L V6 TURBO [6G72]	30-6311
1991-1997	3000GT VR-4	3.0L V6 TURBO [6G72]	30-6311
2000-2002	Eclipse GS	2.4L I4 [4G64]	30-6310
1995-1999	Eclipse GST	2.0L I4 TURBO [4G63]	30-6310
1995-1999	Eclipse GSX	2.0L I4 TURBO [4G63]	30-6310
2000-2002	Eclipse RS	2.4L I4 [4G64]	30-6310
2000-2002	Eclipse Spyder GS	2.4L I4 [4G64]	30-6310
1996-1999	Eclipse Spyder GST	2.0L I4 TURBO [4G63]	30-6310
2003-2005	Lancer Evolution VIII	2.0L I4 TURBO [4G63]	30-6310
2006	Lancer Evolution IX	2.0L I4 TURBO [4G63]	30-6320



SERIES 2 APPLICATIONS CONTINUED



EMS-4, Series 2 Programmable Engine Management Systems and Fuel/Ignition Controllers may be used solely on vehicles used in sanctioned competition which may never be used upon a public road or highway, unless permitted by specific regulatory exemption. Installers/users located outside the United States should act in accordance with their local laws and regulations. It is the responsibility of the installer and/or user of this product to ensure that it is used in compliance with all applicable laws and regulations, and this product must not be purchased if the intent is to use it in an unlawful manner.

Year	Model	Engine	Part Number
<b>Mitsubishi (Continued)</b>			
2005	Lancer Evolution VIII MR	2.0L I4 TURBO [4G63]	30-6310
2006	Lancer Evolution IX MR	2.0L I4 TURBO [4G63]	30-6320
2005	Lancer Evolution VIII RS	2.0L I4 TURBO [4G63]	30-6310
2006	Lancer Evolution IX RS	2.0L I4 TURBO [4G63]	30-6320
2006	Lancer Evolution IX SE	2.0L I4 TURBO [4G63]	30-6320
<b>Nissan</b>			
1988-1990	180SX S13	1.8L I4 TURBO [CA18DET] 76 Pins Japan	30-6620
1991-1993	180SX S13	2.0L I4 TURBO [SR20DET] 64 Pins Japan	30-6601
1994-1995	180SX S14	2.0L I4 TURBO [SR20DET] 64 Pins Japan	30-6601
1988-1990	200SX S13	1.8L I4 TURBO [CA18DET] 76 Pins	30-6620
1991-1993	240SX	2.4L I4 [KA24DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1991-1992	240SX LE	2.4L I4 [KA24DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1991-1994	240SX SE	2.4L I4 [KA24DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1990-1995	300ZX	3.0L V6 [VG30DE] 76 Pins	30-6620
1990-1995	300ZX 2+2	3.0L V6 [VG30DE] 76 Pins	30-6620
1990-1995	300ZX Turbo	3.0L V6 TURBO [VG30DETT] 76 Pins	30-6620
1989-1995	Bluebird	2.0L I4 TURBO [SR20DET] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1992-1994	Maxima SE	3.0L V6 [VE30DE] 76 Pins	30-6620
1991-1993	NX SE	1.6L I4 [GA16DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1991-1993	NX SE	2.0L I4 [SR20DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1991-1993	NX XE	1.6L I4 [GA16DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1991-1993	NX XE	2.0L I4 [SR20DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1990-1994	Pulsar GTi-R	2.0L I4 TURBO [SR20DET] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1991-1994	Sentra E	1.6L I4 [GA16DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1991-1994	Sentra GXE	1.6L I4 [GA16DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1994	Sentra Limited Edition	1.6L I4 [GA16DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1991	Sentra SE	2.0L I4 [SR20DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1991-1994	Sentra SE	1.6L I4 [GA16DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1991-1994	Sentra SE-R	2.0L I4 [SR20DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1991-1994	Sentra XE	1.6L I4 [GA16DE] 64 Pins. 50mm AEM Trigger Disc included. Some applications require the 54mm Part #30-8762	30-6600
1988-1990	Silvia S13	1.8L I4 TURBO [CA18DET] 76 Pins Japan	30-6620
1991-1993	Silvia S13	2.0L I4 TURBO [SR20DET] 64 Pins Japan	30-6601
1994-1996	Silvia S14	2.0L I4 TURBO [SR20DET] 76 Pins Japan	30-6620
1989-1992	Skyline R32	2.0L I6 TURBO [RB20DET] 76 Pins Japan	30-6620
1993-1994	Skyline R33	2.0L I6 TURBO [RB20DET] 76 Pins Japan	30-6620
1993-1998	Skyline R33	2.5L I6 TURBO [RB25DET] 76 Pins Japan	30-6620
1989-1992	Skyline GTR R32	2.6L I6 TURBO [RB26DETT] 76 Pins Japan	30-6620
1993-1998	Skyline GTR R33	2.6L I6 TURBO [RB26DETT] 76 Pins Japan	30-6620
<b>Toyota</b>			
1993-1997	Supra	3.0L L6 [2JZGE]	30-6101
1993-1997	Supra Twin Turbo	3.0L L6 TURBO [2JZGTE]	30-6100

**EMS Harnesses & Accessories**

Part Number	Description
<b>AEMnet Harnesses for Series 2 EMS</b>	
30-3430	AEMnet Adapter for 30-6030
30-3431	AEMnet Adapter for 30-6040, 30-6310 & 30-6311
30-3432	AEMnet Adapter for 30-6050, 30-6051, 30-6052, 30-6053 & 30-6060
30-3433	AEMnet Adapter for 30-6100 & 30-6101
30-3434	AEMnet Adapter for 30-6300
30-3435	AEMnet Adapter for 30-6320
30-3436	AEMnet Adapter for 30-6600 & 30-6601
30-3437	AEMnet Adapter for 30-6610, 30-6611 & 30-6620
30-3438	AEMnet Adapter for 30-6820 & 30-6821
35-3440-F	AEMnet Female Termination Plug
35-3440-M	AEMnet Male Termination Plug
30-3606	AEMNet Ext. Cable 2 ft Kit
30-3607	AEMNet Ext. Cable 5 ft Kit
30-3608	AEMNet Ext. Cable 10 ft Kit
<b>AEMnet Extension Cables</b>	
30-3606	AEMNet Extension Cable 2 feet Kit
30-3607	AEMNet Extension Cable 5 feet Kit
30-3608	AEMNet Extension Cable 10 feet Kit
<b>ECU Patch/Extension Harnesses</b>	
Please refer to our website for detailed application information.	
30-2993	Ford & Lincoln, 4.2, 4.6, 5.4
30-2996	ECU Extension/Patch Harness. Infiniti & Nissan
<b>Series 2 Plug &amp; Pin Kits</b>	
35-2610	Plug & Pin Kit for EMS 30-1010's/ 1020/ 1050's/ 1060/ 6050's/ 6060. Includes: A, B, C & D Connectors, 15 X Large Contacts & 100 X Small Contacts
35-2611	Plug & Pin Kit 30-1002/ 1040's/ 1310's/ 1710/ 1720/ 6040's/ 6310's/ 6710/ 6720. Includes: A, B, C & D Connectors, 16 X Large Contacts & 60 X Small Contacts
35-2612	Plug & Pin Kit for 30-1500U. Includes: A, B & C Connectors & 105 X Small Contacts
30-2905-0	EMS 4 - Mini Harness. Pre-wired for Power, Ground, CAN & USB Coms
30-2902	Universal EMS Plug & Pin Kit. 30-1900U & 30-1902U. Includes: Connector & 104 X Contacts
30-2020	Bosch Injector Plug Kit 4 Pack. Includes: 4 Bosch Injector Connectors & 10 Pins
3-1002-16	16 Pin Connector for EMS 30-1010's/ 1020/ 1050's/ 1060/ 6050's/ 6060
3-1002-25	25 Pin Connector for EMS 30-1010's/ 1020/ 1050's/ 1060/ 6050's/ 6060
3-1002-31	31 Pin Connector for EMS 30-1010's/ 1020/ 1050's/ 1060/ 6050's/ 6060
3-1002-32	32 Pin Connector for EMS 30-1010's/ 1020/ 1050's/ 1060/ 6050's/ 6060
3-1002-S	Small Contact for EMS 30-1010's/ 1020/ 1050's/ 1060/ 6050's/ 6060
3-1002-L	Large Contact for EMS 30-1010's/ 1020/ 1050's/ 1060/ 6050's/ 6060
35-2613	Bosch LSU 4.2 Wideband Connector Kit. Includes: Bosch LSU 4.2 Connector, 7 X Wire Seals & 7 X Contacts
<b>EMS Accessories</b>	
30-2056	Universal 12 Position Trim Pot Switch
30-2060	Micro-Relay Kit. Includes: Micro-Relay, Connector, 2 Large Pins & 2 Small Pins
30-2400	Boost Control Solenoid Kit. Includes: Boost Control Solenoid, 2 X 1/8" NPT to 3/16" Barb Adapter & Muffler
30-2840	4 Channel Coil Driver
30-8760	CAS Trigger Disk 50mm OD. NISSAN: SR20DET RWD / KA24DE
30-8761	CAS Trigger Disk 50mm OD. NISSAN: RB25DET and some RB26
30-8762	CAS Trigger Disk 54mm OD. NISSAN: Pulsar GTiR
35-3001	72" Serial "EMS Comms" Cable
35-3008	10' USB Comms Cable

**Fuel/Ignition Controllers**

Part Number	Short Description	Extended Description
30-1910	F/Ic 6 Channel	Mag Or Hall Sensor
30-1911	F/Ic 6 Channel	Mag Pickup Sensor. 80'S-90'S Dist. Honda
30-1913	F/Ic 6 Channel	Mag Or Hall With Circuit Driver For Injector Load On Chrysler Vehicles
30-1930	F/Ic 8 Channel	Universal 8 Channel
35-2911	F/Ic Harness	Fuel/Ignition Controller Bypass Harness
35-2910-24	F/Ic Harness	24" Fuel/Ignition Controller Flying Lead Harness



# PERFORMANCE SENSORS

MAP

MIN VOLTAGE: 0.50 Vdc  
MAX VOLTAGE: 4.50 Vdc  
PIN A: GROUND INPUT  
PIN B: +5.0 VOLT INPUT  
PIN C: SIGNAL OUTPUT

Your data is only as good as  
the sensor that is sending it.  
Don't compromise.



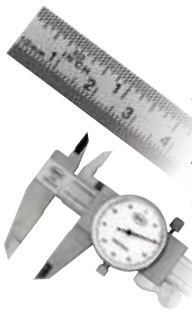
FuelPress

## PERFORMANCE SENSORS

AEM offers virtually every sensor you need for wiring additional outputs and/or upgrading your hardware over existing sensors, including pressure sensors (MAP and gauge), air, water and EGT temperature sensors, Flex Fuel sensors, wideband sensors and more.

### Which Pressure Sensor is right for you?

There are many different tools that can be used for measurement, but the degree of accuracy is dependent upon the tool. For example, a ruler can measure distance with a good degree of accuracy, but for a more precise measurement a caliper should be used. The difference between a brass pressure sensor and a stainless steel pressure sensor is similar if we think about it in these terms:



#### Brass Pressure Sensor = Ruler

Use a Brass Pressure Sensor where you need a good reference to what pressure is being seen.

*Example: Brass Pressure Sensor used for a Boost Gauge - Reference/Information for knowing manifold pressure, not for ECU calibration.*

#### Stainless Pressure Sensor = Caliper

Use a SS Pressure Sensor where you need exact details of the pressure.

*Example: MAP Sensor information for the ECU - Calibration/crucial information for the ECU.*

#### Pressure/Temp Sensor Features:

- > Stainless-steel sensors accurate to +/- 1% of full scale (pressure sensors)
- > Brass sensors accurate to +/- 3% of full scale (pressure sensors)
- > High-quality sealed sensor housings are virtually impervious to automotive fluids (360-degree welded wetted area both stainless steel and brass)
- > Connector and pins included

### Sensors

Part Number	Description
30-2001	Bosch LSU 4.2 Wideband UEGO "Replacement" Sensor
30-2002	Bosch LSU 4.2 Wideband UEGO Installation Kit. Includes: Bosch LSU 4.2 Wideband UEGO Sensor, Weld-On Bung, Connector, Wire-Seals & Pins
30-2004	Bosch LSU 4.9 Wideband UEGO "Replacement" Sensor
30-2005	Bosch LSU 4.9 Wideband UEGO Installation Kit. Includes: Bosch LSU 4.9 Wideband UEGO Sensor, Weld-On Bung, Connector, Wire-Seals & Pins
30-2010	Air Temp Sensor Kit. 3/8"NPT. Includes: Air Temp Sensor, 3/8"NPT Aluminum Bung, Connector & Pins
30-2011	Water Temp Sensor Kit. 3/8"NPT. Includes: Water Temp Sensor, 3/8"NPT Aluminum Bung, Connector & Pins
30-2012	Water Temp Sensor Kit. 1/8"NPT. Includes: Water Temp Sensor, Plug, Pins & Pin Lock
30-2050	RTD Temperature Sensor Kit. Inconel Body. M14 X 6H. Includes: RTD Temperature Sensor with Male Thread, Weld-On Bung Female Thread, Connector & Pins.
30-2065	K-Type Closed Tip Thermocouple Sensor Kit. Inconel Sheath. 1/8" NPT Compression Fitting
30-2066	K-Type Closed Tip Thermocouple 10' Wiring Extension Kit. Includes: 10' Wiring Extension, 2 X 4-40 Hex Nut, 2 X 4-40 Screw & 6" Heat Shrink Tubing
30-2130-15	15 PSIA or 1 Bar Stainless Sensor Kit. 1/8" NPT Male Thread
30-2130-30	30 PSIA or 2 Bar Stainless Sensor Kit. 1/8" NPT Male Thread
30-2130-50	50 PSIA or 3.5 Bar Stainless Sensor Kit. 1/8" NPT Male Thread
30-2130-75	75 PSIA or 5 Bar Stainless Sensor Kit. 1/8" NPT Male Thread
30-2130-100	100 PSIA or 7 Bar Stainless Sensor Kit. 1/8" NPT Male Thread
30-2130-100	100 PSIG Stainless Sensor Kit. 1/8" NPT Male Thread
30-2130-150	150 PSIG Stainless Sensor Kit. 1/8" NPT Male Thread
30-2130-500	500 PSIG Stainless Sensor Kit. 1/8" NPT Male Thread
30-2130-1000	1000 PSIG Stainless Sensor Kit. 1/8" NPT Male Thread
30-2130-2000	2000 PSIG Stainless Sensor Kit. 1/8" NPT Male Thread
30-2131-15G	15 PSIG Brass Sensor Kit. Brass Sensor Body. 1/8" NPT Male Thread
30-2131-30	30 PSIA or 2 Bar Brass Sensor Kit. 1/8" NPT Male Thread
30-2131-50	50 PSIA or 3.5 Bar Brass Sensor Kit. 1/8" NPT Male Thread
30-2131-75	75 PSIA or 5 Bar Brass Sensor Kit. 1/8" NPT Male Thread
30-2131-100	100 PSIG Brass Sensor Kit. NPT Male Thread
30-2131-150	150 PSIG Brass Sensor Kit. 1/8" NPT Male Thread
30-2200	Ethanol Content Flex Fuel Sensor for Flex Fuel Failsafe Gauge, 3/8" Barbed Fittings



**What is the difference Between PSiA and PSiG sensors?**

**Absolute (PSiA) Pressure Sensors**

PSiA pressure sensor readings include pressure from atmospheric conditions. The most common use for absolute pressure sensors is reading manifold pressure because they can measure vacuum. A PSiA sensor will read about 14.7 PSI when the sensing element is exposed to atmospheric pressure at sea level.

**Gauge style (PSiG) Pressure Sensors**

Gauge style pressure sensors reference pressure above atmospheric pressure. When exposed to atmospheric pressure, gauge style pressure sensors will read 0 psig. Gauge style pressure sensors are commonly used for oil pressure, fuel pressure, brake pressure, nitrous pressure etc.

**Sensors (continued)**

Part Number	Description
30-2201	Ethanol Content Flex Fuel Sensor for Flex Fuel Failsafe Gauge, -6 AN Fittings
30-2204	K-Type Thermocouple Amplifier 4 Channel
30-2065	K-Type Closed Tip Thermocouple Sensor Kit. Inconel Sheath. 1/8" NPT Compression Fitting. Includes: K-Type Closed Thermocouple Sensor, 1/8" Compression Fitting & Ring Terminal Harness
30-2066	K-Type Closed Tip Thermocouple 10' Wiring Extension Kit. Includes: 10' Wiring Extension, 2 X 4-40 Hex Nut, 2 X 4-40 Screw & 6" Heat Shrink Tubing
<b>DTM Connectors</b>	
35-2618	DTM-Style 2-Way Plug Connector Kit. Includes Plug, Plug Wedge Lock & 3 Female Pins
35-2619	DTM-Style 2-Way Receptacle Connector Kit. Includes Receptacle, Receptacle Wedge Lock & 3 Male Pins
35-2620	DTM-Style 2-Way Connector Kit. Includes Plug, Receptacle, Plug Wedge Lock, Receptacle Wedge Lock, 3 Female Pins & 3 Male Pins
35-2621	DTM-Style 3-Way Plug Connector Kit. Includes Plug, Plug Wedge Lock & 4 Female Pins
35-2622	DTM-Style 3-Way Receptacle Connector Kit. Includes Receptacle, Receptacle Wedge Lock & 4 Male Pins
35-2623	DTM-Style 3-Way Connector Kit. Includes Plug, Receptacle, Plug Wedge Lock, Receptacle Wedge Lock, 4 Female Pins & 4 Male Pins
35-2624	DTM-Style 4-Way Plug Connector Kit. Includes Plug, Plug Wedge Lock & 5 Female Pins
35-2625	DTM-Style 4-Way Receptacle Connector Kit. Includes Receptacle, Receptacle Wedge Lock & 5 Male Pins
35-2626	DTM-Style 4-Way Connector Kit. Includes Plug, Receptacle, Plug Wedge Lock, Receptacle Wedge Lock, 5 Female Pins & 5 Male Pins
35-2627	DTM-Style 6-Way Plug Connector Kit. Includes Plug, Plug Wedge Lock & 7 Female Pins
35-2628	DTM-Style 6-Way Receptacle Connector Kit. Includes Receptacle, Receptacle Wedge Lock & 7 Male Pins
35-2629	DTM-Style 6-Way Connector Kit. Includes Plug, Receptacle, Plug Wedge Lock, Receptacle Wedge Lock, 7 Female Pins & 7 Male Pins
35-2630	DTM-Style 8-Way Plug Connector Kit. Includes Plug, Plug Wedge Lock & 9 Female Pins
35-2631	DTM-Style 8-Way Receptacle Connector Kit. Includes Receptacle, Receptacle Wedge Lock & 9 Male Pins
35-2632	DTM-Style 8-Way Connector Kit. Includes Plug, Receptacle, Plug Wedge Lock, Receptacle Wedge Lock, 9 Female Pins & 9 Male Pins
35-2633	DTM-Style 12-Way Plug Connector Kit. Includes Plug, Plug Wedge Lock & 13 Female Pins
35-2634	DTM-Style 12-Way Receptacle Connector Kit. Includes Receptacle, Receptacle Wedge Lock & 13 Male Pins
35-2635	DTM-Style 12-Way Connector Kit. Includes Plug, Receptacle, Plug Wedge Lock, Receptacle Wedge Lock, 13 Female Pins & 13 Male Pins

