

INNOVATE MOTORSPORTS

MEASURE, CAPTURE, VIEW, & ANALYZE



NOW YOU'RE TUNING.

2008 CATALOG

www.tuneyourengine.com

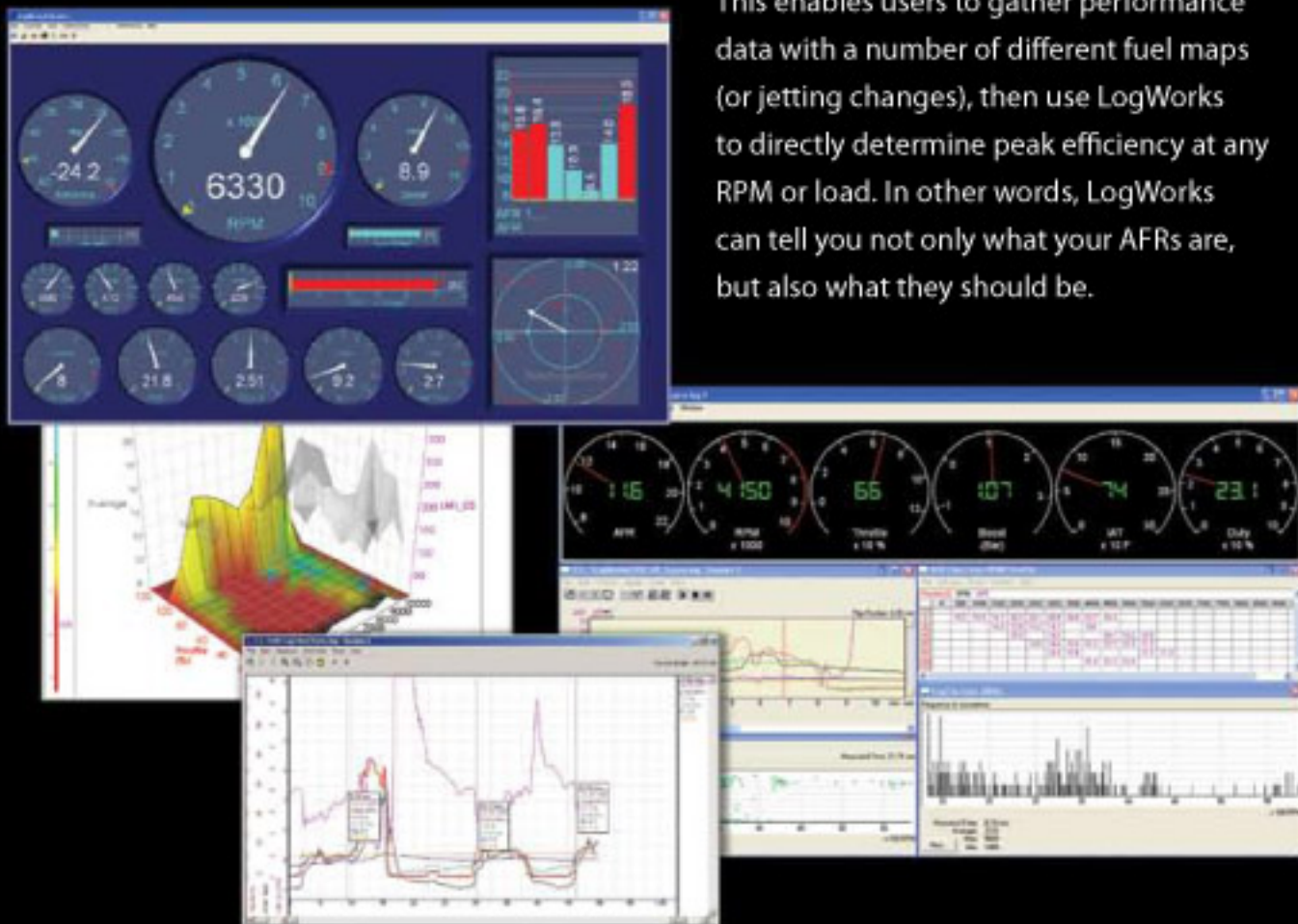
NOW YOU'RE TUNING!

At the track, on the street, on the dyno, drag, rally, sprint, kart, drift, autocross, or any other form of motor sport, you need accurate tuning tools. Domestic or import, EFI, MFI or carbureted, land, water, or snow – the need for precise, cost-effective, and easy-to-use tuning tools is greater now than ever. Innovate Motorsports develops, manufactures, and markets professional-quality digital tuning tools at grassroots prices. New for 2008 are breakthrough products in all areas – wideband, data recorders, and gauges. Regardless of your setup, you'll win with Innovate.

LOGWORKS 3.0

Shipped with every Innovate product, LogWorks delivers a complete 32 channel tuning workshop on your PC. LogWorks can calculate and graph horsepower, allowing direct mapping and comparison of HP vs. RPM vs. AFR.

This enables users to gather performance data with a number of different fuel maps (or jetting changes), then use LogWorks to directly determine peak efficiency at any RPM or load. In other words, LogWorks can tell you not only what your AFRs are, but also what they should be.



PRODUCTS

LM-2

NEW!



DIGITAL AIR/FUEL RATIO METER

The LM-2 combines an air/fuel ratio meter, a full-function 32-channel datalogger, and powerful software to deliver a complete tuning workshop for less than the cost of one dyno day. Whether you have a piggy-back fuel controller, race carb, aftermarket ECU, OBD-II tuning software, or a flash/chip programmer, an LM-2 is the measurement tool you need to dial in maximum HP. The meter's digital signal processing technology provides data on exactly how rich or lean an engine is running at any load. The LM-2's self-calibrating circuitry also compensates for changes in temperature, altitude, and sensor condition.

- Innovate "Direct Digital" Wideband Measurement Circuit
- Single or Dual Channel Version Available
- OBD-II Scan tool- read/clear DTCs and log up to 32 channels of CAN OBD-II Data
- Log directly to SD card (included)
- Playback log data on screen and/or with powerful analysis software LogWorks 3.0
- High-contrast graphics LCD
- Built-in RPM converter (inductive clamp or direct frequency)
- 4 fully-differential analog inputs
- 2 configurable linear analog outputs
- Positive lock connectors for all connections
- Innovate MTS serial IN and OUT
- USB connection to your PC

LM-2 Kit: Single Wideband O2 sensor	3806
LM-2 Duo Kit: Dual Wideband O2 sensors	3807

LC-1



STANDALONE WIDEBAND CONTROLLER "LAMBDA CABLE"

The LC-1 is a complete wideband controller built in to a sealed cable. It features the same award-winning patented digital measurement principal found in the LM-2, and includes digital input, output, and 2 programmable linear analog outputs. The LC-1 can interface directly with most dynos, ECUs, and data recorders on the market via two configured 0 to 5v analog outputs. The LC-1 can also log directly into LogWorks via the Innovate MTS data bus. This enables laptop or PC-based logging directly from one or more LC-1 controllers. Since the LC-1 can be daisy-chained, users can now affordably tune individual cylinders for precision power balancing. The kit includes Bung/Plug and Logworks software.

LC-1: Wideband Controller Cable	3744
LC-1: Wideband Controller Cable (w/ Bosch Sensor) & Bung/Plug	3769

XD-16



G2



G3



DB



16-IN-1 UNIVERSAL DIGITAL GAUGE

The Innovate XD-16 is a 52mm (2 1/16") round dash-mountable digital gauge. It features 9 programmable LED colors and a remote control button to start log sessions, or initiate calibration. The entire gauge is a mere .750" thick, so it's possible to mount even in surface mount configurations. It features a 3 character central LED display, remote control button and a programmable digital needle. The body is available as billet aluminum or black bezel and includes faces in both black and white, which are: Air/Fuel, Pressure, Temperature, and blank. Blanks are included because the XD-16 can display ANY channel of data that is being recorded on the Innovate data bus, and users can print their own dials.

For example, if a tuner is logging AFR, RPM, Boost, and EGT, the system can be configured to display AFR on one XD-16, and Boost or EGT on another. Innovate also provides a web-based template for creating custom gauge faces and printing them as overlays.



XD-16: 16-in-1 Universal Gauge Kit	3780
XD-16: Complete Air/Fuel Ratio Gauge Kit, Incl. LC-1 & Sensor	3781

G2 GAUGE

The Innovate G2 Air/Fuel Ratio gauge (52mm, 2 1/16") features a high-speed stepper motor, through-dial backlighting, and an illuminated pointer.

G2 Gauge: Silver/Silver (Gauge Only) Accessory for LC-1, LM-1 or LM-2	3803
G2 Gauge Kit: Complete Air/Fuel Ratio Gauge Kit, Incl. LC-1 & Sensor	3801

G3 GAUGE

The Innovate G3 Air/Fuel Ratio gauge (52mm, 2 1/16") features a high-speed stepper motor, through-dial backlighting, and an illuminated pointer which is blacked out when powered off, and illuminated when powered on.

G3: Silver/Black (Gauge Only) Accessory for LC-1, LM-1 or LM-2	3804
G3 Gauge Kit: Complete Air/Fuel Ratio Gauge Kit, Incl. LC-1 & Sensor	3802

DB GAUGE

The Innovate DB Air/Fuel Ratio gauge (52mm, 2 1/16") features a bright LED (available in blue or red).

DB Gauge Blue, Accessory for LC-1, LM-1 or LM-2	3793
DB Gauge Red, Accessory for LC-1, LM-1 or LM-2	3794
DB Gauge Blue Kit: Complete Air/Fuel Ratio Gauge Kit, Incl. LC-1 & Sensor	3795
DB Gauge Red Kit: Complete Air/Fuel Ratio Gauge Kit, Incl. LC-1 & Sensor	3796



PRODUCTS

DL-32



DATALOGGER AND SENSOR CONTROLLER

The DL-32 is a complete vehicle-mounted data-logging system for advanced engine tuning. The system includes acceleration (dual-axis) sensors for RPM, MAP, temperature, duty cycle, and analog inputs. The DL-32 unit features the following:

- 32-channels of data recording, 12 samples per second
- 17 minutes of recording per MB of SD card capacity
- Horsepower and torque calculation
- 1-bar to 3-bar pressure sensor (MAP, Vacuum, Boost, etc.)
- Thermocouple amplifier (EGT, CHT, etc.)
- Duty cycle (dwell) sensor (or frequency)
- 2-axis accelerometer (acceleration Gs, braking Gs, and cornering Gs)
- Ignition timing sensor, RPM converter, audio annotation capabilities
- 5v power supply for external sensors
- 3 solenoid/relay outputs
- Expansion inputs for GPS and video camera controls

DL-32

3782

OT-1



OPENTUNE OBD-II/CAN INTERFACE

Gather and analyze all the critical performance data from any car made since 1996. Select and log any 16 of hundreds of available parameters with fast packet logging (12 samples/sec.).

OT-1: OpenTune OBD-II/CAN Interface

3790

LMA-3



"AUXBOX" MULTI-SENSOR DEVICE

The LMA-3 (AuxBox) is a multi-sensor interface for the MTS. The LMA-3 has the same 5 built-in sensors as the DL-32 datalogger. The AuxBox also includes 5 external inputs for connecting external sensors in lieu of the internal sensors.

LMA-3: AuxBox

3742

SSI-4



SIMPLE SENSOR INTERFACE

The SSI-4 is a 4-channel simple sensor interface for the MTS. It can digitize tach/inductive signals for RPM, frequency, duty cycle, and analog 0-5v inputs.

SSI-4

3783

TC-4



THERMOCOUPLE AMPLIFIER

The TC-4 is a 4-channel thermocouple amplifier with two temperature ranges for exhaust gas temperature (EGT) or cylinder head temperature (CHT).

TC-4

3784

RAD-1

NEW!

DIGITAL AUDIO INCLINOMETER

The RAD-1 is a precise Digital Inclinometer that features user-programmable maximum safe angles, and a progressive warning tone (like a backup warning). The display shows X (Pitch) and Y (Roll) angles and stores max values, but it's the audio warning that really makes it useful. If you ever go off-road, you'll be surprised and amazed by how useful this meter is.



(Roll) (Pitch)

RAD-1, Rollover Avoidance Device

3805

Progressive warning tone

ST-12

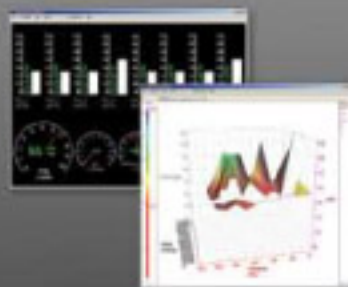
ENGINE DATA ACQUISITION SYSTEM

The ST-12 is a complete dyno-companion data acquisition system for advanced engine tuning. The system is anchored by Innovate Motorsports' award-winning digital wideband air/fuel ratio technology, but also includes flexible sensors for RPM, MAP, temperature, and other inputs.

The ST-12 can power, manage, and consolidate data from up to 12 specialized LC-1 (Lambda Cable) wideband oxygen sensor controller cables. The specialized cables are functionally identical to the standard LC-1 cables, except they are 18 ft. long, terminated with a single ST-12 (DB-15) connector, and sleeved in a rugged thermal insulator.

For RPM, the ST-12 includes options for direct tach input, inductive clamp, GMR sensor, or optical sensors. For manifold absolute pressure, the ST-12 features a configurable 1-bar, or 3-bar pressure sensor for both normally-aspirated and forced-induction applications. Multiple temperature and duty cycle channels round out the auxiliary-input capabilities of the ST-12.

Every ST-12 system includes the powerful LogWorks software for viewing, analyzing, comparing, and saving session data. With LogWorks, users can view and print everything from standard dyno charts to 3D color graphs with transparent overlays. LogWorks features 32 channels of data, sampled at 12 samples/second.



ST-12

3775

LC-1ST: 18' Heavy Duty Lambda Cable for ST-12 w/ O2 Sensor

3776

PRODUCTS



ACCESSORIES

Exhaust Clamp (Cast Stainless)	3728
HBX-1 (Heat Sink Bung Extender)	3729
Inductive Clamp	3727

Sensor (Bosch LSU 4.2)	3737
Bung and Plug Kit (Mild)	3735
Bung and Plug Kit (Stainless)	3736
Program Cable, (Serial)	3746
Terminator Plug	3750
Daisy Chain Cable	3760
Serial to USB Adapter	3733

For more accessories, visit us online at www.tuneyouengine.com.

SELL MORE WITH AN INNOVATE IN-STORE DISPLAY!

The latest Innovate products can be a more technical sale than many traditional performance items. With this special point-of-sale package, you get a compact flat-screen TV packed with product information videos. Benefits include:

- Expose customers to the features and capabilities of the latest tuning tools.
- Show products with full-motion visual impact!
- Answer simple technical questions without involving your sales staff.
- Augment your shop environment, and help customers pass waiting time.

EXAMPLE LOG CHAIN #1



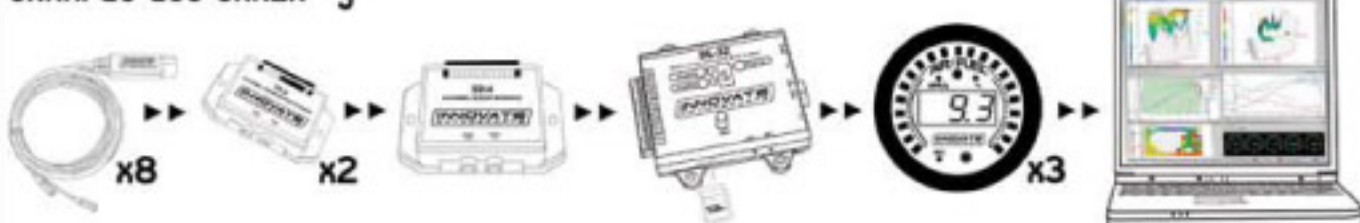
5 Channels: Air/Fuel Ratio, RPM, 3 Speed/Duty.

EXAMPLE LOG CHAIN #2



12 Channels: 2 Air/Fuel Ratio, RPM, 4 Analogs, EGT, MAP, G's, etc.

EXAMPLE LOG CHAIN #3

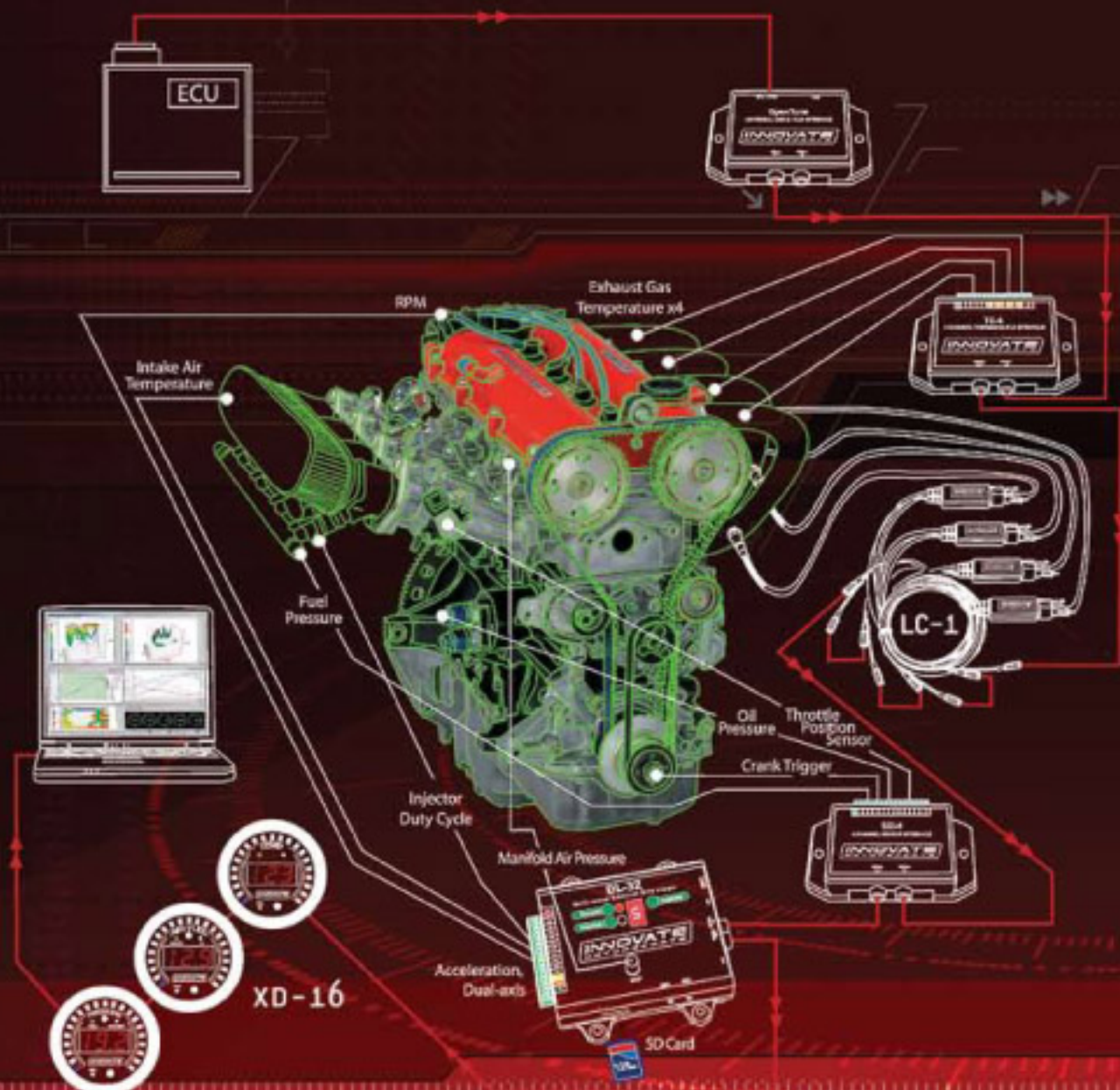


25 Channels: 8 Air/Fuel Ratio, 8 Cylinder Head Temperature/Exhaust Gas Temperature, 4 Speed/Injector Duty Cycle, Manifold Air Pressure, G's, etc.

Any MTS device that generates data must come **BEFORE** a recording device. Gauges can come **AFTER**.

MODULAR TUNING SYSTEM (MTS)

Unique in the industry is Innovate's concept of the modular logging chain. The Modular Tuning System (MTS™) includes meters, sensors, gauges, and recorders designed to work together. The MTS is scalable, and all components share a common communications protocol. At its simplest, the MTS is a basic LM-2 kit. At its most complex, a 32-channel data-acquisition system, with an LC-1 on every cylinder and sensors for every critical engine parameter.



INNOVATE
MOTORSPORTS

0123