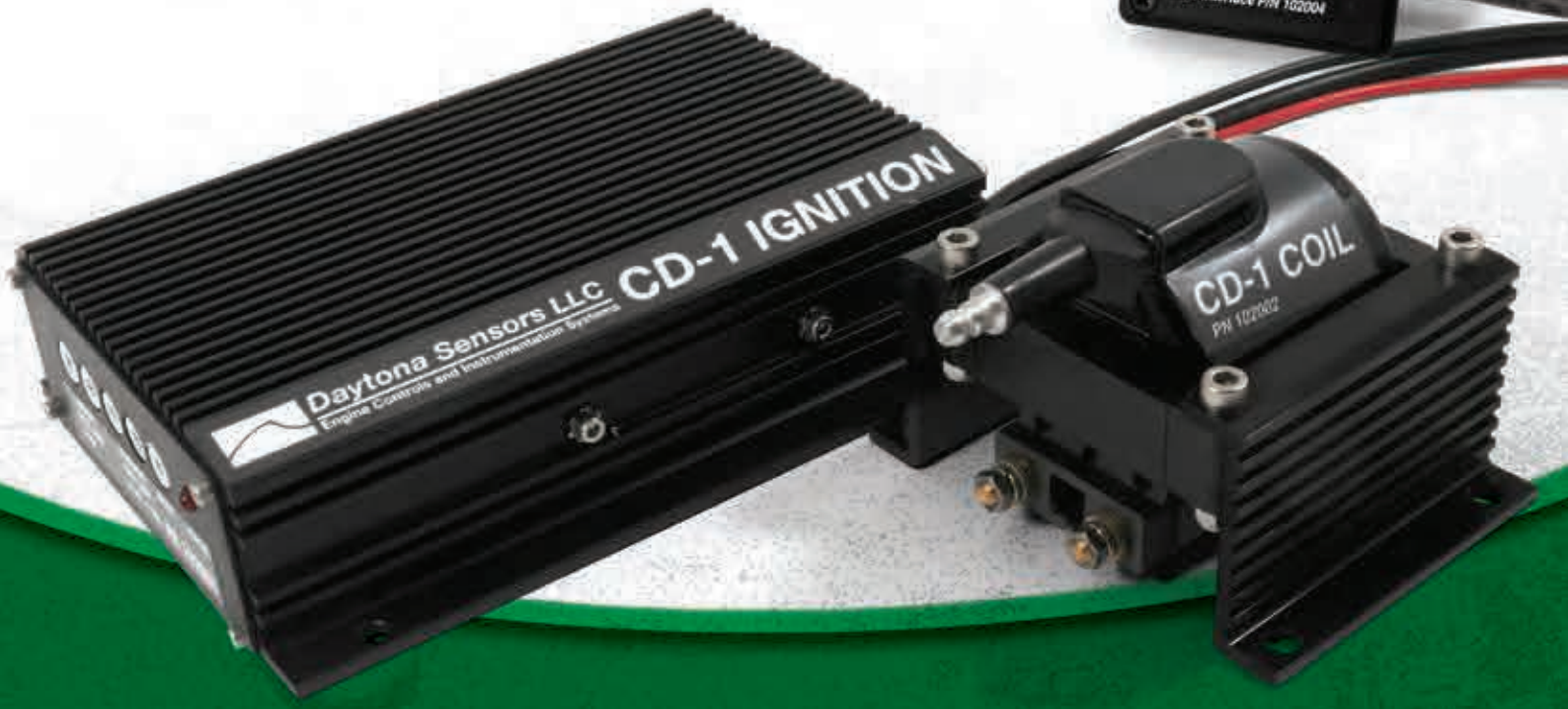
DAYTONA SENSORS

Wide-Band Air Fuel Ratio Systems

Ignition Systems



SmartSpark LS Ignition Module for GM LS Series Engines*

119007 Kit

- SmartSpark LS includes support for LS 1 version and for carbureted GM LS series V8 engines with 24 or 58 tooth crank trigger.
- The SmartSpark LS is a versatile ignition module for GM LS1/LS6 and LS2/LS7 race engines.
- Selection for GM LS1 or higher energy LS2 style coils.
- Preprogrammed with advance tables suitable for a wide range of normally aspirated high performance engines.
- Digitally set launch, burnout, and maximum RPM limits with 100 RPM steps from 3,000 to 9,900 RPM. Access to launch and burnout RPM limits requires optional USB interface and PC Link software.
- USB interface and PC Link software allows programming a custom advance table based on RPM and manifold pressure.
- New SmartSpark Log software displays real time engine data during initial setup and dyno tuning.
- Individual cylinder timing (ICT) capability with RPM based offset up to ±5° with 0.1 ° steps.
- Three general purpose input terminals. Inputs can be used for RPM limits and multiple retard functions including driver adjustable retard (requires optional RTD-1). Mode switch allows selection of basic functions. Advanced features require optional USB interface and PC Link software.
- Status LEDs show trigger inputs.
- Fully encapsulated construction without any internal voids.
- Heavy duty 12 pin Deutsch connectors used for signal connections.
- Same mounting pattern as competitive units. Compact size: 6.0"L x 3.5"W x 0.63"H.
- New installations require wire harness Part # 119002, 119005, or 119005-24 depending on mounting location. If replacing MSD® installations, use adapter harness Part # 119004.
- 119100 SmarkSpark Coil for LS1 GM III Engines
- 119100-8 SmartSpark Coil Eight Pack

New! Preprogrammed Timing Maps

Real Time Data DIsplay

Part #	Description
102004*	USB Interface (with 6 foot USB cable and CDROM)
102005*	RTD-1 Retard Control
119001*	Replacement Module only for SmartSpark LS ignition for GM LS Series Engines.
119002*	SmartSpark LS1/6 Remote Mount Wire Harness
119004*	SmartSpark LS Adapter Harness (for MSD® 6010/6012 upgrade)
119005*	SmartSpark LS2/7 Remote Mount Wire Harness
119007*	SmartSpark LS Ignition Kit includes module and USB interface
119008*	1 Bar MAP Sensor (Delphi Gen3 style for use with SmartSpark)
119009*	Early model LS2 remote mount wiring harness w/24 tooth crank and front mounted cam sensor

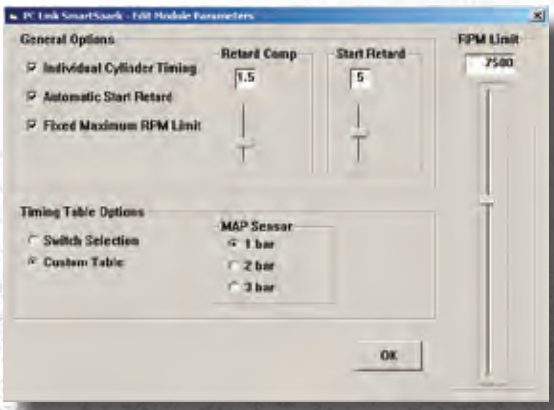
Software for SmartSpark LS Ignition Module

New! SmartSpark Software Upgrades

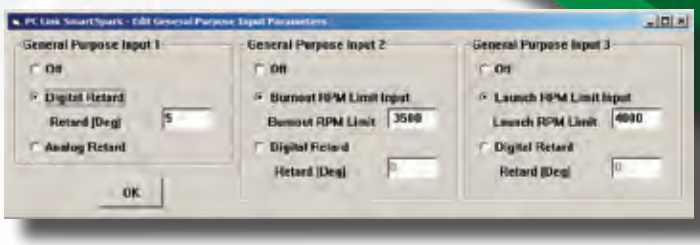
PC Link SmartSpark Software

- Use of the PC Link SmartSpark software is optional and not required for basic applications of the SmartSpark LS1 system. Please visit our website for complete details including software downloads.
- You can establish setup parameters including function of the general purpose input (GPI) terminals and program a custom 3D timing table and individual cylinder timing (ICT) offset table.
- The 3D timing table consists of 21 columns corresponding to 500 RPM increments from zero to 10,000 RPM and 8 manifold pressure (MAP) rows. The MAP range depends on the type of MAP sensor selected under module parameters. The timing value at 10,000 RPM is used at all higher RPM levels and the timing value in the lowest MAP row is used at all lower MAP levels.
- The ICT offset table consists of 21 columns corresponding to 500 RPM increments from zero to 10,000 RPM and 8 rows (one for each cylinder). You can enter a timing offset up to ±5° with 0.1° steps for each cylinder.
- You can download and upload to the module, open and save files, and print setup values including graphs for timing curves. Includes comprehensive on-line help system.
- Requires optional USB interface and laptop PC with minimum 300 MHz Pentium processor and super VGA display (SVGA with 1024 x 768 pixel resolution) running Windows XP/Vista/7/8. PC must have a CDROM drive or internet access to download software from our website for program loading and a free USB port.

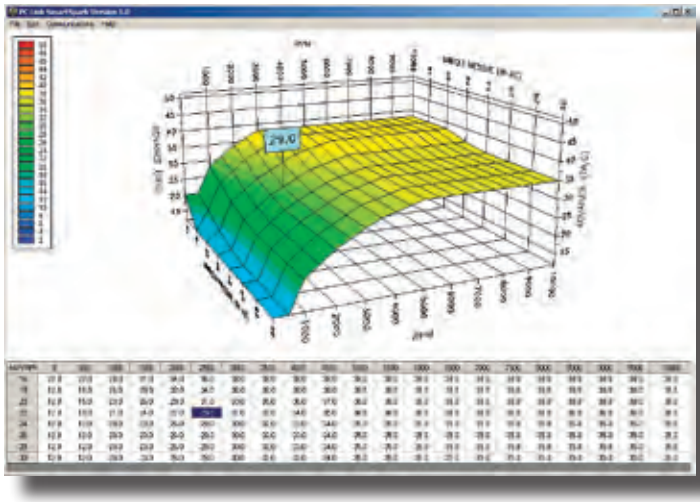
PC Link SmartSpark - Module Parameters



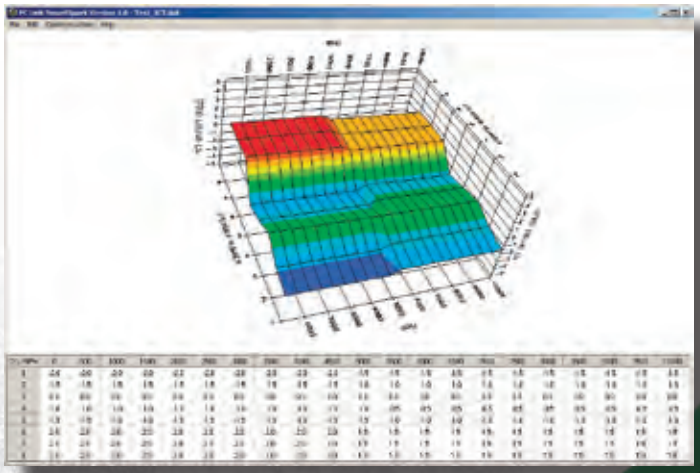
PC Link SmartSpark - GPI Parameters



PC Link SmartSpark - Custom Timing Table



PC Link SmartSpark - ICT Offset Table



DAYTONA SENSORS

TCS-1 Timing Control System for Racing*

102008

- Versatile timing control system for race engines. Eliminates the need for mechanical advance.
- Preprogrammed with 20° advance curve between 1,000 and 3,000 RPM for V8 engines. Helps provide easier starting and smoother idle.
- Heavy duty industrial grade clamping terminal blocks allow easy and reliable hookup without soldering or crimping.
- Compact size: 3.3"L x 2.4"W x 1.1 "H.

For a driver adjustable timing retard or boost proportional retard, you will require the optional RTD-1 retard control P/N 102005. To connect a Delphi MAP sensor, you can use our MAP sensor harness kit P/N 102006.

- Magnetic pickup (distributor or crank trigger) and module trigger inputs.
- Module trigger output drives all CD systems including MSD® 6 and MSD® 7 series.
- Included USB interface and PC Link software allows programming advance features ranging from a simple RPM based advance curve to a 30 timing map with boost proportional retard (requires optional MAP sensor). Also adjust to use on 4, 6 or 8 cylinder engines.
- Two general purpose input and one general purpose input/output terminals. Inputs can be programmed for multiple retard functions (including driver adjustable retard). Output can be programmed for RPM window switch functions.
- GPI inputs preprogrammed for 2°, 3° , and 4° retard functions (can be combined).

Part #	Description
102008*	TCS-1 Timing Control System (with preprogrammed advance curve)
102005*	RTD-1 Retard Control (refer to website for details)
102006*	MAP Sensor Harness Kit (refer to website for details)

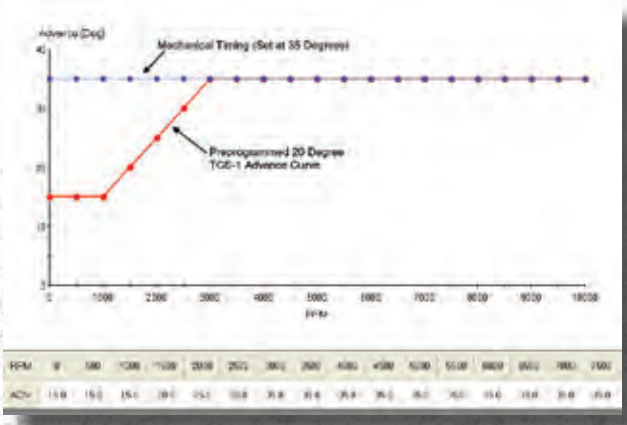
Software for TCS-1 Timing Control System for Racing*

PC Link TCS Software

- Use of the PC Link TCS software is optional and not required for basic applications of the TCS-1 system. Please visit our website for complete details including software downloads.
- You can establish setup parameters including function of the general purpose input/output (GPIO) terminals and program 20 or 30 timing curves.
- The 20 timing table consists of 21 columns corresponding to 500 RPM increments from zero to 10,000 RPM. The timing value at 10,000 RPM is used at all higher RPM levels.
- The 30 timing table consists of 21 columns corresponding to 500 RPM increments from zero to 10,000 RPM and 8 manifold pressure (MAP) rows. The MAP range depends on the type of MAP sensor selected under module parameters. The timing value at 10,000 RPM is used at all higher RPM levels and the timing value in the lowest MAP row is used at all lower MAP levels. Use of a 30 timing table requires an optional MAP sensor.
- You can download and upload to the module, open and save files to disk, and print setup values including graphs for timing curves. Includes comprehensive on-line help system.
- Requires use of laptop PC with minimum 300 MHz Pentium processor and super VGA display (SVGA with 1024 x 768 pixel resolution) running Windows Vista/7/8. PC must have a CD ROM drive or internet access for program loading and a free USB port.

The TCS-1 unit is factory preprogrammed with the timing curve shown shown below that is suitable for most high performance engine applications. The general purpose input/output terminals are preprogrammed for 2°, 3°, and 4° retard functions

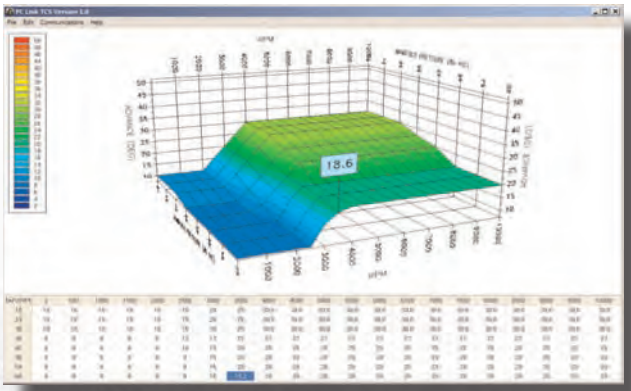
TCS-1 Preprogrammed Timing Curve



PC Link TCS - Module Parameters

PC Link TCS - GPIO Parameters

PC Link TCS - 3D Timing Table



DAYTONA SENSORS

Programmable Data Logger with Shift Light

117001

- Ultra high brightness red/green/blue LED display that can be panel mounted or attached to a tach with a supplied bracket. The LED display features full spectrum color capability including white with user selected colors for each function and automatic dimming under low light conditions.
- Launch and multi-stage shift light capability. A launch RPM and up to five shift RPM levels can be defined to support up to six gear transmissions.
- Gear detection is based on vehicle speed (if a vehicle speed sensor is available) or RPM drop during shift. Vehicle speed based gear detection allows use in applications other than drag racing as it allows correct gear sensing after downshifts.
- Launch detection is based on vehicle speed (if a vehicle speed sensor is available) or a signal from a line lock solenoid.
- Two independent programmable alarm functions for analog inputs.
- Additional programmable alarm and general purpose control output functions are described in the software section.
- Flexible RPM input compatible with high voltage coil drive (vehicles with coil packs or distributor ignition), standard 12 volt tach signal, or low level logic drive (newer vehicles with coil-on-plug).
- Built-in data logging. Ideal as basic vehicle data logger during dyno tuning or on the track. Logs data whenever system is armed. Stores last 5 minutes of data at 10 samples/second.
- Logged data includes throttle position, RPM, vehicle speed, status of all inputs and outputs, and two 0-5 volt analog inputs.
- Heavy duty industrial grade clamping terminal blocks allow easy and reliable hookup without soldering or crimping.
- Compact size: 3.3"L x 2.4"W x 1.1"H (not including mounting feet and terminal block).
- USB interface to laptop PC. Powerful Windows software for programming controller and downloading logged data. Please visit our website for complete details and downloads.

Part #	Description
117001*	SL-1 Vehicle Data Logger and shift light. Includes USB cable and software on CDROM

PC Link Shift Software*

- Used to establish controller scale factors, general setup parameters, multi-stage shift and launch light parameters, and alarm parameters.
- Two independent programmable alarm functions for analog inputs. Possible uses include monitoring air/fuel ratio (AFR) values from wide-band system or boost pressure. Scale factors are predefined for common 1, 2, and 3 bar MAP sensors and wide-band AFR systems such as the Daytona Sensors WEGO series.

Software for Programmable Data Logger with Shift Light

PC Link Shift Software*

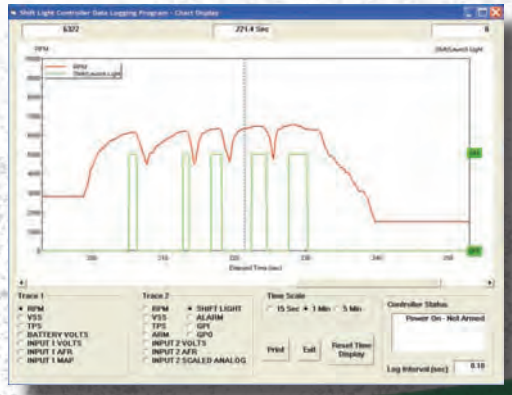
- Programmable vehicle speed alarm. Possible uses include over-speed alarm or green light function for pit row speed limit.
- General purpose output function. Programmable for use as a control output for functions such as nitrous activation or high gear ignition retard.
- You can download and upload to the module, open and save files, and print setup values. Includes comprehensive on-line help system.
- Requires laptop PC with minimum 300 MHz Pentium processor and super VGA display (SVGA with 1024 x 768 pixel resolution) running Windows XP/Vista/7/8. The PC must have a CDROM drive or internet access for program loading and a USB port.

PC Link Shift General Setup

PC Link Shift Alarm Setup

Shift Log Chart Display

Shift Log Real Time Display



Shift Log Software

- Two modes: real time display and chart display of data downloaded from the module.
- Real time display of system and engine data on an instrument panel layout with round tach and speedometer gauges and bar graph gauges for most other parameters. Used for initial system setup and to monitor operation during dyno testing.
- Chart display for downloaded data allows you to monitor vehicle operation on the track. You have a range of capabilities for analyzing the displayed data.
- You can download data from the module, open and save files to disk, and print chart graphics. Includes comprehensive on-line help system.
- Same PC requirements as listed above for PC Link Shift software.

DAYTONA SENSORS

CD-1
Capacitive Discharge Ignition System for Racing*

102001

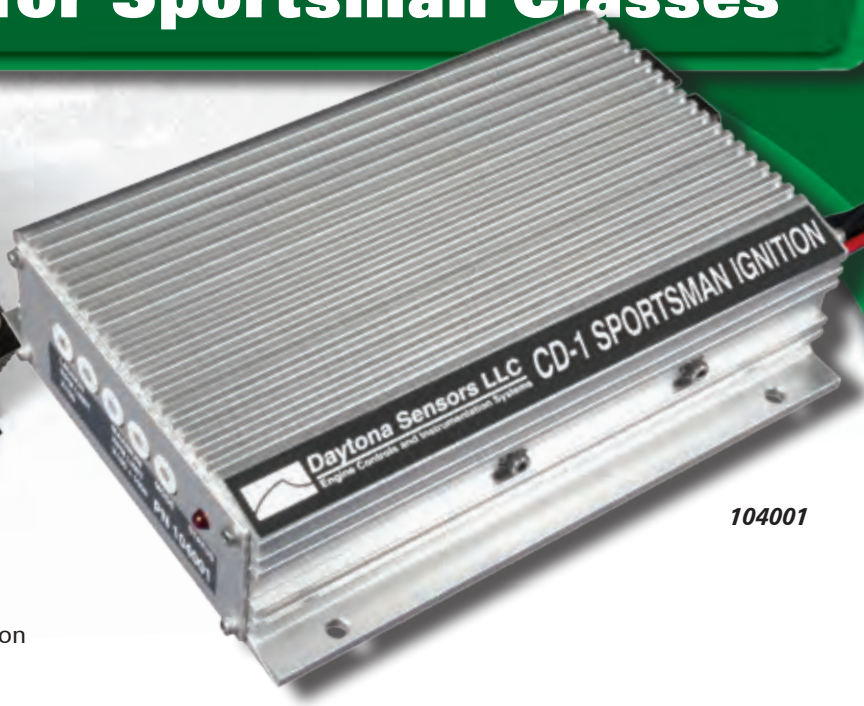
102002

- Complete capacitive discharge ignition system for racing.
- 135 MJ spark energy output.
- Digitally set launch, burnout, and maximum RPM limits with 100 RPM steps from 3,000 to 9,900 RPM (10,900 RPM for maximum RPM limit).
- PC programmable advance features ranging from a simple RPM based advance curve to a 3D timing map with boost proportional retard.
- Built-in data logging capability with 16 Mbit DataFLASH memory.
- Dedicated input terminals for launch RPM and manifold pressure.
- One general purpose input and two general purpose input/output terminals. Inputs can be programmed for high gear retard, burnout RPM limit, vehicle speed sensor, and throttle position sensor. Outputs can be programmed for RPM window switch, nitrous system activation, and multi-gear shift light functions.
- Fully encapsulated construction. 12 pin Deutsch connector used for signal connections.
- Compact size. Module is 7.0"L x 5.25"W x 1.9"H. Coil is 4.4"L x 3.2"W x 3.0"H.
- Highly efficient switching power supply based on US Patents 6518733 and 6636021. Less than 5 amp current draw at 8,000 RPM.

Part #	Description
102001*	CD-1 Ignition Module (includes wire harness)
102002*	CD-1 Ignition Coil
102003*	CD-1 Ignition System Kit (includes P/N 102001 CD-1 ignition module, P/N 102002 ignition coil, P/N 102004 USB interface and wire harness)
102004*	USB Interface (required for custom programming and data logging capability)
102005*	RTD-1 Retard Control (see website for details)
102006*	MAP Sensor Harness Kit (see website for details)
102007	Power Filter Capacitor Kit (see website for details)
115011	1 bar MAP sensor (for normally aspirated applications)
115012	2 bar MAP sensor (for turbo/supercharged applications)
115013	3 bar MAP sensor (for turbo/supercharged applications)

CD-1
Capacitive Discharge Ignition System for Sportsman Classes*

102002



104001

- CD-1 for Sportsman Classes capacitive discharge ignition system is intended for racing applications where data logging is not allowed. NHRA approved for Sportsman Classes.
- 135 MJ spark energy output.
- Digitally set launch, burnout, and maximum RPM limits with 100 RPM steps from 3,000 to 9,900 RPM (10,900 RPM for maximum RPM limit).
- PC programmable advance features ranging from a simple RPM based advance curve to a 3D timing map with boost proportional retard.
- Dedicated input terminals for launch RPM and manifold pressure.
- One general purpose input and two general purpose input/output terminals. Inputs can be programmed for high gear retard, burnout RPM limit, and throttle position sensor. Outputs can be programmed for RPM window switch, nitrous system activation, and multi-gear shift light functions.
- Fully encapsulated construction. 12 pin Deutsch connector used for signal connections.
- Compact size: Module is 7.0"L x 5.25"W x 1.9"H. Coil is 4.4"L x 3.2"W x 3.0"H.
- Highly efficient switching power supply based on US Patents 6518733 and 6636021. Less than 5 amp current draw at 8,000 RPM.

Part #	Description
104001*	CD-1 Sportsman Ignition Module (includes wire harness)
102002*	CD-1 Ignition Coil
104003*	CD-1 Ignition Kit (data logging deleted. NHRA approved for Sportsman Classes. Includes P/N 104001 CD-1 Pro ignition module, P/N 102002 ignition coil, P/N 102004 USB interface and wire harness)
102004*	USB Interface (required for custom programming)
102006*	MAP Sensor Harness Kit (see website for details)
102007	Power Filter Capacitor Kit (see website for details)
115011	1 bar MAP sensor for normally aspirated applications)
115012	2 bar MAP sensor (for turbo/supercharged applications)
115013	3 bar MAP sensor (for turbo/supercharged applications)

DAYTONA SENSORS

CD-1
Marine Capacitive Discharge Ignition System for Racing*

- CD-1 Marine capacitive discharge ignition system is intended for V8 performance marine applications.
- Compatible with 8 cylinder marine engines with distributor type ignition.
- 135 mJ spark energy output.
- Digitally set RPM limit with 100 RPM steps from 3,000 to 9,900 RPM.
- Seven switch selectable advance curves and a fixed timing mode cover most Mercury marine high performance applications.
- PC programmable idle stabilization feature.
- PC programmable advance features ranging from a simple RPM based advance curve to a 3D timing map with boost proportional retard.
- Dedicated input terminals for manifold pressure and an externally activated 0-18° retard feature.
- Built-in data logging capability with 16 Mbit Data FLASH memory.
- Three general purpose input/output terminals. Two inputs are reserved for data logging. An additional input/output terminal can be used for data logging or as an RPM window switch.
- Fully encapsulated construction. 12 pin Deutsch connector used for signal connections.
- Module and coil are both certified to meet the ignition protection requirements of the NMMA, the USCG, ISO 8846, and SAE J1171 standards for marine applications.
- Compact size: Module is 7.0"L x 5.25"W x 1.9"H. Coil is 4.4"L x 3.2"W x 3.0"H.
- Highly efficient switching power supply based on US Patents 6518733 and 6636021. Less than 5 amp current draw at 8,000 RPM.

103001

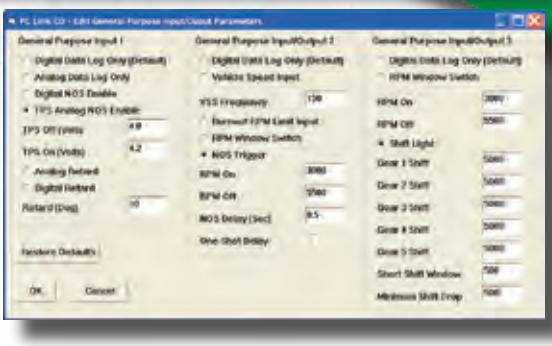
103002

Part #	Description
103001*	CD-1 Marine Ignition Module (meets ISO 8846 and SAE J1171)
103002*	CD-1 Marine Ignition Coil (meets ISO 8846 and SAE J1171)
103003*	CD-1 Marine Ignition Kit (Includes P/N 103001 CD-1 marine ignition module, P/N 103002 marine ignition coil, P/N 102004 USB interface and wire harness)
103004	Indexed Mercury Marine Rotor that is required when using Mercury Marine Hall effect distributor.
102004*	USB Interface (required for custom programming and data logging capability)
102006*	MAP Sensor Harness Kit refer to website for details)
102007	Power Filter Capacitor Kit (see website for details)
115011	1 bar MAP sensor (for normally aspirated applications)
115012	2 bar MAP sensor (for turbo/supercharged applications)
115013	3 bar MAP sensor (for turbo/supercharged applications)

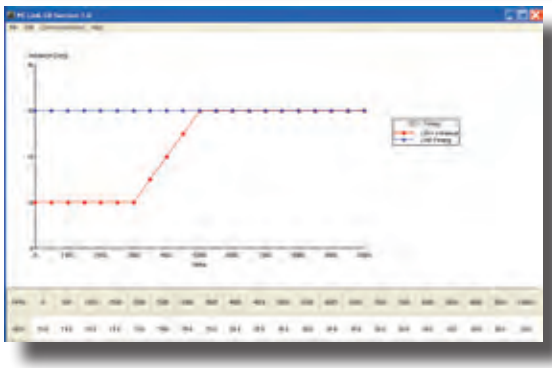
Software for CD-1 Capacitive Discharge Ignition System*

PC Link CD Software

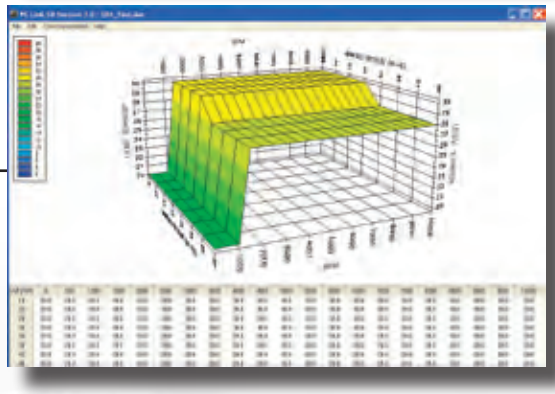
- Use of the PC Link CD software and GPIO terminals is optional and not required for basic applications of the CD-1 system. Please visit our website for complete details including software downloads.
- You can establish setup parameters including functions of the general purpose input/output (GPIO) terminals and program advance curves.
- You can download and upload to the module, open and save files, and print setup values including graphs for advance curves. Includes comprehensive on-line help system.
- Requires laptop PC with minimum 300 MHz Pentium processor and super VGA display (SVGA with 1024 x 768 pixel resolution) running Windows XP/Vista/7/8. The PC must have a CDROM drive or internet access for program loading and a free USB port.



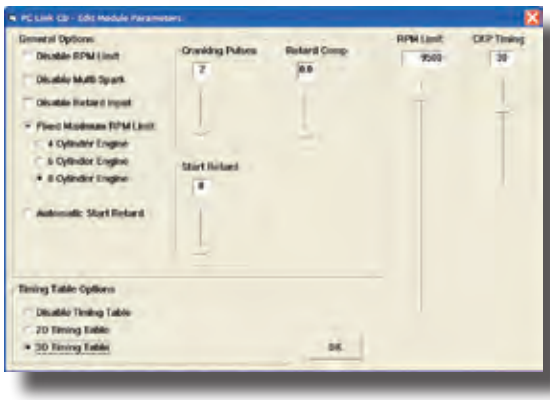
PC Link CD - GPIO Parameters



PC Link CD - RPM Advance Curve



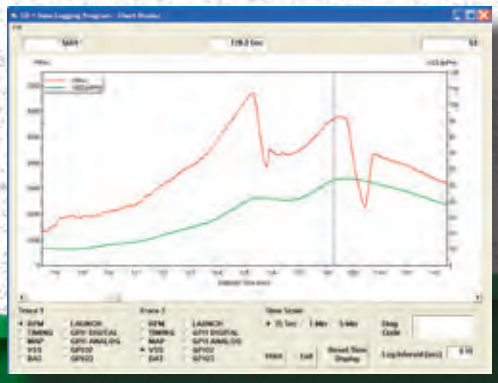
PC Link CD - 3D Boost Timing Map



PC Link CD - Module Parameters

CD Log Software

- Chart display for downloaded data allows you to monitor vehicle operation on the track. You have a range of capabilities for analyzing the displayed data. This feature is especially useful for checking the operation of accessories, such as a nitrous system activated by the CD-1 unit.
- You can download data from the module, open and save files, and print chart graphics. Includes comprehensive on-line help system.
- Same PC requirements as listed above for PC Link CD software.



CD Log - Chart Display

DAYTONA SENSORS

WEGO - Wide Band Air Fuel Ratio Meters with Display and Data Logging

112001

- Single and dual channel air/fuel ratio display systems with built-in data logging. Kits includes WEGO unit, Bosch LSU4.2 5-wire wide-band oxygen sensor(s), 18x1.5mm weld nut(s) for mounting sensor(s) on exhaust pipe, and software on CDROM.
- Versatile tuning aid for all carbureted and fuel injected engines displays air/fuel ratio (AFR) and logs over 2 hours data including AFR, engine RPM, and a spare 0-5V analog input for sensors such as throttle position or manifold pressure.
- Can be used for on-road or dyno testing.
- Suitable for automotive, motorcycle, and other small engine applications.
- Highly accurate with less than ±0.10 AFR error over 10.3 - 19.5 AFR range (±0.007 Lambda error over 0.70 - 1.33 Lambda range).
- Easy free-air calibration procedure corrects for sensor aging effects.
- 0-5V analog AFR output for interface to dyno instrumentation.
- Ultra-bright daylight readable blue LED display with automatic dimming under low light conditions.
- Wide supply voltage range from 11-16V allows operation from battery on small engines and race vehicles without an alternator. Current drain is approx. 1 amp per channel.
- Built-in USB interface.
- Compact size: WEGO 3 is 4"L x 2"W x 0.5"H, single channel WEGO IV is 3.3"L x 2.1"W x 0.9"H, and dual channel WEGO IV is 4.2"L x 3.1"W x 1.1"H.
- WEGO III is fully encapsulated with water-proof LED display.
- WEGO data logging software runs under Windows XP/ Vista/7/8. The software allows viewing and analyzing AFR, engine RPM and analog data with user defined scaling. Calculated fuel correction data can easily be copied/pasted into other engine tuning programs.

Part #	Description
112001	WEGO III Wide-band AFR Kit (includes WEGO III unit with 42" harness , Bosch LSU 4.2 oxygen sensor, 18 x 1.5 mm weld nut for exhaust pipe, and software on CDROM)
112002	WEGO III Wide-band AFR Kit (includes WEGO III unit with 96" harness , Bosch LSU 4.2 oxygen sensor, 18 x 1.5 mm weld nut for exhaust pipe, and software on CDROM)
112004	WEGO3 Wide-Band AFR Display with Lambda Calibration (96" harness)
115005	WEGO Tach Adapter (required when using WEGO III on motorcycles with CD type ignition)
114001	WEGO IV Wide-band AFR Kit (includes WEGO IV unit, Bosch LSU 4.2 oxygen sensor, 96" sensor extension cable, 18 x 1.5mm weld nut for exhaust pipe, USB cable, and software on CDROM.
114003	WEGO4 Wide-Band AFR Display with Lambda Calibration.

114001

WEGO 5 Dual Channel Wide-Band AFR (Air/Fuel Ratio) Interface with CAN Bus

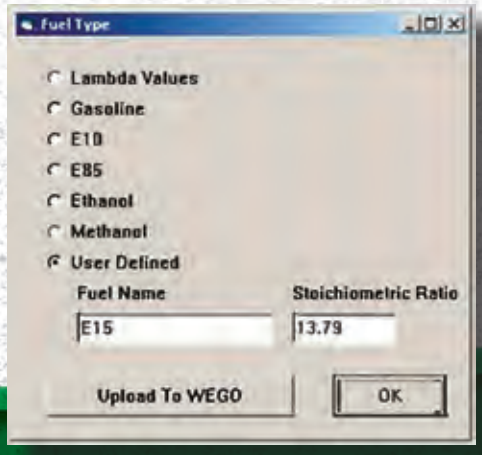
113501

- The WEGO 5 is a stand-alone unit with no display that logs one hour of data at 10 samples/second including two channels for AFR, engine RPM, and a spare 0-5V analog input for sensors such as throttle position or manifold pressure.
- Highly accurate with less than ±0.10 AFR error over 10.3 - 19.5 AFR range (±0.007 Lambda error over 0.70 - 1.33 Lambda range).
- Extended range (slightly reduced accuracy) down to 7.4 AFR (0.50 Lambda).
- Easy free-air calibration procedure corrects for sensor aging effects.
- Built-in USB and 1 Mbps CAN data bus interfaces.
- Dual 0-5V analog and CAN data bus AFR outputs for interface to dyno instrumentation or engine control.
- WEGO data logging software runs under Windows XP/Vista/7/8. The software allows viewing and analyzing AFR, engine RPM and analog data with user defined scaling. Calculated fuel correction data can easily be copied/pasted into other engine tuning programs.
- Compact size: 4.2"L x 3.1"W x 1.1"H.

Part #	Description
113501	WEGO 5 Dual Channel Wide-band Exhaust Gas Oxygen Sensor System (includes WEGO 5 dual channel unit, two Bosch LSU 4.2 oxygen sensors, 96" sensor extension cables, two 18 x 1.5 mm weld nuts for exhaust pipe, USB cable, and software on CDROM)

New WEGO Software with Real Time Display and Fuel Type Selection

- You can now use WEGO Log software to view data in real time in addition to downloading and displaying data on a chart recorder type screen.
- You can use the Fuel Type selection dialog box and program new WEGO units to display Lambda or correct AFR values for any hydrocarbon fuel with a known stoichiometric ratio. Regardless of the units displayed on the WEGO, data is logged internally in Lambda units and can be rescaled in the software for any fuel type. Refer to the software instructions for details.
- The location of the decimal point on the WEGO LED display is set during manufacturing and cannot be changed. Standard WEGO units display AFR values with XX.X number format, such as AFR values from 10.3-19.5 for gasoline or 4.5-8.6 for methanol. Special WEGO units are available for Lambda display with X.XX number format, i.e. Lambda values from 0.70-1.33.



Fuel Type Selection

Real Time Data Display

DAYTONA SENSORS

WEGO Dual Display Wide-Band Air/Fuel Ratio Meter (AFR) System

112005

- Complete air/fuel ratio (AFR) display system with built-in data logging. Includes WEGO III Dual Display unit, two Bosch LSU4.2 5-wire wide-band oxygen sensors, two 18x1 .5mm weld nuts, and software on CDROM.
- Displays Lambda or correct AFR values for any hydrocarbon fuel with a known stoichiometric ratio.
- Versatile tuning aid for all carbureted and fuel injected engines displays AFR and logs over 2 hours data including two channels of AFR, engine RPM, and a spare 0-5V analog input for sensors such as throttle position or manifold pressure.
- Input for optional customer supplied flex fuel sensor. A switch under the sensor 2 LED allows selection of normal AFR display or 0-100% ethanol display.
- Can be used for on-road or dyno testing.
- Suitable for automotive, motorcycle, and other small engine applications.
- Measurement range is 10.3 to 19.5 gasoline AFR or 0.70 to 1.33 Lambda.
- Highly accurate with less ±0.10 AFR or ±0.007 Lambda error over entire range.
- Easy free-air calibration procedure corrects for sensor aging effects.
- 0-5V analog AFR outputs for interface to dyno instrumentation.
- Water-proof ultra bright daylight readable blue LED display with automatic dimming under low light conditions.
- Wide supply voltage range from 11-16V allows operation from battery on small engines and race vehicles without an alternator. Current drain is under 2 amps.
- Built-in USB interface.
- Compact size: 5.6"L x 3.2"W x 0.9"H.

Part #	Description
112005	Wide-Band Exhaust Gas Oxygen Sensor Kit with AFR Display (includes WEGO III dual display unit, 96" wire harness, two Bosch LSU 4.2 sensors, 18x1 .5 mm weld nuts, and software on CDROM)
112006	Wide-Band Exhaust Gas Oxygen Sensor Kit with Lambda Display (includes WEGO III dual display unit, 96" wire harness, two Bosch LSU 4.2 sensors, 18x1 .5 mm weld nuts, and software on CDROM)
113001	WEGO IV Dual Channel Wide-band AFR Kit (includes WEGO IV dual channel unit, two Bosch LSU 4.2 oxygen sensors, 96" sensor extension cables, 18 x 1.5mm weld nuts for exhaust pipe, USB cable, and software on CDROM)
113003	WEGO4 Dual Channel Wide-Band AFR Display with Lambda Calibration.

113003

WEGO Wide-Band Air/Fuel Ratio (AFR) Interfaces

111004

- Single or dual 0-5V analog AFR outputs for interface to dyno instrumentation, vehicle data acquisition systems, and engine controls.
- Versatile tuning aid for all carbureted and fuel injected engines.
- Can be used for on-road or dyno testing.
- Suitable for automotive, motorcycle, and other small engine applications.
- Highly accurate with less than ±0.10 AFR error over 10.3 - 19.5 AFR range (±0.007 Lambda error over 0.70 - 1.33 Lambda range).
- Easy free-air calibration procedure corrects for sensor aging effects.
- Wide supply voltage range from 11-18V allows operation from battery on small engines or race vehicles without an alternator. Current draw is approx. 1 amp per channel.
- Fully encapsulated (water-proof).

Part #	Description
111002	WEGO IIID Wide-band AFR Sensor Interface (dual channel interface unit without internal data logging or LED display. Intended for automotive use with an existing data acquisition system)
111003	WEGO IIID 8-Pack Kit (complete kit for individual cylinder AFR monitoring on V8 race engines. Includes four dual channel WEGO IIID units and eight Bosch LSU 4.2 oxygen sensors, 12 foot extension cables, and 18 x 1.5 mm weld nuts. Intended for connection to an existing data acquisition system. Please note that these units are sold without warranty for professional racing use)
111004	WEGO IIID Kit (includes WEGO IIID, two Bosch LSU 4.2 wide-band oxygen sensors, and two 18 x 1.5 mm weld nuts)
111005	WEGO IIID Kit for SuperFlow® Dyno (includes WEGO IIID with connectors for dyno, 120- 240VAC power supply, and two Bosch LSU 4.2 wide-band oxygen sensors)
111006	WEGO IIIS Kit (includes WEGO IIIS, Bosch LSU 4.2 wide-band oxygen sensor, and 18 x 1.5 mm weld nut)
111009	WEGO IIID Kit for Land & Sea® Dyno (includes WEGO IIID with connectors for dyno, 120- 240VAC power supply, and two Bosch LSU 4.2 wide-band oxygen sensors)

111006

DAYTONA SENSORS

TC-1
Turbo Controller and Vehicle Data Logger*

- Flexible turbo control system adaptable to most turbocharged vehicles.
- Open and closed loop control modes. Includes programmable duty cycle or boost curves based on RPM, vehicle speed and or time.
- Compatible with most boost control solenoid valves.
- Built-in 4-bar MAP sensor. User selectable units (psi, In-Hg, or kPa).
- Bright transflective LCD display with backlight is readable in direct sunlight.
- Built-in data logging capability with 16 Mbit DataFLASH memory. Rates ranging from 2 samples/sec for 5 hours to 100 samples/sec for 6 minutes.
- Logs boost (MAP), RPM, vehicle speed, throttle position, solenoid duty cycle, battery volts, and two 0-5V analog inputs.
- 0-5V analog inputs are compatible with Daytona Sensors single or dual channel WEGO units for logging wide-band air/fuel ratio data.
- Programmable general purpose input/output can be used for an external scramble switch or to control a water/methanol injection system.
- USB interface to PC. Windows software for data logging and advanced setup functions. Please visit our website for complete details, and downloads.
- Heavy duty industrial grade clamping terminal blocks allow easy and reliable hookup without soldering or crimping.
- Compact size: 4-1/2″L x 3″W x 1″H.

Part #	Description
118001*	TC-1 Turbo Controller and Vehicle Data Logger (for automotive applications. Includes USB cable and software on CDROM)
118002*	Boost Control Solenoid Valve (for use with TC-1)

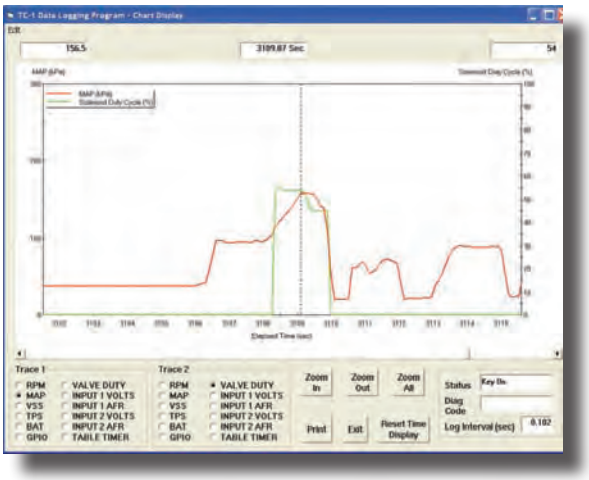
Boost Control Solenoid
118002

Software for TC-1 Turbo Controller*

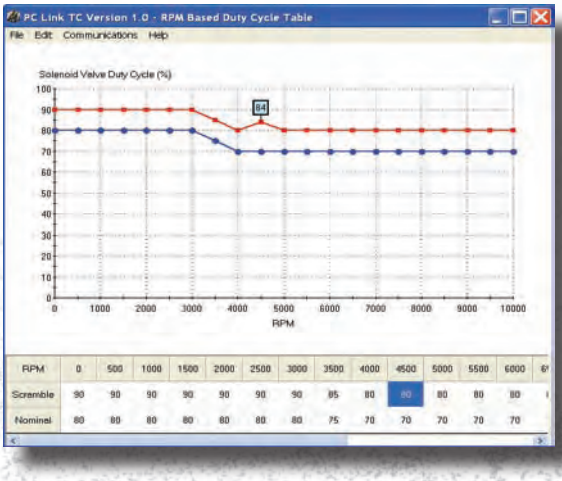
PC Link TC Software

- Use of the PC Link TC software is optional and not required for basic applications of the TC-1 system. Please visit our website for complete details, including software downloads.
- You can establish setup parameters including function of the general purpose input/output (GPIO) terminal and program duty cycle or boost tables.
- You can download and upload to the module, open and save files, and print setup values, including duty cycle and boost tables. Includes comprehensive on-line help system.
- Requires laptop PC with minimum 300 MHz Pentium processor and super VGA display (SVGA with 1024 x 768 pixel resolution) running Windows XP/Vista/7/8. The PC must have a CDROM drive or internet access for program loading and a free USB port.

PC Link TC - GPIO Parameters



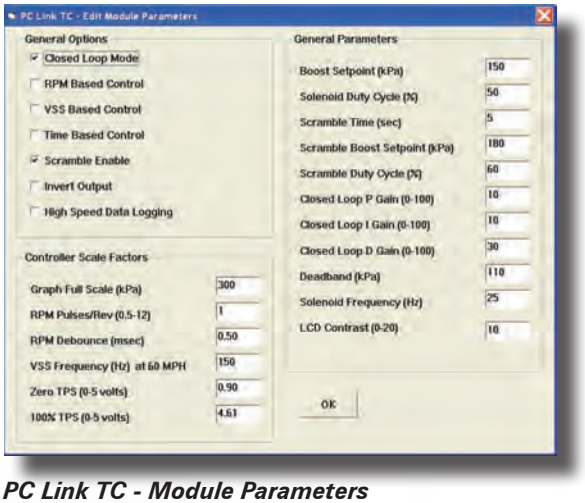
PC Link TC - Duty Cycle Table



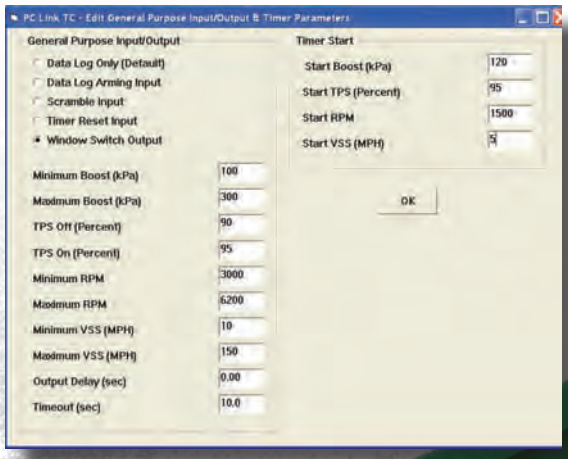
TC Log Software

- Chart display for downloaded data allows you to monitor vehicle operation on the track. You have a range of capabilities for analyzing the displayed data. This feature is especially useful for tuning the response of the turbo system during boost conditions.
- You can download data from the module, open and save files to disk, and print chart graphics. Includes comprehensive on-line help system.
- Same PC requirements as listed above for PC Link TC software.

TC Log - Chart Display



PC Link TC - Module Parameters



DAYTONA SENSORS

NC-1/NC-2 Nitrous Controller and Vehicle Data Logger*

116001

Nitrous Controller Features

- Drives two nitrous stages and purge solenoid. NC-2 is capable of 40 amp output on each stage.
- Each stage is independently programmable based on throttle position, RPM, vehicle speed, time delay, and first gear lockout. NC-2 adds capability for RPM or time based progressive control.
- Output for purge solenoid (requires external relay). Programmable automatic purge when system is armed.

The NC-1 and NC-2 units have identical features and capabilities except that the NC-2 can directly drive two nitrous stages with progressive control (modulated flow). The NC-1 requires external relays and is limited to on/off control. The NC-1 is recommended for applications under 100 horsepower. A progressive controller, such as the NC-2, pulse width modulates the solenoid valves and allows you to control the flow rate. The two primary applications for a progressive controller are matching nitrous system power output to vehicle requirements and independently controlling fuel and nitrous oxide flows for optimum air/fuel ratio (AFR). The NC-2 can be used for both applications:

- If you have a high horsepower nitrous system in a vehicle with limited traction, you can use time or RPM based progressive control to reduce the power output in the mid-RPM range or off the starting line to eliminate problems with wheel spin. You can also use RPM based progressive control to reduce excessive strain on the engine in the mid-RPM range.
- By independently modulating the fuel and nitrous solenoids, you can control the AFR. This is especially useful for late model fuel injected vehicles.

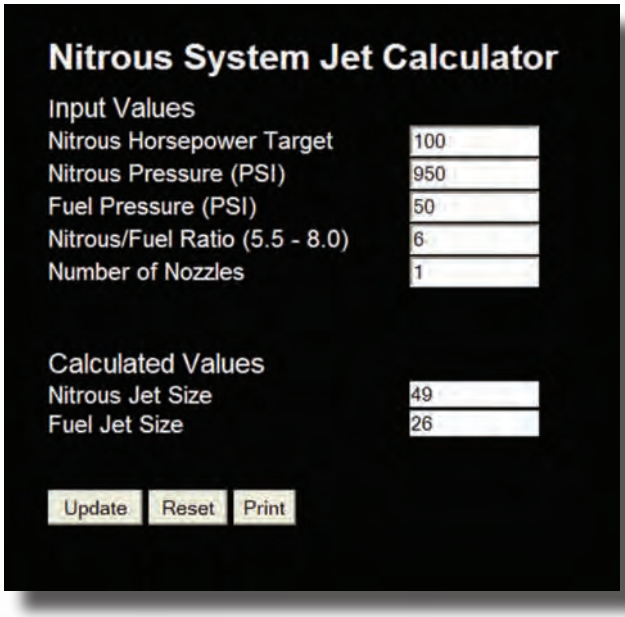
- Flexible RPM input compatible with high voltage coil drive (vehicles with coil packs or distributor ignition), standard 12 volt tach signal, or low level logic drive (newer vehicles with coil-on plug).
- General purpose input/output (GPIO) terminal. Programmable for use as shift light output, additional stage enable input, or control output for ignition retard.
- Status LED output (ideal for use with arming switch containing LED).
- Built-in data logging. Ideal as basic vehicle data logger during dyno tuning or drag racing. Logs data whenever system is armed. Stores last 5 minutes of data at 10 samples/second.
- Data logged includes throttle position, RPM, vehicle speed, status of all inputs and outputs, and two 0-5 volt analog inputs.
- 0-5 Volt analog inputs are compatible with Daytona Sensors single or dual channel WEGO systems for logging wide-band air/fuel ratio data.
- Heavy duty industrial grade clamping terminal blocks allow easy and reliable hookup without soldering or crimping.
- Compact size: NC-1 is 3.3”L x 2.4”W x 1.1”H and NC-2 is 4.1”L x 2.8”W x 1.1”H (not including mounting feet and terminal block).
- USB interface to laptop PC. Powerful Windows software for programming controller and downloading logged data. Please visit our website for complete details and downloads.

116002

Part #	Description
116001*	NC-1 Nitrous Controller and Vehicle Data Logger (for automotive applications. Includes USB cable and software on CDROM)
116002*	NC-2 Progressive Nitrous Controller and Vehicle Data Logger (for automotive applications. Includes USB cable and software on CDROM)

PC Link Nitrous Parameters

PC Link Progressive Control



Visit the Nitrous Tech FAQ on our website and check out our new nitrous jet size and bottle pressure/ temperature calculators.

DAYTONA SENSORS

SmartSpark Coils for GM LS2, LS3, and LS7 Engines

119100

These are a direct bolt on performance upgrade. They will produce a hotter spark to burn the fuel more efficiently in the engine's cylinders, producing more power. Available individually or as an eight pack.

These coils feature high temperature epoxy filled housings that resist shock and vibrations using the latest coil technology.

Part #	Description
119100	SmartSpark Coil for LS1 GM Gen III Engines
119100-8	SmartSpark Coil Eight Pack

- Manufactured and designed using the latest technology
- Molded using high dielectric strength material
- Designed to work with SmartSpark LS Ignitions or competitive systems
- Improved Throttle Response
- Backed with a one year limited warranty

119100-8

LED Timing Light for Dyno Applications

120001

- Versatile and long life LED timing light intended for permanent installation and continuous operation on engine dyno systems.
- LED life estimated to be in excess of 400 hours with engine running at 1,500 RPM.
- Low cost capacitive spark pickup is used with conventional distributor, coil pack, or coil-near-plug ignition systems where a spark plug wire is accessible.
- Spark trigger sensitivity adjustment to accommodate different ignition energy levels while avoiding false triggering.
- Additional trigger inputs allow using the LED timing light with coil-on-plug ignition systems.
- High voltage trigger input allows triggering from Coil. Signal for coil-on-plug ignitions without integrated coil drivers.
- Logic level (0-5V) trigger input allows triggering from coil drive signal for coil-on-plug ignitions with integrated coil drivers.
- New Phillips Luxeon LED with narrow spot optics is pulsed at over 30 watts to provide brightness equal to or better than conventional Xenon flash tubes.
- LED lamp has 15" flexible gooseneck with 1/8-27 NPT male thread that allows easy mounting and alignment on any dyno frame.
- Black anodized aluminum controller housing and Delrin LED lamp housing.
- Industrial grade clamping terminal block on rear panel allows easy hookup.
- Compact size: controller is 3.3"L x 2.1 "W x 0.9"H and LED lamp is 1.5" OD x 1.9"L.
- Operates from 12 VDC. Supplied with international power adapter for 110-240 VAC that includes four interchangeable plugs for worldwide operation.

Part #	Description
120001	LED Timing Light
120002	Replacement Spark Pickup
120003	Replacement LED Lamp (core return required)

DAYTONA SENSORS

Accessories and Replacement Parts

Ignition Systems Accessories for use with CD-1, SmartSpark and SmartBoost

102004* USB Interface (required for custom programming and data logging capability)

102005* RTD-1 Retard Control (see website for details)

102006* MAP Sensor Harness Kit (see website for details)

102007 Power Filter Capacitor Kit (see website for details)

115011 1 bar MAP sensor (for normally aspirated applications)

115012 2 bar MAP sensor (for turbo/supercharged applications)

115013 3 bar MAP sensor (for turbo/supercharged applications)

WEGO Accessories and Replacement Parts

All WEGO systems use the Bosch LSU 4.2 wide-band exhaust gas oxygen sensor. Accessories and replacement parts listed below are suitable for use with all our WEGO systems.

Part #	Description
115001	Wide-band Exhaust Gas Oxygen Sensor (replacement Bosch LSU 4.2 sensor with special connector for WEGO series)
115002	18 x 1.5 mm Hex Socket Plug (mates with 18 x 1.5 mm weld nut. Allows removing oxygen sensor)
115003	18 x 1.5 mm Weld Nut (for mounting wideband sensor on exhaust pipe)
115007	18 x 1.5 mm Stainless Steel Weld Nut (for mounting wide-band sensor on exhaust pipe)
115008	18 x 1.5 mm Stainless Steel Hex Socket Plug (mates with 18 x 1.5 mm weld nut. Allows removing oxygen sensor)
115004	12 Foot Extension Cable (for WEGO Series. Extends distance to Bosch LSU 4.2 sensor for dyno room installations)
115009	18 Foot Extension Cable (for WEGO Series. Extends distance to Bosch LSU 4.2 sensor for dyno room installations)

Add the Wego IIID Kit and get more from the Turbo Controller, Nitrous Controllers and Data Logger Shift Light!

Use one of these?

Add the WEGO IIID for more inputs and control!

Part #	Description
111004	WEGO IIID Kit (includes WEGO IIID, two Bosch LSU 4.2 wide-band oxygen sensors, and two 18 x 1.5 mm weld nuts)

DAYTONA SENSORS

Turbo Controller, Data Loggers, Nitrous Controllers, Timing Systems and Accessories

DAYTONA SENSORS

*Not legal for sale or use in California or on pollution controlled vehicles.

Learn more about performance ignition systems on our website.