

Abbreviations defined

a *linear* output

A/C Air conditioning

A/D: Analog to Digital

A/F Air fuel Ratio

ABDC After Bottom Dead Center

ABS Anti-Lock Braking System

AC Alternating Current

ADC: Analog to Digital Converter

ADX: Tunerpro 5 data stream definition - Tells tuner pro how to get logging information from the ecu, what data is in the stream, how to interpret it, and provides the dashboard screen layout.

AE Acceleration Enrichment

AFR : Air Fuel Ratio (sometimes written as A/F) - ideal ratio of 14.7:1 (for unleaded petrol) gives low emissions and acceptable drivability and economy. A lower ratio (11:1) would be "rich" and a higher ratio (16:1) "lean".

AFR Air Fuel Ratio

AIR Air Injection Reaction

AIT Air Intake Temp

ALCL Assembly line communications link

ALDL : Assembly Line Diagnostic Link

ALDL Assembly Line Diagnostic Link

Async Fuel delivery Asynchronous to engine timing

AT Automatic Transmission

ATDC After Top Dead Center

AWG American Wire Gauge

Baro Barometric Pressure

BBDC Before Bottom Dead Center

BCM Body Control Module

BDC : Bottom Dead Center

BIN: "Binary". Usually refers to the binary image of all the data on a memcal. Both the program (operating system) and the vehicle specific calibration.

BLM : Block Learn Multiplier - the factor which is "learned" to adjust fuel mixture as the tolerances on the factory system change over time.

BLM Block Learn Multiplier

BP : Barometric Pressure

BPW : Base Pulse Width - the calculated length of the pulse, or "on-time" of the fuel injector before any "tweaking" for minor inputs such as air temperature.

bpw base pulse width

BTU British Thermal Units

butterflies

C Celsius

C/L Closed Loop

C3 GM ECM using Motorola 68xx-like processor (1+ MHz CPU)

CAN : Controller Area Network. A proposed network protocol for automotive use outside the US. The US proposal is SAE standard J1859, aka OBD.

CCP Controlled Canister Purge

CDI : Capacitive Discharge Ignition.

CEL : Check Engine Light - a dashboard light (same as SES) letting you know the car has a problem and also used to flash out diagnostic codes stored by the ECM.

Abbreviations defined

CEL Check engine light (see MIL, SES)

CFI : Central Fuel Injection - a FoMoCo designation. Similar to GM's TBI injection system.

CFI : Continuous mechanical Fuel Injection - yet another injection system. This one used on Volvos.

CFI : Crossfire Fuel Injection - an intake manifold utilizing 2 diagonally mounted throttle bodies (model 300s?), hence it's another TBI injection system. The twin 300s together are called the model 400.

CID Cubic Inch Displacement

CKP crankshaft position sensor

CMP camshaft position sensor

CP Canister Purge

CPU Central Processor Unit (the brains in the ecm)

Crossings : the number of times the O2 sensor switches across stoich. It is a measure of closed loop system performance.

CTS : Coolant Temp Sensor

CTS Coolant Temp Sensor

DAC : Digital to Analog Converter

DB Decibels

DC Direct Current

DC Duty Cycle On time, compared to total event time expressed as a

DE Decel Enleanment

DEF: A definition (eg XDF, ADX for tunerpro, and also might refer to other types of file for other tuning packages.

DFCO Decleration Fuel Cut Off

DIS Distributorless Ignition System

DIS: Distributorless Ignition System

DVM Digital Multi Meter

ECM : Electronic Control Module (sometimes also ECU Electronic Control Unit, or PCM Powertrain Control Model when controlling the transmission too) - the engine management computer.

ECM Engine Control Module

ECT engine coolant temp

ECU Engine Control Unit

EEC : Evaporative Emission Control system - a method of purging fuel vapors (don't tell the Ford faithful whose EFI controller is known as the EEC-IV or EEC-V)

EFI Electronic Fuel Injection

EGO : Exhaust Gas Oxygen sensor

EGR : Exhaust Gas Recirculation - use to reduce emissions and increase economy supposedly

EGR Exhaust Gas Recirculation

EGT : Exhaust Gas Temperature

EGT Exhaust Gas Temp

EPROM : Electrically Programmable Read-Only Memory - this is the replaceable memory chip which contains fuel and spark information and allows one ECM to be used in various applications.

EPROM Erasable Programable Read Only Memory

ESC : Electronic Spark Control - aka Retard Signal. Used to retard the timing when detonation (knock) is detected.

ESC Electronic Spark Control (Knock Control)

EST : Electronic Spark Timing

EST Electronic Spark Timing

F Fahrenheit

Abbreviations defined

FED Federal (emissions package)

FUBAR : F***ed Up Beyond All Recognition

GPS Grams per sec

hego heated exhaust gas oxygen

HEI : High Energy Ignition

HEI High Energy Ignition

HO2S heated o2 sensor

I/O Input/Output

IAC : Idle Air Control - (a controlled vacuum leak) A stepper motor controlled by the ECM. It determines how much air gets through to the engine when the throttle is at idle. The ECM controls it to maintain a programmed idle speed.

IAC Idle Air Control

IAT : Intake Air Temperature. Similar (equivalent?) to MAT Manifold Air Temperature.

IAT Intake Air Temp

IC Integrated Circuit

ICE Internal Combustion engine

IGN Ignition

Injector On Time Time in milliseconds that an injector is on.

INT Integrator

intake valve

ION : A patented (by Saab) method for detecting "knock" or misfire in an engine by measuring a current across the sparkplug electrode known as an ionization current.

IPW Injector Pulse Width

IS Idle Speed

ISC Idle Speed Control

ISCV : Idle Speed Control Valve

kapwr keep alive power

kg Kilogram

Kilohertz (1,000s cycles / sec)

kPa Kilopascals (Pressure)

KS Knock Sensor

L Liter (about 60 cubic inches)

LCD Liquid Crystal Display

lower to keep it open

MAF : Mass Air Flow (sensor) - an alternative to MAP. This measures actual airflow into the engine and thus doesn't need to make any calculations based on VE.

MAF Mass Air Flow

MAP : Manifold Air Pressure (sensor) - a vacuum gauge. BPW fueling is primarily computed from this input on cars so equipped. Another alternative would be MAF.

MAP Manifold Absolute Pressure

MAT : Manifold Air Temperature sensor

MAT Manifold Air Temp

MCU : MicroController Unit (eg. 68HC11) - the processor on which the engine computer is based

MDP Manifold differential Pressure

MEMCAL Memory Calibration Unit

MFI Multi-port Injection

MIL malfunction indicator lamp (see CEL, SES)

MPFI: Multi-Port Fuel Injection (see MPI)

Abbreviations defined

MPI : Multi-Port Injection - generic name for any of the port injection systems (as opposed to TBI systems)

MT Manual Transmission

NC Normally Closed

NEU Neutral

NO Normally Open

NPTC National Pipe thread Course

NTPF National Pipe Thread Fine

O2 (see also EGO) : Typical slang referring to the Oxygen sensor

O2 Sensor for detecting rich lean exhaust mixtures, GM so far uses this

OBD = On Board Diagnostics. Mandated in the US, this forces auto manufacturers to use common protocols and connectors for automotive diagnostics.

OBD2 on board diagnostics, newer vehicle electronics, less friendly

OEM : Original Equipment Manufacturer

OL Open Loop

OTS Oil Temp Sensor

P/N park neutral switch

P+H one way of firing an injector High initial voltage to open then

P4 GM ECM using early Motorola 68HCxx-like processor (2+ MHz CPU)

PCM Powertrain Control Module (engine and trans control)

PE Power Enrichment

percent

PLCC : Plastic Leadless Chip Carrier

Port, MPFI, Multi Port, each cyl has it's own injector close to the

PPM : Pulse Per Mile - in reference to VSS

PS Power steering

PSI Pounds per square inch

PSIA PSI absolute

PSIG PSI Gauge

PW Pulse Width

PWM : Pulse Width Modulator

PWM Pulse Width Modulation

QT Quart

R-12 Refrigerant

RAM Random Access Memory

RAP Retained Accessory Power

RFI Radio Frequency Interference

ROM Read Only Memory

RPM : Revolutions Per Minute - typically sensed by a sensor in the distributor or on the crankshaft.

RR Right Rear

RTV Room Temperature Vulcanizing

RWD Rear wheel drive

SAE : Society of Automotive Engineers

SBC : Single Board Computer or Small Block Chevy

Scantool : A piece of test equipment which plugs into the ALDL and displays Trouble Codes and other information helpful for servicing of the ECM.

SD : Speed density. An FI technique where the amount of air entering the engine is calculated from engine RPM, MAP, and a pre-calculated volumetric efficiency for the engine.

Abbreviations defined

SEFI Sequential Electronic Fuel Injection

SES : Service Engine Soon light - aka "CEL Check Engine Light"

SES Service Engine Soon (see MIL, CEL)

SFI : Sequential Fuel Injection - injectors are fired in ignition firing order for maximum performance and economy.

SI Saturated Injector *constant* voltage current

SynchPulse Fuel PW with delivery tied to timing of ref pulses

TAC Thermostatic Air Cleaner

TB Throttle Body

TBI : Throttle Body Injection - basically a fully electronic computer controlled carburetor

TBI Injection system where the injectors are mounted above the

TCC : Torque Converter Clutch - a lockup mechanism for improved economy and performance

TCC Torque Converter Clutch

TCM Transmission Control Module

TDC : Top Dead Center. Piston at the top of the cylinder.

TDC Top Dead Center

TFT trans fluid temp

TH Turbo-Hydramatic

TPI : Tuned Port Injection - intake manifold and EFI system used on Camaros and Corvettes especially

TPI Tuned Port Injection

TPS : Throttle Position Sensor. Tells the ECM how "open" the throttle is.

TPS Throttle Position Sensor

TRC Throttle Return Control

TTS Trans Temp Sensor

TV Throttle Valve

TVS Thermal Vacuum Switch

type, and it has a high slew rate and therefore is more of a switch

VATS Vehicle Anti Theft System

VE : Volumetric Efficiency - the ratio of the amount of air going into an engine to the volume displaced by the movement of the pistons

VE Volumetric Efficiency

VIN : Vehicle Identification Number - needed when using the scantool

VSS : Vehicle Speed Sensor

VSS Vehicle Speed Sensor

WBO2 this sensor differs from the O2 in so far that it is designed for

WG WasteGate

WOT Wide Open Throttle

XDF: Tunerpro 5 definition - Tells tuner pro what is where in the bin, and how to interpret it.

Abbreviations defined

by antus » Sun Aug 09, 2009 3:29 pm

Common EFI Abbreviations

<http://delcohacking.net/forums/viewtopic.php?f=28&t=220&p=14029#p2489>

This data was originally sourced from <http://www.aces.edu/~parmega/efi/glossary.htm> and has been updated.

by yoda69 » Thu Sep 24, 2009 10:02 am

This list was sourced from <http://www.diy-efi.org/gmecm/faq/biglist.txt>

by antus » Sun May 08, 2011 8:24 pm

Re: Common EFI Abbreviations