



fill up. feel good.

Ethanol Training Terms & Acronyms

CFR: Cooperative Fuel Research, also known as a “knock engine”, a single cylinder engine with a variable combustion chamber that is used to determine the octane rating of primarily gasoline fuels.

CO: Carbon Monoxide, a gas molecule that contains one carbon atom and one oxygen atom. CO emissions result from incomplete combustion

CO₂: Carbon Dioxide, gas molecule that contains one carbon atom and two oxygen atoms. It is a “greenhouse gas” that results from the complete combustion of fossil fuels.

E-10: A blend of 10% ethanol & 90% gasoline. E-10 is widely available as a motor fuel at gas stations around the country.

E-85: A blend of 85% ethanol & 15% gasoline. E-85 is an extremely clean burning fuel that reduces our dependence on foreign oil. Currently, it can only be run in “Flexible Fuel Vehicles” (FFV’s).

E-Diesel: A blend of up to 10% ethanol and petroleum diesel fuel. E-Diesel runs cleaner and helps reduce our dependence on foreign oil.

ECM: Electronic Control Module, the onboard computer in a car.

EPA: Environmental Protection Agency, the Federal agency that regulates vehicle emissions.

EPIC: The Ethanol Promotion and Information Council, a not-for-profit organization that serves to get the word out about the benefits of ethanol as a motor fuel.

FFV: Flexible Fuel Vehicle, a vehicle that can run on a variety of motor fuels, in particular straight gasoline, E-10, and E-85 fuels.

ISO: International Organization for Standardization, Chrysler products, all European, and most Asian imports use ISO 9141 circuitry for their OBD II diagnostics.

KAM: Keep Alive Memory, a Ford term for a voltage that maintains the RAM (Random Access Memory) in the computer.

MAF: Mass Air Flow, a sensor that measures the amount of air entering the engine.

MON: Motor Octane Number, a numerical rating that reflects the ability of a motor fuel to resist knocking at speed and under load. (see also RON)

MTBE: Methyl Tertiary Butyl Ether, an oxygenate that has been added to gasoline in several states to reduce emissions.

NOx: Oxides of Nitrogen, a group of different gas molecules that contain nitrogen and oxygen atoms. As exhaust emissions, they are created by high temperature combustion and contribute to the formation of ozone and photochemical smog.

NEVC: National Ethanol Vehicle Coalition, established in June of 2000 to promote the use of 85 percent ethanol as a renewable form of alternative transportation fuel while enhancing agricultural profitability, advancing environmental stewardship and promoting national energy independence.

NREL: National Renewable Energy Laboratory, established in 1974 under the Department of Energy, it is the nation's primary laboratory for renewable energy and energy efficiency R&D.

O₂: Oxygen molecule containing two atoms of oxygen. Most gasoline vehicles have an O₂ sensor in the exhaust system so that the computer can determine how rich or lean the engine is running.

O₂ Diesel: See E-Diesel

OBD II: On-Board Diagnostics II, a universal inspection and diagnosis method used on all US vehicles since Jan. 1996 to be sure the car is performing correctly.

ONR: Octane Number Rating, the number assigned to a fuel that represents the average of a fuel's RON and MON octane ratings. (see also RON & MON)

PCM: Powertrain Control Module, a computerized unit that has control over many important engine and transmission functions.

PWM: Pulse Width Modulation, a common means of electrically controlling fuel injectors by short electrical pulses of a constant voltage.

RON: Research Octane Number, a numerical rating that reflects the ability of a motor fuel to resist knocking at lower steady-state speeds. (see also MON)

VPW: Variable Pulse Width Modulation, a communication system for engine & driveline controls used by GM.