

QUALITY PERSONALIZED SERVICE

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# Understanding Your "Check Engine" Light— Be it Friend or Foe?

#### Your "Check Engine" Light—What it Is, and What it Isn't.

We've all been there... happily driving along, minding our own business when suddenly that little yellow light on the dash comes on. We feel anxious and grip the steering wheel a bit harder and wonder, "Will I make it to the mechanic before my car dies?"... "Should I pull over or keep driving?" Well, here's the good news—things are a whole lot less intimidating when we understand them, and thankfully, understanding your car's "check engine" light is easy!

So, sit back and relax—by the end of this article you'll be driving with new-found confidence. Why? Because you're about to find out what your "check engine" light is, and what it isn't.

# What Exactly is the "Check Engine" Light? (In Plain English, Please!)

Let's start with what it isn't. Dave Facciuto, owner of Dave's Import Service, explains—"Your 'check engine' light isn't a mileage activated timer that reminds you to have routine service done. Some cars have these indicators, but they usually say 'maintenance' or 'service interval due." Dave continues—"Even though your 'check engine' light would alert you to serious problems like an overheating engine or low oil pressure, it's probably not that either. Those conditions would be indicated by your car's temperature and oil pressure gauges."

Dave Facciuto, owner

## A Little Bit of History Will Enlighten You

Before the 1980s, dashboard gauges gave us basic levels—our car's "vital signs," such as fuel, oil pressure, temperature, etc. Although important, they do nothing to monitor carbon emissions or adjust the intricate balance between fuel and oxygen. So, you may ask, (being one who appreciates simplicity), "who cares"? During the 80s, when smog and fuel economy got the attention of the federal government, strict standards for automakers were set and "things" as they say, got a lot more complicated. But we're not here to pick on the feds! When your car is meeting these performance standards your fuel economy is at its best and you're polluting the environment less than you did before.

## **Computers on Wheels**

If your car isn't a classic from 1979, it probably has an internal computer called an Onboard Diagnostics (OBD) system. "The early systems were crude versions of what we see today," says Dave, "Only a few sensors were monitored by the computer and 'check engine' lights were rare." That changed by 1996, when under OBD II regulations, automakers were required to install a much more sophisticated system. Dave adds—"The more

automakers focus on better engineering, fuel economy and reduced emissions, the more complex the OBD systems become."

Today, OBD systems continually measure and adjust every imaginable variable from the gas cap to the tail pipe, such as fuel and oxygen mixtures, engine speed, ignition timing and in most cases the automatic transmission shift points. The system generally includes a microprocessor, sub processors, various input and output sensors, drivers and modules and last but not least, a "check engine" light that alerts us to any problems the computer finds.

#### Your New Best Friend? Oh Yeah!

You may not have realized it, but your car's OBD system is tirelessly working away—processing

hundreds of bits of data every second, like sampling exhaust emissions as they leave the engine and monitoring your car's fuel system. Now, don't you feel better? The OBD system, right down to the "check engine" light isn't your enemy after all—it's your new best friend! Think of it as a helpful neighbor waving you down to let you know something is amiss, and you'll never look at it the same way again.

# To Drive or Not to Drive—That is the Question

So what should you do when your "check engine" light comes on? First of all don't panic. While you probably don't need to shut your car off and run for the nearest mechanic, the light shouldn't be ignored for long. Says Dave— "Even when your car is starting and seems to be running OK, it's a good idea to have it checked

out... it may be something that needs attention, but it could be as simple as a loose gas cap." Dave continues, "When your 'check engine' light comes on you should check your car's temperature, electrical, and oil gauges to make sure they're normal, as well as check the gas cap. In most cases it's OK to drive the car for a week or two, but if the light is flashing or the engine is running poorly you should have it checked out right away."





### A Light at the End of the Tunnel

Without a way to narrow down the cause of the trouble, mechanics would spend more time diagnosing problems than fixing them. Dave explains—"The 'check engine' light or Malfunction Indicator Lamps (MIL) as we in the service industry refer to them, are just that, malfunction indicators." Dave continues—"When a problem is detected by the OBD system, the MIL lights up and the car's computer records a fault code." A compatible scan tool (computer interface) is linked to the car's computer to download the code and diagnose the cause of the fault. Dave adds—"The code tells us the general type of fault, but not necessarily the exact cause of the fault. We test various components, use live data streams, check freeze frame data (sort of like a flight recorder) and check circuitry in order to find the

source of the problem."

# Knowledge (Not Ignorance), is Bliss

Dave's Import Service has invested in brand specific, factory specified computer scan tools and employs master automotive technicians who understand the complexities of today's vehicles. Says Dave—"My goal is to always use a common-sense approach when repairing your vehicle, and to make sure I have the equipment and staff necessary to diagnose and repair any problem. If you have a question, from the most basic to the most advanced, we're here to answer it."

Even though Dave's specializes in imports and has factory trained master techs for Porsche, Jaguar, BMW, Audi, Honda, Acura and Mercedes Benz, they provide the same expert service on all American makes too. In fact, Dave's staff includes factory trained specialists for Ford, GM and Cadillac with nearly 100 years of combined experience.

Dave has been taking care of his valued customers since 1989 and he looks forward to meeting you the next time you need your car serviced. Stop by Dave's shop at 1903 Skypark (corner of Whittle and Skypark, off of Hwy 62, behind Lava Lanes) to say hi—the coffee's always on!

