

THERMAL FAILURE CAN DESTROY A CATALYTIC CONVERTER.

A converter can be destroyed by excessive heat. Since there are NO MOVING PARTS in a converter the usual suspect is fuel contamination, the result of an engine operating system failure or malfunction.

When the vehicle is running in a rich air-fuel mixture condition, unspent or raw fuel (HC) along with carbon monoxide (CO) is pumped into the converter through the exhaust system.

The oxidation or burning process of the raw fuel continues unchecked, raising the internal temperature of the converter to a point where the converter matting and substrate are destroyed.

The conditions of "thermal failure" prohibit the converter from storing oxygen thus setting off a P0420 diagnostic trouble code.

WHAT CAN RENDER A CATALYTIC CONVERTER INEFFICIENT?

Poor vehicle maintenance is a major contributor to the creation of conditions that eventually lead to converter inefficiency.

With a dirty air filter, a lack of scheduled oil changes, severe driving conditions, poor fuel, and short trips, you have the makings for an inefficient catalytic converter.

Eventually a combination of these conditions can increase carbon accumulation in the combustion chamber leading to higher combustion temperatures and compression ratios. The result is excessive NOx output by the engine.

Combine excessive NOx output with carbon fouling of the spark plugs and O2 sensors, the contamination or fouling of the catalytic converter and you have the ingredients for an emissions system failure. In short, the catalyzing metals in the converter are no longer exposed to the exhaust gases, and the converter is rendered inactive.

The deactivation of the catalytic converter causes a reduction of O2 storage which is detected by the O2 sensor resulting in a P0420 diagnostic trouble code.

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The Right Choice For Today's Complex OBDII Systems

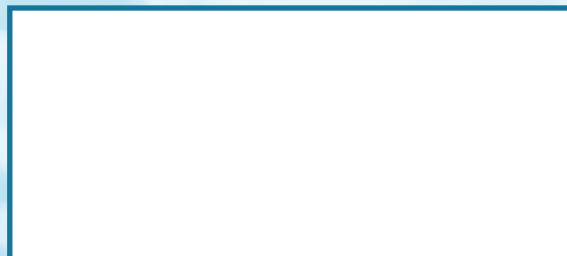
OBDII BY DESIGN



OBDII • DIRECT FITS • UNIVERSALS

IS THE ENGINE CLEAN ENOUGH TO RUN CLEAN?
Check for excessive carbon build up.

FUEL INJECTOR / TOP ENGINE CLEANING
It may be what you need to do first to
"FIX THE REAL PROBLEM"



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Exhaust EMISSIONS Troubleshooting GUIDE

OBDII BY DESIGN
Catalytic Converter



OBDII By Design 49 State OBDII Catalytic Converters
Clean By Design™ California OBDII Catalytic Converters
CARB COMPLIANT



Our OBDII BY DESIGN
Keeps the Light Out

MIL ON? Have You Diagnosed And Repaired The REAL PROBLEM?

High NOx,
Exhaust Emissions

Coated/Oil Fouled
Substrate

Overheated,
Melted or Broken

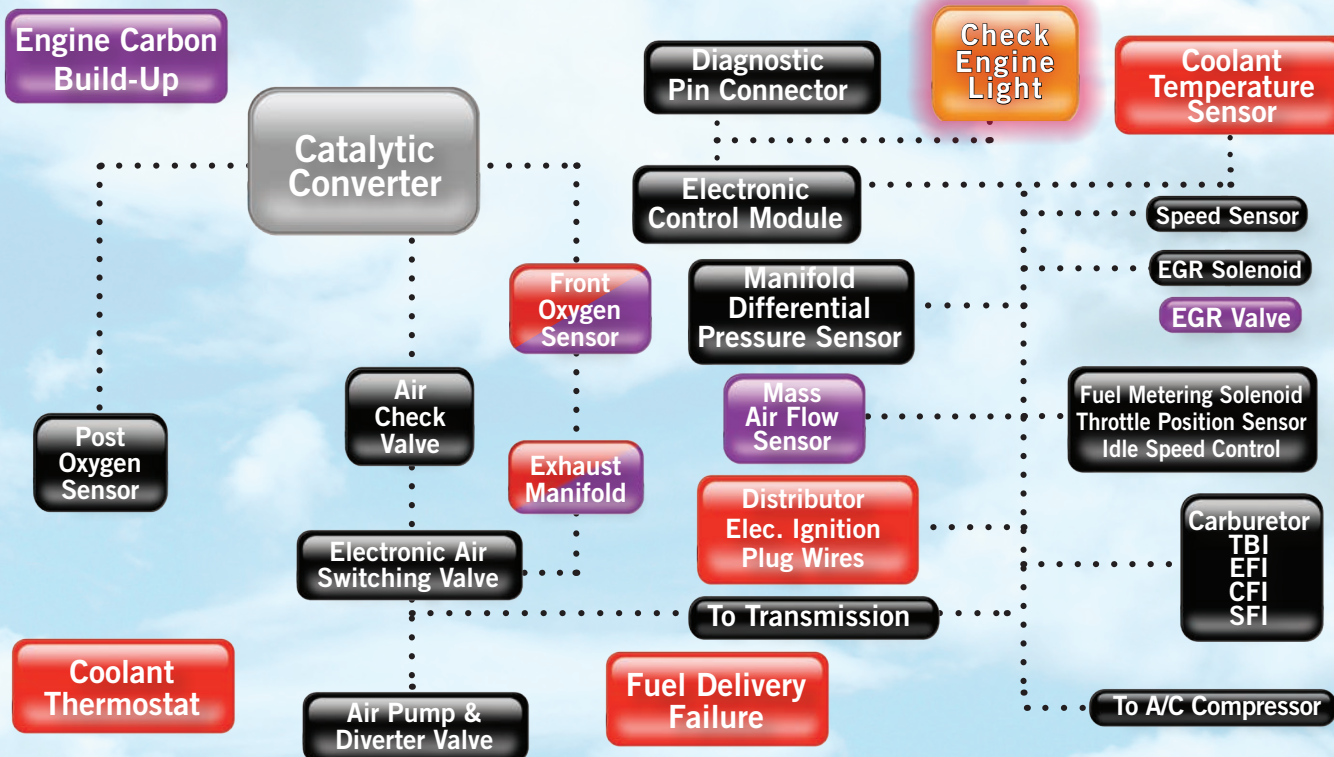
Excessive Fuel
Conditions

Emissions System
Component Failure



The Leading Cause Of Emissions Test Failure Is
Engine System Component Failure

Check These Emission System Components!



Check
Engine
Light

What is the
REAL PROBLEM?

Engine Operating
Systems Diagnostics...
DO IT NOW!

Check These Components:

- Front Oxygen Sensor(s)
- Engine Coolant Temperature Sensor (ECT)
- Engine Thermostat
- EGR Valve
- Fuel Injectors
- Spark Plugs/Spark Plug Wires
- Throttle Body Injector (TBI)
- Throttle Position Sensors (TPS)
- EVAP System
- EGR Valve Position Sensor (EVP)
- Mixture Control Solenoid
- Idle Speed Control Motor
- Manifold Absolute Pressure Sensor
- Air Charge Temperature Sensor (ACT)
- Idle Air Control Valve (IAC)
- Exhaust Manifold(s)
- Canister Purge Valve
- Vacuum Hoses
- Ported Vacuum Switch (PVS)

Tech Hotline (800) 777-6376

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