

EMISSIONS PROBLEMS » WHY IS THE ON? ON?

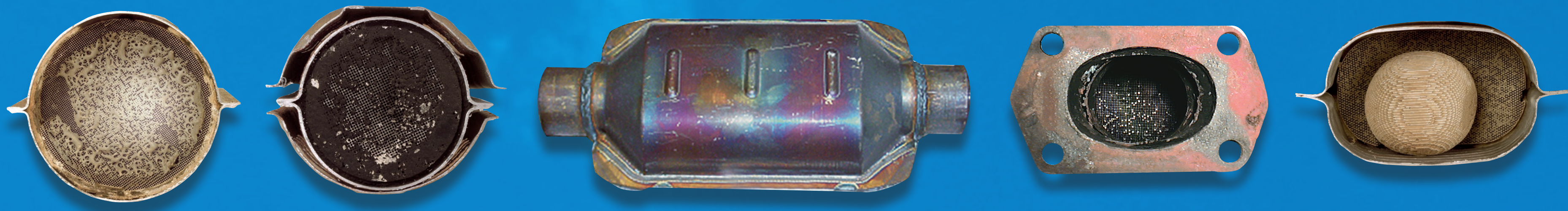
High NOx,
Exhaust Emissions

Coated/Oil Fouled
Substrate

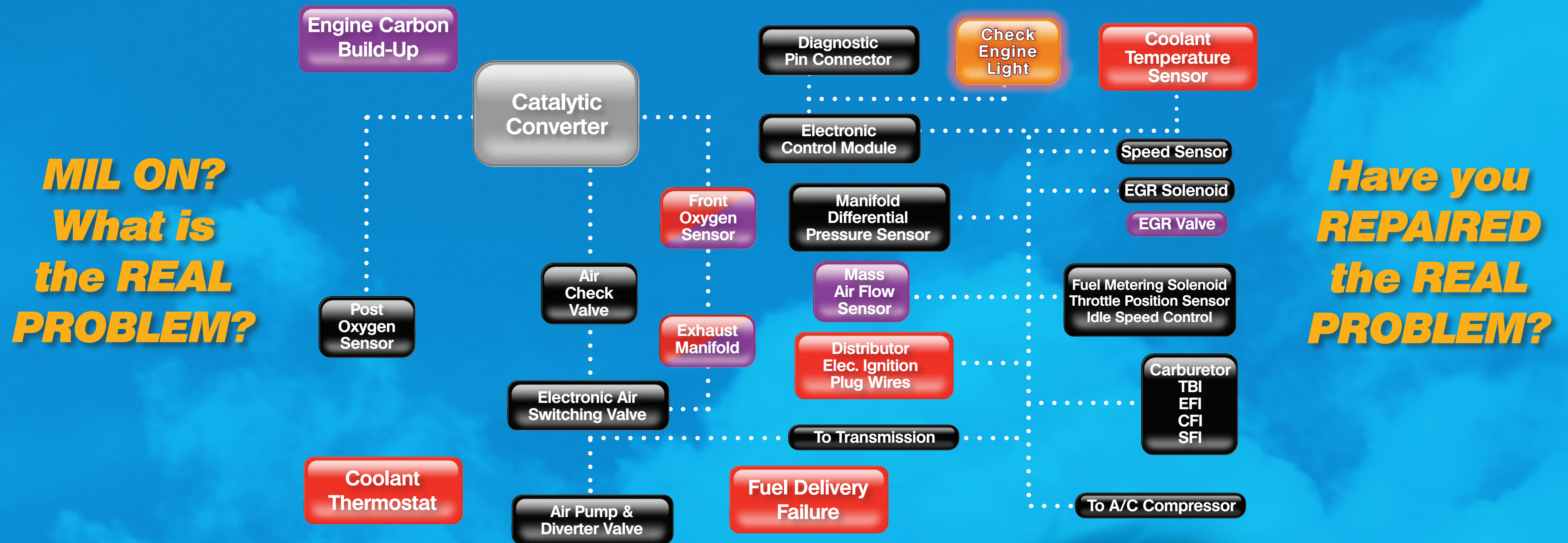
Overheated,
Melted or Broken

Excessive Fuel
Conditions

Emissions System
Component Failure



The Leading Cause Of Emissions Test Failure Is Engine System Component Failure
Check These Emission System Components!



**MIL ON?
What is
the REAL
PROBLEM?**

**Have you
REPAIRED
the REAL
PROBLEM?**

Thermal Failure can destroy a Catalytic Converter.

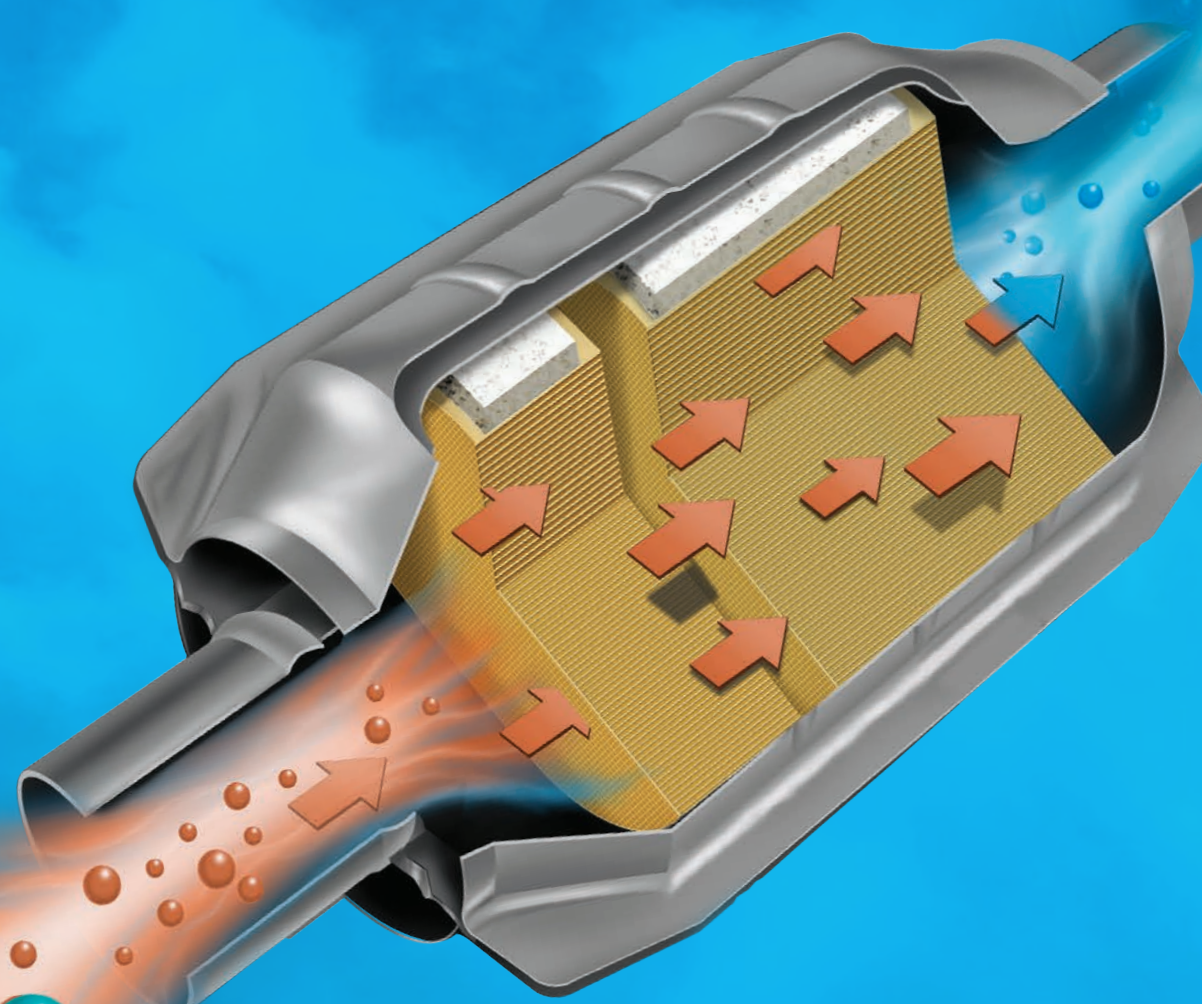
A converter can be destroyed by excessive heat. Since there are NO MOVING PARTS in a converter the usual suspect is fuel contamination, the result of an engine operating system failure or malfunction.

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 PO420 diagnostic trouble code.

OBDII BY DESIGN Catalytic Converter



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

FUEL INJECTOR CLEANING / TOP ENGINE CLEANING
It may be what you need to do first to

"FIX THE REAL PROBLEM"

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 PO420 diagnostic trouble code.

Engine Operating Systems Diagnostics . . . DO IT NOW!

Check These Components:

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



We'll keep the light out "By Design"