

GT CONVERTERS

& Exhaust Warehouse

DTC P0420 ; DTC P0430 Catalytic Converter Efficiency Failure

This Diagnostic Trouble Code (DTC P0420) relates to the efficiency of the catalytic converter on Bank 1. Bank 2 Code is a P0430. This stored Diagnostic Trouble Code (DTC P0420) is not definitive enough to just replace the parts based upon its' indication.

Catalytic Converters are **NOT** wear out type parts and as such one that has failed should be highly suspect as to what caused it and more so IF it is truly bad. Otherwise if you simply replace the converter, send the vehicle out...the odds on you misdiagnosing the problem or failing to correct the real problem just went straight up. You can just about be sure that you will get a recheck on this vehicle.

Let's discuss Catalytic Converter construction from a very simplistic point of view!

Catalytic Converters are designed internally like a "honey comb", the reason for this is it increases the available area for the reduction of pollutants. Each piece of the "honey comb" is coated with a very thin coating of precious metals that performs its' function. Any coating like excess fuel, coolant, oil, etc reduces the converters capability and thus causes its failure. Even excessive carbon can stop its function or stop it up entirely.

Contaminants are such a problem for catalytic converters that the state of California has added an opacity test to their emissions testing.

Excessive heat is also a problem and can literally melt the converter internally.

To perform this job correctly you should look at the items that could have caused the reported DTC. Even simple things like an exhaust leak between the pre-catalyst and post catalyst sensors. A loose post catalyst sensor can cause it. Nothing should be overlooked as catalytic converters are far too expensive to install one when it is not needed, you need to go to basics and check everything.

If you have a catalytic converter that has overheated (outer shell having a bluish color) look for the problems, like too much alcohol in the fuel, too lean a mixture from stopped up injectors, overheating engine, vacuum leaks, misfiring cylinders, etc

You should check for Technical Service Bulletins (TSB) including those that address the possible need to reprogram the Powertrain Control Module (PCM) that may relate to the Diagnostic Trouble Code (DTC P0420 or P0430). If it needs reprogrammed that can be performed with J2534 tools.

A Scan Tool with a good software package can be used to view the data from the Powertrain Control Module (PCM) to help with your diagnosis.

IF you are convinced that a new catalytic converter is needed, do your customer and yourself a favor and replace the pre-catalyst Oxygen Sensors (HO2S) as a precautionary measure