

To: ALL ISZAPT DISTRIBUTOR AND DEALER SERVICE PERSONNEL
Subject: ADDITIONAL NOX SENSOR BEING USED IN TIER 4 SCR ENGINES

Tier 4 Final engines equipped with Selective Catalyst Reduction (SCR) emissions control will now incorporate two Oxides of Nitrogen (NOx) sensors, starting with production as early as April 2015. The addition of a post-catalyst NOx sensor is now required as part of emissions compliance. Refer to the parts catalog for specific engine parts information.

The addition of this sensor allows the SCR system to monitor NOx emissions before and after the SCR catalysts. If the system does not see a reduction in NOx, Diagnostic Trouble Codes (DTCs) will set and the unit may enter inducement, resulting in low power and/or a no-start condition.

P20C9 will set in the Engine Control Unit (ECU) for any malfunction in the SCR system detected by the Dosing Control Unit (DCU). DTC P2000 will set in the DCU if NOx reduction is not sufficient. If this DTC is set with other DTCs in the DCU, address those first. If NOx reduction is the only present malfunction, areas of concern would be the DEF quality or concentration, DEF injection system restriction or malfunction, NOx sensor contamination or malfunction, NOx sensors connected in wrong locations, or SCR catalyst malfunction.

Be advised the same NOx sensor module part is used for both pre-catalyst sensor position #1 and position #2. The connections can interchange. This is an area of concern during reassembly if the modules are mounted closely together. Sensor #1, pre-catalyst, has five wires compared to sensor #2 with four wires. The fifth wire is an addressing circuit at terminal 5 connected to ground.

See the attached wiring diagram below showing the wire connections and network architecture of the CAN system involving the DCU.

Best regards;

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NOx sensor wiring applicable to Tier 4 engines with SCR. Also refer to Isuzu Workshop Manual and OEM wiring diagram.

