 HYUNDAI NEW THINKING. NEW POSSIBILITIES. Technical Service Bulletin	GROUP FUEL SYSTEM	NUMBER 16-FL-004
	DATE SEPTEMBER 2016	MODEL(S) SANTA FE SPORT (AN)
SUBJECT: DTC P0171/P0420 ECM UPDATE AND P0420 CATALYST REPLACEMENT		

HYUNDAI Global Diagnostic System ECU Update

Description:

This bulletin provides information related to the Engine Control Module (ECM) software update to prevent an increase in the catalyst temperature which may result in illumination of the malfunction indicator light with the following DTC(s):

- P0171 - System too Lean - Bank 1.
- P0420 - Catalytic Converter System, Bank 1 - Efficiency Below Threshold.

In rare cases, there can be a reduction in engine power if the catalyst is restricted.

*** IMPORTANT**

- If DTC P0420 is present, replace the exhaust manifold catalyst in addition to performing the ECM update. Print GDS DTC screen with VIN information and attach to the RO.
- Do **NOT** replace catalyst for DTC P0171 only. The claim could be subject to chargeback.

Applicable Vehicle: Certain 2013-2016MY Santa Fe Sport (AN) with 2.4L GDI engines

GDS Information:

System Selection: ENGINE (ECM)	
Event #	Description
394*	AN 2.4GDI DTC P0171, P0420 IMPROVEMENT

(*or use a later available event as listed in the GDS ECU Update screen if one is available.)

NOTE:

- Refer to TSB **15-GI-001** for the tablet-based Mobile GDS ECU update procedures.
- Refer to TSB **15-GI-002** for the PC-based GDS ECU update procedures.

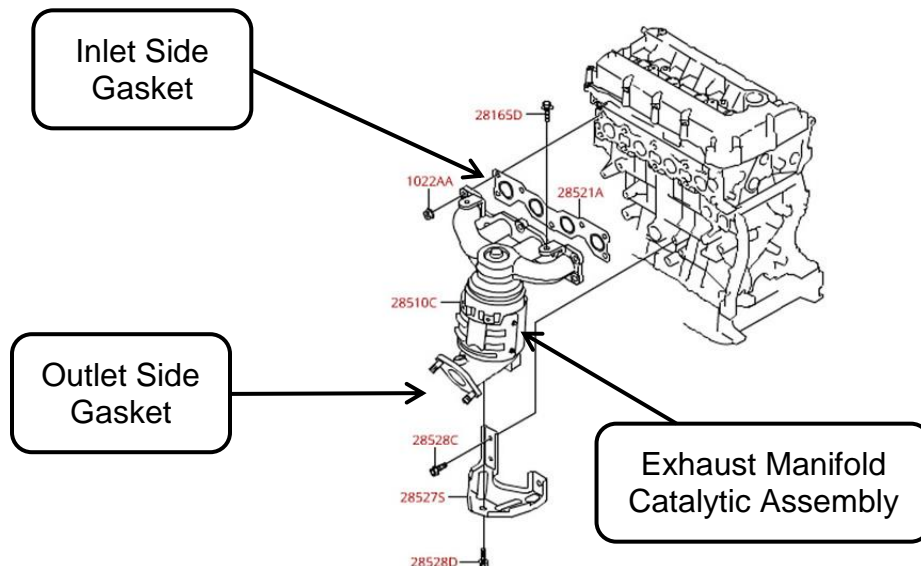
Warranty Information:

Op Code	Operation	Causal P/N	Op Time
28510F01	DTC INSPECTION, MANIFOLD CATALYTIC / GASKET REPLACEMENT, AND ECU UPGRADE (for DTC P0420 case)	28510-2G445	1.6 M/H
28510F02	DTC INSPECTION AND ECU UPGRADE (for DTC P0171 only case)	39100-XXXXX*	0.4 M/H

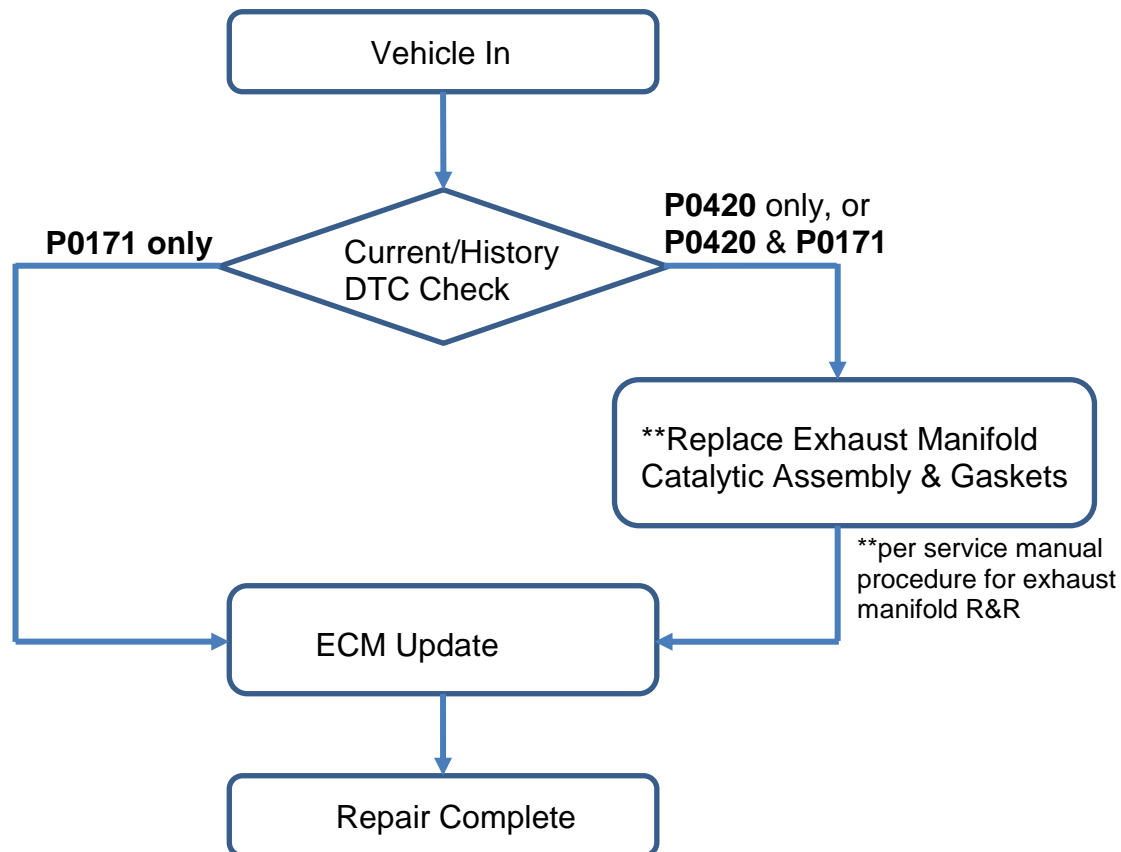
NOTE: Use the applicable ECM P/N listed in the ROM ID Information Table on Page 3.

Part Information:

Vehicle Application	Catalytic Converter Part Number	Inlet Side Gasket Part Number	Outlet Side Gasket Part Number
Santa Fe Sport (AN)	28510-2G445	28521-25020	28751-3S100



Service Procedure Flow Chart:



NOTICE

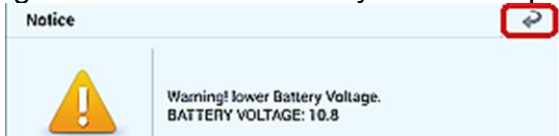
You must initially perform GDS ECU Update in Auto Mode.

- If the ECU Update starts but then fails in Auto Mode, perform the update in Manual Mode to recover.

WARNING

GDS Vehicle Battery Voltage Warning:

If voltage is below 12 volts as per the below GDS warning, then select **Back** and run the engine at least 20 minutes to ensure an adequate battery state of charge for reliable update results. Turn ignition back on then retry the ECU update again.



ROM ID Information Table:

Model	MY	IMMO	ECM P/N	ECM ROM ID	
				Previous	New
SANTAFE SPORT (AN) 2.4GDI	13MY	IMMO	39100-2GAE0 39100-2GAE5	BDC4RE3A BDC4RE5A BDC4RG0B	BDC4RG0D
				BDC4RE5B BDC4RE5C BDC4RE5D BDC4RF3A BDC4RG0A BDC4RG0C	BDC4RG0E
		NON IMMO	39100-2GAG0 39100-2GAG5	BDC4ME3A BDC4ME5A BDC4MG0B	BDC4MG0D
				BDC4ME5B BDC4ME5C BDC4ME5D BDC4MF3A BDC4MG0A BDC4MG0C	BDC4MG0E
	14MY	IMMO	39100-2GAE1 39100-2GAE6	BEC4RH2A	BEC4RH2B
		NON IMMO	39100-2GAG1 39100-2GAG6	BEC4MH2A	BEC4MH2B
	15MY	IMMO	39100-2GAE2 39100-2GAE7	BFC4RH5A	BFC4RH5B
		NON IMMO	39100-2GAG2 39100-2GAG7	BFC4MH5A	BFC4MH5B
	16MY	IMMO	39100-2GAE4 39100-2GAE9	BGC4RH5A	BGC4RH5B
		NON IMMO	39100-2GAG4 39100-2GAG9	BGC4MH5A	BGC4MH5B

NOTE: IMMO = Start Stop Button, NON IMMO = Key Start

Manual Mode Password Information Table:

MENU	PASSWORD
AN 2.4GDI NON IMMO 39100-2GAG0/5 [BDC4ME3A/E5A/G0B]	0205
AN 2.4GDI NON IMMO 39100-2GAG0/5 [BDC4ME5B/E5C/E5D/F3A/G0A/G0C]	0206
AN 2.4GDI NON IMMO 39100-2GAG1/6	0216
AN 2.4GDI NON IMMO 39100-2GAG2/7	0227
AN 2.4GDI NON IMMO 39100-2GAG4/9	0249
AN 2.4GDI IMMO 39100-2GAE0/5 [BDCRE3A/E5A/G0B]	0207
AN 2.4GDI IMMO 39100-2GAE0/5 [BDCRE5B/E5C/E5D/F3A/G0A/G0C]	0208
AN 2.4GDI IMMO 39100-2GAE1/6	0217
AN 2.4GDI IMMO 39100-2GAE2/7	0228
AN 2.4GDI IMMO 39100-2GAE4/9	0250

NOTE: IMMO = Start Stop Button, NON IMMO = Key Start