

**HYUNDAI**NEW THINKING.  
NEW POSSIBILITIES.**Technical Service Bulletin**

GROUP

**FUEL SYSTEM**

NUMBER

**16-FL-005**

DATE

**SEPTEMBER 2016**

MODEL(S)

**SONATA (YF)****SUBJECT:** DTC P0171/P0420 ECM UPDATE AND P0420 CATALYST REPLACEMENTHYUNDAI  
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 catalyst (exhaust manifold catalyst or muffler complete assembly) 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 may be subject to chargeback.

**Applicable Vehicle:** Certain 2011-2014MY Sonata (YF) with 2.4L GDI engines

**GDS Information:**System Selection: **ENGINE (ECM)**

Event #	Description
<b>395*</b>	<b>YFA 2.4GDI DTC P0171,P0420 IMPROVEMENT</b>

(\*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

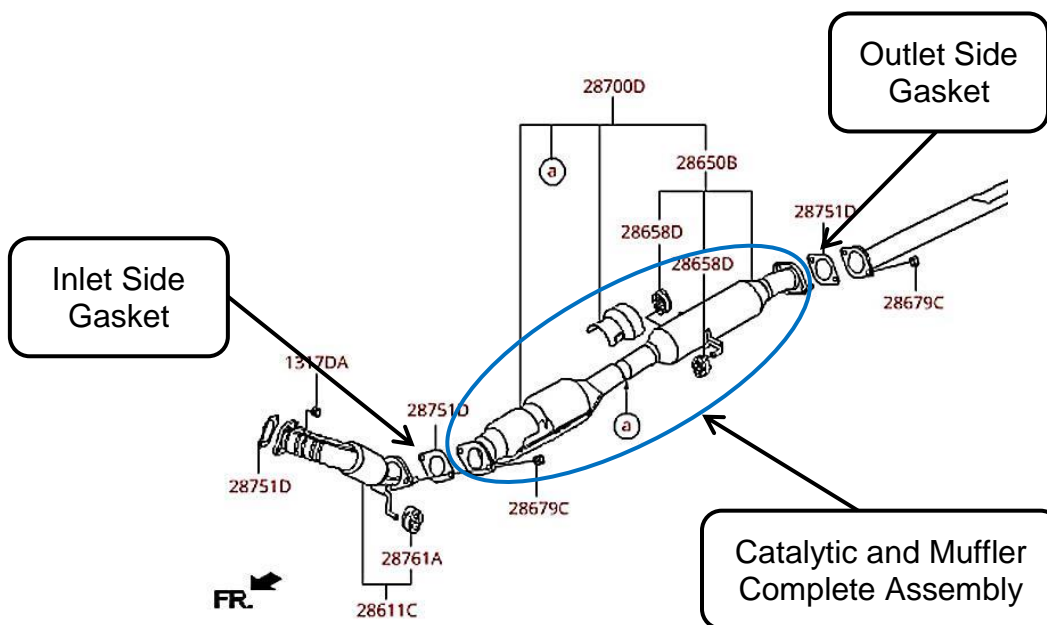
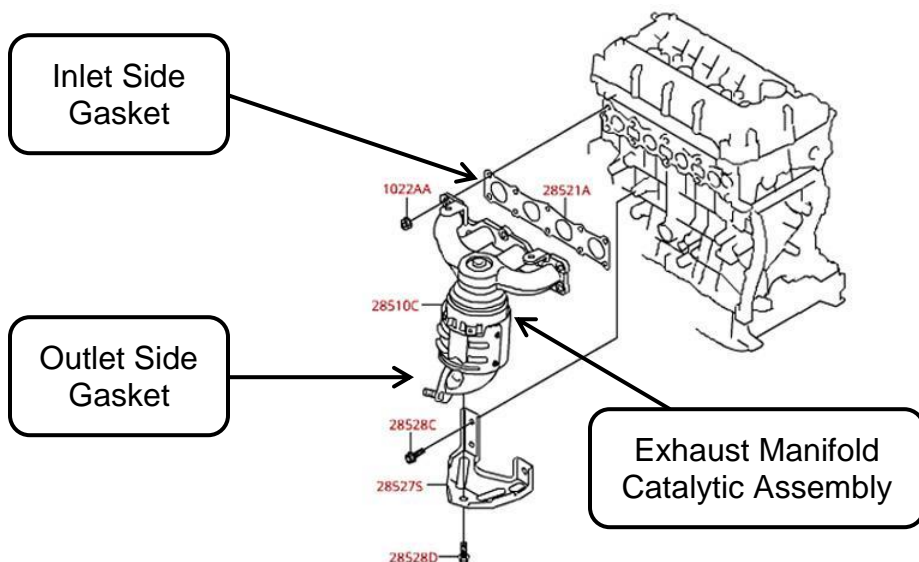
**Warranty Information:**

Op Code	Operation	Causal P/N	Op Time
28510F00	DTC INSPECTION AND GASKET, MUFFLER COMPLETE REPLACEMENT, ECU UPGRADE (For DTC P0420 case)	28600-3Q190 or 28600-3Q200 as installed	0.8 M/H
28510F01	DTC INSPECTION AND MANIFOLD CATALYTIC / GASKET REPLACEMENT, ECU UPGRADE (For DTC P0420 case)	28510-2G195 or 28510-2G245 as installed	1.6 M/H
28510F02	DTC INSPECTION AND ECU UPGRADE (For DTC P0171 only case)	39111-XXXXX* or 39112-XXXXX*	0.4 M/H

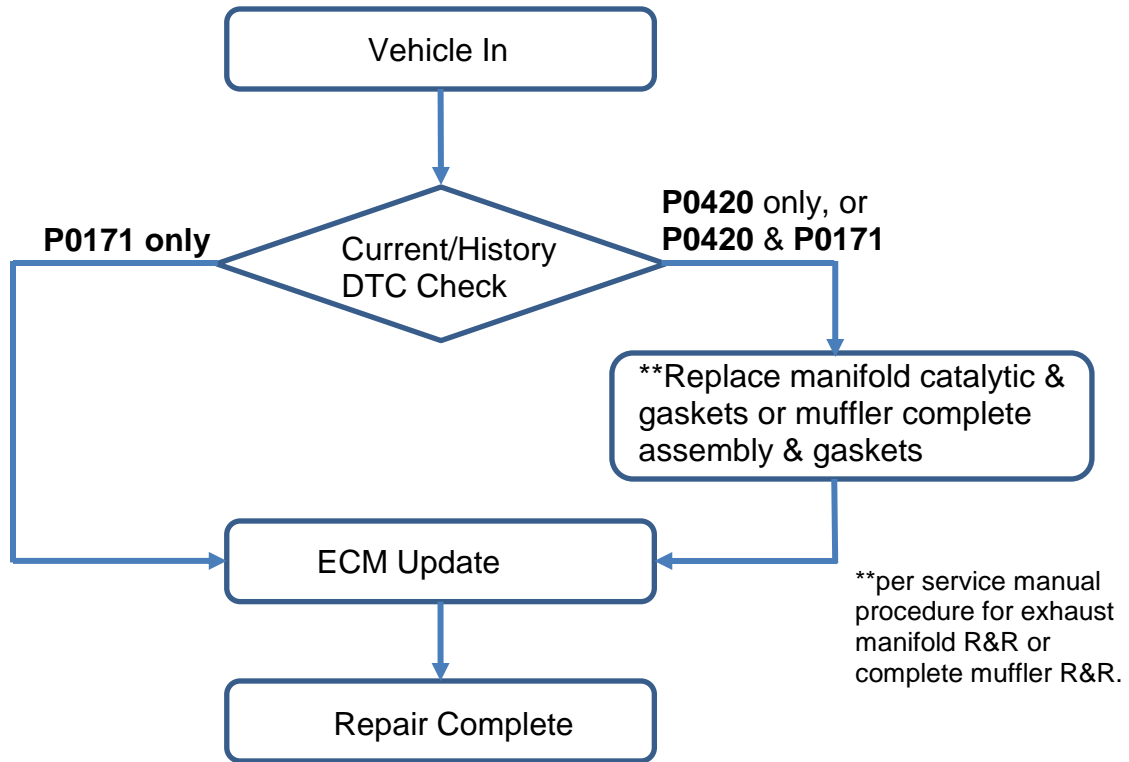
**NOTE:** \*Use the applicable ECM P/N listed in the ROM ID Information Table on page 4 & 5.

**Part Information:**

Vehicle Application	Catalytic Converter Part Number (exhaust manifold)	Inlet Side Gasket Part Number	Outlet Side Gasket Part Number
11~14MY (SULEV)	28510-2G195 (exhaust manifold)	28521-25020	28751-3S100
14MY (ULEV)	28510-2G245 (exhaust manifold)	28521-25020	28751-3S100
11~13MY (ULEV)	28600-3Q190 (single exhaust muffler) 28600-3Q200 (dual exhaust muffler)	28751-3S100	28751-3S000



**Service Procedure Flow Chart:**



**NOTE:** If significant honeycomb material has broken apart from the exhaust manifold catalytic or muffler assembly, blow out with compressed air to remove any residual catalytic material from the exhaust tube and underfloor catalytic.

**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	
			6 A/T	6 M/T	PREVIOUS	NEW
SONATA (YFA) 2.4GDI	11MY (ULEV)	IMMO	39111-2G670	39112-2G670	YBC4R75A	YBC4R75B
			39111-2G671	-	YBC4R86B YBC4R86C YBC4R88A YBC4R88B	YBC4R88C
		NON IMMO	39111-2G660	39112-2G660	YBC4M75A	YBC4M75B
			39111-2G661	-	YBC4M86B YBC4M86C YBC4M88A YBC4M88B	YBC4M88C
	11MY (SULEV)	IMMO	39111-2G675	-	YBS4R82A YBS4RF3E	YBS4RF3G
			39111-2G676	-	YBS4R86B YBS4R86C YBS4R88A YBS4R88B YBS4RF3F	YBS4RF3H
		NON IMMO	39111-2G665	-	YBS4M82A YBS4MF3E	YBS4MF3G
			39111-2G666	-	YBS4M86B YBS4M86C YBS4M88A YBS4M88B YBS4MF3F	YBS4MF3H
	12MY (ULEV)	IMMO	39111-2G672	-	YCC4RB3A YCC4RB3B	YCC4RB3C
		NON IMMO	39111-2G662	39112-2G662	YCC4MB3A YCC4RB3B	YCC4MB3C
	12MY (SULEV)	IMMO	39111-2G677	-	YCS4RB3A YCS4RB3B	YCS4RB3C
		NON IMMO	39111-2G667	-	YCS4MB3A YCS4MB3B	YCS4MB3C
	13MY (ULEV)	IMMO	39111-2G673	-	YDC4RF0A YDC4RE1A YDC4REAA YDC4RF0A YDC4RF3A YDC4RF3B	YDC4RF3C
		NON IMMO	39111-2G663	39112-2G663	YDC4MF0A YDC4ME1A YDC4MEAA YDC4MF0A YDC4MF3A YDC4MF3B	YDC4MF3C
	13MY (SULEV)	IMMO	39111-2G678	-	YDS4RE1A YDS4REAA YDS4RF0A YDS4RF3A YDS4RF3B	YDS4RF3C

	13MY (SULEV)	NON IMMO	39111-2G668	-	YDS4ME1A YDS4MEAA YDS4MF0A YDS4MF3A YDS4MF3B	YDS4MF3C
		14MY (ULEV)	IMMO	39111-2G674	-	YEC4RH2A
	NON IMMO		39111-2G664	-	YEC4MH2A	YEC4MH2B
	14MY (SULEV)	IMMO	39111-2G679	-	YES4RH2A	YES4RH2B
		NON IMMO	39111-2G669	-	YES4MH2A	YES4MH2B

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

**Manual Mode Password Information Table:**

MENU	PASSWORD
YF 2.4GDI NON IMMO 39111/2-2G660	2660
YF 2.4GDI NON IMMO 39111-2G661	2661
YF 2.4GDI NON IMMO 39111-2G665	2665
YF 2.4GDI NON IMMO 39111-2G666	2666
YF 2.4GDI NON IMMO 39111/2-2G662	2662
YF 2.4GDI NON IMMO 39111-2G667	2667
YF 2.4GDI NON IMMO 39111/2-2G663	2663
YF 2.4GDI NON IMMO 39111-2G668	2668
YF 2.4GDI NON IMMO 39111-2G664	2664
YF 2.4GDI NON IMMO 39111-2G669	2669
YF 2.4GDI IMMO 39111/2-2G670	2670
YF 2.4GDI IMMO 39111-2G671	2671
YF 2.4GDI IMMO 39111-2G675	2675
YF 2.4GDI IMMO 39111-2G676	2676
YF 2.4GDI IMMO 39111-2G672	2672
YF 2.4GDI IMMO 39111-2G677	2677
YF 2.4GDI IMMO 39111-2G673	2673
YF 2.4GDI IMMO 39111-2G678	2678
YF 2.4GDI IMMO 39111-2G674	2674
YF 2.4GDI IMMO 39111-2G679	2679

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