



HYUNDAI Technical Service Bulletin

Group	ENGINE ELECTRICAL
Number	07-36-006
Date	SEPTEMBER, 2007
Model	SONATA, AZERA

Subject
CHECK ENGINE LIGHT P2138/P2127/P2122 DTC WITH P2106

CIRCULATE TO:	<input type="checkbox"/> GENERAL MANAGER	<input checked="" type="checkbox"/> PARTS MANAGER	<input checked="" type="checkbox"/> TECHNICIAN
<input checked="" type="checkbox"/> SERVICE ADVISOR	<input checked="" type="checkbox"/> SERVICE MANAGER	<input checked="" type="checkbox"/> WARRANTY MGR	<input type="checkbox"/> SALES MANAGER

DESCRIPTION:

Symptom/Condition:

Some 2006-2007 vehicles with 3.3L/3.8L gasoline engine may exhibit MIL illumination with any of the following DTC found stored:

- P2138 - Pedal position sensor D/E correlation (difference between sensor D & E is too much error >4.5%)
- P2127 - Pedal position sensor D circuit low input
- P2122 - Pedal position sensor E circuit low input

And the vehicle may have run at reduced power in "limp home mode" in the past and set the following DTC indicating such:

- P2106 - ETC System Malfunction - Forced Limited Power

APPLICABILITY:

- 2006-2007 NF Sonata with 3.3L Engine
- 2006-2007 Azera

REPAIR:

Replace the Accelerator Pedal Sensor Assembly.

NOTE: Do not replace ETC throttle body or PCM for the DTC P2106 as it is the result of the pedal sensor incident!

SERVICE PROCEDURE:

1. Inspect for the stored DTC with GDS and look for the existence of any of the following DTC for this bulletin to apply:
 - P2138 - Pedal position sensor D/E correlation
 - P2127 - Pedal position sensor D circuit low input
 - P2122 - Pedal position sensor E circuit low input

Example GDS DTC screen:

The screenshot shows the GDS software interface with the following components:

- Navigation Tabs:** Preparation, Diagnosis (selected), Vehicle SW Management, Repair.
- Vehicle Information:** VIN: SONATA(NF) / 2008 / G 3.3 V6 DOHC, System: ENGINE / G 3.3 V6 DOHC.
- DTC Section:**
 - Buttons: Erase All DTC, Freeze Frame, DTC Status, Erase Selected DTC.
 - Table:

Description	State
P2138 Throttle/Pedal Position Sensor/Switch D/E Voltage Correlation	
P2106 Throttle Actuator Control System-Force Limited Power	
- Freeze Frame Section:**
 - Header: DTC CAUSE TO SYSTEM ERROR: P2138
 - Table:

Sensor Name	Value	Unit
Fuel System Status-Bank1	CLOSE	-
Calculated Load Value	0.0	%
Engine Coolant Temperature Sensor	106	°F
Short Term Fuel Trim-Bank1	0.0	%
Long Term Fuel Trim-Bank1	-3.1	%
Short Term Fuel Trim-Bank2	0.0	%
Long Term Fuel Trim-Bank2	-2.3	%
Manifold Absolute Pressure Sensor	99.0	kPa
- Bottom Navigation Bar:** TSB, DTC Guide, Case Analysis, ETM, Shop Manual, DTC, Current Data, Actuation Test, Flight Record, ECU Upgrade, DTC Freeze, Fault Code Searching, Internet Update.

2. Replace the accelerator pedal assembly
3. Erase the DTC



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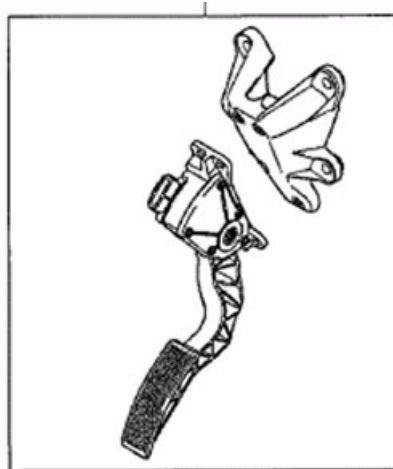
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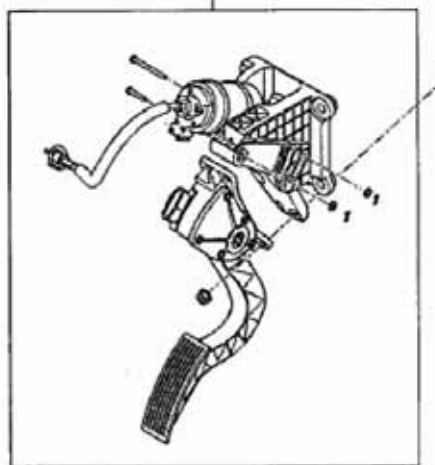
PARTS INFORMATION:

VEHICLE	PART DESCRIPTION	PART NUMBER
AZERA	PEDAL ASSY-ACCELERATOR	32700 3L300
	PEDAL ASSY-ACCELERATOR (motorized adjustable type pedal)	32710 3L100
SONATA	PEDAL ASSY-ACCELERATOR	32700 0A300
	PEDAL ASSY-ACCELERATOR (motorized adjustable type pedal)	32710 3L100

(NON-ADJUSTABLE TYPE PEDAL)



(ADJUSTABLE TYPE PEDAL)



NOTE: For adjustable type pedal, only the pedal will be replaced; not with the bracket and adjuster motor.

WARRANTY INFORMATION:

MODEL	OP CODE	OP NAME	OP TIME	CASUAL PART	CODE	
					NATURE	CAUSE
AZERA (TG)	35357R00	SENSOR-ACCELERATOR POSITION	0.3M/H	32700 3L300 32710-3L300	*N15	**C06
	35357RP0	SENSOR-ACCELERATOR POSITION DIAGNOSIS	0.3M/H			
SONATA (NF)	35357R00	SENSOR-ACCELERATOR POSITION DIAGNOSIS	0.4M/H	32700 0A300 32710-3L100	*N15	**C06
	35357RP0		0.3M/H			