 HYUNDAI NEW THINKING. NEW POSSIBILITIES. Technical Service Bulletin	GROUP AUTOMATIC TRANSMISSION	NUMBER 15-AT-006
	DATE JULY 2015	MODEL 2015~ Genesis (DH) 3.8L
SUBJECT:	CRANKSHAFT POSITION SENSOR DTC P0315, P0300, P0303 & P0306	

Description: Some Genesis (DH) 3.8L vehicles may experience the DTC and symptoms shown below.

This bulletin provides the procedure to inspect and/or if necessary replace the crank position sensor (C.P.S.) and/or the drive plate (C.P.S. wheel and plate).

Symptoms:

- MIL on or blinks on and off.
- Engine has a rough idle.

DTC List:

DTC	Description
P0300	Cylinder #1 misfire
P0303	Cylinder #3 misfire
P0306	Cylinder #6 misfire
P0315	Crankshaft position system variation not learned

Applicable Vehicles	2015 ~ Genesis (DH) 3.8L
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Parts Information:

Model	Part	PNC Code	Part Number
2015~ Genesis (DH)	Crankshaft position sensor wheel and plate	23200D	23200-3C801
	Crankshaft position sensor	39310	39310-3C410

Warranty Information:


Model	Op Code	Operation	Op Time	Causal Part
2015~Genesis (DH)	23211R00	Drive Plate	4.6	23200-3C801
	39181R00	Crankshaft position sensor	0.3	39310-3C410
	39181RQ0	GDS Operation	0.3	

Service Procedure:

1. Attach a GDS and select VIN, **Engine** menu, **Data Analysis** and the parameters shown to the right.

If the Actual Engine Speed shows the engine rpm about 600±50 rpm and continuously fluctuating, the wiring harness to the crankshaft position sensor currently has no open or short circuit. Go to Step 2. If not, repair or replace the control harness.

If cylinders #1, 3 and 6 have higher misfire counts than the other cylinders or all four DTC are found, the C.P.S. wheel may be out of specification. Go to Step 2.



The screenshot shows the GDS (Genuine Diagnostic System) interface. At the top, it displays the VIN KMHGN4JE6FU016878 and the diagnosis number B28AACA514150622001F. The main menu includes HOME, OffLine, and GENESIS(DH)/2015/G 3.8 GDI Engine. The 'Data Analysis' section is active, showing a table of sensor data.

Sensor Name(205)	Value	Unit	Link Up
Actual Engine Speed	636	RPM	
Misfire Current Cylinder #1	0	Count	
Misfire Current Cylinder #2	0	Count	
Misfire Current Cylinder #3	0	Count	
Misfire Current Cylinder #4	0	Count	
Misfire Current Cylinder #5	0	Count	
Misfire Current Cylinder #6	1	Count	

2. Record the radio preset stations.

Turn the ignition switch OFF and disconnect the negative battery cable.

Locate the crankshaft position sensor on the transmission near the engine. Disconnect the connector.

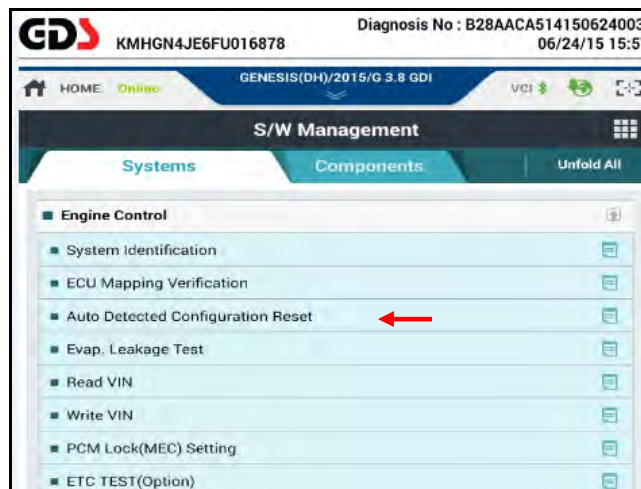
Remove the mounting bolt and remove the sensor from the transaxle housing.

Install a new sensor and reconnect the connector. Go to Step 3.



3. After replacing the crankshaft position sensor or drive plate, reset the crankshaft position sensor learning as follows:

- From the GDS home screen, select **S/W Management**.
- The VIN will display. If not, select **Auto VIN** and select **OK**.
- Select **Auto Detected Configuration Reset**. Select **OK**.
- “There is no S/W Management Guide” will display. Select **OK**.
- Follow the prompts and reset the crankshaft position sensor learning.



Drive the vehicle for two key-on to key-off drive cycles.

- If the DTC do not occur again, return the vehicle to the customer.
- If the DTCs return, go to Step 4.

4. Remove the transmission and replace the drive plate (C.P.S. wheel and plate).

Reinstall 8 bolts and torque to specification.

Torque: 53~56 lb-ft (7~8 kgf.m, 72~75 N.m)

Reset the crankshaft position sensor learning as shown in Step 3 and then go to Step 5.



5. Reinstall the transmission and other removed parts in reverse order of removal.
6. Check for DTC and erase any DTC that were found.
7. Clear DTC in the BlueLink system per instructions of TSB 12-BE-005-2.
8. Input the radio preset stations.
9. Drive the vehicle to confirm the transmission is operating as designed.