 HYUNDAI Technical Service Bulletin	GROUP CAMPAIGN	NUMBER 22-01-024H-2
	DATE NOVEMBER 2022	MODEL(S) SEE APPLICABLE VEHICLES BELOW
SUBJECT: OP CODE/PART NUMBER (REFERENCE GUIDE FOR SERVICE CAMPAIGN T6G)		

Please note that this TSB references the op codes to use for claim submission and the parts required based on the vehicle's inspection results from TSB 22-01-023H-2 (DTC P1326 – Engine Bearing Inspection/Engine Replacement) or latest version.

This TSB supersedes 22-01-024H-1 to update the following:

- 2016-19MY Sonata Hybrid/Plug-in (LF HEV/PHEV) 2.0L and 2019-21MY Tucson (TL) 2.0L long block engines available, op codes, and additional part numbers on pages 12 & 13.
- Note under the 'Additional Notes' section on page 2 that the Hybrid Starter Generator (HSG) may need to be replaced for certain 2016MY Sonata Hybrid/Plug-in vehicles produced before 04/2015 depending on new long block engine installation compatibility with existing HSG.
- Revised 'Note' in #1 of the claim submission section that system minimum has been updated from .1 to .00 for those parts that do not require additional labor.

Consult the Hyundai Warranty Policy & Procedures and the below tables to determine New or Reman engine usage.

- In some cases, a Reman engine may not be available for certain vehicle models/model years listed in the TSB. Thus, an 'OE' part would be used by default.
- In some cases, a new 'OE' engine may not be available. Therefore, HMA Warranty Policy special exception applies for PA approved engine replacements in vehicles under 5 years and 60,000 miles. The FFHRM remanufactured engines P/Ns meet OE standards.

Applicable Vehicles:

- Certain 2010-2012MY Santa Fe (CM) vehicles with Theta II 2.4L MPI engines
- Certain 2010-2013MY Tucson (LM) vehicles with Theta II 2.4L MPI engines
- Certain 2014-2015MY Tucson (LM) vehicles with Nu 2.0L GDI engines
- Certain 2016-2021MY Tucson (TL) vehicles with Nu 2.0L GDI engines
- Certain 2011-2015MY Sonata Hybrid (YF HEV) vehicle with Theta II 2.4L MPI Atkinson engines
- Certain 2016-2019MY Sonata Hybrid/Plug-in (LF HEV/PHEV) vehicles with Nu 2.0L GDI engines
- Certain 2012-2017MY Veloster (FS) vehicles with Gamma 1.6L GDI engines
- Certain 2014MY Elantra Coupe (JK) vehicles with Nu 2.0L GDI engines
- Certain 2014-2016MY Elantra (MD) vehicles with Nu 2.0L GDI engines
- Certain 2014-2017MY Elantra GT (GD) vehicles with Nu 2.0L GDI engines
- Certain 2018-2020MY Elantra GT (PD) vehicles with Nu 2.0L GDI engines

Warranty Information:**1. Claim Submission:**

- One (1) claim for inspection.
- One (1) claim for replacement of engine/knock sensor, as needed.
- Additional claims, as needed:
 - If a part is in need of replacement and the **malfunction is directly caused by Campaign T6G** related engine failure, or if additional labor is required while performing Campaign T6G:
 - Submit one compiled separate claim using the same repair order number AND
 - Submit with 21101NTT using the engine causal Part number associated with the T6G OP Code AND
 - Ensure part replacement and punch times are accurate and that they match the labor performed along with the service manager's signature approving the TT time.
 - For TT time best practices, refer to Hyundaidealer.com > Service Tab > Documents Library > Warranty > ATT-NTT Documentation and Claim Submission Guide
 - **Note:** If the part replacement does not require additional labor, follow the above steps and use the system minimum of .00 labor time with a quantity of 1.
 - If a part is found in need of replacement while performing this campaign and the affected part (**malfunction not directly caused by Campaign T6G**) is still under warranty, submit a separate claim using the same repair order. If the affected part(s) are out of warranty, submit a Prior Approval request for goodwill consideration prior to performing the work.

2. PA Approval ONLY required for OP Codes with engine replacement.

- OP codes for engine replacement must only be used if engine replacement is deemed necessary by the service procedure in **T6G TSB 22-01-023H-2 (or latest version)**.

3. Additional Notes:

- **2010-12MY Santa Fe (CM) 2.4L & 2010-13MY Tucson 2.4L engines ONLY:**
 - There are specific replacement op codes for seized cases due to engine replacement from the front. These have '(Seized)' in their description.
 - An additional 1.2 M/H has been given for these specific models/model years due to additional labor needed to remove both engine AND transmission on seized cases.
 - All other models listed on the TSB have engine replacement from the bottom (regular pull down method).
- **2016MY Sonata Hybrid/Plug-in (LF HEV/PHEV)**
 - Certain vehicles produced before 04/01/2015 may require the replacement of the Hybrid Starter Generator (HSG), part number 373902E930-SJ, if the newly installed long block engine is not compatible with the existing HSG. This may be claimed under 'NTT'. Please refer to **TSB 22-01-023H-2 or the latest version** for more information.

4. Campaign 966 Claim Submission

- Campaign 966 Engine ECM update is only required if new software is available.
- Please submit a separate campaign claim for the ECM update using Campaign 966 OP Codes. These particular op codes are identified in the replacement op code tables below with an asterisk (*).

A Summary of the Updated T6G Claim Submission Process can also be accessed via the following:

- Link (hover over): [Claims Submission](#)
- QR Code:



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Inspection OP Code Table

MY/MODEL/ENGINE	DESCRIPTION	OP CODE	OP TIME
ALL MODELS	EXTERNAL DAMAGE (NO) + OIL DIPSTICK (NO) + OIL DRAIN ≥ 1.5QT (NO) + SUBMIT PA OR EXTERNAL DAMAGE (YES) + SUBMIT PA	10D02210	0.3
	(SEIZED): EXTERNAL DAMAGE (NO) + OIL DIPSTICK (NO) + OIL DRAIN ≥ 1.5QT (YES) + CRANK ROTATION (NO) + SUBMIT PA	10D02211	0.5
	EXTERNAL DAMAGE (NO) + OIL DIPSTICK (NO) + OIL DRAIN ≥ 1.5QT (YES) + CRANK ROTATION (YES) + BCT RESULT (NO PASS)	10D02212	1.4
	EXTERNAL DAMAGE (NO) + OIL DIPSTICK (NO) + OIL DRAIN ≥ 1.5QT (YES) + CRANK ROTATION (YES) + BCT RESULT (PASS)	10D02213	1.1
	EXTERNAL DAMAGE (NO) + OIL DIPSTICK (NO) + OIL DRAIN ≥ 1.5QT (YES) + CRANK ROTATION (YES) + BCT RESULT (NO BCT)	10D02214	1.7
	EXTERNAL DAMAGE (NO) + OIL DIPSTICK (YES) + CRANK ROTATION (YES) + BCT RESULT (NO PASS)	10D02215	1.1
	EXTERNAL DAMAGE (NO) + OIL DIPSTICK (YES) + CRANK ROTATION (YES) + BCT RESULT (PASS)	10D02216	0.8
	EXTERNAL DAMAGE (NO) + OIL DIPSTICK (YES) + CRANK ROTATION (YES) + BCT RESULT (NO BCT)	10D02217	1.4
	(SEIZED): EXTERNAL DAMAGE (NO) + OIL DIPSTICK (YES) + CRANK ROTATION (NO) + SUBMIT PA	10D02218	0.2

Replacement Op Code Tables**1) 2010-12MY Santa Fe (CM) 2.4L, FWD**

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223AA	4.8	211012G404FFF	211112G4S2FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223AB	4.7	211012G404FFF	211112G4S2FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223AE	0.6	N/A	N/A	392502G100
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223AF	0.6	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223AG	0.5	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223AH	5.4	211012G404FFF	211112G4S2FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223AI	5.3	211012G404FFF	211112G4S2FFF	N/A
CRANK ROTATION (NO) + SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO) (SEIZED)	10D223AL	6.0	211012G404FFF	211112G4S2FFF	N/A
CRANK ROTATION (NO) + SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)* (SEIZED)	10D223AM	5.9	211012G404FFF	211112G4S2FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

2) 2010-12MY Santa Fe (CM) 2.4L, AWD

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223BA	5.2	211012G404FFF	211112G4S2FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223BB	5.1	211012G404FFF	211112G4S2FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223BE	0.6	N/A	N/A	392502G100
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223BF	0.6	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223BG	0.5	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223BH	5.8	211012G404FFF	211112G4S2FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223BI	5.7	211012G404FFF	211112G4S2FFF	N/A
CRANK ROTATION (NO) + SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO) (SEIZED)	10D223BL	6.4	211012G404FFF	211112G4S2FFF	N/A
CRANK ROTATION (NO) + SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES)* (SEIZED)	10D223BM	6.3	211012G404FFF	211112G4S2FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

SUBJECT:

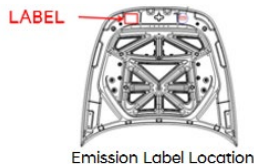
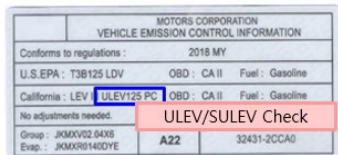
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3) 2010-13MY Tucson (LM) 2.4L, FWD

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223CA	4.8	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223CB	4.7	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223CE	1.2	N/A	N/A	392502G100
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223CF	0.6	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223CG	0.5	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223CH	5.4	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223CI	5.3	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A
CRANK ROTATION (NO) + SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO) (SEIZED)	10D223CL	6.0	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A
CRANK ROTATION (NO) + SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES)* (SEIZED)	10D223CM	5.9	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

**ONLY order 1 service kit - either ULEV or SULEV; Technician may check under the hood if it's a ULEV/SULEV/PZEV vehicle.

**4) 2010-13MY Tucson (LM) 2.4L, AWD**

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223DA	5.3	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223DB	5.2	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223DE	1.2	N/A	N/A	392502G100
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223DF	0.6	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223DG	0.5	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223DH	5.9	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223DI	5.8	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A
CRANK ROTATION (NO) + SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO) (SEIZED)	10D223DL	6.5	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A
CRANK ROTATION (NO) + SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES)* (SEIZED)	10D223DM	6.4	211012G401QQH	211112G4S1QQH (ULEV)** 211112G4S2FFF (SULEV/PZEV)**	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

**ONLY order 1 service kit - either ULEV or SULEV/PZEV. Technician may check under the hood if it's a ULEV/SULEV/PZEV vehicle (see picture above).

5) 2011-15MY Sonata Hybrid (YF HEV) 2.4L

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223EA	7.6	211012G406FFF (11-12MY ONLY) 211012G407FFF (13-15MY ONLY)	211112G4S3FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223EB	7.5	211012G406FFF (11-12MY ONLY) 211012G407FFF (13-15MY ONLY)	211112G4S3FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223EE	0.5	N/A	N/A	392502C500
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223EF	0.6	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223EG	0.5	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223EH	8.2	211012G406FFF (11-12MY ONLY) 211012G407FFF (13-15MY ONLY)	211112G4S3FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223EI	8.1	211012G406FFF (11-12MY ONLY) 211012G407FFF (13-15MY ONLY)	211112G4S3FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

6) 2014-15MY Tucson (LM) 2.0L, FWD

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	FUEL TUBE	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223HA	6.1	211012EG05FFF	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223HC	6.1	211012EG05FFHRM	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223HB	6.0	211012EG05FFF	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223HD	6.0	211012EG05FFHRM	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223HE	0.9	N/A	N/A	N/A	392502E000
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223HF	0.6	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223HG	0.5	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223HH	6.7	211012EG05FFF	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223HJ	6.7	211012EG05FFHRM	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223HI	6.6	211012EG05FFF	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223HK	6.6	211012EG05FFHRM	211112EG01FFF	353052E510FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

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7) 2014-15MY Tucson (LM) 2.0L, AWD

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	FUEL TUBE	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223IA	6.5	211012EG05FFF	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223IC	6.5	211012EG05FFHRM	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223IB	6.4	211012EG05FFF	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223ID	6.4	211012EG05FFHRM	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223IE	0.9	N/A	N/A	N/A	392502E000
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223IF	0.6	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223IG	0.5	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223IH	7.1	211012EG05FFF	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223IJ	7.1	211012EG05FFHRM	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223II	7.0	211012EG05FFF	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223IK	7.0	211012EG05FFHRM	211112EG01FFF	353052E510FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

8) 2014MY Elantra Coupe (JK) & 2014-16MY Elantra (MD) 2.0L

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	FUEL TUBE	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223JA	6.3	211012EG06FFF	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223JC	6.3	211012EG06FFHRM	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223JB	6.2	211012EG06FFF	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223JD	6.2	211012EG06FFHRM	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223JE	0.9	N/A	N/A	N/A	392502E000
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223JF	0.6	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223JG	0.5	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223JH	6.9	211012EG06FFF	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223JJ	6.9	211012EG06FFHRM	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223JI	6.8	211012EG06FFF	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223JK	6.8	211012EG06FFHRM	211112EG01FFF	353052E510FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

9) 2014-17MY Elantra GT (GD) 2.0L

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	FUEL TUBE	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223LA	6.3	211012EG07FFF (14MY ONLY) 211012EG06FFF (15-17MY ONLY)	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223LC	6.3	211012EG07FFHRM (14MY ONLY) 211012EG06FFHRM (15-17MY ONLY)	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223LB	6.2	211012EG07FFF (14MY ONLY) 211012EG06FFF (15-17MY ONLY)	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223LD	6.2	211012EG07FFHRM (14MY ONLY) 211012EG06FFHRM (15-17MY ONLY)	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223LE	0.9	N/A	N/A	N/A	392502E000
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223LF	0.6	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223LG	0.5	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223LH	6.9	211012EG07FFF (14MY ONLY) 211012EG06FFF (15-17MY ONLY)	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223LJ	6.9	211012EG07FFHRM (14MY ONLY) 211012EG06FFHRM (15-17MY ONLY)	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223LI	6.8	211012EG07FFF (14MY ONLY) 211012EG06FFF (15-17MY ONLY)	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223LK	6.8	211012EG07FFHRM (14MY ONLY) 211012EG06FFHRM (15-17MY ONLY)	211112EG01FFF	353052E510FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

10) 2018-20MY Elantra GT (PD) 2.0L

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	FUEL TUBE	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223KA	6.4	211012EG09FFF	211112EG01FFF	353052E510FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223KB	6.3	211012EG09FFF	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223KE	0.9	N/A	N/A	N/A	392502E000
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223KF	0.6	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223KG	0.5	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223KH	7.0	211012EG09FFF	211112EG01FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223KI	6.9	211012EG09FFF	211112EG01FFF	353052E510FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

11) 2016-18MY Tucson (TL) 2.0L, FWD

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	FUEL TUBE	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223MA	6.1	211012EG08FFF	211112EG02FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223MC	6.1	211012EG08FFHRM	211112EG02FFF	353052E510FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223MB	6.0	211012EG08FFF	211112EG02FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223MD	6.0	211012EG08FFHRM	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223ME	1.0	N/A	N/A	N/A	392502E000
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223MF	0.6	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223MG	0.5	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223MH	6.7	211012EG08FFF	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223MJ	6.7	211012EG08FFHRM	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223MI	6.6	211012EG08FFF	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223MK	6.6	211012EG08FFHRM	211112EG02FFF	353052E510FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

12) 2016-18MY Tucson (TL) 2.0L, AWD

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	FUEL TUBE	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223NA	6.5	211012EG08FFF	211112EG02FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223NC	6.5	211012EG08FFHRM	211112EG02FFF	353052E510FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223NB	6.4	211012EG08FFF	211112EG02FFF	353052E510FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223ND	6.4	211012EG08FFHRM	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223NE	1.0	N/A	N/A	N/A	392502E000
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223NF	0.6	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223NG	0.5	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223NH	7.1	211012EG08FFF	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223NJ	7.1	211012EG08FFHRM	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223NI	7.0	211012EG08FFF	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223NK	7.0	211012EG08FFHRM	211112EG02FFF	353052E510FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

13) 2012-17MY Veloster (FS) 1.6L

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	SVC KIT 2	FUEL TUBE	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223OA	6.4	211012BK04FFF (NON-DCT) 211012BK05FFF (DCT)	211112BS01FFF	211122BS02FFF	353052B000FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223OC	6.4	211012BK04FFHRM (NON-DCT) 211012BK05FFHRM (DCT)	211112BS01FFF	211122BS02FFF	353052B000FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223OB	6.3	211012BK04FFF (NON-DCT) 211012BK05FFF (DCT)	211112BS01FFF	211122BS02FFF	353052B000FFF	N/A
REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223OD	6.3	211012BK04FFHRM (NON-DCT) 211012BK05FFHRM (DCT)	211112BS01FFF	211122BS02FFF	353052B000FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223OE	0.4	N/A	N/A	N/A	N/A	392502B000
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223OF	0.6	N/A	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223OG	0.5	N/A	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223OH	7.0	211012BK04FFF (NON-DCT) 211012BK05FFF (DCT)	211112BS01FFF	211122BS02FFF	353052B000FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (NO)	10D223OJ	7.0	211012BK04FFHRM (NON-DCT) 211012BK05FFHRM (DCT)	211112BS01FFF	211122BS02FFF	353052B000FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223OI	6.9	211012BK04FFF (NON-DCT) 211012BK05FFF (DCT)	211112BS01FFF	211122BS02FFF	353052B000FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (REMAN) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223OK	6.9	211012BK04FFHRM (NON-DCT) 211012BK05FFHRM (DCT)	211112BS01FFF	211122BS02FFF	353052B000FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

14) 2019-21MY Tucson (TL) 2.0L, FWD

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	FUEL TUBE	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223MA	6.1	211012EG18FFF	211112EG02FFF	353052E510FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223MB	6.0	211012EG18FFF	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223ME	1.0	N/A	N/A	N/A	392502E000
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223MF	0.6	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223MG	0.5	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223MH	6.7	211012EG18FFF	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223MI	6.6	211012EG18FFF	211112EG02FFF	353052E510FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

15) 2019-21MY Tucson (TL) 2.0L, AWD

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	FUEL TUBE	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223NA	6.5	211012EG18FFF	211112EG02FFF	353052E510FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223NB	6.4	211012EG18FFF	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223NE	1.0	N/A	N/A	N/A	392502E000
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223NF	0.6	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223NG	0.5	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223NH	7.1	211012EG18FFF	211112EG02FFF	353052E510FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223NI	7.0	211012EG18FFF	211112EG02FFF	353052E510FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

16) 2016-19MY Sonata Hybrid/Plug-in (LF HEV/PHEV) 2.0L

DESCRIPTION	OP CODE	TIME	ENGINE	SVC KIT 1	FUEL TUBE	KNOCK SENSOR
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223FA	7.6	211012EG15FFF	211112EGA3FFF	353052E600FFF	N/A
REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223FB	7.5	211012EG15FFF	211112EGA3FFF	353052E600FFF	N/A
ABNORMAL ENGINE NOISE (NO) + REPLACE KNOCK SENSOR + ECM UPDATE (NO)	10D223FE	1.0	N/A	N/A	N/A	392502E000
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (NO)	10D223FF	0.6	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + ECM UPDATE (YES)*	10D223FG	0.5	N/A	N/A	N/A	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (NO)	10D223FH	8.2	211012EG15FFF	211112EGA3FFF	353052E600FFF	N/A
ABNORMAL ENGINE NOISE (YES) + REFER TO HTSS (YES)/SUBMIT PA + REPLACE ENGINE (OE) + NEW ECM S/W AVAILABLE (YES) + ECM UPDATE (YES)*	10D223FI	8.1	211012EG15FFF	211112EGA3FFF	353052E600FFF	N/A

*Please submit an additional campaign claim under campaign 966 for performing software update if new software is available.

NOTE: If the HSG needed replacement as part of the repair, please refer to pg.2, #3 'Additional Notes' on how to claim the HSG.