



GROUP

MODEL

Subsequent Repair Action

2020-2021MY
Soul (SK3)
2021MY
Seltos (SP2)

NUMBER

DATE

SC209Y (Rev 2, 06/17/2024)

March 2022

SUBSEQUENT REPAIR ACTION

ENGINE REPLACEMENT INSTRUCTIONS
FOR PISTON RING NOISE DTC P1327 (SC209Y)

NOTICE

This bulletin has been revised to include additional information. New/revised sections of this bulletin are indicated by a black bar in the margin area.

This bulletin provides information related to the Technical Service Bulletin previously published in (SC209A) titled "ECM Logic Improvement for Piston Ring Noise Sensing System". If DTC P1327 is present after the ECM Logic Improvement is performed per SC209A, follow the instructions in this bulletin to replace the engine long block. Before conducting the procedure, verify that the vehicle is included in the list of affected VINs.

DTC Description:

P1327 / P132700 - Piston Noise Detection

Model	Engine	Production Date Range
Soul (SK3)	2.0L Nu MPI (Atkinson)	November 24, 2018 to October 24, 2020
Seltos (SP2)		November 20, 2019 to October 15, 2020

IMPORTANT

A Vehicle Diagnosis Number (VDN) must be created with or without DTC P1327, after scanning for DTCs, prior to performing SC209Y. If a VDN is not created, Warranty claim submission issues WILL occur.

NOTICE

To assure complete customer satisfaction, always remember to refer to KDealer+ Warranty Coverage (validation) Inquiry Screen (Service → Warranty Coverage → Warranty Coverage Inquiry) for a list of any additional campaigns that may need to be performed on the vehicle before returning it to the customer.

A printed copy is for reference only; publication information can be updated at any time.
Always refer to KGIS for the latest information. After logging in kdealer.com, the newest technical publications are listed in 'Service Releases' and has the latest service information that has been released.

SUBJECT:

ENGINE REPLACEMENT INSTRUCTIONS FOR PISTON RING NOISE DTC P1327 (SC209Y)

Flowchart:

① IMPORTANT

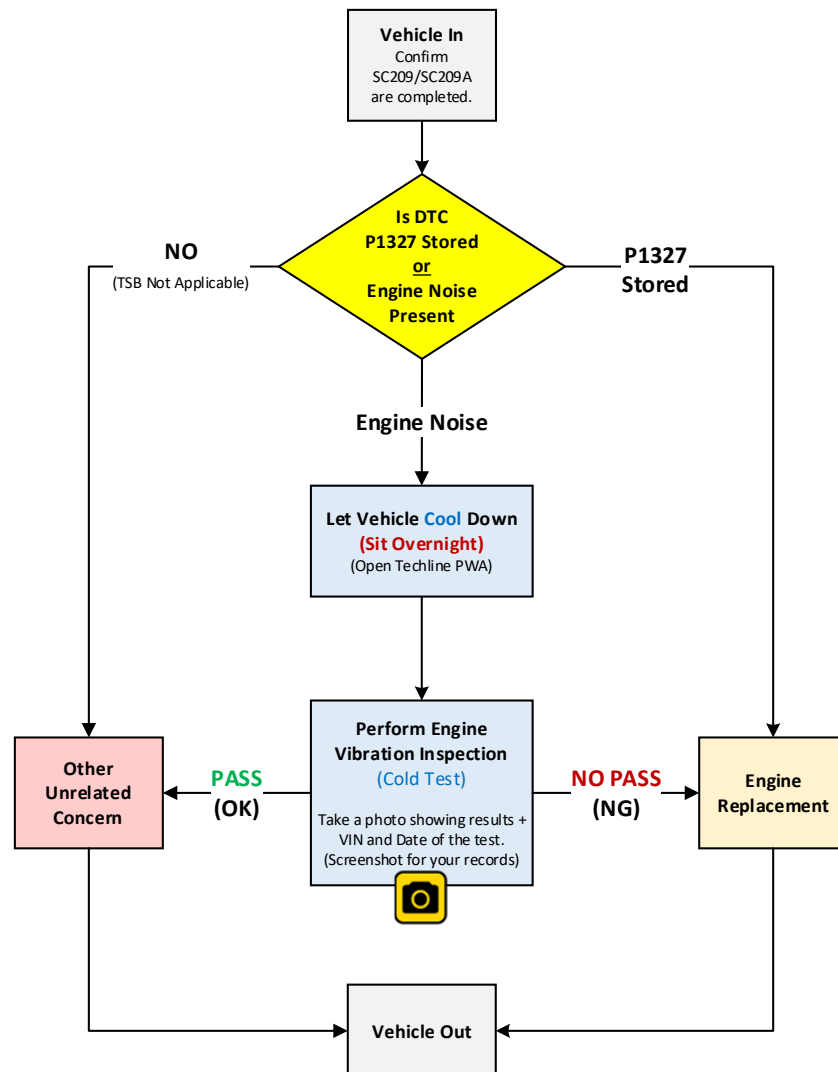
Campaigns SC209 (Engine Vibration Inspection/Repair Procedures) and SC209A must be completed & submitted prior to addressing concerns associated with DTC P1327 under SC209Y.

Path 1: Vehicle In w/DTC P1327 → Engine Replacement

Path 2: Vehicle In w/Engine Noise → Perform Engine Vibration Inspection → No Pass (NG) → Engine Replacement

Path 3: Vehicle In w/Engine Noise → Perform Engine Vibration Inspection → Pass (OK) → Other Unrelated Concern

Path 4: Vehicle In without DTC P1327 or Engine Noise (TSB is not applicable) → Other Unrelated Concern



SUBJECT:

ENGINE REPLACEMENT INSTRUCTIONS FOR PISTON RING NOISE DTC P1327 (SC209Y)

Inspection Procedure:

NOTICE

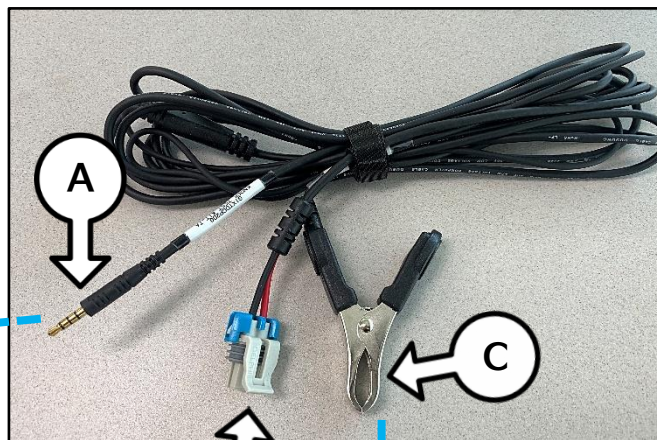
BEFORE TESTING: Before performing the Engine Vibration Inspection using KDS, the vehicle **MUST SIT OVERNIGHT**. **Be sure to park the vehicle in an area where it can be tested the following day.** **DO NOT 'Start' (warm up) the engine or move the car.** **The cold test must be performed and completed immediately upon restarting the engine after sitting overnight.** **The Engine Vibration Inspection (Test Date) must be completed 24 hours after the RO was opened.**

- 1a. Connect the engine vibration inspection harness audio jack (A) to KDS.

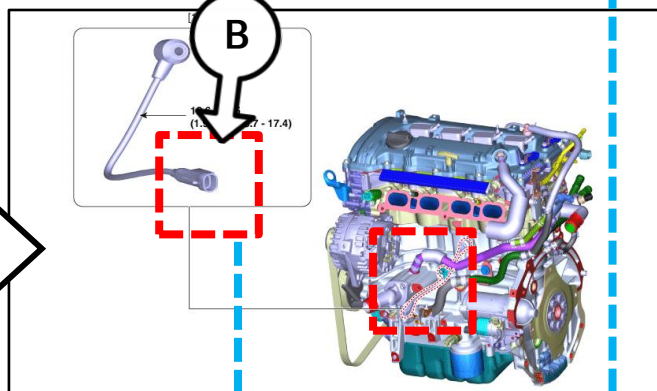
Samsung USB Type C – 3.5mm adapter may be required.
Model: EE-UC10JUWEGUS

DO NOT USE AFTERMARKET

Refer to note(s) on pages 8-9.



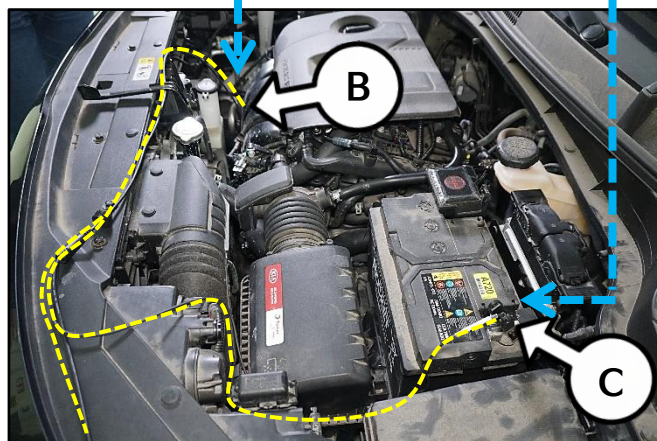
- 1b. Connect the knocking sensing connector (B) of engine vibration inspection harness to the knock sensor connector on the vehicle.



- 1c. Connect the clamp (C) to the battery (-) terminal.

IMPORTANT

If the vibration inspection harness is placed over the engine components, external vibration may negatively affect to the inspection result. Route the wiring around the engine (yellow outline) shown in the photo.



SUBJECT:

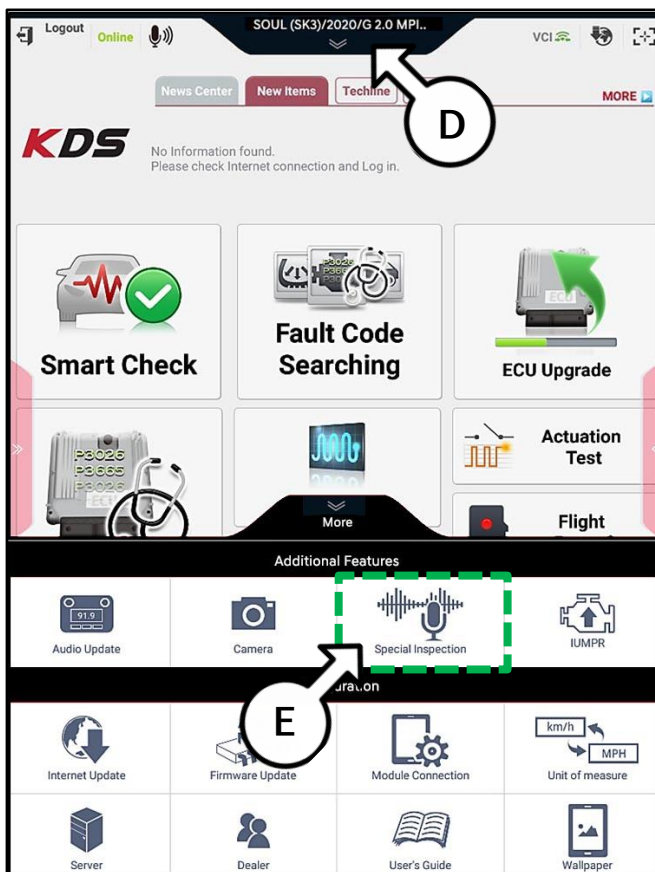
ENGINE REPLACEMENT INSTRUCTIONS FOR PISTON RING NOISE DTC P1327 (SC209Y)

2. Connect the VCI to the vehicle's OBD2 port and confirm the Bluetooth pairing condition between KDS and VCI.



- 3a. Match the vehicle model (D) on the top of KDS screen.

- 3b. Turn the ignition to 'ON'.



- 3c. Select 'Special Inspection' mode (E).

- 4a. Enter the vehicle information (Mileage, RO#). The VIN is recognized automatically.

❗ IMPORTANT

Verify that the VIN is correct.

- 4b. Select 'Nu Atkinson Engine Vibration Inspection'. Select 'Next' and follow the KDS navigation instruction.



[Nu Atkinson Engine
Vibration Inspection Video](#)

SUBJECT:

ENGINE REPLACEMENT INSTRUCTIONS FOR PISTON RING NOISE DTC P1327 (SC209Y)

- 5a. **PASS:** If the measured engine vibration test has a normal condition, capture the screen image/screenshot for record keeping.
- 5b. Unrelated concern, claim Op Code 210163RA.
Select 'Finish'.
- 6a. **NO PASS:** If the measured engine vibration test is abnormal condition, capture the screen image/screenshot for record keeping.
- 6b. Replace the engine, proceed to page 6.

Note: All measured data value and transferring results are available by selecting 'Review Results' in the initial screen.

7. **RETEST:** If there's an error on the measured engine vibration test, check the jack input (microphone) and knock sensor connection and perform measuring test again.



NOTE: If the results keep displaying 'RETEST' (more than 2 times), open a Techline case online for further instructions.

Nu Atkinson Engine Vibration Inspection

Pre-Inspection Preparation Instruction **Measurement**

Result:
VIN : KNDJ33AUJL7000543
Date : 20210526

Message Not Found

PASS

Finish Print

Nu Atkinson Engine Vibration Inspection

Pre-Inspection Preparation Instruction **Measurement**

Result:
VIN : KNDJ33AUJL7000543
Date : 20210526

Message Not Found

NO PASS

Nu Atkinson Engine Vibration Inspection

Result Preview

Date: 2015 1 1 ~ 2021 06 01 To search vehicle, Please insert VIN or RO number.

Date	VIN	Model	Year	Engine	Mileage	RO Number	Result	Sent
2021-06-01 15:44:06	5NPEA4CC1C0345741	SOUL(SK3)	2020	G 2.0 MPI NU(ATKINSON)	2450	HB806CF6	RETEST Pending	

Nu Atkinson Engine Vibration Inspection

Pre-Inspection Preparation Instruction **Measurement**

Result:
VIN : KNDJ33AUJL7000543
Date : 20210526

Message Not Found

RETEST

❗ IMPORTANT

Save a copy of the screenshot(s) for your records.

📄 NOTICE

If the KDS is not connected to the internet, up to five (5) results will stay pending in the queue until the KDS is reconnected with the "Special Inspection" application open, before a sixth (6th) test can be conducted.

SUBJECT:

ENGINE REPLACEMENT INSTRUCTIONS FOR PISTON RING NOISE DTC P1327 (SC209Y)

Replacement Procedure:

1. Replace the engine long block by referring to the "Engine mechanical System → Engine and Transaxle Assembly → Engine and Transaxle Assembly → Repair procedures" chapter in the applicable Shop Manual on KGIS.



NOTE:

- Except 'Engine Long Block & Service KIT', all the other parts can be re-used.
- Parts removed that are included in the 'Service Kit' may not be re-use.
- After engine replacement, top-off the engine oil and replace the oil filter & plug gasket.

AFTER ENGINE REPLACEMENT:

TOP-OFF THE ENGINE OIL AS RECOMMENDED.

Engine crankcase oil specification and fill capacity: 5w20 engine oil 2.0L Nu: ~4.23 US Qts.

Required product: Full synthetic type 5w20 API SM, ILSAC GF4 or higher grade.

SUBJECT:

ENGINE REPLACEMENT INSTRUCTIONS FOR PISTON RING NOISE DTC P1327 (SC209Y)

AFFECTED VEHICLE RANGE:

Model	Production Date Range
Soul (SK3)	November 24, 2018 to October 24, 2020
Seltos (SP2)	November 20, 2019 to October 15, 2020

REQUIRED TOOL:

Tool Name	Part Number	Figure	Comments
KDS Engine Vibration Inspection Harness	G1XTD CP200QQK		Connects to KDS

REQUIRED PART:

Part Name	Part Number	Figure	Comments
Engine Long Block Nu 2.0L MPI	21101 122ZRQQKR*		SK3 (M/T)
	21101 123ZRQQKR*		SK3 (CVT)
	21101 126ZRQQKR*		SP2 (CVT)

*If the Reman part (QQKR) is not available, you may be allocated a part ending in QQQ. If allocated a QQQ part, this may be used in the repair and for the related warranty claim submission.

Part Name	Part Number	Figure	Comments
Service Kit	21102 N20AKQQK		Includes PNs below: 23124 2E003 (ALT 23124 2E052) 23127 2E000 26611 2E022 28521 2E000 28313 2EAA0 39250 2E000 11403 08306K 25480 2E000 28491 2E920 28492 2E900 25623 2E000 28751 2B300 13183 12000 94750 37100

SUBJECT:

ENGINE REPLACEMENT INSTRUCTIONS FOR PISTON RING NOISE DTC P1327 (SC209Y)

WARRANTY INFORMATION:

N Code: N99 C Code: C99

MODEL	Claim Type	Casual P/N	Qty.	OPERATION	OP CODE	OP TIME	Replacement P/N	Qty.
ALL	R	23040 2E850	0	(No DTC/Engine Noise Present) Cold Engine Inspection - OK	210163RA	0.3 M/H	N/A	0
SK3 (CVT)	R	23040 2E850	0	(DTC- P1327 Stored) Engine Replacement	210163R1	7.0 M/H	21101 123ZRQQKR and 21102 N20AKQQK	1
SK3 (M/T)					210163R2	7.0 M/H	21101 122ZRQQKR and 21102 N20AKQQK	1
SP2 (FWD)					210163R3	6.3 M/H	21101 126ZRQQKR and 21102 N20AKQQK	1
SP2 (AWD)					210163R4	6.6 M/H		
SK3 (CVT)	R	23040 2E850	0	(No DTC/Engine Noise Present) Cold Engine Inspection - NG + Engine Replacement	210163RB	7.2 M/H	21101 123ZRQQKR and 21102 N20AKQQK	1
SK3 (M/T)					210163RC	7.2 M/H	21101 122ZRQQKR and 21102 N20AKQQK	1
SP2 (FWD)					210163RD	6.5 M/H	21101 126ZRQQKR and 21102 N20AKQQK	1
SP2 (AWD)					210163RE	6.8 M/H		

Note: A **Vehicle Diagnosis Number (VDN)** must be created with or without DTC P1327, after scanning for DTCs, prior to performing SC209Y. If a VDN is not created, Warranty claim submission issues WILL occur. **A No DTC/Engine Noise (NG) inspection requires that it be performed 24 hrs. after the RO open date Take a Photo of the Engine Noise Inspection Test Results (Pass, No Pass screen images).**

***NOTE:** You may receive an engine with a part number ending in "QQK" when a part number ending in "QQKR" was ordered. Both part numbers are interchangeable and acceptable in the warranty claim.

Refer to Warranty Bulletin 2022-06 for claim submission procedures.

❶ IMPORTANT

Campaigns SC209 (PNSS Test & Repair Procedures) and SC209A must be completed & submitted prior to addressing concerns associated with DTC P1327 under SC209Y.

📄 NOTICE

VIN inquiry data for this repair is provided for tracking purposes only. Kia retailers should reference **SC209Y** when accessing the KDealer+ system.