

	GROUP	MODEL
	SST	All Applicable Models
	NUMBER	DATE
	082 (Rev 1, 09/04/2025)	April 2025

TECHNICAL SERVICE BULLETIN

SUBJECT: PISTON NOISE SENSING SYSTEM (PNSS) INSPECTION

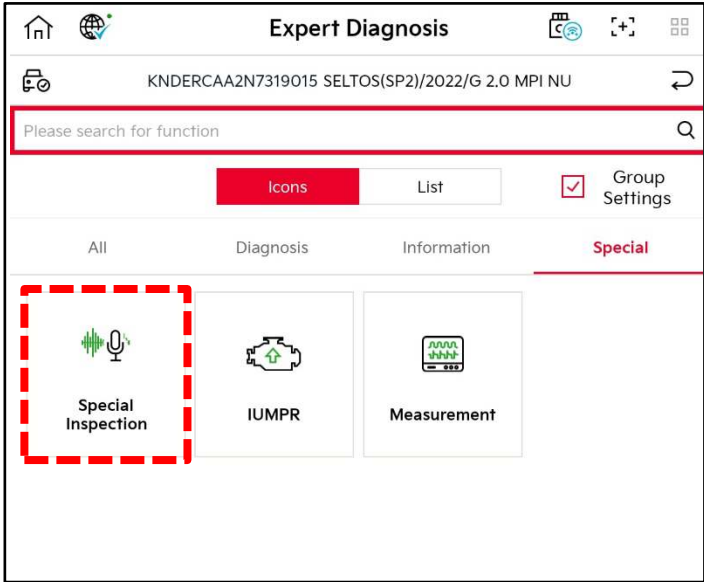
NOTICE

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 instructions to perform an engine vibration inspection using the Kia Diagnostic System (KDS) tablet on certain Kia engine/model vehicles. The piston oil ring(s) in certain Kia engines may, over time, damage the surface of the engine cylinder wall. This may lead to increased oil consumption which will eventually result in abnormal noise from the engine and/or illumination of the oil pressure warning light. The applicable vehicle may or may not have the Piston Noise Sensing System (PNSS) software installed at the time of an engine vibration inspection. The PNSS software may detect engine noise triggering a DTC P132700.

DTC Description:

P1327 / P132700 - Piston Noise Detection



Inspection Procedure:

1. Open the hood. Engine 'OFF'.

***IMPORTANT:** DO NOT USE a Samsung Headphone Jack Adapter (USB-C to 3.5mm) with tablets 'equipped' with a standard 3.5mm audio jack. (For example: SM T540/T630 models)



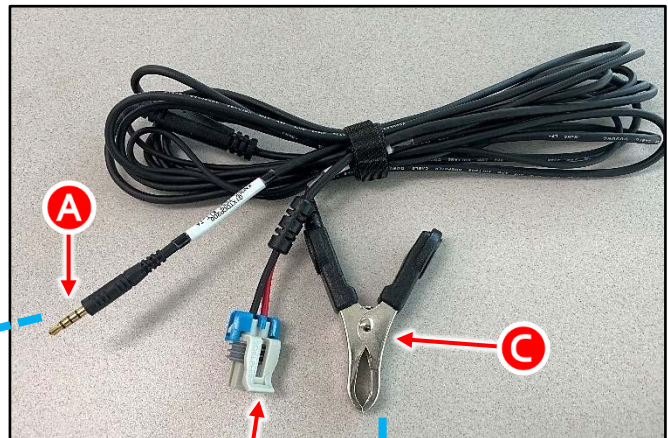
Use the adapter only if the tablet is NOT equipped with an audio jack port.

2. Connect the engine vibration inspection harness audio jack port* (A) to KDS tablet.

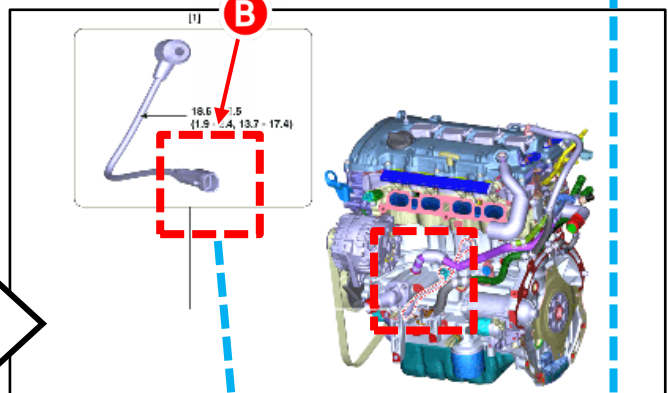
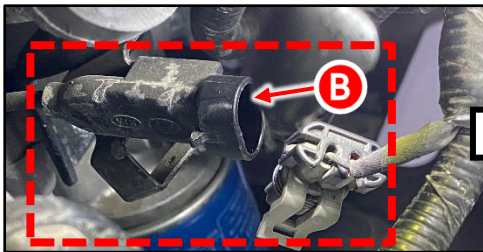
Samsung USB Type C – 3.5mm adapter may be required.
Model: EE-UC10JUWEGUS

DO NOT USE AFTERMARKET

Refer to the IMPORTANT note above and on page 7.



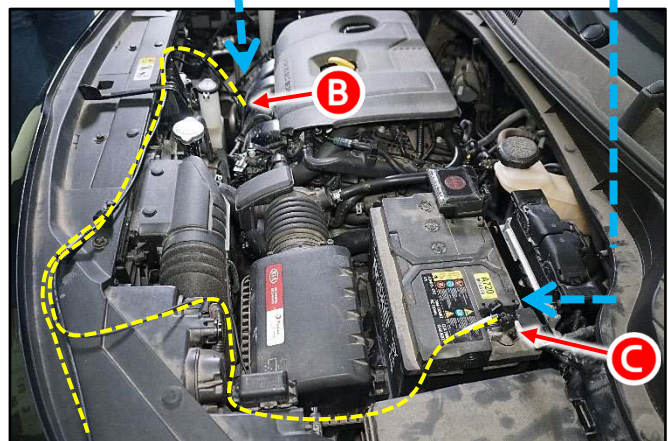
3. Disconnect the knock sensor connector and connect the knocking sensing connector of the engine vibration inspection harness to the engine knock sensor (B).



4. Connect the ground clamp (C) from the harness 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.



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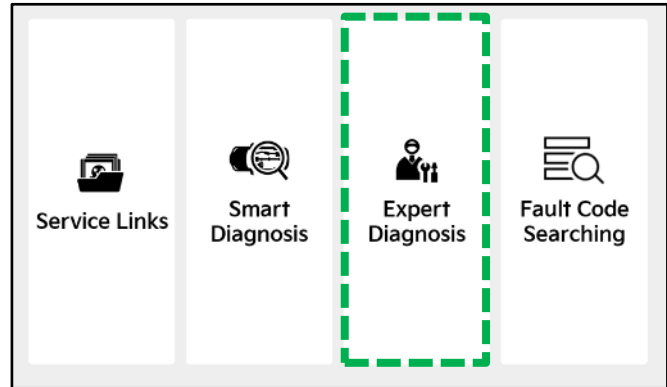
PISTON NOISE SENSING SYSTEM (PNSS) INSPECTION

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

Open the 'KTUS' App and select 'KDS'.



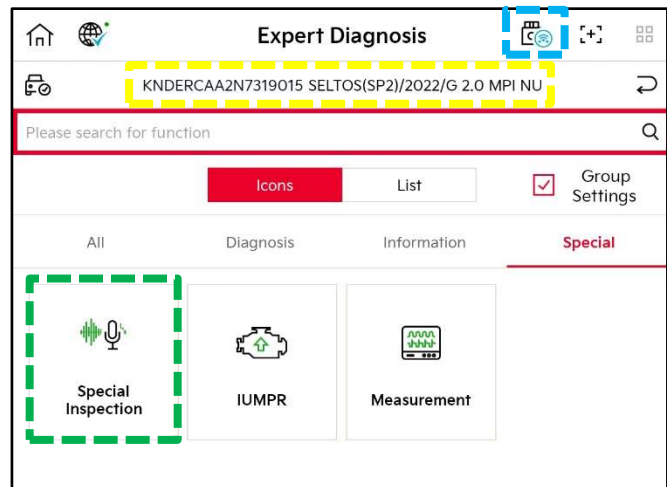
6. Select 'Expert Diagnosis'.



7. Under the 'Special' tab, select 'Special Inspection'.

❗ IMPORTANT

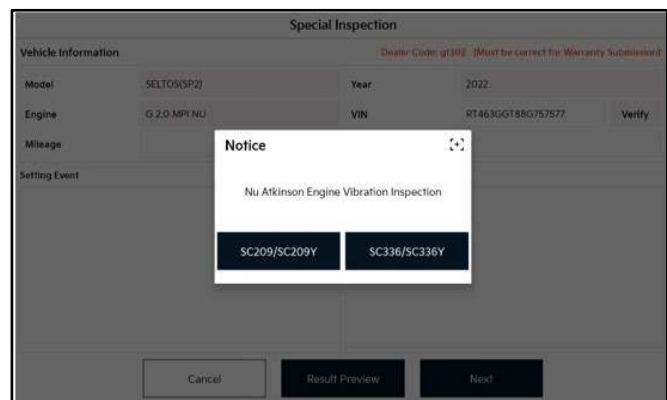
Ensure that the VCI Bluetooth icon shows connected to the KDS tablet and Auto-VIN was recognized.



8. Select the applicable campaign for the vehicle in service.

1. SC209/SC209Y or
2. SC336/SC336Y

Note: Be sure to refer to the applicable TSB listed above for additional information and instructions.



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- 9a. Enter vehicle 'Mileage' and 'RO#' information.
- 9b. Confirm the VIN and select '**Verify**'.
10. Select '**Next**'.

11. Confirm the items listed and select the "Pre-Inspection" '**check boxes**'.
12. Select '**Next**'.

13. The program will automatically detect the Engine Coolant Temperature (ECT) requirement for the test (Engine 'OFF').

Select '**Next**'.

NOTICE

If the conditions are not met, a '**TRY AGAIN**' message will display. Refer to the applicable TSB.

Read and follow the instruction displayed before proceeding.

14. Select '**Next**'.

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15. Select the engine '**Start**' or turn the ignition '**ON**' (engine running).
16. Select '**Start**' on the KDS screen.

NOTE: If the measured vibration test is too low or abnormally higher than the set value, a pop-up message will display to check the audio jack input (microphone) or knock sensor connector.

17. Follow the KDS screen instructions closely and ensure you follow the correct RPM and temperature values on the vehicle.

Note: Carefully monitor the progress of each test and select '**Next**' when requested.

NOTICE

If the RPM or Temperature values are not within the required range, the color of the values will display in red.

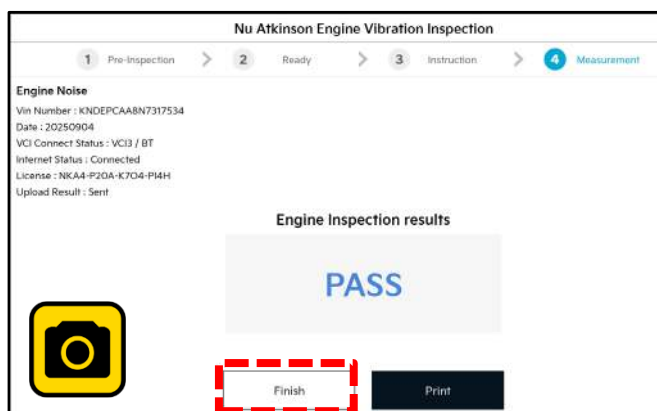
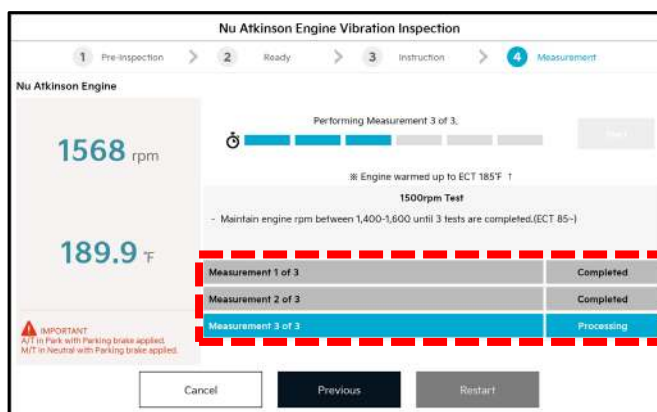
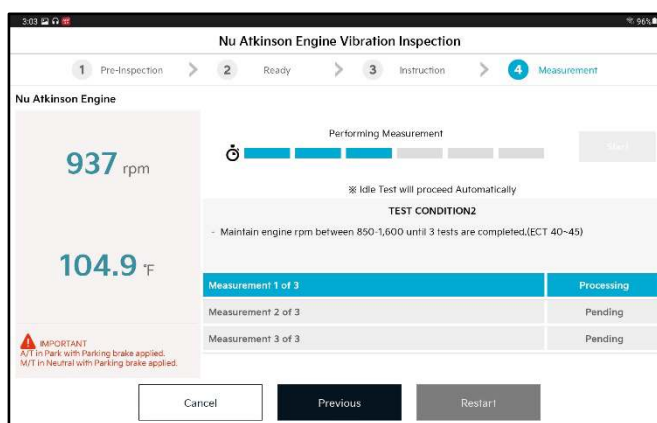
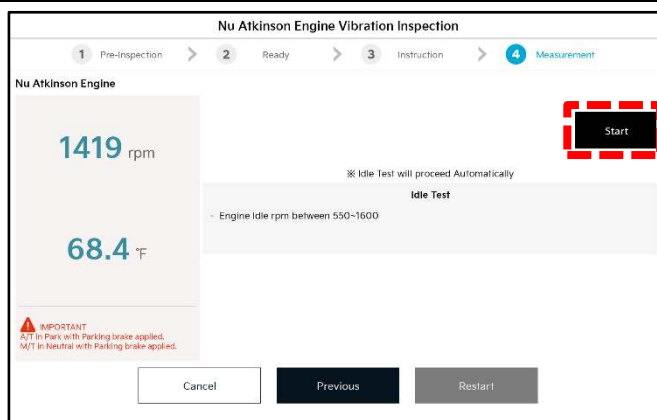
The successful measurements will display "Completed" on the screen.

- 18a. **PASS:** If the measured engine vibration test has a normal condition, capture the screen image/screenshot for record keeping.

Select '**Finish**'.

① IMPORTANT

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



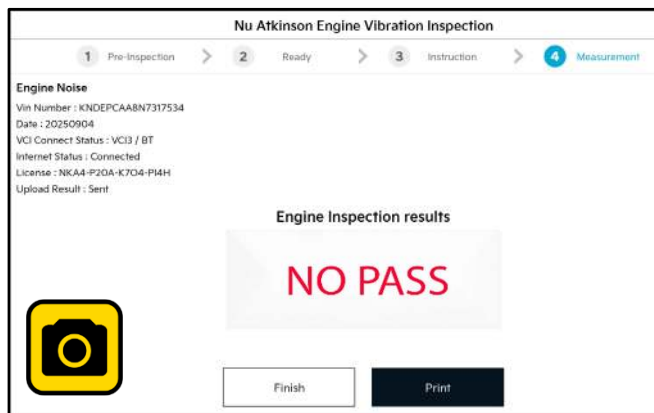
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- 18b. **NO PASS:** If the measured engine vibration test is abnormal condition, **capture the screen image/screenshot for record keeping.**

Select 'Finish'.

Refer to TSB [ENG190](#) for information regarding engine replacement practices.

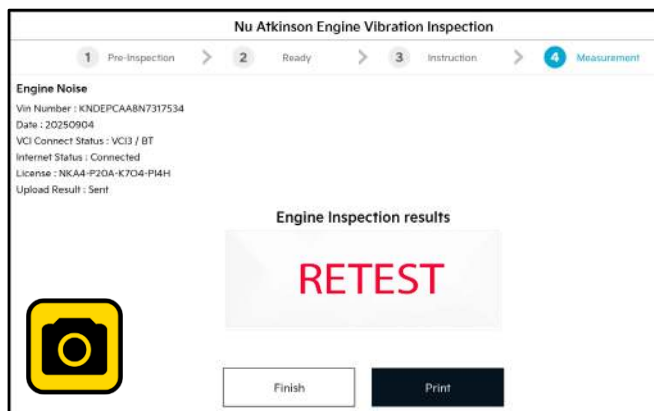


- 18c. **RETEST:** If there's an error on the measured engine vibration test, check the jack input (microphone) and knock sensor connection and perform measuring test again.

Select 'Finish'.



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



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.

19. Using KDS, check and clear DTC(s).

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

The screenshot shows the 'Nu Atkinson Engine Vibration Inspection' application in the 'Result Preview' screen. It features a search bar with filters for Date (2015 to 2021), VIN (1 to 1), and Year (2021 to 06). A search button is on the right. Below is a table with columns: Date, VIN, Model, Year, Engine, Mileage, RO Number, Result, and Sent.

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	

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REQUIRED TOOL:

Tool Name	Part Number	Figure	Comments
Kia Diagnostic System (KDS)	N/A		KDS + VCI
Engine Vibration Inspection Harness*	G1XTD CP200QQK		Located Toolbox 1, Drawer #12
Aux to Type-C Adapter	G1XTD CP384QQK		Only Required if KDS Tablet <u>is not</u> equipped with an Audio Jack Port

*For technical issues related to KDS PNSS Inspection, contact GITA Support: 888-542-4371.

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