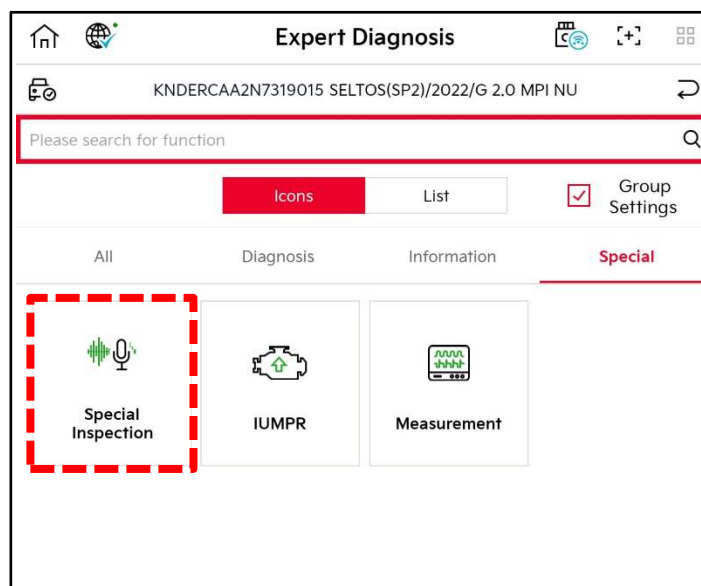


	GROUP	MODEL
	SST	All Applicable Models
	NUMBER	DATE
	082	April 2025
TECHNICAL SERVICE BULLETIN		
SUBJECT: PISTON NOISE SENSING SYSTEM (PNSS) INSPECTION		

This bulletin provides instruction 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.

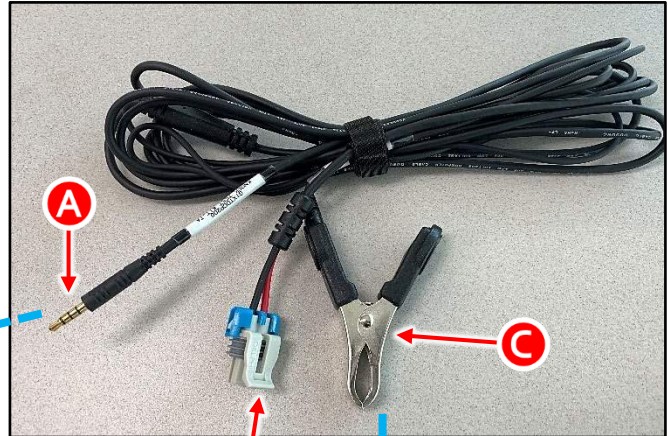
DTC Description:
P1327 / P132700 - Piston Noise Detection



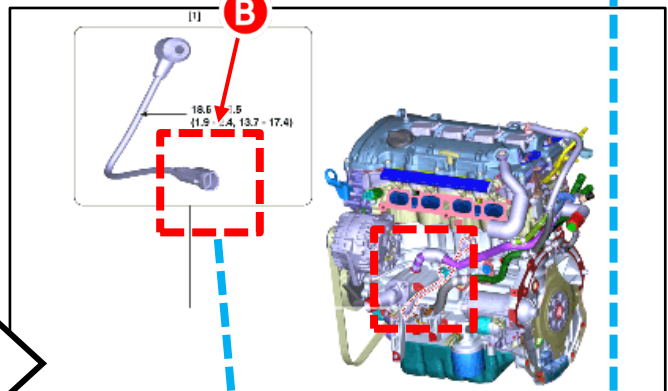
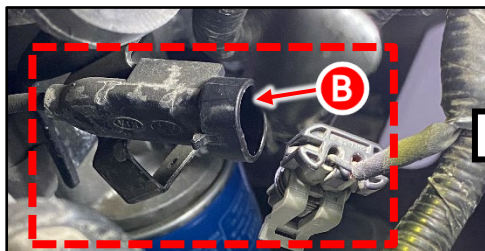
Inspection Procedure:

1. Open the hood. Engine 'OFF'.
2. Connect the engine vibration inspection harness audio jack (A) to KDS tablet.

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.



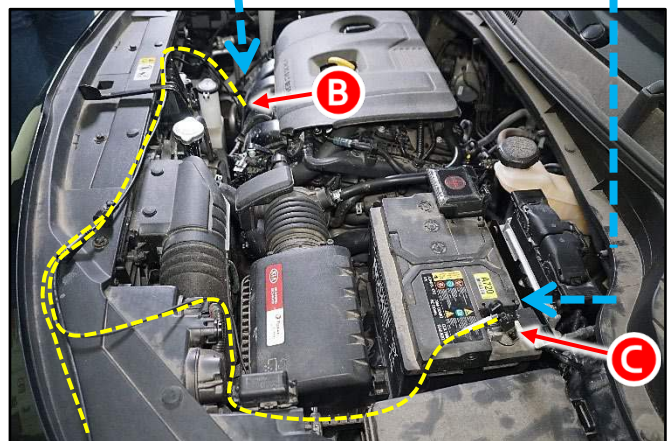
3. Disconnect the knock sensor connector and connect the knocking sensing connector of the engine vibration inspection harness to the engine knock sensor (B).



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.**



SUBJECT:

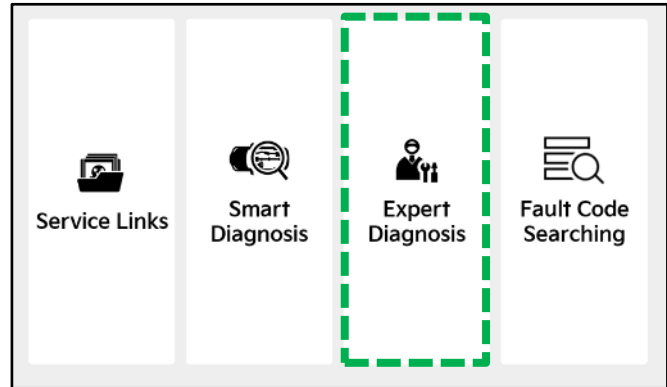
PISTON NOISE SENSING SYSTEM (PNSS) INSPECTION

- 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'.



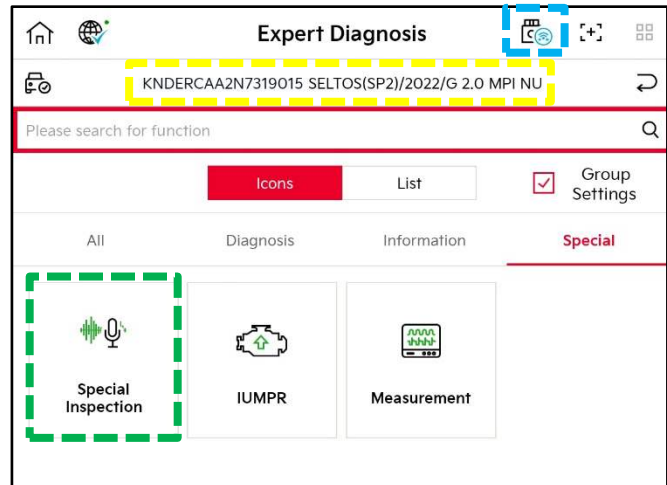
- Select 'Expert Diagnosis'.



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

❗ IMPORTANT

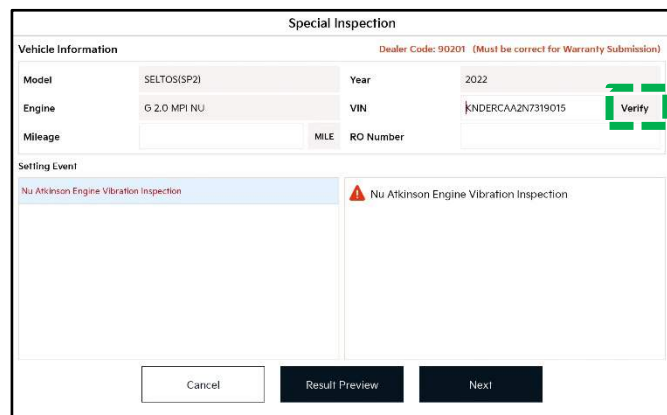
Ensure that the VCI Bluetooth icon shows connected to the KDS tablet and Auto-VIN was recognized.



- Select 'Verify' on KDS.

❗ IMPORTANT

Verify that the VIN is correct.



SUBJECT:

PISTON NOISE SENSING SYSTEM (PNSS) INSPECTION

9. Enter vehicle 'Mileage' and 'RO#' information.

NOTE: Depending on the VIN, KDS will automatically detect one of the following:

- Nu Atkinson Engine Vibration Inspection' (SC209)

Or

- Nu Atkinson Engine Vibration Inspection (Advanced) (SC209Y/SC336)

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.

The screenshot shows the 'Special Inspection' screen. Under 'Vehicle Information', the 'Mileage' field is set to 6503 and the 'RO Number' field is set to 777777. The 'Nu Atkinson Engine Vibration Inspection' option is selected and highlighted with a yellow dashed box. The 'Next' button is visible at the bottom right.

The screenshot shows the 'Special Inspection' screen. Under 'Vehicle Information', the 'Mileage' field is set to 6503 and the 'RO Number' field is set to 777777. The 'Nu Atkinson Engine Vibration Inspection (Advanced)' option is selected and highlighted with a yellow dashed box. The 'Next' button is visible at the bottom right.

The screenshot shows the 'Nu Atkinson Engine Vibration Inspection' screen. The 'Pre-Inspection' checklist is displayed with the following items: Engine Oil level - Normal, Coolant level - Normal, AC & Blower Motor - Off, Radio & All Accessories - Off, Insert Cable 'A' to knock sensor connector, Insert Cable 'B' to audio connector (in the table), and Connect Cable 'C' to battery (+/Ground) terminal. The 'Next' button is highlighted with a red dashed box.

The screenshot shows the 'Nu Atkinson Engine Vibration Inspection' screen. The 'Preparation' section is displayed with a table of test results. The 'Next' button is highlighted with a red dashed box.

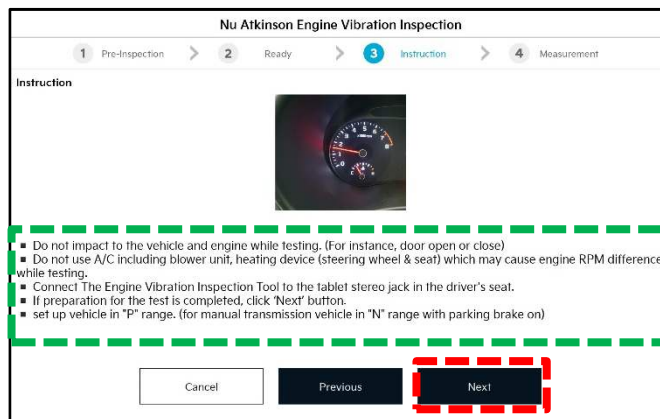
Test Item	Value	Unit	Result
Engine Coolant Temperature	64.4	F	GOOD
AC Request to ECU	OFF	-	GOOD

SUBJECT:

PISTON NOISE SENSING SYSTEM (PNSS) INSPECTION

Read and follow the instruction displayed before proceeding.

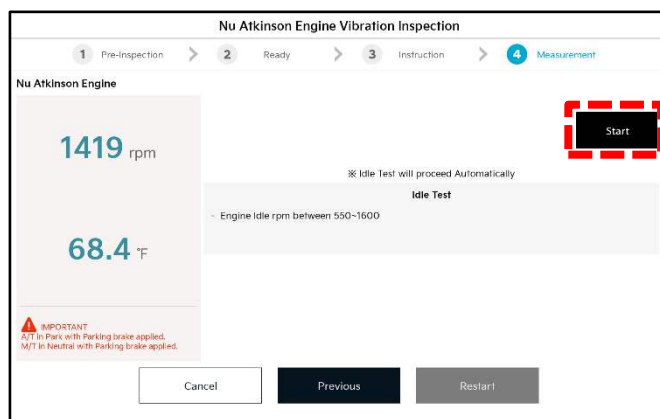
14. Select **'Next'**.



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.

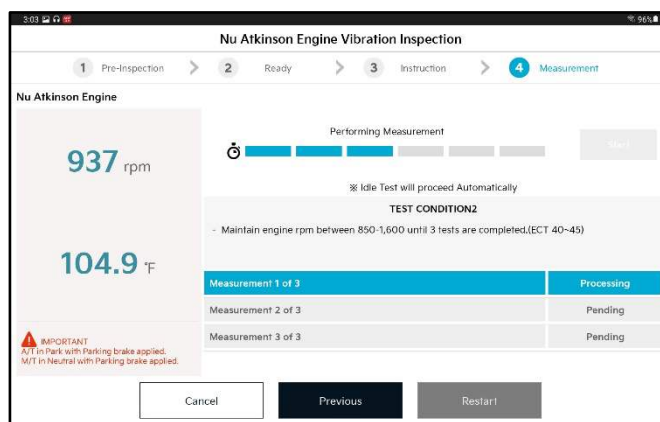


17. Follow the KDS screen instructions closely and ensure you follow the correct RPM and temperature values on the vehicle.

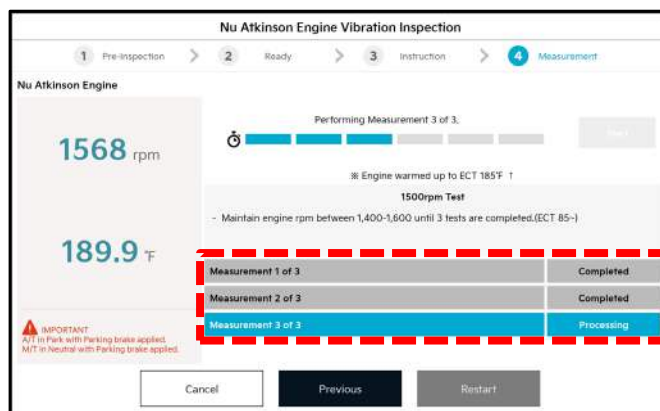
Note: Carefully monitor the progress of each test and select **'Next'** when requested.

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.



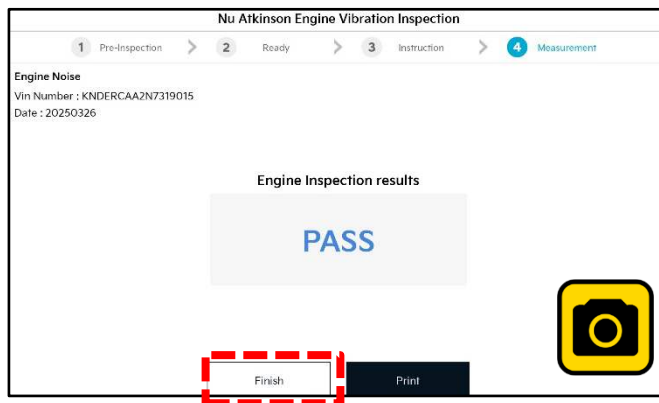
PISTON NOISE SENSING SYSTEM (PNSS) INSPECTION

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

Select 'Finish'.

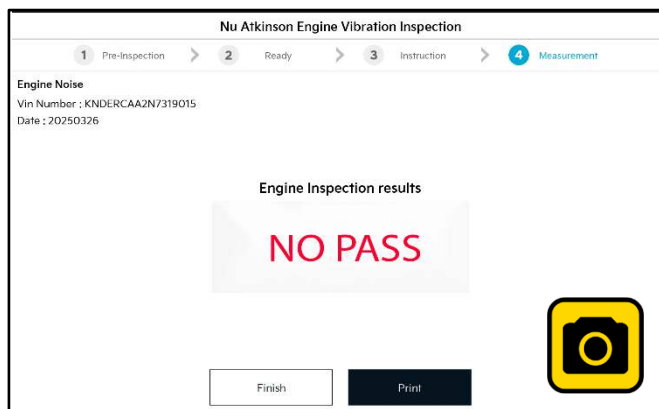
① IMPORTANT

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



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

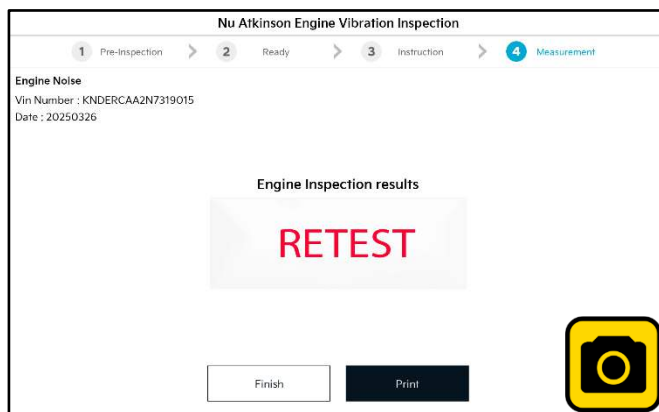
Refer to TSB [ENG190](#) for information regarding engine replacement practices.



- 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.



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.

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	H8806CF6	RETEST Pending	

SUBJECT:

PISTON NOISE SENSING SYSTEM (PNSS) INSPECTION**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 does NOT have Audio Jack Port