HYUNDAI Technical Service Bulletin	GROUP **General Information**	NUMBER **20-GI-009H**
	DATE **DECEMBER 2020**	MODEL(S) **ALL**

SUBJECT: ENGINE BEARING CLEARANCE TESTER CALIBRATION PROCEDURE

Description: This bulletin provides the calibration procedure for the engine bearing clearance tester. The bearing clearance tester is already pre-calibrated, but additional calibration may be required due to variable shop compressor air pressure when testing engine rod bearing wear.

NOTICE

The bearing clearance tester requires connection to a known good air supply during use.

- **Shop air supply must consistently provide at least 50 PSI of air pressure to the tester.**
- **Do NOT use a portable air compressor.**
- **Be sure to check that the shop air water separator is functioning correctly.**

NOTICE

For Bearing Clearance Tester software related issues, contact GITA at: 888-437-0308
For Bearing Clearance Tester hardware related issues, contact Techline at: 800-325-6604

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

SUBJECT: ENGINE BEARING CLEARANCE TESTER CALIBRATION PROCEDURE

SST Information:

TOOL NAME	PART NUMBER	FIGURE
Engine Bearing Clearance Tester (Main Body)	KQ231-2T100QQH	
Spark Plug Rod (Connection for Clearance Gauge)	KQ231-2T101QQH	
Crankshaft Rotator Tool	KQ231-2T102QQH	
Clearance Gauge	KQ231-2T103QQH	
Power Supply Cable	KQ231-2T104QQH	
Test Hose (Air Hose for Clearance Gauge)	KQ231-2T105QQH	

NOTE: Normal Warranty Applies.

NOTICE

Before performing the calibration procedure, verify that the power cable or air hoses are NOT attached to the bearing clearance tester, and that the power switch is set to the OFF position.

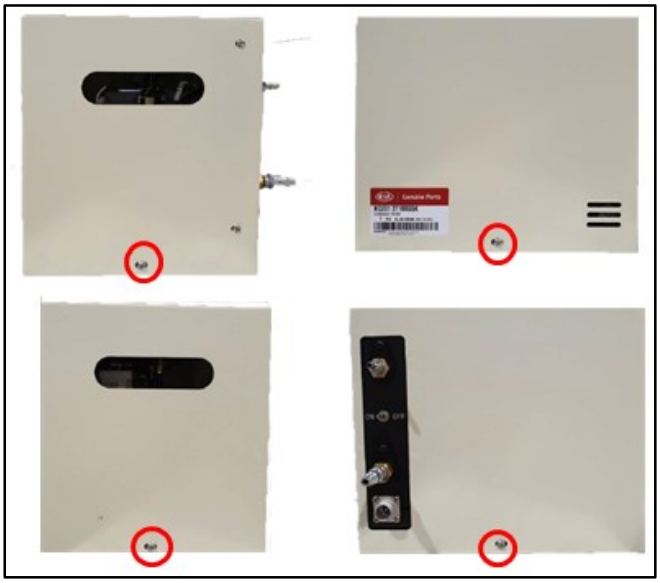
Calibration Procedure:

1. Remove the two, smaller hex screws located on the bearing clearance tester cover.

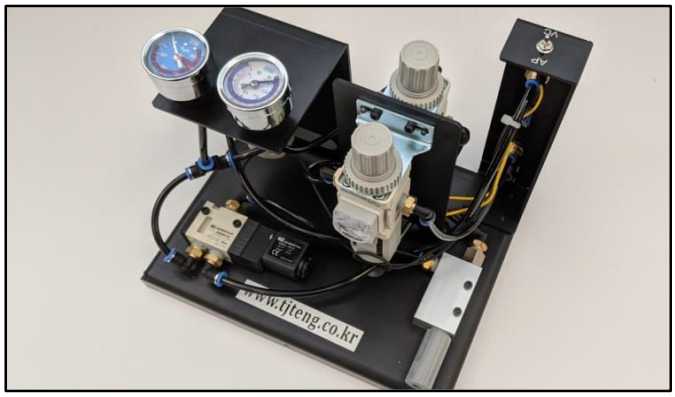
   Hex Screw: 2.5mm hex

2. Remove the four, larger hex screws located on each side of the bearing clearance tester cover.

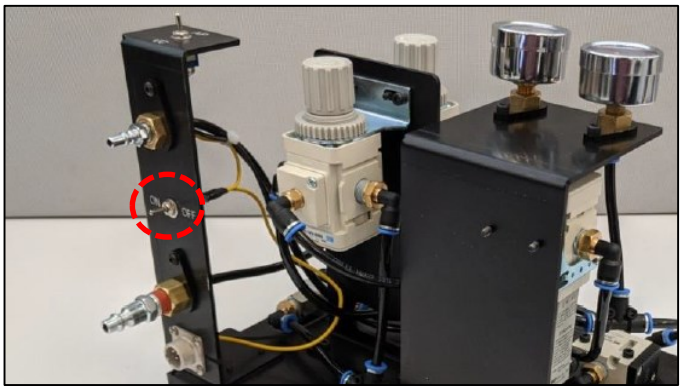
   Hex Screw: 3.0mm hex



3. Lift and remove the bearing clearance tester cover.

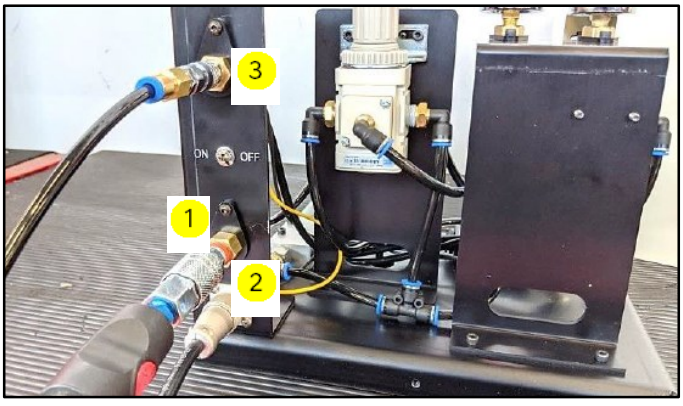


4. Verify the power switch is **OFF**.

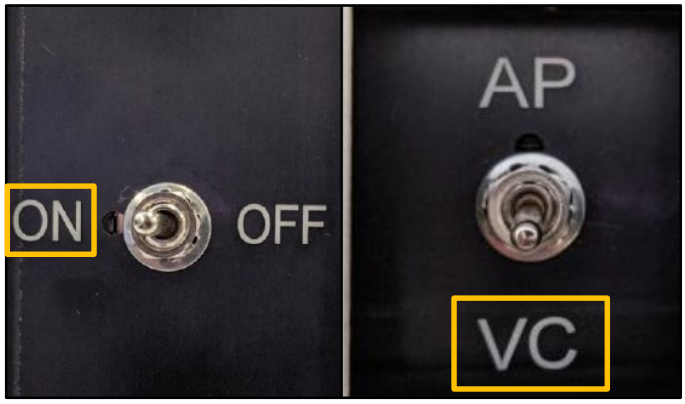


5. **Follow the EXACT power cable and air hose connection order:**

   1) Connect the main air compressor hose.
   2) Connect the 12V power cable to a stable power source (**a fully charged 12 volt battery or an external AC/DC 13.8 volt power supply**).
   3) Connect the test hose.
      (The other end of the test hose should be left disconnected from the spark plug rod.)



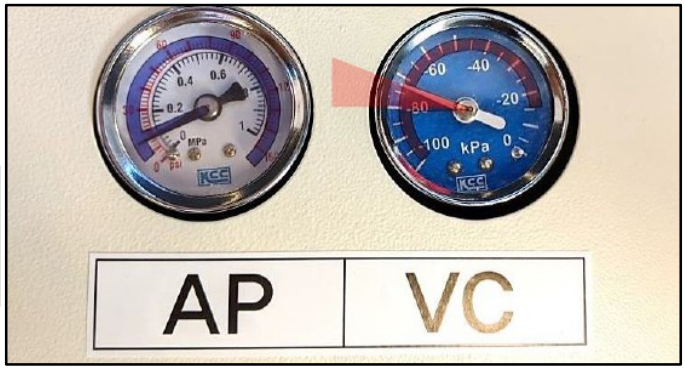
6. Turn the power switch **ON**, and select the AP/VC switch to **VC.**
   - **AP: Pressure**
   - **VC: Vacuum**



NOTICE

To verify power to main unit solenoids:
- **Toggle the AP/VC transfer switch between AP <> VC.**
- **During toggling, a "click" noise will indicate the solenoids are active.**

7. Inspect the VC gauge, and verify that the reading is between **-73 ~ -83kPa**.

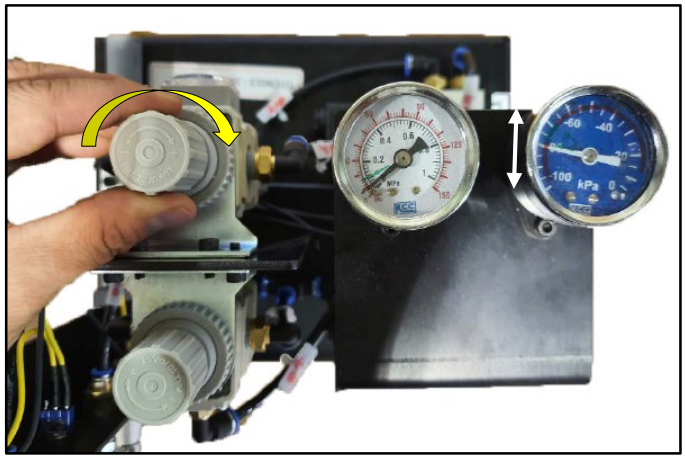


NOTICE

A red overlay on the gauge will indicate the recommended specification.

If the VC gauge is within specification, proceed to **Step 9**.

8. If the VC gauge is **NOT** within specification, pull the VC knob upwards to activate it.



Twist the VC knob to **increase (+)** or **decrease (-)** the kPa reading until the reading is within specification.

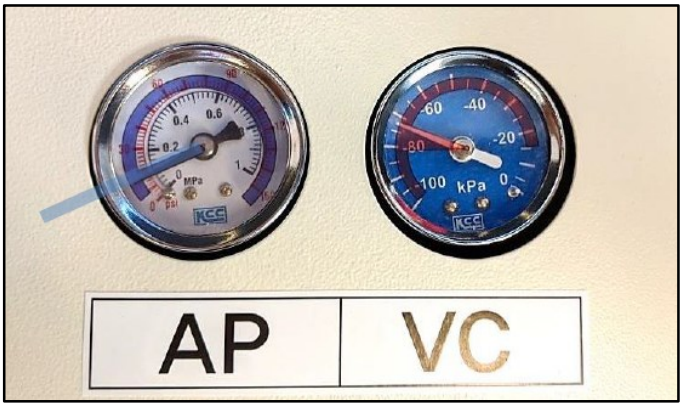
Clockwise: increases (+) kPa reading
Counterclockwise: decreases (-) kPa reading

After twisting the knob until the kPa reading is within specification, press the knob downwards to deactivate and lock the knob.

9. With the power switch still **ON**, select the AP/VC switch to **AP.**

AP: Pressure
VC: Vacuum

10. Inspect the AP gauge, and verify that the reading is between **0.1 ~ .11MPa**.

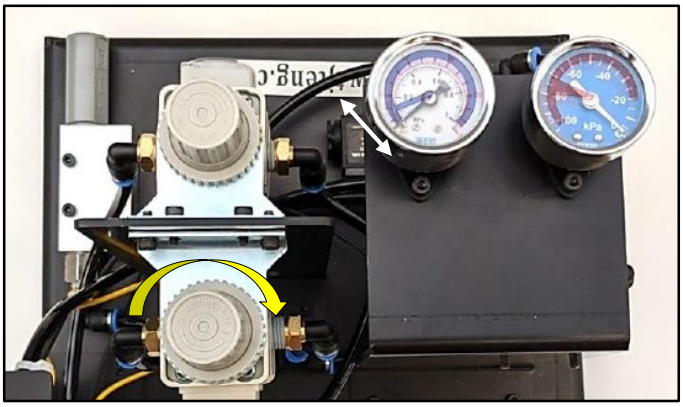


NOTICE

A blue overlay on the gauge will indicate the recommended specification

If the AP gauge is within specification, proceed to **Step 12**.

11. If the AP gauge is NOT within specification, pull the AP knob upwards to activate it.



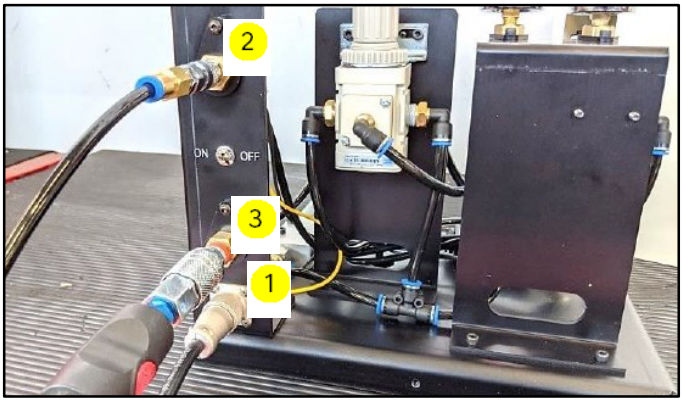
Twist the AP knob to increase (+) or decrease (-) the MPa reading until the reading is within specification.

Clockwise: increases (+) MPa reading
Counterclockwise: decreases (-) MPa reading

After twisting the knob until the MPa reading is within specification, press the knob downwards to deactivate and lock the knob.

12. Turn the power switch **OFF**.

13. **Follow the EXACT power cable and air hose disconnection order:**



1) Disconnect the 12V power cable.
2) Disconnect the test hose.
3) Disconnect the main air compressor hose.

14. Reinstall all parts in reverse order of removal.

15. The calibration procedure is now complete.