

NO.20 FUEL ODOR (IN ENGINE COMPARTMENT) [SKYACTIV-G 2.0, SKYACTIV-G 2.5]

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20	FUEL ODOR (IN ENGINE COMPARTMENT)
DESCRIPTION	<ul style="list-style-type: none"> Gasoline fuel smell or visible leakage.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Missing or loose fuel filler cap Fuel leakage from fuel system Improper connection of evaporative related vacuum hoses Purge solenoid valve malfunction Excessive fuel pressure Charcoal canister malfunction Fuel system vent system blockage Fuel pressure sensor malfunction High pressure fuel pump malfunction <p>Warning The following troubleshooting flow chart contains the fuel system diagnosis and repair procedures. Read the following warnings before performing the fuel system services:</p> <ul style="list-style-type: none"> Fuel vapor is hazardous. It can easily ignite, causing serious injury and damage. Always keep sparks and flames away from fuel. Fuel line spills and leakage are dangerous. Fuel can ignite and cause serious injury or death and damage. Fuel can also irritate skin and eyes. To prevent this, always complete "BEFORE SERVICE PRECAUTION" and "AFTER SERVICE PRECAUTION" described in this manual. (See BEFORE SERVICE PRECAUTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See AFTER SERVICE PRECAUTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) <p>Caution</p> <ul style="list-style-type: none"> Disconnecting/connecting the quick release connector without cleaning it may possibly cause damage to the fuel pipe and quick release connector. Always clean the quick release connector joint area before disconnecting/connecting, and make sure that it is free of foreign matter.

Diagnostic Procedure

STEP	INSPECTION	RESULTS	ACTION
1	INSPECT FOR MISSING OR LOOSE FUEL FILLER CAP <ul style="list-style-type: none"> Visually inspect if the fuel filler cap is missing or loose. Is there any malfunction? 	Yes	Repair or replace the fuel filler cap.
		No	Go to the next step.
2	INSPECT FUEL SYSTEM FOR FUEL LEAKAGE <ul style="list-style-type: none"> Visually inspect the fuel leakage at the fuel line. Is there any leakage? 	Yes	Repair or replace the malfunctioning part according to the inspection results.
		No	Go to the next step.
3	INSPECT VACUUM HOSE CONNECTION <ul style="list-style-type: none"> Inspect the vacuum hose routing. (See INTAKE-AIR SYSTEM VACUUM HOSE ROUTING DIAGRAM [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Are vacuum hoses routed properly? 	Yes	Go to the next step.
		No	Reconnect the vacuum hose. (See INTAKE-AIR SYSTEM VACUUM HOSE ROUTING DIAGRAM [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
4	INSPECT PURGE SOLENOID VALVE <ul style="list-style-type: none"> Inspect the airflow of purge solenoid valve. (See PURGE SOLENOID VALVE INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Is the purge solenoid airflow properly? 	Yes	Go to the next step.
		No	Replace the purge solenoid valve. (See PURGE SOLENOID VALVE REMOVAL/ INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)

STEP	INSPECTION	RESULTS	ACTION
5	INSPECT WHETHER MALFUNCTION IS IN HIGH PRESSURE FUEL PUMP OR CHARCOAL CANISTER <ul style="list-style-type: none"> Start the engine and warm it up completely. Access the FUEL_PRES PID using the M-MDS at idle. (See ON-BOARD DIAGNOSTIC TEST [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Is the FUEL_PRES PID value approx. 3 MPa {31 kgf/cm², 435 psi}? 	Yes	Inspect the charcoal canister for fuel saturation. <ul style="list-style-type: none"> If excess amount of liquid fuel is present: <ul style="list-style-type: none"> Replace the charcoal canister. (See CHARCOAL CANISTER REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
		No	Inspect the fuel pressure sensor and the high pressure fuel pump. (See FUEL PRESSURE SENSOR INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See HIGH PRESSURE FUEL PUMP INSPECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Replace the fuel distributor and/or the high pressure fuel pump if necessary. (See FUEL INJECTOR REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See HIGH PRESSURE FUEL PUMP REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].)
6	Verify the test results. <ul style="list-style-type: none"> If normal, return to the diagnostic index to service any additional symptoms. (See SYMPTOM DIAGNOSTIC INDEX [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) If a malfunction remains, inspect the related Service Information and perform the repair or diagnosis. <ul style="list-style-type: none"> If the vehicle is repaired, troubleshooting is completed. If the vehicle is not repaired or additional diagnostic information is not available, replace the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) 		