Auto Idle Stop System Operation Conditions

Disable Conditions for Auto Idle Stop

When any of the following conditions are met, auto idle stop is disabled.

NOTE: Check the DTCs of all systems before doing the inspection of the auto idle stop.

Idle Stop Disable Conditions		HDS		AUTO IDLE STOP INDICATOR (amber)
Item	Conditions	Parameter	Menu	
Integrated Dynamic System Switch	SPORT+ mode is selected.	—	—	—
Idle Stop Off Switch	Idle stop off switch is ON.	IDLE STOP INHIBIT (IDLE STOP CANCEL SWITCH)	PGM FI	ON
Hood	Hood is open. (Security hood switch is OFF)	IDLE STOP INHIBIT (HOOD OPEN)	PGM FI	—
Driver's Seat Belt Buckle Switch	Driver seat belt is not latched.	IDLE STOP INHIBIT (SEAT BELT UNFASTENED)	PGM FI	—
Steering Wheel	Steering wheel is operated.	IDLE STOP INHIBIT (EPS UNIT)	PGM FI	—
Vehicle Speed	• More than 0 mph (0 km/h).	- VEHICLE SPEED	PGM FI	—
		- VEHICLE SPEED	AT	—
		- LEFT FRONT WHEEL SPEED	ABS VSA	—
		- RIGHT FRONT WHEEL SPEED	ABS VSA	—
		- LEFT REAR WHEEL SPEED	ABS VSA	—
		- RIGHT REAR WHEEL SPEED	ABS VSA	—
	• Does not exceed 3 mph (5 km/h) after engine start or engine restart from idle stop*. *: Does not exceed 9.3 mph (15 km/h) when the acceleration and deceleration are repeated while driving at low speed.	—	—	—
Transmission	Auto Idle Stop Disable Conditions Determination	IDLE STOP INHIBIT (AT/CVT: PRECONDITION)	PGM FI	—
	- Shift position is not D.	- A/T D SWITCH	AT	—
	- Transmission fluid temperature is too high (more than 230 °F (110 °C)) or too low (less than 68 °F (20 °C)).	- ATF Temperature	AT	—
VSA	• VSA system is operated.	IDLE STOP INHIBIT (ABS/VSA UNIT)	PGM FI	—
	• VSA sensor neutral position memorization is not completed.	VSA ADJUSTMENT	ABS VSA	—
Brake Pedal	• Brake pedal is not pressed (Brake pedal pressed: BRAKE SWITCH is ON/IDLE STOP SW is OPEN). *: Except during ACC/LSF system or	CRUISE BRAKE SW/IDLE STOP SW	PGM FI	—

	brake hold operation. • Brake pedal pressing is weak (brake system is low oil pressure).	BRAKE SWITCH —	PGM FI —	— —
Accelerator Pedal	Accelerator pedal is pressed.	APP SENSOR	PGM FI	—
Incline	Uphill or downhill determination	IDLE STOP INHIBIT (INCLINED STATE)	PGM FI	—
PGM-FI	• Operation number of starter exceed specified value. • PCM idle learn procedure is not completed. • Engine coolant temperature is too high (more than 230 °F (110 °C)) or too low (less than 149 °F (65 °C)).	— IDLE LEARN ECT SENSOR 1	— PGM FI PGM FI	Blinks — —
Brake Booster Pressure	Auto Idle Stop Disable Conditions Determination - Brake booster pressure is low (almost 0 kPa (0 inHg, 0 mmHg) than -32.9 kPa (-9.7 inHg, -247 mmHg))*. *: It is a variable depending on the atmospheric pressure.	IDLE STOP INHIBIT (BRAKE SYSTEM) - BRAKE BOOSTER PRESSURE SENSOR	PGM FI BRAKE SYSTEM	— —
Climate Control System	Auto Idle Stop Disable Conditions Determination (While the climate control system is on) - Windshield defrost button is ON. - Temperature setting is Hi or Lo. - On demand multi-use display (ODMD) (TM) (blower fan display) is more than 5 segments. - Outside air temperature is 104 °F (40 °C) or above. - Outside air temperature is -4 °F (-20 °C) or less. - Windshield fogging is detected (based on outside air temperature, humidity, and other conditions). - When the cabin is uncomfortable due to high or low interior air temperature or high humidity.	IDLE STOP INHIBIT (HVAC) — — — — — — —	PGM FI — — — — — — —	— — — — — — — —
DC-DC Converter	Auto Idle Stop Disable Conditions Determination - DC-DC converter temperature failure/DC-DC converter internal failure/DC-DC converter input voltage failure.	IDLE STOP INHIBIT (DC-DC CONVERTER) —	PGM FI —	— —
12 Volt Battery	Auto Idle Stop Disable Conditions Determination - Temperature of the 12 volt battery is less than 14 °F (-10 °C).	IDLE STOP INHIBIT (BATTERY MANAGEMENT SYSTEM) - ESTIMATED BATTERY TEMPERATURE (BATTERY SENSOR)	PGM FI PGM FI	— —

	- 12 volt battery is deteriorated.	- IDLE STOP INHIBIT (BATTERY DETERIORATION)	PGM FI	—
	- 12 volt battery voltage is insufficient.	- IDLE STOP INHIBIT (LOW BATTERY VOLTAGE)	PGM FI	—

NOTE:

- If the some DTCs are indicated, the auto idle stop system may be disable.
- If the auto idle stop indicator (amber) is blinked by number of starter motor operations exceeded the setting limit, the auto idle stop indicator comes on when the auto idle stop system is turned to off by pressing the idle stop off switch.

Engine Restart Conditions After Auto Idle Stop

When any of the following conditions are met, the engine restarts after auto idle stop.

Engine Restart Conditions		HDS	
Item	**Conditions**	**Parameter**	**Menu**
Idle Stop Off Switch	Idle stop off switch is turned from OFF to ON.	IDLE STOP INHIBIT (IDLE STOP CANCEL SWITCH)	PGM FI
Driver's Seat Belt Buckle Switch	Driver's seat belt is removed.	IDLE STOP INHIBIT (SEAT BELT UNFASTENED)	PGM FI
Automatic Brake Hold	When the brake hold is changed operation to the deactivation.	—	—
Integrated Dynamic System Switch	SPORT+ mode is selected.	—	—
Adaptive Cruise Control (ACC) System	• ACC/LSF system operating state is changed (turned ON to OFF) • When the ACC/LSF system judges the vehicle is starting	— —	— —
Steering Wheel	Steering wheel is operated.	IDLE STOP INHIBIT (EPS UNIT)	PGM FI
Vehicle Speed	0.6 mph (1 km/h) or more.	- VEHICLE SPEED - VEHICLE SPEED - LEFT FRONT WHEEL SPEED - RIGHT FRONT WHEEL SPEED - LEFT REAR WHEEL SPEED - RIGHT REAR WHEEL SPEED	PGM FI AT ABS VSA ABS VSA ABS VSA ABS VSA
Transmission	• Shift to any driving position other than D or N, or shift to D from N. • Transmission fluid temperature is too high (more than 230 °F (110 °C)) or too low (less than 68 °F (20 °C)).	- A/T N SWITCH - A/T D SWITCH - ATF Temperature	AT AT AT
Brake Pedal	• Brake pedal is released during auto idle stop (Brake pedal released: BRAKE	• CRUISE BRAKE SW/IDLE STOP SW	PGM FI PGM FI

	SWITCH is OFF/IDLE STOP SW is CLOSE) (When not operating the automatic brake hold system and ACC/LSF system (with ACC/LSF system)).	• BRAKE SWITCH	
Accelerator Pedal	Accelerator pedal is pressed.	APP SENSOR	PGM FI
Brake Booster Pressure	Engine Restart Determination - Brake booster pressure became low (almost 0 kPa (0 inHg, 0 mmHg) than -30.2 kPa (-8.9 inHg, -227 mmHg))*. *: It is a variable depending on the atmospheric pressure.	IDLE STOP INHIBIT (BRAKE SYSTEM) - BRAKE BOOSTER PRESSURE SENSOR	PGM FI BRAKE SYSTEM
Climate Control System	Engine Restart Determination - Windshield defrost button is ON. - Selected system temperature is colder or warmer than the outside air temperature.	IDLE STOP INHIBIT (HVAC) — —	PGM FI — —
12 Volt Battery	12 volt battery voltage decrease during auto idle stop.	IDLE STOP INHIBIT (LOW BATTERY VOLTAGE)	PGM FI

Engine Restart Disable Conditions

When any of the following conditions are met, engine restarts is disabled after auto idle stop.

Engine Restart Disable Conditions		HDS	
Item	**Conditions**	**Parameter**	**Menu**
Hood	Hood is open. (Security hood switch is OFF)	IDLE STOP INHIBIT (HOOD OPEN)	PGM FI
Starter	• Engine cranks long time of 5 seconds or more. • Engine does not crank.	— —	— —
DC-DC Converter	Engine Restart Disable Determination - DC-DC converter temperature failure/DC-DC converter internal failure/DC-DC converter input voltage failure.	IDLE STOP INHIBIT (DC-DC CONVERTER) —	PGM FI —