

Auto Idle Stop System Description - Operation Conditions

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	
Idle Stop Off Switch	Idle stop off switch is ON.	IDLE STOP INHIBIT (IDLE STOP CANCEL SWITCH)	PGM FI	—
Hood	Hood is open. (Hood switch is ON.)	IDLE STOP INHIBIT (HOOD OPEN)	PGM FI	—
Steering wheel	Steering wheel is operated.	IDLE STOP INHIBIT (EPS UNIT)	PGM FI	—
Vehicle Speed	<ul style="list-style-type: none"> More than 1 km/h (0.6 mph). Does not exceed 3 km/h (2 mph) after engine start or engine restart from auto idle stop. 	— VEHICLE SPEED	PGM FI	—
		— LEFT FRONT WHEEL SPEED	ABS VSA	—
		— RIGHT FRONT WHEEL SPEED	ABS VSA	—
		— LEFT REAR WHEEL SPEED	ABS VSA	—
		— RIGHT REAR WHEEL SPEED	ABS VSA	—
		—	—	—
M/T	Shift position is not in neutral.	NEUTRAL POSITION SENSOR STATUS	PGM FI	—
Clutch Pedal	Clutch pedal is pressed.	CLUTCH PEDAL POSITION SWITCH D	PGM FI	—
Keyless Access System	Keyless access system (power control unit) is normal.	IDLE STOP INHIBIT (PCU)	PGM FI	—
VSA	VSA system is operated.	IDLE STOP INHIBIT (ABS/VSA UNIT)	PGM FI	—
Accelerator Pedal	Accelerator pedal is pressed.	APP SENSOR	PGM FI	—
PGM-FI	<ul style="list-style-type: none"> Number of starter operation exceeds specified value. Engine coolant temperature is too low (less than 40 °C (104 °F)) or too high (more than 110 °C (230 °F)). 	—	—	ON
		ECT SENSOR 1	PGM FI	—
Brake Booster Pressure	Auto Idle Stop Disable Conditions Determination	IDLE STOP INHIBIT (BRAKE SYSTEM)	PGM FI	—
	<ul style="list-style-type: none"> Brake booster pressure is low (almost 0 kPa (0 mmHg, 0 inHg) than -42.7 kPa (-320 mmHg, -12.61 inHg))[*]. <p>[*]: It is variable depending on the atmospheric pressure.</p>	<ul style="list-style-type: none"> BRAKE BOOSTER PRESSURE SENSOR 	BRAKE SYSTEM	—

NOTE:

- If the some DTCs are indicated, the auto idle stop system may be disabled.
- If the auto idle stop indicator (amber) is indicated by idle stop disable conditions, the auto idle stop indicator does indicate in the auto idle stop system by idle stop system OFF switch operation

Idle Stop Disable Conditions		HDS		AUTO IDLE STOP INDICATOR (amber)
Item	Conditions	Parameter	Menu	
Climate Control System	Auto Idle Stop Disable Conditions Determination (While the climate control system is ON)	IDLE STOP INHIBIT (HVAC)	PGM FI	—
	- Front defroster switch is ON.	—	—	—
	- Temperature setting is Hi or Lo.	—	—	—
	- HVAC display (blower fan display) is more than 4 segments (ECON switch is ON) or 6 segments (ECON switch is OFF).	—	—	—
	- Outside air temperature is 40 °C (104 °F) or above.	—	—	—
	- Outside air temperature is -20 °C (-4 °F) or less.	—	—	—
	- Selected system temperature is colder or warmer than the outside air temperature.	—	—	—
	- When the climate control unit ruins the indoor amenity.	—	—	—
DC-DC Converter	Auto Idle Stop Disable Conditions Determination	IDLE STOP INHIBIT (DC-DC CONVERTER)	PGM FI	—
	- DC-DC converter temperature failure/DC-DC converter internal failure/DC-DC converter input voltage failure.	—	—	—
Battery	Auto Idle Stop Disable Conditions Determination	IDLE STOP INHIBIT (BATTERY MANAGEMENT SYSTEM)	PGM FI	—
	- Battery is deteriorated.	- IDLE STOP INHIBIT (BATTERY DETERIORATION)	PGM FI	—
	- Battery charging is insufficient.	- IDLE STOP INHIBIT (BATTERY CHARGING)	PGM FI	—
Seat belt	Driver's seat belt is not fastened.	IDLE STOP INHIBIT (SEAT BELT UNFASTENED)	PGM FI	—

NOTE:

- If the some DTCs are indicated, the auto idle stop system may be disabled.
- If the auto idle stop indicator (amber) is indicated by idle stop disable conditions, the auto idle stop indicator does indicate in the auto idle stop system by idle stop system OFF switch operation

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 to ON.	IDLE STOP INHIBIT (IDLE STOP CANCEL SWITCH)	PGM FI
Steering wheel	Steering wheel is operated.	IDLE STOP INHIBIT (EPS UNIT)	PGM FI
Vehicle Speed	Vehicle speed is 2 km/h (1.3 mph) or more.	- VEHICLE SPEED	PGM FI
		- LEFT FRONT WHEEL SPEED	ABS VSA
		- RIGHT FRONT WHEEL SPEED	ABS VSA
		- LEFT REAR WHEEL SPEED	ABS VSA

*1: The auto idle stop indicator in the gauge control module (tach) blinks and the engine does not restart automatically.

Engine Restart Conditions		HDS	
Item	Conditions	Parameter	Menu
		- RIGHT REAR WHEEL SPEED	ABS VSA
Clutch Pedal	Clutch pedal is pressed during auto idle stop.	CLUTCH PEDAL POSITION SWITCH D	PGM FI
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 mmHg, 0 inHg) than -40.0 kPa (-300 mmHg, -11.81 inHg)*). *: It is variable depending on the atmospheric pressure.	IDLE STOP INHIBIT (BRAKE SYSTEM) - BRAKE BOOSTER PRESSURE SENSOR	PGM FI BRAKE SYSTEM
Climate Control System*1	Engine Restart Determination - Front defroster switch is ON. - Selected system temperature is colder or warmer than the outside air temperature.	IDLE STOP INHIBIT (HVAC) - -	PGM FI - -
Battery	Battery charging decreases during auto idle stop.	IDLE STOP INHIBIT (BATTERY CHARGING)	PGM FI

*1: The auto idle stop indicator in the gauge control module (tach) blinks and the engine does not restart automatically.

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. (Hood switch is ON.)	IDLE STOP INHIBIT (HOOD OPEN)	PGM FI
Starter	● Engine cranking time is long (more than 5 seconds).	-	-
	● Starter does not run.	-	-
Seat Belt	Driver's seat belt is not fastened.	IDLE STOP INHIBIT (SEAT BELT UNFASTENED)	PGM FI
M/T	Shift position is changed from neutral.	NEUTRAL POSITION SENSOR STATUS	PGM FI
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 -