

QUICK DIAGNOSTIC CHART [SKYACTIV-G 2.0, SKYACTIV-G 2.5]

id1103a5000400

X: Applied

Possible factor															
Troubleshooting item		Starter motor malfunction (mechanical or electrical)	Starter circuit including ignition switch is open	Improper engine oil level	Low or dead battery	Charging system malfunction	Improper engine compression	Improper dipstick	Base engine malfunction	Drive plate (ATX) or flywheel (MTX) is seized	Improper tension or damaged drive belts	Improper engine coolant level	Water and anti-freeze mixture is improper	Cooling system malfunction (radiator, hoses, overflow system, thermostat, etc.)	Cooling fan system malfunction
1	i-stop warning light (amber) illuminates														
2	i-stop warning light (amber) flashes														
3	i-stop indicator light (green) flashes														
4	i-stop function does not operate				X	X								X	
5	i-stop function operates under no engine-stop conditions														
6	Engine does not restart	X	X		X	X	X		X						
7	Limited i-stop function operation time				X	X								X	
8	Ineffective operation of A/C during engine stop (i-stop system)														
9	Acceleration malfunction (ATX)						X		X						
10	Vehicle moves when accelerating from standstill on slope (ATX)														

ac5wzw00006506

X: Applied

Possible factor		Engine or transaxle mounts are improperly installed	Cooling fan or condenser fan seats improper	Fuel quality	Improper engine oil viscosity	Improper valve timing	Oil leakage (internal, turbocharger, external)	Improper oil or fluid level	Coolant leakage (internal, turbocharger, external)	Electric variable valve timing system malfunction	Hydraulic variable valve timing system malfunction	Engine overheating	Air cleaner element clogged or restricted	Air leakage from intake-air system (loose tubes, cracks, gaskets breakage)	Air suction in intake-air system	Intake-air system restriction
Troubleshooting item																
1	i-stop warning light (amber) illuminates															
2	i-stop warning light (amber) flashes															
3	i-stop indicator light (green) flashes															
4	i-stop function does not operate											X				
5	i-stop function operates under no engine-stop conditions															
6	Engine does not restart			X		X				X	X		X	X	X	X
7	Limited i-stop function operation time															
8	Ineffective operation of A/C during engine stop (i-stop system)															
9	Acceleration malfunction (ATX)			X		X				X	X		X	X	X	X
10	Vehicle moves when accelerating from standstill on slope (ATX)															

ac5wzw00006507

Possible factor	
Troubleshooting item	
1	i-stop warning light (amber) illuminates
2	i-stop warning light (amber) flashes
3	i-stop indicator light (green) flashes
4	i-stop function does not operate
5	i-stop function operates under no engine-stop conditions
6	Engine does not restart
7	Limited i-stop function operation time
8	Ineffective operation of A/C during engine stop (i-stop system)
9	Acceleration malfunction (ATX)
10	Vehicle moves when accelerating from standstill on slope (ATX)
	Drive-by-wire control system improper operation
	Drive-by-wire control system operates with brake override system
	Throttle body malfunction
	Vacuum leakage (vacuum hose damage, misrouting)
	Ignition coil malfunction (e.g. open, short or cracks)
	Initial ignition timing misadjustment (CKP and pulse wheel misadjustment)
	Spark plug malfunction
	Fuel pump (low-pressure side) malfunction (mechanically or electrically)
	Pressure regulator (built-into fuel pump unit at fuel tank)
	Inadequate fuel pressure (high-pressure side)
	Inadequate fuel pressure (low-pressure side)
	Fuel line restricted or clogged

X: Applied

ac5wzwm0000508

X: Applied

Possible factor	
Troubleshooting item	
1	i-stop warning light (amber) illuminates
2	i-stop warning light (amber) flashes
3	i-stop indicator light (green) flashes
4	i-stop function does not operate
5	i-stop function operates under no engine-stop conditions
6	Engine does not restart
7	Limited i-stop function operation time
8	Ineffective operation of A/C during engine stop (i-stop system)
9	Acceleration malfunction (ATX)
10	Vehicle moves when accelerating from standstill on slope (ATX)
X	Constant voltage supply circuit malfunction
	Main relay malfunction (mechanically or electrically)
	No battery power supply to PCM
X	Poor PCM ground or vehicle ground (open)
	Electrical connector disconnection
	ECT sensor or related circuit malfunction
X	Transaxle range sensor malfunction (ATX)
X	Brake switch or related circuit malfunction
	A/F sensor or HO2S or related circuit malfunction
X	IAT sensor No.1 (integrated in MAF sensor/ IAT sensor No.1) or related circuit malfunction
X	Fuel pressure sensor or related circuit malfunction
X	MAP sensor or related circuit malfunction

ac5wzwm0000509

X: Applied									
Possible factor		Intake CMP sensor damaged (e.g.open or short circuit)	Intake CMP sensor pulse wheel (intake camshaft) damaged	Exhaust CMP sensor damaged (e.g.open or short circuit)	Exhaust CMP sensor pulse wheel (exhaust camshaft) damaged	Improper gap between CKP sensor and pulse wheel	CKP sensor damaged (e.g.open or short circuit)	CKP sensor pulse wheel damaged	CPP switch or related circuit malfunction (MTX)
Troubleshooting item	1	i-stop warning light (amber) illuminates							Neutral switch or related circuit malfunction (MTX)
	2	i-stop warning light (amber) flashes							MAF sensor or related circuit malfunction
	3	i-stop indicator light (green) flashes							KS or related circuit malfunction
	4	i-stop function does not operate							TP sensor or related circuit malfunction
	5	i-stop function operates under no engine-stop conditions							APP sensor or related circuit malfunction
	6	Engine does not restart		X					Improper vehicle speed signal
	7	Limited i-stop function operation time				X			Cruise control system operation improperly
	8	Ineffective operation of A/C during engine stop (i-stop system)							
	9	Acceleration malfunction (ATX)							
	10	Vehicle moves when accelerating from standstill on slope (ATX)							

ac5wzvw00006579

X: Applied									
Possible factor		A/C system improper operation	Improper refrigerant charging amount	A/C relay (A/C control signal circuit) malfunction	A/C compressor magnetic clutch malfunction	Clutch slippage (MTX)	ATX related parts malfunction (ATX)	Improper ATF level (ATX)	Brake dragging
Troubleshooting item	1	i-stop warning light (amber) illuminates							Loose parts
	2	i-stop warning light (amber) flashes							Improper balance of wheels and tires
	3	i-stop indicator light (green) flashes							Drive line malfunction
	4	i-stop function does not operate							Suspension malfunction
	5	i-stop function operates under no engine-stop conditions							Immobilizer system operating properly
	6	Engine does not restart							Immobilizer system or related circuit malfunction
	7	Limited i-stop function operation time							Advanced keyless entry system malfunction
	8	Ineffective operation of A/C during engine stop (i-stop system)							i-stop system improper operation
	9	Acceleration malfunction (ATX)							i-stop component system malfunction
	10	Vehicle moves when accelerating from standstill on slope (ATX)							

ac5wzvw00006579

X: Applied

Troubleshooting item		Possible factor												
			i-stop OFF switch malfunction											
			Instrument cluster malfunction											
			Driver-side buckle switch malfunction											
			Door latch switch or liftgate latch switch malfunction											
			Bonnet latch switch malfunction											
			Battery malfunction (deterioration)											
			Ambient temperature sensor malfunction											
			ABS wheel-speed sensor malfunction											
			Clutch stroke sensor malfunction (MTX)											
			Steering angle sensor malfunction											
			Driver-side air mix actuator malfunction											
			Climate control unit malfunction											
			Battery fluid temperature sensor malfunction											
			Keyless antenna malfunction											
1	i-stop warning light (amber) illuminates	X	X											
2	i-stop warning light (amber) flashes													
3	i-stop indicator light (green) flashes			X	X	X								
4	i-stop function does not operate	X		X	X	X	X	X	X		X	X	X	X
5	i-stop function operates under no engine-stop conditions	X		X	X	X	X	X	X		X		X	
6	Engine does not restart			X	X	X	X			X	X			
7	Limited i-stop function operation time	X					X	X		X		X	X	
8	Ineffective operation of A/C during engine stop (i-stop system)							X				X		
9	Acceleration malfunction (ATX)													
10	Vehicle moves when accelerating from standstill on slope (ATX)													

ac5wzw00006511

X: Applied

Troubleshooting item		Possible factor									
			Heater core temperature sensor malfunction								
			Power brake unit vacuum sensor malfunction								
			Cabin temperature sensor malfunction								
			Solar radiation sensor malfunction								
			Number of times i-stop function operates exceeds assured operation amount of components								
			Brake fluid pressure sensor malfunction								
			M range switch malfunction (ATX)								
			Low-G (XY) sensor malfunction								
			TFT sensor malfunction (ATX)								
			Electric AT oil pump malfunction (ATX)								
			DSC HU/CM malfunction								
			Generator drive belt wear								
1	i-stop warning light (amber) illuminates										
2	i-stop warning light (amber) flashes					X					
3	i-stop indicator light (green) flashes										
4	i-stop function does not operate		X	X	X	X	X	X	X		
5	i-stop function operates under no engine-stop conditions		X	X	X		X	X	X		
6	Engine does not restart						X	X			
7	Limited i-stop function operation time		X				X	X			
8	Ineffective operation of A/C during engine stop (i-stop system)	X		X	X						
9	Acceleration malfunction (ATX)						X		X	X	X
10	Vehicle moves when accelerating from standstill on slope (ATX)						X		X	X	X

ac5wzw00006512