QUICK DIAGNOSTIC CHART [SKYACTIV-D 2.2]

id1103a2000400

×: Applicable
—: Not applicable

Troubleshooting item	Intake air system									
	Intake air system part		Air cleaner			Intake shutter valve		Compressor (small)	Compressor (large)	Compressor bypass solenoid valve
	Air suction/ Leakage/ Perforation	Clogging	Deformation	Air cleaner element restricted	Non-genuine part installation	Does not fully close (Does not conform to target value)	Clogging, sticking	Improper operation	Improper operation	Improper operation
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*1 Acceleration malfunction	—	—	—	—	—	—	—	—	—	—
10*1 Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

	Intake air system		Exhaust system		Exhaust system				
Troubleshooting item	**Improper installation of turbocharger**	**Interference with housing of turbo rotational mechanism**	**Each exhaust system part**		**Small-type turbocharger**	**Large-type turbocharger**	**Regulating solenoid valve**	**Waste gate solenoid valve**	**EGR cooler bypass valve**
			Leakage	**Clogging (mostly in oxidation catalytic converter for diesel, diesel particulate filter)**	**Improper operation**	**Improper operation**	**Improper operation**	**Improper operation**	**Improper operation**
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 *1	Acceleration malfunction	—	—	—	—	—	—	—	—	—
10 *1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

	Exhaust system					Fuel system			
Troubleshooting item	**EGR valve**	**EGR cooler**		**EGR pipe**	**Diesel particulate filter**	**Fuel line**		**Fuel filter**	
	Improper operation	**Leakage (gas)**	**Clogging**	**Clogging**	**Loss**	**Leakage**	**Clogging**	**Leakage**	**Clogging**
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	—	—	—	—	—	—	—	—	—

Troubleshooting item		Exhaust system					Fuel system			
		EGR valve	EGR cooler		EGR pipe	Diesel particulate filter	Fuel line		Fuel filter	
		Improper operation	Leakage (gas)	Clogging	Clogging	Loss	Leakage	Clogging	Leakage	Clogging
7	Limited i-stop function operation time	—	—	—	—	—	—	—	—	—
8	Ineffective operation of A/C during engine stop (i-stop system)	—	—	—	—	—	—	—	—	—
9*1	Acceleration malfunction	—	—	—	—	—	—	—	—	—
10*1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

Troubleshooting item		Fuel system								
		Sedimentor switch		Fuel warmer	Jet pump (4WD)	Supply pump	Suction control valve		Fuel pressure relief valve	
		Always on	Always off	Improper operation	Improper operation	Poor discharge amount	Low adjusted pressure value	High adjusted pressure value	Low adjusted pressure value	High adjusted pressure value
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*1	Acceleration malfunction	—	—	—	×	—	—	—	—	—
10*1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

Troubleshooting item	Fuel system			Fuel injector						
	Fuel check valve	Fuel feed valve	Fuel system /Fuel injection system malfunction (such as leakage)							
	Improper operation	Improper operation		Open circuit in drive circuit	Short circuit in drive circuit	Leakage	Restricted	Always open	Always close	QR code mismatch
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*1 Acceleration malfunction	—	—	×	×	×	—	—	—	—	—
10 *1 Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

Troubleshooting item	Fuel system			Control system				Main relay	
	Fuel injector	Fuel		PCM					
	Injection amount correction miss-match	Low cetane value	Inferior constituent	No initiation	No configuration	No learning	Open circuit in back-up power supply circuit of PCM	Always off	Always on
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	—	×	×	—	—	—	—	—	—

Troubleshooting item		Fuel system			Control system					
		Fuel injector	Fuel		PCM				Main relay	
		Injection amount correction miss-match	Low cetane value	Inferior constituent	No initiation	No configuration	No learning	Open circuit in back-up power supply circuit of PCM	Always off	Always on
7	Limited i-stop function operation time	—	—	—	—	—	—	—	—	—
8	Ineffective operation of A/C during engine stop (i-stop system)	—	—	—	—	—	—	—	—	—
9 *1	Acceleration malfunction	—	×	×	—	—	—	—	—	—
10 *1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

Troubleshooting item		Control system (PCM input signal)											
		MAF sensor			Intake shutter valve position sensor	APP sensor		CKP sensor			CMP sensor	
		High input	Low input	Open or short circuit in signal circuit	Erratic signal input	Open or short circuit in signal circuit	Erratic signal input	Open or short circuit in signal circuit	False signal output (no noise, pulse)	Open or short circuit in signal circuit	Engine speed signal	False signal output (no noise, pulse)	Open or short circuit in signal circuit
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 *1	Acceleration malfunction	—	—	—	—	—	—	—	—	—	—	—	—
10 *1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—	—	—

×: Applicable
—: Not applicable

Troubleshooting item		Control system (PCM input signal)												
		ECT sensor			IAT sensor No.1			Boost air temperature sensor			IAT sensor No.2		
		High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit
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 *1	Acceleration malfunction	—	—	—	—	—	—	—	—	—	—	—	—
10 *1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

Troubleshooting item		Control system (PCM input signal)												
		MAP sensor No.1			MAP sensor No.2			Fuel temperature sensor			Fuel pressure sensor		
		High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit
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	—	—	—	—	×	—	—	—	—	—	—	—

	Troubleshooting item	Control system (PCM input signal)											
		MAP sensor No.1			MAP sensor No.2			Fuel temperature sensor			Fuel pressure sensor		
		High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit
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*1	Acceleration malfunction	—	—	—	—	—	—	—	—	—	—	—	—
10*1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

	Troubleshooting item	Control system (PCM input signal)											
		Exhaust gas temperature sensor No.1			Exhaust gas pressure sensor No. 1			Engine oil temperature sensor			Engine oil pressure sensor		
		High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit
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*1	Acceleration malfunction	—	—	—	—	—	—	—	—	—	—	—	—

Troubleshooting item		Control system (PCM input signal)											
		Exhaust gas temperature sensor No.1			Exhaust gas pressure sensor No. 1			Engine oil temperature sensor			Engine oil pressure sensor		
		High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit
10 *1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

Troubleshooting item		Control system (PCM input signal)											
		Exhaust gas temperature sensor No.2			Exhaust gas temperature sensor No.3			Exhaust gas pressure sensor No. 2			A/F sensor		
		High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit
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 *1	Acceleration malfunction	—	—	—	—	—	—	—	—	—	—	—	—
10 *1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

| | Control system (PCM input signal) | | | | | | | | | | | |
| | BARO sensor (built-into PCM) | | | Regulating valve position sensor | | EGR cooler bypass valve position sensor | | EGR valve position sensor | | Generator output current signal | | |
Troubleshooting item	High input	Low input	Open or short circuit in signal circuit	Erratic signal input	Open or short circuit in signal circuit	Erratic signal input	Open or short circuit in signal circuit	Erratic signal input	Open or short circuit in signal circuit	High input	Low input	Open or short circuit in signal circuit
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*1 Acceleration malfunction	—	—	—	—	—	—	—	—	—	—	—	—
10 *1 Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

| | Control system (PCM input signal) | | | | | | | | | | | |
| | Refrigerant pressure sensor | | | Check connector | CPP switch (MTX) | | Starter interlock switch (MTX) | | Brake switch (No.1 signal) | | Brake switch (No.2 signal) | |
Troubleshooting item	High input	Low input	Open or short circuit in signal circuit	Open circuit	Always on	Always off	Always on	Always off	Always on	Always off	Always on	Always off
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	—	—	—	—	—	—	—	—	—	—	—	—

| Troubleshooting item | Control system (PCM input signal) | | | | | | | | | | | |
| | Refrigerant pressure sensor | | | Check connector | CPP switch (MTX) | | Starter interlock switch (MTX) | | Brake switch (No.1 signal) | | Brake switch (No.2 signal) | |
	High input	Low input	Open or short circuit in signal circuit	Open circuit	Always on	Always off	Always on	Always off	Always on	Always off	Always on	Always off
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*1 Acceleration malfunction	—	—	—	—	—	—	—	—	—	—	—	—
10*1 Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

| Troubleshooting item | Control system (PCM input signal) | | | | Control system (PCM output signal) | | | | | | |
| | Neutral switch (MTX) | | Back-up light switch (MTX) | | Fan control module control circuit | | | | A/C relay circuit | | |
	Always on	Always off	Always on	Always off	Open circuit in power supply circuit	Control signal circuit always on	Control signal circuit always off	Open circuit in ground circuit	Open circuit in circuit on coil side	Circuit on switch side constantly on	Circuit on switch side constantly off
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*1 Acceleration malfunction	—	—	—	—	—	—	—	—	—	—	—
10*1 Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—	—

×: Applicable
—: Not applicable

	Troubleshooting item	Gener ator contro l signal	Starter relay circuit			Blow-by heater relay circuit			Glow control module control signal			
		Open or short circuit	Open circuit in circuit on coil side	Circui t on switch side const antly on	Circui t on switch side const antly off	Open circuit in circuit on coil side	Circui t on switch side const antly on	Circui t on switch side const antly off	Open circuit in power suppl y circuit	Contr ol signal circuit const antly energi zes (FET malfu nction)	Contr ol signal circuit alway s off	Open circuit in groun d circuit
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*1	Acceleration malfunction	—	—	—	—	—	—	—	—	—	—	—
10 *1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

Troubleshooting item		Control system (PCM output signal) A/F sensor heater		Mechanical Each engine internal part								
		Always on	Always off	Large mechanical resistance	Deviation in valve timing	High compression pressure	No compression in specific cylinder	No compression in all cylinders	Bad compression in specific cylinder	Bad compression in all cylinders	Oil working up or down	Piston ring 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	—	—	—	—	—	—	—	—	—	—	—
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*1	Acceleration malfunction	—	—	×	×	×	×	—	×	×	×	—
10*1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

Troubleshooting item		Mechanical OCV		Blow-by heater		Engine oil solenoid valve				Belts for engine accessories	Lubrication system Engine oil
		Always on	Always off	Always on	Always off	Open circuit in drive circuit	Short circuit in drive circuit	Valve stuck open	Valve stuck close	Slippage	Inferior constituent
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	—	—	—	—	—	—	—	—	—	—

Troubleshooting item		Mechanical									Lubrication system
		OCV		Blow-by heater		Engine oil solenoid valve				Belts for engine accessories	Engine oil
		Always on	Always off	Always on	Always off	Open circuit in drive circuit	Short circuit in drive circuit	Valve stuck open	Valve stuck close	Slippage	Inferior constituent
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*1	Acceleration malfunction	—	—	—	—	—	—	—	—	—	—
10 *1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

Troubleshooting item		Lubrication system			Cooling system					Charging system	
		Engine oil			Engine coolant passage		Thermostat		Cooling fan motor	Battery	
		Leakage	Clogging	Improper level	Restricted	Leakage	Always open	Always close	Improper operation	Does not charge	No discharge (deterioration)
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*1	Acceleration malfunction	—	—	—	—	—	—	—	—	—	—

| Troubleshooting item | Lubrication system | | | Cooling system | | | | | Charging system | |
| | Engine oil | | | Engine coolant passage | | Thermostat | | Cooling fan motor | Battery | |
	Leakage	Clogging	Improper level	Restricted	Leakage	Always open	Always close	Improper operation	Does not charge	No discharge (deterioration)
10 *1 Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

| Troubleshooting item | Charging system | | | | | | | Emission system | ATX | |
| | Generator | | | Starter | | Glow plug | | Catalytic converter (diesel particulate filter) | ATF | |
	Low power generation voltage	No power generation	High power generation	Open/short circuit in drive circuit	Internal malfunction	Always off	Always on	Deterioration or loss	Oil cooler restriction	Lack of ATF
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*1 Acceleration malfunction	—	—	—	—	—	—	—	—	—	×
10*1 Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—

*1 : ATX

Troubleshooting item		ATX			Other						
		Automatic transaxle			Engine mount	Instrument cluster	Brake	Tire	Vehicle electric devices		
		TCC non-operation	Constant lockup	Abnormal shift point	Looseness	Improper operation	Drag	Low air pressure	Remote transmitter left in vehicle cabin	Large amount of parasitic draw	Large power consumption
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*1	Acceleration malfunction	—	—	—	—	—	×	—	—	—	—
10*1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—

*1 : ATX

Troubleshooting item		Other					i-stop				
		A/C compressor	Immobilizer system		Advanced keyless entry system	Climate control unit	Magnetic clutch	i-stop OFF signal malfunction	Bonnet latch switch		Door latch switch or liftgate latch switch	
		Large mechanical resistance	Improper operation	Unprogrammed remote transmitter	Improper operation	Improper operation	Improper operation		Stuck open	Stuck close	Stuck open	Stuck close
1	i-stop warning light (amber) illuminates	—	—	—	—	—	—	×	—	—	—	—
2	i-stop warning light (amber) flashes	—	—	—	—	—	—	—	—	—	—	—
3	i-stop indicator light (green) flashes	—	—	—	—	—	—	—	—	—	—	—

Troubleshooting item	Other						i-stop				
	A/C compressor	Immobilizer system		Advanced keyless entry system	Climate control unit	Magnetic clutch	i-stop OFF signal malfunction	Bonnet latch switch		Door latch switch or liftgate latch switch	
	Large mechanical resistance	Improper operation	Unprogrammed remote transmitter	Improper operation	Improper operation	Improper operation		Stuck open	Stuck close	Stuck open	Stuck close
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*1 Acceleration malfunction	×	—	—	—	—	—	—	—	—	—	—
10*1 Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

Troubleshooting item	i-stop								
	False detection of driver-side buckle switch		Instrument cluster malfunction	Number of times i-stop function operates exceeds assured operation amount of components	Ambient temperature sensor	Cabin temperature sensor	Solar radiation sensor	Driver-side air mix actuator malfunction	Driver-side air mix actuator position sensor
	Stuck off	Stuck on			Erratic signal input	Erratic signal input	Erratic signal input		Erratic signal input
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	—	—	—	—	—	—	—	×	×

Troubleshooting item		i-stop								
		False detection of driver-side buckle switch		Instrument cluster malfunction	Number of times i-stop function operates exceeds assured operation amount of components	Ambient temperature sensor	Cabin temperature sensor	Solar radiation sensor	Driver-side air mix actuator malfunction	Driver-side air mix actuator position sensor
		Stuck off	Stuck on			Erratic signal input	Erratic signal input	Erratic signal input		Erratic signal input
8	Ineffective operation of A/C during engine stop (i-stop system)	—	—	—	—	×	×	×	×	×
9 *1	Acceleration malfunction	—	—	—	—	—	—	—	—	—
10 *1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	—	—	—

*1 : ATX

×: Applicable
—: Not applicable

Troubleshooting item		i-stop							
		Steering angle sensor	Defroster switch malfunction	Low power brake unit load	Power brake unit vacuum sensor	Heater core temperature sensor malfunction	Battery management system malfunction	Brake fluid pressure sensor (built-into DSC HU/CM)	M position switch malfunction (ATX)
		Erratic signal input			Erratic signal input				Erratic signal input
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 *1	Acceleration malfunction	—	—	—	—	—	—	×	—
10 *1	Vehicle moves when accelerating from standstill on slope	—	—	—	—	—	—	×	—

*1 : ATX

×: Applicable

—: Not applicable

Troubleshooting item		i-stop					
		Low-G (XY) sensor (built-into SAS control module)	TFT sensor (ATX)	Electric AT oil pump malfunction (ATX)	DSC HU/CM malfunction	Generator drive belt wear	Ignition switch input (PCM terminal 2H)
		Erratic signal input	Erratic signal input				Stuck on
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*1	Acceleration malfunction	—	—	×	×	×	—
10*1	Vehicle moves when accelerating from standstill on slope	×	—	×	×	—	—

*1 : ATX