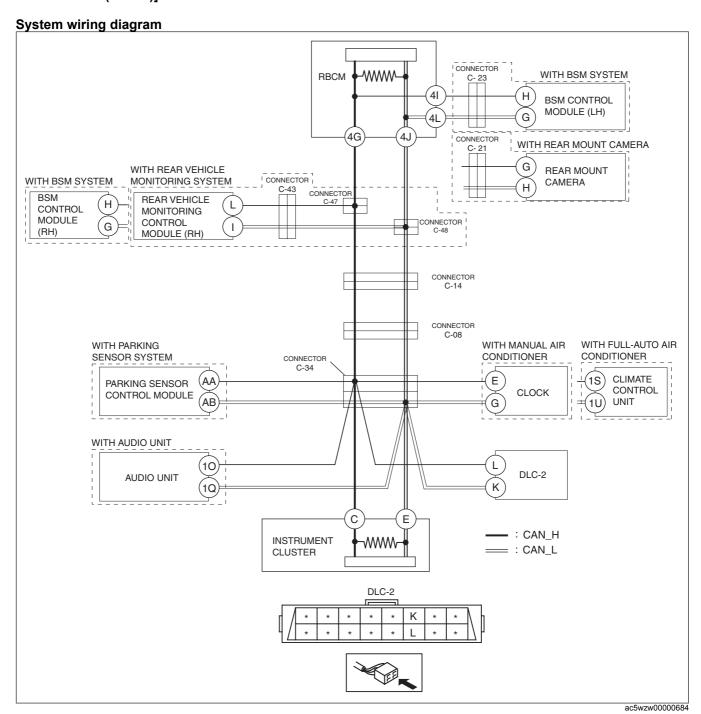
## Caution

 Perform the following malfunction diagnosis only when it is diagnosed with a short to the power supply by CONTROLLER AREA NETWORK (CAN) MALFUNCTION DIAGNOSIS FLOW [SKYACTIV-G 2.0 (R.H.D.)].



## **Determination procedure**

## Caution

- When disconnecting the connector, verify that there is no looseness, damage, deformation, corrosion, or poor connection of the connector terminals.
- When inspecting the DLC-2, touch it with a paper clip or similar thin pin without directly inserting a tester into the terminals.

 Disconnect the negative battery cable before performing any work that requires handling of connectors.

Step	Inspection		Action
1	INSPECT FOR SHORT TO POWER SUPPLY	Yes	Go to Step 11.
	BETWEEN CONNECTOR C-08 AND	No	Go to the next step.
	INSTRUMENT CLUSTER		·
	Disconnect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Disconnect connector C-08.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals L and		
	K.		
	• Is the voltage between 1.5 — 3.5 V?		
2	INSPECT FOR SHORT TO POWER SUPPLY	Yes	Go to the next step.
	BETWEEN CONNECTORS C-34 AND DLC-2	No	Repair or replace the wiring harness between DLC-2 and
	Switch the ignition off (LOCK).      Discourse of the constant of the con		connector C-34 because the wiring harness is shorted to
	Disconnect the negative battery cable.     (See NEGATIVE BATTERY CABLE)		the power supply.
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	• Disconnect connector C-34.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals L and		
	K.		
	Is the voltage 0 V?		
3	INSPECT FOR SHORT TO POWER SUPPLY	Yes	Go to Step 5.
	BETWEEN CONNECTOR C-34 AND PARKING	No	Go to the next step.
	SENSOR CONTROL MODULE		
	Measure the voltage at parking sensor control		
	module terminals AA and AB.		
	• Is the voltage between 1.5 — 3.5 V?		

Step	Inspection		Action
4	INSPECT PARKING SENSOR CONTROL	Yes	Replace the parking sensor control module because there
	MODULE FOR SHORT TO POWER SUPPLY		is a short to power supply in the parking sensor control
	Switch the ignition off (LOCK).		module.
	Disconnect the negative battery cable.		(See PARKING SENSOR CONTROL MODULE
	(See NEGATIVE BATTERY CABLE		REMOVAL/INSTALLATION.)
	DISCONNECTION/CONNECTION	No	Repair or replace the wiring harness between the parkin
		INO	
	[SKYACTIV-G 2.0].)		sensor control module and connector C-34 because the
	(See NEGATIVE BATTERY CABLE		wiring harness is shorted to the power supply.
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Disconnect the parking sensor control module		
	connector.		
	Connect connector C-34.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals L and		
	K.		
	• Is the voltage between 1.5 — 3.5 V?		
5	INSPECT FOR SHORT TO POWER SUPPLY	Yes	Go to Step 7.
	BETWEEN CONNECTOR C-34 AND CLIMATE	No	Go to the next step.
	CONTROL UNIT OR CLOCK		·
	Measure the voltage at climate control unit		
	terminals 1S and 1U. (with full-auto air		
	conditioner)		
	•		
	Measure the voltage at clock terminals E and G.      (with a sound six and distance)		
	(with manual air conditioner)		
	• Is the voltage between 1.5 — 3.5 V?		
6	INSPECT CLIMATE CONTROL UNIT OR	Yes	Replace the climate control unit or the clock because the
	CLOCK FOR SHORT TO POWER SUPPLY		is a short to power supply inside the climate control unit
	Switch the ignition off (LOCK).		the clock.
	Disconnect the negative battery cable.		(See CLIMATE CONTROL UNIT REMOVAL/
	(See NEGATIVE BATTERY CABLE		INSTALLATION [FULL-AUTO AIR CONDITIONER].)
	DISCONNECTION/CONNECTION		(See CLOCK REMOVAL/INSTALLATION.)
	[SKYACTIV-G 2.0].)	No	Repair or replace the wiring harness between the climate
	(See NEGATIVE BATTERY CABLE	110	control unit or the clock and connector C-34 because the
	, ,		
	DISCONNECTION/CONNECTION		wiring harness is shorted to the power supply.
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Disconnect the climate control unit connector or		
	the clock connector.		
	Connect connector C-34.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals L and		
	K.		
	• Is the voltage between 1.5 — 3.5 V?		
	INSPECT FOR SHORT TO POWER SUPPLY	Yes	Go to Step 9.
7			Go to the next step.
7	BETWEEN CONNECTOR C-34 AND AUDIO	No	I GO IO INE NEXI SIED.
7		No	Go to the next step.
7	BETWEEN CONNECTOR C-34 AND AUDIO  • Measure the voltage at audio unit terminals 10 and 1Q.	No	Go to the next step.

Step	Inspection		Action
8	INSPECT AUDIO UNIT FOR SHORT TO	Yes	Replace the audio unit because there is a short to the
	POWER SUPPLY		power supply in the audio unit.
	Switch the ignition off (LOCK).		(See AUDIO UNIT REMOVAL/INSTALLATION.)
	Disconnect the negative battery cable.	No	Repair or replace the wiring harness between the audio
	(See NEGATIVE BATTERY CABLE		unit and connector C-34 because the wiring harness is
	DISCONNECTION/CONNECTION		shorted to the power supply.
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Disconnect the audio unit connector.		
	Connect connector C34.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	• Switch the ignition ON (engine off).		
	Measure the voltage at audio unit terminals 10		
	and 1Q (wiring harness side).		
	• Is the voltage between 1.5 — 3.5 V?		
9	INSPECT FOR SHORT TO POWER SUPPLY	Yes	Repair or replace the wiring harness between connector
	BETWEEN CONNECTOR C-34 AND	100	C-08 and connector C-34 because the wiring harness is
	INSTRUMENT CLUSTER		shorted to the power supply.
	Measure the voltage at instrument cluster	No	Go to the next step.
	terminals C and E.	110	Go to the next step.
	• Is the voltage between 1.5 — 3.5 V?		
10	INSPECT INSTRUMENT CLUSTER FOR	Yes	Replace the instrument cluster because there is a short to
	SHORT TO POWER SUPPLY		the power supply in the instrument cluster.
	Switch the ignition off (LOCK).		(See INSTRUMENT CLUSTER REMOVAL/
	Disconnect the negative battery cable.		INSTALLATION.)
	(See NEGATIVE BATTERY CABLE	No	Repair or replace the wiring harness between the
	DISCONNECTION/CONNECTION		instrument cluster and connector C-34 because the wiring
	[SKYACTIV-G 2.0].)		harness is shorted to the power supply.
	(See NEGATIVE BATTERY CABLE		and the second to the party.
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Disconnect the instrument cluster connector.		
	Connect connector C-34.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	• Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals L and		
	K.		
	• Is the voltage between 1.5 — 3.5 V?		

Step Inspect  11 INSPECT FOR SHORT TO P BETWEEN CONNECTORS O			Action
	OWER SUPPLY   Ye	'es	Go to the next step.
		_	Repair or replace the wiring harness between connector
Switch the ignition off (LOCk			C-14 and connector C-08 because the wiring harness is
Disconnect the negative batt			shorted to the power supply.
(See NEGATIVE BATTERY			
DISCONNECTION/CONNECTION			
[SKYACTIV-G 2.0].)			
(See NEGATIVE BATTERY	CABLE		
DISCONNECTION/CONNEC			
[SKYACTIV-G 2.0 (WITHOU			
Disconnect connector C-14.			
Connect connector C-08.			
Connect the negative battery	/ cable.		
(See NEGATIVE BATTERY			
DISCONNECTION/CONNECTION			
[SKYACTIV-G 2.0].)			
(See NEGATIVE BATTERY	CABLE		
DISCONNECTION/CONNECTION			
[SKYACTIV-G 2.0 (WITHOU			
Switch the ignition ON (engine)			
Measure the voltage at DLC			
K.			
• Is the voltage between 1.5 –	- 3.5 V?		
12 INSPECT FOR SHORT TO P		'es	Go to the next step.
BETWEEN CONNECTORS O	5-47 AND C-48 N	No	Repair or replace the wiring harness between connectors
AND CONNECTOR C-14			C-47 and C-48 and connector C-14 because the wiring
Switch the ignition off (LOCk	().		harness is shorted to the power supply.
Disconnect the negative batt	ery cable.		
(See NEGATIVE BATTERY	CABLE		
DISCONNECTION/CONNECTION	CTION		
[SKYACTIV-G 2.0].)			
(See NEGATIVE BATTERY	CABLE		
DISCONNECTION/CONNEC	CTION		
[SKYACTIV-G 2.0 (WITHOU	T i-stop)].)		
Disconnect connectors C-47	and C-48.		
Connect connector C-14.			
Connect the negative battery			
(See NEGATIVE BATTERY	CABLE		
DISCONNECTION/CONNEC	CTION		
[SKYACTIV-G 2.0].)			
(See NEGATIVE BATTERY			
DISCONNECTION/CONNEC			
[SKYACTIV-G 2.0 (WITHOU			
Switch the ignition ON (engited)			
Measure the voltage at DLC	-2 terminals L and		
K.			
• Is the voltage between 1.5 –		.	
13 INSPECT BETWEEN REAR			Go to Step 16.
MONITORING CONTROL MO	` '	No	• Go to the next step. (With rear vehicle monitoring system)
BSM CONTROL MODULE (F	-		Go to Step 15.
CONNECTORS C-47 AND C	46 FUR SHURI		
TO POWER SUPPLY	vahiala maaritaaisa		
Measure the voltage at rear			
control module (RH) termina			
rear vehicle monitoring syste			
Measure the voltage at BSM     Market and Area at BSM     Market and Area at BSM			
(RH) terminals H and G. (Wi			
• Is the voltage between 1.5 –	- 3.5 V?		

Step	Inspection		Action
14	INSPECT FOR SHORT TO POWER SUPPLY	Yes	Repair or replace the wiring harness between connector
	BETWEEN REAR VEHICLE MONITORING		C-43 and connectors C-47 and C-48 because the wiring
	CONTROL MODULE (RH) AND CONNECTOR		harness is shorted to the power supply.
	C-43	No	Go to the next step.
	Switch the ignition off (LOCK).	110	os to the next step.
	Disconnect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	• Disconnect connectors C-43.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	• Switch the ignition ON (engine off).		
	Measure the voltage at rear vehicle monitoring		
	(RH) terminals L and I.		
	• Is the voltage between 1.5 — 3.5 V?		
15	INSPECT BETWEEN REAR VEHICLE	Yes	Replace the rear vehicle monitoring control module (RH)
	MONITORING CONTROL MODULE (RH) OR		or the BSM control module (RH) because there is a short
	BSM CONTROL MODULE (RH) FOR SHORT		to the power supply in the rear vehicle monitoring control
	TO POWER SUPPLY		module (RH) or the BSM control module (RH).
	Switch the ignition off (LOCK).		(See REAR VEHICLE MONITORING CONTROL
	Disconnect the negative battery cable.		MODULE REMOVAL/INSTALLATION.)
	(See NEGATIVE BATTERY CABLE		(See BLIND SPOT MONITORING (BSM) CONTROL
	DISCONNECTION/CONNECTION		MODULE REMOVAL/INSTALLATION.)
	[SKYACTIV-G 2.0].)	No	Repair or replace the wiring harness between the rear
	(See NEGATIVE BATTERY CABLE		vehicle monitoring control module (RH) and connector
	DISCONNECTION/CONNECTION		C-43 because the wiring harness is shorted to the power
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		supply. (With rear vehicle monitoring system)
	Disconnect the rear vehicle monitoring control		Repair or replace the wiring harness between the BSM
	modules (RH) connector or the BSM control		control module (RH) and connectors C-47 and C-48
	module (RH) connector.		because the wiring harness is shorted to the power
	Connect connectors C-47 and C-48.		supply. (With BSM system)
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals L and		
	K.		
	• Is the voltage between 1.5 — 3.5 V?		

Step	Inspection		Action
16	INSPECT FOR SHORT TO POWER SUPPLY	Yes	Go to Step 19.
	BETWEEN REAR BODY CONTROL MODULE	No	Go to the next step.
	(RBCM) AND BSM CONTROL MODULE (LH)		
	OR REAR MOUNT CAMERA		
	Switch the ignition off (LOCK).		
	Disconnect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Disconnect the rear body control module		
	(RBCM) connector.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at BSM control module		
	(LH) terminals H and G. (With BSM system)		
	Measure the voltage at BSM control module		
	(LH) terminals H and G. (With rear mount		
	camera)		
47	• Is the voltage between 1.5 — 3.5 V?	\/	On the the most etc.
17	INSPECT BETWEEN REAR BODY CONTROL	Yes	Go to the next step.
	MODULE (RBCM) AND CONNECTOR C-23 OR C-21 FOR SHORT TO POWER SUPPLY	No	Repair or replace the wiring harness between the rear body control module (RBCM) and connector C-23 or C-21
	• Switch the ignition off (LOCK).		because the wiring harness is shorted to the power supply.
	Disconnect the negative battery cable.		because the wining namess is shorted to the power supply.
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Disconnect connector C-23 or C-21.		
	Connect the rear body control module (RBCM)		
	connector.		
	Connect connectors C-47 and C-48.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals L and		
	K.		
	• Is the voltage between 1.5 — 3.5 V?		

Step	Inspection		Action
18	INSPECT BSM CONTROL MODULE (LH) OR	Yes	Replace the BSM control module (LH) or the rear mount
	REAR MOUNT CAMERA FOR SHORT TO		camera because there is a short to the power supply in the
	POWER SUPPLY		BSM control module (LH) or the rear mount camera.
	Switch the ignition off (LOCK).		(See BLIND SPOT MONITORING (BSM) CONTROL
	<ul> <li>Disconnect the negative battery cable.</li> </ul>		MODULE REMOVAL/INSTALLATION.)
	(See NEGATIVE BATTERY CABLE		(See REAR MOUNT CAMERA REMOVAL/
	DISCONNECTION/CONNECTION		INSTALLATION.)
	[SKYACTIV-G 2.0].)	No	Repair or replace the wiring harness between BSM
	(See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0 (WITHOUT i-stop)].)		control module (LH) and connector C-23 because the
			wiring harness is shorted to the power supply. (With BSM
			system)
	Disconnect the BSM control module (LH)		Repair or replace the wiring harness between the rear
	connector or the rear mount camera connector.		mount camera and connector C-21 because the wiring
	Connect connector C-23 or C-21.		harness is shorted to the power supply. (With rear mount
	Connect the negative battery cable.      Connect the negative battery cable.		camera)
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION [SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals L and		
	K.		
	• Is the voltage between 1.5 — 3.5 V?		
19	INSPECT REAR BODY CONTROL MODULE	Yes	Replace the rear body control module (RBCM) because
.0	(RBCM) FOR SHORT TO POWER SUPPLY		there is a short to the power supply in the rear body control
	• Switch the ignition off (LOCK).		module (RBCM).
	Disconnect the negative battery cable.		(See REAR BODY CONTROL MODULE (RBCM)
	(See NEGATIVE BATTERY CABLE		REMOVAL/INSTALLATION.)
	DISCONNECTION/CONNECTION	No	Repair or replace the wiring harness between the rear body
	[SKYACTIV-G 2.0].)		control module (RBCM) and connectors C-47 and C-48
	(See NEGATIVE BATTERY CABLE		because the wiring harness is shorted to the power supply.
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	<ul> <li>Connect connectors C-47 and C-48.</li> </ul>		
	<ul> <li>Connect the negative battery cable.</li> </ul>		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0].)		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals L and		
	K.		
	• Is the voltage between 1.5 — 3.5 V?		