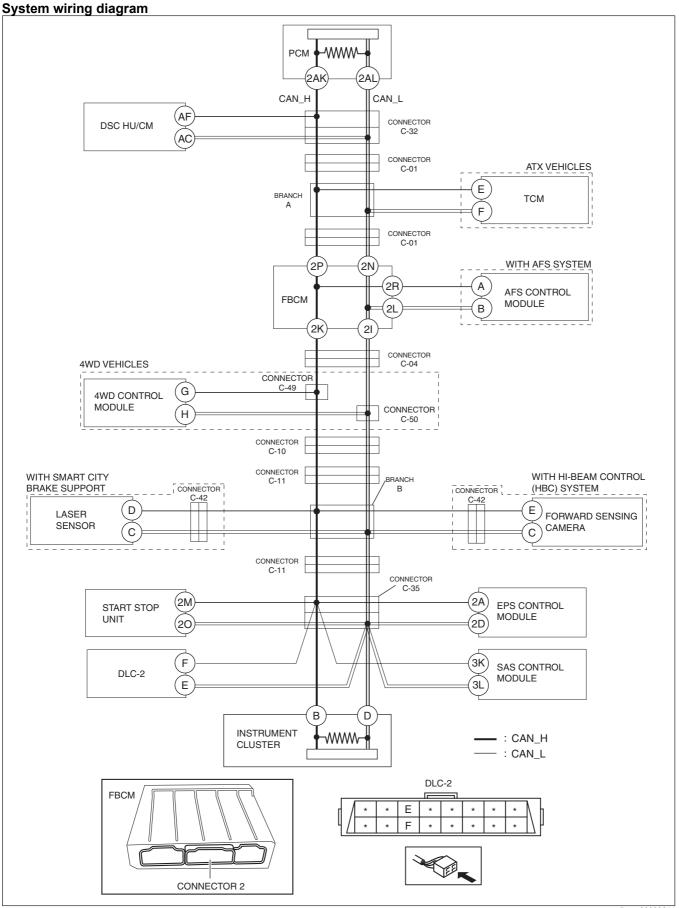
DETERMINING SHORT TO POWER SUPPLY LOCATION (HS-CAN) [SKYACTIV-G 2.0 (L.H.D.)]

id100201000700

Caution

 Perform the following malfunction diagnosis only when it is diagnosed with a short to power supply by CONTROLLER AREA NETWORK (CAN) MALFUNCTION DIAGNOSIS FLOW [SKYACTIV-G 2.0 (L.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 the next step.
	BETWEEN FRONT BODY CONTROL MODULE	No	Go to Step 4.
	(FBCM) AND 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 2 which has front body		
	control module (FBCM) terminals 2K and 2I		
	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 F and		
	E.		
2	• Is the voltage between 1.5 — 3.5 V?	Voc	Co to Ston 24
	CONTROL MODULE AND FRONT BODY	Yes No	Go to Step 24.
	CONTROL MODULE (FBCM) FOR SHORT TO	INO	Go to the next step.
	POWER SUPPLY		
	Measure the voltage at AFS control module		
	terminals A and B.		
	• Is the voltage between 1.5 — 3.5 V?		

Step	Inspection		Action
3	INSPECT AFS CONTROL MODULE FOR	Yes	Replace the AFS control module because there is a short
	SHORT TO POWER SUPPLY		to the power supply in the AFS control module.
	Switch the ignition off (LOCK).		(See ADAPTIVE FRONT LIGHTING SYSTEM (AFS)
	Disconnect the negative battery cable.		CONTROL MODULE REMOVAL/INSTALLATION.)
	(See NEGATIVE BATTERY CABLE	No	Repair or replace the wiring harness between AFS control
	DISCONNECTION/CONNECTION	''	module and the front body control module (FBCM)
	[SKYACTIV-G 2.0].)		because the wiring harness is shorted to the power supply.
	(See NEGATIVE BATTERY CABLE		because the maniginarious is choiced to the perior supply.
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	• Disconnect the AFS control module connector.		
	Connect connector 2 which has front body		
	control module (FBCM) terminals 2K and 2I		
	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 F and		
	E.		
	• Is the voltage between 1.5 — 3.5 V?		
4	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Repair or replace the wiring harness between the front
	C-04 AND INSTRUMENT CLUSTER FOR		body control module (FBCM) and connector C-04 because
	SHORT TO POWER SUPPLY		the wiring harness is shorted to the power supply.
	Switch the ignition off (LOCK).	No	Go 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 connector C-04.		
	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 F and		
	E.		
	• Is the voltage between 1.5 — 3.5 V?		

Step	Inspection		Action
5	INSPECT CAN LINE BETWEEN	Yes	Go to the next step.
	CONNECTORS C-49 AND C-50 AND	No	Go to Step 8.
	INSTRUMENT CLUSTER FOR SHORT TO	110	00 to step 6.
	POWER SUPPLY		
	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 connectors C-49 and C-50.		
	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 F and		
	E.		
	• Is the voltage between 1.5 — 3.5 V?		
6	INSPECT CAN LINE BETWEEN 4WD	Yes	Repair or replace the wiring harness between connector
	CONTROL MODULE AND CONNECTORS		C-04 and connectors C-49 and C-50 because the wiring
	C-49 AND C-50 FOR SHORT TO POWER		harness is shorted to the power supply.
	SUPPLY	No	Go to the next step.
	Measure the voltage at 4WD control module	''	or to the next step.
	terminals G and H.		
	• Is the voltage between 1.5 — 3.5 V?		
7	INSPECT 4WD CONTROL MODULE FOR	Yes	Replace the 4WD control module because there is a short
,	SHORT TO POWER SUPPLY	103	to the power supply in the 4WD control module.
	Switch the ignition off (LOCK).		(See 4WD CONTROL MODULE REMOVAL/
	Disconnect the negative battery cable.		INSTALLATION.)
	(See NEGATIVE BATTERY CABLE	No	Repair or replace the wiring harness between the 4WD
	DISCONNECTION/CONNECTION	INO	control module and connectors C-49 and C-50 because the
	[SKYACTIV-G 2.0].)		wiring harness is shorted to the power supply.
	(See NEGATIVE BATTERY CABLE		willing harriess is shorted to the power supply.
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	• Connect connectors C-49 and C-50.		
	Disconnect the 4WD control module connector.		
	Connect the negative battery cable. 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 F and		
	E		
	• Is the voltage between 1.5 — 3.5 V?		

Step	Inspection		Action
8	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Repair or replace the wiring harness between connectors
	C-10 AND INSTRUMENT CLUSTER FOR	103	C-49 and C-50 and connector C-10 because the wiring
	SHORT TO POWER SUPPLY		harness is shorted to the power supply.
	Switch the ignition off (LOCK).	No	Go to the next step.
	Disconnect the negative battery cable.	.,,	Go to the next step.
	(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-10.		
	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 F and		
	E.		
	• Is the voltage between 1.5 — 3.5 V?		
9	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Go to the next step.
	C-11 AND INSTRUMENT CLUSTER FOR	No	Go to Step 15.
	SHORT TO POWER SUPPLY		'
	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 connector C-11.		
	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 F and		
	E. • Is the voltage between 1.5 — 3.5 V?		
10	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Repair or replace the wiring harness between connector
10	C-11 AND FORWARD SENSING CAMERA/	163	C-10 and connector C-11 because the wiring harness is
	LASER SENSOR FOR SHORT TO POWER		shorted to the power supply.
	SUPPLY	No	Go to the next step.
	Measure the voltage at the forward sensing	140	Oo to the next step.
	camera terminals E and C (with high beam		
	control (HBC) system).		
	Measure the voltage at laser sensor terminals D		
	and C (with smart city brake support).		
	• Is the voltage between 1.5 — 3.5 V?		
			1

Step	Inspection		Action
11	INSPECT CAN LINE BETWEEN LASER	Yes	Go to Step 13.
	SENSOR AND CONNECTOR C-42 FOR	No	Go to the next step.
	SHORT TO POWER SUPPLY	140	Go to the flext step.
	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 connector C-42.		
	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 laser sensor terminals D		
	and C.		
	• Is the voltage between 1.5 — 3.5 V?		
12	INSPECT LASER SENSOR FOR SHORT TO	Yes	Replace the laser sensor because there is a short to the
	POWER SUPPLY		power supply in the laser sensor.
	Switch the ignition off (LOCK).		(See LASER SENSOR REMOVAL/INSTALLATION.)
	Disconnect the negative battery cable.	No	Repair or replace the wiring harness between the laser
	(See NEGATIVE BATTERY CABLE		sensor and connector C-42 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 laser sensor connector.		
	Connect connector C-42.		
	Connect connector C-11.		
	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 F and		
	E		
4.5	• Is the voltage between 1.5 — 3.5 V?	.,	
13	INSPECT CAN LINE BETWEEN FORWARD	Yes	Repair or replace the wiring harness between connector
	SENSING CAMERA AND CONNECTOR C-42 FOR SHORT TO POWER SUPPLY		C-11 and connector C-42 because the wiring harness is
			shorted to the power supply.
	Measure the voltage at forward sensing camera	No	Go to the next step.
	terminals E and C.		
	• Is the voltage between 1.5 — 3.5 V?		

Step	Inspection		Action
14	INSPECT FORWARD SENSING CAMERA FOR	Yes	Replace the forward sensing camera because there is a
	SHORT TO POWER SUPPLY		short to the power supply in the forward sensing camera.
	Switch the ignition off (LOCK).		(See FORWARD SENSING CAMERA (FSC) REMOVAL/
	Disconnect the negative battery cable.		INSTALLATION.)
	(See NEGATIVE BATTERY CABLE	No	Repair or replace the wiring harness between the forward
	DISCONNECTION/CONNECTION	110	sensing camera and connector C-42 because the wiring
	[SKYACTIV-G 2.0].)		harness is shorted to the power supply.
	(See NEGATIVE BATTERY CABLE		That hess is shorted to the power supply.
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Disconnect the forward sensing camera		
	connector.		
	Connect connector C-42.		
	Connect connector C-11.		
	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 F and		
	E.		
	• Is the voltage between 1.5 — 3.5 V?		
15	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Go to the next step.
13	C-35 AND DLC-2 FOR SHORT TO POWER	No	Repair or replace the wiring harness between connector
	SUPPLY	INO	C-35 and DLC-2 because the wiring harness is shorted to
	Switch the ignition off (LOCK).		the power supply.
	Disconnect the negative battery cable.		the power suppry.
	(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-35.		
	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 F and		
	E.		
	Is the voltage 0 V?		
16	INSPECT CAN LINE BETWEEN START STOP	Yes	Go to Step 18.
	UNIT AND CONNECTOR C-35 FOR SHORT TO	No	Go to the next step.
	POWER SUPPLY		·
	Measure the voltage at start stop unit terminals		
	2M and 2O.		
	• Is the voltage between 1.5 — 3.5 V?		

Step	Inspection		Action
17	INSPECT START STOP UNIT FOR SHORT TO	Yes	Replace the start stop unit because there is a short to the
	POWER SUPPLY		power supply in the start stop unit.
	Switch the ignition off (LOCK).		(See START STOP UNIT REMOVAL/INSTALLATION.)
	Disconnect the negative battery cable.	No	Repair or replace the wiring harness between the start stop
	Connect connector C-35.		unit and connector C-35 because the wiring harness is
	Disconnect the start stop unit connector.		shorted to the power supply.
	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 E and		
	F.		
	• Is the voltage between 1.5 — 3.5 V?		
18	INSPECT CAN LINE BETWEEN EPS	Yes	Go to Step 20.
	CONTROL MODULE AND CONNECTOR C-35	No	Go to the next step.
	FOR SHORT TO POWER SUPPLY		·
	Measure the voltage at EPS control module		
	terminals 2A and 2D.		
	• Is the voltage between 1.5 — 3.5 V?		
19	INSPECT EPS CONTROL MODULE FOR	Yes	Replace the EPS control module because there is a short
	SHORT TO POWER SUPPLY		to the power supply in the EPS control module.
	Switch the ignition off (LOCK).		(See STEERING WHEEL AND COLUMN REMOVAL/
	Disconnect the negative battery cable.		INSTALLATION.)
	(See NEGATIVE BATTERY CABLE	No	Repair or replace the wiring harness between the EPS
	DISCONNECTION/CONNECTION		control module and connector C-35 because the wiring
	[SKYACTIV-G 2.0].)		harness is shorted to the power supply.
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Connect connector C-35.		
	Disconnect the EPS control module 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 DLC-2 terminals E and		
	F.		
20	• Is the voltage between 1.5 — 3.5 V? INSPECT CAN LINE BETWEEN INSTRUMENT	Yes	Go to Step 22.
20	CLUSTER AND CONNECTOR C-35 FOR	No	Go to step 22. Go to the next step.
	SHORT TO POWER SUPPLY	110	Oo to the next step.
	Measure the voltage at instrument cluster		
	terminals B and D.		
	• Is the voltage between 1.5 — 3.5 V?		

Ston	Inspection		Action
Step 21	Inspection INSPECT INSTRUMENT CLUSTER FOR	Yes	Replace the instrument cluster because the instrument
	SHORT TO POWER SUPPLY	103	cluster is shorted to the power supply.
	Switch the ignition off (LOCK).		(See INSTRUMENT CLUSTER REMOVAL/
	Disconnect the negative battery cable.		INSTALLATION.)
	Connect connector C-35.	No	Repair or replace the wiring harness between the
	Disconnect the instrument cluster connector.		instrument cluster and connector C-35 because the wiring
	Connect the negative battery cable.		harness 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)].) • Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals F and		
	E.		
	• Is the voltage between 1.5 — 3.5 V?		
22	INSPECT CAN LINE BETWEEN SAS	Yes	Go to the next step.
	CONTROL MODULE AND CONNECTOR C-35	No	Repair or replace the wiring harness between the SAS
	FOR SHORT TO POWER SUPPLY		control module and connector C-35 because the wiring
	Switch the ignition off (LOCK).		harness is shorted to the power supply.
	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 SAS control module 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 SAS control module terminals 3K and 3L (wiring harness side)		
	terminals 3K and 3L (wiring harness side).		
23	• Is the voltage 0 V? INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Replace the SAS control module because there is a short
25	C-11 AND CONNECTOR C-35 FOR SHORT TO	103	to the power supply in the SAS control module.
	POWER SUPPLY		(See SAS CONTROL MODULE REMOVAL/
	Switch the ignition off (LOCK).		INSTALLATION.)
	Disconnect the negative battery cable.	No	Repair or replace the wiring harness between connector
	(See NEGATIVE BATTERY CABLE		C-11 and connector C-35 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)].) • Connect connector C-35.		
	Disconnect the SAS control module 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 DLC-2 terminals F and		
	E. • Is the voltage between 1.5 — 3.5 V?		
	- 13 the voltage between 1.3 — 3.3 V!		

Step	Inspection		Action
24	INSPECT CAN LINE BETWEEN PCM AND	Yes	Replace the front body control module (FBCM) because
	FRONT BODY CONTROL MODULE (FBCM)		there is a short to the power supply in the front body control
	FOR SHORT TO POWER SUPPLY `		module (FBCM).
	Measure voltage at PCM terminals 2AK and		(See FRONT BODY CONTROL MODULE (FBCM)
	2AL.		REMOVAL/INSTALLATION.)
	• Is the voltage between 1.5 — 3.5 V?	No	Go to the next step.
25	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Go to the next step.
	C-01 AND FRONT BODY CONTROL MODULE	No	Repair or replace the wiring harness between connector
	(FBCM) FOR SHORT TO POWER SUPPLY		C-01 and the front body control module (FBCM) because
	Switch the ignition off (LOCK).		the wiring harness is shorted to the power supply.
	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-01.		
	Connect connector 2 which has front body		
	control module (FBCM) terminals 2K and 2I.		
	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 F and E.		
	• Is the voltage between 1.5 — 3.5 V?		
26	INSPECT CAN LINE BETWEEN TCM AND	Yes	Go to Step 28.
	CONNECTOR C-01 FOR SHORT TO POWER	No	Go to the next step.
	SUPPLY		
	Measure the voltage at TCM terminals E and F.		
	• Is the voltage between 1.5 — 3.5 V?		
27	INSPECT TCM FOR SHORT TO POWER	Yes	Replace the TCM because there is a short to the power
	SUPPLY		supply in the TCM.
	Switch the ignition off (LOCK).		(See CONTROL VALVE BODY REMOVAL/
	Disconnect the negative battery cable.		INSTALLATION [FW6A-EL, FW6AX-EL].)
	(See NEGATIVE BATTERY CABLE	No	Repair or replace the wiring harness between the TCM and
	DISCONNECTION/CONNECTION		connector C-01 because the wiring harness is shorted to
	[SKYACTIV-G 2.0].)		the power supply.
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-G 2.0 (WITHOUT i-stop)].)		
	Connect connector C-01. Disconnect the TCM 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 DLC-2 terminals F and		
	E.		
	• Is the voltage between 1.5 — 3.5 V?		

Step	Inspection		Action
28	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Go to the next step.
	C-32 AND CONNECTOR C-01 FOR SHORT TO POWER SUPPLY • Switch the ignition off (LOCK). • Disconnect the negative battery cable. • Connect connector C-01. • Disconnect connector C-32. • 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].) (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 F and	No	Repair or replace the wiring harness between connector C-32 and connector C-01 because the wiring harness is shorted to the power supply.
	E.		
20	• Is the voltage between 1.5 — 3.5 V?	Voc	Co to Stop 31
29	INSPECT CAN LINE BETWEEN DSC HU/CM AND CONNECTOR C-32 FOR SHORT TO	Yes No	Go to Step 31. Go to the next step.
	 POWER SUPPLY Measure voltage at DSC HU/CM terminals AF and AC. Is the voltage between 1.5 — 3.5 V? 		
30	INSPECT DSC HU/CM FOR SHORT TO	Yes	Replace the DSC HU/CM because the DSC HU/CM is
	POWER SUPPLY		shorted to the power supply.
	Switch the ignition off (LOCK).		(See DSC HU/CM REMOVAL/INSTALLATION.)
	 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)].) Connect connector C-32. Disconnect the DSC HU/CM 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].) 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 F and E. Is the voltage between 1.5 — 3.5 V? 	No	Repair or replace the wiring harness between the DSC HU/CM and connector C-32 because the wiring harness is shorted to the power supply.

Step	Inspection		Action
31	INSPECT PCM FOR SHORT TO POWER SUPPLY • Switch the ignition off (LOCK). • Disconnect the negative battery cable.	Yes	
	(See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0 (WITHOUT i-stop)].) • Connect connector C-32. • Disconnect the PCM 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].) (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 F and E. • Is the voltage between 1.5 — 3.5 V?	No	Repair or replace the wiring harness between the PCM and connector C-32 because the wiring harness is shorted to the power supply.