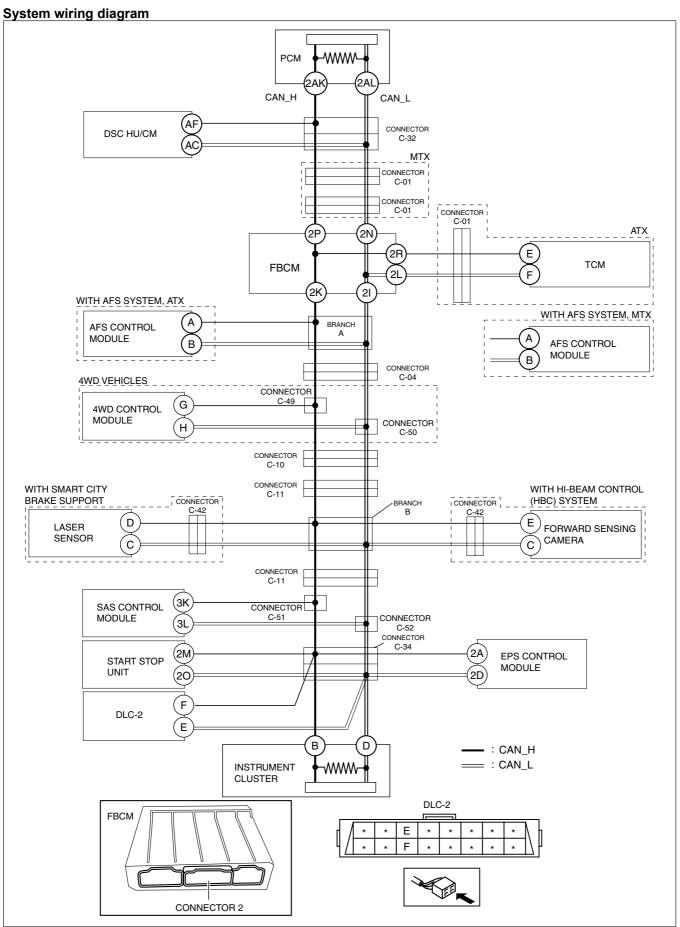
DETERMINING SHORT TO POWER SUPPLY LOCATION (HS-CAN) [SKYACTIV-D 2.2 (R.H.D.)]

id100206000700

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-D 2.2 (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 the next step.
	BETWEEN FRONT BODY CONTROL MODULE	No	Go to Step 5.
	(FBCM) AND INSTRUMENT CLUSTER		'
	Disconnect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	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-D 2.2].)		
	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?		
2	INSPECT CAN LINE BETWEEN TCM OR AFS	Yes	Go to Step 27.
	CONTROL MODULE AND FRONT BODY	No	Go to the next step. (ATX)
	CONTROL MODULE (FBCM) FOR SHORT TO		Go to Step 4. (MTX)
	POWER SUPPLY		
	Measure the voltage at TCM terminals E and F.		
	(ATX)		
	Measure the voltage at AFS control module terminals A and B. (MTX)		
	terminals A and B. (MTX) • Is the voltage between 1.5 - 3.5 V?		
3	INSPECT CAN LINE BETWEEN TCM AND	Yes	Repair or replace the wiring harness between connector
3	CONNECTOR C-01 FOR SHORT TO POWER	165	C-01 and the front body control module (FBCM) because
	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.	INO	Outo the next step.
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• Disconnect connector C-01.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at TCM terminals E and F.		
	• Is the voltage between 1.5 - 3.5 V?		

Step Inspection Action	ver
FOR SHORT TO POWER SUPPLY • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) supply in the TCM. (ATX) (See CONTROL VALVE BODY REMOVAL/ INSTALLATION [FW6A-EL, FW6AX-EL].) (See CONTROL VALVE BODY REMOVAL/ INSTALLATION [GW6A-EL, GW6AX-EL].) • Replace the AFS control module because there is a sl	
Switch the ignition off (LOCK). Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) Switch the ignition off (LOCK). (See CONTROL VALVE BODY REMOVAL/ INSTALLATION [FW6A-EL, FW6AX-EL].) (See CONTROL VALVE BODY REMOVAL/ INSTALLATION [GW6A-EL, GW6AX-EL].) • Replace the AFS control module because there is a sl	
Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) (See CONTROL VALVE BODY REMOVAL/INSTALLATION [GW6A-EL, GW6AX-EL].) • Replace the AFS control module because there is a sl	
(See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION INSTALLATION [GW6A-EL, GW6AX-EL].) * Replace the AFS control module because there is a sl	
DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) INSTALLATION [GW6A-EL, GW6AX-EL].) • Replace the AFS control module because there is a sl	
[SKYACTIV-D 2.2].) • Replace the AFS control module because there is a sl	-
	hort
• Connect connector C-01. (ATX) (See ADAPTIVE FRONT LIGHTING SYSTEM (AFS)	
• Disconnect the AFS control module connector. CONTROL MODULE REMOVAL/INSTALLATION.)	,
(MTX) No • Repair or replace the wiring harness between TCM a	and
• Connect connector 2 which has front body • Connect connector 2 which has front body	
control module (FBCM) terminals 2K and 2I the power supply. (ATX)	u to
• Connect the negative battery cable. • Repair or replace the wiring harness between AFS cor	atrol
(See NEGATIVE BATTERY CABLE) (See NEGATIVE BATTERY CABLE) module and the front body control module (FBCM)	itiOi
DISCONNECTION/CONNECTION because the wiring harness is shorted to the power	
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?	
5 INSPECT CAN LINE BETWEEN CONNECTOR Yes • Go to the next step. (ATX)	
C-04 AND INSTRUMENT CLUSTER FOR • Repair or replace the wiring harness between the fro	nt
SHORT TO POWER SUPPLY body control module (FBCM) and connector C-04	III
• Switch the ignition off (LOCK). because the wiring harness is shorted to the power	
• Disconnect the negative battery cable. Supply. (MTX)	
(See NEGATIVE BATTERY CABLE No Go to Step 7.	
DISCONNECTION/CONNECTION	
[SKYACTIV-D 2.2].)	
• Disconnect connector C-04.	
Connect the negative battery cable.	
(See NEGATIVE BATTERY CABLE	
DISCONNECTION/CONNECTION	
[SKYACTIV-D 2.2].)	
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 AFS CONTROL MODULE FOR Yes Replace the AFS control module because there is a sh	nort
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 cor	itrol
DISCONNECTION/CONNECTION module and the front body control module (FBCM) /	
[SKYACTIV-D 2.2].) connector C-04 because the wiring harness is shorted	to
Disconnect the AFS control module connector. the power supply.	
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-D 2.2].)	
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
7	INSPECT CAN LINE BETWEEN	Yes	Go to the next step.
'	CONNECTORS C-49 AND C-50 AND	No	Go to Step 10.
	INSTRUMENT CLUSTER FOR SHORT TO	110	Go to otep 10.
	POWER SUPPLY		
	Switch the ignition off (LOCK).		
	Disconnect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• Disconnect connectors C-49 and C-50.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• 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?		
8	INSPECT CAN LINE BETWEEN 4WD	Yes	Repair or replace the wiring harness between connector
0	CONTROL MODULE AND CONNECTORS	165	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	INO	Go to the flext step.
	terminals G and H.		
	• Is the voltage between 1.5 — 3.5 V?		
9	INSPECT 4WD CONTROL MODULE FOR	Yes	Replace the 4WD control module because there is a short
9	SHORT TO POWER SUPPLY	165	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-D 2.2].)		wiring harness is shorted to the power supply.
	• Connect connectors C-49 and C-50		willing harriess is shorted to the power suppry.
	Disconnect the 4WD control module connector.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• 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 connectors
	C-10 AND INSTRUMENT CLUSTER FOR		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.		'
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Disconnect connector C-10.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• 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?		
	1		

Ston	Inspection		Action
Step 11	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Go to the next step.
1 1	C-11 AND INSTRUMENT CLUSTER FOR	No	Go to Step 17.
	SHORT TO POWER SUPPLY	110	30 to step 17.
	Switch the ignition off (LOCK).		
	Disconnect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Disconnect connector C-11.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Switch the ignition ON (engine off).		
	• Measure the voltage at DLC-2 terminals F and		
	E		
1.5	• Is the voltage between 1.5 — 3.5 V?		
12	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Repair or replace the wiring harness between connector
	C-11 AND FORWARD SENSING CAMERA/		C-10 and connector C-11 because the wiring harness is
	LASER SENSOR FOR SHORT TO POWER	NI-	shorted to the power supply.
	SUPPLY	No	Go to the next step.
	Measure the voltage at forward sensing 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?		
13	INSPECT CAN LINE BETWEEN LASER	Yes	Go to Step 15.
	SENSOR AND CONNECTOR C-42 FOR	No	Go to the next step.
	SHORT TO POWER SUPPLY		
	Switch the ignition off (LOCK).		
	Disconnect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Disconnect connector C-42. Connect the magnetical better cooking.		
	Connect the negative battery cable. (See NEGATIVE BATTERY CABLE)		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• 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?		
14	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-D 2.2].)		
	Disconnect the laser sensor connector.		
	Connect connector C-42. Connect connector C-11.		
	Connect connector C-11.Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• 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
15	INSPECT CAN LINE BETWEEN FORWARD	Yes	Repair or replace the wiring harness between connector
	SENSING CAMERA AND CONNECTOR C-42		C-11 and connector C-42 because the wiring harness is
	FOR SHORT TO POWER SUPPLY		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?		
16	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		sensing camera and connector C-42 because the wiring
	[SKYACTIV-D 2.2].)		harness is shorted to the power supply.
	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-D 2.2].)		
	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? 		
17	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Go to Step 25.
	C-51, C-52 AND INSTRUMENT CLUSTER FOR	No	Go to the next step.
	SHORT TO POWER SUPPLY		·
	Switch the ignition off (LOCK).		
	Disconnect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Disconnect connector C-51, C-52.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Switch the ignition ON (engine off).		
	• Measure the voltage at DLC-2 terminals F and		
	E		
40	• Is the voltage between 1.5 — 3.5 V? INSPECT CAN LINE BETWEEN CONNECTOR	V	Co to the post stan
18	C-34 AND DLC-2 FOR SHORT TO POWER	Yes No	Go to the next step. Repair or replace the wiring harness between connector
	SUPPLY	INU	C-34 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 supply.
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• Disconnect connector C-34.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals F and		
	E.		
	• Is the voltage 0 V?		
	is the voltage of v.		

Step	Inspection		Action
19	INSPECT CAN LINE BETWEEN START STOP	Yes	Go to Step 21.
	UNIT AND CONNECTOR C-34 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?		
20	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
	(See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION		unit and connector C-34 because the wiring harness is
	[SKYACTIV-D 2.2].)		shorted to the power supply.
	• Connect connector C-34.		
	Disconnect the start stop unit connector.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	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? 		
21	INSPECT CAN LINE BETWEEN EPS	Yes	Go to Step 23.
	CONTROL MODULE AND CONNECTOR C-34	No	Go to the next step.
	FOR SHORT TO POWER SUPPLY		
	Measure the voltage at EPS control module		
	terminals 2A and 2D.		
22	• Is the voltage between 1.5 — 3.5 V? INSPECT EPS CONTROL MODULE FOR	Yes	Replace the EPS control module because there is a short
22	SHORT TO POWER SUPPLY	165	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-34 because the wiring
	[SKYACTIV-D 2.2].)		harness is shorted to the power supply.
	Connect connector C-34.		
	Disconnect the EPS control module connector.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals F and		
	E.		
23	• Is the voltage between 1.5 — 3.5 V? INSPECT CAN LINE BETWEEN INSTRUMENT	Voo	Papair or rapided the wiring barness between connector
23	CLUSTER AND CONNECTOR C-34 FOR	Yes	Repair or replace the wiring harness between connector C-51, C-52 and connector C-34 because the wiring
	SHORT TO POWER SUPPLY		harness is shorted to the power supply.
	Measure the voltage at instrument cluster	No	Go to the next step.
	terminals B and D.	140	So to the next step.
	• Is the voltage between 1.5 — 3.5 V?		

Step	Inspection		Action
24	INSPECT INSTRUMENT CLUSTER FOR	Yes	Replace the instrument cluster because the instrument
	SHORT TO POWER SUPPLY		cluster is shorted to the power supply.
	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	INO	
			instrument cluster and connector C-34 because the wiring
	[SKYACTIV-D 2.2].)		harness is shorted to the power supply.
	• Connect connector C-34.		
	Disconnect the instrument cluster connector.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	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?		
25	INSPECT CAN LINE BETWEEN SAS	Yes	Go to the next step.
•	CONTROL MODULE AND CONNECTOR C-51,	No	Repair or replace the wiring harness between the SAS
	C-52 FOR SHORT TO POWER SUPPLY	''	control module and connector C-51, C-52 because the
	Switch the ignition off (LOCK).		wiring harness is shorted to the power supply.
	Disconnect the negative battery cable.		willing harness is shorted to the power supply.
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• Disconnect the SAS control module connector.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at SAS control module		
	terminals 3K and 3L (wiring harness side).		
	Is the voltage 0 V?		
26	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Replace the SAS control module because there is a short
	C-11 AND CONNECTOR C-51, C-52 FOR		to the power supply in the SAS control module.
	SHORT TO 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	'*0	C-11 and connector C-51, C-52 because the wiring
	DISCONNECTION/CONNECTION		harness is shorted to the power supply.
	[SKYACTIV-D 2.2].)		liamess is shorted to the power supply.
	• Connect connector C-51, C-52.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	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? 		
27	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 Step 30. (ATX)
	10 the voltage between 1.0 - 0.0 v:	'\	• Go to step 30. (ATX)
			Ou to the heat step. (INTA)

Step	Inspection		Action
28	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-D 2.2].)		
	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-D 2.2].) • 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?		
29	INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Go to Step 31.
23	C-01 AND CONNECTOR C-32 FOR SHORT TO	No	Repair or replace the wiring harness between connector
	POWER SUPPLY	140	C-01 and connector C-32 because the wiring harness is
	Switch the ignition off (LOCK).		shorted to the power supply.
	Disconnect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Disconnect connector C-32.		
	Connect connector C-01.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals F and		
	E.		
30	• Is the voltage between 1.5 — 3.5 V? INSPECT CAN LINE BETWEEN CONNECTOR	Yes	Co to the poyt step
30	C-32 AND FRONT BODY CONTROL MODULE		Go to the next step. Repair or replace the wiring harness between connector
	(FBCM) FOR SHORT TO POWER SUPPLY	INO	C-32 and front body control module (FBCM) because the
	• Switch the ignition off (LOCK).		wiring harness is shorted to the power supply.
	Disconnect the negative battery cable.		withing harmood to discrete the power supply.
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	Connect connector 2 which has front body		
	control module (FBCM) terminals 2K and 2I.		
	Disconnect connector C-32.		
	Connect the negative battery cable.		
	(See NEGATIVE BATTERY CABLE		
	DISCONNECTION/CONNECTION		
	[SKYACTIV-D 2.2].)		
	• Switch the ignition ON (engine off).		
	Measure the voltage at DLC-2 terminals F and		
	E.		
31	• Is the voltage between 1.5 — 3.5 V?	Voc	Co to Ston 22
اد	INSPECT CAN LINE BETWEEN DSC HU/CM AND CONNECTOR C-32 FOR SHORT TO	Yes No	Go to Step 33. Go to the next step.
	POWER SUPPLY	INU	Oo to the next step.
	Measure voltage at DSC HU/CM terminals AF		
	and AC.		
	• Is the voltage between 1.5 — 3.5 V?		
	J		

Step	Inspection		Action
32	INSPECT DSC HU/CM FOR SHORT TO POWER SUPPLY • Switch the ignition off (LOCK).	Yes	Replace the DSC HU/CM because the DSC HU/CM is shorted to the power supply. (See DSC HU/CM REMOVAL/INSTALLATION.)
	 Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) Connect connector C-32. Disconnect the DSC HU/CM connector. Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) 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.
33	INSPECT PCM FOR SHORT TO POWER SUPPLY • Switch the ignition off (LOCK). • Disconnect the negative battery cable.	Yes	Replace the PCM because there is a short to the power supply in the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-D 2.2].)
	(See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • Connect connector C-32. • Disconnect the PCM connector. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-D 2.2].) • 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.