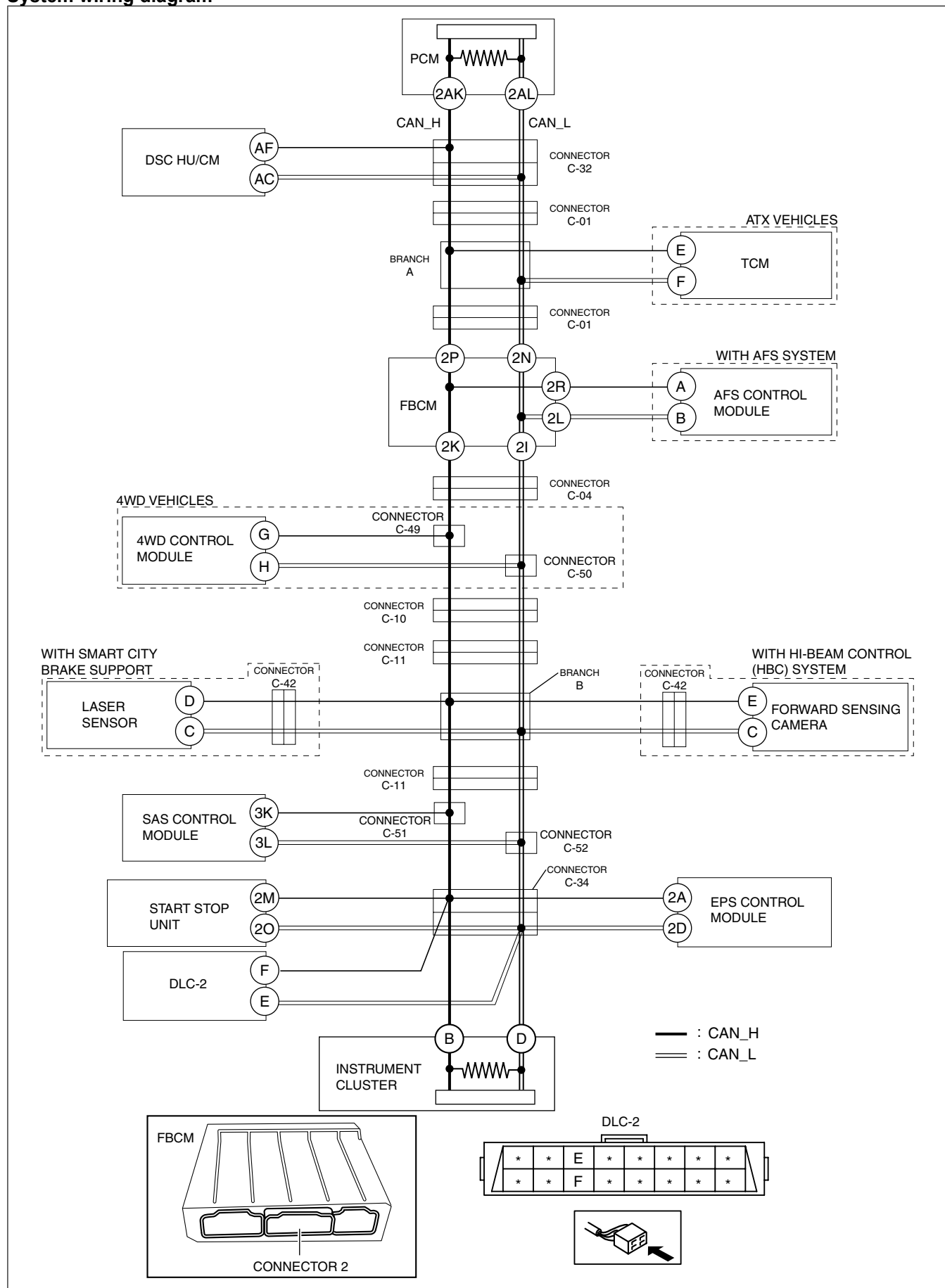

DETERMINING SHORT TO POWER SUPPLY LOCATION (HS-CAN) [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (R.H.D.)]

id100209000700

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, SKYACTIV-G 2.5 (R.H.D.)].

System wiring diagram



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 BETWEEN FRONT BODY CONTROL MODULE (FBCM) AND INSTRUMENT CLUSTER <ul style="list-style-type: none"> • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes Go to the next step.
		No Go to Step 4.
2	INSPECT CAN LINE BETWEEN AFS CONTROL MODULE AND FRONT BODY CONTROL MODULE (FBCM) FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Measure the voltage at AFS control module terminals A and B. • Is the voltage between 1.5 — 3.5 V? 	Yes Go to Step 25.
		No Go to the next step.

Step	Inspection	Action	
3	INSPECT AFS CONTROL MODULE FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Replace the AFS control module because there is a short to the power supply in the AFS control module. (See ADAPTIVE FRONT LIGHTING SYSTEM (AFS) CONTROL MODULE REMOVAL/INSTALLATION.)
		No	Repair or replace the wiring harness between AFS control module and the front body control module (FBCM) because the wiring harness is shorted to the power supply.
4	INSPECT CAN LINE BETWEEN CONNECTOR C-04 AND INSTRUMENT CLUSTER FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Disconnect connector C-04. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Repair or replace the wiring harness between the front body control module (FBCM) and connector C-04 because the wiring harness is shorted to the power supply.
		No	Go to the next step.

Step	Inspection	Action	
5	INSPECT CAN LINE BETWEEN CONNECTORS C-49 AND C-50 AND INSTRUMENT CLUSTER FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Go to the next step.
		No	Go to Step 8.
6	INSPECT CAN LINE BETWEEN 4WD CONTROL MODULE AND CONNECTORS C-49 AND C-50 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Measure the voltage at 4WD control module terminals G and H. • Is the voltage between 1.5 — 3.5 V? 	Yes	Repair or replace the wiring harness between connector C-04 and connectors C-49 and C-50 because the wiring harness is shorted to the power supply.
		No	Go to the next step.
7	INSPECT 4WD CONTROL MODULE FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Connect connectors C-49 and C-50 • Disconnect the 4WD control module connector. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Replace the 4WD control module because there is a short to the power supply in the 4WD control module. (See 4WD CONTROL MODULE REMOVAL/ INSTALLATION.)
		No	Repair or replace the wiring harness between the 4WD control module and connectors C-49 and C-50 because the wiring harness is shorted to the power supply.

Step	Inspection	Action	
8	INSPECT CAN LINE BETWEEN CONNECTOR C-10 AND INSTRUMENT CLUSTER FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Disconnect connector C-10. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Repair or replace the wiring harness between connectors C-49 and C-50 and connector C-10 because the wiring harness is shorted to the power supply.
		No	Go to the next step.
9	INSPECT CAN LINE BETWEEN CONNECTOR C-11 AND INSTRUMENT CLUSTER FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Disconnect connector C-11. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Go to the next step.
		No	Go to Step 15.
10	INSPECT CAN LINE BETWEEN CONNECTOR C-11 AND FORWARD SENSING CAMERA/LASER SENSOR FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • 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? 	Yes	Repair or replace the wiring harness between connector C-10 and connector C-11 because the wiring harness is shorted to the power supply.
		No	Go to the next step.

Step	Inspection	Action	
11	INSPECT CAN LINE BETWEEN LASER SENSOR AND CONNECTOR C-42 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Disconnect connector C-42. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Go to Step 13.
		No	Go to the next step.
12	INSPECT LASER SENSOR FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Replace the laser sensor because there is a short to the power supply in the laser sensor. (See LASER SENSOR REMOVAL/INSTALLATION.)
		No	Repair or replace the wiring harness between the laser sensor and connector C-42 because the wiring harness is shorted to the power supply.
13	INSPECT CAN LINE BETWEEN FORWARD SENSING CAMERA AND CONNECTOR C-42 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Measure the voltage at forward sensing camera terminals E and C. • Is the voltage between 1.5 — 3.5 V? 	Yes	Repair or replace the wiring harness between connector C-11 and connector C-42 because the wiring harness is shorted to the power supply.
		No	Go to the next step.

Step	Inspection	Action
14	INSPECT FORWARD SENSING CAMERA FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes Replace the forward sensing camera because there is a short to the power supply in the forward sensing camera. (See FORWARD SENSING CAMERA (FSC) REMOVAL/INSTALLATION.)
		No Repair or replace the wiring harness between the forward sensing camera and connector C-42 because the wiring harness is shorted to the power supply.
15	INSPECT CAN LINE BETWEEN CONNECTOR C-51, C-52 AND INSTRUMENT CLUSTER FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. • Disconnect connector C-51, C-52. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes Go to Step 23.
		No Go to the next step.

Step	Inspection	Action	
16	INSPECT CAN LINE BETWEEN CONNECTOR C-34 AND DLC-2 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Disconnect connector C-34. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Switch the ignition ON (engine off). • Measure the voltage at DLC-2 terminals F and E. • Is the voltage 0 V? 	Yes	Go to the next step.
		No	Repair or replace the wiring harness between connector C-34 and DLC-2 because the wiring harness is shorted to the power supply.
17	INSPECT CAN LINE BETWEEN START STOP UNIT AND CONNECTOR C-34 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Measure the voltage at start stop unit terminals 2M and 2O. • Is the voltage between 1.5 — 3.5 V? 	Yes	Go to Step 19.
		No	Go to the next step.
18	INSPECT START STOP UNIT FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Connect connector C-34. • Disconnect the start stop unit connector. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Replace the start stop unit because there is a short to the power supply in the start stop unit. (See START STOP UNIT REMOVAL/INSTALLATION.)
		No	Repair or replace the wiring harness between the start stop unit and connector C-34 because the wiring harness is shorted to the power supply.
19	INSPECT CAN LINE BETWEEN EPS CONTROL MODULE AND CONNECTOR C-34 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Measure the voltage at EPS control module terminals 2A and 2D. • Is the voltage between 1.5 — 3.5 V? 	Yes	Go to Step 21.
		No	Go to the next step.

Step	Inspection	Action	
20	INSPECT EPS CONTROL MODULE FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Connect connector C-34. • Disconnect the EPS control module connector. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Replace the EPS control module because there is a short to the power supply in the EPS control module. (See STEERING WHEEL AND COLUMN REMOVAL/ INSTALLATION.)
		No	Repair or replace the wiring harness between the EPS control module and connector C-34 because the wiring harness is shorted to the power supply.
21	INSPECT CAN LINE BETWEEN INSTRUMENT CLUSTER AND CONNECTOR C-34 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Measure the voltage at instrument cluster terminals B and D. • Is the voltage between 1.5 — 3.5 V? 	Yes	Repair or replace the wiring harness between connector C-51, C-52 and connector C-34 because the wiring harness is shorted to the power supply.
		No	Go to the next step.
22	INSPECT INSTRUMENT CLUSTER FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Connect connector C-34. • Disconnect the instrument cluster connector. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Replace the instrument cluster because the instrument cluster is shorted to the power supply. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION.)
		No	Repair or replace the wiring harness between the instrument cluster and connector C-34 because the wiring harness is shorted to the power supply.

Step	Inspection	Action	
23	INSPECT CAN LINE BETWEEN SAS CONTROL MODULE AND CONNECTOR C-51, C-52 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Disconnect the SAS control module connector. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • 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? 	Yes	Go to the next step.
		No	Repair or replace the wiring harness between the SAS control module and connector C-51, C-52 because the wiring harness is shorted to the power supply.
24	INSPECT CAN LINE BETWEEN CONNECTOR C-11 AND CONNECTOR C-51, C-52 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Connect connector C-51, C-52. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Replace the SAS control module because there is a short to the power supply in the SAS control module. (See SAS CONTROL MODULE REMOVAL/INSTALLATION.)
		No	Repair or replace the wiring harness between connector C-11 and connector C-51, C-52 because the wiring harness is shorted to the power supply.
25	INSPECT CAN LINE BETWEEN PCM AND FRONT BODY CONTROL MODULE (FBCM) FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Measure voltage at PCM terminals 2AK and 2AL. • Is the voltage between 1.5 — 3.5 V? 	Yes	Replace the front body control module (FBCM) because there is a short to the power supply in the front body control module (FBCM). (See FRONT BODY CONTROL MODULE (FBCM) REMOVAL/INSTALLATION.)
		No	Go to the next step.

Step	Inspection	Action	
26	INSPECT CAN LINE BETWEEN CONNECTOR C-01 AND FRONT BODY CONTROL MODULE (FBCM) FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Disconnect connector C-01. • Connect connector 2 which has front body control module (FBCM) terminals 2K and 2L. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Go to the next step.
		No	Repair or replace the wiring harness between connector C-01 and the front body control module (FBCM) because the wiring harness is shorted to the power supply.
27	INSPECT CAN LINE BETWEEN TCM AND CONNECTOR C-01 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Measure the voltage at TCM terminals E and F. • Is the voltage between 1.5 — 3.5 V? 	Yes	Go to Step 29.
		No	Go to the next step.
28	INSPECT TCM FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Replace the TCM because there is a short to the power supply in the TCM. (See CONTROL VALVE BODY REMOVAL/ INSTALLATION [FW6A-EL, FW6AX-EL].)
		No	Repair or replace the wiring harness between the TCM and connector C-01 because the wiring harness is shorted to the power supply.

Step	Inspection	Action	
29	INSPECT CAN LINE BETWEEN CONNECTOR C-32 AND CONNECTOR C-01 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (WITHOUT i-stop)].) • Connect connector C-01. • Disconnect connector C-32. • Connect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Go to the next step.
		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.
30	INSPECT CAN LINE BETWEEN DSC HU/CM AND CONNECTOR C-32 FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Measure voltage at DSC HU/CM terminals AF and AC. • Is the voltage between 1.5 — 3.5 V? 	Yes	Go to Step 32.
		No	Go to the next step.
31	INSPECT DSC HU/CM FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes	Replace the DSC HU/CM because the DSC HU/CM is shorted to the power supply. (See DSC HU/CM REMOVAL/INSTALLATION.)
		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
32	INSPECT PCM FOR SHORT TO POWER SUPPLY <ul style="list-style-type: none"> • Switch the ignition off (LOCK). • Disconnect the negative battery cable. (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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, SKYACTIV-G 2.5].) (See NEGATIVE BATTERY CABLE DISCONNECTION/CONNECTION [SKYACTIV-G 2.0, SKYACTIV-G 2.5 (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? 	Yes
		No
		Replace the PCM because there is a short to the power supply in the PCM. (See PCM REMOVAL/INSTALLATION [SKYACTIV-G 2.0, SKYACTIV-G 2.5].) Repair or replace the wiring harness between the PCM and connector C-32 because the wiring harness is shorted to the power supply.