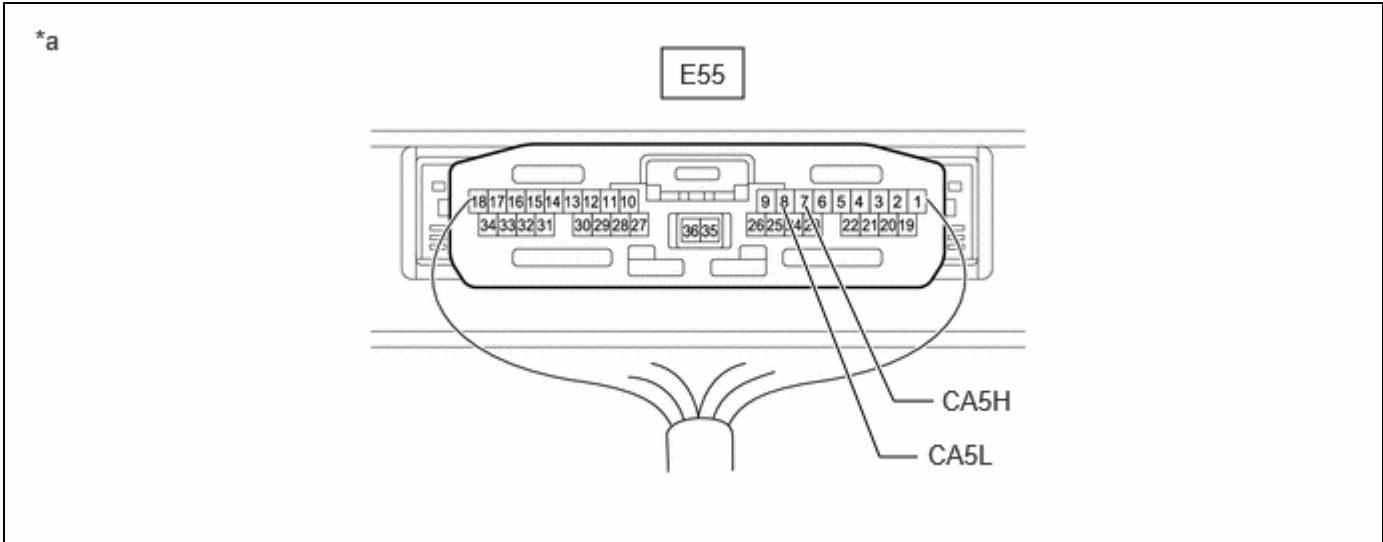


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2003 LEXUS IS Sport Cross OEM Service and Repair Workshop Manual

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*a	Component with harness connected (Central Gateway ECU (Network Gateway ECU))	-	-
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Standard Resistance:



[Click Location & Routing\(E55\).](#)
[Click Connector\(E55\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E55-7 (CA5H) - Positive (+) battery terminal	Cable disconnected from negative (-) battery terminal	6 kΩ or higher
E55-8 (CA5L) - Positive (+) battery terminal		

NG **GO TO STEP 32**

OK



4.	CHECK FOR SHORT TO GND IN CAN BUS WIRE
-----------	---

(a) Measure the resistance according to the value(s) in the table below.

NG  **GO TO STEP 13****OK****6.****CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

[Click Location & Routing\(E130\).](#)[Click Connector\(E130\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E130-6 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
E130-12 (CANL) - Body ground		

NG  **GO TO STEP 27****OK****7.****CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - OUTER MIRROR CONTROL ECU ASSEMBLY LH)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

[Click Location & Routing\(E130\).](#)[Click Connector\(E130\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E130-2 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
E130-8 (CANL) - Body ground		

NG  **GO TO STEP 28****OK****8.****CHECK VEHICLE TYPE**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E130\).](#)

[Click Connector\(E130\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E130-4 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
E130-10 (CANL) - Body ground		

NG ► **GO TO STEP 30**

OK



12.

CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - CERTIFICATION ECU (SMART KEY ECU ASSEMBLY))

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E130\).](#)

[Click Connector\(E130\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E130-5 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
E130-11 (CANL) - Body ground		

OK ► **REPLACE NO. 4 GLOBAL CAN JUNCTION CONNECTOR**

NG ► **GO TO STEP 31**

13.

CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - NO. 4 GLOBAL CAN JUNCTION CONNECTOR)

(a) Disconnect the E136 No. 10 global CAN junction connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E136\).](#)

[Click Connector\(E136\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E136-4 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher

Standard Resistance:



[Click Location & Routing\(E136\).](#)
[Click Connector\(E136\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E136-2 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
E136-8 (CANL) - Body ground		

NG **GO TO STEP 24****OK****17. CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - OUTER MIRROR CONTROL ECU ASSEMBLY RH)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E136\).](#)
[Click Connector\(E136\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E136-3 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
E136-9 (CANL) - Body ground		

NG **GO TO STEP 25****OK****18. CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - BRAKE CONTROL WITH BRACKET RELAY)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E136\).](#)
[Click Connector\(E136\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E136-6 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher

21.**CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 18 GLOBAL CAN JUNCTION CONNECTOR - MULTIPLEX NETWORK DOOR ECU)**

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(K84\).](#)

[Click Connector\(K84\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K84-2 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
K84-6 (CANL) - Body ground		

OK ► REPLACE NO. 18 GLOBAL CAN JUNCTION CONNECTOR

NG ► GO TO STEP 23

22.**CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 18 GLOBAL CAN JUNCTION CONNECTOR - MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU))**

(a) Disconnect the E9 main body ECU (multiplex network body ECU) connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(K84\).](#)

[Click Connector\(K84\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
K84-1 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
K84-5 (CANL) - Body ground		

OK ► REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU)

NG ► REPAIR OR REPLACE CAN BUS WIRE OR CONNECTOR (NO. 18 GLOBAL CAN JUNCTION CONNECTOR - MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU))

23.**CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 18 GLOBAL CAN JUNCTION CONNECTOR - MULTIPLEX NETWORK DOOR ECU)**

(a) Disconnect the U19 multiplex network door ECU connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(K84\).](#)

[Click Connector\(K84\).](#)

**NG ► REPAIR OR REPLACE CAN BUS WIRE OR CONNECTOR
(NO. 10 GLOBAL CAN JUNCTION CONNECTOR - OUTER
MIRROR CONTROL ECU ASSEMBLY RH)**

**26. CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 10 GLOBAL CAN JUNCTION
CONNECTOR - BRAKE CONTROL WITH BRACKET RELAY)**

- (a) Disconnect the E52 brake control with bracket relay connector.
(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E136\).](#)
[Click Connector\(E136\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E136-6 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
E136-12 (CANL) - Body ground		

OK ► REPLACE BRAKE CONTROL WITH BRACKET RELAY

**NG ► REPAIR OR REPLACE CAN BUS WIRE OR CONNECTOR
(NO. 10 GLOBAL CAN JUNCTION CONNECTOR - BRAKE
CONTROL WITH BRACKET RELAY)**

**27. CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 4 GLOBAL CAN JUNCTION
CONNECTOR - CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

- (a) Disconnect the E55 central gateway ECU (network gateway ECU) connector.
(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E130\).](#)
[Click Connector\(E130\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E130-6 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
E130-12 (CANL) - Body ground		

**OK ► REPLACE CENTRAL GATEWAY ECU (NETWORK
GATEWAY ECU)**

**NG ► REPAIR OR REPLACE CAN BUS WIRE OR CONNECTOR
(NO. 4 GLOBAL CAN JUNCTION CONNECTOR -
CENTRAL GATEWAY ECU (NETWORK GATEWAY ECU))**

**28. CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 4 GLOBAL CAN JUNCTION
CONNECTOR - OUTER MIRROR CONTROL ECU ASSEMBLY LH)**

- (a) Disconnect the G43 outer mirror control ECU assembly LH connector.
(b) Measure the resistance according to the value(s) in the table below.

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E130-4 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
E130-10 (CANL) - Body ground		

OK ► **REPLACE MULTIPLEX TILT AND TELESCOPIC ECU**

NG ► **REPAIR OR REPLACE CAN BUS WIRE OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - MULTIPLEX TILT AND TELESCOPIC ECU)**

31.	CHECK FOR SHORT TO GND IN CAN BUS WIRE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - CERTIFICATION ECU (SMART KEY ECU ASSEMBLY))
------------	--

(a) Disconnect the E89 certification ECU (smart key ECU assembly) connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E130\).](#)

[Click Connector\(E130\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E130-5 (CANH) - Body ground	Cable disconnected from negative (-) battery terminal	200 Ω or higher
E130-11 (CANL) - Body ground		

OK ► **REPLACE CERTIFICATION ECU (SMART KEY ECU ASSEMBLY)**

NG ► **REPAIR OR REPLACE CAN BUS WIRE OR CONNECTOR (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - CERTIFICATION ECU (SMART KEY ECU ASSEMBLY))**

32.	CHECK FOR SHORT TO B+ IN CAN BUS WIRE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - NO. 10 GLOBAL CAN JUNCTION CONNECTOR)
------------	---

(a) Disconnect the E130 No. 4 global CAN junction connector.

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E130\).](#)

[Click Connector\(E130\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E130-1 (CANH) - Positive (+) battery terminal	Cable disconnected from negative (-) battery terminal	6 k Ω or higher
E130-7 (CANL) - Positive (+) battery terminal		

NG ► **GO TO STEP 40**

35. CHECK VEHICLE TYPE

(a) Check vehicle type.

RESULT	PROCEED TO
w/ Seat Position Memory System	A
w/o Seat Position Memory System	B

B ► GO TO STEP 37

A

36. CHECK FOR SHORT TO B+ IN CAN BUS WIRE (NO. 4 GLOBAL CAN JUNCTION CONNECTOR - POSITION CONTROL ECU ASSEMBLY LH (FOR FRONT SEAT))

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E130\).](#)

[Click Connector\(E130\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E130-3 (CANH) - Positive (+) battery terminal	Cable disconnected from negative (-) battery terminal	6 kΩ or higher
E130-9 (CANL) - Positive (+) battery terminal		

NG ► GO TO STEP 56

OK

37. CHECK VEHICLE TYPE

(a) Check vehicle type.

RESULT	PROCEED TO
w/ Power Tilt and Power Telescopic Steering System	A
w/o Power Tilt and Power Telescopic Steering System	B

B ► GO TO STEP 39

A

(b) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E136\).](#)

[Click Connector\(E136\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E136-4 (CANH) - Positive (+) battery terminal	Cable disconnected from negative (-) battery terminal	6 kΩ or higher
E136-10 (CANL) - Positive (+) battery terminal		

NG ► **REPAIR OR REPLACE CAN BUS WIRE OR CONNECTOR (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - NO. 4 GLOBAL CAN JUNCTION CONNECTOR)**

OK



41.	CHECK FOR SHORT TO B+ IN CAN BUS WIRE (NO. 10 GLOBAL CAN JUNCTION CONNECTOR - NO. 18 GLOBAL CAN JUNCTION CONNECTOR)
------------	--

(a) Measure the resistance according to the value(s) in the table below.

Standard Resistance:



[Click Location & Routing\(E136\).](#)

[Click Connector\(E136\).](#)

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
E136-1 (CANH) - Positive (+) battery terminal	Cable disconnected from negative (-) battery terminal	6 kΩ or higher
E136-7 (CANL) - Positive (+) battery terminal		

NG ► **GO TO STEP 46**

OK



42.	CHECK VEHICLE TYPE
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(a) Check vehicle type.

RESULT	PROCEED TO
w/ Seat Vibration System	A