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Service Category: Audio/Visual/Telematics	Section: Audio/Video	
Model Year: 2008	Model: LX570	Doc ID: RM000001XJI015X
Title: AUDIO / VIDEO: AUDIO AND VISUAL SYSTEM: DESCRIPTION (2008 LX570)		

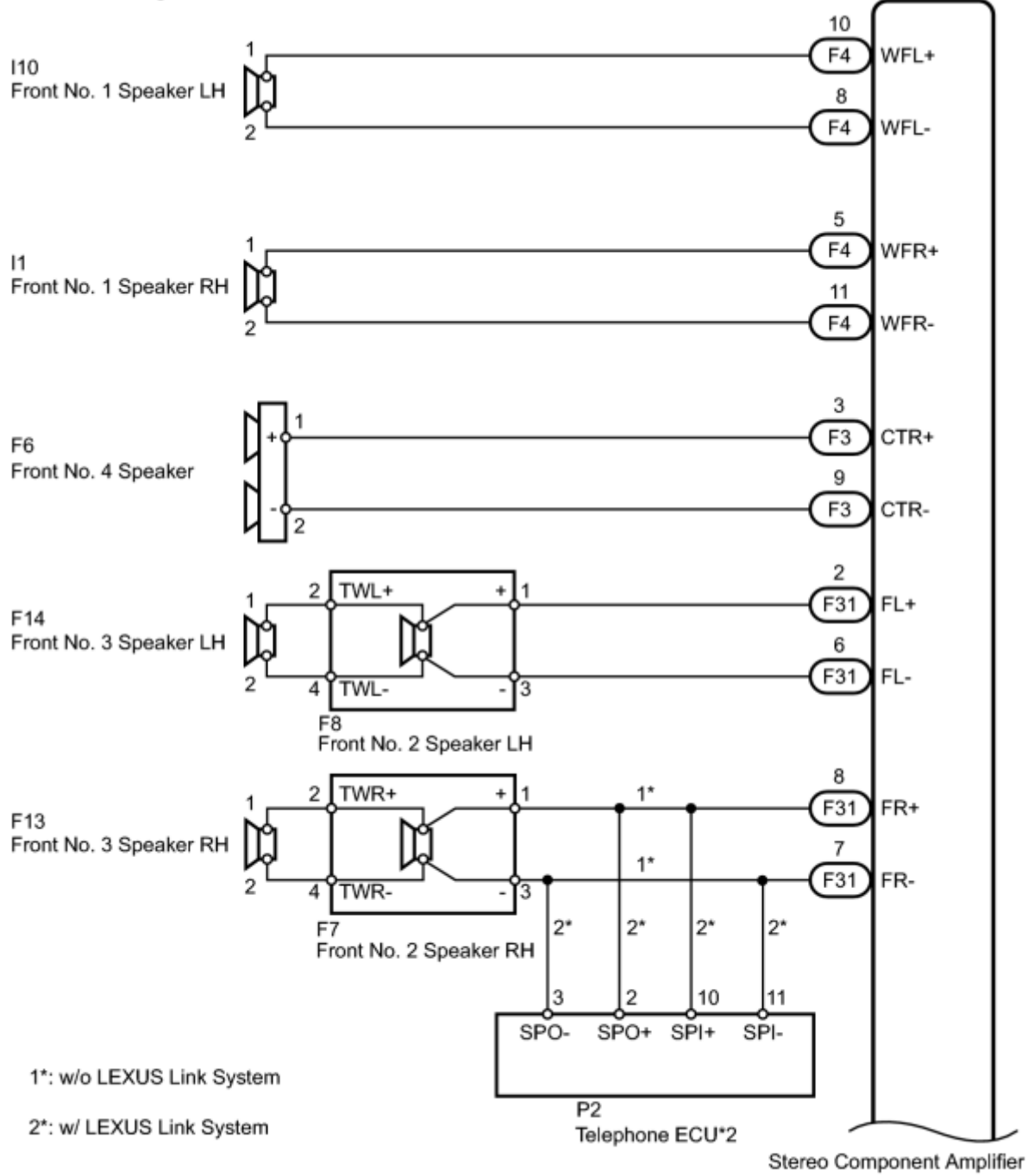
[Speaker Circuit](#)

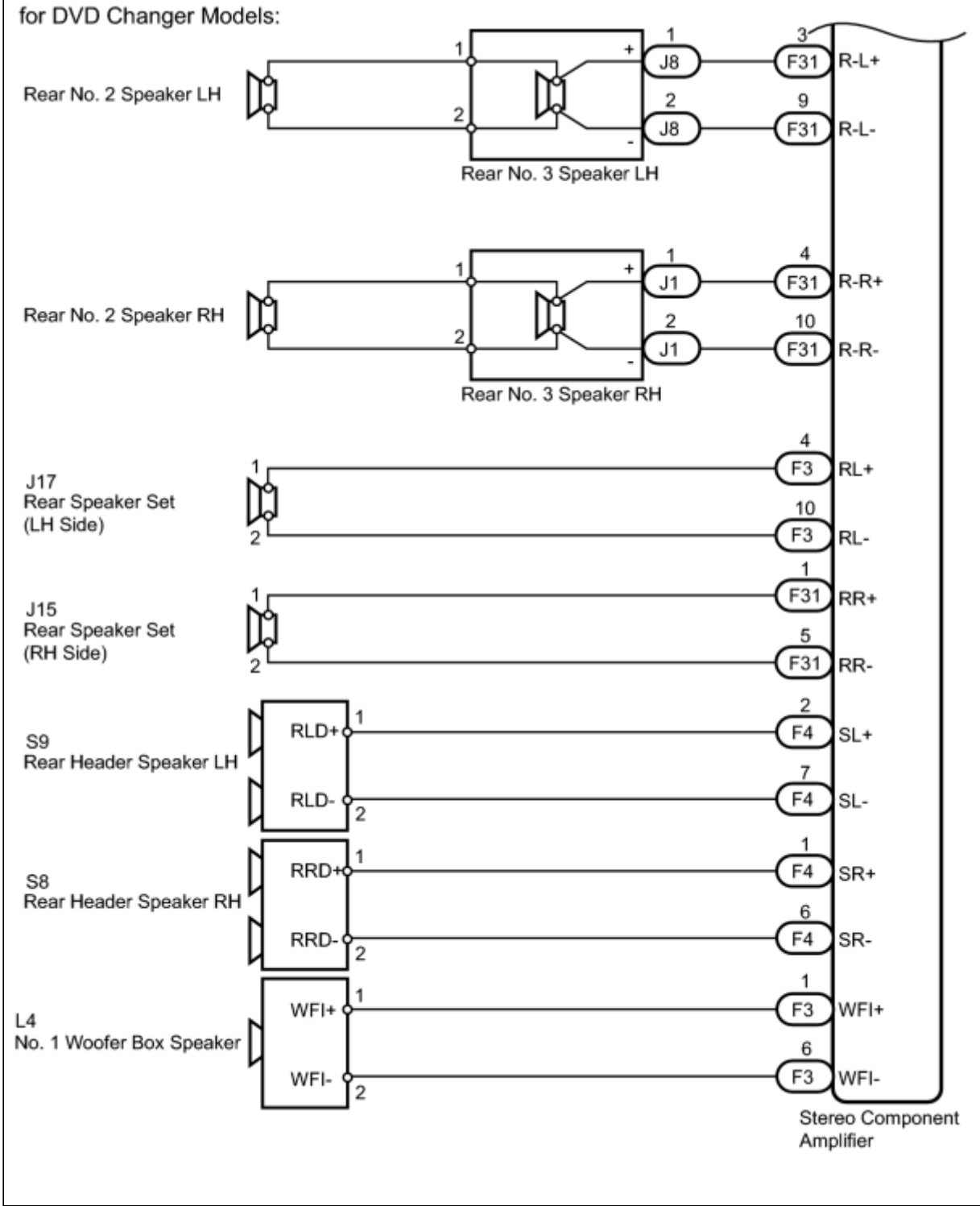
DESCRIPTION

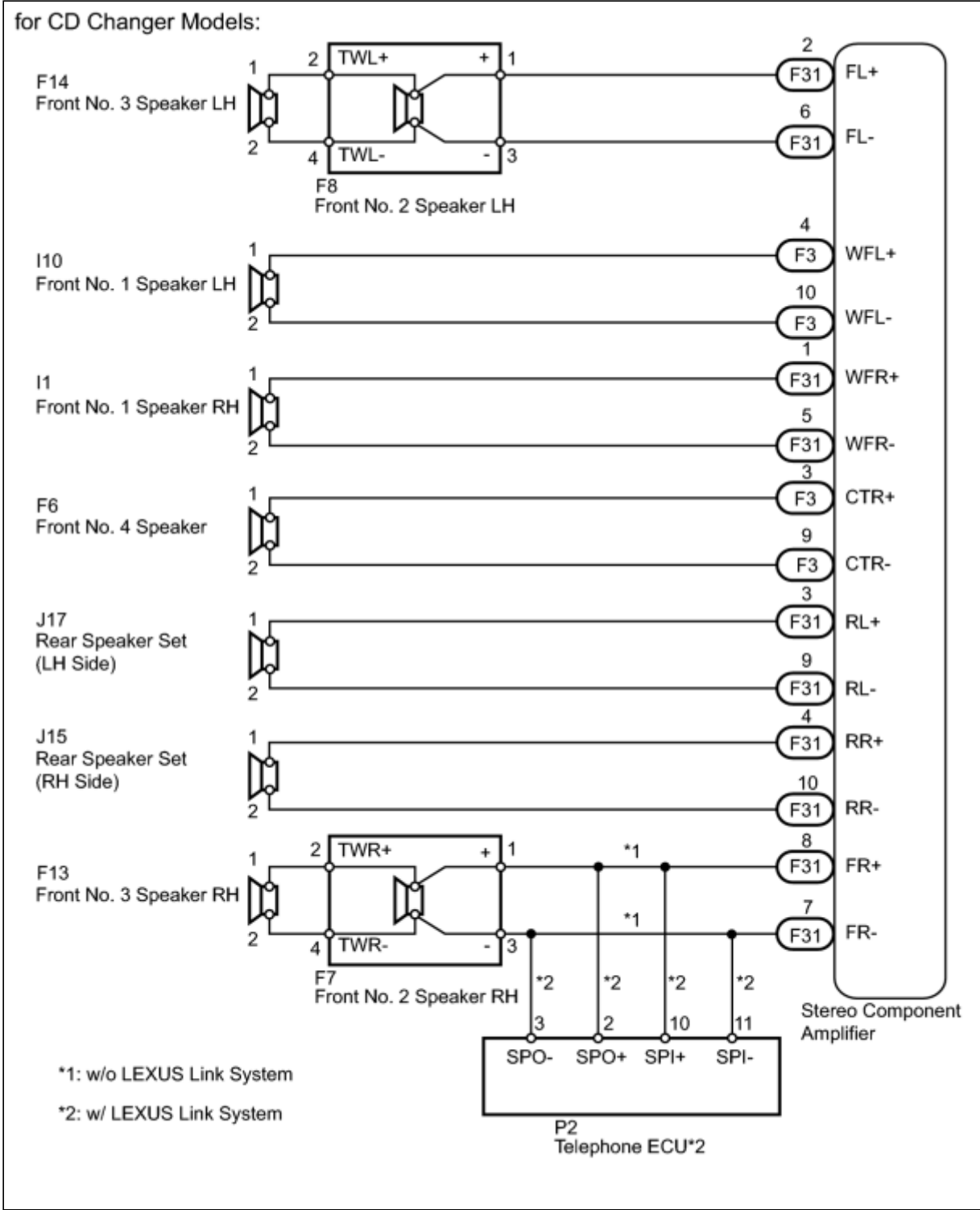
The stereo component amplifier sends sound signals to the speakers.

WIRING DIAGRAM

for DVD Changer Models:







INSPECTION PROCEDURE

PROCEDURE

1.	CHECK AUDIO MODELS
----	--------------------

(a) Check the audio model.

Result

RESULT	PROCEED TO
DVD changer models	A

RESULT	PROCEED TO
CD changer models	B

A

2.	CHECK SPEAKER
-----------	----------------------

(a) Check the malfunctioning speakers.

Result

RESULT	PROCEED TO
Malfunction in front speaker area	A
Malfunction in rear speaker area	B

A

3.	CHECK SPEAKER
-----------	----------------------

(a) Check the malfunctioning speakers.

Result

RESULT	PROCEED TO
Front No. 4 speaker	A
Front No. 2 speaker	B
Front No. 1 speaker	C
Front No. 3 speaker	D

A

4.	INSPECT FRONT NO. 4 SPEAKER ASSEMBLY
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Component without harness connected:
(Front No. 4 Speaker)



N

(a) Disconnect the F6 speaker connector.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	6.0 +/-1.0 Ω

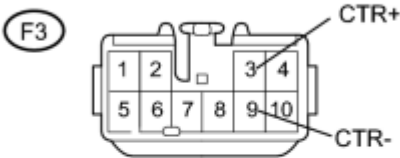
OK



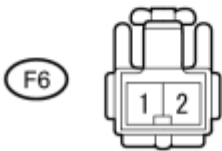
5.

CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 4 SPEAKER)

Front view of wire harness connector:
(to Stereo Component Amplifier)



Front view of wire harness connector:
(to Front No. 4 Speaker)



(a) Disconnect the F6 speaker connector.

(b) Disconnect the F3 amplifier connector.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F3-3 (CTR+) - F6-1	Always	Below 1 Ω
F3-9 (CTR-) - F6-2	Always	Below 1 Ω
F3-3 (CTR+) - Body ground	Always	10 kΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F3-9 (CTR-) - Body ground	Always	10 k Ω or higher

OK

6. INSPECT FRONT NO. 2 SPEAKER ASSEMBLY

Component without harness connected:
(Front No. 2 Speaker)



(a) Disconnect the F8 and F7 speaker connectors.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	Below 1 Ω
3 - 4	Always	Below 1 Ω
2 - 4	Always	6.0 +/-1.0 Ω

OK

7. CHECK DEFECTIVE SPEAKER AND VEHICLE EQUIPMENT

(a) Check which side of the vehicle the defective speaker is on. Also, check if the vehicle is equipped with the LEXUS Link System.

Result

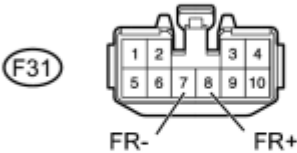
RESULT	PROCEED TO
Defective speaker is on right side (w/ LEXUS Link System)	A
Defective speaker is on right side (w/o LEXUS Link System)	B
Defective speaker is on left side	B

A

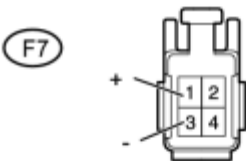
8.

CHECK HARNESS AND CONNECTOR (TELEPHONE ECU - STEREO COMPONENT AMPLIFIER AND FRONT NO. 2 SPEAKER)

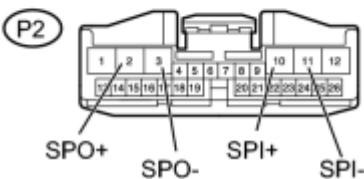
Front view of wire harness connector:
(to Stereo Component Amplifier)



Front view of wire harness connector:
(to Front No. 2 Speaker)



Front view of wire harness connector:
(to Telephone ECU)



(a) Disconnect the F31 amplifier connector.

- (b) Disconnect the F7 speaker connector.
- (c) Disconnect the P2 ECU connector.
- (d) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F7-1 (+) - P2-2 (SPO+)	Always	Below 1 Ω
F7-3 (-) - P2-3 (SPO-)		
F31-8 (FR+) - P2-10 (SPI+)		
F31-7 (FR-) - P2-11 (SPI-)		
F7-1 (+) - Body ground	Always	10 k Ω or higher
F7-3 (-) - Body ground		
F31-8 (FR+) - Body ground		
F31-7 (FR-) - Body ground		

OK



9.

CHECK STEREO COMPONENT AMPLIFIER ASSEMBLY (OPERATION)

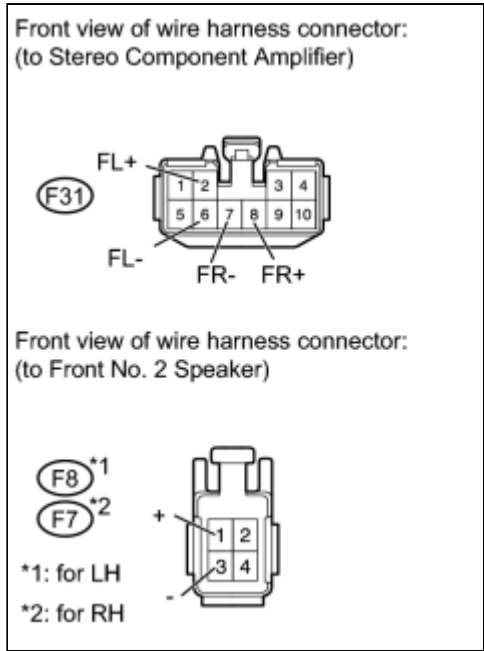
- (a) Replace the stereo component amplifier with a normal one and check that audio can be heard from the front RH side speaker INFO .
- OK:
- Audio can be heard.

OK



10.

CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 2 SPEAKER)



(a) Disconnect the F31 amplifier connector.

- (b) Disconnect the F8 and F7 speaker connectors.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

for LH

for RH

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F31-2 (FL+) - F8-1 (+)	Always	Below 1 Ω
F31-6 (FL-) - F8-3 (-)	Always	Below 1 Ω
F31-2 (FL+) - Body ground	Always	10 k Ω or higher
F31-6 (FL-) - Body ground	Always	10 k Ω or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F31-8 (FR+) - F7-1 (+)	Always	Below 1 Ω
F31-7 (FR-) - F7-3 (-)	Always	Below 1 Ω
F31-8 (FR+) - Body ground	Always	10 k Ω or higher
F31-7 (FR-) - Body ground	Always	10 k Ω or higher

OK

▼

11.

INSPECT FRONT NO. 1 SPEAKER ASSEMBLY

Component without harness connected:
(Front No. 1 Speaker)



N

(a) Disconnect the I10 and I1 speaker connectors.

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

Standard Resistance:

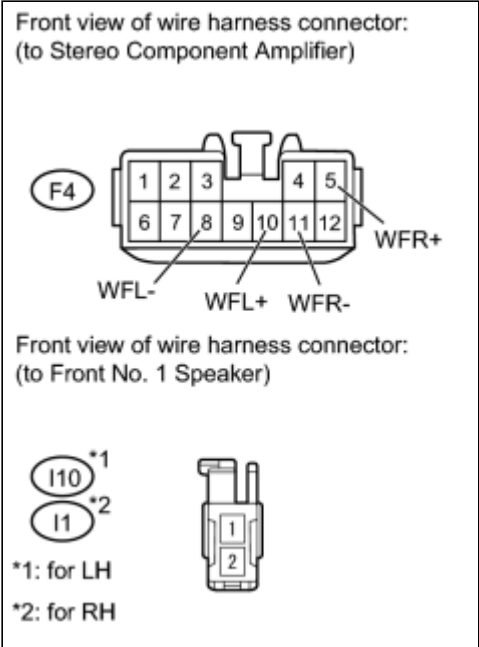
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	1.9 +/-0.4 Ω

OK

▼

12.

CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 1 SPEAKER)



(a) Disconnect the I10 and I1 speaker connectors.

- (b) Disconnect the F4 amplifier connector.
- (c) Measure the resistance according to the value(s) in the table below.
- Standard Resistance:

for LH
for RH

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F4-10 (WFL+) - I10-1	Always	Below 1 Ω
F4-8 (WFL-) - I10-2	Always	Below 1 Ω
F4-10 (WFL+) - Body ground	Always	10 kΩ or higher
F4-8 (WFL-) - Body ground	Always	10 kΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F4-5 (WFR+) - I1-1	Always	Below 1 Ω
F4-11 (WFR-) - I1-2	Always	Below 1 Ω
F4-5 (WFR+) - Body ground	Always	10 kΩ or higher
F4-11 (WFR-) - Body ground	Always	10 kΩ or higher

OK

▼

13.	CHECK FRONT NO. 3 SPEAKER ASSEMBLY
-----	------------------------------------

- (a) Disconnect the F14 and F13 speaker connectors.
- (b) Interchange the front No. 3 speaker LH with RH.
- (c) Check that the malfunction disappears.

OK:
Malfunction disappears.

HINT:

- Connect all the connectors to the front No. 3 speakers.
- When there is a possibility that either the right or left front speaker is defective, inspect by interchanging the right one with the left one.
- Perform the inspection above on both the LH and RH sides.

OK



14.	INSPECT FRONT NO. 2 SPEAKER ASSEMBLY
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Component without harness connected:
(Front No. 2 Speaker)



(a) Disconnect the F8 and F7 speaker connectors.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
2 - 4	Always	6.0 +/-1.0 Ω

OK



15.	CHECK SPEAKER
------------	----------------------

(a) Check the malfunctioning speakers.

Result

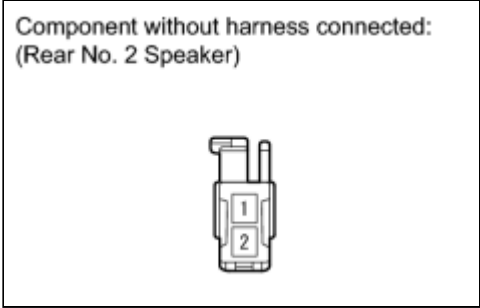
RESULT	PROCEED TO
Rear No. 2 speaker	A
Rear No. 3 speaker	B
Rear speaker set	C
No. 1 woofer box speaker	D
Rear header speaker	E

A

▼

16.

INSPECT REAR NO. 2 SPEAKER ASSEMBLY



(a) Disconnect the rear No. 2 speaker connectors.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	6.0 +/-1.0 Ω

OK

▼

17.

CHECK REAR NO. 3 SPEAKER ASSEMBLY

- (a) Disconnect the rear No. 3 speaker connectors.
- (b) Interchange the rear No. 3 speaker LH with RH.
- (c) Check that the malfunction disappears.

OK:
Malfunction disappears.

HINT:

- Connect all the connectors to the rear No. 3 speakers.
- When there is a possibility that either the right or left rear speaker is defective, inspect by interchanging the right one with the left one.
- Perform the inspection above on both the LH and RH sides.

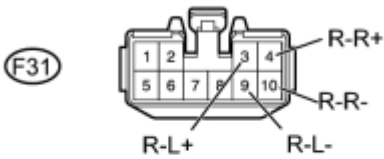
OK

▼

18.

CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - REAR NO. 3 SPEAKER)

Front view of wire harness connector:
(to Stereo Component Amplifier)



Front view of wire harness connector:
(to Rear No. 3 Speaker)



(a) Disconnect the F31 amplifier connector.

(b) Disconnect the J8 and J1 speaker connectors.

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

Standard Resistance:

for LH

for RH

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F31-3 (R-L+) - J8-1 (+)	Always	Below 1 Ω
F31-9 (R-L-) - J8-2 (-)	Always	Below 1 Ω
F31-3 (R-L+) - Body ground	Always	10 k Ω or higher
F31-9 (R-L-) - Body ground	Always	10 k Ω or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F31-4 (R-R+) - J1-1 (+)	Always	Below 1 Ω
F31-10 (R-R-) - J1-2 (-)	Always	Below 1 Ω
F31-4 (R-R+) - Body ground	Always	10 k Ω or higher
F31-10 (R-R-) - Body ground	Always	10 k Ω or higher

OK
▼

19.	INSPECT REAR SPEAKER SET
-----	--------------------------

Component without harness connected:
(Rear Speaker Set)



N

(a) Disconnect the J17 and J15 speaker connectors.

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

Standard Resistance:

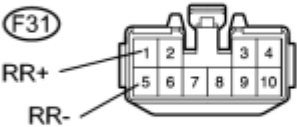
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	6.0 +/-1.2 Ω

OK
▼

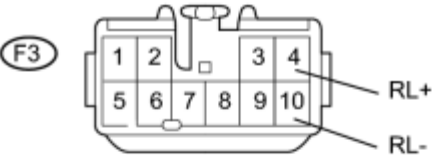
20.

CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - REAR SPEAKER SET)

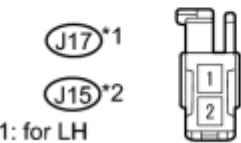
Front view of wire harness connector:
(to Stereo Component Amplifier)



Front view of wire harness connector:
(to Stereo Component Amplifier)



Front view of wire harness connector:
(to Rear No. 2 Speaker)



*1: for LH
*2: for RH

(a) Disconnect the F3 and F31 speaker connectors.

(b) Disconnect the J17 and J15 speaker connectors.

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

Standard Resistance:
for LH
for RH

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F3-4 (RL+) - J17-1	Always	Below 1 Ω
F3-10 (RL-) - J17-2		
F3-4 (RL+) - Body ground	Always	10 kΩ or higher
F3-10 (RL-) - Body ground		

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F31-1 (RR+) - J15-1	Always	Below 1 Ω
F31-5 (RR-) - J15-2		
F31-1 (RR+) - Body ground	Always	10 kΩ or higher
F31-5 (RR-) - Body ground		

OK
▼

21.

INSPECT NO. 1 WOOFER BOX SPEAKER ASSEMBLY

Component without harness connected:
(No. 1 Woofer Box Speaker)



(a) Disconnect the L4 speaker connector.

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

Standard Resistance:

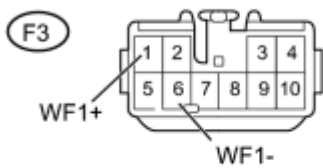
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	8.0 Ω

OK
▼

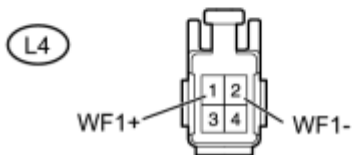
22.

CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - NO. 1 WOOFER BOX SPEAKER)

Front view of wire harness connector:
(to Stereo Component Amplifier)



Front view of wire harness connector:
(to No. 1 Woofer Box Speaker)



(a) Disconnect the F3 amplifier connector.

(b) Disconnect the L4 speaker connector.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F3-1 (WF1+) - L4-1 (WF1+)	Always	Below 1 Ω
F3-6 (WF1-) - L4-2 (WF1-)	Always	Below 1 Ω
F3-1 (WF1+) - Body ground	Always	10 k Ω or higher
F3-6 (WF1-) - Body ground	Always	10 k Ω or higher

OK

23. INSPECT REAR HEADER SPEAKER ASSEMBLY

Component without harness connected:
(Rear Header Speaker)



(a) Disconnect the S9 and S8 speaker connectors.

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

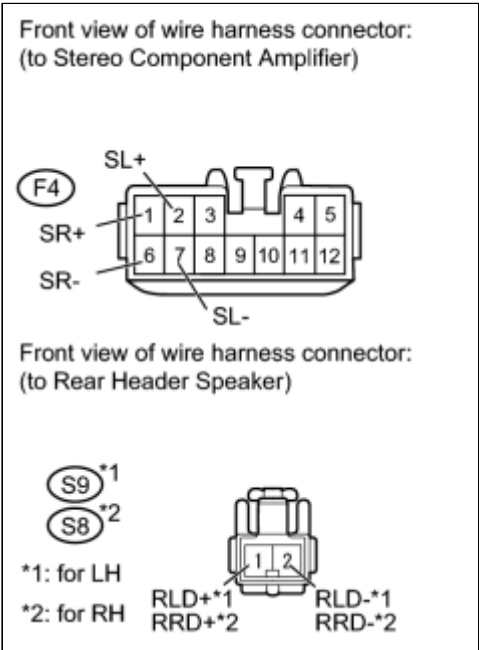
Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	6.0 +/-1.0 Ω

OK

▼

24.	CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - REAR HEADER SPEAKER)
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(a) Disconnect the F4 amplifier connector.

- (b) Disconnect the S9 and S8 speaker connectors.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

for LH
for RH

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F4-2 (SL+) - S9-1 (RLD+)	Always	Below 1 Ω
F4-7 (SL-) - S9-2 (RLD-)	Always	Below 1 Ω
F4-2 (SL+) - Body ground	Always	10 kΩ or higher
F4-7 (SL-) - Body ground	Always	10 kΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F4-1 (SR+) - S8-1 (RRD+)	Always	Below 1 Ω
F4-6 (SR-) - S8-2 (RRD-)	Always	Below 1 Ω
F4-1 (SR+) - Body ground	Always	10 kΩ or higher
F4-6 (SR-) - Body ground	Always	10 kΩ or higher

OK

▼

25.	CHECK SPEAKER
-----	---------------

(a) Check the malfunctioning speakers.

Result

RESULT	PROCEED TO
Front No. 4 speaker	A
Front No. 2 speaker	B
Front No. 1 speaker	C
Front No. 3 speaker	D
Rear speaker set	E

A

▼

26.	INSPECT FRONT NO. 4 SPEAKER ASSEMBLY
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(a) Disconnect the F6 speaker connector.

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

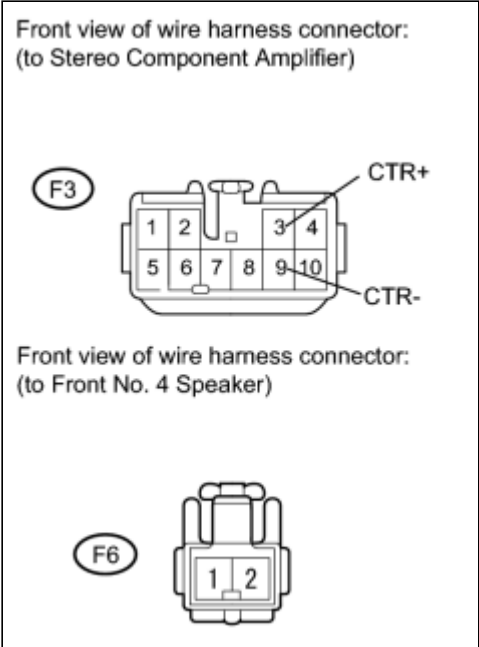
Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	6 Ω

OK

▼

27.	CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 4 SPEAKER)
-----	--



(a) Disconnect the F6 speaker connector.

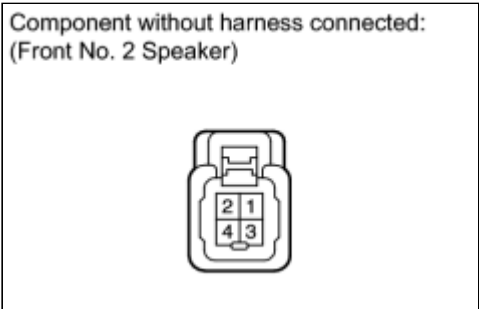
- (b) Disconnect the F3 amplifier connector.
- (c) Measure the resistance according to the value(s) in the table below.
- Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F3-3 (CTR+) - F6-1	Always	Below 1 Ω
F3-9 (CTR-) - F6-2	Always	Below 1 Ω
F3-3 (CTR+) - Body ground	Always	10 k Ω or higher
F3-9 (CTR-) - Body ground	Always	10 k Ω or higher

OK

▼

28. INSPECT FRONT NO. 2 SPEAKER ASSEMBLY



(a) Disconnect the F8 and F7 speaker connectors.

- (b) Measure the resistance according to the value(s) in the table below.
- Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	Below 1 Ω
3 - 4	Always	Below 1 Ω
2 - 4	Always	4 Ω

OK

29.	CHECK DEFECTIVE SPEAKER AND VEHICLE EQUIPMENT
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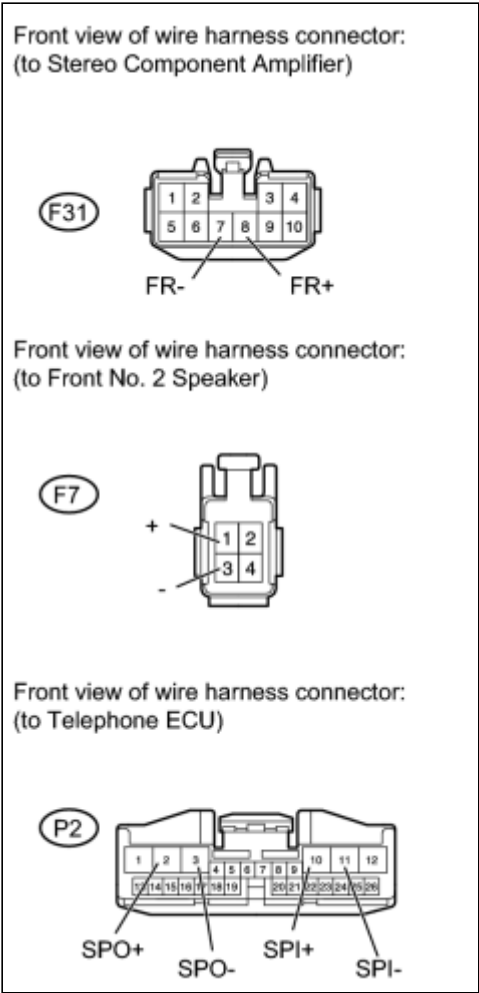
(a) Check which side of the vehicle the defective speaker is on. Also, check if the vehicle is equipped with the LEXUS Link System.

Result

RESULT	PROCEED TO
Defective speaker is on right side (w/ LEXUS Link System)	A
Defective speaker is on right side (w/o LEXUS Link System)	B
Defective speaker is on left side	B

A

30.	CHECK HARNESS AND CONNECTOR (TELEPHONE ECU - STEREO COMPONENT AMPLIFIER AND FRONT NO. 2 SPEAKER)
------------	---



(a) Disconnect the F31 amplifier connector.

- (b) Disconnect the F7 speaker connector.
- (c) Disconnect the P2 ECU connector.
- (d) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F7-1 (+) - P2-2 (SPO+)	Always	Below 1 Ω
F7-3 (-) - P2-3 (SPO-)		
F31-8 (FR+) - P2-10 (SPI+)		
F31-7 (FR-) - P2-11 (SPI-)		
F7-1 (+) - Body ground	Always	10 kΩ or higher
F7-3 (-) - Body ground		
F31-8 (FR+) - Body ground		
F31-7 (FR-) - Body ground		



31.

CHECK STEREO COMPONENT AMPLIFIER ASSEMBLY

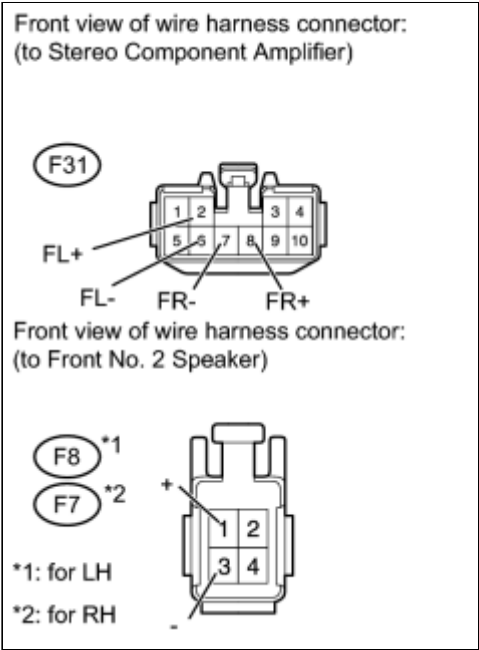
- (a) Replace the stereo component amplifier with a normal one and check that audio can be heard from the front RH side speaker INFO .
- OK:
- Audio can be heard.

OK

▼

32.

CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 2 SPEAKER)



- (a) Disconnect the F31 amplifier connector.

- (b) Disconnect the F8 and F7 speaker connectors.
- (c) Measure the resistance according to the value(s) in the table below.

Standard Resistance:

for LH

for RH

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F31-2 (FL+) - F8-1 (+)	Always	Below 1 Ω
F31-6 (FL-) - F8-3 (-)	Always	Below 1 Ω
F31-2 (FL+) - Body ground	Always	10 kΩ or higher
F31-6 (FL-) - Body ground	Always	10 kΩ or higher

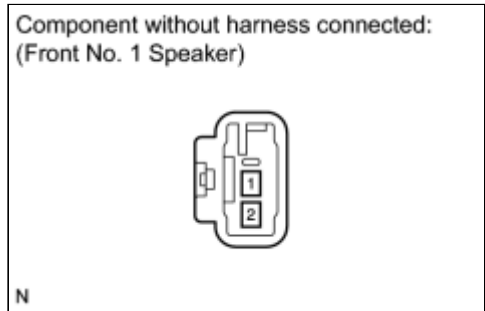
TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F31-8 (FR+) - F7-1 (+)	Always	Below 1 Ω

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F31-7 (FR-) - F7-3 (-)	Always	Below 1 Ω
F31-8 (FR+) - Body ground	Always	10 k Ω or higher
F31-7 (FR-) - Body ground	Always	10 k Ω or higher

OK



33.	INSPECT FRONT NO. 1 SPEAKER ASSEMBLY
-----	---



(a) Disconnect the I10 and I1 speaker connectors.

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

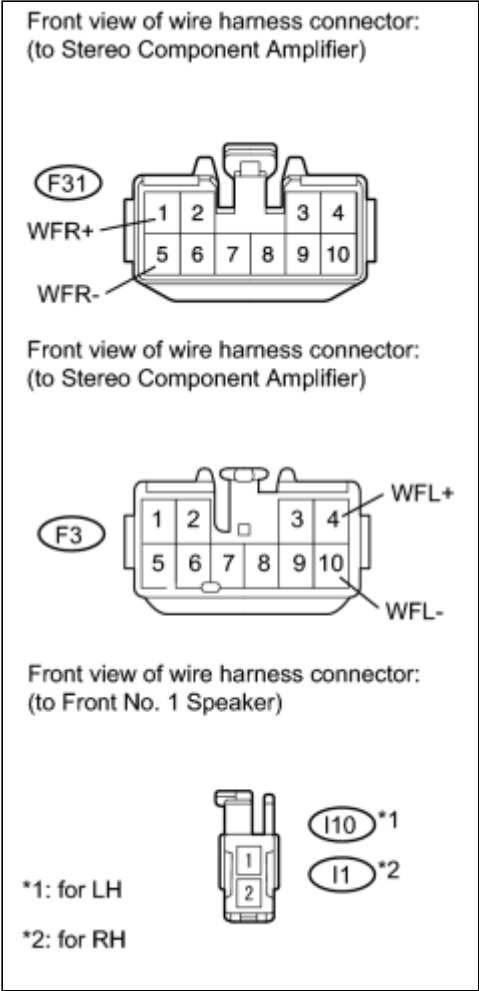
Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	3 Ω

OK



34.	CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - FRONT NO. 1 SPEAKER)
-----	---



(a) Disconnect the I10 and I1 speaker connectors.

(b) Disconnect the F31 and F3 amplifier connectors.

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

Standard Resistance:

for LH

for RH

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F3-4 (WFL+) - I10-1	Always	Below 1 Ω
F3-10 (WFL-) - I10-2	Always	Below 1 Ω
F3-4 (WFL+) - Body ground	Always	10 kΩ or higher
F3-10 (WFL-) - Body ground	Always	10 kΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F31-1 (WFR+) - I1-1	Always	Below 1 Ω
F31-5 (WFR-) - I1-2	Always	Below 1 Ω
F31-1 (WFR+) - Body ground	Always	10 kΩ or higher
F31-5 (WFR-) - Body ground	Always	10 kΩ or higher



35.

INSPECT FRONT NO. 3 SPEAKER ASSEMBLY

Component without harness connected:
(Front No. 3 Speaker)



(a) Disconnect the F14 and F13 speaker connectors.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	4 Ω

OK

▼

36.

INSPECT FRONT NO. 2 SPEAKER ASSEMBLY

Component without harness connected:
(Front No. 2 Speaker)



(a) Disconnect the F8 and F7 speaker connectors.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	Below 1 Ω
3 - 4	Always	Below 1 Ω
2 - 4	Always	4 Ω

OK

▼

37.INSPECT REAR SPEAKER SET

Component without harness connected:
(Rear Speaker Set)



N

(a) Disconnect the J17 and J15 speaker connectors.

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

Standard Resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
1 - 2	Always	4 Ω

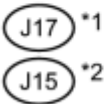
OK
▼

38.CHECK HARNESS AND CONNECTOR (STEREO COMPONENT AMPLIFIER - REAR SPEAKER SET)

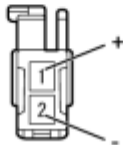
Front view of wire harness connector:
(to Stereo Component Amplifier)



Front view of wire harness connector:
(to Rear Speaker Set)



*1: for LH
*2: for RH



(a) Disconnect the F31 amplifier connector.

(b) Disconnect the J17 and J15 speaker connectors.

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

Standard Resistance:

for LH
for RH

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F31-3 (RL+) - J17-1 (+)	Always	Below 1 Ω
F31-9 (RL-) - J17-2 (-)	Always	Below 1 Ω
F31-3 (RL+) - Body ground	Always	10 kΩ or higher
F31-9 (RL-) - Body ground	Always	10 kΩ or higher

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
F31-4 (RR+) - J15-1 (+)	Always	Below 1 Ω
F31-10 (RR-) - J15-2 (-)	Always	Below 1 Ω
F31-4 (RR+) - Body ground	Always	10 kΩ or higher
F31-10 (RR-) - Body ground	Always	10 kΩ or higher

OK

