

Last Modified: 7-13-2007		1.6 C
Service Category: Audio/Visual/Telematics		Section: Audio/Video
Model Year: 2008	Model: ES350	Doc ID: RM000001YQB017X
Title: AUDIO / VISUAL: AUDIO AND VISUAL SYSTEM: 74-40: Short in Speaker Circuit (2008 ES350)		

DTC	74-40	Short in Speaker Circuit
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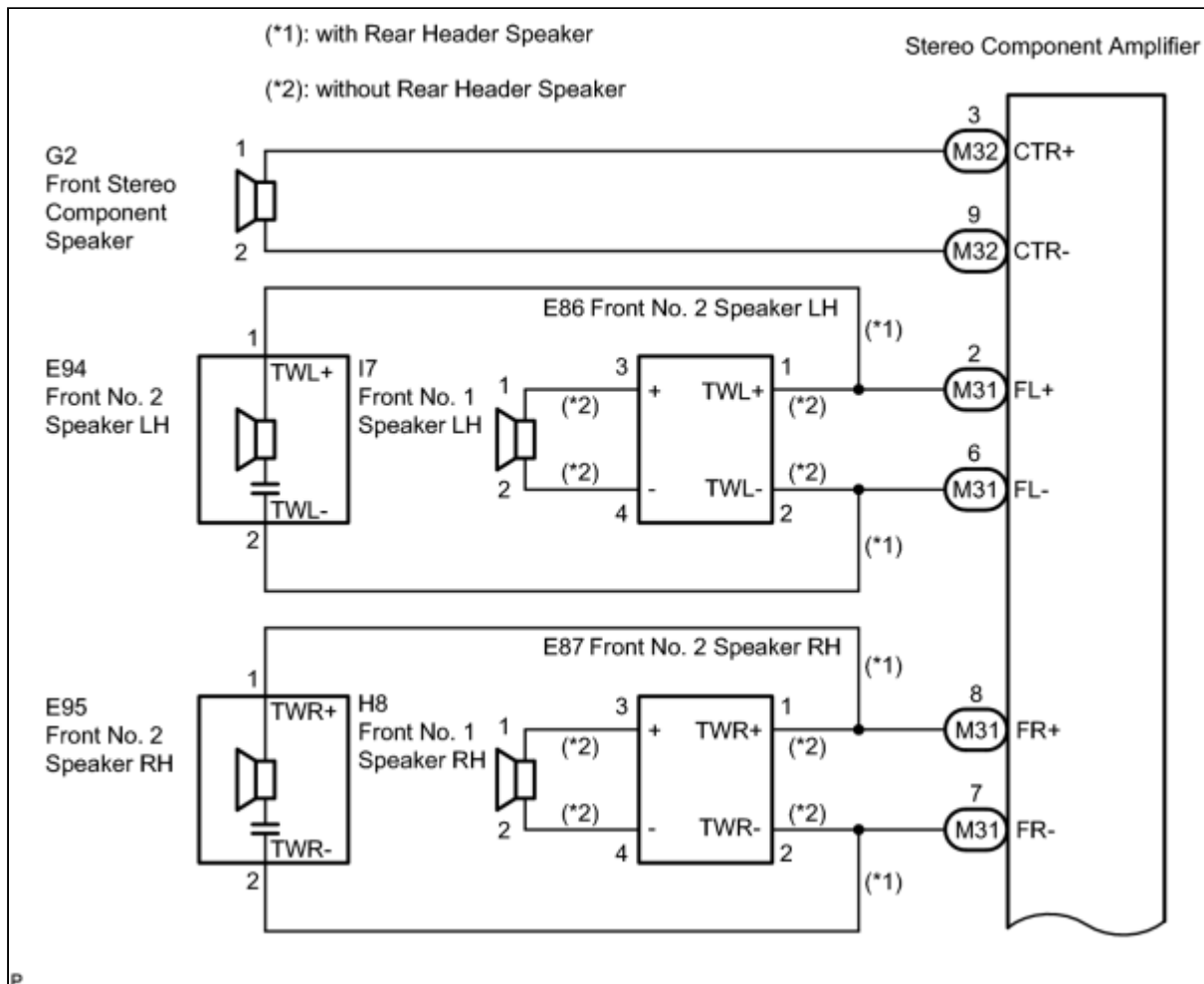
DESCRIPTION

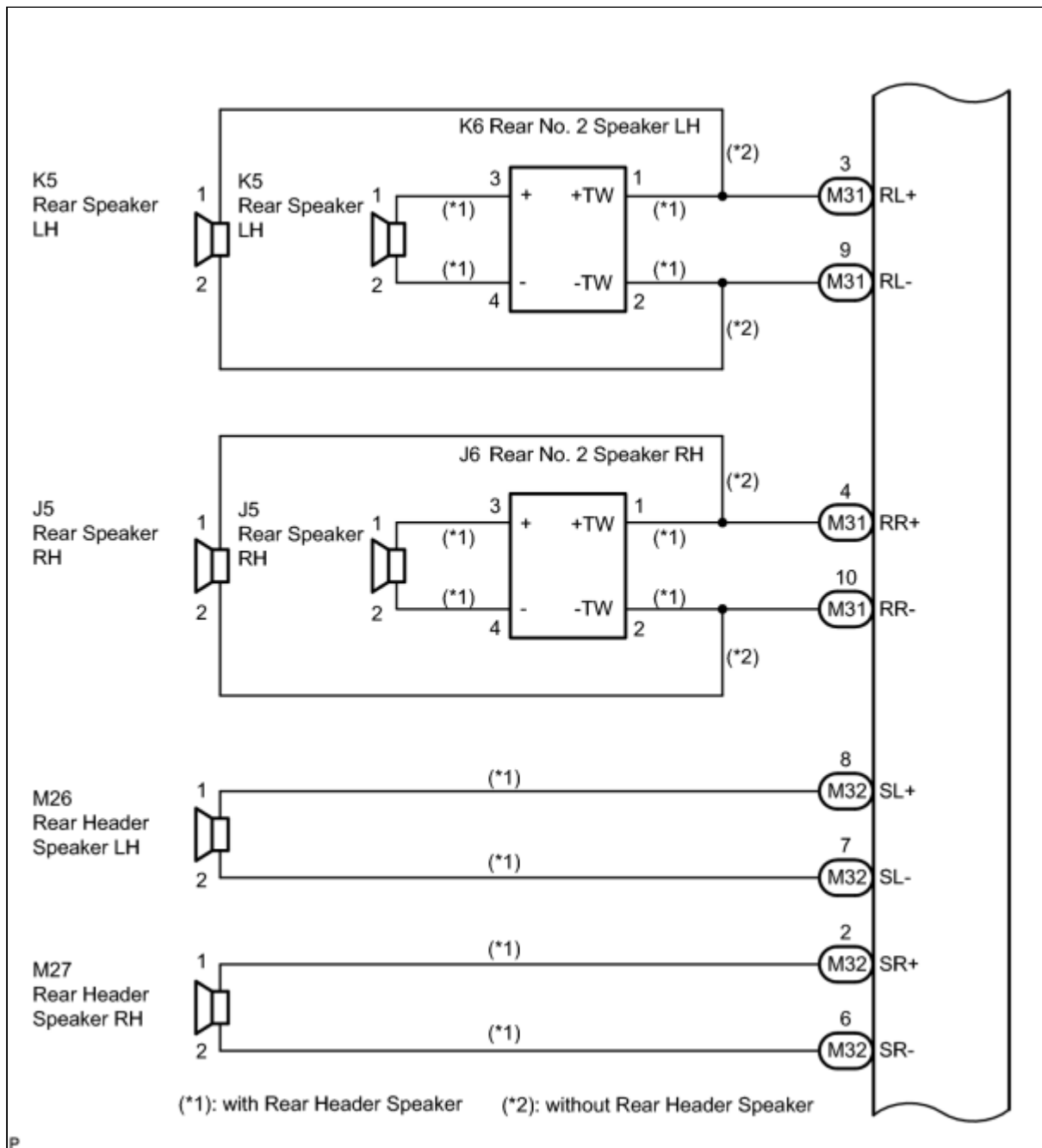
DTC NO.	DTC DETECTION CONDITION	TROUBLE AREA
74-40	A short is detected in the speaker output circuit.	<ul style="list-style-type: none"> • Wire harness • Speaker • Stereo component amplifier

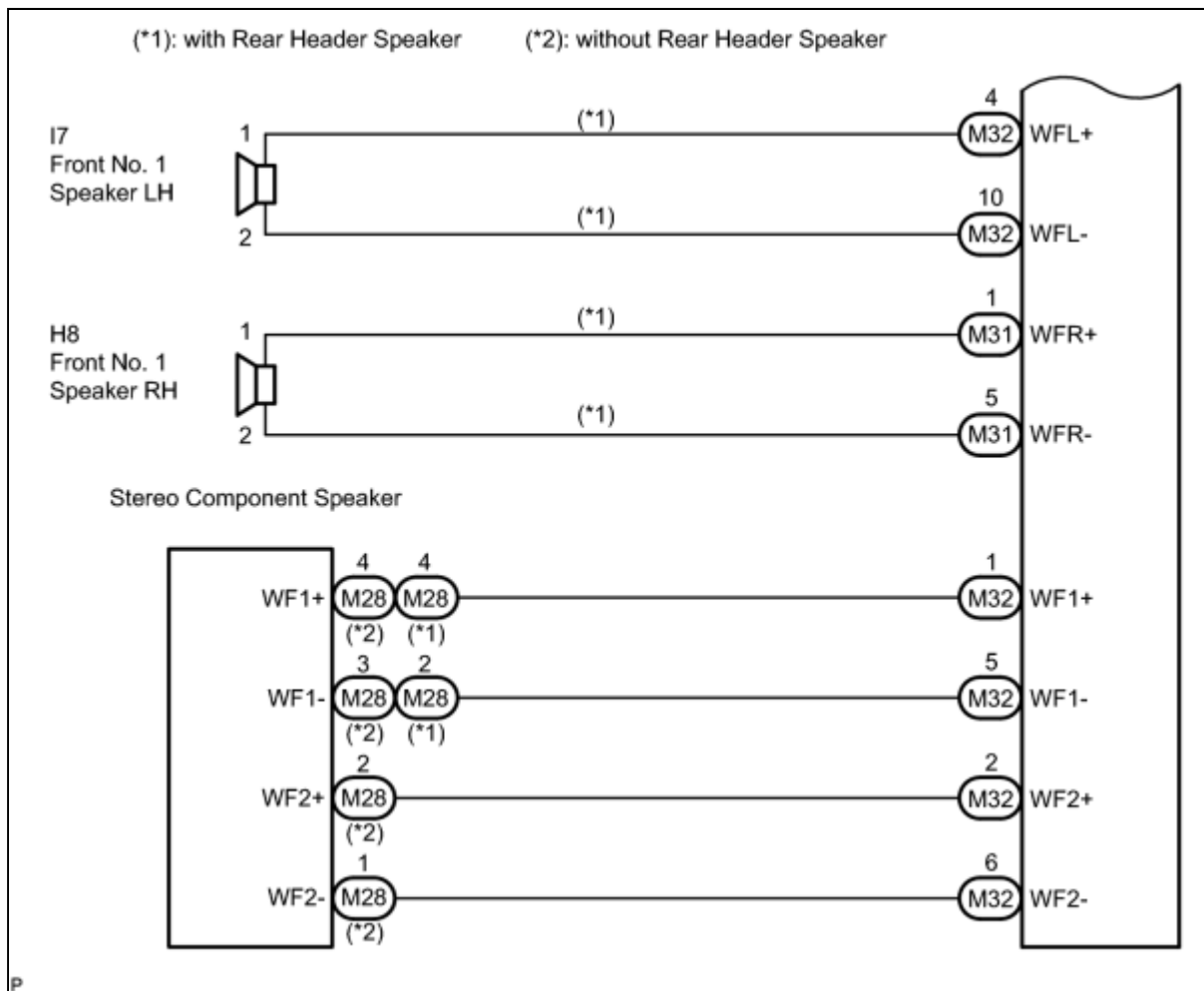
This circuit has a fail-safe function.

- When a short in the speaker circuit is detected, all sound outputs are stopped.

WIRING DIAGRAM







INSPECTION PROCEDURE

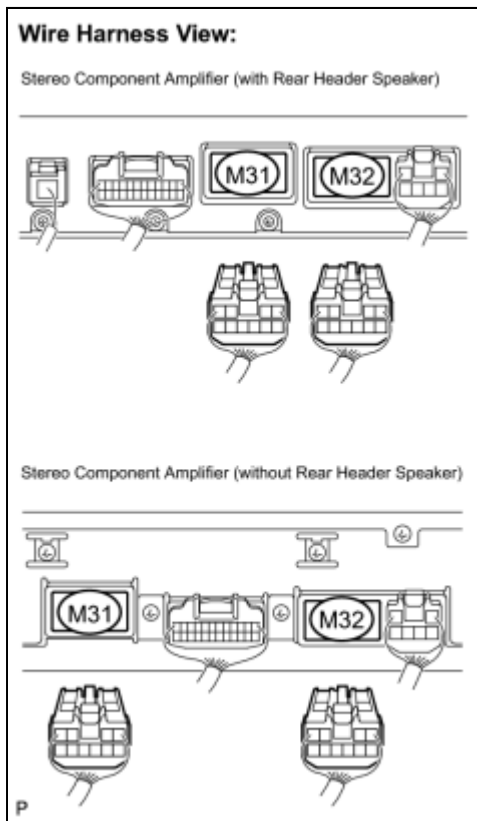
HINT:

After the inspection is completed, clear the DTCs.

PROCEDURE

1. INSPECT STEREO COMPONENT AMPLIFIER

- (a) Disconnect the stereo component amplifier connectors M31 and M32.



(b) Clear the DTCs and recheck for DTCs.

(c) Check if DTC 74-40 is output.

OK:

DTC 74-40 is not output.

NG ▶ REPLACE STEREO COMPONENT AMPLIFIER

OK



2. CHECK OPERATION

(a) Reconnect the stereo component amplifier connector M31.

(b) Check if DTC 74-40 is output.

OK:

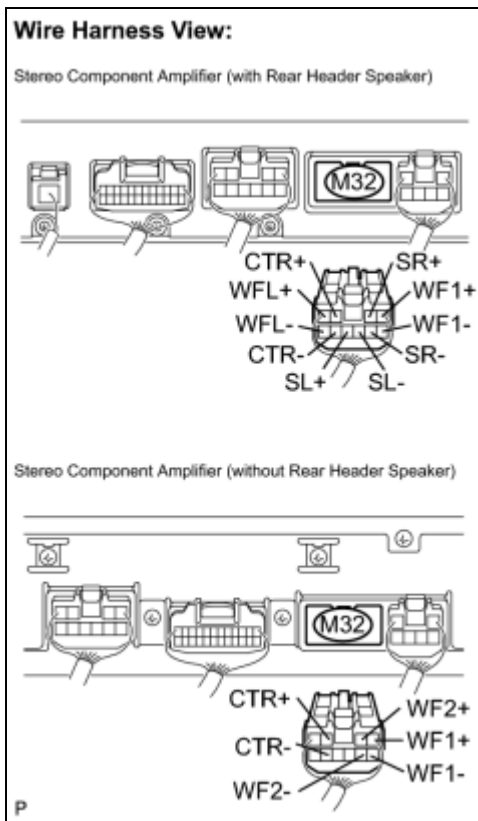
DTC 74-40 is not output.

NG ▶ CHECK HARNESS AND CONNECTOR

OK



3. CHECK HARNESS AND CONNECTOR



(a) Disconnect the connectors shown in the illustration from the stereo component amplifier and speakers.

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

Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
CTR+ - Body ground	Always	10 kΩ or higher
CTR- - Body ground	Always	10 kΩ or higher
SL+ - Body ground (*1)	Always	10 kΩ or higher
SL- - Body ground (*1)	Always	10 kΩ or higher
SR+ - Body ground (*1)	Always	10 kΩ or higher
SR- - Body ground (*1)	Always	10 kΩ or higher
WFL+ - Body ground (*1)	Always	10 kΩ or higher
WFL- - Body ground (*1)	Always	10 kΩ or higher
WF1+ - Body ground	Always	10 kΩ or higher
WF1- - Body ground	Always	10 kΩ or higher
WF2+ - Body ground (*2)	Always	10 kΩ or higher
WF2- - Body ground (*2)	Always	10 kΩ or higher

*1: with Rear Header Speaker

*2: without Rear Header Speaker

NG REPAIR OR REPLACE HARNESS OR CONNECTOR

OK
▼

4. CONFIRM MODEL

Result:

RESULT	PROCEED TO
with Rear Header Speaker	A
without Rear Header Speaker	B

B ▶ INSPECT FRONT STEREO COMPONENT SPEAKER

A
▼

5. INSPECT FRONT STEREO COMPONENT SPEAKER

(a) Resistance check.

(1) Measure the resistance between the terminals of the speaker.

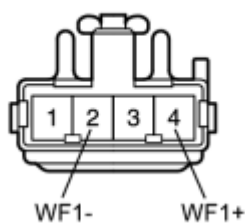
Standard resistance:
Approximately 8 Ω

NG ▶ REPLACE FRONT STEREO COMPONENT SPEAKER

OK
▼

6. INSPECT STEREO COMPONENT SPEAKER

Connector Front View:



(a) Resistance check.

(1) Measure the resistance between the terminals of the speaker.

Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
WF1+ - WF1-	Always	Approximately 8 Ω

NG ▶ REPLACE STEREO COMPONENT SPEAKER

OK
▼

7. INSPECT REAR HEADER SPEAKER (LEFT HAND)

(a) Resistance check.

(1) Measure the resistance between the terminals of the speaker.

Standard resistance:

Approximately 8 Ω **NG** ▶ REPLACE REAR HEADER SPEAKER (LEFT HAND)**OK****8. INSPECT REAR HEADER SPEAKER (RIGHT HAND)**

(a) Resistance check.

(1) Measure the resistance between the terminals of the speaker.

Standard resistance:

Approximately 8 Ω **NG** ▶ REPLACE REAR HEADER SPEAKER (RIGHT HAND)**OK** ▶ REPLACE FRONT NO. 1 SPEAKER (LEFT HAND)**9. INSPECT FRONT STEREO COMPONENT SPEAKER**

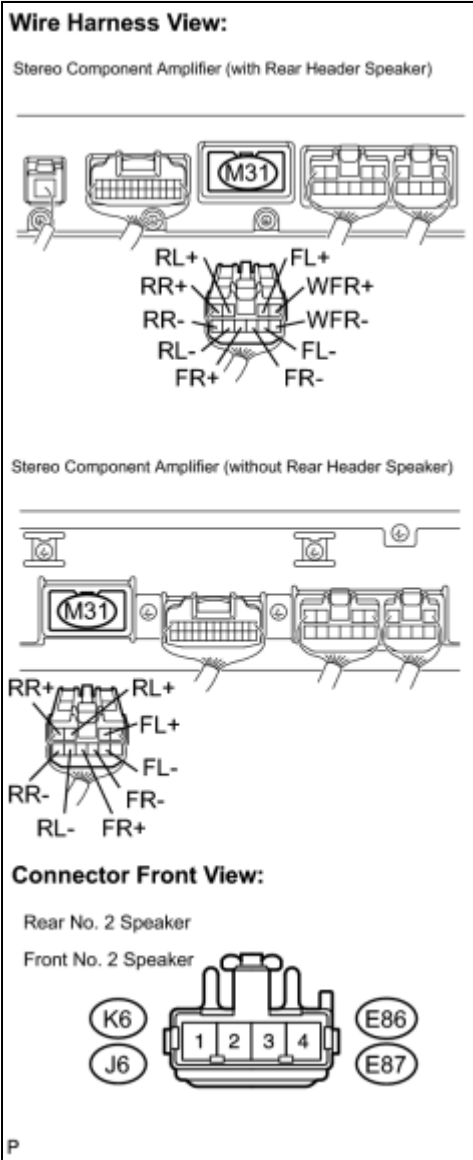
(a) Resistance check.

(1) Measure the resistance between the terminals of the speaker.

Standard resistance:

Approximately 10 Ω **NG** ▶ REPLACE FRONT STEREO COMPONENT SPEAKER**OK** ▶ REPLACE STEREO COMPONENT SPEAKER**10. CHECK HARNESS AND CONNECTOR**

(a) Disconnect the connectors shown in the illustration from the stereo component amplifier and speakers.



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

Standard resistance:

TESTER CONNECTION	CONDITION	SPECIFIED CONDITION
FL+ - Body ground	Always	10 k Ω or higher
FL- - Body ground	Always	10 k Ω or higher
E86-3 - Body ground (*2)	Always	10 k Ω or higher
E86-4 - Body ground (*2)	Always	10 k Ω or higher
FR+ - Body ground	Always	10 k Ω or higher
FR- - Body ground	Always	10 k Ω or higher
E87-3 - Body ground (*2)	Always	10 k Ω or higher
E87-4 - Body ground (*2)	Always	10 k Ω or higher
RL+ - Body ground	Always	10 k Ω or higher
RL- - Body ground	Always	10 k Ω or higher
K6-1 - Body ground (*1)	Always	10 k Ω or higher
K6-2 - Body ground (*1)	Always	10 k Ω or higher
RR+ - Body ground	Always	10 k Ω or higher

RR- - Body ground	Always	10 kΩ or higher
J6-1 - Body ground (*1)	Always	10 kΩ or higher
J6-2 - Body ground (*1)	Always	10 kΩ or higher
WFR+ - Body ground (*1)	Always	10 kΩ or higher
WFR- - Body ground (*1)	Always	10 kΩ or higher

*1: with Rear Header Speaker

*2: without Rear Header Speaker

NG  **REPAIR OR REPLACE HARNESS OR CONNECTOR**


OK



11. CONFIRM MODEL

Result:

RESULT	PROCEED TO
with Rear Header Speaker	A
without Rear Header Speaker	B

B  **INSPECT FRONT NO. 1 SPEAKER (LEFT HAND)**

A




12. INSPECT FRONT NO. 2 SPEAKER (LEFT HAND)

(a) Reconnect the stereo component amplifier connector and front No. 2 speaker connector.

(b) Check that audio sound can be heard from the speaker.

OK:

Audio sound can be heard.

NG  **REPLACE FRONT NO. 2 SPEAKER (LEFT HAND)**

OK




13. INSPECT FRONT NO. 2 SPEAKER (RIGHT HAND)

(a) Reconnect the stereo component amplifier connector and front No. 2 speaker connector.

(b) Check that audio sound can be heard from the speaker.

OK:

Audio sound can be heard.

NG  **REPLACE FRONT NO. 2 SPEAKER (RIGHT HAND)****OK****14. INSPECT REAR SPEAKER (LEFT HAND)**

(a) Resistance check.

(1) Measure the resistance between the terminals of the speaker.

Standard resistance:

Approximately 8 Ω **NG**  **REPLACE REAR SPEAKER (LEFT HAND)****OK****15. INSPECT REAR SPEAKER (RIGHT HAND)**

(a) Resistance check.

(1) Measure the resistance between the terminals of the speaker.

Standard resistance:


Approximately 8 Ω **NG**  **REPLACE REAR SPEAKER (RIGHT HAND)****OK****16. INSPECT REAR NO. 2 SPEAKER (LEFT HAND)**

(a) Reconnect the stereo component amplifier connector and rear No. 2 speaker connector.

(b) Check that audio sound can be heard from the speaker.

OK:

Audio sound can be heard.


NG  **REPLACE REAR NO. 2 SPEAKER (LEFT HAND)****OK****17. INSPECT REAR NO. 2 SPEAKER (RIGHT HAND)**


(a) Reconnect the stereo component amplifier connector and rear No. 2 speaker connector.

(b) Check that audio sound can be heard from the speaker.

OK:

Audio sound can be heard.

NG  REPLACE REAR NO. 2 SPEAKER (RIGHT HAND)

OK  REPLACE FRONT NO. 1 SPEAKER (RIGHT HAND)


18.	INSPECT FRONT NO. 1 SPEAKER (LEFT HAND)
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(a) Resistance check.

(1) Measure the resistance between the terminals of the speaker.

Standard resistance:

Approximately 4 Ω

NG  REPLACE FRONT NO. 1 SPEAKER (LEFT HAND)

OK




19.	INSPECT FRONT NO. 1 SPEAKER (RIGHT HAND)
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(a) Resistance check.

(1) Measure the resistance between the terminals of the speaker.

Standard resistance:

Approximately 4 Ω

NG  REPLACE FRONT NO. 1 SPEAKER (RIGHT HAND)

OK




20.	INSPECT FRONT NO. 2 SPEAKER (LEFT HAND)
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(a) Reconnect the stereo component amplifier connector and front No. 2 speaker connector.

(b) Check that audio sound can be heard from the speaker.

OK:

Audio sound can be heard.

NG  REPLACE FRONT NO. 2 SPEAKER (LEFT HAND)

OK



21.	INSPECT FRONT NO. 2 SPEAKER (RIGHT HAND)
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(a) Reconnect the stereo component amplifier connector and front No. 2 speaker connector.

(b) Check that audio sound can be heard from the speaker.

OK:

Audio sound can be heard.

NG ▶ REPLACE FRONT NO. 2 SPEAKER (RIGHT HAND)**OK****22. INSPECT REAR SPEAKER (LEFT HAND)**

(a) Resistance check.

(1) Measure the resistance between the terminals of the speaker.

Standard resistance:

Approximately 4 Ω **NG** ▶ REPLACE REAR SPEAKER (LEFT HAND)**OK** ▶ REPLACE REAR SPEAKER (RIGHT HAND)