

# 09-02B ON-BOARD DIAGNOSTIC [AUDIO]

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## STARTING PROCEDURE FOR ON-BOARD DIAGNOSTIC TEST MODE

A3U090266900W01

**Note**

- All DTCs displayed in the on-board diagnostic test mode should be entered on the Audio Exchange Order Form.

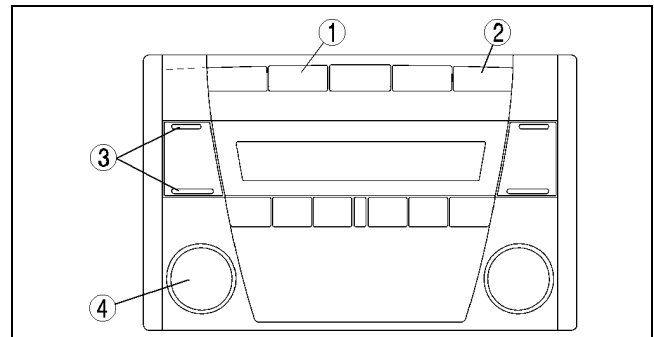
- Turn the ignition switch to the ACC or ON position.
- First press the POWER button and hold it, then press the AM button and CLOCK button for **2 seconds or more**.

1	AM button
2	CLOCK button
3	SEEK button
4	POWER button

**Note**

- If several DTCs are in the memory, they can be displayed by the SEEK button.

- To stop the on-board diagnostic test mode, turn the ignition switch to the LOCK position.



ZLU0920W102

## SUPPLIER IDENTIFICATION PROCEDURE

A3U090266900W02

**Note**

- When asking the supplier (service center) for repair or replacement, verify which supplier the module belongs to and enter on the Audio Exchange Order Form. (See Warranty Bulletin Category AD, number 32.) Use the table and illustration below to determine the audio supplier.

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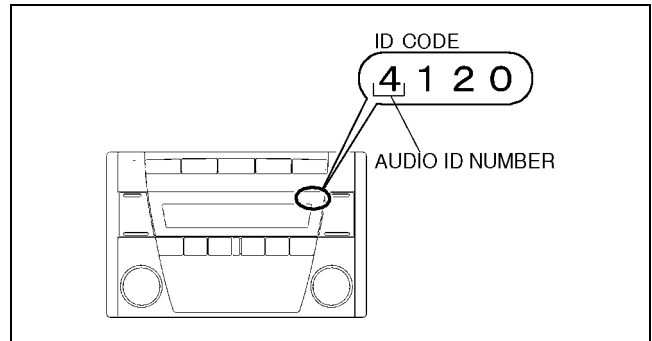
# ON-BOARD DIAGNOSTIC [AUDIO]

## Identification With Printed Numbers/Label

### Base unit

- To identify the supplier name, compare the leftmost number of the ID code (4 digits), printed on the upper right corner of the LCD, with the table below.

Audio ID number	Supplier name
1	Panasonic
2	Clarion
4	FMS Audio



YLE8175W002

### Upper/lower module

- Remove the audio unit.
- Verify the supplier name written on the label attached on each module.

## Identification With On-board Diagnostic Test Mode

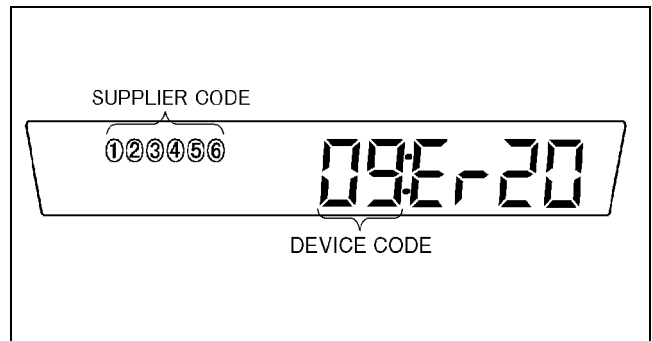
- Start the on-board diagnostic test mode.
- Verify the device code and supplier code displayed in the LCD.

### Note

- When no DTCs are in the memory, device code and supplier codes will not be displayed.

Device code	Part name
00	Cassette deck (lower module)
03	CD player (upper module)
05	CD changer (external type)
06	CD changer (upper module)
07	MD player (lower module)
09	Base unit

Supplier code	Supplier name
1	FMS Audio
2	Panasonic
3	Clarion



Z3U0920W003

## DTC CLEARING PROCEDURE

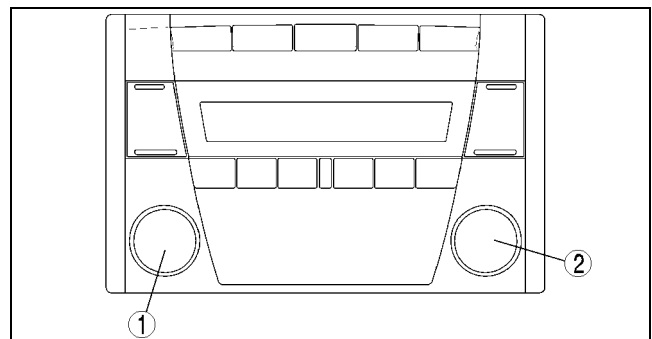
A3U090266900W03

- Start the on-board diagnostic test mode.
- First press the POWER button and hold it, then press AUDIO CONT button for **2 seconds or more**.

1	POWER button
2	AUDIO CONT button

### Caution

- Before clearing the DTCs, be sure to enter all of them displayed in the on-board diagnostic test mode on the Audio Exchange Order Form.



YLE8175W004

- To stop the on-board diagnostic test mode, turn the ignition switch to the LOCK position.

# ON-BOARD DIAGNOSTIC [AUDIO]

## DTC TABLE

A3U090266900W04

Screen display		Malfunction location	Page
DTC	Output signal		
09:Er22	—	Base unit (peripheral circuit)	(See 09-02B-3 DTC 09:ER22)
09:Er20	—	Power supply circuit of base unit	(See 09-02B-4 DTC 09:ER20)
00:Er10	—	Cassette deck—base unit communication line	(See 09-02B-5 DTC 00:ER10)
03:Er10	—	CD player—base unit communication line	(See 09-02B-5 DTC 03:ER10)
05:Er10	—	CD changer (external type)—base unit communication line	(See 09-02B-6 DTC 05:ER10)
06:Er10	—	CD changer (upper module)—base unit communication line	(See 09-02B-6 DTC 06:ER10)
07:Er10	—	MD player—base unit communication line	(See 09-02B-7 DTC 07:ER10)
03:Er01	—	CD player	(See 09-02B-7 DTC 03:ER01)
03:Er02	CHECK* <sup>1</sup> CD* <sup>2</sup>	CD player	(See 09-02B-8 DTC 03:ER02)
03:Er07	CHECK* <sup>1</sup> CD* <sup>2</sup>	CD player	(See 09-02B-8 DTC 03:ER07)
00:Er01	—	Cassette deck	(See 09-02B-9 DTC 00:ER01)
00:Er03	—	Cassette deck	(See 09-02B-9 DTC 00:ER03)
00:Er04	CHECK* <sup>1</sup> TAPE* <sup>2</sup>	Cassette tape	(See 09-02B-9 DTC 00:ER04)
05:Er01	—	CD changer (external type)	(See 09-02B-10 DTC 05:ER01)
05:Er07	CHECK* <sup>1</sup> CD* <sup>2</sup>	CD changer (external type)	(See 09-02B-10 DTC 05:ER07)
06:Er01	—	CD changer (upper module)	(See 09-02B-11 DTC 06:ER01)
06:Er02	CHECK* <sup>1</sup> CD* <sup>2</sup>	CD changer (upper module)	(See 09-02B-11 DTC 06:ER02)
06:Er07	CHECK* <sup>1</sup> CD* <sup>2</sup>	CD changer (upper module)	(See 09-02B-12 DTC 06:ER07)
07:Er01	—	MD player	(See 09-02B-12 DTC 07:ER01)
07:Er02	CHECK* <sup>1</sup> MD* <sup>2</sup>	MD player	(See 09-02B-13 DTC 07:ER02)
07:Er07	CHECK* <sup>1</sup> MD* <sup>2</sup>	MD player	(See 09-02B-13 DTC 07:ER07)
no Err	—	No stored DTCs	—

\*1,\*2: When an error occurs, the error messages are displayed three times in the order of \*1 and \*2, respectively.

## DTC 09:ER22

A3U090266900W05

<b>DTC 09:Er22</b>	Base unit (peripheral circuit)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>Base unit detects malfunction in its inner circuit (related to tuner).</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Base unit malfunction</li> </ul>

## Diagnostic procedure

INSPECTION		ACTION
<b>INSPECT BASE UNIT</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Turn on radio and operate it for <b>3 seconds or more</b>.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 09:Er22 displayed?</li> </ul>	Yes	Replace base unit.
	No	Troubleshooting completed.

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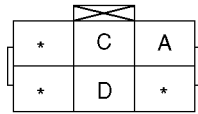
# ON-BOARD DIAGNOSTIC [AUDIO]

**DTC 09:Er20**

A3U090266900W06

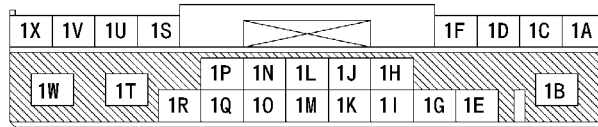
<b>DTC 09:Er20</b>	Power supply circuit of base unit
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>Voltage detected at base unit terminals 1B and 1R is <b>less than 8.5 V, or more than 16 V (must not be 16V)</b>.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Weak battery</li> <li>Malfunction in wiring harness between battery and base unit</li> </ul>

FUSE BLOCK CONNECTOR  
(JB-01)



HARNESS SIDE CONNECTOR  
(VIEW FROM HARNESS SIDE)

BASE UNIT CONNECTOR



HARNESS SIDE CONNECTOR  
(VIEW FROM HARNESS SIDE)

**Diagnostic procedure**

STEP	INSPECTION	ACTION
1	<b>INSPECT BATTERY</b> <ul style="list-style-type: none"> <li>Turn headlights ON then OFF to remove surface charge.</li> <li>Measure battery voltage.</li> <li>Is voltage less than <b>8.5 V</b>?</li> </ul>	Yes Battery is weak. <ul style="list-style-type: none"> <li>Inspect charge/discharge system.</li> </ul>
		No Go to next step.
2	<b>INSPECT BATTERY</b> <ul style="list-style-type: none"> <li>Engine running.</li> <li>Measure battery voltage.</li> <li>Is voltage greater than <b>16 V</b>?</li> </ul>	Yes Battery is overcharging. <ul style="list-style-type: none"> <li>Inspect charge/discharge system.</li> </ul>
		No Go to next step.
3	<b>INSPECT WIRING HARNESS BETWEEN BATTERY AND FUSE BLOCK</b> <ul style="list-style-type: none"> <li>Measure voltage at fuse block connector (JB-01) terminals A and D.</li> <li>Is voltage <b>8.5 V —16 V</b>?</li> </ul>	Yes Go to next step.
		No Repair wiring harness between battery and fuse block.
4	<b>INSPECT WIRING HARNESS BETWEEN FUSE BLOCK AND BASE UNIT</b> <ul style="list-style-type: none"> <li>Measure voltage at base unit connector terminals 1B and 1R.</li> <li>Is voltage <b>8.5 V —16 V</b>?</li> </ul>	Yes Go to next step.
		No Repair wiring harness between fuse block and base unit.
5	<b>INSPECT BASE UNIT</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Turn ignition switch to ACC or ON position and hold for <b>30 seconds or more</b>.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 09:Er20 displayed?</li> </ul>	Yes Replace base unit.
		No Troubleshooting completed.

## ON-BOARD DIAGNOSTIC [AUDIO]

### DTC 00:Er10

A3U090266900W07

<b>DTC 00:Er10</b>	Cassette deck—base unit communication line
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>• Base unit detects communication error with cassette deck (lower module).</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Malfunction of connectors between base unit and cassette deck (lower module)</li> <li>• Cassette deck (lower module) malfunction</li> <li>• Base unit malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION
1	<b>INSPECT CONNECTOR</b> <ul style="list-style-type: none"> <li>• Remove cassette deck (lower module) and inspect connector for the following.                             <ul style="list-style-type: none"> <li>— Deformation of pin</li> <li>— Poor connection of female terminal</li> <li>— Pinching of foreign material</li> </ul> </li> <li>• Is connector okay?</li> </ul>	Yes Go to next step.
		No Repair connector, then go to next step.
2	<b>VERIFY THAT CASSETTE DECK (LOWER MODULE) IS INSTALLED WITH BASE UNIT</b> <ul style="list-style-type: none"> <li>• Install cassette deck (lower module) and verify its installation condition.</li> <li>• Is cassette deck securely installed?</li> </ul>	Yes Go to next step.
		No Securely install cassette deck (lower module), then go to next step.
3	<b>INSPECT CASSETTE DECK (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Turn ignition switch to ACC or ON position and hold for <b>3 seconds or more</b>.</li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 00:Er10 displayed?</li> </ul>	Yes Replace base unit and cassette deck (lower module).
		No Troubleshooting completed.

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### DTC 03:Er10

A3U090266900W08

<b>DTC 03:Er10</b>	CD player—base unit communication line
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>• Base unit detects communication error with CD player (upper module).</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Malfunction of connectors between base unit and CD player (upper module)</li> <li>• CD player (upper module) malfunction</li> <li>• Base unit malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION
1	<b>INSPECT CONNECTOR</b> <ul style="list-style-type: none"> <li>• Remove CD player (upper module) and inspect connector for the following.                             <ul style="list-style-type: none"> <li>— Deformation of pin</li> <li>— Poor connection of female terminal</li> <li>— Pinching of foreign material</li> </ul> </li> <li>• Is connector okay?</li> </ul>	Yes Go to next step.
		No Repair connector, then go to next step.
2	<b>VERIFY THAT CD PLAYER (UPPER MODULE) IS INSTALLED WITH BASE UNIT</b> <ul style="list-style-type: none"> <li>• Install CD player (upper module) and verify its installation condition.</li> <li>• Is CD player securely installed?</li> </ul>	Yes Go to next step.
		No Securely install CD player (upper module), then go to next step.
3	<b>INSPECT CD PLAYER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Turn ignition switch to ACC or ON position and wait for <b>3 seconds or more</b>.</li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 03:Er10 displayed?</li> </ul>	Yes Replace base unit and CD player (upper module).
		No Troubleshooting completed.

# ON-BOARD DIAGNOSTIC [AUDIO]

## DTC 05:ER10

A3U090266900W09

<b>DTC 05:Er10</b>	CD changer—base unit communication line
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>Base unit detects communication error with CD changer (external type)</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Malfunction of connectors between base unit and CD changer (external type)</li> <li>CD changer (external type) malfunction</li> <li>Base unit malfunction</li> </ul>

### Diagnostic procedure

STEP	INSPECTION		ACTION
1	<b>INSPECT CONNECTOR</b> <ul style="list-style-type: none"> <li>Inspect base unit and CD changer (external type) connectors for connection.</li> <li>Are connectors securely connected?</li> </ul>	Yes	Go to next step.
		No	Reconnect connector, then go to next step.
2	<b>INSPECT WIRING HARNESS BETWEEN CD CHANGER (EXTERNAL TYPE) AND BASE UNIT</b> <ul style="list-style-type: none"> <li>Inspect wiring harness between base unit and CD changer (external type).</li> <li>Is wiring harness okay?</li> </ul>	Yes	Go to next step.
		No	Securely install CD changer (external type), then go to next step.
3	<b>INSPECT CD CHANGER (EXTERNAL TYPE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Turn ignition switch to ACC or ON position and wait for <b>3 seconds or more</b>.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 05:Er10 displayed?</li> </ul>	Yes	Replace base unit and CD changer (external type).
		No	Troubleshooting completed.

## DTC 06:ER10

A3U090266900W10

<b>DTC 06:Er10</b>	CD changer—base unit communication line
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>Base unit detects communication error with CD changer (upper module)</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Malfunction of connectors between base unit and CD changer (upper module)</li> <li>CD changer (upper module) malfunction</li> <li>Base unit malfunction</li> </ul>

### Diagnostic procedure

STEP	INSPECTION		ACTION
1	<b>INSPECT CONNECTOR</b> <ul style="list-style-type: none"> <li>Remove CD changer (upper module) and inspect connector for the following.                             <ul style="list-style-type: none"> <li>Deformation of pin</li> <li>Poor connection of female terminal</li> <li>Pinching of foreign material</li> </ul> </li> <li>Is connector okay?</li> </ul>	Yes	Go to next step.
		No	Repair connector, then go to next step.
2	<b>VERIFY THAT CD CHANGER (UPPER MODULE) IS INSTALLED WITH BASE UNIT</b> <ul style="list-style-type: none"> <li>Install CD changer (upper module) and verify its installation condition.</li> <li>Is CD changer (upper module) securely installed?</li> </ul>	Yes	Go to next step.
		No	Securely install CD changer (upper module), then go to next step.
3	<b>INSPECT CD CHANGER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Turn ignition switch to ACC or ON position and wait for <b>3 seconds or more</b>.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 06:Er10 displayed?</li> </ul>	Yes	Replace base unit and CD changer (upper module).
		No	Troubleshooting completed.

## ON-BOARD DIAGNOSTIC [AUDIO]

### DTC 07:Er10

A3U090266900W11

<b>DTC 07:Er10</b>	MD player—base unit communication line
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>• Base unit detects communication error with MD player (lower module)</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Malfunction of connectors between base unit and MD player (lower module)</li> <li>• MD player (lower module) malfunction</li> <li>• Base unit malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<b>INSPECT CONNECTOR</b> <ul style="list-style-type: none"> <li>• Remove MD player (lower module) and inspect connector for the following.                             <ul style="list-style-type: none"> <li>— Deformation of pin</li> <li>— Poor connection of female terminal</li> <li>— Pinching of foreign material</li> </ul> </li> <li>• Is connector okay?</li> </ul>	Yes	Go to next step.
		No	Repair connector, then go to next step.
2	<b>VERIFY THAT MD PLAYER (LOWER MODULE) IS INSTALLED WITH BASE UNIT</b> <ul style="list-style-type: none"> <li>• Install MD player (lower module) and verify its installation condition.</li> <li>• Is MD player (lower module) securely installed?</li> </ul>	Yes	Go to next step.
		No	Securely install MD player (lower module), then go to next step.
3	<b>INSPECT MD PLAYER (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Turn ignition switch to ACC or ON position and wait for <b>3 seconds or more</b>.</li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 07:Er10 displayed?</li> </ul>	Yes	Replace base unit and MD player (lower module).
		No	Troubleshooting completed.

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### DTC 03:Er01

A3U090266900W12

<b>DTC 03:Er01</b>	CD player (upper module)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>• CD player (upper module) cannot perform insert and eject commands.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>• Defective CD (broken or foreign material stuck/attached)</li> <li>• CD player (upper module) malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> <li>• Is CD able to be ejected?</li> </ul>	Yes	Go to next step.
		No	Replace CD player (upper module).
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>• Inspect condition of CD where error has occurred.</li> <li>• Is CD okay?</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>• In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.
		No	Repair (remove foreign material) or replace CD, then go to next step.
3	<b>INSPECT CD PLAYER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>• Clear DTC.</li> <li>• Insert and eject CD with no defect.</li> <li>• Start on-board diagnostic test mode.</li> <li>• Is DTC 03:Er01 displayed?</li> </ul>	Yes	Replace CD player (upper module).
		No	Troubleshooting completed.

## ON-BOARD DIAGNOSTIC [AUDIO]

### DTC 03:ER02

A3U090266900W13

<b>DTC 03:Er02</b>	CD player (upper module)
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>When error occurs, error message "CHECK CD" is displayed in the LCD.</li> <li>Cannot play CD normally or change tracks.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (scratches or dirt)</li> <li>CD player (upper module) malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION		
1	<b>VERIFY WHETHER MALFUNCTION IS IN CD PLAYER (UPPER MODULE) OR CD</b> <ul style="list-style-type: none"> <li>Play CD and select other song (change tracks).</li> <li>Does CD player change tracks?</li> </ul>	Yes	Go to Step 3.	
		No	Not able to change particular tracks.	Go to next step.
			Not able to change any tracks.	Change CD and perform tracks-change again. <ul style="list-style-type: none"> <li>If CD player changes tracks, then go to Step 3.</li> <li>If not, replace CD player (upper module).</li> </ul>
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.	
		No	Repair (remove foreign material) or replace CD, then go to next step.	
3	<b>INSPECT CD PLAYER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Play CD and select other song (change tracks).</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 03:Er02 displayed?</li> </ul>	Yes	Replace CD player (upper module).	
		No	Troubleshooting completed.	

### DTC 03:ER07

A3U090266900W14

<b>DTC 03:Er07</b>	CD player (upper module)
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>When error occurs, error message "CHECK CD" is displayed in the LCD.</li> <li>Base unit detects CD reading error.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (scratches or dirt)</li> <li>CD player (upper module) malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.
		No	Repair (remove foreign material) or replace CD, then go to next step.
2	<b>INSPECT CD PLAYER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and play CD with no defect.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 03:Er07 displayed?</li> </ul>	Yes	Replace CD player (upper module).
		No	Troubleshooting completed.



# ON-BOARD DIAGNOSTIC [AUDIO]

## DTC 00:Er01

A3U090266900W15

<b>DTC 00:Er01</b>	Cassette deck (lower module)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>Cassette deck (lower module) cannot perform insert and eject commands.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective cassette tape (deformation, broken, or foreign material stuck/attached)</li> <li>Cassette deck (lower module) malfunction</li> </ul>

### Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> <li>Is cassette tape able to be ejected?</li> </ul>	Yes	Go to next step.
		No	Replace cassette deck (lower module).
2	<b>INSPECT CASSETTE TAPE</b> <ul style="list-style-type: none"> <li>Inspect condition of cassette tape where error has occurred.</li> <li>Is cassette tape okay?</li> </ul>	Yes	Go to next step.
		No	Repair (remove foreign material) or replace cassette tape, then go to next step.
3	<b>INSPECT CASSETTE DECK (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and eject cassette tape with no defect.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 00:Er01 displayed?</li> </ul>	Yes	Replace cassette deck (lower module).
		No	Troubleshooting completed.

## DTC 00:Er03

A3U090266900W16

<b>DTC 00:Er03</b>	Cassette deck (lower module)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>Base unit detects that reel built into cassette deck does not operate.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective cassette tape (tape slack, pinched tape in internal cassette deck)</li> <li>Cassette deck (lower module) malfunction</li> </ul>

### Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<b>INSPECT CASSETTE TAPE</b> <ul style="list-style-type: none"> <li>Inspect condition of cassette tape where error has occurred.</li> <li>Is cassette tape okay?</li> </ul>	Yes	Go to next step.
		No	Repair (remove tape slack or repair pinched tape) or replace cassette tape, then go to next step.
2	<b>INSPECT CASSETTE DECK (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert cassette tape with no defect.</li> <li>Play cassette tape for <b>20 seconds or more</b>.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 00:Er03 displayed?</li> </ul>	Yes	Replace cassette deck (lower module).
		No	Troubleshooting completed.

## DTC 00:Er04

A3U090266900W17

<b>DTC 00:Er04</b>	Cassette tape
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>When error occurs, error message "CHECK TAPE" is displayed in the LCD.</li> </ul> <ul style="list-style-type: none"> <li>Cassette tape is worn out.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Tape wear</li> <li>Cassette deck (lower module) malfunction</li> </ul>

### Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<b>INSPECT CASSETTE TAPE</b> <ul style="list-style-type: none"> <li>Inspect condition of cassette tape where error has occurred.</li> <li>Is cassette tape okay?</li> </ul>	Yes	Go to next step.
		No	Replace cassette tape, then go to next step.
2	<b>INSPECT CASSETTE DECK (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert cassette tape with no defect.</li> <li>Play cassette tape for <b>20 seconds or more</b>.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 00:Er04 displayed?</li> </ul>	Yes	Replace cassette deck (lower module).
		No	Troubleshooting completed.

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## ON-BOARD DIAGNOSTIC [AUDIO]

### DTC 05:ER01

A3U090266900W18

<b>DTC 05:Er01</b>	CD changer (external type)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>Changer function does not operate.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (broken or foreign material)</li> <li>Magazine malfunction</li> <li>CD changer (external type) malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<b>VERIFY WHETHER MALFUNCTION IS IN CD CHANGER OR OTHER PARTS</b> <ul style="list-style-type: none"> <li>Operate changer function.</li> <li>Is function okay?</li> </ul>	Yes	Go to Step 4.
		No	Not able to change particular CD.
	Not able to change any CD.		Go to Step 3.
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.
		No	Repair (remove foreign material) or replace CD, then go to next step.
3	<b>INSPECT MAGAZINE</b> <ul style="list-style-type: none"> <li>Inspect magazine.</li> <li>Is magazine okay?</li> </ul>	Yes	Go to next step.
		No	Repair or replace magazine, then go to next step.
4	<b>INSPECT CD CHANGER (EXTERNAL TYPE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Operate changer.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 05:Er01 displayed?</li> </ul>	Yes	Replace CD changer (external type).
		No	Troubleshooting completed.

### DTC 05:ER07

A3U090266900W19

<b>DTC 05:Er07</b>	CD changer (external type)
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>When error occurs, error message "CHECK CD" is displayed in the LCD.</li> <li>Base unit detects CD reading error.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (scratches or dirt)</li> <li>CD changer (external type) malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION		
1	<b>VERIFY WHETHER MALFUNCTION IS IN CD CHANGER OR OTHER PARTS</b> <ul style="list-style-type: none"> <li>Play all CD in magazine.</li> <li>Is CD changer able to read them properly?</li> </ul>	Yes	Go to Step 3.	
		No	Not able to change particular CD.	Go to next step.
			Not able to change any CD.	Go to Step 3.
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.	
		No	Repair (remove foreign material) or replace CD, then go to next step.	
3	<b>INSPECT CD CHANGER (EXTERNAL TYPE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and play CD with no defect.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 05:Er07 displayed?</li> </ul>	Yes	Replace CD changer (external type).	
		No	Troubleshooting completed.	

## ON-BOARD DIAGNOSTIC [AUDIO]

### DTC 06:ER01

A3U090266900W20

<b>DTC 06:Er01</b>	CD changer (upper module)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>CD changer (upper module) cannot perform insert, eject, and disc change commands.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (broken or foreign material stuck/attached)</li> <li>CD changer (upper module) malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> <li>Is CD able to be ejected?</li> </ul>	Yes	Go to next step.
		No	Replace CD changer (upper module).
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.
		No	Repair (remove foreign material) or replace CD, then go to next step.
3	<b>INSPECT CD CHANGER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and eject CD with no defect.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 06:Er01 displayed?</li> </ul>	Yes	Replace CD changer (upper module).
		No	Troubleshooting completed.

### DTC 06:ER02

A3U090266900W21

<b>DTC 06:Er02</b>	CD changer (upper module)
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>When error occurs, error message "CHECK CD" is displayed in the LCD.</li> </ul> <ul style="list-style-type: none"> <li>Can not play CD normally or change tracks.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (scratches or dirt)</li> <li>CD changer (upper module) malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION		
1	<b>VERIFY WHETHER MALFUNCTION IS IN CD CHANGER (UPPER MODULE) OR CD</b> <ul style="list-style-type: none"> <li>Play all CDs in changer and select other song (change tracks).</li> <li>Is CD changer able to change tracks?</li> </ul>	Yes	Go to Step 3.	
		No	Not able to change particular tracks.	Go to next step.
		No	Not able to change any tracks.	Change CD and perform tracks-change again. <ul style="list-style-type: none"> <li>If CD changer changes tracks, then go to Step 3.</li> <li>If not, replace CD changer (upper module).</li> </ul>
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.	
		No	Repair (remove foreign material) or replace CD, then go to next step.	
3	<b>INSPECT CD CHANGER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Play CD and select other song (change tracks).</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 06:Er02 displayed?</li> </ul>	Yes	Replace CD changer (upper module).	
		No	Troubleshooting completed.	

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## ON-BOARD DIAGNOSTIC [AUDIO]

### DTC 06:Er07

A3U090266900W22

<b>DTC 06:Er07</b>	CD changer (upper module)
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>When error occurs, error message "CHECK CD" is displayed in the LCD.</li> <li>Base unit detects CD reading error.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective CD (scratches or dirt)</li> <li>CD changer (upper module) malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION		
1	<b>VERIFY WHETHER MALFUNCTION IS IN CD CHANGER (UPPER MODULE) OR CD</b> <ul style="list-style-type: none"> <li>Play all CDs in changer.</li> <li>Is CD changer able to read them properly?</li> </ul>	Yes	Go to Step 3.	
		No	Not able to read particular CD.	Go to next step.
			Not able to read any CD.	Go to Step 3.
2	<b>INSPECT CD</b> <ul style="list-style-type: none"> <li>Inspect condition of CD where error has occurred.</li> <li>Is CD okay?</li> </ul> <p><b>Note</b></p> <ul style="list-style-type: none"> <li>In some cases, not all CD-R/CD-RW will play.</li> </ul>	Yes	Go to next step.	
		No	Repair (remove foreign material) or replace CD, then go to next step.	
3	<b>INSPECT CD CHANGER (UPPER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and play CD for <b>12 seconds or more</b>.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 06:Er07 displayed?</li> </ul>	Yes	Replace CD changer (upper module).	
		No	Troubleshooting completed.	

### DTC 07:Er01

A3U090266900W23

<b>DTC 07:Er01</b>	MD player (lower module)
<b>DETECTION CONDITION</b>	<ul style="list-style-type: none"> <li>MD player (lower module) cannot perform insert and eject commands.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective MD (broken or foreign material stuck/attached)</li> <li>MD player (lower module) malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> <li>Is MD able to be ejected?</li> </ul>	Yes	Go to next step.
		No	Replace MD player (lower module).
2	<b>INSPECT MD</b> <ul style="list-style-type: none"> <li>Inspect condition of MD where error has occurred.</li> <li>Is MD okay?</li> </ul>	Yes	Go to next step.
		No	Repair (remove foreign material) or replace MD, then go to next step.
3	<b>INSPECT MD PLAYER (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and eject MD with no defect.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 07:Er01 displayed?</li> </ul>	Yes	Replace MD player (lower module).
		No	Troubleshooting completed.

## ON-BOARD DIAGNOSTIC [AUDIO]

### DTC 07:ER02

A3U090266900W24

<b>DTC 07:Er02</b>	MD player (lower module)
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>When error occurs, error message “CHECK MD” is displayed in the LCD.</li> <li>Can not play MD normally or change tracks.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective MD (scratches or dirt)</li> <li>MD player (lower module) malfunction</li> </ul>

#### Diagnostic procedure

STEP	INSPECTION	ACTION		
1	<b>VERIFY WHETHER MALFUNCTION IS IN MD PLAYER (LOWER MODULE) OR MD</b> <ul style="list-style-type: none"> <li>Play MD and select other song (change tracks).</li> <li>Is MD player able to change tracks?</li> </ul>	Yes	Go to Step 3.	
		No	Not able to change particular tracks.	Go to next step.
			Not able to change any tracks.	Change MD and perform tracks-change again. <ul style="list-style-type: none"> <li>If MD player changes tracks, then go to Step 3.</li> <li>If not, replace MD player (lower module).</li> </ul>
2	<b>INSPECT MD</b> <ul style="list-style-type: none"> <li>Inspect condition of MD where error has occurred.</li> <li>Is MD okay?</li> </ul>	Yes	Go to next step.	
		No	Repair (remove foreign material) or replace MD, then go to next step.	
3	<b>INSPECT MD PLAYER (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Play MD and select other song (change tracks).</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 07:Er02 displayed?</li> </ul>	Yes	Replace MD player (lower module).	
		No	Troubleshooting completed.	

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### DTC 07:ER07

A3U090266900W25

<b>DTC 07:Er07</b>	MD player (lower module)
<b>DETECTION CONDITION</b>	<p><b>Note</b></p> <ul style="list-style-type: none"> <li>When error occurs, error message “CHECK MD” is displayed in the LCD.</li> <li>Base unit detects MD reading error.</li> </ul>
<b>POSSIBLE CAUSE</b>	<ul style="list-style-type: none"> <li>Defective MD (scratches or dirt)</li> <li>MD player (lower module) malfunction</li> </ul>

#### Diagnostic procedure

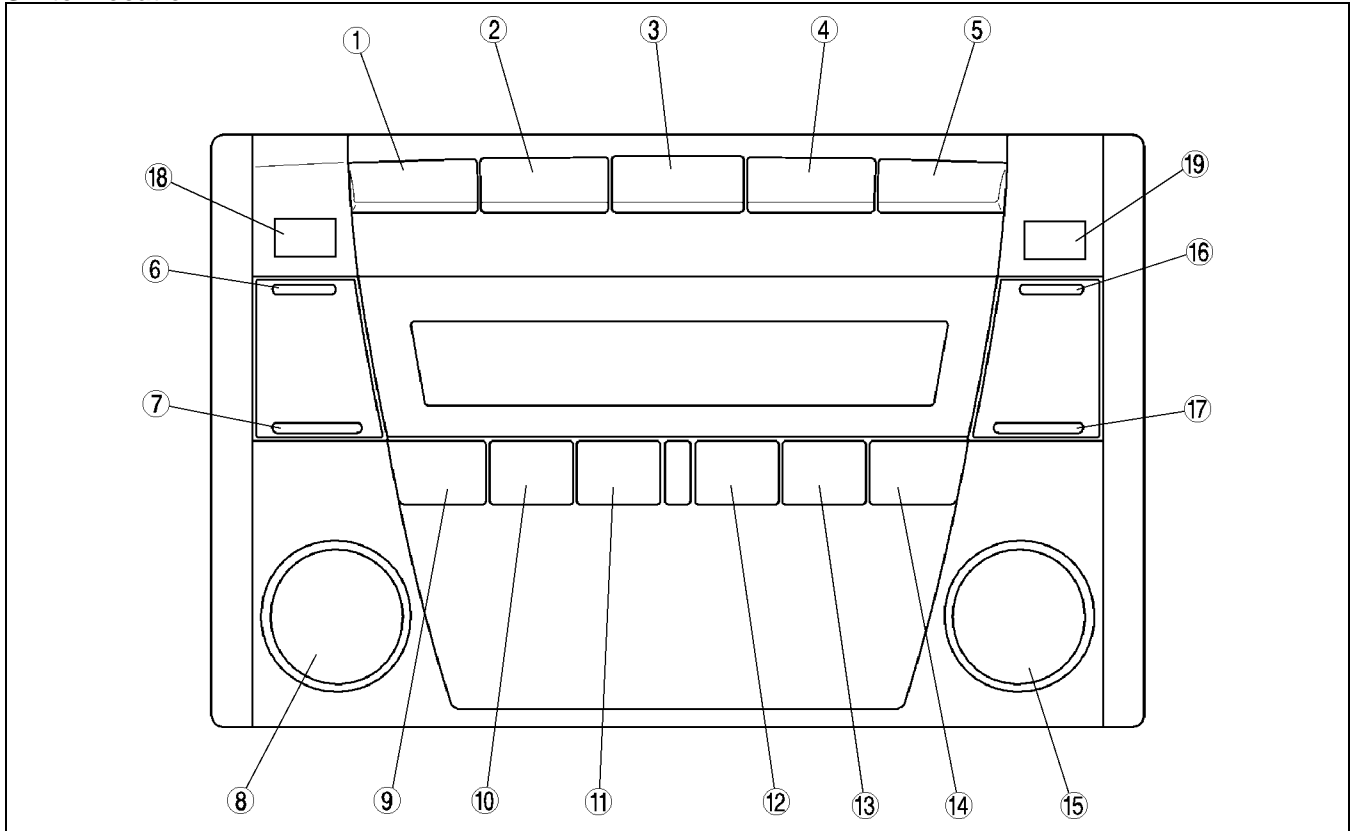
STEP	INSPECTION	ACTION	
1	<b>INSPECT MD</b> <ul style="list-style-type: none"> <li>Inspect condition of MD where error has occurred.</li> <li>Is MD okay?</li> </ul>	Yes	Go to next step.
		No	Repair (remove foreign material) or replace MD, then go to next step.
2	<b>INSPECT MD PLAYER (LOWER MODULE)</b> <ul style="list-style-type: none"> <li>Clear DTC.</li> <li>Insert and play MD for <b>12 seconds or more</b>.</li> <li>Start on-board diagnostic test mode.</li> <li>Is DTC 07:Er07 displayed?</li> </ul>	Yes	Replace MD player (lower module).
		No	Troubleshooting completed.

# ON-BOARD DIAGNOSTIC [AUDIO]

## DIAGNOSTIC ASSIST FUNCTION

A3U090266900W26

### Structural View Switch location



Z3U0920W004

1	FM1/2 button
2	AM button
3	CD button
4	MD/TAPE button
5	CLOCK button
6	SEEK button (upper)
7	SEEK button (lower)
8	POWER/VOL button
9	Preset button "1"
10	Preset button "2"

11	Preset button "3"
12	Preset button "4"
13	Preset button "5"
14	Preset button "6"
15	AUDIO CONT/TURN button
16	SCAN button
17	AUTO-M button
18	LOAD button (CD changer)
19	EJECT button (CD player and CD changer)

### LCD inspection

- With audio on, first press the POWER button and hold it, then press the SEEK button (upper) for **approximately 1 second**.
- Inspect the LCD according to the following table:

Inspection	Display	Action	
Start LCD inspection mode.		Characters displayed in LCD are not truncated or faint.	LCD is okay.
		Other than above.	Replace base unit.

- Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

## ON-BOARD DIAGNOSTIC [AUDIO]

### Button inspection

1. With audio on, first press the POWER button and hold it, then press the CLOCK button for **approximately 1 second**.
2. Inspect the button according to the following table:

#### Note

- The button inspection mode is designed for base unit button. The following lower module button cannot be inspected in this mode. (A buzz will not sound.)
  - Cassete deck: DOLBY button, EJECT button
  - MD player: DISP button, EJECT button

Inspection	Display	Action	
<ul style="list-style-type: none"> <li>• Start button inspection mode.</li> <li>• Press the all buttons.</li> </ul>	—	Buzzer sounds.	Button is okay.
		Buzzer does not sound.	Replace base unit.

3. Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

### Speaker inspection




1. With audio on, first press the POWER button and hold it, then press the AUTO-M button for **approximately 1 second**.
2. Inspect the speaker according to the following table:

Inspection	Display	Action	
<ul style="list-style-type: none"> <li>• Start speaker inspection mode.</li> <li>• Does each speaker output sound in the following order?                             <ol style="list-style-type: none"> <li>1. Left front door speaker</li> <li>2. Right front door speaker</li> <li>3. Right rear package speaker (4SD) or rear door speaker (5HB)</li> <li>4. Left rear package speaker (4SD) or rear door speaker (5HB)</li> </ol> </li> </ul>	—	Yes	Speakers and wiring harness between base unit and speakers are okay.
		No	Inspect the following parts. <ul style="list-style-type: none"> <li>• Malfunctioning speaker</li> <li>• Wiring harness between base unit and malfunctioning speaker</li> </ul>

3. Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

### Radio reception condition inspection

1. With audio on and at radio mode, first press the POWER button and hold it, then press the preset button "2" for **approximately 1 second**.
2. Inspect the radio reception condition according to the following table:

Inspection	Display	Action
Start radio reception condition inspection mode.	NORMAL  5 GRADUATIONS OR ABOVE	Antenna, antenna feeder, and base unit are okay.
	 3-4 GRADUATIONS	Change frequency (channel) and inspect again.
	MALFUNCTIONING  2 GRADUATIONS OR BELOW	Inspect antenna and antenna feeder. <ul style="list-style-type: none"> <li>• If either one of them is not okay, replace malfunctioning part.</li> <li>• If both are okay, replace base unit.</li> </ul>

3. Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

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