

2012 - Mazda6 - Body and Accessories

NO.12 SOUND JUMPS [ENTIRE AUDIO SYSTEM]

12	Sound jumps	
Possible DTC	Audio unit (without display)	10:Er07, 22:Er07
	Audio unit (with display)	Device code 22/error code 07
	Car-navigation unit	Device code 22/error code 07
Possible cause	• Electronic jamming from outside, or inferior condition of broadcasting station radio wave • Defective CD (e.g., cracked, badly bent, rough edges, scratch, dirty CD, condensation) • Vibration while vehicle is driven • Speaker muted by Bluetooth system (hands-free telephone (HF/TEL) system) operation • Open or short circuit in wiring harness between audio amplifier and audio unit/car-navigation unit • Short circuit inside speaker • Speaker malfunction • Mis-operation of steering switches • Audio unit/car-navigation unit malfunction NOTE: • The CD may be malfunctioning if the sound jumps on the certain CD only. Inspect the CD player/changer operation using the CD known to be good.	

Diagnostic procedure

STEP	INSPECTION	ACTION
1	• Does the sound jump only while in the radio mode?	Yes Go to Step 2. No Go to Step 3.

		No	Go to Step 5.
2	Does noise occur?	Yes	Go to the next step.
		No	With audio unit (with display) - Go to Step 15. With car-navigation unit or audio unit (without display) - Replace the audio unit/car-navigation unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.) (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)
3	Can the location where the sound jumps be specified?	Yes	The system is normal. Explain to the customer that the noise is caused by radio wave disturbances or broadcast wave conditions from the outside.
		No	Go to the next step.
4	Can the broadcast where the sound jumps be specified?	Yes	Explain to the customer that the cause is poor broadcast reception conditions.
		No	With audio unit (with display) - Go to Step 15. With car-navigation unit or audio unit (without display) - Replace the audio unit/car-navigation unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.) (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)
5	Does the sound jump only while in the CD mode?	Yes	Go to the next step.
		No	Go to Step 8.
6	Can the disc in which the sound jump occurs be specified?	Yes	The system is normal. Explain to the customer that the cause is a disc that is damaged or dirty on the playback side, or warped.

		No	Go to the next step.
7	- Drive the vehicle and verify the malfunction symptom. - Does noise occur while driving on an unlevel road or under other driving conditions (sudden curve, quick operation)?	Yes	The system is normal. Explain to the customer that the cause is vibration while the vehicle is driven.
		No	With audio unit (with display) - Go to Step 15. With car-navigation unit or audio unit (without display) - Replace the audio unit/car-navigation unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.) (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)
8	Does the sound jump using the specified speaker?	Yes	Without Bose® - Go to the next step. With Bose® - Go to Step 10
		No	With Bluetooth system - Go to Step 13. Without Bluetooth system - Go to Step 14.
9	- Disconnect the speaker connector and inspect the resistance of speaker. - Inspect the continuity between the audio unit wiring harness-side connector terminal and speaker wiring harness-side connector: Audio unit—front door speaker ▪ Terminal 1A (LH+) —	Yes	Go to Step 12.
		No	Repair or replace the suspect wiring harness or speaker.

		terminal B - Terminal 1C (LH-) — terminal A - Terminal 1D (RH+) — terminal B - Terminal 1F (RH-) — terminal A Audio unit— rear door speaker - Terminal 1S (LH+) — terminal B - Terminal 1U (LH-) — terminal A - Terminal 1V (RH+) — terminal B - Terminal 1X (RH-) — terminal A		
10	Disconnect the audio amplifier connector.	Yes	Go to the next step.	
	Inspect continuity between the following terminals of the audio amplifier connector and	No	Repair or replace the repair related wiring harnesses.	

speaker connector.

**For front
door
speaker**

- Terminal
3L (LH+) —
terminal
B
- Terminal
3N (LH-) —
terminal
A
- Terminal
3K (RH+) —
terminal
B
- Terminal
3M (RH-) —
terminal
A

**For front
speaker**

- Terminal
3B (LH+) —
terminal
B
- Terminal
3A (LH-) —
terminal
A
- Terminal
3D (RH+) —
terminal
B
- Terminal
3F (RH-) —
terminal
A

**For rear
door**

speaker

- Terminal
3I (LH+)
—
terminal
B
- Terminal
3G (LH-)
—
terminal
A
- Terminal
3C (RH+)
—
terminal
B
- Terminal
3E (RH-)
—
terminal
A

**For rear
speaker**

- Terminal
4G (LH+)
—
terminal
B
- Terminal
4E (LH-)
—
terminal
A
- Terminal
4D (RH+)
—
terminal
B
- Terminal
4C (RH-)
—
terminal
A

**For
center
speaker**

- Terminal
3H (LH+)

	— terminal B ▪ Terminal 3J (LH-) — terminal A • Is there continuity?		
11	• Disconnect the audio amplifier connector. • Inspect the continuity between the audio amplifier connector and ground: For front door speaker ▪ Terminal 3L (LH+) —GND ▪ Terminal 3N (LH-) —GND ▪ Terminal 3K (RH+) —GND ▪ Terminal 3M (RH-) —GND For front speaker ▪ Terminal 3B (LH+) —GND ▪ Terminal 3A (LH-) —GND ▪ Terminal 3D (RH+) —GND ▪ Terminal 3F (RH-) —GND	Yes Repair or replace the related wiring harness or speaker. (See FRONT DOOR SPEAKER REMOVAL/ INSTALLATION.) (See FRONT CENTER SPEAKER REMOVAL/ INSTALLATION.) (See REAR DOOR SPEAKER REMOVAL/ INSTALLATION.) (See REAR SPEAKER REMOVAL/ INSTALLATION.) (See REAR CENTER SPEAKER REMOVAL/ INSTALLATION.) NOTE: • If there is a short circuit between the speaker harness or speaker lead wire and ground, the protector circuit inside the audio unit/car-navigation unit operates to cut the sound.	No Go to the next step.

	For rear door speaker ▪ Terminal 3I (LH+) —GND ▪ Terminal 3G (LH-) —GND ▪ Terminal 3C (RH+) —GND ▪ Terminal 3E (RH-) —GND For rear speaker ▪ Terminal 4G (LH+) —GND ▪ Terminal 4E (LH-) —GND ▪ Terminal 4D (RH+) —GND ▪ Terminal 4C (RH-) —GND For center speaker ▪ Terminal 3H (LH+) —GND ▪ Terminal 3J (LH-) —GND • Is there continuity?		
12	• Inspect the suspect speaker. • Is the speaker normal? NOTE:	Yes	With Bluetooth system • Go to the next step. Without Bluetooth system • Go to Step 14.

	If the speaker lead wire contacts to either ground or vehicle frame, replace the speaker.	No	Without Bose® - Replace the speaker. (See FRONT DOOR SPEAKER REMOVAL/ INSTALLATION.) (See REAR DOOR SPEAKER REMOVAL/ INSTALLATION.) With Bose® - Replace the speaker. (See FRONT DOOR SPEAKER REMOVAL/ INSTALLATION.) (See FRONT CENTER SPEAKER REMOVAL/ INSTALLATION.) (See REAR DOOR SPEAKER REMOVAL/ INSTALLATION.) (See REAR SPEAKER REMOVAL/ INSTALLATION.) (See REAR CENTER SPEAKER REMOVAL/ INSTALLATION.)
13	Does the malfunction occur while the Bluetooth system is operating?	Yes	The system is normal. Explain to the customer that the speaker is muted while the Bluetooth system is operating.
		No	Go to the next step.
14	Do the steering switches operate?	Yes	The system is normal. Explain to the customer that the cause is mis-operation of the steering switches.
		No	With audio unit (with display) - Go to the next step. With car-navigation unit or audio unit (without display) - Replace the audio unit/car-navigation unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.) (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)
15	Verify that all of the audio unit reset conditions for	Yes	Perform the audio unit reset.

	the customer's audio unit are met.	(See AUDIO UNIT RESET PROCEDURE [ENTIRE AUDIO SYSTEM] .)
	(See AUDIO UNIT RESET PROCEDURE [ENTIRE AUDIO SYSTEM] .) • Are all of the audio unit reset conditions for the customer's audio unit met?	No Replace the audio unit. (See AUDIO UNIT REMOVAL/ INSTALLATION .)

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Diagnostic procedure

STEP	INSPECTION	ACTION
1	Does the sound jump only while in the radio mode?	Yes Go to Step 2. No Go to Step 3.

		No	Go to Step 5.
2	Does noise occur?	Yes	Go to the next step.
		No	With audio unit (with display) - Go to Step 15. With car-navigation unit or audio unit (without display) - Replace the audio unit/car-navigation unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.) (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)
3	Can the location where the sound jumps be specified?	Yes	The system is normal. Explain to the customer that the noise is caused by radio wave disturbances or broadcast wave conditions from the outside.
		No	Go to the next step.
4	Can the broadcast where the sound jumps be specified?	Yes	Explain to the customer that the cause is poor broadcast reception conditions.
		No	With audio unit (with display) - Go to Step 15. With car-navigation unit or audio unit (without display) - Replace the audio unit/car-navigation unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.) (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)
5	Does the sound jump only while in the CD mode?	Yes	Go to the next step.
		No	Go to Step 8.
6	Can the disc in which the sound jump occurs be specified?	Yes	The system is normal. Explain to the customer that the cause is a disc that is damaged or dirty on the playback side, or warped.

		No	Go to the next step.
7	• Drive the vehicle and verify the malfunction symptom. • Does noise occur while driving on an unlevel road or under other driving conditions (sudden curve, quick operation)?	Yes	The system is normal. Explain to the customer that the cause is vibration while the vehicle is driven.
		No	With audio unit (with display) • Go to Step 15. With car-navigation unit or audio unit (without display) • Replace the audio unit/car-navigation unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.) (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)
8	• Does the sound jump using the specified speaker?	Yes	Without Bose® • Go to the next step. With Bose® • Go to Step 10
		No	With Bluetooth system • Go to Step 13. Without Bluetooth system • Go to Step 14.
9	• Disconnect the speaker connector and inspect the resistance of speaker. • Inspect the continuity between the audio unit wiring harness-side connector terminal and speaker wiring harness-side connector: Audio unit—front door speaker ▪ Terminal 1A (LH+) —	Yes	Go to Step 12.
		No	Repair or replace the suspect wiring harness or speaker.

	terminal B - Terminal 1C (LH-) — terminal A - Terminal 1D (RH+) — terminal B - Terminal 1F (RH-) — terminal A Audio unit— rear door speaker - Terminal 1S (LH+) — terminal B - Terminal 1U (LH-) — terminal A - Terminal 1V (RH+) — terminal B - Terminal 1X (RH-) — terminal A		
10	- Disconnect the audio amplifier connector. - Inspect continuity between the following terminals of the audio amplifier connector and	Yes	Go to the next step.
		No	Repair or replace the repair related wiring harnesses.

speaker connector.

**For front
door
speaker**

- Terminal
3L (LH+) —
terminal
B
- Terminal
3N (LH-) —
terminal
A
- Terminal
3K (RH+) —
terminal
B
- Terminal
3M (RH-) —
terminal
A

**For front
speaker**

- Terminal
3B (LH+) —
terminal
B
- Terminal
3A (LH-) —
terminal
A
- Terminal
3D (RH+) —
terminal
B
- Terminal
3F (RH-) —
terminal
A

**For rear
door**

speaker

- Terminal
3I (LH+)
—
terminal
B
- Terminal
3G (LH-)
—
terminal
A
- Terminal
3C (RH+)
—
terminal
B
- Terminal
3E (RH-)
—
terminal
A

**For rear
speaker**

- Terminal
4G (LH+)
—
terminal
B
- Terminal
4E (LH-)
—
terminal
A
- Terminal
4D (RH+)
—
terminal
B
- Terminal
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—
terminal
A

**For
center
speaker**

- Terminal
3H (LH+)

	— terminal B ▪ Terminal 3J (LH-) — terminal A • Is there continuity?		
11	• Disconnect the audio amplifier connector. • Inspect the continuity between the audio amplifier connector and ground: For front door speaker ▪ Terminal 3L (LH+) —GND ▪ Terminal 3N (LH-) —GND ▪ Terminal 3K (RH+) —GND ▪ Terminal 3M (RH-) —GND For front speaker ▪ Terminal 3B (LH+) —GND ▪ Terminal 3A (LH-) —GND ▪ Terminal 3D (RH+) —GND ▪ Terminal 3F (RH-) —GND	Yes Repair or replace the related wiring harness or speaker. (See FRONT DOOR SPEAKER REMOVAL/ INSTALLATION.) (See FRONT CENTER SPEAKER REMOVAL/ INSTALLATION.) (See REAR DOOR SPEAKER REMOVAL/ INSTALLATION.) (See REAR SPEAKER REMOVAL/ INSTALLATION.) (See REAR CENTER SPEAKER REMOVAL/ INSTALLATION.) NOTE: • If there is a short circuit between the speaker harness or speaker lead wire and ground, the protector circuit inside the audio unit/car-navigation unit operates to cut the sound.	No Go to the next step.

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12	• Inspect the suspect speaker. • Is the speaker normal? NOTE:	Yes	With Bluetooth system • Go to the next step. Without Bluetooth system • Go to Step 14.

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	(See AUDIO UNIT RESET PROCEDURE [ENTIRE AUDIO SYSTEM] .) • Are all of the audio unit reset conditions for the customer's audio unit met?	No Replace the audio unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.)