

2012 - Mazda6 - Body and Accessories

NO.4 NO SOUND FROM AUDIO SYSTEM [CAR-NAVIGATION SYSTEM]

4	No sound from audio system
POSSIBLE CAUSE	• Poor connection of audio amplifier connector, terminal damage • Poor connection of car-navigation unit connector, terminal damage • Open circuit in wiring harness between car-navigation unit and audio amplifier • Open circuit in wiring harness between car-navigation unit and each speaker • Open circuit in wiring harness between audio amplifier and each speaker • Speaker malfunction • Car-navigation unit malfunction • Audio amplifier malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	• Switch the ignition to ACC. • Start audio system using the audio control switch. • Adjust volume 30 using the audio control switch. • Is there sound from all speaker?	YesThe system is normal.
		NoGo to the next step.
2	• Switch the ignition to off. • Inspect the connection of audio amplifier connector.	YesGo to the next step.
		NoSecurely connect the audio amplifier.

	Is the connector securely connected?		
3	• Disconnect the audio amplifier connector. • Inspect both audio amplifier connector and wiring harness-side connector for poor connection (such as damaged/pulled out pins, corrosion). • Are all the pins normal?	Yes	Go to the next step.
		No	If the audio amplifier connector is wrong: • Replace the audio amplifier. (See AUDIO AMPLIFIER REMOVAL/ INSTALLATION.) If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
4	• Inspect the connection of car-navigation unit connector (24-pin). • Is the connector securely connected?	Yes	Go to the next step.
		No	Securely connect the car-navigation unit.
5	• Disconnect the car-navigation unit connector (24-pin). • Inspect both car-navigation unit connector and wiring harness-side connector for poor connection (such as damaged/pulled out pins, corrosion). • Are all the pins normal?	Yes	Go to the next step.
		No	If the car-navigation unit connector is wrong: • Replace the car-navigation unit. (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.) If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
6	• Car-navigation unit and audio amplifier connectors disconnected. • Inspect the following wiring harness between the car-navigation unit (24-pin) and audio amplifier. ▪ Terminal 1A (24-pin) — audio amplifier terminal 1D (FL+)	Yes	Repair or replace suspected wiring harness.
		No	Go to the next step.

	▪ Terminal 1C (24-pin) — audio amplifier terminal 1C (FL-) ▪ Terminal 1D (24-pin) — audio amplifier terminal 1F (FR+) ▪ Terminal 1F (24-pin) — audio amplifier terminal 1E (FR-) ▪ Terminal 1S (24-pin) — audio amplifier terminal 1H (RL+) ▪ Terminal 1U (24-pin) — audio amplifier terminal 1G (RL-) ▪ Terminal 1V (24-pin) — audio amplifier terminal 1J (RR+) ▪ Terminal 1X (24-pin) — audio amplifier terminal 1I (RR+) • Is there open or short circuit?		
7	• Disconnect the all speaker connectors. • Inspect both each speaker and wiring harness-side connector for poor connection (such as damaged/pulled out pins, corrosion.) • Are all the pins normal?	Yes	Go to the next step.
		No	If the speaker connector is wrong: • Replace the suspect part. (See FRONT DOOR SPEAKER REMOVAL/ INSTALLATION.) If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
8	• Audio amplifier and all speaker and tweeter connectors disconnected. • Inspect the following wiring harness between the audio amplifier and each speaker/tweeter. ▪ Terminal 3D — front door speaker terminal C (4-pin) (LH+)	Yes	Repair or replace suspected wiring harness.
		No	Go to the next step.

- Terminal 3C — front door speaker terminal B (4-pin) (LH-)
- Terminal 3D — front door tweeter terminal B (2-pin) (LH+)
- Terminal 3C — front door tweeter terminal A (2-pin) (LH-)
- Terminal 3F — front door speaker terminal C (4-pin) (RH+)
- Terminal 3E — front door speaker terminal B (4-pin) (RH-)
- Terminal 3F — front door tweeter terminal B (2-pin) (RH+)
- Terminal 3E — front door tweeter terminal A (2-pin) (RH-)
- Terminal 2D — rear door speaker terminal C (4-pin) (LH+)
- Terminal 2B — rear door speaker terminal B (4-pin) (LH-)
- Terminal 2M — rear door speaker terminal C (4-pin) (RH+)
- Terminal 2O — rear door speaker terminal B (4-pin) (RH-)
- Terminal 2I — center speaker terminal B (2-pin) (+)
- Terminal 2K — center speaker terminal A (2-pin) (-)
- Terminal 2E — rear speaker terminal B (2-pin) (+)
- Terminal 2G — rear speaker terminal A (2-pin) (-)

	▪ Terminal 3H — rear center speaker terminal B (4-pin) (-) ▪ Terminal 3G — rear speaker terminal D (4-pin) (-) • Is there open or short circuit?		
9	• Inspect each speaker. • Are all speakers normal?	Yes	Go to the next step.
		No	Replace the malfunctioning speaker.
10	• Replace the audio amplifier. (See AUDIO AMPLIFIER REMOVAL/ INSTALLATION.) • Does the sound from audio system?	Yes	Troubleshooting completed. (Audio amplifier malfunction.)
		No	Replace the car-navigation unit. (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)

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Diagnostic procedure

STEP	INSPECTION	ACTION
1	• Switch the ignition to ACC. • Start audio system using the audio control switch. • Adjust volume 30 using the audio control switch. • Is there sound from all speaker?	YesThe system is normal.
		NoGo to the next step.
2	• Switch the ignition to off. • Inspect the connection of audio amplifier connector.	YesGo to the next step.
		NoSecurely connect the audio amplifier.

	Is the connector securely connected?		
3	• Disconnect the audio amplifier connector. • Inspect both audio amplifier connector and wiring harness-side connector for poor connection (such as damaged/pulled out pins, corrosion). • Are all the pins normal?	Yes	Go to the next step.
		No	If the audio amplifier connector is wrong: • Replace the audio amplifier. (See AUDIO AMPLIFIER REMOVAL/ INSTALLATION.) If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
4	• Inspect the connection of car-navigation unit connector (24-pin). • Is the connector securely connected?	Yes	Go to the next step.
		No	Securely connect the car-navigation unit.
5	• Disconnect the car-navigation unit connector (24-pin). • Inspect both car-navigation unit connector and wiring harness-side connector for poor connection (such as damaged/pulled out pins, corrosion). • Are all the pins normal?	Yes	Go to the next step.
		No	If the car-navigation unit connector is wrong: • Replace the car-navigation unit. (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.) If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
6	• Car-navigation unit and audio amplifier connectors disconnected. • Inspect the following wiring harness between the car-navigation unit (24-pin) and audio amplifier. ▪ Terminal 1A (24-pin) — audio amplifier terminal 1D (FL+)	Yes	Repair or replace suspected wiring harness.
		No	Go to the next step.

	▪ Terminal 1C (24-pin) — audio amplifier terminal 1C (FL-) ▪ Terminal 1D (24-pin) — audio amplifier terminal 1F (FR+) ▪ Terminal 1F (24-pin) — audio amplifier terminal 1E (FR-) ▪ Terminal 1S (24-pin) — audio amplifier terminal 1H (RL+) ▪ Terminal 1U (24-pin) — audio amplifier terminal 1G (RL-) ▪ Terminal 1V (24-pin) — audio amplifier terminal 1J (RR+) ▪ Terminal 1X (24-pin) — audio amplifier terminal 1I (RR+) • Is there open or short circuit?		
7	• Disconnect the all speaker connectors. • Inspect both each speaker and wiring harness-side connector for poor connection (such as damaged/pulled out pins, corrosion.) • Are all the pins normal?	Yes	Go to the next step.
		No	If the speaker connector is wrong: • Replace the suspect part. (See FRONT DOOR SPEAKER REMOVAL/ INSTALLATION.) If the wiring harness-side connector is wrong: • Repair or replace the pins and/or the connector.
8	• Audio amplifier and all speaker and tweeter connectors disconnected. • Inspect the following wiring harness between the audio amplifier and each speaker/tweeter. ▪ Terminal 3D — front door speaker terminal C (4-pin) (LH+)	Yes	Repair or replace suspected wiring harness.
		No	Go to the next step.

- Terminal 3C — front door speaker terminal B (4-pin) (LH-)
- Terminal 3D — front door tweeter terminal B (2-pin) (LH+)
- Terminal 3C — front door tweeter terminal A (2-pin) (LH-)
- Terminal 3F — front door speaker terminal C (4-pin) (RH+)
- Terminal 3E — front door speaker terminal B (4-pin) (RH-)
- Terminal 3F — front door tweeter terminal B (2-pin) (RH+)
- Terminal 3E — front door tweeter terminal A (2-pin) (RH-)
- Terminal 2D — rear door speaker terminal C (4-pin) (LH+)
- Terminal 2B — rear door speaker terminal B (4-pin) (LH-)
- Terminal 2M — rear door speaker terminal C (4-pin) (RH+)
- Terminal 2O — rear door speaker terminal B (4-pin) (RH-)
- Terminal 2I — center speaker terminal B (2-pin) (+)
- Terminal 2K — center speaker terminal A (2-pin) (-)
- Terminal 2E — rear speaker terminal B (2-pin) (+)
- Terminal 2G — rear speaker terminal A (2-pin) (-)

	▪ Terminal 3H — rear center speaker terminal B (4-pin) (-) ▪ Terminal 3G — rear speaker terminal D (4-pin) (-) • Is there open or short circuit?		
9	• Inspect each speaker. • Are all speakers normal?	Yes	Go to the next step.
		No	Replace the malfunctioning speaker.
10	• Replace the audio amplifier. (See AUDIO AMPLIFIER REMOVAL/ INSTALLATION.) • Does the sound from audio system?	Yes	Troubleshooting completed. (Audio amplifier malfunction.)
		No	Replace the car-navigation unit. (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)