

2012 - Mazda6 - Body and Accessories

NO.1 NO RADIO RECEPTION (AM/ FM)/ NO OR LOW VOLUME [RADIO]

1	No radio reception (AM/FM)/no or low volume	
Possible DTC	Audio unit (without display)	09:Er20
	Audio unit (with display)	Device code 09/error code 20
	Car-navigation unit	Device code 09/error code 20, 22
POSSIBLE CAUSE	• Low vehicle battery voltage • Electronic jamming from outside, or inferior condition of broadcasting station radio wave • Jamming from aftermarket electronic equipment (two-way radio, navigation system, mobile phone, external FM transmitter, etc.) • Antenna plug poor connection • Antenna feeder malfunction • Audio unit malfunction • Car-navigation unit malfunction	

Diagnostic procedure

STEP	INSPECTION	ACTION
1	• Can the location where the malfunction occur be specified?	YesThe system is normal. (Explain to the customer that the noise is caused by radio wave disturbances or broadcast wave conditions from the outside.)
		NoGo to the next step.
2	• Measure voltage at B+ and ACC terminals.	YesGo to the next step.

	- Is voltage okay? Specification With ignition switch ON: 11.5 V or more At idling: 12.5 V or more	No	Follow diagnostic procedure for symptom No. 2 (AUDIO).
3	- Set volume to 10 to 15. - Is buzzing sound or voice confirmed?	Yes	Go to the next step.
		No	Follow diagnostic procedure for symptom No. 3 (AUDIO) or No. 4 (AUDIO).
4	- Tune to local broadcasting station and check reception condition. - Is reception okay?	Yes	Go to the next step.
		No	Go to Step 6.
5	- Push PRESET switches and check preset conditions. - Has preset been stored?	Yes	The system is normal.
		No	Preset broadcasting stations.
6	- Is aftermarket electronic equipment (two-way radio, navigation system, mobile phone, external FM transmitter, etc.) installed? NOTE: - TV antenna located closely to audio antenna can be cause of noise. Relocate TV antenna.	Yes	Go to the next step.
		No	Go to Step 8.
7	- Remove aftermarket electronic equipment. - Turn audio unit/car-navigation unit ON and check reception condition. - Is reception improved?	Yes	The system is normal. (Explain to customers that aftermarket electronic equipment is cause of noise)
		No	Go to the next step.
8	- Refer to confirmation step 3, and inspect antenna system. - Is a whirring sound present?	Yes	With audio unit (with display) - Go to Step 12. With car-navigation unit or audio unit (without display) - Replace audio unit/car-navigation unit. (See AUDIO UNIT)

			REMOVAL/ INSTALLATION.) (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)
		No	Go to the next step.
9	- Inspect antenna plug connection condition. - Is connection okay?	Yes	Go to the next step.
		No	Insert antenna plug securely.
10	- Switch the ignition to off. - Measure continuity between antenna feeder axis and ground. - Is there any continuity?	Yes	Replace antenna feeder.
		No	Go to the next step.
11	- Compare reception with other audio unit/car-navigation unit on same model (model/unit) under same problem conditions. - Is reception equivalent between customer's unit and compared unit? NOTE: - Due to following differences, you may feel difference in reception efficiency. (Vehicle side factor) - Antenna installation location, height, feeder wiring routing, optional electrical equipment (Audio unit/ car-navigation unit factor) - Volume concern type: It decreases change of volume when signals become weak. (Noise is easy to be conspicuous) - Noise decrease type: It decreases volume when signals become weak, so that noise	Yes	The system is normal. (It is caused by electronic jamming from outside, or inferior broadcasting station signal condition.)
		No	With audio unit (with display) - Go to the next step. With car-navigation unit or audio unit (without display) - Replace audio unit/car-navigation unit. (See AUDIO UNIT REMOVAL/ INSTALLATION.) (See CAR-NAVIGATION UNIT REMOVAL/ INSTALLATION.)

	is not conspicuous.		
12	- Verify that all of the audio unit reset conditions for the customer's audio unit are met. (See AUDIO UNIT RESET PROCEDURE [ENTIRE AUDIO SYSTEM] .) - Are all of the audio unit reset conditions for the customer's audio unit met?	Yes	Perform the audio unit reset. (See AUDIO UNIT RESET PROCEDURE [ENTIRE AUDIO SYSTEM] .)
		No	Replace audio unit. (See AUDIO UNIT REMOVAL/ INSTALLATION .)

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