

2012 - Mazda6 - Body and Accessories

No.1 HANDS-FREE TELEPHONE SYSTEM DOES NOT RECEIVE/ TRANSMIT CALLS, DOES NOT CONNECT [Bluetooth SYSTEM (HANDS-FREE TELEPHONE (HF/ TEL) SYSTEM)]

1	Hands-free telephone system does not receive/transmit calls, does not connect	
Possible DTC	Audio unit (without display)	26:Er81, 26:Er82, 26:Er83, 26:Er84, 26:Er85, 26:Er86
	Audio unit (with display) or car-navigation unit	Device code 26/error code 81, 82, 83, 84, 85, 86
Possible cause	• Malfunction in Talk/Pick-up/Hang-up button related parts ▪ Open or short circuit in the wiring harness between the Talk/Pick-up/Hang-up button and audio unit/car-navigation unit ▪ CAN communication error between the car-navigation unit and Bluetooth unit ▪ Talk/Pick-up/Hang-up button malfunction ▪ Poor connection in the connector • Malfunction in microphone related parts ▪ Open or short circuit in the wiring harness between the microphone and Bluetooth unit ▪ Microphone malfunction ▪ Poor connection in the connector • Malfunction in audio system ▪ Open or short circuit in the wiring harness between the Bluetooth unit and the speaker through the audio unit/car-navigation unit and audio amplifier. (with Bose®) ▪ Open or short circuit in the wiring harness between the Bluetooth unit and the speaker through the audio unit/car-navigation unit (without Bose®) ▪ Poor connection in the connector • Bluetooth unit does not respond ▪ Bluetooth unit malfunction ▪ Open or short circuit in the wiring harness between the Bluetooth unit and the audio unit/car-navigation ▪ Open or short circuit in the wiring harness of the Bluetooth unit power supply or ground circuit ▪ Poor connection in the connector • Problem in cellular phone ▪ Cellular phone does not set up to Bluetooth system (hands-free telephone (HF/TEL) system) ▪ Cellular phone does not operate (low battery voltage, power off) ▪ Cellular phone is outside of the signal transmission area ▪ Bluetooth does not operate ▪ A cellular phone other than a Hands-free telephone system-enabled models is used. • Bluetooth unit electric field disturbance due to metallic device around Bluetooth unit	

Diagnostic procedure

- When performing an asterisk (*) troubleshooting inspection, slightly shake the wiring harness and connectors while performing the inspection to discover whether poor contact points are the cause of any intermittent malfunction. If there is a problem, verify that the connectors, terminals and wiring harness are connected correctly and undamaged.

STEP	INSPECTION	ACTION
1	- Verify if the customer's cellular phone is a Hands-free telephone system-enabled model by referring to following URL. http://www.mazdausa.com/MusaWeb/displayPage.action?pageParameter=bluetoothHandsFreeSystem - Is the customer's cellular phone a Hands-free telephone system-enabled model?	Yes Go to the next step.
		No Explain to the customer that the customer's cellular phone is not a Hands-free telephone system-enabled model.
2	- Verify that the cellular phone is communicating with the HF/TEL unit. - Does the cellular phone connect to the HF/TEL unit via Bluetooth when the Hands-free telephone system is activated?	Yes Go to the next step.
		No Go to Step 5.
3	- Inspect the cellular phone condition while the hands free phone does not operate. - Can the following conditions be verified? - Low battery voltage - Power is off - Out of signal transmission area	Yes Enter a cellular phone signal transmission area and reinspect the Bluetooth system (hands-free telephone (HF/TEL) system) operation.
		No Go to the next step.
4	Does the cellular phone set up to the Bluetooth unit?	Yes Set up the cellular phone to the Bluetooth unit.
		No Go to the next step.
5	Is the audio system sound output normal?	Yes Go to the next step.
		No Perform the audio system troubleshooting procedure.
6	- Perform the Bluetooth system (hands-free telephone (HF/TEL) system) on-board diagnostic. - Are the following DTC displayed? 26:Er82 26:Er83 26:Er84	Yes Go to the next step.
		No Go to Step 8.
7*	- Inspect for open or short circuits in the following wiring harnesses and connectors, and inspect the connector connections. - Between microphone terminal A and Bluetooth unit terminal A - Between microphone terminal B and Bluetooth unit terminal B - Between microphone terminal C and Bluetooth unit terminal C - Between microphone terminal E and Bluetooth unit terminal E - Are the harnesses and connector connections normal?	Yes Replace the microphone. (See MICROPHONE REMOVAL/ INSTALLATION.)
		No Repair or replace malfunctioning parts.
8	Perform the Bluetooth system (hands-free telephone (HF/TEL) system)	Yes Inspect and repair the car-navigation

	- on-board diagnostic. - Is 26:Er81 displayed?	system CAN communication.
		No Go to the next step.
9	- Perform the Bluetooth system (hands-free telephone (HF/TEL) system) on-board diagnostic. - Is 26:Er85 displayed?	Yes Inspect and repair the car-navigation system CAN communication.
		No Go to the next step.
10	- Inspect the Talk/Pick-up/Hang-up button. - Is the Talk/Pick-up/Hang-up button normal? (See STEERING SWITCH INSPECTION.)	Yes Go to the next step.
		No Replace the steering switch (See STEERING SWITCH REMOVAL/ INSTALLATION .)
11*	- Inspect for open or short circuits in the following wiring harnesses and connectors, and inspect the connector connections. - Between steering switch terminal H and audio unit/car-navigation unit (24-pin) terminal 1P - Are the harnesses and connector connections normal?	Yes Go to the next step.
		No Repair or replace malfunctioning parts.
12	- Perform the Bluetooth system (hands-free telephone (HF/TEL) system) on-board diagnostic. - Is 26:Er86 displayed?	Yes Replace the Bluetooth unit. (See Bluetooth UNIT REMOVAL/ INSTALLATION.)
		No Go to the next step.
13	- Call the hands free cell phone using another cellular phone. - Do the same symptoms appear?	Yes Go to the next step.
		No The cellular phone Bluetooth system is malfunctioning.
14	Is there any metallic device around the Bluetooth unit?	Yes Remove the metallic device around the Bluetooth unit, then go to the next step.
		No Go to the next step.
15	- Verify the malfunction symptom. - Is the malfunction improved?	Yes Troubleshooting completed.
		No Go to the next step.
16	- Replace the Bluetooth unit and verify the malfunction symptom. (See Bluetooth UNIT REMOVAL/ INSTALLATION.) - Is the malfunction improved?	Yes Troubleshooting completed.
		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.)
17	Verify that all of the audio unit reset conditions for the customer's audio	Yes Perform the audio unit reset.

	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?		(See AUDIO UNIT RESET PROCEDURE [ENTIRE AUDIO SYSTEM] .)
		No	Replace the audio unit. (See AUDIO UNIT REMOVAL/ INSTALLATION .)

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Diagnostic procedure

- When performing an asterisk (*) troubleshooting inspection, slightly shake the wiring harness and connectors while performing the inspection to discover whether poor contact points are the cause of any intermittent malfunction. If there is a problem, verify that the connectors, terminals and wiring harness are connected correctly and undamaged.

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		No Explain to the customer that the customer's cellular phone is not a Hands-free telephone system-enabled model.
2	- Verify that the cellular phone is communicating with the HF/TEL unit. - Does the cellular phone connect to the HF/TEL unit via Bluetooth when the Hands-free telephone system is activated?	Yes Go to the next step.
		No Go to Step 5.
3	- Inspect the cellular phone condition while the hands free phone does not operate. - Can the following conditions be verified? - Low battery voltage - Power is off - Out of signal transmission area	Yes Enter a cellular phone signal transmission area and reinspect the Bluetooth system (hands-free telephone (HF/TEL) system) operation.
		No Go to the next step.
4	Does the cellular phone set up to the Bluetooth unit?	Yes Set up the cellular phone to the Bluetooth unit.
		No Go to the next step.
5	Is the audio system sound output normal?	Yes Go to the next step.
		No Perform the audio system troubleshooting procedure.
6	- Perform the Bluetooth system (hands-free telephone (HF/TEL) system) on-board diagnostic. - Are the following DTC displayed? 26:Er82 26:Er83 26:Er84	Yes Go to the next step.
		No Go to Step 8.
7*	- Inspect for open or short circuits in the following wiring harnesses and connectors, and inspect the connector connections. - Between microphone terminal A and Bluetooth unit terminal A - Between microphone terminal B and Bluetooth unit terminal B - Between microphone terminal C and Bluetooth unit terminal C - Between microphone terminal E and Bluetooth unit terminal E - Are the harnesses and connector connections normal?	Yes Replace the microphone. (See MICROPHONE REMOVAL/ INSTALLATION.)
		No Repair or replace malfunctioning parts.
8	Perform the Bluetooth system (hands-free telephone (HF/TEL) system)	Yes Inspect and repair the car-navigation

	- on-board diagnostic. - Is 26:Er81 displayed?	- system CAN communication. - No Go to the next step.
9	- Perform the Bluetooth system (hands-free telephone (HF/TEL) system) on-board diagnostic. - Is 26:Er85 displayed?	- Yes Inspect and repair the car-navigation system CAN communication. - No Go to the next step.
10	- Inspect the Talk/Pick-up/Hang-up button. - Is the Talk/Pick-up/Hang-up button normal? (See STEERING SWITCH INSPECTION.)	- Yes Go to the next step. - No Replace the steering switch (See STEERING SWITCH REMOVAL/ INSTALLATION.)
11*	- Inspect for open or short circuits in the following wiring harnesses and connectors, and inspect the connector connections. - Between steering switch terminal H and audio unit/car-navigation unit (24-pin) terminal 1P - Are the harnesses and connector connections normal?	- Yes Go to the next step. - No Repair or replace malfunctioning parts.
12	- Perform the Bluetooth system (hands-free telephone (HF/TEL) system) on-board diagnostic. - Is 26:Er86 displayed?	- Yes Replace the Bluetooth unit. (See Bluetooth UNIT REMOVAL/ INSTALLATION.) - No Go to the next step.
13	- Call the hands free cell phone using another cellular phone. - Do the same symptoms appear?	- Yes Go to the next step. - No The cellular phone Bluetooth system is malfunctioning.
14	Is there any metallic device around the Bluetooth unit?	- Yes Remove the metallic device around the Bluetooth unit, then go to the next step. - No Go to the next step.
15	- Verify the malfunction symptom. - Is the malfunction improved?	- Yes Troubleshooting completed. - No Go to the next step.
16	- Replace the Bluetooth unit and verify the malfunction symptom. (See Bluetooth UNIT REMOVAL/ INSTALLATION.) - Is the malfunction improved?	- Yes Troubleshooting completed. - 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.)
17	Verify that all of the audio unit reset conditions for the customer's audio	Yes Perform the audio unit reset.

	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?		(See AUDIO UNIT RESET PROCEDURE [ENTIRE AUDIO SYSTEM] .)
		No	Replace the audio unit. (See AUDIO UNIT REMOVAL/ INSTALLATION .)