

AF NOISE OR POP NOISE AT ALL SOURCES (RADIO, CD) [ENTIRE AUDIO SYSTEM]

id0903e2100500

Possible DTC	AF noise or POP noise on all sources (Radio, CD)	
	Using the M-MDS	U3000:09
	Without using M-MDS (On-board diagnostic test mode)	09:Er21
Possible cause	<ul style="list-style-type: none"> • 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 • Low vehicle battery voltage. • Jammed radio signals from after market equipment. • Speaker malfunction (e.g., any foreign material, broken) • Improper speaker installation • Poor connection of audio unit connector, terminal damage • Antenna malfunction (e.g., poor ground) • Audio unit malfunction • Poor connection of audio amplifier connector, terminal damage (with Bose®) • Audio amplifier malfunction (with Bose®) <p>Note</p> <ul style="list-style-type: none"> • AF noise is a snapping noise that generally occurs during ON/OFF switching operations of electrical equipment other than the audio unit, or a continual rasping noise that occurs when electrical equipment is operated. This is caused by noise interference in the power supply wiring, signal wiring, speaker cable or head of cassette deck. Therefore noise can be heard regardless of radio wave conditions or the audio volume position. The noise will start after one click from the minimum position of the volume button but normally does not change even when volume is turned to a higher position. • POP noise is snapping or popping noise that occurs during ON/OFF switching operation of the audio unit, or when switching from radio to CD. Even a normal audio unit sometimes emits a little noise depending on the conditions. 	

Diagnostic procedure

STEP	INSPECTION	ACTION
1	• Does the noise occur only while in radio mode?	Yes
		No
2	• Can the location where the noise occurs be specified?	Yes
		No
3	• Does the noise occur only while in CD mode?	Yes
		No
4	• Can the disc in which the noise occurs be specified?	Yes
		No
5	• 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
		No
6	• Inspect the vehicle battery voltage. • Is the vehicle battery voltage normal? Specification: Switch the ignition to ON.: 11.5 V or more Idle: 12.5 V or more	Yes
		No
7	• Is any of the following after-market equipment installed? (Inspect especially near the antenna.) — Radar — Remote engine starter — Anti-theft device — Other	Yes
		No

STEP	INSPECTION		ACTION
8	<ul style="list-style-type: none"> Remove the after-market equipment. Turn the audio system to ON. Is there any noise? 	Yes	Go to the next step.
		No	The system is normal. The after-market electrical devices might make a noise.
9	<ul style="list-style-type: none"> Is there the noise from all speakers? 	Yes	Go to Step 11.
		No	Go to the next step.
10	<ul style="list-style-type: none"> Inspect the suspect speaker. Is the speaker normal? 	Yes	Go to the next step.
		No	If there is any foreign material on the speaker: <ul style="list-style-type: none"> Remove the foreign material from the speaker. If the speaker is malfunctioning: <ul style="list-style-type: none"> Replace the speaker. If the speaker is not installed properly: <ul style="list-style-type: none"> Install the speaker properly.
11	<ul style="list-style-type: none"> Attempt to duplicate the symptom on the other vehicle. Is the noise better than the customer's vehicle? 	Yes	Go to the next step.
		No	The system is normal. Explain the noise generation mechanism to the customer. Note <ul style="list-style-type: none"> The noise may be heard depends on the operating speed of audio power and/or mode switch.
12	<ul style="list-style-type: none"> Switch the ignition to off. Remove the audio unit. Inspect the connection of the audio unit connector (24-pin) (for sound signal line). Is the connector connected securely? 	Yes	Go to the next step.
		No	If poor connection of audio unit connector: <ul style="list-style-type: none"> Securely connect the audio unit connector. If the audio unit side connector is wrong: <ul style="list-style-type: none"> Replace the audio unit. (See AUDIO UNIT REMOVAL/INSTALLATION.) If the wiring harness-side connector is wrong: <ul style="list-style-type: none"> Repair or replace the pins and/or the connector. After treating either the above-mentioned, then go to the next step.
13	<ul style="list-style-type: none"> Inspect the ground condition of the antenna. Is the ground condition normal? 	Yes	Go to the next step.
		No	Repair or replace the ground. Go to the next step.
14	<ul style="list-style-type: none"> Is there any noise? 	Yes	<ul style="list-style-type: none"> If noise occurs from the speaker of a specific channel, or the volume is minimized and the noise occurs: <ul style="list-style-type: none"> Replace the audio amplifier. (See AUDIO AMPLIFIER REMOVAL/INSTALLATION.) If noise occurs from the speaker of two or more channels or the volume is minimized and the noise dose not occurs. <ul style="list-style-type: none"> Replace the audio unit. (See AUDIO UNIT REMOVAL/INSTALLATION.)
		No	The system is normal.