TOYOTA
SCION
Technical Service BULLETIN
April 6, 2006

Title:
AUDIO QUICK REFERENCE GUIDE
Models:
’01 – ’07 All Toyota & ’04 – ’07 All Scion

TSB

Introduction

Toyota has developed a quick reference guide to be used by technicians when troubleshooting typical audio system concerns. This guide is intended only as a supplement to the diagnostics already available in the Repair Manual.

Applicable Vehicles

- **2001 – 2007** model year **Toyota** vehicles with **factory installed audio system.**
- **2004 – 2007** model year **Scion** vehicles with **factory installed audio system.**

Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
N/A	Not Applicable to Warranty	–	–	–	–

Repair Procedure

CAUTION:
If the connectors are removed from the radio for any reason, please wait one minute before reconnecting the connectors; otherwise, damage may occur to the CD changer.

Repair Procedure

No Sound (Display is normal)

1. Gather detailed information.
   Ask the customer which mode the problem occurs (AM, FM, or CD).
   If condition ONLY occurs in CD mode, go to step 3 of “CD Skips/CD Does NOT Play/CD Does NOT Eject/CD Will NOT Accept”.
2. Confirm speaker operation.
   Adjust the sound settings.
   A. Check each speaker individually using the Balance/Fade settings.

Repair Procedure (Continued)

B. **System with external amplifier:** Enter Diagnostic mode and check for codes under P440 and P190.

How to enter Diagnostic mode:

- **Cars without navigation system:** On the radio, while pressing the disc button 3 times, press and hold presets “1” and “6”.
- **Cars with navigation system:** Press and hold the info switch on the navigation display while cycling the tail lights ON and OFF three times.

OK → **Go to step 3.**

NG → **If P440 = NCON (no connection), go to step 7.**

3. Check if sound is heard from at least one speaker.

OK → **Go to step 4.**

NG → **No sound from all speakers: Ext amp: Confirm MUTE wire. Confirm continuity of MUTE wire between radio and amplifier before going to step 4.**

4. Measure speaker resistance.

Disconnect the radio connector or amplifier connector for external amplifier systems. Measure resistance across **+** and **–** speaker circuits.

OK = 1.5 to 9.5 ohm (for external amplifier systems)

OK = 3.5 to 4.5 ohm (for radio with internal amplifier)

OK → **Go to step 5.**

NG → **If individual speaker resistance measurements are NG, inspect the speaker wire-harness and speaker.**

5. Check for speaker short to ground.

Measure resistance across both **+** and **–** speaker circuits to ground.

OK = Infinite

OK → **Replace the audio head unit. External amplifier: Go to step 6.**

NG → **Repair the speaker wiring.**

Repair Procedure (Continued)

6. Verify proper communication.
   A. Disconnect radio and amp connectors.
   B. Check continuity (TX+ and TX–) from audio head unit to amplifier.
   C. Confirm NO continuity to ground on TX+ and TX–.

OK → **Replace amplifier.**

NG → **Repair wiring.**

CD Skips/CD Does NOT Play/CD Does NOT Eject/CD Will NOT Accept

ERROR CODE DESCRIPTIONS:

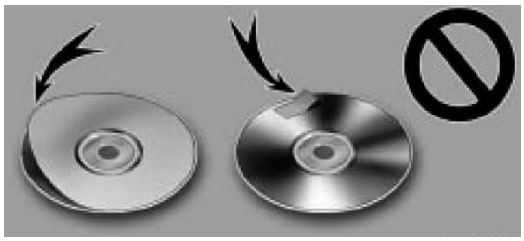
- **Error 1: Dirty Disc/Cannot Read Disc (Clean CD as needed and try again.)**
- **Error 3: Mechanical Malfunction (Replace CD player.)**
- **Error 4: CD Player Overcurrent (Allow CD player to cool and try again.)**

1. Gather detailed information.

   Ask the customer when the problem occurs (for example: rough roads, after ## minutes, hot/cold days, or error code).

Repair Procedure (Continued)

2. Inspect customer's CDs. Common problem areas are:
   - CDR (with label)



   - Scratches/cracks
   - Fingerprints
   - Dust and/or dirt
   - 8 cm diameter CDs
   - CD Digital Audio logo (Confirm the CD has this logo. Toyota CD player may NOT be able to play CDs that do NOT have this logo.)

3. Test CD Player.
   - For CDs that skip and/or will NOT play, use the Toyota Master CD.

NOTE:
For more information on how to use the Toyota Master CD, refer to TSB No. SS003-05, "*CD Skip Verification Using Toyota Master CD*."

   - For CDs that will NOT eject, test the operation of the eject mechanism using the customer's CD.

OK

If playback is normal, go to step 4.

NG

If playback quality does NOT improve, replace the CD player through the exchange program.

4. Explain to the customer that the CD player operates normally.

Repair Procedure (Continued)

Speaker Noise/Rattle Noise

1. Gather detailed information.

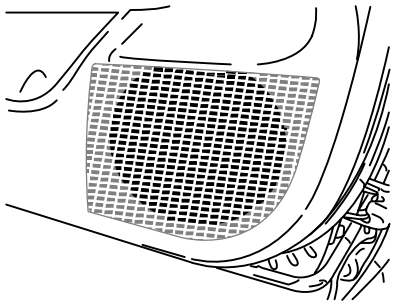
   Ask the customer when the problem occurs (for example: rough roads, bumps, or volume level maximum/minimum).

2. Confirm the condition.

   A. Remove the door trim panel, if necessary.

   B. Confirm if noise occurs in AM/FM mode or CD mode.

3. Repair the door trim panel as needed.



   A. Confirm rattle noise is gone in the area where the vibration is occurring.

   B. Reinstall the door trim and confirm the area where the vibration is occurring. Use the NVH kit (P/N 08231–00810) on the trim panel area that is vibrating.

4. Repair loose parts.

   Check the wiring harness, water shield, clips, and/or other parts that are vibrating. Use the NVH kit (P/N 08231–00810) on parts that are vibrating.

5. Replace the speaker.

   A. Unbolt the speaker and remove from the door/body panel.

   B. If the noise is still coming from the speaker, replace the speaker.

Poor Reception (AM/FM)

NOTE:

Because a noise filter may exist in the antenna plug, which plugs into the radio, the antenna cable will normally show an open circuit when checking continuity.

1. Gather detailed information.

   Ask the customer when and where the problem occurs (for example: certain area only, AM/FM or both, or which stations are affected).

Repair Procedure (Continued)

2. Check for aftermarket accessories, such as Rear Seat Entertainment (RSE) system, metallic window tint, and/or FM modulator.

   Disconnect the component and recheck reception.

3. Check all antenna connections.

   A. Confirm secure antenna connection(s) at the back of the radio.

   B. Confirm secure antenna connections at the mast antenna or glass antenna connector.

4. Check the signal using a test antenna.

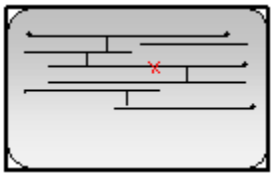
   Disconnect the vehicle antenna and connect a test antenna at the back of the radio (drive the vehicle outside).

OK

NG → **If reception does NOT improve, replace radio.**

If reception improves, go to step 5 for glass antenna vehicles or go to step 6 for pole antenna vehicles.

5. Inspect the glass antenna for open/cut patterns.



OK

NG → **If NO OPEN pattern is found or reception is still poor after glass antenna repair, go to step 7 for antenna amplifier systems.**

If an OPEN pattern is found, repair as needed and recheck reception quality.

Repair Procedure (Continued)

6. Install test antenna at pole antenna connection.

OK	**Replace mast antenna assembly.**
NG	**For vehicles with antenna amplifier systems, go to step 7.** **For vehicles without antenna amplifier systems, replace the antenna cable.**

7. Inspect the antenna amplifier (if equipped).

   If antenna amp is NOT powered, inspect ANT+B wiring from radio and confirm 12V output to the antenna amplifier.

   If an antenna amp is receiving power:

   - For vehicles where the amplifier is part of the antenna cable, replace the antenna cable.
   - For vehicles where the amplifier is separate, plug the antenna cable directly into the antenna.

OK	**If reception improves, replace the antenna amplifier.**
NG	**If reception is still poor, replace the antenna cable.**