# **Service Information**

Mazda Motor Corporation

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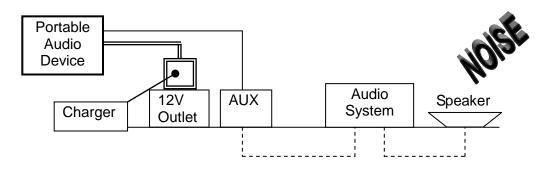


Category <b>T</b>	Technical		Ref. No. E017/08	Page 1 of 3
Coverage Distributor only Please inform your dealers			Date Issued May 12, 2008	
Please convey this information to your       □ Director       ■ General Manager         Warranty Dept.       ■ Parts Dept.       ■ Training Dept.       ■ Field Rep.			Date Revised	
Applicable Model		Applicable Countries or Specifications		
Mazda2 (DE), Mazda3 (BK), Mazda5 (CR), Mazda6 (GH), CX-7(ER), CX-9 (TB), RX-8 (FE/SE) with AUX Jack		Worldwide		

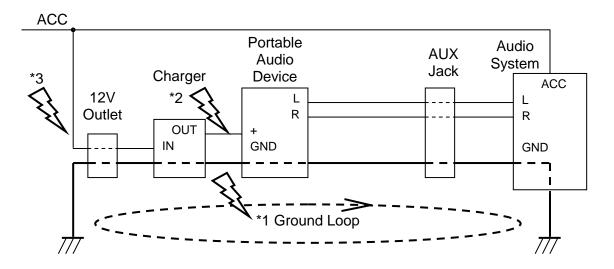
# Subject: Audio Noise Playing With Auxiliary Input and Charger

# **DESCRIPTION**

Customer may complain about a noise from speakers when using a portable audio device (e.g. MP3 player) connected to the vehicle's audio system via the auxiliary (AUX) jack charging the device with a charger connected to the vehicle's 12V outlet. The symptom occurs even with ignition key in ACC position without engine running and does not occur with the charger connected to a wall outlet.



The noise may be caused by following routes.



# 1. Ground Loop Noise

When ground lines for 12V line and audio line are connected at the portable audio device, a ground loop occurs. Slight current occurs by slight difference of ground line potentials and various noises existing in the vehicle are picked up by the ground loop and affects on the audio lines.

# 2. Charger Noise

The charger may generate noise on the power line.

#### 3. Vehicles Noise

Alternator noise and IG noise etc. existing on the power line may come into the audio line through the charger and the power line.

#### APPLICABLE MODELS

#### US Spec.

2007-2008 Mazda3 (BK) 2008 Mazda5 (CR) 2007-2008 CX-9 (TB) 2009 CX-7 (ER) 2009 RX-8 (FE)

## EC Spec., General Spec.

Mazda2 (DE) Face-lifted Mazda3 (BK) Face-lifted Mazda5 (CR) Mazda6 (GH) CX-9 (TB) Face-lifted RX-8 (SE/FE)

# ADR Spec.

Mazda2 (DE) Face-lifted Mazda3 (BK) New Mazda6 (GH) CX-9 (TB)

## ACTION RECOMMENDED

When you encounter a customer complaint on this concern, verify the concern and please advice him/her as follows.

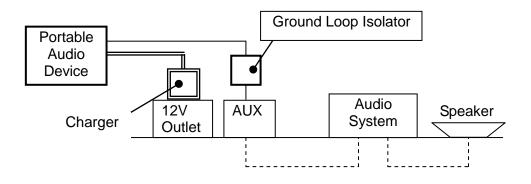
1. Recommend to disconnect the charger from the power outlet when using the portable audio device.

Following note is shown in the vehicle's owner's manual. If a power supply from the portable audio unit is needed, use the unit's batteries. Using the power socket equipped on the vehicle may cause noise depending on the unit connected to the power supply socket.

2. If the device and vehicle's audio system are applicable, recommend to install the iPod adapter, a Mazda genuine option, with customer's expense.

3. If the iPod adapter is not applicable, recommend to use a **Ground Loop Isolator** for the audio lines which is available in the market with customer's expense.

Example: Model 270-054 at RadioShack (USA), Model VW43W at Maplin (UK). Connector adapter(s) will be required for installation.



Shinji Kanai Manager, Technical Information Gr. Technical Service Dept. Mazda Motor Corp. 27C1401948, 2821360310 (MC Internal Use)