

# **M-TIPS**

**UNIQUE REPAIR INFORMATION FOR  
MAZDA TECHNICIANS**



**2008-2011 Tribute...**

**Lack of power steering assist with DTC**

**Multi-model...**

**Rear combination lamp/finisher poor appearance**

**Windows Internet  
Explorer tech tip**

**Multi-model...**

**i-ELOOP generator inspection**

**Multi-model...**

**Portable USB audio  
device inoperative**

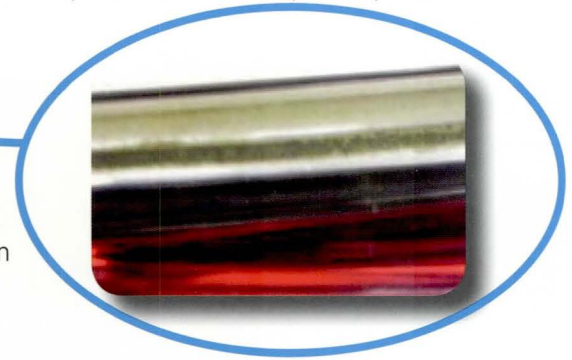
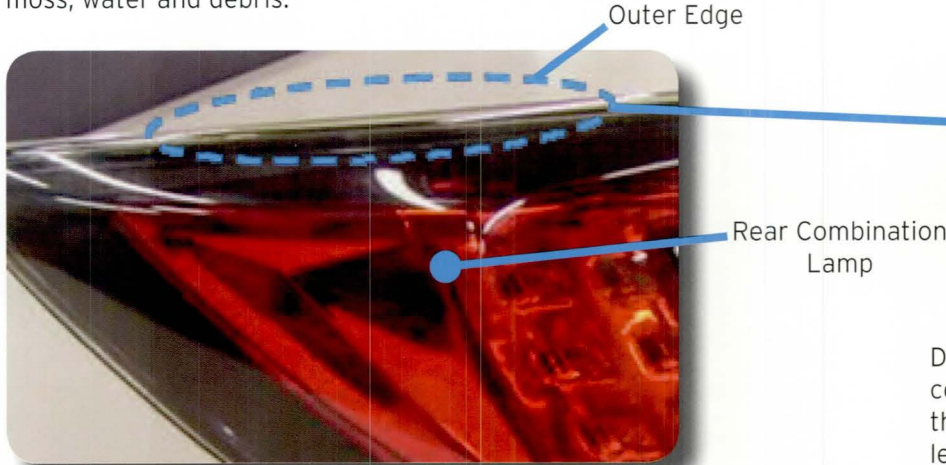
**GR8 software update**

***JANUARY / FEBRUARY 2014***



## MULTI-MODEL REAR COMBINATION LAMP/FINISHER POOR APPEARANCE

Some customers may complain about the poor appearance of the rear combination lamp and/or finisher. This may be caused by normal environmental conditions, such as dirt, moss, foreign particle adhesion, and/or water to the back side of the outer edge. Part replacement will not correct this concern. Refer below for the procedures to temporarily remove dirt/moss, water and debris.

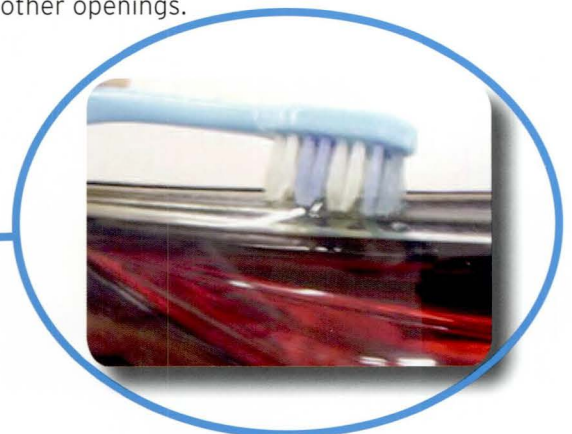
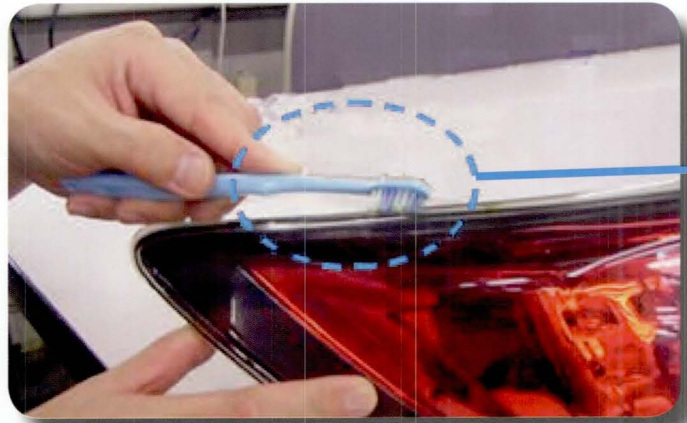


Dirt/moss can stick to the back side of the combination lamp outer edge (not inside the lamp) and can be seen through the lens, causing poor appearance.

### Dirt/Moss Removal

This is a normal condition. Remove dirt/moss using a soft tooth brush soaked in water. Brush out the dirt/moss between the back side of the rear combination lamp and outer edge of the vehicle body.

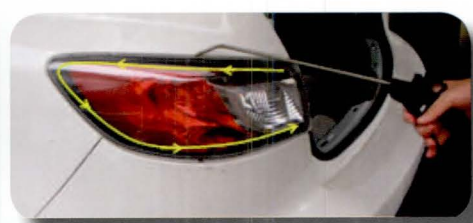
- Use water only. Do not use car soap or other detergents.
- Do not allow water to enter the lamp internally through breathing cap or other openings.



**Caution:**  
Brush out with care. Brushing too hard may damage the lamp or body.

### Water Removal

Blow compressed air along edge as shown:

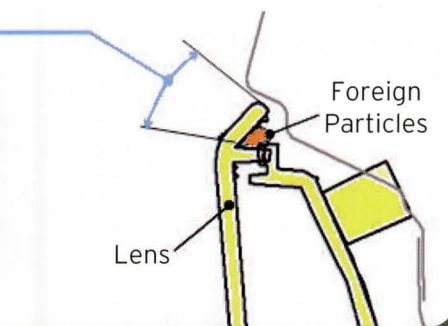


**Note:** This is a temporary measure. Water drops will appear again under certain environmental conditions.



## Foreign Particle Removal

1. Use a plastic card as a spatula to fit into the back side of the outer edge.

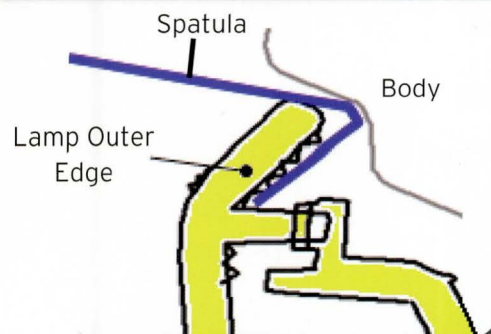


2. Use the spatula and, at the same time, pour water to scrape out the foreign particles.

**Note:** Do not use high-pressure water.

**Caution:** Scraping too hard may damage the lamp or body.

3. Remove the water using compressed air.

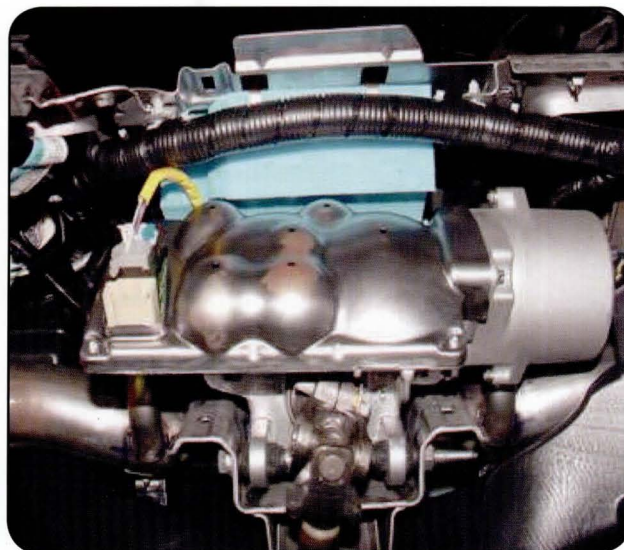


## 2008-2011 TRIBUTE AND TRIBUTE HYBRID *LACK OF POWER STEERING ASSIST WITH DTC (UPDATE)*

Some vehicles may exhibit a lack of power steering assist with DTC B1342, B2277, and/or B227B.

Clear codes and replace steering column (EPAS unit).

**Note:** It is not necessary to wait for the code to reset before replacing the steering column.



An editorial board comprised of MNAO service staff members generates, collects, and verifies information for this publication. To contribute a newsletter idea, send an e-mail to [mtips@mazdausa.com](mailto:mtips@mazdausa.com) or fax to (949) 442-6599

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## WINDOWS INTERNET EXPLORER TECH TIP

When selecting Workshop Manual links in MS3, it can be frustrating not being able to return to the previous window. Use the right mouse button instead of the left and select "Open in new tab."

### Example:

"I'm getting ready to do an engine compression inspection on a vehicle. I use the left mouse button to select the BEFORE SERVICE PRECAUTION link to read the service precaution."



mxConnect Mazda Dealer Extranet

Reporting period: Period not available  
Corporate: DANIEL GONZALEZ  
Training Attainment: Not Certified

TMR N/A FIRTFT N/A OSAT N/A

Mazda Service Support System

Home View Content Other Applications As Built Data MyMazda IDS/ Infotainment Training Special Service Tools& Current MRT List Return To Search Results Print Help Change Locale

VIN [ ] or Model Year [ ] Model [ ] Ask Your Question Here TSB [ ] Go

General Information [ ] Engine [ ] Suspension [ ] Restraints [ ] DriveLine/Axle [ ] HVAC [ ] Wiring Diagram [ ]  
Body/Accessories [ ] Brakes [ ] Steering [ ] Multiplex Communication System [ ] Transmission/Transaxle [ ]

Service Alerts Reset

< Previous Next >

### 2014 - Mazda6 - Engine

#### COMPRESSION INSPECTION [SKYACTIV-G 2.5]

**WARNING:**

- Hot engines and oil can cause severe burns. Be careful not to burn yourself during removal/installation of each component.
- Fuel vapor is hazardous. It can very easily ignite, causing serious injury and damage. Always keep sparks and flames away from fuel.
- Fuel line spills and leakage are dangerous. Fuel can ignite and cause serious injuries or death and damage. Fuel can also irritate skin and eyes. To prevent this, always complete the "Fuel Line Safety Procedure". (See **BEFORE SERVICE PRECAUTION [SKYACTIV-G 2.5]**.)

1. Verify that the battery is fully charged. (See **BATTERY INSPECTION [SKYACTIV-G 2.5]**.)

- Recharge it if necessary. (See **BATTERY RECHARGING [SKYACTIV-G 2.5]**.)

"When I'm done reading the precaution, I select the Back internet browser arrow to return to the previous compression inspection page; however, it does not return."

https://portal.mazdausa.com/ml73/emazda/dealersystem/service/esi/en\_us/SA/2014

Mazda Service Shop BEFORE SERVICE PRECAUTION [SKYACTIV-G 2.5]

mxConnect Mazda Dealer Extranet

Reporting period: Period not available  
Corporate: DANIEL GONZALEZ  
Training Attainment: Not Certified

TMR N/A FIRTFT N/A OSAT N/A

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Body/Accessories [ ] Brakes [ ] Steering [ ] Multiplex Communication System [ ] Transmission/Transaxle [ ]

Service Alerts Reset

< Previous Next >

### 2014 - Mazda6 - Engine

#### BEFORE SERVICE PRECAUTION [SKYACTIV-G 2.5]

**WARNING:**

- Fuel vapor is hazardous. It can very easily ignite, causing serious injury and damage. Always keep sparks and flames away from fuel.
- Fuel line spills and leakage from the pressurized fuel system are dangerous. Fuel can ignite and cause serious injury or death and damage. Fuel can also irritate skin and eyes. To prevent this, always complete the "Fuel Line Safety Procedure".
- A person charged with static electricity could cause a fire or explosion, resulting in death or serious injury. Before performing work on the fuel system, discharge static electricity by touching the vehicle body.



## Solution:

Use the right mouse button



to select the BEFORE SERVICE PRECAUTION link, then select "Open in new tab".

Open  
Open in new tab  
Open in new window  
Save target as...  
Print target  
Cut  
Copy  
Copy shortcut  
Paste  
E-mail with Windows Live  
Translate with Bing  
All Accelerators  
Add to favorites...  
Append Link Target to Existing PDF  
Append to Existing PDF  
Convert Link Target to Adobe PDF  
Convert to Adobe PDF  
Send to OneNote  
Properties

Period not available  
Corporate  
TMR N/A FIRTFT N/A OSAT N/A  
Mazda Service Support System  
Mazda Dealer Extranet  
Home View Content Other Applications  
VIN [ ] or Model Year [ ] Model [ ] compression [ ] TSB [ ]  
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Body/Accessories [ ] Brakes [ ] Steering [ ] Multiplex Communication System [ ] Transmission/Transaxle [ ]  
Service Alerts [ ] Reset [ ]  
2014 - Mazda6 - Engine  
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• Fuel vapor is hazardous. It can very easily ignite, causing serious injury and damage. Always keep sparks and flames away from fuel.  
• Fuel line spills and leakage from the pressurized fuel system are dangerous. Fuel can ignite and cause serious injury or death and damage. Fuel can also irritate skin and eyes. To prevent this, always complete the "Fuel Line Safety Procedure".  
1. Verify that the battery is fully charged. (See BATTERY INSPECTION [SKYACTIV-G 2.5].)

This will open the BEFORE SERVICE PRECAUTION page in a new tab while maintaining the previous COMPRESSION INSPECTION page in a previous tab. You can switch between tabs as needed. You can also add more tabs if needed.

COMPRESSION INSPECTION tab  
BEFORE SERVICE PRECAUTION tab

Reporting period: Period not available  
Corporate  
DANIEL GONZALEZ  
Training Attainment: Not Certified  
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• Fuel line spills and leakage from the pressurized fuel system are dangerous. Fuel can ignite and cause serious injury or death and damage. Fuel can also irritate skin and eyes. To prevent this, always complete the "Fuel Line Safety Procedure".



## MULTI-MODEL PORTABLE USB AUDIO DEVICE INOPERATIVE

Some customers may complain about their portable USB connected device (e.g., iPod, iPhone, smart phone) being inoperative. This may be caused by a compatibility issue between the vehicle's audio unit and the USB device. Create a test tool to check the vehicle's USB connection.

### Create USB Tool

Use a known good USB flash drive and upload a known good audio file. Flash drive size should not matter because you only need to upload one song.

#### Note:

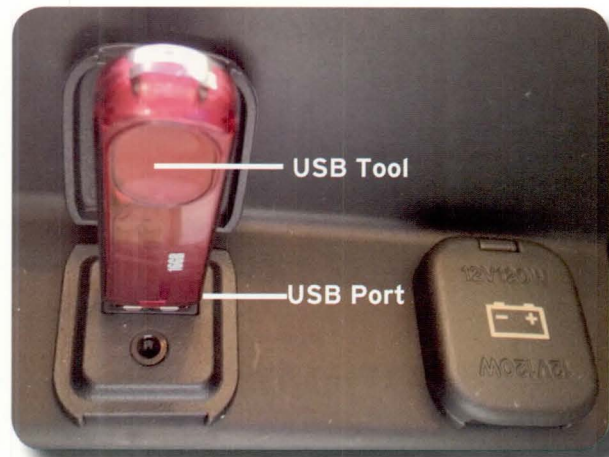
- The newly created USB tool should not have any other files stored in it.
- Do not use a password protected flash drive.



USB Tool

### Vehicle USB Port Connection Test

1. Turn on the vehicle audio system.
2. Connect the USB tool into the vehicle's USB port.



3. The audio USB tab should switch from gray to white text.
4. Select the USB tab.
5. Music should begin to play from the USB flash drive.



### Test Results

- Audio playback is successful - The connection between the audio unit and the USB port is good. Customer's concern may be caused by a compatibility issue between the vehicle's audio unit and their USB device.
- Audio playback was not successful - Further diagnosis is needed. Refer to MS3 AUXILIARY JACK/USB PORT INSPECTION.
- Save the USB tool in your toolbox for future vehicle testing.

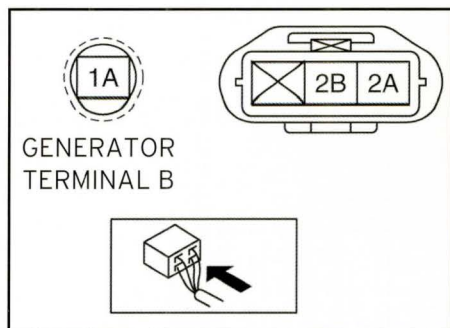
## 2014-2015 Mazda6, 2014 Mazda3 (EQUIPPED WITH I-ELOOP) GENERATOR INSPECTION

If you suspect a faulty generator, be advised that generator inspections vary between vehicles equipped with conventional charging systems and vehicles equipped with i-ELOOP.

### Generator Voltage/Current Inspection (without i-ELOOP)

Battery Condition	Engine RPM	Generator Terminal		
		Terminal B		Terminal 2B Voltage
Fully Charged	idle	13-15 V	---	Voltage will increase with vehicle load
	2500	13-15 V	100 A (Nominal)	

**Note:** Refer to MS3 for vehicle-specific information.



**Note:**

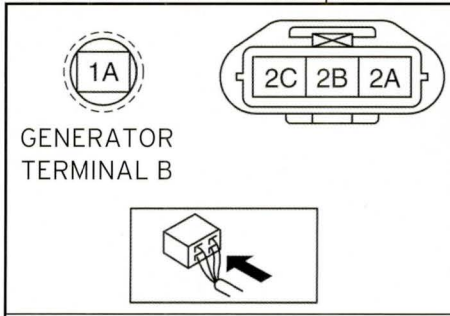
An inductive pickup can be used to check generator current at Terminal B or negative battery cable.



### Generator Voltage/Current Inspection (with i-ELOOP)

Battery Condition	Engine RPM	Generator Terminal		
		Terminal B		Terminal 2A, 2B
Fully Charged	idle	i-ELOOP Capacitor Voltage	---	Voltage will increase with vehicle load
	1000	15 V	130 A (Nominal)	
	2000	15 V	150 A (Nominal)	---

**Note:** Refer to MS3 for vehicle-specific information.



**Note:**

An inductive pickup can be used to check generator current at Terminal B only.



Below are a few things you need to consider when performing a generator inspection on i-ELOOP vehicles.

	Battery Fully Charged		Battery State of Charge is Low
	i-ELOOP Capacitor 14.5 V or more	i-ELOOP Capacitor less than 14.5 V	
Generator Output	None (Voltmeter will show capacitor voltage)	15-25 V*	15-25 V*

\* Generator output varies depending on:

- Engine RPM
- i-ELOOP capacitor voltage
- Battery state of charge
- Vehicle electrical load
- Ambient temperature
- Vehicle deceleration



## MIDTRONICS GR8 BATTERY MANAGEMENT SYSTEM SOFTWARE UPDATE (REMINDER)

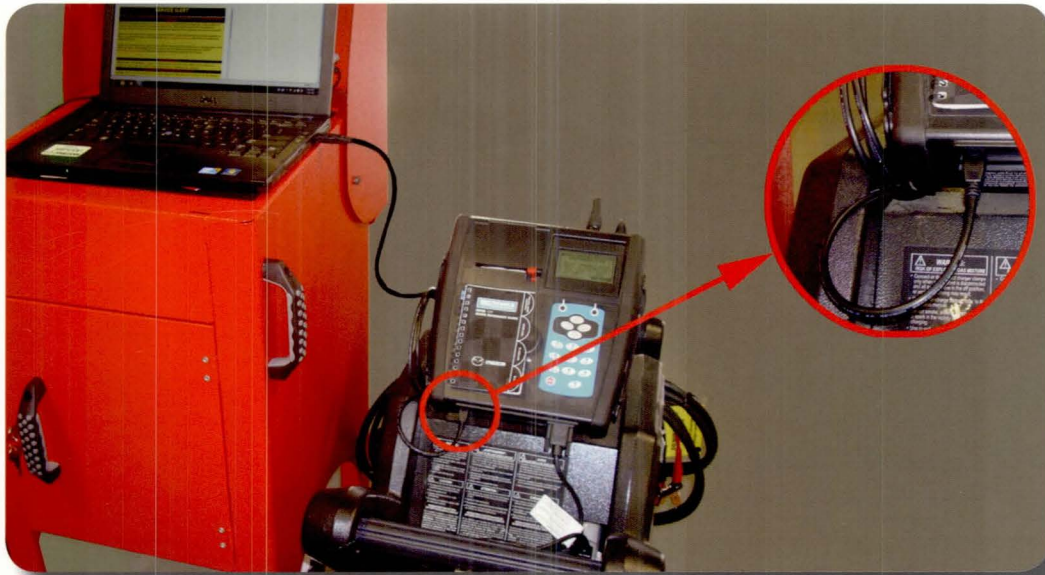
To enhance the operation of the GR8 Battery Management System, a software update is now available via the web. The New Update Will:

1. Enable diagnosis of Q-85 batteries.
2. Enable charging of Q-85 batteries.

### Midtronics GR8 Software Update Instructions

To complete the update, you will need the IDS laptop, MS3 access, the GR8 workstation, and the USB cable that is included with the Midtronics GR-8.

**Note:** If the USB cable is missing, please purchase one from your local electronics store. The cable needs to be a regular USB jack on one end and a mini-USB jack on the other end. Do not install the cable until prompted to do so.



1. Plug the GR8 workstation into a wall outlet.
2. Confirm the 6 AA batteries in the handheld unit are new.
3. Reinstall the handheld unit in its holder.
4. With the IDS laptop, log onto MS3, click on Special Service Tools and select the GR-8 Update.
5. Click to "Run" the file download - Mazda(GR8-195E).
6. Click to "Run" the Midtronics Update Wizard (MUW) Installer.
7. Follow the steps in the Midtronics Update Wizard to complete the 10 to 20 minute download.

For any questions, please contact Midtronics Customer Service at 800-776-1995, Monday through Friday, 8:00 am to 5:00 pm Central time.

## Submit Your Own M-Tip Article!

If you have a valuable repair tip that you would like to submit for consideration in the next M-Tips Newsletter, please send by e-mail to [mtips@mazdausa.com](mailto:mtips@mazdausa.com) or by FAX to (949) 442-6599.

If we select your repair tip, you will receive a \$50 American Express Gift Cheque for your efforts.

Daniel Gonzalez - Editor (949) 442-6526

