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Subject: HEADLIGHT AUTO-LEVELING MALFUNCTION INDICATOR LIGHT ILLUMINATES	Bulletin No: 09-008/07
	Last Issued: 10/3/2007

BULLETIN NOTE

This bulletin supersedes the previous bulletin 09-008/07 issued on 3/5/2007. The REPAIR INFORMATION and PART(S) INFORMATION sections have been revised.

APPLICABLE MODEL(S)/VINS

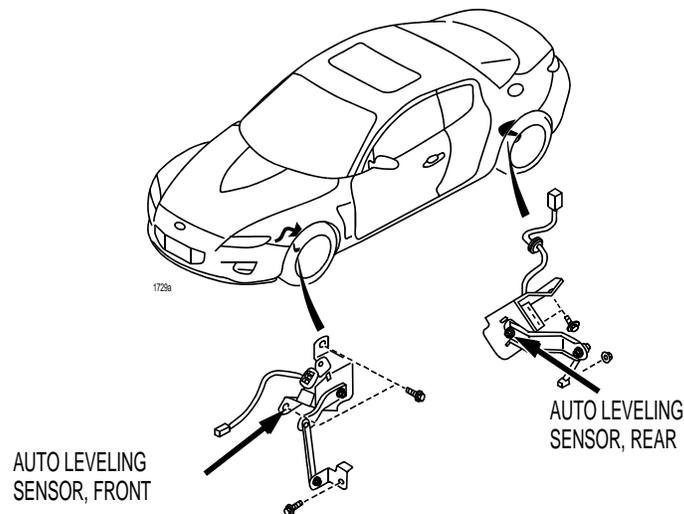
2004-2007 RX-8 with VINs lower than JM1 FE**** ** 210881 (built before November 15, 2006)

DESCRIPTION

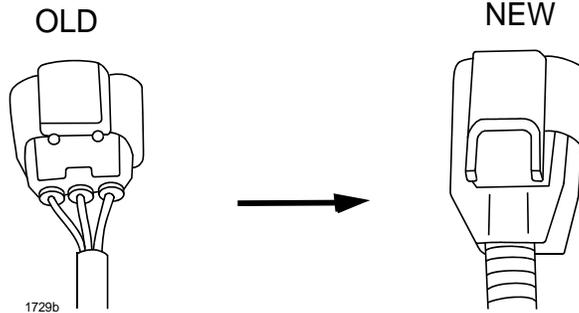
Some customers may complain that the headlight auto-leveling malfunction indicator light illuminates and the auto-leveling function does not work.

Due to connector design, water may enter the auto-headlight leveling sensor(s) through the connector(s), causing corrosion inside the leveling sensor. This can lead to internal failure of the sensor. As a mass production change, the connector has been changed from a normal waterproof type to a heavy duty waterproof type.

Customers having this concern should have their vehicle repaired using the following repair procedure.



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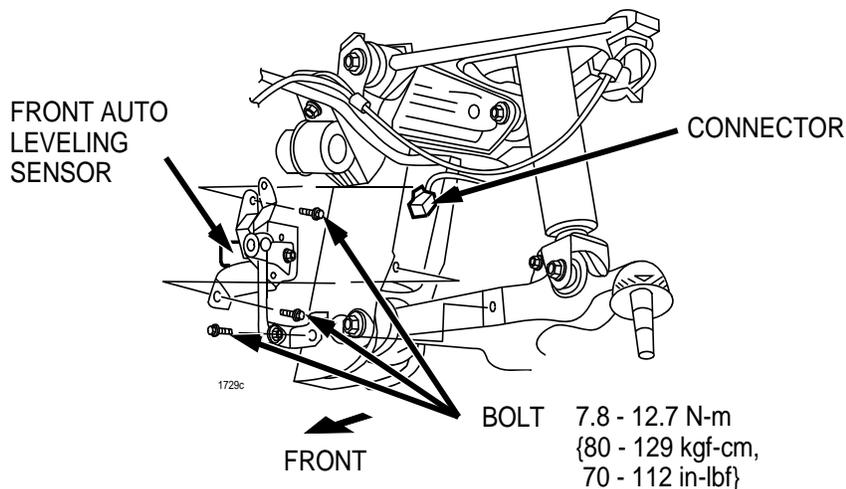


REPAIR PROCEDURE

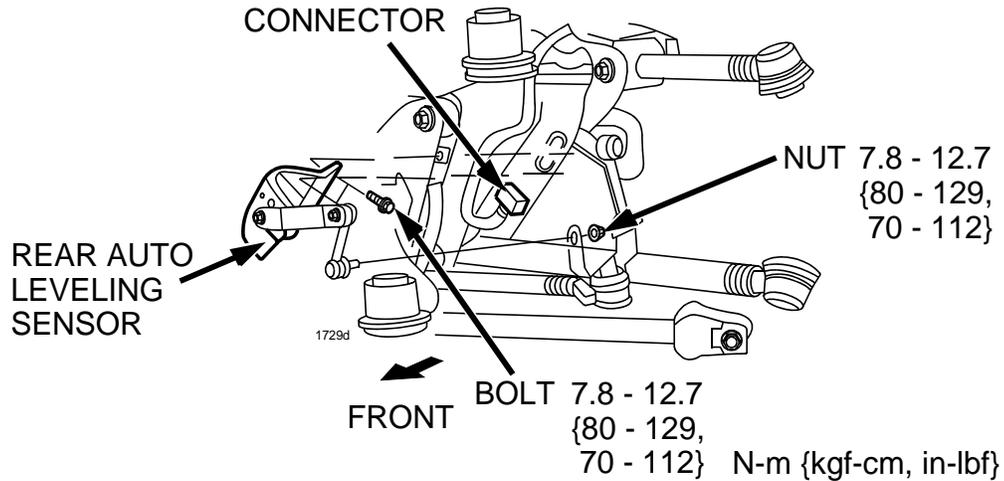
1. Verify customer concern.
2. Remove front and rear auto-leveling sensors from the vehicle. See AUTO-LEVELING SENSORS REMOVAL / INSTALLATION procedure.
3. Inspect the front and rear auto leveling sensors. See AUTO-LEVELING SENSORS INSPECTION procedure. Perform repairs as instructed in the inspection procedure.
4. Verify repair.

AUTO-LEVELING SENSORS REMOVAL / INSTALLATION

1. Record customers radio station presets.
2. Disconnect the negative battery cable.
3. Raise the vehicle on a hoist.
4. Remove the left front and left rear wheel and tire.
5. Remove the front sensor.
 - a. Disconnect the front sensor connector.
 - b. Remove the bolts attaching the sensor to the vehicle.
 - c. Remove the bolt attaching the arm and bracket to the suspension.
 - d. Remove the sensor.



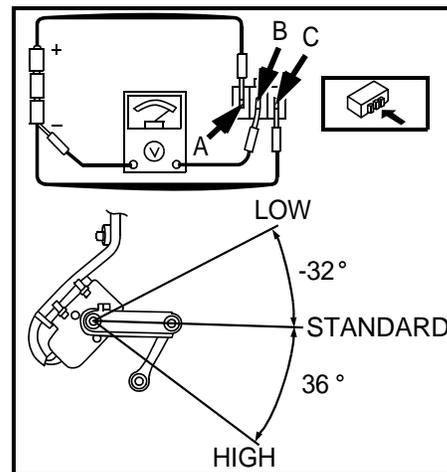
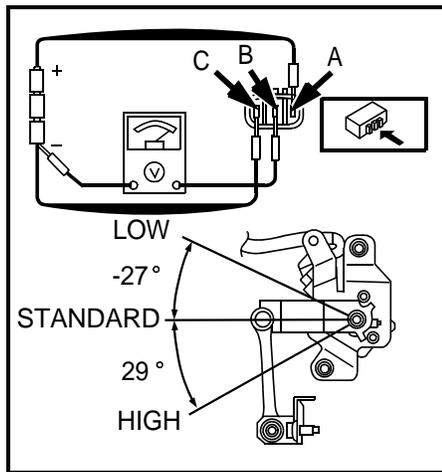
6. Remove the rear sensor.
 - a. Cut the band and disconnect the rear sensor connector.
 - b. Remove the bolts attaching the sensor to the vehicle.
 - c. Remove the nut attaching the arm to the suspension.
 - d. Remove the sensor.



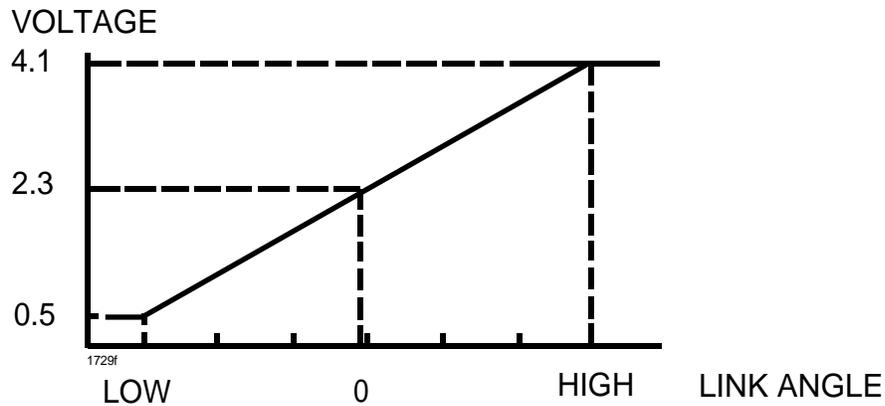
7. To install, reverse removal procedure. Tighten all fasteners to specification.
8. Connect negative battery cable and install battery end engine cover.
 - If vehicle is equipped with DSC, perform the steering angle sensor adjustment. See appropriate Workshop Manual section 04-15 STEERING ANGLE SENSOR INITIALIZATION PROCEDURE
 - Initialize power windows if necessary.
 - Enter customers radio station presets.

AUTO-LEVELING SENSORS INSPECTION

1. Connect three (3) 1.5 V batteries in series (such as 3 “AA” batteries lined up end to end).
2. Connect the positive end of the batteries to auto-leveling sensor terminal A and negative end to terminal C.
3. Connect the tester as shown.



4. Measure voltage while slowly moving the link up and down. The voltage should be linear (smooth) during movement in the range between 0.5 V and 4.1 V.

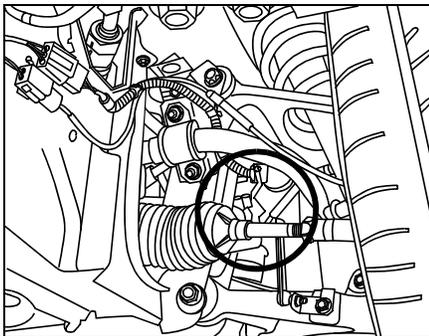


- If OK, apply waterproof urethane sealer to the short harness connectors. See WATERPROOF SEALER APPLICATION procedure. Then re-install the sensors.
- If one or both sensors are not OK, replace the sensor(s) with a new one along with short harness (short harness is included with new sensor). For short harness replacement, refer to SHORT HARNESS REMOVAL/INSTALLATION procedure.

WATERPROOF SEALER APPLICATION

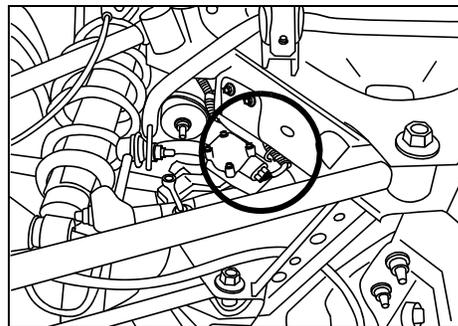
1. Clean the back side short harness connector terminal.

FRONT SENSOR LOCATION

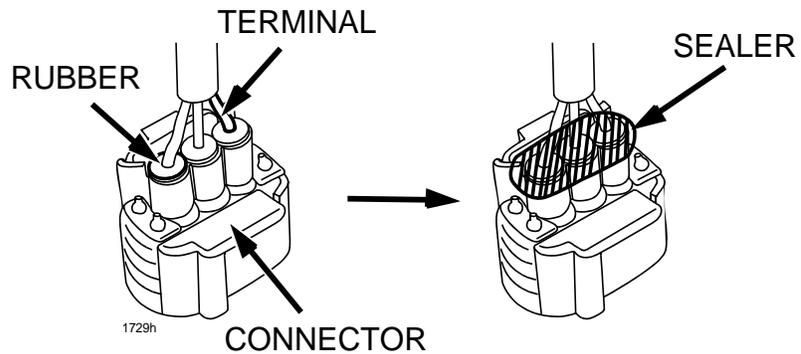


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REAR SENSOR LOCATION



2. Apply waterproof urethane sealer (locally sourced) between the harness and the connector as shown to prevent water intrusion.

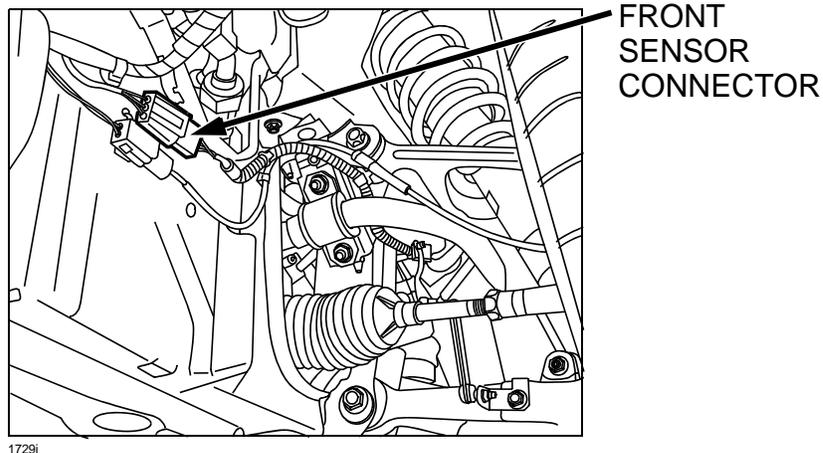


3. Allow to cure following waterproof urethane manufacturers instructions.
4. Reconnect front/rear auto-leveling sensors.

SHORT HARNESSS REMOVAL / INSTALLATION

FRONT SENSOR

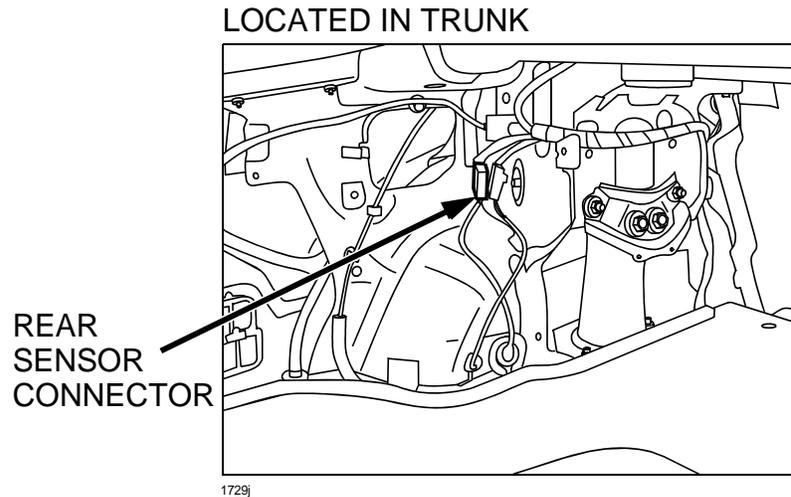
1. Remove the under cover.
2. Disconnect the connector from the short harness.
3. Free the old short harness from the clip.



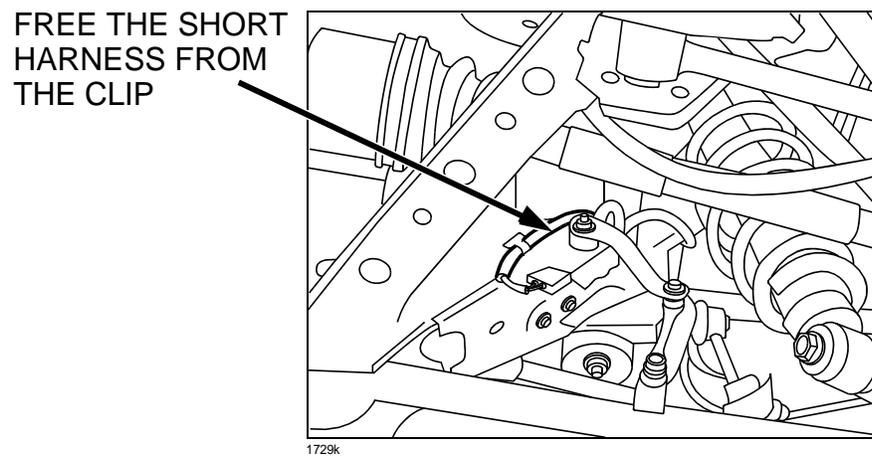
4. Install the new short harness. Ensure the clip is securely installed.
5. Reconnect front auto-leveling sensor.

REAR SENSOR

1. Remove the trunk side trim.
2. Disconnect the connector from the short harness.

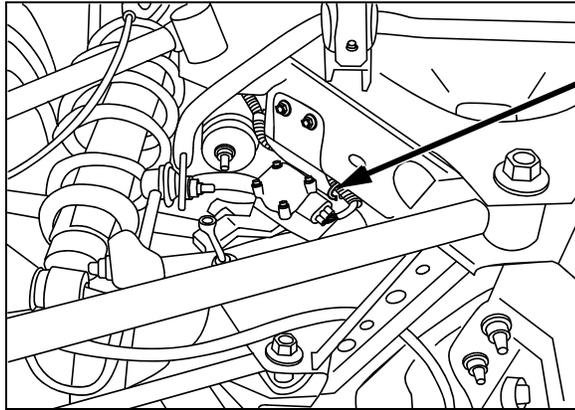


3. Free the old short harness from the clip.



4. Install the new short harness. Ensure the clip is securely installed.

5. Reconnect rear auto-leveling sensor and band.



INSTALL THE BAND AND CLIPS FIRMLY

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PART(S) INFORMATION

Part Number	Description	Qty.	Notes
FE03-51-21YD	Auto Leveling Sensor, Front (includes short harness)	1	--
FE03-51-22YC	Auto Leveling Sensor, Rear (includes short harness)	1	--

WARRANTY INFORMATION

NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair. Refer to the Warranty Wizard for warranty term information.
- Additional diagnostic time cannot be claimed for this repair.

Warranty Type	A
Symptom Code	62
Damage Code	9W
Part Number Main Cause	FE03-51-21YC or FE03-51-22YB
Quantity	1
Operation Number / Labor Hours:	XXB466R3 / 0.7 Hrs. (Inspect and/or replace front & rear sensors)

NOTE:

- If both front and rear sensors are replaced, only claim one of the them as a related part.