# Service Bulletin

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Mazda North American Operations Irvine, CA 92618-2922



Subject: MAZDA SPECIAL PROGRAM (MSP16) - ENGINE LACK OF POWER - PCM RE-		01-013/08
	Last Issued:	03/14/2008

# **APPLICABLE MODEL(S)/VINS**

2004-2008 RX-8 vehicles, produced from April 10, 2003 through November 9, 2007

• VIN Range: JM1 FE17\*\* 40100053 - 80215462

## DESCRIPTION

Some 2004-2008 RX-8 vehicles may experience a lack of engine power and/or low/rough engine idle speed in high ambient temperatures. A revised PCM calibration is available which increases metering oil lubrication amount during engine start and changes ignition timing control during high ambient air temperature conditions.

#### NOTE:

- UNDER THE MAZDA SPECIAL PROGRAM (MSP16), ALL CURRENT DEALER INVENTORY AND RETAILED VEHICLES FOUND TO BE WITHIN THE ABOVE VIN RANGE, AND PRODUCED BETWEEN APR. 10, 2003 THROUGH NOV. 9, 2007, MUST BE INSPECTED AND REPAIRED ACCORDING TO THE INSTRUCTIONS CONTAINED IN THIS SERVICE BULLETIN.
- BEFORE PERFORMING ANY REPAIR, VALIDATE THAT THE VEHICLE IS APPLICABLE TO THIS PROGRAM BY PERFORMING AN "eMDCS WARRANTY VEHICLE INQUIRY" AND VERIFY-ING THE VEHICLE DISPLAYS CAMPAIGN "MSP16" AND ITS CAMPAIGN STATUS DISPLAYS "OPEN". SEE "VEHICLE INSPECTION PROCEDURE" BELOW.

## DEALER INVENTORY:

Inspect and repair if necessary, all applicable vehicles currently in dealer inventory according to the procedures contained in this service bulletin.

#### **RETAIL VEHICLES:**

When an applicable retail vehicle is brought into the dealer for any type of repair or scheduled maintenance, perform an eMDCS Warranty Vehicle Inspection and check the status of MSP16. If status of MSP16 is "OPEN" inspect and repair if necessary, the vehicle according to the procedures contained in this service bulletin.

Page 1 of 5

**CONSUMER NOTICE**: The information and instructions in this bulletin are intended for use by skilled technicians. Mazda technicians utilize the proper tools/ equipment and take training to correctly and safely maintain Mazda vehicles. These instructions should not be performed by "do-it-yourselfers." Customers should not assume this bulletin applies to their vehicle or that their vehicle will develop the described concern. To determine if the information applies, customers should contact their nearest authorized Mazda dealership. Mazda North American Operations reserves the right to alter the specifications and contents of this bulletin without obligation or advance notice. All rights reserved. No part of this bulletin may be reproduced in any form or by any means, electronic or mechanical---including photocopying and recording and the use of any kind of information storage and retrieval system ---without permission in writing.

# **VEHICLE INSPECTION PROCEDURE**

- 1. Verify the vehicle is within one of the following VIN ranges and produced between April 10, 2003 through November 9, 2007:
  - VIN Range: JM1 FE17\*\* 40100053 80215462
    - If the vehicle is within the above VIN ranges, and produced between April 10, 2003 through November 9, 2007, proceed to Step 2.
    - If the vehicle is not within one of the above VIN ranges, and not produced between April 10, 2003 through November 9, 2007, return the vehicle to the customer or inventory.
- Perform a Warranty Vehicle Inquiry using your eMDCS System and inspect the vehicle for a Campaign Label MSP16 attached to the vehicle's hood. Refer to eMDCS System - Warranty Vehicle Inquiry Results table below.

**NOTE:** Verify the campaign number as the vehicle may have multiple labels.



## eMDCS System - Warranty Vehicle Inquiry Results

If eMDCS displays:	Campaign Label is:	Action Required:
"Campaign: MSP16 Open"	Present	Contact the Mazda Corporate Dealer Assistance Group at (877) 727-6626 to update vehicle history
	Not present	Proceed to "REPAIR PROCEDURE"
"Campaign: MSP16 Closed"	Present	Return vehicle to inventory or customer
Campaign. MOP TO Closed	Not present	Complete a label and apply it to vehicle's hood
"Campaign: MSP16 Open" or "Closed" is not displayed	Does not apply	Campaign does not apply to this vehicle. Return the vehicle to inventory or customer

# **REPAIR PROCEDURE**

- 1. Reboot the IDS to clear memory before reprogramming.
- 2. Using IDS 53.8 or later software, reprogram the PCM to the latest calibration (refer to "Calibration Information" table) by following the "Module Reprogramming" procedure.

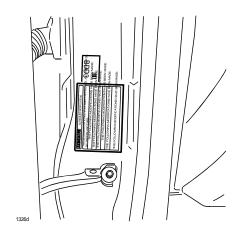
#### NOTE:

- Always update the IDS tool first, then follow on-screen instructions to download the needed calibration file for PCM reprogramming.
- It is not necessary to remove any fuses or relays during PCM reprogramming when the IDS screen prompts you to do so. You may accidentally stop power to one of the PCM terminals and cause the PCM to be blanked, or you may receive error messages during the IDS reprogramming procedure.
- IDS shows the calibration part numbers after programming the PCM.
- Please be aware that PCM calibration part numbers and file names listed in any Service Bulletin
  may change due to future releases of IDS software, and additional revisions made to those calibrations for service related concerns.
- When reprogramming a PCM, IDS will always display the "latest" calibration P/N available for that vehicle. If any calibration has been revised/updated to contain new information for a new service concern/issue, it will also contain all previously released calibrations.
- When performing this procedure, we recommend that a battery charger be installed on the vehicle battery and turned ON to a maximum charge of no more than 20 AMPS to keep the vehicle battery up to capacity. If you exceed 20 AMPS, it could damage the VCM.
- 3. After performing the PCM reprogramming procedure, verify the repair by starting the engine and making sure there are no MIL illumination or abnormal warning lights present.

#### NOTE:

- If any DTCs should remain after performing DTC erase, diagnose the DTCs according to the appropriate Troubleshooting section of the Workshop Manual.
- After PCM reprogramming, it is no longer necessary to road test the vehicle to "relearn" KAM (Keep Alive Memory).
- 4. Fill out an "Authorized Modifications" label (P/N 9999-95-AMDC-97) with the new PCM calibration information, your dealer code, and today's date.
- 5. Place the "Authorized Modifications" label on the "A" pillar below the tear tag in the driver door jamb. The "Authorized Modification" label will inform technicians of the PCM calibration change if future repairs are necessary.

mezde	AUTHORIZED MODIFICATIONS
	S HAVE BEEN APPROVED, AS APPROPRIATE,
BY THE EPA AND CARE	B.
THE FOLLOWI	NG MODIFICATIONS HAVE BEEN MADE:



Bulletin No: 01-013/08	Last Issued: 03/14/2008
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6. Fill out a blue "Campaign Label" (9999-95-065A-05) with the Campaign No: "MSP16", your dealer code, today's date, and affix it to the vehicle's hood.



7. Return the vehicle to the customer.

# **CALIBRATION INFORMATION**

Year / Tra	ansmission	New PCM Calibration Part Number	File Name	
2004	2004			
	M/T - All	N3Z2-18-881U	SW-N3Z2EU000	
	A/T - All	N3Z1-18-881V	SW-N3Z1EV000	
2005				
	M/T - Calif.	N3ZD-18-881H	SW-N3ZDEH000	
	A/T - Calif.	N3ZC-18-881J	SW-N3ZCEJ000	
	M/T - Fed.	N3ZB-18-881H	SW-N3ZBEH000	
	A/T - Fed.	N3ZA-18-881J	SW-N3ZAEJ000	
2006-200	2006-2008			
	M/T - Calif.	N3M1-18-881K	SW-N3M1EK000	
	A/T - Calif.	N3M2-18-881M	SW-N3M2EM000	
	M/T - Fed.	N3M5-18-881K	SW-N3M5EK000	
	A/T - Fed.	N3M6-18-881M	SW-N3M6EM000	

#### NOTE:

• The PCM Calibration Part Numbers listed above are provided for PCM reprogramming purposes only. These are not necessarily the same Mazda part numbers used to order an actual PCM through the Mazda Parts System. It is not necessary to order a PCM as part of this repair procedure.

## WARRANTY INFORMATION

#### NOTE:

- Refer to the Warranty Wizard for warranty term information.
- Additional diagnostic time cannot be claimed for this repair.

Warranty Type	А
Symptom Code	99
Damage Code	99
Process Number	A0805A
Part Number Main Cause	7777-18-029
Quantity	0
Operation Number / Labor Hours	XXD0ZXFX / 0.3 Hrs.