

<b>Subject:</b> MIL WITH DTC(S) P0126, P0420, P0456, P2404, ENGINE QUIT, OIL LEVEL WARNING LAMP ON	<b>Bulletin No:</b> 01-007/05
	<b>Last Issued:</b> 2/2/2005

## APPLICABLE MODEL(S)/VINS

2004-2005 RX-8

## DESCRIPTION

Some vehicles may experience one or more of the following concerns:

- P0126 Insufficient coolant temperature for stable operation (All 2004 & 2005).
- P0456 EVAP system leak detected - very small leak (2004 All & 2005 with VINs lower than JM1FE\*\*\*\*50149880).
- P0420 Catalyst system efficiency below threshold (2004 All & 2005 with VINs lower than JM1FE\*\*\*\*50149880).
- P2404 EVAP system leak detection pump sensor circuit range / performance problem (2004 models only).
- Engine quits at high ambient temperatures (+100 degrees F) (2004 All & 2005 with VINs lower than JM1FE\*\*\*\*50149880).
- Oil level warning lamp illumination when oil level is not low (2004 All & 2005 with VINs lower than JM1FE\*\*\*\*50149880).

These concerns may be caused by incorrect logic of the PCM's software.

Customers having any of these concerns should have their vehicle repaired using the following repair procedure.

## REPAIR PROCEDURE

1. Using WDS B35.5 or later software, reprogram the PCM to the latest calibration (refer to "CALIBRATION INFORMATION") by following the "Module Reprogramming" procedure.

### NOTE:

- Always update the WDS PTU first, then install the needed calibration file that WDS shows during PCM reprogramming. Go to "WDS Calibration" on ESI and download the "update" file. If the PTU is not updated to the latest WDS calibration level, the calibration file will not install into the PTU.
- It is not necessary to remove any fuses or relays during PCM reprogramming when the WDS 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 WDS reprogramming procedure.
- WDS 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 WDS software, and additional revisions made to those calibrations for service related concerns.
- When reprogramming a PCM, WDS will always display the "latest" calibration P/N available for

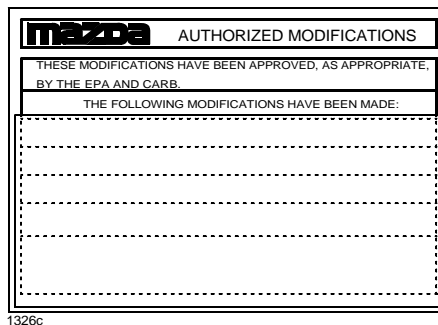
that vehicle. If any calibration has been revised/updated to contain new information for a new service concern/issue, it will also contain all previously released calibrations.

- **When performing this procedure, if the WDS PTU is not docked and connected to 115V-120V, 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 will damage the WDS PTU. Also the external battery power supply cable should be connected to the vehicle battery and the PTU.**

2. 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:** After PCM reprogramming, it is no longer necessary to road test the vehicle to “relearn” KAM (Keep Alive Memory).

3. Place an “Authorized Modification” label (P/N 9999-95-AMDC-97) with the new calibration information near the Emission Control Information Label located on the hood or in the engine compartment.



## CALIBRATION INFORMATION

Model Year	Transmission	New PCM Calibration Part Number	File Name	Notes
2004	A/T	N3Z1-18-881N	SW-N3Z1EN000	All
2004	M/T	N3Z2-18-881N	SW-N3Z2EN000	All
2005	A/T	N3K6-18-881C	SW-N3K6EC000	Fed/Canada
2005	M/T	N3K7-18-881C	SW-N3K7EC000	Fed/Canada
2005	A/T	N3K8-18-881C	SW-N3K8EC000	California
2005	M/T	N3K9-18-881C	SW-N3K9EC000	California

**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:**

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

Warranty Type	A
Symptom Code	6X
Damage Code	9W
Part Number Main Cause	5555-04-032A
Quantity	0
Operation Number / Labor Hours:	XX815XRX / 0.4 Hrs.