

<b>Subject:</b>  AT - SLIGHT SURGE WHILE DRIVING AT 40-55 MPH	<b>Bulletin No:</b> 05-010/06
	<b>Last Issued:</b> 10/24/2006

## APPLICABLE MODEL(S)/VINS

2006 RX-8 vehicles with AT with VINs JM1FE173\* 60 200016 through 207469

2007 RX-8 vehicles with AT with VINs JM1FE173\* 70 207473 through 208296

## DESCRIPTION

Some vehicles equipped with 6-speed automatic transmissions may experience a slight surging and / or body vibration driving 40-55 MPH with transmission in 5th gear. Rotational engine fluctuations may be transmitted to the transmission, through the drive shaft and then to the body when the transmission is in 5th gear and torque converter lock up condition. The vehicle's PCM & TCM calibration have been modified to change the torque converter lock up strategy.

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

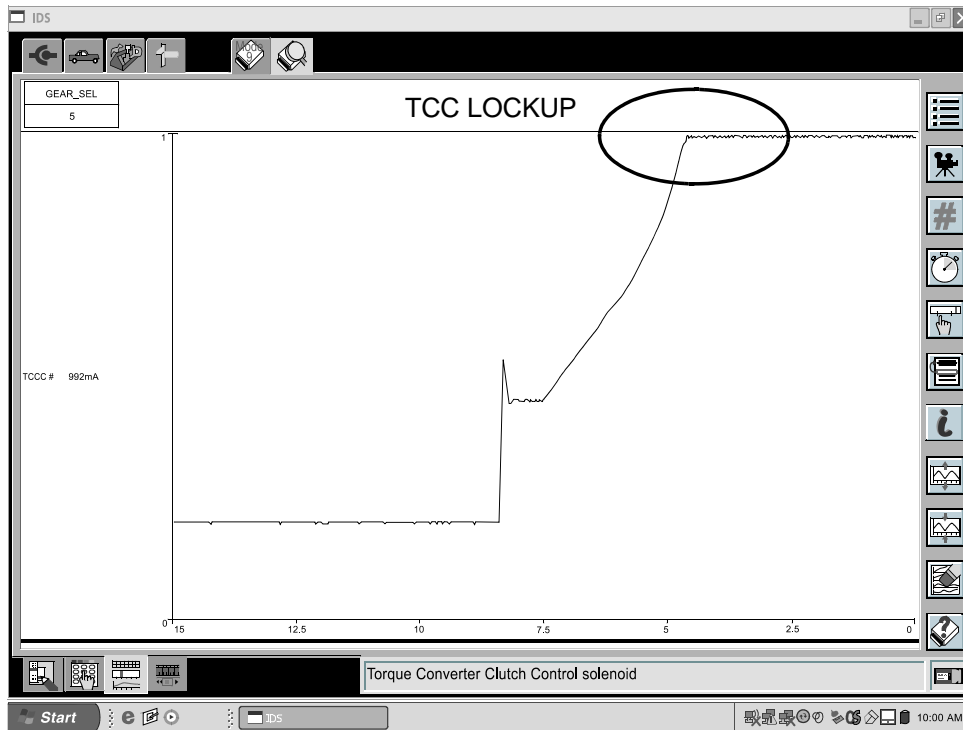
### NOTE:

- If vehicle is a 2006 model with a VIN earlier than JM1FE173\* 60 206996, make sure Recall 4206F has been completed before performing this repair procedure.

## REPAIR PROCEDURE

1. Verify the concern by driving the vehicle using the following guidelines:
  - a. Engine at operating temperature.
  - b. Road surface smooth and flat with a slight incline.
  - c. Vehicle speed 40-55MPH, engine RPM 1,600-2,000.

2. Monitor TCCC # and GEAR\_SEL PIDs while driving. If surging occurs while in 5th gear and TCC is locked, proceed to next step. If surging does not occur, return vehicle to customer.



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3. Reboot the PDS/IDS to clear memory before reprogramming.
4. Using PDS/IDS 44.6 or later software, reprogram the TCM to the latest calibration (refer to "Calibration Information" table) by following the "Module Reprogramming" procedure.

**NOTE:**

- Always update the PDS/IDS tool first, then follow on-screen instructions to download the needed calibration file for TCM reprogramming.
  - It is not necessary to remove any fuses or relays during TCM reprogramming when the PDS/IDS screen prompts you to do so. You may accidentally stop power to one of the TCM terminals and cause the TCM to be blanked, or you may receive error messages during the PDS/IDS reprogramming procedure.
  - PDS/IDS shows the calibration part numbers after programming the TCM.
  - Please be aware that TCM calibration part numbers and file names listed in any Service Bulletin may change due to future releases of PDS/IDS software, and additional revisions made to those calibrations for service related concerns.
  - When reprogramming a TCM, PDS/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.**
5. After performing the TCM 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 TCM reprogramming, it is no longer necessary to road test the vehicle to “relearn” KAM (Keep Alive Memory).

6. Verify repair.

## CALIBRATION INFORMATION

Year	Transmission	New TCM Calibration Part Number	File Name
2006-2007	6-Speed A/T	N3M2-E	SW-N3M2TE000

**NOTE:** The TCM Calibration Part Numbers listed above are provided for TCM reprogramming purposes only. These are not necessarily the same Mazda part numbers used to order an actual TCM through the Mazda Parts System. It is not necessary to order a TCM 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 Warranty Wizard for warranty term information.
- Additional diagnostic time cannot be claimed for this repair.

Warranty Type	A
Symptom Code	08
Damage Code	9W
Part Number Main Cause	N3M2-18-9E1
Quantity	0
Operation Number / Labor Hours:	XXB429FX / 0.3 Hrs