Service Bulletin

Mazda North American Operations Irvine, CA 92618-2922



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Subject:
SHIFT SHOCK WHILE ACCELERATING FROM A STOP
Last Issued: 12/14/2016

APPLICABLE MODEL(S)/VINS

2016 CX-9 vehicles with VINs lower than JM3TC*****125045 (produced before Oct. 17, 2016)

DESCRIPTION

Some customers may complain about a slight shift shock while accelerating from a stop and no A/T related DTCs are stored. The shift shock actually occurs intermittently at lock-up transition with the A/C on.

Improperly learned values in the TCM for the lock-up slip control may cause excessive pressure for the lock-up clutch. To avoid improper learning, the control logic of the TCM has been changed.

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

REPAIR PROCEDURE

- 1. Verify customer concern.
- 2. Reboot the IDS to clear memory before reprogramming.
- 3. Using IDS 103.3 or later software, reprogram the TCM to the latest calibration (refer to "Calibration Information" table) by following the "Module Reprogramming" procedure.

NOTE:

- TCM reprogramming takes approx.10 minutes longer than PCM reprogramming.
- Always update the 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 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 IDS reprogramming procedure.
- IDS shows the calibration part numbers after programming the TCM.
- Be aware that TCM 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 TCM, 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 using the "Power Supply" mode in the Battery Management System to keep the vehicle battery up to capacity. If a different charger is used, make sure it does not exceed 20 AMPS. If it exceeds 20 AMPS, it could damage the VCM.

Page 1 of 3

Bulletin No: 05-010/16	Last Issued: 12/14/2016
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4. 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 using MS3 online instructions or Workshop Manual section 05-02.
- After TCM reprogramming, it is no longer necessary to road test the vehicle to "relearn" KAM (Keep Alive Memory).
- 5. Perform the "INITIAL LEARNING PROCEDURE" found below.

WARNING: When performing initial learning, be aware of other vehicles, people, and other impediments in order to avoid an accident.

NOTE: While self-learning control gradually reduces shock during normal driving, initial learning is performed to initially learn a certain number of driving conditions.

INITIAL LEARNING PROCEDURE:

a. WARM-UP:

Increase the ATF temperature by leaving the engine at idling or city driving. Verify that the ATF temperature is between 66 - 110 °C {151 - 230 °F}. If the ATF temperature is outside this range, work to bring it inside the range.

CAUTION: Do not raise the ATF temperature by stalling the engine.

NOTE: If the ATF temperature is not between 66 - 110 °C {151 - 230 °F}, initial learning cannot be performed. Before learning, inspect for variable shift shock.

b. GARAGE SHIFT MODE:

With the vehicle standing still, depress the brake pedal and keep the selector lever in N position for 3 seconds. Then, shift the selector lever from the N position into D position, and maintain this condition for 3 seconds. Repeat this procedure 5 times. Then repeat it again 5 times in R position.

c. INSPECT LEARNING RESULTS:

Verify that variable speed shock and shift shock have decreased compared to the conditions before learning.

6. Verify the repair.

Bulletin No: 05-010/16	Last Issued: 12/14/2016
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CALIBRATION INFORMATION

Spec.	Drive	TCM File Name
USA	2WD	PYFL-21PS1-D
	4WD	PYFM-21PS1-D
Mexico	2WD	PYFN-21PS1-C
	4WD	PYFP-21PS1-C

WARRANTY INFORMATION

NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under the Federal Emission Control Warranty (long term).

TCM REPLACEMENT:		
Warranty Type	А	
Symptom Code	26	
Damage Code	9W	
Part Number Main Cause	5555-RP-TCM	
Quantity	0	
Operation Number / Labor Hours	XXMB9XFX / 0.3 Hrs.	