

2012 - Mazda6 - Engine

NO.7 SLOW RETURN TO IDLE [MZI 3.7 V6]

7	SLOW RETURN TO IDLE
DESCRIPTION	• Engine takes more time than normal to return to idle speed.
POSSIBLE CAUSE	• PCM DTC is stored. • Air leakage from intake-air system • Throttle body malfunction • Erratic signal from PSP switch • Thermostat is stuck open. • CHT sensor malfunction

Diagnostic procedure

STEP	INSPECTION	RESULTS	ACTION
1	VERIFY PCM DTC • Switch the ignition to ON (Engine off). • Retrieve any DTCs using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [MZI 3.7 V6] .) • Are there any DTCs displayed?	Yes	DTC is displayed: • Go to the appropriate DTC inspection. (See DTC TABLE [MZI 3.7 V6] .)
		No	No DTC is displayed: • Go to the next step.
2	INSPECT INTAKE AIR SYSTEM FOR AIR LEAKAGE • Inspect for air leakage from the intake-air system components while racing the engine to higher speed. • Is there any air leakage detected?	Yes	Repair or replace the malfunctioning part according to the inspection results.
		No	Go to the next step.
	VISUALLY INSPECT THROTTLE BODY		

3	Is the throttle body free of contamination?	Yes	Go to the next step.
		No	Clean or replace throttle body. (See INTAKE-AIR SYSTEM REMOVAL/ INSTALLATION [MZI 3.7 V6] .)
4	INSPECT POWER STEERING OPERATION SIGNAL - Access the PCM PID PSP using the M-MDS. (See ON-BOARD DIAGNOSTIC TEST [MZI 3.7 V6].) - Do the PIDs indicate the correct values under trouble condition?	Yes	Go to the next step.
		No	Inspect the PSP switch and related wiring harnesses. (See POWER STEERING PRESSURE (PSP) SWITCH INSPECTION [MZI 3.7 V6] .) Repair or replace the malfunctioning part according to the inspection results. If the malfunction is remains, perform the intermittent concern troubleshooting procedure. (See INTERMITTENT CONCERN TROUBLESHOOTING [MZI 3.7 V6] .)
5	INSPECT THERMOSTAT - Remove thermostat and inspect operation. (See THERMOSTAT REMOVAL/ INSTALLATION [MZI 3.7 V6].) (See THERMOSTAT INSPECTION [MZI 3.7 V6].) - Is there any malfunction?	Yes	Replace the thermostat. (See THERMOSTAT REMOVAL/ INSTALLATION [MZI 3.7 V6] .)
		No	Replace the CHT sensor. (See CYLINDER HEAD TEMPERATURE (CHT) SENSOR REMOVAL/ INSTALLATION [MZI 3.7 V6] .)
6	Verify test results. - If normal, return to diagnostic index to service any additional symptoms. (See SYMPTOM DIAGNOSTIC INDEX [MZI 3.7 V6].) - If malfunction remains, inspect related Service Bulletins and/or On-line Repair Information and perform repair or diagnosis. - If vehicle is repaired, troubleshooting completed. - If vehicle is not repaired or additional diagnostic information is not available, reprogram the PCM if a later calibration is available. Retest.		

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