

2012 - Mazda6 - Transmission/ Transaxle

NO.6 LOW MAXIMUM SPEED AND POOR ACCELERATION [FS5A-EL]

6	Low maximum speed and poor acceleration
DESCRIPTION	• Vehicle acceleration is poor at start. • Delayed acceleration when accelerator pedal is depressed while driving.
POSSIBLE CAUSE	• If the clutch is stuck or does not stay in 3GR, the malfunction is in the engine circuit. 1. Clutch slippage, burnt • Line pressure low • Shift solenoid D malfunction • Shift solenoid A malfunction • Shift solenoid B malfunction • Shift solenoid C malfunction • Shift solenoid F malfunction • Pressure control solenoid A malfunction • Body GND malfunction • Control valve body malfunction 2. Signal malfunction • Vehicle speed sensor malfunction • Sensor GND malfunction • APP sensor malfunction • Input/turbine speed sensor malfunction 3. Transaxle fixed in 3GR (Operation of fail-safe function) • Short or open circuit in wiring harness • Poor connection of connector • Malfunction of electronic parts of output and input system

4. Transaxle fixed in 4GR (Operation of fail-safe function)
 - Forward clutch slippage
 - Vehicle speed sensor malfunction
 - Shift solenoid A malfunction (Stuck on)
 - Poor connection of connector
5. Insufficient starting torque (Suspected when in-gear condition, shift control and engine circuit are normal)
 - Torque converter malfunction (Poor operation, stuck)
6. Engagement of TCC operation range (Operation of fail-safe function)
 - Transaxle fluid temperature sensor malfunction (Short or open circuit)
7. Transaxle fixed in M position
 - M position switch (built-in selector lever component) malfunction
8. TR switch adjustment incorrect

NOTE:

- Before following the troubleshooting steps, make sure that the Automatic Transaxle On-Board Diagnostic and Automatic Transaxle Basic Inspection are conducted.

Diagnostic procedure

STEP	INSPECTION	ACTION
1	INSPECT SELECTOR LEVER POSITION SIGNAL FOR MALFUNCTION • With the ignition at the ON, does the gear position indicator light indication correspond to the selector lever position?	Yes Go to the next step.
		No Go to No.27 "GEAR POSITION INDICATOR LIGHT DOES NOT ILLUMINATE IN M POSITION" or No.28 "GEAR POSITION INDICATOR LIGHT ILLUMINATES IN P, R, N AND D POSITION"
2	INSPECT ENGINE CONTROL SYSTEM FOR MALFUNCTION • Go to No.12 "LACK/LOSS OF POWER-ACCELERATION/CRUISE". (See NO.12 LACK/ LOSS OF POWER-ACCELERATION/ CRUISE)	Yes Go to the next step.
		No Repair or replace any malfunctioning parts.

	[MZR 2.5].) Is the CIS system normal?		
3	DETERMINE IF MALFUNCTION CAUSE IS INPUT/ OUTPUT SIGNAL OR TRANSAXLE (INCLUDING CONTROL VALVE BODY) - Disconnect the solenoid connector. - Does the vehicle operate as follows? D position: 3GR (fixed) R position: Reverse	Yes	Go to the next step.
		No	Overhaul the control valve body and repair or replace any malfunctioning parts. (See Automatic Transaxle Workshop Manual FS5A-EL.) If any problem remains, overhaul the transaxle and repair or replace any malfunctioning parts. (See Automatic Transaxle Workshop Manual FS5A-EL.)
4	INSPECT INPUT SIGNAL PARTS FOR MALFUNCTION - Drive the vehicle in D position. - Does the vehicle start from stop in first gear?	Yes	Go to the next step.
		No	Inspect the value at the following PCM and TCM PIDs using the M-MDS. (See PCM INSPECTION [MZR 2.5].) (See ON-BOARD DIAGNOSTIC SYSTEM PID/ DATA MONITOR INSPECTION [FS5A-EL].) PCM PID: - APP TCM PIDs: - THOP - OSS - TSS - TR Repair or replace any malfunctioning parts.
5	INSPECT IF OUTPUT SIGNAL MALFUNCTION CAUSED BY MALFUNCTIONING INPUT SIGNAL Inspect the value at the following TCM PIDs using the M-MDS. (See ON-BOARD	Yes	Go to the next step.
		No	Inspect the value at the following PCM and TCM PIDs using the M-MDS. (See PCM INSPECTION [MZR 2.5].) (See ON-BOARD DIAGNOSTIC SYSTEM PID/ DATA

	DIAGNOSTIC SYSTEM PID/ DATA MONITOR INSPECTION [FS5A-EL] .) ▪ SSA/SS1 ▪ SSB/SS2 ▪ SSC/SS3 ▪ SSF_SS6 • Are the PID values normal?	MONITOR INSPECTION [FS5A-EL] .) PCM PID: • APP TCM PIDs: • THOP • OSS • TSS Repair or replace any malfunctioning parts.
6	INSPECT FOR TRANSAXLE INTERNAL MALFUNCTION • Perform the stall test. (See MECHANICAL SYSTEM TEST [FS5A-EL] .) • Is stall speed normal?	Yes Reverify symptoms of malfunction.
		No Overhaul the transaxle and repair or replace any malfunctioning parts. (See Automatic Transaxle Workshop Manual FS5A-EL.)
7	• Verify the test results. ▪ If normal, return to the diagnostic index to service any additional symptoms. ▪ If the malfunction remains, inspect the related Service Bulletins and/or On-line Repair Information and perform repair or diagnosis. • If the vehicle is repaired, troubleshooting is completed. • If the vehicle is not repaired or additional diagnostic information is not available, replace the TCM.	

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