

2012 - Mazda6 - Transmission/ Transaxle

NO.14 ENGINE FLARES UP OR SLIPS WHEN UPSHIFTING OR DOWNSHIFTING [AY6A-EL]

14	Engine flares up or slips when upshifting or downshifting
DESCRIPTION	• When the accelerator pedal is depressed for acceleration from standstill, engine speed increases but the vehicle speed increases slowly. • When the accelerator pedal is depressed while driving, engine speed increases but the vehicle speed does not.
POSSIBLE CAUSE	• There is clutch slippage because the clutch is stuck or the line pressure is low. ▪ Clutch stuck, slippage (C1 clutch, C2 clutch, C3 clutch, B1 brake) • Line pressure low • Incorrect accelerator opening signal • VSS malfunction • Input/turbine speed sensor malfunction • Sensor ground malfunction • Shift solenoid C malfunction • Shift solenoid D malfunction • Shift solenoid E malfunction • Line pressure control solenoid malfunction • TCC control solenoid malfunction • Shift solenoid F malfunction • Body ground malfunction • Control valve body malfunction • Not within ATF amount NOTE: • Before following the troubleshooting steps, make sure that the Automatic Transaxle On-Board Diagnostic and Automatic Transaxle Basic Inspection

are conducted. (See [BASIC INSPECTION \[AY6A-EL\]](#).)

Diagnostic procedure

STEP	INSPECTION	ACTION
1	INSPECT LINE PRESSURE Is the line pressure normal? (See MECHANICAL SYSTEM TEST [AY6A-EL] .)	YesGo to the next step.
		No Repair or replace any malfunctioning parts according to the inspection results.
2	VERIFY SHIFT POSITION Is shift point normal? (See ROAD TEST [AY6A-EL] .)	YesGo to the next step.
		No Go to No.9 "ABNORMAL SHIFTING".
3	INSPECT SHIFT SOLENOIDS CONTROL CIRCUIT FOR MALFUNCTION - Inspect the coupler component for open or short. - Are coupler component normal?	YesGo to the next step.
		No Replace the coupler component.
4	INSPECT SHIFT SOLENOIDS FOR MALFUNCTION - Stop the engine. - Inspect following solenoids. - Shift solenoid C (See SHIFT SOLENOID C INSPECTION [AY6A-EL].) - Shift solenoid D (See SHIFT SOLENOID D INSPECTION [AY6A-EL].) - Shift solenoid E (See SHIFT SOLENOID E INSPECTION [AY6A-EL].) - Line pressure control solenoid (See LINE PRESSURE CONTROL SOLENOID INSPECTION [AY6A-EL].) - TCC control solenoid (See TORQUE CONVERTER CLUTCH (TCC) CONTROL	YesGo to the next step.
		No Replace the control valve body. (See CONTROL VALVE BODY REMOVAL/ INSTALLATION [AY6A-EL] .)

	SOLENOID INSPECTION [AY6A-EL].) ▪ Shift solenoid F (See SHIFT SOLENOID F INSPECTION [AY6A-EL].) • Are they normal?		
5	VERIFY IF MALFUNCTION CAUSE IS TRANSAXLE (INCLUDING CONTROL VALVE BODY) OR ATF FLUID LEVEL • Inspect the ATF condition. • Are a metal specks found?	Yes If large amount of metal specks are found, replace the transaxle. (See AUTOMATIC TRANSAXLE REMOVAL/ INSTALLATION [AY6A-EL].) If a large amount of metal specks are not found, replace the control valve body. (See CONTROL VALVE BODY REMOVAL/ INSTALLATION [AY6A-EL].)	No Perform the "AUTOMATIC TRANSAXLE FLUID (ATF) LEVEL ADJUSTMENT" procedure. (See AUTOMATIC TRANSAXLE FLUID (ATF) LEVEL ADJUSTMENT [AY6A-EL].)
6	• Verify test results. ▪ If normal, return to the diagnostic index to service any additional symptoms. ▪ If malfunction remains, inspect the related Service Bulletins and/or On-line Repair Information and perform repair or diagnosis. • If the vehicle is repaired, troubleshooting completed. • If the vehicle is not repaired or additional diagnostic information is not available, replace the TCM.		

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are conducted. (See **BASIC INSPECTION [AY6A-EL]**.)

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