

2012 - Mazda6 - Transmission/ Transaxle

NO.28 GEAR POSITION INDICATOR LIGHT ILLUMINATE IN P, R OR N POSITION [AY6A-EL]

28	Gear position indicator light illuminate in P, R or N position
DESCRIPTION	Gear position indicator light in instrument cluster illuminates in P, R or N position and ignition switch at ON.
POSSIBLE CAUSE	- M position switch (built-in selector lever component), instrument cluster, or related wiring harness malfunction - Multiplex communication system malfunction (Shift position signal is incorrect.) - Between TCM and instrument cluster 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	VERIFY IF MALFUNCTION CAUSE IS MULTIPLEX COMMUNICATION SYSTEM - Retrieve any instrument cluster DTCs using the M-MDS. (See DTC INSPECTION [INSTRUMENT CLUSTER] .) - Are there any CAN communication DTCs displayed?	Yes Go to appropriate the DTC inspection. (See DTC TABLE [MULTIPLEX COMMUNICATION SYSTEM] .)
		No Go to the next step.
2	DETERMINE IF MALFUNCTION CAUSE IS M POSITION SWITCH SIGNAL OR INSTRUMENT CLUSTER Inspect the TCM PID MNL SW value	Yes Go to Step 4.
		No Go to the next step.

	using the M-MDS. (See ON-BOARD DIAGNOSTIC SYSTEM PID/ DATA MONITOR INSPECTION [AY6A-EL].) Is the PID value normal?		
3	VERIFY IF MALFUNCTION CAUSE IS M POSITION SWITCH OR M POSITION SWITCH RELATED WIRING HARNESS - Inspect the M position switch. (See M POSITION SWITCH INSPECTION [AY6A-EL].) - Is the M position switch normal?	Yes Inspect for open circuit in wiring harness between TCM terminal A7 and selector lever component terminal A. Repair or replace any malfunctioning part.	
		No Replace the M position switch. (See M POSITION SWITCH REMOVAL/ INSTALLATION [AY6A-EL].)	
4	INSPECT INSTRUMENT CLUSTER FOR MALFUNCTION - Inspect the instrument cluster. (See INSTRUMENT CLUSTER INSPECTION.) - Is instrument cluster normal?	Yes Go to the next step.	
		No Replace the instrument cluster. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION.)	
5	- 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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POSSIBLE CAUSE	• M position switch (built-in selector lever component), instrument cluster, or related wiring harness malfunction • Multiplex communication system malfunction (Shift position signal is incorrect.) ▪ Between TCM and instrument cluster 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	VERIFY IF MALFUNCTION CAUSE IS MULTIPLEX COMMUNICATION SYSTEM • Retrieve any instrument cluster DTCs using the M-MDS. (See DTC INSPECTION [INSTRUMENT CLUSTER] .)	Yes	Go to appropriate the DTC inspection. (See DTC TABLE [MULTIPLEX COMMUNICATION SYSTEM] .)
		No	Go to the next step.
2	DETERMINE IF MALFUNCTION CAUSE IS M POSITION SWITCH SIGNAL OR INSTRUMENT CLUSTER • Inspect the TCM PID MNL SW value	Yes	Go to Step 4.
		No	Go to the next step.

	using the M-MDS. (See ON-BOARD DIAGNOSTIC SYSTEM PID/ DATA MONITOR INSPECTION [AY6A-EL] .) Is the PID value normal?		
3	VERIFY IF MALFUNCTION CAUSE IS M POSITION SWITCH OR M POSITION SWITCH RELATED WIRING HARNESS - Inspect the M position switch. (See M POSITION SWITCH INSPECTION [AY6A-EL] .) - Is the M position switch normal?	Yes Inspect for open circuit in wiring harness between TCM terminal A7 and selector lever component terminal A. Repair or replace any malfunctioning part.	
		No Replace the M position switch. (See M POSITION SWITCH REMOVAL/ INSTALLATION [AY6A-EL] .)	
4	INSPECT INSTRUMENT CLUSTER FOR MALFUNCTION - Inspect the instrument cluster. (See INSTRUMENT CLUSTER INSPECTION .) - Is instrument cluster normal?	Yes Go to the next step.	
		No Replace the instrument cluster. (See INSTRUMENT CLUSTER REMOVAL/ INSTALLATION .)	
5	- 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.		