

2003 MY for Torque Converter Clutch Pressure Control Solenoid Performance (Shift Solenoid Valve SLU) Monitor (P2757)

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MONITOR STRATEGY

Required sensors/Components	Main	Shift solenoid valve SLU
	Sub	Valve body
Frequency of operation	Continuous	
Duration	2UZ-FE	(A) & OFF malfunction 2 sec. (A) & ON malfunction 1.8 sec.
	3UZ-FE (LS430, GS430)	OFF malfunction 2 sec. ON malfunction 1.8 sec.
	3UZ-FE (SC430)	More than 10 sec.
MIL operation	2 driving cycles	
Sequence of operation	None	

TYPICAL ENABLING CONDITIONS

Item	Specification	
	Minimum	Maximum
The monitor will run whenever the following DTCs are not present.		
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Engine family	Item	Specification
		Minimum Maximum

Component T/M Outputs – Solenoid

2UZ-FE	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	—
	Transmission range	"D"	
	Spark advance from MAX. retard timing by KSC control	0° CA or more	—
	Vehicle speed	25 km/h (16 mph) or more	—
	ECM selected gear	4th or 5th	
	Transfer neutral position switch	OFF	
	ECM	Not circuit malfunction	
	OFF malfunction		
	ECM lock-up command	ON (SLU pressure 513 kPa or more)	
	ECM selected gear	5th	
	Vehicle speed	—	Less than 100 km/h (62 mph)
	ON malfunction		
	ECM lock-up command	OFF (SLU pressure less than 4 kPa)	
	ECM selected gear	4th	
	Throttle valve opening angle	9 % or more	—
	Vehicle speed	—	Less than 60 km/h (37 mph)
3UZ-FE (LS430, GS430)	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	—
	Vehicle speed range	25 km/h (16 mph) or more	—
	Transmission range	"D"	
	Spark advance from MAX. retard timing by KSC control	0° CA or more	—
	ECM selected gear	4th or 5th	
	SLU solenoid circuit	Not circuit malfunction	
	OFF malfunction		
	ECM lock-up command	ON (SLU pressure 513 kPa or more)	
	ECM selected gear	5th	
	Vehicle speed	—	Less than 100 km/h (62 mph)
	ON malfunction		
	ECM lock-up command	OFF (SLU pressure less than 4 kPa)	
	ECM selected gear	4th	
	Throttle valve opening angle	9 % or more	—
	Vehicle speed	—	Less than 60 km/h (37 mph)

3UZ-FE (SC430)	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	—
	Vehicle speed range	25 km/h (16 mph) or more	—
	Transmission range	"D"	
	Spark advance from MAX. retard timing by KSC control	0° CA or more	—
	ECM selected gear	4th or 5th	
	OFF malfunction		
	ECM lock-up command	ON (SLU pressure 513 kPa or more)	
	ECM selected gear	5th	
	ECM selected gear at 3rd gear selected	Except 1st	
	Vehicle speed	—	Less than 100 km/h (62 mph)
	ON malfunction		
	ECM lock-up command	OFF (SLU pressure less than 4 kPa)	
	ECM selected gear	4th	
	Throttle valve opening angle	9 % or less	—
	Vehicle speed	—	Less than 60 km/h (37 mph)

TYPICAL MALFUNCTION THRESHOLDS

Engine family	Detection criteria	Threshold
All models	(A) & OFF malfunction	
	Engine speed – Output speed x 5th gear ratio (NE – NO x 5th gear ratio)	70 rpm or more
	[ON malfunction]	
	It is necessary 2 judgments/driving cycle 1st judgment; Temporary flag ON 2nd judgment; Pending fault code ON	
	(A) & ON malfunction	
	Engine speed – Input speed (NE – NT)	Less than 35 rpm