

2002 MY for Pressure Control Solenoid "A" Electrical (Shift Solenoid Valve SL1) Monitor (P0753)

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MONITOR STRATEGY

Required sensors/Components	Main	Shift solenoid valve No.1
	Sub	None
Frequency of operation	Continuous	
Duration	1AZ-FE, 2AZ-FE, 1MZ-FE (RX300, ES300, CAMRY, HIGH LANDER)	1 sec.
	1MZ-FE (SIENNA, AVALON, CAMRY SOLARA), 3RZ-FE, 5VZ-FE, 2UZ-FE, 3UZ-FE (LS430, GS430), 2JZ-GE, 2ZZ-GE, 1ZZ-FE (CELICA), 1NZ-FE	0.032 sec.
	3UZ-FE (SC430), 1ZZ-FE (COROLLA)	Less than 10 sec.
MIL operation	1MZ-FE (RX300, ES300, HIGH LANDER, CAMRY), 3UZ-FE (SC430), 2AZ-FE, 1ZZ-FE (COROLLA), 1AZ-FE	Immediate
	Except 1MZ-FE (RX300, ES300, HIGH LANDER, CAMRY), 3UZ-FE (SC430), 1ZZ-FE (COROLLA), 1AZ-FE	1 driving cycle
Sequence of operation	None	

TYPICAL ENABLING CONDITIONS

Item		Specification	
		Minimum	Maximum
The monitor will run whenever the following DTCs are not present.		See page In-39	
Engine family	Item	Specification	
		Minimum	Maximum
1MZ-FE (RX300, HIGH LANDER, CAMRY)	Condition (A)		
	Battery voltage	10 V or more	Less than 12 V
	Target duty ratio	–	Less than 75 %
	Starter	OFF	
	Condition (B)		
	Battery voltage	12 V or more	–
	Starter	OFF	
1MZ-FE (SIENNA, AVALON, CAMRY SOLARA), 3RZ-FE, 5VZ-FE, 2UZ-FE, 2ZZ-GE, 1ZZ-FE (CELICA), 1NZ-FE	Condition (A)		
	Solenoid	ON	
	Time after solenoid OFF to ON	More than 0.008 sec.	–
	Condition (B)		
	Solenoid	OFF	
	Time after solenoid ON to OFF	More than 0.008 sec.	–
3UZ-FE (SC430), 1ZZ-FE (COROLLA)	Range check (Low resistance)		
	Solenoid	ON (2 times)	
	Range check (High resistance)		
	Solenoid	OFF (2 times)	
2AZ-FE, 1AZ-FE, 1MZ-FE (ES300)	Starter	OFF	
	Solenoid current cut status	Not cut	
	Battery voltage	11 V or more	–
	CPU commanded duty	19 % or more	–
3UZ-FE (LS430, GS430), 2JZ-GE	Solenoid	ON	
	Time after solenoid OFF to ON	More than 0.008 sec.	–

TYPICAL MALFUNCTION THRESHOLDS

Engine family	Detection criteria	Threshold
1MZ-FE (RX300, HIGH LANDER, CAMRY)	(A) & (B)	
	Output signal duty	100 % or more
1MZ-FE (SIENNA, AVALON, CAMRY SOLARA), 3RZ-FE, 5VZ-FE, 2UZ-FE, 2ZZ-GE, 1ZZ-FE (CELICA)	Either (A) or (B) is met	
	Condition (A)	
	Number of solenoid ON/OFF change with intelligent power MOS diagnosis signal failure (Fail at solenoid resistance 8 Ω or less)	2 times Fail, 2 times (0.016 sec.)
	Condition (B)	
	Number of solenoid ON/OFF change with intelligent power MOS diagnosis signal failure (Fail at solenoid resistance 100 k Ω or more)	2 times Fail, 2 times (0.016 sec.)
1MZ-FE (ES300), 1AZ-FE, 2AZ-FE	Solenoid status from IC	Fail
3UZ-FE (SC430), 1ZZ-FE (COROLLA)	Range check (Low resistance)	
	Solenoid resistance	8 Ω or less
	Range check (High resistance)	
	Solenoid resistance	100 k Ω or more
3UZ-FE (LS430, GS430), 2JZ-GE	Number of solenoid ON/OFF change with intelligent power MOS diagnosis signal failure (Fail at solenoid resistance 8 Ω less)	2 times Fail, 2 times (0.016 sec.)
1NZ-FE	Range check (Low resistance)	
	Number of solenoid ON/OFF change with intelligent power MOS diagnosis signal failure (Fail at solenoid resistance 8 Ω or less)	2 times Fail, 2 times (0.016 sec.)
	Range check (High resistance)	
	Number of solenoid ON/OFF change with intelligent power MOS diagnosis signal failure (Fail at solenoid resistance 100 k Ω or more)	2 times Fail, 2 times (0.016 sec.)