

2002 MY for Shift Solenoid "E" Control Circuit (Shift Solenoid Valve SR) Monitor (P1818)

To return to monitor description, see page [Cm-377](#).

MONITOR STRATEGY

Required sensors/Components	Main	Shift solenoid valve SR
	Sub	None
Frequency of operation	Continuous	
Duration	1MZ-FE (ES300)	1 sec.
	3RZ-FE	0.032 sec.
MIL operation	Immediate	
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
3RZ-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.	–
1MZ-FE (ES300)	Starter	OFF	
	Solenoid current cut status	Not cut	
	Battery voltage	11 V or more	–
	CPU commanded duty	19 % or more	–

TYPICAL MALFUNCTION THRESHOLDS

Engine family	Detection criteria	Threshold
3RZ-FE	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)	Solenoid status from IC	Fail