

2002 MY for Shift Solenoid "E" Performance (Shift Solenoid Valve SR) Monitor (P1815)

To return to monitor description, see page [Cm-342](#).

MONITOR STRATEGY

Required sensors/Components	Main	Shift solenoid valve SR
	Sub	None
Frequency of operation	Continuous	
Duration	(A) & OFF malfunction (A) 1 sec. (A) & OFF malfunction (B) 3.5 sec. (A) & ON malfunction (A) Immediate (A) & (ON malfunction (B), ON malfunction (C)) 0.8 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.		See page In-39	
Engine family	Item	Specification	
		Minimum	Maximum
All models	Condition (A)		
	Engine coolant temperature	10 °C (50 °F) or more	–
	Transmission range	"D"	
	Transmission fluid temperature	20 °C (–4 °F) or more	–
	Transmission fluid temperature sensor circuit	Not circuit malfunction	
	ECT sensor circuit	Not circuit malfunction	
	Input shaft speed sensor circuit	Not circuit malfunction	
	Internal counter shaft speed sensor circuit	Not circuit malfunction	
	Output shaft speed sensor circuit	Not circuit malfunction	
	Shift solenoid "A" circuit	Not circuit malfunction	
	Shift solenoid "B" circuit	Not circuit malfunction	
	Shift solenoid "C" circuit	Not circuit malfunction	
	Shift solenoid "D" circuit	Not circuit malfunction	
	"SR" solenoid circuit	Not circuit malfunction	
	Shift solenoid "E" circuit	Not circuit malfunction	
	OFF malfunction (A)		
	ECM selected gear	5th	
	Throttle valve opening angel	5 % or more	–
	Vehicle speed	10 km/h (6 mph) or more	–
	OFF malfunction (B)		
	ECM lock–up command	ON	
	ECM selected gear	3rd or 4th or 5th	
	Vehicle speed	25 km/h (16 mph) or more	–
	ON malfunction (A)		
	ECM lock–up command	OFF	
	ON malfunction (B)		
	ECM selected gear	1st	
	Vehicle speed	–	Less than 40 km/h (25 mph)
	Throttle valve opening angle	4.5 % or more at engine speed 1,900 rpm (condition vary with engine speed)	–
	ON malfunction (C)		
	ECM selected gear	3rd	
	Throttle valve opening angle	4.5 % or more at engine speed 1,900 rpm (condition vary with engine speed)	–
	ON malfunction (D)		
	ECM selected gear	4th or 5th	

TYPICAL MALFUNCTION THRESHOLDS

Engine family	Detection criteria	Threshold
All models	Following condition met (a. and b.) or (c. and d. and e. and f.)	
	a. = (A) & OFF malfunction (A)	
	Intermediate speed/Output speed (NC/NO)	$1.34 \leq \text{NC/NO} < 1.48$
	b. = (A) & OFF malfunction (B)	
	Engine speed – Input speed (NE – NT)	
	When condition "a." of shift solenoid "D" is detected:	75 rpm or more
	When condition "a." of shift solenoid "D" is not detected:	100 rpm or more
	c. = (A) & ON malfunction (A)	
	Engine speed – Input speed (NE – NT)	150 rpm or more
	d. = (A) & ON malfunction (B)	
	Input speed/Intermediate speed (NT – NC)	$0.93 \leq \text{NT/NC} < 1.07$
	e. = (A) & ON malfunction (C)	
	Input speed/Intermediate speed (NT – NC)	$0.93 \leq \text{NT/NC} < 1.07$
	f. = (A) & ON malfunction (D)	
	Input speed/Intermediate speed (NT – NC)	$0.64 \leq \text{NT/NC} < 0.74$