

2002 MY for T/F L4 Range Position Switch Performance Monitor (P1782)

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MONITOR STRATEGY

Required sensors/Components	Main	Transfer L4 position switch
	Sub	None
Frequency of operation	Continuous	
Duration	3RZ-FE	ON malfunction 1.8 sec.
	Except 3RZ-FE	(A) & ON malfunction 1.8 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
3RZ-FE	Condition (A)		
	Intake air temperature	-10 °C (14 °F) or more	Less than 90 °C (194 °F)
	Engine coolant temperature	55 °C (131 °F) or more	Less than 105 °C (221 °F)
	Transmission range	"D"	
	Shift solenoid "A" circuit	Not circuit malfunction	
	Shift solenoid "B" circuit	Not circuit malfunction	
	Shift solenoid "E" circuit	Not circuit malfunction	
	Battery voltage	10 V or more	-
	Spark retard by KCS control	2° CA or more	-
	Transfer range "Hi" [4WD]		
	Vehicle speed sensor circuit	Not circuit malfunction	
	Output shaft speed sensor circuit	Not circuit malfunction	
	Throttle valve opening angle	0 % or more	-
	Transfer neutral position switch	OFF	
	ON malfunction		
	NOTf	750 rpm or more	Less than 3,000 rpm

5VZ-FE	Condition (A)		
	Intake air temperature	-10 °C (14 °F) or more	Less than 70 °C (158 °F)
	Engine coolant temperature	60 °C (140 °F) or more	Less than 105 °C (221 °F)
	Transmission range	"D"	
	Shift solenoid "A" circuit	Not circuit malfunction	
	Shift solenoid "B" circuit	Not circuit malfunction	
	Shift solenoid "E" circuit	Not circuit malfunction	
	Battery voltage	10 V or more	-
	Spark retard by KCS control	-	Less than 8° CA
	Transfer range "Hi" [4WD]		
	Vehicle speed sensor circuit	Not circuit malfunction	
	Output speed sensor circuit	Not circuit malfunction	
	Throttle valve opening angle	0 % or more	-
	Transfer neutral position switch	OFF	
	ON malfunction		
	NOTf	750 rpm or more	Less than 3,000 rpm
2UZ-FE	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	-
	Transmission range	"D"	
	Shift solenoid "A" circuit	Not circuit malfunction	
	Shift solenoid "B" circuit	Not circuit malfunction	
	Shift solenoid "E" circuit	Not circuit malfunction	
	Battery voltage	10 V or more	-
	Spark retard by KCS control	0° CA or more	-
	Transfer range "Hi" [4WD]		
	Vehicle speed sensor circuit	Not circuit malfunction	
	Output shaft speed sensor circuit	Not circuit malfunction	
	Throttle valve opening angle	0 % or more	-
	Transfer neutral position switch	OFF	
	ON malfunction		
	NOTf	750 rpm or more	Less than 3,000 rpm

TYPICAL MALFUNCTION THRESHOLDS

Engine family	Detection criteria	Threshold
3RZ-FE	ON malfunction	
	Compare transfer range with L4 switch signal	Transfer range "Hi" and L4 switch ON
Except 3RZ-FE	(A) & ON malfunction	
	Compare transfer range with L4 switch signal	Transfer range "Hi" and L4 switch ON