

2003 MY for Shift Solenoid "B" Performance (Shift Solenoid Valve S2) Monitor (P0756)

2003 MY for Pressure Control Solenoid "B" Performance (Shift Solenoid Valve SL2) Monitor (P0756)

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MONITOR STRATEGY

Required sensors/Components	Main	Shift solenoid valve No.2
	Sub	None
Frequency of operation	Continuous	
Duration	1MZ-FE	1 sec.
	3RZ-FE, 2JZ-GE, 3UZ-FE, 5VZ-FE, 1ZZ-FE	Less than 10 sec.
	1ZZ-FE (CELICA), 1NZ-FE	0.85 sec.
	2UZ-FE (SEQUOIA, TUNDRA)	0.5 sec.
	2UZ-FE (GX470, 4RUNNER, LAND CRUISER, LX470)	(A) & OFF malfunction (C), (A) & OFF malfunction (D), (A) & OFF malfunction (A), (A) & OFF malfunction (B), (A) & ON malfunction (A), (A) & ON malfunction (B) 0.4 sec. (A) & ON malfunction (C), (A) & ON malfunction (D) 0.5 sec.
	1GR-FE	(A) & OFF malfunction (A), (A) & OFF malfunction (B) 0.4 sec. (A) & ON malfunction (A), (A) & ON malfunction (B), (A) & ON malfunction (C) 0.5 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	
Item		Specification	
		Minimum	Maximum
2JZ-GE	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	–
	Transmission range	"D"	
	Spark advance from Max. retard timing by KCS control	0° CA or more	–
	Neutral Start Switch circuit	Not circuit malfunction	
	Shift Solenoid "A" (S1) circuit	Not circuit malfunction	
	Shift Solenoid "B" (S2) circuit	Not circuit malfunction	
	Shift Solenoid "C" (S3) circuit	Not circuit malfunction	
	Shift Solenoid "D" (S4) circuit	Not circuit malfunction	
	ECT Sensor circuit	Not circuit malfunction	
	OFF malfunction (A)		
	ECM selected gear	1st	
	Vehicle speed	2 km/h (1 mph) or more	Less than 40 km/h (25 mph)
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	OFF malfunction (B)		
	ECM selected gear	2nd	
	Vehicle speed	2 km/h (1 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	OFF malfunction (C)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4th	
	Vehicle speed	2 km/h (1 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	OFF malfunction (D)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4th	
	ON malfunction (A)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4th	
	Vehicle speed	2 km/h (1 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–

Component T/M Outputs – Solenoid

2JZ-GE	ON malfunction (B)		
	ECM selected gear	5th	
	Vehicle speed	2 km/h (1 mph) or more	—
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	—
	ON malfunction (C)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4th	
3UZ-FE	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	—
	Transmission range	"D"	
	Spark advance from Max. retard timing by KCS control	0° CA or more	—
	Neutral Start Switch circuit	Not circuit malfunction	
	Shift Solenoid "A" (S1) circuit	Not circuit malfunction	
	Shift Solenoid "B" (S2) circuit	Not circuit malfunction	
	Shift Solenoid "C" (S3) circuit	Not circuit malfunction	
	Shift Solenoid "D" (S4) circuit	Not circuit malfunction	
	ECT Sensor circuit	Not circuit malfunction	
	OFF malfunction (A)		
	ECM selected gear	1st	
	Vehicle speed	2 km/h (1 mph) or more	Less than 40 km/h (25 mph)
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	—
	OFF malfunction (B)		
	ECM selected gear	2nd	
	Vehicle speed	2 km/h (1 mph) or more	—
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	—
	OFF malfunction (C)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4th	
	Vehicle speed	2 km/h (1 mph) or more	—
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	—
	OFF malfunction (D)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4th	

3UZ-FE	ON malfunction (A)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4th	
	Vehicle speed	2 km/h (1 mph) or more	—
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	—
	ON malfunction (B)		
	ECM selected gear	5th	
	Vehicle speed	2 km/h (1 mph) or more	—
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	—
	ON malfunction (C)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4th	
2UZ-FE (GX470, LAND CRUISER, LX470, 4RUNNER)	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	—
	Transmission range	"D"	
	Spark advance from Max. retard timing by KCS control	0° CA or more	—
	Transfer range "Hi" [4WD]		
	Vehicle Speed Sensor "A" circuit	Not circuit malfunction	
	Output Speed Sensor circuit	Not circuit malfunction	
	ECM	Not circuit malfunction	
	OFF malfunction (A)		
	ECM selected gear	1st	
	Vehicle speed	2 km/h (1 mph) or more	Less than 40 km/h (25 mph)
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	—
	OFF malfunction (B)		
	ECM selected gear	2nd	
	Vehicle speed	≥ 2 km/h (1 mph) and ≥ 2nd-1st down shift point	—
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	—
	OFF malfunction (C)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4th	
	Vehicle speed	2 km/h (1 mph) or more	—
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	—
	OFF malfunction (D)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4th	

Component T/M Outputs – Solenoid

2UZ-FE (GX470, LAND CRUISER, LX470, 4RUNNER)	ON malfunction (A)		
	ECM selected gear	1st	
	Vehicle speed	2 km/h (1 mph) or more	Less than 40 km/h (25 mph)
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	ON malfunction (B)		
	ECM selected gear	4th	
	Vehicle speed	2 km/h (1 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	ON malfunction (C)		
	Current ECM selected gear	5th	
	Last ECM selected gear (During 4 to 5 shift)	4th	
	Vehicle speed	–	Less than 100 km/h (62 mph)
	ON malfunction (D)		
	ECM selected gear	5th	
	(After 4 to 5 shift) Vehicle speed	–	Less than 100 km/h (62 mph)

2UZ-FE (SEQUOIA, TUNDRA)	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	–
	Transmission range	"D"	
	Shift Solenoid "A" (S1) circuit	Not circuit malfunction	
	Shift Solenoid "B" (S2) 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 "A" circuit	Not circuit malfunction	
	Output Speed Sensor circuit	Not circuit malfunction	
	Throttle valve opening angle	0 % or more	–
	OFF malfunction (A)		
	ECM selected gear	2nd	
	Vehicle speed	3 km/h (2 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	OFF malfunction (B)		
	ECM selected gear	3rd	
	Vehicle speed	3 km/h (2 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	ON malfunction (A)		
	ECM selected gear	1st	
	Vehicle speed	3 km/h (2 mph) or more	Less than 40 km/h (25 mph)
	Throttle valve opening angle	15 % or more and 6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	ON malfunction (B)		
	ECM selected gear	3rd	
	Vehicle speed	3 km/h (2 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	ON malfunction (C)		
	ECM selected gear	4th	
	Vehicle speed	3 km/h (2 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–

Component T/M Outputs – Solenoid

1GR-FE	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	–
	Transmission range	"D"	
	Shift Solenoid "A" (S1) circuit	Not circuit malfunction	
	Shift Solenoid "B" (S2) circuit	Not circuit malfunction	
	Spark retard by KCS control	0° CA or more	–
	Transfer range "Hi" [4WD]		
	Vehicle Speed Sensor "A" circuit	Not circuit malfunction	
	Output Speed Sensor circuit	Not circuit malfunction	
	Throttle valve opening angle	0 % or more	–
	OFF malfunction (A)		
	ECM selected gear	2nd	
	Vehicle speed	3 km/h (2 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	OFF malfunction (B)		
	ECM selected gear	3rd	
	Vehicle speed	3 km/h (2 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	ON malfunction (A)		
	ECM selected gear	1st	
	Vehicle speed	3 km/h (2 mph) or more	Less than 40 km/h (25 mph)
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	ON malfunction (B)		
	ECM selected gear	3rd	
	Vehicle speed	3 km/h (2 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–
	ON malfunction (C)		
	ECM selected gear	4th	
	Vehicle speed	3 km/h (2 mph) or more	–
	Throttle valve opening angle	6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	–

1MZ-FE	Condition (A)		
	Engine coolant temperature	60 °C (140 °F) or more	—
	Transmission range	"D"	
	ECT sensor circuit	Not circuit malfunction	
	Shift Solenoid "A" (S1) circuit	Not circuit malfunction	
	Shift Solenoid "B" (S2) circuit	Not circuit malfunction	
	OFF malfunction (A)		
	ECM selected gear	2nd	
	Throttle valve opening angle	10.5 % or more at engine speed 3,000 rpm (condition vary with engine speed)	—
	Vehicle speed	10 km/h (6 mph) or more	—
	OFF malfunction (B)		
	ECM selected gear	3rd	
	Throttle valve opening angle	10.5 % or more at engine speed 3,000 rpm (condition vary with engine speed)	—
	Vehicle speed	10 km/h (6 mph) or more	—
	OFF malfunction (C)		
	ECM selected gear	4th	
	Throttle valve opening angle	10.5 % or more at engine speed 3,000 rpm (condition vary with engine speed)	—
	Vehicle speed	10 km/h (6 mph) or more	—
	ON malfunction (A)		
	ECM selected gear	1st	
	Vehicle speed	10 km/h (6 mph) or more	Less than 40 km/h (25 mph)
	Throttle valve opening angle	10.5 % or more at engine speed 3,000 rpm (condition vary with engine speed)	—
	ON malfunction (B)		
	ECM selected gear	3rd	
	Vehicle speed	3 km/h (2 mph) or more	—
	Throttle valve opening angle	10.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	—
	Vehicle speed	10 km/h (6 mph) or more	—
	ON malfunction (C)		
	ECM selected gear	4th	
	Throttle valve opening angle	10.5 % or more at engine speed 3,000 rpm (condition vary with engine speed)	—
	Vehicle speed	10 km/h (6 mph) or more	—

Component T/M Outputs – Solenoid

1ZZ-FE (CELICA)	Condition (A)		
	Engine coolant temperature	60 °C (140 °F) or more	—
	Transmission range	"D"	
	ECT sensor circuit	Not circuit malfunction	
	Shift Solenoid "A" (S1) circuit	Not circuit malfunction	
	Shift Solenoid "B" (S2) circuit	Not circuit malfunction	
	Input (Turbine) speed sensor circuit	Not circuit malfunction	
	Internal counter shaft speed sensor circuit	Not circuit malfunction	
	OFF malfunction (A)		
	ECM selected gear	1st	
	Vehicle speed	10 km/h (6 mph) or more	Less than 40 km/h (25 mph)
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—
	OFF malfunction (B)		
	ECM selected gear	3rd	
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—
	OFF malfunction (C)		
	ECM selected gear	4th	
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—
	ON malfunction (A)		
	ECM selected gear	2nd	
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—
	ON malfunction (B)		
	ECM selected gear	3rd	
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—
	ON malfunction (C)		
	ECM selected gear	4th	
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—

1NZ-FE	Condition (A)		
	Engine coolant temperature	60 °C (140 °F) or more	—
	Transmission range	"D"	
	Shift solenoid "A" (S1) circuit	Not circuit malfunction	
	Shift solenoid "B" (S2) circuit	Not circuit malfunction	
	ECT sensor circuit	Not circuit malfunction	
	Input (Turbine) speed sensor circuit	Not circuit malfunction	
	Vehicle speed sensor circuit	Not circuit malfunction	
	OFF malfunction (A)		
	ECM selected gear	1st	
	Vehicle speed	9 km/h (6 mph) or more	Less than 40 km/h (25 mph)
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—
	OFF malfunction (B)		
	ECM selected gear	3rd	
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—
	OFF malfunction (C)		
	ECM selected gear	4th	
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—
	ON malfunction (A)		
	ECM selected gear	2nd	
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—
	ON malfunction (B)		
	ECM selected gear	3rd	
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—
	ON malfunction (C)		
	ECM selected gear	4th	
	Throttle valve opening angle	7.0 % or more at engine speed 1,900 rpm (condition vary with engine speed)	—

Component T/M Outputs – Solenoid

5VZ–FE (Prerunner), 5VZ–FE 2WD (TACOMA)	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" (S1) circuit	Not circuit malfunction	
	Shift solenoid "B" (S2) circuit	Not circuit malfunction	
	Torque converter clutch solenoid (SL) circuit	Not circuit malfunction	
	Battery voltage	10 V or more	–
	Spark retard by KCS control	–	Less than 8° CA
	OFF malfunction		
	ECM selected gear	2nd	
	Throttle valve opening angle	10 % or more	Less than 30 %
	ON malfunction		
	ECM selected gear	4th with lock up	
5VZ–FE (TUNDRA), 5VZ–FE 4WD (TACOMA)	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" (S1) circuit	Not circuit malfunction	
	Shift solenoid "B" (S2) circuit	Not circuit malfunction	
	Torque converter clutch solenoid (SL) 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 "A" circuit	Not circuit malfunction	
	Output speed sensor circuit	Not circuit malfunction	
	Throttle valve opening angle	0 % or more	–
	OFF malfunction		
	ECM selected gear	2nd	
	Throttle valve opening angle	10 % or more	Less than 30 %
	ON malfunction		
	ECM selected gear	4th with lock up	

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"	
	Torque converter clutch solenoid (SL) circuit	Not circuit malfunction	
	Shift solenoid "A" (S1) circuit	Not circuit malfunction	
	Shift solenoid "B" (S2) 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 "A" circuit	Not circuit malfunction	
	Output speed sensor circuit	Not circuit malfunction	
	Throttle valve opening angle	0 % or more	–
	OFF malfunction		
	ECM selected gear	2nd	
	Throttle valve opening angle	12 % or more	Less than 35 %
	ON malfunction		
	ECM selected gear	4th with lock up	

TYPICAL MALFUNCTION THRESHOLDS

Engine family	Detection criteria	Threshold
3UZ-FE, 2JZ-GE	OFF malfunction	
	Following conditions met a. and b. and c. and d.	
	It is necessary 2 judgments/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) & OFF malfunction (A)	
	Input speed/Output speed (NC0/NO)	$3.14 \leq \text{NC0/NO} \leq 7.34$
	b. = (A) & OFF malfunction (B)	
	Input speed/Output speed (NC0/NO)	$3.14 \leq \text{NC0/NO} \leq 7.34$
	c. = (A) & OFF malfunction (C)	
	Input speed/Output speed (NC0/NO)	Change as follows $0.93 \leq \text{NC0/NO} \leq 1.07$ ↓ $0.00 \leq \text{NC0/NO} \leq 0.20$
	d. = (A) & OFF malfunction (D)	
	Output record from ECM for 4th → 5th upshifting	Recorded
	ON malfunction	
	Following conditions met a. and b. and c.	
	It is necessary 2 judgments/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) & ON malfunction (A)	
	Input speed/Output speed (NC0/NO)	Not change as follows $0.93 \leq \text{NC0/NO} \leq 1.07$ ↓ $0.00 \leq \text{NC0/NO} \leq 0.20$
	b. = (A) & ON malfunction (B)	
	Input speed/Output speed (NC0/NO)	$1.30 \leq \text{NC0/NO} \leq 1.55$
	c. = (A) & ON malfunction (C)	
	Output record from ECM for 4th → 5th upshifting	Recorded

2UZ-FE (GX470, LAND CRUISER, LX470, 4RUNNER)	OFF malfunction	
	Following conditions met a. and b. and c. and d.	
	It is necessary 2 judgments/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) and OFF malfunction (A)	
	Input speed/Output speed (NT/NO)	$3.30 \leq \text{NT/NO} \leq 7.50$
	b. = (A) and OFF malfunction (B)	
	Input speed/Output speed (NT/NO)	$3.30 \leq \text{NT/NO} \leq 7.50$
	c. = (A) and OFF malfunction (C)	
	Input speed/Output speed (NT/NO)	Not change as follows $0.93 \leq \text{NC0/NO} \leq 1.07$ ↓ $0.65 \leq \text{NC0/NO} \leq 0.79$
	d. = (A) & OFF malfunction (D)	
	Output record from ECM for 4th → 5th upshifting	Recorded
	ON malfunction	
	Following conditions met (a. or b.) and (c. or d.)	
	a. = (A) and ON malfunction (A)	
	Input speed/Output speed (NT/NO)	$1.91 \leq \text{NT/NO} \leq 2.35$
	b. = (A) and ON malfunction (B)	
	Input speed/Output speed (NT/NO)	$1.28 \leq \text{NT/NO} \leq 1.53$
	c. = (A) and ON malfunction (C)	
	Input speed – Output speed x 4th gear ratio (NT – NO x 4th gear ratio)	1,000 rpm or more
	d. = (A) & ON malfunction (D)	
	Input speed – Output speed x 4th gear ratio (NT – NO x 4th gear ratio)	1,000 rpm or more
2UZ-FE (TUNDRA, SEQUOIA)	OFF malfunction	
	Following conditions met a. and b.	
	a. = (A) & OFF malfunction (A)	
	Input speed/Output speed (NC0/NO)	$2.63 \leq \text{NC0/NO} \leq 3.20$
	b. = (A) & OFF malfunction (B)	
	Input speed/Output speed (NC0/NO)	$0.00 \leq \text{NC0/NO} \leq 0.22$
	ON malfunction	
	Following conditions met a. and b. and c.	
	It is necessary 2 judgments/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) & ON malfunction (A)	
	Input speed/Output speed (NC0/NO)	$1.40 \leq \text{NC0/NO} \leq 1.67$
	b. = (A) & ON malfunction (B)	
	Input speed/Output speed (NC0/NO)	$0.93 \leq \text{NC0/NO} \leq 1.07$
	c. = (A) & ON malfunction (C)	
	Input speed/Output speed (NC0/NO)	$0.93 \leq \text{NC0/NO} \leq 1.07$

Component T/M Outputs – Solenoid

1GR-FE	OFF malfunction	
	Following conditions met a. and b.	
	It is necessary 2 judgments/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) & OFF malfunction (A)	
	Input speed/Output speed (NC0/NO)	$2.63 \leq \text{NC0/NO} \leq 3.20$
	b. = (A) & OFF malfunction (B)	
	Input speed/Output speed (NC0/NO)	$0.00 \leq \text{NC0/NO} \leq 0.22$
	ON malfunction	
	Following conditions met a. and b. and c.	
	It is necessary 2 judgments/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) & ON malfunction (A)	
	Input speed/Output speed (NC0/NO)	$1.40 \leq \text{NC0/NO} \leq 1.67$
	b. = (A) & ON malfunction (B)	
	Input speed/Output speed (NC0/NO)	$0.93 \leq \text{NC0/NO} \leq 1.07$
1MZ-FE	OFF malfunction	
	Following conditions met a. and b. and c.	
	It is necessary 2 judgments/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) & OFF malfunction (A)	
	Input speed/Output speed (NC2/NO)	$2.07 \leq \text{NC2/NO} \leq 2.37$
	b. = (A) & OFF malfunction (B)	
	Input speed/Output speed (NC2/NO)	$0.63 \leq \text{NC2/NO} \leq 0.77$
	c. = (A) & OFF malfunction (C)	
	Input speed/Output speed (NC2/NO)	$0.63 \leq \text{NC2/NO} \leq 0.77$
	ON malfunction	
	Following conditions met a. and b. and c.	
	It is necessary 2 judgments/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) & ON malfunction (A)	
	Input speed/Output speed (NC2/NO)	$0.00 \leq \text{NC2/NO} \leq 0.20$
	b. = (A) & ON malfunction (B)	
	Input speed/Output speed (NC2/NO)	$0.88 \leq \text{NC2/NO} \leq 1.02$
	c. = (A) & ON malfunction (C)	
	Input speed/Output speed (NC2/NO)	$0.88 \leq \text{NC2/NO} \leq 1.02$

1NZ-FE, 1ZZ-FE (CELICA)	OFF malfunction	
	Following conditions met a. and b. and c.	
	It is necessary 2 judgments/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) & OFF malfunction (A)	
	Input speed/Output speed (NT/NO)	$1.50 \leq \text{NT/NO} \leq 1.80$
	b. = (A) & OFF malfunction (B)	
	Input speed/Output speed (NT/NO)	$0.95 \leq \text{NT/NO} \leq 1.09$
	c. = (A) & OFF malfunction (C)	
	Input speed/Output speed (NT/NO)	$0.95 \leq \text{NT/NO} \leq 1.09$
	ON malfunction	
	Following conditions met a. and b. and c.	
	a. = (A) & ON malfunction (A)	
	Input speed/Output speed (NT/NO)	$2.75 \leq \text{NT/NO} \leq 3.35$
	b. = (A) & ON malfunction (B)	
	Input speed/Output speed (NT/NO)	$0.64 \leq \text{NT/NO} \leq 0.78$
3RZ-FE, 5VZ-FE	Following condition met a. or b.	
	It is necessary 2 judgments/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) & OFF malfunction	
	Engine speed	$\geq 1\text{st gear ratio} \times \text{NO rpm}$
	b. = (A) & ON malfunction	
	Engine speed	$\geq 3\text{rd gear ratio} \times \text{NO} - 50 \text{ rpm}$ and $< 3\text{rd gear ratio} \times \text{NO} + 50 \text{ rpm}$