

1999 MY for Pressure Control Solenoid "A" Performance (Shift Solenoid Valve SL1) Monitor (P0750)

1999 MY for Shift Solenoid "A" Performance (Shift Solenoid Valve S1) Monitor (P0750)

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MONITOR STRATEGY

Required sensors/Components	Main	Shift solenoid valve No.1
	Sub	None
Frequency of operation	Continuous	
Duration	Less than 10 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
5E-FE (TERCEL, PASEO)	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"	
	Battery voltage	10 V or more	-
	Spark retard by KCS control	-	Less than 10° CA
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	20 % or more	-
	ON malfunction		
	ECM selected gear	4th	
	Throttle valve opening angle	15 % or more	Less than 35 %

Component T/M Outputs – Solenoid

1ZZ-FE (COROLLA)	Condition (A)		
	Intake air temperature	-10 °C (14 °F) or more	Less than 70 °C (158 °F)
	Engine coolant temperature	55 °C (131 °F) or more	Less than 105 °C (221 °F)
	Transmission range	"D"	
	Battery voltage	10 V or more	–
	Spark retard by KCS control	9° CA or more	–
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	30 % or more	–
	ON malfunction		
	ECM selected gear	4th	
	Throttle valve opening angle	12 % or more	Less than 35 %
5S-FE (CELICA/Calif. & Fed.)	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"	
	Spark retard by KCS control	–	Less than 10° CA
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	25 % or more	–
	ON malfunction		
	ECM selected gear	4th	
	Throttle valve opening angle	13 % or more	Less than 30 %
5S-FE (CAMRY, CAMRY SOLA-RA) (Calif./Fed.)	Condition (A)		
	Intake air temperature	-10 °C (14 °F)	70 °C (158 °F)
	Engine coolant temperature	60 °C (140 °F)	105 °C (221 °F)
	Transmission range	"D"	
	Spark retard by KCS control	–	Less than 10° CA
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	35 % or more	–
	ON malfunction		
	ECM selected gear	4th	
	Throttle valve opening angle	13 %	38 %
3S-FE (RAV4/Calif./2WD)	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"	
	Battery voltage	10 V or more	–
	Spark retard by KCS control	10° CA or more	–
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	35 % or more	–
	ON malfunction		
	ECM selected gear	4th	
	Throttle valve opening angle	7 % or more	Less than 38 %

3S-FE (RAV4/Fed./2WD)	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"	
	Battery voltage	10 V or more	–
	Spark retard by KCS control	10° CA or more	–
	OFF malfunction (A)		
	ECM selected gear	1st	
	Battery voltage	11 V or more	–
	Service connector & OBD check mode conditions	Service connector OFF or (OBD check mode & idle ON)	
	Throttle position leaning	Completed	
	Coolant temperature at engine start	-10 °C (14 °F) or more	–
	OFF malfunction (B)		
	ECM selected gear	1st	
	Throttle valve opening angle	35 % or more	–
	ON malfunction		
	ECM selected gear	4th	
	Throttle valve opening angle	7 % or more	Less than 38 %
3S-FE (RAV4/Calif./4WD) (RAV4/Fed./4WD)	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"	
	Battery voltage	10 V or more	–
	Spark retard by KCS control	10° CA or more	–
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	35 % or more	–
	ON malfunction		
	ECM selected gear	4th	
	Throttle valve opening angle	15 % or more	Less than 38 %
1MZ-FE (SIENNA/Calif. & Fed.)	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"	
	Battery voltage	10 V or more	–
	Spark retard by KCS control	10° CA or more	–
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	25 % or more	–
	ON malfunction		
	ECM selected gear	4th	
	Throttle valve opening angle	13 % or more	Less than 30 %

Component T/M Outputs – Solenoid

3RZ-FE (Prerunner)	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"	
	Battery voltage	10 V or more	-
	Spark retard by KCS control	-	Less than 10° CA
	Transfer range "Hi" [4WD]		
	Throttle valve opening angle	0 % or more	-
	Vehicle speed	5 km/h (3 mph) or more	-
	Transmission fluid temperature	-	Less than 130 °C (266 °F) (hysteresis 110 °C (230 °F))
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	80 % or more	-
	ON malfunction		
	ECM selected gear	4th	
3RZ-FE (TACOMA)	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"	
	Battery voltage	10 V or more	-
	Spark retard by KCS control	-	Less than 10° CA
	Transfer range "Hi" [4WD]		
	Throttle valve opening angle	0 % or more	-
	Vehicle speed	5 km/h (3 mph) or more	-
	Transmission fluid temperature	-	Less than 130 °C (266 °F) (hysteresis 110 °C (230 °F))
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	80 % or more	-
	ON malfunction		
	ECM selected gear	4th	-
Throttle valve opening angle	14 % or more	Less than 45 %	

3RZ-FE (4RUNNER)	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"	
	Battery voltage	10 V or more	–
	Spark retard by KCS control	–	Less than 10° CA
	Transfer range "Hi" [4WD]		
	Throttle valve opening angle	0 % or more	–
	Vehicle speed	5 km/h (3 mph) or more	–
	Transmission fluid temperature	–	Less than 130 °C (266 °F) (hysteresis 110 °C (230 °F))
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	80 % or more	–
	ON malfunction		
	ECM selected gear	4th	–
	Throttle valve opening angle	15 % or more	Less than 45 %
5VZ-FE (TACOMA, 4RUNNER)	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"	
	Battery voltage	10 V or more	–
	Spark retard by KCS control	–	Less than 8° CA
	Transfer range "Hi" [4WD]		
	Throttle valve opening angle	0 % or more	–
	Vehicle speed	5 km/h (3 mph) or more	–
	Transmission fluid temperature	–	Less than 130 °C (266 °F) (hysteresis 110 °C (230 °F))
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	50 % or more	–
	ON malfunction		
	ECM selected gear	4th	
	Throttle valve opening angle [4WD]	17 % or more	Less than 40 %
	Throttle valve opening angle [2WD]	17 % or more	Less than 38 %

Component T/M Outputs – Solenoid

5VZ–FE (Prerunner/2WD)	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"	
	Battery voltage	10 V or more	–
	Spark retard by KCS control	–	Less than 8° CA
	Transmission fluid temperature	–	Less than 130 °C (266 °F) (hysteresis 110 °C (230 °F))
	OFF malfunction		
	ECM selected gear	1st	
	Throttle valve opening angle	50 % or more	–
	ON malfunction		
	ECM selected gear	4th	
	Throttle valve opening angle	17 % or more	Less than 38 %

1MZ–FE (CAMRY, CAMRY SOLA- RA, AVALON)	Condition (A)		
	Engine coolant temperature	60 °C (140 °F) or more	–
	Transmission range	"D"	
	OFF malfunction (A)		
	ECM selected gear	1st	
	Vehicle speed	–	Less than 40 km/h (25 mph)
	Throttle valve opening angle	15 % or more	–
	OFF malfunction (B)		
	Current ECM selected gear	4th	
	Last ECM selected gear	3rd	
	ON malfunction (A)		
	Current ECM selected gear	4th	
	Last ECM selected gear	3rd	
	ON malfunction (B)		
	ECM selected gear	4th	
	ON malfunction (C)		
	Vlast – Vcurrent	–	15 km/h (9 mph) or less
	THlast – THcurrent	–	20 % or less
	Vehicle speed	–	85 km/h (53 mph) or less
	Throttle valve opening angle	–	35 % or less

1UZ-FE (SC400, LS400, GS400), 2JZ-GE (GS300)	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	-
	Transmission range	"D"	
	Spark retard by KCS control	0° CA or more	-
	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	8 % or more and 6.5 % or more at engine speed 2,000 rpm (condition vary with engine speed)	-
	OFF malfunction (B)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4rd	
	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	
	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	8 % or more and 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)	-
2JZ-GE (SC300)	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	-
	Transmission range	"D"	
	Spark retard by KCS control	10° CA or more	-
	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	15 % or more and 6.5 % or more and at engine speed 2,000 rpm (condition vary with engine speed)	-

Component T/M Outputs – Solenoid

2JZ–GE (SC300)	OFF malfunction (B)		
	Current ECM selected gear	5th	
	Last ECM selected gear	4th	
	Vehicle speed	10 km/h (6 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)		
	Current ECM selected gear	4th	
	Last ECM selected gear	3rd	
	Vehicle speed	10 km/h (6 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	4th	
	Vlast – Vcurrent	–	Less than 10 km/h (6 mph)
	THlast – THcurrent	–	Less than 10 %
	Vehicle speed	–	Less than 85 km/h (53 mph)
	Throttle valve opening angle (Current)	–	Less than 20 %
2UZ–FE (LAND CRUISER, LX470)	Condition (A)		
	Engine coolant temperature	40 °C (104 °F) or more	–
	Transmission range	"D"	
	Transfer range "Hi" [4WD]		
	Throttle valve opening angle	0 % or more	–
	Vehicle speed	5 km/h (3 mph) or more	–
	Transmission fluid temperature	–	Less than 130 °C (266 °F) (hysteresis 110 °C (230 °F))
	OFF malfunction (A)		
	ECM selected gear	1st	
	Vehicle speed	3 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)		
	Current ECM selected gear	4th	
	Last 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)	–

2UZ-FE (LAND CRUISER, LX470)	ON malfunction (A)		
	Current ECM selected gear	4th	
	Last 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 (B)		
	ECM selected gear	4th	
	Vlast – Vcurrent	–	10 km/h (6 mph) or less
	THlast – THcurrent	–	10 % or less
	Vehicle speed	–	85 km/h (53 mph) or less
	Throttle valve opening angle (Current)	–	20 % or less
1MZ-FE (ES300)	Condition (A)		
	Engine coolant temperature	60 °C (140 °F) or more	–
	Transmission range	"D"	
	Transmission fluid temperature	–20 °C (–4 °F) or more	–
	Rationality check (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	3.5 % at engine speed 1,900 rpm (condition vary with engine speed)	–
	Calculated load valve	40.8 g/rev. or more (A/C OFF)	–
		57.2 g/rev. or more (A/C ON)	–
	Rationality check (B)		
	ECM selected gear	2nd	
	Vehicle speed	10 km/h (6 mph) or more	–
	Throttle valve opening angle	3.5 % at engine speed 1,900 rpm (condition vary with engine speed)	–
	Rationality check (C)		
	ECM selected gear	3rd or 4th	
	Vehicle speed	10 km/h (6 mph) or more	–
	Throttle valve opening angle	3.5 % at engine speed 1,900 rpm (condition vary with engine speed)	–
	Rationality check (D)		
	ECM Lock-up command	OFF	
	ECM selected gear	3rd or 4th	
	Actual gear	3rd or 4th	

Component T/M Outputs – Solenoid

1MZ-FE (RX300)	Condition (A)		
	Engine coolant temperature	60 °C (140 °F) or more	–
	Transmission range	"D"	
	Transmission fluid temperature	–20 °C (–4 °F) or more	–
	Rationality check (A)		
	ECM selected gear	1st	
	Vehicle speed	–	Less than 40 km/h (25 mph)
	Rationality check (B)		
	ECM selected gear	2nd	
	Vehicle speed	–	Less than 40 km/h (25 mph)
	Rationality check (C)		
	ECM selected gear	3rd	
	Vehicle speed	–	Less than 40 km/h (25 mph)
	Rationality check (D)		
	ECM Lock-up command	OFF	
	ECM selected gear	3rd or 4th	
	Actual gear	3rd or 4th	

TYPICAL MALFUNCTION THRESHOLDS

Engine family	Detection criteria	Threshold
5E-FE (TERCEL, PASEO)	It is necessary 2 judgments/driving cycle 1st judgement; temporary flag ON 2nd judgement; pending fault code ON	
	(A) and OFF malfunction	
	Engine speed	$< 0.55 \times \text{NO} + 2,250 \text{ rpm}$
	(A) and ON malfunction	
	Engine speed	$\geq 1.8 \times \text{NO} + 1,600 \text{ rpm}$
1ZZ-FE (COROLLA)	It is necessary 2 judgments/driving cycle 1st judgement; temporary flag ON 2nd judgement; pending fault code ON	
	(A) and OFF malfunction	
	Engine speed	$< 0.7 \times \text{NO} + 2,100 \text{ rpm}$
	(A) and ON malfunction	
	Engine speed	$\geq 1.8 \times \text{NO} + 1,200 \text{ rpm}$
5S-FE (CELICA/Calif. & Fed.) (CAMRY, CAMRY SOLARA/Calif. & Fed.)	It is necessary 2 judgments/driving cycle 1st judgement; temporary flag ON 2nd judgement; pending fault code ON	
	(A) and OFF malfunction	
	Engine speed	$< 0.65 \times \text{NO} + 1,900 \text{ rpm}$

1MZ-FE (CAMRY, CAMRY SOLARA, AVALON)	OFF malfunction	
	Following conditions met a. and b.	
	It is necessary 2 judgements/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) and OFF malfunction (A)	
	Input speed/Output speed (NC2/NO)	$0.63 \leq \text{NC2/NO} \leq 0.77$
	b. = (A) and OFF malfunction (B)	
	Input speed/Output speed (NC2/NO)	Changed as follows $0.88 \leq \text{NC2/NO} \leq 1.02$ ↓ $0.63 \leq \text{NC2/NO} \leq 0.77$
	ON malfunction	
	Following conditions met a. and b. and c.	
	a. = (A) and ON malfunction (A)	
	Input speed/Output speed (NC2/NO)	Not changed as follows $0.88 \leq \text{NC2/NO} \leq 1.02$ ↓ $0.63 \leq \text{NC2/NO} \leq 0.77$
	b. = (A) and ON malfunction (B)	
	NElast – NEcurrent	1,100 rpm or more
	c. = (A) and ON malfunction (C)	
	Engine speed	3,200 rpm or more
1UZ-FE (SC400, LS400, GS400), 2JZ-GE (GS300)	OFF malfunction	
	Following conditions met a. and b. and c.	
	It is necessary 2 judgements/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) and OFF malfunction (A)	
	Input speed/Output speed (NC0/NO)	$0.00 \leq \text{NC0/NO} \leq 0.20$
	b. = (A) and OFF malfunction (B)	
	Input speed/Output speed (NC0/NO)	Changed as follows $0.93 \leq \text{NC0/NO} \leq 1.07$ ↓ $0.00 \leq \text{NC0/NO} \leq 0.20$
	c. = (A) and OFF malfunction (C)	
	Output record from ECM for 4th → 5th upshifting	Recorded
	ON malfunction	
	Following condition met a. and b.	
	a. = (A) and ON malfunction (A)	
	Input speed/Output speed (NC0/NO)	$3.14 \leq \text{NC0/NO} \leq 7.34$
	b. = (A) and ON malfunction (B)	
	Input speed/Output speed (NC0/NO)	$3.14 \leq \text{NC0/NO} \leq 7.34$

Component T/M Outputs – Solenoid

2JZ-GE (SC300), 2UZ-FE (LAND CRUISER, LX470)	OFF malfunction	
	Following conditions met a. and b.	
	It is necessary 2 judgements/driving cycle 1st judgment; temporary flag ON 2nd judgment; pending fault code ON	
	a. = (A) and OFF malfunction (A)	
	Input speed/Output speed (NC0/NO)	$0.00 \leq \text{NC0/NO} \leq 0.22$
	b. = (A) and OFF malfunction (B)	
	Input speed/Output speed (NC0/NO)	Changed as follows $0.93 \leq \text{NC0/NO} \leq 1.07$ ↓ $0.00 \leq \text{NC0/NO} \leq 0.22$
	ON malfunction	
	Following conditions met a. and b.	
	a. = (A) and ON malfunction (A)	
	Input speed/Output speed (NC0/NO)	Not changed as follows $0.93 \leq \text{NC0/NO} \leq 1.07$ ↓ $0.00 \leq \text{NC0/NO} \leq 0.22$
	b. = (A) and ON malfunction (B)	
3S-FE (RAV4/Calif./2WD)	NElast – NEcurrent	950 rpm or more
	Engine speed	3,200 rpm or more
	It is necessary 2 judgments/driving cycle 1st judgement; temporary flag ON 2nd judgement; pending fault code ON	
	(A) and OFF malfunction	
	Engine speed	$< 0.7 \times \text{NO} + 1,900 \text{ rpm}$
3S-FE (RAV4/Fed./2WD)	(A) and ON malfunction	
	Engine speed	$\geq 2 \times \text{NO} + 1,000 \text{ rpm}$
	It is necessary 2 judgments/driving cycle 1st judgement; temporary flag ON 2nd judgement; pending fault code ON	
	(A) and OFF malfunction (A)	
	Engine speed	$< 0.7 \times \text{NO} + 1,900 \text{ rpm}$
3S-FE (RAV4/Calif./4WD) (RAV4/Fed./4WD)	Change 1 V or more	7 times or more
	(A) and OFF malfunction (B)	
	Engine speed	$< 0.7 \times \text{NO} + 1,900 \text{ rpm}$
	(A) and ON malfunction	
	Engine speed	$\geq 2 \times \text{NO} + 1,000 \text{ rpm}$
3S-FE (RAV4/Calif./4WD) (RAV4/Fed./4WD)	It is necessary 2 judgments/driving cycle 1st judgement; temporary flag ON 2nd judgement; pending fault code ON	
	(A) and OFF malfunction	
	Engine speed	$< 0.65 \times \text{NO} + 1,800 \text{ rpm}$
	(A) and ON malfunction	
	Engine speed	$\geq 1.2 \times \text{NO} + 1,600$

1MZ-FE (SIENNA/Calif. & Fed.)	It is necessary 2 judgments/driving cycle 1st judgement; temporary flag ON 2nd judgement; pending fault code ON	
	(A) and OFF malfunction	
	Engine speed	$< 0.65 \times \text{NO} + 2,100 \text{ rpm}$
	(A) and ON malfunction	
	Engine speed	$\geq 1.1 \times \text{NO} + 1,700 \text{ rpm}$
3RZ-FE (Prerunner, TACOMA, 4RUNNER)	It is necessary 2 judgments/driving cycle 1st judgement; temporary flag ON 2nd judgement; pending fault code ON	
	(A) and OFF malfunction	
	Engine speed	$< 0.7 \times \text{NO} + 1,700 \text{ rpm}$
	(A) and ON malfunction	
	Engine speed	$\geq 1.3 \times \text{NO} + 1,100$
5VZ-FE (TACOMA, 4RUNNER, Prerunner/2WD)	It is necessary 2 judgments/driving cycle 1st judgement; temporary flag ON 2nd judgement; pending fault code ON	
	(A) and OFF malfunction	
	Engine speed	$< 0.5 \times \text{NO} + 2,100 \text{ rpm}$
	(A) and ON malfunction	
	Engine speed	$\geq 1.1 \times \text{NO} + 1,700$
1MZ-FE (ES300)	Rationality check	
	Following condition met a. or (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 Rationality check (A)	
	Input speed/Output speed (NT/NC)	$1.49 \leq \text{NT/NC} \leq 1.63$
	b. = (A) and Rationality check (B)	
	Input speed/Output speed (NT/NC)	$2.72 \leq \text{NT/NC} \leq 2.86$
	c. = (A) and Rationality check (C)	
	Input speed/Output speed (NT/NC)	$0.93 \leq \text{NT/NC} \leq 1.07$
	d. = (A) and Rationality check (D)	
	Engine speed – Input shaft speed (NE – NT)	200 rpm or more
1MZ-FE (RX300)	Rationality check	
	Following condition met a. or (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 Rationality check (A)	
	Input speed/Output speed (NT/NC)	$1.49 \leq \text{NT/NC} \leq 1.63$
	b. = (A) and Rationality check (B)	
	Input speed/Output speed (NT/NC)	$2.72 \leq \text{NT/NC} \leq 2.86$
	c. = (A) and Rationality check (C)	
	Input speed/Output speed (NT/NC)	$0.93 \leq \text{NT/NC} \leq 1.07$
	d. = (A) and Rationality check (D)	
	Engine speed – Input shaft speed (NE – NT)	250 rpm or more