

SERVICE SPECIFICATIONS

EG02A-02

SERVICE DATA

Fuel pressure regulator	Fuel pressure at no vacuum	265 – 304 kPa (2.7 – 3.1 kgf/cm ² , 38 – 44 psi)
Fuel pump	Resistance (Cold)	0.2 – 3.0 Ω
Injector	Resistance	12 – 16 Ω
	Injection volume	66 – 82 cm ³ (4.0 – 5.0 cu in.) per 15 seconds
	Difference between each cylinder	5 cm ³ (0.3 cu in.) or less
	Fuel leakage	One drop or less per minute
VAF meter	Resistance	Resistance
	VS – E2	200 – 600 Ω (Measuring plate fully closed)
	VS – E2	20 – 1,200 Ω (Measuring plate fully open)
	VC – E2	200 – 400 Ω
	THA – E2	10 – 20 kΩ at –20°C (–4°F)
	THA – E2	4 – 7 kΩ at 0°C (32°F)
	THA – E2	2 – 3 kΩ at 20°C (68°F)
	THA – E2	0.9 – 1.3 kΩ at 40°C (104°F)
Throttle body	Throttle valve fully closed angle	6°
	Dashpot setting speed	2,200 ± 300 rpm
	Throttle opener setting speed	700 – 1,000 rpm
TP sensor	Clearance between stop screw and lever	Resistance
	0 mm (0 in.)	0.2 – 5.7 kΩ
	0.50 mm (0.020 in.)	2.3 kΩ or less
	0.75 mm (0.030 in.)	Infinity
	Throttle valve fully open	2.0 – 10.2 kΩ
IAC valve	Resistance	10 – 30 Ω
	Resistance	10 – 30 Ω
ECT sensor	Resistance	10 – 20 kΩ at –20°C (–4°F)
	Resistance	4 – 7 kΩ at 0°C (32°F)
	Resistance	2 – 3 kΩ at 20°C (68°F)
	Resistance	0.9 – 1.3 kΩ at 40°C (104°F)
	Resistance	0.4 – 0.7 kΩ at 60°C (140°F)
	Resistance	0.2 – 0.4 kΩ at 80°C (176°F)
Fuel pump resistor	Resistance (Cold)	Approx. 0.73 Ω
VSV for EVAP	Resistance	30 – 33 Ω at 20°C (68°F)
VSV for fuel pressure control	Resistance	37 – 44 Ω at 20°C (68°F)
VSV for EGR	Resistance	30 – 34 Ω at 20°C (68°F)
VSV for PAIR	Resistance	37 – 44 Ω at 20°C (68°F)
EGR gas temp. sensor (Calif. only)	Resistance	69 – 89 kΩ at 50°C (122°F)
	Resistance	11 – 15 kΩ at 100°C (212°F)
	Resistance	2 – 4 kΩ at 150°C (302°F)
Heated oxygen sensor	Heater coil resistance	5.0 – 6.5 Ω at 20°C (68°F)

ECM	Condition	Terminals	Voltage
	—	BATT — E1	9 — 14 V
	IG SW ON	IG SW — E1	9 — 14 V
	IG SW ON	M—REL — E1	9 — 14 V
	IG SW ON	+B, +B1 — E1	9 — 14 V
	IG SW ON — Throttle valve open	IDL — E2	9 — 14 V
	IG SW ON	VCC — E2	4.5 — 5.5 V
	IG SW ON — Throttle valve fully closed (Throttle opener must be cancelled first)	VTA — E2	0.3 — 0.8 V
	IG SW ON — Throttle valve fully open	VTA — E2	3.2 — 4.9 V
	IG SW ON — Measuring plate fully closed	VS — E2	3.5 — 4.5 V
	IG SW ON — Measuring plate fully open	VS — E2	0.2 — 0.5 V
	Idling	VS — E2	1.2 — 2.4 V
	3,000 rpm	VS — E2	0.8 — 1.3 V
	IG SW ON	#10 ~ #60 — E01	9 — 14 V
	IG SW ON	#10 ~ #60 — E02	9 — 14 V
	IG SW ON — IAT 20°C (68°F)	THA — E2	0.5 — 3.4 V
	IG SW ON — ECT 80°C (176°F)	THW — E2	0.2 — 1.0 V
	Cranking	STA — E1	6 V or more
	Idling	IGT — E1	Pulse generation
	IG SW ON	ISC1 ~ ISC4 — E1	9 — 14 V
	No trouble (MIL light off) and engine running	W — E1	9 — 14 V
	IG SW ON	IGF — E1	2 V or less
	Idling	IGF — E1	Pulse generation
	Idling	G1, G2 — G⊖	Pulse generation
	Idling	NE — G⊖	Pulse generation
	Idling	KNK1, KNK2 — E1	Pulse generation
	Maintain engine speed at 2,500 rpm for 120 seconds after warming up then return to idling	VF1, VF2 — E1	1.8 — 3.2 V
	IG SW ON — Shift position P or N	NSW — E1	3 V or less
	IG SW ON — Ex. shift position P or N	NSW — E1	9 — 14 V
	IG SW ON — Rotate driving wheel slowly	SPD — E1	Pulse generation
	IG SW ON		
	— DLC1 TE1 — E1 not connected	TE1, TE2 — E1	9 — 14 V
	IG SW ON		
	— DLC1 TE1 — E1 connected	TE1, TE2 — E1	1.5 V or less
	IG SW ON — A/C ON	A/C — E1	7.5 — 14 V
	IG SW ON — A/C OFF	A/C — E1	1.5 V or less
	Stop light SW ON (Brake pedal depressed)	STP — E1	7.5 — 14 V
	Stop light SW OFF	STP — E1	1.5 V or less

ECM	Condition	Terminals	Resistance
	Throttle valve open	IDL - E2	Infinity
	Throttle valve fully closed	IDL - E2	2,300 Ω or less
	(Throttle opener must be cancelled first)		
	Throttle valve fully open	VTA - E2	2,000 - 10,200 Ω
	Throttle valve fully closed	VTA - E2	200 - 5,700 Ω
	(Throttle opener must be cancelled first)		
	-	VCC - E2	2,500 - 5,900 Ω
	Measuring plate fully closed	VS - E2	200 - 600 Ω
	Measuring plate fully open	VS - E2	20 - 1,200 Ω
	IAT 20°C (68°F)	THA - E2	2,000 - 3,000 Ω
	ECT 80°C (176°F)	THW - E2	200 - 400 Ω
	Cold (-10°C (14°F) to 50°C (122°F))	G1, G2 - G $\ominus$	185 - 275 Ω
	Hot (50°C (122°F) to 100°C (212°F))		
		G1, G2 - G $\ominus$	240 - 325 Ω
	Cold (-10°C (14°F) to 50°C (122°F))	NE - G $\ominus$	185 - 275 Ω
	Hot (50°C (122°F) to 100°C (212°F))	NE - G $\ominus$	240 - 325 Ω
	-	+B, +B1 - ISC1 ~ ISC4	10 - 30 Ω
Fuel cut speed	Fuel return speed		1,200 rpm

TORQUE SPECIFICATIONS

Part tightened	N·m	kgf·cm	ft·lbf
Fuel line (Union bolt type)	29	300	22
Fuel line (Flare nut type)	30	310	22
Fuel pump bracket assembly x Fuel tank	3.9	40	35 in.·lbf
Second seat x Body	39	400	29
Drain plug x Fuel tank	6.5	65	57 in.·lbf
Fuel tank breather tube x Fuel tank	1.5	15	13 in.·lbf
Fuel tank filler pipe x Fuel tank	3.5	35	31 in.·lbf
Fuel tank band x Body	39	400	29
Fuel pressure regulator x Delivery pipe	25	250	18
Fuel inlet hose x Fuel filter	29	300	22
Delivery pipe x Intake manifold	21	210	15
No.1 fuel pipe x Delivery pipe (Union bolt)	29	300	22
No.1 fuel pipe x Delivery pipe (Bolt)	20	200	14
No.1 fuel pipe x Fuel filter	29	300	22
Fuel return pipe x Intake manifold	20	200	14
Air intake chamber x Intake manifold	21	210	15
PS reservoir tank x Air intake chamber	18	185	13
Oil dipstick guide x Intake manifold	20	200	14
Oil dipstick guide x No.1 oil pan	20	200	14
Heater inlet pipe x Air intake chamber	20	200	14
EGR valve x Air intake chamber (Stud bolt)	10	105	8
EGR valve x Air intake chamber (Nut)	19	195	14
EGR valve x EGR pipe	64	650	47
VAF meter x Bracket	4.9	50	43 in.·lbf
VAF meter x Air cleaner cap	10	100	7
Throttle body x Air intake chamber	21	210	15
ECT sensor x Cylinder head	20	200	14
Knock sensor x Cylinder block	44	450	33