

SERVICE SPECIFICATIONS

60100-02

SERVICE DATA

Fuel pressure regulator	Fuel pressure at no vacuum	265 - 304 kPa (2.7 - 3.1 kgf/cm², 38 - 44 psi)
Cold start injector	Resistance Fuel leakage	2 - 4 Ω One drop or less per minute
Injector	Resistance Injection volume Difference between each cylinder Fuel leakage	13.4 - 14.2 Ω 45 - 55 cm³ (2.7 - 3.4 cu in.) per 15 sec. 6 cm³ (0.4 cu in.) or less One drop or less per minute
Volume air flow meter	Resistance Terminals	Resistance 200 - 600 Ω (Measuring plate fully closed) 20 - 1,200 Ω (Measuring plate fully open) 200 - 400 Ω Infinity 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) THA - E2 0.4 - 0.7 kΩ at 60°C (140°F)
Throttle body	Throttle body fully closed angle Dashpot setting speed Throttle opener setting speed	6° 2,000 ± 200 rpm 900 - 1,800 rpm
Throttle position sensor	Clearance between stop screw and lever Terminals	Resistance 0 mm (0 in.) VTA - E2 0.47 - 6.1 kΩ 0.50 mm (0.020 in.) IDL - E2 2.3 kΩ or less 0.80 mm (0.031 in.) IDL - E2 Infinity Throttle valve fully open VTA - E2 3.1 - 12.1 kΩ VC - E2 3.9 - 9.0 kΩ
Cold start injector time switch	Resistance STA - STJ STA - STJ STA - Ground	30 - 50 Ω below 10°C (50°F) 70 - 90 Ω above 25°C (77°F) 30 - 90 Ω
Engine coolant temp. sensor	Resistance	10 - 20 kΩ at -20°C (-4°F) 4 - 7 kΩ at 0°C (32°F) 2 - 3 kΩ at 20°C (68°F) 0.9 - 1.3 kΩ at 40°C (104°F) 0.4 - 0.7 kΩ at 60°C (140°F) 0.2 - 0.4 kΩ at 80°C (176°F)
VSV (Fuel pressure control)	Resistance	30 - 50 Ω at 20°C (68°F)
EGR gas temp. sensor (Calif. and C&C)	Resistance	69 - 89 kΩ at 50°C (122°F) 11 - 15 kΩ at 100°C (212°F) 2 - 4 kΩ at 150°C (302°F)
Heated oxygen sensor	Heater coil resistance California 2WD only Others	4.5 - 6.0 Ω at 23°C (73°F) 5.1 - 6.3 Ω at 20°C (68°F)

ECM	Condition	Terminals	Voltage
	IG SW ON	+B - E1	9 - 14 V
	IG SW ON	+B1 - E1	9 - 14 V
	-	BATT - E1	9 - 14 V
	IG SW ON - Throttle valve open	IDL - E2 (E21)	9 - 14 V
	IG SW ON - Throttle valve fully closed (Throttle opener must be cancelled first)		
		VTA - E2 (E21)	0.3 - 0.8 V
	IG SW ON - Throttle valve fully open		
		VTA - E2 (E21)	3.2 - 4.9 V
	IG SW ON	VC - E2 (E21)	4.5 - 5.5 V
	IG SW ON - Measuring plate fully closed		
		VS - E2 (E21)	4.0 - 5.5 V
	IG SW ON - Measuring plate fully open		
		VS - E2 (E21)	0.2 - 0.5 V
	Idling	VS - E2 (E21)	2.3 - 2.8 V
	3,000 rpm	VS - E2 (E21)	0.3 - 1.0 V
	IG SW ON	#10 or #20 - E01	9 - 14 V
	IG SW ON	#10 or #20 - E02	9 - 14 V
	IG SW ON - Intake air temp. 20°C (68°F)		
		THA - E2 (E21)	0.5 - 3.4 V
	IG SW ON - Engine coolant temp. 80° C (176° F)		
		THW - E2 (E21)	0.2 - 1.0 V
	Cranking	STA - E1	6 V or more
	Idling	IGT - E1	Pulse generation
	No trouble (malfunction indicator lamp off) and engine running		
		W - E1	9 - 14 V
	Cranking		
	- Engine coolant temp. 80° C (176° F)	STJ - E1	6 V or more
	Stop light switch ON	STP	7.5 - 14 V

ECM	Condition	Terminals	Resistance
	Throttle valve open	IDL - E2 (E21)	Infinity
	Throttle valve fully closed (Throttle opener- must be cancelled first)		
		IDL - E2 (E21)	2,300 Ω or less
	Throttle valve fully open	VTA - E2 (E21)	3,100 - 12,100 Ω
	Throttle valve fully closed (Throttle opener must be cancelled first)		
		VTA - E2 (E21)	470 - 6,100 Ω
	Measuring plate fully closed	VC - E2 (E21)	3,900 - 9,000 Ω
	Measuring plate fully open	VS - E2 (E21)	200 - 600 Ω
	Intake air temp. 20°C (68°F)	VS - E2 (E21)	20 - 1,200 Ω
	Coolant temp. 80° C (176° F)	THA - E2 (E21)	2,000 - 3,000 Ω
		THW - E2 (E21)	200 - 400 Ω
	Cold (-10°C (14°F) to 50°C (122°F))		
		G1 or G2 - G \ominus	125 - 200 Ω
	Hot (50°C (122°F) to 100°C (212°F))		
		G1 or G2 - G \ominus	160 - 235 Ω
	Cold (-10°C (14°F) to 50°C (122°F))	NE - G \ominus	155 - 250 Ω
	Hot (50°C (122°F) to 100°C (212°F))	NE - G \ominus	190 - 290 Ω
Fuel cut rpm	Fuel return rpm	M/T A/T	1,300 rpm 1,500 rpm

TORQUE SPECIFICATIONS

EG1HW-02

Part tightened	N·m	kgf·cm	ft·lbf
Cold start injector x Air intake chamber	7.8	80	69 in.-lbf
Delivery pipe x Pulsation damper	29	300	22
Delivery pipe x Fuel pressure regulator	29	300	22
Delivery pipe x Cold start injector tube	15	150	11
Delivery pipe x No.3 fuel pipe	34	350	25
Delivery pipe x No.2 fuel pipe	34	350	25
Delivery pipe x Intake manifold	13	130	9
Fuel line	30	310	22
Fuel pump	3.9	40	35 in.-lbf
Fuel drain plug	6.4	65	56 in.-lbf