

# ENGINE CONTROL SYSTEM

## SERVICE DATA

030PG-01

### 1ZZ-FE:

Throttle idle speed control valve assy Movement	Ignition switch ON	Half open → fully close → fully open → half open
Intake air flow meter sub-assy Resistance	THA – E2 at -20°C (-4°F) at 20°C (68°F) at 60°C (140°F)	13.6 – 18.4 kΩ 2.21 – 2.69 kΩ 0.49 – 0.67 kΩ
Camshaft timing oil control valve assy Resistance	at 20°C (68°F)	6.9 – 7.9 Ω
E.F.I Throttle position sensor Resistance	VC – E2	2.5 – 6.0 kΩ
E.F.I. Engine coolant temperature sensor Resistance	at 20°C (68°F) at 80°C (176°F)	2.32 – 2.59 kΩ 0.310 – 0.326 kΩ
Knock control sensor Resistance	at 20°C (68°F)	120 – 280 kΩ
E.F.I. Circuit opening relay assy Specified condition	Between terminals 1 and 2 Between terminals 3 and 5	Continuity No continuity
E.F.I. ECU relay Specified condition	Between terminals 1 and 2 Between terminals 3 and 5	Continuity No continuity

### 2ZZ-GE:

Throttle idle speed control valve assy Movement	Ignition switch ON	Half open → fully close → fully open → half open
Intake air flow meter sub-assy Resistance	THA – E2 at -20°C (-4°F) at 20°C (68°F) at 60°C (140°F)	13.6 – 18.4 kΩ 2.21 – 2.69 kΩ 0.49 – 0.67 kΩ
Camshaft timing oil control valve assy Resistance	at 20°C (68°F)	6.9 – 7.9 Ω
E.F.I Throttle position sensor Resistance	VC – E2	2.5 – 6.0 kΩ
E.F.I. Engine coolant temperature sensor Resistance	at 20°C (68°F) at 80°C (176°F)	2.32 – 2.59 kΩ 0.310 – 0.326 kΩ
Knock control sensor Resistance	at 20°C (68°F)	120 – 280 kΩ
E.F.I. Circuit opening relay assy Specified condition	Between terminals 1 and 2 Between terminals 3 and 5	Continuity No continuity
E.F.I. ECU relay Specified condition	Between terminals 1 and 2 Between terminals 3 and 5	Continuity No continuity