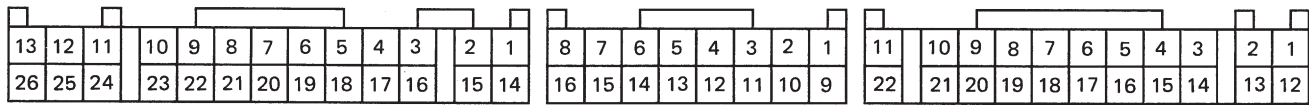


6. Control Module I/O Signal



To (E29)

To (E31)

To (E30)

G2M0446

Content		Connector No.	Terminal No.	Signal (V)		Note
				Ig SW ON (Engine OFF)	Engine ON (Idling)	
Crankshaft position sensor	Signal (+)	E30	6	0	±6	Sensor output waveform
	Signal (-)	E30	7	0	0	—
	Shield	E30	11	0	0	—
Camshaft position sensor	Signal (+)	E30	8	0	±2.7	Sensor output waveform
	Signal (-)	E30	9	0	0	—
	Shield	E30	11	0	0	—
Mass air flow sensor	Signal	E30	5	0 — 0.3	0.8 — 1.2	—
	GND	E31	1	0	0	—
	Shield	E30	11	0	0	—
Throttle position sensor	Signal	E30	4	Fully closed: 0.2 — 1.0 Fully opened: 4.2 — 4.5		—
	Power supply	E30	15	5	5	—
	GND	E30	11	0	0	—
Oxygen sensor	Signal	E30	10	0	Rich mixture: 0.7 Lean mixture: 0	—
	Shield	E30	11	0	0	—
Engine coolant temperature sensor		E30	3	0.7 — 1.0	0.7 — 1.0	After warm-up
Vehicle speed sensor 2		E29	4	0 or 5	0 or 5	"5" and "0" are repeatedly displayed when vehicle is driven.
Starter switch		E29	12	0	0	Cranking: 10 — 14
A/C switch		E29	11	ON: 10 — 13 OFF: 0	ON: 13 — 14 OFF: 0	—
Ignition switch		E29	10	10 — 13	13 — 14	—
Neutral position switch (MT)		E29	16	ON: 0 OFF: 10 — 13		<ul style="list-style-type: none"> ● On MT model; switch is ON when gear is in neutral position. ● On AT model; switch is ON when shift is in "P" or "N" position.
Park/Neutral position switch (AT)						
Test mode connector		E29	20	5	5	When connected: 0
Read memory connector		E29	19	5	5	When connected: 0
AT/MT identification		E29	17	(AT) 5 (MT) 0	(AT) 5 (MT) 0	When measuring voltage between ECM and body.
Back-up power supply		E29	26	10 — 13	13 — 14	—
Control unit power supply		E29	13	10 — 13	13 — 14	—

Content		Connector No.	Terminal No.	Signal (V)		Note
				Ig SW ON (Engine OFF)	Engine ON (Idling)	
Ignition control	# 1, # 2	E30	21	0	3.4, max.	—
	# 3, # 4	E30	20	0	3.4, max.	—
Fuel injector	# 1	E30	2	10 — 13	13 — 14	Waveform
	# 2	E30	1	10 — 13	13 — 14	Waveform
	# 3	E30	13	10 — 13	13 — 14	Waveform
	# 4	E30	12	10 — 13	13 — 14	Waveform
Idle air control solenoid valve	OPEN end	E29	2	—	1, max. — 13, min.	Waveform
	CLOSE end	E29	1	—	13, min. — 1, max.	Waveform
Fuel pump relay control		E29	8	ON: 0 OFF: 10 — 13	0	—
A/C relay control		E29	9	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Radiator fan relay 1 control		E29	23	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Radiator fan relay 2 control		E29	7	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Self-shutoff control		E29	18	10 — 13	13 — 14	—
Malfunction indicator lamp		E29	22	—	—	<ul style="list-style-type: none"> ● Light "ON": 1, or less ● Light "OFF": 10 — 14
Engine speed output		E29	3	—	0 — 13, min.	Waveform
EGR solenoid valve		E30	18	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Air suction solenoid valve		E31	3	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
FICD solenoid valve		E29	24	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	A/C equipped model
Purge control solenoid valve		E30	19	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Power steering pressure		E30	14	5	5	<ul style="list-style-type: none"> ● Steering wheel turned to extreme end of travel: 0 ● When driving straight forward: 5
Recirculation gas temperature sensor		E31	4	—	—	—
Fuel temperature sensor (California FWD model only)		E31	8	2.5 — 3.8	2.5 — 3.8	Ambient temperature: 25°C (77°F)
Tank pressure control solenoid valve (California FWD model only)		E29	21	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Fuel tank pressure sensor (California FWD model only)	Signal	E31	5	2.3 — 2.7	2.3 — 2.7	The value obtained after the fuel filler cap was removed once and recapped.
	Power supply	E30	15	5	5	—
	GND	E30	11	0	0	—
GND (sensors)		E30	11	0	0	—
GND (injectors)		E29	15	0	0	—
GND (ignition system)		E29	14	0	0	—

Content	Connector No.	Terminal No.	Signal (V)		Note
			Ig SW ON (Engine OFF)	Engine ON (Idling)	
GND (power supply)	E29	25	0	0	—
GND (control systems)	E30	22	0	0	—
Select Monitor Signal	E29	6	—	—	—
	E29	5	—	—	—