5. Control Module I/O Signal

A: MT VEHICLES

B2M0201

Content		Connector No.	Terminal No.	Signal (V)		Note
				Ignition SW ON (Engine OFF)	Engine ON (idling)	
kshaft	Signal (+)	B136	*1	0	±6	Sensor output wavefo
ion	Signal (–)	B136	9	0	0	—
or	Shield	B136	13	0	0	—
haft	Signal (+)	B136	*2	0	±6	Sensor output wavefo
on	Signal (–)	B136	9	0	0	—
r	Shield	B136	13	0	0	—

Content		Connector No.	Terminal No	Signal (+)		Note
				Ignition SW ON (Engine OFF)	Engine ON (Idling)	
Crankshaft position sensor	Signal (+)	B136	*1	0	±6	Sensor output waveform
	Signal (−)	B136	9	0	0	—
	Shield	B136	13	0	0	—
Camshaft position sensor	Signal (+)	B136	*2	0	±6	Sensor output waveform
	Signal (−)	B136	9	0	0	—
	Shield	B136	13	0	0	—
Mass air flow sensor	Signal	B136	6	0 — 0.3	0.8 — 1.2	—
	Shield	B136	13	0	0	—
	GND	B136	7	0	0	—
Throttle position sensor	Signal	B136	16	Fully closed: 0.5 ± 0.3 Fully opened: 4.3 ± 0.3		—
	Power supply	B136	14	5	5	—
	GND	B136	13	0	0	—
Oxygen sensor	Signal	B136	5	0	Rich mixture: 0.7 Lean mixture: 0	—
	Shield	B136	13	0	0	—
Engine coolant temperature sensor		B136	3	0.6 — 1.0	0.6 — 1.0	After warm-up
Vehicle speed sensor 2		B135	3	0 or 5	0 or 5	"5" and "0" are repeatedly displayed when vehicle is driven.
Starter switch		B135	2	0	0	Cranking: 10 to 14
A/C switch		B135	10	ON: 10 — 13 OFF: 0	ON: 13 — 14 OFF: 0	—
Ignition switch		B136	11	10 — 13	13 — 14	—
Neutral position switch		B135	9	ON: 5 OFF: 0		Switch is ON when gear is in neutral position.
Test mode connector		B136	21	5	5	When connected: 0

*1: With immobiliser: 8
Without immobiliser: 10
*2: With immobiliser: 10

Content		Connector No.	Terminal No.	Signal (V)		Note
				Ignition SW ON (Engine OFF)	Engine ON (Idling)	
Read memory connector		B136	20	5	5	When connected: 0
Back-up power supply		B137	15	10 — 13	13 — 14	—
Control unit power supply		B136	1	10 — 13	13 — 14	—
			2			
Ignition control	# 1, # 2	B137	10	0	3.4, max.	—
	# 3, # 4	B137	9	0	3.4, max.	—
Fuel injector	# 1	B137	26	10 — 13	13 — 14	Waveform
	# 2	B137	13	10 — 13	13 — 14	Waveform
	# 3	B137	12	10 — 13	13 — 14	Waveform
	# 4	B137	11	10 — 13	13 — 14	Waveform
Idle air control solenoid valve	OPEN end	B137	2	—	1, max. — 13, min.	Waveform
	CLOSE end	B137	1	—	13, min. — 1, max.	Waveform
Fuel pump relay control		B137	*3	ON: 0 OFF: 10 — 13	0	—
A/C relay control		B137	21	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Radiator fan relay 1 control		B135	8	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Radiator fan relay 2 control		B135	16	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Self-shutoff control		B136	22	10 — 13	13 — 14	—
Malfunction indicator lamp		B137	8	—	—	Light "ON": 1, max. Light "OFF": 10 —
Engine speed output		B135	14	—	0 — 13, min.	Waveform
Knock sensor	Signal	B136	4	2.8	2.8	—
	Shield	B136	13	0	0	—
Purge control solenoid				ON: 0	ON: 0	—

control solenoid valve	CLOSE end	B137	1	—	13, min. — 1, max.	Wavefo
Fuel pump relay control		B137	*3	ON: 0 OFF: 10 — 13	0	—
A/C relay control		B137	21	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Radiator fan relay 1 control		B135	8	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Radiator fan relay 2 control		B135	16	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	—
Self-shutoff control		B136	22	10 — 13	13 — 14	—
Malfunction indicator lamp		B137	8	—	—	Light "ON Light "OFF
Engine speed output		B135	14	—	0 — 13, min.	Wav
Knock sensor	Signal	B136	4	2.6	2.6	—
	Shield	B136	13	0	0	—
Purge control solenoid valve		B135	15	ON: 0 OFF: 10 — 13	ON: 0 OFF: 13 — 14	
GND (sensors)		B136	13	0	0	
GND (injectors)		B137	25	0	0	
GND (ignition system)		B137	24	0	0	
GND (power supply)		B137	14	0	0	
GND (control systems)		B136	12	0	0	
Select monitor signal		B135	4	—	—	
			5	—	—	

*3: With immobiliser: 17
Without immobiliser: 7