

## TERMINAL VOLTAGE TABLES

### PCM INSPECTION [LF]

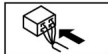
#### NOTE:

- The PCM terminal voltage can vary with the conditions when measuring and changes due to aged deterioration on the vehicle, causing false diagnosis. Therefore determine comprehensively where the malfunction occurs among the input systems, output systems, and the PCM.

PCM  
WIRING HARNESS-SIDE CONNECTOR

2BE	2BA	2AW	2AS	2AO	2AK	2AG	2AC	2Y	2U	2Q	2M	2I	2E	2A
2BF	2BB	2AX	2AT	2AP	2AL	2AH	2AD	2Z	2V	2R	2N	2J	2F	2B
2BG	2BC	2AY	2AU	2AQ	2AM	2AI	2AE	2AA	2W	2S	2O	2K	2G	2C
2BH	2BD	2AZ	2AV	2AR	2AN	2AJ	2AF	2AB	2X	2T	2P	2L	2H	2D

1BE	1BA	1AW	1AS	1AO	1AK	1AG	1AC	1Y	1U	1Q	1M	1I	1E	1A
1BF	1BB	1AX	1AT	1AP	1AL	1AH	1AD	1Z	1V	1R	1N	1J	1F	1B
1BG	1BC	1AY	1AU	1AQ	1AM	1AI	1AE	1AA	1W	1S	1O	1K	1G	1C
1BH	1BD	1AZ	1AV	1AR	1AN	1AJ	1AF	1AB	1X	1T	1P	1L	1H	1D



### Terminal Voltage Table (Part 1)

Terminal	Signal	Connected to	Test condition		Voltage (V)	Inspection item
1A	—	—	—		—	—
1B	Starter relay control	Starter relay	Under any condition		Below 1.0	<ul style="list-style-type: none"> <li>● Starter relay</li> <li>● Related wiring harness</li> </ul>
1C	—	—	—		—	—
1D*2	Clutch operation	CPP switch	Clutch pedal depressed		Below 1.0	<ul style="list-style-type: none"> <li>● CPP switch</li> <li>● Related wiring harness</li> </ul>
			Clutch pedal released		B+	
1E	—	—	—		—	—
1F	—	—	—		—	—
1G	—	—	—		—	—
1H	Fuel pump control	Fuel pump relay	Ignition switch is turned to the ON position (Engine off) and a certain period has elapsed		B+	<ul style="list-style-type: none"> <li>● Fuel pump relay</li> <li>● Related wiring harness</li> </ul>
			Cranking		Below 1.0	
			Idle		Below 1.0	
1I	A/C	A/C relay	Engine running	A/C operating	Below 1.0	<ul style="list-style-type: none"> <li>● A/C relay</li> <li>● Related wiring harness</li> </ul>
				A/C not operating	B+	
1J	Refrigerant pressure switch (middle)	Refrigerant pressure switch (middle)	Refrigerant pressure is more than the specification. (Refrigerant pressure switch (middle) is on.)		Below 1.0	<ul style="list-style-type: none"> <li>● Refrigerant pressure switch (middle)</li> <li>● Related wiring harness</li> </ul>
			Refrigerant pressure is less than the specification. (Refrigerant pressure switch (middle) is off.)		B+	
1K	—	—	—		—	—
1L	—	—	—		—	—
1M	Cooling fan control	Cooling fan relay No.1	Cooling fan not operating		B+	<ul style="list-style-type: none"> <li>● Cooling fan relay No.1</li> <li>● Related wiring harness</li> </ul>
			Cooling fan operating		Below 1.0	
1N	Cooling fan control	Cooling fan relay No.2	Cooling fan not operating		B+	<ul style="list-style-type: none"> <li>● Cooling fan relay No.2</li> <li>● Related wiring harness</li> </ul>
			Cooling fan operating		Below 1.0	
1O	—	—	—		—	—
1P	MAF sensor ground	MAF sensor	Under any condition		Below 1.0	<ul style="list-style-type: none"> <li>● Related wiring harness</li> </ul>
1Q	Main relay control	Main relay	Ignition switch is turned to the ON position		Below 1.0	<ul style="list-style-type: none"> <li>● Main relay</li> <li>● Related wiring harness</li> </ul>
			Ignition switch off and a certain period has elapsed		B+	
1R	Cooling fan control	Cooling fan relay No.3	Cooling fan not operating		B+	<ul style="list-style-type: none"> <li>● Cooling fan relay No.3</li> <li>● Related wiring harness</li> </ul>
			Cooling fan operating		Below 1.0	
1S	—	—	—		—	—

Terminal Voltage Table (Part 2)

1T	—	—	—	—	—
1U	EVAP system leak detection pump (pump)	EVAP system leak detection pump	Ignition switch is turned to the ON position	B+	<ul style="list-style-type: none"> <li>● EVAP system leak detection pump</li> <li>● Related wiring harness</li> </ul>
			Idle	B+	
1V	EVAP system leak detection pump (solenoid)	EVAP system leak detection pump	Ignition switch is turned to the ON position	B+	<ul style="list-style-type: none"> <li>● EVAP system leak detection pump</li> <li>● Related wiring harness</li> </ul>
			Idle	B+	
1W	—	—	—	—	—
1X	Neutral position* <sup>2</sup>	Neutral switch	Shift lever is at neutral position	Below 1.0	<ul style="list-style-type: none"> <li>● Neutral switch</li> <li>● Related wiring harness</li> </ul>
			Shift lever is not at neutral position	B+	
	Selector lever position* <sup>1</sup>	TR switch	Ignition switch is turned to the ON position	P, N position	● TR switch
				Except above	● Related wiring harness
1Y	—	—	—	—	—
1Z	—	—	—	—	—
1AA	—	—	—	—	—
1AB	Brake switch No.1	Brake switch No.1	Brake pedal depressed	B+	<ul style="list-style-type: none"> <li>● Brake switch No.1</li> <li>● Related wiring harness</li> </ul>
			Brake pedal released	Below 1.0	
1AC	—	—	—	—	—
1AD	—	—	—	—	—
1AE	—	—	—	—	—
1AF <sup>~3</sup>	Brake switch No.2	Brake switch No.2	Brake pedal depressed	B+	<ul style="list-style-type: none"> <li>● Brake switch No.2</li> <li>● Related wiring harness</li> </ul>
			Brake pedal released	Below 1.0	
1AG	—	—	—	—	—
1AH	—	—	—	—	—
1AI	CAN_L	CAN related module	Because this terminal is for CAN, no valid determination of terminal voltage is possible		● Related wiring harness
1AJ	APP sensor No.2 power supply	APP sensor	Ignition switch is turned to the ON position	Approx. 5.0	● Related wiring harness
1AK	MAF	MAF sensor	Ignition switch is turned to the ON position	Approx. 0.7	<ul style="list-style-type: none"> <li>● MAF sensor</li> <li>● Related wiring harness</li> </ul>
			Idle	Approx. 1.4	
1AL	APP sensor No.1 power supply	APP sensor	Ignition switch is turned to the ON position.	Approx. 5.0	● Related wiring harness
1AM	CAN_H	CAN related module	Because this terminal is for CAN, no valid determination of terminal voltage is possible		● Related wiring harness
1AN	—	—	—	—	—

Terminal Voltage Table (Part 3)

1AO	APP sensor No.1	APP sensor	Ignition switch is turned to the ON position	Accelerator pedal depressed	Approx. 3.9	● APP sensor
				Accelerator pedal released	Approx. 1.6	● Related wiring harness
1AP	APP sensor No.2	APP sensor	Ignition switch is turned to the ON position	Accelerator pedal depressed	Approx. 3.4	● APP sensor
				Accelerator pedal released	Approx. 1.0	● Related wiring harness
1AQ <sup>*3</sup>	Cruise control switch	Cruise control switch	Ignition switch is turned to the ON position	ON OFF switch pressed in	Approx. 0	● Cruise control switch ● Related wiring harness
				CANCEL switch pressed in	Approx. 1.1	
				SET/- switch pressed in	Approx. 3.1	
				RES/+ switch pressed in	Approx. 4.2	
				Except above	Approx. 5.0	
1AR	Sensor ground	MAF/IAT sensor	Under any condition		Below 1.0	● Related wiring harness
1AS	APP sensor No.1 ground	APP sensor	Under any condition		Below 1.0	● Related wiring harness
1AT	IAT	MAF/IAT sensor	Ignition switch is turned to the ON position	IAT is 20 °C {68 °F}	Approx. 2.4	● IAT sensor
				IAT is 60°C {140 °F}	Approx. 0.9	● Related wiring harness
1AU	Refrigerant pressure switch (high, low)	Refrigerant pressure switch (high, low)	Ignition switch is turned to the ON position	A/C operating	Below 1.0	● Refrigerant pressure switch (high, low)
				A/C not operating	B+	● Related wiring harness
1AV	APP sensor No.2 ground	APP sensor	Under any condition		Below 1.0	● Related wiring harness
1AW	B+	Main relay	Ignition switch off		Below 1.0	● Main relay
			Ignition switch is turned to the ON position		B+	● Battery ● Related wiring harness
1AX	Drive-by-wire relay control	Drive-by-wire relay	Under any condition		Below 1.0	● Drive-by-wire relay ● Related wiring harness
1AY	Ignition switch on	Ignition switch	Ignition switch off		Below 1.0	● Ignition switch
			Ignition switch is turned to the ON position		B+	● Related wiring harness
1AZ	Ground	Ground	Under any condition		Below 1.0	● Related wiring harness
1BA	Back-up power supply	Battery (positive terminal)	Under any condition		B+	● Battery ● Related wiring harness

Terminal Voltage Table (Part 4)

1BB	Ground	Ground	Under any condition		Below 1.0	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
1BC	—	—	—		—	—
1BD	Ground	Ground	Under any condition		Below 1.0	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
1BE	B+	Main relay	Ignition switch off		Below 1.0	<ul style="list-style-type: none"> <li>Main relay</li> <li>Related wiring harness</li> </ul>
			Ignition switch is turned to the ON position		B+	
1BF	Drive-by-wire relay control	Drive-by-wire relay	Ignition switch is turned to the ON position	Drive-by-wire system is malfunction	Below 1.0	<ul style="list-style-type: none"> <li>Drive-by-wire relay</li> <li>Related wiring harness</li> </ul>
				Drive-by-wire system is normal	B+	
1BG	—	—	—		—	—
1BH	Ground	Ground	Under any condition		Below 1.0	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
2A	Throttle control (+)	Throttle body (Throttle valve actuator)	<ul style="list-style-type: none"> <li>Inspect using the wave profile.</li> </ul> (See PCM INSPECTION [LF].)			<ul style="list-style-type: none"> <li>Throttle valve actuator</li> <li>Related wiring harness</li> </ul>
2B	Throttle control (−)	Throttle body (Throttle valve actuator)	<ul style="list-style-type: none"> <li>Inspect using the wave profile.</li> </ul> (See PCM INSPECTION [LF].)			<ul style="list-style-type: none"> <li>Throttle valve actuator</li> <li>Related wiring harness</li> </ul>
2C	Purge control	Purge solenoid valve	<ul style="list-style-type: none"> <li>Inspect using the wave profile.</li> </ul> (See PCM INSPECTION [LF].)			<ul style="list-style-type: none"> <li>Purge solenoid valve</li> <li>Related wiring harness</li> </ul>
2D	—	—	—	—	—	—
2E	OCV control	OCV	<ul style="list-style-type: none"> <li>Inspect using the wave profile.</li> </ul> (See PCM INSPECTION [LF].)			<ul style="list-style-type: none"> <li>OCV</li> <li>Related wiring harness</li> </ul>
2F	—	—	—	—	—	—
2G	EGR valve #2 coil control	EGR valve (terminal A)	Idle (EGR control not operating)		B+	<ul style="list-style-type: none"> <li>EGR valve</li> <li>Related wiring harness</li> </ul>
2H	EGR valve #4 coil control	EGR valve (terminal F)	Idle (EGR control not operating)		B+	<ul style="list-style-type: none"> <li>EGR valve</li> <li>Related wiring harness</li> </ul>
2I <sup>*1</sup>	Variable tumble control	Variable tumble solenoid valve	ECT 63 °C {145 °F} or more or engine speed 3,750 rpm or more		B+	<ul style="list-style-type: none"> <li>Variable tumble solenoid valve</li> <li>Related wiring harness</li> </ul>
			ECT less than 63 °C {145 °F} and engine speed less than 3,750 rpm		Below 1.0	

Terminal Voltage Table (Part 5)

2J	Variable intake air control	Variable intake air solenoid valve	Ignition switch is turned to the ON position		Below 1.0	<ul style="list-style-type: none"> <li>Variable intake air solenoid valve</li> <li>Related wiring harness</li> </ul>
			Engine speed: less than 4,750 rpm		Below 1.0	
			Engine speed: 4,750 rpm or more		B+	
2K	EGR valve #1 coil control	EGR valve (terminal E)	Idle (EGR control not operating)		Below 1.0	<ul style="list-style-type: none"> <li>EGR valve</li> <li>Related wiring harness</li> </ul>
2L	EGR valve #3 coil control	EGR valve (terminal B)	Idle (EGR control not operating)		B+	<ul style="list-style-type: none"> <li>EGR valve</li> <li>Related wiring harness</li> </ul>
2M	—	—	—		—	—
2N	—	—	—		—	—
2O	—	—	—		—	—
2P	CMP sensor ground	CMP sensor	Under any condition		Below 1.0	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
2Q	HO2S	HO2S	Idle after warm-up		Alternates between 0 and 1.0	<ul style="list-style-type: none"> <li>HO2S</li> <li>Related wiring harness</li> </ul>
2R	—	—	—		—	—
2S	CMP	CMP sensor	<ul style="list-style-type: none"> <li>Inspect using the wave profile.</li> </ul> (See PCM INSPECTION [LF].)			<ul style="list-style-type: none"> <li>CMP sensor</li> <li>Related wiring harness</li> </ul>
2T	Power steering pressure	PSP switch	Idle	Steering wheel at straight ahead position	B+	<ul style="list-style-type: none"> <li>PSP switch</li> </ul>
				While turning steering wheel	Below 1.0	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
2U	Knocking (+)	KS	Ignition switch ON (Use digital type voltmeter, because measurement voltage will be detected less than true voltage when using analog type voltmeter)		Approx. 4.3	<ul style="list-style-type: none"> <li>KS</li> <li>Related wiring harness</li> </ul>
2V	Knocking (–)	KS	Ignition switch ON (Use digital type voltmeter, because measurement voltage will be detected less than true voltage when using analog type voltmeter)		Below 1.0	<ul style="list-style-type: none"> <li>KS</li> <li>Related wiring harness</li> </ul>
2W	CKP	CKP sensor	<ul style="list-style-type: none"> <li>Inspect using the wave profile.</li> </ul> (See PCM INSPECTION [LF].)			<ul style="list-style-type: none"> <li>CKP sensor</li> <li>Related wiring harness</li> </ul>
2X	Ground	Shield wire	Under any condition		Below 1.0	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
2Y	—	—	—		—	—
2Z	A/F sensor	A/F sensor	Idle after warm-up		Approx. 2.4	<ul style="list-style-type: none"> <li>A/F sensor</li> <li>Related wiring harness</li> </ul>
2AA	—	—	—		—	—
2AB	CKP sensor ground	CKP sensor	Under any condition		Below 1.0	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
2AC	—	—	—		—	—

Terminal Voltage Table (Part 6)

2AD	A/F sensor	A/F sensor	Idle after warm-up		Approx. 2.8	<ul style="list-style-type: none"> <li>● A/F sensor</li> <li>● Related wiring harness</li> </ul>
2AE*1	Variable tumble shutter valve monitor	Variable tumble shutter valve switch	variable tumble shutter valve close		B+	<ul style="list-style-type: none"> <li>● Variable tumble shutter valve switch</li> </ul>
			variable tumble shutter valve open		Below 1.0	<ul style="list-style-type: none"> <li>● Related wiring harness</li> </ul>
2AF	—	—	—		—	—
2AG	Manifold absolute pressure	MAP sensor	Ignition switch is turned to the ON position (at sea level)		Approx. 4.1	<ul style="list-style-type: none"> <li>● MAP sensor</li> <li>● Related wiring harness</li> </ul>
			Idle		Approx. 1.2	
2AH	ECT	ECT sensor	Ignition switch is turned to the ON position	ECT is 20 °C {68 °F}	Approx. 3.0	<ul style="list-style-type: none"> <li>● ECT sensor</li> <li>● Related wiring harness</li> </ul>
				ECT is 80 °C {176 °F}	Approx. 0.9	
2AI	Generator field coil control	Generator (terminal D)	<ul style="list-style-type: none"> <li>● Inspect using the wave profile.</li> <li>(See PCM INSPECTION [LF].)</li> </ul>			<ul style="list-style-type: none"> <li>● Generator</li> <li>● Related wiring harness</li> </ul>
2AJ	Generator output voltage	Generator (terminal P)	<ul style="list-style-type: none"> <li>● Inspect using the wave profile.</li> <li>(See PCM INSPECTION [LF].)</li> </ul>			<ul style="list-style-type: none"> <li>● Generator</li> <li>● Related wiring harness</li> </ul>
2AK	Throttle valve opening angle No. 1	Throttle body (TP sensor)	Ignition switch is turned to the ON position	Accelerator pedal depressed	Approx. 4.5	<ul style="list-style-type: none"> <li>● TP sensor</li> <li>● Related wiring harness</li> </ul>
				Accelerator pedal released	Approx. 0.5	
2AL	Throttle valve opening angle No. 2	Throttle body (TP sensor)	Ignition switch is turned to the ON position	Accelerator pedal depressed	Approx. 0.5	<ul style="list-style-type: none"> <li>● TP sensor</li> <li>● Related wiring harness</li> </ul>
				Accelerator pedal released	Approx. 4.5	
2AM	Constant voltage	CMP sensor	Ignition switch is turned to the ON position		B+	<ul style="list-style-type: none"> <li>● Related wiring harness</li> </ul>
2AN	—	—	—		—	—
2AO	Constant voltage (Vref)	Throttle body (TP sensor)	Ignition switch is turned to the ON position		Approx. 5.0	<ul style="list-style-type: none"> <li>● Related wiring harness</li> </ul>
2AP	Sensor ground	Throttle body (TP sensor)	Under any condition		Below 1.0	<ul style="list-style-type: none"> <li>● Related wiring harness</li> </ul>
2AQ	Constant voltage	CKP sensor	Ignition switch is turned to the ON position		B+	<ul style="list-style-type: none"> <li>● Related wiring harness</li> </ul>
2AR	—	—	—		—	—
2AS	—	—	—		—	—
2AT	IGT4	Ignition coil (No.4 cylinders)	<ul style="list-style-type: none"> <li>● Inspect using the wave profile.</li> <li>(See PCM INSPECTION [LF].)</li> </ul>			<ul style="list-style-type: none"> <li>● Ignition coil No.4</li> <li>● Related wiring harness</li> </ul>
2AU	Constant voltage (Vref)	MAP sensor	Ignition switch is turned to the ON position		Approx. 5.0	<ul style="list-style-type: none"> <li>● Related wiring harness</li> </ul>
2AV	MAP sensor ground	MAP sensor	Under any condition		Below 1.0	<ul style="list-style-type: none"> <li>● Related wiring harness</li> </ul>

Terminal Voltage Table (Part 7)

2AW	IGT2	Ignition coil (No.2 cylinders)	<ul style="list-style-type: none"> <li>Inspect using the wave profile. (See PCM INSPECTION [LF].)</li> </ul>		<ul style="list-style-type: none"> <li>Ignition coil No.2</li> <li>Related wiring harness</li> </ul>
2AX	IGT3	Ignition coil (No.3 cylinders)	<ul style="list-style-type: none"> <li>Inspect using the wave profile. (See PCM INSPECTION [LF].)</li> </ul>		<ul style="list-style-type: none"> <li>Ignition coil No.3</li> <li>Related wiring harness</li> </ul>
2AY	ECT sensor ground	ECT sensor	Under any condition	Below 1.0	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>
2AZ	Fuel injection (#4)	Fuel injector No.4	<ul style="list-style-type: none"> <li>Inspect using the wave profile. (See PCM INSPECTION [LF].)</li> </ul>		<ul style="list-style-type: none"> <li>Fuel injector No.4</li> <li>Related wiring harness</li> </ul>
2BA	IGT1	Ignition coil (No.1 cylinders)	<ul style="list-style-type: none"> <li>Inspect using the wave profile. (See PCM INSPECTION [LF].)</li> </ul>		<ul style="list-style-type: none"> <li>Ignition coil No.1</li> <li>Related wiring harness</li> </ul>
2BB	Fuel injection (#1)	Fuel injector No.1	<ul style="list-style-type: none"> <li>Inspect using the wave profile. (See PCM INSPECTION [LF].)</li> </ul>		<ul style="list-style-type: none"> <li>Fuel injector No.1</li> <li>Related wiring harness</li> </ul>
2BC	Fuel injection (#2)	Fuel injector No.2	<ul style="list-style-type: none"> <li>Inspect using the wave profile. (See PCM INSPECTION [LF].)</li> </ul>		<ul style="list-style-type: none"> <li>Fuel injector No.2</li> <li>Related wiring harness</li> </ul>
2BD	Fuel injection (#3)	Fuel injector No.3	<ul style="list-style-type: none"> <li>Inspect using the wave profile. (See PCM INSPECTION [LF].)</li> </ul>		<ul style="list-style-type: none"> <li>Fuel injector No.3</li> <li>Related wiring harness</li> </ul>
2BE	HO2S heater control	HO2S heater	Heavy load (Heater control not operating)	B+	<ul style="list-style-type: none"> <li>HO2S heater</li> <li>Related wiring harness</li> </ul>
2BF	—	—	—	—	—
2BG	A/F sensor heater control	A/F sensor heater	<ul style="list-style-type: none"> <li>Inspect using the wave profile. (See PCM INSPECTION [LF].)</li> </ul>		<ul style="list-style-type: none"> <li>A/F sensor heater</li> <li>Related wiring harness</li> </ul>
2BH	HO2S ground	HO2S	Under any condition	Below 1.0	<ul style="list-style-type: none"> <li>Related wiring harness</li> </ul>

\*1  
AT

\*2  
MT

\*3  
With cruise control system