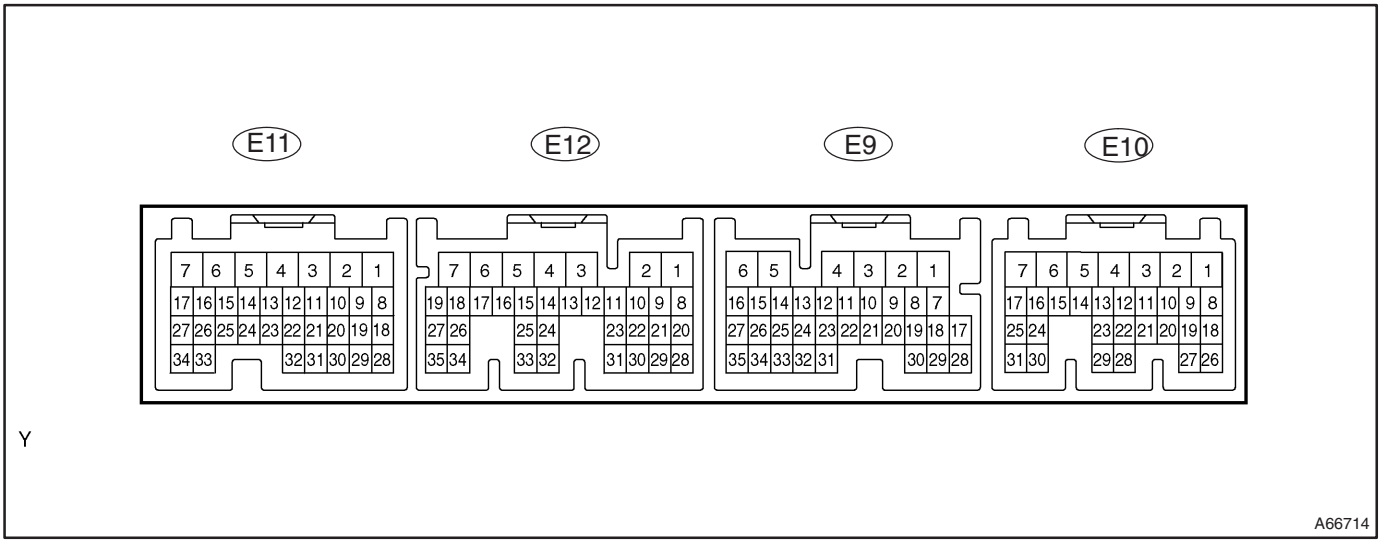
TERMINALS OF ECM



HINT:
Each ECM terminal's standard normal voltage is shown in the table below.
In the table, first follow the information under "Condition." Look under "Symbols (Terminals No.)" for the terminals to be inspected. The standard normal voltage between the terminals is shown under "STD Voltage."
Use the illustration above as a reference for the ECM terminals.

Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	STD Voltage
+B (E10–1) – E1 (E11–3)	B – BR	Power source of ECM	IG switch ON	9 to 14
BATT (E10–3) – E1 (E11–3)	L – BR	Battery (for measuring the battery voltage and for the ECM memory)	Always	9 to 14
+BM (E10–7) – E1 (E11–3)	L–B – BR	Power source of throttle motor	Always	9 to 14
MREL (E10–8) – E1 (E11–3)	W–G – BR	EFI relay	IG switch ON	9 to 14
IGSW (E10–9) – E1 (E11–3)	B–O – BR	Ignition switch	IG switch ON	9 to 14
STA (E10–12) – E1 (E11–3)	B–Y – BR	Starter signal	Shift lever position P or N position, ignition switch START	6.0 or more
ELS1 (E9–15) – E1 (E11–3)	L–R – BR	Electric load	Defogger switch ON	7.5 to 14
ELS1 (E9–15) – E1 (E11–3)	L–R – BR	Electric load	Defogger switch OFF	0 to 1.5
ST1– (E10–16) – E1 (E11–3)	R–L – BR	Stop light switch (opposite to stop)	Brake pedal is depressed	Below 1.5
ST1– (E10–16) – E1 (E11–3)	R–L – BR	Stop light switch (opposite to stop)	Brake pedal is depressed	7.5 to 14
VPA (E10–18) – EPA (E10–20)	W–L – BR–W	Accelerator pedal position sensor (for the engine control)	IG switch ON, Accelerator pedal released	0.3 to 0.9
VPA (E10–18) – EPA (E10–20)	W–L – BR–W	Accelerator pedal position sensor (for the engine control)	IG switch ON, Accelerator pedal depressed	3.2 to 4.8
VPA2 (E10–19) – EPA2 (E10–21)	GR–G – BR–Y	Accelerator pedal position sensor (for the malfunction detection)	IG switch ON, Accelerator pedal released	1.8 to 2.7
VPA2 (E10–19) – EPA2 (E10–21)	GR–G – BR–Y	Accelerator pedal position sensor (for the malfunction detection)	IG switch ON, Accelerator pedal depressed	4.7 to 5.1
FC (E10–25) – E01 (E11–7)	GR–B – W–B	Circuit opening relay	IG switch ON	9 to 14

Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	STD Voltage
VCPA (E10–26) – EPA (E10–20)	LG–R – BR–W	Power source of accelerator pedal position sensor (for VPA)	IG switch ON	4.5 to 5.5
VCP2 (E10–27) – EPA2 (E10–21)	BR–R – BR–Y	Power source of accelerator pedal position sensor (for VPA2)	IG switch ON	4.5 to 5.5
TAC (E9–1) – E1 (E11–3)	B–W – BR	Engine speed signal	Idling	Pulse generation
ELS3 (E9–3) – E1 (E11–3)	G – BR	Electric load	Taillight switch ON	7.5 to 14
ELS3 (E9–3) – E1 (E11–3)	G – BR	Electric load	Taillight switch OFF	0 to 1.5
STP (E9–4) – E1 (E11–3)	G–Y – BR	Stop light switch	Brake pedal is depressed	7.5 to 14
STP (E9–4) – E1 (E11–3)	G–Y – BR	Stop light switch	Brake pedal is released	Below 1.5
SPD (E9–8) – E1 (E11–3)	V–R – BR	Speed signal from vehicle speed sensor	IG switch ON, Rotate driving wheel slowly	Pulse generation (See page 05–122)
SIL (E9–13) – E1 (E11–3)	R–Y – BR	Terminal SIL of DLC3	During transmission	Pulse generation
TC (E9–17) – E1 (E11–3)	P–L – BR	Terminal TC of DLC3	IG switch ON	9 to 14
W (E9–30) – E1 (E11–3)	R–B – BR	MIL	Idling	9 to 14
W (E9–30) – E1 (E11–3)	R–B – BR	MIL	IG switch ON	Below 3.0
F/PS (E9–32) – E1 (E11–3)	W–L – BR	Airbag sensor assembly	IG switch ON	Below 1.5
#40 (E12–1) – E01 (E11–7) #30 (E12–2) – E01 (E11–7) #20 (E12–5) – E01 (E11–7) #10 (E12–6) – E01 (E11–7)	W – BR R – BR G – BR L – BR	Injector	IG switch ON	9 to 14
#40 (E12–1) – E01 (E11–7) #30 (E12–2) – E01 (E11–7) #20 (E12–5) – E01 (E11–7) #10 (E12–6) – E01 (E11–7)	W – BR R – BR G – BR L – BR	Injector	Idling	Pulse generation (See page 05–182)
AIDI (E12–20)*1 – E1 (E11–3)	R – BR	AI driver	Air pump ON, Air switching valve ON	Pulse generation (See page 05–107)
PRG (E12–23) – E01 (E11–7)	P – W–B	EVAP VSV	IG switch ON	9 to 14
VG (E12–28) – EVG (E12–30)	W–R – B–W	Mass air flow sensor	Idling, P or N position, A/C switch OFF	0.5 to 3.0
THA (E12–29) – E2 (E11–28)	Y–B – BR	Intake air temperature sensor	Idling, Intake air temp. 20°C (68°F)	0.5 to 3.4
HA1A (E11–1)*1 – E04 (E12–7)	R–L – B–R	A/F sensor heater	Idling	9 to 14
HT1B (E11–2)*1 – E03 (E12–4)	L–Y – B–R	Heated oxygen sensor heater	Idling	9 to 14
M+ (E11–5) – E1 (E11–3) M– (E11–4) – E1 (E11–3)	P – BR L – BR	Throttle motor	Idling	Pulse generation
AIRP (E11–11)*1 – E1 (E11–3)	Y – BR	AI driver (Air pump)	Air pump ON	9 to 14
OC1+ (E11–13) – OC1– (E11–12)	G–Y – L–B	Camshaft timing oil control valve (OCV)	Idling	Pulse generation (See page 05–38)
IGT4 (E11–14) – E1 (E11–3) IGT3 (E11–15) – E1 (E11–3) IGT2 (E11–16) – E1 (E11–3) IGT1 (E11–17) – E1 (E11–3)	G–W – BR G–B – BR R–L – BR R–Y – BR	Ignition coil with igniter (ignition signal)	Idling	Pulse generation (See page 05–100)
VC (E11–18) – E2 (E11–28)	LG–B – BR	Power source of sensor	IG switch ON	4.5 to 5.5
VTA2 (E11–19) – E2 (E11–28)	G–W – BR	Throttle position sensor (for the sensor malfunction detection)	IG switch ON, Accelerator pedal fully closed	2.0 to 2.9
VTA2 (E11–19) – E2 (E11–28)	G–W – BR	Throttle position sensor (for the sensor malfunction detection)	IG switch ON, Accelerator pedal fully open	4.6 to 5.1
VTA1 (E11–20) – E2 (E11–28)	LG – BR	Throttle position sensor (for the engine)	IG switch ON, Accelerator pedal fully closed	0.4 to 1.0

Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	STD Voltage
VTA1 (E11–20) – E2 (E11–28)	LG – BR	Throttle position sensor (for the engine)	IG switch ON, Accelerator pedal fully open	3.2 to 4.8
A1A+ (E11–21)*1 – E1 (E11–3)	P – BR	A/F sensor	IG switch ON	3.0 to 3.6
A1A– (E11–31)*1 – E1 (E11–3)	V – BR	A/F sensor	IG switch ON	2.7 to 3.3
IGF1 (E11–23) – E1 (E11–3)	G–R – BR	Ignition coil with igniter (ignition confirmation signal)	IG switch ON	4.5 to 5.5
AIRV (E11–24)*1 – E1 (E11–3)	L – BR	AI driver (Air switching valve)	Air switching valve ON	9 to 14
OX1B (E11–25)*1 – E2 (E11–28)	W – BR	Heated oxygen sensor	Maintain engine speed at 2,500 rpm for 2 minutes after warming up	Pulse generation
VAF (E11–25)*2 – E1 (E11–3)	P–L – BR	Variable resistor	IG switch ON	0 to 5.0
G2+ (E11–26) – NE– (E11–34)	R – G	Camshaft position sensor	Idling	Pulse generation (See page 05–93)
NE+ (E11–27) – NE– (E11–34)	B – G	Crankshaft position sensor	Idling	Pulse generation (See page 05–93)
KNK1 (E11–29) – EKNK (E11–30)	B – W	Knock sensor	Maintain engine speed at 4,000 rpm after warming up	Pulse generation (See page 05–89)
THW (E11–32) – E2 (E11–28)	R–L – BR	Engine coolant temperature sensor	Idling, water temp. 80°C (176°F)	0.2 to 1.0

*1: Un–leaded gasoline
*2: Leaded gasoline