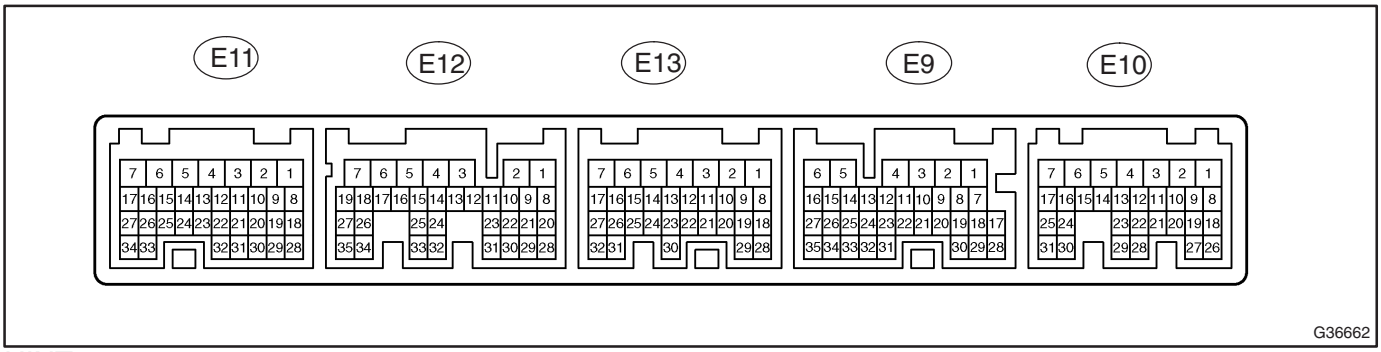
05MLP–02

TERMINALS OF ECM

1. ECM



HINT:

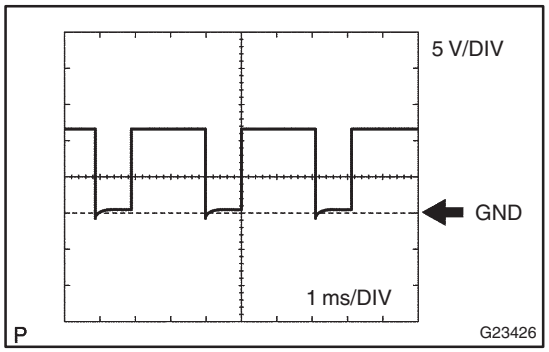
Each ECM terminal's standard voltage is shown in the table below.

In the table, first follow the information under "Condition". Look under "Symbols (Terminal No.)" for the terminals to be inspected. The standard voltage between the terminals is shown under "Specific Condition".

Use the illustration above as a reference for the ECM terminals.

Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	Specified Condition
L4 (E13–13) – E1 (E13–1)	G–W – BR	Transfer L position switch signal	IG switch ON and transfer shift lever L position	Below 1 V
↑	↑	↑	IG switch ON and transfer shift lever except L position	10 to 14 V
TFN (E12–25) – E1 (E13–1)	G–R – BR	Transfer N position switch signal	IG switch ON and transfer shift lever N position	Below 1 V
↑	↑	↑	IG switch ON and transfer shift lever except N position	10 to 14 V
L (E9–9) – E1 (E13–1)	G–R – BR	L shift position switch signal	IG switch ON and shift lever L position	10 to 14 V
↑	↑	↑	IG switch ON and shift lever except L position	Below 1 V
2 (E9–10) – E1 (E13–1)	G–R – BR	2 shift position switch signal	IG switch ON and shift lever 2 and L position	10 to 14 V
↑	↑	↑	IG switch ON and shift lever except 2 and L position	Below 1 V
R (E9–11) – E1 (E13–1)	R–B – BR	R shift position switch signal	IG switch ON and shift lever R position	10 to 14 V
↑	↑	↑	IG switch ON and shift lever except R position	Below 1 V
D (E9–21) – E1 (E13–1)	G – BR	D shift position switch signal	IG switch ON and shift lever D and 4 position	10 to 14 V
↑	↑	↑	IG switch ON and shift lever except D and 4 position	Below 1 V
3 (E9–19) – E1 (E13–1)	G–O – BR	3 shift position switch signal	IG switch ON and shift lever 3 position	10 to 14 V
↑	↑	↑	IG switch ON and shift lever except 3 position	Below 1 V
4 (E9–20) – E1 (E13–1)	P–L – BR	4 shift position switch signal	IG switch ON and shift lever 4 position	10 to 14 V
↑	↑	↑	IG switch ON and shift lever except 4 position	Below 1 V

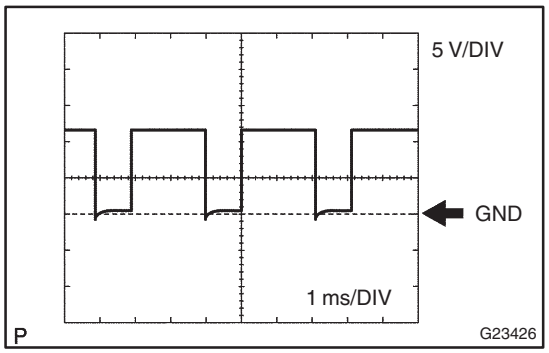
STP (E10–15) – E1 (E13–1)	G–Y – BR	Stop lamp switch signal	Brake pedal is depressed	7.5 to 14 V
↑	↑	↑	Brake pedal is released	Below 1.5 V
SLU+ (E12–15) – SLU– (E12–14)	G–R – Y–R	SLU solenoid signal	5th (lock–up) gear	Pulse generation (See waveform 2)
S2 (E12–10) – E1 (E13–1)	L–W – BR	S2 solenoid signal	2nd or 3rd gear	10 to 14 V
↑	↑	↑	1st, 4th or 5th gear	Below 1 V
S1 (E12–11) – E1 (E13–1)	L–R – BR	S1 solenoid signal	1st or 2nd gear	10 to 14 V
↑	↑	↑	3rd, 4th or 5th gear	Below 1 V
SLT+ (E12–13) – SLT– (E12–12)	G–Y – L–B	SLT solenoid signal	Engine idle speed	Pulse generation (See waveform 1)
SR (E12–9) – E1 (E13–1)	P – BR	SR solenoid signal	5th gear	10 to 14 V
↑	↑	↑	1st gear	Below 1 V
SL2+ (E12–17) – SL2– (E12–16)	LG – BR	SL2 solenoid signal	Engine idle speed	Pulse generation (See waveform 3)
SL1+ (E12–19) – SL1– (E12–18)	V – R–G	SL1 solenoid signal	Engine idle speed	Pulse generation (See waveform 4)
THO1 (E12–24) – E2 (E11–28)	B–R – BR	No.1 ATF temperature sensor signal	No.1 ATF temperature: 115°C (239 °F) or more	Below 1.5 V
THO2 (E12–32) – E2 (E11–28)	L–Y – BR	No.2 ATF temperature sensor signal	No.2 ATF temperature: 115°C (239 °F) or more	Below 1.5 V
SP2+ (E12–34) – SP2– (E12–26)	R – G	Speed sensor (SP2) signal	Vehicle speed 20 km/h (12 mph)	Pulse generation (See waveform 6)
NT+ (E12–35) – NT– (E12–27)	L – Y	Speed sensor (NT) signal	Engine idle speed	Pulse generation (See waveform 5)
NSW (E12–8) – E1 (E13–1)	L–Y – BR	Park neutral switch signal	IG switch ON and shift lever P and N position	Below 2 V
↑	↑	↑	IG switch ON and shift lever except P and N position	10 to 14 V
SNWI (E9–27) – E1 (E13–1)	GR–L – BR	2nd STRT switch signal	IG switch ON	10 to 14 V
↑	↑	↑	IG switch ON and Press continuously 2nd STRT switch	Below 1 V



Waveform 1

Reference:

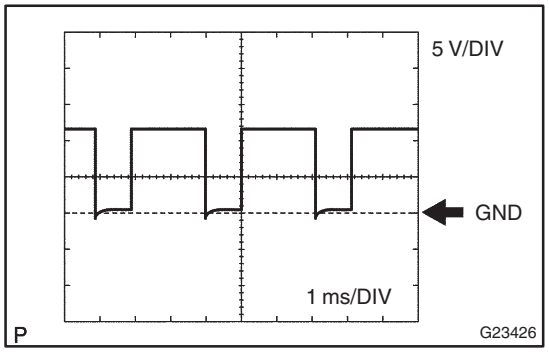
Terminal	SLT+ – SLT–
Tool setting	5V/DIV, 1ms/DIV
Vehicle condition	Engine idle speed



Waveform 2

Reference:

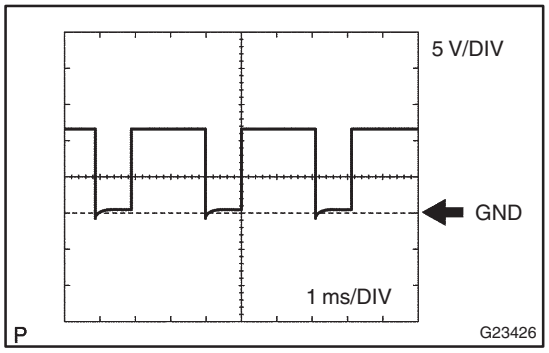
Terminal	SLU+ – SLU–
Tool setting	5V/DIV, 1ms/DIV
Vehicle condition	5th (lock–up) or 6th (lock–up) gear



Waveform 3

Reference:

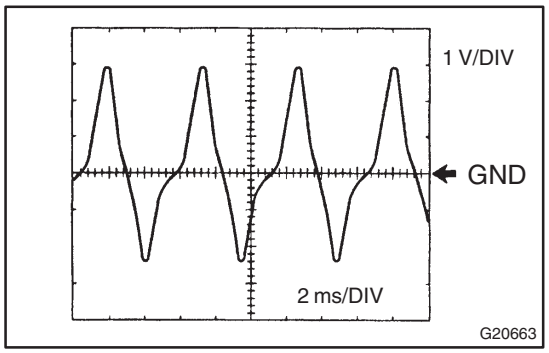
Terminal	SL2+ – SL2–
Tool setting	5V/DIV, 1ms/DIV
Vehicle condition	Engine idle speed



Waveform 4

Reference:

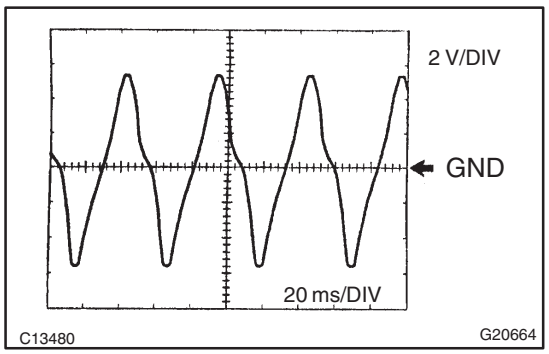
Terminal	SL1+ – SL1–
Tool setting	5V/DIV, 1ms/DIV
Vehicle condition	Engine idle speed



Waveform 5

Reference:

Terminal	NT+ – NT–
Tool setting	1V/DIV, 2ms/DIV
Vehicle condition	Engine idle speed (P or N position)



Waveform 6

Reference:

Terminal	SP2+ – SP2–
Tool setting	2V/DIV, 20ms/DIV
Vehicle condition	Vehicle speed 20 km/h (12 mph)