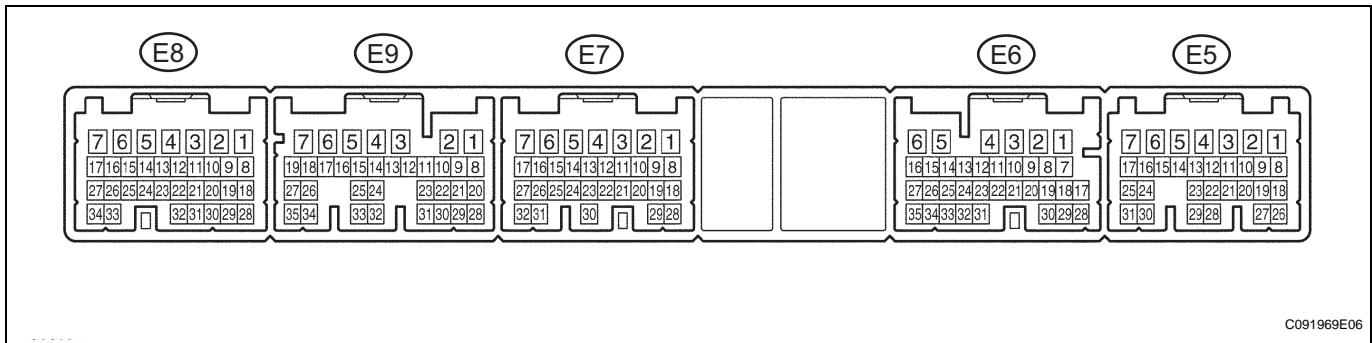


# TERMINALS OF ECM

## 1. ECM



C091969E06

**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 inspected. The standard voltage between the terminals is shown under "Specified Condition".

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

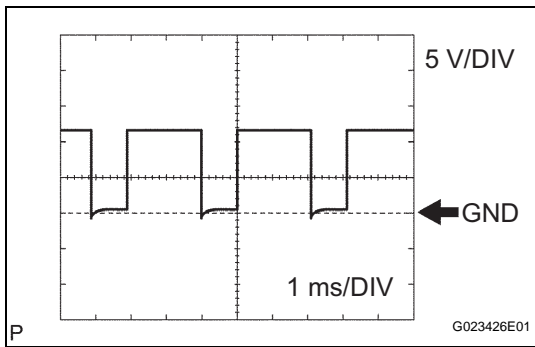
\*1: Shift lever with Multi-mode automatic transmission type

\*2: Except \*1 (Gate shift lever type)

Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	Specified Condition
L <sup>*2</sup> (E6-8) - E1 (E7-1)	L - BR	L shift position switch signal	IG switch ON and shift lever L position	10 to 14 V
			IG switch ON and shift lever other than L position	Below 1 V
2 <sup>*2</sup> (E6-9) - E1 (E7-1)	W - 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 other than 2 and L position	Below 1 V
D <sup>*1</sup> (E6-10) - E1 (E7-1)	BR - BR	D shift position switch signal	IG switch ON and shift lever D and S position	10 to 14 V
			IG switch ON and shift lever other than D and S position	Below 1 V
D <sup>*2</sup> (E6-10) - E1 (E7-1)	BR - 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 other than D and 4 position	Below 1 V
R (E6-11) - E1 (E7-1)	G - BR	R shift position switch signal	IG switch ON and shift lever R position	10 to 14 V
			IG switch ON and shift lever other than R position	Below 1 V
SPD (E6-17) - E1 (E7-1)	LG - BR	Speed signal	Vehicle speed 20 km/h (12 mph)	Pulse generation (See waveform 8)
STP (E6-19) - E1 (E7-1)	B - BR	Stop light switch signal	Brake pedal is depressed	7.5 to 14 V
			Brake pedal is released	Below 1.5 V
3 <sup>*2</sup> (E6-20) - E1 (E7-1)	SB - BR	3 shift position switch signal	IG switch ON and shift lever 3 position	10 to 14 V
			IG switch ON and shift lever other than 3 position	Below 1 V

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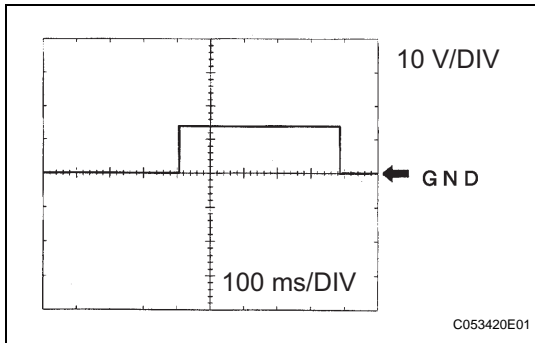
Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	Specified Condition
SFTD* <sup>1</sup> (E6-21) - E1 (E7-1)	Y - BR	Down shift switch signal	IG switch ON and shift lever S position	10 to 14 V
			IG switch ON and shift lever "-" position (Down shift)	Below 1 V
SFTU* <sup>1</sup> (E6-22) - E1 (E7-1)	W - BR	Up shift switch signal	IG switch ON and shift lever S position	10 to 14 V
			IG switch ON and shift lever "+" position (Up shift)	Below 1 V
4* <sup>2</sup> (E6-23) - E1 (E7-1)	BR - BR	4 shift position switch signal	IG switch ON and shift lever 4 position	10 to 14 V
			IG switch ON and shift lever other than 4 position	Below 1 V
S* <sup>1</sup> (E6-23) E1 (E7-1)	SB - BR	S shift position switch signal	IG switch ON and shift lever S position	10 to 14 V
			IG switch ON and shift lever other than S position	Below 1 V
P (E5-6) - E1 (E7-1)	L - BR	Park position switch signal	IG switch ON and shift lever P position	10 to 14 V
			IG switch ON and shift lever other than P position	Below 1 V
N (E5-7) - E1 (E7-1)	GR - BR	Neutral position switch signal	IG switch ON and shift lever N position	10 to 14 V
			IG switch ON and shift lever other than N position	Below 1 V
NSW (E8-16) - E1 (E7-1)	B-Y - BR	Park neutral switch signal	IG switch ON and shift lever P and N position	Below 1 V
			IG switch ON and shift lever other than P and N position	10 to 14 V
DSL (E9-11) - E1 (E7-1)	Y-G - BR	DSL solenoid signal	Vehicle speed 65 km/h (40 mph), lock-up (ON to OFF)	Pulse generation (See waveform 2)
SR (E9-9) - E1 (E7-1)	L-B - BR	SR solenoid signal	IG switch ON	Below 1 V
			3rd, 4th or 5th gear	10 to 14 V
			1st or 2nd gear	Below 1 V
S4 (E9-10) - E1 (E7-1)	L-W - BR	S4 solenoid signal	IG switch ON	Below 1 V
			5th gear	10 to 14 V
			Except 5th gear	Below 1 V
SL3+ (E9-17) - SL3- (E9-16)	G-B - G-R	SL3 solenoid signal	Engine idle speed	Pulse generation (See waveform 3)
SL2+ (E9-15) - SL2- (E9-14)	L-Y - L-R	SL2 solenoid signal	Engine idle speed	Pulse generation (See waveform 4)
SL1+ (E9-19) - SL1- (E9-18)	R-B - B-W	SL1 solenoid signal	Engine idle speed	Pulse generation (See waveform 5)
NC+ (E9-26) - NC- (E9-34)	R - W-G	Speed sensor (NC) signal	Vehicle speed 30 km/h (19 mph): (3rd gear) Engine speed 1,400 rpm	Pulse generation (See waveform 6)
NT+ (E9-27) - NT- (E9-35)	W - R-W	Speed sensor (NT) signal	Vehicle speed 20 km/h (12mph)	Pulse generation (See waveform 7)
SLT+ (E9-13) - SLT- (E9-12)	Y-R - Y-B	SLT solenoid signal	Engine idle speed	Pulse generation (See waveform 1)
THO1 (E9-32) - E2 (E8-28)	G-Y - BR	ATF temperature sensor signal	ATF temperature: 115°C (239°F) or more	Below 1.5 V



(a) Waveform 1

**Reference:**

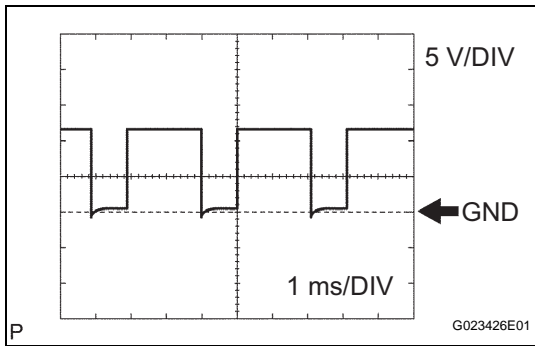
Terminal	SLT+ - SLT-
Tool setting	5 V/DIV, 1ms/DIV
Vehicle condition	Engine idle speed



(b) Waveform 2

**Reference:**

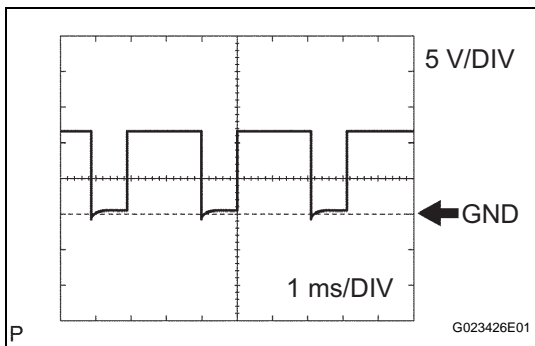
Terminal	DSL - E1
Tool setting	10 V/DIV, 100ms/DIV
Vehicle condition	Vehicle speed 65 km/h (40 mph), lock-up (ON to OFF)



(c) Waveform 3

**Reference:**

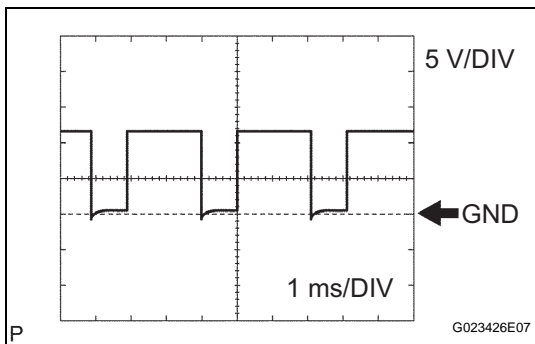
Terminal	SL3+ - SL3-
Tool setting	5 V/DIV, 1ms/DIV
Vehicle condition	Engine idle speed



(d) Waveform 4

**Reference:**

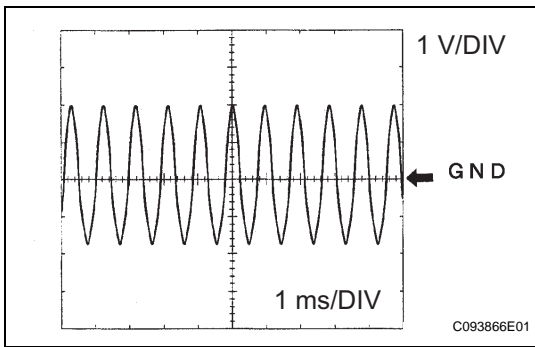
Terminal	SL2+ - SL2-
Tool setting	5 V/DIV, 1ms/DIV
Vehicle condition	Engine idle speed



(e) Waveform 5

**Reference:**

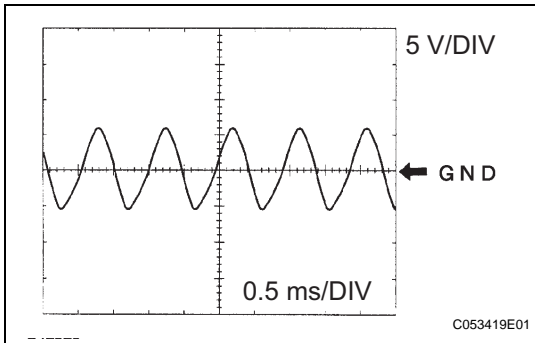
Terminal	SL1+ - SL1-
Tool setting	5 V/DIV, 1ms/DIV
Vehicle condition	Engine idle speed



(f) Waveform 6

**Reference:**

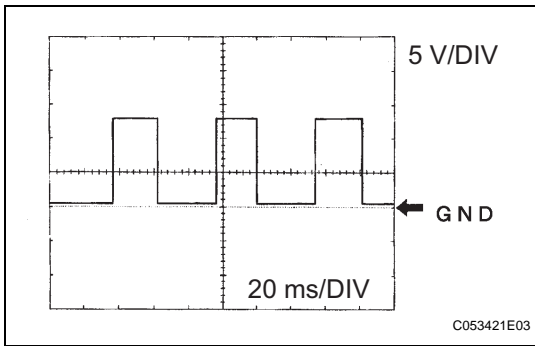
Terminal	NC+ - NC-
Tool setting	1 V/DIV, 1ms/DIV
Vehicle condition	Vehicle speed 30 km/h (19 mph): (3rd gear) Engine speed 1.400 rpm



(g) Waveform 7

**Reference:**

Terminal	NT+ - NT-
Tool setting	5 V/DIV, 0.5ms/DIV
Vehicle condition	Vehicle speed 20 km/h (12 mph)



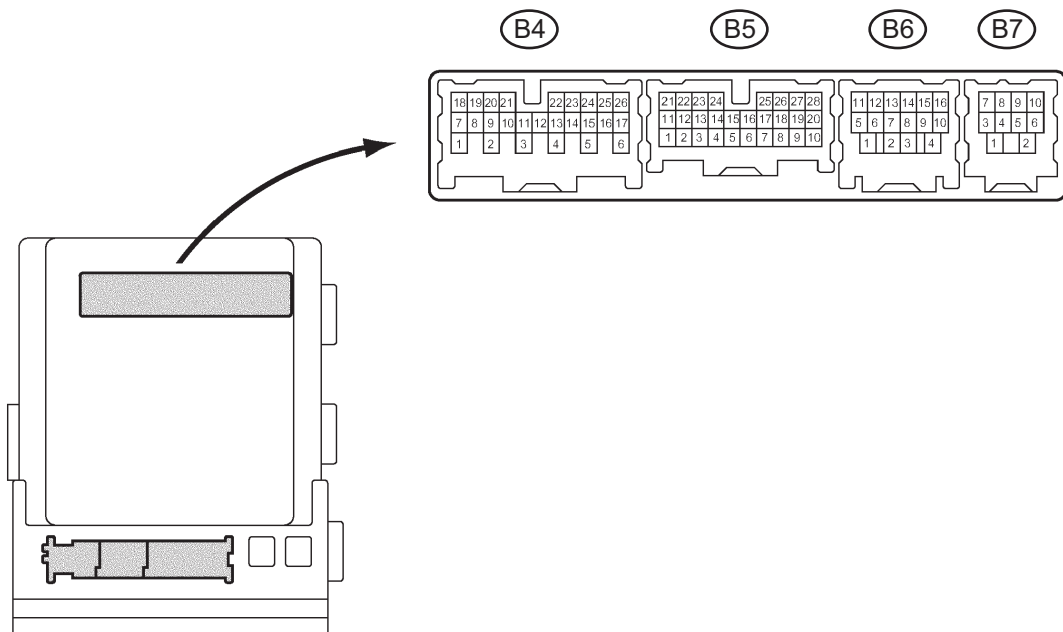
(h) Waveform 8

**Reference:**

Terminal	SPD - E1
Tool setting	5 V/DIV, 20ms/DIV
Vehicle condition	Vehicle speed 20 km/h (12 mph)

**2. Instrument Panel Junction Block Assembly (Multiplex Network Body ECU)**

Back Side:



Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	Specified Condition
SNOW (B5-17) - Body ground	O - -	ECT SNOW switch signal	IG switch ON	10 to 14 V
			IG switch ON and Press continuously ECT SNOW switch	Below 1 V