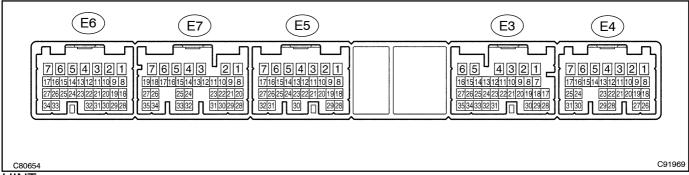
05HMZ-01

TERMINALS OF ECM

1. ECM



HINT:

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

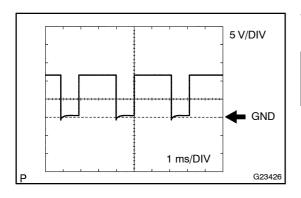
In the table, first follow the information under "Condition". Look under "Symbols (Terminal No.)" for the terminals to inspected. The standard voltage between the terminals is shown under "Specific Condition". Use the illustration above as a reference for the ECM terminals.

Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	Specified Condition
D (E7-9) - E1 (E7-7)	G-Y - BR	D shift position switch signal	IG switch ON and shift lever D and S position	10 to 14 V
1	1	1	IG switch ON and shift lever except D and S position	Below 1 V
R (E7-8) - E1 (E7-7)	G – BR	R shift position switch signal	IG switch ON and shift lever R position	10 to 14 V
1	↑	1	IG switch ON and shift lever except R position	Below 1 V
STP (E3-4) - E1 (E7-7)	G-0 - BR	Stop lamp switch signal	Brake pedal is depressed	7.5 to 14 V
	1	1	Brake pedal is released	Below 1.5 V
SFTD (E3-19) - E1 (E7-7)	Y-B - BR	Down shift switch signal	IG switch ON and shift lever S position	10 to 14 V
1	1	1	IG switch ON and shift lever "-" position (Down shift)	Below 1 V
SFTU (E3-30) - E1 (E7-7)	L-Y - BR	Up shift switch signal	IG switch ON and shift lever S position	10 to 14 V
1	↑	1	IG switch ON and shift lever "+" position (Up shift)	Below 1 V
S (E3-9) - E1 (E7-7)	G-B - BR	S shift position switch signal	IG switch ON and shift lever S position	10 to 14 V
1	↑	1	IG switch ON and shift lever except S position	Below 1 V
P (E7-6) – E1 (E7-7)	W – BR	Park position switch sig- nal	IG switch ON and shift lever P position	10 to 14 V
↑	↑	1	IG switch ON and shift lever except P position	Below 1 V
N (E7-32) - E1 (E7-7)	G-R - BR	Neutral position switch signal	IG switch ON and shift lever N position	10 to 14 V
1	<u></u>	1	IG switch ON and shift lever except N position	Below 1 V

STAR (E7-4) - E1 (E7-7)	L-Y - BR	Park neutral switch signal	IG switch ON and shift lever P and N position	Below 1 V
1	1	1	IG switch ON and shift lever except P and N position	10 to 14 V
SLU+ (E7-13) - SLU- (E7-12)	L-Y - B-W	SLU solenoid signal	5th (lock-up) or 6th (lock-up) gear	Pulse generation (See waveform 2)
SR (E7-2) - E1 (E7-7)	G – BR	SR solenoid signal	1st, 2nd, 3rd or 4th gear	10 to 14 V
↑	↑	↑	5th or 6th gear	Below 1 V
S4 (E7-16) - E1 (E7-7)	W – BR	S4 solenoid signal	5th or 6th gear	10 to 14 V
↑	↑	↑	1st, 2nd, 3rd or 4th gear	Below 1 V
S3 (E7-17) - E1 (E7-7)	R – BR	S3 solenoid signal	1st, 2nd or 3rd gear	10 to 14 V
↑	↑	1	4th, 5th or 6th gear	Below 1 V
S2 (E7-18) - E1 (E7-7)	L-R - BR	S2 solenoid signal	1st, 2nd or 6th gear	10 to 14 V
↑	1	1	3rd, 4th or 5th gear	Below 1 V
S1 (E7-19) - E1 (E7-7)	G-R - BR	S1 solenoid signal	1st gear	Below 1 V
1	1	1	Except 1st gear	10 to 14 V
SL2+ (E7-11) - SL2- (E7-10)	Y-G - Y	SL2 solenoid signal	Engine idle speed	Pulse generation (See waveform 3)
SL1+ (E7-25) - SL1- (E7-24)	R-W - L	SL1 solenoid signal	5th or 6th gear	Pulse generation (See waveform 4)
SP2+ (E7-23) - SP2- (E7-22)	G – R	Speed sensor (SP2) signal	Vehicle speed 20 km/h (12 mph)	Pulse generation (See waveform 6)
NT+ (E7-21) - NT- (E7-20)	Y – L	Speed sensor (NT) signal	Engine idle speed	Pulse generation (See waveform 5)
SLT+ (E7-35) - SLT- (E7-34)	B – G–B	SLT solenoid signal	Engine idle speed	Pulse generation (See waveform 1)
OIL (E7-27) - EOIL (E7-26)	G-Y - BR	ATF temperature sensor signal	ATF temperature: 115 °C (239 °F) or more	Below 1.5 V
KD *1 (E4-26) - E1 (E7-7)	O – BR	Kick-down switch signal	IG switch ON and Accelerator pedal is depressed	Below 1 V
1	1	1	IG switch ON and Accelerator pedal is released	10 to 14 V

HINT:

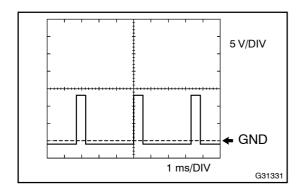
*1: Europe



Waveform 1

Reference:

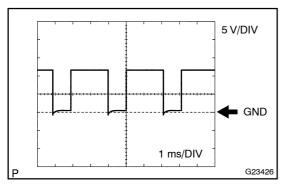
Terminal	SLT+ - SLT-
Tool setting	5V/DIV, 1ms/DIV
Vehicle condition	Engine idle speed



Waveform 2

Reference:

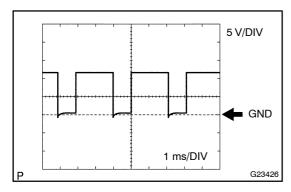
Terminal	SLU+ - SLU-	
Tool setting	5V/DIV, 1ms/DIV	
Vehicle condition	5th (lock-up) or 6th (lock-up) gear	



Waveform 3

Reference:

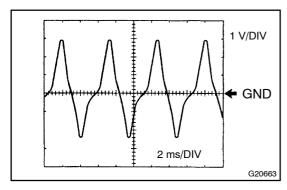
Terminal	SL2+ - SL2-
Tool setting	5V/DIV, 1ms/DIV
Vehicle condition	Engine idle speed



Waveform 4

Reference:

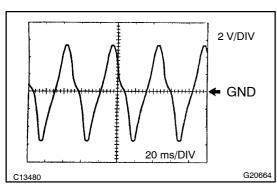
Terminal	SL1+ - SL1-
Tool setting	5V/DIV, 1ms/DIV
Vehicle condition	5th or 6th gear



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)	