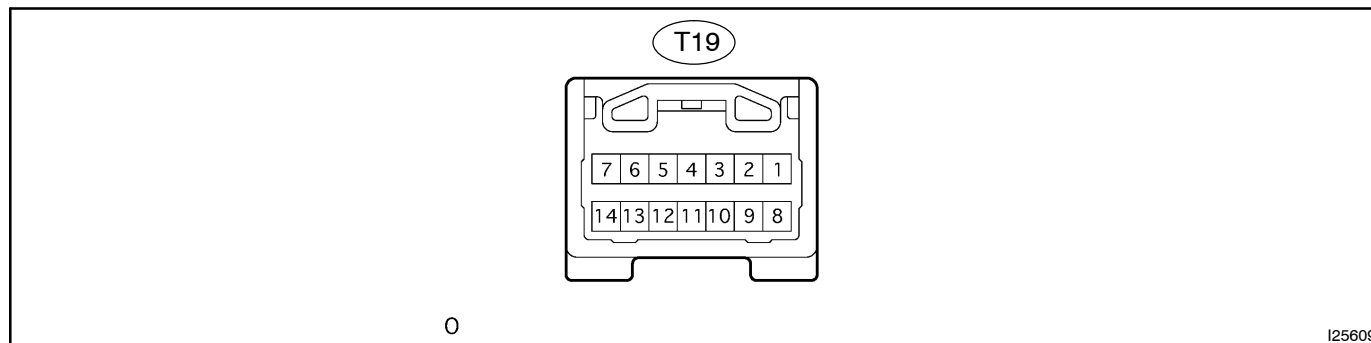


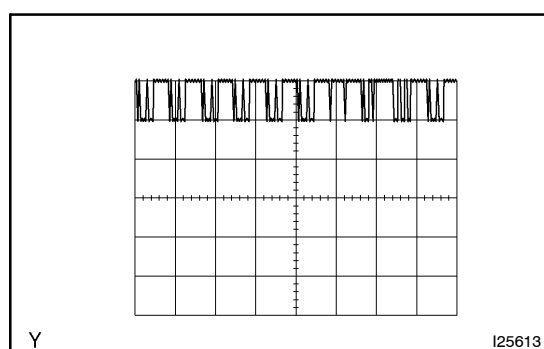
TERMINALS OF ECM

1. TRANSPONDER KEY ECU



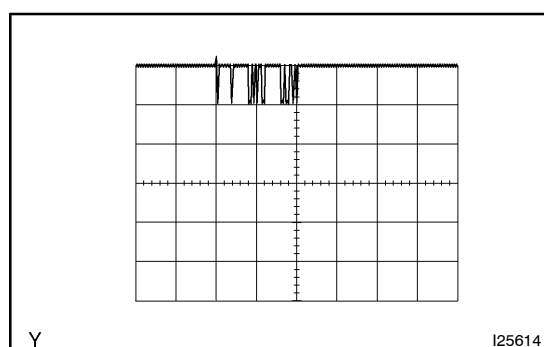
Standard:

Symbols (Terminal No.)	Wiring Color	Condition	Specified condition
T19-1 (+B) ↔ T19-14 (GND)	L-W ↔ W-B	-	10 - 14 V
T19-2 (IG) ↔ T19-14 (GND)	B-R ↔ W-B	Ignition switch OFF → ON	0 V → 10 - 14 V
T19-3 (IND) ↔ T19-14 (GND)	G-R ↔ W-B	Immobiliser system unset → set	0 V → Switching 0 V and 12 V
T19-4 (CTY) ↔ T19-14 (GND)	R-Y ↔ W-B	Driver's door close → open	10 - 14 V → 0 V
T19-6 (EFIO) ↔ T19-14 (GND)	W ↔ W-B	Ignition switch OFF → ON	Waveform 1
T19-7 (EFII) ↔ T19-14 (GND)	Y ↔ W-B	Ignition switch OFF → ON	Waveform 2
T19-8 (VC5) ↔ T19-14 (GND)	Y ↔ W-B	Ignition switch OFF → ON	0 V → 5 V
T19-10 (KSW) ↔ T19-14 (GND)	R-B ↔ W-B	No key in the ignition key cylinder → With key	10 - 14 V → 0 V
T19-11 (CODE) ↔ T19-14 (GND)	L-B ↔ W-B	Ignition switch OFF → ON	Waveform 3
T19-12 (TXCT) ↔ T19-14 (GND)	V-G ↔ W-B	Ignition switch OFF → ON	Waveform 4
T19-14 (GND) ↔ Body ground	W-B	-	Below 1 Ω



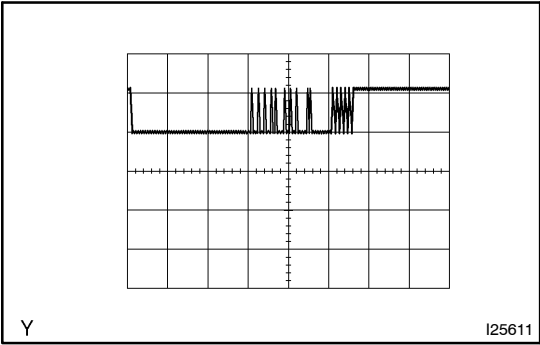
Waveform 1

Terminal	EFIO - GND
Tool setting	5 V/DIV, 5 ms/DIV
Vehicle condition	Ignition switch ON



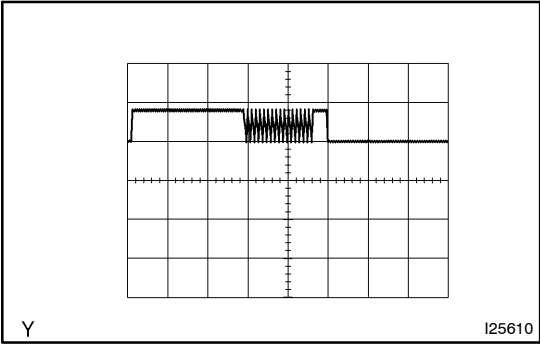
Waveform 2

Terminal	EFII - GND
Tool setting	5 V/DIV, 5 ms/DIV
Vehicle condition	Ignition switch ON



Waveform 3

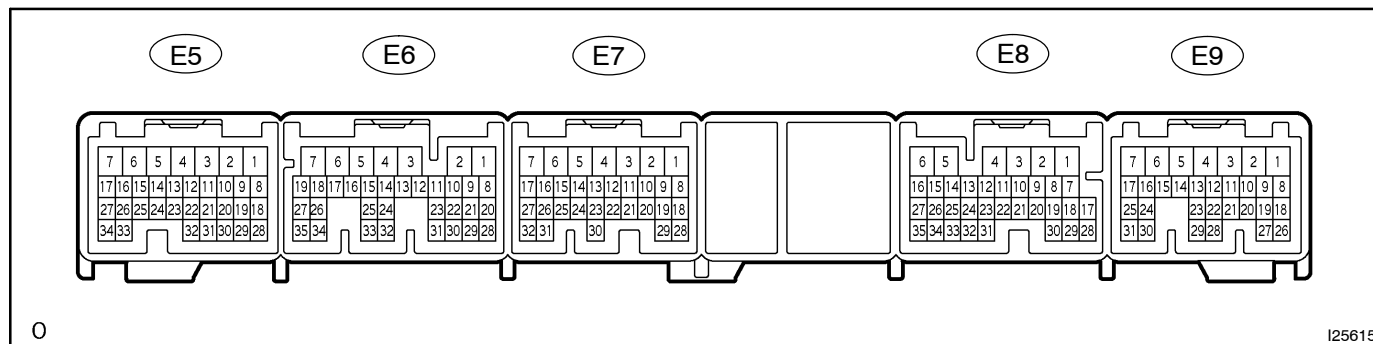
Terminal	CODE – GND
Tool setting	10 V/DIV, 20 ms/DIV
Vehicle condition	Ignition switch ON



Waveform 4

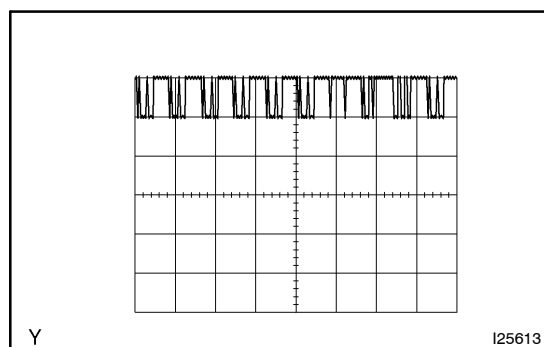
Terminal	TXCT – GND
Tool setting	5 V/DIV, 20 ms/DIV
Vehicle condition	Ignition switch ON

2. ECM



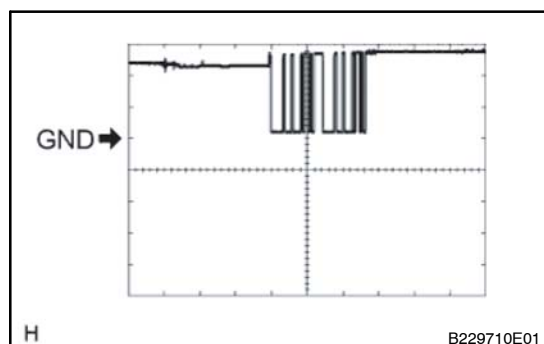
Standard:

Symbols (Terminal No.)	Wiring Color	Condition	Specified condition
E9-3 (BATT) ↔ E7-1 (E1)	B-R ↔ BR	–	9 – 14 V
E9-1 (+B) ↔ E7-1 (E1)	B-Y ↔ BR	Ignition switch OFF → ON	9 – 14 V
E9-2 (+B2) ↔ E7-1 (E1)	B-Y ↔ BR	Ignition switch OFF → ON	9 – 14 V
E9-9 (IGSW) ↔ E7-1 (E1)	B-R ↔ BR	Ignition switch OFF → ON	9 – 14 V
E8-27 (IMI) ↔ E7-1 (E1)	W ↔ BR	Ignition switch OFF	Below 1 V
E8-27 (IMI) ↔ E7-1 (E1)	W ↔ BR	Ignition switch ON (IG)	Waveform 1
E8-26 (IMO) ↔ E7-1 (IE1)	Y ↔ BR	Ignition switch OFF	10 to 14 V
E8-26 (IMO) ↔ E7-1 (IE1)	Y ↔ BR	Within 3 sec after starter ON and initial combustion Or within 3 sec after ignition switch ON when battery is reconnected	Waveform 2
E7-1 (E1) ↔ Body ground	BR	–	Below 1 Ω



Waveform 1

Terminal	IMI – GND
Tool setting	5 V/DIV, 5 ms/DIV
Vehicle condition	Ignition switch ON



Waveform 2

Terminal	IMO – GND
Tool setting	5 V/DIV, 500 ms/DIV
Vehicle condition	Within 3 sec after starter ON and initial combustion Or within 3 sec after ignition switch ON when battery is re-connected

-MEMO-