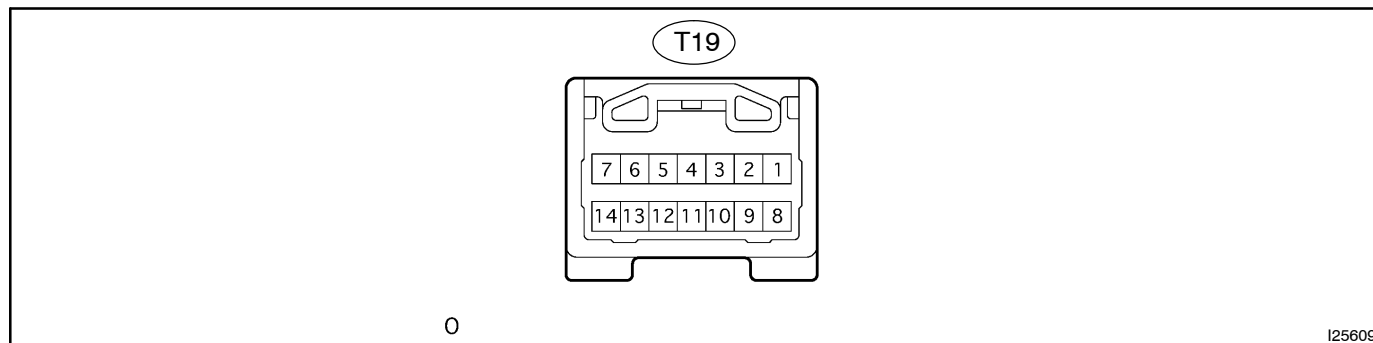


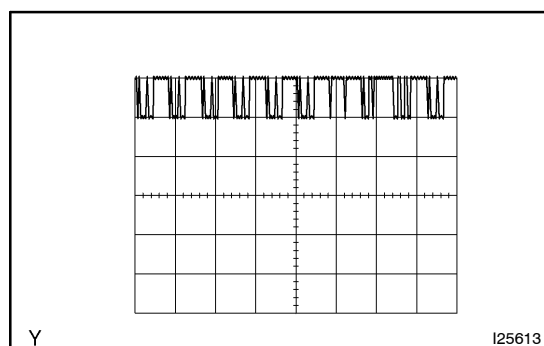
TERMINALS OF ECM

1. TRANSPONDER KEY ECU



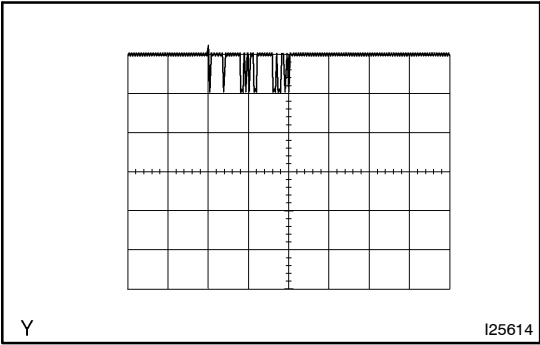
Standard:

Terminal No. (Symbol)	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 between 12 V and 0 V
T19-4 (CTY) - T19-14 (GND)	R-Y ↔ W-B	Driver's door close → open	10 to 14 V → 0 V
			10 kΩ or more → Below 1 Ω
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
			10 kΩ or more → Below 1 Ω
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



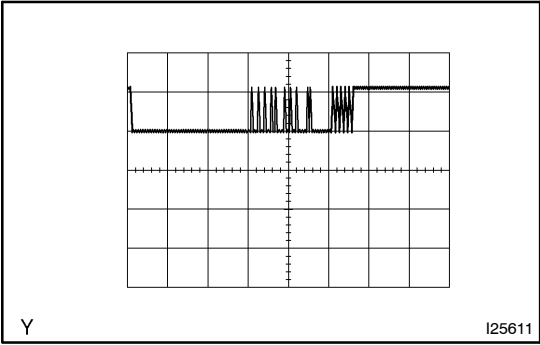
Waveform 1

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



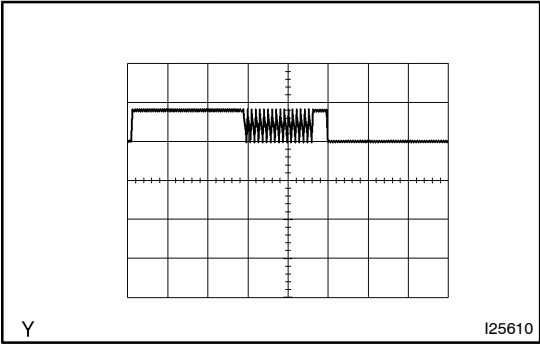
Waveform 2

Terminal	EFII – GND
Tool setting	5 V/DIV, 5 ms/DIV
Vehicle condition	Constant



Waveform 3

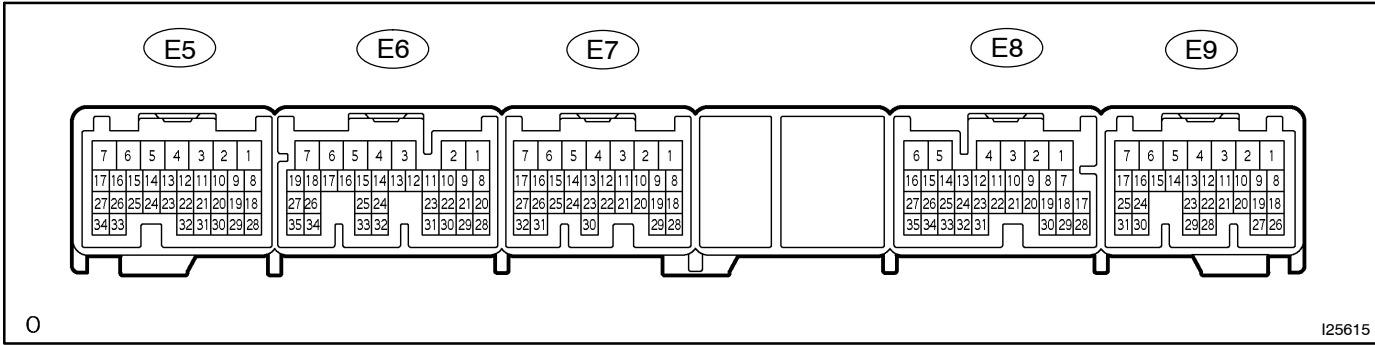
Terminal	CODE – GND
Tool setting	10 V/DIV, 20 ms/DIV
Vehicle condition	Ignition switch ON



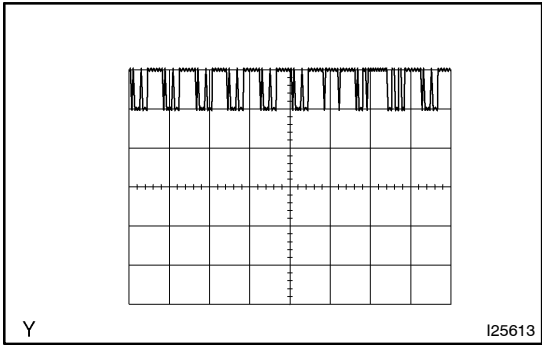
Waveform 4

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

2. ECM

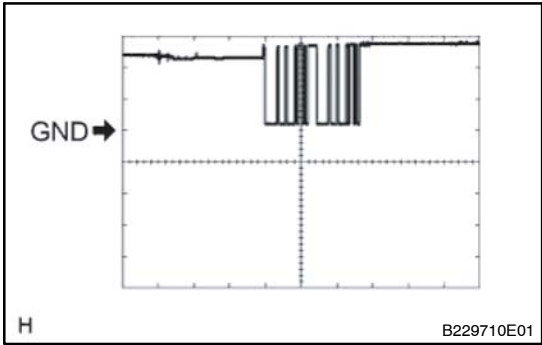


Terminal No. (Symbol)	Wiring Color	Condition	Specified condition
E9-3 (BATT) ↔ E7-1 (E1)	B-R ↔ BR	-	9 - 14 V
E9-1 (+B) ↔ E7-1 (E1)	B-Y ↔ BR	Ignition switch OFF → ON	9 - 14 V
E9-2 (+B2) ↔ E7-1 (E1)	B-Y ↔ BR	Ignition switch OFF → ON	9 - 14 V
E9-9 (IGSW) ↔ E7-1 (E1)	B-R ↔ BR	Ignition switch OFF → ON	9 - 14 V
E8-27 (IMI) ↔ E7-1 (E1)	W ↔ BR	Ignition switch OFF	Below 1 V
		Ignition switch ON	Waveform 1
E8-26 (IMO) ↔ E7-1 (E1)	Y ↔ BR	Ignition switch OFF	10 to 14 V
		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 (Reference):

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



Waveform 2 (Reference):

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-