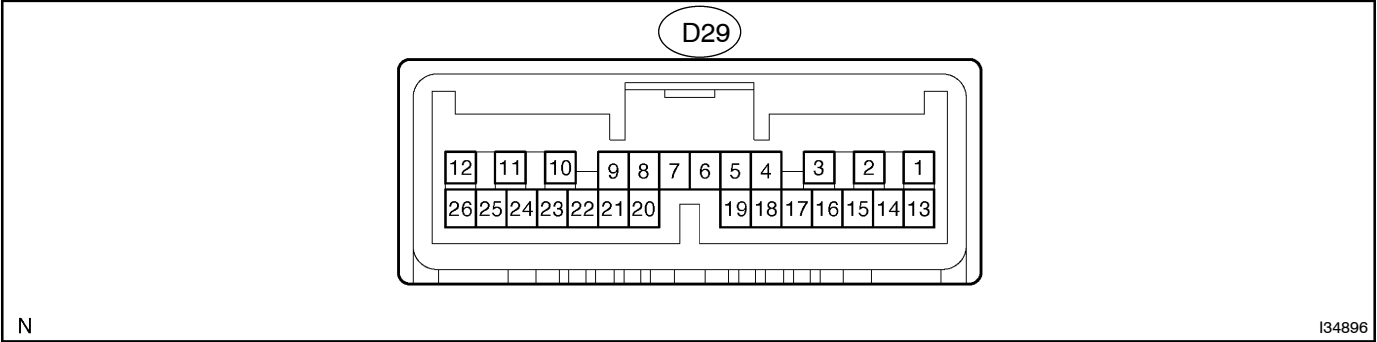
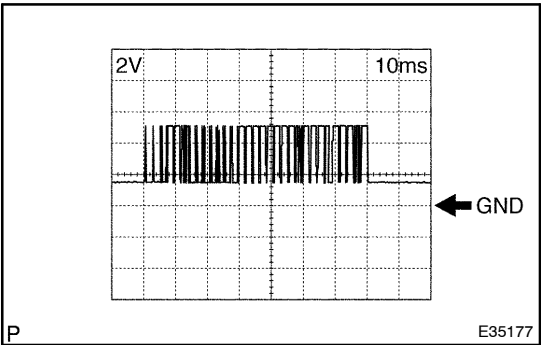


TERMINALS OF ECU

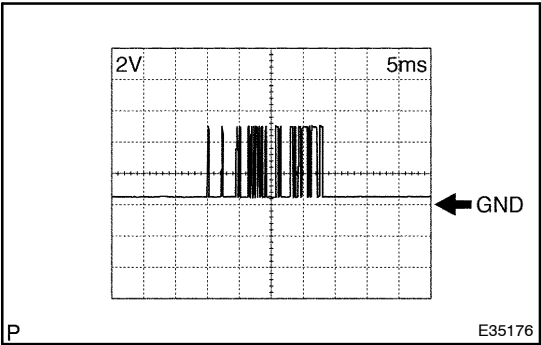
1. DISTANCE CONTROL ECU



Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	Specified Condition
+B – GND (D29-1 – D29-12)	R-B – BR	Battery	Always	10 to 14 V
CANH (D29 – 8)	LG	CAN communication signal	CAN communication circuit	–
CANL (D29 – 9)	L	CAN communication signal	CAN communication circuit	–
SGND – Body ground (D29-10 – Body ground)	BR – Body ground	Ground	Always	Below 1 Ω
GND – Body ground (D29-12 – Body ground)	BR – Body ground	Ground	Always	Below 1 Ω
IGB – GND (D29-13 – D29-12)	L-O – BR	Ignition switch ON signal	Ignition switch OFF → ON	Below 1 V → 10 to 14 V
LRDD – GND (D29-22 – D29-12)	P-L – BR	Laser sensor input signal	Ignition switch ON	Pulse generation (see waveform 1)
LRRD – GND (D29-23 – D29-12)	L-Y – BR	Laser sensor output signal	Ignition switch ON	Pulse generation (see waveform 2)

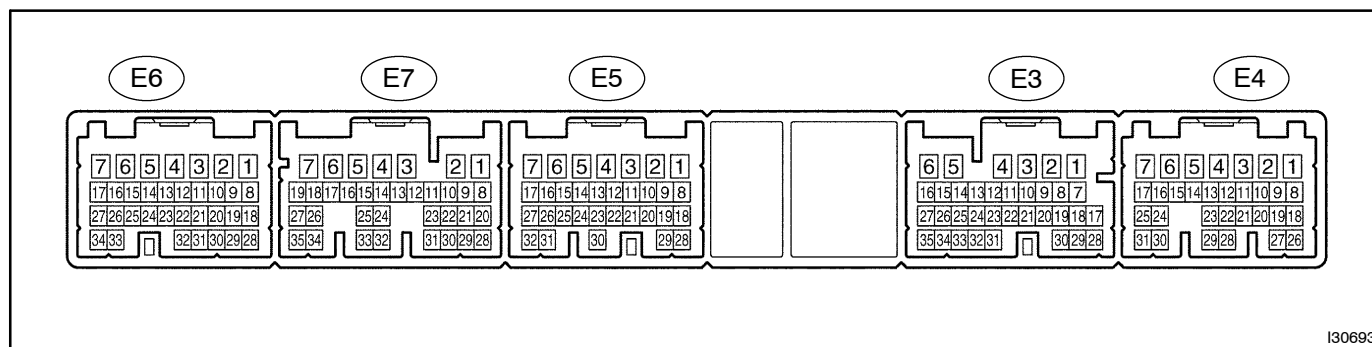


- (a) Reference: waveform 1
- HINT:
- Terminal: LRDD – GND
 - Gauge set: 2 V/DIV, 10 ms/DIV
 - Condition: Ignition switch ON



- (b) Reference: waveform 2
- HINT:
- Terminal: LRRD – GND
 - Gauge set: 2 V/DIV, 5 ms/DIV
 - Condition: Ignition switch ON

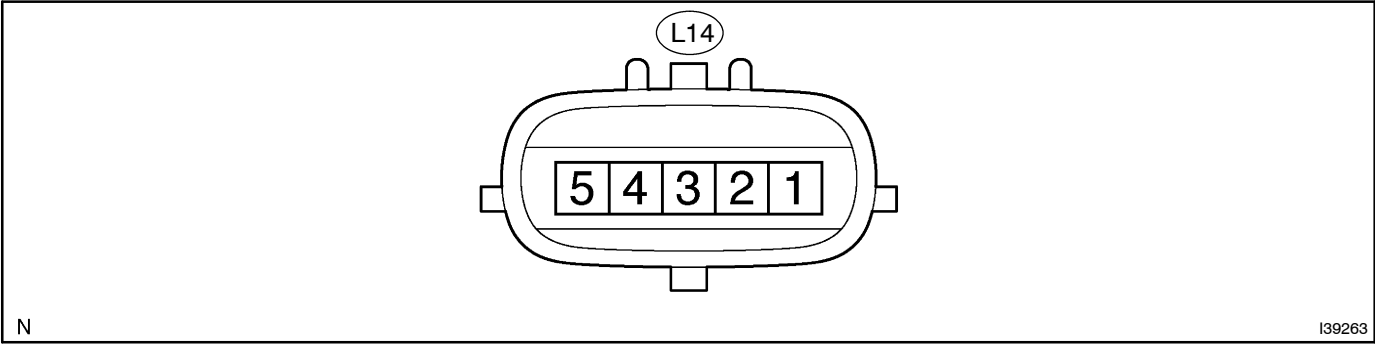
2. ECM



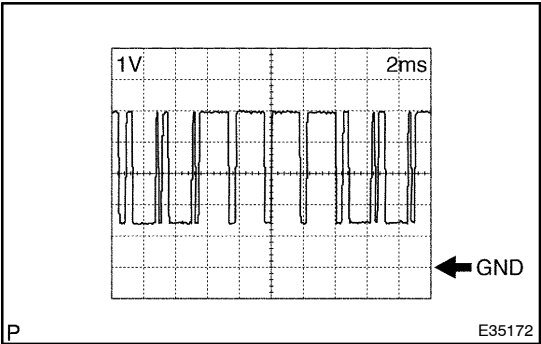
Symbols (Terminals No.)	Wiring Color	Terminal Description	Condition	Specified Condition
STP – E1 (E3-4 – E7-7)	G-O – BR	Stop lamp signal	Brake pedal released (Stop lamp switch OFF) → Brake pedal depressed (Stop lamp switch ON)	Below 1 V → 10 to 14 V
CCS – E1 (E3-31 – E7-7)	W-L – BR	Cruise control main switch signal	Ignition switch ON CANCEL switch ON SET/COAST switch ON RES/ACC switch ON Main switch ON	10 to 16 V 6.6 to 10.1 V 4.5 to 7.1 V 2.3 to 4.0 V Below 1 V
ST1 – E1 (E4-8 – E7-7)	V-Y – BR	Stop lamp signal	Ignition switch ON Brake pedal depressed (Stop lamp switch ON) → Brake pedal released (Stop lamp switch OFF)	Below 1 V → 10 to 14 V
CCHG – E1 (E4-20 – E7-7)	V – BR	Distance control switch signal	Ignition switch ON Cruise control main switch ON MODE switch ON → MODE switch OFF	Below 1 V → 10 to 14 V
LGND – Body ground (E4-29 – Body ground)	BR-Y – Body ground	Ground	Always	Below 1 Ω
E1 – Body ground (E7-7 – Body ground)	BR – Body ground	Ground	Always	Below 1 Ω

If the value is not within the standard range, some defects on the vehicle are suspected.

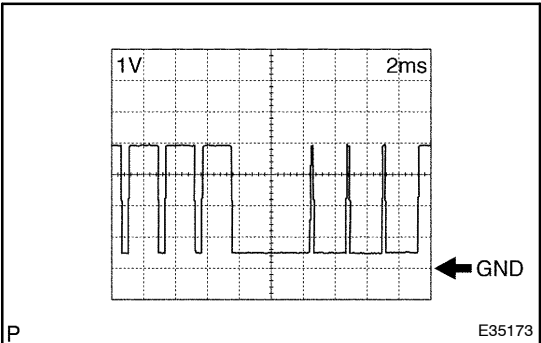
3. LASER SENSOR



Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
LGND – Body ground (L14-1 – Body ground)	B-L – Body ground	Distance signal	Always	Below 1 Ω
SGND – Body ground (L14-2 – Body ground)	B-R – Body ground	Ground	Always	Below 1 Ω
LRDD – SGND (L14-3 – L14-2)	B-O – B-R	Laser sensor output signal	Ignition switch ON	Pulse generation (see waveform 1)
LRRD – SGND (L14-4 – L14-2)	B-Y – B-R	Laser sensor input signal	Ignition switch ON	Pulse generation (see waveform 2)
IGB – SGND (L14-5 – L14-2)	B – B-R	Power source	Ignition switch ON	10 to 14 V



- (a) Reference: waveform 1
HINT:
- Terminal: LRDD – SGND
 - Gauge set: 1 V/DIV, 2 ms/DIV
 - Condition: Ignition switch ON



- (b) Reference: waveform 2
HINT:
- Terminal: LRRD – SGND
 - Gauge set: 1 V/DIV, 2 ms/DIV
 - Condition: Ignition switch ON