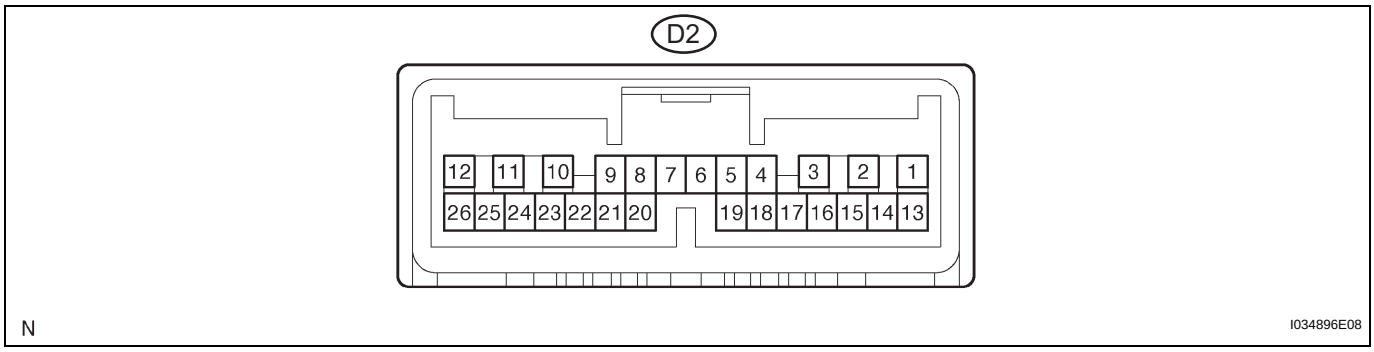
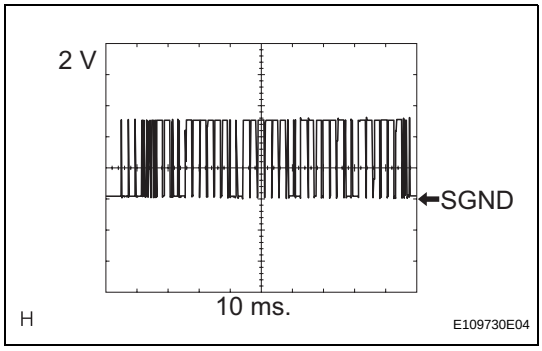
TERMINALS OF ECU

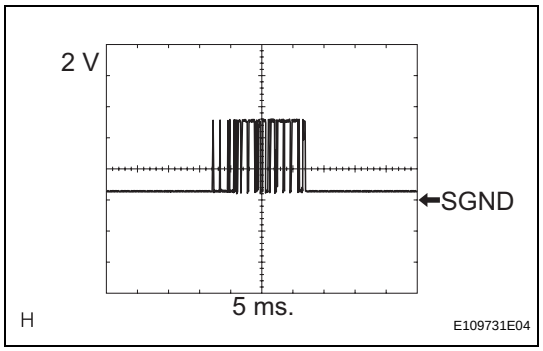
1. CHECK DISTANCE CONTROL ECU



Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
D2-1 (B) - D2-12 (GND)	B-R - BR	Battery	Always	10 to 14 V
D2-8 (CANH) - D2-12 (GND)	B - BR	CAN communication signal	CAN communication circuit	Pulse generation
D2-9 (CANL) - D2-12 (GND)	W - BR	CAN communication signal	CAN communication circuit	Pulse generation
D2-10 (SGND) - Body ground	BR - Body ground	Ground	Always	Below 1 Ω
D2-12 (GND) - Body ground	BR - Body ground	Ground	Always	Below 1 Ω
D2-13 (IGB) - D2-12 (GND)	W-L - BR	Ignition switch on signal	Ignition switch off	Below 1 V
D2-13 (IGB) - D2-12 (GND)	W-L - BR	Ignition switch on signal	Ignition switch on	10 to 14 V
D2-22 (LRDD) - D2-10 (SGND)	G - BR	Laser sensor input signal	Ignition switch on	Pulse generation (see waveform 1)
D2-23 (LRRD) - D2-10 (SGND)	Y - BR	Laser sensor output signal	Ignition switch on	Pulse generation (see waveform 2)
D2-16 (MODE) - D2-12 (GND)	W - BR	Steering pad switch signal (Distance control switch signal)	Ignition switch on, Steering pad switch signal ON	0 to 2 V
D2-16 (MODE) - D2-12 (GND)	W - BR	Steering pad switch signal (Distance control switch signal)	Ignition switch on, Steering pad switch signal OFF	10 to 14 V

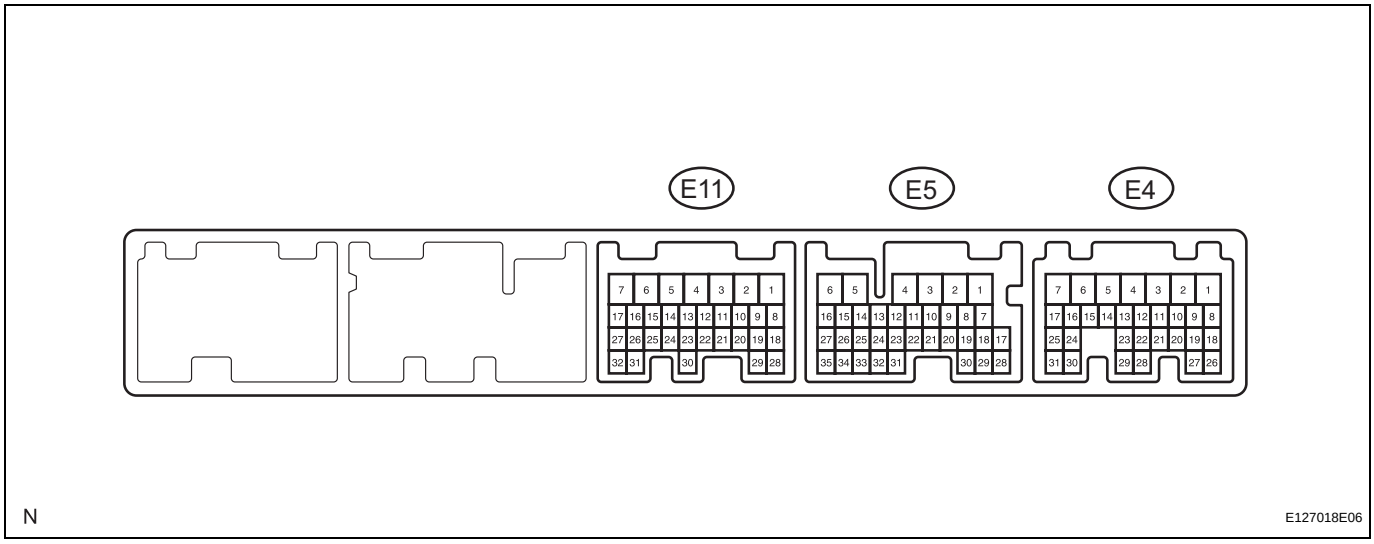


(a) Reference: waveform 1
HINT:
- Terminal: LRDD - SGND
- Gauge set: 2 V/DIV., 10 ms./DIV.
- Condition: ignition switch in the ON position



(b) Reference: waveform 2
HINT:
- Terminal: LRRD - SGND
- Gauge set: 2 V/DIV., 5 ms./DIV.
- Condition: ignition switch in the ON position

2. CHECK ECM

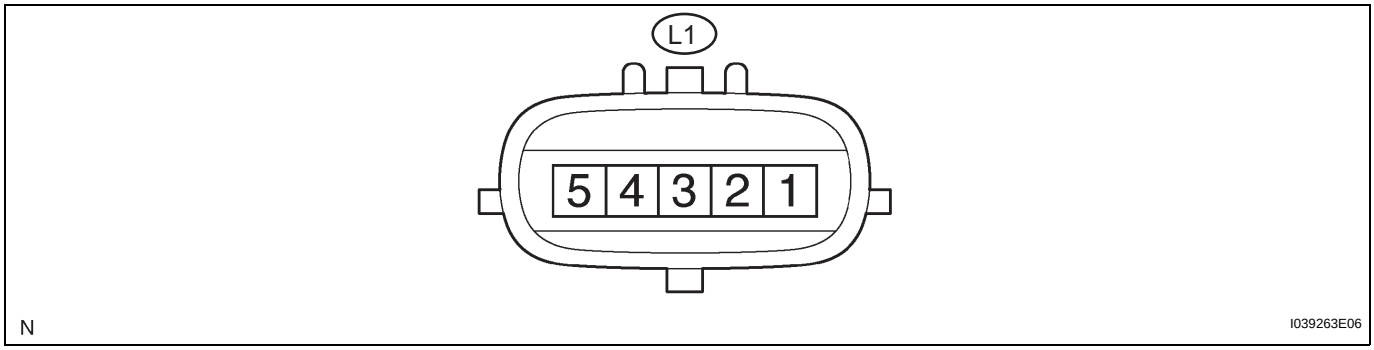


Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
E4-15 (STP) - E11-1 (E1)	G-W - BR	Stop light signal	Brake pedal released (Stop light switch off)	Below 1 V
E4-15 (STP) - E11-1 (E1)	G-W - BR	Stop light signal	Brake pedal depressed (Stop light switch on)	10 to 14 V
E4-16 (ST1-) - E11-1 (E1)	LG-R - BR	Stop light signal	Ignition switch on, Brake pedal depressed (Stop light switch on)	Below 1 V
E4-16 (ST1-) - E11-1 (E1)	LG-R - BR	Stop light signal	Ignition switch on, Brake pedal released (Stop light switch off)	10 to 14 V
E4-23 (TC) - E11-1 (E1)	P-B - BR	Terminal TC of DLC3	Ignition switch on	10 to 14 V
E4-23 (TC) - E11-1 (E1)	P-B - BR	Terminal TC of DLC3	Connect terminals TC and CG of DLC3	Below 1 V
E4-31 (LGND) - Body ground	R - Body ground	Ground	Always	Below 1 Ω
E5-2 (CCS) - E11-1 (E1)	B - BR	Cruise control main switch signal	Ignition switch on	10 to 14 V
E5-2 (CCS) - E11-1 (E1)	B - BR	Cruise control main switch signal	CANCEL switch on	6.6 to 10.1 V
E5-2 (CCS) - E11-1 (E1)	B - BR	Cruise control main switch signal	- (COAST)/SET switch on	4.5 to 7.1 V
E5-2 (CCS) - E11-1 (E1)	B - BR	Cruise control main switch signal	+ (ACCEL)/RES (RESUME) switch on	2.3 to 4.0 V
E5-2 (CCS) - E11-1 (E1)	B - BR	Cruise control main switch signal	Main switch on	Below 1 V
E5-4 (CCHG) - E11-1 (E1)	P - BR	Distance control switch signal	Ignition switch on, Cruise control main switch on, MODE switch on	Below 1 V

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
E5-4 (CCHG) - E11-1 (E1)	P - BR	Distance control switch signal	Ignition switch on, Cruise control main switch on, MODE switch off	10 to 14 V
E11-1 (E1) - Body ground	BR - Body ground	Ground	Always	Below 1 Ω

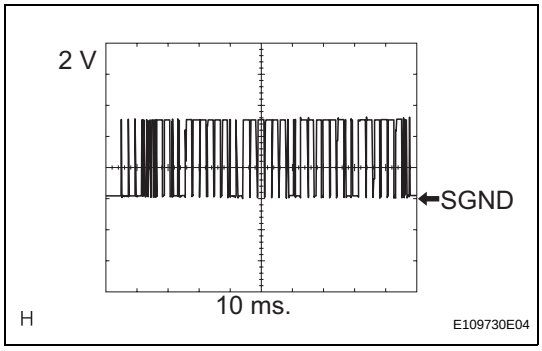
If the value is not within the specified range, the ECM may have a malfunction.

3. CHECK LASER SENSOR

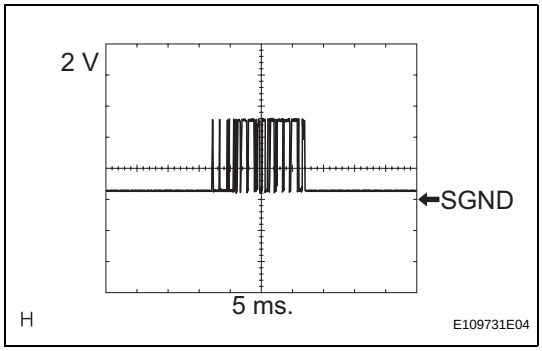


CC

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
L1-1 (LGND) - Body ground	R - Body ground	Ground (Distance signal)	Always	Below 1 Ω
L1-2 (SGND) - Body ground	BR - Body ground	Ground	Always	Below 1 Ω
L1-3 (LRDD) - L1-2 (SGND)	G - BR	Laser sensor output signal	Ignition switch on	Pulse generation (see waveform 1)
L1-4 (LRRD) - L1-2 (SGND)	Y - BR	Laser sensor input signal	Ignition switch on	Pulse generation (see waveform 2)
L1-5 (IGB) - L1-2 (SGND)	W-L - BR	Power source	Ignition switch on	10 to 14 V



(a) Reference: waveform 1
HINT:
- Terminal: LRDD - SGND
- Gauge set: 2 V/DIV., 10 ms./DIV.
- Condition: ignition switch in the ON position



(b) Reference: waveform 2
HINT:
- Terminal: LRRD - SGND
- Gauge set: 2 V/DIV., 5 ms./DIV.
- Condition: ignition switch in the ON position