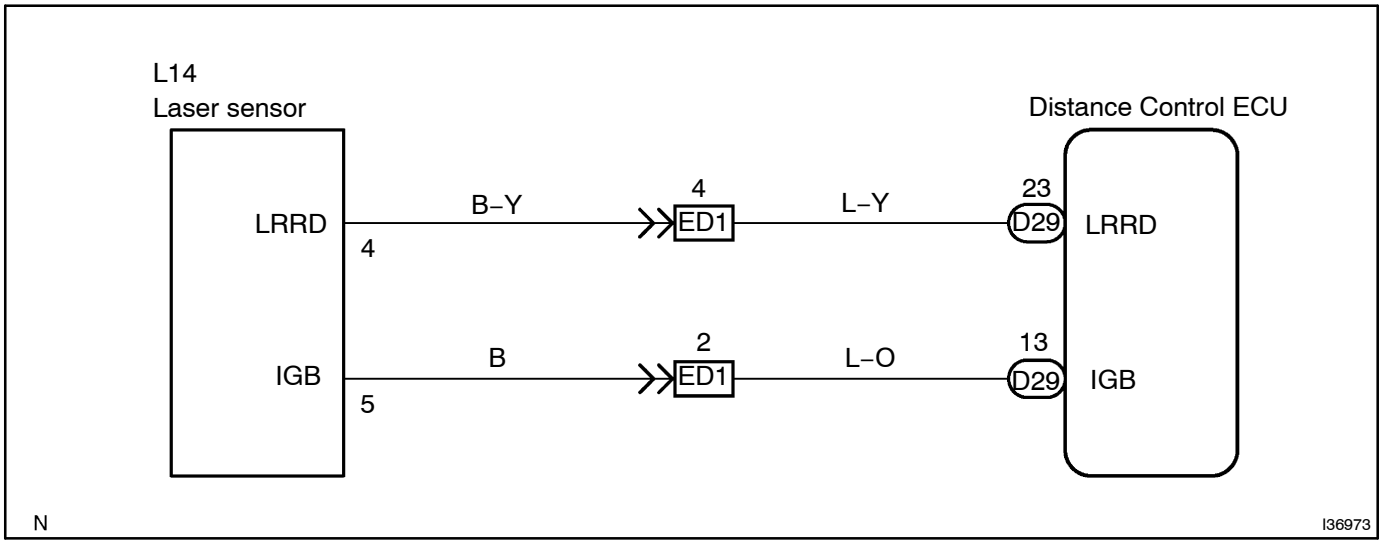
DTC	U1102	COMMUNICATION ERROR FROM DISTANCE CONTROL ECU TO RADAR SENSOR

CIRCUIT DESCRIPTION

The laser sensor and cruise control ECU (distance control ECU) transmit the data for general vehicle control and diagnosis function along the communication line.
The cruise control ECU (distance control ECU) determines the presumed R information based on the signal from the steering wheel and yaw rate sensor.
The cruise control ECU (distance control ECU) transmits the current vehicle speed and presumed R information to the laser sensor.

DTC No.	DTC Detecting Condition	Trouble Area
U1102	This trouble code is output when the ECM detects the communication error signal (from the cruise control ECU (distance control ECU) to the laser sensor) for 0.15 sec. or more while the dynamic laser cruise control is in operation.	• Communication circuit • Laser sensor • Cruise control ECU (Distance control ECU)

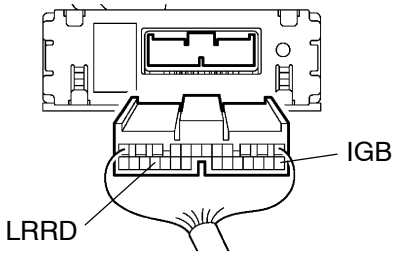
WIRING DIAGRAM



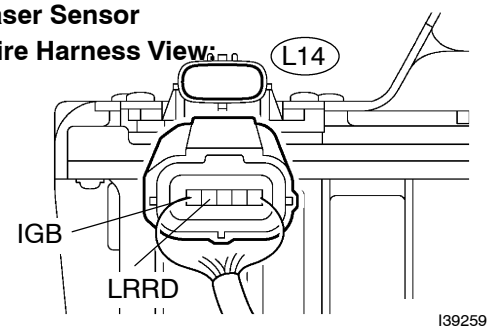
INSPECTION PROCEDURE

1	**CHECK WIRE HARNESS AND CONNECTOR (DISTANCE CONTROL ECU – LASER SENSOR)**

Distance Control ECU
Wire Harness View:



Laser Sensor
Wire Harness View:



(a) Disconnect the distance control ECU and laser sensor connectors.

(b) Measure the resistance according to the value(s) in the table below.

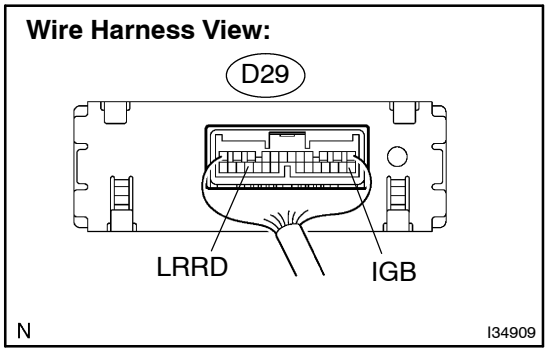
Standard:

Tester connection	Condition	Specified value
D29–23 (LRRD) – L14–4 (LRRD)	Always	Below 1 Ω
D29–13 (IGB) – L14–5 (IGB)	Always	Below 1 Ω
D29–23 (LRRD) – Body ground	Always	10 kΩ or higher
D29–13 (IGB) – Body ground	Always	10 kΩ or higher

NG → **REPAIR OR REPLACE WIRE HARNESS OR CONNECTOR**

OK

2 INSPECT CRUISE CONTROL ECU ASSY (DISTANCE CONTROL ECU)



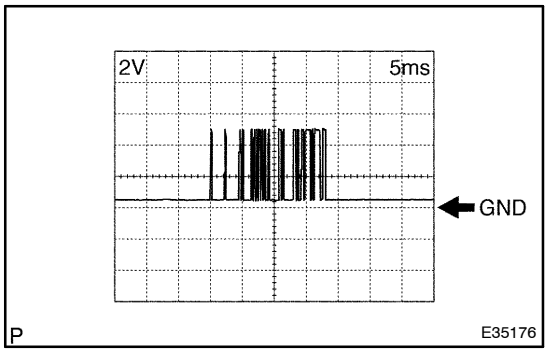
(a) Reconnect the cruise control ECU (distance control ECU) connector.

(b) Turn the ignition switch to the ON position.

(c) Measure the voltage according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified value
D29–13 (IGB) – Body ground	Ignition SW ON	10 to 14 V



(d) Check the signal waveform between terminal LRRD (D29–23) of the cruise control ECU (distance control ECU) and body ground.

OK:

A waveform similar to that in the illustration to the left is output.

HINT:

- Gauge set: 2 V/DIV, 5 ms/DIV
- Condition: Ignition switch ON

NG → **REPLACE CRUISE CONTROL ECU ASSY (SEE PAGE 82–2)**

OK

REPLACE LASER SENSOR (SEE PAGE 82–3)