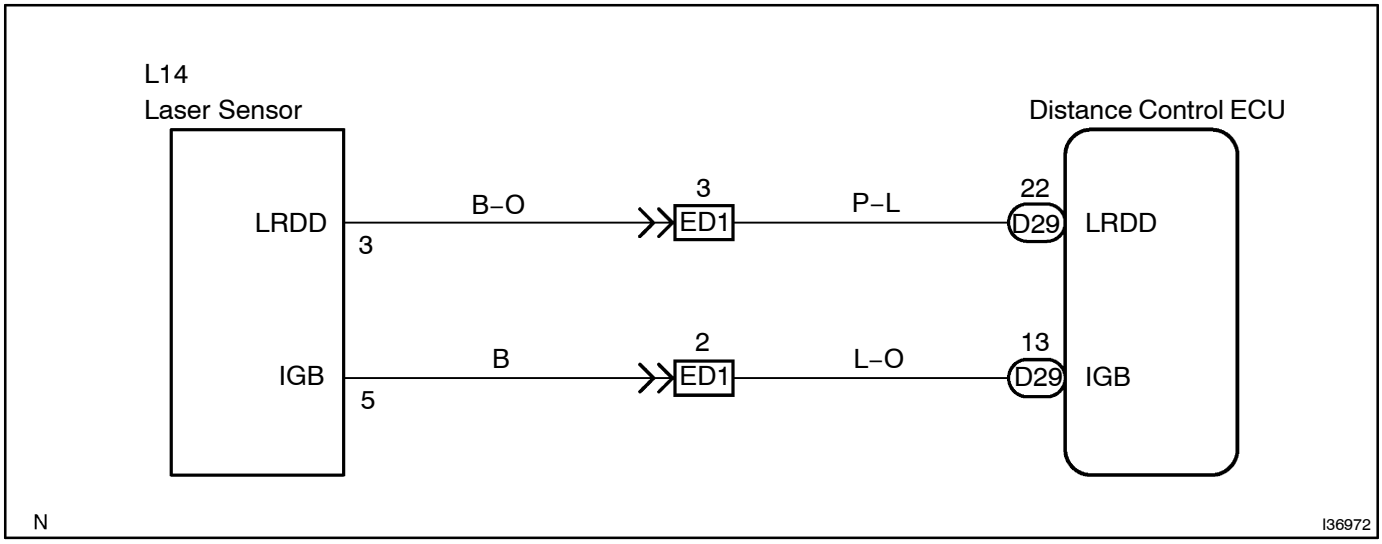
| DTC | U0235 | COMMUNICATION ERROR FROM RADAR SENSOR TO DISTANCE CONTROL ECU |
|---|---|---|

## 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 laser sensor transmits information about the vehicle in front to the cruise control ECU (distance control ECU).

| DTC No. | DTC Detecting Condition | Trouble Area |
|---|---|---|
| U0235 | This trouble code is output when the ECM detects the communication error signal (from the laser sensor to the cruise control ECU (distance control ECU)) for 0.15 sec. or more while the dynamic laser cruise control is in operation. | • Communication circuit<br>• Laser sensor<br>• Cruise control ECU (Distance control ECU) |

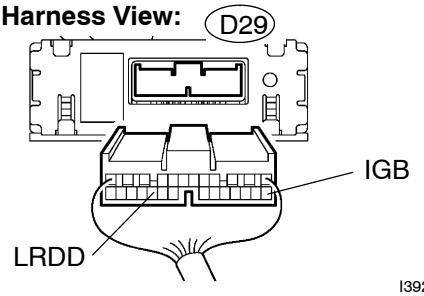
## WIRING DIAGRAM



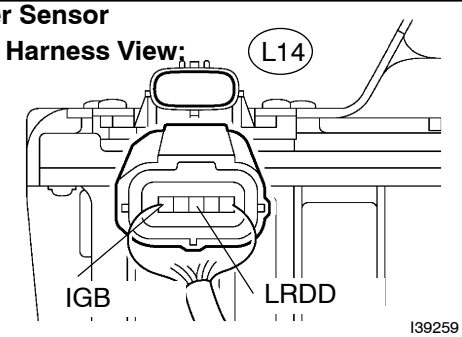
# INSPECTION PROCEDURE

| 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.

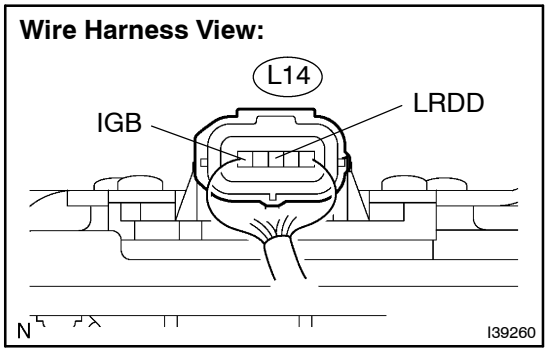
**Standard:**

| Tester connection | Condition | Specified value |
|---|---|---|
| D29–22 (LRDD) – L14–3 (LRDD) | Always | Below 1 Ω |
| D29–13 (IGB) – L14–5 (IGB) | Always | Below 1 Ω |
| D29–22 (LRDD) – 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**

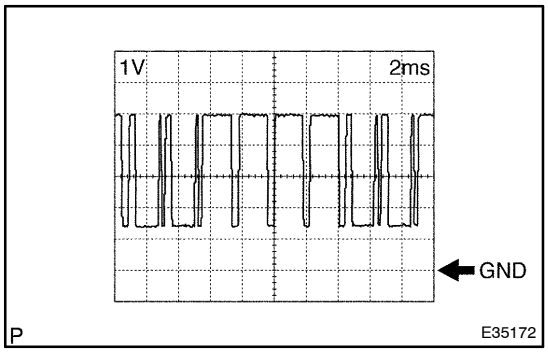
## 2 INSPECT LASER SENSOR




(a) Reconnect the laser sensor connector.
(b) Measure the voltage according to the value(s) in the table below.

**Standard:**

| Tester connection | Condition | Specified value |
|---|---|---|
| L14–5 (IGB) – Body ground | Ignition SW ON | 10 to 14 V |




(c) Check the signal waveform between terminal LRDD (L14–3) of the laser sensor and body ground.

**OK:**

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

HINT:

- Gauge set: 1 V/DIV, 2 ms/DIV
- Condition: Ignition switch ON

**NG** → **REPLACE LASER SENSOR (SEE PAGE 82–3)**

**OK**

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