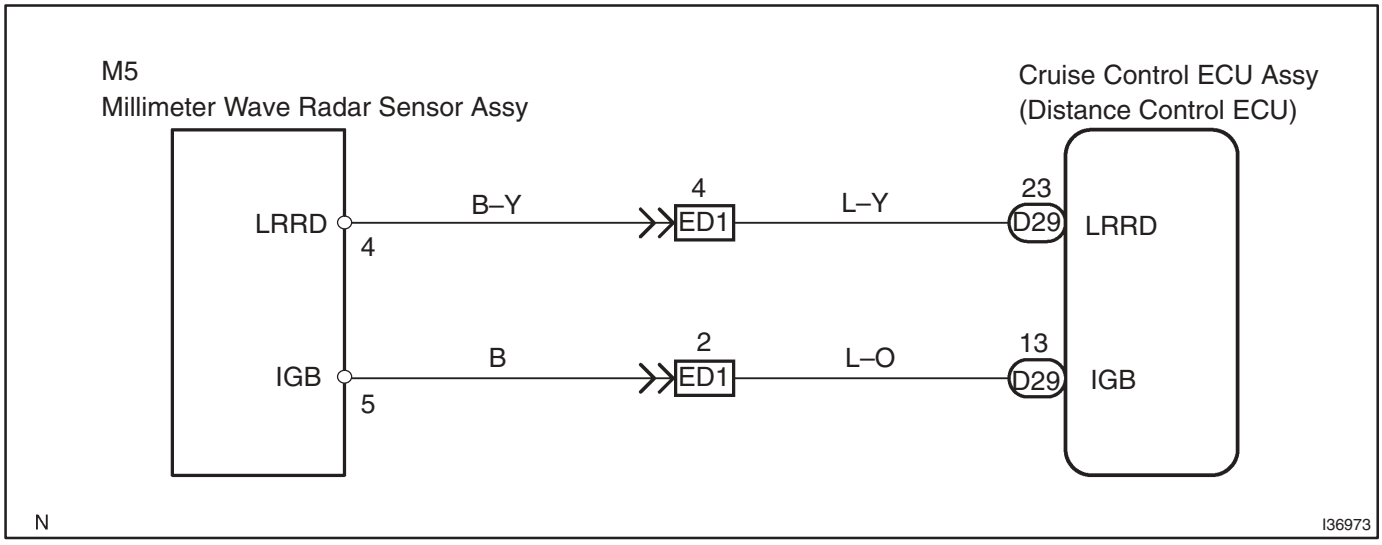
DTC	U1102	COMMUNICATION ERROR FROM DISTANCE CONTROL ECU TO RADAR SENSOR

CIRCUIT DESCRIPTION

The millimeter wave radar 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 sensor and yaw rate sensor (deceleration sensor).
The cruise control ECU (distance control ECU) transmits the current vehicle speed and presumed R information to the millimeter wave radar sensor.

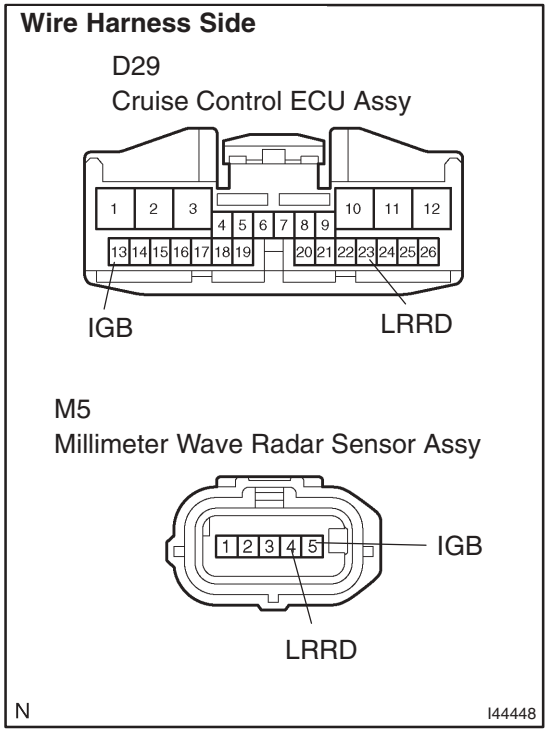
DTC No.	DTC Detection Condition	Trouble Area
U1102	ECM detects communication error signal (from cruise control ECU (distance control ECU) to millimeter wave radar sensor) for 0.15 sec. or more while dynamic radar cruise control is operating	• Communication circuit • Millimeter wave radar sensor assy • Cruise control ECU assy (Distance control ECU)

WIRING DIAGRAM



INSPECTION PROCEDURE

1	CHECK WIRE HARNESS (CRUISE CONTROL ECU ASSY – MILLIMETER WAVE RADAR SENSOR ASSY)



(a) Disconnect the D29 ECU connector.
(b) Disconnect the M5 sensor connector.
(c) Measure the resistance of the wire harness side connectors.

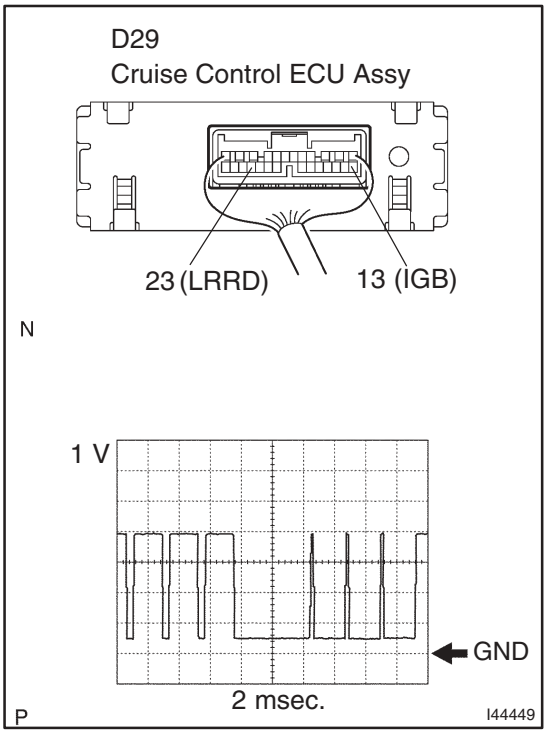
Standard:

Tester Connection	Specified Condition
D29–23 (LRRD) – M5–4 (LRRD)	Below 1 Ω
D29–13 (IGB) – M5–5 (IGB)	Below 1 Ω
D29–23 (LRRD) – Body ground	10 kΩ or higher
D29–13 (IGB) – Body ground	10 kΩ or higher

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

OK

2 CHECK CRUISE CONTROL ECU ASSY



(a) Measure the voltage of the wire harness side connector.
Standard:

Tester Connection	Condition	Specified Condition
D29–13 (IGB) – Body ground	Ignition switch ON	10 to 14 V

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

Terminal Connection	D29–22 (LRRD) – D29–12 (GND)
Tool Setting	1 V/DIV., 2 msec./DIV
Condition	Ignition switch ON

OK:
Waveform similar to illustration on left is output.

NG → **REPLACE CRUISE CONTROL ECU ASSY (See Pub. No. RM1049E, page 82–2)**

OK

REPLACE MILLIMETER WAVE RADAR SENSOR ASSY (See page 82–1)