

The diagram illustrates the electrical connections for the Cruise Control ECU Assy (Distance Control ECU). It shows the following components and connections:

- ECM (Engine Control Module):**
 - Pin 29 (E4) is connected to the BR-Y line.
- M5 Millimeter Wave Radar Sensor Assy:**
 - Pin 1 (LGND) is connected to the B-L line.
 - Pin 5 (IGB) is connected to the B line.
 - Pin 2 (SGND) is connected to the B-R line.
- Cruise Control ECU Assy (Distance Control ECU):**
 - Pin 13 (D29) is connected to the L-O line.
 - Pin 13 (D29) is also connected to the IGB line.
- Wiring Details:**
 - The BR-Y line from the ECM passes through connector S2 (pin 5) and connector S1 (pin 5) to the ECU.
 - The B-L line from the M5 sensor passes through relay ED1 (pin 6) to the ECU.
 - The B line from the M5 sensor passes through relay ED1 (pin 2) to the ECU.
 - The B-R line from the M5 sensor passes through relay ED1 (pin 5) to connector J3 (pin B), then through connector J4 (pin B) to the ECU.
 - The ECU's L-O line is connected to the IGB line.
 - The ECU's IGB line is connected to the IGB line.
 - The ECU's BR line is connected to a fuse (EF) and then to ground.

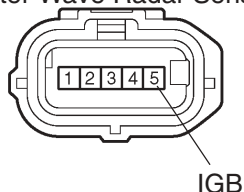
INSPECTION PROCEDURE

1 CHECK CRUISE CONTROL ECU (IGB VOLTAGE)

Wire Harness Side

M5

Millimeter Wave Radar Sensor Assy



N

I44453

- Disconnect M5 sensor connector.
- Measure the voltage of the wire harness side connector.

Standard:

Tester Connection	Condition	Specified Condition
M5-5 (IGB) – Body ground	Ignition switch ON	10 to 14 V

NG

Go to step 3

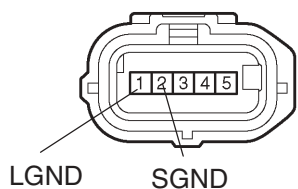
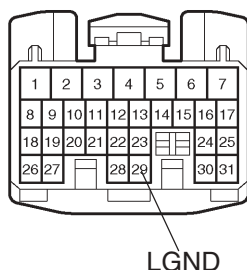
OK

2 CHECK WIRE HARNESS (MILLIMETER WAVE RADAR SENSOR ASSY – ECM AND BODY GROUND)

Wire Harness Side

M5

Millimeter Wave Radar Sensor Assy

E4
ECM

N

I44455

- Disconnect the M5 sensor connector.
- Disconnect the E4 ECM connector.
- Measure the resistance of the wire harness side connectors.

Standard:

Tester Connection	Specified Condition
M5-1 (LGND) – E4-29 (LGND)	Below 1 Ω
M5-1 (LGND) – Body ground	10 k Ω or higher
M5-2 (SGND) – Body ground	Below 1 Ω

NG

REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

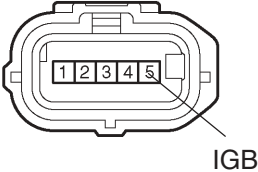
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE
(See page 05-20)

3

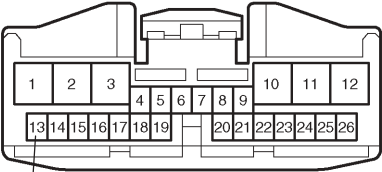
CHECK WIRE HARNESS (MILLIMETER WAVE RADAR SENSOR ASSY – CRUISE CONTROL ECU ASSY)

Wire Harness Side

M5
Millimeter Wave Radar Sensor Assy



D29
Distance Control ECU Assy



N

I44456

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

Standard:

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

NG

REPAIR OR REPLACE HARNESS AND CONNECTOR

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE
(See page 05-20)