

# Electronically Controlled Transmission Communication Circuit

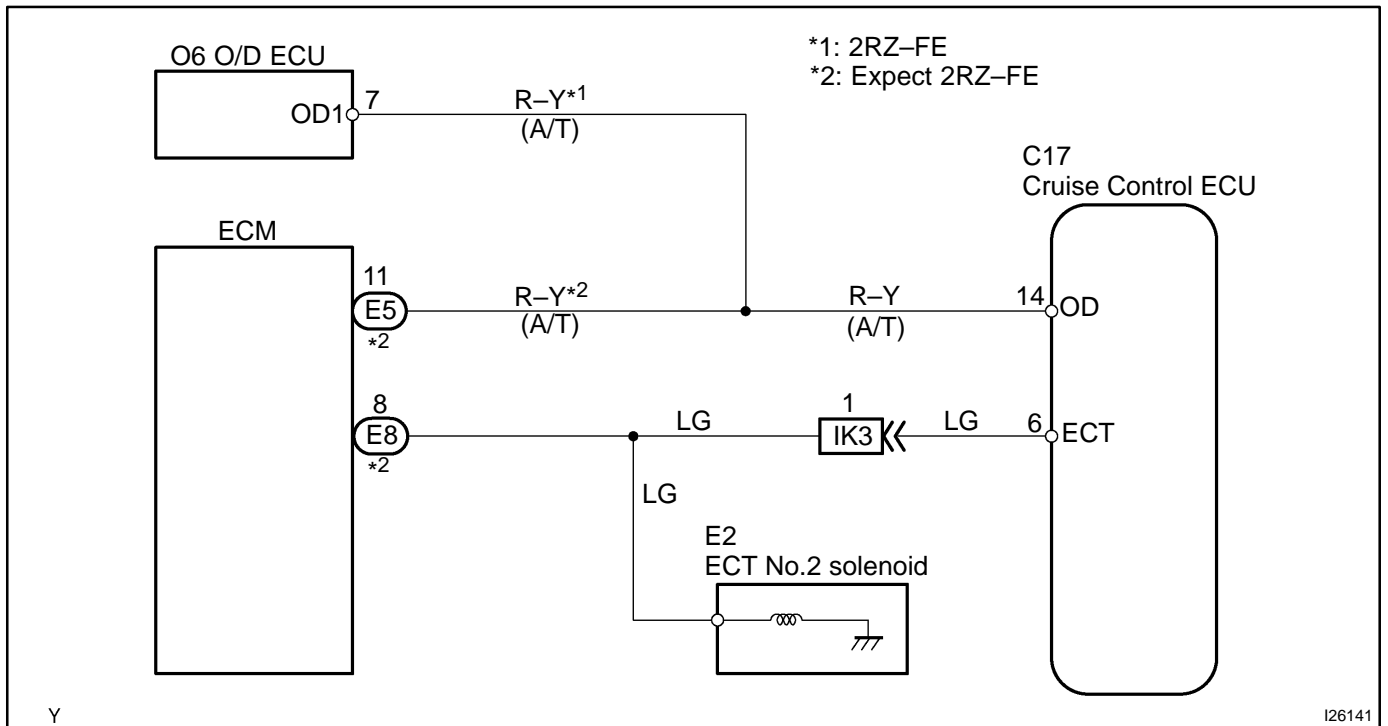
## CIRCUIT DESCRIPTION

When the vehicle is driven uphill under the cruise control, a signal to prevent a upshift until the end of the uphill slope is sent from the cruise control ECU to the electronically controlled transmission, in order to reduce shifting due to ON-OFF overdrive operation and to provide smooth driving when a downshifting in the electronically controlled transmission occurs.

Terminal ECT of the cruise control ECU detects a shift change signal (input to electronically controlled transmission No. 2 solenoid) from the ECM.

When the vehicle speeds down and when terminal OD of the cruise control ECU receives a downshifting signal, it sends a signal from terminal OD to the ECM to cut overdrive until the end of the uphill slope, and the gear shiftings are reduced and gear shifting points in the electronically controlled transmission are changed.

## WIRING DIAGRAM



**INSPECTION PROCEDURE**

<b>1</b>	<b>Check operation of overdrive.</b>
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**PREPARATION:**

Drive the vehicle after the engine warmed up.

**CHECK:**

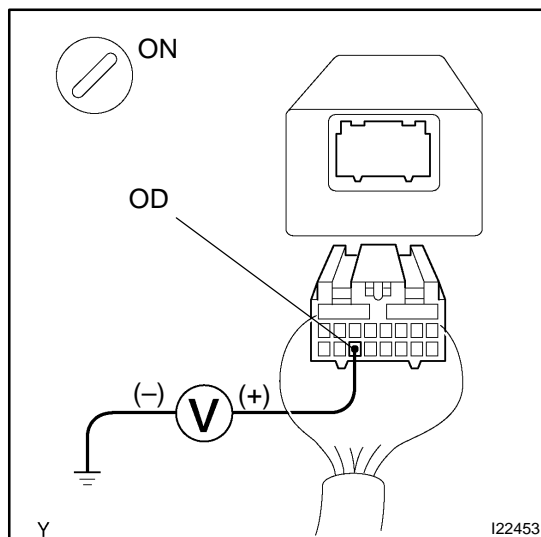
Check that overdrive ON ↔ OFF occurs by an operation of the OD switch ON-OFF.

**NG**

Check and repair electronically controlled transmission (See page [DI-454](#)).

**OK**

<b>2</b>	<b>Check voltage between terminal OD of cruise control ECU connector and body ground.</b>
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**PREPARATION:**

- (a) Remove the ECU with the connector being connected.
- (b) Turn the ignition switch ON.
- (c) Disconnect the ECU connector.

**CHECK:**

Measure the voltage between terminal OD of the ECU connector and the body ground.

**OK:**

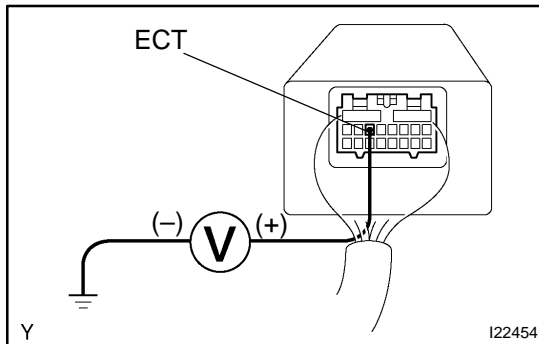
**Voltage: 10 – 16 V**

**NG**

Go to step 5.

**OK**

- 3 Check voltage between terminal ECT of cruise control ECU connector and body ground (On test drive).**

**PREPARATION:**

- (a) Connect the ECU connector.  
 (b) Drive the vehicle after the engine warmed up.

**CHECK:**

Check the voltage between terminal ECT of the ECU connector and the body ground when the OD switch is ON and OFF.

**OK:**

OD Switch Position	Voltage
ON	8 – 16 V
OFF	Below 0.5 V

**OK**

Proceed to next circuit inspection shown in problem symptoms table (See page [DI-730](#)).

**NG**

- 4 Check harness and connector between terminal ECT of cruise control ECU and electronically controlled transmission solenoid (See page [IN-28](#)).**

**NG**

Repair or replace harness or connector.

**OK**

Check and replace cruise control ECU.

- 5 Check harness and connector between terminal OD of cruise control ECU and terminal OD1 of ECM or terminal OD1 of O/D ECU (See page [IN-28](#)).**

**NG**

Repair or replace harness or connector.

**OK**

Check and replace cruise control ECU.