

CIRCUIT INSPECTION

DTC	11, 15	Actuator Motor Circuit
-----	--------	------------------------

CIRCUIT DESCRIPTION

The actuator motor is operated by signals from the ECU. Acceleration and deceleration signals are transmitted according to changes in the Duty Ratio (See below).

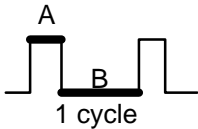
Duty Ratio

The duty ratio is the ratio of the period of continuity in one cycle. For example, if A is the period of continuity in one cycle, and B is the period of non-continuity.

$$\text{Duty Ratio} = \frac{A}{A + B} \times 100 (\%)$$

ON

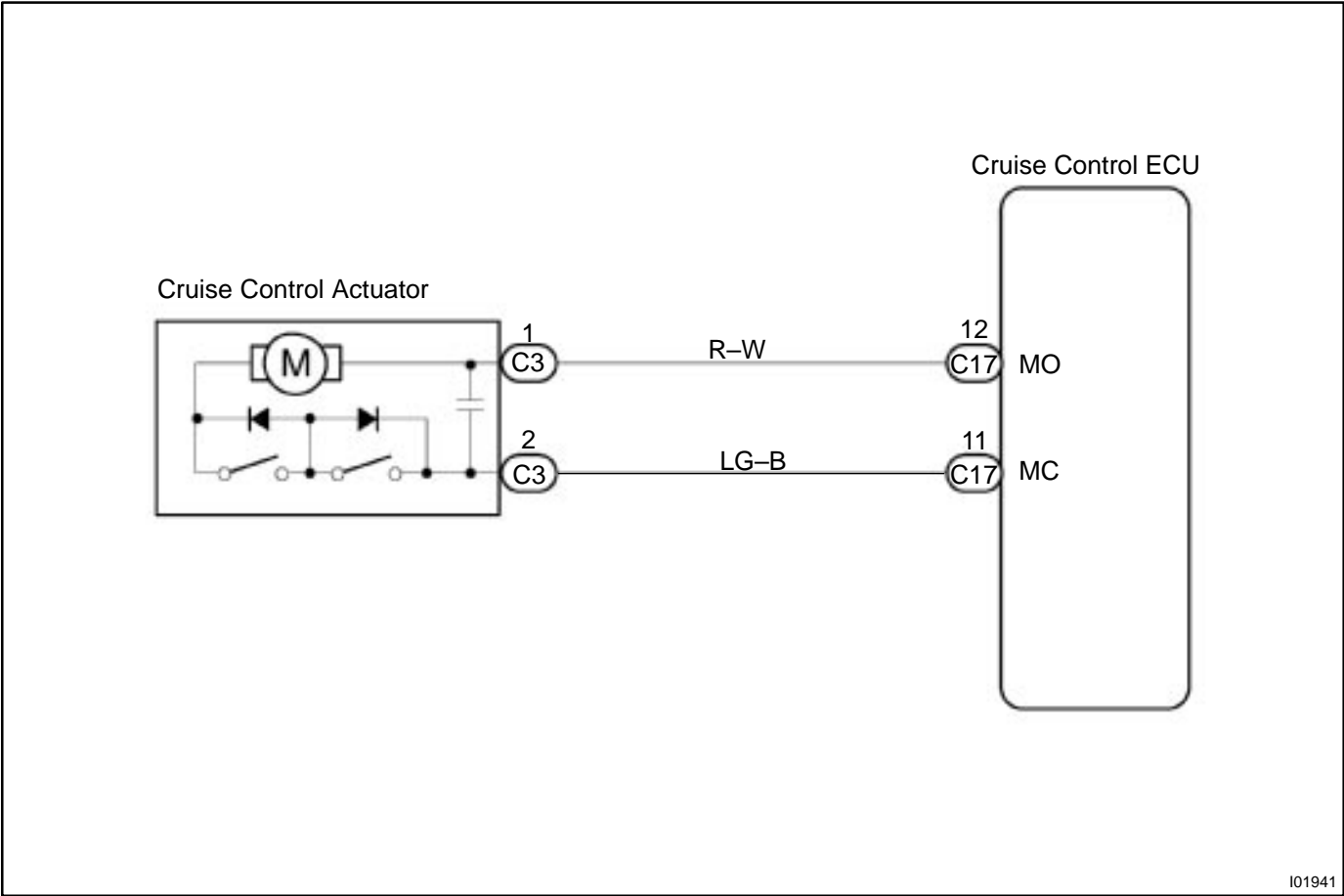
OFF



1 cycle

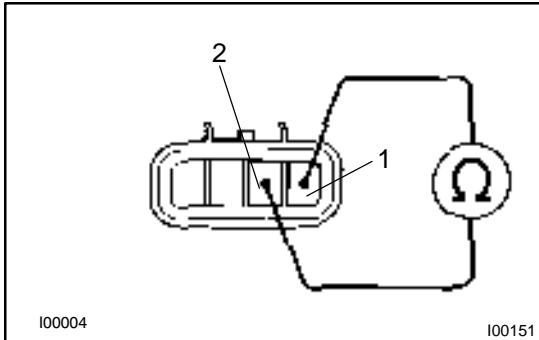
DTC No.	Detection Item	Trouble Area
11	Short in actuator motor circuit	<ul style="list-style-type: none"><li>• Harness or connector between actuator and cruise control ECU</li><li>• Cruise control actuator</li><li>• Cruise control ECU</li></ul>
15	Open in actuator	<ul style="list-style-type: none"><li>• Actuator motor</li></ul>

WIRING DIAGRAM



**INSPECTION PROCEDURE**

- 1 Check resistance between terminals MO and MC of cruise control actuator.**

**PREPARATION:**

- (a) Ignition switch ON.
- (b) Disconnect actuator connector.

**CHECK:**

Measure resistance between terminals 1 and 2.

**HINT:**

If control plate position is fully opened or fully closed, resistance can not be measured.

**OK:**

**Resistance: more than 4.2 Ω**

**NG**

**Replace cruise control actuator.**

**OK**

- 2 Check wire harness and connector between terminals MO of cruise control ECU and MO of cruise control actuator (See page [IN-28](#)).**

**NG**

**Repair or replace harness or connector.**

**OK**

**Replace cruise control ECU (See page [IN-28](#)).**