

Diag. Code 11, 13

Actuator Motor Circuit

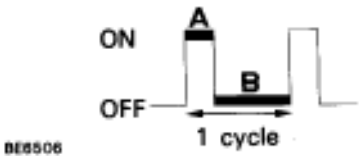
CIRCUIT DESCRIPTION

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

Duty Ratio

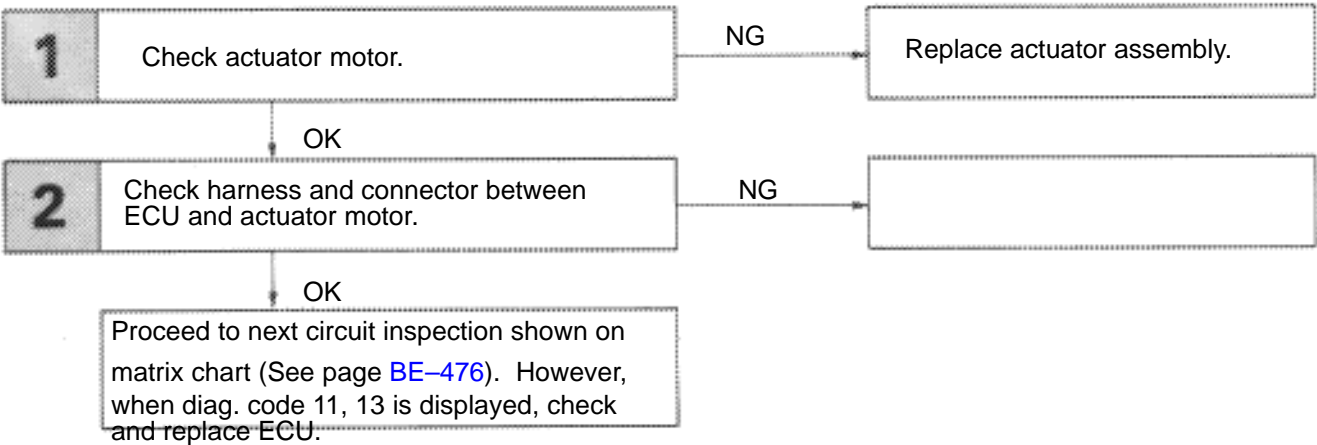
The duty ratio is the ratio of the period of continuity in one cycle. For example, if A is the period of continuity in one cycle, and B is the period of non-continuity, then

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

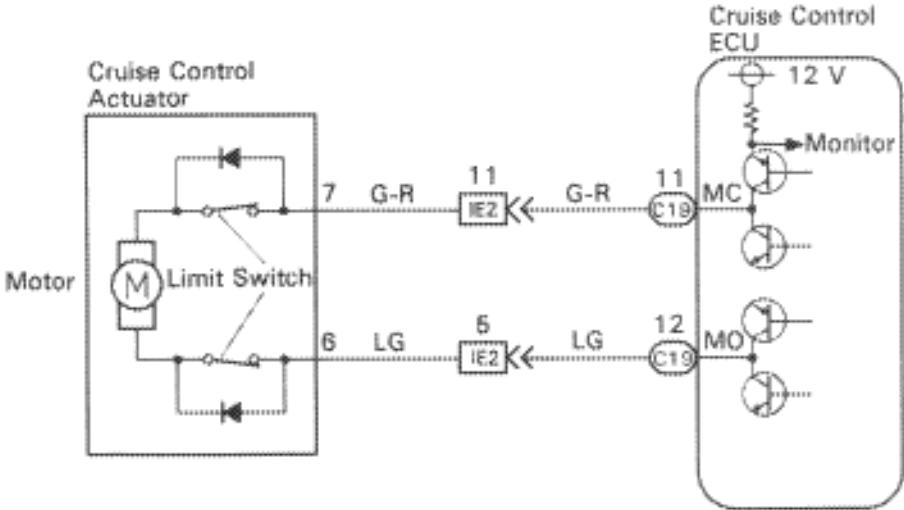


Code No.	Diagnosis	Trouble area
11	<ul style="list-style-type: none">Duty ratio of 100% output to motor acceleration side.Over current (short) in motor circuit.	<ul style="list-style-type: none">Cruise control actuator motor.Harness or connector between actuator motor and ECU.ECU
13	<ul style="list-style-type: none">Open in actuator motor circuit.	

DIAGNOSTIC CHART

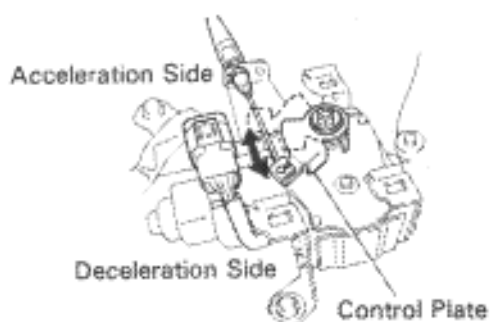
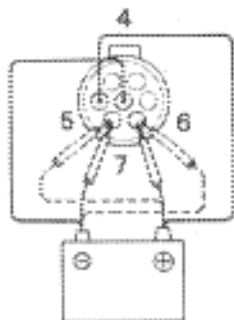


WIRING DIAGRAM



INSPECTION PROCEDURE

1 Check actuator motor



BE3831
BE6571

- P** (1) Remove cruise control actuator.
(2) Disconnect actuator connector.

- C** (1) Connect positive lead to terminal 5 and negative lead to terminal 4 of actuator connector. (Magnet clutch ON).
(2) When battery voltage is applied to each terminal of actuator connector, check that the control plate moves smoothly without hesitating.
(3) With the motor rotating as in 2, check that the motor is stopped by limit switches when the control plate moves to fully opened or fully closed position.

OK

Connect

Terminal	+	-	6	7
Moving direction				
Acceleration side	○	○	○	○
Deceleration Side	○	○	○	○

OK

NG

Replace actuator assembly.

2 Check for open and short in harness and connector between ECU and motor (See page IN-27).

OK

NG

Repair or replace harness or connector.

Proceed to next circuit inspection shown on matrix chart (See page BE-476).

However, when diag. code 11, 13 is displayed, check and replace ECU.