

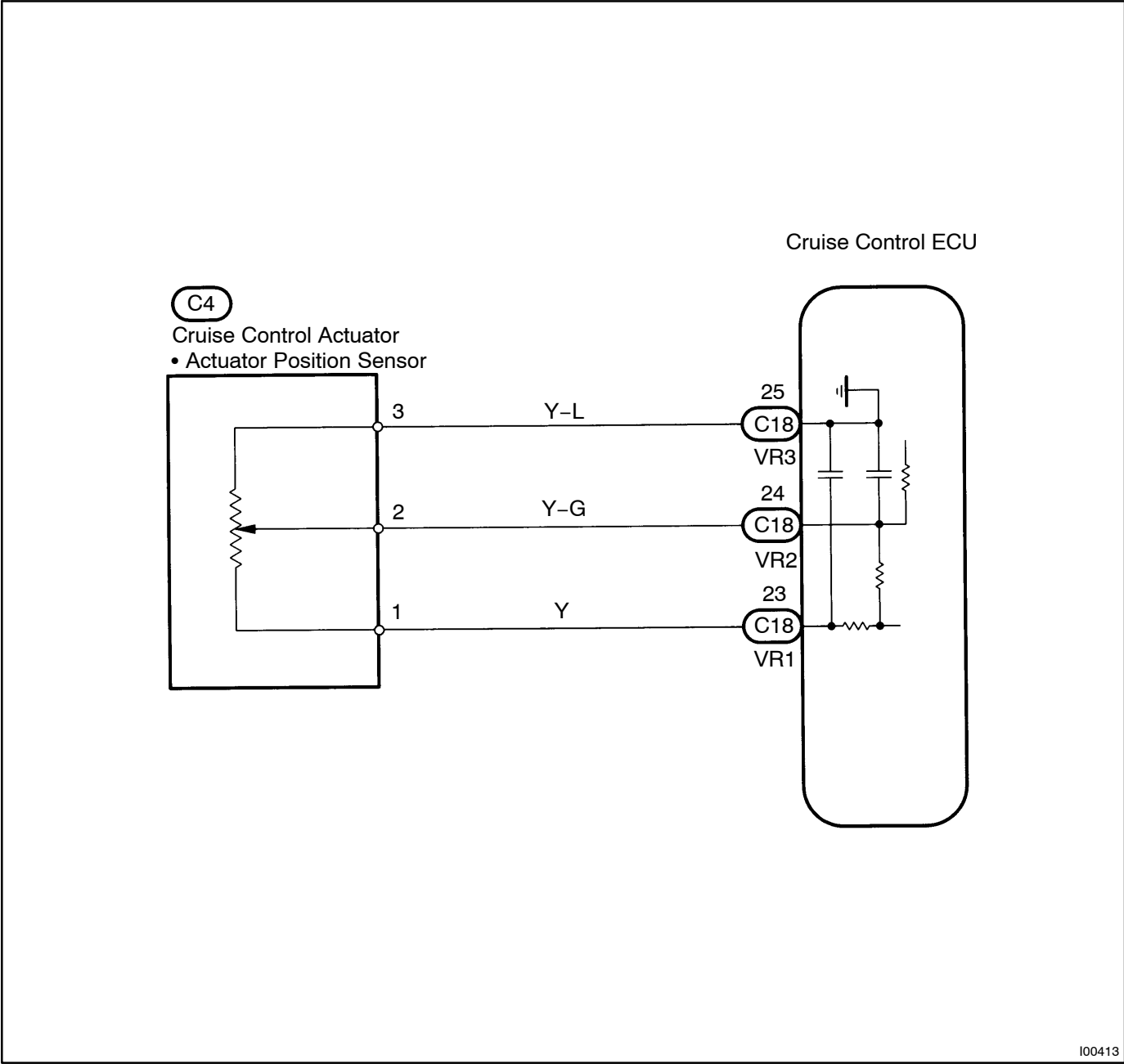
DTC	13	Actuator Position Sensor Circuit
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CIRCUIT DESCRIPTION

The circuit detects the rotation position of the actuator control plate and sends a signal to the ECU.

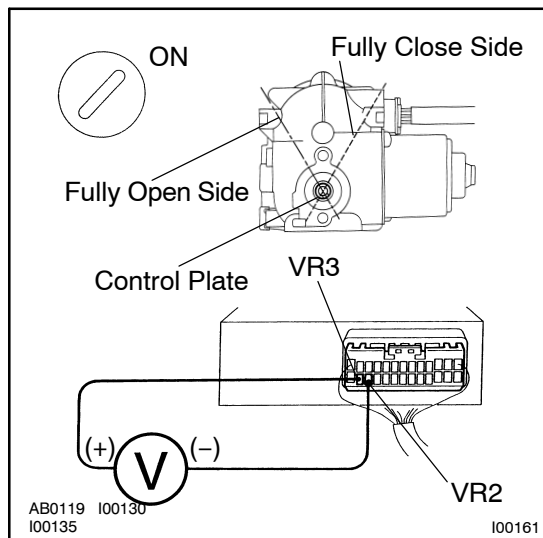
DTC No.	Detection Item	Trouble Area
13	Position sensor detects abnormal voltage.	- Actuator position sensor - Harness or connector between cruise control ECU and actuator position sensor - Cruise control ECU

WIRING DIAGRAM



INSPECTION PROCEDURE

- | | |
|----------|--|
| 1 | Check resistance between terminals VR2 and VR3 of cruise control ECU connector. |
|----------|--|

**PREPARATION:**

- (a) Remove the ECU with connectors still connected.
- (b) Turn ignition switch OFF.

CHECK:

Measure voltage between terminals VR2 and VR3 of ECU connector while turning control plate slowly by hand from the deceleration side to the acceleration side.

OK:**Voltage:**

Fully closed: Approx. 1.3 V

Fully opened: Approx. 4.1 V

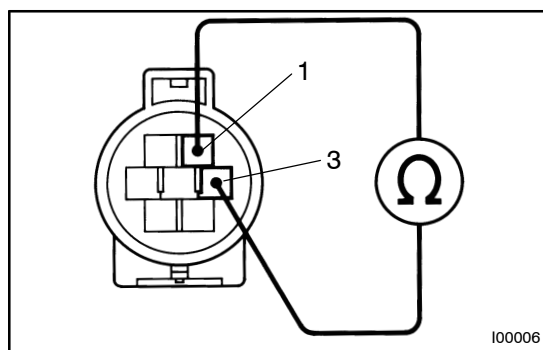
In addition, as the control plate is turned, the voltage should increase gradually without interruption.

NG

Proceed to next circuit inspection shown on problem symptom table (See page [DI-283](#)).

OK

- | | |
|----------|--|
| 2 | Check resistance between terminals VR1 and VR3 of actuator position sensor. |
|----------|--|

**PREPARATION:**

- (a) Turn ignition switch OFF.
- (b) Disconnect the actuator connector.

CHECK:

Measure resistance between actuator terminal 1 and 3 of actuator connector.

OK:

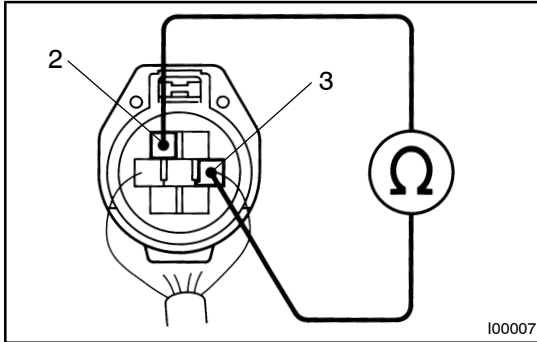
Resistance: 1.8 – 2.2 kΩ (25°C)

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Replace cruise control actuator.

OK

3 Check voltage between terminals VR2 and VR3 of actuator position sensor.



PREPARATION:

- (a) Turn ignition switch ON.
- (b) Connect the actuator connector.

CHECK:

Measure voltage between terminals 2 and 3 of actuator connector while turning control plate slowly by hand from the deceleration side to the acceleration side.

OK:

Voltage: 1.3 – 4.0 V

HINT:

As the control plate is turned, the voltage should increase gradually without interruption.

NG

Replace cruise control actuator.

OK

4 Check for open and short in harness and connector between cruise control ECU and actuator position sensor (See page [IN-27](#)).

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Repair or replace harness or connector.

OK

Check and replace cruise control ECU (See page [IN-27](#)).