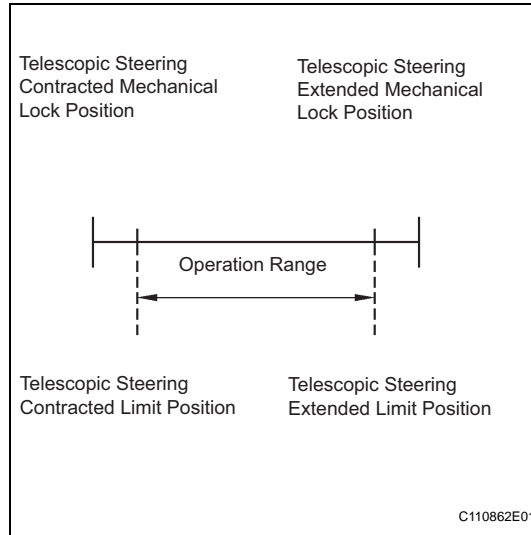


DTC	B2611	Telescopic Position Sensor or Telescopic Motor Circuit Malfunction
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DESCRIPTION

The telescopic motor is operated by the power source voltage supplied from the multiplex tilt and telescopic ECU and makes the steering column slide forward and backward. The telescopic position sensor (Hall IC) in the telescopic motor detects the sliding position in the forward and backward directions of the steering column and outputs a signal to the CPU based on that sliding amount.

SR

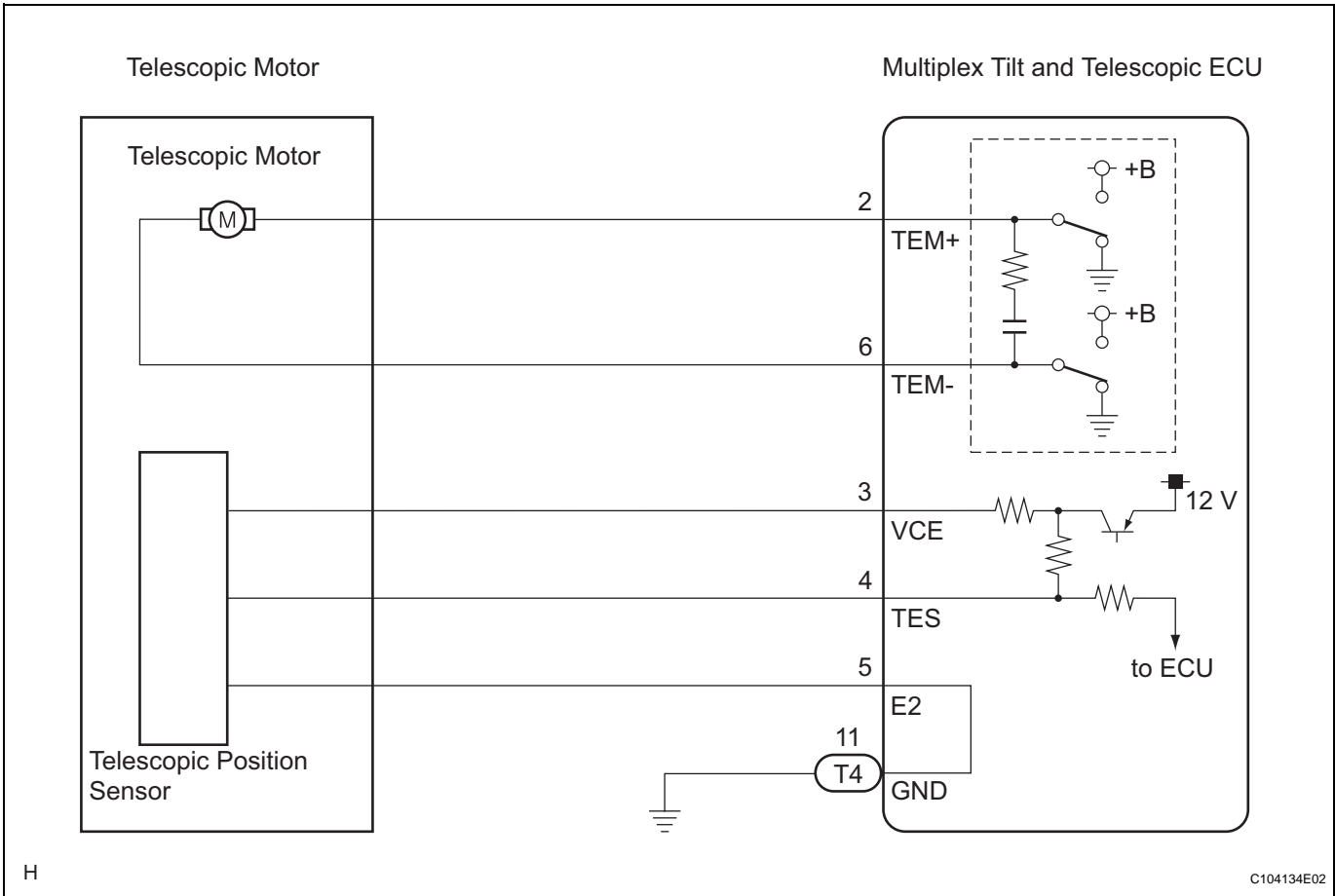


HINT:

Limit positions can be confirmed on the screen of the intelligent tester.

DTC No.	Detection Item	Trouble Area
B2611	Telescopic operation stops within the defined range.	<ul style="list-style-type: none"> • Tilt steering gear assembly w/ motor • Actuator power source circuit • Telescopic position sensor or telescopic motor circuit • Multiplex tilt and telescopic ECU

WIRING DIAGRAM

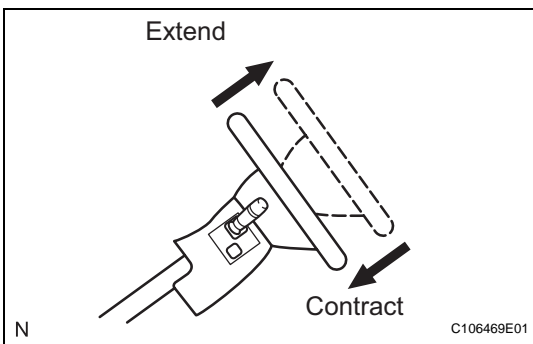


SR

HINT:

The wire harness between the multiplex tilt and telescopic ECU and telescopic motor is provided with the steering column assembly.

1 PERFORM ACTIVE TEST BY INTELLIGENT TESTER



- (a) Connect the intelligent tester to the DLC3.
- (b) Turn the ignition switch to the ON position and turn the intelligent tester on.
- (c) Select "TILT & TELESCOPIC".
- (d) Select "TELESCO", and perform the test using the intelligent tester.
- (e) Check that the steering column contracts (extends) when the Active Test is carried out.

OK:

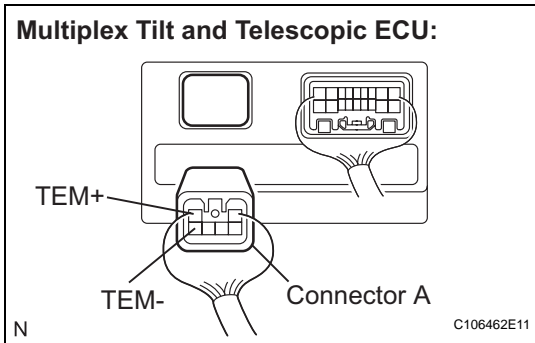
Steering column contracts (extends).

OK

Go to step 3

NG

2 INSPECT TELESCOPIC MOTOR



- (a) Disconnect connector A from the multiplex tilt and telescopic ECU.
- (b) Connect the positive battery terminal to terminal TEM+ and the negative battery terminal to terminal TEM- of the telescopic motor connector. Then confirm that the steering column contracts.

OK:

Steering column contracts.

- (c) Connect the negative battery terminal to terminal TEM+ and the positive battery terminal to terminal TEM- of the telescopic motor connector. Then confirm that the steering column extends.

OK:

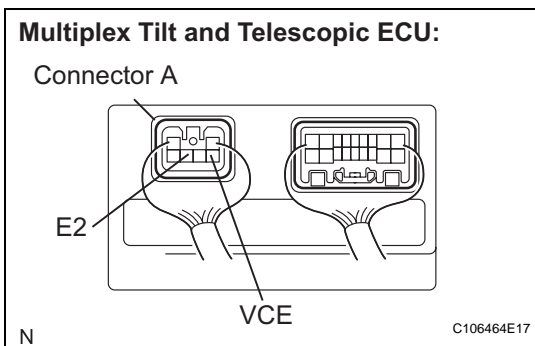
Steering column extends.

NG → **REPLACE STEERING COLUMN ASSEMBLY**

OK

REPLACE MULTIPLEX TILT AND TELESCOPIC ECU

3 INSPECT MULTIPLEX TILT AND TELESCOPIC ECU (VCE TERMINAL VOLTAGE)



- (a) Measure the voltage according to the value(s) in the table below.

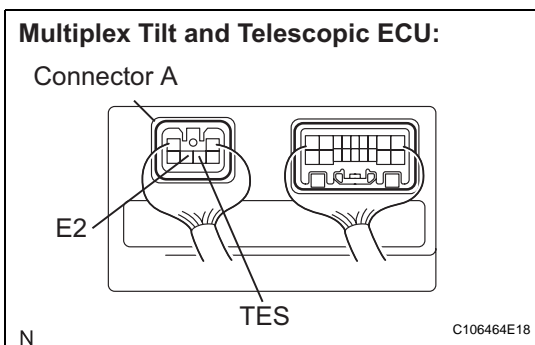
Voltage

Tester connection	Condition	Specified value
VCE - E2	Ignition switch on	8 to 16 V

NG → **Go to step 5**

OK

4 INSPECT TELESCOPIC POSITION SENSOR



- (a) Measure the voltage according to the value(s) in the table below.

Voltage

Tester connection	Condition	Specified value
TES - E2	Telescopic steering contracts or extends	8 to 16 V (Pulse HI)
		0 V (Pulse LOW)

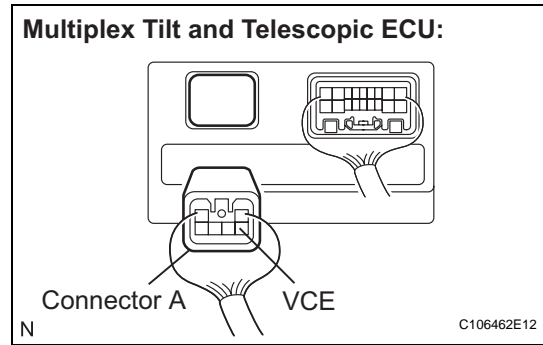
NG → **REPLACE STEERING COLUMN ASSEMBLY**

OK

REPLACE MULTIPLEX TILT AND TELESCOPIC ECU

SR

5 CHECK HARNESS AND CONNECTOR (TILT AND TELESCOPIC ECU - TELESCOPIC POSITION SENSOR)



- (a) Disconnect connector A from the multiplex tilt and telescopic ECU.
- (b) Measure the resistance according to the value(s) in the table below.

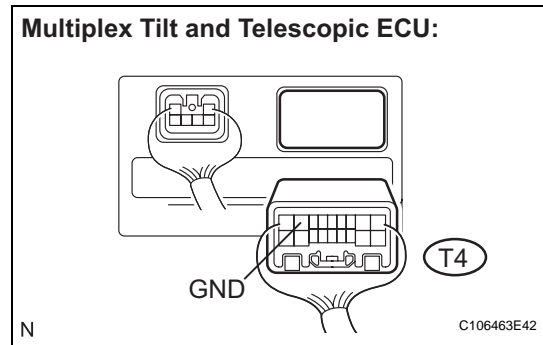
Resistance

Tester connection	Condition	Specified value
VCE - Body ground	Always	10 kΩ or higher

NG **REPLACE STEERING COLUMN ASSEMBLY**

OK

6 CHECK HARNESS AND CONNECTOR (BETWEEN TILT AND TELESCOPIC ECU AND BODY GROUND)



- (a) Disconnect the T4 connector from the multiplex tilt and telescopic ECU.
- (b) Measure the resistance according to the value(s) in the table below.

Resistance

Tester connection (Terminal No.)	Condition	Specified value
GND (T4-11) - Body ground	Always	Below 1 Ω

NG **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE MULTIPLEX TILT AND TELESCOPIC ECU