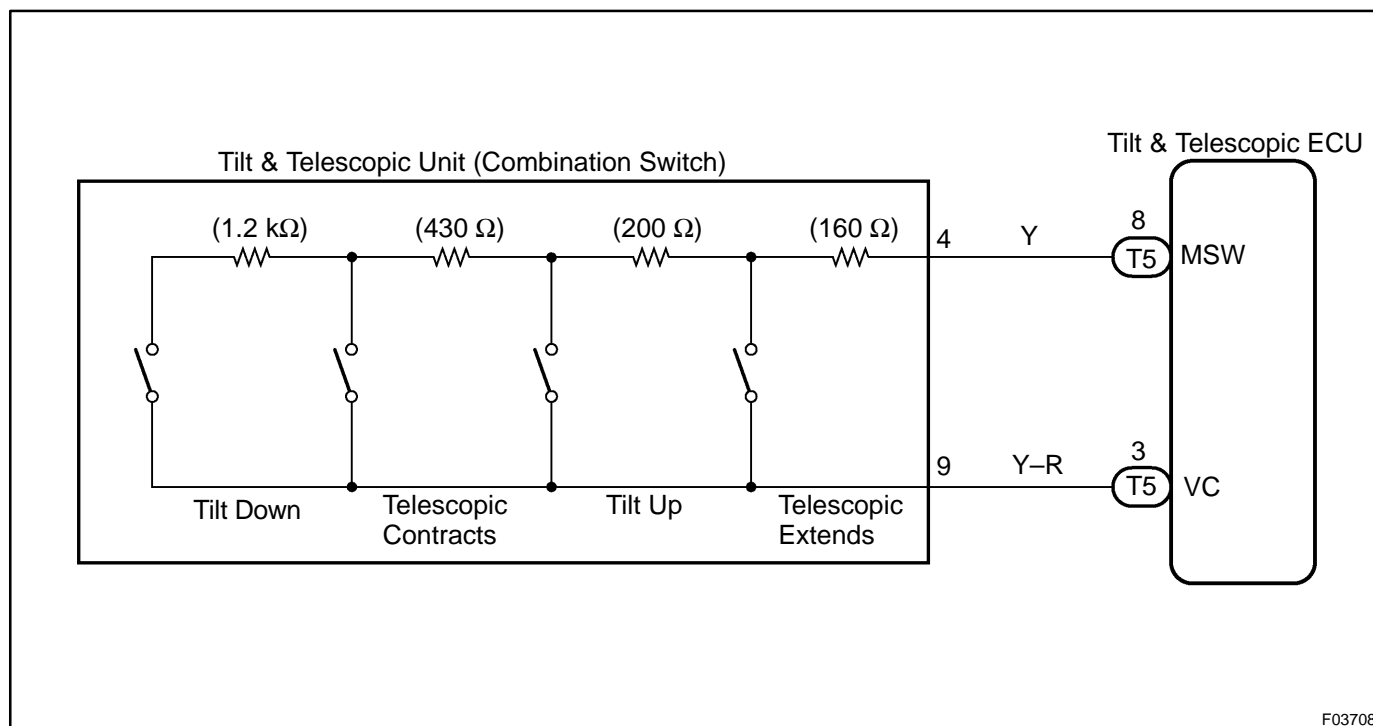


## Tilt and Telescopic Manual Switch Circuit

### CIRCUIT DESCRIPTION

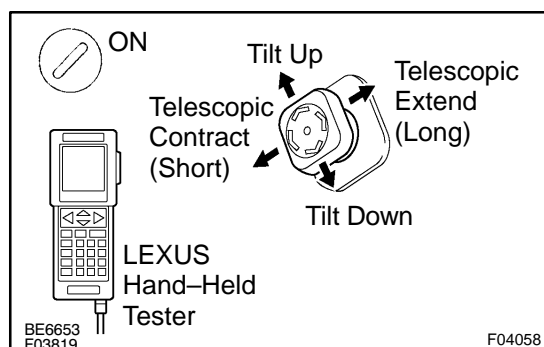
The different voltage signals which are occurred by operating the manual switch are sent to the tilt and telescopic ECU.

### WIRING DIAGRAM



## INSPECTION PROCEDURE

### 1 Check tilt and telescopic manual switch Voltage.



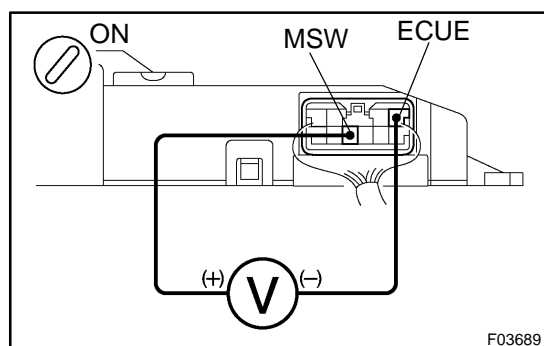
In case of using LEXUS hand-held tester:

#### PREPARATION:

- Connect the LEXUS hand-held tester to the DLC3.
- Turn ignition switch ON and push the LEXUS hand-held tester main switch ON.
- Select DATALIST mode on the LEXUS hand-held tester.

#### CHECK:

Read the voltages on the tester screen when operating the manual switch.



In case of not using LEXUS hand-held tester:

#### PREPARATION:

Remove tilt and telescopic ECU with connector still connected.

#### CHECK:

Measure voltage between terminals MSW and ECUE of ECU connector when operating the manual switch.

#### OK:

Manual switch position	Standard voltage
Neutral position	0.00 – 0.20 V
Tilt UP	1.30 – 1.70 V
Tilt DOWN	0.30 – 0.50 V
Telescopic SHORT	0.65 – 0.95 V
Telescopic LONG	2.05 – 2.75 V

#### RESULT:

A	Switch voltages in all directions are within the standard.
B	Switch voltage in a certain direction is out of the standard.
C	Switch voltages in all directions are out of the standard.

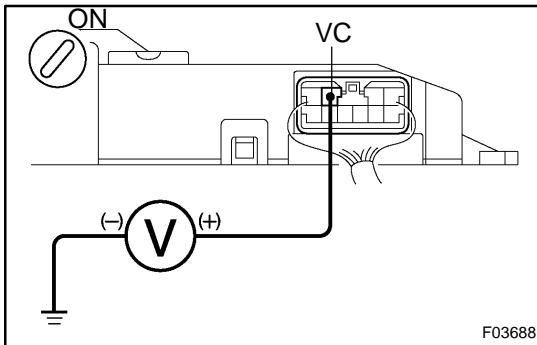
A

Proceed to next circuit inspection shown on the problem symptom table (See page [DI-622](#)).

B

Replace the manual switch.

C

**2 Check voltage between terminal VC of ECU connector and body ground.****PREPARATION:**

Remove ECU with connectors still connected.

**CHECK:**

Measure voltage between terminal VC of ECU connector and body ground.

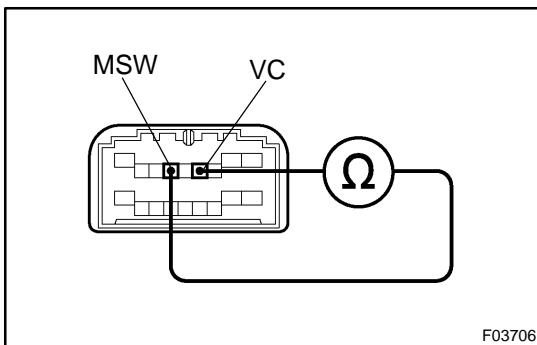
**OK:**

**Voltage: 4.5 – 5.5 V**

**NG**

**Go to step 4.**

**OK**

**3 Check tilt and telescopic manual switch****PREPARATION:**

Disconnect combination switch connector.

**CHECK:**

Measure resistance between terminals VC and MSW of combination switch connector when operating the manual switch.

**OK:**

Switch position	Resistance
Tilt UP	360 Ω
Tilt DOWN	1,990 Ω
Telescopic SHORT	790 Ω
Telescopic LONG	160 Ω

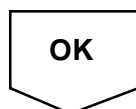
**NG**

**Replace the manual switch.**

**OK**

4	Check for open and short circuit harness and connector between tilt and telescopic ECU and manual switch (See page <a href="#">IN-32</a> ).
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NG	Repair or replace harness or connector.
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Proceed to next circuit inspection shown on the problem symptom table (See page [DI-622](#)).