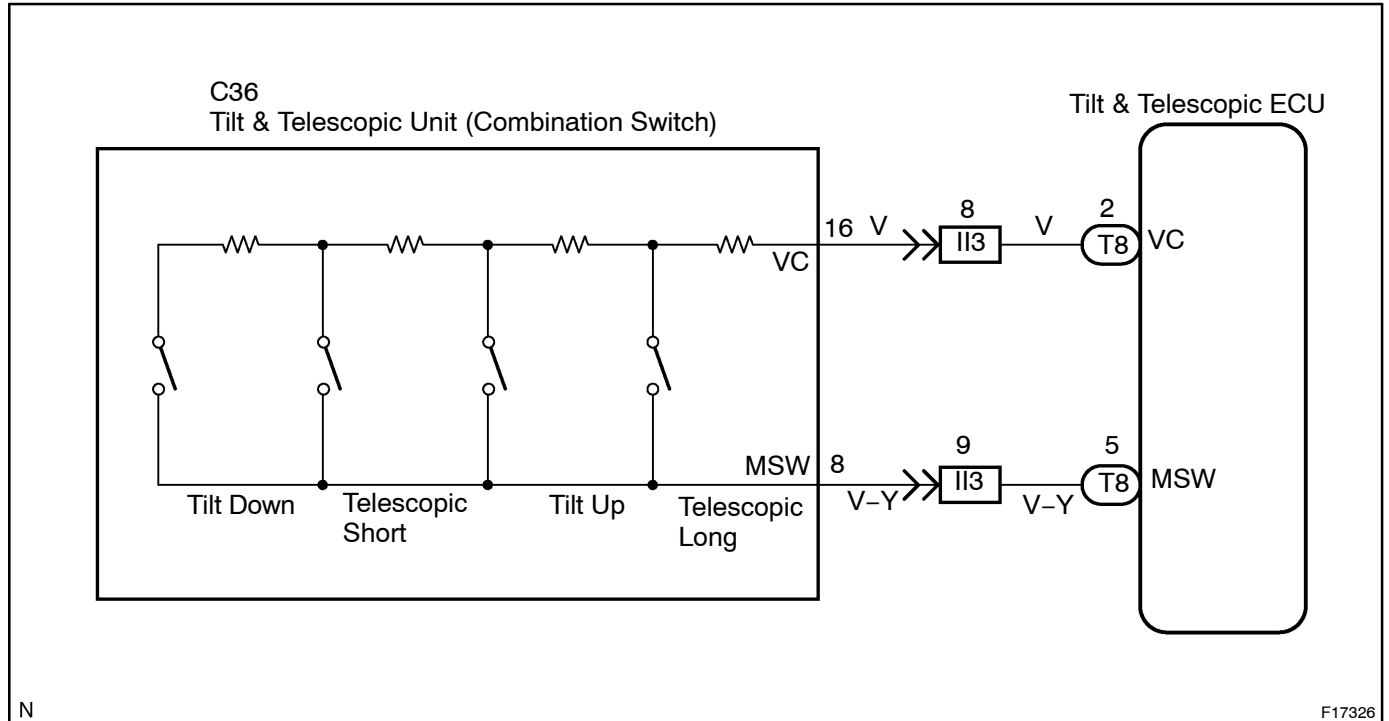


Tilt and Telescopic Manual Switch Circuit

CIRCUIT DESCRIPTION

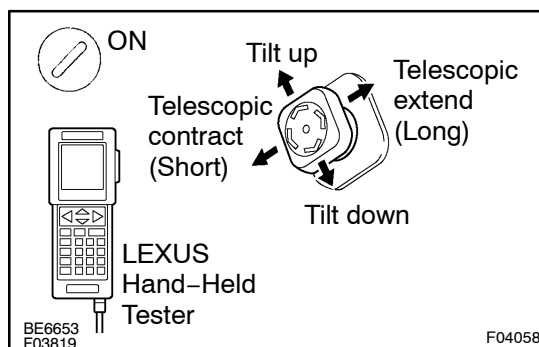
The different voltage signals which are occurred by operating the manual switch are sent to the tilt and telescopic ECU.

WIRING DIAGRAM



INSPECTION PROCEDURE

- 1 Check tilt and telescopic manual switch voltage.



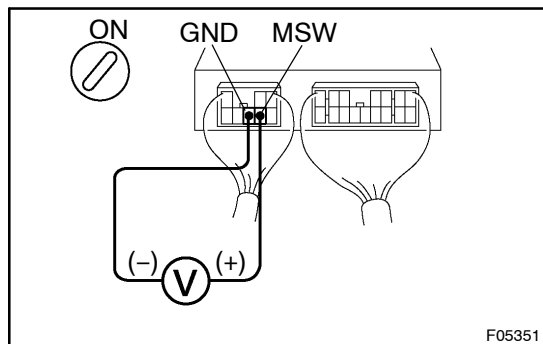
When using LEXUS hand-held tester

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.

**When not using LEXUS hand-held tester****PREPARATION:**

Remove tilt and telescopic ECU with connector still connected.

CHECK:

Measure voltage between terminals MSW and GND 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

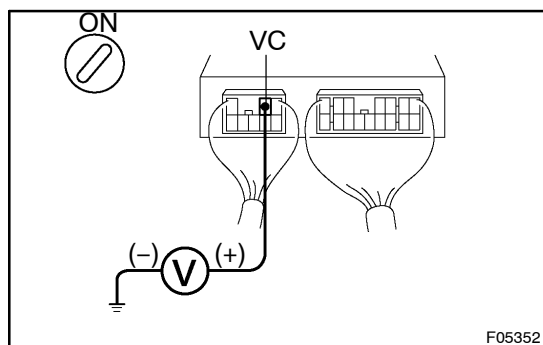
Proceed to next circuit inspection shown on the problem symptom table (See page [DI-766](#)).

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 and body ground.

OK:

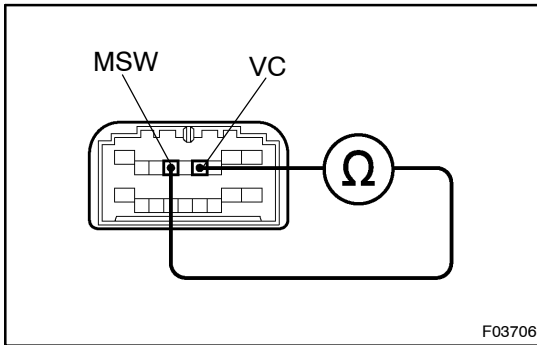
Voltage: 4.5 – 5.5 V

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 or short circuit in harness and connector between tilt and telescopic ECU and manual switch (See page [IN-36](#)).

NG

Repair or replace harness or connector.

OK

Proceed to next circuit inspection shown on the problem symptom table (See page [DI-766](#)).