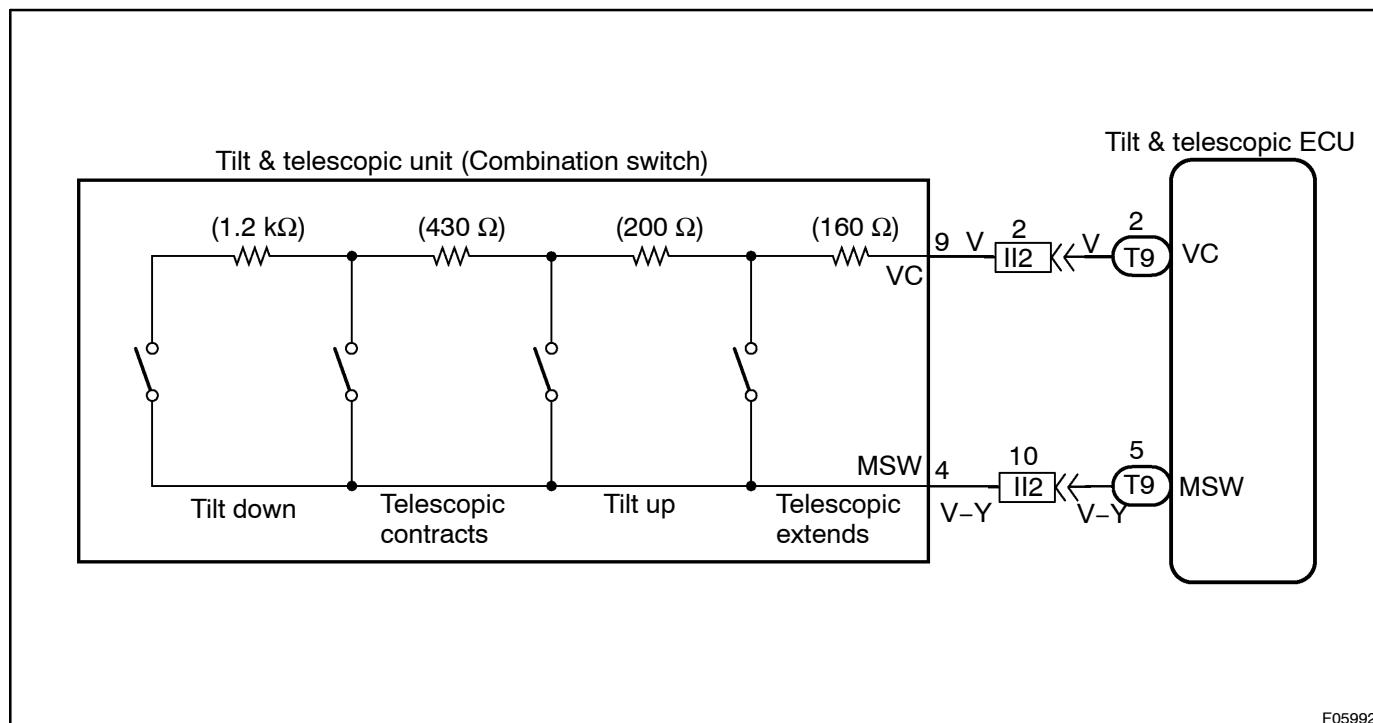


## Tilt and Telescopic Manual Switch Circuit

### CIRCUIT DESCRIPTION

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

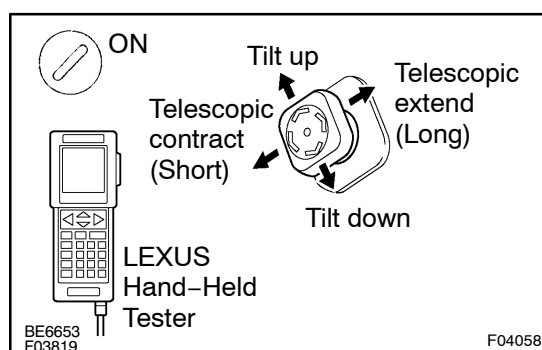
### WIRING DIAGRAM



F05992

### INSPECTION PROCEDURE

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



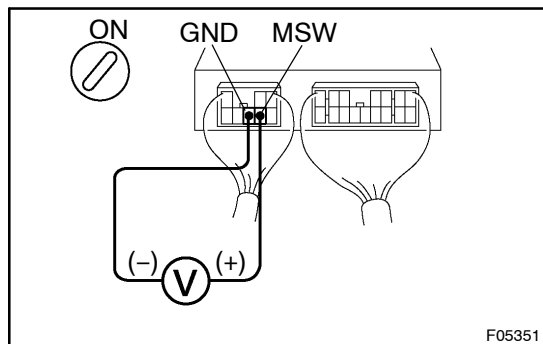
#### When using LEXUS hand-held tester

##### 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**

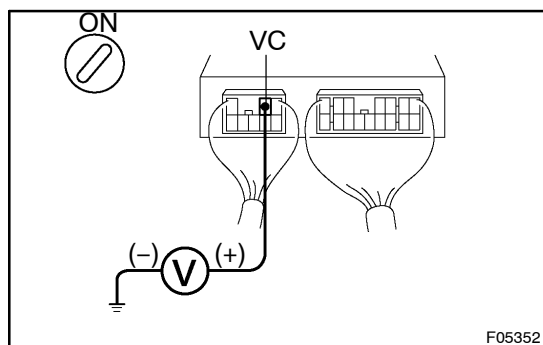
Proceed to next circuit inspection shown on the Problem Symptom Table (See page [DI-461](#)).

**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:**

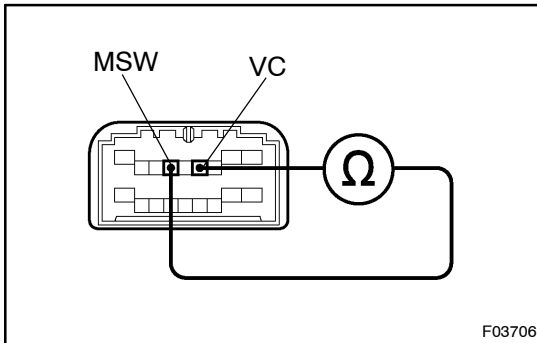
**Voltage: 4.5 – 5.5 V**

**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 harness and connector between tilt and telescopic ECU and manual switch (See page [IN-34](#)).

NG

Repair or replace harness or connector.

OK

Proceed to next circuit inspection shown on the Problem Symptom Table (See page [DI-461](#)).