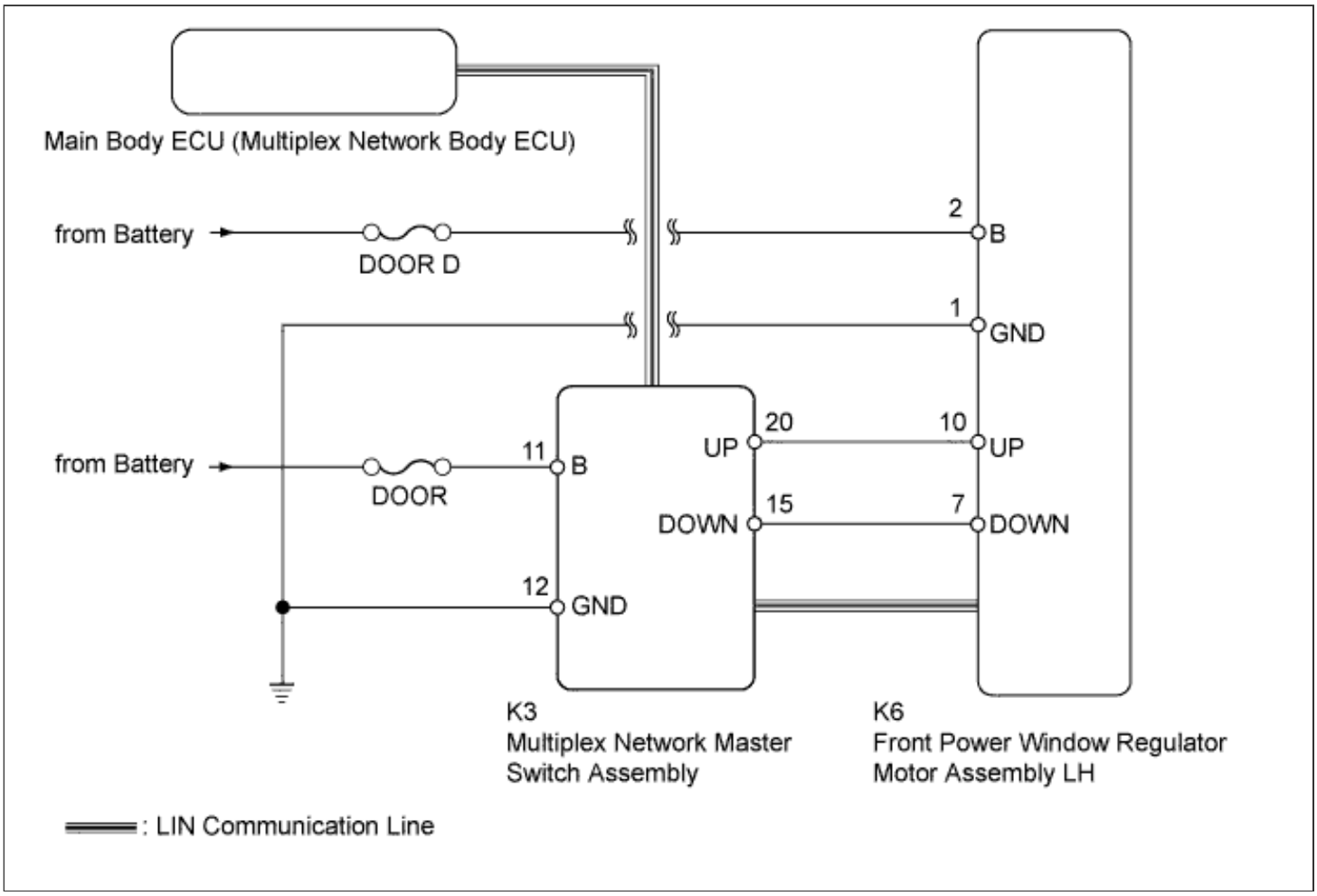
POWER WINDOW CONTROL SYSTEM > Driver Side Power Window does not Operate with Power Window Master Switch

for Preparation Click here

DESCRIPTION

If the manual up/down function does not operate, there may be a malfunction in the multiplex network master switch, power window regulator, harness or connector.

WIRING DIAGRAM



INSPECTION PROCEDURE

NOTICE:

Inspect the fuses for circuits related to this system before performing the following inspection procedure.

HINT:

Since the power window control system has functions that use LIN communication, first confirm that there is no malfunction in the communication system by inspecting the LIN communication functions in

accordance with the "How to Proceed with Troubleshooting" procedures. Then, conduct the following inspection procedure.

1.CHECK FOR DTC (B2312)

a. Check if DTC B2312 is output (Click here).

OK:
DTC B2312 is not output.

NG → GO TO DTC B2312 (**Click here**)

OK ↓

2.READ VALUE USING INTELLIGENT TESTER (MULTIPLEX NETWORK MASTER SWITCH)

a. Use the Data List to check if the multiplex network master switch is functioning properly (Click here).

D-Door Motor

Tester Display	Measurement Item/Range	Normal Condition	Diagnostic Note
D Door P/W Up SW	Driver side power window manual up signal / ON or OFF	ON: Driver side power window manual up switch operated OFF: Driver side power window switch not operated	-
D Door P/W Down SW	Driver side power window manual down signal / ON or OFF	ON: Driver side power window manual down switch operated OFF: Driver side power window switch not operated	-

OK:
On tester screen, each item changes between ON and OFF according to above chart.

NG → **Go to step 4**

OK ↓

3.PERFORM ACTIVE TEST USING INTELLIGENT TESTER (POWER WINDOW)

a. Select the Active Test, use the intelligent tester to generate a control command, and then check that power window regulator motor operates (Click here).

D-Door Motor

Tester Display	Test Part	Control Range	Diagnostic Note

Power Window	Passenger side power window	OFF/UP/DOWN	-

OK:
The power window regulator motor operates normally.

NG → **REPLACE FRONT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH (Click here)**

OK →

REPLACE MAIN BODY ECU (MULTIPLEX NETWORK BODY ECU) (Click here)

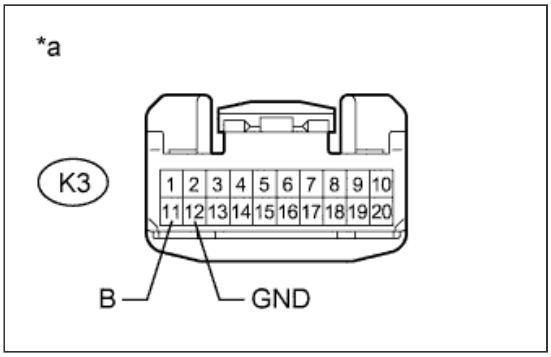
4.CHECK HARNESS AND CONNECTOR (MULTIPLEX NETWORK MASTER SWITCH ASSEMBLY - BATTERY AND BODY GROUND)

a. Disconnect the K3 multiplex network master switch connector.

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

Standard Voltage:

Tester Connection	Condition	Specified Condition
K3-11 (B) - Body ground	Always	11 to 14 V



c. Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection	Condition	Specified Condition
K3-12 (GND) - Body ground	Always	Below 1 Ω

Text in Illustration

*a	Front view of wire harness connector (to Multiplex Network Master Switch Assembly)

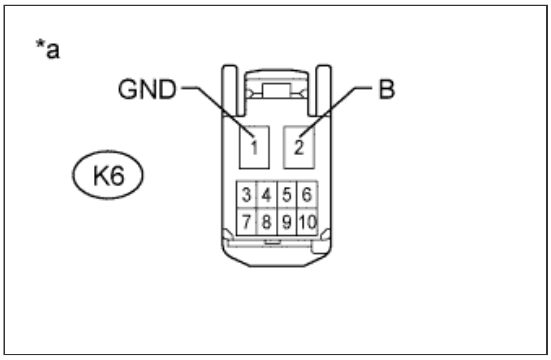
NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK →

5.CHECK HARNESS AND CONNECTOR (FRONT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH - BATTERY AND BODY GROUND)

a. Disconnect the K6 power window regulator motor connector.

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



Standard Voltage:

Tester Connection	Condition	Specified Condition
K6-2 (B) - Body ground	Always	11 to 14 V

c. Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection	Condition	Specified Condition
K6-1 (GND) - Body ground	Always	Below 1 Ω

Text in Illustration

*a	Front view of wire harness connector (to Front Power Window Regulator Motor Assembly LH)

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

6.CHECK HARNESS AND CONNECTOR (MULTIPLEX NETWORK MASTER SWITCH ASSEMBLY - FRONT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH)

a. Disconnect the K3 multiplex network master switch connector.

b. Disconnect the K6 power window regulator motor connector.

c. Measure the resistance according to the value(s) in the table below.

Standard Resistance:

Tester Connection	Condition	Specified Condition
K3-20 (UP) - K6-10 (UP)	Always	Below 1 Ω
K3-15 (DOWN) - K6-7 (DOWN)	Always	Below 1 Ω
K3-20 (UP) - Body ground	Always	10 kΩ or higher
K3-15	Always	10 kΩ or

(DOWN) - Body ground		higher

NG → REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

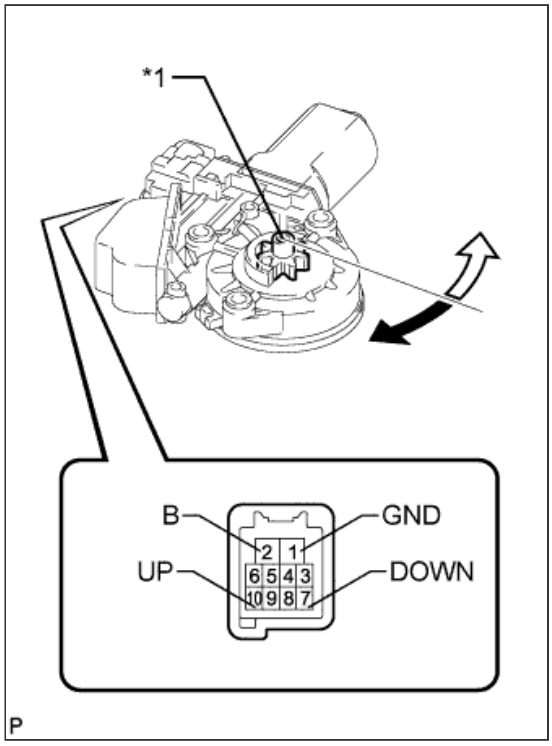
7.INSPECT FRONT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH

a. Remove the front power window regulator motor LH (Click here).

b. Check that the window regulator motor moves smoothly as follows.

NOTICE:

- **Do not apply positive (+) battery voltage to any terminal other than terminal 2 (B) to avoid damaging the pulse sensor inside the motor.**
- **Reset the power window regulator motor (initialize the pulse sensor) after installing the power window regulator motor to the door.**



OK:

Measurement Condition	Specified Condition
1. Connect the positive (+) battery terminal to terminal 2 (B), and connect the negative (-) battery terminal to terminal 1 (GND), and keep them connected for 3 seconds or more. 2. With terminals 2 (B) and 1 (GND) connected to the battery, connect the negative (-) battery terminal to terminal 10 (UP). 3. Disconnect and reconnect the negative (-) battery terminal to terminal 10 (UP) within 1 second.	Motor gear rotates clockwise (Up)

1. Connect the positive (+) battery terminal to terminal 2 (B), and connect the negative (-) battery terminal to terminal 1 (GND), and keep them connected for 3 seconds or more. 2. With terminals 2 (B) and 1 (GND) connected to the battery, connect the negative (-) battery terminal to terminal 7 (DOWN). 3. Disconnect and reconnect the negative (-) battery terminal to terminal 7 (DOWN) within 1 second.	Motor gear rotates counterclockwise (Down)

Text in Illustration

*1	Motor Gear
	Clockwise
	Counterclockwise

NG → **REPLACE FRONT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH (Click here)**

OK

REPLACE MULTIPLEX NETWORK MASTER SWITCH ASSEMBLY (Click here)