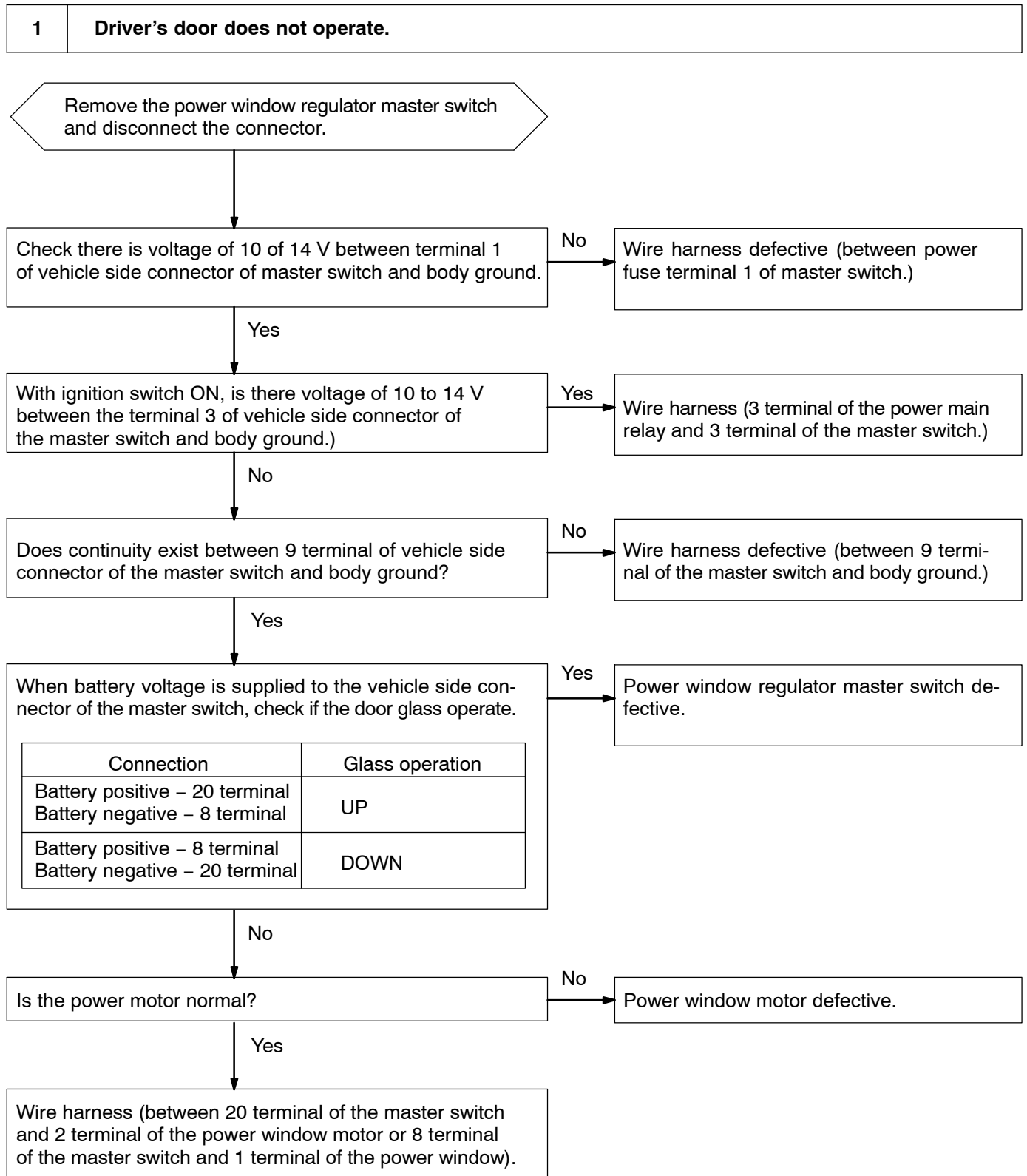


POWER WINDOW CONTROL SYSTEM

TROUBLESHOOTING

BE0TE-01

Malfunction symptoms	Applicable chart
Driver's door does not operate.	1
Passenger's and all rear doors do not operate by using the switches at each seat.	2
Any of passenger's and rear doors does not operate by using the switches of each seat.	3
Passenger's and all rear doors are not controlled remotely by using the master switch. (Switches of each door can be operated.)	2
AUTO UP and AUTO DOWN does not operate. (Prepare a normal master switch.)	4
DOWN operation operates during door glass AUTO UP operation.	5
Even though a foreign object is caught, DOWN operation does not function.	6
After ignition switch has been turned to OFF by using a key, power window function does not operate.	7



2

Passenger's and all rear doors do not operate by using the switches of each seat.

Remove the power window regulator master switch.
(with connectors connected)

With the ignition switch ON, is the voltage normal between 6
terminal of the master switch and body ground?

OK:

Window lock switch NORMAL ----- 10 to 14 V

Window lock switch LOCK ----- 0 V

No

Power window regulator master switch
detective.

Yes

Go to chart 3

3

Any of passenger's and all rear doors does not operate by using the switches at each seat.

Remove the power window regulator switch at the seat where the operation is unavailable and disconnect the connector.

With the ignition switch ON and window lock switch NORMAL, is there voltage of 10 to 14 V between 11 terminal of the vehicle side connector of the regulator switch and body ground?

No

Wire harness defective (between 6 terminal of master switch and 11 terminal of regulator.)

Yes

Is there the voltage of 10 to 14 V between 7 terminal of vehicle side connector of the regulator switch and body ground?

Yes

Wire harness defective (between POWER fuse and 7 terminal of the regulator.)

No

Is there continuity between 7 terminal of the vehicle side connector of the regulator switch and body ground.

No

Wire harness defective (between 12 terminal of the regulator and body ground.)

Yes

When battery voltage is supplied to the vehicle side connector of the regulator switch, check if the door glass operate.

Yes

Power window regulator master switch defective.

Connection	Glass operation
Battery positive – 6 terminal Battery negative – 1 terminal	UP
Battery positive – 1 terminal Battery negative – 6 terminal	DOWN

No

Is the power motor normal?

No

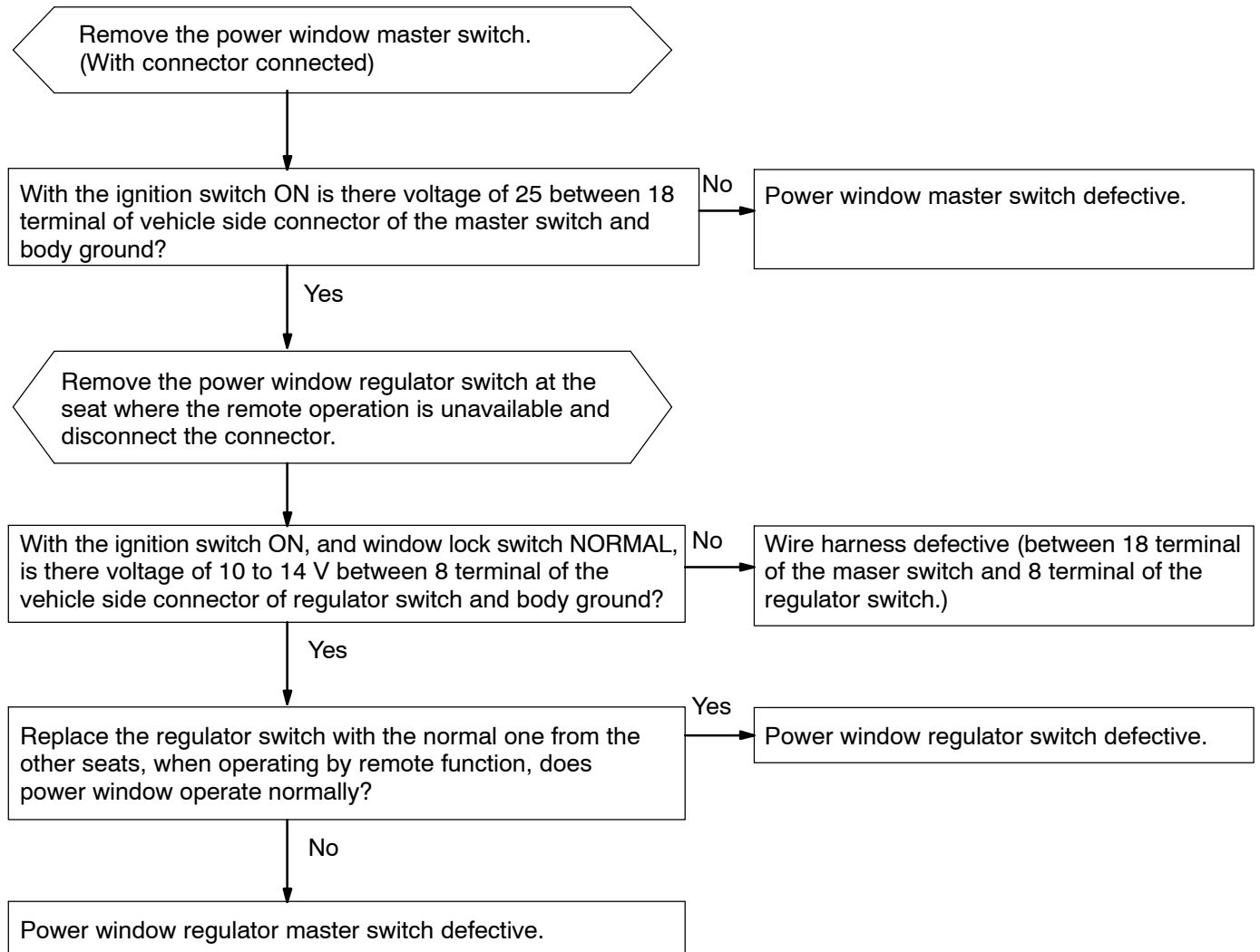
Power window motor defective.

Yes

Wire harness (between 6 terminal of the regulator switch and 4 terminal of the power window motor or 1 terminal of the regulator switch and 1 terminal of the power window motor).

4

**Passenger's and all rear doors are not controlled remotely by using the master switch.
(Switches at each door can be operated.)**



5 AUTO UP and AUTO DOWN do not operate. (Prepare a normal master switch.)

Remove the master switch or regulator switch at the seat where AUTO UP and AUTO DOWN is unavailable. (With connectors connected)

Master of regulator switch inspection:

Are the voltage and continuity of the connectors connected to the master switch or regulator switch normal?

OK:

Terminal No.		Item	Inspection condition	Standard
13	3	Voltage	Fully open by manual operation → fully close → switch OFF	Less than 1 → 10 V to 14 → 0 V
12	4	Voltage	During power window operation	Approx. 5.5 V
10	2	Continuity	Constant	Continuity

No

Yes

Disconnect the connectors of the master switch or regulator switch and power window motor.

Master or regulator switch defective.

Does continuity exist between connectors of the following vehicle side connectors?

Switch side ↔ Motor side

13 (3) terminal ↔ 3 terminal

12 (4) terminal ↔ 4 terminal

10 (2) terminal ↔ 2 terminal

The number in parenthesis shows the terminal No.

No

Wire harness defective (Open circuit in each terminal)

Yes

Does continuity exist between 13 (3), 12 (4) and 10 (2) terminals on the switch side or 3, 4, 2 terminals and body ground?

No

Wire harness defective (Short circuit).

Yes

Connect the connector of power window motor.

Connect the normal master switch or regulator switch and check if AUTO UP and DOWN operates.

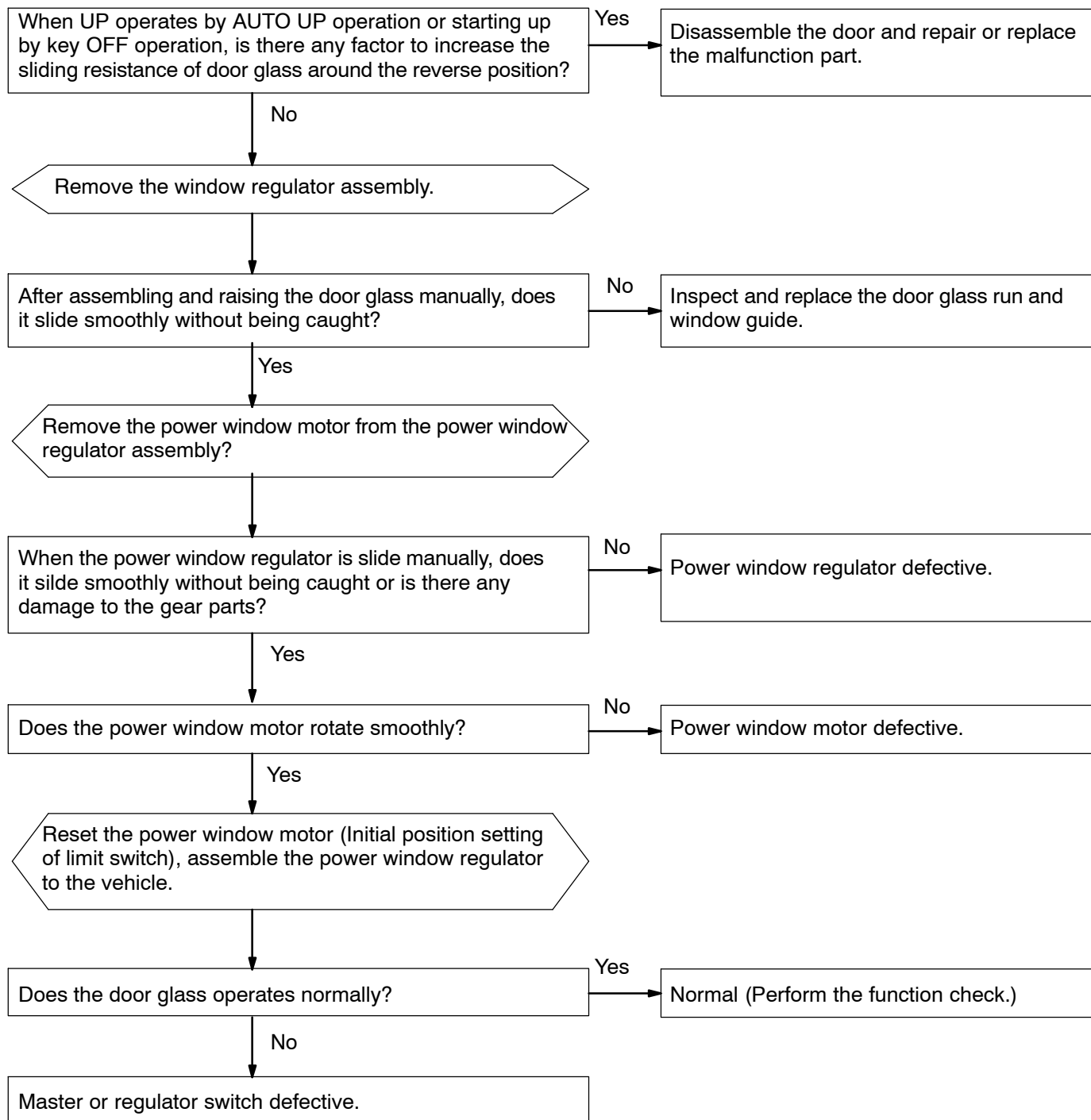
Yes

Master switch or regulator switch.

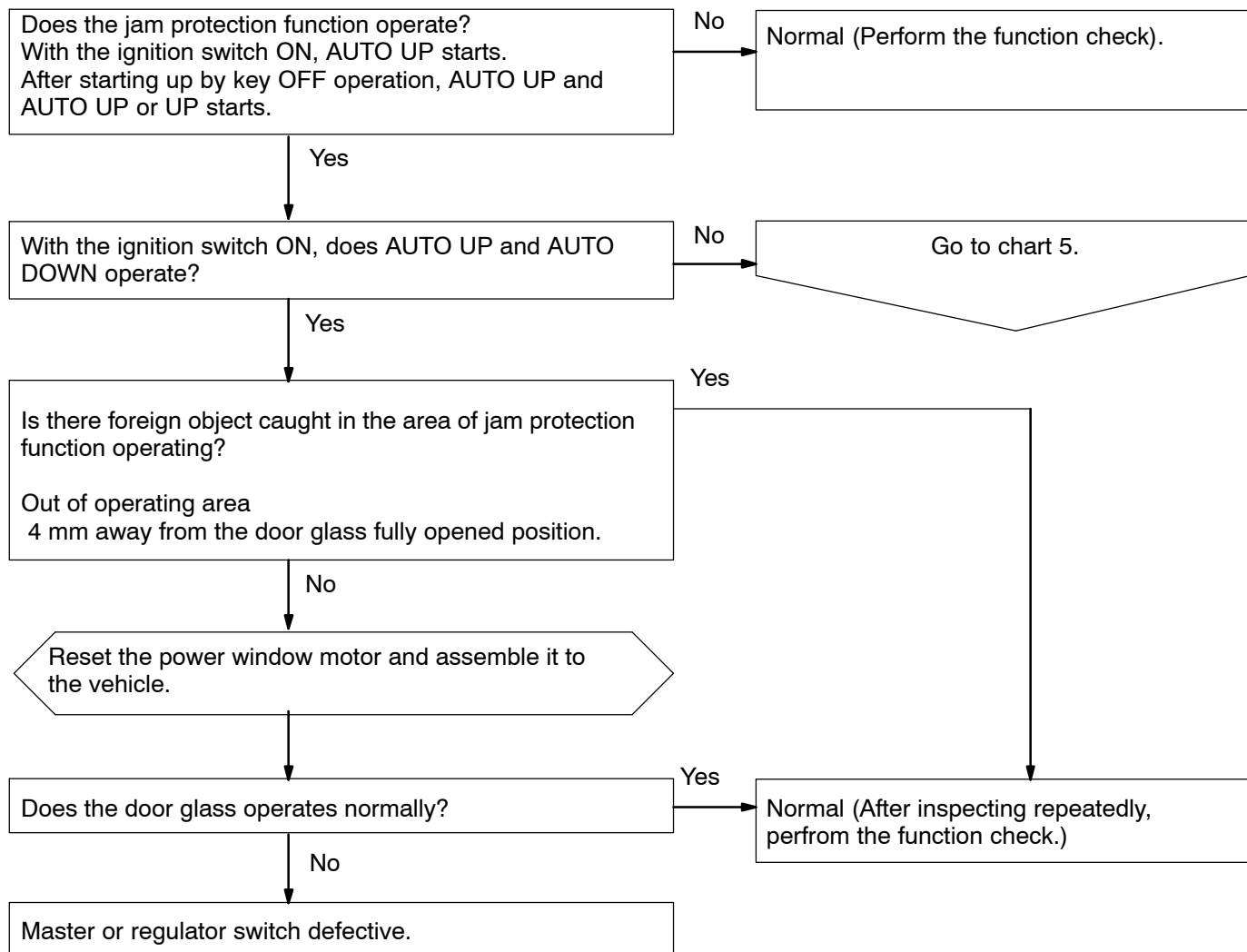
No

Power window motor defective.

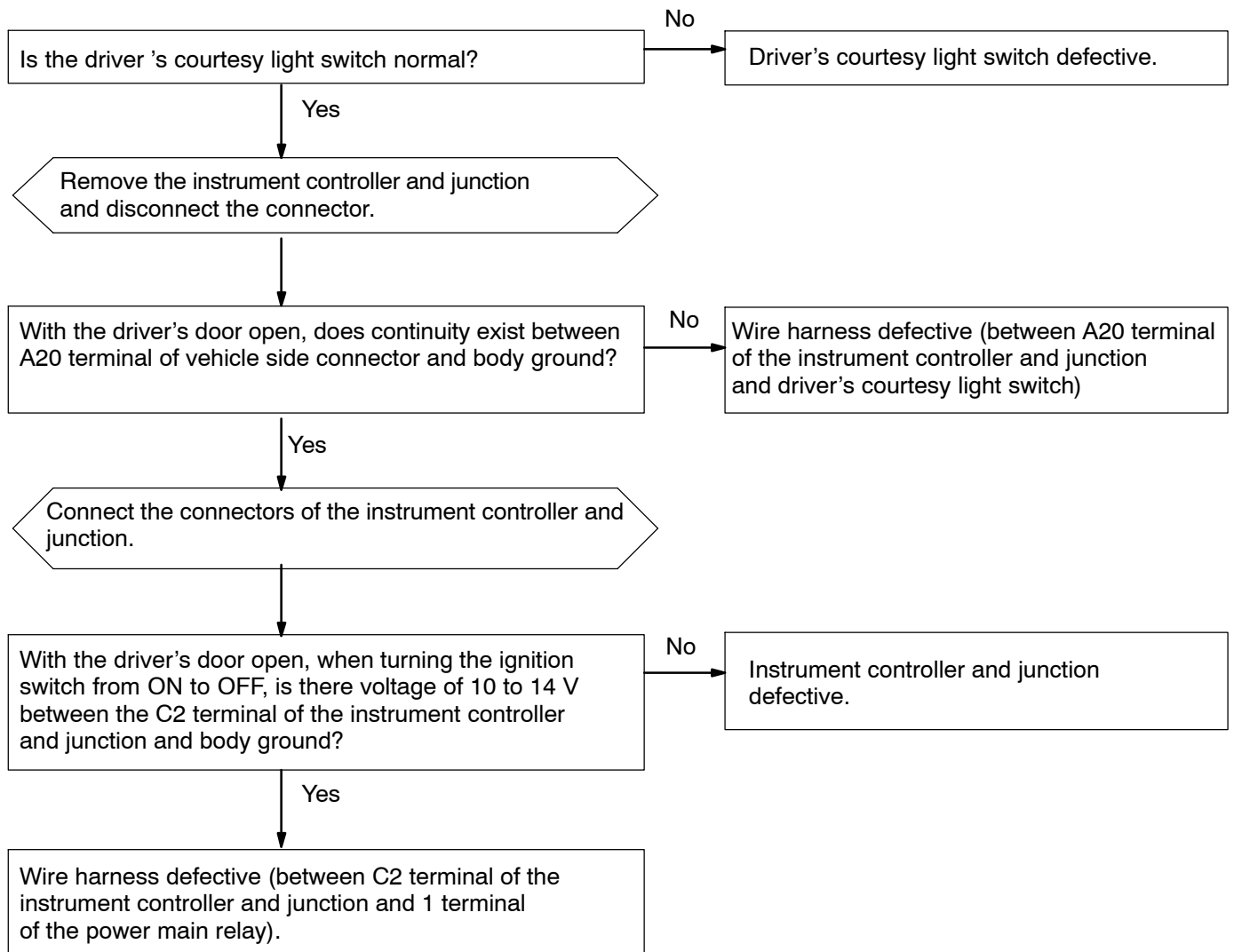
6	DOWN operates during door glass AUTO UP operation.
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7

Even through a foreign object is caught, DOWN operation does not function.

8	After ignition switch has been turned OFF by using a key, power window function does not operate.
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*1 Reset procedure of the power window motor.

HINT:

If either of the following is met, it is necessary to reset the position sensor of the power window motor.

- The power window motor is separated from the window regulator.
- The window regulator is operated with the door glass removed.
 - (1) Remove the power window motor from the regulator.
 - (2) Connect the power window motor and master switch to the vehicle wire harness.
 - (3) Turn the ignition switch ON.
 - (4) Operate the switch up to rotate the motor more than 6 and less than 10 times (4seconds).
 - (5) Install the power window motor to the regulator.

NOTICE:

Install the motor when the regulator arm is not in the area around the fully closed position.

- (6) Install the power window regulator and door glass.
- (7) Connect the power window master switch to the wire harness, and turn the ignition switch ON.
- (8) Operate the switch up and down several times.
- (9) Check that the AUTO UP and AUTO DOWN functions work by one-touch switch operation.

NOTICE:

The jam protection function does not operate immediately after reset procedure.

HINT:

If the jam protection function operates while the window is closing by one-touch switch operation, perform step (1) again.