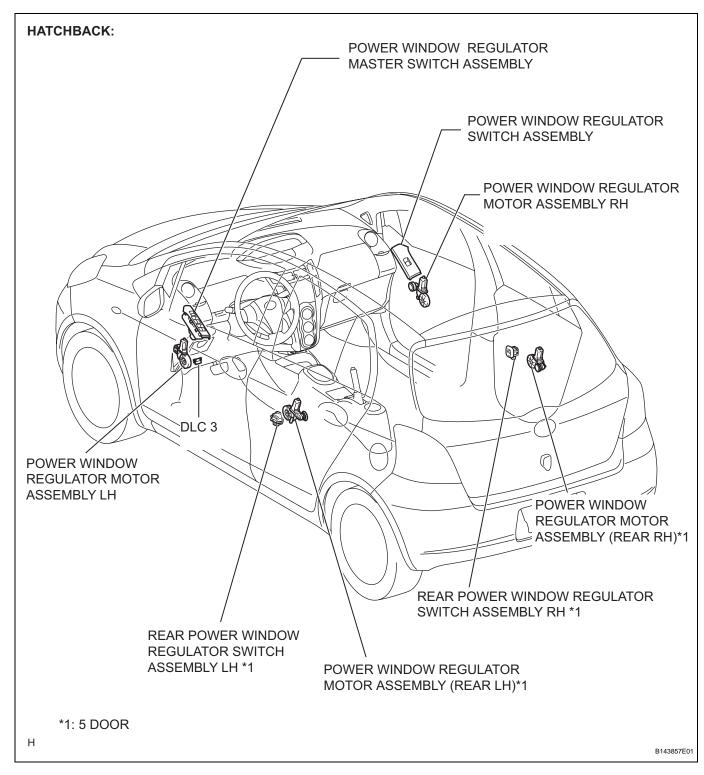
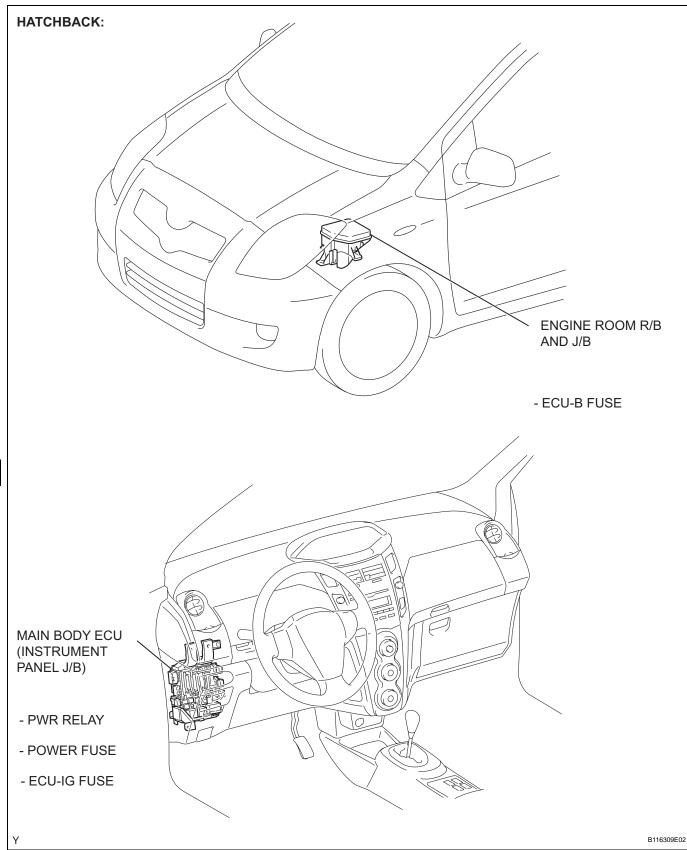
POWER WINDOW CONTROL SYSTEM PARTS LOCATION

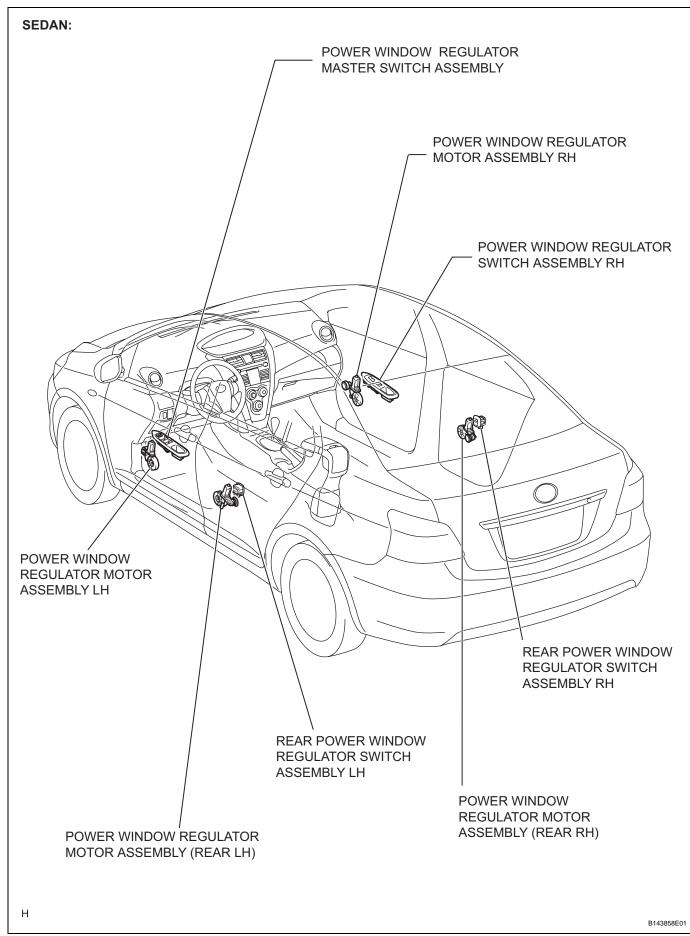


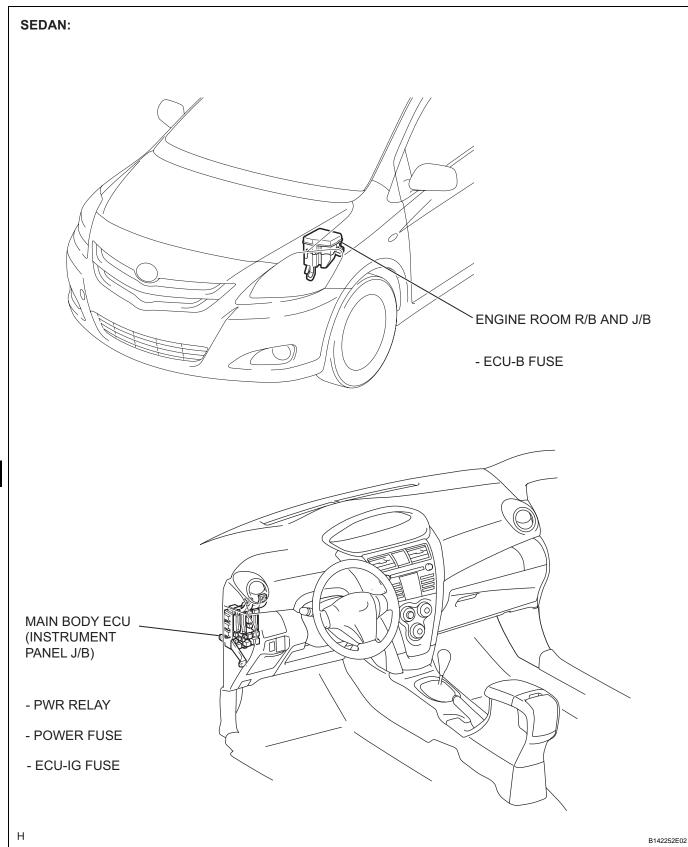
WS





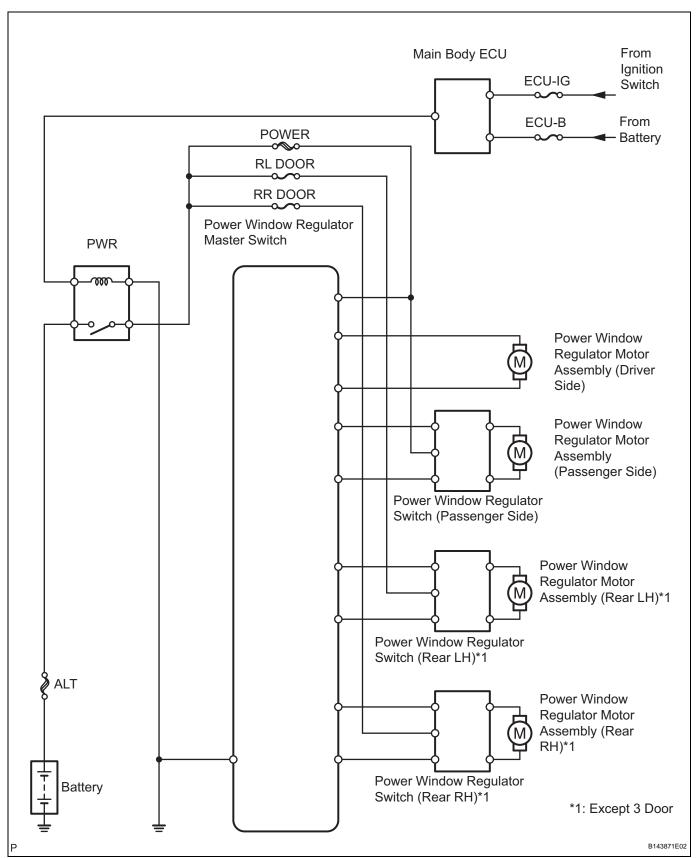








SYSTEM DIAGRAM



WS

SYSTEM DESCRIPTION

1. POWER WINDOW CONTROL SYSTEM DESCRIPTION

The power window control system controls the power window UP / DOWN function using the regulator motors. 3 Door:

The main controls of this system are: the power window regulator master switch, which is built into the driver side door, and the power window regulator switch, which is built into the passenger side door. Pressing the regulator switch or either of the switches on the master switch transmits an UP / DOWN signal to the corresponding power window regulator motor.

Except 3 door:

The main controls of this system are: the power window regulator master switch, which is built into the driver side door, and the power window regulator switches, which are built into the passenger side door and rear doors. Pressing the regulator switch or any of the switches on the master switch transmits an UP / DOWN signal to the corresponding power window regulator motor.

2. FUNCTION OF MAIN COMPONENT

Component	Outline
Power Window Regulator Master Switch Assembly	Controls window operations for all windows When window lock switch is set to lock position, window operation is only possible with master switch
Power Window Regulator Switch Assembly	3 Door: Located on passenger side door Except 3 door: Located on passenger side door and rear doors Each regulator switch controls window operations for its respective window
Power Window Regulator Motor Assembly	Receives switch signals and changes signals into motor activation to change window position

3. SYSTEM FUNCTION

The power window control system has the following functions.

Function	Outline
Manual UP / DOWN function	Driver side power window: Function that raises window while power window switch is pulled up, and lowers window while pushed halfway down (window stops as soon as switch is released) Other power windows: Function that raises window while power window switch is pulled up, and lowers window while pushed down (window stops as soon as switch is released)
AUTO DOWN function	Function that enables window of driver side door to be fully opened by one full push downward on power window switch
Remote UP / DOWN function	3 Door: Function that allows power window master switch to control manual UP / DOWN operation of passenger side power window Except 3 door: Function that allows power window master switch to control manual UP / DOWN operation of passenger side power window and rear power windows



Function	Outline
Window lock function	3 Door: Function where passenger side power window operation is disabled when window lock switch of master switch is pressed Passenger side power window can be operated when window lock switch is pressed again Except 3 door: Function where passenger side power window and rear power window operation is disabled when window lock switch of master switch is pressed Passenger side power window and rear power windows can be operated when window lock switch is pressed again



HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

 Use these procedures to troubleshoot the power window control system.

1 VEHICLE BROUGHT TO WORKSHOP

NEXT

2 INSPECT BATTERY VOLTAGE

Standard voltage: 11 to 14 V

If the voltage is below 11 V, recharge or replace the battery before proceeding.

NEXT

3 PROBLEM SYMPTOMS TABLE

Result

WS	

Result	Proceed to
Fault is not listed in problem symptoms table	A
Fault is listed in problem symptoms table	В

B Go to step 5



- 4 OVERALL ANALYSIS AND TROUBLESHOOTING
 - (a) Terminals of ECU (See page WS-9)
 - (b) On-vehicle Inspection (See page WS-12)

NEXT

5 REPAIR OR REPLACE

NEXT

6 CONFIRMATION TEST

NEXT

END

PROBLEM SYMPTOMS TABLE

HINT:

- Use the table below to help determine the cause of the problem symptom. The potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.
- Inspect the fuses and relays related to the system before inspecting the suspected areas below.

Power window control system

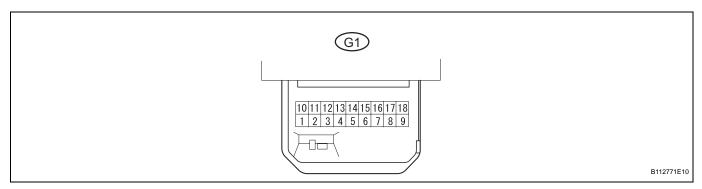
Symptom	Suspected area	See page
Permete Un / Down Function does not Operate	Power window regulator master switch assembly	WS-50
Remote Up / Down Function does not Operate	Wire harness	WS-15
	Power window regulator master switch assembly	WS-50
Driver Side Power Window does not Operate with Power Window Master Switch	Power window regulator motor assembly (driver side)	WS-67
r ewer viriaew indexer emicer	Wire harness	WS-17
Front Passenger Side Power Window does not	Power window regulator switch assembly (passenger side)	WS-57
Operate with Front Passenger Side Power Window	Power window regulator motor assembly (passenger side)	WS-67
Switch	Wire harness	WS-22
	Power window regulator switch assembly (rear LH)*	WS-62
Rear Power Window LH does not Operate with Rear Power Window Switch LH*	Power window regulator motor assembly (rear LH)*	WS-74
	Wire harness	WS-28
	Power window regulator switch assembly (rear RH)*	WS-62
Rear Power Window RH does not Operate with Rear Power Window Switch RH*	Power window regulator motor assembly (rear RH)*	WS-74
. Color transcor Carlotte	Wire harness	WS-34
	ECU-B & POWER fuse	-
	ECU-IG fuse	=
Power Windows do not Operate at All	Power relay	WS-43
	IG1 relay	WS-40
	Power window regulator master switch assembly	WS-50
	Wire harness	WS-40

^{*:} Except 3 door



TERMINALS OF ECU

1. CHECK POWER WINDOW REGULATOR MASTER SWITCH (EXCEPT 3 DOOR)



- (a) Disconnect the G1 power window regulator master switch connector.
- (b) Measure the voltage and resistance of the wire harness side connector.

Standard:

Except 3 door

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
B (G1-6) - Body ground	GR - Body ground	Ignition power supply	Ignition switch OFF	Below 1 V
B (G1-6) - Body ground	GR - Body ground	Ignition power supply	Ignition switch ON	11 to 14 V
E (G1-1) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.

- (c) Reconnect the G1 power window regulator master switch connector.
- (d) Measure the voltage of the connector.

Standard voltage:

Except 3 door

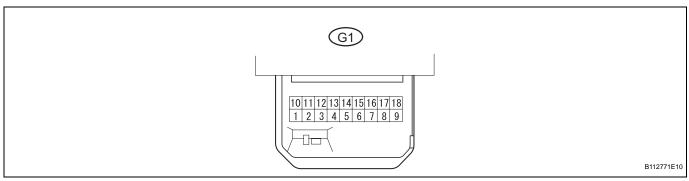
Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
U (G1-3) - E (G1-1)	R- W-B	Power window motor UP output (driver side)	Ignition switch ON, driver side power window switch OFF → UP (manual operation)	Below 1 V → 11 to 14 V
D (G1-4) - E (G1-1)	G - W-B	Power window motor DOWN output (driver side)	Ignition switch ON, driver side power window switch OFF → DOWN (manual operation)	Below 1 V → 11 to 14 V
D (G1-4) - E (G1-1)	G - W-B	Power window motor DOWN output (driver side)	Ignition switch ON, driver side power window fully closed → driver side power window switch DOWN (AUTO operation) → driver side power window fully open	Below 1 V → 11 to 14 V → Below 1 V
U (G1-16) - E (G1-1)	W - W-B	Power window motor UP output (passenger side)	Ignition switch ON, passenger side power window switch OFF → UP	Below 1 V → 11 to 14 V
D (G1-15) - E (G1-1)	P - W-B	Power window motor DOWN output (passenger side)	Ignition switch ON, passenger side power window switch OFF → DOWN	Below 1 V → 11 to 14 V
U (G1-12) - E (G1-1)	Y - W-B	Power window motor UP output (rear LH)	Ignition switch ON, rear LH side power window switch OFF → UP	Below 1 V → 11 to 14 V



Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
D (G1-13) - E (G1-1)	B - W-B	Power window motor DOWN output (rear LH)	Ignition switch ON, rear LH side power window switch OFF → DOWN	Below 1 V → 11 to 14 V
U (G1-10) - E (G1-1)	R - W-B	Power window motor UP output (rear RH)	Ignition switch ON, rear RH side power window switch OFF → UP	Below 1 V → 11 to 14 V
D (G1-18) - E (G1-1)	G - W-B	Power window motor DOWN output (rear RH)	Ignition switch ON, rear RH side power window switch OFF → DOWN	Below 1 V → 11 to 14 V

If the result is not as specified, the master switch may have a malfunction.

- (e) Check the AUTO light illumination.
 - (1) After turning the ignition switch ON, check that the AUTO light illuminates (green).
- 2. CHECK POWER WINDOW REGULATOR MASTER SWITCH (3 DOOR)



- (a) Disconnect the G1 power window regulator master switch connector.
- (b) Measure the voltage and resistance of the wire harness side connector.

Standard:

3 Door

0 2 0 0 .				
Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
B (G1-15) - Body ground	GR - Body ground	Ignition power supply	Ignition switch OFF	Below 1 V
B (G1-15) - Body ground	GR - Body ground	Ignition power supply	Ignition switch ON	11 to 14 V
E (G1-7) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.

- (c) Reconnect the G1 power window regulator master switch connector.
- (d) Measure the voltage of the connector.

Standard voltage:

3 Door

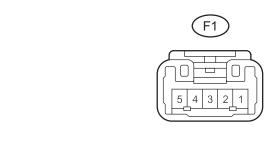
Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
U (G1-10) - E (G1-7)	R - W-B	Power window motor UP output (driver side)	Ignition switch ON, driver side power window switch OFF → UP (manual operation)	Below 1 V → 11 to 14 V
D (G1-12) - E (G1-7)	G - W-B	Power window motor DOWN output (driver side)	Ignition switch ON, driver side power window switch OFF → DOWN (manual operation)	Below 1 V → 11 to 14 V

WS

Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
D (G1-12) - E (G1-7)	G - W-B	Power window motor DOWN output (driver side)	Ignition switch ON, driver side power window fully closed → driver side power window switch DOWN (AUTO operation) → driver side power window fully open	Below 1 V → 11 to 14 V → Below 1 V
U (G1-16) - E (G1-7)	W - W-B	Power window motor UP output (passenger side)	Ignition switch ON, passenger side power window switch OFF → UP	Below 1 V → 11 to 14 V
D (G1-18) - E (G1-7)	P - W-B	Power window motor DOWN output (passenger side)	Ignition switch ON, passenger side power window switch OFF → DOWN	Below 1 V → 11 to 14 V

If the result is not as specified, the master switch may have a malfunction.

- (e) Check the AUTO light illumination.
 - (1) After turning the ignition switch ON, check that the AUTO light illuminates (green).
- 3. CHECK POWER WINDOW SWITCH (PASSENGER SIDE)



B111212E02

- (a) Disconnect the F1 power window switch connector.
- (b) Measure the voltage of the wire harness side connector.

Standard voltage:

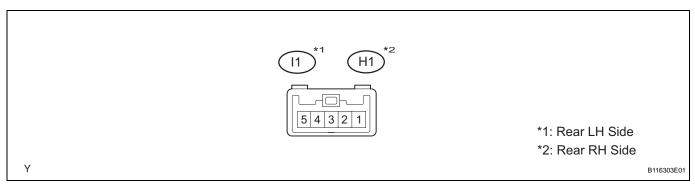
Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
B (F1-3) - Body ground	L - Body ground	Ignition power supply	Ignition switch OFF	Below 1 V
B (F1-3) - Body ground	L - Body ground	Ignition power supply	Ignition switch ON	11 to 14 V
D (F1-1) - Body ground	G - Body ground	Power window motor DOWN output	Ignition switch ON, power window switch OFF → DOWN	Below 1 V \rightarrow 11 to 14 V
SD (F1-2) - Body ground	P - Body ground	Power window motor DOWN input (Remote)	Ignition switch ON, power window master switch OFF → DOWN (Remote)	Below 1 V → 11 to 14 V
U (F1-4) - Body ground	R - Body ground	Power window motor UP output	Ignition switch ON, power window switch OFF \rightarrow UP	Below 1 V → 11 to 14 V
SU (F1-5) - Body ground	W - Body ground	Power window motor UP input (Remote)	Ignition switch ON, power window master switch OFF → UP (Remote)	Below 1 V \rightarrow 11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

(c) Reconnect the F1 power window switch connector.



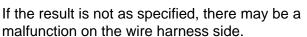
4. CHECK POWER WINDOW SWITCH (REAR DOOR SIDE)



- (a) Disconnect the I1 and H1 power window switch connectors.
- (b) Measure the voltage of the wire harness side connector.

Standard voltage:

Standard Voltage.				
Symbols (Terminal No.)	Wiring Color	Terminal Description	Condition	Specified Condition
B (3) - Body ground	SB - Body ground	Ignition power supply	Ignition switch OFF	Below 1 V
B (3) - Body ground	SB - Body ground	Ignition power supply	Ignition switch ON	11 to 14 V
U (4) - Body ground	Y - Body ground	Power window motor UP output	Ignition switch ON, power window switch OFF → UP	Below 1 V → 11 to 14 V
D (2) - Body ground	B - Body ground	Power window motor DOWN output	Ignition switch ON, power window switch OFF → DOWN	Below 1 V → 11 to 14 V
SU (5) - Body ground	R - Body ground	Power window motor UP intput (Remote)	Ignition switch ON, power window master switch OFF → UP (Remote)	Below 1 V → 11 to 14 V
SD (1) - Body ground	G - Body ground	Power window motor DOWN input (Remote)	Ignition switch ON, power window master switch OFF → DOWN (Remote)	Below 1 V → 11 to 14 V



(c) Reconnect the I1 and H1 power window switch connectors.

ON-VEHICLE INSPECTION

1. CHECK POWER WINDOW REGULATOR MASTER SWITCH (WINDOW LOCK SWITCH)

(a) 3 Door:

Check that the passenger side power window cannot be operated when the window lock switch of the power window regulator master switch is pressed.

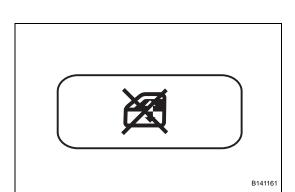
Except 3 door:

Check that the passenger side power window and rear windows cannot be operated when the window lock switch of the power window regulator master switch is pressed.

(b) 3 Door:

Check that the passenger side power window can be operated when the window lock switch is pressed again.

Except 3 door:





Check that the passenger side power window and rear windows can be operated when the window lock switch is pressed again.

2. CHECK MANUAL UP / DOWN FUNCTION

(a) Check that the driver side power window operates as follows:

OK:

Condition	Master Switch	Switch Operation	Power Window
Ignition switch ON	Driver side	Pulled up	UP (closes)
Ignition switch ON	Driver side	Pushed halfway down	DOWN (opens)

(b) Check that the passenger side power window operates as follows:

OK:

	Condition	Regulator Switch	Switch Operation	Power Window
•	lgnition switch ON Window lock switch OFF	Passenger side	Pulled up	UP (closes)
•	Ignition switch ON Window lock switch OFF	Passenger side	Pushed down	DOWN (opens)

(c) Except 3 door: Check that the rear LH power window operates as follows:

OK:

	Condition	Regulator Switch	Switch Operation	Power Window
•	Ignition switch ON Window lock switch OFF	Rear LH	Pulled up	UP (closes)
•	Ignition switch ON Window lock switch OFF	Rear LH	Pushed down	DOWN (opens)

(d) Except 3 door:

Check that the rear RH power window operates as follows:

OK:

Condition	Regulator Switch	Switch Operation	Power Window
Ignition switch ON Window lock switch OFF	Rear RH	Pulled up	UP (closes)
Ignition switch ON Window lock switch OFF	Rear RH	Pushed down	DOWN (opens)

CHECK AUTO DOWN FUNCTION

(a) Check that the driver side power window operates as follows:

OK:

Condition	Master Switch	Switch Operation	Power Window
Ignition switch ON	Driver side	Fully pushed down	AUTO DOWN (fully opens)

CHECK REMOTE UP / DOWN FUNCTION

(a) Check that the passenger side power window operates as follows:

OK:

Condition	Master Switch	Switch Operation	Power Window
Ignition switch ONWindow lock switch OFF	Passenger side	Pulled up	UP (closes)
Ignition switch ON Window lock switch OFF	Passenger side	Pushed down	DOWN (opens)



(b) Except 3 door:

Check that the rear LH power window operates as follows:

OK:

Condition	Master Switch	Switch Operation	Power Window
Ignition switch ON Window lock switch OFF	Rear LH	Pulled up	UP (closes)
Ignition switch ONWindow lock switch OFF	Rear LH	Pushed down	DOWN (opens)

(c) Except 3 door:

Check that the rear RH power window operates as follows:

OK:

Condition	Master Switch	Switch Operation	Power Window
Ignition switch ON Window lock switch OFF	Rear RH	Pulled up	UP (closes)
Ignition switch ONWindow lock switch OFF	Rear RH	Pushed down	DOWN (opens)

5. CHECK PTC OPERATION

HINT:

PTC operation is a function that prevents overloading of the power window regulator by stopping the motor. PTC operation activates when the power window regulator switch is operated for a predetermined amount of time.

- (a) Pull up and hold the power window regulator switch for more than 90 seconds. Then release the switch.
- (b) Check that pressing the switch does not move the window.
- (c) Wait until 60 seconds have passed since the switch was released in the first step. Check that pressing the switch results in normal window movement.



Remote Up / Down Function does not Operate

DESCRIPTION

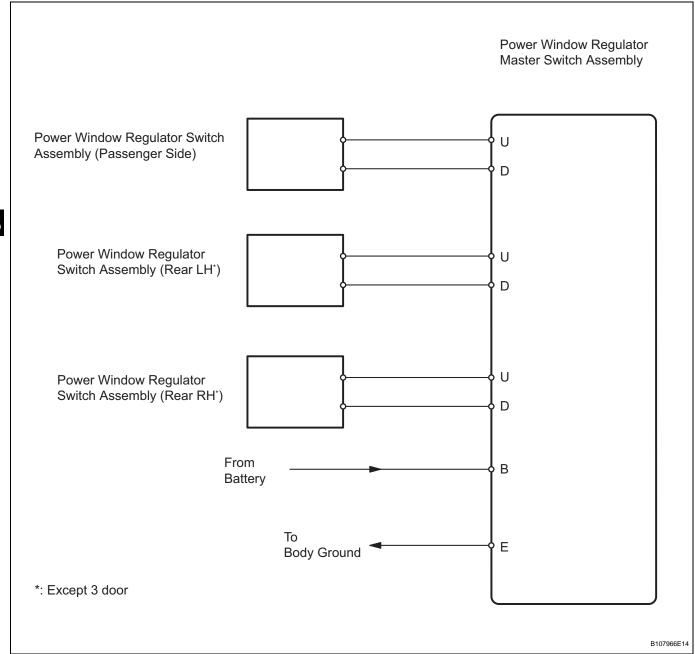
3 Door:

With the ignition switch ON, the power window regulator master switch transmits remote switch signals to the regulator switch of the passenger door power window. Then, the regulator switch drives the passenger power window regulator motor.

Except 3 door:

With the ignition switch ON, the power window regulator master switch transmits remote switch signals to the regulator switches of the passenger door power window and rear door power windows. Then, each regulator switch drives its respective power window regulator motor.

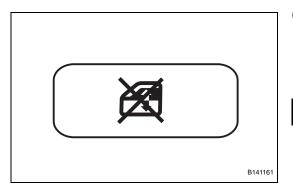
WIRING DIAGRAM





INSPECTION PROCEDURE

1 CHECK POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY



(a) Turn the window lock switch OFF and operate the switches on the master switch. Check that the remote UP / DOWN function operates normally.

OK:

Remote UP / DOWN function operates normally.

NG

Go to step 2

OK

END

2 CHECK MANUAL UP / DOWN FUNCTION

(a) 3 Door:

Check that the passenger door power window manual UP / DOWN function operates normally.

Except 3 door:

Check that the passenger door power window and rear door power window manual UP / DOWN function operates normally.

OK:

Manual UP / DOWN function operates normally.

NG]

OTHER PROBLEM

OK

REPLACE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY

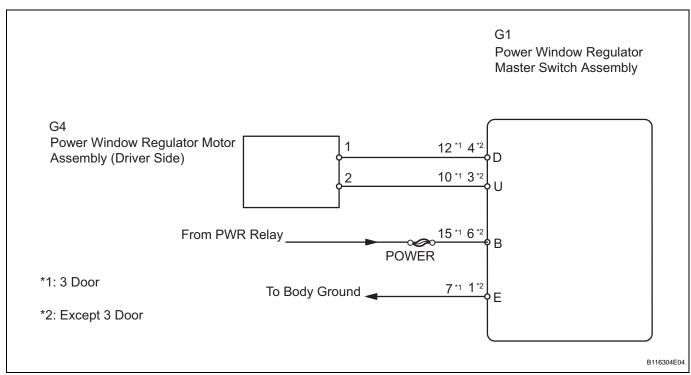


Driver Side Power Window does not Operate with Power Window Master Switch

DESCRIPTION

If the manual UP / DOWN and AUTO DOWN functions do not operate, a malfunction may exist in the power window regulator master switch, power window regulator motor or wire harness.

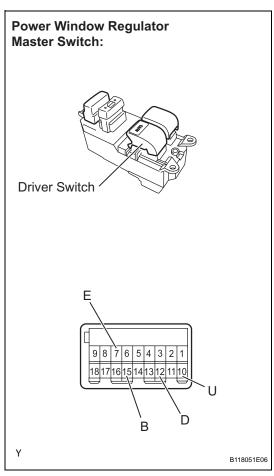
WIRING DIAGRAM





INSPECTION PROCEDURE

1 INSPECT POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY (DRIVER SWITCH)



(a) 3 Door:

Inspect the driver switch.

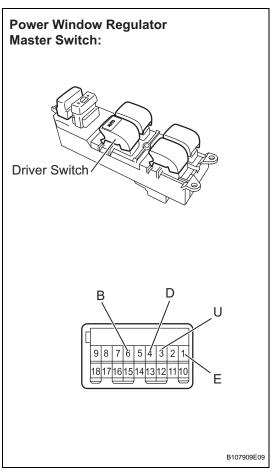
- (1) Remove the power window regulator master switch assembly.
- (2) Measure the resistance of the switch when the switch is operated.



Standard resistance

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
Always (ON / OFF)	UP	7 (E) - 12 (D) 10 (U) - 15 (B)	Below 1 Ω
Always (ON / OFF)	OFF	7 (E) - 10 (U) 7 (E) - 12 (D)	Below 1 Ω
Always (ON / OFF)	DOWN	7 (E) - 10 (U) 12 (D) - 15 (B)	Below 1 Ω
Always (ON / OFF)	AUTO DOWN	7 (E) - 10 (U) 12 (D) - 15 (B)	Below 1 Ω

(3) Reinstall the power window regulator master switch assembly.



(b) Except 3 door:

Inspect the driver switch.

- (1) Remove the power window regulator master switch assembly.
- (2) Measure the resistance of the switch when the switch is operated.



Standard resistance

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
Always (ON / OFF)	UP	1 (E) - 4 (D) 3 (U) - 6 (B)	Below 1 Ω
Always (ON / OFF)	OFF	1 (E) - 3 (U) 1 (E) - 4 (D)	Below 1 Ω
Always (ON / OFF)	DOWN	1 (E) - 3 (U) 6 (B) - 4 (D)	Below 1 Ω
Always (ON / OFF)	AUTO DOWN	1 (E) - 3 (U) 6 (B) - 4 (D)	Below 1 Ω

(3) Reinstall the power window regulator master switch assembly.



REPLACE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY



2

CHECK HARNESS AND CONNECTOR (MASTER SWITCH - MOTOR (DRIVER SIDE))

(a) Disconnect the G1 power window regulator master switch assembly connector.

Wire Harness Side: Power Window Regulator Master Power Window Regulator Master Power Window Regulator Motor Switch Assembly Connector Switch Assembly Connector Assembly Connector (Driver Side) G1 2 3 4 5 6 7 8 9 3 4 5 6 7 8 9 *1: 3 Door 10 11 12 13 14 15 16 17 18 /12 13 14 15 16 17 18 Front View U Front View Front View *2: Except 3 Door B116226E04

- (b) Disconnect the G4 power window regulator motor assembly connector.
- (c) Measure the resistance of the wire harness side connectors.

Standard resistance:

3 Door

Tester Connection	Specified Condition
G1-12 (D) - G4-1	Below 1 Ω
G1-10 (U) - G4-2	Below 1 Ω
G1-12 (D) or G4-1 - Body ground	10 k Ω or higher
G1-10 (U) or G4-2 - Body ground	10 kΩ or higher

WS

Except 3 door

Tester Connection	Specified Condition
G1-4 (D) - G4-1	Below 1 Ω
G1-3 (U) - G4-2	Below 1 Ω
G1-4 (D) or G4-1 - Body ground	10 kΩ or higher
G1-3 (U) or G4-2 - Body ground	10 kΩ or higher

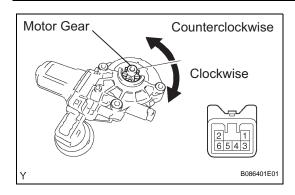
- (d) Reconnect the G1 power window regulator master switch assembly connector.
- (e) Reconnect the G4 power window regulator motor assembly connector.

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

3 INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY (DRIVER SIDE)



- (a) Remove the power window regulator motor assembly.
- (b) Apply battery voltage to connector terminals 1 and 2. **NOTICE:**

Do not apply battery voltage to any terminals except terminals 1 and 2.

(c) Check that the motor gear rotates smoothly as follows. **OK**

Measurement Condition	Specified Condition
Battery positive (+) \rightarrow 1 Battery negative (-) \rightarrow 2	Motor gear rotates counterclockwise
Battery positive (+) \rightarrow 2 Battery negative (-) \rightarrow 1	Motor gear rotates clockwise

(d) Reinstall the power window regulator motor assembly



REPLACE POWER WINDOW REGULATOR MOTOR ASSEMBLY (DRIVER SIDE)



GO TO POWER WINDOWS DO NOT OPERATE AT ALL

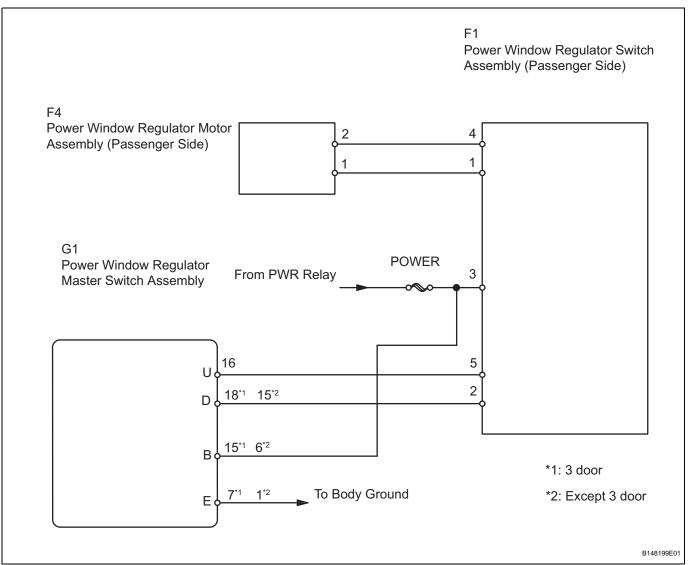


Front Passenger Side Power Window does not Operate with Front Passenger Side Power Window Switch

DESCRIPTION

If the passenger side manual UP / DOWN function does not operate, a malfunction may exist in the power window regulator motor, power window regulator switch, power window regulator master switch or wire harness.

WIRING DIAGRAM



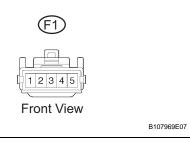


INSPECTION PROCEDURE

1 CHECK POWER WINDOW REGULATOR SWITCH ASSEMBLY (PASSENGER SIDE) (POWER SOURCE)

Wire Harness Side:

Power Window Regulator Switch Assembly Connector (Passenger Side)



- (a) Disconnect the F1 power window regulator switch assembly connector.
- (b) Measure the voltage of the wire harness side connector.Standard voltage

Tester Connection	Condition	Specified Condition
F1-3 - Body ground	Ignition switch ON	11 to 14 V

(c) Reconnect the F1 power window regulator switch assembly connector.

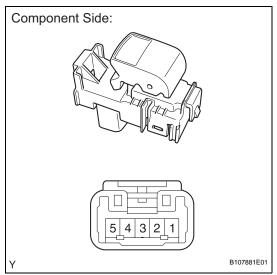
NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

2 INSPECT POWER WINDOW REGULATOR SWITCH ASSEMBLY (PASSENGER SIDE)





- (a) Remove the power window regulator switch assembly.
- (b) Measure the resistance of the switch when the switch is operated.

Standard resistance

Tester Connection	Switch Condition	Specified Condition
3 - 4 2 - 1	UP	Below 1 Ω
5 - 4 2 - 1	OFF	Below 1 Ω
5 - 4 3 - 1	DOWN	Below 1 Ω

(c) Reinstall the power window regulator switch assembly.

NG

REPLACE POWER WINDOW REGULATOR SWITCH ASSEMBLY (PASSENGER SIDE)

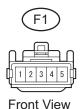
ОК

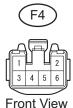
- 3 CHECK HARNESS AND CONNECTOR (SWITCH (PASSENGER SIDE) MOTOR (PASSENGER SIDE))
 - (a) Disconnect the F1 power window regulator switch assembly connector.

Wire Harness Side:

Power Window Regulator Switch Assembly Connector (Passenger Side)

Power Window Regulator Motor Assembly Connector (Passenger Side)





B111941E03

- (b) Disconnect the F4 power window regulator motor assembly connector.
- (c) Measure the resistance of the wire harness side connectors.

Standard resistance

Tester Connection	Specified Condition
F1-1 - F4-1	Below 1 Ω
F1-4 - F4-2	Below 1 Ω
F1-1 or F4-1 - Body ground	10 k Ω or higher
F1-4 or F4-2 - Body ground	10 k Ω or higher

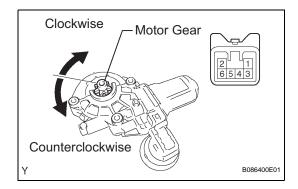
- (d) Reconnect the F1 power window regulator switch assembly connector.
- (e) Reconnect the F4 power window regulator motor assembly connector.



REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

4 INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY (PASSENGER SIDE)



- (a) Remove the power window regulator motor assembly.
- (b) Apply battery voltage to connector terminals 1 and 2. **NOTICE:**

Do not apply battery voltage to any terminals except terminals 1 and 2.

(c) Check that the motor gear rotates smoothly as follows. **OK**

Measurement Condition	Specified Condition
Battery positive (+) $ ightarrow$ 1 Battery negative (-) $ ightarrow$ 2	Motor gear rotates clockwise
Battery positive (+) \rightarrow 2 Battery negative (-) \rightarrow 1	Motor gear rotates counterclockwise

(d) Reinstall the power window regulator motor assembly.





REPLACE POWER WINDOW REGULATOR **MOTOR ASSEMBLY (PASSENGER SIDE)**



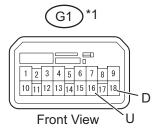
5

CHECK HARNESS AND CONNECTOR (MASTER SWITCH - SWITCH (PASSENGER SIDE))

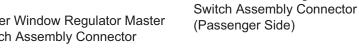
(a) Disconnect the G1 power window regulator master switch assembly connector.

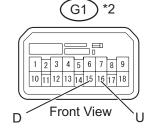
Wire Harness Side:

Power Window Regulator Master Switch Assembly Connector



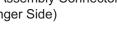
Power Window Regulator Master Switch Assembly Connector





*1: 3 Door







Power Window Regulator

B116290E04

- Disconnect the F1 power window regulator switch assembly connector.
- (c) Measure the resistance of the wire harness side connectors.

Standard resistance:

3 Door

Tester Connection	Specified Condition
G1-16 (U) - F1-5	Below 1 Ω
G1-18 (D) - F1-2	Below 1 Ω
G1-16 (U) or F1-5 - Body ground	10 k Ω or higher
G1-18 (D) or F1-2 - Body ground	10 k Ω or higher

Except 3 door

Tester Connection	Specified Condition
G1-16 (U) - F1-5	Below 1 Ω
G1-15 (D) - F1-2	Below 1 Ω
G1-16 (U) or F1-5 - Body ground	10 k Ω or higher
G1-15 (D) or F1-2 - Body ground	10 k Ω or higher

- (d) Reconnect the G1 power window regulator master switch assembly connector.
- (e) Reconnect the F1 power window regulator switch assembly connector.

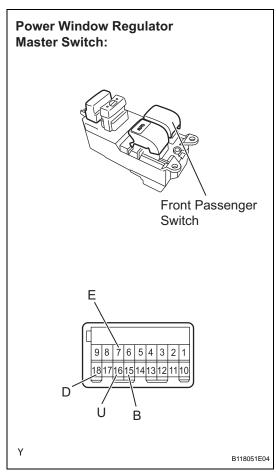


REPAIR OR REPLACE HARNESS OR **CONNECTOR**





6 INSPECT POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY (FRONT PASSENGER SWITCH)



(a) 3 Door:

Inspect the front passenger switch.

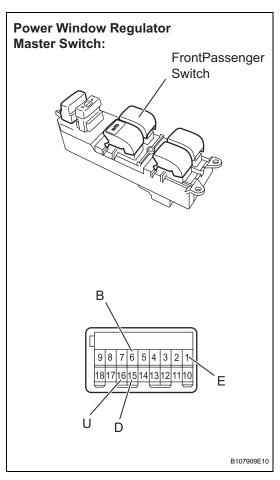
- (1) Remove the power window regulator master switch.
- (2) Measure the resistance of the switch when the switch is operated.



Standard resistance

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
OFF	UP	7 (E) - 18 (D) 16 (U) - 15 (B)	Below 1 Ω
OFF	OFF	7 (E) - 16 (U) 7 (E) - 18 (D)	Below 1 Ω
OFF	DOWN	7 (E) - 16 (U) 15 (B) - 18 (D)	Below 1 Ω
ON	UP	7 (E) - 18 (D)	10 k Ω or higher
ON		16 (U) - 15 (B)	Below 1 Ω
ON	OFF	16 (U) - 18 (D)	Below 1 Ω
ON DOWN	DOWN	7 (E) - 16 (U)	10 k Ω or higher
	15 (B) - 18 (D)	Below 1 Ω	

(3) Reinstall the power window master switch.



(b) Except 3 door:

Inspect the front passenger switch.

- (1) Remove the power window regulator master switch.
- (2) Measure the resistance of the switch when the switch is operated.



Standard resistance

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
OFF	UP	1 (E) - 15 (D) 6 (B) - 16 (U)	Below 1 Ω
OFF	OFF	1 (E) - 16 (U) 1 (E) - 15 (D)	Below 1 Ω
OFF	DOWN	1 (E) - 16 (U) 6 (B) - 15 (D)	Below 1 Ω
ON	LID.	1 (E) - 15 (D)	10 kΩ or higher
	UP	6 (B) - 16 (U)	Below 1 Ω
ON	OFF	15 (D) - 16 (U)	Below 1 Ω
ON	DOWN	1 (E) - 16 (U)	10 kΩ or higher
		6 (B) - 15 (D)	Below 1 Ω

(3) Reinstall the power window regulator master switch.



REPLACE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY



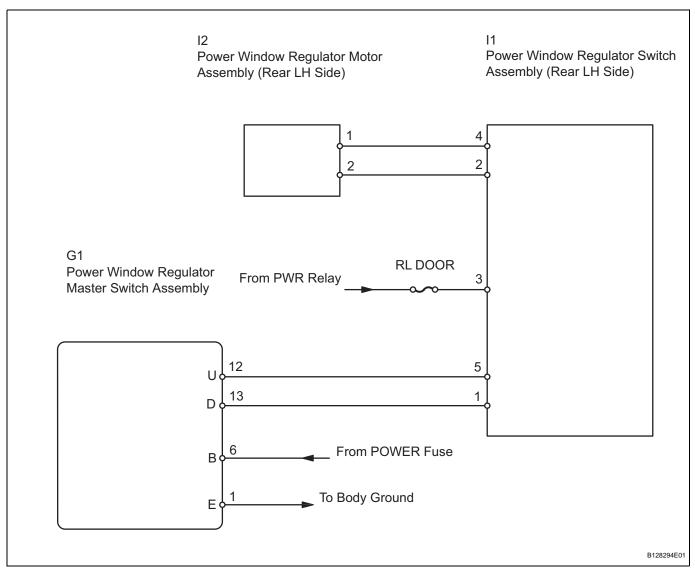
GO TO POWER WINDOWS DO NOT OPERATE AT ALL

Rear Power Window LH does not Operate with Rear Power Window Switch LH

DESCRIPTION

If the rear LH side manual UP / DOWN function does not operate, a malfunction may exist in the power window regulator motor, power window regulator switch, power window regulator master switch or wire harness.

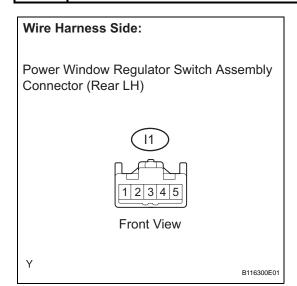
WIRING DIAGRAM





INSPECTION PROCEDURE

1 CHECK POWER WINDOW REGULATOR SWITCH ASSEMBLY (REAR LH) (POWER SOURCE)



- (a) Disconnect the I1 power window regulator switch assembly connector.
- (b) Measure the voltage of the wire harness side connector.Standard voltage

Tester Connection	Condition	Specified Condition
I1-3 - Body ground	Ignition switch ON	11 to 14 V

(c) Reconnect the I1 power window regulator switch assembly connector.

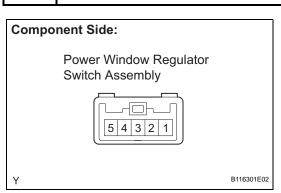
NG)

REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

2 INSPECT POWER WINDOW REGULATOR SWITCH ASSEMBLY (REAR LH)

WS



- (a) Remove the power window regulator switch assembly.
- (b) Measure the resistance of the switch when the switch is operated.

Standard resistance

Tester Connection	Switch Condition	Specified Condition
1 - 2 3 - 4	UP	Below 1 Ω
4 - 5 1 - 2	OFF	Below 1 Ω
2 - 3 4 - 5	DOWN	Below 1 Ω

(c) Reinstall the power window regulator switch assembly.

NG

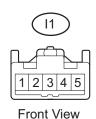
REPLACE POWER WINDOW REGULATOR SWITCH ASSEMBLY (REAR LH)

OK /

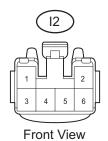
- 3 CHECK HARNESS AND CONNECTOR (SWITCH (REAR LH) MOTOR (REAR LH))
 - (a) Disconnect the I1 power window regulator switch assembly connector.

Wire Harness Side:

Power Window Regulator Switch Assembly Connector (Rear LH)



Power Window Regulator Motor Assembly Connector (Rear LH)



B116306E03

- (b) Disconnect the I2 power window regulator motor assembly connector.
- (c) Measure the resistance of the wire harness side connectors.

Standard resistance

Tester Connection	Specified Condition
I1-4 - I2-1	Below 1 Ω
l1-2 - l2-2	Below 1 Ω
I1-4 or I2-1 - Body ground	10 kΩ or higher
I1-2 or I2-2 - Body ground	10 kΩ or higher

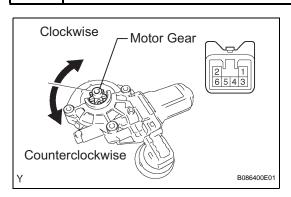
- (d) Reconnect the I1 power window regulator switch assembly connector.
- (e) Reconnect the I2 power window regulator motor assembly connector.



REPAIR OR REPLACE HARNESS OR CONNECTOR

OK_

4 INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY (REAR LH)



- (a) Remove the power window regulator motor assembly.
- (b) Apply battery voltage to connector terminals 1 and 2.
- (c) Check that the motor gear rotates smoothly as follows. **OK**

Measurement Condition	Specified Condition
Battery positive (+) → 1 Battery negative (-) → 2	Motor gear rotates clockwise
Battery positive (+) \rightarrow 2 Battery negative (-) \rightarrow 1	Motor gear rotates counterclockwise

(d) Reinstall the power window regulator motor assembly.

NG

REPLACE POWER WINDOW REGULATOR MOTOR ASSEMBLY (REAR LH)



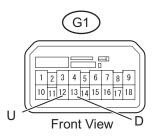


5 CHECK HARNESS AND CONNECTOR (MASTER SWITCH - SWITCH (REAR LH))

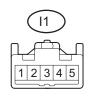
(a) Disconnect the G1 power window regulator master switch assembly connector.

Wire Harness Side:

Power Window Regulator Master Switch Assembly Connector



Power Window Regulator Switch Assembly Connector (Rear LH)



Front View

B116307E06

- (b) Disconnect the I1 power widow regulator switch assembly connector.
- (c) Measure the resistance of the wire harness side connectors.

Standard resistance

Tester Connection	Specified Condition
G1-12 (U) - I1-5	Below 1 Ω
G1-13 (D) - I1-1	Below 1 Ω
G1-12 (U) or I1-5 - Body ground	10 kΩ or higher
G1-13 (D) or I1-1 - Body ground	10 kΩ or higher

- (d) Reconnect the G1 power window regulator master switch assembly connector.
- (e) Reconnect the I1 power window regulator switch assembly connector.

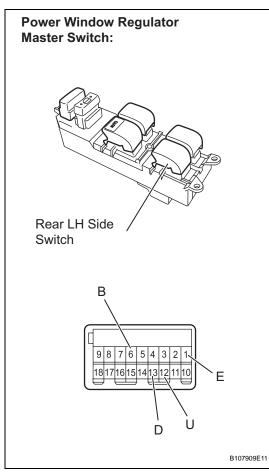


REPAIR OR REPLACE HARNESS OR CONNECTOR

WS

OK

6 INSPECT POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY (REAR LH SWITCH)



- (a) Inspect the rear LH switch.
 - (1) Remove the power window regulator master switch assembly.
 - (2) Measure the resistance of the switch when the switch is operated.

WS

Standard resistance

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
OFF	UP	1 (E) - 13 (D) 6 (B) - 12 (U)	Below 1 Ω
OFF	OFF	1 (E) - 12 (U) 1 (E) - 13 (D)	Below 1 Ω
OFF	DOWN	1 (E) - 12 (U) 6 (B) - 13 (D)	Below 1 Ω
ON UP	LID	1 (E) - 13 (D)	10 k Ω or higher
	6 (B) - 12 (U)	Below 1 Ω	
ON	OFF	12 (U) - 13 (D)	Below 1 Ω
ON	DOWN	1 (E) - 12 (U)	10 kΩ or higher
		6 (B) - 13 (D)	Below 1 Ω

(b) Reinstall the power window regulator master switch assembly.



REPLACE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY

ОК

GO TO POWER WINDOWS DO NOT OPERATE AT ALL

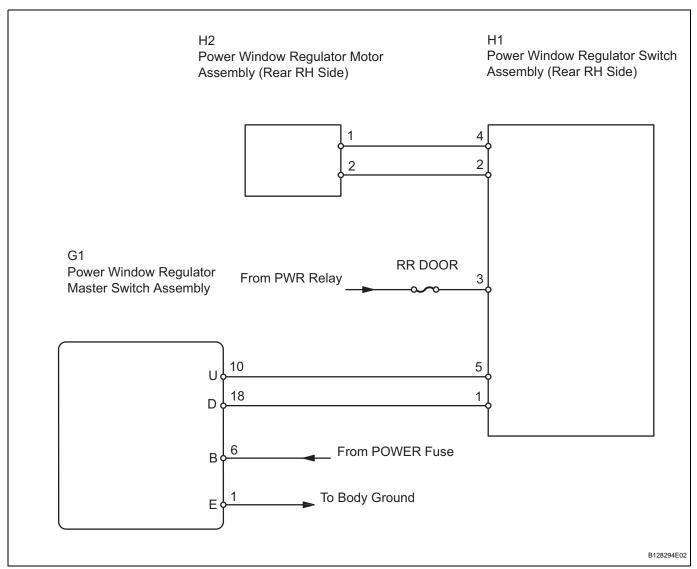


Rear Power Window RH does not Operate with Rear Power Window Switch RH

DESCRIPTION

If the rear RH side manual UP / DOWN function does not operate, a malfunction may exist in the power window regulator motor, power window regulator switch, power window regulator master switch or wire harness.

WIRING DIAGRAM





INSPECTION PROCEDURE

1 CHECK POWER WINDOW REGULATOR SWITCH ASSEMBLY (REAR RH) (POWER SOURCE)

Wire Harness Side: Power Window Regulator Switch Assembly Connector (Rear RH) H1 12345 Front View

- (a) Disconnect the H1 power window regulator switch assembly connector.
- (b) Measure the voltage of the wire harness side connector.Standard voltage

Tester Connection	Condition	Specified Condition
H1-3 - Body ground	Ignition switch ON	11 to 14 V

(c) Reconnect the H1 power window regulator switch assembly connector.

NG

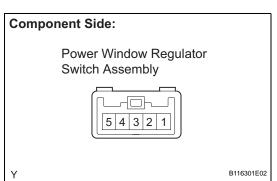
REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

2 INSPECT POWER WINDOW REGULATOR SWITCH ASSEMBLY (REAR RH)

B116300F03





- (a) Remove the power window regulator switch assembly.
- (b) Measure the resistance of the switch when the switch is operated.

Standard resistance

Tester Connection	Switch Condition	Specified Condition
1 - 2 3 - 4	UP	Below 1 Ω
1 - 2 4 - 5	OFF	Below 1 Ω
2 - 3 4 - 5	DOWN	Below 1 Ω

(c) Reinstall the power window regulator switch assembly.

NG

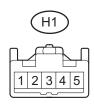
REPLACE POWER WINDOW REGULATOR SWITCH ASSEMBLY (REAR RH)

oκ

- 3 CHECK HARNESS AND CONNECTOR (SWITCH (REAR RH) MOTOR (REAR RH))
 - (a) Disconnect the H1 power window regulator switch assembly connector.

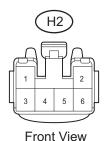
Wire Harness Side:

Power Window Regulator Switch Assembly Connector (Rear RH)



Front View

Power Window Regulator Motor Assembly Connector (Rear RH)



B116306E02

- (b) Disconnect the H2 power window regulator motor assembly connector.
- (c) Measure the resistance of the wire harness side connectors.

Standard resistance

Tester Connection	Specified Condition
H1-4 - H2-1	Below 1 Ω
H1-2 - H2-2	Below 1 Ω
H1-4 or H2-1 - Body ground	10 k Ω or higher
H1-2 or H2-2 - Body ground	10 kΩ or higher

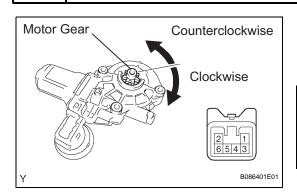
- (d) Reconnect the H1 power window regulator switch assembly connector.
- (e) Reconnect the H2 power window regulator motor assembly connector.



REPAIR OR REPLACE HARNESS OR CONNECTOR

OK

4 INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY (REAR RH)



- (a) Remove the power window regulator motor assembly.
- (b) Apply battery voltage to connector terminals 1 and 2.
- (c) Check that the motor gear rotates smoothly as follows. **OK**

Measurement Condition	Specified Condition
Battery positive (+) $ ightarrow$ 1 Battery negative (-) $ ightarrow$ 2	Motor gear rotates counterclockwise
Battery positive (+) \rightarrow 2 Battery negative (-) \rightarrow 1	Motor gear rotates clockwise

(d) Reinstall the power window regulator motor assembly .



REPLACE POWER WINDOW REGULATOR MOTOR ASSEMBLY (REAR RH)





5 CHECK HARNESS AND CONNECTOR (MASTER SWITCH - SWITCH (REAR RH))

(a) Disconnect the G1 power window regulator master switch assembly connector.

Power Window Regulator Master Switch Assembly Connector Power Window Regulator Switch Assembly Connector (Rear RH) G1 H1 Front View Front View B116507E08

- (b) Disconnect the H1 power window regulator switch assembly connector.
- (c) Measure the resistance of the wire harness side connectors.

Standard resistance

Tester Connection	Specified Condition
G1-10 (U) - H1-5	Below 1 Ω
G1-18 (D) - H1-1	Below 1 Ω
G1-10 (U) or H1-5 - Body ground	10 k Ω or higher
G1-18 (D) or H1-1 - Body ground	10 k Ω or higher

- (d) Reconnect the G1 power window regulator master switch assembly connector.
- (e) Reconnect the H1 power window regulator switch assembly connector.

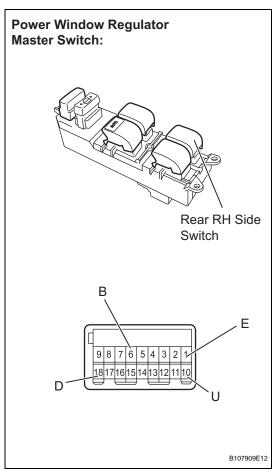


REPAIR OR REPLACE HARNESS OR CONNECTOR

WS

OK

6 INSPECT POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY (REAR RH SWITCH)



- (a) Inspect the rear RH switch.
 - (1) Remove the power window regulator master switch assembly.
 - (2) Measure the resistance of the switch when the switch is operated.



Standard resistance

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
OFF	UP	1 (E) - 18 (D) 6 (B) - 10 (U)	Below 1 Ω
OFF	OFF	1 (E) - 10 (U) 1 (E) - 18 (D)	Below 1 Ω
OFF	DOWN	1 (E) - 10 (U) 6 (B) - 18 (D)	Below 1 Ω
ON UP	1 (E) - 18 (D)	10 kΩ or higher	
	UP -	6 (B) - 10 (U)	Below 1 Ω
ON	OFF	10 (U) - 18 (D)	Below 1 Ω
ON	DOWN	1 (E) - 10 (U)	10 kΩ or higher
ON DOWN	6 (B) - 18 (D)	Below 1 Ω	

(3) Reinstall the power window regulator master switch assembly.



REPLACE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY

ОК

GO TO POWER WINDOWS DO NOT OPERATE AT ALL

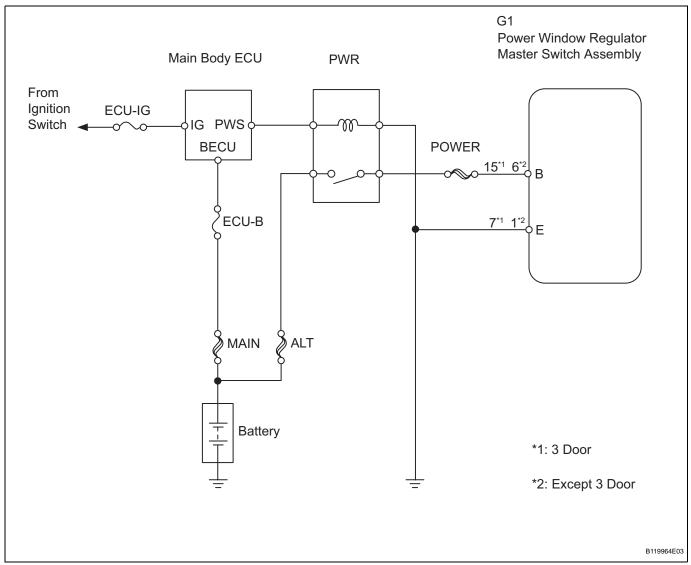


Power Windows do not Operate at All

DESCRIPTION

If none of the power windows operates, the power window regulator master switch may have no power or may be malfunctioning.

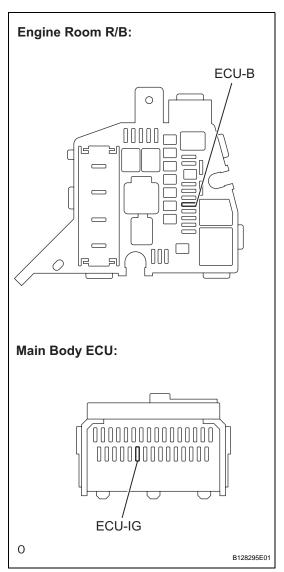
WIRING DIAGRAM



WS

INSPECTION PROCEDURE

1 INSPECT FUSES (ECU-B, ECU-IG)



- (a) Remove the ECU-B fuse from the engine room relay block.
- (b) Remove the ECU-IG fuse from the main body ECU.
- (c) Measure the resistance.

Standard resistance:

Below 1Ω

(d) Reinstall the fuses.

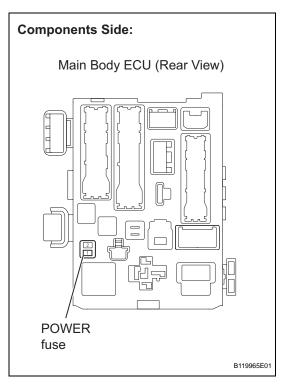
NG

REPLACE FUSE



ΟK

2 INSPECT MAIN BODY ECU (PWR RELAY)



- (a) Remove the POWER fuse from the main body ECU.
- (b) Turn the ignition switch to ON.
- (c) Measure the voltage between the POWER fuse terminal of the main body ECU and body ground.

Standard voltage

Tester Connections	Ignition Switch Conditions	Specified Conditions
POWER fuse terminal (1) - Body ground	ON	11 to 14 V

(d) Reinstall the POWER fuse .

NG

REPLACE MAIN BODY ECU (PWR RELAY)

ОК

3 CHECK HARNESS AND CONNECTOR (POWER WINDOW MASTER SWITCH - BATTERY AND BODY GROUND)

Wire Harness Side: Power Window Regulator Master Switch Front View G1 B*2 Front View L2 3 4 5 6 7 2 9 E*2 B*1 *1: 3 Door *2: Except 3 Door B119966E05

- (a) Disconnect the G1 power window regulator master switch assembly connector.
- (b) Measure the voltage of the wire harness side connector. **Standard voltage:**

3 Door

Tester Connection	Condition	Specified Condition
G1-15 (B)- Body ground	Ignition switch ON	11 to 14 V

Standard voltage: Except 3 door

Tester Connection Condition		Specified Condition
G1-6 (B)- Body ground	Ignition switch ON	11 to 14 V

(c) Measure the resistance of the wire harness side connector.

Standard resistance:

3 Door

Tester Connection	Specified Condition
G1-7 (E)- Body ground	Below 1 Ω

Standard resistance:

Except 3 door



Tester Connection	Specified Condition
G1-1 (E)- Body ground	Below 1 Ω

(d) Reconnect the G1 power window regulator master switch assembly connector.

NG

REPAIR OR REPLACE HARNESS OR CONNECTOR

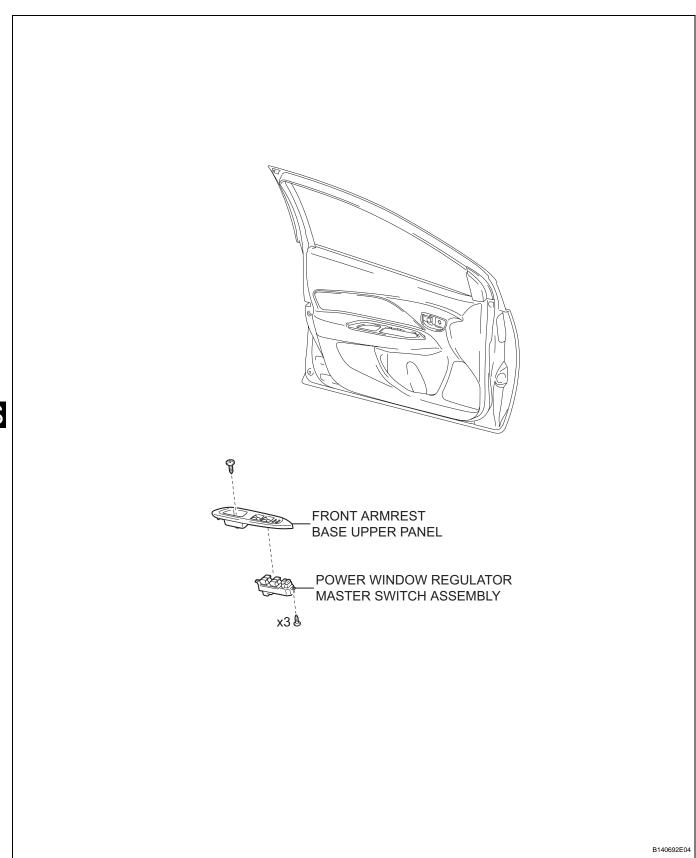
OK

REPLACE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY



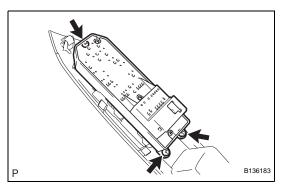
POWER WINDOW MASTER SWITCH (for Sedan)

COMPONENTS





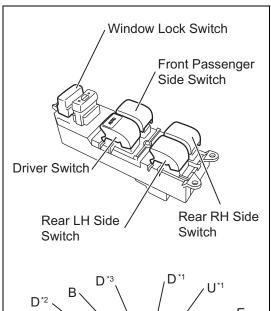
- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
- 2. REMOVE FRONT ARMREST BASE UPPER PANEL (See page ED-9)
- 3. REMOVE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY
 - (a) Remove the 3 screws and the power window regulator master switch.

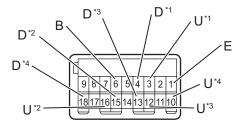


INSPECTION

- 1. INSPECT POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY
 - (a) Check the resistance.
 - (1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the tables below.

Standard Resistance: Driver switch





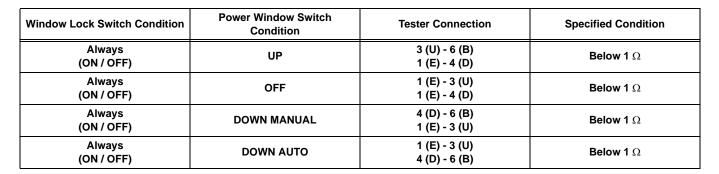
*1: Driver Side

*3: Rear LH Side

*2: Passenger Side

*4: Rear RH Side

B107909E13





If the result is not as specified, replace the power window regulator master switch.

Standard Resistance: Passenger side switch

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
OFF	UP	6 (B) - 16 (U) 1 (E) - 15 (D)	Below 1 Ω
OFF	OFF	1 (E) - 16 (U) 1 (E) - 15 (D)	Below 1 Ω
OFF	DOWN	6 (B) - 15 (D) 1 (E) - 16 (U)	Below 1 Ω
ON	UP	6 (B) - 16 (U)	Below 1 Ω
ON	UP	1 (E) - 15 (D)	10 kΩ or higher
ON	OFF	15 (D) - 16 (U)	Below 1 Ω
ON	DOWN	6 (B) - 15 (D)	Below 1 Ω
ON	DOWN	1 (E) - 16 (U)	10 k Ω or higher

If the result is not as specified, replace the power window regulator master switch.

Standard Resistance: Rear LH side switch

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
OFF	UP	6 (B) - 12 (U) 1 (E) - 13 (D)	Below 1 Ω
OFF	OFF	1 (E) - 12 (U) 1 (E) - 13 (D)	Below 1 Ω
OFF	DOWN	6 (B) - 13 (D) 1 (E) - 12 (U)	Below 1 Ω
ON	UP	6 (B) - 12 (U)	Below 1 Ω
ON	UP	1 (E) - 13 (D)	10 kΩ or higher
ON	OFF	12 (U) - 13 (D)	Below 1 Ω
ON	DOWN	6 (B) - 13 (D)	Below 1 Ω
ON	DOWN	1 (E) - 12 (U)	10 kΩ or higher

If the result is not as specified, replace the power window regulator master switch.

Standard Resistance: Rear RH side switch

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
OFF	UP	6 (B) - 10 (U) 1 (E) - 18 (D)	Below 1 Ω
OFF	OFF	1 (E) - 10 (U) 1 (E) - 18 (D)	Below 1 Ω
OFF	DOWN	6 (B) - 18 (D) 1 (E) - 10 (U)	Below 1 Ω
ON	UP	6 (B) - 10 (U)	Below 1 Ω
ON	UP	1 (E) - 18 (D)	10 kΩ or higher
ON	OFF	10 (U) - 18 (D)	Below 1 Ω
ON	DOWN	6 (B) - 18 (D)	Below 1 Ω
ON	DOWN	1 (E) - 10 (U)	10 k Ω or higher

If the result is not as specified, replace the power window regulator master switch.



- (b) Check the illumination operation.
 - (1) Apply battery voltage to the power window regulator master switch and check that the illumination comes on.

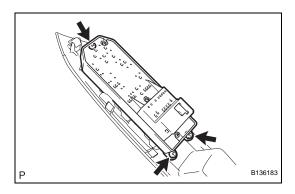
Standard

Measurement Condition	Specified Condition
Battery positive (+) → Terminal 6 (B) Battery negative (-) → Terminal 1 (E)	Illumination comes on

If the result is not as specified, replace the power window regulator master switch.

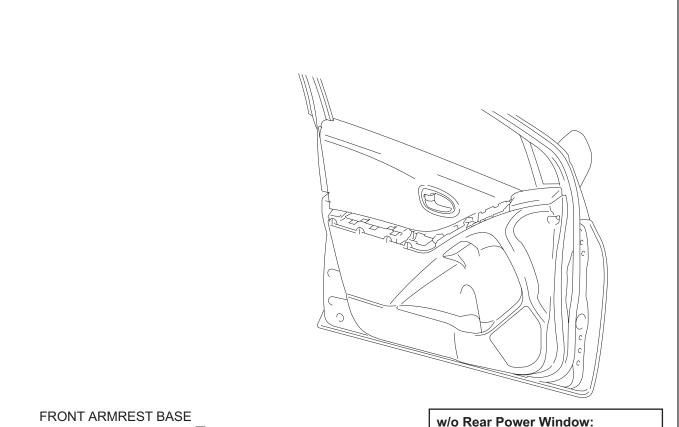
INSTALLATION

- 1. INSTALL POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY
 - (a) Install the power window regulator master switch with the 3 screws.
- 2. INSTALL FRONT ARMREST BASE UPPER PANEL (See page ED-28)
- 3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

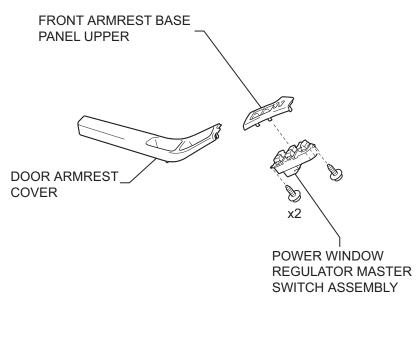


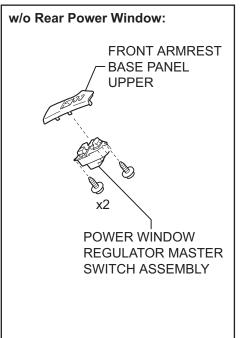


POWER WINDOW MASTER SWITCH (for Hatchback) COMPONENTS







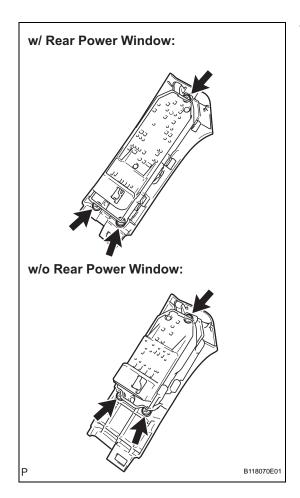


B121528E01

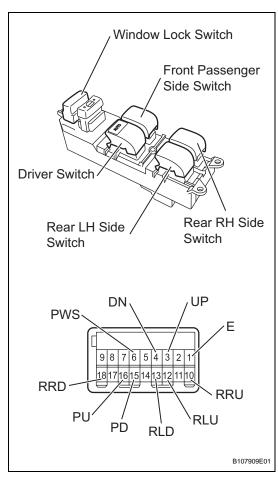
REMOVAL

HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the LH side.
- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
- 2. REMOVE DOOR ARMREST COVER (See page ED-33)
- 3. REMOVE FRONT ARMREST BASE PANEL UPPER (See page ED-33)
- 4. REMOVE POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY
 - (a) Remove the 3 screws and the power window regulator master switch.







INSPECTION

- 1. INSPECT POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY
 - (a) w/ Rear power window: Check the resistance.
 - (1) Using an ohmmeter, measure the resistance and check the result in accordance with the value(s) in the tables below.

Standard Resistance:

Driver switch



Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
Always (ON / OFF)	UP	3 (UP) - 6 (PWS) 1 (E) - 4 (DN)	Below 1 Ω
Always (ON / OFF)	OFF	1 (E) - 3 (UP) 1 (E) - 4 (DN)	Below 1 Ω
Always (ON / OFF)	DOWN MANUAL	4 (DN) - 6 (PWS) 1 (E) - 3 (UP)	Below 1 Ω
Always (ON / OFF)	DOWN AUTO	1 (E) - 3 (UP) 4 (DN) - 6 (PWS)	Below 1 Ω

If the result is not as specified, replace the power window regulator master switch.

Standard Resistance: Passenger side switch

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
OFF	UP	6 (PWS) - 16 (PU) 1 (E) - 15 (PD)	Below 1 Ω
OFF	OFF	1 (E) - 16 (PU) 1 (E) - 15 (PD)	Below 1 Ω
OFF	DOWN	6 (PWS) - 15 (PD) 1 (E) - 16 (PU)	Below 1 Ω
ON	UP	6 (PWS) - 16 (PU)	Below 1 Ω
ON	UP	1 (E) - 15 (PD)	10 kΩ or higher
ON	OFF	15 (PD) - 16 (PU)	Below 1 Ω
ON	DOWN	6 (PWS) - 15 (PD)	Below 1 Ω
ON	DOWN	1 (E) - 15 (PD)	10 kΩ or higher

If the result is not as specified, replace the power window regulator master switch.

Standard Resistance: Rear LH side switch

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
OFF	UP	6 (PWS) - 12 (RLU) 1 (E) - 13 (RLD)	Below 1 Ω
OFF	OFF	1 (E) - 12 (RLU) 1 (E) - 13 (RLD)	Below 1 Ω
OFF	DOWN	6 (PWS) - 13 (RLD) 1 (E) - 12 (RLU)	Below 1 Ω
ON	UP	6 (PWS) - 12 (RLU)	Below 1 Ω
ON	UP	1 (E) - 13 (RLD)	10 k Ω or higher
ON	OFF	12 (RLU) - 13 (RLD)	Below 1 Ω
ON	DOWN	6 (PWS) - 13 (RLD)	Below 1 Ω
ON	DOWN	1 (E) - 12 (RLU)	10 k Ω or higher

If the result is not as specified, replace the power window regulator master switch.

Standard Resistance: Rear RH side switch

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
OFF	UP	6 (PWS) - 10 (RRU) 1 (E) - 18 (RRD)	Below 1 Ω
OFF	OFF	1 (E) - 10 (RRU) 1 (E) - 18 (RRD)	Below 1 Ω
OFF	DOWN	6 (PWS) - 18 (RRD) 1 (E) - 10 (RRU)	Below 1 Ω
ON	UP	6 (PWS) - 10 (RRU)	Below 1 Ω
ON	UP	1 (E) - 18 (RRD)	10 kΩ or higher
ON	OFF	10 (RRU) - 18 (RRD)	Below 1 Ω
ON	DOWN	6 (PWS) - 18 (RRD)	Below 1 Ω
ON	DOWN	1 (E) - 10 (RRU)	10 kΩ or higher

If the result is not as specified, replace the power window regulator master switch.

(b) w/ Rear power window:

Check the illumination operation.

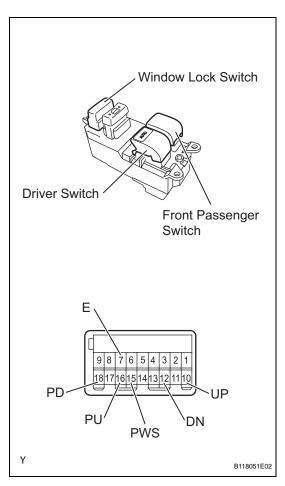
(1) Apply battery voltage to the power window regulator master switch and check that the illumination comes on.

Standard

Measurement Condition	Specified Condition
Battery positive (+) → Terminal 6 (PWS)	Illumination comes on
Battery negative (-) → Terminal 1 (E)	

If the result is not as specified, replace the power window regulator master switch.





- (c) w/o Rear power window: Check the resistance.
 - (1) Using an ohmmeter, measure the resistance and check the result in accordance with the value(s) in the tables below.

Standard Resistance:
Driver switch

|--|

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
Always (ON / OFF)	UP	15 (PWS) - 10 (UP) 7 (E) - 12 (DN)	Below 1 Ω
Always (ON / OFF)	OFF	7 (E) - 10 (UP) 7 (E) - 12 (DN)	Below 1 Ω
Always (ON / OFF)	DOWN MANUAL	12 (DN) - 15 (PWS) 7 (E) - 10 (UP)	Below 1 Ω
Always (ON / OFF)	DOWN AUTO	12 (DN) - 15 (PWS) 7 (E) - 10 (UP)	Below 1 Ω

If the result is not as specified, replace the power window regulator master switch.

Standard Resistance: Passenger side switch

Window Lock Switch Condition	Power Window Switch Condition	Tester Connection	Specified Condition
OFF	UP	15 (PWS) - 16 (PU) 7 (E) - 18 (PD)	Below 1 Ω
OFF	OFF	7 (E) - 16 (PU) 7 (E) - 18 (PD)	Below 1 Ω
OFF	DOWN	15 (PWS) - 18 (PD) 7 (E) - 16 (PU)	Below 1 Ω
ON	UP	15 (PWS) - 16 (PU)	Below 1 Ω
ON	UP	7 (E) - 18 (PD)	10 kΩ or higher
ON	OFF	16 (PU) - 18 (PD)	Below 1 Ω
ON	DOWN	15 (PWS) - 18 (PD)	Below 1 Ω
ON	DOWN	7 (E) - 16 (PU)	10 kΩ or higher

If the result is not as specified, replace the power window regulator master switch.

(d) w/o Rear power window:

Check the illumination operation.

 Apply battery voltage to the power window regulator master switch and check that the illumination comes on.

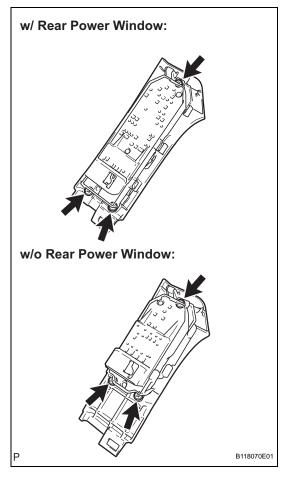
Standard

Measurement Condition	Specified Condition
Battery positive (+) → Terminal 15 (PWS) Battery negative (-) → Terminal 7 (E)	Illumination comes on

If the result is not as specified, replace the power window regulator master switch.

INSTALLATION

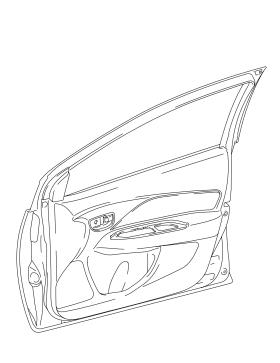
- 1. INSTALL POWER WINDOW REGULATOR MASTER SWITCH ASSEMBLY
 - (a) Install the power window regulator master switch with the 3 screws.
- 2. INSTALL FRONT ARMREST BASE PANEL UPPER (See page ED-53)
- 3. INSTALL DOOR ARMREST COVER (See page ED-53)
- 4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL



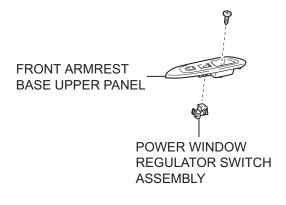


FRONT PASSENGER SIDE POWER WINDOW SWITCH (for Sedan)

COMPONENTS

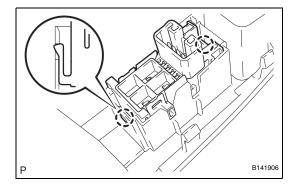






REMOVAL

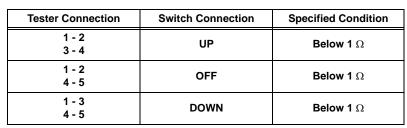
- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
- 2. REMOVE FRONT ARMREST BASE UPPER PANEL (See page ED-9)
- 3. REMOVE POWER WINDOW REGULATOR SWITCH ASSEMBLY
 - (a) Using a screwdriver with its tip wrapped in protective tape, disengage the 2 claws and remove the power window regulator switch.



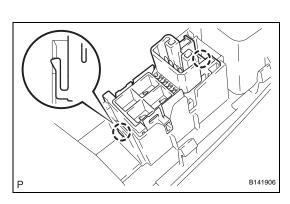
INSPECTION

- 1. INSPECT POWER WINDOW REGULATOR SWITCH ASSEMBLY
 - (a) Check the resistance.
 - (1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.

Standard Resistance



If the result is not as specified, replace the power window regulator switch.



3

B107881

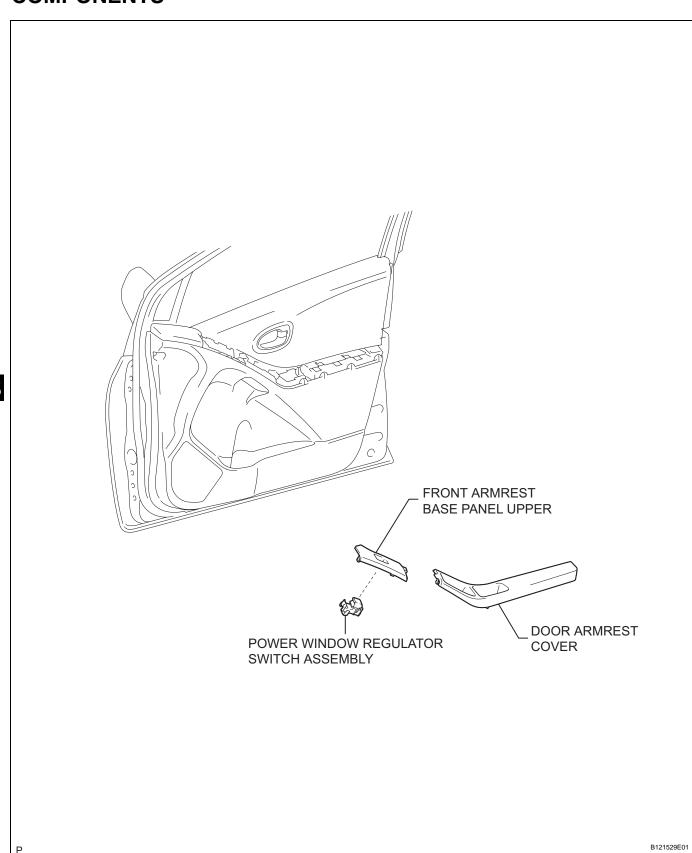
INSTALLATION

- 1. INSTALL POWER WINDOW REGULATOR SWITCH ASSEMBLY
 - (a) Engage the 2 claws and install the power window regulator switch.
- 2. INSTALL FRONT ARMREST BASE UPPER PANEL (See page ED-28)
- 3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL



FRONT PASSENGER SIDE POWER WINDOW SWITCH (for Hatchback)

COMPONENTS





REMOVAL

1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

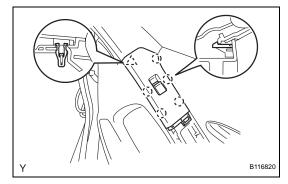
2. REMOVE DOOR ARMREST COVER

HINT:

Use the same procedure as for the LH side (see page ED-33).

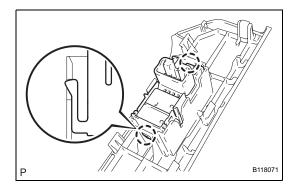


- (a) Using a screwdriver with its tip wrapped in protective tape, disengage the 5 claws and clip and remove the front armrest base panel upper.
- (b) Disconnect the connector.



4. REMOVE POWER WINDOW REGULATOR SWITCH ASSEMBLY

(a) Disengage the 2 claws and remove the power window regulator switch.



INSPECTION

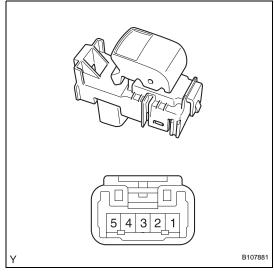
1. INSPECT POWER WINDOW REGULATOR SWITCH ASSEMBLY

- (a) Check the resistance.
 - (1) Using an ohmmeter, measure the resistance and check the result in accordance with the value(s) in the table below.

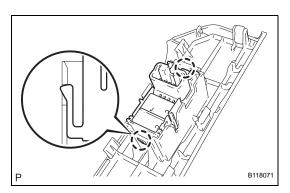
Standard Resistance

Tester Connection	Switch Connection	Specified Condition
1 - 2 3 - 4	UP	Below 1 Ω
1 - 2 4 - 5	OFF	Below 1 Ω
1 - 3 4 - 5	DOWN	Below 1 Ω

If the result is not as specified, replace the power window regulator switch.

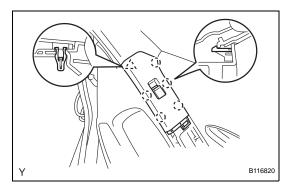






INSTALLATION

- 1. INSTALL POWER WINDOW REGULATOR SWITCH ASSEMBLY
 - (a) Engage the 2 claws and install the power window regulator switch.



2. INSTALL FRONT ARMREST BASE PANEL UPPER

- (a) Connect the connector.
- (b) Engage the 5 claws and clip and install the front armrest base panel upper.
- 3. INSTALL DOOR ARMREST COVER

HINT:

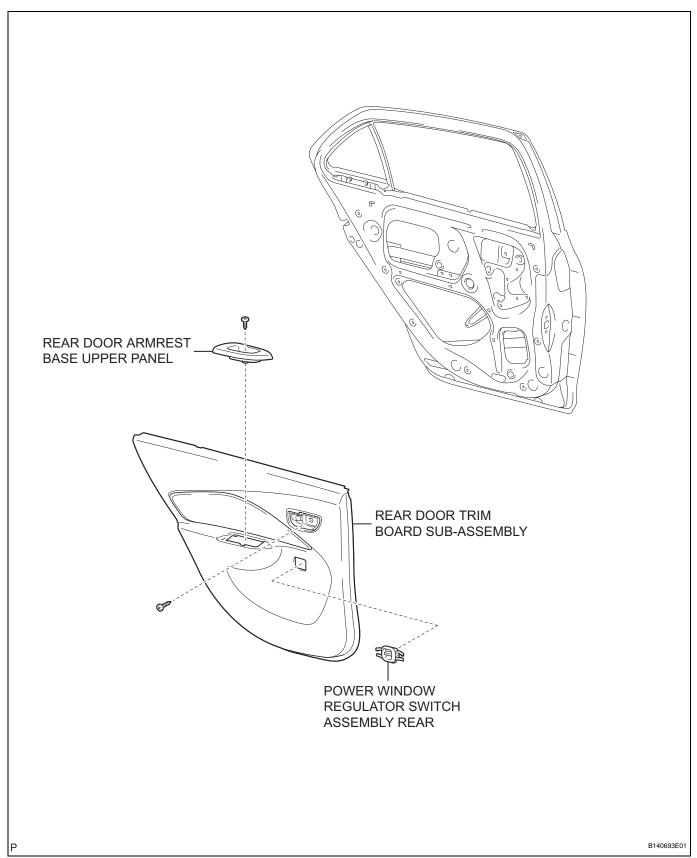
Use the same procedure as for the LH side (see page ED-53).

4. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL



REAR POWER WINDOW SWITCH (for Sedan)

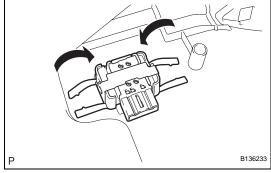
COMPONENTS



WS

REMOVAL

- **DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL**
- REMOVE REAR DOOR ARMREST BASE UPPER 2. PANEL (See page ED-79)
- REMOVE REAR DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-79)
- REMOVE POWER WINDOW REGULATOR SWITCH **ASSEMBLY REAR**
 - (a) Disengage the set plate and remove the power window regulator switch.





- INSPECT POWER WINDOW REGULATOR SWITCH **ASSEMBLY REAR**
 - (a) Check the resistance.
 - (1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.

Standard Resistance

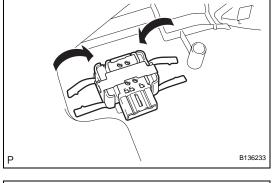
Tester Connection	Switch Connection	Specified Condition
1 - 2 3 - 4	UP	Below 1 Ω
1 - 2 4 - 5	OFF	Below 1 Ω
2 - 3 4 - 5	DOWN	Below 1 Ω

If the result is not as specified, replace the power window regulator switch.

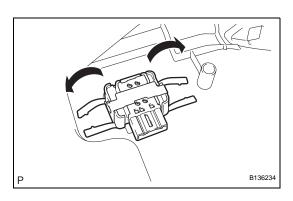


B118053

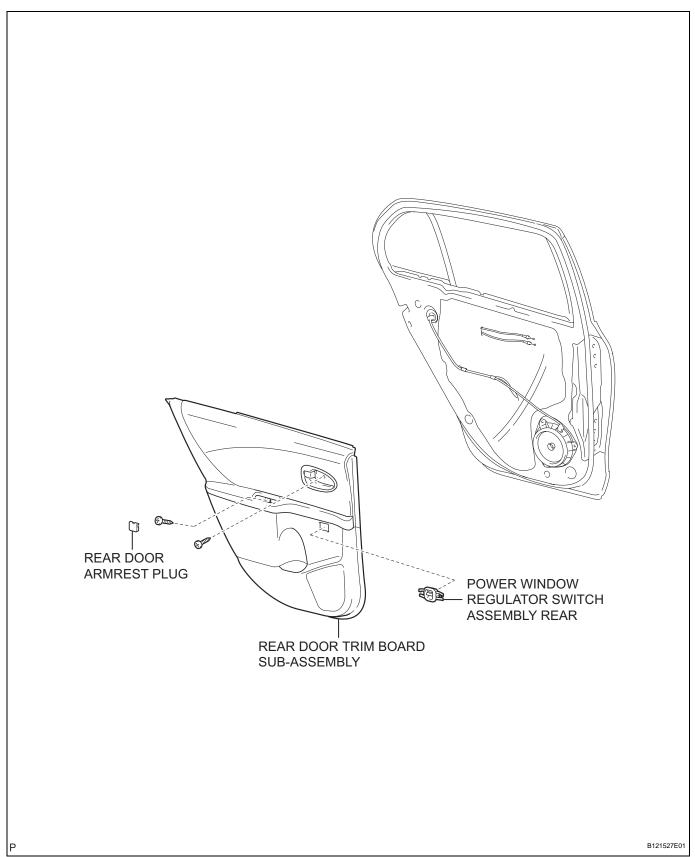
- **INSTALL POWER WINDOW REGULATOR SWITCH** ASSEMBLY REAR
 - (a) Engage the set plate and install the power window regulator switch.
- **INSTALL REAR DOOR TRIM BOARD SUB-**2. ASSEMBLY (See page ED-93)
- **INSTALL REAR DOOR ARMREST BASE UPPER** PANEL (See page ED-94)
- **CONNECT CABLE TO NEGATIVE BATTERY TERMINAL**







REAR POWER WINDOW SWITCH (for Hatchback) COMPONENTS

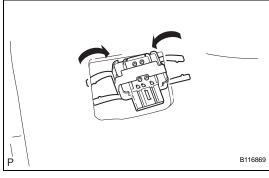


WS

REMOVAL

HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the LH side.
- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
- 2. REMOVE REAR DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-98)
- 3. REMOVE POWER WINDOW REGULATOR SWITCH ASSEMBLY REAR
 - (a) Disengage the set plate and remove the power window regulator switch.





- 1. INSPECT POWER WINDOW REGULATOR SWITCH ASSEMBLY REAR
 - (a) Check the resistance.
 - (1) Using an ohmmeter, measure the resistance and check the results in accordance with the value(s) in the table below.

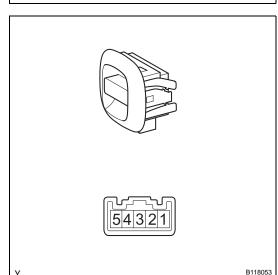
Standard Resistance

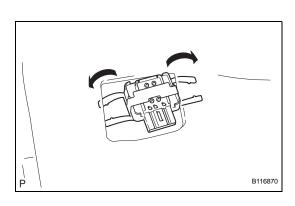
Tester Connection	Switch Connection	Specified Condition
1 - 2 3 - 4	UP	Below 1 Ω
1 - 2 4 - 5	OFF	Below 1 Ω
2 - 3 4 - 5	DOWN	Below 1 Ω

If the result is not as specified, replace the power window regulator switch.



- 1. INSTALL POWER WINDOW REGULATOR SWITCH ASSEMBLY REAR
 - (a) Engage the set plate and install the power window regulator switch.
- 2. INSTALL REAR DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-111)
- 3. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

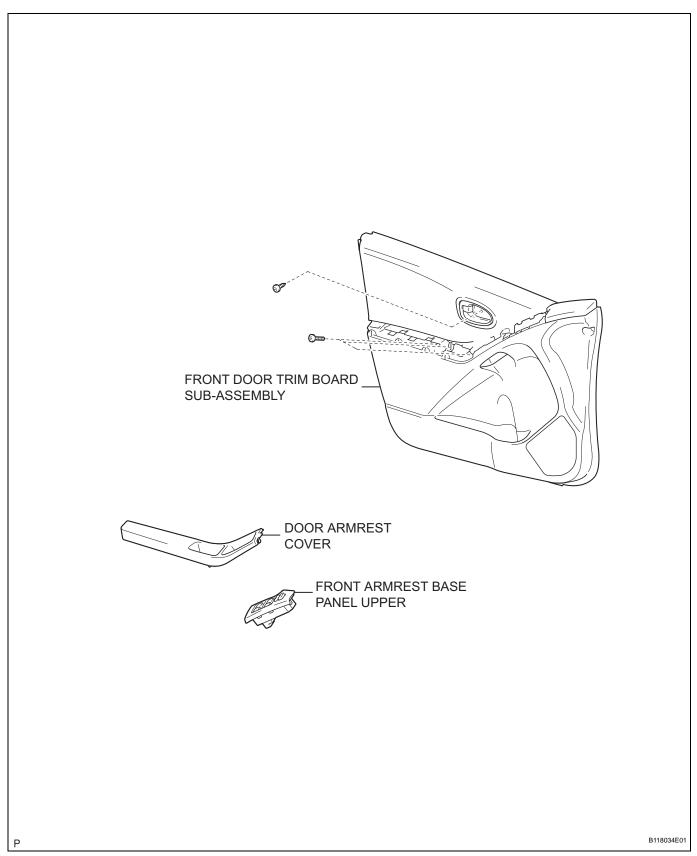




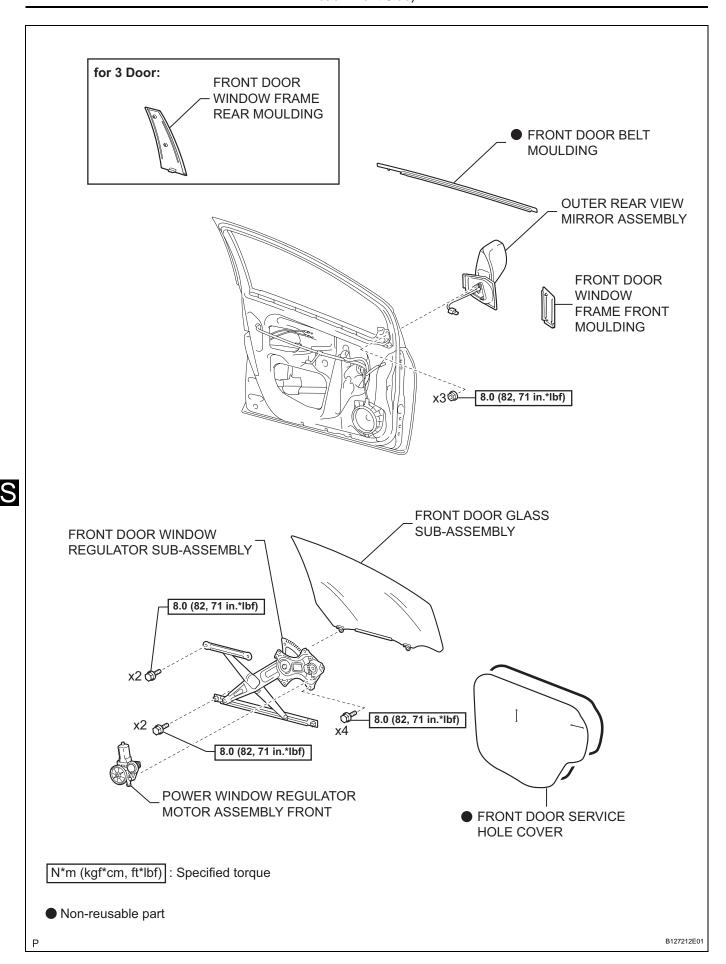


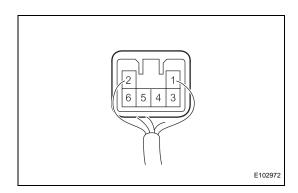
POWER WINDOW REGULATOR MOTOR (for Hatchback Front Side)

COMPONENTS



WS





ON-VEHICLE INSPECTION

INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH FRONT

(a) Inspect the operation of the PTC inside the power window regulator motor.

NOTICE:

The work must be performed with the power window regulator and door glass installed on the vehicle.

(1) Connect an electrical tester DC 400 A probe to the wire harness of terminal 1.

NOTICE:

Match the arrow mark of the probe with the direction of the current flow.

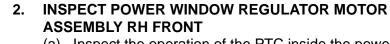
- (2) Fully close the door glass by pressing the power window UP switch. Wait for approximately 60 seconds.
- (3) Continue to press the power window UP switch and measure how long it takes for the electrical current to change from a range of 16 to 28 A to approximately 1 A (Inspection of current shutoff).

Standard:

4 to 90 seconds

(4) Check that the door glass moves downward when the power window DOWN switch is pressed.

If the result is not as specified, replace the power window regulator motor.



(a) Inspect the operation of the PTC inside the power window regulator motor.

NOTICE:

The work must be performed with the power window regulator and door glass installed on the vehicle.

(1) Connect an electrical tester DC 400 A probe to the wire harness of terminal 2.

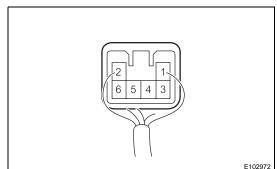
NOTICE:

Match the arrow mark of the probe with the direction of the current flow.

- (2) Fully close the door glass by pressing the power window UP switch. Wait for approximately 60 seconds.
- (3) Continue to press the power window UP switch and measure how long it takes for the electrical current to change from a range of 16 to 28 A to approximately 1 A (Inspection of current shutoff).

Standard:

4 to 90 seconds





(4) Check that the door glass moves downward when the power window DOWN switch is pressed.

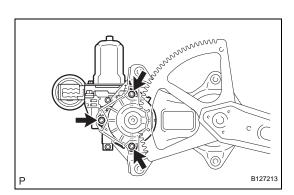
If the result is not as specified, replace the power window regulator motor.

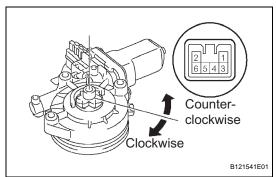


REMOVAL

HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the LH side.
- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
- 2. REMOVE DOOR ARMREST COVER (See page ED-33)
- 3. REMOVE FRONT ARMREST BASE PANEL UPPER (See page ED-33)
- 4. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-34)
- 5. REMOVE FRONT DOOR WINDOW FRAME FRONT MOULDING (See page ET-114)
- 6. REMOVE FRONT DOOR WINDOW FRAME REAR MOULDING (for 3 Door) (See page ET-114)
- 7. REMOVE OUTER REAR VIEW MIRROR ASSEMBLY (See page MI-13)
- 8. REMOVE FRONT DOOR BELT MOULDING (See page ET-91)
- 9. REMOVE FRONT DOOR SERVICE HOLE COVER (See page ED-36)
- 10. REMOVE FRONT DOOR GLASS SUB-ASSEMBLY (See page ED-36)
- 11. REMOVE FRONT DOOR WINDOW REGULATOR SUB-ASSEMBLY (See page ED-37)
- 12. REMOVE POWER WINDOW REGULATOR MOTOR ASSEMBLY FRONT
 - (a) Using "Torx" socket wrench T25, remove the 3 screws and the power window regulator motor.



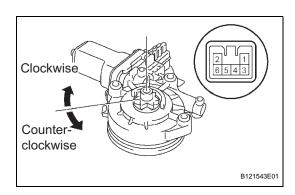


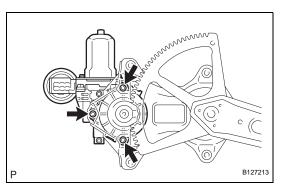
INSPECTION

- 1. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH FRONT
 - (a) Check the operation of the regulator motor.
 - Apply battery voltage to the regulator motor and check the operation of the regulator motor.
 Standard

Measurement condition	Specified Condition
Battery positive (+) \rightarrow Terminal 2 Battery negative (-) \rightarrow Terminal 1	Motor gear rotates clockwise
Battery positive (+) → Terminal 1 Battery negative (-) → Terminal 2	Motor gear rotates counterclockwise







If the result is not as specified, replace the power window regulator motor.

2. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY RH FRONT

- (a) Check the operation of the regulator motor.
 - Apply battery voltage to the regulator motor and check the operation of the regulator motor.
 Standard

Measurement Condition	Specified Condition
Battery position (+) → Terminal 1 Battery negative (-) → Terminal 2	Motor gear rotates clockwise
Battery position (+) → Terminal 2 Battery negative (-) → Terminal 1	Motor gear rotates counterclockwise

If the result is not as specified, replace the power window regulator motor.

INSTALLATION

- 1. INSTALL POWER WINDOW REGULATOR MOTOR ASSEMBLY FRONT
 - (a) Apply MP grease to the sliding and rotating areas of the regulator motor.
 - (b) Using "Torx" socket wrench T25, install the power window regulator motor assembly front with the 3 screws.

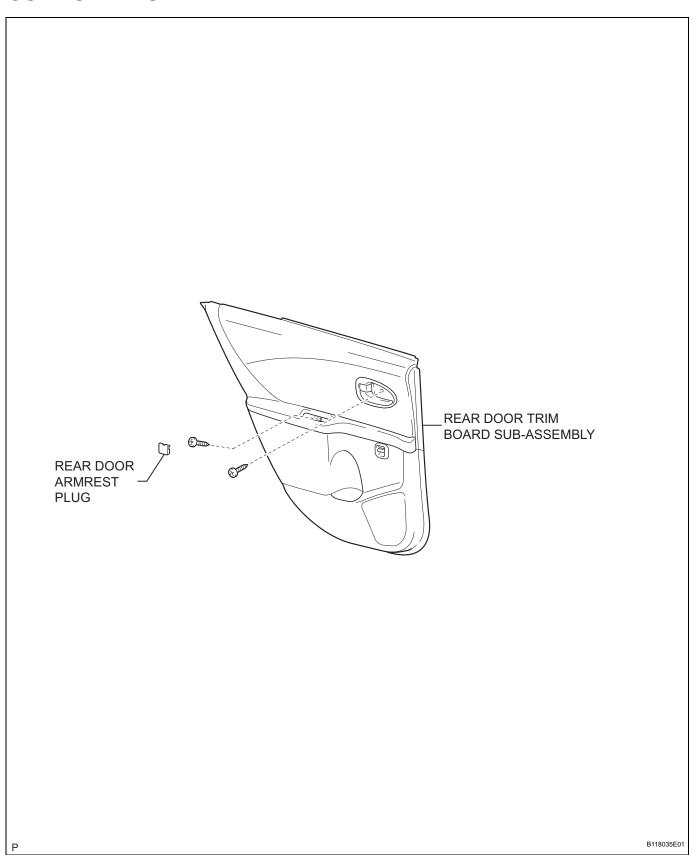
Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

- 2. INSTALL FRONT DOOR WINDOW REGULATOR SUB-ASSEMBLY (See page ED-48)
- 3. INSTALL FRONT DOOR GLASS SUB-ASSEMBLY (See page ED-49)
- 4. INSTALL FRONT DOOR SERVICE HOLE COVER (See page ED-50)
- 5. INSTALL FRONT DOOR BELT MOULDING (See page ET-92)
- 6. INSTALL OUTER REAR VIEW MIRROR ASSEMBLY (See page MI-16)
- 7. INSTALL FRONT DOOR WINDOW FRAME REAR MOULDING (for 3 Door) (See page ET-114)
- 8. INSTALL FRONT DOOR WINDOW FRAME FRONT MOULDING (See page ET-115)
- INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-51)
- 10. INSTALL FRONT ARMREST BASE PANEL UPPER (See page ED-53)
- 11. INSTALL DOOR ARMREST COVER (See page ED-53)
- 12. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL



POWER WINDOW REGULATOR MOTOR (for Hatchback Rear Side)

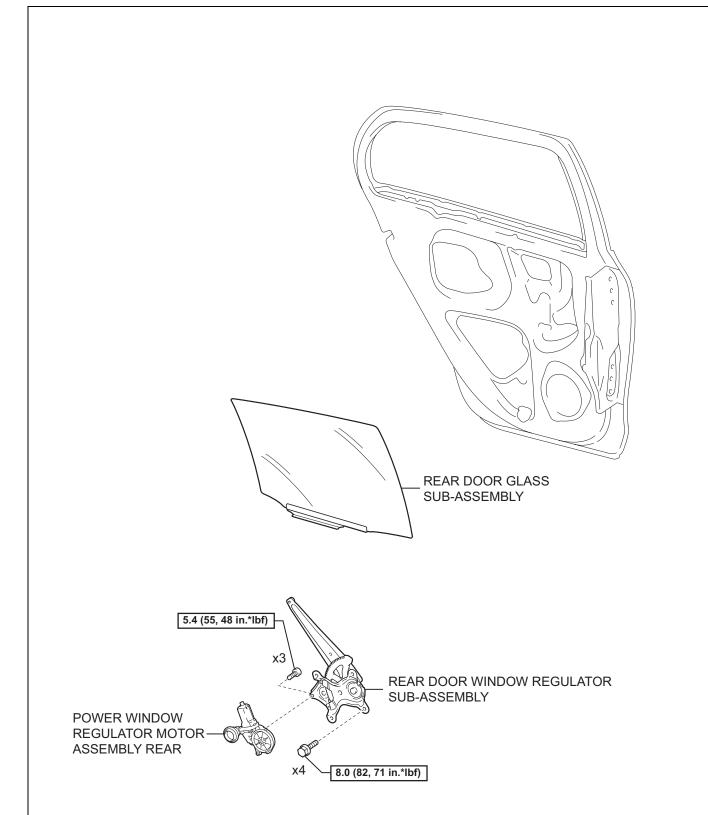
COMPONENTS





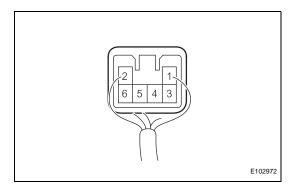






N*m (kgf*cm, ft*lbf) : Specified torque

B118036E01



ON-VEHICLE INSPECTION

1. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH REAR

(a) Inspect the operation of the PTC inside the power window regulator motor.

NOTICE:

The work must be performed with the power window regulator and door glass installed on the vehicle.

(1) Connect an electrical tester DC 400 A probe to the wire harness of terminal 1.

NOTICE:

Match the arrow mark of the probe with the direction of the current flow.

- (2) Fully close the door glass by pressing the power window UP switch. Wait for approximately 60 seconds.
- (3) Continue to press the power window UP switch and measure how long it takes for the electrical current to change from a range of 16 to 28 A to approximately 1 A (Inspection of current shutoff).

Standard:

4 to 90 seconds

(4) Check that the door glass moves downward when the power window DOWN switch is pressed.

If the result is not as specified, replace the power window regulator motor.

2. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY RH FRONT

(a) Inspect the operation of the PTC inside the power window regulator motor.

NOTICE:

The work must be performed with the power window regulator and door glass installed on the vehicle.

(1) Connect an electrical tester DC 400 A probe to the wire harness of terminal 2.

NOTICE:

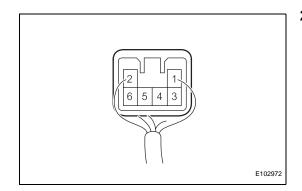
Match the arrow mark of the probe with the direction of the current flow.

- (2) Fully close the door glass by pressing the power window UP switch. Wait for approximately 60 seconds.
- (3) Continue to press the power window UP switch and measure how long it takes for the electrical current to change from a range of 16 to 28 A to approximately 1 A (Inspection of current shutoff).

Standard:

4 to 90 seconds





(4) Check that the door glass moves downward when the power window DOWN switch is pressed.

If the result is not as specified, replace the power window regulator motor.

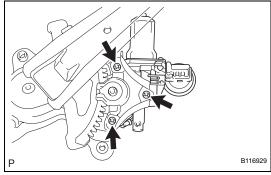


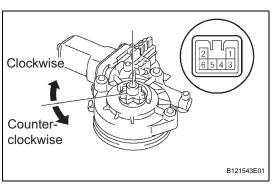
REMOVAL

WS



- HINT:
 Use the same procedure for both the RH and LH sides.
- The procedure described below is for the LH side.
- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
- 2. REMOVE REAR DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-98)
- REMOVE REAR DOOR SERVICE HOLE COVER (See page ED-99)
- 4. REMOVE REAR DOOR CHECK ASSEMBLY (See page ED-99)
- 5. REMOVE REAR DOOR WEATHERSTRIP (See page ED-100)
- 6. REMOVE REAR DOOR BELT MOULDING (See page ET-97)
- 7. REMOVE REAR DOOR GLASS RUN (See page ED100)
- 8. REMOVE REAR DOOR WINDOW DIVISION BAR SUB-ASSEMBLY (See page ED-100)
- 9. REMOVE REAR DOOR QUARTER WINDOW WEATHERSTRIP (See page ED-100)
- 10. REMOVE REAR DOOR GLASS SUB-ASSEMBLY (See page ED-101)
- 11. REMOVE REAR DOOR WINDOW REGULATOR SUB-ASSEMBLY (See page ED-101)
- 12. REMOVE POWER WINDOW REGULATOR MOTOR ASSEMBLY REAR
 - (a) Using "Torx" socket wrench T25, remove the 3 screws and the power window regulator motor.





INSPECTION

- 1. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH REAR
 - (a) Check the operation of the regulator motor.
 - Apply battery voltage to the regulator motor and check the operation of the regulator motor.
 Standard

Measurement Condition	Specified Condition
Battery positive (+) → Terminal 1 Battery negative (-) → Terminal 2	Motor gear rotates clockwise

Measure	ement Condition	Specified Condition
, ,	tive (+) → Terminal 2 tive (-) → Terminal 1	Motor gear rotates counterclockwise

If the result is not as specified, replace the power window regulator motor.

2. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY RH REAR

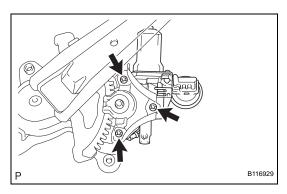
- (a) Check the operation of the regulator motor.
 - Apply battery voltage to the regulator motor and check the operation of the regulator motor.
 Standard

Measurement Condition	Specified Condition
Battery positive (+) → Terminal 2 Battery negative (-) → Terminal 1	Motor gear rotates clockwise
Battery positive (+) → Terminal 1 Battery negative (-) → Terminal 2	Motor gear rotates counterclockwise

If the result is not as specified, replace the power window regulator motor.



- 1. INSTALL POWER WINDOW REGULATOR MOTOR ASSEMBLY REAR
 - (a) Apply MP grease to the sliding and rotating areas of the regulator motor.
 - (b) Using "Torx" socket wrench T25, install the power window regulator motor with the 3 screws.Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)
- 2. INSTALL REAR DOOR WINDOW REGULATOR SUB-ASSEMBLY (See page ED-108)
- INSTALL REAR DOOR GLASS SUB-ASSEMBLY (See page ED-108)
- 4. INSTALL REAR DOOR QUARTER WINDOW WEATHERSTRIP (See page ED-108)
- 5. INSTALL REAR DOOR WINDOW DIVISION BAR SUB-ASSEMBLY (See page ED-108)
- INSTALL REAR DOOR GLASS RUN (See page ED-109)
- 7. INSTALL REAR DOOR BELT MOULDING (See page ET-97)
- 8. INSTALL REAR DOOR WEATHERSTRIP (See page ED-109)
- 9. INSTALL REAR DOOR CHECK ASSEMBLY (See page ED-109)
- 10. INSTALL REAR DOOR SERVICE HOLE COVER (See page ED-110)
- 11. INSTALL REAR DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-111)



Clockwise

Counterclockwise

B121541E01



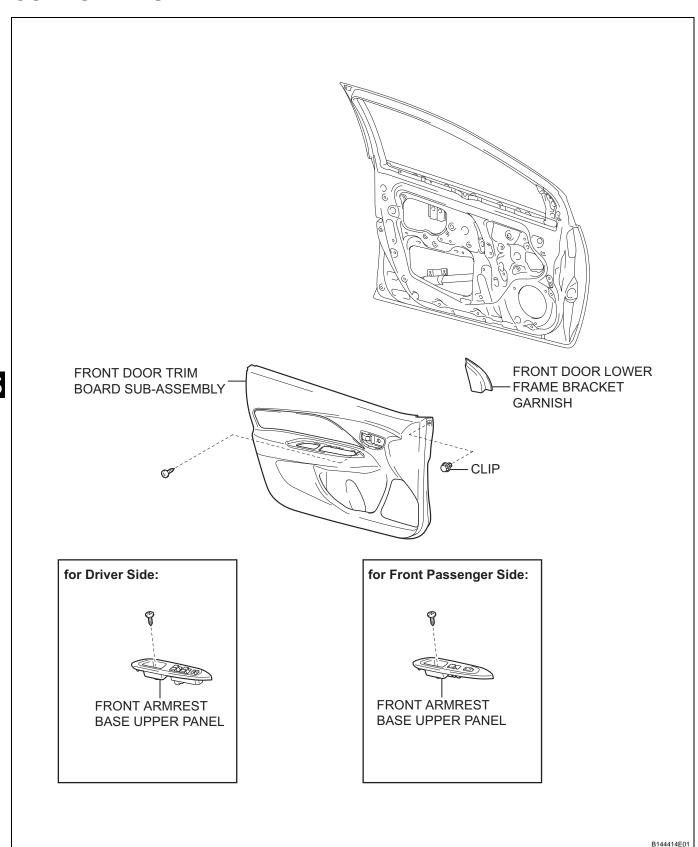
12. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

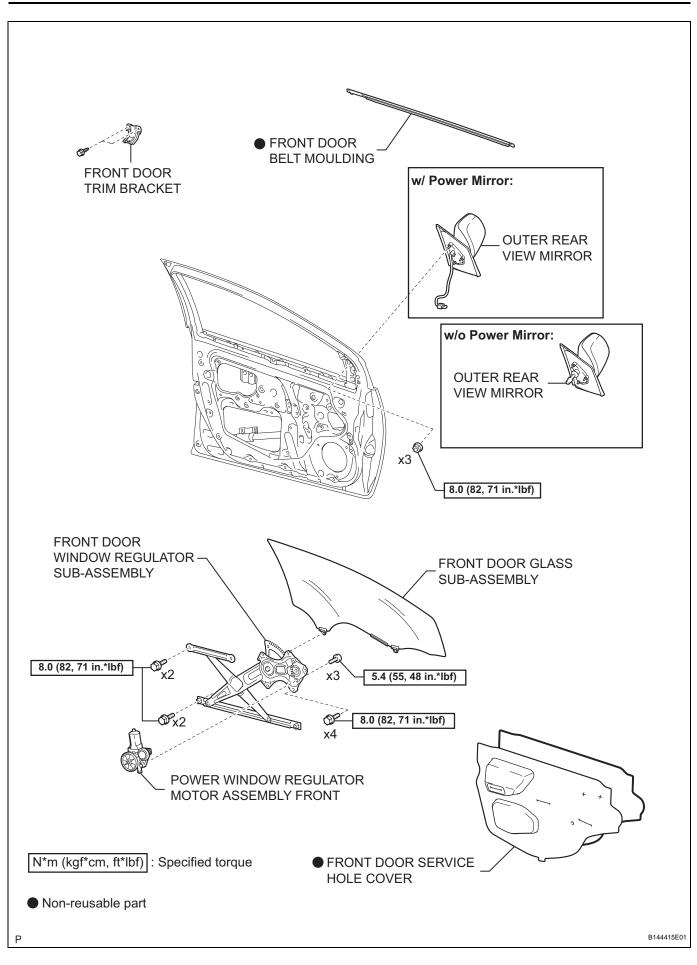
Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)



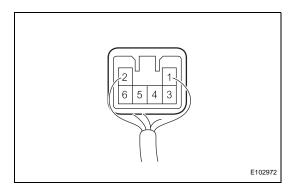
POWER WINDOW REGULATOR MOTOR (for Sedan Front Side)

COMPONENTS





WS



ON-VEHICLE INSPECTION

1. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH FRONT

(a) Inspect the operation of the PTC inside the power window regulator motor.

NOTICE:

The work must be performed with the power window regulator and door glass installed on the vehicle.

(1) Connect an electrical tester DC 400 A probe to the wire harness of terminal 1.

NOTICE:

Match the arrow mark of the probe with the direction of the current flow.

- (2) Fully close the door glass by pressing the power window UP switch. Wait for approximately 60 seconds.
- (3) Continue to press the power window UP switch and measure how long it takes for the electrical current to change from a range of 16 to 28 A to approximately 1 A (Inspection of current shutoff).

Standard:

4 to 90 seconds

(4) Check that the door glass moves downward when the power window DOWN switch is pressed.

If the result is not as specified, replace the power window regulator motor.

2. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY RH FRONT

(a) Inspect the operation of the PTC inside the power window regulator motor.

NOTICE:

The work must be performed with the power window regulator and door glass installed on the vehicle.

(1) Connect an electrical tester DC 400 A probe to the wire harness of terminal 2.

NOTICE:

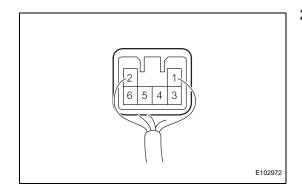
Match the arrow mark of the probe with the direction of the current flow.

- (2) Fully close the door glass by pressing the power window UP switch. Wait for approximately 60 seconds.
- (3) Continue to press the power window UP switch and measure how long it takes for the electrical current to change from a range of 16 to 28 A to approximately 1 A (Inspection of current shutoff).

Standard:

4 to 90 seconds





(4) Check that the door glass moves downward when the power window DOWN switch is pressed.

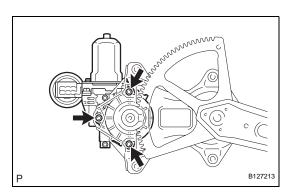
If the result is not as specified, replace the power window regulator motor.

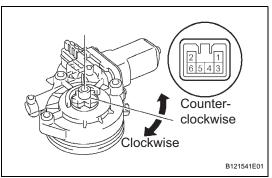


REMOVAL

HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the LH side.
- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
- 2. REMOVE FRONT DOOR LOWER FRAME BRACKET GARNISH (See page ED-9)
- 3. REMOVE FRONT ARMREST BASE UPPER PANEL (See page ED-9)
- 4. REMOVE FRONT DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-11)
- 5. REMOVE OUTER REAR VIEW MIRROR (See page MI-8)
- 6. REMOVE FRONT DOOR BELT MOULDING (See page ET-85)
- 7. REMOVE FRONT DOOR TRIM BRACKET (See page ED-12)
- 8. REMOVE FRONT DOOR SERVICE HOLE COVER (See page ED-12)
- 9. REMOVE FRONT DOOR GLASS SUB-ASSEMBLY (See page ED-12)
- 10. REMOVE FRONT DOOR WINDOW REGULATOR SUB-ASSEMBLY (See page ED-13)
- 11. REMOVE POWER WINDOW REGULATOR MOTOR ASSEMBLY FRONT
 - (a) Using "Torx" socket wrench T25, remove the 3 screws and power window regulator motor.



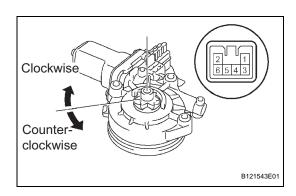


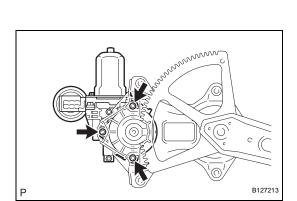
INSPECTION

- 1. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH FRONT
 - (a) Check the operation of the regulator motor.
 - Apply battery voltage to the regulator motor and check the operation of the regulator motor.
 Standard

Measurement condition	Specified Condition
Battery positive (+) → Terminal 2 Battery negative (-) → Terminal 1	Motor gear rotates clockwise
Battery positive (+) → Terminal 1 Battery negative (-) → Terminal 2	Motor gear rotates counterclockwise







If the result is not as specified, replace the power window regulator motor.

2. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY RH FRONT

- (a) Check the operation of the regulator motor.
 - Apply battery voltage to the regulator motor and check the operation of the regulator motor.
 Standard

Measurement Condition	Specified Condition
Battery positive (+) → Terminal 1 Battery negative (-) → Terminal 2	Motor gear rotates clockwise
Battery positive (+) → Terminal 2 Battery negative (-) → Terminal 1	Motor gear rotates counterclockwise

If the result is not as specified, replace the power window regulator motor.

INSTALLATION

- 1. INSTALL POWER WINDOW REGULATOR MOTOR ASSEMBLY FRONT
 - (a) Apply MP grease to the sliding and rotating areas of the regulator motor.
 - (b) Using "Torx" socket wrench T25, install the power window regulator motor assembly front with the 3 screws.

Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

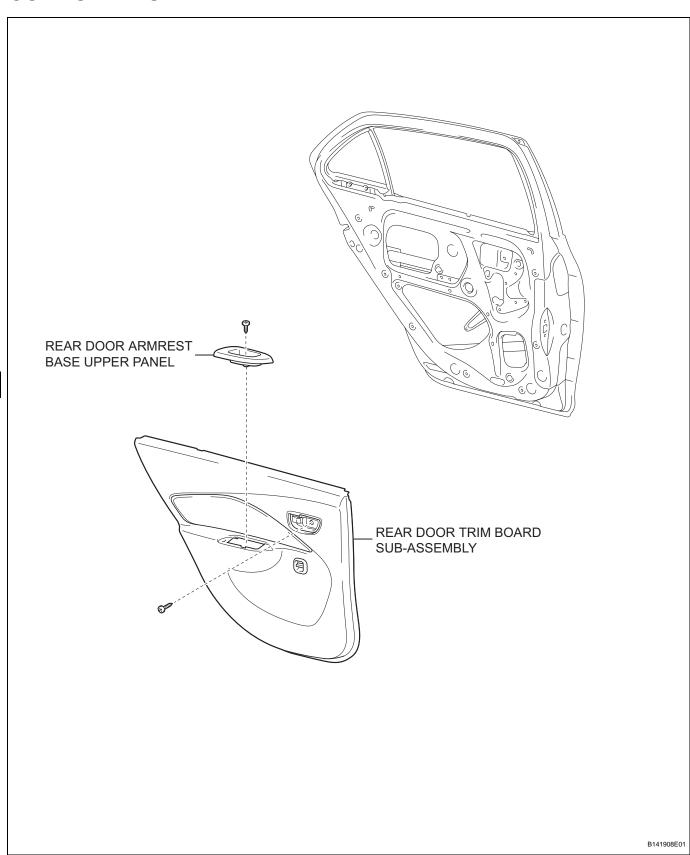
- INSTALL FRONT DOOR WINDOW REGULATOR SUB-ASSEMBLY (See page ED-24)
- 3. INSTALL FRONT DOOR GLASS SUB-ASSEMBLY (See page ED-24)
- INSTALL FRONT DOOR SERVICE HOLE COVER (See page ED-25)
- 5. INSTALL FRONT DOOR TRIM BRACKET (See page ED-25)
- 6. INSTALL FRONT DOOR BELT MOULDING (See page ET-86)
- 7. INSTALL OUTER REAR VIEW MIRROR (See page MI11)
- 8. INSTALL FRONT DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-26)
- 9. INSTALL FRONT ARMREST BASE UPPER PANEL (See page ED-28)
- 10. INSTALL FRONT DOOR LOWER FRAME BRACKET GARNISH (See page ED-28)
- 11. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)



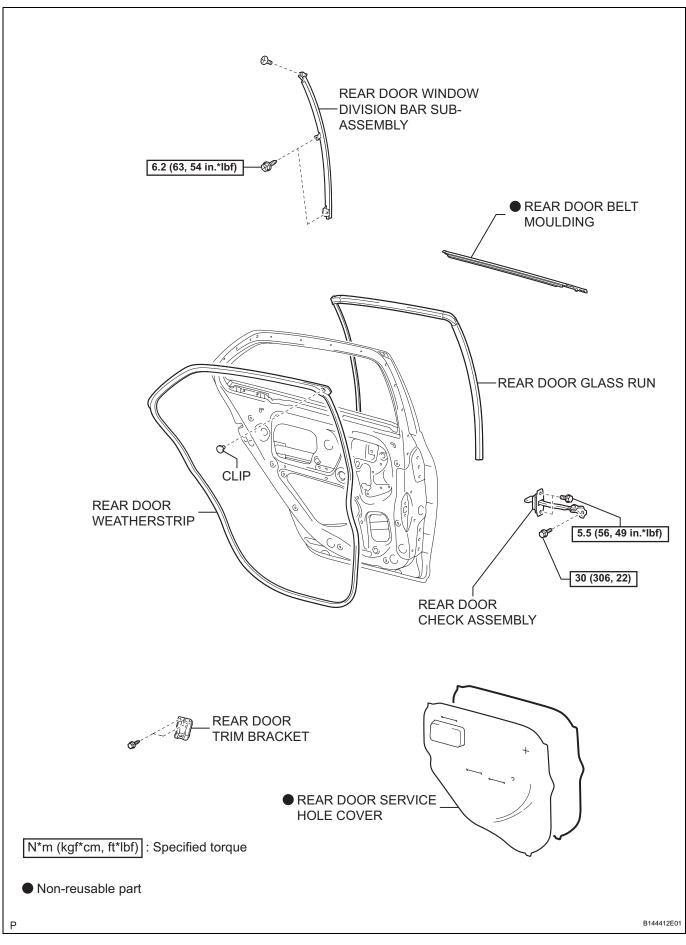
POWER WINDOW REGULATOR MOTOR (for Sedan Rear Side)

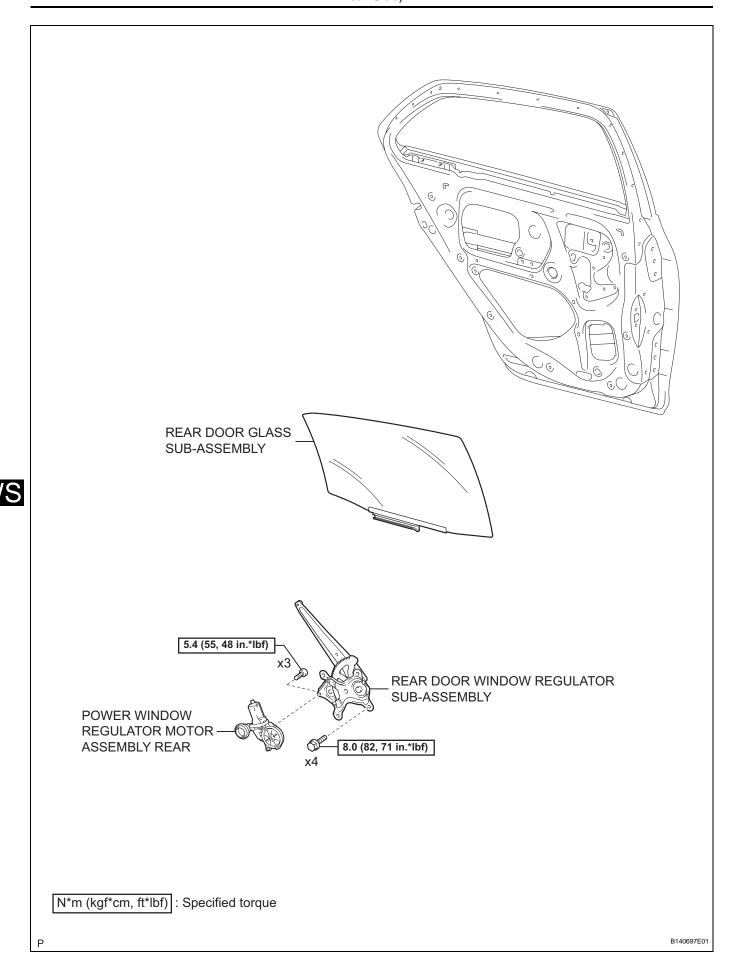
COMPONENTS

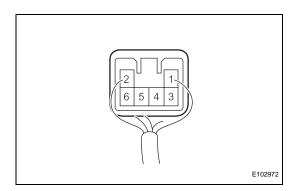












ON-VEHICLE INSPECTION

1. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH REAR

(a) Inspect the operation of the PTC inside the power window regulator motor.

NOTICE:

The work must be performed with the power window regulator and door glass installed on the vehicle.

(1) Connect an electrical tester DC 400 A probe to the wire harness of terminal 1.

NOTICE:

Match the arrow mark of the probe with the direction of the current flow.

- (2) Fully close the door glass by pressing the power window UP switch. Wait for approximately 60 seconds.
- (3) Continue to press the power window UP switch and measure how long it takes for the electrical current to change from a range of 16 to 28 A to approximately 1 A (Inspection of current shutoff).

Standard:

4 to 90 seconds

(4) Check that the door glass moves downward when the power window DOWN switch is pressed.

If the result is not as specified, replace the power window regulator motor.



(a) Inspect the operation of the PTC inside the power window regulator motor.

NOTICE:

The work must be performed with the power window regulator and door glass installed on the vehicle.

(1) Connect an electrical tester DC 400 A probe to the wire harness of terminal 2.

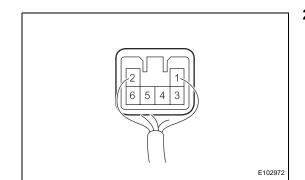
NOTICE:

Match the arrow mark of the probe with the direction of the current flow.

- (2) Fully close the door glass by pressing the power window UP switch. Wait for approximately 60 seconds.
- (3) Continue to press the power window UP switch and measure how long it takes for the electrical current to change from a range of 16 to 28 A to approximately 1 A (Inspection of current shutoff).

Standard:

4 to 90 seconds





(4) Check that the door glass moves downward when the power window DOWN switch is pressed.

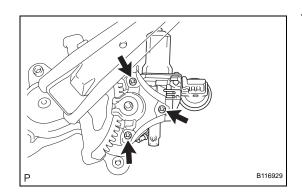
If the result is not as specified, replace the power window regulator motor.



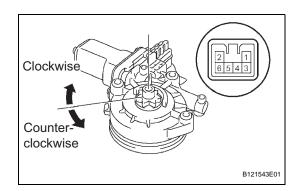
REMOVAL

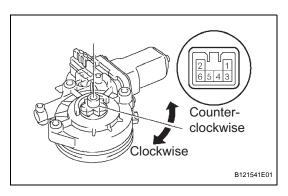
HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the LH side.
- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
- 2. REMOVE REAR DOOR ARMREST BASE UPPER PANEL (See page ED-79)
- 3. REMOVE REAR DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-79)
- 4. REMOVE REAR DOOR TRIM BRACKET (See page ED-80)
- 5. REMOVE REAR DOOR SERVICE HOLE COVER (See page ED-80)
- 6. REMOVE REAR DOOR CHECK ASSEMBLY (See page ED-81)
- 7. REMOVE REAR DOOR WEATHERSTRIP (See page ED-81)
- 8. REMOVE REAR DOOR BELT MOULDING (See page ET-95)
- 9. REMOVE REAR DOOR GLASS RUN (See page ED-81)
- 10. REMOVE REAR DOOR WINDOW DIVISION BAR SUB-ASSEMBLY (See page ED-81)
- 11. REMOVE REAR DOOR GLASS SUB-ASSEMBLY (See page ED-82)
- 12. REMOVE REAR DOOR WINDOW REGULATOR SUB-ASSEMBLY (See page ED-82)
- 13. REMOVE POWER WINDOW REGULATOR MOTOR ASSEMBLY REAR
 - (a) Using "Torx" socket wrench T25, remove the 3 screws and power window regulator motor.











1. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY LH REAR

- (a) Check the operation of the regulator motor.
 - Apply battery voltage to the regulator motor and check the operation of the regulator motor.
 Standard

Measurement Condition	Specified Condition
Battery positive (+) → Terminal 1 Battery negative (-) → Terminal 2	Motor gear rotates clockwise
Battery positive (+) → Terminal 2 Battery negative (-) → Terminal 1	Motor gear rotates counterclockwise

If the result is not as specified, replace the power window regulator motor.

2. INSPECT POWER WINDOW REGULATOR MOTOR ASSEMBLY RH REAR

- (a) Check the operation of the regulator motor.
 - Apply battery voltage to the regulator motor and check the operation of the regulator motor.
 Standard

Measurement Condition	Specified Condition
Battery positive (+) → Terminal 2 Battery negative (-) → Terminal 1	Motor gear rotates clockwise
Battery positive (+) → Terminal 1 Battery negative (-) → Terminal 2	Motor gear rotates counterclockwise

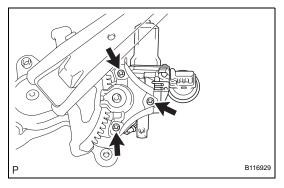
If the result is not as specified, replace the power window regulator motor.



1. INSTALL POWER WINDOW REGULATOR MOTOR ASSEMBLY REAR

- (a) Apply MP grease to the sliding and rotating areas of the regulator motor.
- (b) Using "Torx" socket wrench T25, install the power window regulator motor with the 3 screws.Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)
- 2. INSTALL REAR DOOR WINDOW REGULATOR SUB-ASSEMBLY (See page ED-89)
- INSTALL REAR DOOR GLASS SUB-ASSEMBLY (See page ED-90)
- 4. INSTALL REAR DOOR WINDOW DIVISION BAR SUB-ASSEMBLY (See page ED-91)
- 5. INSTALL REAR DOOR GLASS RUN (See page ED-91)
- 6. INSTALL REAR DOOR BELT MOULDING (See page ET-95)
- 7. INSTALL REAR DOOR WEATHERSTRIP (See page ED-92)
- 8. INSTALL REAR DOOR CHECK ASSEMBLY (See page ED-92)





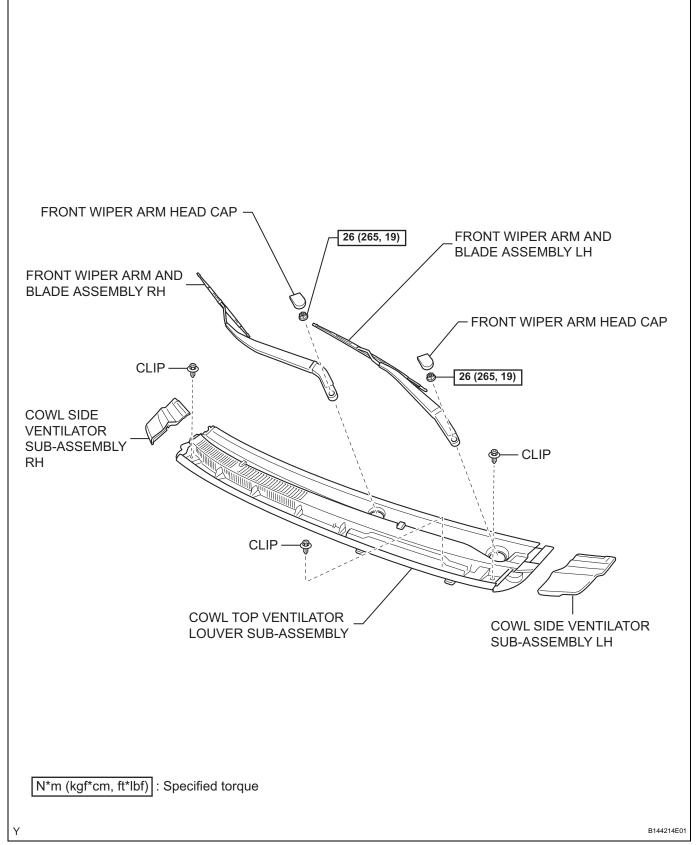
- 9. INSTALL REAR DOOR SERVICE HOLE COVER (See page ED-92)
- 10. INSTALL REAR DOOR TRIM BRACKET (See page ED-93)
- 11. INSTALL REAR DOOR TRIM BOARD SUB-ASSEMBLY (See page ED-93)
- 12. INSTALL REAR DOOR ARMREST BASE UPPER PANEL (See page ED-94)
- 13. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

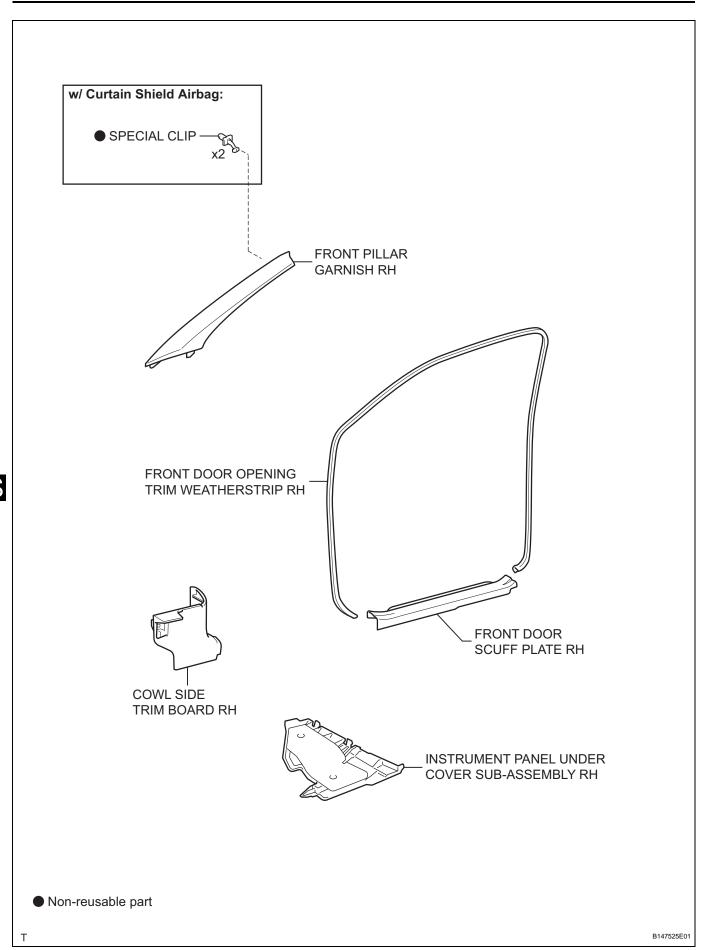


WINDSHIELD GLASS (for Sedan)

COMPONENTS

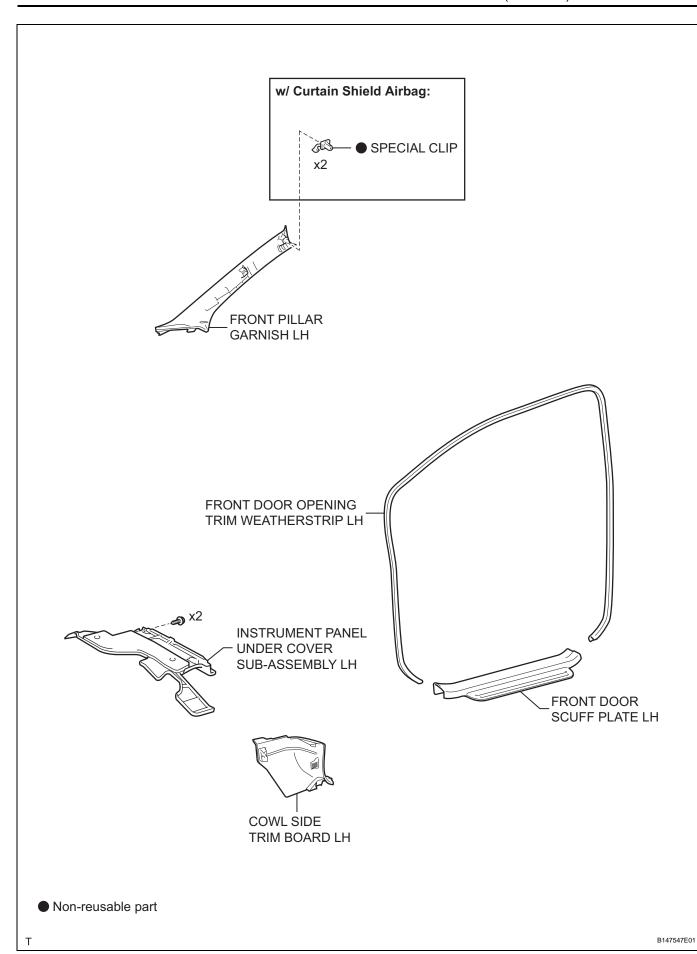


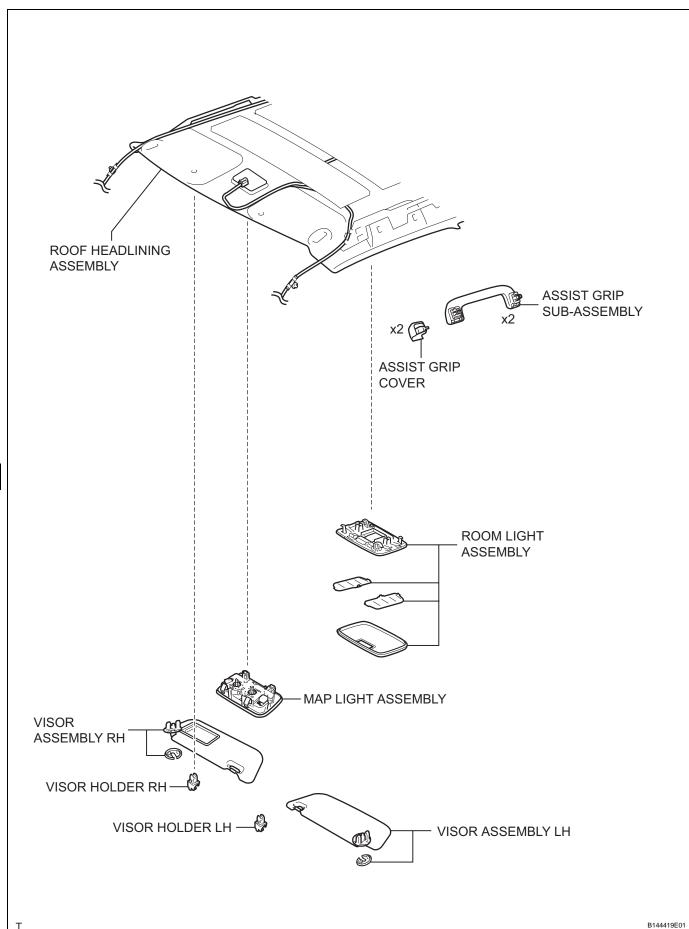
WS









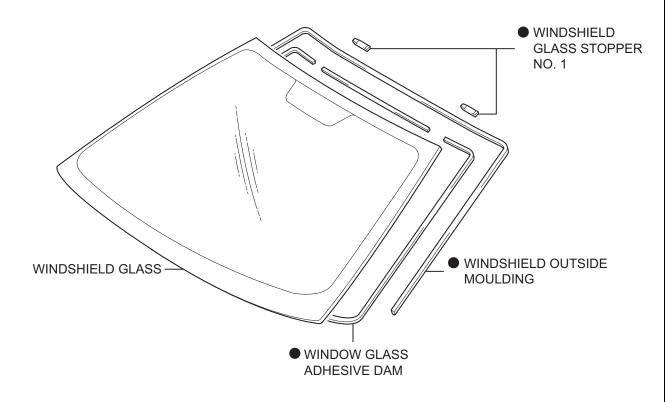






2 Piece Type:

• WINDSHIELD GLASS STOPPER NO. 2



Non-reusable part

B136267E01

Υ



REMOVAL

CAUTION:

Some of these service operations affect the SRS airbag system. Read the precautionary notices concerning the SRS airbag system before servicing (see page RS-1).

- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
 - Wait for at least 90 seconds after disconnecting the cable to prevent the airbag from working.
- 2. REMOVE FRONT WIPER ARM HEAD CAP (See page WW-9)
- 3. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY LH (See page WW-9)
- 4. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY RH (See page WW-9)
- 5. REMOVE COWL SIDE VENTILATOR SUB-ASSEMBLY LH (See page WW-10)
- 6. REMOVE COWL SIDE VENTILATOR SUB-ASSEMBLY RH (See page WW-10)
- 7. REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY (See page WW-10)
- 8. REMOVE FRONT DOOR SCUFF PLATE RH (See page IR-14)
- 9. REMOVE FRONT DOOR SCUFF PLATE LH (See page IR-14)
- 10. REMOVE INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY RH (See page IR-14)
- 11. REMOVE INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY LH (See page IR-14)
- 12. REMOVE COWL SIDE TRIM BOARD RH (See page IR-15)
- 13. REMOVE COWL SIDE TRIM BOARD LH (See page IR-
- 14. REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP RH (See page IR-15)
- 15. REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH (See page IR-15)
- 16. REMOVE FRONT PILLAR GARNISH RH (See page IR18)
- 17. REMOVE FRONT PILLAR GARNISH LH (See page IR-19)
- 18. REMOVE ASSIST GRIP COVER (See page IR-21)
- 19. REMOVE ASSIST GRIP SUB-ASSEMBLY (See page IR-21)
- 20. REMOVE VISOR ASSEMBLY RH (See page IR-22)



- 21. REMOVE VISOR ASSEMBLY LH (See page IR-22)
- 22. REMOVE VISOR HOLDER RH (See page IR-22)
- 23. REMOVE VISOR HOLDER LH (See page IR-22)
- 24. REMOVE ROOM LIGHT ASSEMBLY (See page IR-22)
- 25. REMOVE MAP LIGHT ASSEMBLY (See page IR-23)
- 26. REMOVE INNER REAR VIEW MIRROR (See page MI-5)

27. REMOVE ROOF HEADLINING ASSEMBLY HINT:

It is not necessary to remove the roof headlining completely. Slightly lower the front section of the roof headlining.

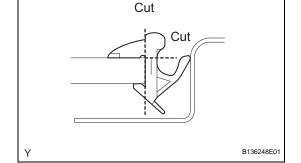
28. REMOVE WINDSHIELD OUTSIDE MOULDING

(a) Using a knife, cut off the windshield outside moulding, as shown in the illustration.NOTICE:

Do not damage the vehicle body with the knife.

(b) Remove the windshield outside moulding. HINT:

Make a partial cut in the windshield outside moulding. Then pull and remove it by hand.

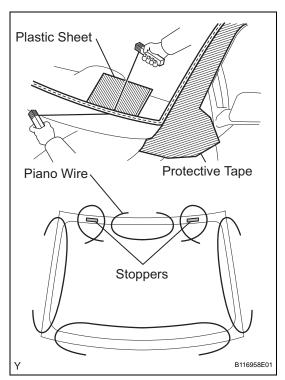


29. REMOVE WINDSHIELD GLASS

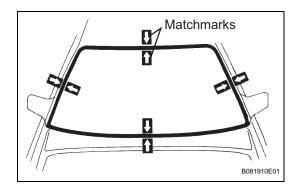
- (a) Apply protective tape to the outer circumference of the windshield glass, as shown in the illustration.
- (b) From the interior, insert piano wires between the vehicle body and the windshield glass, as shown in the illustration.
- (c) Tie objects that can serve as handles (for example, wooden blocks) to all wire ends.

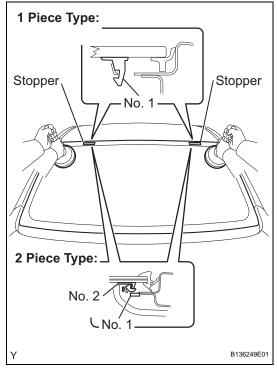
NOTICE:

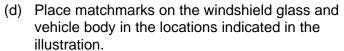
- When separating the windshield glass from the vehicle, do not damage the vehicle's paintwork or exterior/interior ornaments.
- To prevent the safety pad from being scratched when removing the windshield glass, place a plastic sheet between the piano wire and safety pad.











HINT:

Matchmarks do not need to be placed unless the windshield glass is going to be reused.

- (e) Cut through the adhesive by pulling the piano wire around the windshield glass.
- (f) Disengage the 2 stoppers.
- (g) Using suction cups, remove the windshield glass. **NOTICE:**

Leave as much adhesive on the vehicle body as possible when removing the windshield glass.



INSTALLATION

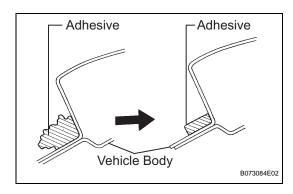
1. CLEAN WINDSHIELD GLASS

- (a) Using a scraper, remove the stoppers, dam and adhesive from the windshield glass.
- (b) Clean the outer circumference of the windshield glass with a non-residue solvent.

NOTICE:

B073128E01

- Do not touch the windshield glass surface after cleaning it.
- Even if using a new windshield glass, clean the windshield glass with a non-residue solvent.





- (a) Clean and shape the contact surface of the vehicle body.
 - (1) Using a knife, cut away any rough adhesive on the contact surface of the vehicle body to ensure the appropriate surface shape.

NOTICE:

Do not damage the vehicle body.

HINT:

Leave as much adhesive on the vehicle body as possible.

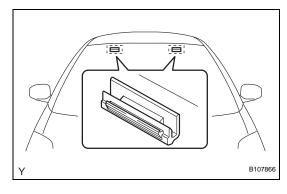
(2) Clean the contact surface of the vehicle body with a shop rag or piece of cloth saturated with cleaner.

HINT:

Clean the vehicle body even if all the adhesive has been removed.



(a) Install 2 new stoppers onto the vehicle body, as shown in the illustration.



4. INSTALL WINDSHIELD GLASS STOPPER NO. 2

(a) Apply Primer G to the installation parts of the stoppers.

NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- · Do not apply too much Primer G.
- (b) Install 2 new stoppers onto the windshield glass, as shown in the illustration.

Specification

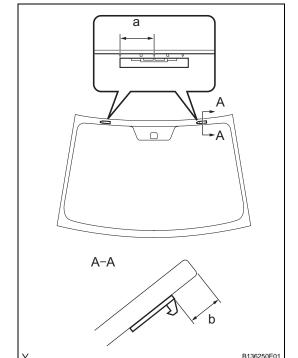
Area	Measurement
а	40 mm (1.57 in.)
b	14.5 mm (0.571 in.)

5. INSTALL WINDOW GLASS ADHESIVE DAM

(a) Apply Primer G to the installation part of a new dam, as shown in the illustration.

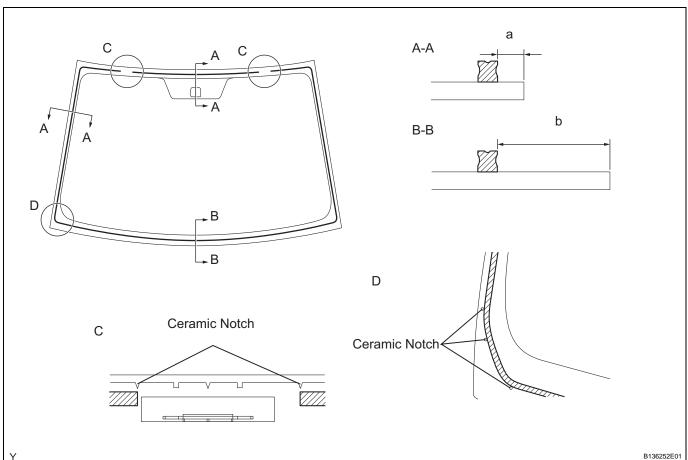
NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.





(b) Install the new dam with double-sided tape as shown in the illustration.





Specification

Area	Measurement
а	7.0 mm (0.276 in.)
b	29.4 mm (1.157 in.)



- (a) Position the windshield glass.
 - (1) Using suction cups, place the windshield glass in the correct position.
 - (2) Check that the entire contact surface of the windshield glass rim is perfectly even.
 - (3) Place matchmarks on the windshield glass and vehicle body.

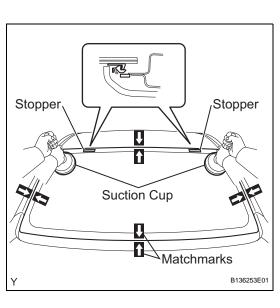
NOTICE:

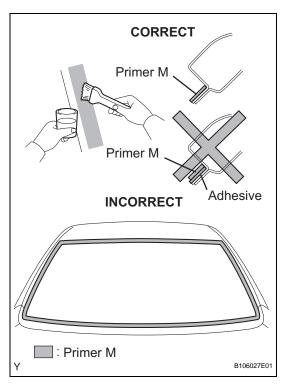
Check that the stoppers are correctly attached to the vehicle body.

HINT:

When reusing a windshield glass, check and correct the matchmark positions.

(4) Using suction cups, remove the windshield glass.

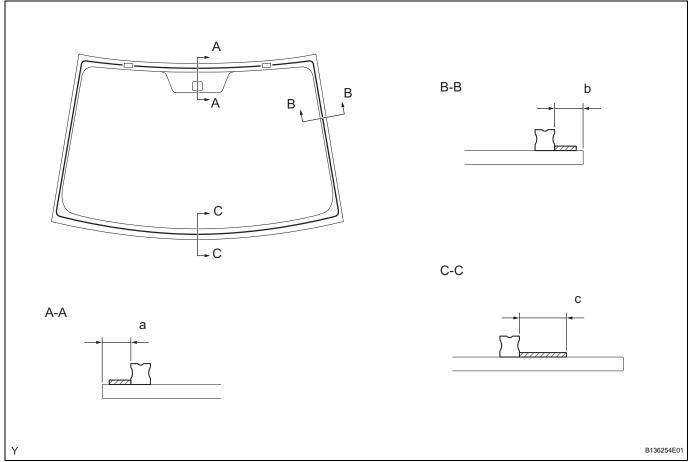




(b) Using a brush, apply Primer M to the exposed part of the vehicle body.

NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Do not apply Primer M to the adhesive.
- Throw away any leftover Primer M.
- Do not apply too much Primer M.
- (c) Using a brush or sponge, apply Primer G to the edge of the windshield glass and the contact surface.



Specification

Area	Measurement
а	7.0 mm (0.276 in.)
b	7.0 mm (0.276 in.)
С	16 mm (0.630 in.)



NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.

HINT:

If Primer G is applied to any areas other than those specified, wipe off the primer with a clean shop rag or piece of cloth before it dries.

(d) Apply adhesive.

Adhesive:

Toyota Genuine Windshield Glass Adhesive or the equivalent.

(1) Cut the tip off the cartridge nozzle, as shown in the illustration.

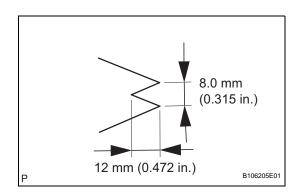
HINT:

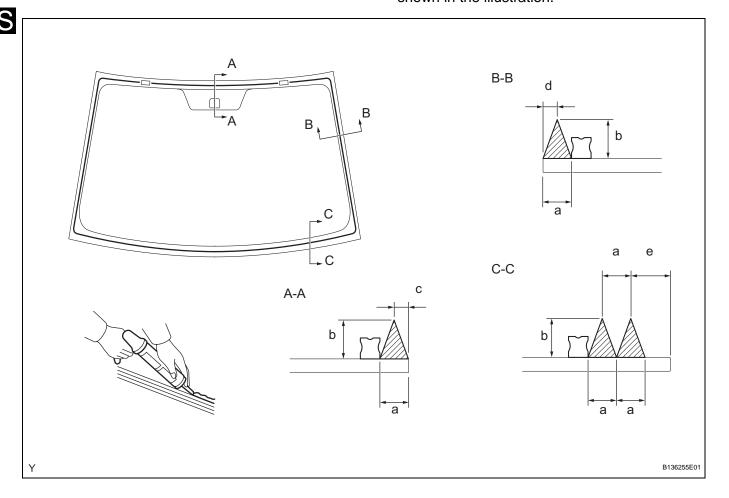
After cutting off the tip, use all the adhesive within the times indicated in the table below.

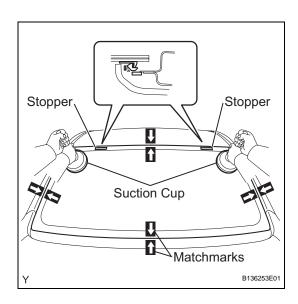
Usage time frame

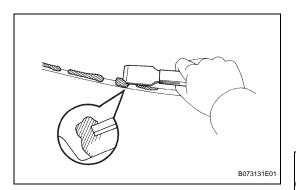
Temperature	Usage Time Frame
35°C (95°F)	15 minutes
20°C (68°F)	1 hour 40 minutes
5°C (41°F)	8 hours

- (2) Load the sealer gun with the cartridge.
- (3) Apply adhesive to the windshield glass, as shown in the illustration.









Specification

Area	Measurement
а	8 mm (0.315 in.)
b	12 mm (0.472 in.)
С	3 mm (0.118 in.)
d	3 mm (0.118 in.)
e	17.4 mm (0.685 in.)

- (e) Install the windshield glass onto the vehicle body.
 - Using suction cups, position the windshield glass so that the matchmarks are aligned. Gently press it in along the rim.

NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Check that the stoppers are attached to the vehicle body correctly.
- Check that there is a small gap between the vehicle body and the windshield glass.
- (2) Gently press the front surface of the windshield glass to ensure that the windshield glass is securely fitted to the vehicle body.

NOTICE:

Open and close the door gently to prevent the window glass from becoming loose due to the air pressure when the door is closed.

(3) Using a scraper, remove any excessive or protruding adhesive.

HINT:

Apply adhesive to the windshield glass rim.

NOTICE:

Do not drive the vehicle within the time indicated in the table below.

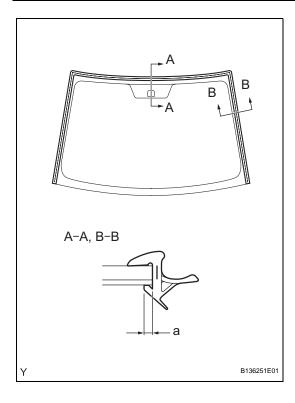
Minimum time

Temperature	Minimum time prior to driving vehicle
35°C (95°F)	1 hour 30 minutes
20°C (68°F)	5 hours
5°C (41°F)	24 hours

7. INSTALL WINDSHIELD OUTSIDE MOULDING NOTICE:

After the installation of the window glass, install the moulding before the adhesive hardens.





(a) Using a brush or sponge, coat the edge of the glass and the contact surface with Primer G.

NOTICE:

- Allow the primer coating to dry for 3 minutes or more.
- Do not coat the adhesive with Primer G.
- Throw away any leftover Primer G.
- (b) Install a new moulding onto the windshield glass, as shown in the illustration.

Specification

Area	Measurement
а	2 mm (0.0787 in.)

NOTICE:

Make sure that the moulding is securely installed.

8. CHECK FOR LEAKAGE AND REPAIR

- (a) Conduct a leak test by applying water to the adhesive portions after the adhesive has completely hardened.
- (b) Seal any leaks with auto glass sealer.
- 9. INSTALL ROOF HEADLINING ASSEMBLY
- 10. INSTALL INNER REAR VIEW MIRROR (See page MI-6)
- 11. INSTALL MAP LIGHT ASSEMBLY (See page LI-148)
- 12. INSTALL ROOM LIGHT ASSEMBLY (See page LI-151)
- 13. INSTALL VISOR HOLDER RH (See page IR-28)
- 14. INSTALL VISOR HOLDER LH (See page IR-28)
- 15. INSTALL VISOR ASSEMBLY RH (See page IR-28)
- 16. INSTALL VISOR ASSEMBLY LH (See page IR-28)
- 17. INSTALL ASSIST GRIP SUB-ASSEMBLY (See page IR-28)
- 18. INSTALL ASSIST GRIP COVER (See page IR-29)
- 19. INSTALL FRONT PILLAR GARNISH RH (See page IR-29)
- 20. INSTALL FRONT PILLAR GARNISH LH (See page IR-30)
- 21. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH (See page IR-34)
- 22. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH (See page IR-33)
- 23. INSTALL COWL SIDE TRIM BOARD RH (See page IR-34)
- 24. INSTALL COWL SIDE TRIM BOARD LH (See page IR-34)

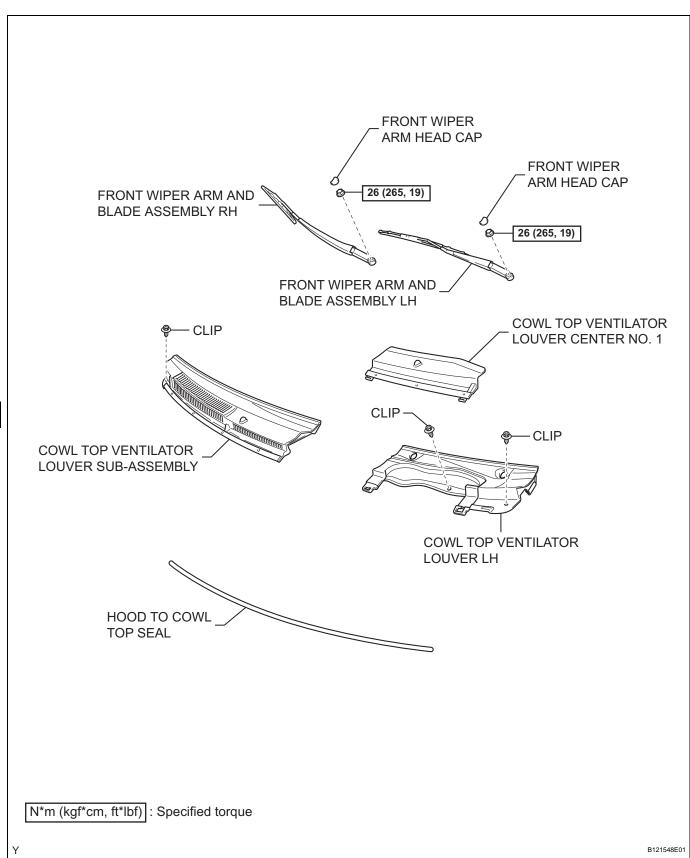


- 25. INSTALL INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY RH (See page IR-35)
- 26. INSTALL INSTRUMENT PANEL UNDER COVER SUB-ASSEMBLY LH (See page IR-35)
- 27. INSTALL FRONT DOOR SCUFF PLATE RH (See page IR-35)
- 28. INSTALL FRONT DOOR SCUFF PLATE LH (See page IR-35)
- 29. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY (See page WW-12)
- 30. INSTALL COWL SIDE VENTILATOR SUB-ASSEMBLY LH (See page WW-13)
- 31. INSTALL COWL SIDE VENTILATOR SUB-ASSEMBLY RH (See page WW-13)
- 32. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY LH (See page WW-13)
- 33. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY RH (See page WW-14)
- 34. INSTALL FRONT WIPER ARM HEAD CAP (See page WW-15)
- 35. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)
- **36. INSPECT SRS WARNING LIGHT** (See page RS-31)



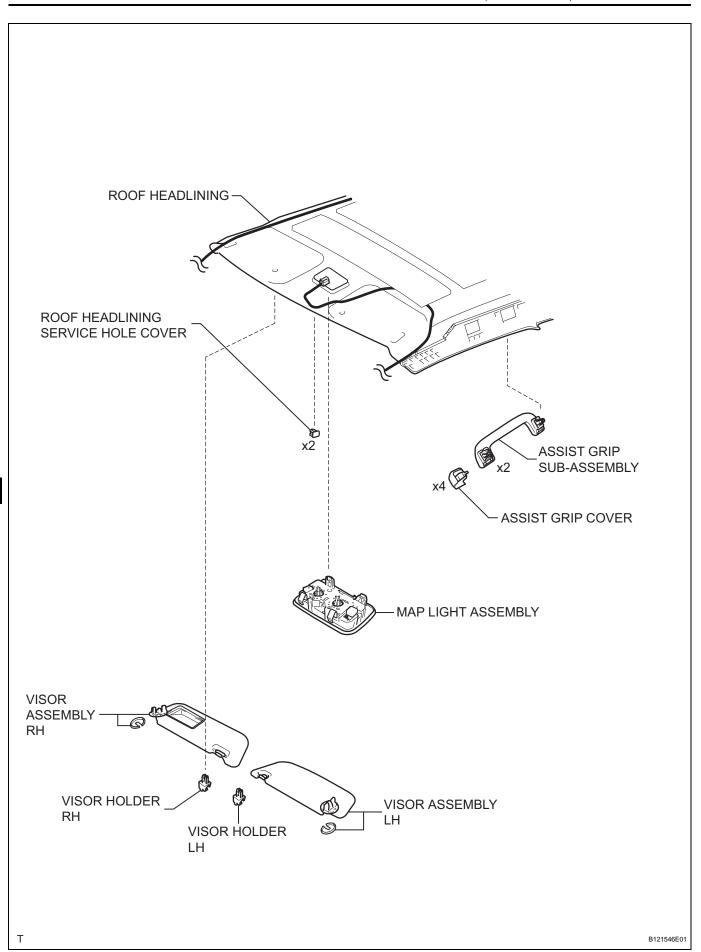
WINDSHIELD GLASS (for Hatchback)

COMPONENTS

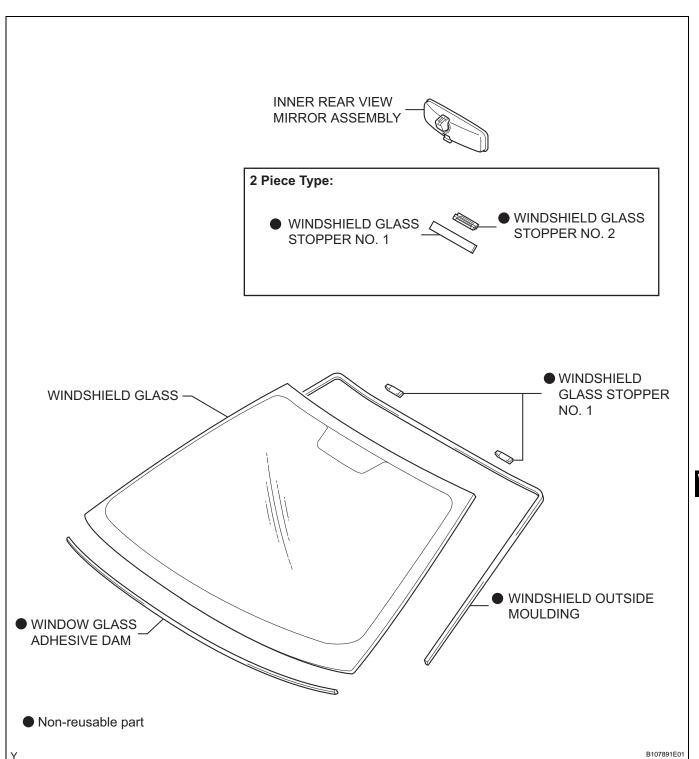




WS









REMOVAL

CAUTION:

Some of these service operations affect the SRS airbag system. Read the precautionary notices concerning the SRS airbag system before servicing (see page RS-1). NOTICE:

Always use "Torx" socket wrench E10 when removing the rear seat.

- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
 - Wait for at least 90 seconds after disconnecting the cable to prevent the airbag from working.
- 2. REMOVE FRONT WIPER ARM HEAD CAP (See page WW-17)
- 3. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY LH (See page WW-17)
- 4. REMOVE FRONT WIPER ARM AND BLADE ASSEMBLY RH (See page WW-17)
- 5. REMOVE HOOD TO COWL TOP SEAL (See page WW-18)
- 6. REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY (See page WW-18)
- 7. REMOVE COWL TOP VENTILATOR LOUVER LH (See page WW-18)
- 8. REMOVE FRONT DOOR SCUFF PLATE RH (See page IR-49)
- 9. REMOVE FRONT DOOR SCUFF PLATE LH (See page IR-49)
- 10. REMOVE COWL SIDE TRIM BOARD RH (See page IR-50)
- 11. REMOVE COWL SIDE TRIM BOARD LH (See page IR-50)
- 12. REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP RH (See page IR-50)
- 13. REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH (See page IR-50)
- 14. REMOVE ROOF HEADLINING SERVICE HOLE COVER (w/o Curtain Shield Airbag) (See page IR-55)
- 15. REMOVE ASSIST GRIP SUB-ASSEMBLY (See page IR-56)
- 16. REMOVE VISOR ASSEMBLY RH (See page IR-56)
- 17. REMOVE VISOR ASSEMBLY LH (See page IR-56)
- 18. REMOVE VISOR HOLDER RH (See page IR-56)
- 19. REMOVE VISOR HOLDER LH (See page IR-56)
- 20. REMOVE MAP LIGHT ASSEMBLY (See page LI-147)



- 21. REMOVE FRONT PILLAR GARNISH RH (See page IR-58)
- 22. REMOVE FRONT PILLAR GARNISH LH (See page IR-59)

23. REMOVE ROOF HEADLINING

HINT:

It is not necessary to remove the roof headlining completely. Slightly lower the front section of the roof headlining.

24. REMOVE INNER REAR VIEW MIRROR ASSEMBLY (See page MI-5)

25. REMOVE WINDSHIELD OUTSIDE MOULDING

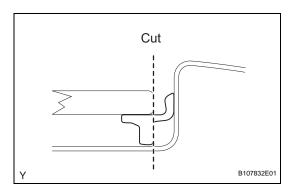
(a) Using a knife, cut off the windshield outside moulding, as shown in the illustration.

NOTICE:

Do not damage the vehicle body with the knife.

(b) Remove the windshield outside moulding. HINT:

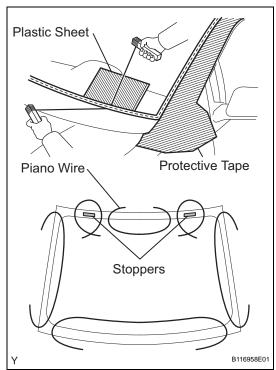
Make a partial cut in the windshield outside moulding. Then pull and remove it by hand.



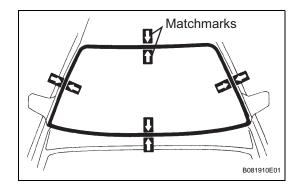


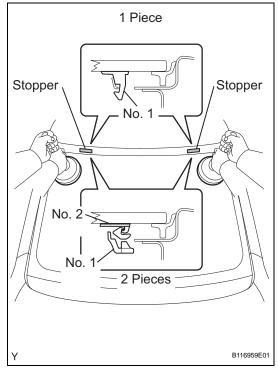
- (a) Apply protective tape to the outer circumference of the windshield glass, as shown in the illustration.
- (b) From the interior, insert piano wires between the vehicle body and the windshield glass, as shown in the illustration.
- (c) Tie objects that can serve as handles (for example, wooden blocks) to all wire ends.

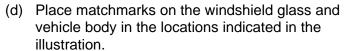
- When separating the windshield glass from the vehicle, do not damage the vehicle's paintwork or exterior/interior ornaments.
- To prevent the safety pad from being scratched when removing the windshield glass, place a plastic sheet between the piano wire and safety pad.











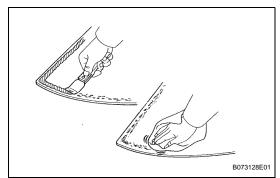
HINT:

Matchmarks do not need to be placed unless the windshield glass is going to be reused.

- (e) Cut through the adhesive by pulling the piano wire around the windshield glass.
- (f) Disengage the 2 stoppers.
- (g) Using suction cups, remove the windshield glass. **NOTICE:**

Leave as much adhesive on the vehicle body as possible when removing the windshield glass.



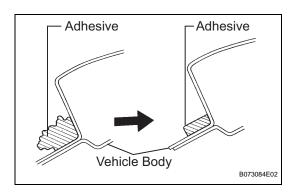


INSTALLATION

1. CLEAN WINDSHIELD GLASS

- (a) Using a scraper, remove the damaged stoppers, dam and adhesive from the windshield glass.
- (b) Clean the outer circumference of the windshield glass with a non-residue solvent.

- Do not touch the windshield glass surface after cleaning it.
- Even if using a new windshield glass, clean the windshield glass with a non-residue solvent.





- (a) Clean and shape the contact surface of the vehicle body.
 - (1) Using a knife, cut away any rough adhesive on the contact surface of the vehicle body to ensure the appropriate surface shape.

NOTICE:

Do not damage the vehicle body.

HINT:

Leave as much adhesive on the vehicle body as possible.

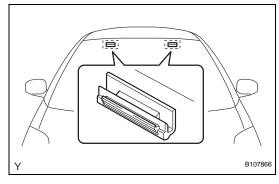
(2) Clean the contact surface of the vehicle body with a shop rag or piece of cloth saturated with cleaner.

HINT:

Clean the vehicle body even if all the adhesive has been removed.



(a) Install 2 new stoppers onto the vehicle body, as shown in the illustration.



4. INSTALL WINDSHIELD GLASS STOPPER NO. 2

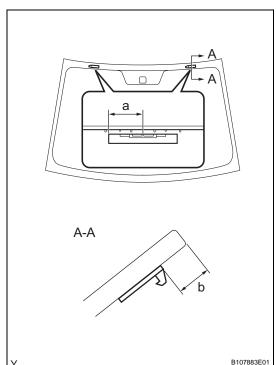
(a) Apply Primer G to the installation parts of the stoppers.

NOTICE:

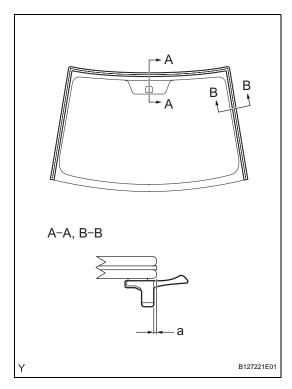
- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.
- (b) Install 2 new stoppers onto the windshield glass, as shown in the illustration.

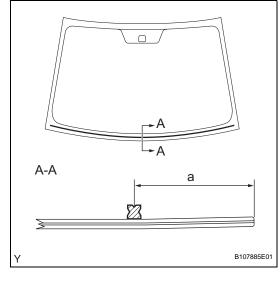
Specification

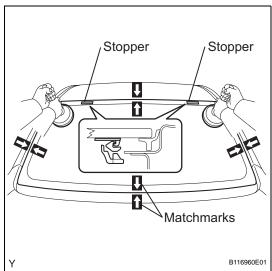
Area	Measurement
а	40 mm (1.57 in.)
b	14.5 mm (0.571 in.)











5. INSTALL WINDSHIELD OUTSIDE MOULDING

(a) Using a brush or sponge, coat the edge of the glass and the contact surface with Primer G.

NOTICE:

- Allow the primer coating to dry for 3 minutes or more.
- Do not coat the adhesive with Primer G.
- Throw away any leftover Primer G.
- (b) Install the moulding onto the windshield glass, as shown in the illustration.

Specification

Area	Measurement
а	0.1 mm (0.004 in.)

6. INSTALL WINDOW GLASS ADHESIVE DAM

(a) Apply Primer G to the installation part of a new dam, as shown in the illustration.

NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.
- (b) Install the new dam with double-sided tape as shown in the illustration.

Specification

Area	Measurement
а	32 mm (1.26 in.)

7. INSTALL WINDSHIELD GLASS

- (a) Position the windshield glass.
 - (1) Using suction cups, place the windshield glass in the correct position.
 - (2) Check that the entire contact surface of the windshield glass rim is perfectly even.
 - (3) Place matchmarks on the windshield glass and vehicle body.

NOTICE:

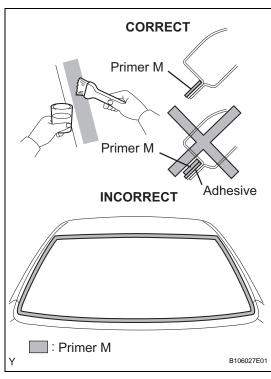
Check that the stoppers are correctly attached to the vehicle body.

HINT:

When reusing a windshield glass, check and correct the matchmark positions.

(4) Using suction cups, remove the windshield glass.

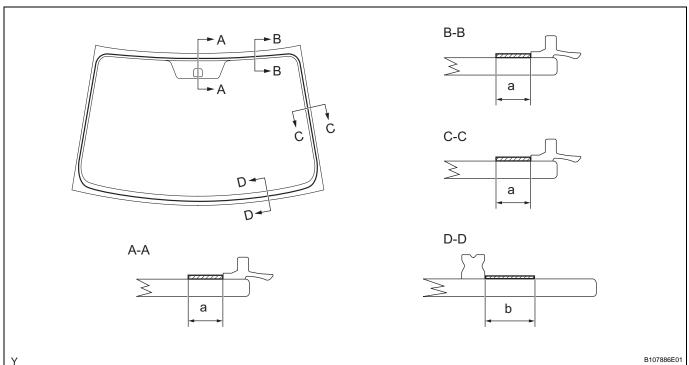




(b) Using a brush, apply Primer M to the exposed part of the vehicle body.

NOTICE:

- · Allow the primer to dry for 3 minutes or more.
- Do not apply Primer M to the adhesive.
- Throw away any leftover Primer M.
- · Do not apply too much Primer M.
- (c) Using a brush or sponge, apply Primer G to the edge of the windshield glass and the contact surface.

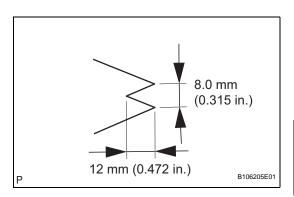


Specification

Area	Measurement
а	8.0 mm (0.315 in.)
b	19 mm (0.748 in.)

- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.





HINT:

If Primer G is applied to any areas other than those specified, wipe off the primer with a clean shop rag or piece of cloth before it dries.

(d) Apply adhesive.

Adhesive:

Part No. 08850-00801 or the equivalent

(1) Cut the tip off the cartridge nozzle, as shown in the illustration.

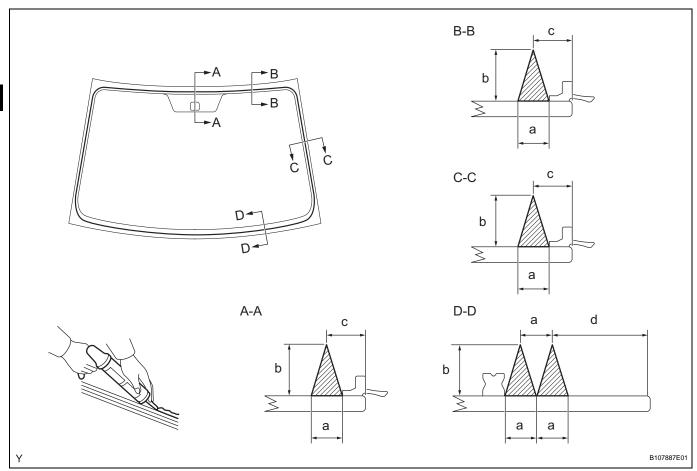
HINT:

After cutting off the tip, use all adhesive within the times indicated in the table below.

Usage Time Frame

Temperature	Usage Time Frame
35°C (95°F)	15 minutes
20°C (68°F)	1 hour 40 minutes
5°C (41°F)	8 hours

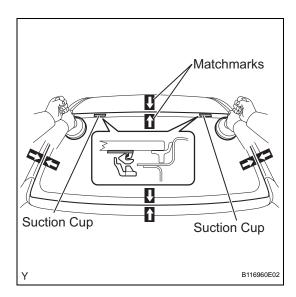
- (2) Load the sealer gun with the cartridge.
- (3) Apply adhesive to the windshield glass, as shown in the illustration.

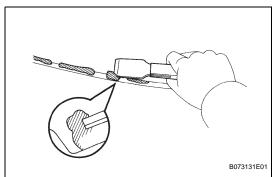


Specification

Area	Measurement
а	8 mm (0.315 in.)
b	12 mm (0.472 in.)
С	10 mm (0.394 in.)







Area	Measurement
d	17.5 mm (0.689 in.)

- (e) Install the windshield glass onto the vehicle body.
 - Using suction cups, position the windshield glass so that the matchmarks are aligned. Gently press it in along the rim.

NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Check that the stoppers are attached to the vehicle body correctly.
- Check that there is a small gap between the vehicle body and the windshield glass.
- (2) Gently press the front surface of the windshield glass to ensure that the windshield glass is securely fitted to the vehicle body.
- (3) Using a scraper, remove any excessive or protruding adhesive.

HINT:

Apply adhesive to the windshield glass rim.

NOTICE:

Do not to drive the vehicle within the time indicated in the table below.

Minimum Time

Temperature	Minimum time prior to driving vehicle
35°C (95°F)	1 hour 30 minutes
20°C (68°F)	5 hours
5°C (41°F)	24 hours

8. CHECK FOR LEAKAGE AND REPAIR

- (a) Conduct a leak test after the adhesive has completely hardened.
- (b) Seal any leaks with auto glass sealer.
- 9. INSTALL INNER REAR VIEW MIRROR ASSEMBLY (See page MI-6)
- 10. INSTALL ROOF HEADLINING
- 11. INSTALL FRONT PILLAR GARNISH RH (See page IR-71)
- 12. INSTALL FRONT PILLAR GARNISH LH (See page IR-72)
- 13. INSTALL MAP LIGHT ASSEMBLY (See page LI-148)
- 14. INSTALL VISOR HOLDER RH (See page IR-75)
- 15. INSTALL VISOR HOLDER LH (See page IR-75)
- 16. INSTALL VISOR ASSEMBLY RH (See page IR-75)
- 17. INSTALL VISOR ASSEMBLY LH (See page IR-75)

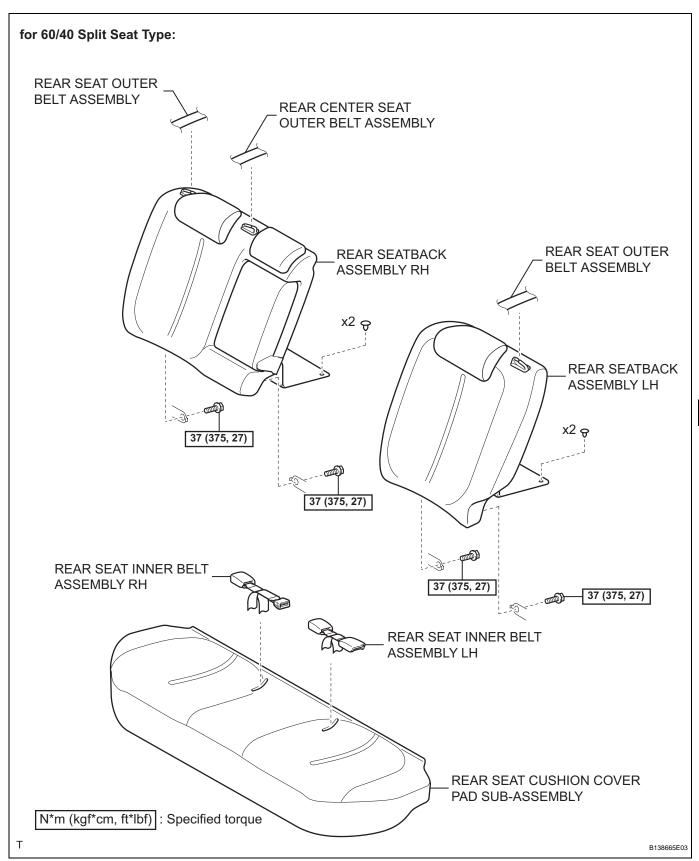


- 18. INSTALL ASSIST GRIP SUB-ASSEMBLY (See page IR-75)
- 19. INSTALL ROOF HEADLINING SERVICE HOLE COVER (w/o Curtain Shield Airbag) (See page IR-76)
- 20. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP RH (See page IR-81)
- 21. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP LH (See page IR-81)
- 22. INSTALL COWL SIDE TRIM BOARD RH (See page IR-81)
- 23. INSTALL COWL SIDE TRIM BOARD LH (See page IR-81)
- 24. INSTALL FRONT DOOR SCUFF PLATE RH (See page IR-82)
- 25. INSTALL FRONT DOOR SCUFF PLATE LH (See page IR-82)
- 26. INSTALL COWL TOP VENTILATOR LOUVER LH (See page WW-21)
- 27. INSTALL COWL TOP VENTILATOR LOUVER SUB-ASSEMBLY (See page WW-21)
- 28. INSTALL HOOD TO COWL TOP SEAL (See page WW-22)
- 29. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY LH (See page WW-22)
- 30. INSTALL FRONT WIPER ARM AND BLADE ASSEMBLY RH (See page WW-23)
- 31. INSTALL FRONT WIPER ARM HEAD CAP (See page WW-23)
- 32. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)
- **33. INSPECT SRS WARNING LIGHT** (See page RS-31).

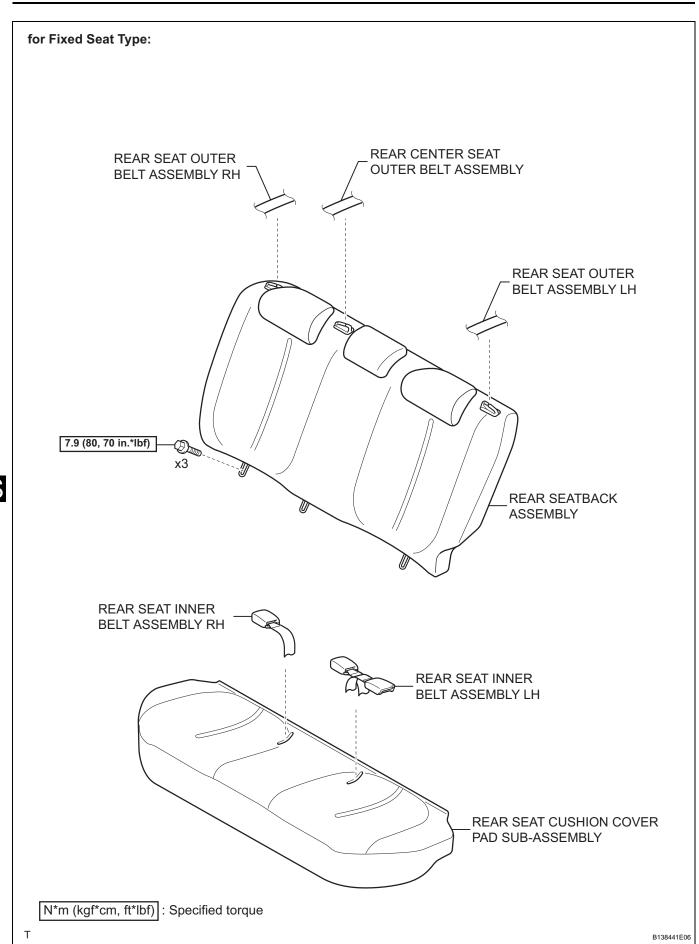


BACK WINDOW GLASS (for Sedan)

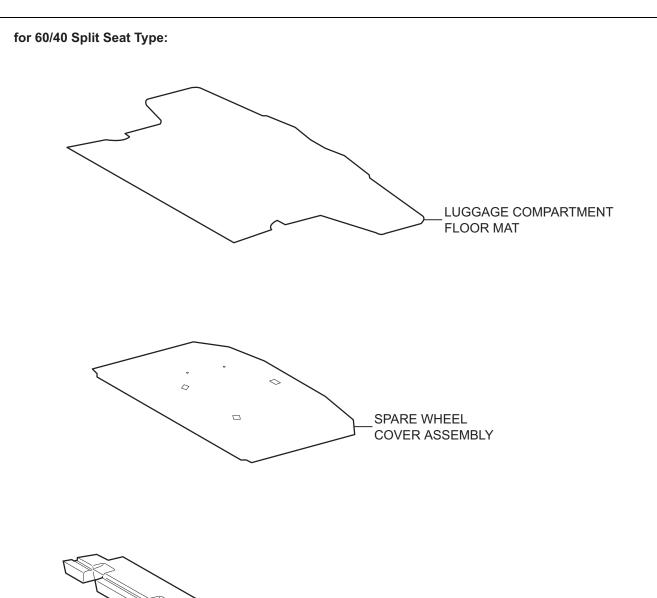
COMPONENTS



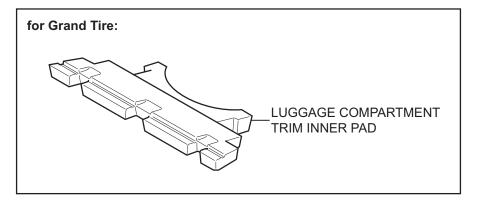




WS

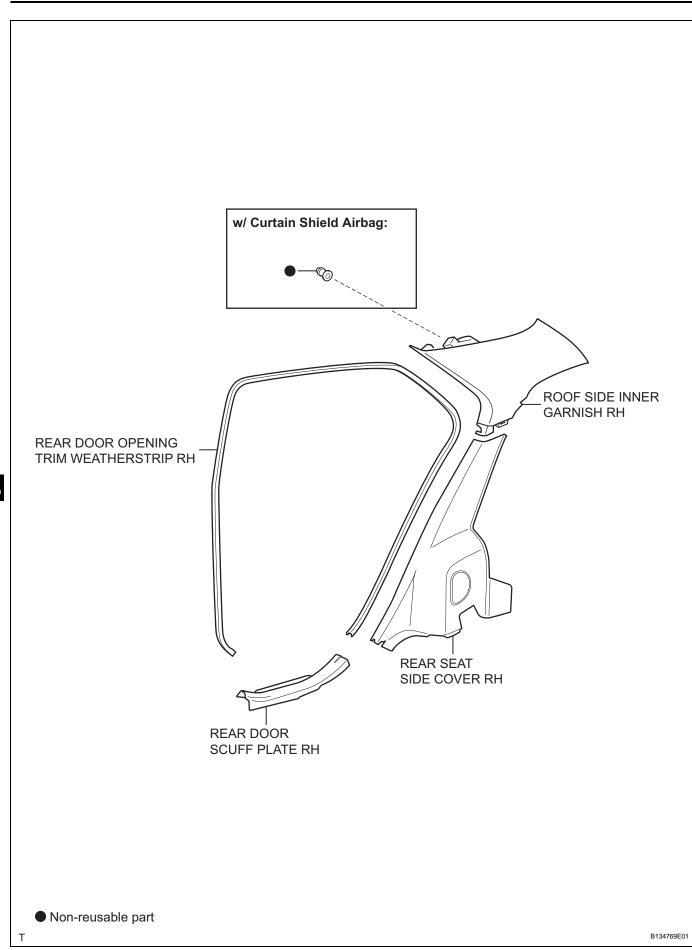




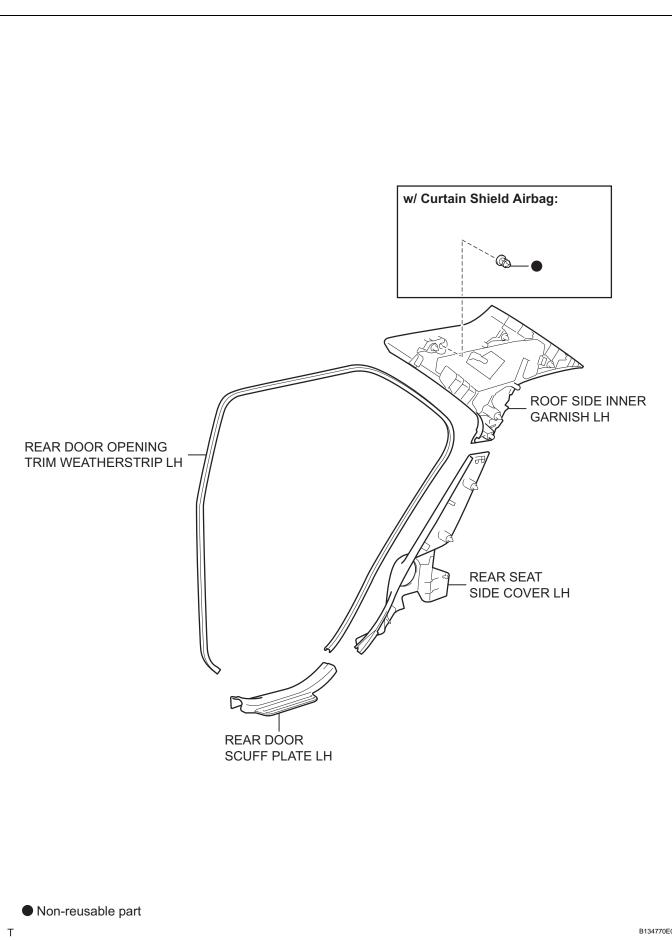


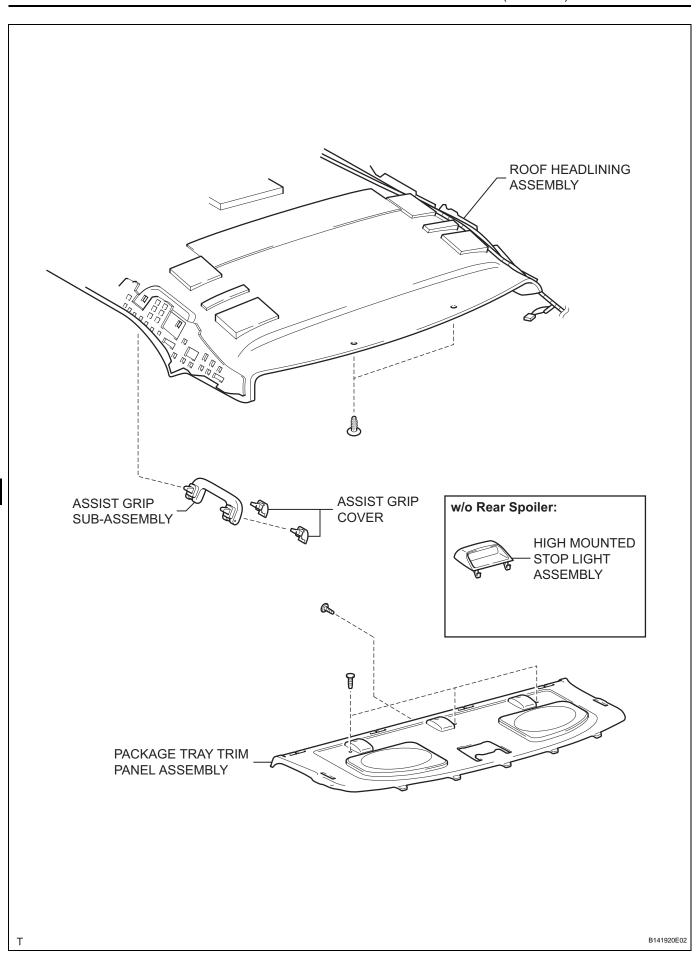
WS

B138565E01



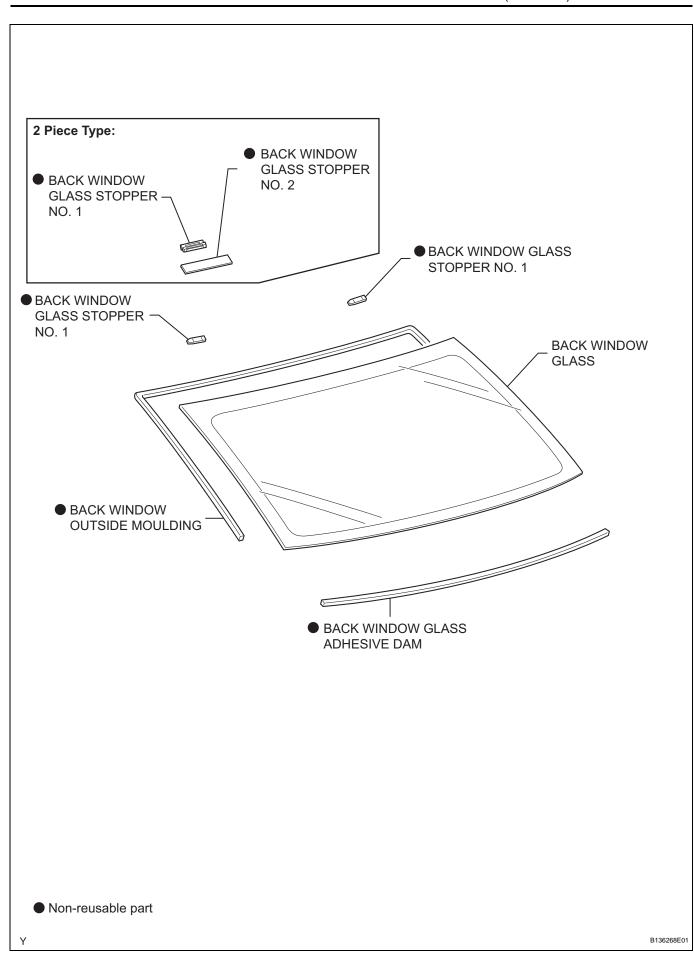












REMOVAL

CAUTION:

Some of these service operations affect the SRS airbag system. Read the precautionary notices concerning the SRS airbag system before servicing (see page RS-1). NOTICE:

Always use "Torx" socket wrench E10 when removing the rear seat.

- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
 - Wait for at least 90 seconds after disconnecting the cable to prevent the airbag from working.
- 2. REMOVE REAR SEAT CUSHION COVER PAD SUB-ASSEMBLY (See page IR-13)
- 3. REMOVE REAR SEATBACK ASSEMBLY RH (for 60/ 40 Split Seat Type) (See page SE-57)
- 4. REMOVE REAR SEATBACK ASSEMBLY LH (for 60/40 Split Seat Type) (See page SE-46)
- 5. REMOVE REAR SEATBACK ASSEMBLY (for Fixed Seat Type) (See page SE-106)
- 6. REMOVE SPARE WHEEL COVER ASSEMBLY (for 60/ 40 Split Seat Type) (See page ED-133)
- 7. REMOVE LUGGAGE COMPARTMENT FLOOR MAT (for 60/40 Split Seat Type) (See page ED-134)
- 8. REMOVE LUGGAGE COMPARTMENT TRIM INNER PAD (for 60/40 Split Seat Type) (See page ED-134)
- 9. REMOVE REAR DOOR SCUFF PLATE RH (See page IR-15)
- 10. REMOVE REAR DOOR SCUFF PLATE LH (See page IR-15)
- 11. REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP RH (See page IR-15)
- 12. REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP LH (See page IR-15)
- 13. REMOVE REAR SEAT SIDE COVER RH (See page IR16)
- 14. REMOVE REAR SEAT SIDE COVER LH (See page IR16)
- 15. REMOVE ROOF SIDE INNER GARNISH RH (See page IR-16)
- 16. REMOVE ROOF SIDE INNER GARNISH LH (See page IR-16)
- 17. REMOVE ASSIST GRIP COVER (See page IR-21)
- 18. REMOVE ASSIST GRIP SUB-ASSEMBLY (See page IR-21)



- 19. REMOVE HIGH MOUNTED STOP LIGHT ASSEMBLY (w/o Rear Spoiler) (See page LI-141)
- 20. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY (See page AV-173)
- 21. REMOVE ROOF HEADLINING ASSEMBLY HINT:

It is not necessary to remove the roof headlining completely. Slightly lower the rear section of the roof headlining.

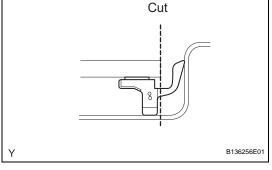


(a) Using a knife, cut off the back window outside moulding, as shown in the illustration.NOTICE:

Do not damage the vehicle body with the knife.

(b) Remove the back window outside moulding.

Make a partial cut in the back window outside moulding. Then pull and remove it by hand.

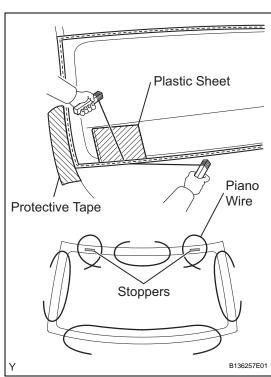


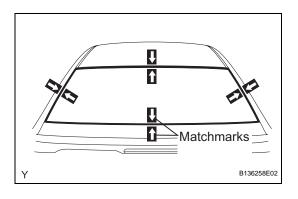
23. REMOVE BACK WINDOW GLASS

- (a) Apply protective tape to the outer circumference of the back window glass, as shown in the illustration.
- (b) From the interior, insert piano wires between the vehicle body and the back window glass, as shown in the illustration.
- (c) Tie objects that can serve as handles (for example, wooden blocks) to all wire ends.

NOTICE:

- When separating the back window glass from the vehicle, do not damage the vehicle's paintwork or exterior/interior ornaments.
- To prevent the safety pad from being scratched when removing the back window glass, place a plastic sheet between the piano wire and safety pad.





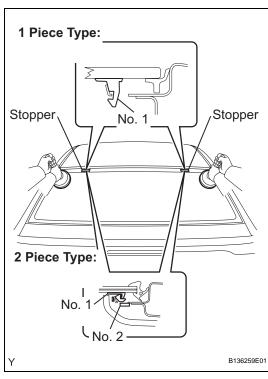
(d) Place matchmarks on the back window glass and vehicle body in the locations indicated in the illustration.

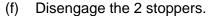
HINT:

Matchmarks do not need to be placed unless the back window glass is going to be reused.

(e) Cut through the adhesive by pulling the piano wire around the back window glass.

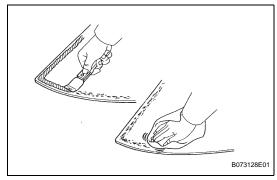






(g) Using suction cups, remove the back window glass. **NOTICE:**

Leave as much adhesive on the vehicle body as possible when removing the back window glass.



Vehicle Body

Adhesive

Adhesive

INSTALLATION

1. CLEAN BACK WINDOW GLASS

- (a) Using a scraper, remove the stoppers, dam and adhesive from the back window glass.
- (b) Clean the outer circumference of the back window glass with a non-residue solvent.

NOTICE:

- Do not touch the back window glass surface after cleaning it.
- Even if using a new back window glass, clean the back window glass with a non-residue solvent.

2. CLEAN VEHICLE BODY

- (a) Clean and shape the contact surface of the vehicle body.
 - (1) Using a knife, cut away any rough adhesive on the contact surface of the vehicle body to ensure the appropriate surface shape.

NOTICE:

Do not damage the vehicle body.

HINT:

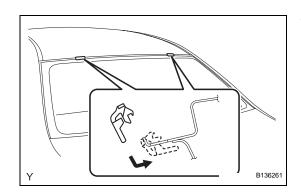
Leave as much adhesive on the vehicle body as possible.

(2) Clean the contact surface of the vehicle body with a shop rag or piece of cloth saturated with cleaner.

HINT:

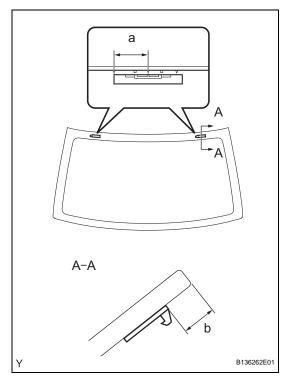
Clean the vehicle body even if all the adhesive has been removed.





3. INSTALL BACK WINDOW GLASS STOPPER NO. 1

(a) Install 2 new stoppers onto the vehicle body, as shown in the illustration.



4. INSTALL BACK WINDOW GLASS STOPPER NO. 2

(a) Apply Primer G to the installation parts of the stoppers.

NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.
- (b) Install 2 new stoppers onto the windshield glass, as shown in the illustration.

Specification

Area	Measurement
а	40 mm (1.57 in.)
b	14.9 mm (0.587 in.)

5. INSTALL BACK WINDOW GLASS ADHESIVE DAM

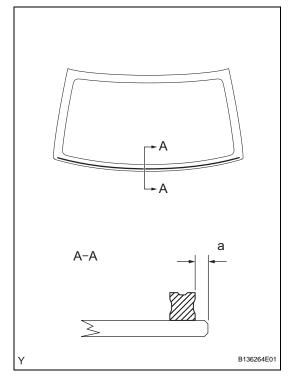
(a) Apply Primer G to the installation part of a new dam, as shown in the illustration.

NOTICE:

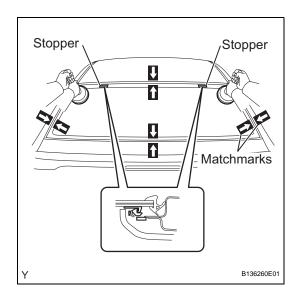
- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.
- (b) Install the new dam with double-sided tape as shown in the illustration.

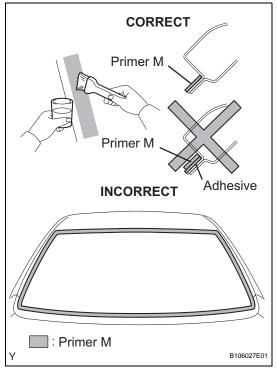
Specification

Area	Measurement
а	4.0 mm (0.157 in.)









6. INSTALL BACK WINDOW GLASS

- (a) Position the back window glass.
 - (1) Using suction cups, place the back window glass in the correct position.
 - (2) Check that the entire contact surface of the back window glass rim is perfectly even.
 - (3) Place matchmarks on the back window glass and vehicle body.

NOTICE:

Check that the stoppers are correctly attached to the vehicle body.

HINT:

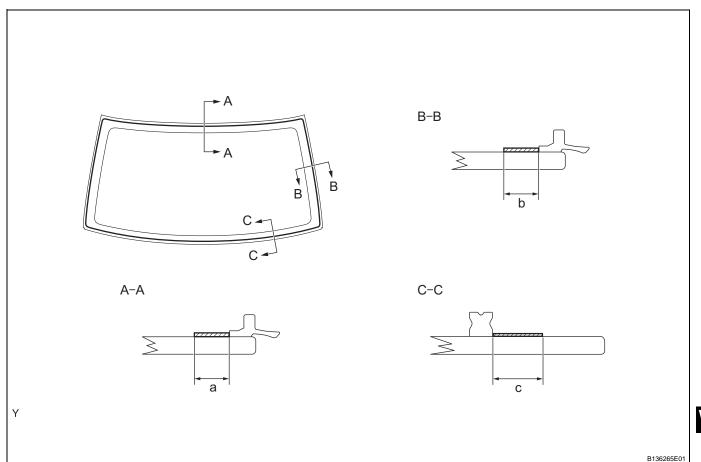
When reusing the back window glass, check and correct the matchmark positions.

- (4) Using suction cups, remove the back window glass.
- (b) Using a brush, apply Primer M to the exposed part of the vehicle body.

- Allow the primer to dry for 3 minutes or more.
- Do not apply Primer M to the adhesive.
- Throw away any leftover Primer M.
- Do not apply too much Primer M.



(c) Using a brush or sponge, apply Primer G to the edge of the back window glass and the contact surface.



Specification

Area	Measurement
а	11 mm (0.433 in.)
b	11 mm (0.433 in.)
С	11 mm (0.433 in.)

NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.

HINT

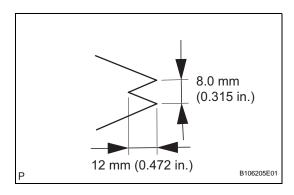
If Primer G is applied to any areas other than those specified, wipe off the primer with a clean shop rag or piece of cloth before it dries.

(d) Apply adhesive.

Adhesive:

Toyota Genuine Windshield Glass Adhesive or the equivalent.





(1) Cut the tip off the cartridge nozzle, as shown in the illustration.

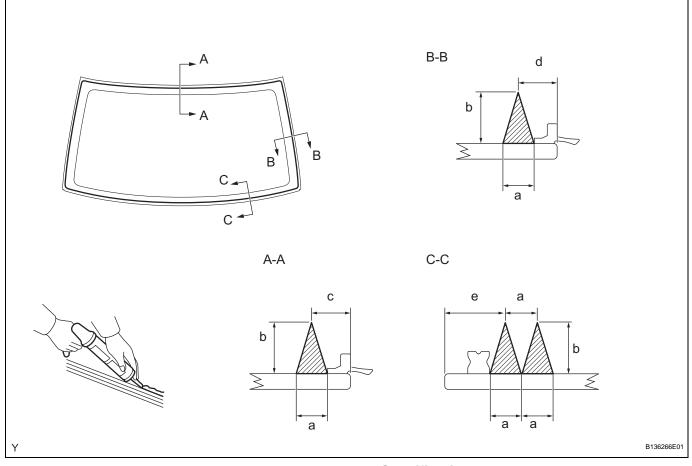
HINT:

After cutting off the tip, use all the adhesive within the times indicated in the table below.

Usage time frame

Temperature	Usage Time Frame
35°C (95°F)	15 minutes
20°C (68°F)	1 hour 40 minutes
5°C (41°F)	8 hours

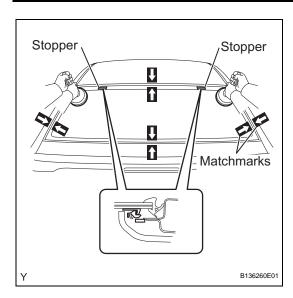
- (2) Load the sealer gun with the cartridge.
- (3) Apply adhesive to the back window glass, as shown in the illustration.

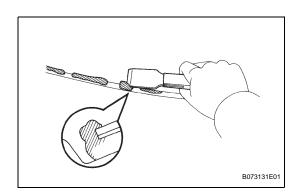


Specification

Area	Measurement
а	8 mm (0.315 in.)
b	12 mm (0.472 in.)
С	9.3 mm (0.366 in.)
d	9.4 mm (0.370 in.)
е	13 mm (0.512 in.)







- (e) Install the back window glass onto the vehicle body.
 - Using suction cups, position the back window glass so that the matchmarks are aligned. Gently press it in along the rim.

NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Check that the stoppers are attached to the vehicle body correctly.
- Check that there is a small gap between the vehicle body and the back window glass.
- (2) Gently press the front surface of the back window glass to ensure that the back window glass is securely fitted to the vehicle body. NOTICE:

Open and close the door gently to prevent the window glass from becoming loose due to the air pressure when the door is closed.

(3) Using a scraper, remove any excessive or protruding adhesive.

HINT:

Apply adhesive to the back window glass rim.

NOTICE:

Do not to drive the vehicle within the time indicated in the table below.

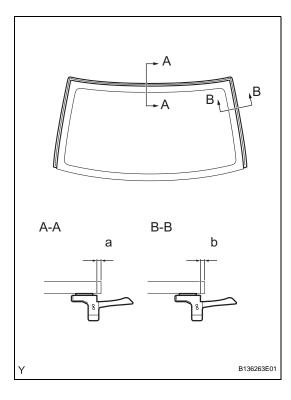
Minimum time

Temperature	Minimum time prior to driving vehicle
35°C (95°F)	1 hour 30 minutes
20°C (68°F)	5 hours
5°C (41°F)	24 hours

7. INSTALL BACK WINDOW OUTSIDE MOULDING NOTICE:

After the installation of the window glass, install the moulding before the adhesive hardens.





(a) Using a brush or sponge, coat the edge of the glass and the contact surface with Primer G.

NOTICE:

- Allow the primer coating to dry for 3 minutes or more.
- Do not coat the adhesive with Primer G.
- Throw away any leftover Primer G.
- (b) Install a new moulding onto the back window glass, as shown in the illustration.

Specification

Area	Measurement
а	1.9 mm (0.075 in.)
b	1.0 mm (0.039 in.)

NOTICE:

Make sure that the moulding is securely installed.

8. CHECK FOR LEAKAGE AND REPAIR

- (a) Conduct a leak test by applying water to the adhesive portions after the adhesive has completely hardened.
- (b) Seal any leaks with auto glass sealer.
- 9. INSTALL ROOF HEADLINING ASSEMBLY
- 10. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY (See page AV-174)
- 11. INSTALL HIGH MOUNTED STOP LIGHT ASSEMBLY (w/o Rear Spoiler) (See page LI-142)
- 12. INSTALL ASSIST GRIP SUB-ASSEMBLY (See page IR-28)
- 13. INSTALL ASSIST GRIP COVER (See page IR-29)
- 14. INSTALL ROOF SIDE INNER GARNISH RH (See page IR-32)
- 15. INSTALL ROOF SIDE INNER GARNISH LH (See page IR-33)
- 16. INSTALL REAR SEAT SIDE COVER RH (See page IR-33)
- 17. INSTALL REAR SEAT SIDE COVER LH (See page IR-33)
- 18. INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP RH (See page IR-33)
- 19. INSTALL REAR DOOR OPENING TRIM WEATHERSTRIP LH (See page IR-33)
- 20. INSTALL REAR DOOR SCUFF PLATE RH (See page IR-34)
- 21. INSTALL REAR DOOR SCUFF PLATE LH (See page IR-34)

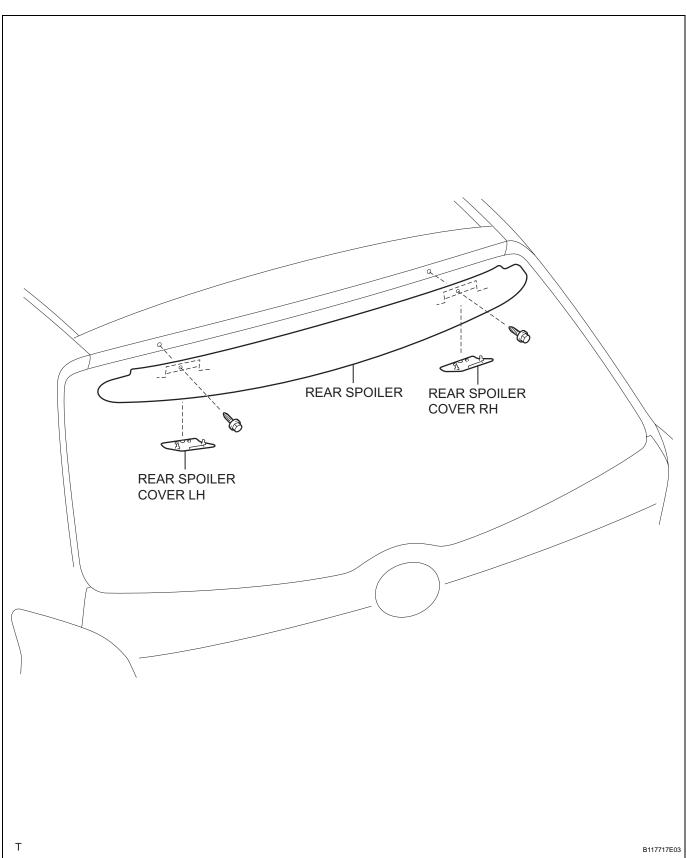


- 22. INSTALL LUGGAGE COMPARTMENT TRIM INNER PAD (for 60/40 Split Seat Type) (See page ED-136)
- 23. INSTALL SPARE WHEEL COVER ASSEMBLY (for 60/40 Split Seat Type) (See page ED-137)
- 24. INSTALL LUGGAGE COMPARTMENT FLOOR MAT (for 60/40 Split Seat Type) (See page ED-137)
- 25. INSTALL REAR SEATBACK ASSEMBLY RH (for 60/40 Split Seat Type) (See page SE-65)
- 26. INSTALL REAR SEATBACK ASSEMBLY LH (for 60/40 Split Seat Type) (See page SE-52)
- 27. INSTALL REAR SEATBACK ASSEMBLY (for Fixed Seat Type) (See page SE-108)
- 28. INSTALL REAR SEAT CUSHION COVER PAD SUB-ASSEMBLY (See page IR-36)
- 29. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)
- **30. INSPECT SRS WARNING LIGHT** (See page RS-31)



BACK DOOR GLASS (for Hatchback)

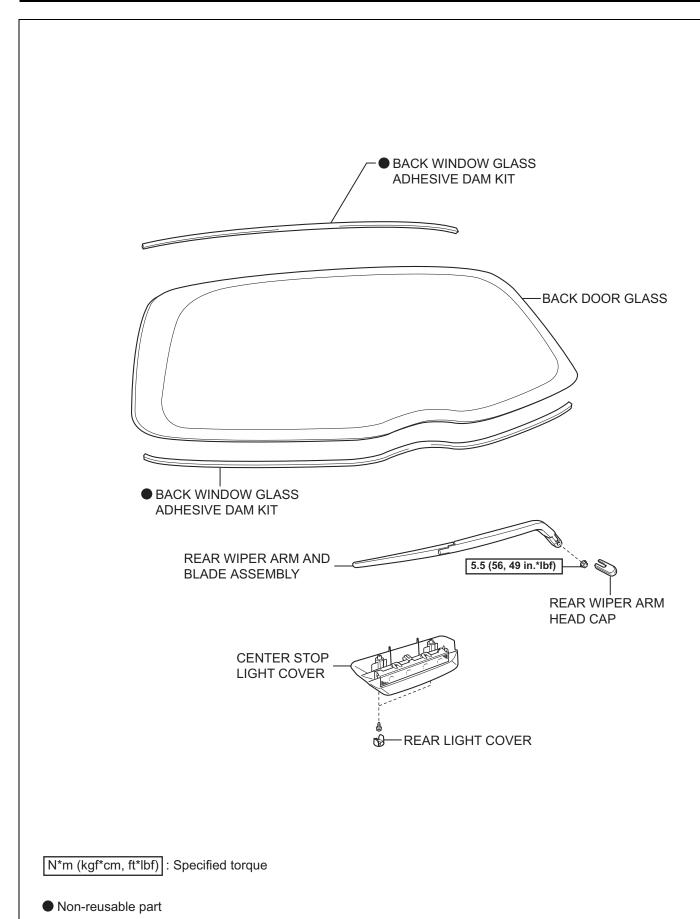
COMPONENTS







B127214E01



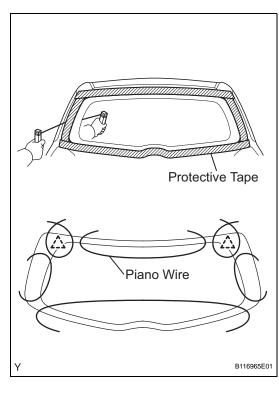
REMOVAL

- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL
- 2. REMOVE REAR SPOILER COVER LH (See page ET-81)
- 3. REMOVE REAR SPOILER COVER RH (See page ET-81)
- 4. REMOVE REAR SPOILER (See page ET-81)
- 5. REMOVE CENTER STOP LIGHT COVER (See page LI-144)
- 6. REMOVE REAR WIPER ARM AND BLADE ASSEMBLY (See page WW-28)
- 7. REMOVE BACK DOOR GLASS
 - (a) Apply protective tape to the outer circumference of the back door glass, as shown in the illustration.
 - (b) From the interior, insert piano wires between the vehicle body and back door glass, as shown in the illustration.
 - (c) Tie objects that can serve as handles (for example, wooden blocks) to all wire ends.

NOTICE:

When separating the back door glass from the vehicle, do not damage the vehicle's paint or exterior/interior ornaments.

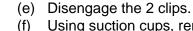
(d) Cut through the adhesive by pulling the piano wire around the back door glass.



Suction

B116966E01

Cup



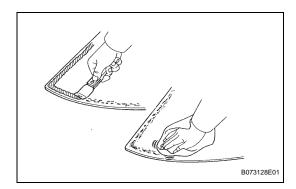
(f) Using suction cups, remove the back door glass. **NOTICE:**

Leave as much adhesive on the vehicle body as possible when removing the back door glass.



Suction

Cup



Adhesive Adhesive Vehicle Body B073084E02

INSTALLATION

1. CLEAN BACK DOOR GLASS

- (a) Using a scraper, remove the clips, dam and adhesive sticking to the back door glass.
- (b) Clean the outer circumference of the back door glass with a non-residue solvent.

NOTICE:

- Do not touch the back door glass surface after cleaning it.
- Even if using a new back door glass, clean the back door glass with a non-residue solvent.

HINT:

Since the pin is for positioning the glass, there is no need to replace it with a new one when reusing the glass, even if damaged.

2. CLEAN VEHICLE BODY

- (a) Clean and shape the contact surface of the vehicle body.
 - (1) Using a knife, cut away any rough adhesive on the contact surface of the vehicle body to ensure the appropriate surface shape.

NOTICE:

Do not damage the vehicle body.

HINT:

Leave as much adhesive on the vehicle body as possible.

(2) Clean the contact surface of the vehicle body with a shop rag or piece of cloth saturated with cleaner.

HINT:

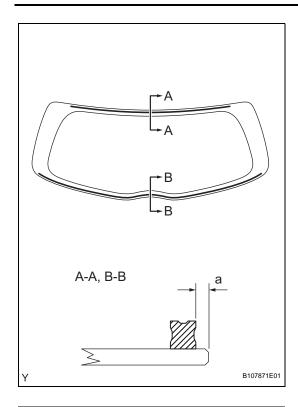
Clean the vehicle body even if all the adhesive has been removed.

3. INSTALL BACK WINDOW GLASS ADHESIVE DAM KIT

(a) Apply Primer G to the glass where the dams will be installed.

- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.

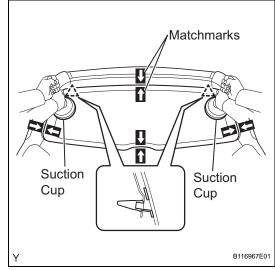


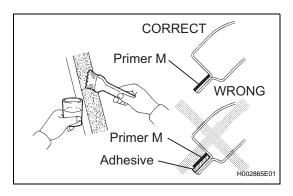


(b) Install 2 new back door glass adhesive dams as shown in the illustration.

Specification

Area	Measurement
а	4.2 mm (0.165 in.)





4. INSTALL BACK DOOR GLASS

- (a) Position the back door glass.
 - (1) Using suction cups, place the back door glass in the correct position.
 - (2) Check that the whole contact surface of the back door glass rim is perfectly even.
 - (3) Place matchmarks on the back door glass and vehicle body.

NOTICE:

Check that the stoppers are attached to the vehicle body correctly.

HINT:

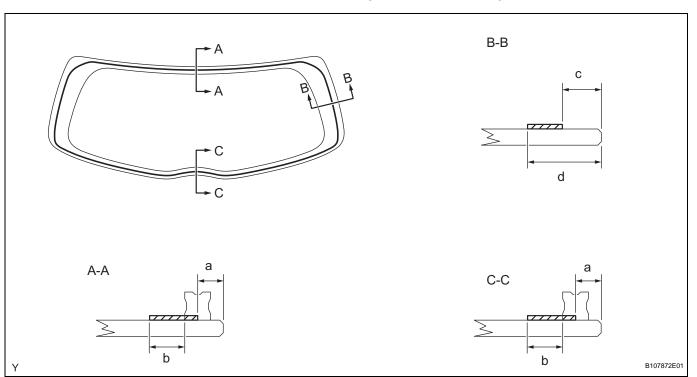
When reusing the back door glass, check and correct the matchmark positions.

- (4) Using suction cups, remove the back door glass.
- (b) Using a brush, apply Primer M to the exposed part of the vehicle body.

- Allow the primer to dry for 3 minutes or more.
- Do not apply Primer M to the adhesive.
- Throw away any leftover Primer M.
- Do not apply too much Primer M.



(c) Using a brush or sponge, apply Primer G to the edge of the back door glass and contact surface.



NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.

HINT:

If Primer G is applied to any areas other than those specified, wipe off the primer with a clean shop rag or piece of cloth before it dries.

Specification

Area	Measurement
а	6.9 mm (0.272 in.)
b	11.0 mm (0.433 in.)
С	26.7 mm (1.051 in.)
d	40.7 mm (1.602 in.)

(d) Apply adhesive.

Adhesive:

Part No. 08850-00801 or the equivalent

(1) Cut off the tip of the cartridge nozzle, as shown in the illustration.

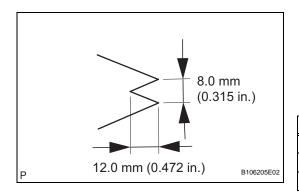
HINT:

After cutting off the tip, use all adhesive within the time indicated in the table below.

Usage time frame

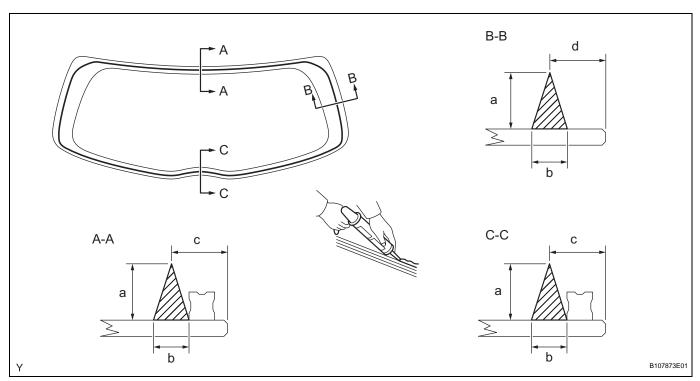
Temperature	Usage Time Frame
35°C (95°F)	15 minutes
20°C (68°F)	1 hour 40 minutes
5°C (41°F)	8 hours

(2) Load the sealer gun with the cartridge.

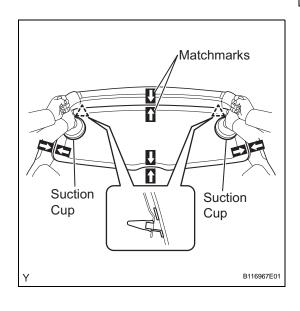




(3) Apply adhesive to the back door glass, as shown in the illustration.





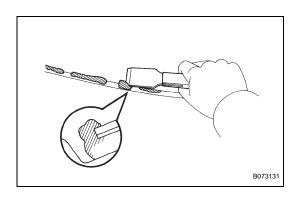


Specification

Area	Measurement
а	12.0 mm (0.472 in.)
b	8.0 mm (0.315 in.)
С	13.5 mm (0.532 in.)
d	33.7 mm (1.327 in.)

- (e) Install the back door glass onto the vehicle body.
 - Using suction cups, position the back door glass so that the matchmarks are aligned. Press it in gently along the rim.

- Allow the primer to dry for 3 minutes or more.
- Check that the stoppers are attached to the vehicle body correctly.
- Check that the vehicle body and back door glass have a small gap between them.
- (2) Gently press the front surface of the back door glass to ensure that the back door glass is securely fitted to the vehicle body.



(3) Using a scraper, remove any excessive or protruding adhesive.

HINT:

Apply adhesive onto the back door glass rim.

NOTICE:

Do not to drive the vehicle within the time indicated in the table below.

Minimum time

Temperature	Minimum time prior to driving vehicle
35°C (95°F)	1 hour 30 minutes
20°C (68°F)	5 hours
5°C (41°F)	24 hours

5. CHECK FOR LEAKAGE AND REPAIR

- (a) Conduct a leak test after the adhesive has completely hardened.
- (b) Seal any leakage with auto glass sealer.
- 6. INSTALL REAR WIPER ARM AND BLADE ASSEMBLY (See page WW-30)
- 7. INSTALL CENTER STOP LIGHT COVER (See page LI-145)
- 8. INSTALL REAR SPOILER (See page ET-81)
- 9. INSTALL REAR SPOILER COVER LH (See page ET-82)
- 10. INSTALL REAR SPOILER COVER RH (See page ET-82)

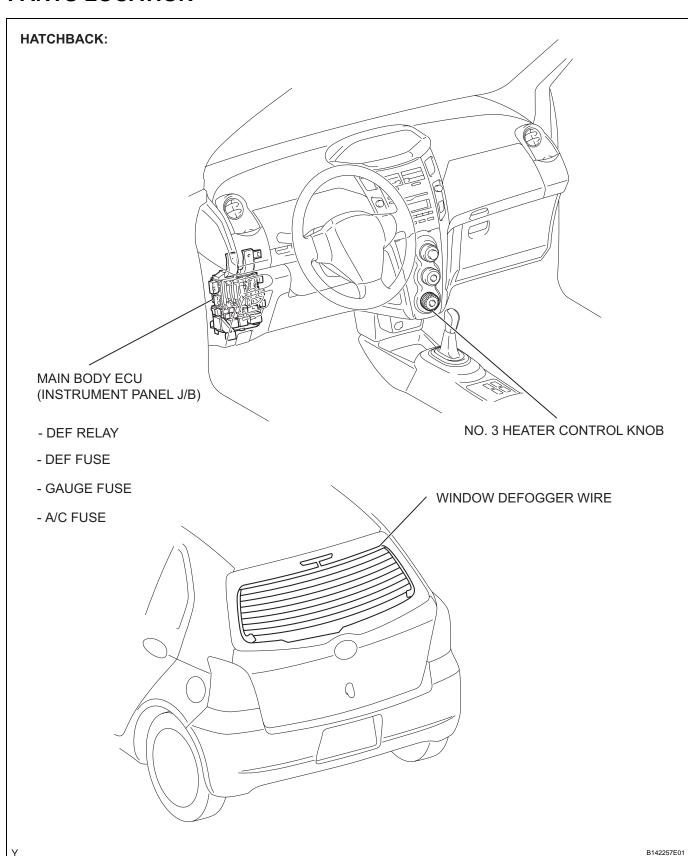


Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

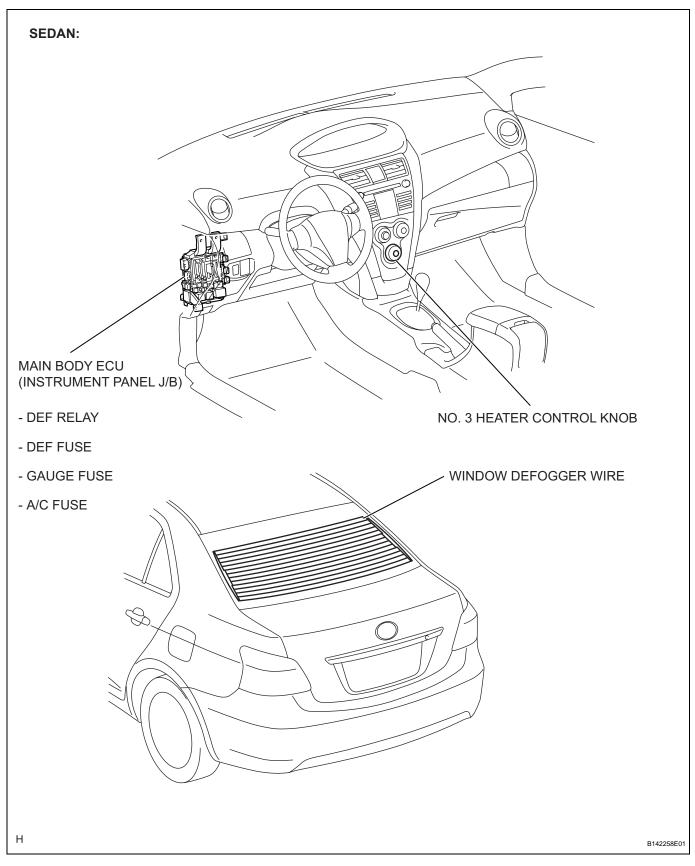


WINDOW DEFOGGER SYSTEM

PARTS LOCATION

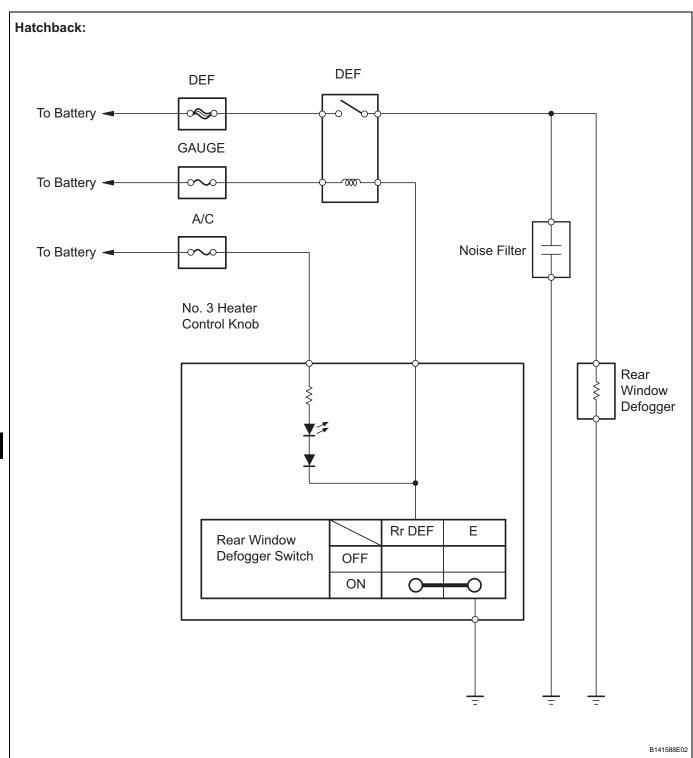




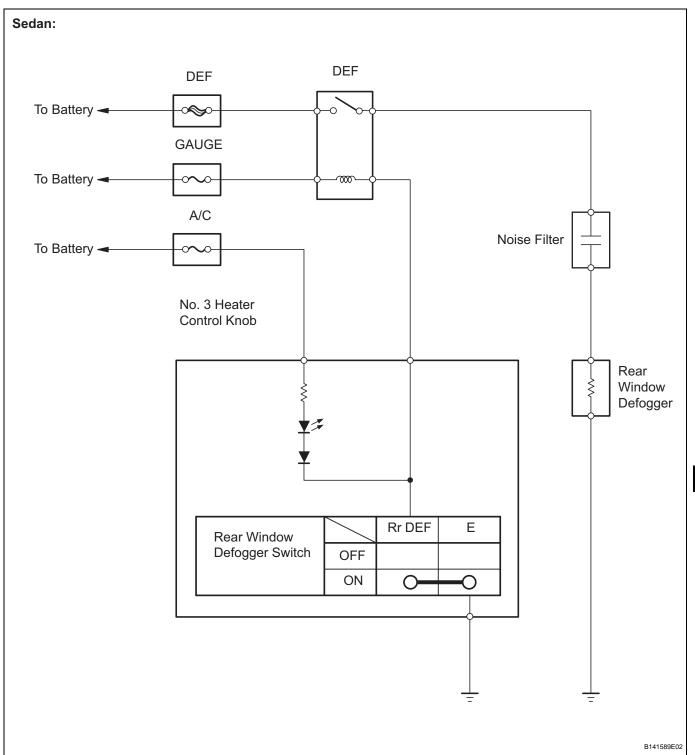


WS

SYSTEM DIAGRAM



WS



WS

PROBLEM SYMPTOMS TABLE

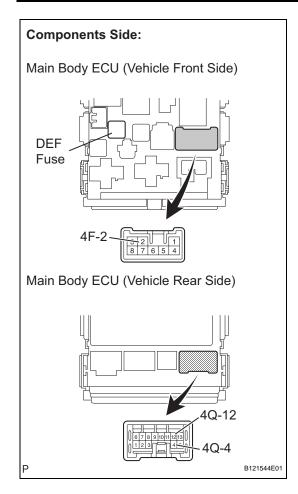
HINT:

Use the table below to help determine the causes of the problem symptom. The potential causes of the symptoms are listed in order of probability in the "Suspected Area" column of the table. Check each symptom by checking the suspected areas in the order they are listed. Replace parts as necessary.

Window defogger system

Symptom	Suspected area	See page
Rear window defogger does not operate (indicator ON)	DEF fuse	WS-142
	GAUGE fuse	WS-142
	Back door glass (defogger wire)	WS-148
	Main body ECU (DEF relay)	WS-147
	Wire harness	-
Rear window defogger does not operate (indicator OFF)	A/C fuse	WS-142
	No. 3 heater control knob (rear defogger switch)	AC-255
	Wire harness	-





DEFOGGER RELAY

ON-VEHICLE INSPECTION

- 1. INSPECT MAIN BODY ECU (DEFOGGER RELAY)
 - (a) Remove the DEF fuse.
 - (b) Using an ohmmeter, measure the resistance between the terminals of the DEF fuse.

Standard Resistance:

Below 1 Ω

- (c) Install the DEF fuse.
- (d) Using an ohmmeter, measure the resistance between terminals 4Q-12 and 4Q-4 of the main body ECU connector.

Standard Resistance:

Below 1 Ω

- (e) Turn the ignition switch ON.
- (f) Turn the defogger switch ON.
- (g) Using a voltmeter, measure the voltage between terminal 4F-2 of the main body ECU connector and body ground.

Standard Voltage:

10 to 14 V



WINDOW DEFOGGER WIRE

ON-VEHICLE INSPECTION

1. INSPECT BACK DOOR GLASS (DEFOGGER WIRE)

- (a) Turn the ignition switch ON.
- (b) Turn the defogger switch ON.
- (c) Check the voltage.
 - Using a voltmeter, measure the voltage at the center of each defogger wire as shown in the illustration.

Standard

Voltage	Condition
Approximately 5 V	Wire not broken
Approximately 10 or 0 V	Wire broken

NOTICE:

When measuring the voltage, wrap a piece of tin foil around the tip of the negative tester probe and press the foil against the wire with your finger, as shown in the illustration.

HINT:

If there is approximately 10 V, the wire may be faulty between the center of the wire and the battery. If there is no voltage, the wire may be faulty between the center of the wire and the ground.

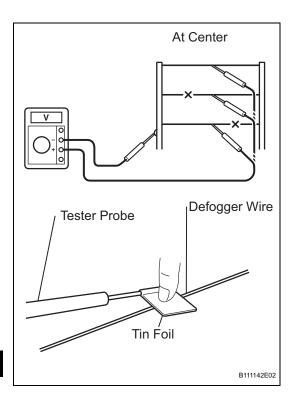
- (d) Place the positive (+) voltmeter probe against the defogger wire on the battery side.
- (e) Place the foil strip on the negative (-) voltmeter probe against the wire on the ground side.
- (f) Slide the positive (+) probe from the battery side to the ground side.
- (g) The point where the voltage drops from approximately 10 V to 0 V is where the defogger wire is broken.

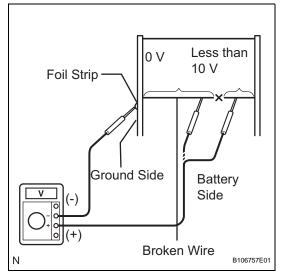
HINT:

If the defogger wire is not broken, the voltmeter should indicate 0 V at the positive (+) end of the defogger wire but the indicated voltage gradually increases to approximately 12 V as the meter probe moves toward the other end.

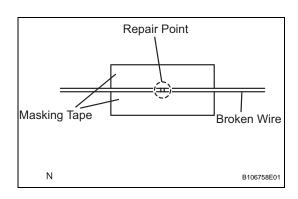
2. INSPECT REAR WINDOW DEFOGGER

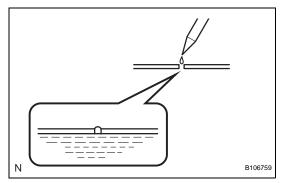
- (a) Check the operation.
- (b) Check that the indicator illuminates and the rear window defogger becomes warm when the rear defogger switch is pressed.
- (c) Check that the indicator turns off and the rear window defogger operation terminates after approximately 15 minutes.











REPAIR

1. IF NECESSARY, REPAIR DEFOGGER WIRE

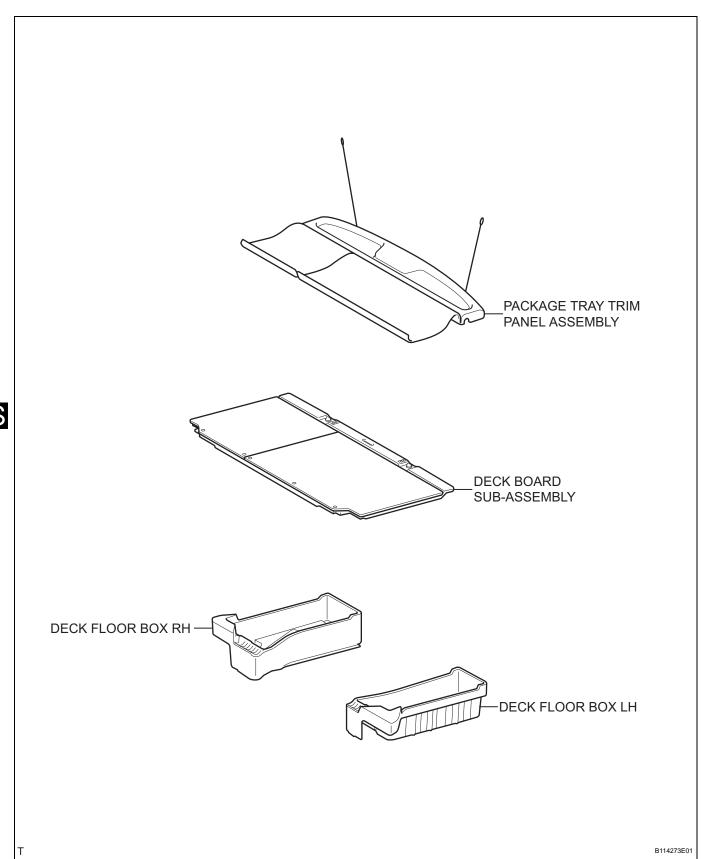
- (a) Clean the broken wire tips with grease, wax and silicone remover.
- (b) Place masking tape along both sides of the wire.
- (c) Thoroughly stir the repair agent (Dupont paste No. 4817 or the equivalent).
- (d) Using a fine tip brush, apply a small amount of the agent to the wire.
- (e) After a few minutes, remove the masking tape. **NOTICE:**

Do not repair the defogger wire again for at least 24 hours.

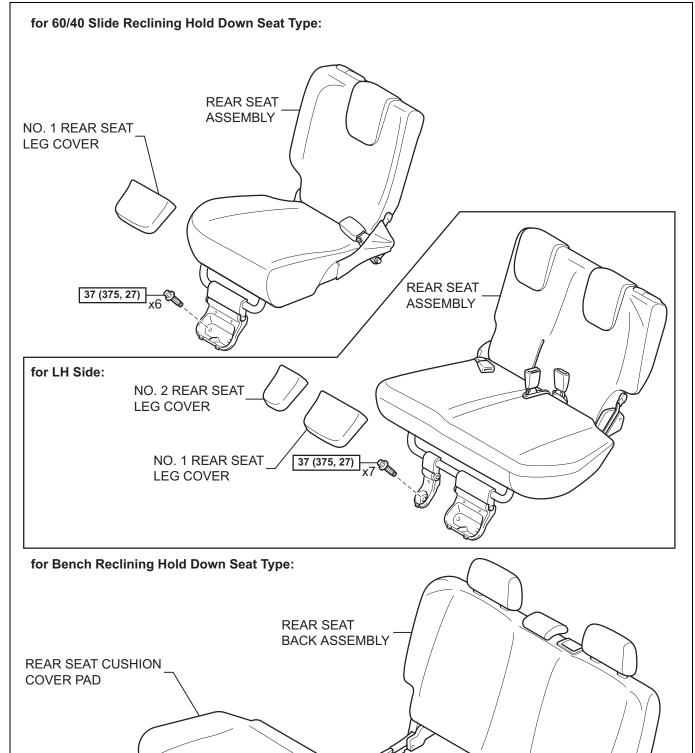


QUARTER WINDOW GLASS (for 3 Door)

COMPONENTS

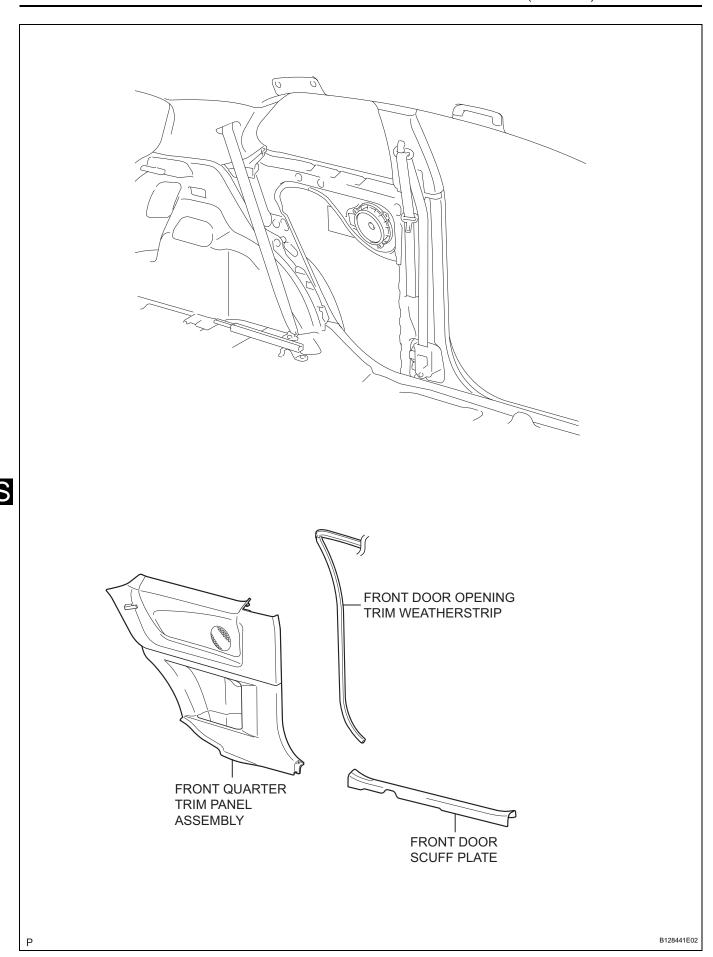


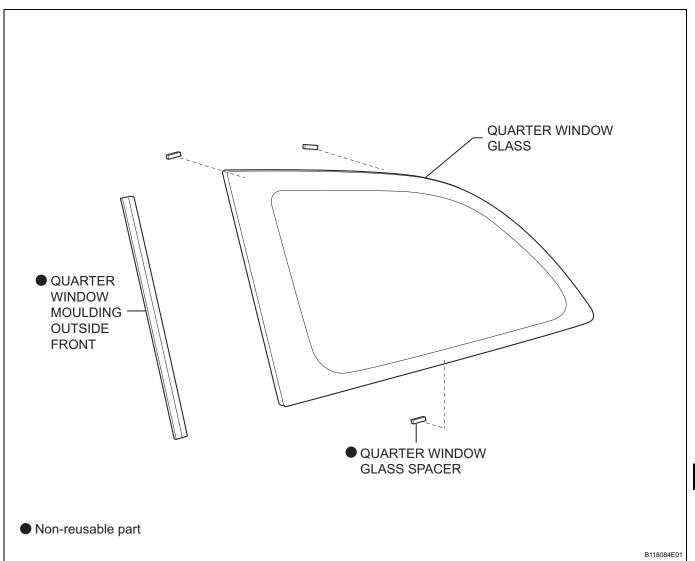
B121713E01



N*m (kgf*cm, ft*lbf) : Specified torque

37 (375, 27) x4







REMOVAL

NOTICE:

Always use "Torx" socket wrench E10 when removing the rear seat.

HINT:

- Use the same procedure for both the RH and LH sides.
- The procedure described below is for the LH side.
- 1. DISCONNECT CABLE FROM NEGATIVE BATTERY TERMINAL

Wait for at least 90 seconds after disconnecting the cable to prevent the airbag from working.

- 2. REMOVE PACKAGE TRAY TRIM PANEL ASSEMBLY (See page IR-48)
- 3. REMOVE DECK BOARD SUB-ASSEMBLY (See page IR-48)
- 4. REMOVE DECK FLOOR BOX RH (See page IR-48)
- 5. REMOVE DECK FLOOR BOX LH (See page IR-48)
- 6. REMOVE NO. 1 REAR SEAT LEG COVER (for 60/40 Slide Reclining Hold Down Seat Type)
 - (a) for RH Side:
 - (1) Remove the No. 1 rear seat leg cover (see page SE-89).
 - (b) for LH Side:
 - (1) Remove the No. 1 rear seat leg cover (see page SE-70).
- 7. REMOVE NO. 2 REAR SEAT LEG COVER (for 60/40 Slide Reclining Hold Down Seat Type LH Side) (See page SE-70)
- 8. REMOVE REAR SEAT ASSEMBLY (for 60/40 Slide Reclining Hold Down Seat Type)
 - (a) for RH Side:
 - (1) Remove the rear seat assembly (see page SE-89).
 - (b) for LH Side:
 - (1) Remove the rear seat assembly (see page SE-71).
- REMOVE REAR SEAT CUSHION COVER PAD (for Bench Reclining Hold Down Seat Type) (See page SE-114)
- 10. REMOVE REAR SEAT BACK ASSEMBLY (for Bench Reclining Hold Down Seat Type) (See page SE-115)
- 11. REMOVE FRONT DOOR SCUFF PLATE

Use the same procedure as for the RH side (see page AV-184).



12. SEPARATE FRONT DOOR OPENING TRIM WEATHERSTRIP

HINT:

Use the same procedure as for the RH side (see page AV-184).

13. REMOVE FRONT QUARTER TRIM PANEL ASSEMBLY

HINT:

Use the same procedure as for the RH side (see page AV-184).

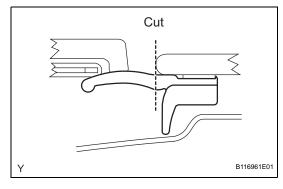
14. REMOVE QUARTER WINDOW MOULDING OUTSIDE FRONT

(a) Using a knife, cut off the quarter window moulding outside front.

NOTICE:

Do not damage the vehicle body with the knife. HINT:

Make a partial cut in the quarter window moulding outside front. Then pull and remove it by hand.



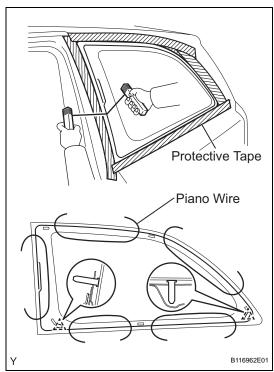
15. REMOVE QUARTER WINDOW GLASS

- (a) Apply protective tape to the outer circumference of the quarter window, as shown in the illustration.
- (b) From the interior, insert piano wires between the vehicle body and quarter window, as shown in the illustration.
- (c) Tie objects that can serve as handles (for example, wooden blocks) to all wire ends.

NOTICE:

When separating the quarter window from the vehicle, do not damage the vehicle's paintwork or exterior/interior ornaments.

(d) Cut through the adhesive by pulling the piano wire around the quarter window.



BO04421E01

INSTALLATION

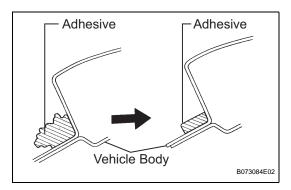
1. CLEAN QUARTER WINDOW GLASS

(a) Clean the outer circumference of the glass with a non-residue solvent.

NOTICE:

- Do not touch the glass surface after cleaning it
- Even if using a new glass, clean the glass with a non-residue solvent.







Since the pin is for positioning the glass, there is no need to replace it with a new one when reusing the glass, even if damaged.

2. CLEAN VEHICLE BODY

- (a) Clean and shape the contact surface of the vehicle body.
 - (1) Using a knife, cut away any rough adhesive on the contact surface of the vehicle body to ensure the appropriate surface shape.

NOTICE:

Do not damage the vehicle body.

HINT:

Leave as much adhesive on the vehicle body as possible.

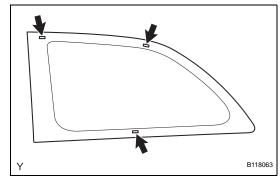
(2) Clean the contact surface of the vehicle body with a shop rag or piece of cloth saturated with cleaner.

HINT:

Clean the vehicle body even if all the adhesive has been removed.



- (a) Coat the installation parts of the spacers with Primer G.
- (b) Install 3 new spacers onto the glass, as shown in the illustration.



A-A

4. INSTALL QUARTER WINDOW MOULDING OUTSIDE FRONT

(a) Using a brush or sponge, apply Primer G to the edge of the quarter window and contact surface.

NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.

HINT

B121547E01

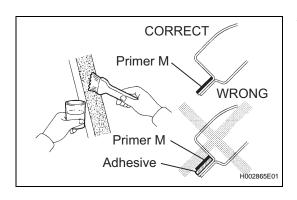
If Primer G is applied to any areas other than those specified, wipe off the primer with a clean shop rag or piece of cloth before it dries.

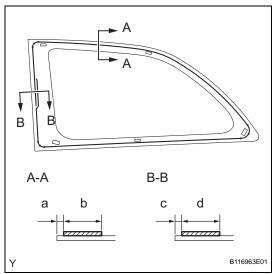
(b) Install the quarter window moulding outside front, as shown in the illustration.

Specification

Area	Measurement
а	9.5 mm (0.374 in.)







5. INSTALL QUARTER WINDOW GLASS

(a) Using a brush, apply Primer M to the exposed part of the vehicle body.

NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Do not apply Primer M to the adhesive.
- Throw away any leftover Primer M.
- Do not apply too much Primer M.
- (b) Using a brush or sponge, apply Primer G to the edge of the quarter window and contact surface. **Specification**

Area	Measurement
а	6.0 mm (0.236 in.)
b	14 mm (0.551 in.)
С	7.5 mm (0.295 in.)
d	22 mm (0.866 in.)

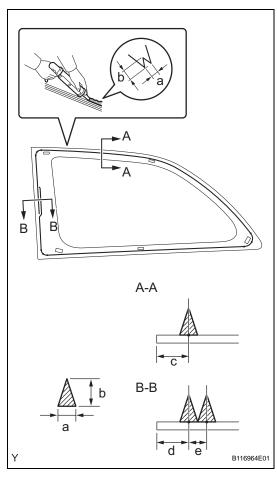
NOTICE:

- Allow the primer to dry for 3 minutes or more.
- Throw away any leftover Primer G.
- Do not apply too much Primer G.

HINT:

If Primer G is applied to any areas other than those specified, wipe off the primer with a clean shop rag or piece of cloth before it dries.





(c) Apply adhesive.

Adhesive:

Part No. 08850-00801 or the equivalent

(1) Cut the tip off the cartridge nozzle, as shown in the illustration.

HINT:

After cutting off the tip, use all adhesive within the time indicated in the table below.

Usage Time Frame

Temperature	Usage Time Frame
35°C (95°F)	15 minutes
20°C (68°F)	1 hour 40 minutes
5°C (41°F)	8 hours

- (2) Load the sealer gun with the cartridge.
- (3) Apply adhesive to the quarter window as shown in the illustration.

Specification

Area	Measurement
а	8 mm (0.315 in.)
b	12 mm (0.472 in.)
С	13 mm (0.512 in.)
d	14.5 mm (0.571 in.)
е	8 mm (0.315 in.)

- (d) Install the guarter window glass to the body.
 - (1) Hold the quarter window glass in place securely with protective tape or the equivalent until the adhesive hardens.

NOTICE:

- Allow the primer coating to dry for 3 minutes or more.
- Check that the pins are attached to the body correctly.
- Check the clearance between the body and glass.
- (2) Lightly press the front surface of the glass to ensure a close fit.
- (3) Using a scraper, remove any excessive or protruding adhesive.

HINT:

Apply adhesive to the quarter window glass rim.

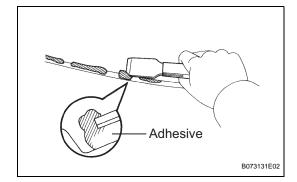
NOTICE:

Do not to drive the vehicle within the time indicated in the table below.

Minimum time

Temperature	Minimum time prior to driving vehicle
35°C (95°F)	1 hour 30 minutes
20°C (68°F)	5 hours
5°C (41°F)	24 hours





6. CHECK FOR LEAKAGE AND REPAIR

- (a) Conduct a leak test after the adhesive has completely hardened.
- (b) Seal any leakage with auto glass sealer.

7. INSTALL FRONT QUARTER TRIM PANEL ASSEMBLY HINT:

Use the same procedure as for the RH side (see page AV-186).

8. INSTALL FRONT DOOR OPENING TRIM WEATHERSTRIP

HINT:

Use the same procedure as for the RH side (see page AV-186).

9. INSTALL FRONT DOOR SCUFF PLATE

HINT:

Use the same procedure as for the RH side (see page AV-186).

10. INSTALL REAR SEAT ASSEMBLY (for 60/40 Slide Reclining Hold Down Seat Type)

- (a) for RH Side:
 - (1) Install the rear seat assembly (see page SE-102).
- (b) for LH Side:
 - (1) Install the rear seat assembly (see page SE-84).
- INSTALL NO. 2 REAR SEAT LEG COVER (for 60/40 Slide Reclining Hold Down Seat Type LH Side) (See page SE-85)

12. INSTALL NO. 1 REAR SEAT LEG COVER (for 60/40 Slide Reclining Hold Down Seat Type)

- (a) for RH Side:
 - (1) Install the No. 1 rear seat leg cover (see page SE-103).
- (b) for LH Side:
 - (1) Install the No. 1 rear seat leg cover (see page SE-85).
- 13. INSTALL REAR SEAT BACK ASSEMBLY (for Bench Reclining Hold Down Seat Type) (See page SE-122)
- INSTALL REAR SEAT CUSHION COVER PAD (for Bench Reclining Hold Down Seat Type) (See page SE-123)
- 15. INSTALL DECK FLOOR BOX RH (See page IR-83)
- 16. INSTALL DECK FLOOR BOX LH (See page IR-83)
- 17. INSTALL DECK BOARD SUB-ASSEMBLY (See page IR-83)
- 18. INSTALL PACKAGE TRAY TRIM PANEL ASSEMBLY (See page IR-83)



19. CONNECT CABLE TO NEGATIVE BATTERY TERMINAL

Torque: 5.4 N*m (55 kgf*cm, 48 in.*lbf)

