

POWER WINDOW CONTROL SYSTEM

ON-VEHICLE INSPECTION

700HB-01

1. CHECK POWER WINDOW (MANUAL OPERATION FUNCTION)

- (a) Turn the ignition switch ON.
- (b) Check that the door glass will rise when operating the power window regulator master switch to the UP side, and the door glass will go down when operating it to the DOWN side.
- (c) Check that the door glass will rise when operating the power window regulator switch of each door to the UP side, and the door glass will go down when operating it to the DOWN side.
- (d) Check that the other door glasses than the driver's will not operate when locking the window locking switch.

2. CHECK AUTOMATIC OPERATION FUNCTION

HINT:

For the w/o jam protection models are (a), (b), and (d) only.

- (a) Turn the ignition switch ON.
- (b) Check that the AUTO UP operates and the door glass is fully closed when each window switch of the regulator master switch assy is turned UP by double shift.
- (c) Check that the AUTO DOWN operates and the door glass is fully opened when each window switch of the regulator master switch assy is turned DOWN by double shift.
- (d) Check that the door glass stops when the applicable switch is turned UP during the AUTO DOWN operation. (However, if the switch is kept in the UP side, it will transfer to the manual operation.)
- (e) Check that the door glass stops when the applicable switch is turned DOWN during the AUTO UP operation. (However, if the switch is kept in the DOWN side, it will transfer to the manual operation.)

3. CHECK JAM PROTECTION FUNCTION (DRIVER'S DOOR GLASS, W/JAM PROTECTION)

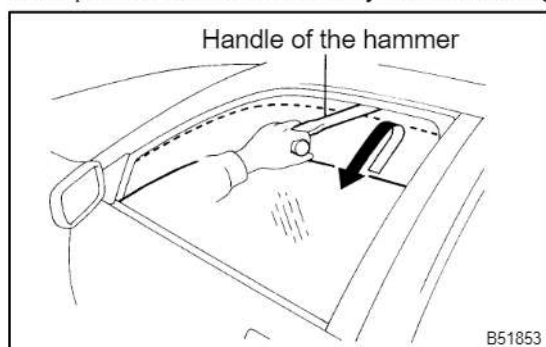
- (a) Check the basic function.

NOTICE:

- **Never check it with any part of your body such as hand caught between the glass and the vehicle's body. Also, pay thorough attention not to get caught in there during the operation.**
- **In case of resetting the power window motor, check should be carried out after repeating the UP and DOWN operation several times by the AUTO and MANUAL UP operation.**

HINT:

Jam protection function only works during the UP operation.



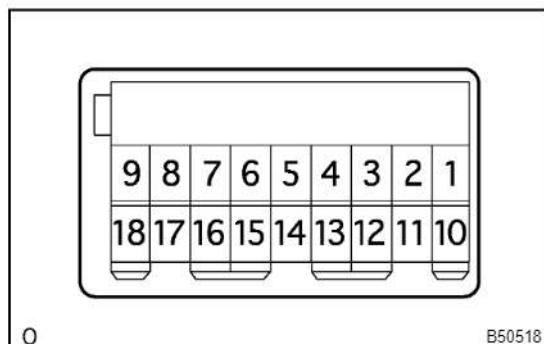
- (1) Open the door glass fully.
- (2) Set the handle of the hammer near the fully-closed position.
- (3) When fully closing the door glass with the AUTO UP and MANUAL UP operation, check that it moves down without the hammer handle getting caught and will go down by about 200 mm (7.87 in.) and stop there.

HINT:

The window goes down by about 50 mm. In case that the opening value is below 200 mm, the window goes down by 200 mm or keeps going down for 5 seconds, and stops then.

- (4) During the lowering operation, check that it will not move up even when the window regulator master switch is operated to the UP side.

INSPECTION



1. INSPECT POWER WINDOW REGULATOR MASTER SWITCH ASSY

- (a) Check the continuity between each terminal of the connector.

NOTICE:

Whether the operation is good or bad can be judged by the basic function check, because the continuity cannot be checked by UP/DOWN operation of the driver side switch.

Standard (Window unlock):

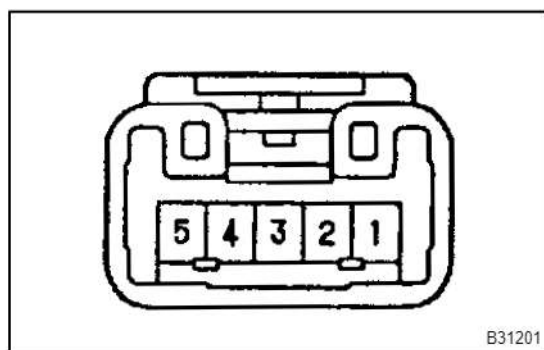
Switch position	Passenger Side Terminal No.	Rear RH Terminal No.	Rear LH Terminal No.
UP	6 – 13 *1 (6 – 18 *2), 1 – 15	6 – 18 *1 (6 – 10 *2), 1 – 16	6 – 12, 1 – 10 *1 (1 – 13 *2)
OFF	1 – 13 *1 (1 – 18 *2), 1 – 15	1 – 18 *1 (1 – 10 *2), 1 – 16	6 – 12, 1 – 10 *1 (1 – 12 *2)
DOWN	6 – 15, 1 – 13 *1 (1 – 18 *2)	6 – 16, 1 – 18 *1 (1 – 10 *2)	6 – 10 *1 (6 – 13 *2), 1 – 12

Standard (Window lock):

Switch position	Passenger Side Terminal No.	Rear RH Terminal No.	Rear LH Terminal No.
UP	6 – 13 *1 (6 – 18 *2)	6 – 18 *1 (6 – 10 *2)	6 – 12
OFF	13 – 15 *1 (18 – 15 *2)	16 – 18 *1 (1 – 10 *2)	10 – 12
DOWN	6 – 15	6 – 16	6 – 10 *1 (6 – 13 *2)

*1: w/ Jam protection *2: w/o Jam protection

If the continuity is not as specified, replace the switch.



2. INSPECT POWER WINDOW REGULATOR SWITCH ASSY

- (a) Check the continuity between each terminal of the connector when operating the switch.

Standard:

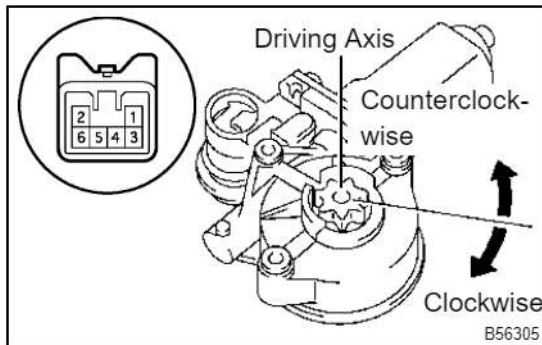
Switch position	Terminal No.	Condition
UP	1 – 2 3 – 4	Continuity
OFF	1 – 2 3 – 5	Continuity
DOWN	1 – 4 3 – 5	Continuity

If the continuity is not as specified, replace the switch.

3. INSPECT POWER WINDOW REGULATOR MOTOR ASSY LH

NOTICE:

- Be sure not to apply the battery voltage to terminal 2, 3 and 6 of the power window regulator motor assy LH connector, because it might damage the pulse sensor and the limit switch.
- Be sure to reset the power window regulator motor assembly (initial position setting of the limit switch) when the power window regulator motor assy LH is installed to the regulator (see page 75-8).



- (a) Inspect the operation of the front LH side power window regulator motor assembly.
- (1) When adding the battery voltage to each connector terminal, check that the motor operates smoothly.

Standard:

Measuring condition	Operational direction
Battery positive – Terminal 5 Battery negative – Terminal 4	Clockwise rotation toward driving axis
Battery positive – Terminal 4 Battery negative – Terminal 5	Counterclockwise wind rotation toward driving axis

- (b) Check the PTC operation inside the power window regulator motor.

NOTICE:

Work must be perform with the power window regulator and door glass installed to the vehicle.

- (1) Set the DC 400 A probe to terminal 4 or 5 of the wire harness.

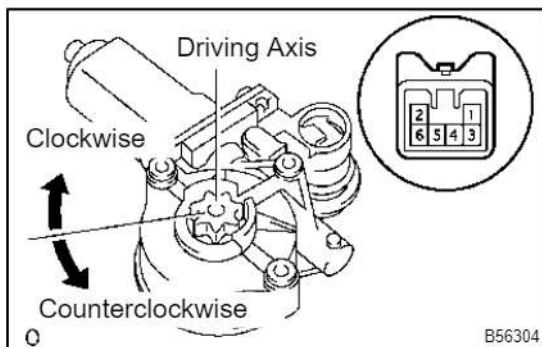
NOTICE:

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

- (2) Set the door glass at the fully closed position.
- (3) When approximately 60 seconds have passed after fully closing the door glass, check how long the current when pressing the power regulator switch UP again (at initial time) takes to change from approximately 16 – 34 A to less than 1 A.

Standard: Approximately 4 – 90 seconds

- (4) When approximately 60 seconds have passed after the cutoff checking, check that the door glass will go down when the power regulator switch is pressed DOWN.



4. INSPECT POWER WINDOW REGULATOR MOTOR ASSY RH

- (a) Inspect the operation of the front RH side power window regulator motor assembly.
- (1) When adding the battery voltage to each connector terminal, check that the motor operates smoothly.

Standard:

Measuring condition	Operational direction
Battery positive – Terminal 5 Battery negative – Terminal 4	Clockwise rotation toward driving axis
Battery positive – Terminal 4 Battery negative – Terminal 5	Counterclockwise wind rotation toward driving axis

- (b) Check the PTC operation inside the power window regulator motor.

NOTICE:

Work must be perform with the power window regulator and door glass installed to the vehicle.

- (1) Set the DC 400 A probe to terminal 4 or 5 of the wire harness.

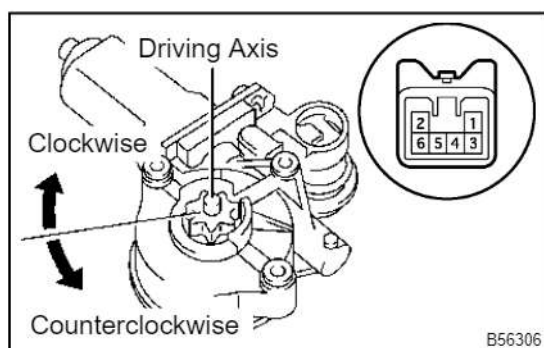
NOTICE:

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

- (2) Set the door glass at the fully closed position.
 (3) When approximately 60 seconds have passed after fully closing the door glass, check how long the current when pressing the power regulator switch UP again (at initial time) takes to change from approximately 16 – 34 A to less than 1 A.

Standard: Approximately 4 – 90 seconds

- (4) When approximately 60 seconds have passed after the cutoff checking, check that the door glass will go down when the power regulator switch is pressed DOWN.



5. INSPECT POWER WINDOW REGULATOR MOTOR ASSY LH

- (a) Inspect the operation of the rear LH side power window regulator motor assembly.

- (1) When adding the battery voltage to each connector terminal, check that the motor operates smoothly.

Standard:

Measuring condition	Operational direction
Battery positive – Terminal 5 Battery negative – Terminal 4	Clockwise rotation toward driving axis
Battery positive – Terminal 4 Battery negative – Terminal 5	Counterclockwise wind rotation toward driving axis

- (b) Check the PTC operation inside the power window regulator motor.

NOTICE:

Work must be perform with the power window regulator and door glass installed to the vehicle.

- (1) Set the DC 400 A probe terminal 4 or 5 of the wire harness.

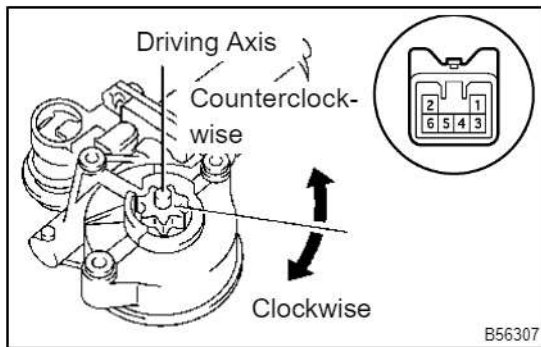
NOTICE:

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

- (2) Set the door glass at the fully closed position.
 (3) When approximately 60 seconds have passed after fully closing the door glass, check how long the current when pressing the power regulator switch UP again (at initial time) takes to change from approximately 16 – 34 A to less than 1 A.

Standard: Approximately 4 – 90 seconds

- (4) When approximately 60 seconds have passed after the cutoff checking, check that the door glass will go down when the power regulator switch is pressed DOWN.



6. INSPECT POWER WINDOW REGULATOR MOTOR ASSY RH

- (a) Inspect the operation of the rear RH side power window regulator motor assembly.

- (1) When adding the battery voltage to each connector terminal, check that the motor operates smoothly.

Standard:

Measuring condition	Operational direction
Battery positive – Terminal 5 Battery negative – Terminal 4	Clockwise rotation toward driving axis
Battery positive – Terminal 4 Battery negative – Terminal 5	Counterclockwise wind rotation toward driving axis

- (b) Check the PTC operation inside the power window regulator motor.

NOTICE:

Work must be performed with the power window regulator and door glass installed to the vehicle.

- (1) Set the DC 400 A probe to terminal 4 or 5 of the wire harness.

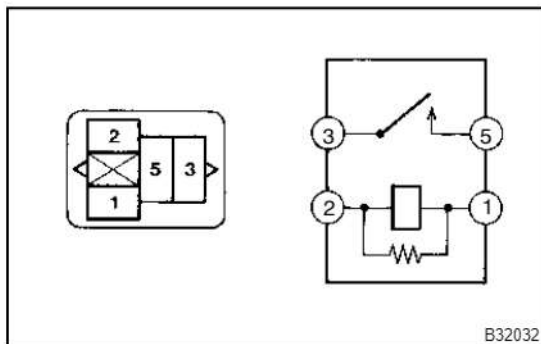
NOTICE:

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

- (2) Set the door glass at the fully closed position.
 (3) When approximately 60 seconds have passed after fully closing the door glass, check how long the current when pressing the power regulator switch UP again (at initial time) takes to change from approximately 16 – 34 A to less than 1 A.

Standard: Approximately 4 – 90 seconds

- (4) When approximately 60 seconds have passed after the cutoff checking, check that the door glass will go down when the power regulator switch is pressed DOWN.



7. INSPECT POWER WINDOW RELAY ASSY

- (a) Inspect the power window relay continuity.

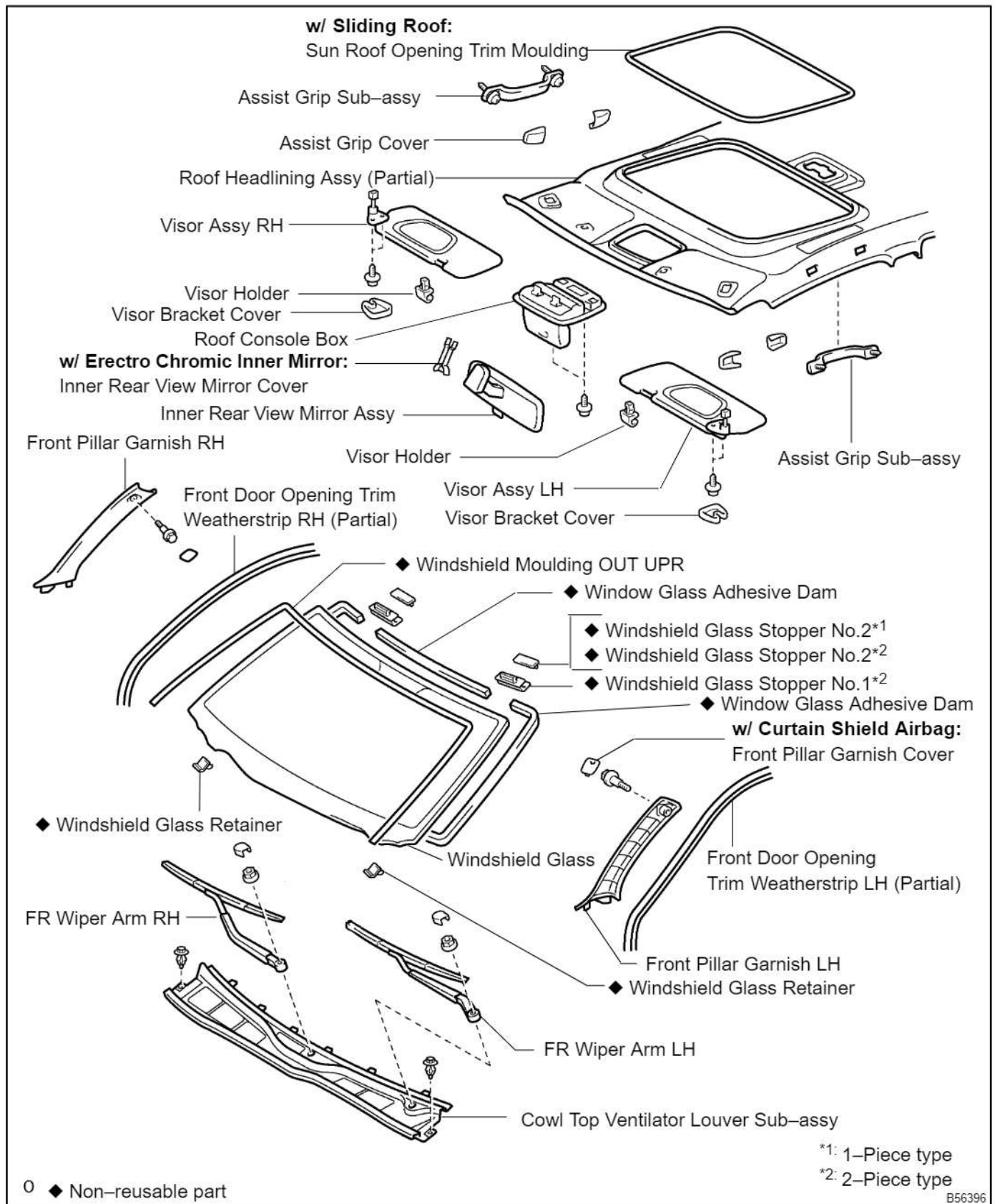
Standard:

Terminal No.	Condition	Specified Condition
1 – 2	Constant	Continuity
3 – 5	Constant	No continuity
3 – 5	Apply B + between terminals 1 and 2	Continuity

If the continuity is not as specified, replace the relay.

WINDSHIELD GLASS COMPONENTS

700AZ-01

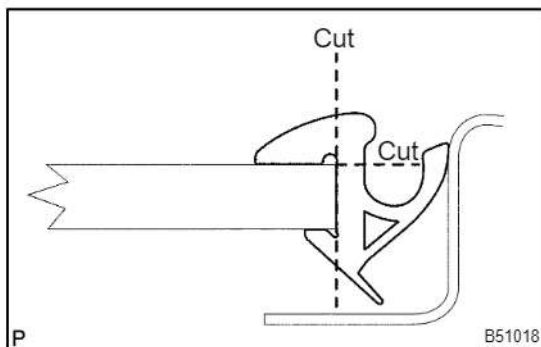


REPLACEMENT

HINT:

Installation is according to the reverse order of the removal.

1. **REMOVE FR WIPER ARM RH**
(See page 66-6)
2. **REMOVE FR WIPER ARM LH**
(See page 66-6)
3. **REMOVE COWL TOP VENTILATOR LOUVER SUB-ASSY**
(See page 66-6)
4. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP RH**
(See page 66-6)
5. **REMOVE FRONT DOOR OPENING TRIM WEATHERSTRIP LH**
(See page 66-6)
6. **REMOVE FRONT PILLAR GARNISH RH(W/O CURTAIN SHIELD AIR BAG)**
(See page 76-20)
7. **REMOVE FRONT PILLAR GARNISH LH(W/O CURTAIN SHIELD AIR BAG)**
(See page 76-20)
8. **REMOVE FRONT PILLAR GARNISH RH(W/ CURTAIN SHIELD AIR BAG)**
(See page 76-20)
9. **REMOVE FRONT PILLAR GARNISH LH(W/ CURTAIN SHIELD AIR BAG)**
(See page 76-20)
10. **REMOVE ROOF CONSOLE BOX ASSY**
(See page 76-20)
11. **REMOVE RH VISOR ASSY**
(See page 76-20)
12. **REMOVE LH VISOR ASSY**
(See page 76-20)
13. **REMOVE VISOR HOLDER**
(See page 76-20)
14. **REMOVE ROOF HEADLINING ASSY**
(See page 76-20)
15. **REMOVE INNER REAR VIEW MIRROR ASSY**
(See page 70-26)



16. REMOVE WINDSHIELD MOULDING OUTER UPPER

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

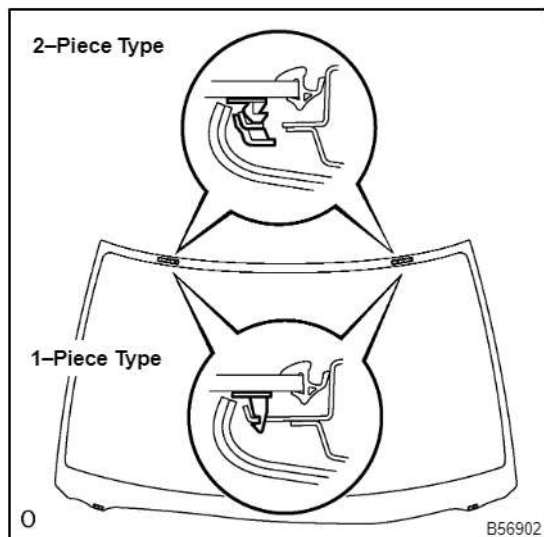
NOTICE:

Do not damage the body with the knife.

- (b) Remove the remaining moulding.

HINT:

When removing, make a cut partly, pull and remove it by hand.

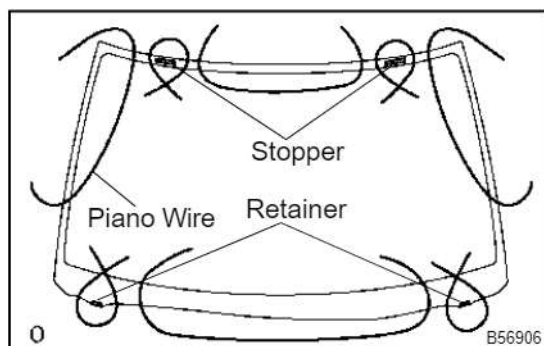


17. REMOVE WINDSHIELD GLASS

HINT:

There is a case where a 1-piece type and a 2-piece type of stoppers are installed in a vehicle type.

- Push a piano wire through between the body and glass from the interior.
- Apply protective tape to the outer surface to keep the surface from being scratched.



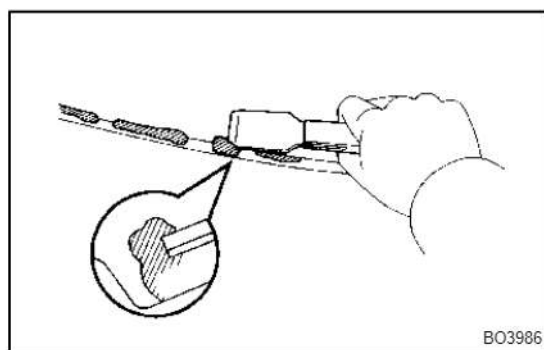
- Tie both wire ends to wooden blocks or similar objects.

NOTICE:

- w/ Curtain shield airbag:**
When working around the curtain shield airbag, be careful not to damage the airbag.
 - When separating the glass, take care not to damage the paint and interior/exterior ornaments.**
 - To prevent the piano wire to be cut, do not cross it.**
- Cut the adhesive by pulling the piano wire around it.
 - Using a suction rubber, remove the glass.

NOTICE:

Leave as much adhesive on the body as possible when cutting off the glass.



18. CLEAN WINDSHIELD GLASS

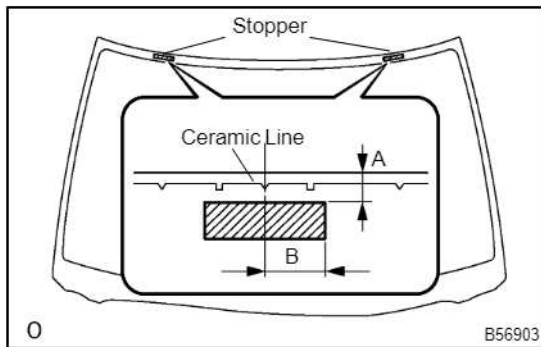
- Using a scraper, remove the damaged stoppers, dam and adhesive sticking to the glass.
- Clean the outer circumference of the glass with white gasoline.

NOTICE:

- Do not touch the glass after cleaning it.**
- Be careful not to damage the body.**

19. INSTALL WINDSHIELD GLASS STOPPER NO.1

- Install 2 new windshield glass stoppers No.1 to the body.



20. INSTALL WINDSHIELD GLASS STOPPER NO.2

- (a) Coat the installation part of the stopper with Primer G.

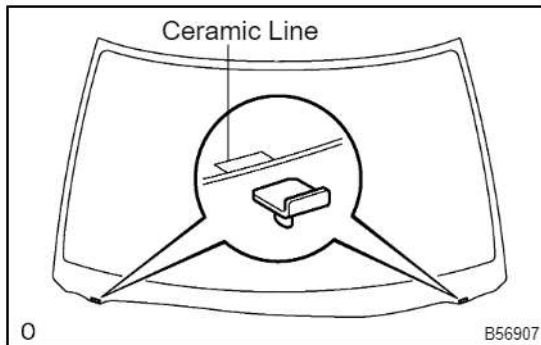
NOTICE:

- Dry the primer coating dry for 3 minutes or more.
- Do not apply too much primer.

- (b) Install 2 new windshield glass stoppers No.2 onto the glass as shown in the illustration.

A: 7.7 mm (0.303 in.)

B: 40.0 mm (1.575 in.)



21. INSTALL WINDSHIELD GLASS RETAINER

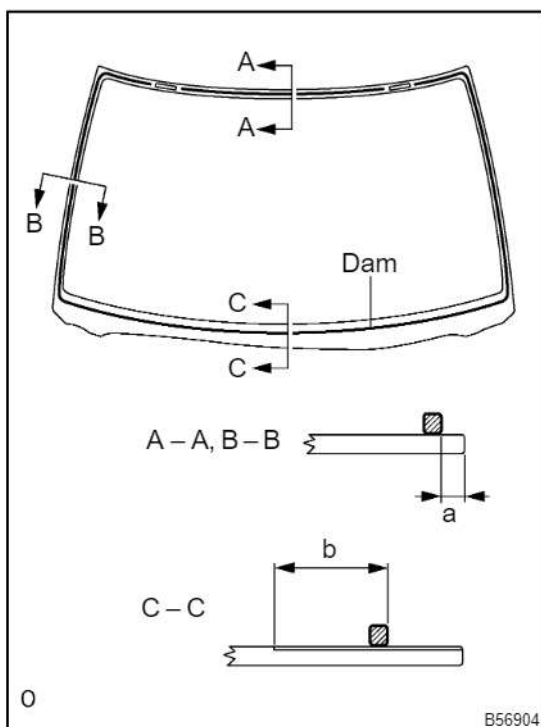
- (a) Install 2 new windshield glass retainers onto the glass as shown in the illustration.

22. INSTALL WINDOW GLASS ADHESIVE DAM

- (a) Coat the installation part of the window glass adhesive dam with Primer G.

NOTICE:

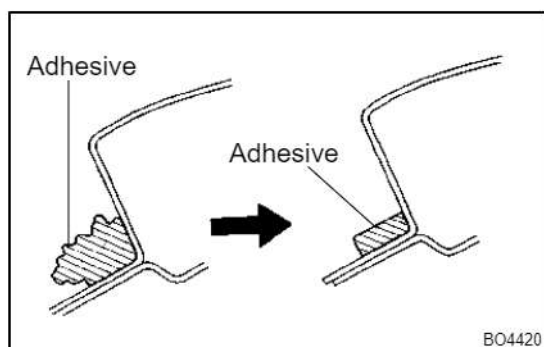
- Let the primer coating dry for 3 minutes or more.
- Do not apply too much primer.



- (b) Install a new window glass adhesive dam as shown in the illustration.

a: 7 mm (0.28 in.)

b: 35 mm (1.38 in.)



23. INSTALL WINDSHIELD GLASS

- (a) Clean and shape the contact surface of the vehicle's body
 (1) Using a knife, cut away any rough areas of the body.

HINT:

Leave as much adhesive on the body as possible.

- (2) Clean the cut surface of the adhesive with a piece of shop rag saturated in cleaner.

- (b) Position the glass.

- (1) Using a suction rubber, place the glass in the correct position.
 (2) Check that all the contacting parts of the glass rim are perfectly even.
 (3) Place reference marks between the glass and body.

NOTICE:

Check that the stoppers are attached to the body correctly.

HINT:

When reusing the glass, check and correct the reference mark's positions.

- (4) Remove the glass.
 (c) Coat the contact surface of the back door with Primer M.
 (d) Using a bursh, coat the exposed part of the contact surface on the vehicle side with Primer M.

NOTICE:

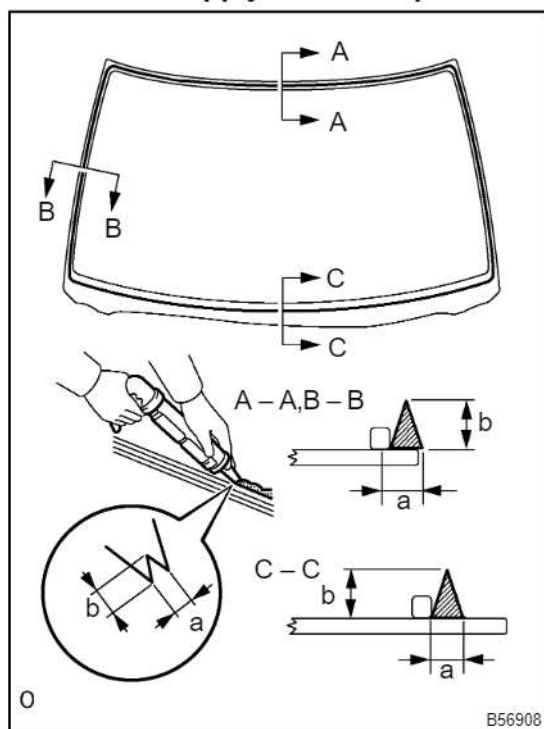
- Dry the primer coating for 3 minutes or more.
- Do not coat the adhesive with Primer M.
- Do not apply too much Primer.

- (e) Coat the contact surface of the glass with Primer G.

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

NOTICE:

- Dry the primer coating for 3 minutes or more.
- Do not apply too much primer.



- (f) Apply adhesive.

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

Part No. 08850-00801 or equivalent

HINT:

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

Temperature	Tackfree time
35°C (95°F)	15 minutes
20°C (68°F)	100 minutes
5°C (41°F)	8 hours

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

a: 8 mm (0.31 in.)

b: 12 mm (0.47 in.)

- (g) Install the glass.
- (1) Using a suction rubber, position the glass so that the reference marks are aligned, and press it in gently along the rim.

NOTICE:

- **Dry the primer coating for 3 minutes or more.**
 - **Check that the stoppers are attached to the body correctly.**
 - **Check the clearance between the body and glass.**
- (2) Lightly press the glass front surface for close contact.
 - (3) Using a scraper remove any excess or protruding adhesive.

HINT:

Apply adhesive on the glass rim.

24. INSTALL WINDSHIELD MOULDING OUTER UPPER

- (a) Install a new windshield moulding to the windshield glass before the adhesive has hardened.
- (b) Hold the windshield glass in place securely with protective tape or equivalent until the adhesive has completely hardened.
- (c) Using a scraper, remove any excess or protruding adhesive before the adhesive has hardened.

NOTICE:

Take care not to drive the vehicle during the time described in the table below.

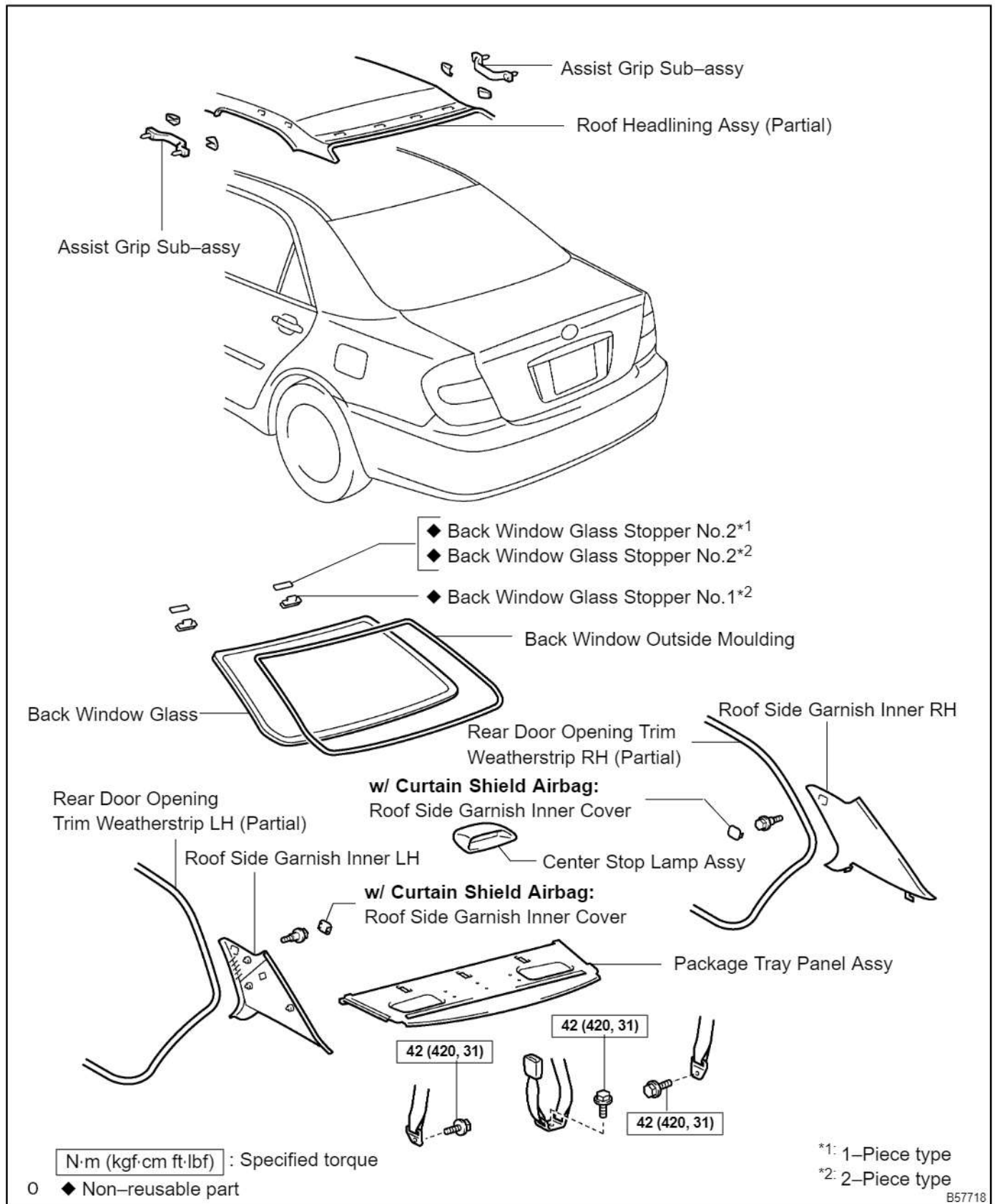
Temperature	Tackfree time
35°C (95°F)	1.5 hours
20°C (68°F)	5 hours
5°C (41°F)	24 hours

25. WATER-LEAK CHECK AND REPAIRMENT

- (a) Conduct a leak test after the adhesive has completely hardened.
- (b) Seal any leak with sealant.

BACK WINDOW GLASS COMPONENTS

700B1-01

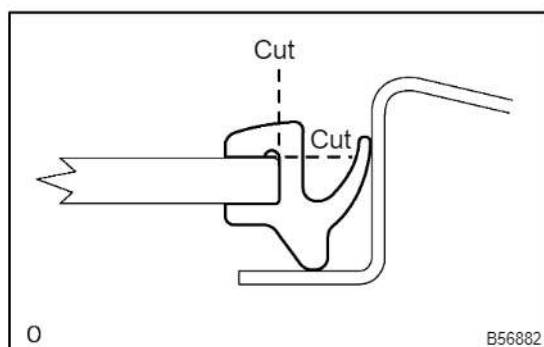


REPLACEMENT

HINT:

Installation is according to the reverse order of the removal.

1. REMOVE REAR SEAT CUSHION ASSY (See page 72-34, 72-38)
2. REMOVE REAR SEAT BACK ASSY (See page 72-34, 72-38)
3. REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP RH
4. REMOVE REAR DOOR OPENING TRIM WEATHERSTRIP LH
5. REMOVE ROOF SIDE GARNISH INNER RH (W/O CURTAIN SHIELD AIR BAG)
(See page 76-20)
6. REMOVE ROOF SIDE GARNISH INNER LH (W/O CURTAIN SHIELD AIR BAG)
(See page 76-20)
7. REMOVE ROOF SIDE GARNISH INNER RH (W/ CURTAIN SHIELD AIR BAG)
(See page 76-20)
8. REMOVE ROOF SIDE GARNISH INNER LH (W/ CURTAIN SHIELD AIR BAG)
(See page 76-20)
9. REMOVE ROOF HEADLINING ASSY (See page 76-20)
10. REMOVE CENTER STOP LAMP ASSY (See page 65-16)
11. REMOVE PACKAGE TRAY TRIM PANEL ASSY (See page 61-14, 61-17)



12. REMOVE BACK WINDOW MOULDING OUTSIDE

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

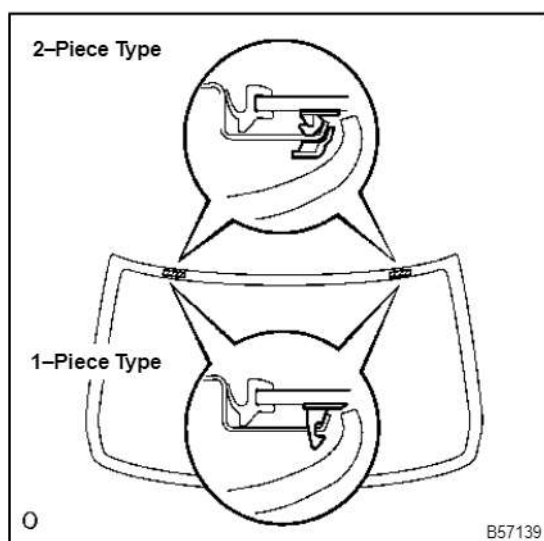
NOTICE:

Do not damage the body with the knife.

- (b) Remove the remaining moulding.

HINT:

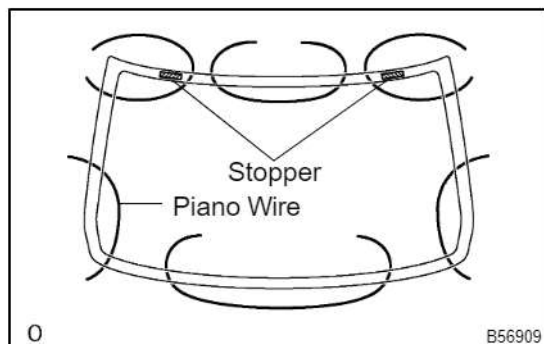
When removing, make a cut partly, pull and remove it by hand.



13. REMOVE BACK WINDOW GLASS

HINT:

There is a case where a 1-piece type and a 2-piece type of stoppers are installed in a vehicle type.



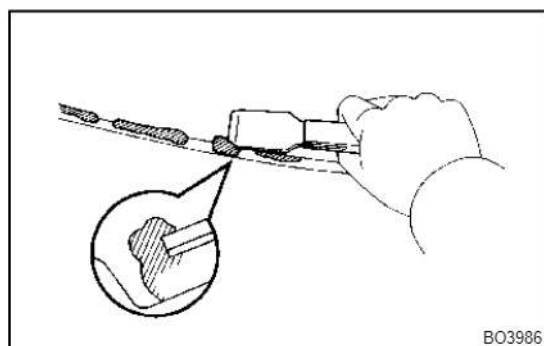
- (a) Push a piano wire through between the body and glass from the interior.
- (b) Apply protective tape to the outer surface to keep the surface from being scratched.
- (c) Tie both wire ends to wooden blocks or similar objects.

NOTICE:

- When separating the glass, take care not to damage the paint and interior/exterior ornaments.
 - To prevent the piano wire to be cut, do not cross it.
- (d) Cut the adhesive by pulling the piano wire around it.
 - (e) Using a suction rubber, remove the glass.

NOTICE:

Leave as much adhesive on the body as possible when cutting off the glass.

**14. CLEAN BACK WINDOW GLASS**

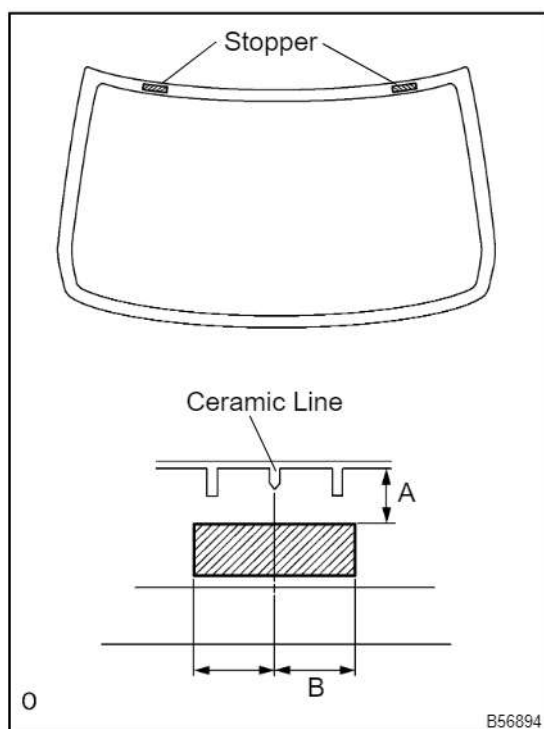
- (a) Using a scraper, remove the damaged spacers and clips, dam and adhesive sticking to the glass.
- (b) Clean the outer circumference of the glass with white gasoline.

NOTICE:

- Do not touch the glass after cleaning it.
- Be careful not to damage the body.

15. INSTALL BACK WINDOW GLASS STOPPER NO.1

- (a) Install 2 new windshield glass stoppers No.1 to the body.

**16. INSTALL BACK WINDOW GLASS STOPPER NO.2**

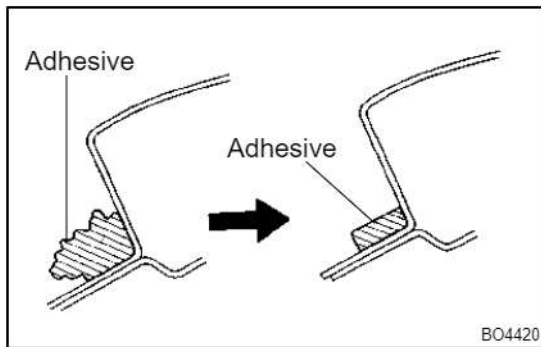
- (a) Coat the installation part of the stopper with Primer G.

NOTICE:

- Dry the primer coating for 3 minutes or more.
 - Do not apply too much primer.
- (b) Install 2 new windshield glass stoppers No.2 onto the glass as shown in the illustration..

A: 11.2 mm (0.441 in.)

B: 40 mm (1.57 in.)



17. INSTALL BACK WINDOW GLASS

- (a) Clean and shape the contact surface of the vehicle's body
- (1) Using a knife, cut away any rough areas on the body.

HINT:

Leave as much adhesive on the body as possible.

- (2) Clean the cut surface of the adhesive with a piece of shop rag saturated in cleaner.

- (b) Position the glass.

- (1) Using a suction rubber, place the glass in the correct position.
- (2) Check that all the contacting parts of the glass rim are perfectly even.
- (3) Place reference marks between the glass and body.

NOTICE:

Check that the stoppers are attached to the body correctly.

HINT:

When reusing the glass, check and correct the reference mark's positions.

- (4) Remove the glass.
- (c) Coat the contact surface of the back door with Primer M.
- (d) Using a brush, coat Primer M to the exposed part of the contact surface on the vehicle side with Primer M.

NOTICE:

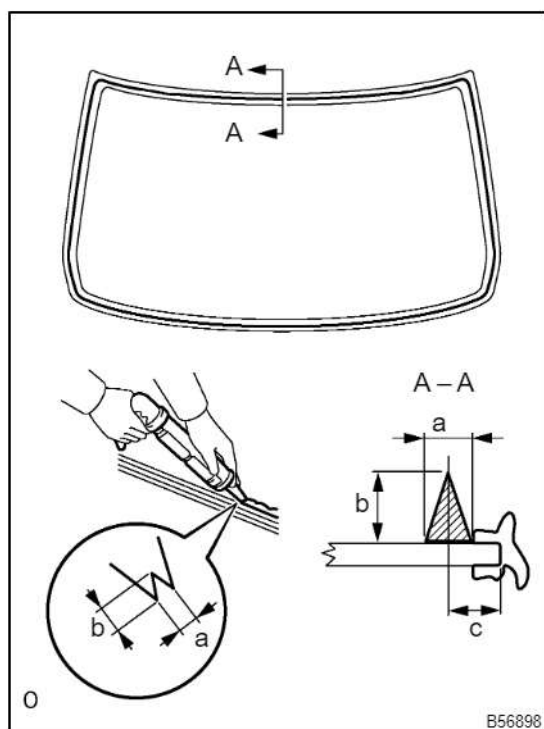
- **Dry the primer coating for 3 minutes or more.**
- **Do not coat the adhesive with Primer M.**
- **Do not apply too much Primer.**

- (e) Coat the contact surface of the glass with Primer G.

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

NOTICE:

- **Dry the primer coating for 3 minutes or more.**
- **Do not apply too much primer.**



- (f) Apply adhesive.
 (1) Cut off the tip of the cartridge nozzle as shown in the illustration.

Part No. 08850-00801 or equivalent

HINT:

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

Temperature	Tackfree time
35°C (95°F)	15 minutes
20°C (68°F)	100 minutes
5°C (41°F)	8 hours

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

a: 8 mm (0.31 in.)

b: 12 mm (0.47 in.)

c: 6.5 mm (0.256 in.)

- (g) Install the glass.

- (1) Using a suction rubber, position the glass so that the reference marks are aligned, and press it in gently along the rim.

NOTICE:

- **Dry the primer coating for 3 minutes or more.**
 - **Check that the stoppers are attached to the body correctly.**
 - **Check the clearance between the body and glass.**
- (2) Lightly press the glass front surface for close contact.
 (3) Using a scraper, remove any excess or protruding adhesive.

HINT:

Apply adhesive on the glass rim.

18. INSTALL BACK WINDOW MOULDING OUTSIDE

- (a) Install a new windshield moulding to the windshield glass before the adhesive has hardened.
 (b) Hold the windshield glass in place securely with protective tape or equivalent until the adhesive has completely hardened.
 (c) Using a scraper, remove any excess or protruding adhesive before the adhesive has hardened.

NOTICE:

Take care not to drive the vehicle during the time described in the table below.

Temperature	Tackfree time
35°C (95°F)	1.5 hours
20°C (68°F)	5 hours
5°C (41°F)	24 hours

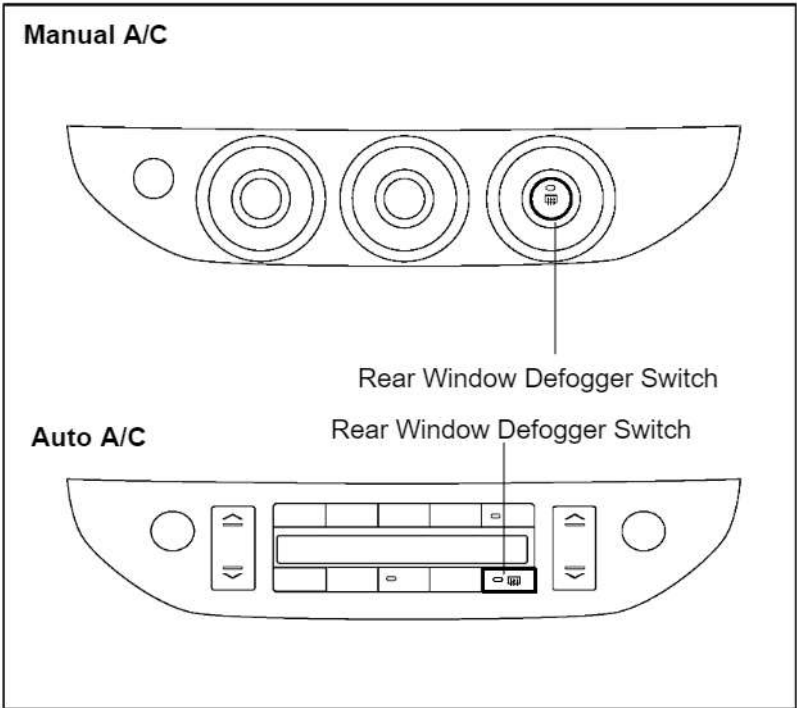
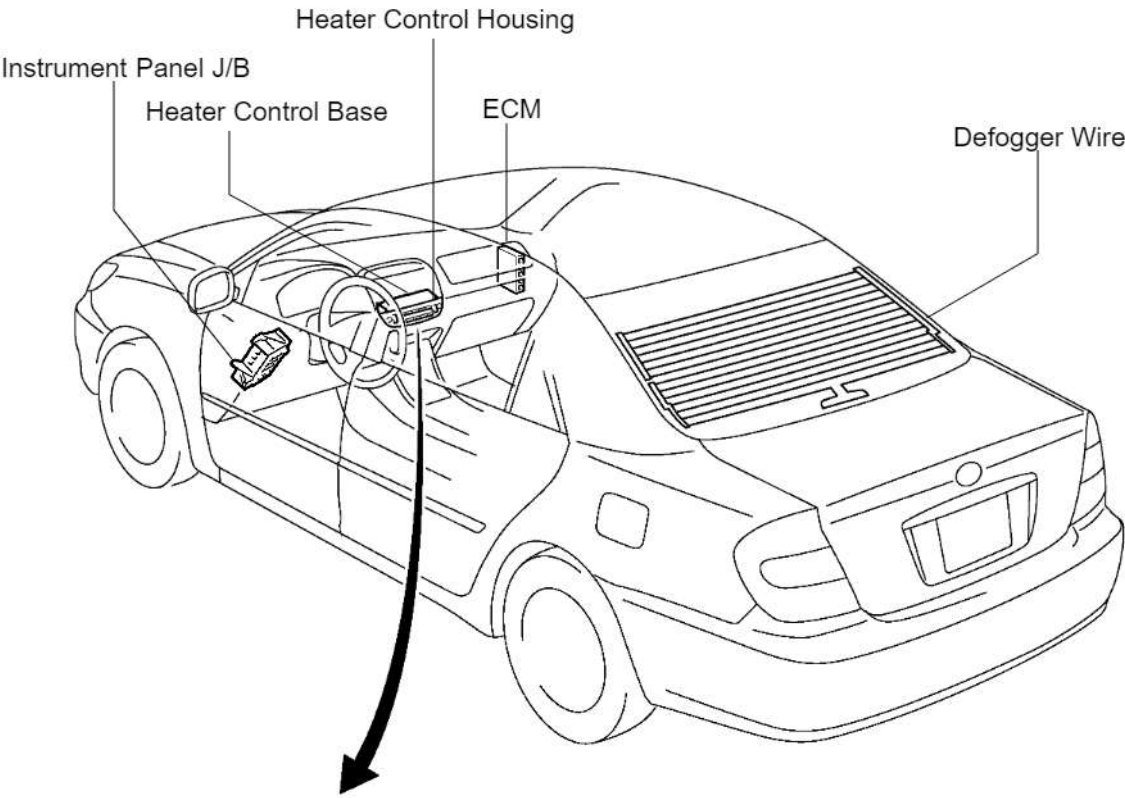
19. WATER-LEAK CHECK AND REPAIRMENT

- (a) Conduct a leak test after the adhesive has completely hardened.
 (b) Seal any leak with sealant.

WINDOW DEFOGGER SYSTEM

LOCATION

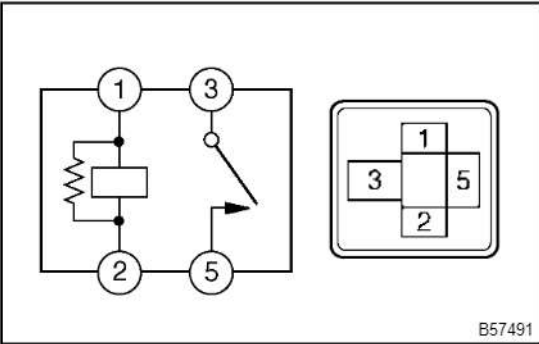
700BA-01



PROBLEM SYMPTOMS TABLE

Symptom	Suspected Area	See page
Rear window defogger does not operate (Indicator lamp on)	1. DEF fuse (Instrument panel J/B)	68-1
	2. GAUGE 2 fuse (Instrument panel J/B)	68-1
	3. DEF relay (Instrument panel J/B)	70-19
	4. Rear window defogger wire	②
	5. Wire harness	②
	6. ECM (2AZ-FE)	05-23
	7. ECM (1MZ-FE)	05-199
Rear window defogger does not operate (Indicator lamp off)	1. HTR fuse (Instrument panel J/B)	68-1
	2. Defogger switch (Heater control housing)	05-626
	3. Wire harness	②
	4. Heater control base	05-626

INSPECTION



1. INSPECT DEFOGGER RELAY

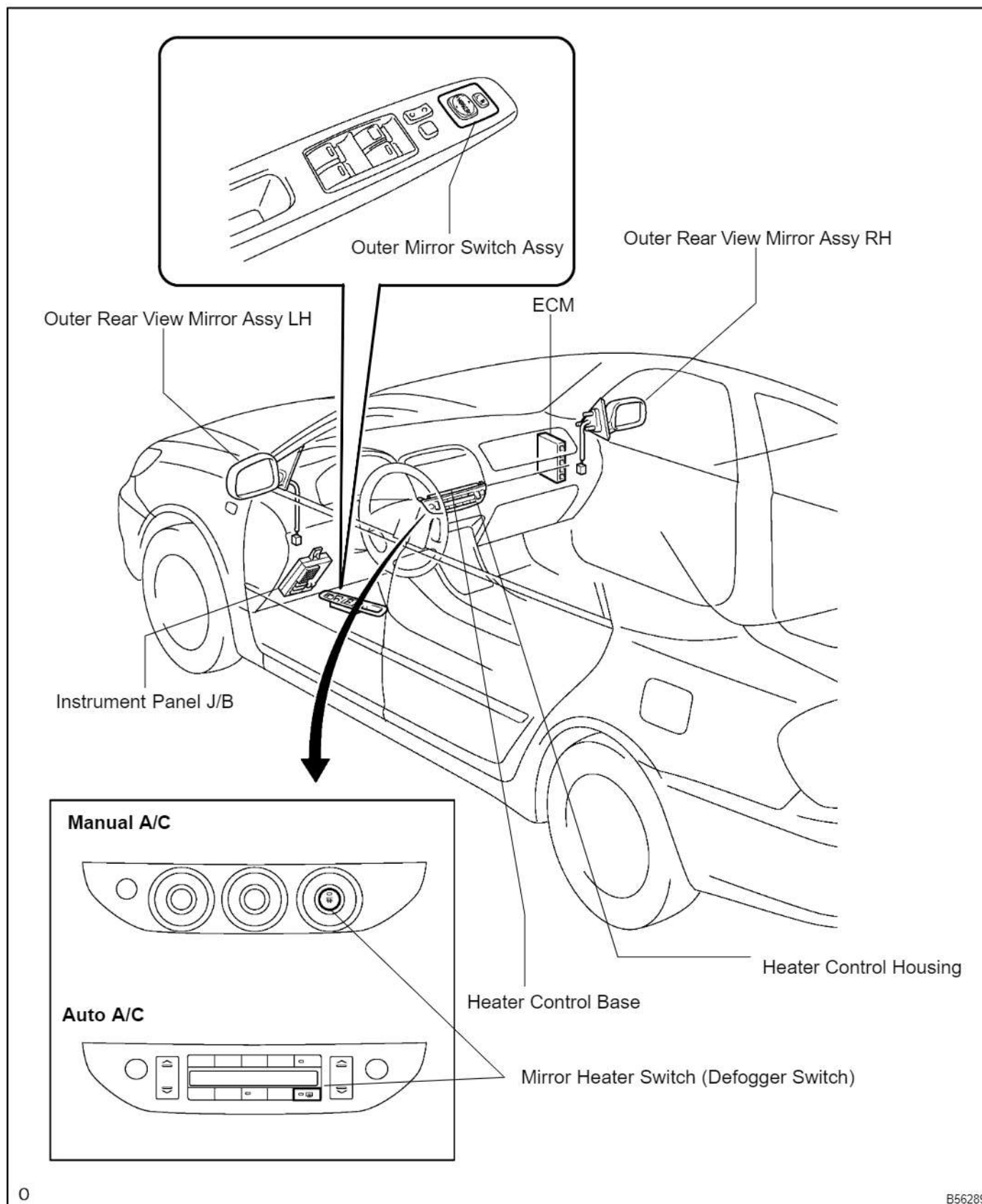
- (a) Inspect the defogger relay (marking: DEF) continuity.
Standard:

Terminal No.	Condition	Specified condition
1 ⇔ 2	Constant	Continuity
3 ⇔ 5	Constant	No continuity
3 ⇔ 5	Apply B+ between terminals 1 and 2	Continuity

If the continuity is not as specified, replace the relay.

POWER MIRROR CONTROL SYSTEM LOCATION

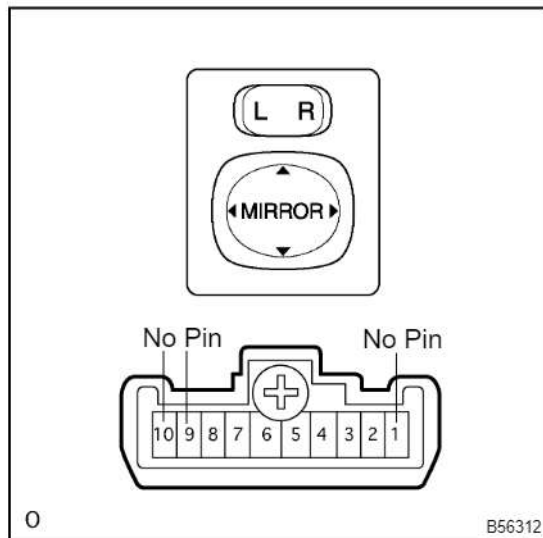
7008D-01



PROBLEM SYMPTOMS TABLE

Symptom	Suspected Area	See page
Mirror does not operate	1. ECU-ACC fuse (Instrument panel J/B)	68-1
	2. Mirror switch	70-22
	3. Mirror motor	70-22
	4. Wire harness	—
Mirror operates abnormally	1. Mirror switch	70-22
	2. Mirror motor	70-22
	3. Wire harness	—

INSPECTION



1. INSPECT OUTER MIRROR SWITCH ASSY

(a) Inspect the mirror switch continuity.

- (1) Left side for left/right adjustment switch:
Inspect the left side mirror switch continuity.

Standard:

Terminal No.	Switch position	Specified condition
–	OFF	No continuity
4 – 8 6 – 7	UP	Continuity
4 – 7 6 – 8	DOWN	Continuity
5 – 8 6 – 7	LEFT	Continuity
5 – 7 6 – 8	RIGHT	Continuity

If the continuity is not as specified, replace the switch.

- (2) Right side for left/right adjustment switch:
Inspect the right side mirror switch continuity.

Standard:

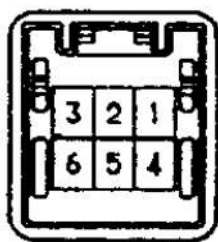
Terminal No.	Switch position	Specified condition
–	OFF	No continuity
3 – 8 6 – 7	UP	Continuity
3 – 7 6 – 8	DOWN	Continuity
2 – 8 6 – 7	LEFT	Continuity
2 – 7 6 – 8	RIGHT	Continuity

If the continuity is not as specified, replace the switch.

TMC Made



TMMK Made



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2. INSPECT OUTER REAR VIEW MIRROR ASSY LH (W/O OUTER MIRROR HEATER)

- (a) Inspect the mirror motor operation.

Standard (TMC Made):

Battery connection	Mirror position
Positive (+) – 1 Negative (–) – 2	Turn upward
Positive (+) – 2 Negative (–) – 1	Turn downward
Positive (+) – 3 Negative (–) – 2	Turn left
Positive (+) – 2 Negative (–) – 3	Turn right

Standard (TMMK Made):

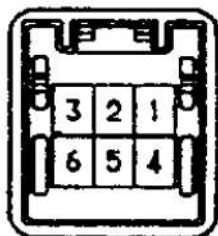
Battery connection	Mirror position
Positive (+) – 6 Negative (–) – 2	Turn upward
Positive (+) – 2 Negative (–) – 6	Turn downward
Positive (+) – 3 Negative (–) – 2	Turn left
Positive (+) – 2 Negative (–) – 3	Turn right

If the continuity is not as specified, replace the outer rear view mirror assy LH.

TMC Made



TMMK Made



B59988

3. INSPECT OUTER REAR VIEW MIRROR ASSY RH (W/O OUTER MIRROR HEATER)

- (a) Inspect the mirror motor operation.

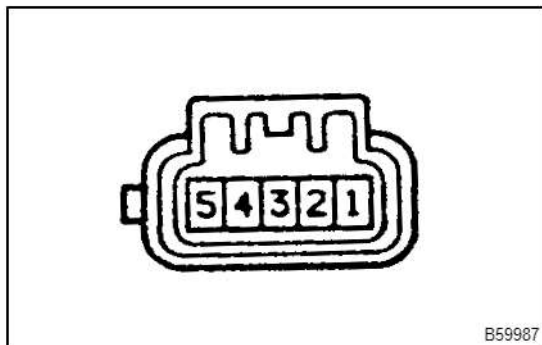
Standard (TMC Made):

Battery connection	Mirror position
Positive (+) – 1 Negative (–) – 2	Turn upward
Positive (+) – 2 Negative (–) – 1	Turn downward
Positive (+) – 3 Negative (–) – 2	Turn left
Positive (+) – 2 Negative (–) – 3	Turn right

Standard (TMMK Made):

Battery connection	Mirror position
Positive (+) – 6 Negative (–) – 2	Turn upward
Positive (+) – 2 Negative (–) – 6	Turn downward
Positive (+) – 3 Negative (–) – 2	Turn left
Positive (+) – 2 Negative (–) – 3	Turn right

If the continuity is not as specified, replace the outer rear view mirror assy RH.



4. INSPECT OUTER REAR VIEW MIRROR ASSY LH (W/ OUTER MIRROR HEATER, TMC MADE)

- (a) Inspect the mirror heater operation.

Standard:

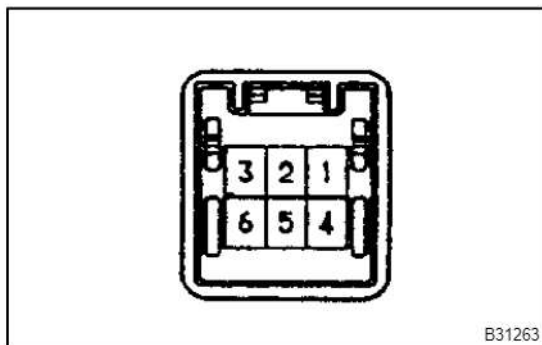
Battery connection	Mirror position
Positive (+) – 2 Negative (–) – 3	Turn upward
Positive (+) – 3 Negative (–) – 2	Turn downward
Positive (+) – 4 Negative (–) – 3	Turn left
Positive (+) – 3 Negative (–) – 4	Turn right

If the continuity is not as specified, replace the outer rear view mirror assy LH.

- (1) Check the resistance between terminals 1 and 5 of the connector.

Resistance: 4.0 – 5.4 Ω

- (2) Check that the mirror is heated up when connecting the battery positive (+) to terminal 4 and the battery negative (–) to terminal 5 of the connector.



5. INSPECT OUTER REAR VIEW MIRROR ASSY LH (W/ OUTER MIRROR HEATER, TMMK MADE)

- (a) Inspect the mirror motor operation.

Standard:

Battery connection	Mirror position
Positive (+) – 6 Negative (–) – 2	Turn upward
Positive (+) – 2 Negative (–) – 6	Turn downward
Positive (+) – 3 Negative (–) – 2	Turn left
Positive (+) – 2 Negative (–) – 3	Turn right

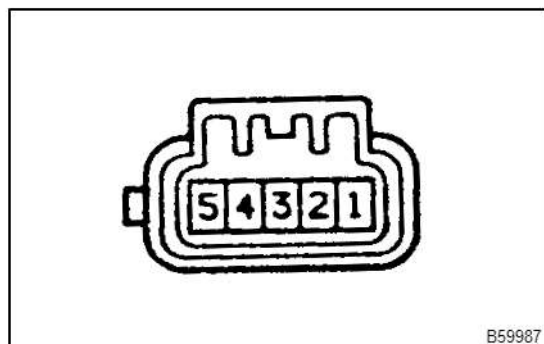
If the continuity is not as specified, replace the outer rear view mirror assy LH.

- (b) Inspect the mirror heater operation.

- (1) Check the resistance between terminals 1 and 4 of the connector.

Resistance: 4.0 – 5.4 Ω

- (2) Check that the mirror is heated up when connecting the battery positive (+) to terminal 4 and the battery negative (–) to terminal 5 of the connector.



6. INSPECT OUTER REAR VIEW MIRROR ASSY RH (W/ OUTER MIRROR HEATER, TMC MADE)

- (a) Inspect the mirror motor operation.

Standard:

Battery connection	Mirror position
Positive (+) – 2 Negative (–) – 3	Turn upward
Positive (+) – 3 Negative (–) – 2	Turn downward
Positive (+) – 4 Negative (–) – 3	Turn left
Positive (+) – 3 Negative (–) – 4	Turn right

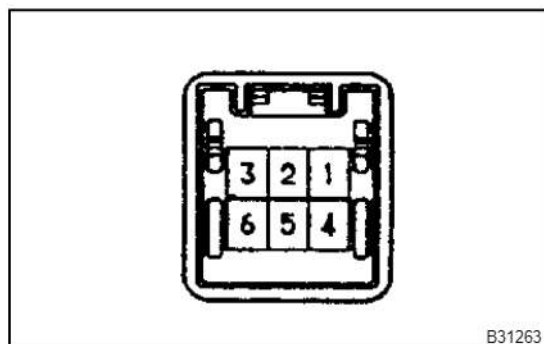
If the continuity is not as specified, replace the outer rear view mirror assy RH.

- (b) Check the mirror heater operation.

- (1) Check the resistance between terminals 1 and 5 of the connector.

Resistance: 4.0 – 5.4 Ω

- (2) Check that the mirror is heated up when connecting the battery positive (+) to terminal 4 and the battery negative (–) to terminal 5 of the connector.



7. INSPECT OUTER REAR VIEW MIRROR ASSY RH (W/ OUTER MIRROR HEATER, TMMK MADE)

- (a) Inspect the mirror motor operation.

Standard:

Battery connection	Mirror position
Positive (+) – 6 Negative (–) – 2	Turn upward
Positive (+) – 2 Negative (–) – 6	Turn downward
Positive (+) – 3 Negative (–) – 2	Turn left
Positive (+) – 2 Negative (–) – 3	Turn right

If the continuity is not as specified, replace the outer rear view mirror assy RH.

- (b) Check the mirror heater operation.

- (1) Check the resistance between terminals 1 and 4 of the connector.

Resistance: 4.0 – 5.4 Ω

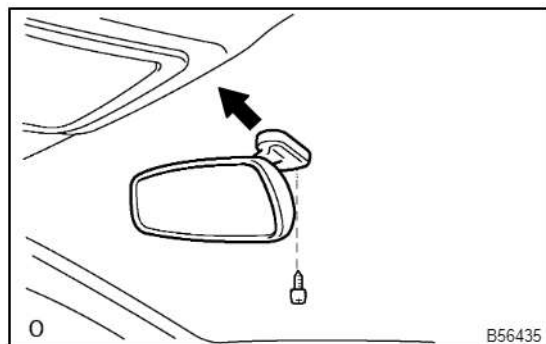
- (2) Check that the mirror is heated up when connecting the battery positive (+) to terminal 4 and the battery negative (–) to terminal 5 of the connector.

INNER REAR VIEW MIRROR ASSY REPLACEMENT

70093-01

HINT:

Installation is according to the reverse order of the removal.

**1. REMOVE INNER REAR VIEW MIRROR ASSY**

- (a) Remove the screw.
- (b) w/ Electro chromic inner mirror:
Remove the inner rear view mirror cover.
- (c) w/ Electro chromic inner mirror:
Disconnect the connector.
- (d) Remove the rear view inner mirror assembly.

PRE-CHECK

1. SELECTING COMPASS DISPLAY MODE

- (a) The comp switch allows you to select a Display or Non-display mode of the compass.

2. SETTING ZONE

- (a) Deviation between the "magnetic north" and "actual north" differs depending on the location. Therefore, adjustment of the magnetism is required. Since the magnetic condition differs according to the area where the vehicle is used, it is necessary for each user to set the zone. (Refer to "Compass Zone Map"). The zone setting can be changed using the comp switch of the inner mirror.

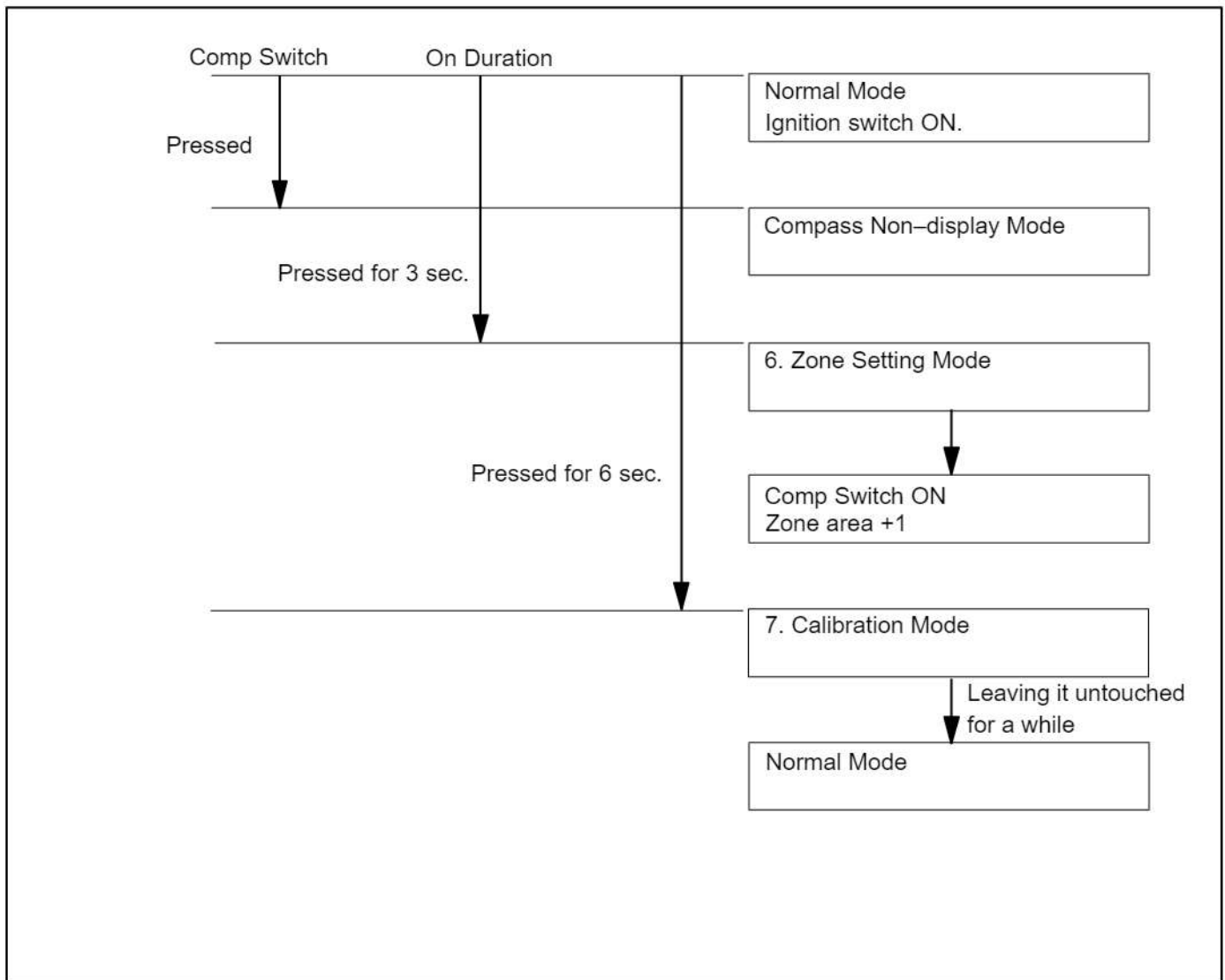
3. PERFORMING CALIBRATION

- (a) Because each vehicle has its own magnetic field, calibration should be performed for each vehicle. This compass function is used when storing the record of the vehicle's magnetic field.

4. WHEN COMPASS MAGNETIZED:

- (a) A compass could be magnetized during shipping by vessels or freight cars. Before delivery, therefore, make sure to perform calibration and ensure that calibration is done properly. If it cannot be done (cannot be complete in spite of driving around several times), it may be caused by magnetization. Demagnetize the vehicle using a demagnetizer and perform calibration again.

5. SETTING COMPASS



6. ZONE SETTING MODE

- (a) Pressing the comp switch for 3 seconds. In the normal mode will activate the zone setting mode. A number (1–15) is displayed on the compass display.

HINT:

In the initial status, "8" is displayed.

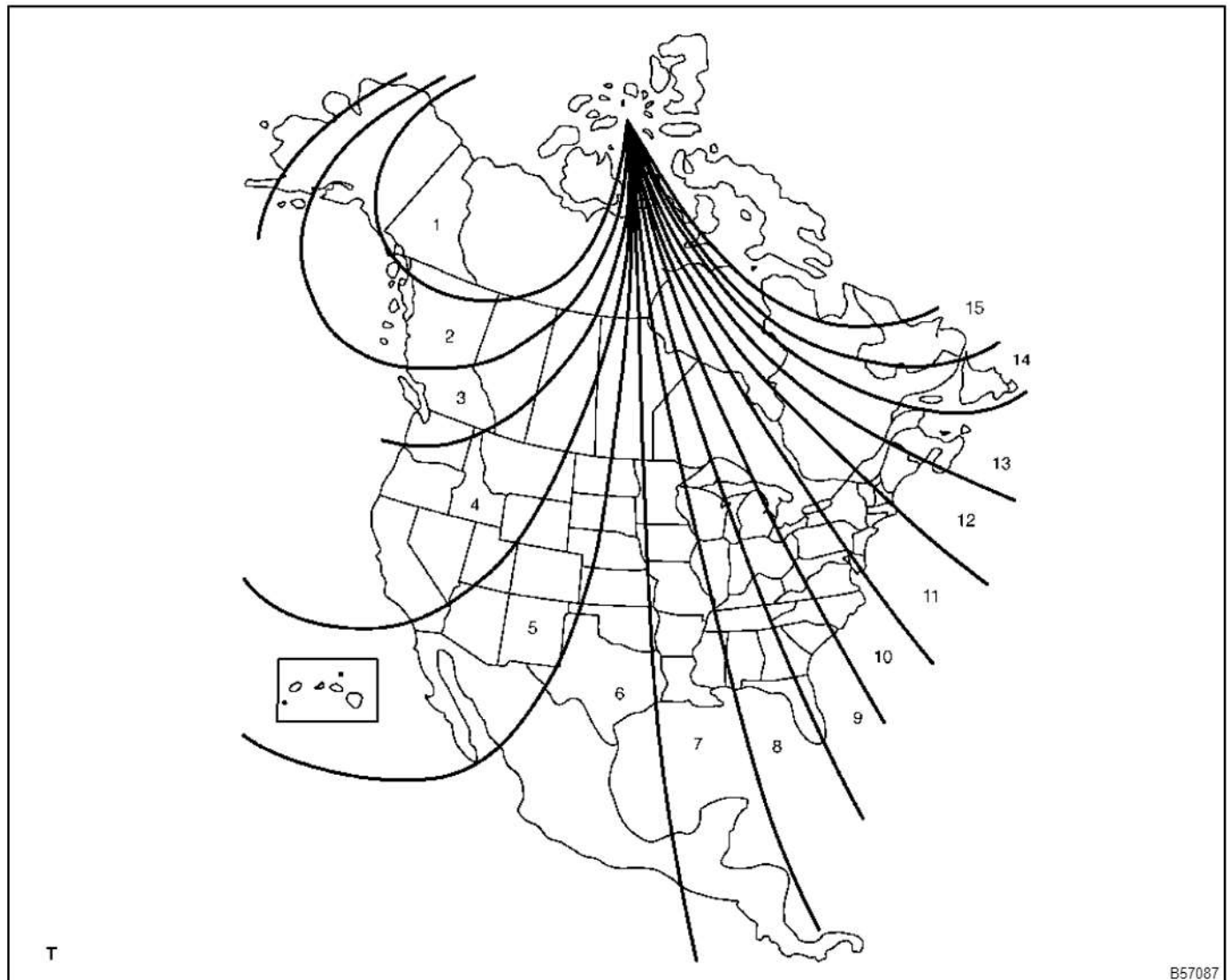
- (b) The displayed number increases +1 every time the comp switch is pressed. Referring to the map, check the number for the area where the vehicle will be used and set the zone number.
- (c) Leave it untouched for several seconds after setting and check that the compass display shows an azimuthal direction (N, NE, E, SE, S, SW, W or NW) or "C".

7. CALIBRATION SETTING MODE

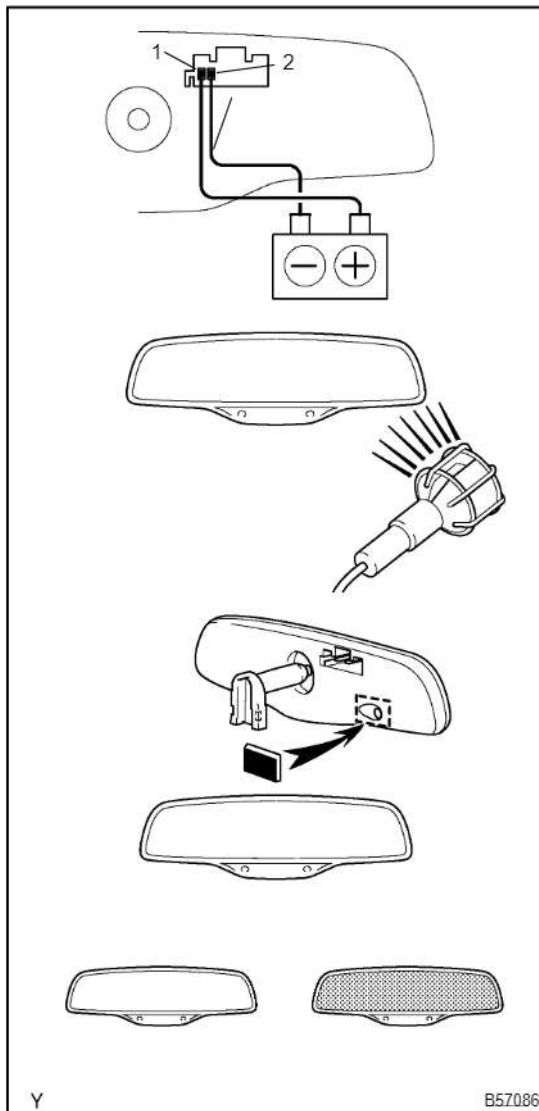
- (a) Pressing the comp switch for 6 seconds. in the normal mode will also activate this mode.
- (b) Drive the vehicle at a slow speed of 8 km/h (5 MPH) or less in the circular direction.
- (c) Driving around the circle 1 to 3 times will display the azimuthal direction on the display, completing the calibration.

HINT:

Once calibration is complete, it is not necessary to perform the above procedures unless the magnetic field strength is drastically changed. If this happens, the azimuthal display will be changed to "C".



INSPECTION



1. INSPECT INNER REAR VIEW MIRROR ASSY

- (a) Inspect the electro chromic inner mirror operation.
 - (1) Connect the positive (+) lead from the battery to terminal 1 and the negative (-) lead to terminal 2.
 - (2) Attach a black colored tape to the forward sensor to prevent it from sensing.
 - (3) Light up the mirror with an electric light, and check that the mirror surface changes from "bright" to "dark".

If the operation is not as specified, replace the inner mirror.

Y

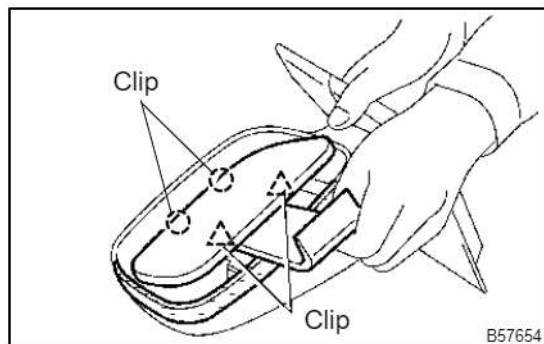
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OUTER REAR VIEW MIRROR SUB-ASSY LH REPLACEMENT

7009F-01

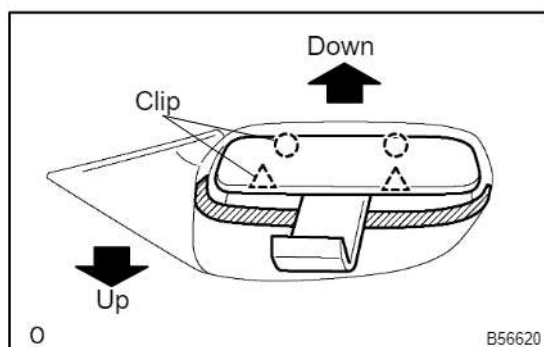
HINT:

In the RH side, work in the same procedure as in the LH side.



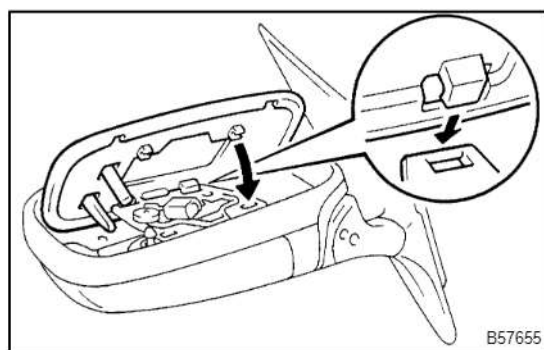
1. REMOVE OUTER REAR VIEW MIRROR SUB-ASSY LH(TMC made)

- Tape the lower part of outer mirror body with protection tape.
- Using a roof-moulding remover, disengage the clips placed in the lower part of mirror.
- Pull out the outer rear view mirror.



2. REMOVE OUTER REAR VIEW MIRROR SUB-ASSY LH(TMMK made)

- Tape the upper part of outer mirror body with protection tape.
- Using a roof-moulding remover, disengage the clips placed in the upper part of the mirror.
- Pull out the outer rear view mirror.



3. INSTALL OUTER REAR VIEW MIRROR SUB-ASSY LH(TMC made)

- Insert the claws placed in the upper part of backside of the mirror into the actuator hole.
- Set the mirror in the actuator.
- Insert the lower portion of mirror to engage the 2 clips securely.

4. INSTALL OUTER REAR VIEW MIRROR SUB-ASSY LH(TMMK made)

- Insert the claws placed in the lower part of backside of the mirror into the actuator hole.
- Set the mirror in the actuator.
- Insert the upper portion of mirror to engage the 2 clips securely.