I3 WINDSHIELD WINDOWGLASS/MIRROR

1 WINDSHIELD GLASS

1-1 REMOVAL AND INSTALLATION

1-1-1 ARTICLES TO BE PREPARED

Tool

Sealant gun,Drill or eyeleteer (heavy needle to make a hole),Cutter knife,Rubber suction cups

Lubricant,adhesive,others

Seal set (Part number : 999-09600-U9-001),Wooden block,Protective tape,Cloth,Alcohol or white gasoline,

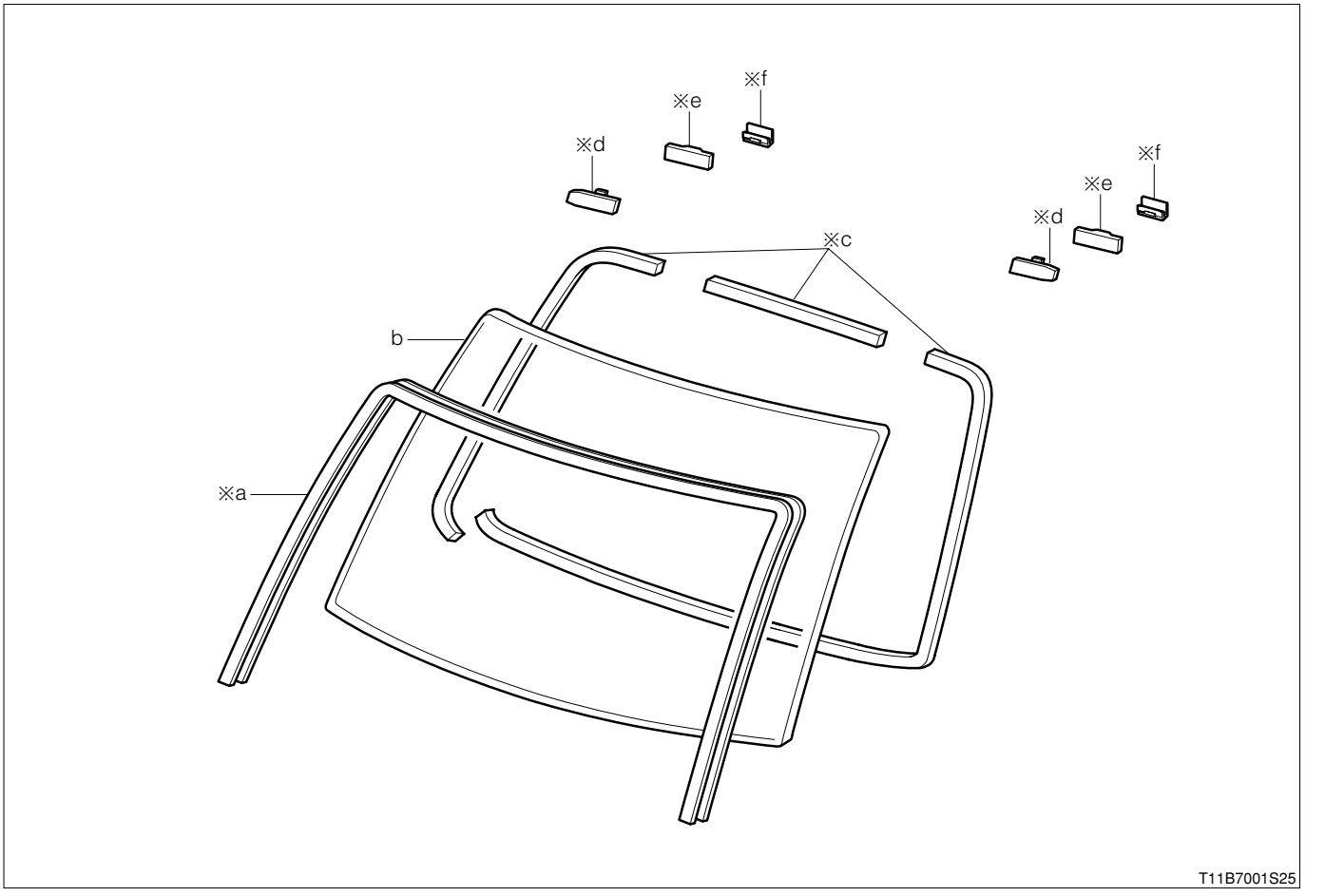
1-1-2 OPERATION BEFORE REMOVAL

1.Remove the cowl top ventilator louver RH/LH.
Refer to Page I2-8.

2.Remove the instrument panel.
Refer to Page I2-23.

1-1-3 REMOVAL AND INSTALLATION PROCEDURES

(1) Components



※:Non-reusable parts.
The window glass adhesive dam is supplied as a single part in length necessary for one car.

(2) Removal procedures

1 a Moulding, windshield, outside
▼ 2 b Glass S/A, windshield
3 c Dam, window glass adhesive
4 d Stopper, windshield glass

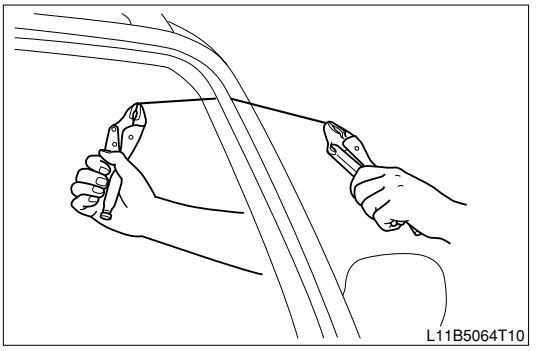
(3) installation procedures

▲ 1 f Stopper, windshield glass, No.1(For repair)
▲ 2 e Stopper, windshield glass, No.2 (For repair)
▲ 3 c Dam, window glass adhesive
▲ 4 b Glass S/A, windshield
▲ 5 a Moulding, windshield, outside

1-1-4 POINTS OF REMOVAL

(1) Glass S/A, windshield

1.Apply a protective seal to the body around the edge of the glass.
2.Make a hole in the adhesive layer and pass a piano wire through it.
3.Using the piano wire, saw the adhesive layer.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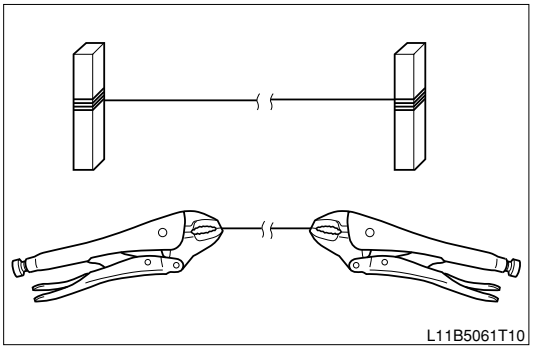
CAUTION

- When cutting the glass adhesive layer, attach a wooden block to each end of the piano wire or fit vice pliers to it.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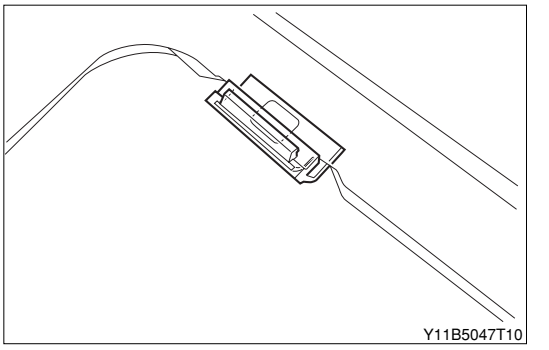
1-1-5 POINTS OF INSTALLATION

(1) Stopper, windshield glass, No.1

1.Attach the stopper to the body hook section. (Two sections at both right and left)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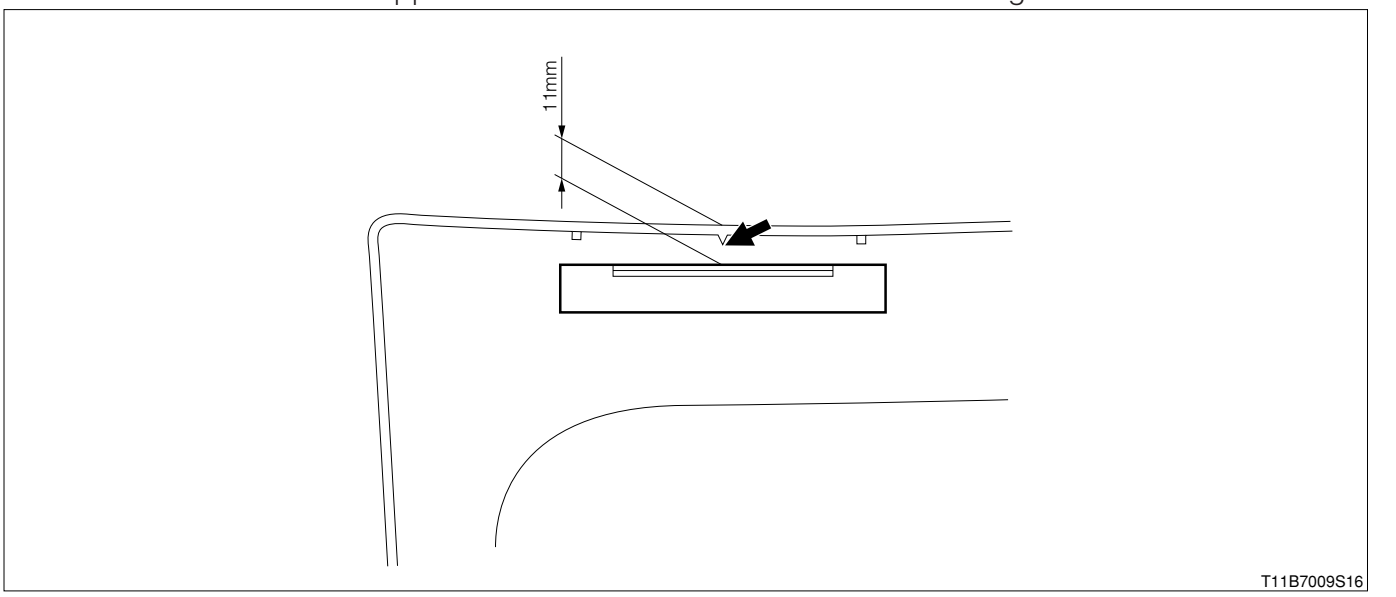
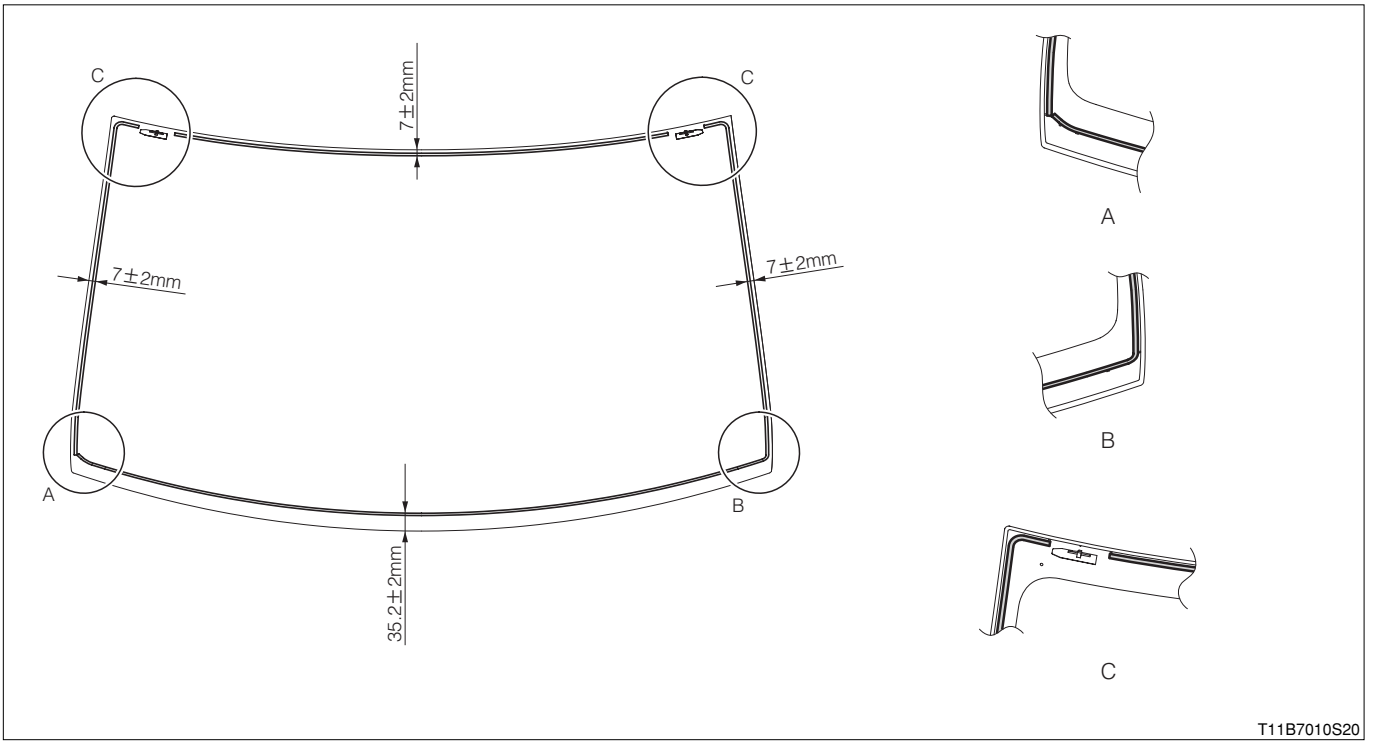
(2) Stopper, windshield glass, No.2

1.Affix the stopper to the position shown at the figure below. (Two sections at both right and left)
2.Match the center of the stopper with the cut-out section and affix it to the glass.



(3) Dam, window glass adhesive

1.Attach the dam to the position shown in the figure below based on the procedure below.
Match the dams at the corner. (Area A)
Do not bend. (Area B)
Cut the dam at the ceramic cut-out section and affix. (Area C)



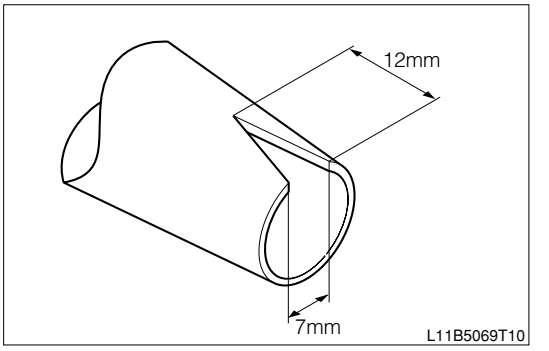
(4) Glass S/A, windshield

1.Apply glass primer to the glass side adhesive section.

CAUTION

- Do not coat thickly.
- Do not coat the adhesive.
- Proceed with work after the primer is dry.

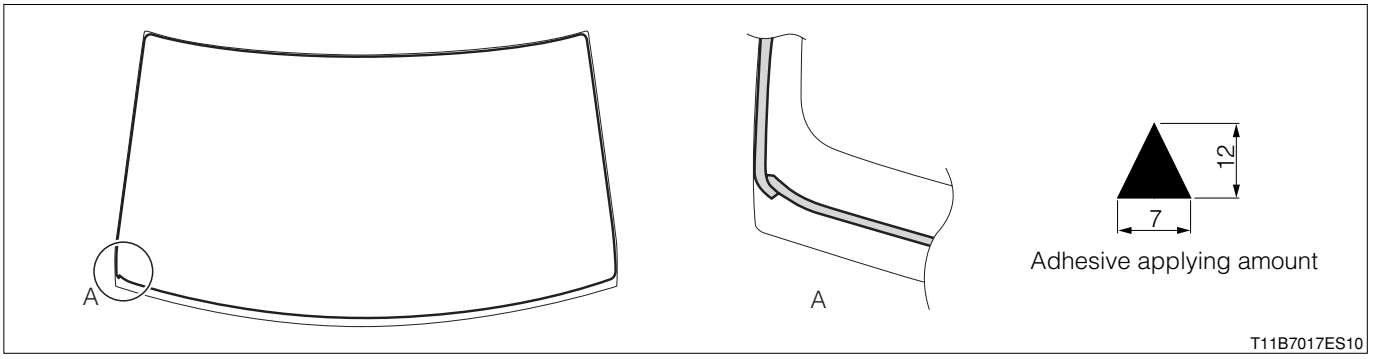
2.Cut the cartridge nozzle tip as shown in the illustration at right.



3.Load the cartridge into the gun and apply adhesive all the way around the dam.

CAUTION

- Proceed with work after the primer is dry.
- Apply the adhesive amply to the corners.
- Overlap adhesive at the corner. (Area A)



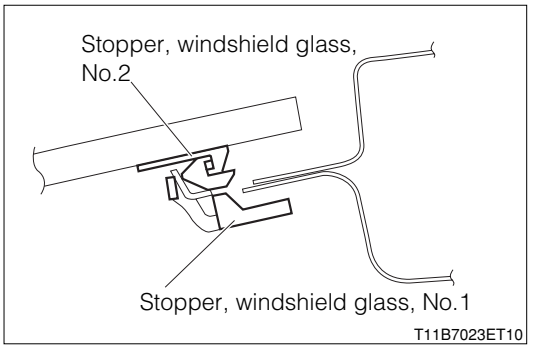
4.Using a suction rubber cup, hook the No.2 windshield glass stopper mounted to the glass S/A to the No.1 windshield glass stopper mounted on the body.

TOOL:

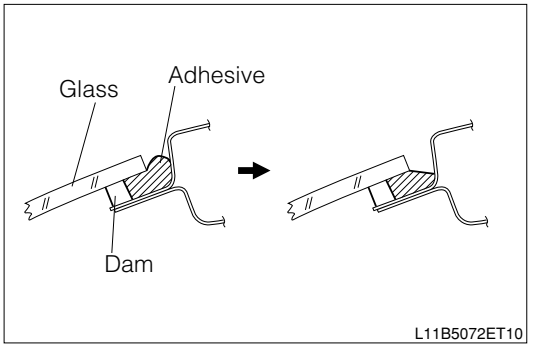
5.Lightly push the glass front surface to fit it firmly.

CAUTION

- Install the glass within 5 minutes after applying the adhesive.



6.Using a spatula or the like, correct any adhesive oozing out from the glass top section and side sections.



(5) Moulding, windshield, outside

1.Before the adhesive hardens, install the moulding.
2.After the adhesive hardens, check for water leakage.

CAUTION

- If water leaks, after removing water, reapply the glass from the beginning.
- If you move the vehicle after the glass installation, move the vehicle gently.

NOTE

- Refer to the seal set instruction manual for information regarding the adhesive's minimum drying time.

1-1-6 OPERATION AFTER INSTALLATION

1.Install the instrument panel.
Refer to Page I2-23.

2.Install the cowl top ventilator louver RH/LH.
Refer to Page I2-8.

2 BACK DOOR WINDOW

2-1 REMOVAL AND INSTALLATION

2-1-1 ARTICLES TO BE PREPARED

Tool

Sealant gun,Drill or eyeleteer (heavy needle to make a hole),Cutter knife,Rubber suction cups

Lubricant,adhesive,others

Seal set (Part number : 999-09600-U9-001),Wooden block,Protective tape,Cloth,Alcohol or white gasoline,

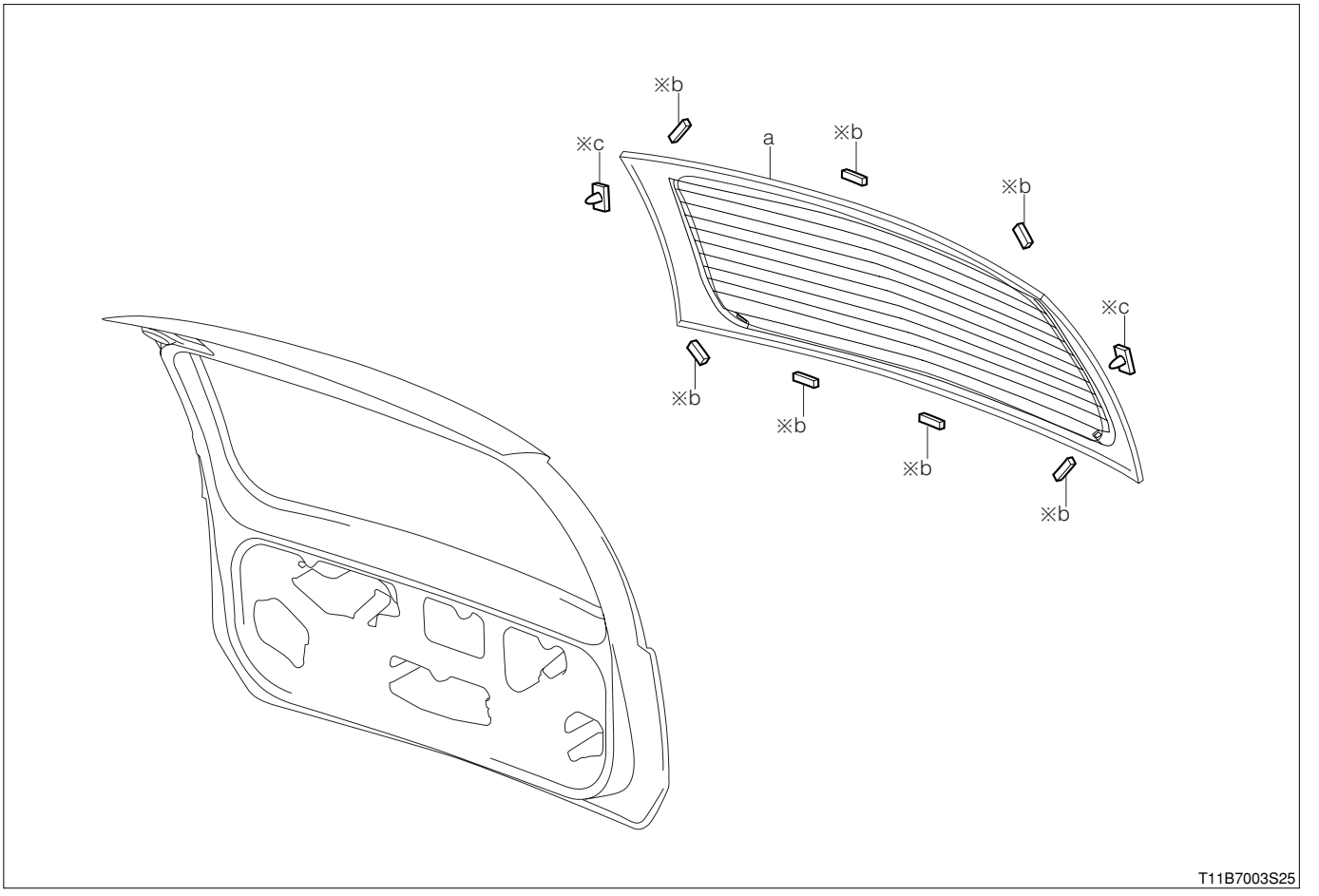
2-1-2 OPERATION BEFORE REMOVAL

1.Remove the rear wiper arm Ay.
Refer to Page J2-15.

2.Remove the rear upper spoiler S/A (Roof end spoiler equipped vehicles).
Refer to Page I2-11.

2-1-3 REMOVAL AND INSTALLATION PROCEDURES

(1) Components



※:Non - reusable parts

(2) Removal and installation procedures

▼ ▲ 1 a Glass, back door
▲ 2 b Spacer, back window glass
▲ 3 c Clip, back window glass, RH

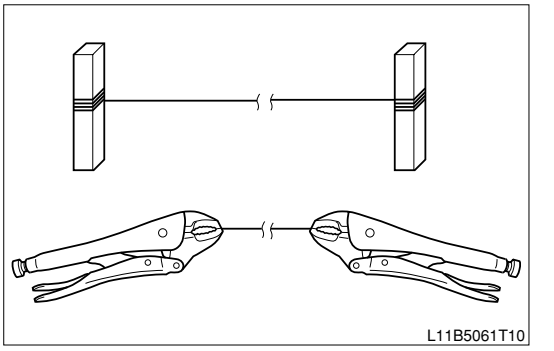
2-1-4 POINTS OF REMOVAL

(1) Glass, back door

1.Apply a protective tape to the body around the edge of the glass.
2.Make a hole in the adhesive layer and pass a piano wire through it.
3.Using the piano wire, saw the adhesive layer.

CAUTION

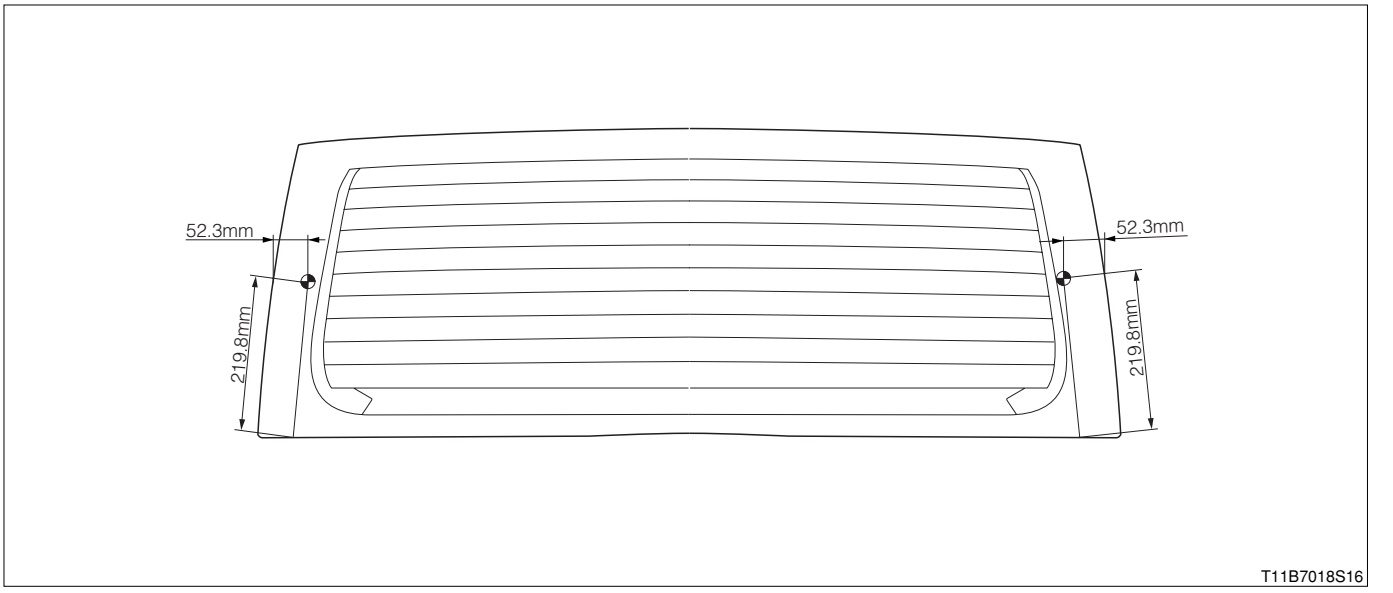
- When cutting the glass adhesive layer, attach a wooden block to each end of the piano wire or fit vice pliers to it.



2-1-5 POINTS OF INSTALLATION

(1) Clip, back window glass, RH

1.Attach to the positions shown below.



CAUTION

- The dimension in the illustration is the one along the glass surface.

(2) Spacer, back window glass

1.Use a cutter knife to smooth the cut adhesive layers on the body side and glass side.

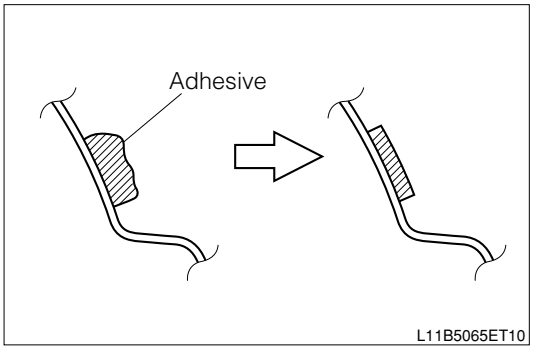
CAUTION

- Degrease the cutter knife.
- Leave a thin film of the adhesive layer.

2.Apply body primer to exposed body surfaces of the body side adhesion area.

CAUTION

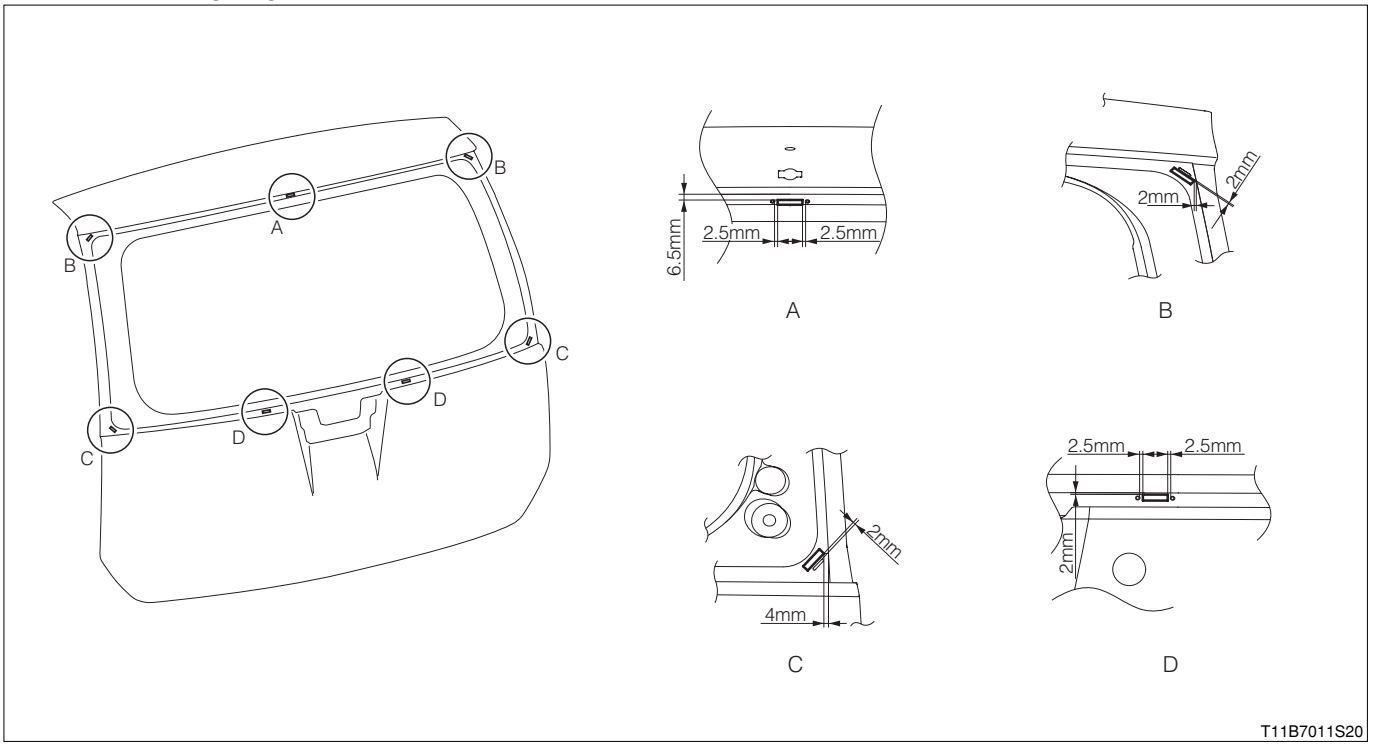
- Do not coat thickly.
- Do not coat the adhesive.
- After the primer is dry, proceed with the work.



3.Install the spacer. (7 points)

CAUTION

- Attach, aligning with the mark.



(3) Glass, back door

1.When installing new glass, apply glass primer to the glass adhesive section.

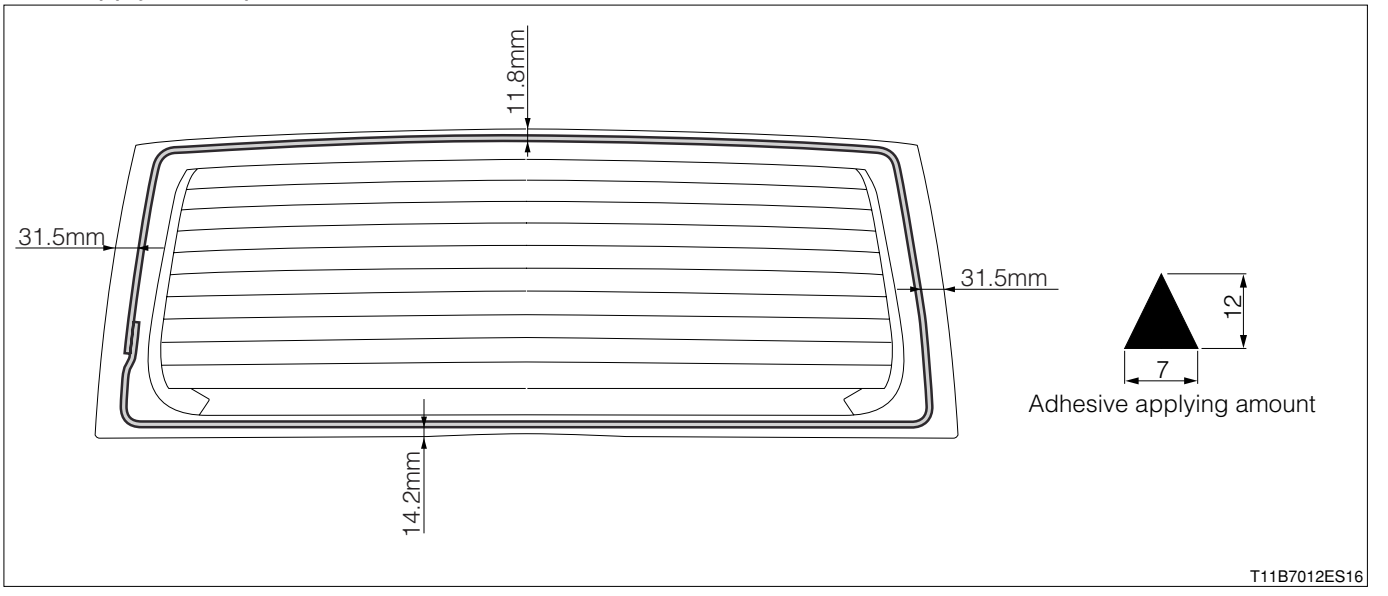
CAUTION

- Do not coat thickly.
- Do not coat the adhesive.
- After the primer is dry, proceed with the work.

2.Mount the cartridge in the gun. Apply the adhesive to the positions shown at the figure below.

CAUTION

- After the primer is dry, proceed with the work.
- Apply an ample amount of adhesive to the corners.



3.Using a suction rubber, install the glass. Install it firmly by lightly pushing the glass front surface.

CAUTION

- After applying the adhesive, install the glass within 5 minutes.

4.After the adhesive hardens, check for water leakage.

CAUTION

- If water leaks, after removing water, reapply the glass from the beginning.
- If you move the vehicle after the glass installation, move the vehicle gently.

2-1-6 OPERATION AFTER INSTALLATION

1.Install the rear upper spoiler S/A (Roof end spoiler equipped vehicles).

Refer to Page I2-11.

2.Install the rear wiper arm Ay.

Refer to Page J2-15.

3 POWER WINDOW MASTER SWITCH

3-1 REMOVAL AND INSTALLATION

Refer to Page I1-8.

4 FRONT DOOR POWER WINDOW SWITCH

4-1 REMOVAL AND INSTALLATION

Refer to Page I1-8.

5 REAR DOOR POWER WINDOW SWITCH

5-1 REMOVAL AND INSTALLATION

Refer to Page I1-15.

6 FRONT DOOR REGULATOR

6-1 REMOVAL AND INSTALLATION

Refer to Page I1-11.

7 REAR DOOR REGULATOR

7-1 REMOVAL AND INSTALLATION

Refer to Page I1-18.

8 POWER WINDOW SYSTEM

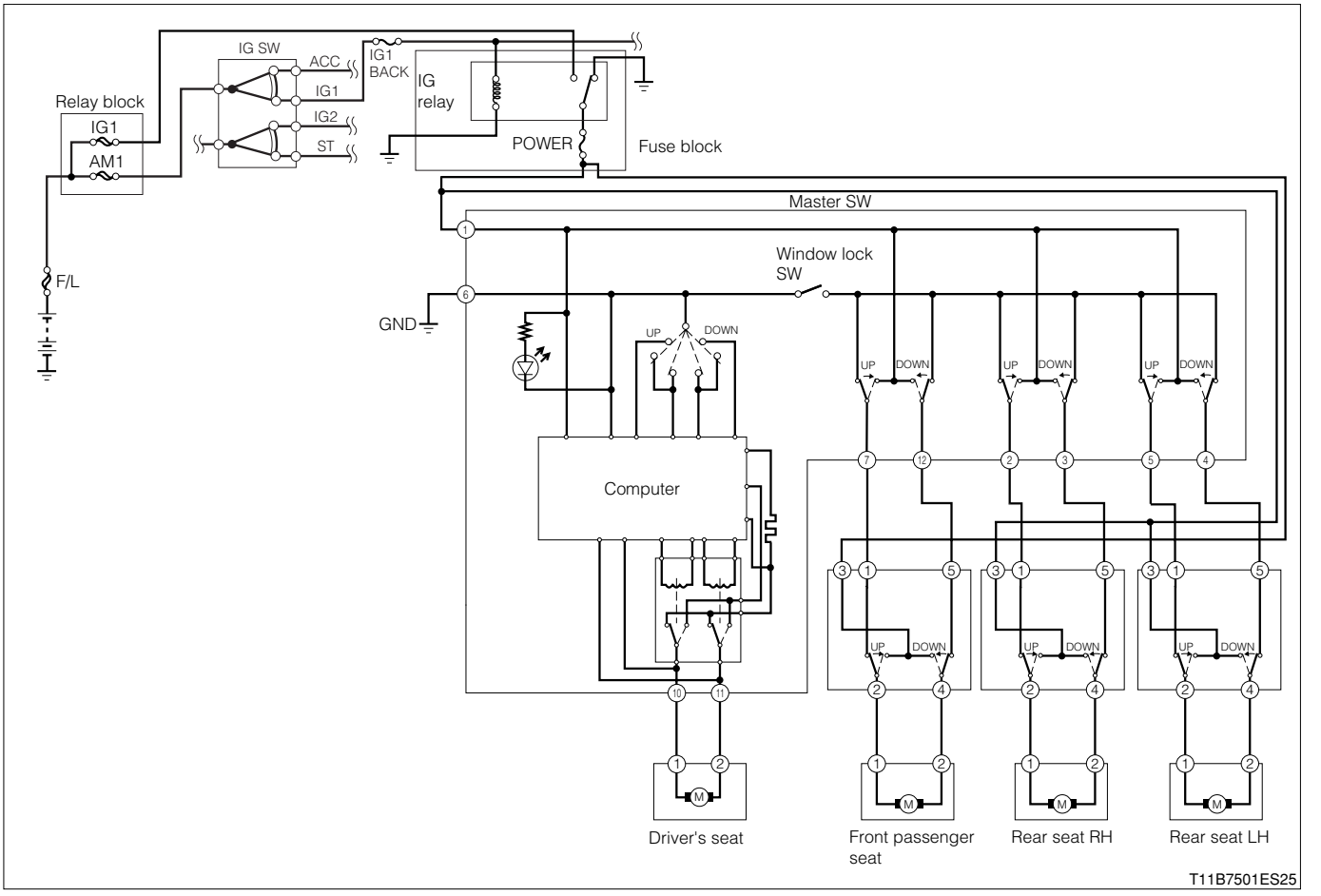
8-1 ARTICLES TO BE PREPARED

Instrument

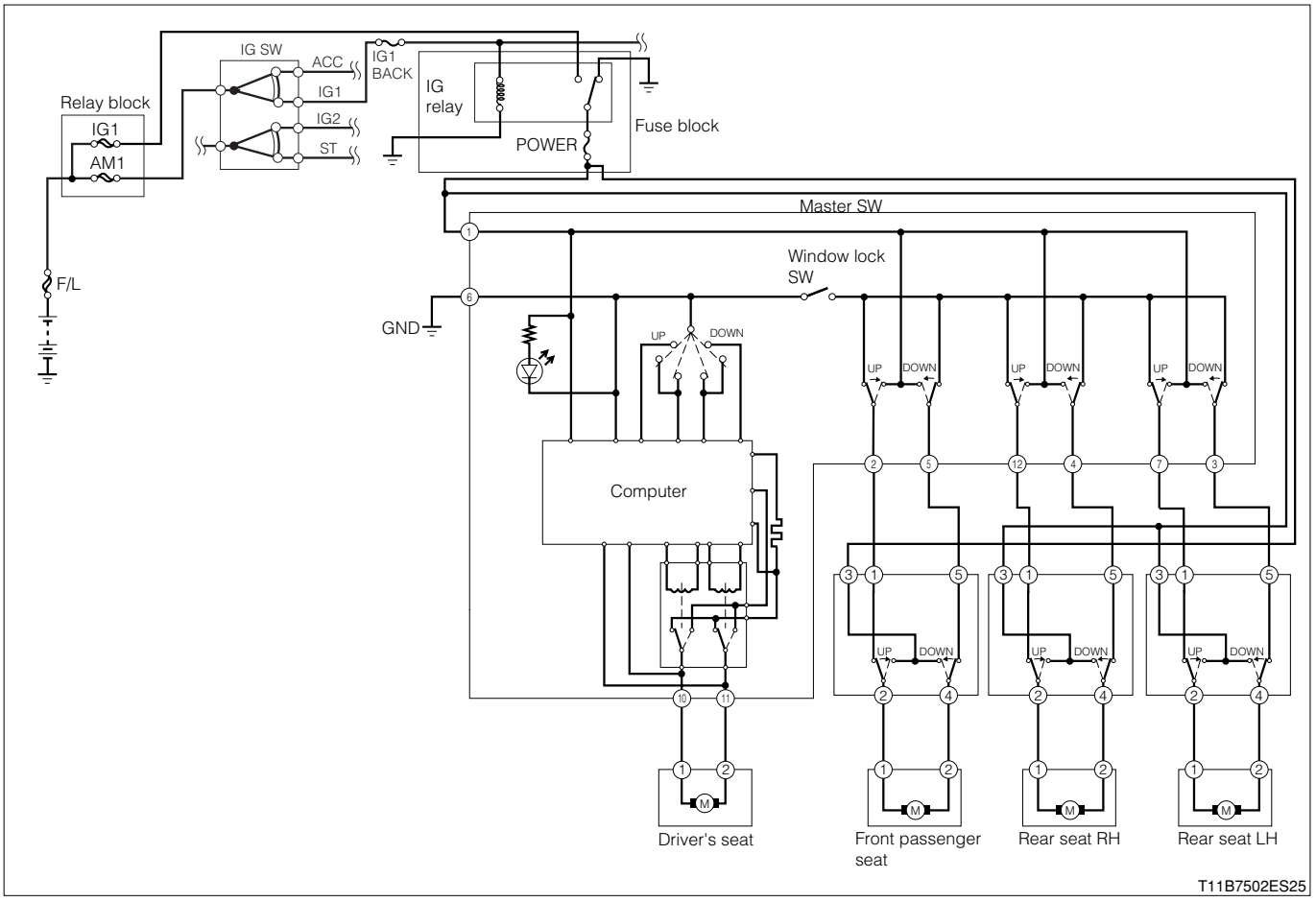
Voltage tester

8-2 SYSTEM WIRING DIAGRAM

RHD vehicles

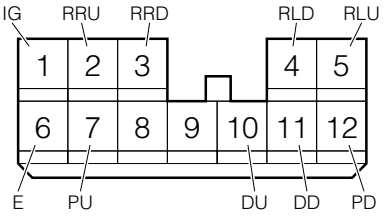


LHD vehicles

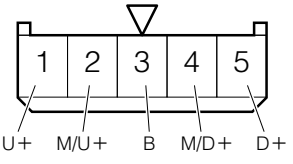


8-3 ARRANGEMENT OF VEHICLE HARNESS SIDE CONNECTOR TERMINALS

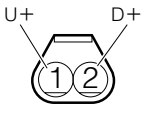
RHD vehicles



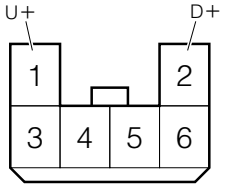
Driver's seat master switch



Front passenger seat • rear seat switch



Driver's seat motor
Front passenger seat motor



Rear seat motor

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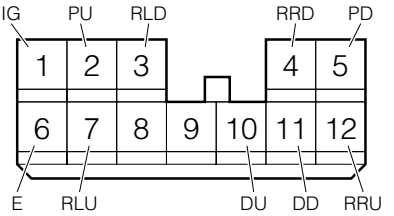
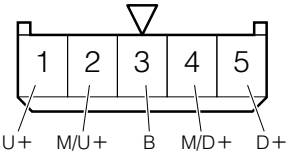
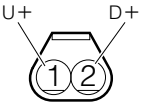
LHD vehicles



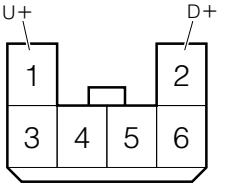
Driver's seat master switch



Front passenger seat • rear seat switch



Driver's seat motor
Front passenger seat motor



Rear seat motor

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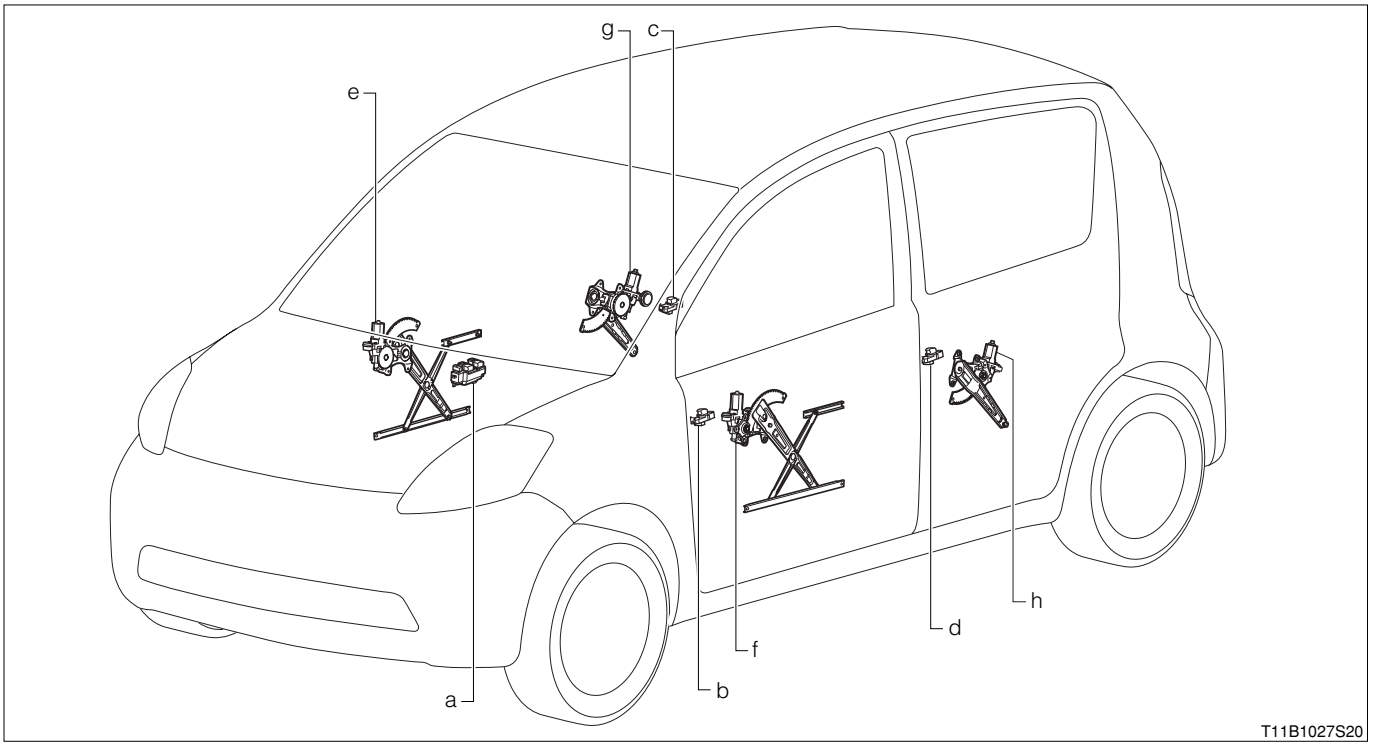
8-4 LOCATION OF COMPONENTS



T11B1027S20

a	Power window master switch
b	Front door power window switch
c	Rear door power window switch RH
d	Rear door power window switch LH
e	Front door regulator motor RH
f	Front door regulator motor LH
g	Rear door regulator motor RH
h	Rear door regulator motor LH

8-5 HOW TO PROCEED WITH TROUBLE SHOOTING

8-5-1 INQUIRY

1. In your attempt to remove the causes for a malfunction of the vehicle, you will not able to remove the causes unless you actually confirm the malfunctioning phenomenon. No matter how long you continue operations, the vehicle may not resume the normal state unless you confirm the malfunctioning phenomenon. The inquiry with the customer is a vital information collecting activity which is to be conducted previous to the confirmation of malfunctioning phenomenon.
2. This inquiry will provide you with an important clue in an effort to reproduce the malfunctioning phenomenon. Furthermore, the information obtained by the inquiry can be referred to during the troubleshooting. Hence, instead of making general questions, it is necessary to focus your questions on the items related to the malfunction.

(1) DIAGNOSIS BY INTERVIEW SHEET FOR POWER WINDOW SYSTEM

Checked by		Check date	Day Month (day of week)

Customer information

Name of customer	Mr./Ms.	Gender of customer (Male, female)	Age [approx.]	Occupation [ ]	
		Area where vehicle is mainly used	Urban, suburb, seashore, mountain, others	Parking place	Outdoor, indoor

Details of vehicle

Date when vehicle was brought to workshop	Day Month (day of week)	Date when malfunction took place	Day Month (day of week)	Repair history	No,Yes (How many times?)
Frame No.		Registration date	Day Month Year	Vehicle model	
Engine type		Transmission	5M/T·3A/T·4A/T·CVT electronically-controlled 4A/T	Driving	2WD·4WD
Running distance	km	Equipment	Tire [ ]· Wheel [Steel · Aluminum]		

Weather

☐ Fine	☐ Cloudy	☐ Rainy	☐ Snow	☐ Other( )
Temperature(Approx.)				

Frequency of malfunction

☐ Always	☐ Under certain condition( )	☐ Sometimes( )

Phenomenon

☐ Power window at the driver`s seat will not operate.
☐ Power window at the front passenger seat will not operete.
☐ Power window at the rear seat will not operate.
☐ It does not operate automatically(can be operated manuslly).
☐
☐
☐ Other

8-6 BASIC CHECK

8-6-1 MANUAL OPERATION

1.With the ignition switch set to ON position, perform the following checks.
(1) By means of the master switch at the driver's seat and power window switch at each door, each door glass can be opened or closed.
(2) When the window lock switch at the driver's seat is set to LOCK position, no operation can be made by the power window switches at the front passenger's seat and rear seats.

8-6-2 AUTOMATIC OPERATION FUNCTION

1.With the ignition switch set to ON position, perform the following checks.
(1) By means of the master switch at the driver's seat side, perform 2-step operation for the driver's seat side door glass in the up and down directions. Ensure that up and down automatic operations are executed, and the door stops at the full open or full closed position.
(2) By means of the master switch at the driver's seat side, perform 2-step operation for the driver's seat side door glass in the down direction. Ensure that down automatic operation is executed, and the door stops at the full open position.
(3) Operate the power window switch in the reverse direction during the automatic operation. Ensure that the automatic operation stops.

8-7 TROUBLE SHOOTING ACCORDING TO MALFUNCTION PHENOMENA

8-7-1 POWER WINDOW AT THE DRIVER`S SEAT WILL NOT OPERATE.

Σ1. Check earth of master switch

1.Check continuity between terminals below.
(1) Between the earth wire 6 of the master switch and the body earth
SPECIFIED VALUE: Continuity exists

▼If it is OK, go to Σ2.
▼If it is NG, repair the earth wire.

Σ2. Check of master switch voltage

1.Check the voltage of the terminals below.
(1) Between the master switch 1 and the master switch 6
SPECIFIED VALUE: 10 — 14V

▼If it is OK, go to Σ4.
▼If it is NG, go to Σ3.

Σ3. Battery voltage check

1.Check the battery voltage.
SPECIFIED VALUE: 10 — 14V

▼If it is OK, check defect of wire harness and repair.
▼If it is NG, charge the battery.

Σ>4. Wiring harness check

1.Check continuity and short circuit between terminals below.

(1) Between the vehicle harness side connector 10 of the master switch and the harness side connector 1 between motors

(2) Between the vehicle harness side connector 11 on the master switch and the connector 2 on harness side between motors

SPECIFIED VALUE: Continuity exists and no short circuit occurs.

▼If it is OK, go to Σ>5.

▼If it is NG, repair the wire harness.

Σ>5. power window motor check

1.Remove the power window motor and check operation when applying 12V to the motor connector directly.

SPECIFIED VALUE: Rotates normally.

▼If it is OK, replace the master switch.

▼If it is NG, replace the driver's seat side power window motor.

8-7-2 POWER WINDOW AT THE FRONT PASSENGER SEAT WILL NOT OPERETE

Σ>1. Check of master switch condition

1.Check that the window lock switch is at "unlock" position.

SPECIFIED VALUE: It is in the unlocked position.

▼If it is OK, go to Σ>2.

▼If it is NG, turn the window lock switch to "unlocked" position.

Σ>2. Switch power voltage check

1.Turn the IG switch "ON."

2.Check the voltage between terminals below.

(1) Between the master switch 1 and the body earth

(2) Between the front passenger's seat side switch 3 and the body earth.

SPECIFIED VALUE: 10 — 14V

▼If it is OK, go to Σ>3.

▼If it is NG, check the battery voltage, fuse/fusible link, and continuity of the harness.

Σ>3. Master switch operation check

1.Check that the operation can be performed by the master switch.

SPECIFIED VALUE: The operation can be performed.

▼If it is OK, replace the passenger's seat side switch.

▼If it is NG, go to Σ>4.

Σ>4. Front passenger's seat side switch operation check

1.Check that the operation can be performed by the front passenger's seat side switch.

SPECIFIED VALUE: The operation can be performed.

▼If it is OK, replace the master switch.

▼If it is NG, go to Σ>5.

∑>5. Harness check between the master switch and the front passenger's seat side switch

1.Check continuity and short circuit between terminals below.

RHD vehicles

(1) Between the vehicle harness side connector 7 on the master switch and the vehicle harness side connector 1 on the front passenger's seat side switch

(2) Between the vehicle harness side connector 12 on the master switch and the vehicle harness side connector 5 on the front passenger's seat side switch

LHD vehicles

(3) Between the vehicle harness side connector 2 on the master switch and the vehicle harness side connector 1 on the front passenger's seat side switch

(4) Between the vehicle harness side connector 5 on the master switch and the vehicle harness side connector 5 on the front passenger's seat side switch

SPECIFIED VALUE: Continuity exists and no short circuit occurs.

▼If it is OK, go to ∑>6.

▼If it is NG, repair the wire harness.

∑>6. Master switch earth check

1.With the window lock switch at "unlocked," check continuity between terminals below.

RHD vehicles

(1) Between the vehicle harness side connector 7 on the master switch and the body earth

(2) Between the vehicle harness side connector 12 on the master switch and the body earth

LHD vehicles

(3) Between the vehicle harness side connector 2 on the master switch and the body earth

(4) Between the vehicle harness side connector 5 on the master switch and the body earth

SPECIFIED VALUE: Continuity exists

▼If it is OK, go to ∑>7.

▼If it is NG, replace the master switch.

∑>7. Power window motor earth check

1.With the switch turned "OFF," check continuity between terminals below.

(1) Between the power window motor 1 and the body earth

(2) Between the power window motor 2 and the body earth

SPECIFIED VALUE: Continuity exists.

▼If it is OK, go to ∑>9.

▼If it is NG, go to ∑>8.

∑>8. Front passenger's seat side switch unit check

1.Check continuity between terminals below.

(1) Between the front passenger's seat side switch 1 and the front passenger's seat side switch 2

(2) Between the front passenger's seat side switch 4 and the front passenger's seat side switch 5

SPECIFIED VALUE: Continuity exists.

▼If it is OK, repair the wire harness.

▼If it is NG, replace the front passenger's seat side switch.

⊳9. Power window motor power voltage check (1)

1.Check voltage between terminals below during the up and down operation of the front passenger's seat side switch.
(1) Between the power window motor 1 and the power window motor 2
SPECIFIED VALUE: 10 — 14V

▼If it is OK, go to ⊳4.
▼If it is NG, replace the front passenger's seat side switch.

⊳10. Power window motor power voltage check (2)

1.Check the voltage between terminals below during the up and down operation of the master switch.
(1) Between the power window motor terminal 1 and the body earth
(2) Between the power window motor terminal 2 and the booty earth
SPECIFIED VALUE: 10 — 14V

▼If it is OK, replace the power window motor.
▼If it is NG, replace the master switch.

8-7-3 POWER WINDOW AT THE REAR SEAT WILL NOT OPERATE.

⊳1. Master switch condition check

1.Check that the window lock switch is at "unlocked."
SPECIFIED VALUE: It is in the unlocked position.

▼If it is OK, go to ⊳2.
▼If it is NG, turn the window lock switch to the "unlocked" position.

⊳2. Master switch power voltage check

1.Turn "ON" the IG switch.
2.Check the voltage between terminals below.
(1) Between the master switch terminal 1 and the body earth
(2) Between the rear seat's switch terminal 3 and the body earth
SPECIFIED VALUE: 10 — 14V

▼If it is OK, go to ⊳1.
▼If it is NG, check the battery voltage, fuse/fusible link, and continuity of harness.

⊳3. Check of master switch operation

1.Check that the operation can be performed by the master switch.
SPECIFIED VALUE: The operation can be performed.

▼If it is OK, replace the rear seat's switch.
▼If it is NG, go to ⊳2.

⊳4. Rear seat's switch operation check

1.Check that the operation can be performed by the rear seat's switch.
SPECIFIED VALUE: The operation can be performed.

▼If it is OK, replace the master switch.
▼If it is NG, go to ⊳3.

∑5. Wire harness check

1.Check continuity between the master switch terminal below and the rear seat's switch terminal.

RHD vehicles

2.Rear left seat

(1) Between the vehicle harness side connector 5 on the master switch and the vehicle harness side connector 1 on the rear seat's switch

(2) Between the vehicle harness side connector 4 on the master switch and the vehicle harness side connector 5 on the rear seat's switch

3.Rear right seat

(1) Between the vehicle harness side connector 3 on the master switch and the vehicle harness side connector 5 on the rear seat's switch

(2) Between the vehicle harness side connector 2 on the master switch and the vehicle harness side connector 1 on the rear seat's switch

LHD vehicles

4.Rear left seat

(1) Between the vehicle harness side connector 7 on the master switch and the vehicle harness side connector 1 on the rear seat's switch

(2) Between the vehicle harness side connector 3 on the master switch and the vehicle harness side connector 5 on the rear seat's switch

5.Rear right seat

(1) Between the vehicle harness side connector 4 on the master switch and the vehicle harness side connector 5 on the rear seat's switch

(2) Between the vehicle harness side connector 12 on the master switch and the vehicle harness side connector 1 on the rear seat's switch

SPECIFIED VALUE: Continuity exists.

▼If it is OK, go to ∑0.

▼If it is NG, repair the wire harness.

∑6. Master switch earth check

1.Check continuity between terminals below with the window lock switch "unlocked."

RHD vehicles

(1) Between the vehicle harness side connector 2 on the master switch and the vehicle harness side connector 6 on the master switch

(2) Between the vehicle harness side connector 3 on the master switch and the vehicle harness side connector 6 on the master switch

(3) Between the vehicle harness side connector 4 on the master switch and the vehicle harness side connector 6 on the master switch

(4) Between the vehicle harness side connector 5 on the master switch and the vehicle harness side connector 6 on the master switch

LHD vehicles

(5) Between the vehicle harness side connector 3 on the master switch and the vehicle harness side connector 6 on the master switch

(6) Between the vehicle harness side connector 4 on the master switch and the vehicle harness side connector 6 on the master switch

(7) Between the vehicle harness side connector 7 on the master switch and the vehicle harness side connector 6 on the master switch

(8) Between the vehicle harness side connector 12 on the master switch and the vehicle harness side connector 6 on the master switch

SPECIFIED VALUE: Continuity exists.

▼If it is OK, go to ⊳7.

▼If it is NG, replace the master switch.

⊳7. Power window motor earth check

1.With the switch turned "OFF," check continuity between terminals below.

(1) Between the power window motor 1 and the power window motor 2

SPECIFIED VALUE: Continuity exists.

▼If it is OK, go to ⊳9.

▼If it is NG, go to ⊳8.

⊳8. Rear seat's switch unit check

1.Check continuity between rear seat's switch terminals below.

(1) Between the rear seat's switch 1 and the rear seat's switch 2

(2) Between the rear seat's switch 4 and the rear seat's switch 5

SPECIFIED VALUE: Continuity exists.

▼If it is OK, repair the wire harness.

▼If it is NG, replace the rear seat's switch.

⊳9. Power window motor power voltage check (1)

1.Check the voltage between terminals below during the up and down operation of the rear seat's switch.

(1) Between the power window motor 1 and the window motor 2.

SPECIFIED VALUE: 10 — 14V

▼If it is OK, go to ⊳10.

▼If it is NG, replace the rear seat's switch.

⊳10. Power window motor power voltage check (2)

1.Check the voltage between terminals below during the up and down operation of the master switch.

(1) Between the power window motor 1 and the window motor 2

SPECIFIED VALUE: 10 — 14V

▼If it is OK, replace the power window motor.

▼If it is NG, replace the master switch.

8-8 UNIT CHECK

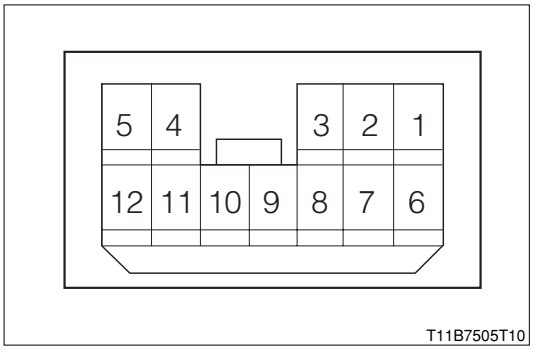
8-8-1 DRIVER'S SEAT MASTER SWITCH

(1) Continuity check

1.Check continuity between each terminal of the master switch Ay.

CAUTION

- Since continuity check by operating driver's seat side switch up and down cannot be made, check whether the state is good or bad by operation check.



RHD vehicles

Switch operation		Front passenger seat	Rear seat at the right side	Rear seat at the left side	Standard
Unlock	UP	1 — 7	1 — 2	1 — 5	Continuity exists
		6 — 12	3 — 6	4 — 6	
	OFF	6 — 7 — 12	1 — 3 — 6	4 — 5 — 6	
	DOWN	1 — 12	1 — 3	1 — 4	
		6 — 7	2 — 6	5 — 6	
Lock	UP	1 — 7	1 — 2	1 — 5	
	OFF	7 — 12	2 — 3	4 — 5	
	DOWN	1 — 12	1 — 3	1 — 4	

LHD vehicles

Switch operation		Front passenger seat	Rear seat at the right side	Rear seat at the left side	Standard
Unlock	UP	1 — 2	1 — 12	1 — 7	Continuity exists
		5 — 6	4 — 6	3 — 6	
	OFF	1 — 5 — 6	4 — 6 — 12	3 — 6 — 7	
	DOWN	1 — 5	1 — 4	1 — 3	
		2 — 6	6 — 12	6 — 7	
Lock	UP	1 — 2	1 — 12	1 — 7	
	OFF	2 — 5	4 — 12	3 — 7	
	DOWN	1 — 5	1 — 4	1 — 3	

(2) Operation check

CAUTION

- When the continuity check has indicated that the system is normal, perform this check.

1.Check conductivity and voltage between each terminal and body earth following the check procedure below.

NOTE

- "Disconnected Vehicle side" in the table shows that the check is to be made at the vehicle side connector with the connector disconnected. "Connector connected" means that the check is to be made with the connector connected.

RHD vehicles

Measurement connector condition	Terminal No. Tester positive (+) ⇄ tester negative	Check items	Checking condition	Standard	Defective areas in the case of non-compliance of standard
Disconnected Vehicle side	6⇄Earth	Voltage	At all times	0V	Vehicle side
	1⇄Earth	Voltage	IG switch "OFF"→"ON"	0V→10 − 14V	
Connector connected	11⇄Earth	Voltage	IG switch "ON," the driver's seat side switch for the master switch "OFF"→DOWN (manual operation)	0V→9V or more	Master switch
			IG switch "ON," the driver's seat side door completely closed → the driver's seat side switch for the master switch "DOWN" (automatic operation)→ the door glass completely open	0V→9V or more →0V	
	10⇄Earth	Voltage	IG switch "ON," the driver's seat side switch for the master switch "OFF"→ UP (manual operation)	0V→9V or more	
			IG switch "ON," the driver's seat side door completely open → the driver's seat side switch for the master switch UP (automatic operation) → Door glass completely closed.	0V→9V or more →0V	
	12⇄Earth	Voltage	IG switch "ON," window lock switch "ON," front seat (left) switch "OFF"→DOWN	0V→9V or more	
	7⇄Earth	Voltage	IG switch "ON," window lock switch "ON," front seat (left) switch "OFF"→UP	0V→9V or more	
	3⇄Earth	Voltage	IG switch "ON," window lock switch "ON," rear seat (right) switch "OFF"→DOWN	0V→9V or more	
	2⇄Earth	Voltage	IG switch "ON," window lock switch "ON," rear seat (right) switch "OFF"→UP	0V→9V or more	
	4⇄Earth	Voltage	IG switch "ON," window lock switch "ON," rear seat (left) switch "OFF"→ DOWN	0V→9V or more	
	5⇄Earth	Voltage	IG switch "ON," window lock switch "ON," rear seat (left) switch "OFF"→ UP	0V→9V or more	

LHD vehicles

Measurement connector condition	Terminal No. Tester positive (+) ⇄ tester negative	Check items	Checking condition	Standard	Defective areas in the case of non-compliance of standard
Disconnected Vehicle side	6⇄Earth	Voltage	At all times	0V	Vehicle side
	1⇄Earth	Voltage	IG switch "OFF"→"ON"	0V→10 − 14V	
Connector connected	11⇄Earth	Voltage	IG switch "ON," the driver's seat side switch for the master switch "OFF"→DOWN (manual operation)	0V→9V or more	Master switch
			IG switch "ON," the driver's seat side door completely closed → the driver's seat side switch for the master switch "DOWN" (automatic operation)→ the door glass completely open	0V→9V or more →0V	
	10⇄Earth	Voltage	IG switch "ON," the driver's seat side switch for the master switch "OFF"→ UP (manual operation)	0V→9V or more	
			IG switch "ON," the driver's seat side door completely open → the driver's seat side switch for the master switch UP (automatic operation) → Door glass completely closed.	0V→9V or more →0V	
	5⇄Earth	Voltage	IG switch "ON," window lock switch "ON," front seat (left) switch "OFF"→DOWN	0V→9V or more	
	2⇄Earth	Voltage	IG switch "ON," window lock switch "ON," front seat (left) switch "OFF"→UP	0V→9V or more	
	4⇄Earth	Voltage	IG switch "ON," window lock switch "ON," rear seat (right) switch "OFF"→DOWN	0V→9V or more	
	12⇄Earth	Voltage	IG switch "ON," window lock switch "ON," rear seat (right) switch "OFF"→UP	0V→9V or more	
	3⇄Earth	Voltage	IG switch "ON," window lock switch "ON," rear seat (left) switch "OFF"→ DOWN	0V→9V or more	
	7⇄Earth	Voltage	IG switch "ON," window lock switch "ON," rear seat (left) switch "OFF"→ UP	0V→9V or more	

(3) Illumination check

1.When connecting the battery positive (+) with the terminal 1 and the battery negative with the terminal 6, check the switch illumination condition.

SPECIFIED VALUE: The switch illuminates.

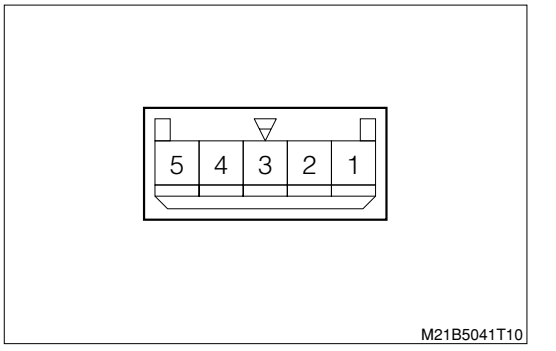
8-8-2 FRONT PASSENGER SEAT SWITCH

(1) Continuity check

1.Check continuity between terminals of the switch.

Power window regulator switch section

Switching	Terminal No.	Standard
UP	2 − 3	Continuity exists
	4 − 5	
OFF	1 − 2	
	4 − 5	
DOWN	1 − 2	
	3 − 4	



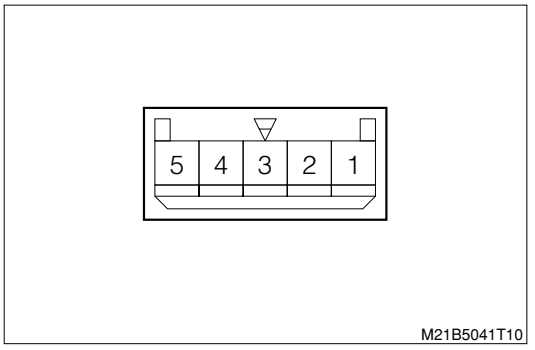
8-8-3 REAR SEAT SWITCH

(1) Continuity check

1.Check continuity between terminals of the switch.

Power window regulator switch section

Switching	Terminal No.	Standard
UP	2 — 3	Continuity exists
	4 — 5	
OFF	1 — 2	
	4 — 5	
DOWN	1 — 2	
	3 — 4	



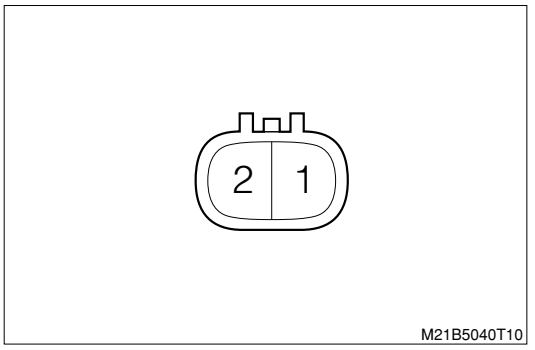
8-8-4 DRIVER'S SEAT REGULATOR MOTOR

1.Connect each battery terminal with the terminal 1 and the terminal 2 as shown in the table below and check the rotating direction.

2.Check for abnormal noise, axis rattling, or distortion during the motor rotation.

CAUTION

- Do not short-circuit the battery positive (+) and negative (−) terminals.



RHD vehicles

Connection	Terminal	Motor rotating direction (as viewed from the pinion gear side)
Battery positive (+)	1	Right turn
Battery negative (−)	2	
Battery positive (+)	2	Left turn
Battery negative (−)	1	

LHD vehicles

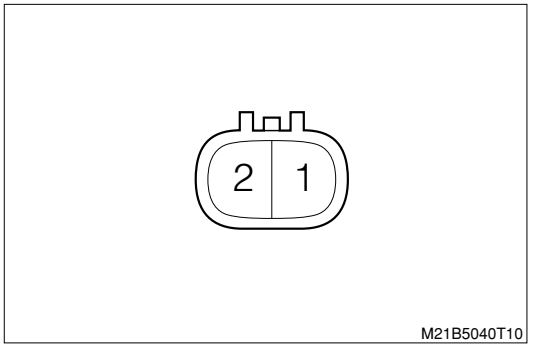
Connection	Terminal	Motor rotating direction (as viewed from the pinion gear side)
Battery positive (+)	2	Right turn
Battery negative (−)	1	
Battery positive (+)	1	Left turn
Battery negative (−)	2	

8-8-5 FRONT PASSENGER SEAT REGULATOR MOTOR

1.Connect each battery terminal with the terminal 1 and the terminal 2 as shown in the table below and check the rotating direction.
2.Check for abnormal noise, axis rattling, or distortion during the motor rotation.

CAUTION

- Do not short-circuit the battery positive (+) and negative (−) terminals.



RHD vehicles

Connection	Terminal	Motor rotating direction (as viewed from the pinion gear side)
Battery positive (+)	2	Right turn
Battery negative (−)	1	
Battery positive (+)	1	Left turn
Battery negative (−)	2	

LHD vehicles

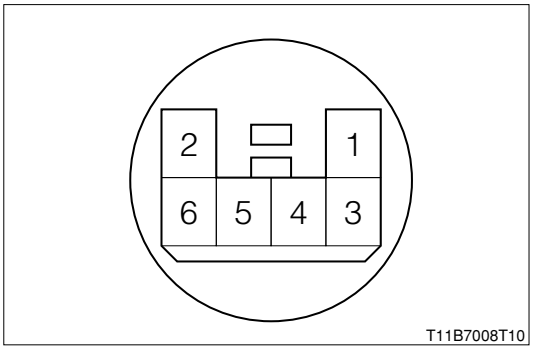
Connection	Terminal	Motor rotating direction (as viewed from the pinion gear side)
Battery positive (+)	1	Right turn
Battery negative (−)	2	
Battery positive (+)	2	Left turn
Battery negative (−)	1	

8-8-6 REAR SEAT REGULATOR MOTOR

1.Connect each battery terminal with the terminal 1 and the terminal 2 as shown in the table below and check the rotating direction.
2.Check for abnormal noise, axis rattling, or distortion during the motor rotation.

CAUTION

- Do not short-circuit the battery positive (+) and negative (−) terminals.



Rear seat at the right side

Connection	Terminal	Motor rotating direction (as viewed from the pinion gear side)
Battery positive (+)	1	Right turn
Battery negative (−)	2	
Battery positive (+)	2	Left turn
Battery negative (−)	1	

Rear seat at the left side

Connection	Terminal	Motor rotating direction (as viewed from the pinion gear side)
Battery positive (+)	2	Right turn
Battery negative (−)	1	
Battery positive (+)	1	Left turn
Battery negative (−)	2	

9 OUTER REAR VIEW MIRROR

9-1 REMOVAL AND INSTALLATION

9-1-1 ARTICLES TO BE PREPARED

Lubricant,adhesive,others

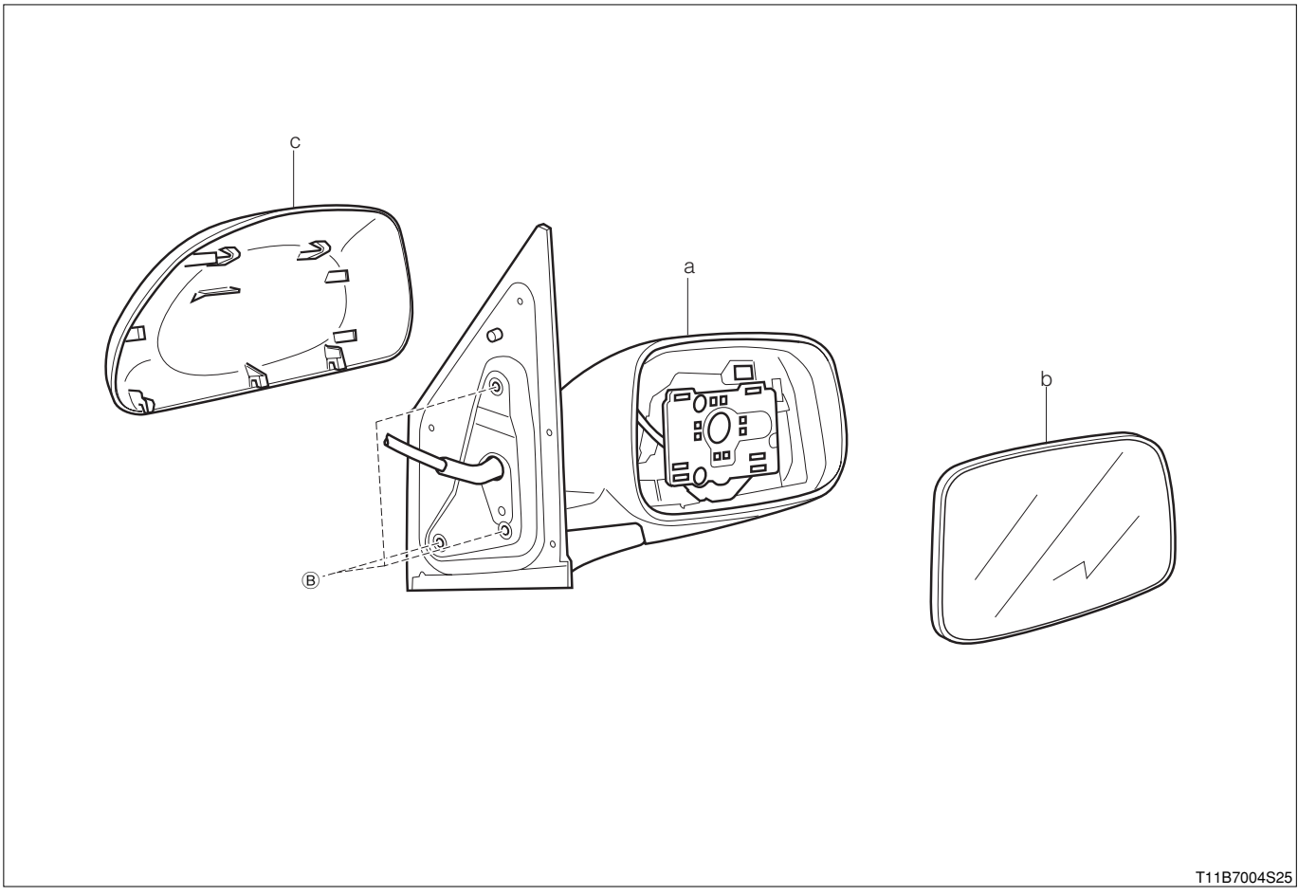
Protective tape

9-1-2 OPERATION BEFORE REMOVAL

1.Remove the front door lower frame bracket garnish RH/LH.
Refer to Page I1-8.

9-1-3 REMOVAL AND INSTALLATION PROCEDURES

(1) Components



(2) Removal and installation procedures

1 a Mirror Ay, outer rear view, RH/LH
▼ ▲ 2 b Mirror, outer rear view, RH/LH
▼ 3 c Cover, outer mirror, RH/LH

9-1-4 POINTS OF REMOVAL

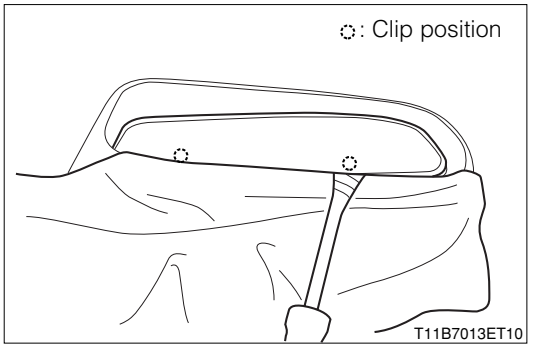
(1) Mirror, outer rear view, RH/LH

1.Attach the protection tape.

2.Separate the clip fitted area with a flat screwdriver and remove the mirror.

CAUTION

- When the temperature is low, the clip may be broken. Therefore, warm the mirror surface with a hair-dryer before removing.



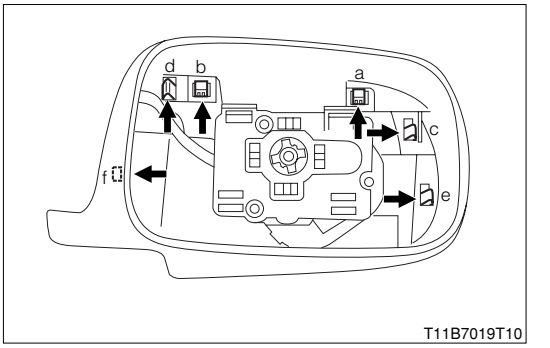
(2) Cover, outer mirror, RH/LH

1.Disengage the fitting of the pawls (a, b).

2.With the pawls (a, b) disengaged, disengage the pawls in the order of c to f.

CAUTION

- Since the pawl f is not visible, carefully remove it to avoid damaging.

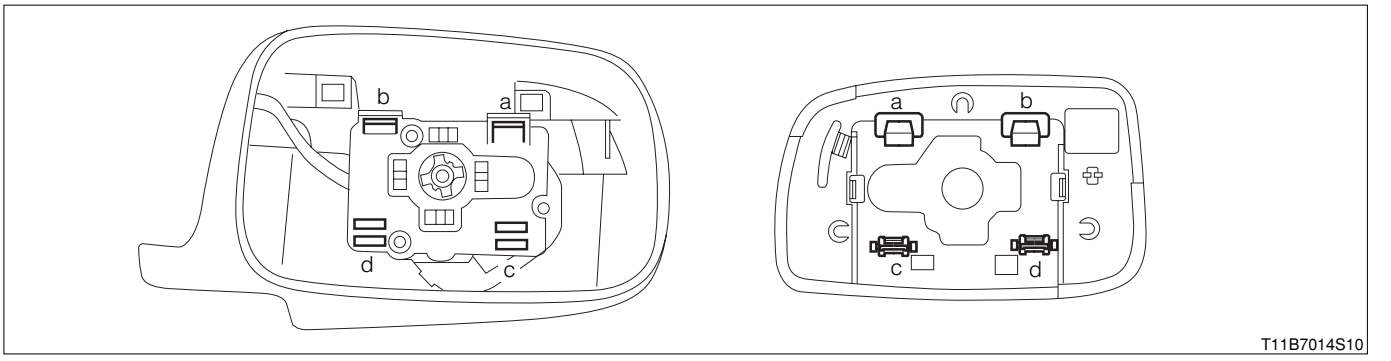


9-1-5 POINTS OF INSTALLATION

(1) Mirror, outer rear view, RH/LH

1.Hook the pawls (a, b) on the mirror to the outer rear view mirror Ay, RH/LH.

2.Engage the clip (c, d) and install the mirror.



9-1-6 OPERATION AFTER INSTALLATION

1.Install the front door lower frame bracket garnish RH/LH.

Refer to Page I1-8.

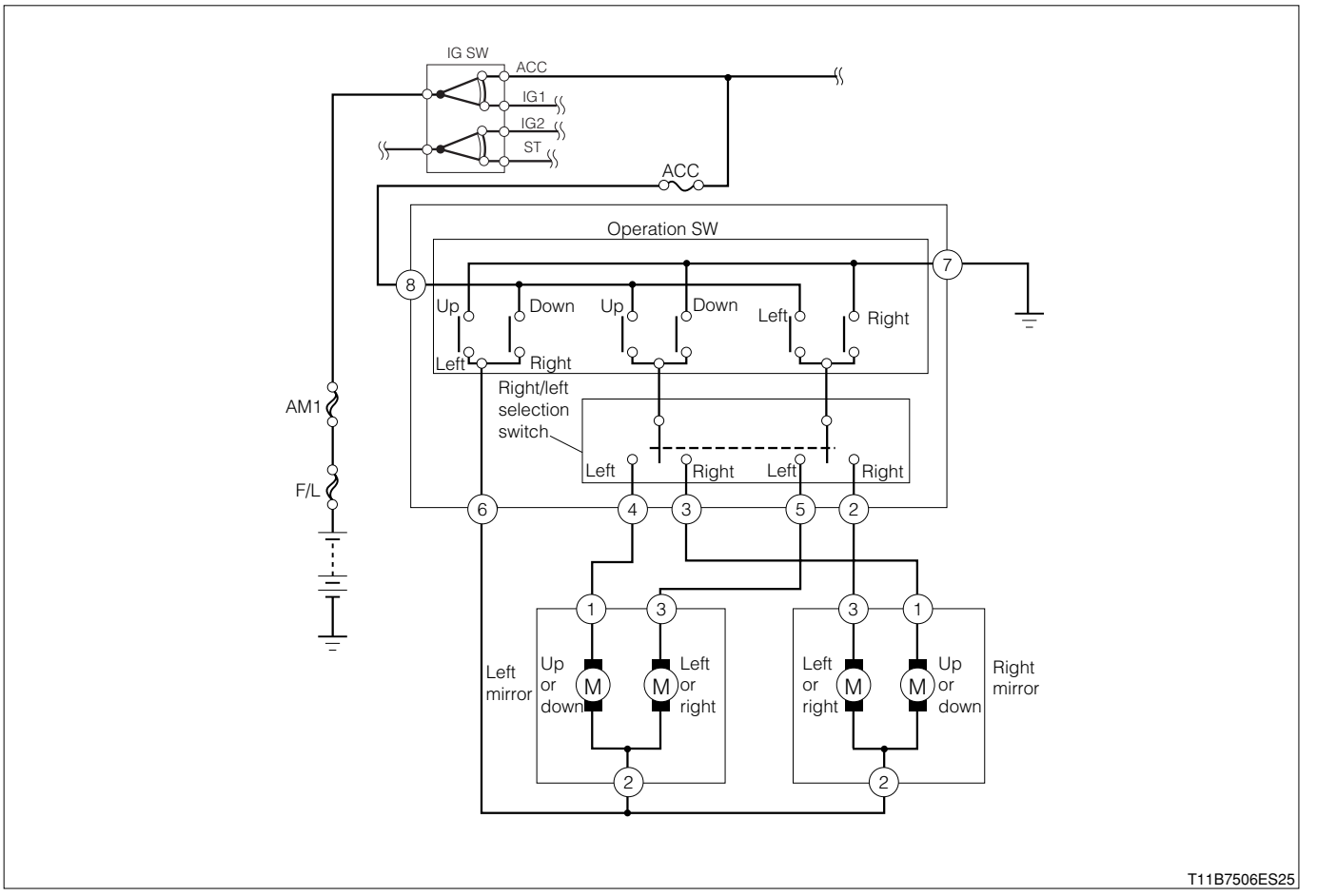
10 MIRROR SURFACE MOTOR-DRIVEN MOVABLE TYPE OUTER REAR-VIEW MIRROR

10-1 ARTICLES TO BE PREPARED

Instrument

Voltage tester

10-2 SYSTEM WIRING DIAGRAM



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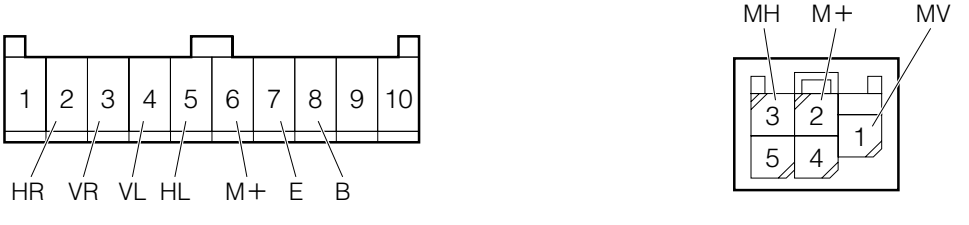
10-3 ARRANGEMENT OF VEHICLE HARNESS SIDE CONNECTOR TERMINALS



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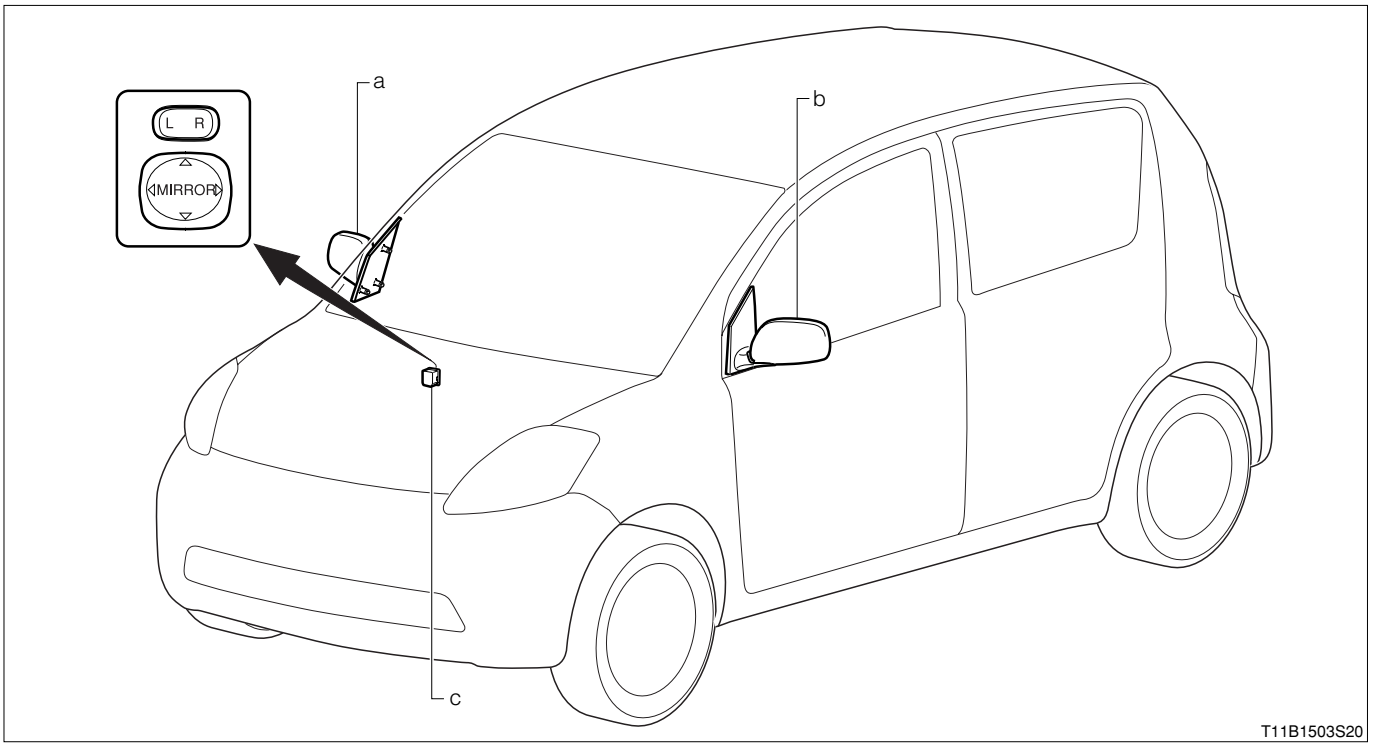
10-4 LOCATION OF COMPONENTS

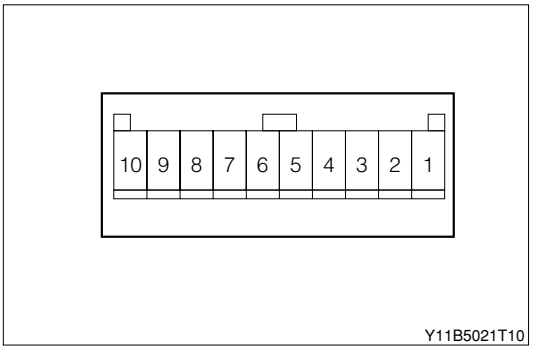


a	Outer rear view mirror RH
b	Outer rear view mirror LH
c	Outer mirror switch

10-5 UNIT CHECK

10-5-1 OUTER MIRROR SWITCH AY

Check continuity between each terminal by operating the switch.



Right/Left Switching SW Mirror operation

SW section

○—○: Continuity should exist

Switching	Terminal No.	⑧	⑥	⑦	③	②	④	⑤
LH	Up	○		○			○	
			○	○				
	Down	○	○	○			○	
	OFF							
	Left	○						○
			○	○				
	Right	○	○	○				○
OFF	Up			○				○
	Down	○						○
	OFF							
	Left			○			○	
	Right	○					○	
RH	Up	○			○			
			○	○				
	Down	○	○	○	○			
	OFF							
	Left	○				○		
			○	○				
	Right	○	○	○		○		

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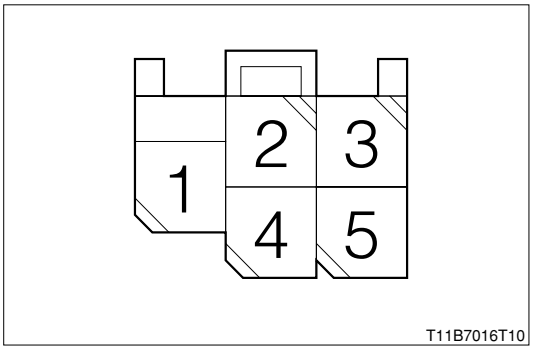
10-5-2 OUTER REAR VIEW MIRROR AY, RH/LH

Check the operation when applying battery voltage between each terminal.



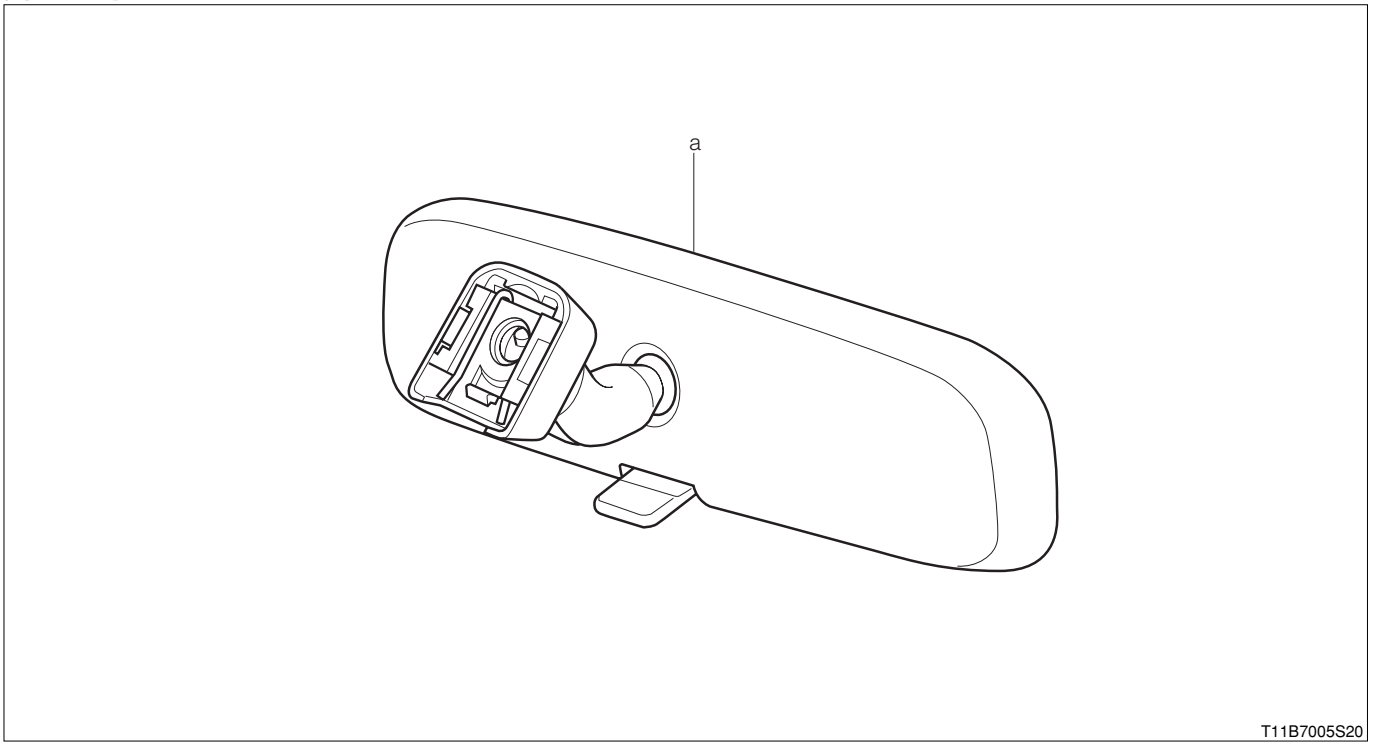
Connection	Terminal	Operating direction
Battery positive (+)	1	Up
Battery negative (−)	2	
Battery positive (+)	2	Down
Battery negative (−)	1	
Battery positive (+)	2	Left
Battery negative (−)	3	
Battery positive (+)	3	Right
Battery negative (−)	2	

11 INNER REAR VIEW MIRROR

11-1 REMOVAL AND INSTALLATION

11-1-1 REMOVAL AND INSTALLATION PROCEDURES

(1) Components



(2) Removal and installation procedures

▼ 1 a Mirror Ay, inner rear view

11-1-2 POINTS OF REMOVAL

(1) Mirror Ay, inner rear view

1.Press the pawl of the mirror Ay with a flat screwdriver to disengage fitting, and push upward along the glass surface to remove.