

GROUP 42

BODY

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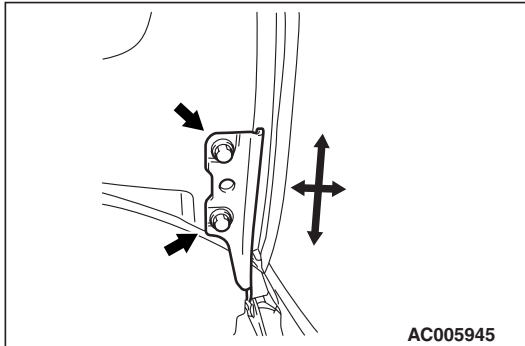
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HOOD

ON-VEHICLE SERVICE

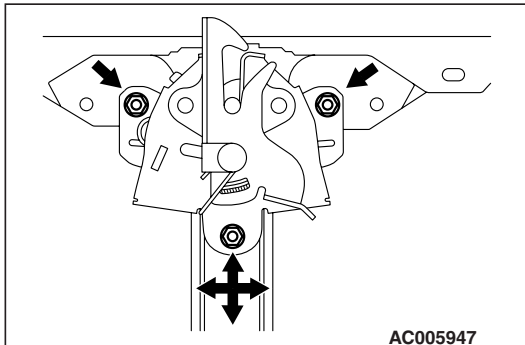
ADJUSTMENT OF CLEARANCE AROUND HOOD

M1421007200129



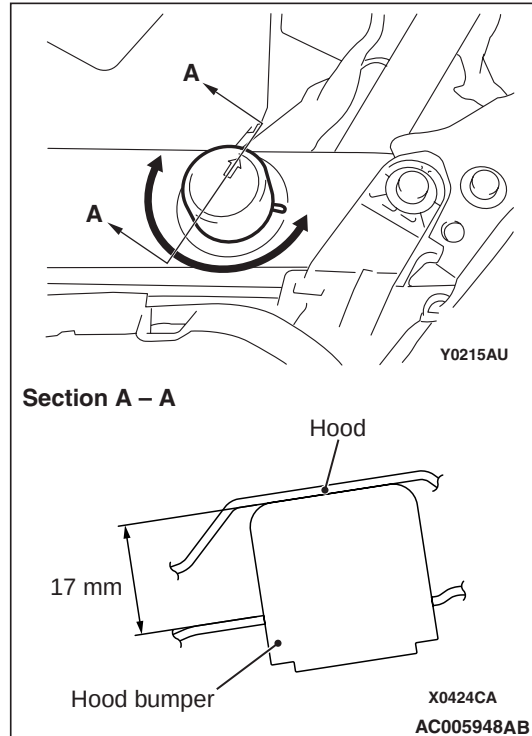
ADJUSTMENT OF ALIGNMENT OF HOOD STEPPED PORTION AND HOOD STRIKER

M1421007300126



ADJUSTMENT OF HOOD HEIGHT

M1421007400123



Rotate the hood bumper by using arrow mark on the hood bumper as a guide to adjust the hood height. If the hood bumper is rotated just one turn, the hood height changes by approximately 3 mm.

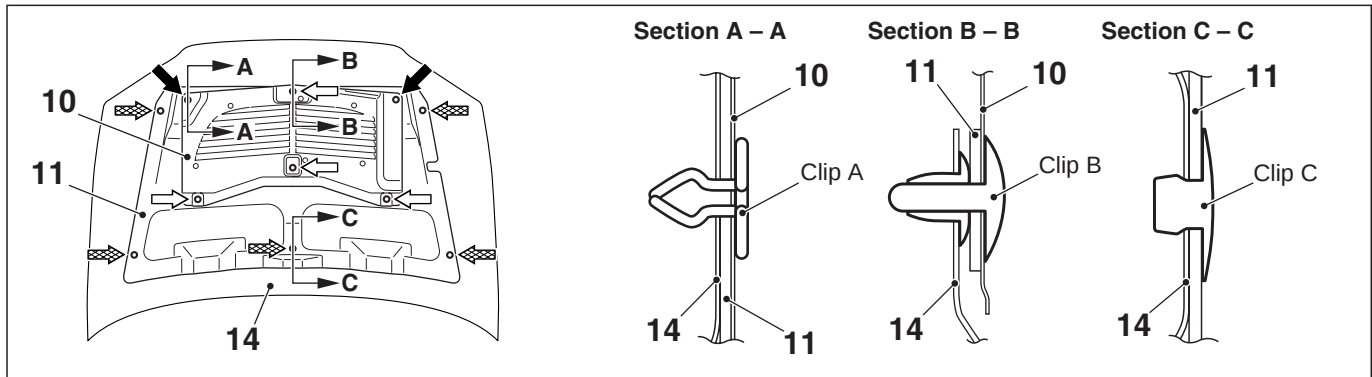
HOOD

REMOVAL AND INSTALLATION

M1421001600419

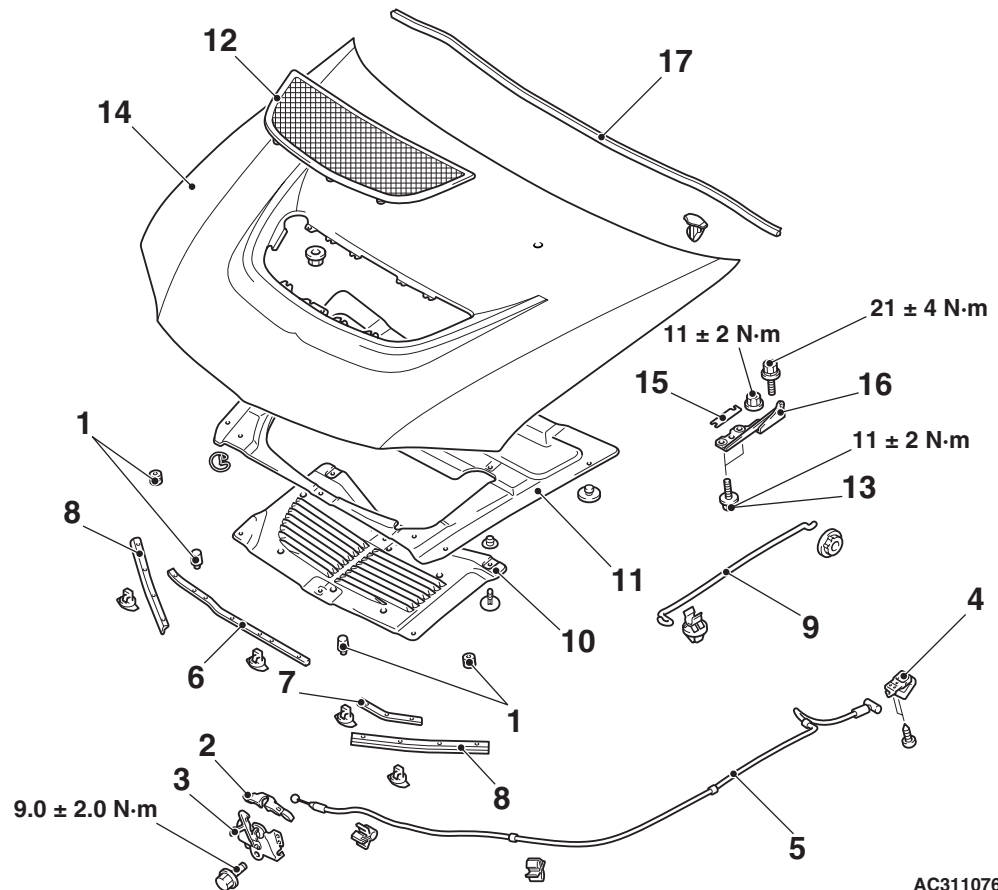
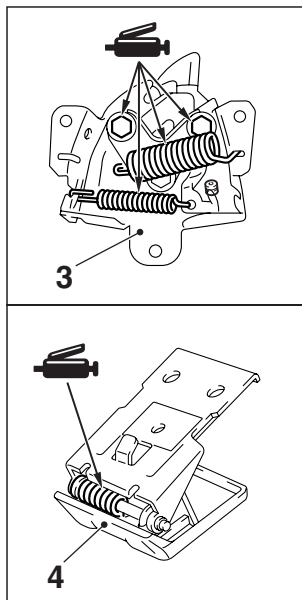
⚠ CAUTION

Use the special bolts when securing the hinge to the hood. They have special coating for anti-corrosion.



Note

- ➡ : Clip A positions
- ➡ : Clip B positions
- ➡ : Clip C positions



AC311076AB

Removal

1. Hood bumper

Hood lock release cable removal steps

- Front bumper assembly (Refer to GROUP 51, Front Bumper Assembly P.51-2).
- Splash shield (Refer to P.42-6).
- 2. Hood latch cover

Hood lock release cable removal steps (Continued)

3. Hood latch
4. Hood lock release handle
5. Hood lock release cable

Hood and hood hinge removal steps

6. Hood weatherstrip <Right side>
7. Hood weatherstrip <Left side>
8. Headlamp weatherstrip

Hood and hood hinge removal steps

- Washer hose (Refer to GROUP 51, Windshield Wiper and Washer P.51-23).
- 9. Hood support rod
- 10. Hood heat protector panel
- 11. Hood heat protector

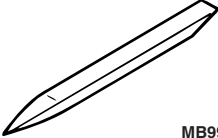
Hood and hood hinge removal steps

- 12. Hood outlet garnish
- 13. Hood hinge bolt (Hood side)
- 14. Hood
- 15. Shim
- 16. Hood hinge
- 17. Hood weather strip

FENDER

SPECIAL TOOL

M1421000600256

Tool	Number	Name	Use
 MB990784	MB990784	Ornament remover	Side turn-signal lamp removal

FENDER

REMOVAL AND INSTALLATION

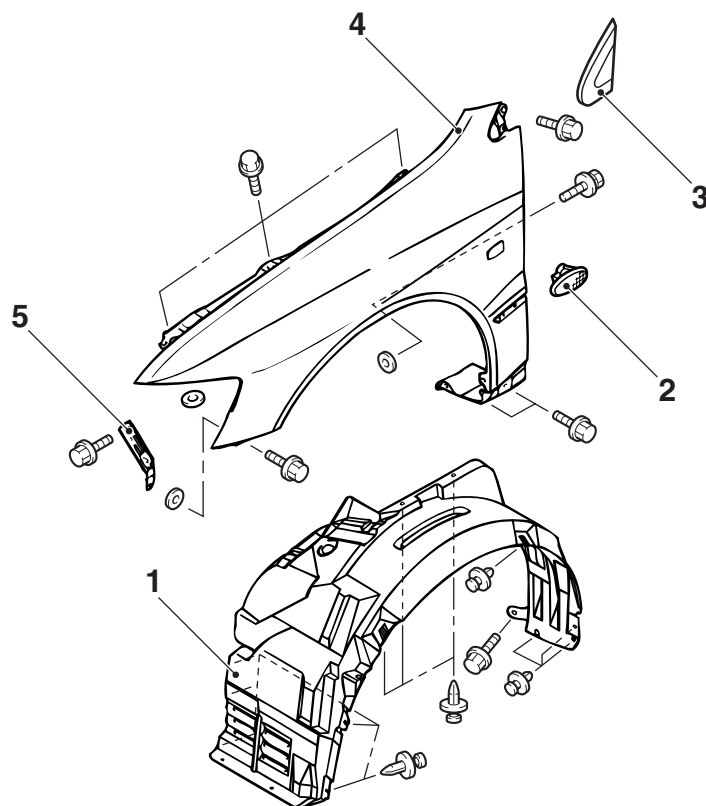
M1421001900409

CAUTION

Use the special fasteners to secure the fender. They have special coating for anti-corrosion.

Pre-removal and Post-installation Operation

- Front Bumper Assembly Removal and Installation (Refer to GROUP 51, Front Bumper Assembly [P.51-2](#)).
- Front Deck Garnish Removal and Installation (Refer to GROUP 51, Windshield Wiper and Washer [P.51-20](#)).
- Side Air Dam Removal and Installation (Refer to GROUP 51, Side Air Dam [P.51-8](#)).



AC211637AB

Removal steps

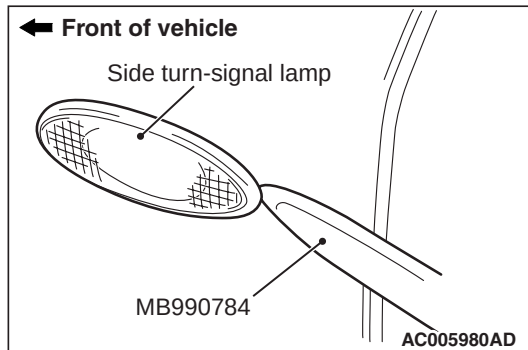
- <<A>> >>A<<
1. Splash shield
 2. Side turn-signal lamp
 3. Delta garnish (Refer to GROUP 51, Garnish and Moulding [P.51-10](#)).

Removal steps (Continued)

4. Fender
5. Front fender bracket

REMOVAL SERVICE POINT

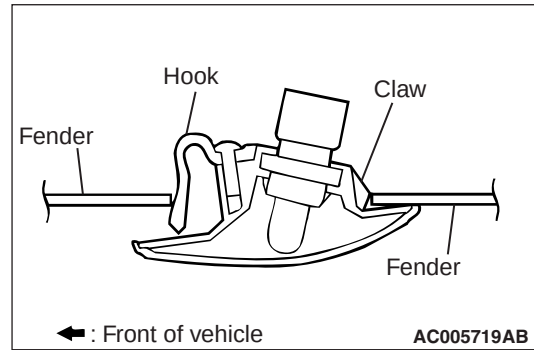
<<A>> SIDE TURN-SIGNAL LAMP REMOVAL



Use special tool ornament remover (MB990784) to prize out the tab from the fender, and remove the side turn-signal lamp.

INSTALLATION SERVICE POINT

>>A<< SIDE TURN-SIGNAL LAMP INSTALLATION



Engage the claw with the fender, and install the side turn-signal lamp.

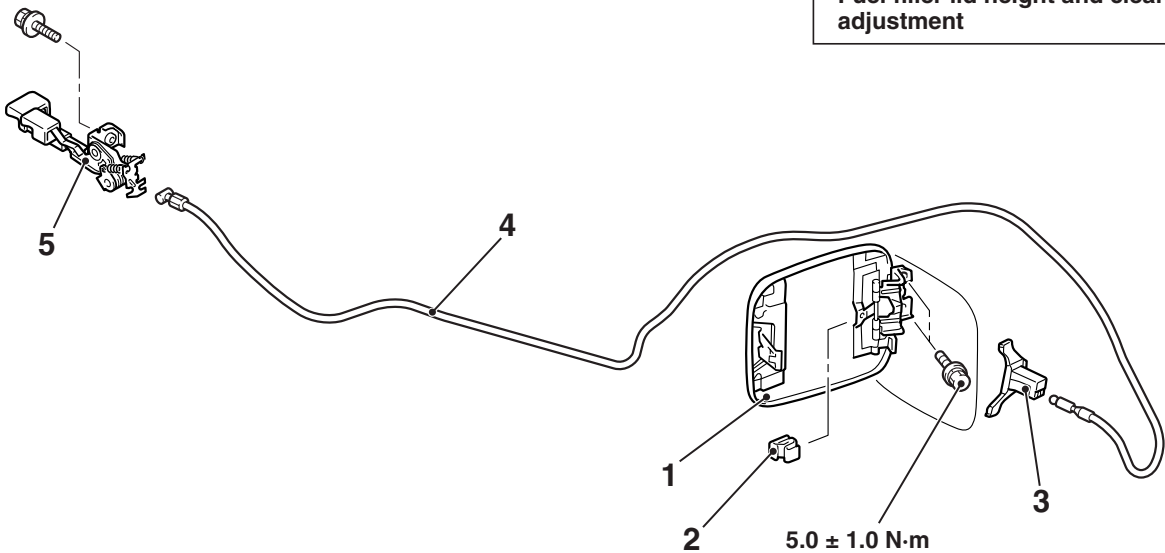
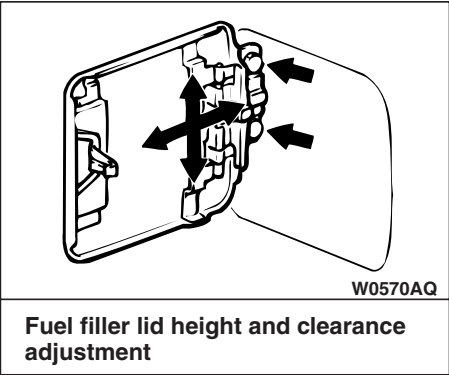
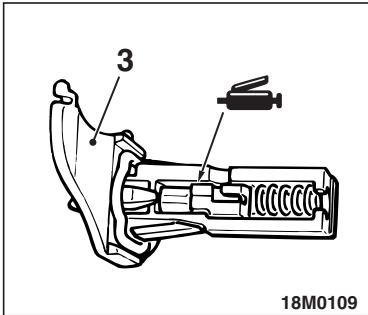
FUEL FILLER LID

REMOVAL AND INSTALLATION

M1421002500277

Pre-removal and Post-installation Operation

- Rear Seat Removal and Installation (Refer to GROUP 52A, Rear Seat P.52A-20.)
- Front Scuff Plate (Driver's Seat Side), Rear Scuff Plate (Driver's Side), Centre Pillar Lower Trim (Driver's Side), Quarter Trim (Driver's Side) Removal and Installation (Refer to GROUP 52A, Trims P.52A-10.)



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Removal steps

1. Fuel filler lid panel assembly
2. Clip
3. Fuel filler lid hook assembly

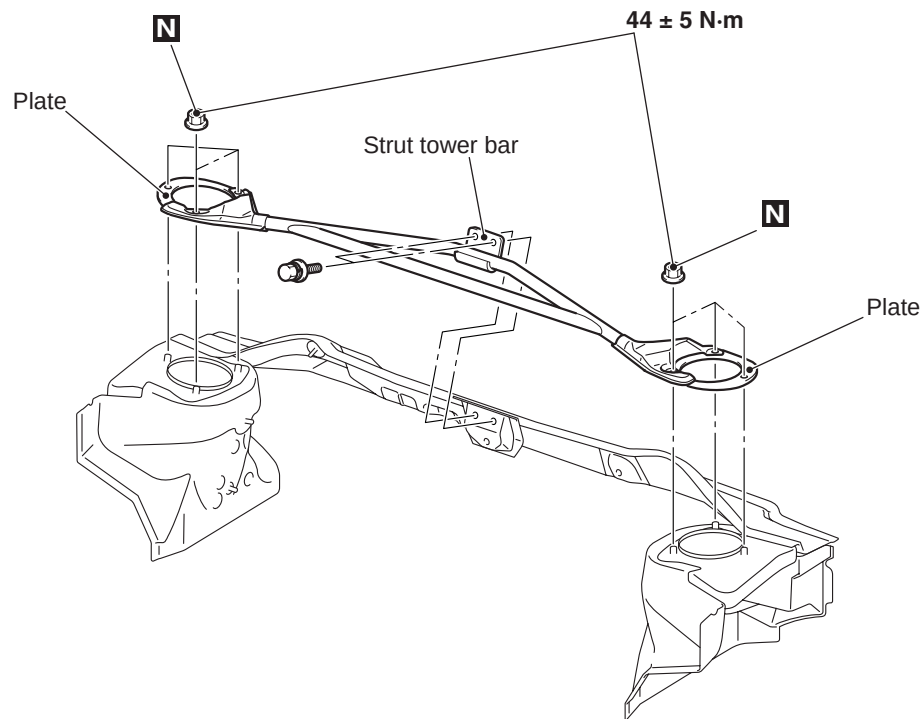
Removal steps (Continued)

4. Fuel filler lid lock release cable
5. Fuel filler lid lock release handle

STRUT TOWER BAR

REMOVAL AND INSTALLATION

M1421005600132



AC211421AB

WINDOW GLASS

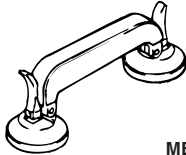
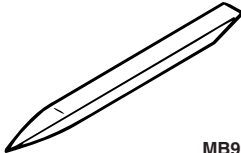
ADHESIVE

M1422000500111

Item	Specified adhesive
Windshield	3M ATD Part No.8609 Super Fast Urethane Auto Glass Sealant or equivalent
Rear window glass	3M ATD Part No.8608 Super Fast Urethane Primer or equivalent

SPECIAL TOOLS

M1422000600293

Tool	Number	Name	Use
 MB990480	MB990480	Glass holder	Removal and installation of window glass
 MB990784	MB990784	Ornament remover	Removal of rear window lower moulding

WINDOW REPAIR

ITEMS

M1422005600038

The windshield and rear window glass are attached by an urethane-base adhesive to the window frame. This adhesive provides improved glass holding and sealing, and also gives body openings a greater structural strength.

Name	Remark
Adhesive	3M ATD Part No.8609 Super Fast Urethane Auto Glass Sealant or equivalent
Primer	3M ATD Part No.8608 Super Fast Urethane Primer or equivalent
Spacers	Available as service part
Dam	Available as service part
Anti-rust solvent (or Tectyl 506T.Valvoline Oil Company)	For rust prevention
Isopropyl alcohol	For grease removal from bonded surface
Steel piano wire	Dia. × length... 0.6mm × 1m For cutting adhesive
Glass adhesive knife	For cutting adhesive
Adhesive gun	For pressing-out adhesive

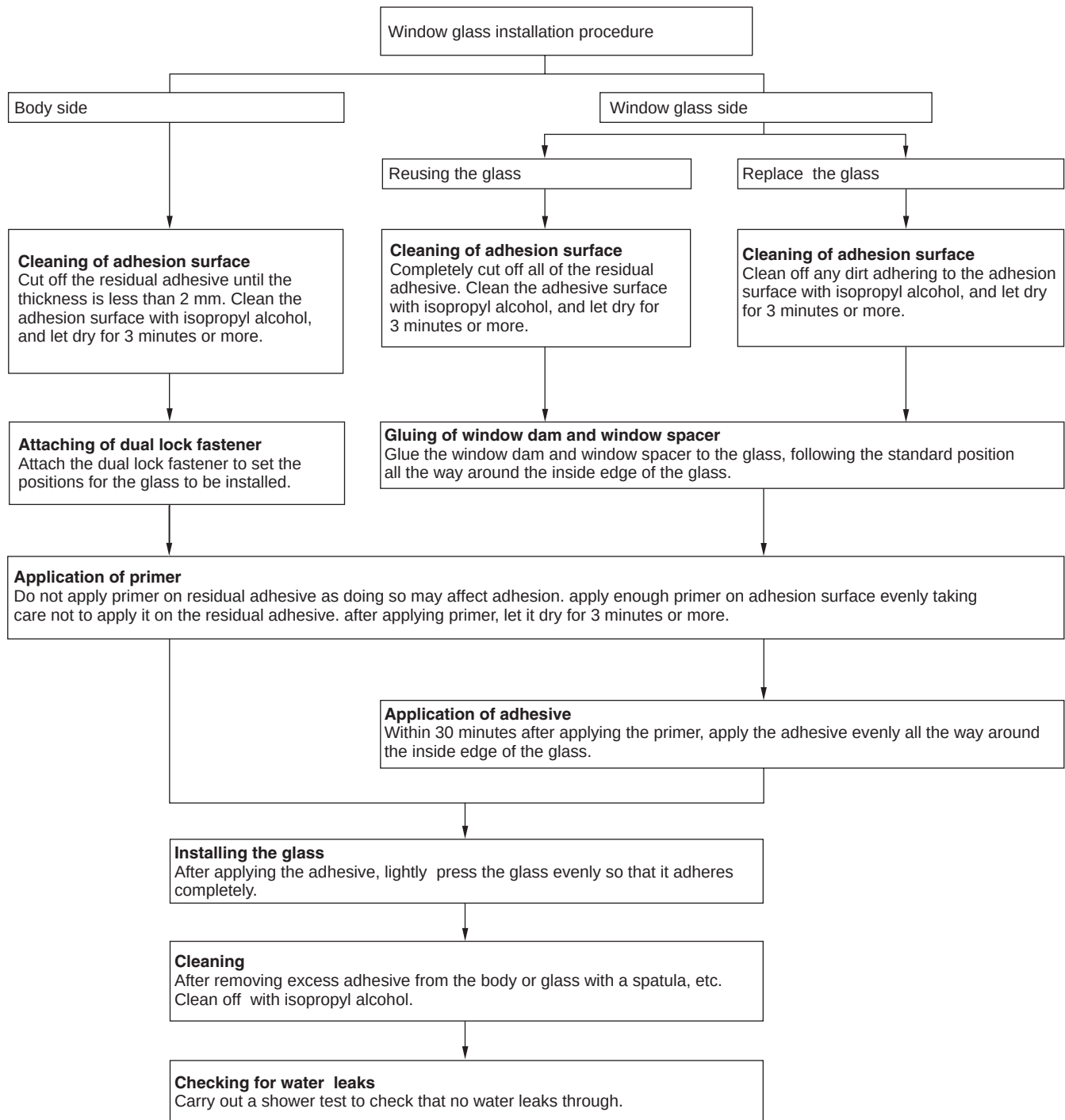
HANDLING OF AUTO WINDOW SEALER

Keep the sealant in a cool place, not exposed to the direct rays of the sun. Do not place any heavy article on the sealant nor press it, otherwise it will become deformed. Avoid storing the sealant for more than 6 months, because it will lose its sealing effect.

BODY PINCH-WELD FLANGE SERVICING

Before servicing the body pinch-weld flange, remove old adhesive completely. If the flange requires painting, bake it after painting is completed.

WINDOW GLASS INSTALLATION



REMOVAL AND INSTALLATION

- Front Deck Garnish Removal and Installation (Refer to GROUP 51, Windshield Wiper and Washer [P.51-20](#)).
- Roof Drip Moulding Removal and Installation (Refer to GROUP 51, Garnish and Moulding [P.51-10](#)).
- Inside Rear View Mirror Removal and Installation (Refer to GROUP 52A, Inside Rear View Mirror [P.52A-18](#)).
- Front Pillar Trim Removal and Installation (Refer to GROUP 52A, Trims [P.52A-10](#)).
- Headlining Removal and Installation (Refer to GROUP 52A, Headlining [P.52A-17](#)).



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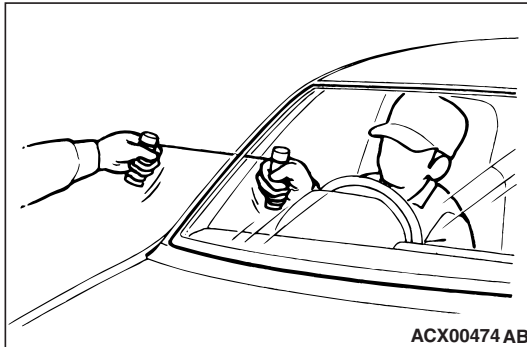
Removal steps

- <<A>> >>B<< 1. Windshield
 >>A<< 2. Windshield moulding
 >>A<< 3. Window dam
 >>A<< 4. Glass stopper
 >>A<< 5. Spacer
 >>A<< 6. Windshield spacer

REMOVAL SERVICE POINT

<<A>> WINDSHIELD REMOVAL

1. To protect the body (paint surface), apply cloth tape to all body areas around the installed windshield.
2. Make mating marks on the windshield and body.



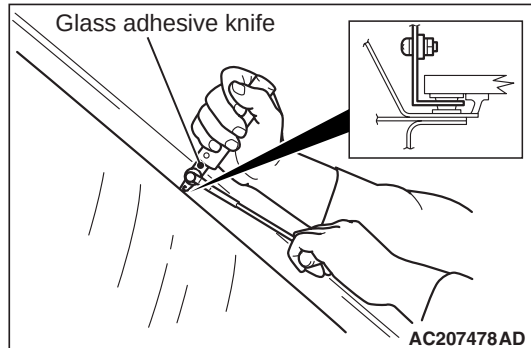
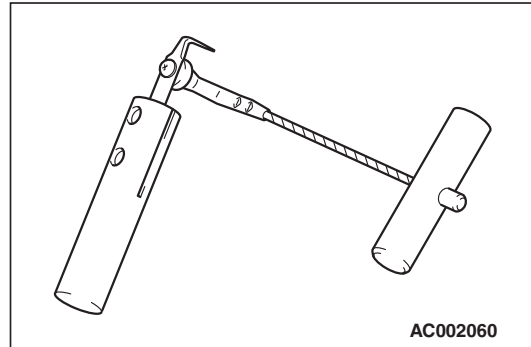
3. Using piano wire.
 - (1) Using a sharp-point drill, make a hole in the windshield adhesive.
 - (2) Pass the piano wire from the inside of the vehicle through the hole.

! CAUTION

Do not let the piano wire touch the edge of the windshield.

- (3) Pull the piano wire alternately from the inside and outside along the windshield to cut the adhesive.

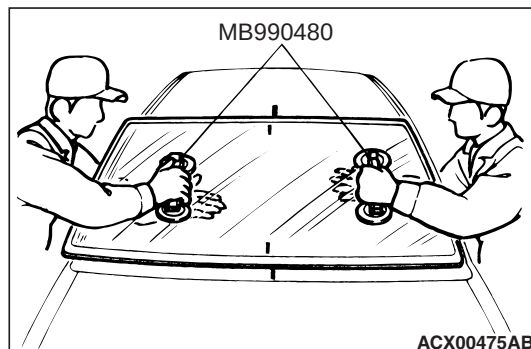
! CAUTION



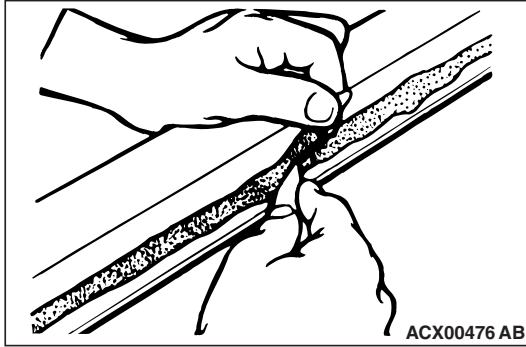
Inserting the glass adhesive knife too deeply into windshield adhesive may damage windshield.

4. Using glass adhesive knife

Keep glass adhesive knife at right angles with the windshield edge, and put the blade at windshield edge and surface. Then cut away adhesive along the windshield edge.



5. Use special tool glass holder (MB990480) to remove the windshield.

⚠ CAUTION

Be careful not to remove more adhesive than is necessary.

- Be careful also not to damage the paintwork on the body surface with the knife. If the paintwork is damaged, repair the damaged area with repair paint or anti-rust agent.
6. Use a knife to cut away the remaining adhesive so that the thickness is within 2 mm around the entire circumference of the body flange.
 7. Finish the flange surfaces so that they are smooth.

⚠ CAUTION

Allow the cleaned area to dry for at least three minutes. Do not touch any surface that has been cleaned.

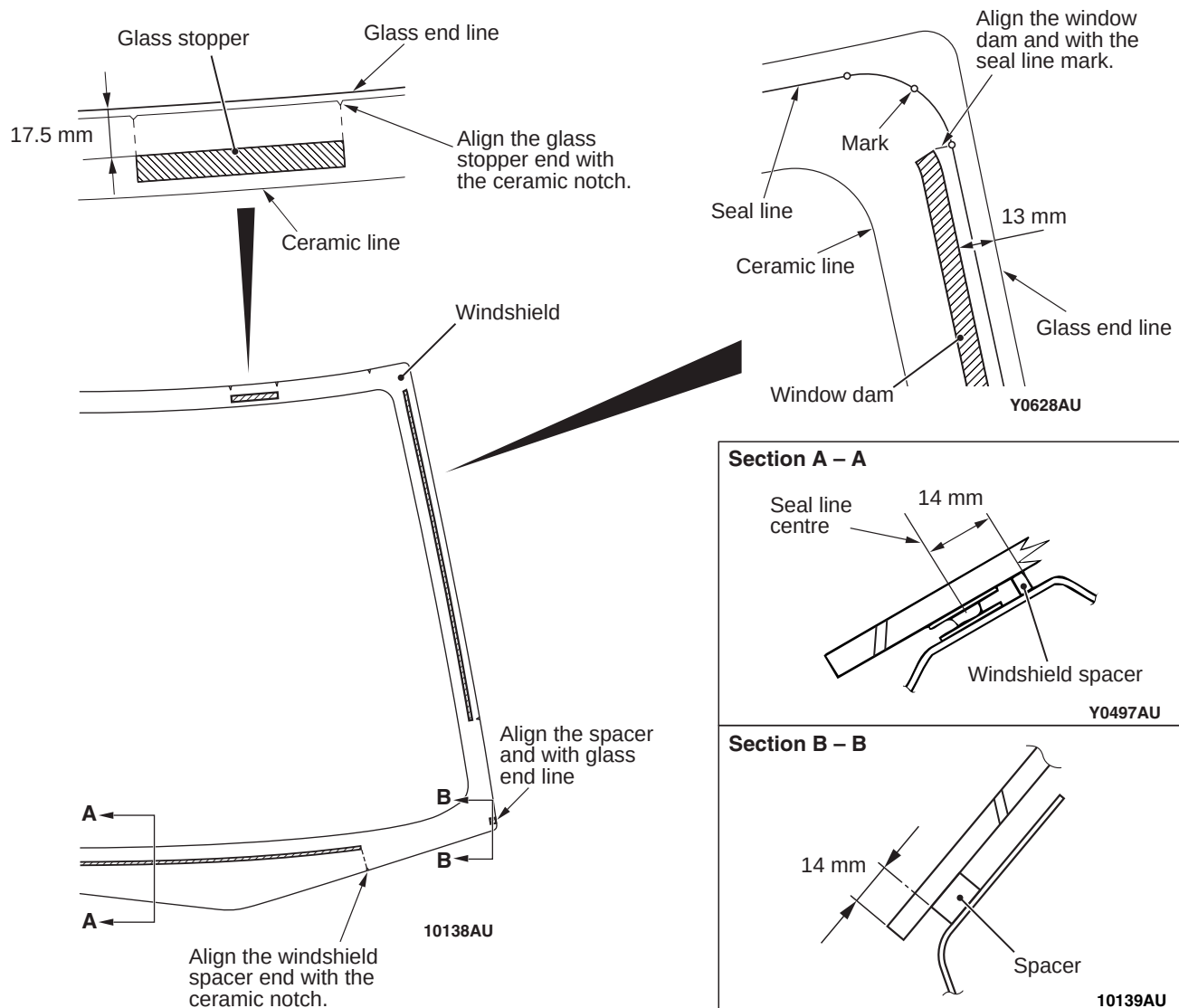
8. When reusing the windshield, remove the adhesive still adhering to the windshield, and clean with isopropyl alcohol.
9. Clean the body side in the same way.

INSTALLATION SERVICE POINTS**>>A<< WINDSHIELD****SPACER/SPACER/GLASS STOPPER/WINDSHIELD DAM/WINDSHIELD MOULDING
INSTALLATION****⚠ CAUTION**

Leave the degreased parts for 3 or more minutes to dry well, before starting on the next step. Do not touch the degreased parts.

1. Use isopropyl alcohol to degrease the inside and outside of the windshield and the body flanges.

Glass stopper, spacer, windshield spacer and window dam installation position



AC006029AB

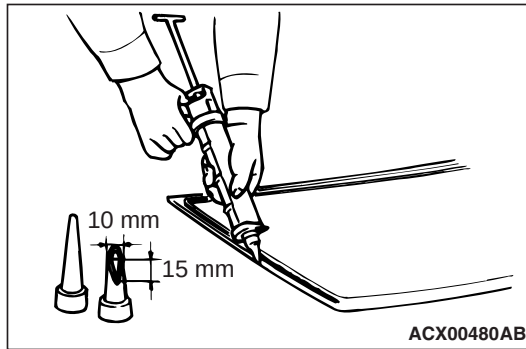
2. The inner side of the windshield is curved, therefore, make a point to assemble the glass stopper and windshield spacer without any lifting and assemble in the position shown in the Figure of the instructions.
3. Install the windshield moulding.

>>B<<WINDSHIELD INSTALLATION

1. When replacing the windshield, temporarily set the windshield against the body, and place a mating mark on the windshield and body.

CAUTION

- The primer strengthens the adhesive, so be sure to apply it evenly around the entire circumference. However, a too thick application will weaken the adhesive.
 - Do not touch the coated surface.
 - Do not apply the primer on the remaining adhesive because of weakening the adhesive.
2. Soak a sponge in the primer, and apply evenly to the windshield in the specified places. If the adhesive does not remain on the body flange surface because of the panel replacement on the body side, apply evenly to the body side in the specified places.
 3. Allow the windshield to dry for at least three minutes after applying primer.



4. Fill a sealant gun with adhesive. Then apply the adhesive evenly around the windshield within 30 minutes after applying the primer.

NOTE: Cut the tip of the sealant gun nozzle into a V shape to simplify adhesive application.

5. Align the mating marks on the windshield and the body, and lightly press the windshield evenly so that it adheres completely.

6. Use a spatula or similar tool to remove any excessive adhesive. Clean the surface with isopropyl alcohol. Avoid moving the vehicle until the adhesive sets.
7. Bond the windshield to the body, and install the roof drip moulding quickly before the adhesive cures (Refer to GROUP51, Garnish and Moulding [P.51-10](#)).

CAUTION

- **Do not move the vehicle unless absolutely necessary.**
 - **When testing for water leakage, do not pinch the end of the hose to spray the water.**
8. Wait 30 minutes or more, and then test for water leakage.

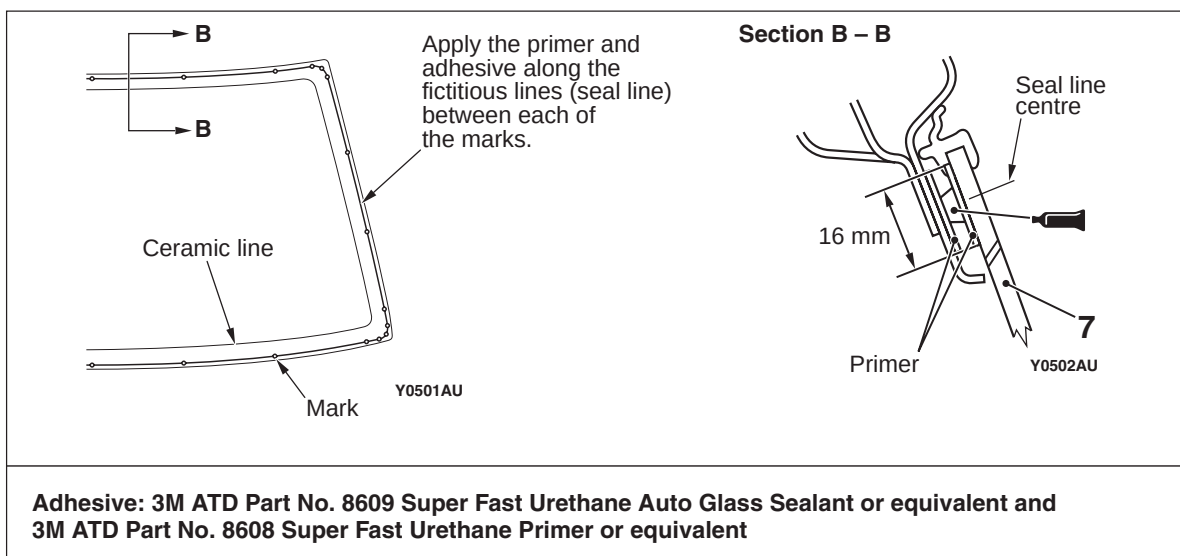
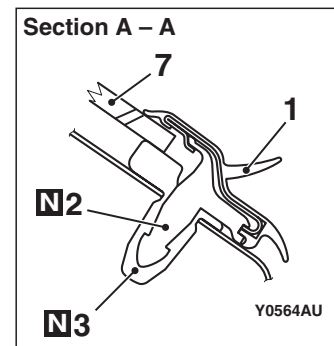
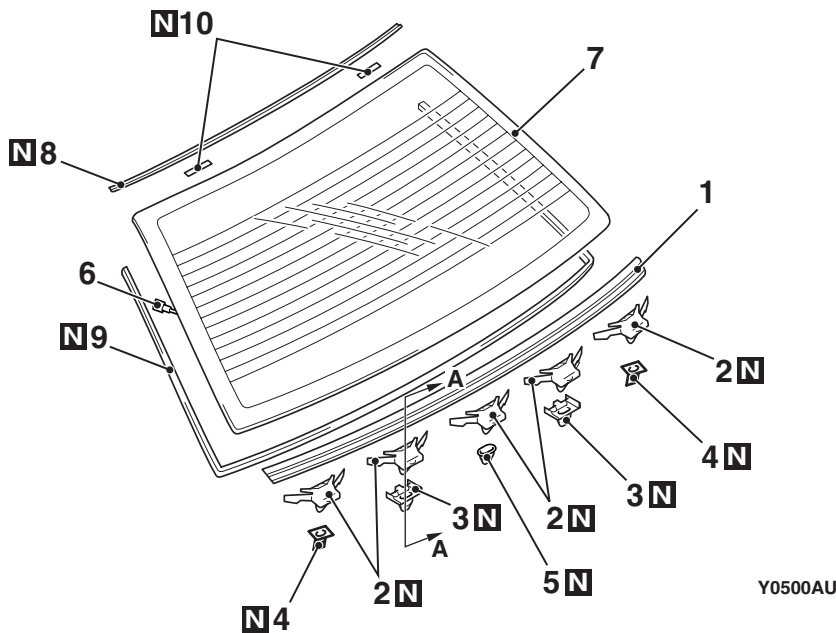
REAR WINDOW GLASS

REMOVAL AND INSTALLATION

M1422001600155

Pre-removal and Post-installation Operation

- Roof Drip Moulding Removal and Installation (Refer to GROUP 51, Garnish and Moulding P.51-10).
- High-mounted Stop Lamp Assembly Removal and Installation <Rear Shelf Mounted Type> (Refer to GROUP 54A, High Mount Stop lamp P.54A-69).
- Rear Pillar Trim and Rear Shelf Trim Removal and Installation (Refer to GROUP 52A, Trims P.52A-10).
- Headlining Removal and Installation (Refer to GROUP 52A, Headlining P.52A-17).



AC006056 AB

Removal steps

- <<A>> >>B<<
1. Rear window lower moulding
 2. Clip
 3. Grommet A

Removal steps (Continued)

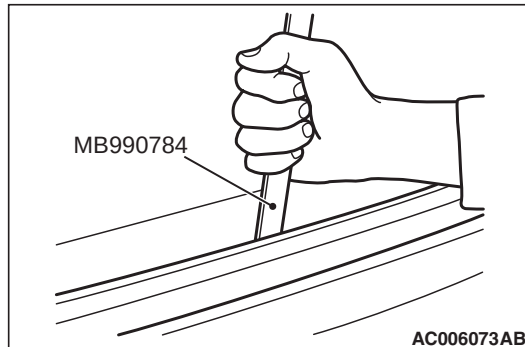
4. Grommet B
5. Grommet C
6. Connecting the harness connector

Removal steps (Continued)

- <> >>A<< 7. Rear window glass
 >>A<< 8. Rear window upper moulding
 >>A<< 9. Window dam
 >>A<< 10. Glass stopper

REMOVAL SERVICE POINTS**<<A>> REAR WINDOW LOWER MOULDING REMOVAL****⚠ CAUTION**

If the drip moulding has become warped, it should not be reused.



Use special tool ornament remover (MB990784) to lever out the moulding.

<> REAR WINDOW GLASS REMOVAL

Remove the rear window glass using the same procedure as for the windshield (Refer to [P.42-12](#)).

INSTALLATION SERVICE POINTS**>>A<< GLASS STOPPER/WINDOW DAM/REAR WINDOW UPPER MOULDING/REAR WINDOW GLASS INSTALLATION**

1. When replacing the rear window glass, temporarily set the rear window glass against the body, and place a mating mark on the rear window glass and body.

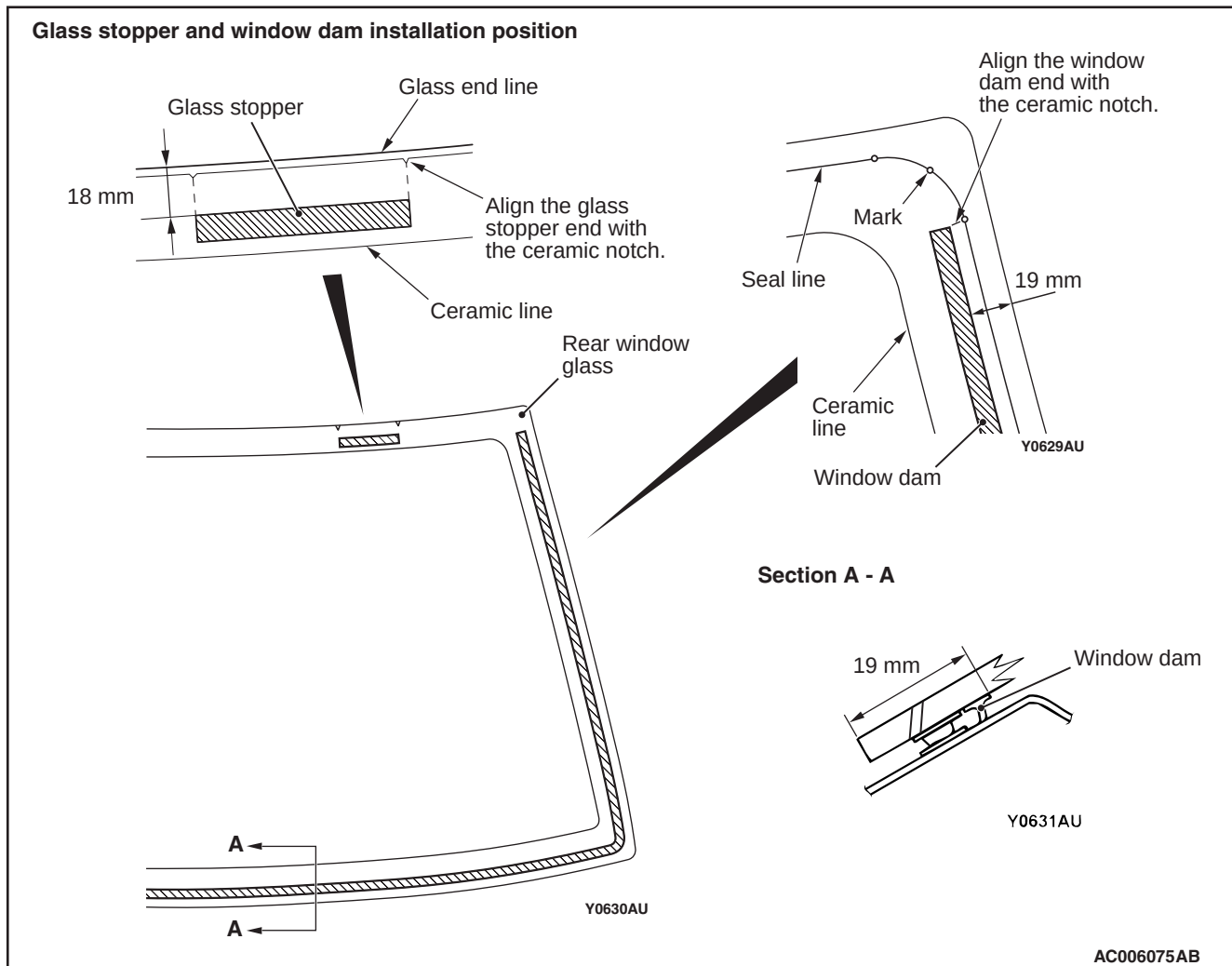
⚠ CAUTION

Leave the degreased parts for 3 or more minutes to dry well, before starting on the next step. Do not touch the degreased parts.

2. Use isopropyl alcohol to degrease the inside and outside of the rear window glass and the body flanges.

⚠ CAUTION

- The primer strengthens the adhesive, so be sure to apply it evenly around the entire circumference. However, a too thick application will weaken the adhesive.
 - Do not touch the coated surface.
3. Soak a sponge in the primer, and apply evenly to the rear window glass and the body in the specified places.
 4. Allow the rear window glass to dry for at least 3 minutes after applying primer.



5. Install the glass stopper and window dam to the specified positions so that there are no adrift or bent surfaces inside the rear window glass.
6. Install the rear window upper moulding.
7. Install the glass in the same manner as the windshield. (Refer to [P.42-12](#)).

>>B<< REAR WINDOW LOWER MOULDING INSTALLATION

Install the clips to the rear window lower moulding, and then fix the rear window moulding to the vehicle body.

DOOR

SERVICE SPECIFICATIONS

M1423000300206

Item		Standard value
Power window operation current (Power supply voltage 14.5 ± 0.5 V, at 25 °C) A		5 ± 1
Door outside handle play mm	Front door	2.3
	Rear door	0 - 3.3 (target value: 1.3)
Door inside handle play mm	Front door	10.4 ± 9.6
	Rear door	10 ± 9.6

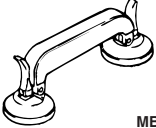
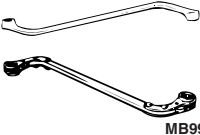
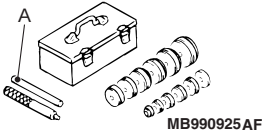
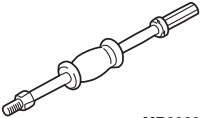
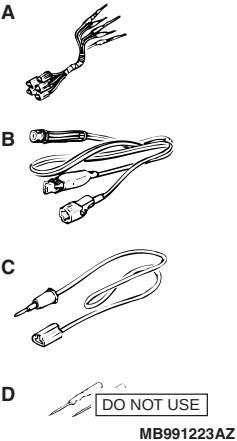
SEALANT

M1423000500095

Item	Specified sealant
Door waterproof film	3M ATD Part No.8633 or equivalent

SPECIAL TOOLS

M1423000600627

Tool	Number	Name	Use
 MB990480	MB990480	Window glass holder	Removal of power window regulator assembly
 MB990900	MB990900 or MB991164	Door hinge adjusting wrench	Door alignment
 MB990925 AF	MB990925 A: MB990939	Bearing and oil seal installer set A: Brass bar	Door striker adjustment
 MB990211	MB990211	Sliding hammer	
 MB990241 AE	MB990241 A: MB990243	Axle shaft puller A: Body puller	
 MB991223 AZ	MB991223 A: MB991219 B: MB991220 C: MB991221 D: MB991222	Harness set A: Test harness B: LED harness C: LED harness adapter D: Probe	Terminal voltage measurement A: For checking connector pin contact pressure B: For checking power supply circuit C: For checking power supply circuit D: For connecting a locally sourced tester
 MB992006	MB992006	Extra fine probe	Continuity check and voltage measurement at harness wire or connector

TROUBLESHOOTING

M1423000700312

The door system is controlled by the Smart Wiring System (SWS). For troubleshooting, refer to GROUP 54B, Troubleshooting P.54B-13 or GROUP 54C, Troubleshooting P.54C-4.

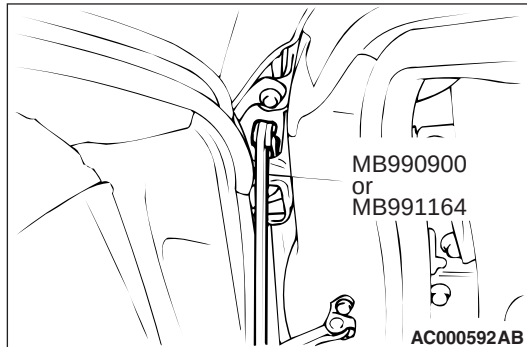
ON-VEHICLE SERVICE

DOOR FIT ADJUSTMENT

M1423001100313

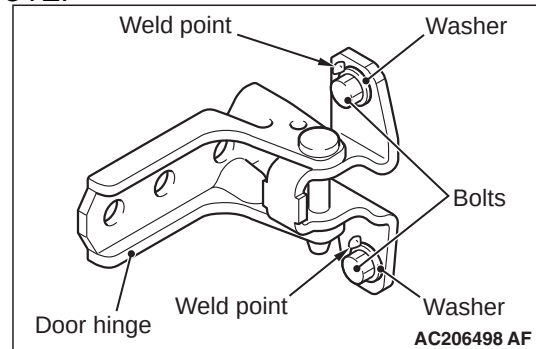
CAUTION

- Attach protection tape to the fender and door edges where the hinge is installed.
- Do not rotate special tool door adjusting wrench (MB991164) with a torque of over 98 N·m.



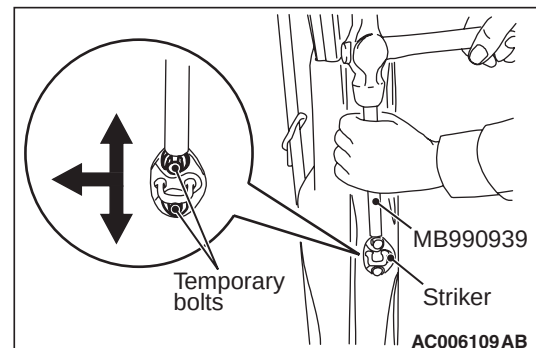
1. Use the special tool door adjusting wrench (MB990900 or MB991164) to loosen the hinge mounting bolts on the body side, and then adjust the clearance around the door so that it is uniform on all sides.
2. If a door is not flush with its surrounding panels, loosen the door-side door hinge mounting bolts and obtain the flushness by moving the door.

NOTE:

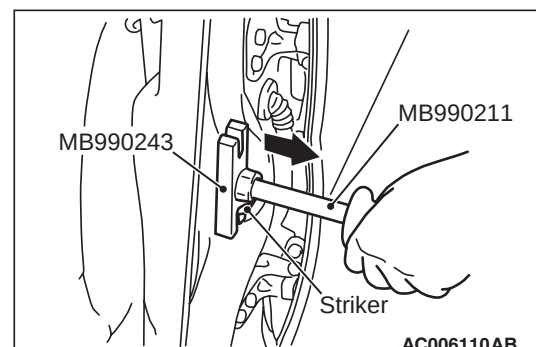


If the door hinge mounting bolt washers are welded, grind off the welding according to the procedure below beforehand.

1. Remove the door hinge (Refer to P.42-26).
 2. Use a chisel or grinder to release the door hinge mounting bolt washers, which are welded to the door hinge.
 3. On completion, paint the affected area with a suitable touch-in brush to prevent corrosion.
 4. Install the door hinge (Refer to P.42-26).
3. When the door is stiff to lock and unlock

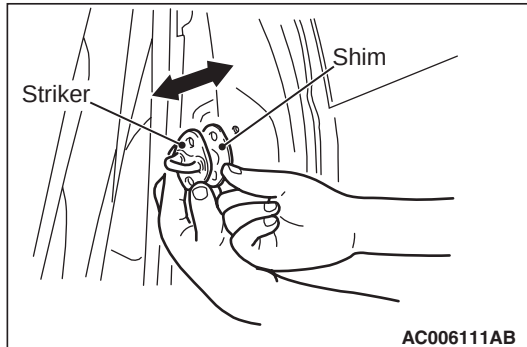


- (1) Adjustment by using the striker (toward the inside of the vehicle and vertical direction)
Install temporary bolts instead of the striker mounting bolts, and use special tool brass bar (MB990939) and a hammer to tap the bolt to the desired direction.



- (2) Adjustment by using the striker (toward the outside of the vehicle)

Use special tools slide hammer (MB990211) and body puller (MB990243) to pull the striker toward the outside of the vehicle.



- (3) Adjustment by using shims (forward and rearward)

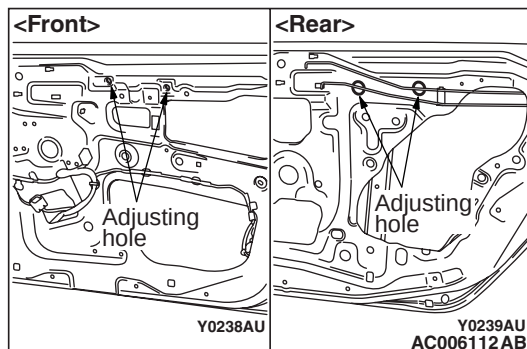
Increase or decrease the number of shims so that the striker engages with the door latch properly.

DOOR WINDOW GLASS ADJUSTMENT

M1423001000394

Check that the door glass moves while contacting the door glass channel when it is raised and lowered fully. If not, adjust the door window according to the following procedures.

1. Remove the door trim assembly (Refer to GROUP 52A, Door trim P.52A-12).
2. Remove the waterproof film (Refer to P.42-33).
3. Loosen the door glass mounting screw via the adjusting hole with the door window glass fully closed, then lower the window glass a little.



4. Fully close the door window glass again and tighten the door glass mounting screw firmly via the adjusting hole.

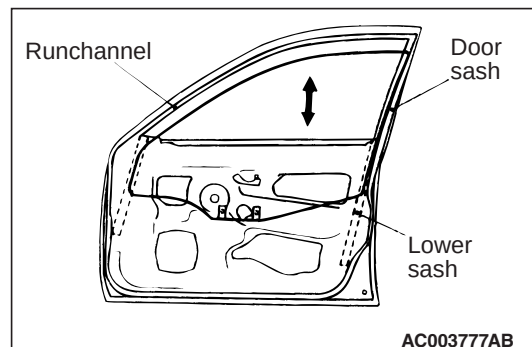
GLASS SLIDING MECHANISM CHECK AND ADJUSTMENT

M1429000900154

If the window glass automatically starts moving downwards at the wrong time while it is being raised, carry out the following adjustment or replacement procedures.

1. Remove the door trim assembly (Refer to GROUP 52A, Door trim P.52A-12).
2. Remove the waterproof film (Refer to P.42-33).
3. Remove the window regulator assembly from the door window glass, and then raise and lower the door window glass by hand to check the operation force.

NOTE: Insert a cushion or similar object to prevent damage to the glass if it should happen to fall down.



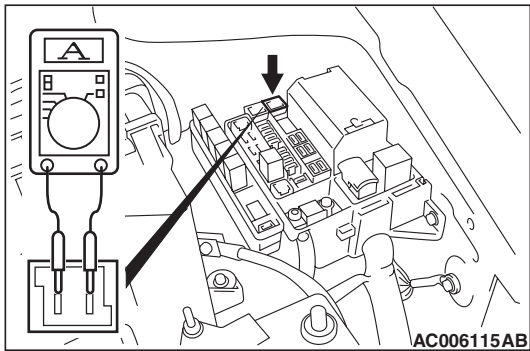
4. If the door window glass does not move up and down smoothly, check or repair the following points.
 - Check the installation condition of the runchannel.
 - Repair any twisting in the door sash.
 - Check the installation condition of the lower sash or the centre sash.

NOTE: The lower sash cannot normally be adjusted, but it may be possible to adjust the sash span slightly within the range allowed by manufacturing tolerances by pushing the lower sash outwards while re-installing it.

5. If repair or adjustment is not possible, replace the door assembly.

POWER WINDOW OPERATING CURRENT
CHECK

M1429001100269



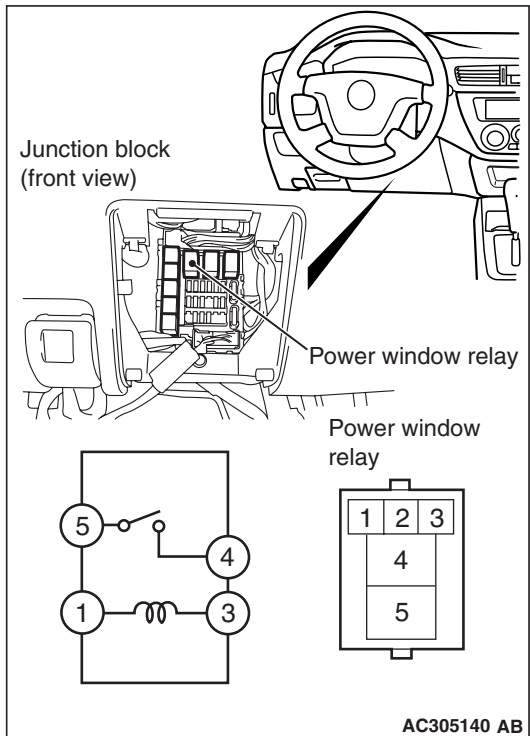
1. Remove the power window fuse and connect an ammeter as shown in the illustration.
2. When the power window switch is pressed to the “UP” position, a large amount of current flows at the time the window starts to close and when it is fully closed, so measure the operation current in the interval between these two points.

Standard value (A): $5 \pm 1\text{A}$ (Power supply voltage $14.5 \pm 0.5\text{V}$, 25°C)

3. If the operation current is outside the standard value, refer to [P.42-23](#).

POWER WINDOW RELAY CHECK

M1429001800202



BATTERY VOLTAGE	Tester connection	Specified condition
Not applied	4 – 5	Open circuit
• Connect terminal No. 3 and the negative battery terminal. • Connect terminal No. 1 and the positive battery terminal.		Less than 2 ohms

CIRCUIT BREAKER (INCORPORATED IN THE POWER WINDOW MOTOR) INSPECTION

M1429001000273

1. Pull the power window switch to the UP position to fully close the door window glass, and keep pulling the switch for 10 additional seconds.
2. Release the power window switch from the UP position and immediately press it to the DOWN position. The condition of the circuit breaker is good if the door window glass starts to move downwards within 60 seconds.

POWER WINDOW CHECK

M1429004400203

Check the system as described below. If the system does not work, carry out troubleshooting. Refer to GROUP 54B, Troubleshooting [P.54B-13](#) or GROUP 54C, Troubleshooting [P.54C-4](#).

- Operate the power window switch of each seat to check that the power window works.
- Turn on the power window lock switch of the power window main switch, and operate the front passenger's and rear power window sub switches to check that the power windows do not work.
- Turn on the power window lock switch of the power window main switch, and operate the power window main switch to check that each power window operates.

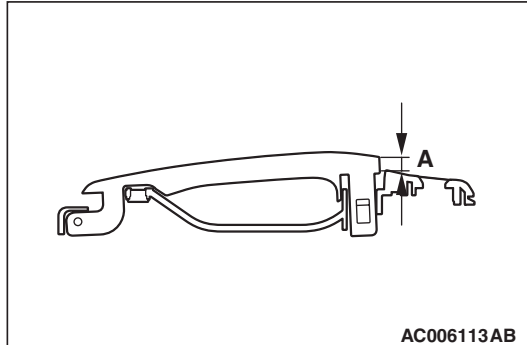
CENTRAL DOOR LOCKING SYSTEM INSPECTION

M1427001100207

Check that the central door locking system works by operating the key cylinders (driver's and passenger's door) and the inside lock knob (driver's door). Carry out troubleshooting if the system does not activate. Refer to GROUP 54B, Troubleshooting [P.54B-13](#) or GROUP 54C, Troubleshooting [P.54C-4](#).

DOOR OUTSIDE HANDLE PLAY CHECK

M1423001600404



1. Check that the door outside handle play is within the standard value range.

Standard value (A):

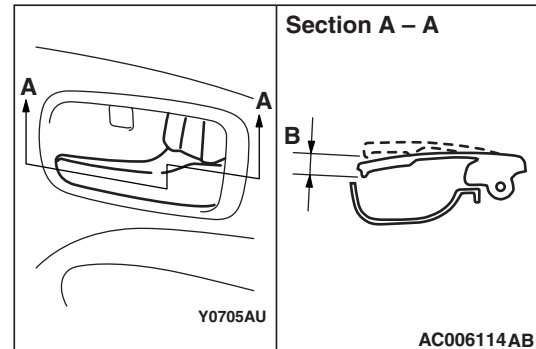
Front door: 2.3 mm

Rear door: 0 – 3.3 mm (target value: 1.3 mm)

2. If the door outside handle play is not within the standard value range, check the door outside handle or the door latch assembly. Replace, if necessary.

DOOR INSIDE HANDLE PLAY ADJUSTMENT

M1423001500292



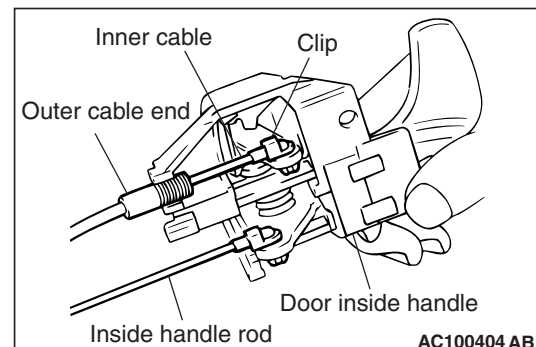
1. Check that the door inside handle play is within the standard value range.

Standard value (B):

Front door: 10.4 ± 9.6 mm

Rear door: 10 ± 9.6 mm

2. If the door inside handle play is outside the standard value range.
3. Remove the door trim assembly (Refer to GROUP 52A, Door trim [P.52A-12](#)).
4. Remove the waterproof film (Refer to [P.42-33](#)).



5. Adjust the door inside handle play with the outer cable end connecting the door inside handle and inside lock cable.

DOOR ASSEMBLY

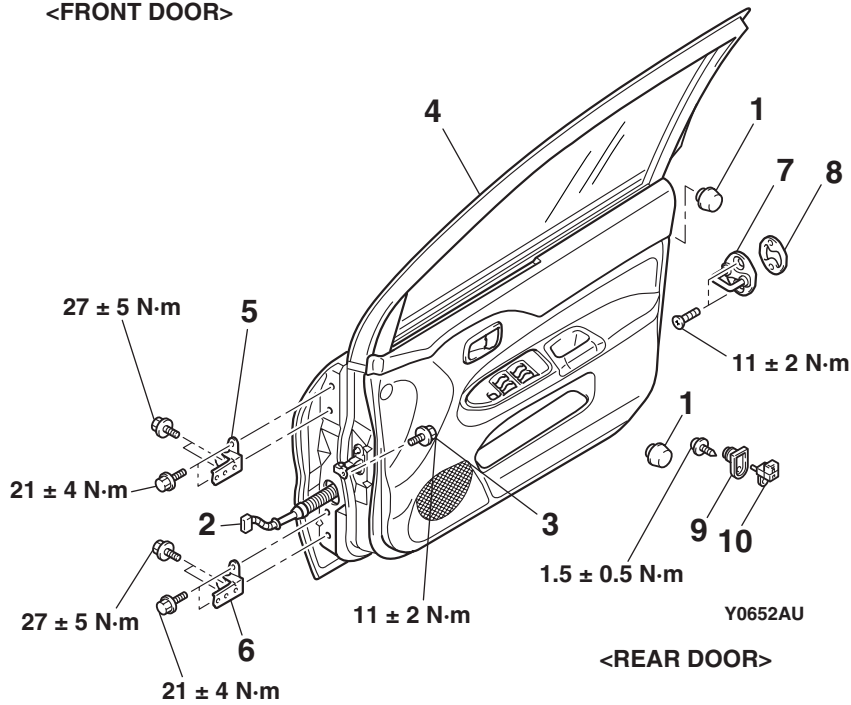
REMOVAL AND INSTALLATION

M1423002200283

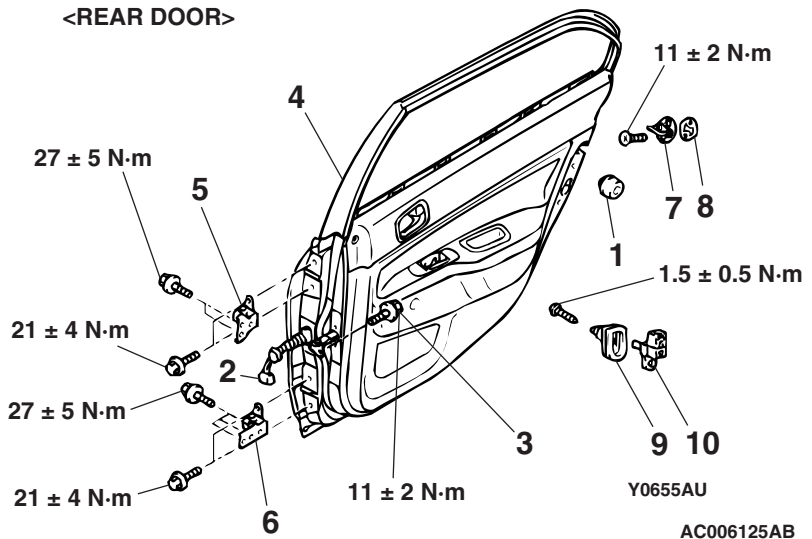
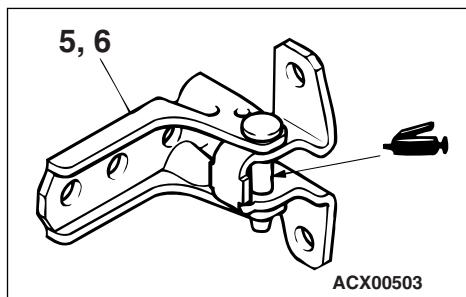
Post-installation Operation

- Door Fit Adjustment (Refer to [P.42-22.](#))

<FRONT DOOR>



<REAR DOOR>



Removal

1. Damper mail

Door assembly removal steps

2. Harness connector
3. Door check connecting bolt
4. Door assembly
5. Door upper hinge
6. Door lower hinge

Striker removal steps

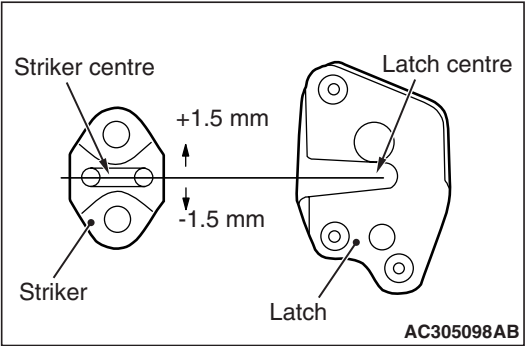
>>A<<

7. Striker
8. Striker shim

Door switch removal steps

9. Door switch cap
10. Door switch

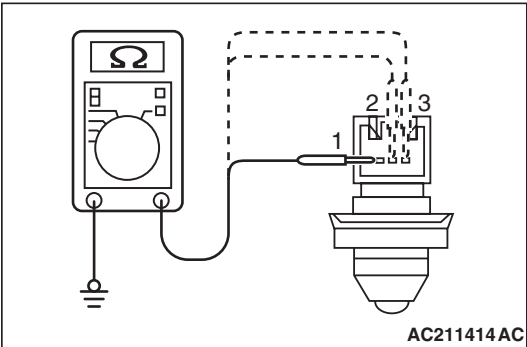
INSTALLATION SERVICE POINT
>>A<< STRIKER INSTALLATION



Align the centre of the striker and latch within ± 1.5 mm, and install.

INSPECTION
DOOR SWITCH CHECK

M1423006000322



Switch position	Tester connection	Specified condition
Released (ON)	1 – switch body, 2 – switch body, 3 – switch body	Less than 2 ohms
Depressed (OFF)	1 – switch body, 2 – switch body, 3 – switch body	Open circuit

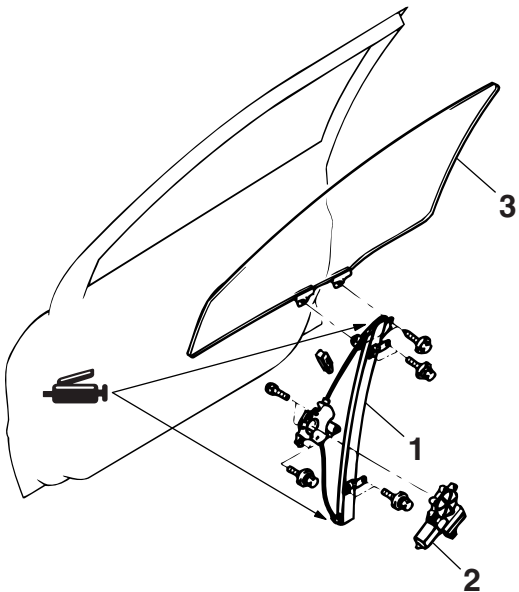
DOOR GLASS AND REGULATOR
REMOVAL AND INSTALLATION

M1429001300467

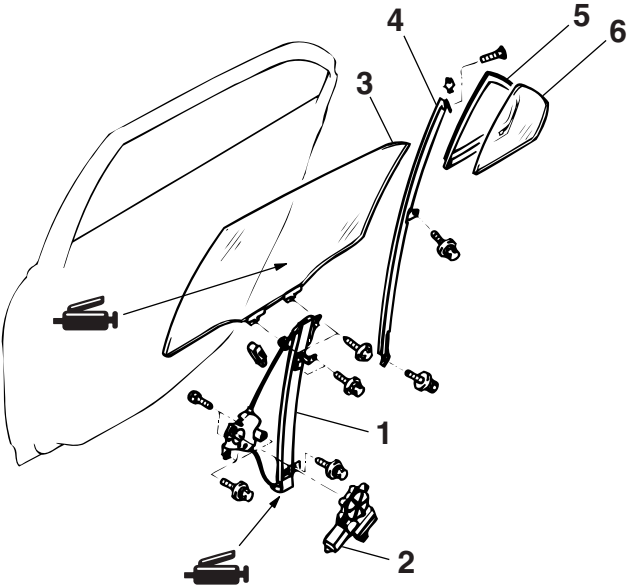
Post-installation Operation

- Door Window Glass Adjustment (Refer to P.42-23).

<FRONT DOOR>

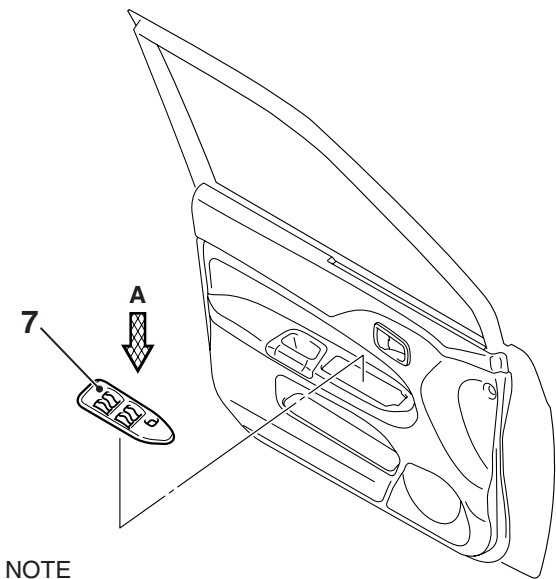


<REAR DOOR>



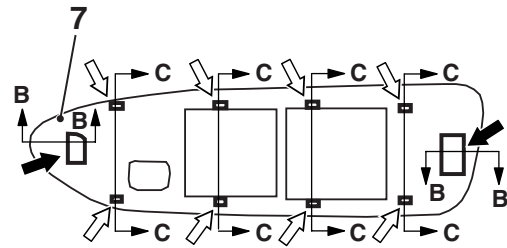
AC212124 AB

<FRONT DOOR>

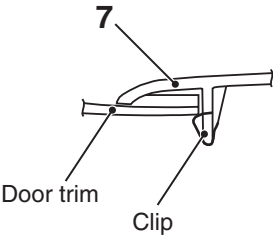


NOTE
➡ : Clip positions
↔ : Claw positions

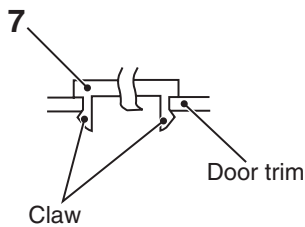
View A



Section B - B

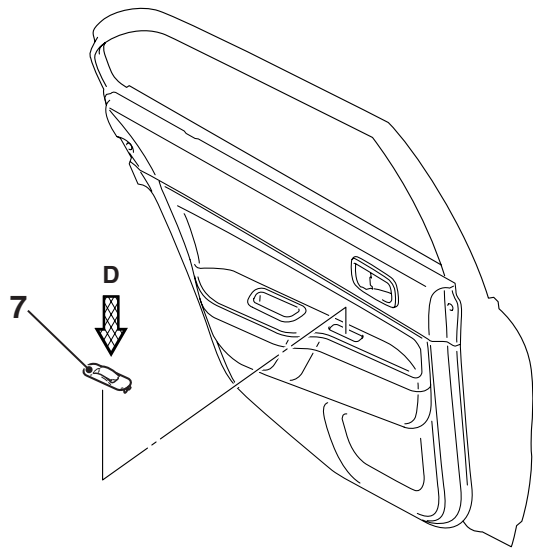


Section C - C



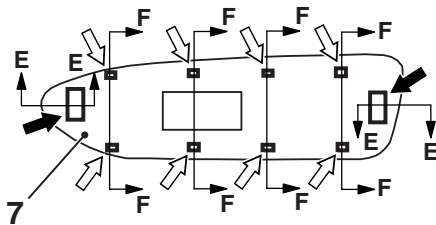
AC305108AB

<REAR DOOR>

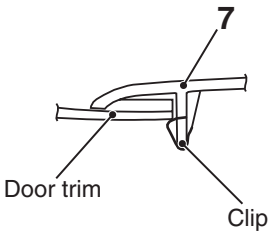


NOTE
➡ : Clip positions
↔ : Claw positions

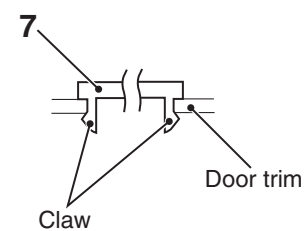
View D



Section E - E



Section F - F



AC305109AB

**Door window regulator assembly
removal steps**

- Door trim assembly (Refer to GROUP 52A, Door Trim P.52A-12).
- Waterproof film (Refer to P.42-33).

<<A>> >>B<<
<<A>> >>B<<

1. Window regulator assembly
2. Power window motor assembly

Door window glass removal steps

- Window glass runchannel (Refer to P.42-33).
- 3. Door window glass

**Stationary window glass removal
steps**

- Window glass runchannel (Refer to P.42-33).
- Door beltline inner weatherstrip (Refer to P.42-33).
- 3. Door window glass
- 4. Centre sash upper
- 5. Stationary window glass
- 6. Stationary window weatherstrip

<> >>A<<

Power window switch removal steps

- 7. Power window switch panel assembly

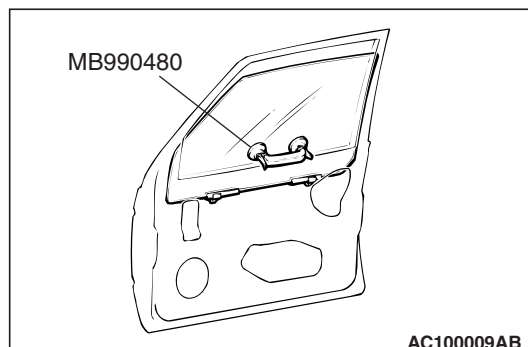
REMOVAL SERVICE POINTS

<<A>> WINDOW REGULATOR ASSEMBLY/POWER WINDOW MOTOR ASSEMBLY REMOVAL

1. Remove the door window glass installation bolts.

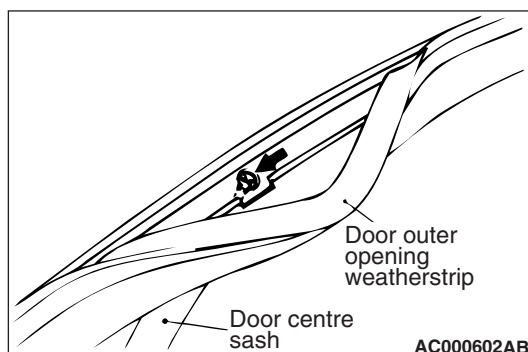
⚠ CAUTION

If film or others are adhered to the door window glass, attach special tool window glass holder (MB990480) to the outside of the glass to prevent the film from peeling off.



2. Lift the door window glass, and attach special tool window glass holder (MB990480) to the glass as shown to prevent the glass from falling.
3. Remove the window regulator assembly and power window motor assembly

<> CENTRE SASH UPPER REMOVAL



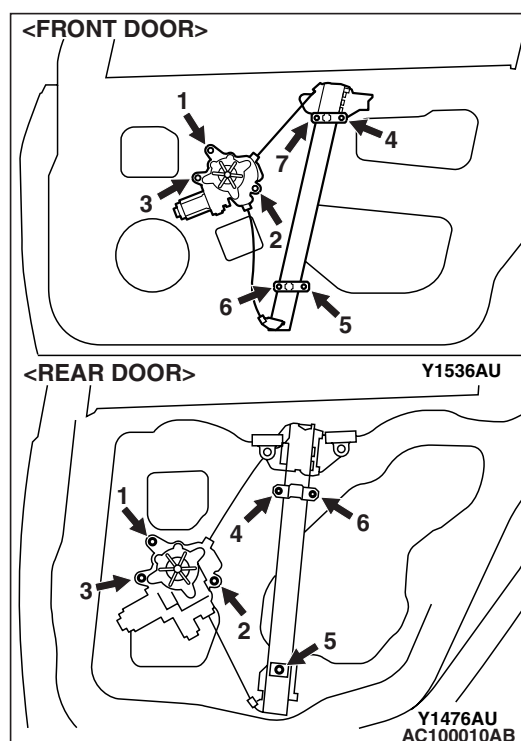
1. Remove the door outer opening weatherstrip from the centre sash upper only.
2. Remove the centre sash upper mounting screws, and then remove the centre sash upper from the door panel.

INSTALLATION SERVICE POINTS

>>A<< CENTRE SASH UPPER INSTALLATION

Securely insert the centre sash upper into the window rear sash (door).

>>B<< POWER WINDOW MOTOR ASSEMBLY INSTALLATION/WINDOW REGULATOR ASSEMBLY



When installing the window regulator assembly, tighten the bolts in the order shown in the illustration.

INSPECTION

M1429001400282

How to make the power window switch learn the fully closed position of the power window

How to make the power window switch learn the fully closed position when the power window switch is removed, or the power window regulator assembly is removed or replaced

1. If the anti-trap function (safety mechanism) is activated consecutively three times or more, the fully closed position that the power window switch has learned will be erased (initialised).
2. Operate the power window switch and fully open the door window glass.

⚠ CAUTION

The anti-trap function does not work until the power window switch completes learning the fully closed position (It is because the anti-trap function is reset).

3. Operate the power window switch and fully close the door window glass. The power window activates for 0.7 seconds and stops automatically when the power window switch is pressed once. Repeat this operation until the door window glass fully closes and release the switch once. Then, hold the power window switch to the fully closed side again for one second so that the power window switch completes learning the fully closed position.

NOTE: If the power window switch is operated to open the door window glass while the switch is learning, learning will be cancelled. If this happens, return to step 2.

How to make the power window switch learn the fully closed position when the power window switch is replaced with a new one

⚠ CAUTION

The anti-trap function does not work until the power window switch completes learning the fully closed position (It is because the anti-trap function is reset).

Operate the power window main switch to fully close the door window glass by one-shot up action so that the power window switch will complete learning (Initialisation is not needed).

NOTE: When the power window sub switch of each seat is replaced, operate the power window main switch to fully close the applicable power window by one-shot up action (It is because the power window sub switch does not have one-shot up/down function).

DOOR HANDLE AND LATCH

REMOVAL AND INSTALLATION

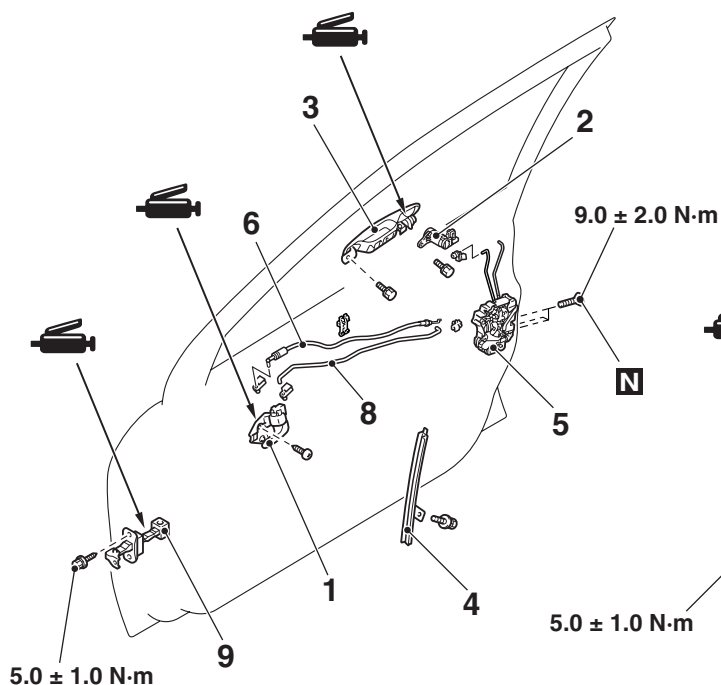
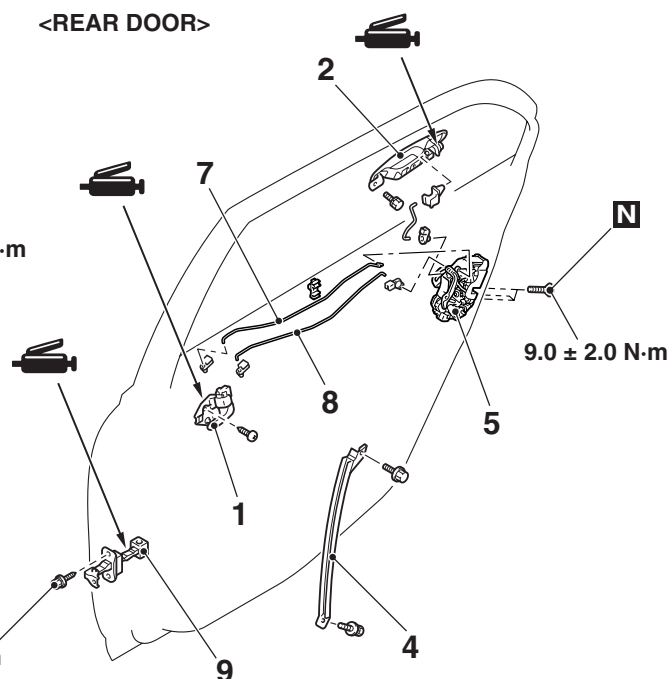
M1423004600458

Pre-removal Operation

- Door Trim Removal (Refer to GROUP 52A, Door trim P.52A-12).

Post-installation Operation

- Door Inside Handle Play Check (Refer to P.42-25).
- Door Outside Handle Play Check (Refer to P.42-25).
- Door Trim Installation (Refer to GROUP 52A, Door trim P.52A-12).

<FRONT DOOR>**<REAR DOOR>**

Door handle and door latch assembly removal steps

- >>C<< 1. Door inside handle
- Waterproof film (Refer to P.42-33).
2. Door outside handle
3. Door lock key cylinder
- >>B<< 4. Lower sash

Door handle and door latch assembly removal steps (Continued)

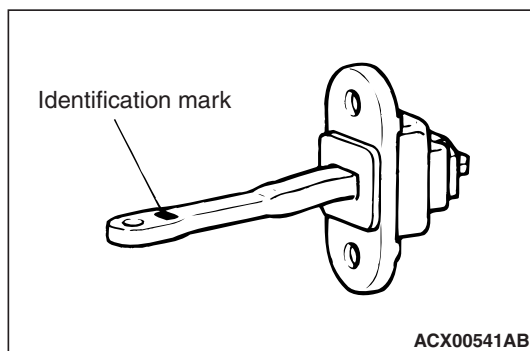
5. Door latch assembly
6. Inside lock cable (Front door)
7. Inside lock rod (Rear door)
8. Inside handle rod

Door check removal steps

- Waterproof film (Refer to P.42-33).
- >>A<< 9. Door check

INSTALLATION SERVICE POINTS

>>A<< DOOR CHECK INSTALLATION



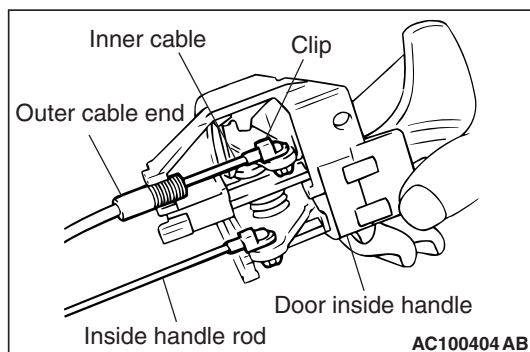
Install the door check so that the identification mark faces upwards.

Item		Identification mark
Front Door	Left door	39L
	Right door	39R
Rear Door	Left door	40L
	Right door	40R

>>B<< LOWER SASH INSTALLATION

Securely insert the rear lower sash into the window rear sash.

>>C<< DOOR INSIDE HANDLE INSTALLATION

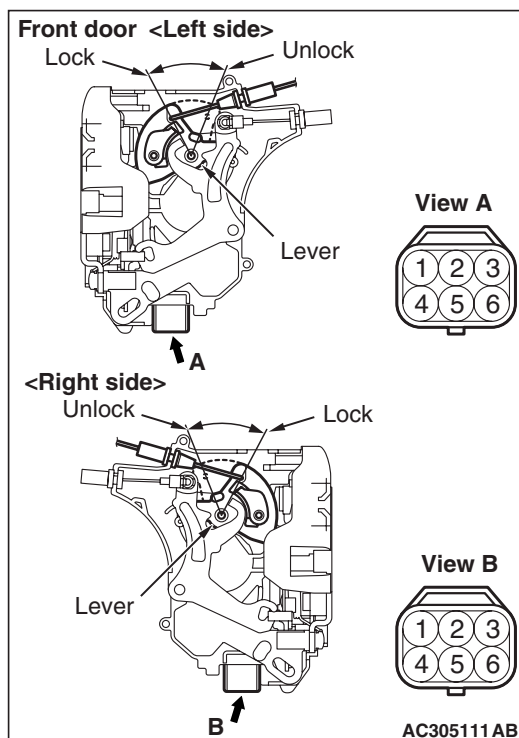


1. Install the inside lock cable to the door inside handle as follows:
 - (1) Install the inner cable end in the inside lock cable to the clip in the door inside handle.
 - (2) Turn the inside lock knob to the door lock position.
 - (3) Install the outer cable end to the door inside handle securely.
 - (4) Install the clip to the inner cable.
2. Install the inside handle rod to the door inside handle.
3. Install the door inside handle to the door.

INSPECTION

M1423004700541

FRONT DOOR LOCK ACTUATOR CHECK



ACTUATOR OPERATION CHECK

Lever position	Battery connection	Lever operation
At the "LOCK" position	- Connect terminal No.4 and the negative battery terminal. - Connect terminal No.6 and the positive battery terminal.	The lever moves from the "LOCK" position to the "UNLOCK" position.
At the "UNLOCK" position	- Connect terminal No.6 and the negative battery terminal. - Connect terminal No.4 and the positive battery terminal.	The lever moves from the "UNLOCK" position to the "LOCK" position.

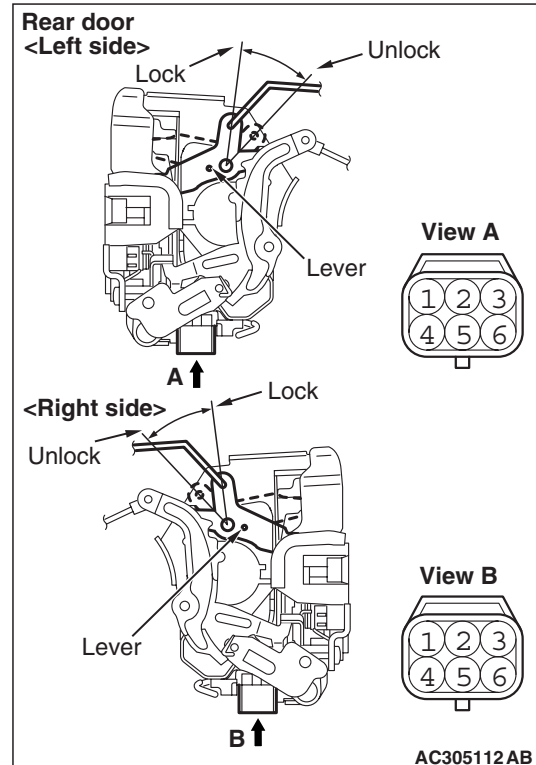
ACTUATOR SWITCH CHECK <LH DRIVE VEHICLES (DRIVER'S SIDE)>

Lever position	Tester connection	Specified condition
At the "LOCK" position	1 – 2	Less than 2 ohms
At the "UNLOCK" position	1 – 3	Less than 2 ohms

ACTUATOR SWITCH CHECK <RH DRIVE VEHICLES (DRIVER'S SIDE)>

Lever position	Tester connection	Specified condition
At the "LOCK" position	2 – 3	Less than 2 ohms
At the "UNLOCK" position	1 – 3	Less than 2 ohms

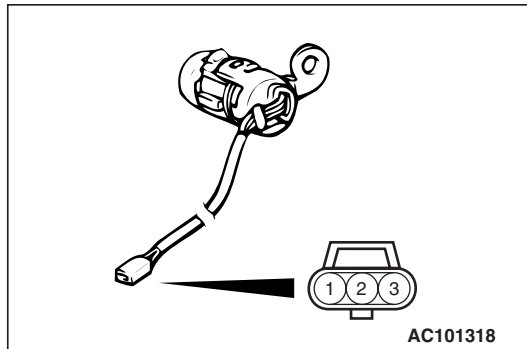
REAR DOOR LOCK ACTUATOR CHECK



ACTUATOR OPERATION CHECK

Lever position	Battery connection	Lever operation
At the "LOCK" position	- Connect terminal No.4 and the negative battery terminal. - Connect terminal No.6 and the positive battery terminal.	The lever moves from the "LOCK" position to the "UNLOCK" position.
At the "UNLOCK" position	- Connect terminal No.6 and the negative battery terminal. - Connect terminal No.4 and the positive battery terminal.	The lever moves from the "UNLOCK" position to the "LOCK" position.

DOOR LOCK KEY CYLINDER SWITCH CHECK <PASSENGER'S SIDE>



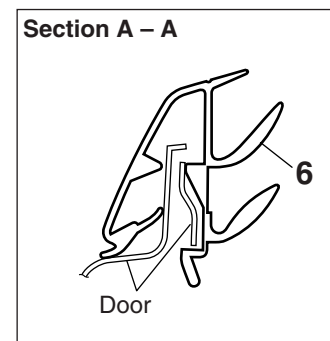
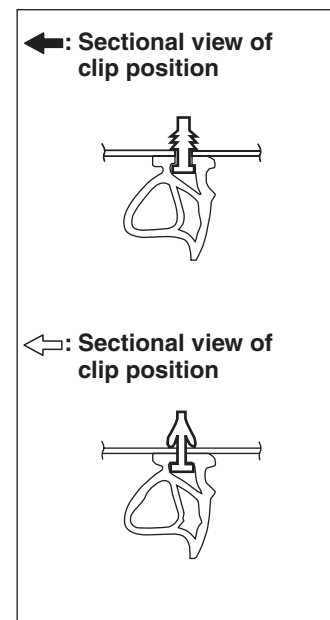
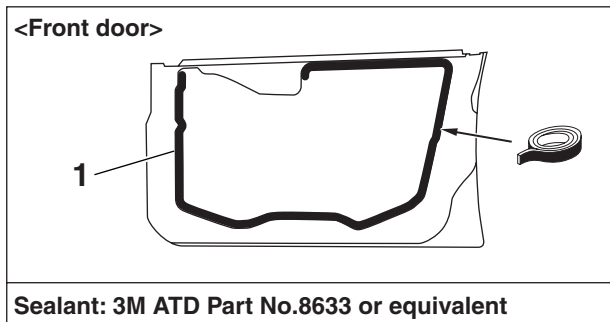
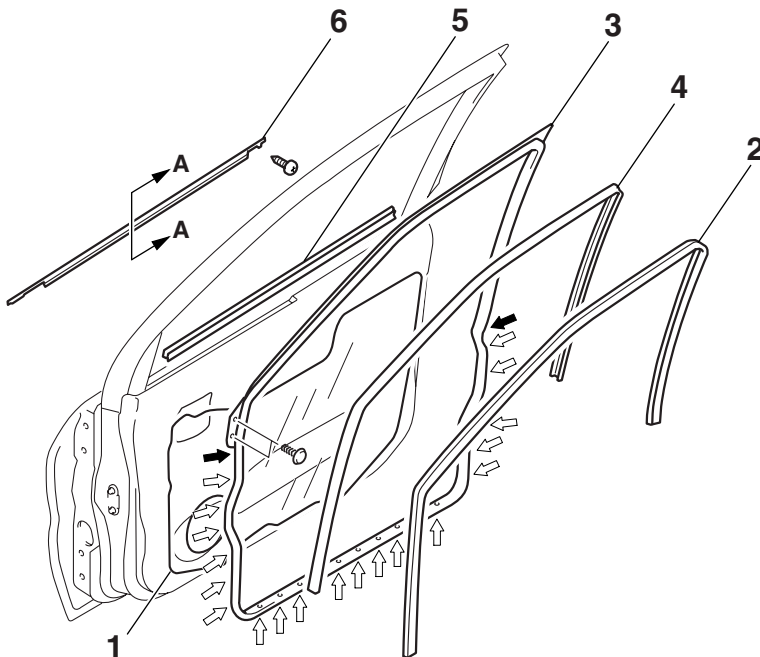
Switch position	Tester connection	Specified condition
LOCK	1 - 2	Less than 2 ohms
NEUTRAL (OFF)	1 - 2, 2 - 3	Open circuit
UNLOCK	2 - 3	Less than 2 ohms

WINDOW GLASS RUNCHANNEL AND DOOR OPENING WEATHERSTRIP

REMOVAL AND INSTALLATION

M1423003100449

<FRONT DOOR>



AC304409AB

Waterproof film removal steps

- Front door trim (Refer to GROUP 52A, Door trim [P.52A-12](#)).
- Speaker (Refer to GROUP 54A, Speaker [P.54A-78](#)).

1. Waterproof film

Door inner opening weatherstrip removal steps

- Scuff plate, centre pillar lower trim and cowl side trim (Refer to GROUP 52A, Trims [P.52A-10](#)).
2. Door inner opening weatherstrip (Body side)

Door outer opening weatherstrip removal steps

- Front door check mounting bolt (Door side) (Refer to [P.42-26](#)).

<<A>> >>A<< 3. Door outer opening weatherstrip

Door window glass runchannel removal

4. Door window glass runchannel

Door beltline inner weatherstrip removal steps

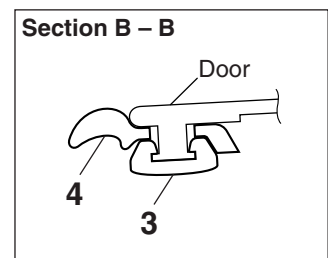
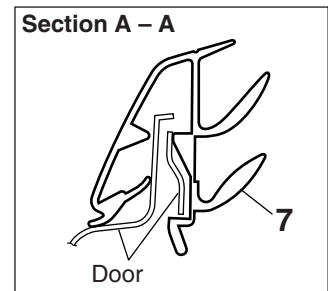
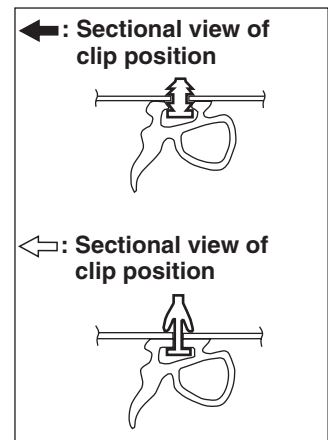
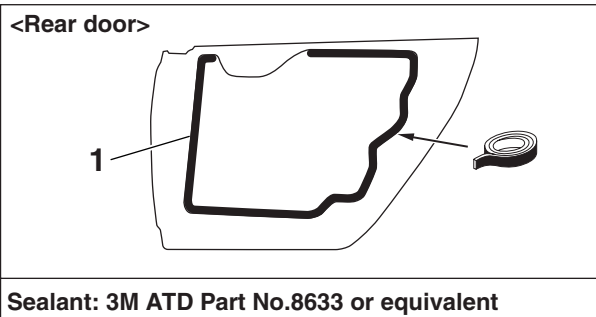
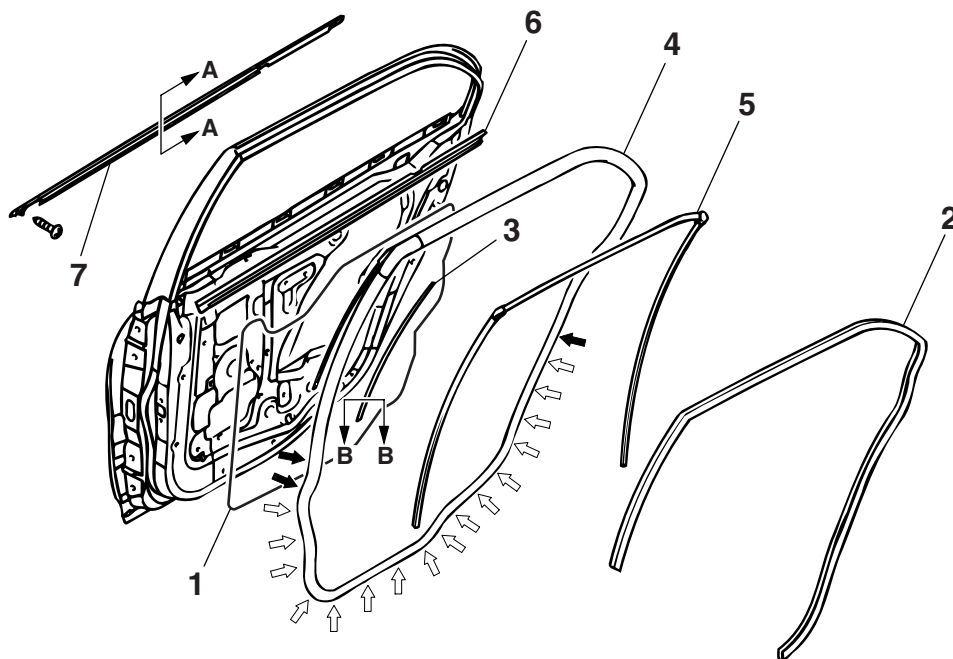
- Front door trim (Refer to GROUP 52A, Door trim [P.52A-12](#)).

5. Door beltline inner weatherstrip

Door beltline moulding removal steps

- Door mirror assembly (Refer to GROUP 51, Door mirror [P.51-35](#)).
 - Door window glass (Refer to [P.42-27](#)).
6. Door beltline moulding

<REAR DOOR>



Waterproof film removal steps

- Rear door trim (Refer to GROUP 52A, Door trim [P.52A-12](#)).

1. Waterproof film

Door inner opening weatherstrip removal steps

- Scuff plate, centre pillar lower trim and cowl side trim (Refer to GROUP 52A, Trims [P.52A-10](#)).

2. Door inner opening weatherstrip (Body side)

Door outer opening weatherstrip removal steps

- Rear door check mounting bolt (Door side) (Refer to [P.42-26](#)).
3. Retainer weatherstrip

<<A>> >>A<<

Door outer opening weatherstrip removal steps (Continued)

4. Door outer opening weatherstrip

Door window glass runchannel removal

5. Door window glass runchannel

Door beltline inner weatherstrip removal steps

- Rear door trim (Refer to GROUP 52A, Door trim [P.52A-12](#)).

- Centre sash upper (Refer to [P.42-27](#)).

6. Door beltline inner weatherstrip

Door beltline moulding removal steps

- Door window glass (Refer to

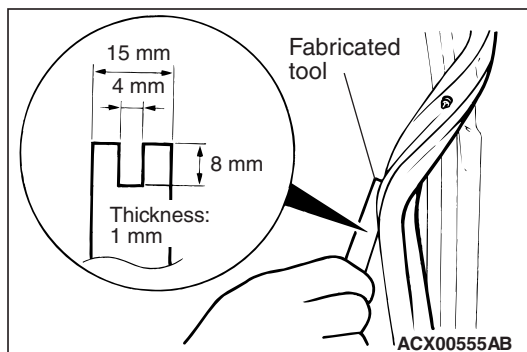
[P.42-27](#)).

- Stationary glass (Refer to [P.42-27](#)).

7. Door beltline moulding

REMOVAL SERVICE POINT

<<A>> DOOR OUTER OPENING WEATHERSTRIP REMOVAL



Make a fabricated tool as shown in the illustration to remove the door weatherstrip.

INSTALLATION SERVICE POINT

>>A<< DOOR OUTER OPENING WEATHERSTRIP INSTALLATION

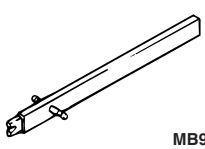
The clip colour identifies the left and right weatherstrips so be sure to use the colours so as to install correctly.

Applicable side	Identification colour
Right door	Pink
Left door	Natural (White)

TRUNK LID

SPECIAL TOOL

M1421000600245

Tool	Number	Name	Use
	MB991244	Torsion bar remover and installer	Removal and installation of trunk lid torsion bar

ON-VEHICLE SERVICE

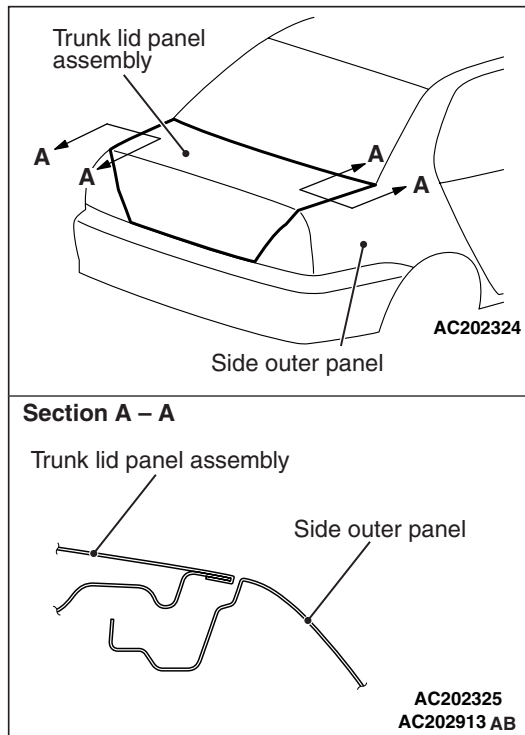
TRUNK LID ADJUSTMENT

M1421001000042

1. If the clearance around the trunk lid panel assembly is not uniform and locking and unlocking of the trunk lid is difficult, make adjustments to the trunk lid bumpers (refer to

[P.42-36](#)) and trunk lid hinges (refer to [P.42-36](#)).

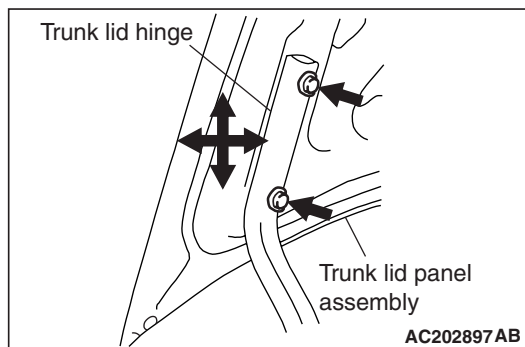
2. If the clearance around the trunk lid panel assembly is uniform, but locking and unlocking of the trunk lid is difficult, make adjustments to the trunk lid bumpers (refer to [P.42-36](#)) and trunk lid striker (refer to [P.42-36](#)).



3. If there is a difference in height between the side outer panels and the side edges of the trunk lid panel assembly, check the trunk lid hinges and, if necessary, replace them
4. If the clearance around the trunk lid panel assembly is not uniform, and the trunk lid can be locked and unlocked smoothly, make adjustments to the trunk lid bumpers (refer to [P.42-36](#)) and trunk lid hinges (Refer to [P.42-36](#)).
5. If the locking and unlocking of the trunk lid still is difficult after making the above adjustments, adjust the trunk lid striker (Refer to [P.42-36](#)).

ADJUSTMENT OF CLEARANCE AROUND TRUNK LID

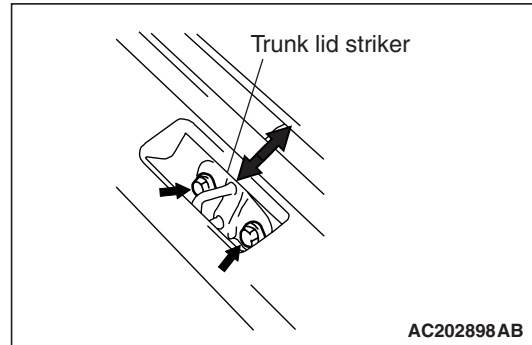
M1421008100039



Loosen the trunk lid panel assembly mounting bolts and move the trunk lid panel assembly to make the clearance around the trunk lid uniform.

TRUNK LID STRIKER ADJUSTMENT

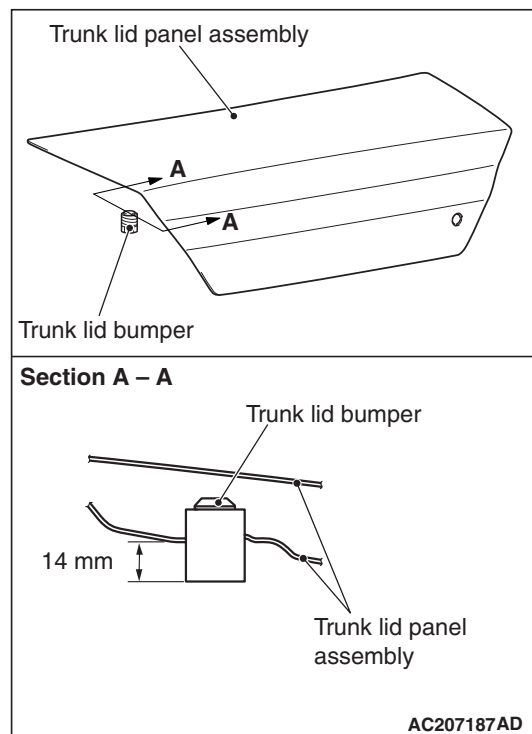
M1421008200036



After checking the trunk lid release cable for proper routing, loosen the trunk lid striker mounting bolts. Change the position of the trunk lid striker relative to the trunk lid latch assembly so that trunk lid locking and unlocking effort is correct.

TRUNK LID HEIGHT ADJUSTMENT

M1421008300066



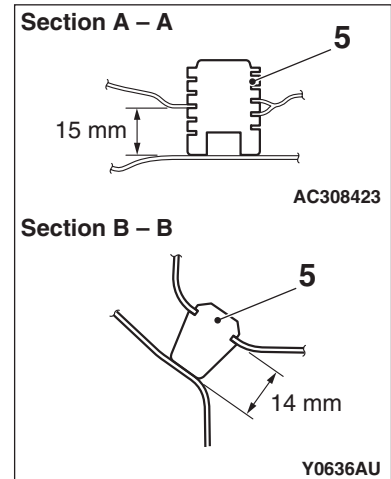
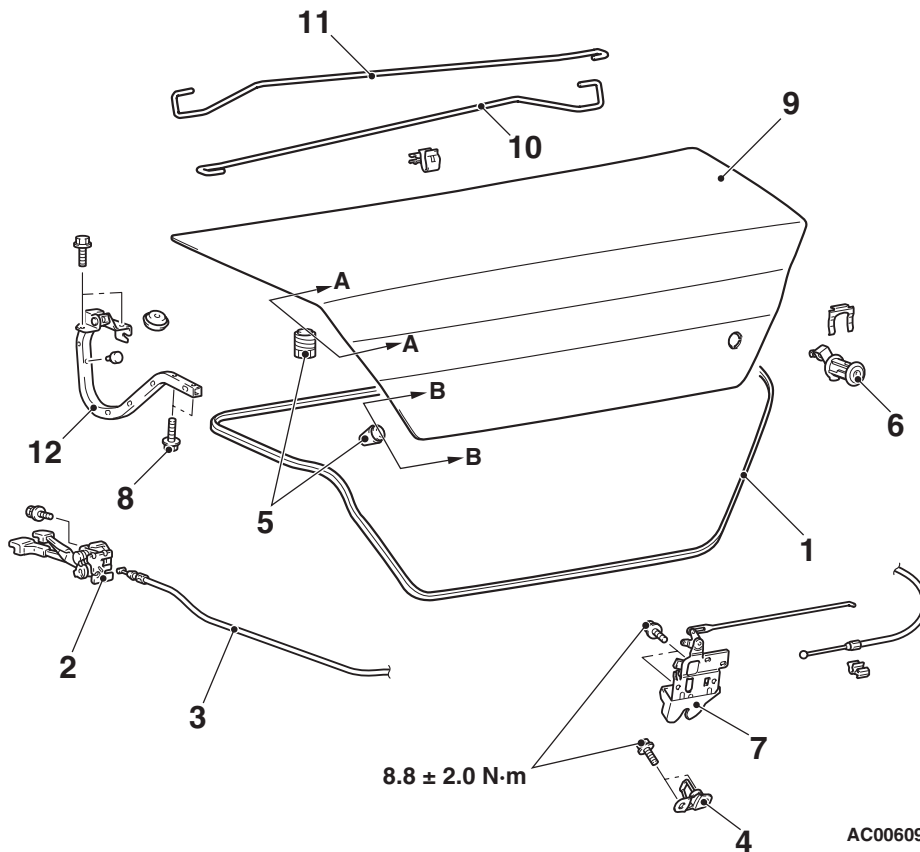
Turn each trunk lid bumper until the height shown in the drawing is reached. If the trunk lid panel height on one side is different from that on the other side (even after the trunk lid bumpers have been adjusted to the height indicated in the drawing), turn the trunk lid bumper(s) slightly to make fine adjustments to the trunk lid panel height

NOTE: When the bumper is new, one full turn of the trunk lid bumper changes the height approximately 3 mm. Turn it clockwise to reduce height. Turn it anti-clockwise to increase height

TRUNK LID

REMOVAL AND INSTALLATION

M1421002200243



Trunk lid weatherstrip removal steps

- Rear end trim (Refer to GROUP 52A, Trims [P.52A-10](#)).

>>B<< 1. Trunk lid weatherstrip

Trunk lid release cable and trunk lid release handle removal steps

- Trunk rear side trim (Refer to GROUP 52A, Trims [P.52A-10](#)).
 - Rear seat (Refer to GROUP 52A, Rear Seat Assembly [P.52A-20](#)).
 - Centre pillar lower trim (Refer to GROUP 52A, Trims [P.52A-10](#)).
 - Cowl side trim (Refer to GROUP 52A, Trims [P.52A-10](#)).
 - Accelerator pedal stopper (Refer to GROUP 17, Accelerator Pedal [P.17-3](#)).
2. Trunk lid release handle
 3. Trunk lid release cable

Trunk lid striker removal steps

- Rear end trim (Refer to GROUP 52A, Trims [P.52A-10](#)).
4. Trunk lid striker

Trunk lid panel removal steps

5. Trunk lid bumper
6. Trunk lid lock cylinder
7. Trunk lid latch assembly
8. Trunk lid hinge mounting bolt
9. Trunk lid panel assembly

Trunk lid latch removal

7. Trunk lid latch assembly

Trunk lid hinge removal steps

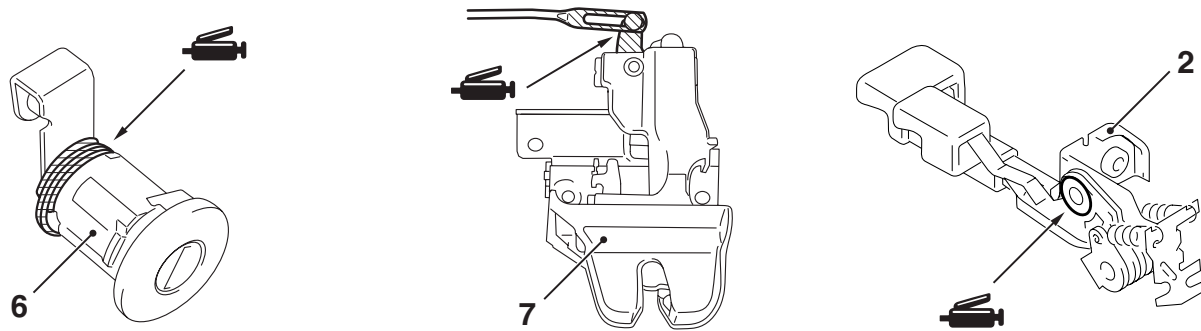
- Rear shelf trim (Refer to GROUP 52A, Trims [P.52A-10](#)).
 - Rear seat (Refer to GROUP 52A, Rear Seat Assembly [P.52A-20](#)).
9. Trunk lid panel assembly
 10. Trunk lid torsion bar <RH>
 11. Trunk lid torsion bar <LH>
 12. Trunk lid hinge

<<A>> >>A<<
<<A>> >>A<<

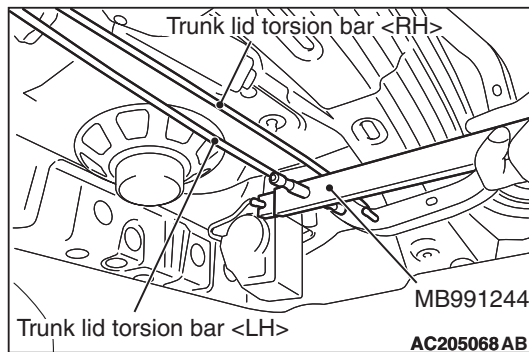
AC006098

AC310064AB

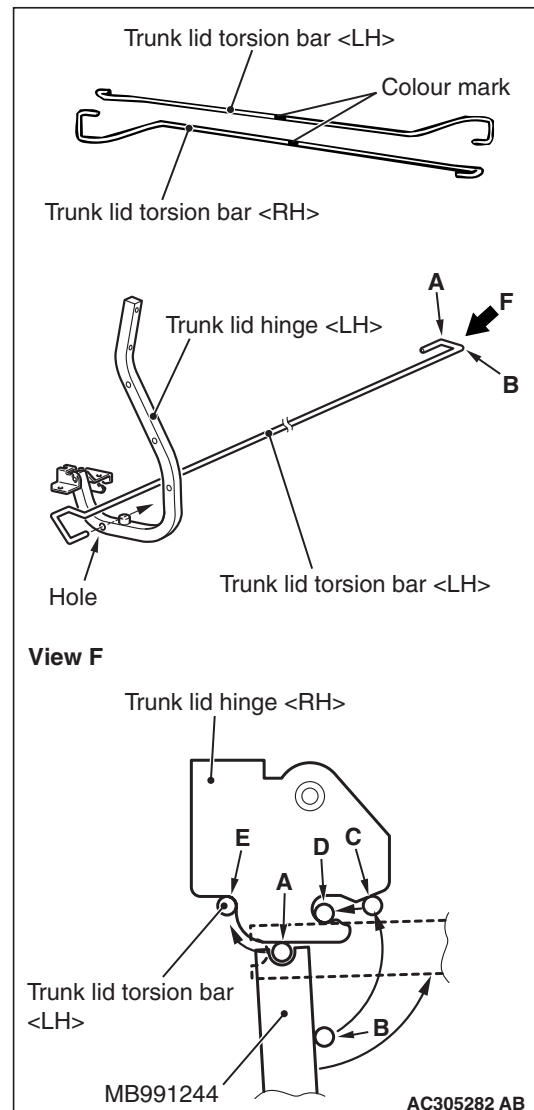
Grease application area



AC305143 AB

REMOVAL SERVICE POINT**<<A>> TRUNK LID TORSION BAR
REMOVAL**

1. Attach the special tool torsion bar remover and installer (MB991244) to the illustrated portion of the trunk lid torsion bar <RH> on the right hand of the vehicle, then use the tool to detach the trunk lid torsion bar <RH> from the trunk lid hinge <LH>
2. Remove the trunk lid torsion bar <LH> in the same way as the trunk lid torsion bar <RH>.

INSTALLATION SERVICE POINTS**>>A<< TRUNK LID TORSION BAR
INSTALLATION**

Install the trunk lid torsion bars using the following procedure.

⚠ CAUTION

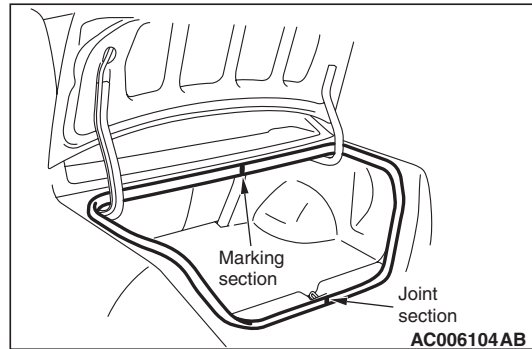
Install the trunk lid torsion bar <LH> before the trunk lid torsion bar <RH>. If the sequence is reversed, the trunk lid torsion bar <LH> will not be able to be installed because the special tool torsion bar remover and installer (MB991244) will interfere with the trunk lid torsion bar <RH> during installation of the trunk lid torsion bar <LH>.

1. Identify the LH and RH torsion bars by the colour mark made at the centre of each torsion bar.

Trunk lid torsion bar	Mark colour
LH	Green
RH	Yellow

2. Insert the left end of the trunk lid torsion bar <LH> in the hole in the trunk lid hinge <LH>.
3. Press portion A of the trunk lid torsion bar <LH> right end against point A on the trunk lid hinge <RH> as shown in View F in the drawing.
4. Twist the portion B of the trunk lid torsion bar <LH> right end using the special tool torsion bar remover and installer (MB991244) until it is moved from point B and pressed against point C of the trunk lid hinge <RH> as shown in View F. Then force the portion into point D.
5. Twist the portion A of the trunk lid torsion bar <LH> right end until it reaches point E on the trunk lid hinge <RH> as shown in View F.
6. Attach the trunk lid torsion bar <RH> to the trunk lid hinge <LH> using the same method as the trunk lid torsion bar <LH>.

>>B<< TRUNK LID WEATHERSTRIP INSTALLATION

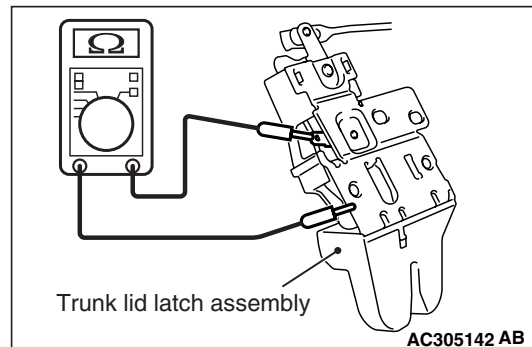


Install the trunk lid weatherstrip so that the marking and the joint are aligned with the body centre line,

INSPECTION

M1421004800133

TRUNK LID LATCH SWITCH CONTINUITY CHECK



Switch position	Tester connection	Specified condition
ON (Latch open)	1 – Earth	Less than 2 ohms
OFF (Latch shut)		Open circuit

KEYLESS ENTRY SYSTEM

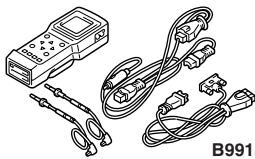
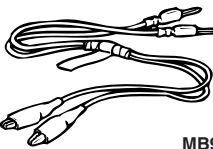
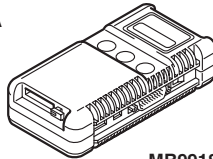
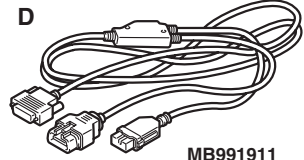
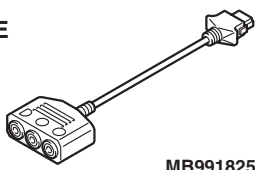
SERVICE SPECIFICATIONS

M1428000300148

Item	Standard value
Voltage of transmitter battery V	2.5 – 3.2

SPECIAL TOOLS

M1428000600462

Tool	Number	Name	Use
 B991502	MB991502	M.U.T.-II sub-assembly	Encrypted code registration
 MB991529	MB991529	Diagnosis code check harness	
A  MB991824	MB991955 A: MB991824 B: MB991827 C: MB991910 D: MB991911 E: MB991825 F: MB991826	M.U.T.-III sub-assembly A: Vehicle communication interface (V.C.I.) B: M.U.T.-III USB cable C: M.U.T.-III main harness A (applicable to vehicles with CAN communication) D: M.U.T.-III main harness B (applicable to vehicles without CAN communication) E: M.U.T.-III measurement adapter F: M.U.T.-III trigger harness	Encrypted code registration  CAUTION M.U.T.-III main harness B (MB991911) should be used. M.U.T.-III main harness A should not be used for this vehicle.
B  MB991827			
C  MB991910			
D  MB991911			
E  MB991825			
F  MB991826 MB991955			

TROUBLESHOOTING

M1428000700287

The keyless entry system is controlled by the Smart Wiring System (SWS). For troubleshooting, refer to GROUP 54B, Troubleshooting P.54B-13 or GROUP 54C, Troubleshooting P.54C-4.

ON-VEHICLE SERVICE

KEYLESS ENTRY SYSTEM CHECK

M1428001400137

Check the system as described below. If the system does not work, carry out troubleshooting. Refer to GROUP 54B, Troubleshooting P.54B-13 or GROUP 54C, Troubleshooting P.54C-4.

- Operate the transmitter to check that the doors can be locked and unlocked.
- Operate the transmitter to check that the answerback function works in response to doors locking/unlocking.

NOTE: The adjustment function allows you to change the answerback setting as follows. Prior to that check, confirm which setting is activated.

- The hazard warning lamp flashes twice when locked and once when unlocked. The room lamp flashes twice when locked and illuminates for 15 seconds when unlocked.
- The hazard warning lamp do not flash when locked and flash once when unlocked. The room lamp flashes twice when locked and illuminates for 15 seconds when unlocked.
- The hazard warning lamp flashes twice when locked and do not flash when unlocked. The room lamp flashes twice when locked and illuminates for 15 seconds when unlocked.
- The hazard warning lamp do not flash when both locked and unlocked. The room lamp flashes twice when locked and illuminates for 15 seconds when unlocked.

KEYLESS ENTRY SYSTEM TIMER LOCK FUNCTION INSPECTION

M1428004000183

Push the transmitter unlock button and check to see that the doors lock within 30 seconds. If it doesn't, then execute troubleshooting remedies. Refer to GROUP 54B, Troubleshooting P.54B-13 or GROUP 54C, Troubleshooting P.54C-4.

ENABLING/DISABLING THE ANSWERBACK FUNCTION

M1428003200355

If the keyless entry system locks or unlocks the doors, the room lamp flashes or illuminates, the hazard warning lamp flashes (hazard answerback function). The hazard answerback function can be enabled or disabled according to the following procedure:

ENABLING/DISABLING THE HAZARD ANSWERBACK FUNCTION

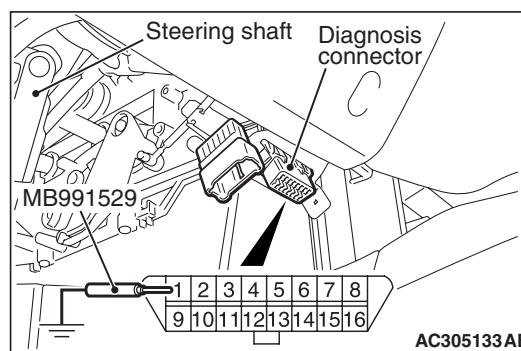
The hazard answerback function can be enabled or disabled by one of the two following procedures.

<WHEN USING THE TRANSMITTER AFTER DIAGNOSIS CONNECTOR (1) IS EARTHED>

1. Enter the hazard answerback customize mode by performing one of the following steps. If the ETACS-ECU enters the customize mode, its buzzer will sound once.
 - (1) Turn the ignition switch to "LOCK"(OFF) position.
 - (2) Turn off the hazard warning lamp switch.

CAUTION

Before connecting or disconnecting the earth, turn the ignition switch to the "LOCK" (OFF) position.



- (3) Connect the diagnosis connector to the special tool diagnosis code check harness (MB991529).
 - (4) Close the driver's side door.
 - (5) Keep the windshield washer switch on for at least ten seconds. Then the ETACS-ECU buzzer will sound once.
2. If the transmitter "LOCK" button is pushed consecutively twice (within two seconds), the ETACS-ECU buzzer will sound, indicating that the hazard answerback function can be enabled or disabled when the doors are locked.

- **Enable the hazard answerback function when the doors are locked:** The ETACS-ECU buzzer will sound once.
 - **Disable the hazard answerback function when the doors are locked:** The ETACS-ECU buzzer will sound twice.
3. If the transmitter "UNLOCK" button is pushed consecutively twice (within two seconds), the ETACS-ECU buzzer will sound, indicating that the hazard answerback function can be enabled or disabled when the doors are unlocked.
 - **Enable the hazard answerback function when the doors are unlocked:** The ETACS-ECU buzzer will sound once.
 - **Disable the hazard answerback function when the doors are unlocked:** The ETACS-ECU buzzer will sound twice.
 4. Exit the hazard answerback customize mode by observing one of the following steps.
 - (1) Disconnect diagnosis connector terminal (1) from the earth.
 - (2) Turn the ignition switch to position other than "LOCK"(OFF), or remove the ignition key.
 - (3) Open the driver's side door.
 - (4) Any other warning buzzer output occurs.

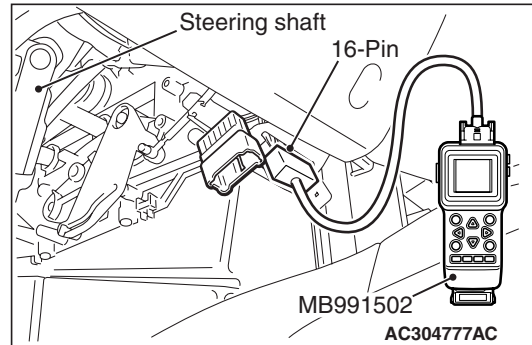
NOTE: If any operation is not done for at least three minutes after the ETACS-ECU has entered the customize mode, the hazard answerback customize mode will be canceled automatically.

<WHEN THE TRANSMITTER IS USED AFTER CONNECTING M.U.T.-II TO THE DIAGNOSIS CONNECTOR>

1. Enter the hazard answerback customize mode by performing one of the following steps. If the ETACS-ECU enters the customize mode, its buzzer will sound once.
 - (1) Turn the ignition switch to "LOCK"(OFF) position.
 - (2) Turn off the hazard warning lamp switch.

CAUTION

Before connecting or disconnecting the M.U.T.-II, turn the ignition switch to the "LOCK" (OFF) position.



- (3) Connect the M.U.T.-II to the diagnosis connector.
- (4) Close the driver's side door.
- (5) Keep the windshield washer switch on for at least ten seconds. Then the ETACS-ECU buzzer will sound once.
2. If the transmitter "LOCK" button is pushed consecutively twice (within two seconds), the ETACS-ECU buzzer will sound, indicating that the hazard answerback function can be enabled or disabled when the doors are locked.
 - **Enable the hazard answerback function when the doors are locked:** The ETACS-ECU buzzer will sound once.
 - **Disable the hazard answerback function when the doors are locked:** The ETACS-ECU buzzer will sound twice.
3. If the transmitter "UNLOCK" button is pushed consecutively twice (within two seconds), the ETACS-ECU buzzer will sound, indicating that the hazard answerback function can be enabled or disabled when the doors are unlocked.
 - **Enable the hazard answerback function when the doors are unlocked:** The ETACS-ECU buzzer will sound once.
 - **Disable the hazard answerback function when the doors are unlocked:** The ETACS-ECU buzzer will sound twice.
4. Exit the hazard answerback customize mode by observing one of the following steps.
 - (1) Disconnect M.U.T.-II from the diagnosis connector.
 - (2) Turn the ignition switch to position other than "LOCK"(OFF), or remove the ignition key.
 - (3) Open the driver's side door.
 - (4) Any other warning buzzer output occurs.

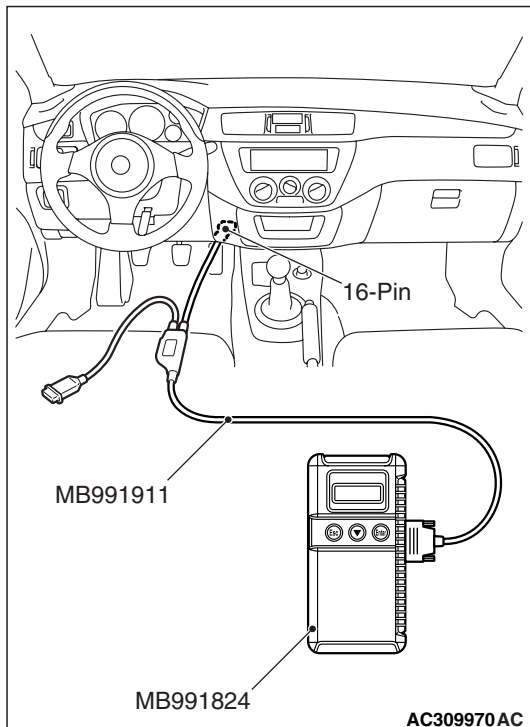
NOTE: If any operation is not done for at least three minutes after the ETACS-ECU has entered the customize mode, the hazard answerback customize mode will be canceled automatically.

<WHEN THE TRANSMITTER IS USED AFTER CONNECTING SPECIAL TOOL V.C.I. (MB991824) TO THE DIAGNOSIS CONNECTOR>

1. Enter the hazard answerback customize mode by performing one of the following steps. If the ETACS-ECU enters the customize mode, its buzzer will sound once.
 - (1) Turn the ignition switch to "LOCK"(OFF) position.
 - (2) Turn off the hazard warning lamp switch.

⚠ CAUTION

Before connecting or disconnecting the V.C.I., turn the ignition switch to the "LOCK" (OFF) position.



- (3) Connect the V.C.I. to the diagnosis connector.
- (4) Turn the V.C.I. power switch to the "ON" position.
- (5) Close the driver's side door.
- (6) Keep the windshield washer switch on for at least ten seconds. Then the ETACS-ECU buzzer will sound once.

2. If the transmitter "LOCK" button is pushed consecutively twice (within two seconds), the ETACS-ECU buzzer will sound, indicating that the hazard answerback function can be enabled or disabled when the doors are locked.
 - **Enable the hazard answerback function when the doors are locked: The ETACS-ECU buzzer will sound once.**
 - **Disable the hazard answerback function when the doors are locked: The ETACS-ECU buzzer will sound twice.**
3. If the transmitter "UNLOCK" button is pushed consecutively twice (within two seconds), the ETACS-ECU buzzer will sound, indicating that the hazard answerback function can be enabled or disabled when the doors are unlocked.
 - **Enable the hazard answerback function when the doors are unlocked: The ETACS-ECU buzzer will sound once.**
 - **Disable the hazard answerback function when the doors are unlocked: The ETACS-ECU buzzer will sound twice.**
4. Exit the hazard answerback customize mode by observing one of the following steps.
 - (1) Disconnect V.C.I. from the diagnosis connector.
 - (2) Turn the ignition switch to position other than "LOCK"(OFF), or remove the ignition key.
 - (3) Open the driver's side door.
 - (4) Any other warning buzzer output occurs.

NOTE: If any operation is not done for at least three minutes after the ETACS-ECU has entered the customize mode, the hazard answerback customize mode will be canceled automatically.

HOW TO REGISTER SECRET CODE

M1428001000667

Each individual secret code is registered inside the transmitter, and so it is necessary to register these codes with the EEPROM inside the receiver in the following cases.

- When the transmitter or ETACS-ECU is replaced
- If more transmitters are to be used
- If it appears that a problem is occurring because of faulty registration of a code.

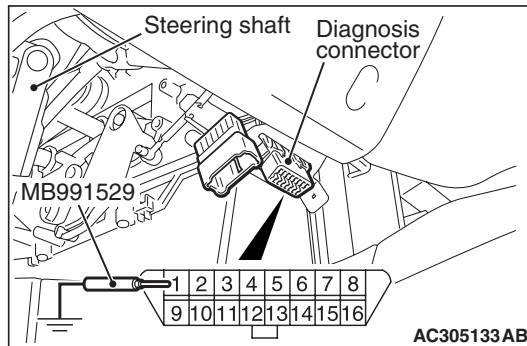
A maximum of four different codes can be stored in the EEPROM memory (four different transmitters can be used). When the code for the first transmitter is registered, the previously registered codes for all transmitters are cleared. Therefore, if you are using four transmitters or are adding more transmitters, the codes for all transmitters must be registered at the same time.

WHEN THE SPECIAL TOOL DIAGNOSIS CODE CHECK HARNESS (MB991529) IS USED

1. Check that the doors lock normally when the key is used.
2. Insert the ignition key.

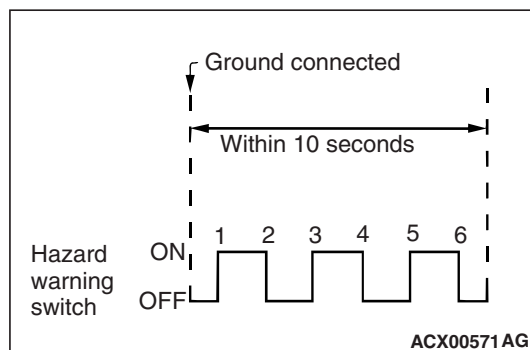
⚠ CAUTION

Before connecting or disconnecting the earth, turn the ignition switch to the "LOCK" (OFF) position.



3. Connect the diagnosis connector to the special tool diagnosis code check harness (MB991529).

NOTE: This will connect terminal (1) of the diagnosis connector to earth, and the system will be in secret code registration standby mode.



4. Press the hazard warning lamp switch six times within 10 seconds.

NOTE: Once the process is completed six times, then it will operate with all doors lock and unlock operations once and then go to the save mode.

NOTE: The hazard warning lamp switch is turned on and off alternately whenever it is pushed.

5. Press the transmitter switch, and then press it two times within 10 seconds of the first press. This will register the code.

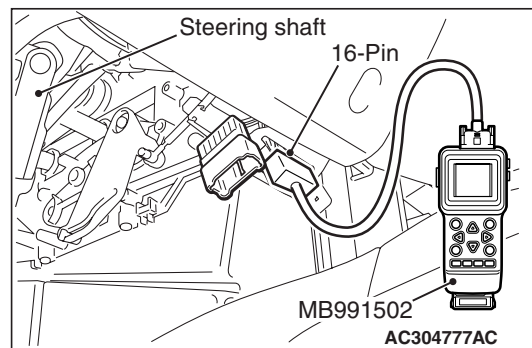
6. Once the program is saved, it will operate once with the all doors lock and unlock operations.
7. If you are using two or more transmitters or have added a second transmitter, the next transmitter should be registered within one minute after registering the code for the previous transmitter. The registration procedure is common for all the transmitters.
8. Registration mode will be cancelled under the following conditions:
 - When the secret code for four transmitters has been registered;
 - When passing one minute after finishing the registration of all transmitters;
 - When the diagnosis connector is disconnected from earth;
 - When the key is removed from the key cylinder;
 - When no secret codes have been registered for more than one minute after the registration mode is entered;
9. After the registration is completed, remove the ignition key and close all the doors, and then check that the keyless entry system operates normally.

WHEN THE M.U.T.-II IS USED

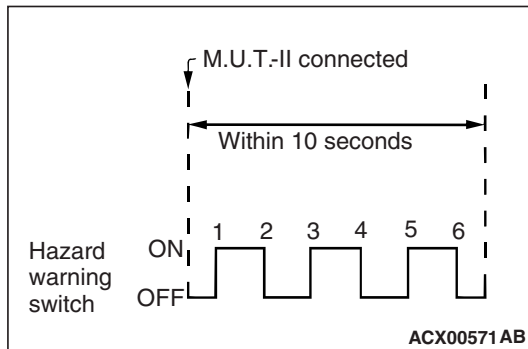
1. Check that the doors lock normally when the key is used.
2. Insert the ignition key.

⚠ CAUTION

Before connecting or disconnecting the M.U.T.-II, turn the ignition switch to the "LOCK" (OFF) position.



3. Connect the M.U.T.-II to the diagnosis connector.



4. Press the hazard warning switch six times within 10 seconds.

NOTE: Once the process is completed six times, then it will operate with all doors lock and unlock operations once and then go to the save mode.

NOTE: The hazard warning lamp switch is turned on and off alternately whenever it is pushed.

5. Press the transmitter switch, and then press it two times within 10 seconds of the first press. This will register the code.
6. Once the program is saved, it will operate once with the all doors lock and unlock operations.
7. If you are using two or more transmitters or have added a second transmitter, the next transmitter should be registered within one minute after registering the code for the previous transmitter. The registration procedure is common for all the transmitters.
8. Registration mode will be cancelled under the following conditions:
 - When the secret code for four transmitters has been registered;
 - When passing one minute after finishing the registration of all transmitters;
 - When the M.U.T.-II is disconnected from the diagnosis connector;
 - When the key is removed from the key cylinder;
 - When no secret codes have been registered for more than one minute after the registration mode is entered;
9. After the registration is completed, remove the ignition key and close all the doors, and then check that the keyless entry system operates normally.

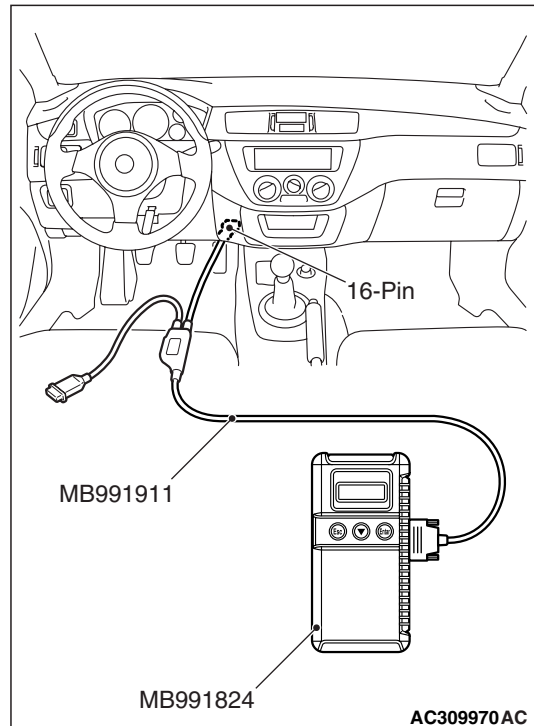
WHEN THE SPECIAL TOOL V.C.I. (MB991824) IS USED

1. Check that the doors lock normally when the key is used.

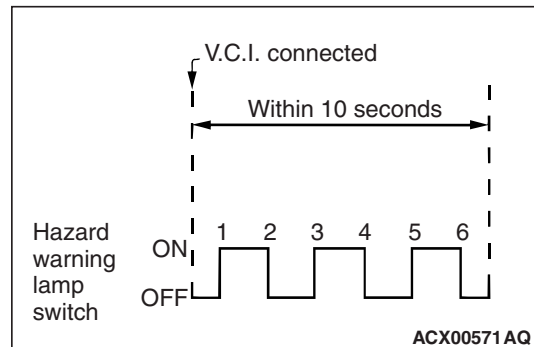
2. Insert the ignition key.

⚠ CAUTION

Before connecting or disconnecting the V.C.I., turn the ignition switch to the "LOCK" (OFF) position.



3. Connect the V.C.I. to the diagnosis connector.



4. Press the hazard warning lamp switch six times within 10 seconds.

NOTE: Once the process is completed six times, then it will operate with all doors lock and unlock operations once and then go to the save mode.

NOTE: The hazard warning lamp switch is turned on and off alternately whenever it is pushed.

5. Press the transmitter switch, and then press it two times within 10 seconds of the first press. This will register the code.
6. Once the program is saved, it will operate once with the all doors lock and unlock operations.

7. If you are using two or more transmitters or have added a second transmitter, the next transmitter should be registered within one minute after registering the code for the previous transmitter. The registration procedure is common for all the transmitters.
8. Registration mode will be cancelled under the following conditions:
 - When the secret code for four transmitters has been registered;
 - When passing one minute after finishing the registration of all transmitters;
 - When the V.C.I. is disconnected from the diagnosis connector;
 - When the key is removed from the key cylinder;
 - When no secret codes have been registered for more than one minute after the registration mode is entered;
9. After the registration is completed, remove the ignition key and close all the doors, and then check that the keyless entry system operates normally.

TRANSMITTER

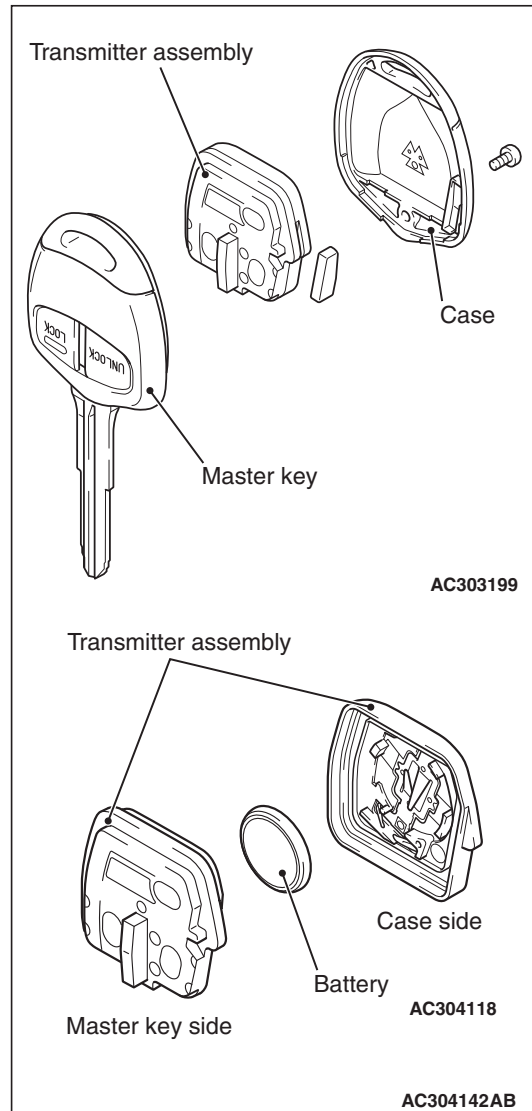
TRANSMITTER

M1428002800086

DISASSEMBLY SERVICE POINT BATTERY REMOVAL

CAUTION

Do not allow water or dust to enter the inside of the transmitter when it is open. Also, do not touch the precision electronic device.

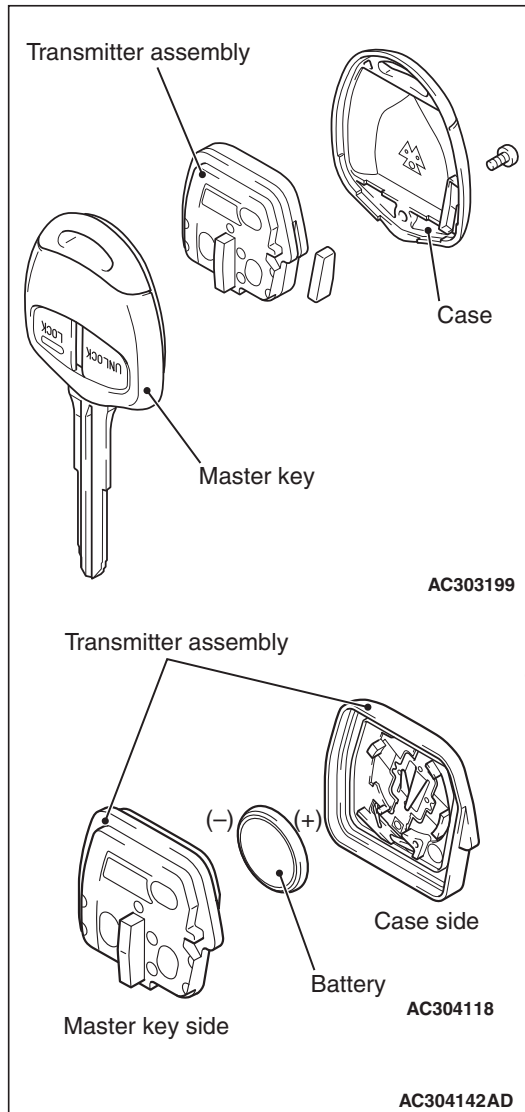


Since the battery is incorporated into the transmitter assembly, disassemble the transmitter assembly to remove the battery.

ASSEMBLY SERVICE POINT BATTERY INSTALLATION

CAUTION

Do not allow water or dust to enter the inside of the transmitter when it is open. Also, do not touch the precision electronic device.



1. Install a new battery to the transmitter assembly with its (+) side facing towards the case side.

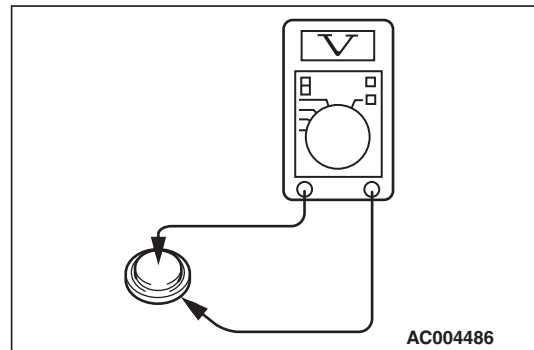
Battery required for replacement: Coin type battery CR1616

2. Check the transmitter operation.

INSPECTION

M1428003800067

TRANSMITTER BATTERY CHECK



Measure the voltage of the battery. If the voltage of the battery is not within the standard value, replace the battery.

Standard value: 2.5 – 3.2 V

NOTES