GROUP 51

EXTERIOR

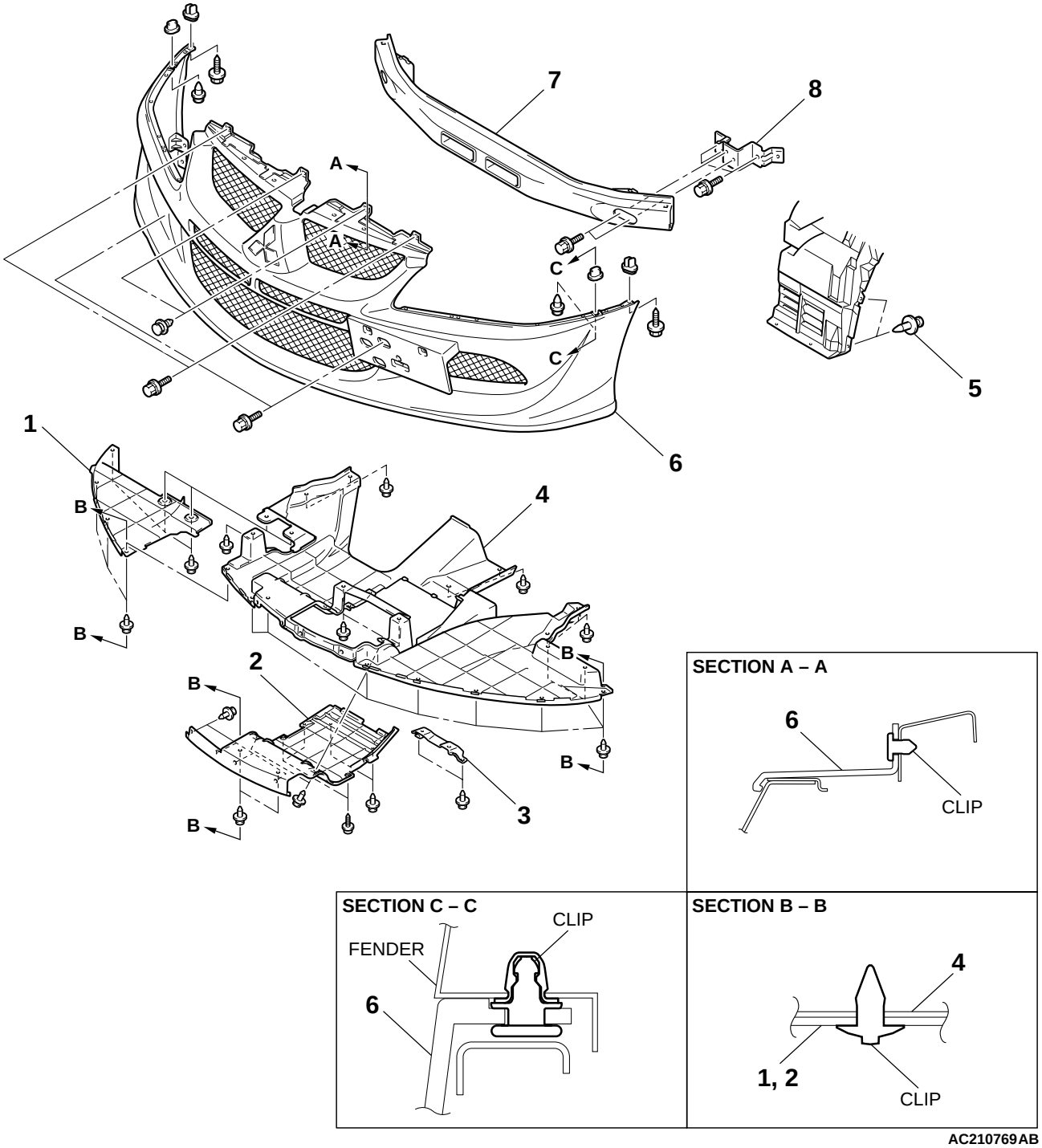
CONTENTS

FRONT BUMPER ASSEMBLY

FRONT BUMPER ASSEMBLY

REMOVAL AND INSTALLATION

M1511001400303



AC210769AB

REMOVAL STEPS

1. SIDE UNDER COVER
2. CENTER UNDER COVER
3. UNDER COVER CENTER BRACKET
4. FRONT UNDER COVER
5. SPLASH SHIELD MOUNTING CLIP

REMOVAL STEPS (Continued)

- WATER SPRAY HOSE CONNECTION

6. FRONT BUMPER ASSEMBLY
7. FRONT BUMPER BACK BEAM ASSEMBLY
8. FRONT BUMPER STAY ASSEMBLY

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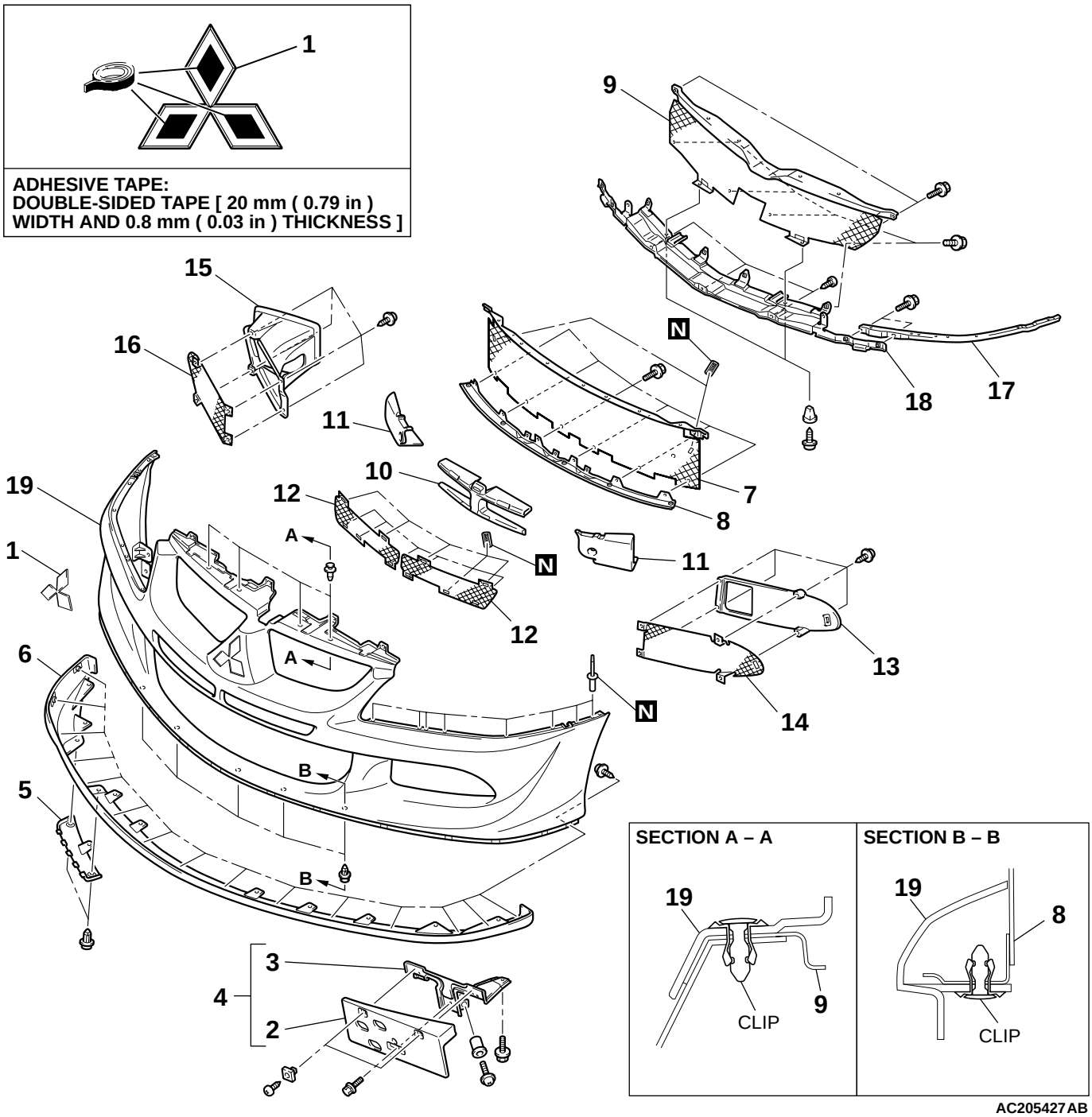
DISASSEMBLY AND ASSEMBLY

M1511001600277



DISASSEMBLY STEPS

1. FRONT THREE-DIAMOND MARK
2. LICENSE PLATE GARNISH
3. FRONT BUMPER PLATE
4. LICENSE PLATE BRACKET ASSEMBLY
5. SHIPPING COVER
6. FRONT AIR DAM PANEL
7. FRONT BUMPER LOWER REINFORCEMENT ASSEMBLY
8. FRONT BUMPER LOWER PLATE ASSEMBLY

DISASSEMBLY STEPS (Continued)

9. FRONT BUMPER UPPER PLATE ASSEMBLY
10. FRONT BUMPER CENTER CORE
11. FRONT BUMPER SIDE CORE
12. BUMPER NET
13. FRONT BUMPER SIDE COVER
14. BUMPER SIDE NET (LH)
15. OIL COOLER DUCT
16. BUMPER SIDE NET (RH)

TSB Revision

DISASSEMBLY STEPS (Continued)

.●· WATER SPRAY HOSE AND NOZZLE (REFER TO GROUP 15, CHARGE AIR COOLER WATER SPRAY REMOVAL P.15-9).

<<A>> >>A<< 17. FRONT BUMPER SIDE PLATE ASSEMBLY

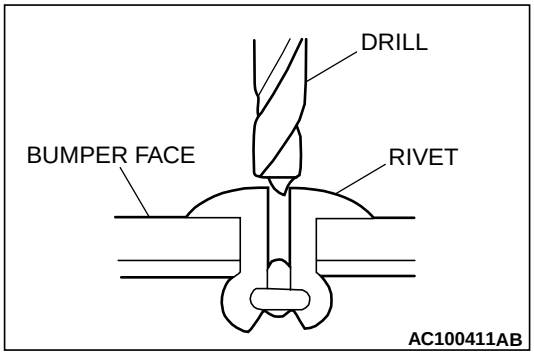
18. FRONT BUMPER UPPER REINFORCEMENT ASSEMBLY

19. FRONT BUMPER FACE

DISASSEMBLY SERVICE POINTS

<<A>> FRONT BUMPER SIDE PLATE ASSEMBLY REMOVAL

Use a drill [4.0 mm (0.16 inch)] to make a hole in the rivet to break it, and then remove the rivet.

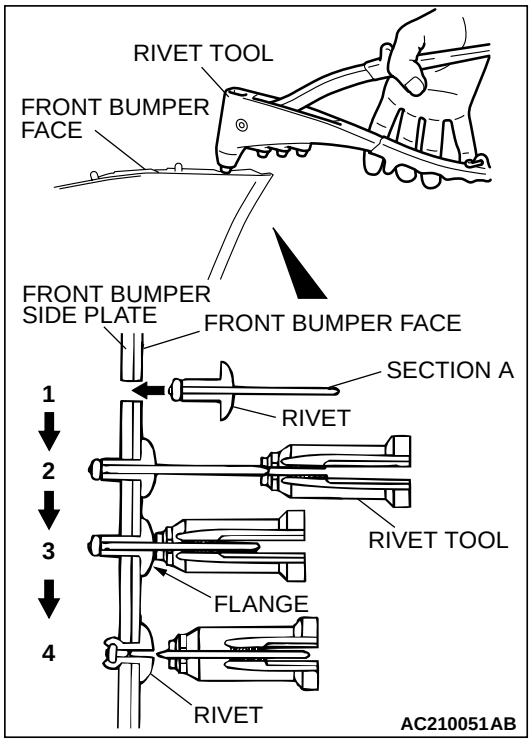


ASSEMBLY SERVICE POINT

>>A<< FRONT BUMPER SIDE PLATE ASSEMBLY

Use the rivet tool shown in the illustration to attach the rivet by the following procedure.

1. Insert the rivet into the base material front bumper side plate assembly.
2. Place the recommended tool over section A of the rivet.
3. While pushing the flange surface of the rivet with the recommended tool, press the handle of the tool.
4. The thin part of section A of the rivet will break and the rivet will then be attached.



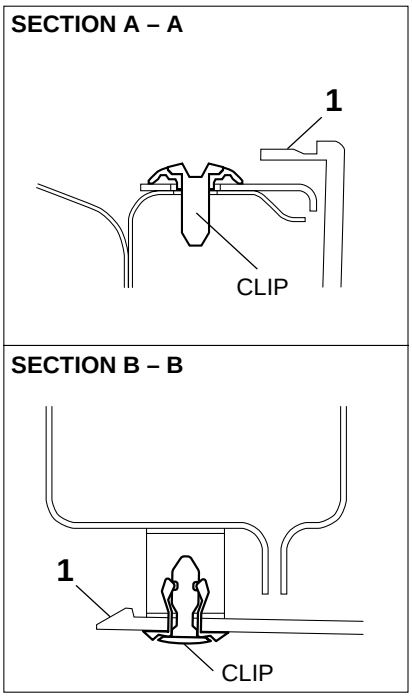
REAR BUMPER ASSEMBLY

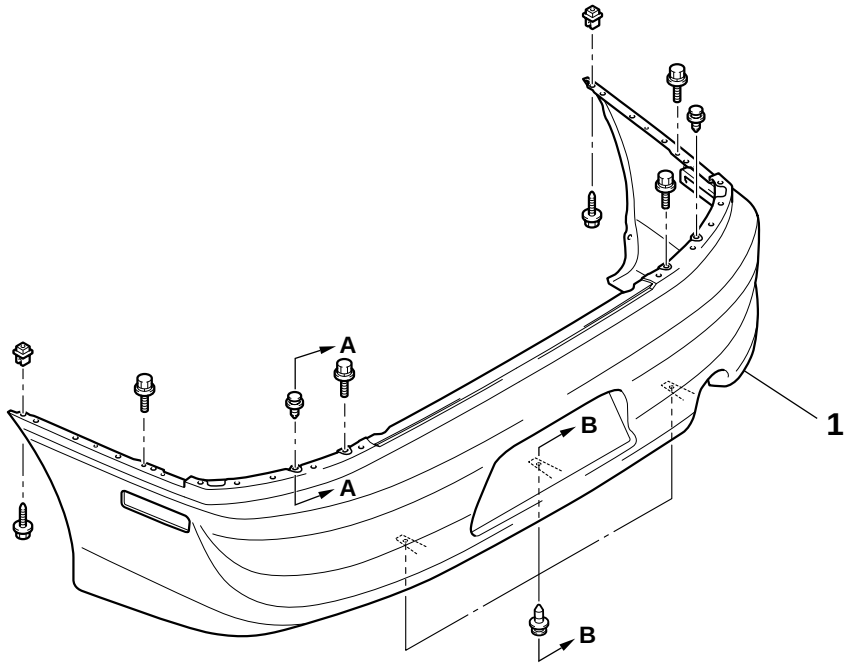
REAR BUMPER ASSEMBLY

REMOVAL AND INSTALLATION

M1511001900245

Pre-removal and Post-installation Operation
- Rear Combination Light Removal and Installation (Refer to GROUP 54A, Rear Combination Light P.54A-95).
- Rear End Trim Removal and Installation (Refer to GROUP 52A, Trim P.52A-11).
- Cargo Floor Board Removal and Installation.
- Rear Splash Shield Removal and Installation.





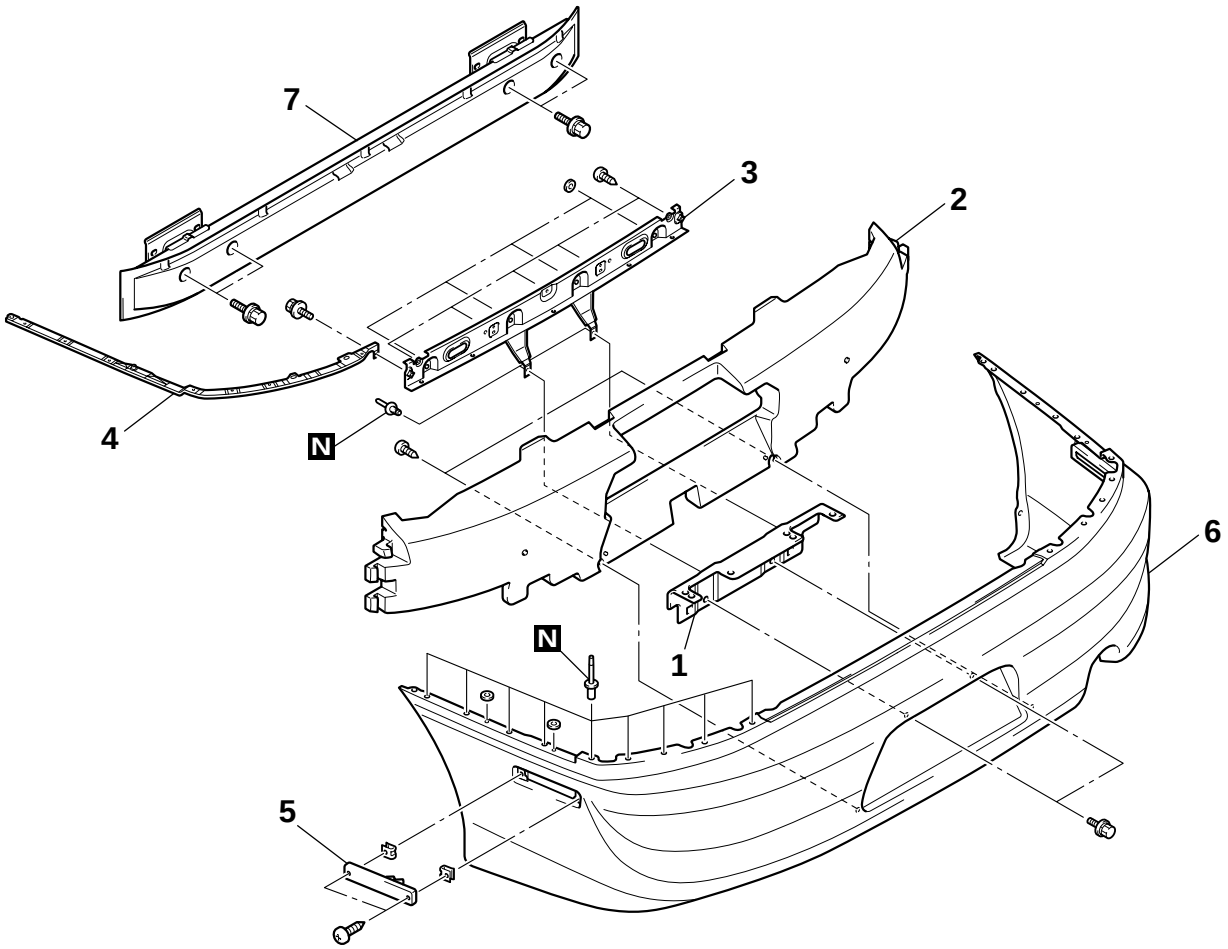
AC205434AB

REMOVAL

1. REAR BUMPER ASSEMBLY

DISASSEMBLY AND ASSEMBLY

M1511002100231



AC205435AB

DISASSEMBLY STEPS

1. LICENSE PLATE BRACKET ASSEMBLY
- LICENSE PLATE LIGHT ASSEMBLY (REFER TO GROUP 54A, LICENSE PLATE LIGHT P.54A-97).
2. REAR BUMPER CORE

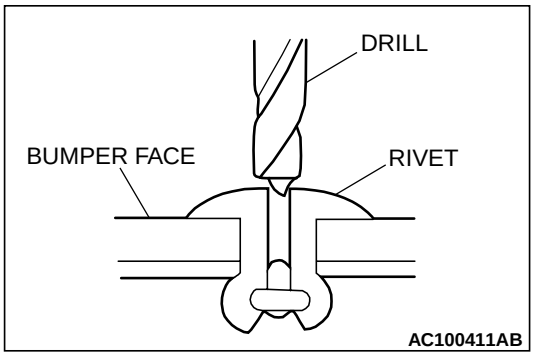
DISASSEMBLY STEPS (Continued)

<<A>> >>A<< 3. REAR BUMPER CENTER REINFORCEMENT ASSEMBLY
<<A>> >>A<< 4. REAR BUMPER SIDE PLATE ASSEMBLY
5. REAR SIDE MARKER
6. REAR BUMPER ASSEMBLY
7. REAR BUMPER BEAM ASSEMBLY

DISASSEMBLY SERVICE POINTS

<<A>> REAR BUMPER SIDE PLATE ASSEMBLY REMOVAL

Use a drill [4.0 mm (0.16 inch)] to make a hole in the rivet to break it, and then remove the rivet.



AC100411AB

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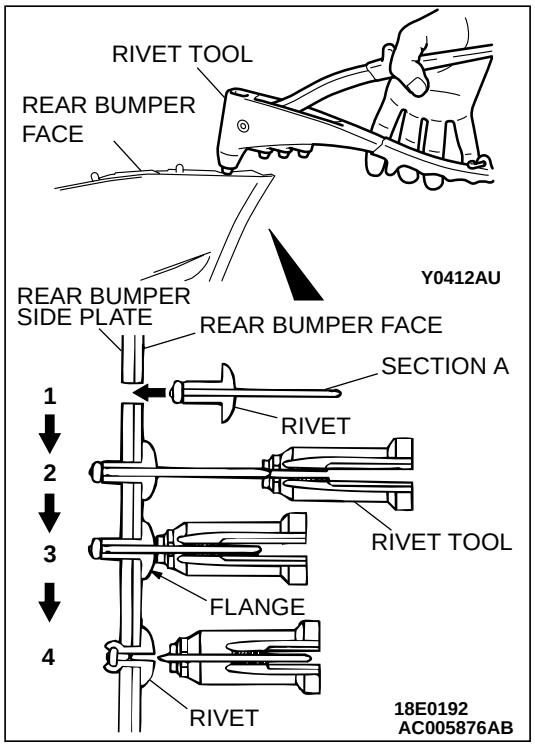
ASSEMBLY SERVICE POINT



>>A<< REAR BUMPER SIDE PLATE ASSEMBLY REMOVAL

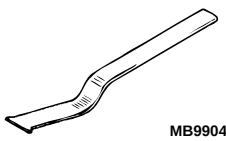
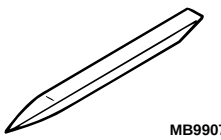
Use the rivet tool shown in the illustration to attach the rivet by the following procedure.

1. Insert the rivet into the base material front bumper side plate assembly.
2. Place the recommended tool over section A of the rivet.
3. While pushing the flange surface of the rivet with the recommended tool, press the handle of the tool.
4. The thin part of section A of the rivet will break and the rivet will then be attached.

AIR DAM, MOLDING AND GARNISH

SPECIAL TOOLS

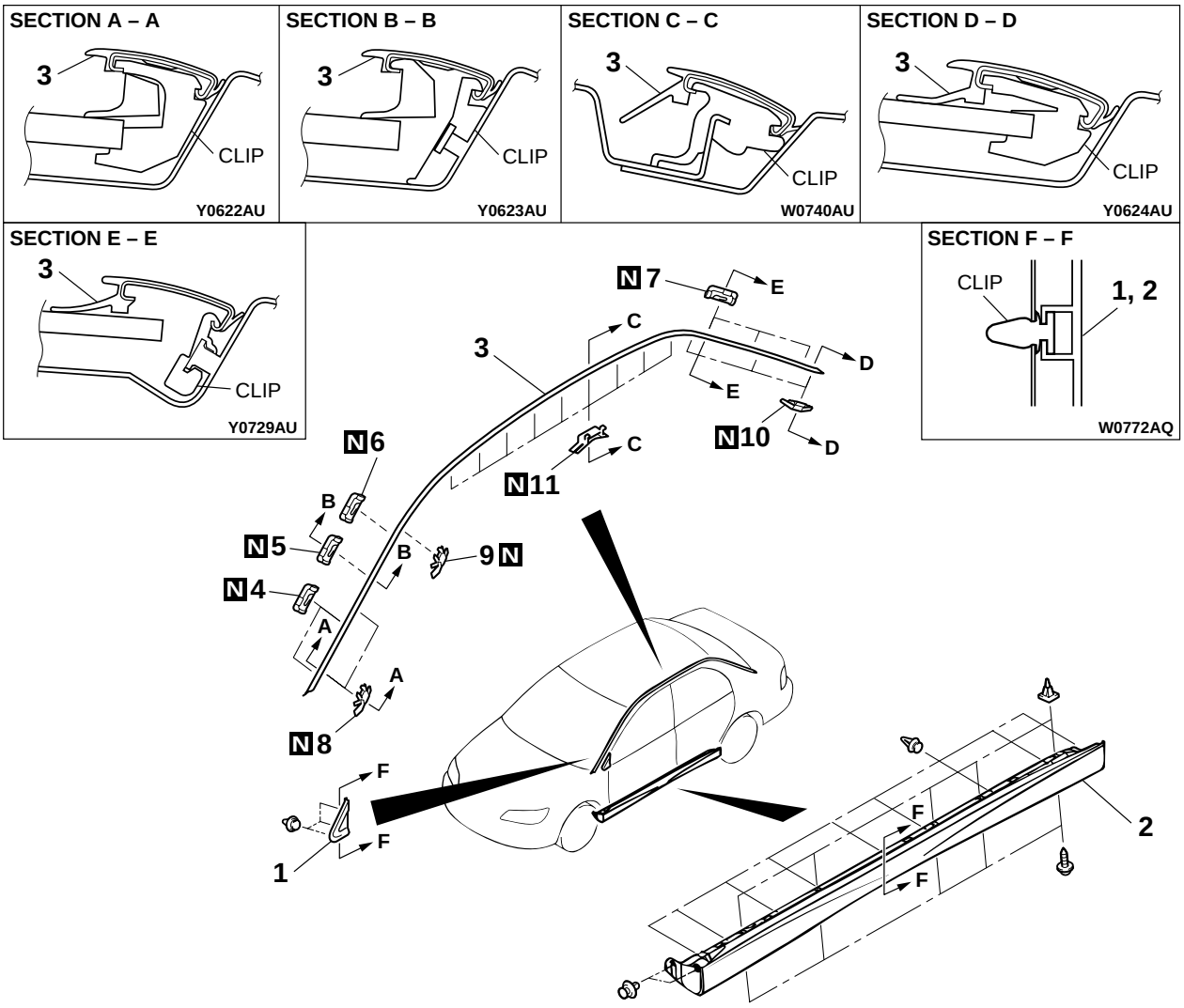
M1511000600456

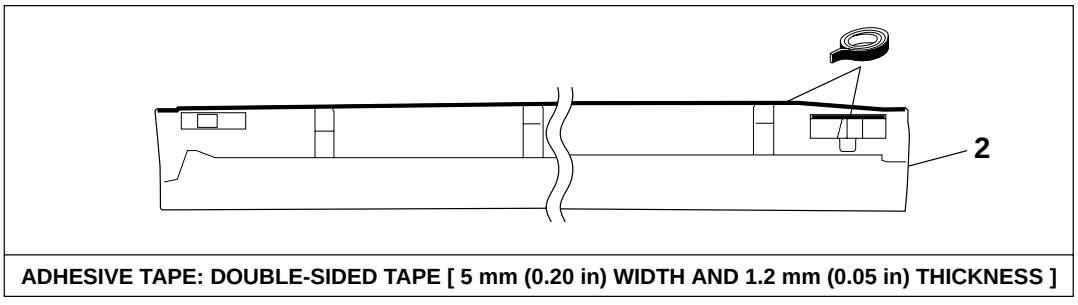
TOOL	TOOL NUMBER AND NAME	SUPERSESSION	APPLICATION
 MB990449	MB990449 Window molding remover	General service tool	Removal of drip molding
 MB990784	MB990784 Ornament remover	General service tool	Removal of air dam

AIR DAM, MOLDING AND GARNISH

REMOVAL AND INSTALLATION

M1511018800046





ADHESIVE TAPE: DOUBLE-SIDED TAPE [5 mm (0.20 in) WIDTH AND 1.2 mm (0.05 in) THICKNESS]

AC209463AB

REMOVAL

1. DELTA OUTER GARNISH

<<A>> >>D<< 2. SIDE AIR DAM

- FRONT DECK GARNISHES (REFER TO P.51-16).

ROOF DRIP MOLDING REMOVAL STEPS

<<B>> >>C<< 3. ROOF DRIP MOLDING

>>B<< 4. FRONT DRIP MOLDING CLIP A

>>B<< 5. FRONT DRIP MOLDING CLIP B

>>B<< 6. FRONT DRIP MOLDING CLIP C

ROOF DRIP MOLDING REMOVAL STEPS (Continued)

>>B<< 7. REAR DRIP MOLDING CLIP

>>A<< 8. DRIP MOLDING CLIP A

>>A<< 9. DRIP MOLDING CLIP B

>>A<< 10. DRIP MOLDING CLIP C

11. ROOF DRIP MOLDING CLIP

Required Special Tools:

- MB990449: Window Molding Remover
- MB990784: Ornament Remover

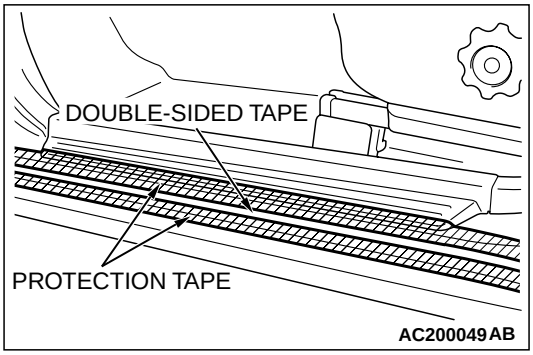
TSB Revision

REMOVAL SERVICE POINTS

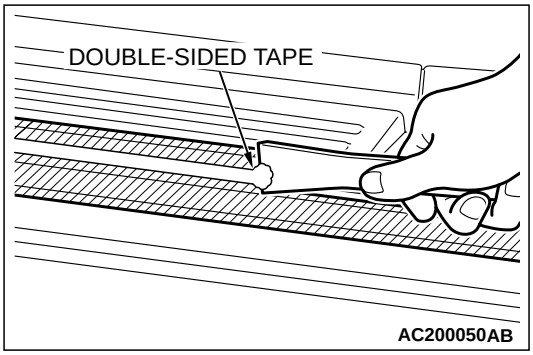
<<A>> SIDE AIR DAM REMOVAL

Gently lift and remove the side air dam. If there is any double-sided tape remaining on the side air dam, remove according to the following instructions.

<Remove both-side tape remaining on the body surface>

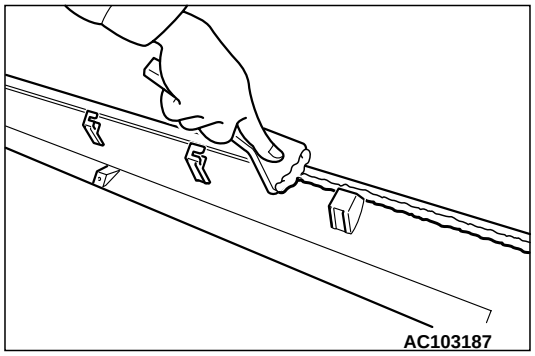


1. Attach protection tape all the way along the edges of the double-sided tape which is still adhering to the body.



2. Scrape off the double-sided tape with a resin spatula as possible.
3. Peel off the protection tape.
4. Use a shop towel moistened with 3M™ AAD Part number 8906 or equivalent to wipe the body.

<Remove double-sided tape remaining on side air dam and adhere double-sided tape (when re-using side air dam)>



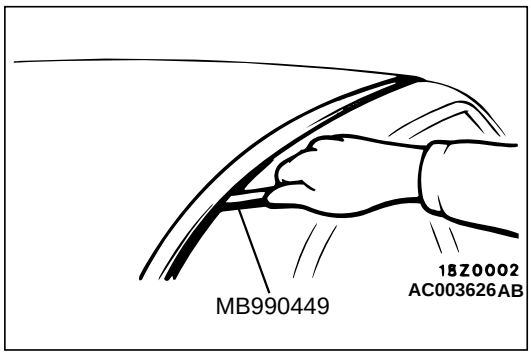
1. Scrape off the double-sided tape on the side air dam with a resin spatula as possible.
2. Use a shop towel moistened with 3M™ AAD Part number 8906 or equivalent to wipe the side air dam surface.
3. Remove only a small portion of the residual adhesive.
4. Adhere the double-sided tape as specified on the side air dam.

<<B>> ROOF DRIP MOLDING REMOVAL

⚠ CAUTION

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

Use special tool MB990449 to pry out the molding.



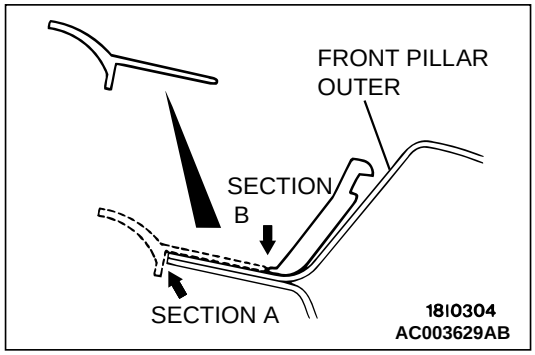
INSTALLATION SERVICE POINTS

>>A<< DRIP MOLDING CLIP C/DRIP MOLDING CLIP B/ DRIP MOLDING CLIP A INSTALLATION

1. The drip molding clips A, B and C differ according to where they are used, so check the identification color before installation.

APPLICABLE LOCATION	IDENTIFICATION COLOR
Drip molding clip A	Yellow
Drip molding clip B	Blue
Drip molding clip C	Milky white

2. After installing the clip to the front pillar outer in alignment with its section A, cut from section B.



>>B<< REAR DRIP MOLDING CLIP/FRONT DRIP MOLDING CLIP C/FRONT DRIP MOLDING CLIP B/FRONT DRIP MOLDING CLIP A INSTALLATION

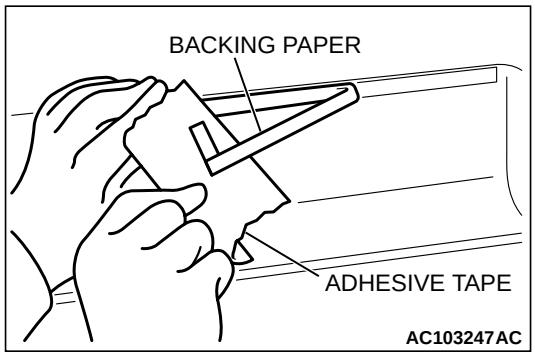
The front drip molding clips A, B, C and rear drip molding clip differ according to where they are used, so check the identification color before installation.

APPLICABLE LOCATION	IDENTIFICATION COLOR
Front drip molding clip A	Orange
Front drip molding clip B	Purple
Front drip molding clip C	Blue
Rear drip molding clip	Gray

>>C<< ROOF DRIP MOLDING INSTALLATION

Install the clips to the roof drip molding before installing the molding to the vehicle body.

>>D<< SIDE AIR DAM INSTALLATION.



1. Tear off the double-sided tape backing paper.

   NOTE: If you attach the adhesive tape to the edge of the backing paper, it will be easy to tear off.
2. Install the side air dam.

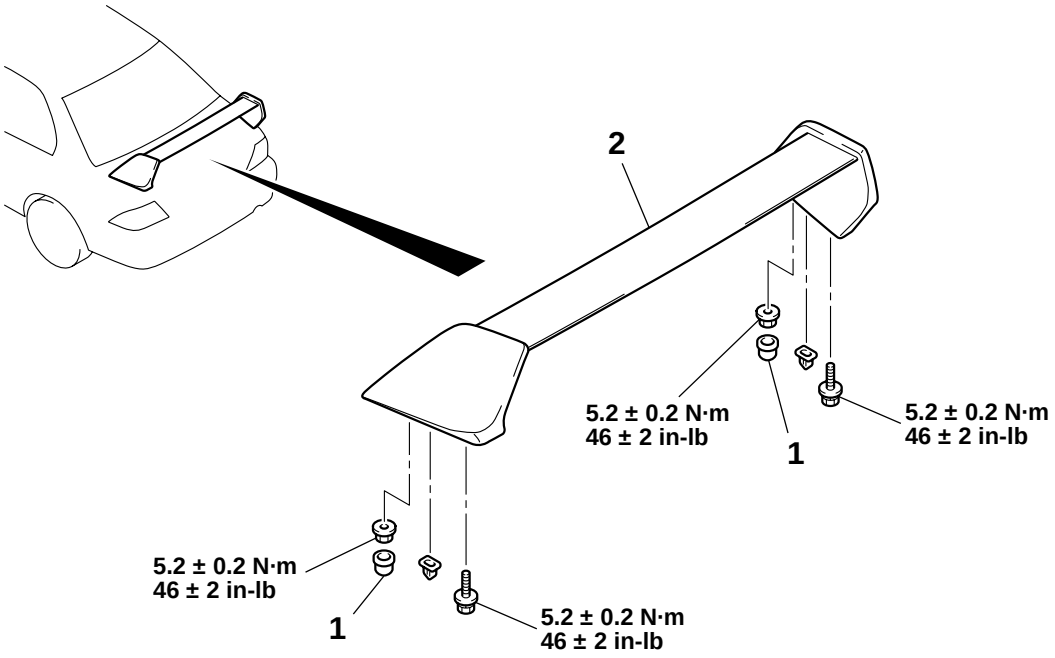
   NOTE: If the double-sided tape is difficult to affix in cold temperature, etc., warm the bonding surfaces of the body and side air dam to about 40 – 60°C (104 – 140°F) before affixing the tape.
3. Firmly press in the side air dam.

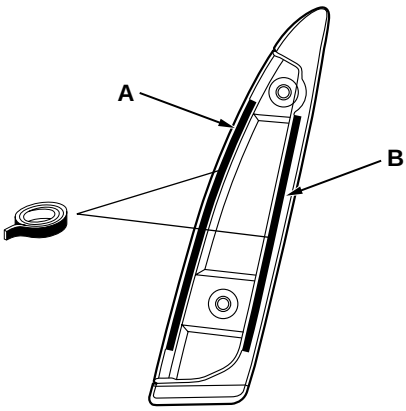
REAR SPOILER

REMOVAL AND INSTALLATION

M1511006100114

<TYPE A>





ADHESIVE TAPE:
DOUBLE-SIDED TAPE A: [5 mm (0.2 in) WIDTH AND 0.8 mm (0.03 in) THICKNESS]
B: [5 mm (0.2 in) WIDTH AND 1.2 mm (0.47 in) THICKNESS]

AC205578AB

REAR SPOILER REMOVAL STEPS

- TRUNK LID BUMPER (REFER TO GROUP 42, TRUNK LID P.42-51).

REAR SPOILER REMOVAL STEPS

1. CAP

<<A>> >>A<< 2. REAR SPOILER ASSEMBLY

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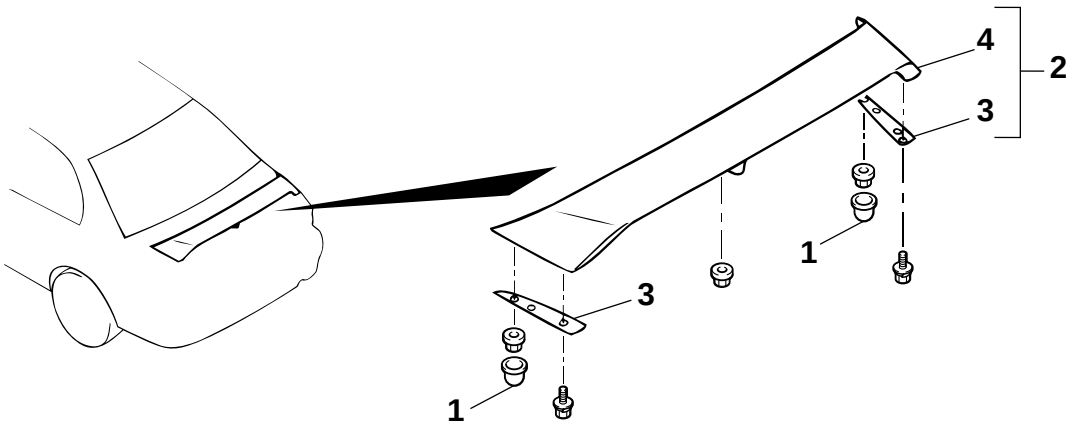
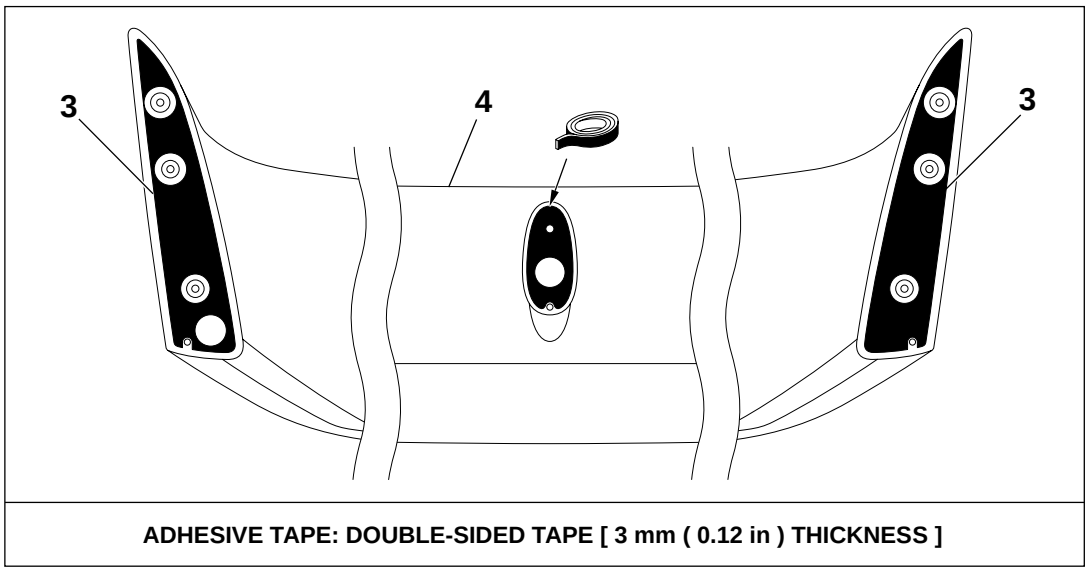
<TYPE B>





ADHESIVE TAPE: DOUBLE-SIDED TAPE [3 mm (0.12 in) THICKNESS]

AC210940AB

REAR SPOILER REMOVAL STEPS
- TRUNK LID BUMPER (REFER TO GROUP 42, TRUNK LID P.42-51).

1. CAP
<<A>> >>A<< 2. REAR SPOILER ASSEMBLY
3. GASKET

REAR SPOILER REMOVAL STEPS

4. REAR SPOILER
- HIGH-MOUNTED STOPLIGHT (REFER TO GROUP 54A, HIGH-MOUNTED STOPLIGHT P.54A-96).

REMOVAL SERVICE POINT

<<A>> REAR SPOILER ASSEMBLY REMOVAL
Remove by the same procedure as described in SIDE AIR DAM REMOVAL (Refer to P.51-8).

INSTALLATION SERVICE POINT

>>A<< REAR SPOILER ASSEMBLY INSTALLATION
Install by the same procedure as described in SIDE AIR DAM INSTALLATION (Refer to P.51-8).

TSB Revision

WINDSHIELD WIPER AND WASHER

GENERAL DESCRIPTION

M1511000100365

OPERATION
WINDSHIELD WIPER AND WASHER

Windshield Low-speed (and High-speed) Wiper Operation

- If the windshield low-speed wiper switch is turned to the ON position with the ignition switch at the "ACC" or "ON" position, the column switch sends a low-speed wiper ON and high-speed wiper OFF signals to the front-ECU. This turns the wiper signal on and the wiper speed control relay off (low-speed), causing the wipers to operate at low-speed.
- If the windshield high-speed wiper switch is turned to the ON position, the column switch sends a low-speed wiper OFF and high-speed wiper ON signals to the front-ECU. This turns both the wiper signal and the wiper speed control relay on (high-speed), causing the wipers to operate at high-speed.

NOTE: The windshield wiper speed is switchable with the built-in wiper speed control relay. High-speed operations take place when the wiper speed control relay is set to "ON" and low-speed operations take place when the wiper speed control relay is set to "OFF".

Windshield Intermittent Wiper Operation

The ETACS-ECU calculates the wiper operation interval according to the voltage signal sent from the column switch. Then the ETACS-ECU sends a signal to the front-ECU. The front-ECU determines the wiper operation interval and turns on the wiper relay signal relay. This causes the wiper auto stop relay to turn on. Then the wiper auto stop relay will turn off after the wipers reach the park position. This causes the wiper signal relay and then the wipers to turn off. If the wiper signal relay remains off for the wiper operation interval, the relay turns on again, causing the wipers to operate in intermittent mode.

Windshield Mist Wiper Operation

- If the windshield mist wiper switch is turned to the ON position with the ignition switch at the "ACC" or "ON" position, the mist wiper high-speed operation signal is sent to the front-ECU. This signal turns on the wiper speed control relay, causing the wipers to work at high-speed while the mist switch is on.
- While the windshield mist wiper switch remains turned on when the intermittent mode is still working, the wipers work as the mist wiper. However, the wipers return to the intermittent mode again when the switch is changed back to "INT" position.
- To prevent the windshield mist wiper from operating when the windshield wiper switch is turned OFF, the windshield mist wiper does not work for 0.5 second after the windshield intermittent wiper switch, the windshield low-speed wiper switch and the windshield high-speed wiper switch are turned OFF.

Windshield Washer Operation

- If the windshield washer switch is turned to ON position with the ignition switch at "ACC" or "ON" position, the windshield washer ON signal is sent to the front-ECU. After 0.3 second, the windshield wiper signal turns on. After the windshield washer switch signal turns off, the windshield wiper signal turns off in three seconds.
- If the windshield washer switch is turned on while the windshield wiper is at intermittent mode, when the windshield washer switch is turned OFF within 0.2 second, the wiper works only once to perform mist operation by the windshield washer switch. When the ON condition of the windshield washer switch continues more than 0.2 second, the wiper performs the same movement as normal condition from the time when 0.2 second has elapsed and then returns to the intermittent motion.

WINDSHIELD WIPER AND WASHER DIAGNOSIS

M1511000700141

The windshield wiper and washer are controlled by the Simplified Wiring System (SWS). For trouble-shooting, refer to GROUP 54B, SWS Diagnosis P.54B-22.

NOTE: Even when the ETACS-ECU has failed, the windshield wiper can work at low speed as fail-safe mode. (Normally, the windshield wiper operates when the ignition switch is at the "ACC" position. But, if it enters the fail-safe mode, the wiper can operate only when the ignition switch is at the "ON" position.)

ON-VEHICLE SERVICE

M1511000800223

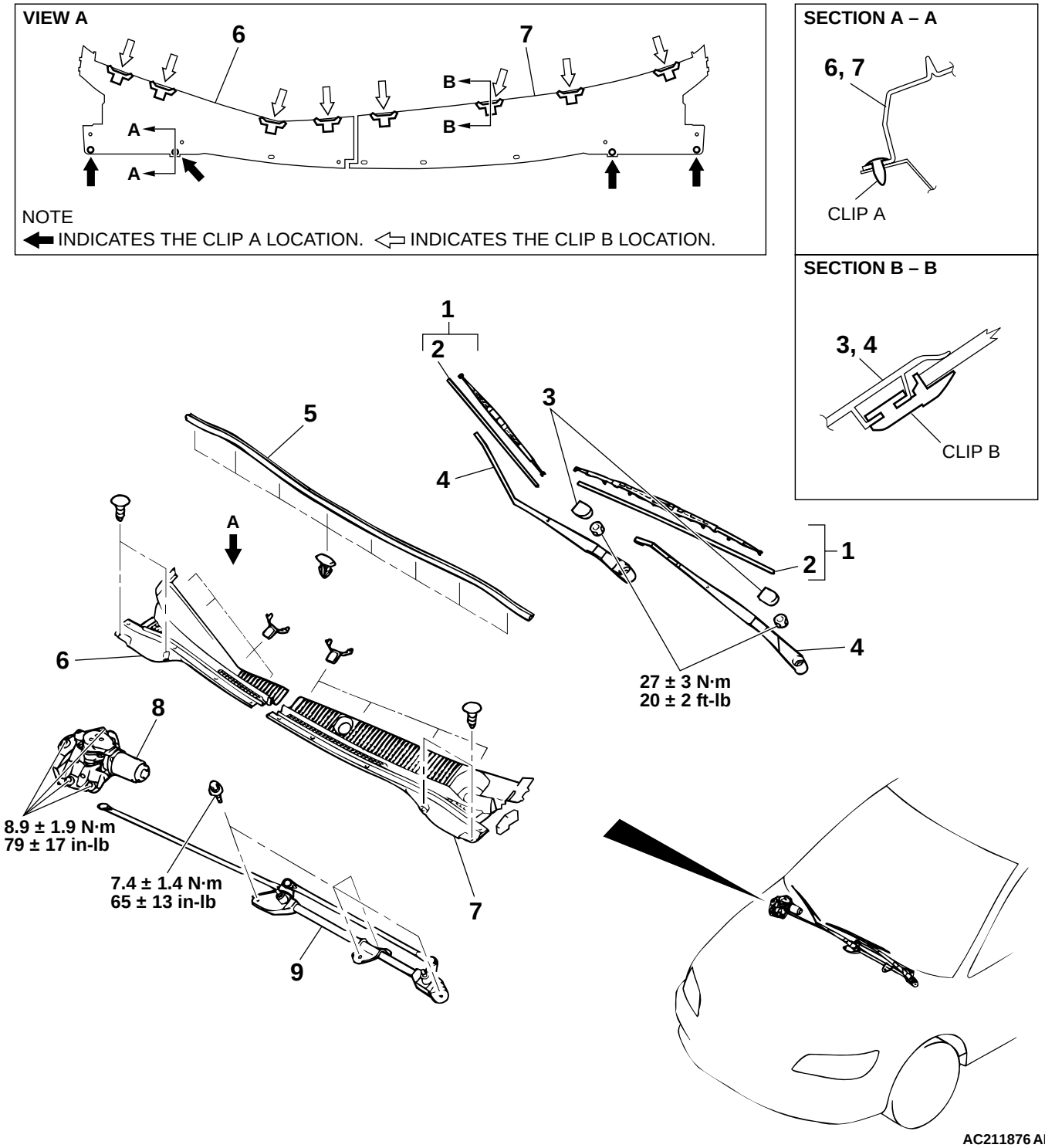
WINDSHIELD INTERMITTENT WIPER INSPECTION

1. If the windshield intermittent wiper interval adjusting knob is operated, the wiper interval should change.
2. Holding the windshield intermittent wiper interval adjusting knob, input the simulated vehicle speed with scan tool MB991502 and check that the wiper interval changes as the vehicle speed changes.
3. If not, carry out the troubleshooting (Refer to GROUP 54B, Diagnosis P.54B-22).

WINDSHIELD WIPER

REMOVAL AND INSTALLATION

M1511007900061



WIPER BLADE ASSEMBLY REMOVAL STEPS

>>B<< 1. WIPER BLADE ASSEMBLY
>>A<< 2. WIPER BLADE

WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY REMOVAL STEPS

3. COVER
4. WIPER ARM
5. HOOD WEATHER STRIP
6. FRONT DECK GARNISH (PASSENGER'S SIDE)

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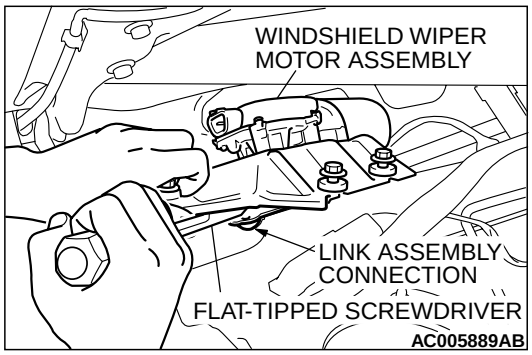
WINDSHIELD WIPER MOTOR AND LINK ASSEMBLY REMOVAL STEPS

7. FRONT DECK GARNISH (DRIVER'S SIDE)
<<A>> 8. WINDSHIELD WIPER MOTOR ASSEMBLY
9. LINK ASSEMBLY

NOTE: For removal and installation of the wiper and washer switch, refer to GROUP 54A, Column switch *P.54A-101.*

REMOVAL SERVICE POINT

<<A>> WINDSHIELD WIPER MOTOR ASSEMBLY REMOVAL



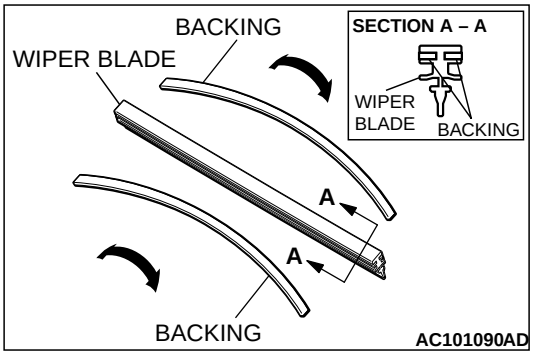
1. Remove the windshield wiper motor assembly mounting bolt.

⚠ CAUTION
Be careful not to damage the windshield glass when the windshield wiper motor assembly is removed.

2. Use the fiat-tipped screwdriver to disengage the link between the windshield wiper motor assembly and the link assembly to remove the windshield wiper motor assembly.

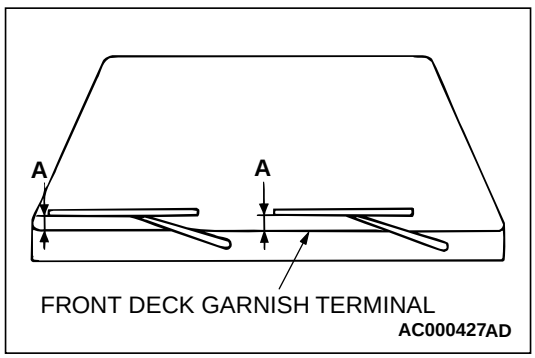
INSTALLATION SERVICE POINTS

>>A<< WIPER BLADE INSTALLATION



⚠ CAUTION
Ensure that the backings are bent toward the shown direction, and then install the backings to the wiper blade.

>>B<< WIPER BLADE ASSEMBLY INSTALLATION



Install the wiper blade at the specified position (standard value).

Standard value: (A) 34 ± 5 mm (1.3 ± 0.20 inch)

WINDSHIELD WASHER

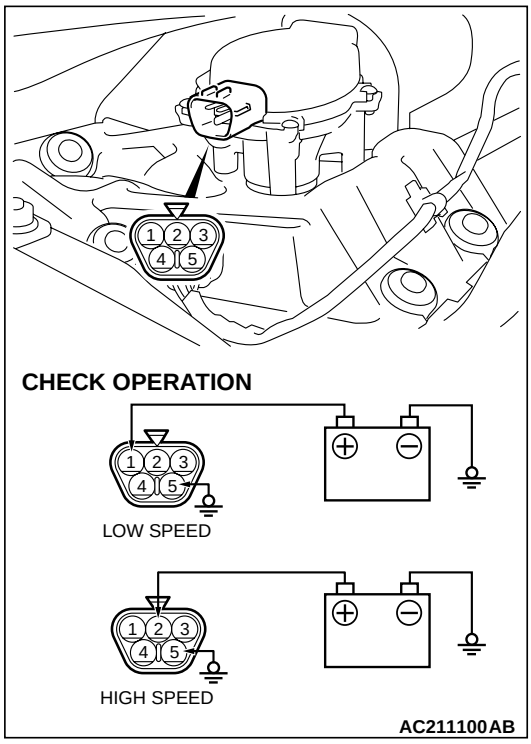
INSPECTION

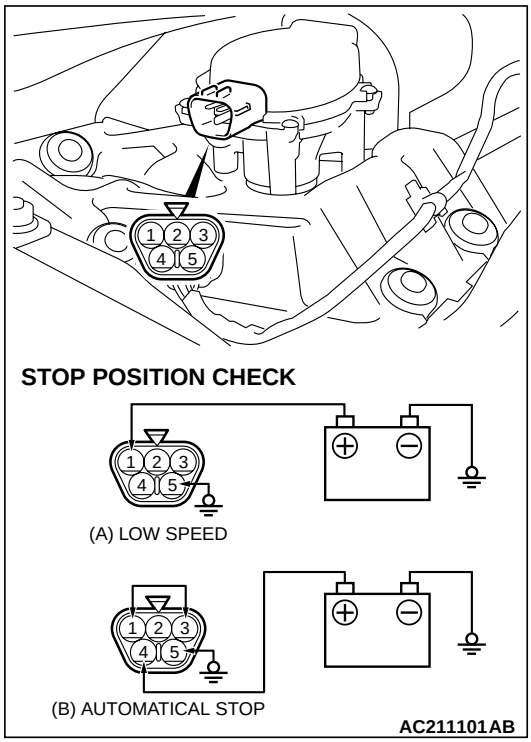
M1511008000083

FRONT WIPER MOTOR CHECK

Inspect the windshield wiper motor by removing the harness connector with the motor attached to the vehicle.

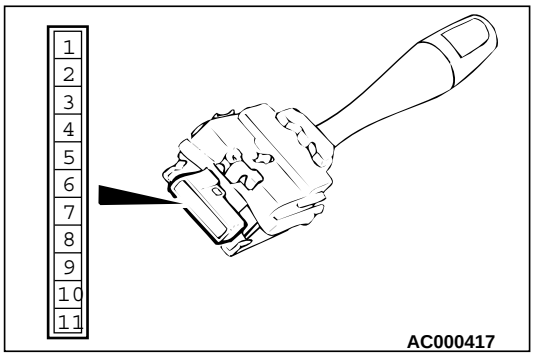
Wiper Motor at Low-Speed and High-Speed Operation
Connect the battery to the windshield wiper motor to inspect the operation of motor rotation in low or high speed.





Wiper Motor at Stop Position Operation

1. Connect the battery to the windshield wiper motor to rotate the motor in a low speed as shown in the illustration (A) and disconnect the battery during rotation to stop the motor.
2. Connect between the terminals and the battery as shown in the illustration (B) and confirm whether the motor stops at the automatic stop position after rotating in a low speed.

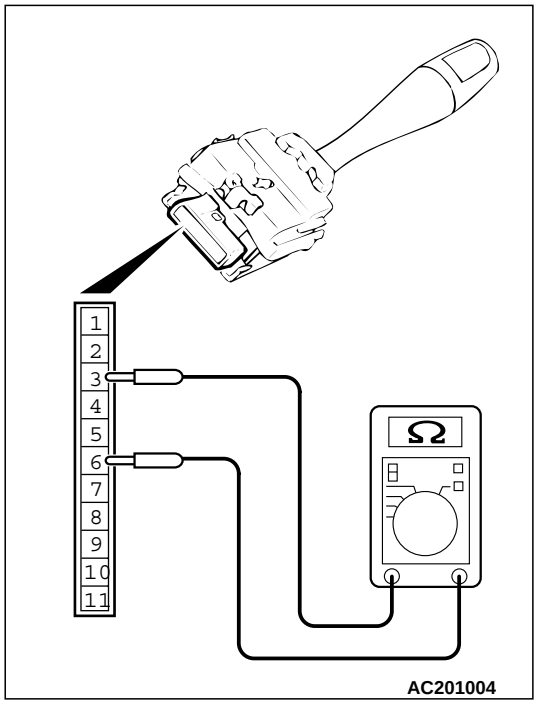


WINDSHIELD WIPER AND WINDSHIELD WASHER SWITCH CHECK

Check continuity between the switch terminals.

SWITCH POSITION	TESTER CONNECTION	SPECIFIED CONDITION
OFF	6 – 11, 6 – 10, 6 – 9, 6 – 8, 6 – 7	Open circuit
Windshield mist wiper switch	6 – 11	Less than 2 ohms
Windshield intermittent wiper switch	6 – 10	
Windshield low-speed wiper switch	6 – 9	
Windshield high-speed wiper switch	6 – 8	
Windshield washer switch	6 – 7	

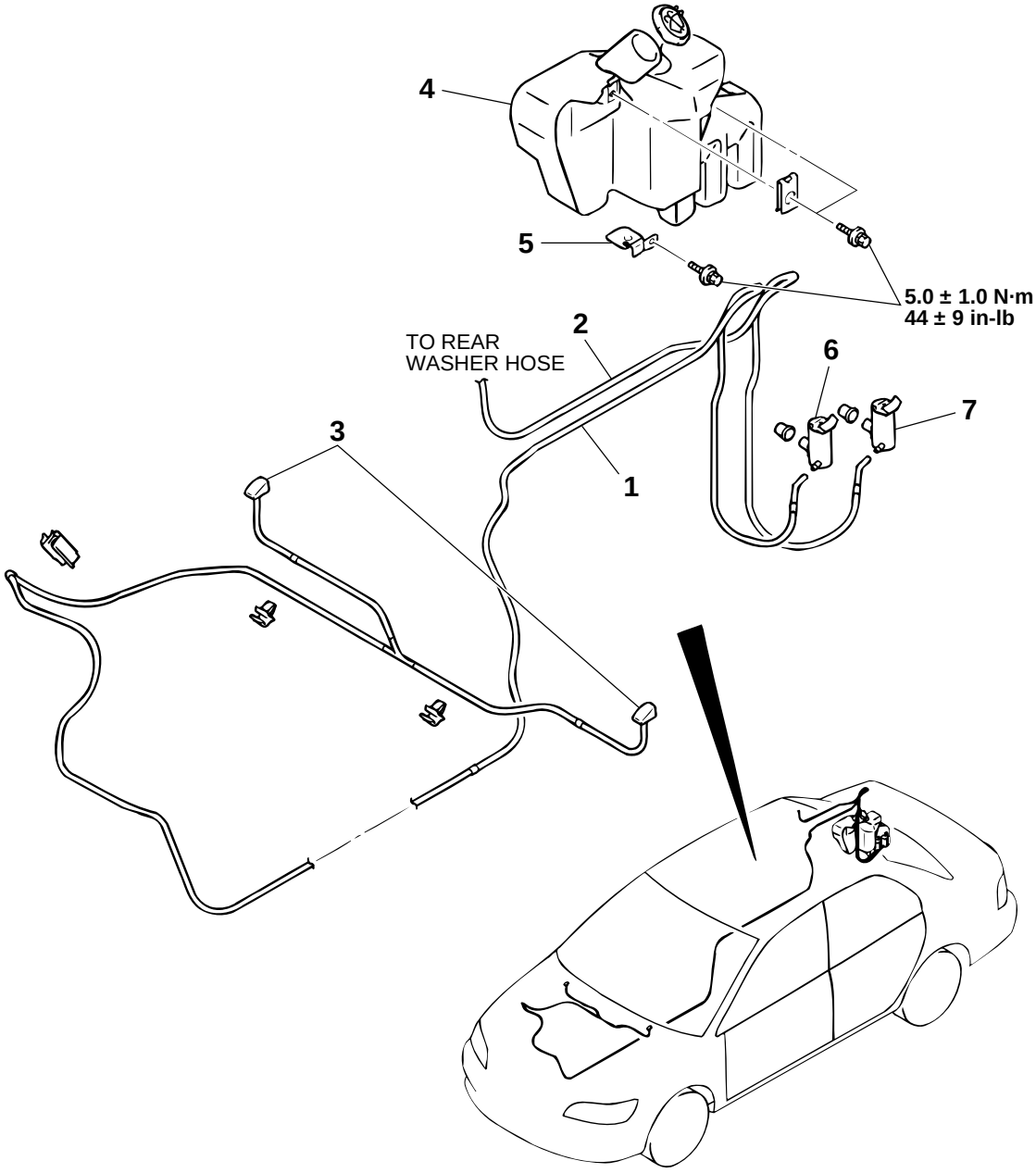
WINDSHIELD INTERMITTENT WIPER VOLUME CHECK



Check that the resistance varies between 0 and 1 kΩ when the windshield intermittent volume is turned from FAST to SLOW by after measuring resistance between connector terminals 3 and 6 at the column switch.

REMOVAL AND INSTALLATION

M1511008200151



AC211877 AB

WASHER HOSE REMOVAL STEPS

- SPLASH SHIELD <RIGHT SIDE> (REFER TO GROUP 42 - FENDER P.42-9).
- COWL SIDE TRIM, FRONT SCUFF PLATE, CENTER PILLAR TRIM, LOWER, REAR SCUFF PLATE (REFER TO GROUP 52A - TRIM P.52A-11).
- REAR SEAT (REFER TO GROUP 52A - SEAT P.52A-22).

1. FRONT WASHER HOSE

>>B<< 2. REAR WASHER HOSE

WINDSHIELD WASHER NOZZLE REMOVAL STEPS

- CONNECTION OF WASHER HOSE

3. WINDSHIELD WASHER NOZZLE

WASHER TANK AND WASHER MOTOR REMOVAL STEPS

- REAR END TRIM, TRUNK SIDE TRIM (REFER TO GROUP 52A - TRIM P.52A-11).
- CONNECTION OF FRONT WASHER HOSE AND REAR WASHER HOSE

>>A<< 4. WASHER TANK ASSEMBLY
5. WASHER TANK BRACKET
6. FRONT WASHER MOTOR
7. REAR WASHER MOTOR

TSB Revision

NOTE: For removal and installation of the wiper and washer switch, refer to GROUP 54A, Column switch P.54A-101.

INSTALLATION SERVICE POINTS

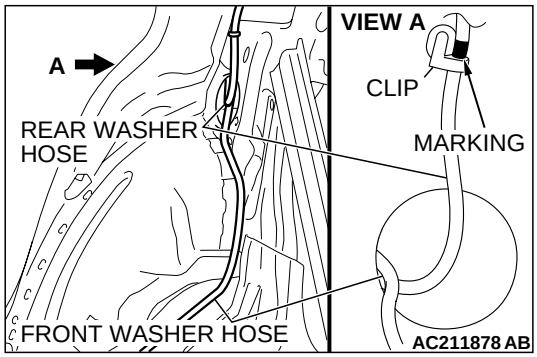
>>A<< WASHER TANK ASSEMBLY INSTALLATION

⚠ CAUTION

Take care not to confuse the two washer motor connectors when connecting them to the washer motor. Connect the green connector to the rear washer motor, and the milky white connector to the front washer motor, respectively.

>>B<< REAR WASHER HOSE INSTALLATION

Align the marking on the rear washer hose with the clip as shown.

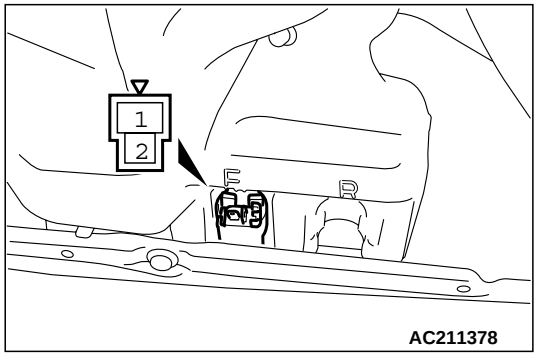


INSPECTION

M1511008300073

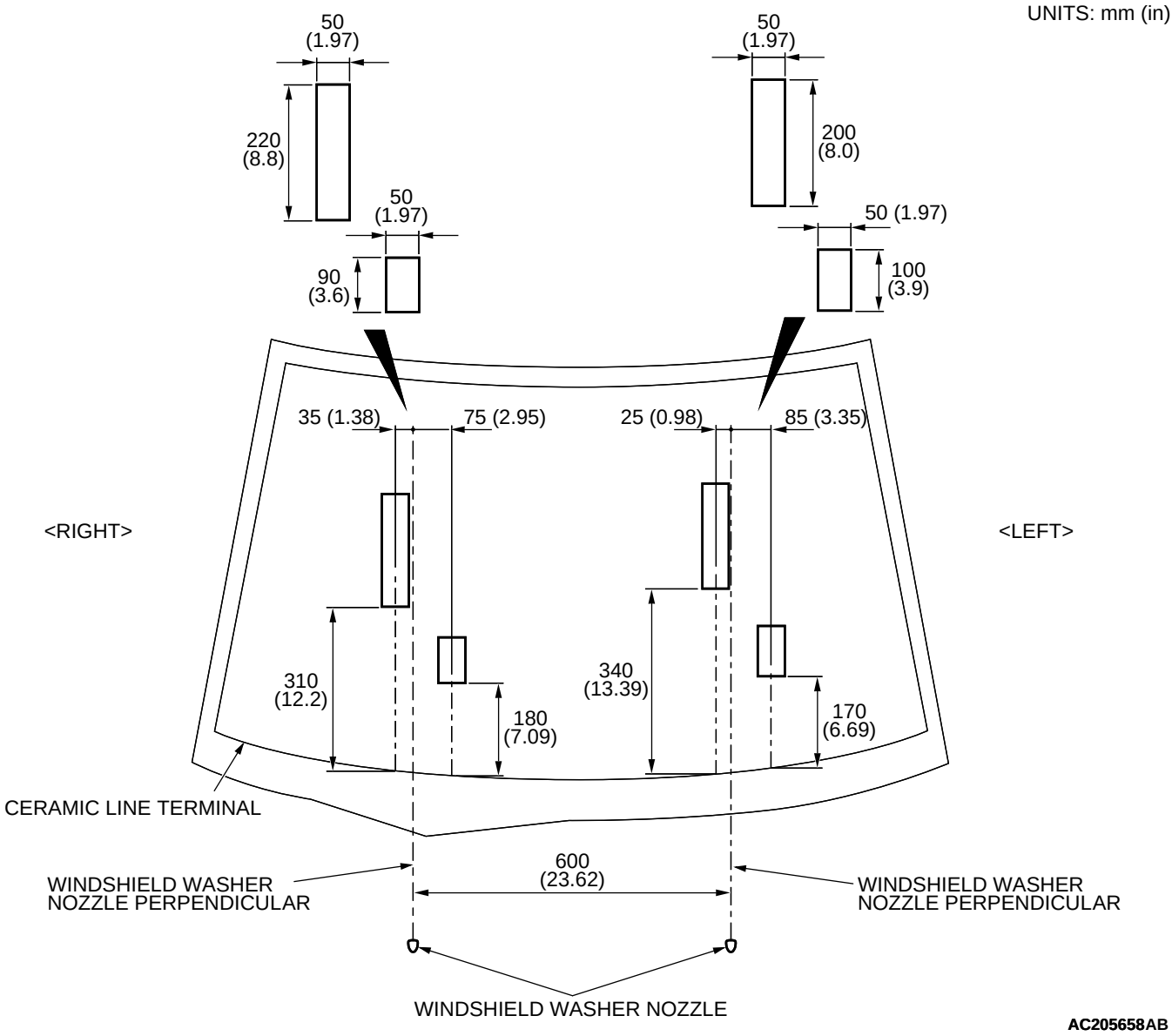
FRONT WASHER MOTOR CHECK

1. Remove the washer tank assembly with the washer hose attached. Then fill the washer tank with water.
2. Check to see that the water is vigorously sprayed. When connecting the positive battery terminal to terminal number 2 and terminal number 1 to the negative battery terminal.



WINDSHIELD WASHER FLUID EJECTION CHECK

Move the nozzle to adjust the position so that the spray is in the area shown in the illustration.



REAR WIPER AND WASHER

GENERAL DESCRIPTION

M1511000100376

OPERATION
REAR WIPER AND WASHER

Rear Wiper Operation

- If the rear wiper and washer switch is turned to "INT" position with the ignition switch at "ACC" or "ON" position, the ETACS-ECU turns ON the rear wiper drive signal for three seconds (approximately two cycles), then 7.4 seconds later the intermittent motion operates every eight seconds. If the shift lever is moved to the "R" position when the rear wiper and washer switch is turned to the "INT" position and the ignition switch is at the "ACC" or "ON" position, the park/neutral position switch "R" turns ON. One second later, the ETACS-ECU turns ON the rear wiper drive signal for three seconds (approximately two cycles). Then, 7.4 seconds later, the intermittent motion of eight seconds' cycle is restored.

Rear Washer Operation

- If the rear wiper and washer switch is turned to the ON (washer) position with the ignition switch at the "ACC" or "ON" position, the rear washer ON signal is sent to the ETACS-ECU, causing the rear wiper signal to turn on after 0.3 second. After the rear washer switch signal turns off, the rear wiper signal turns off in three seconds. If the rear washer switch is turned to the ON position while the rear wiper is in intermittent mode, the rear washer works for that period when the washer switch remains on. Then the rear wipers return to the intermittent mode.

REAR WIPER AND WASHER DIAGNOSIS

M1511000700152

The rear wiper and washer are controlled by the Simplified Wiring System (SWS). For troubleshooting, refer to GROUP 54B, SWS Diagnosis P.54B-22.

ON-VEHICLE SERVICE

M1511000800308

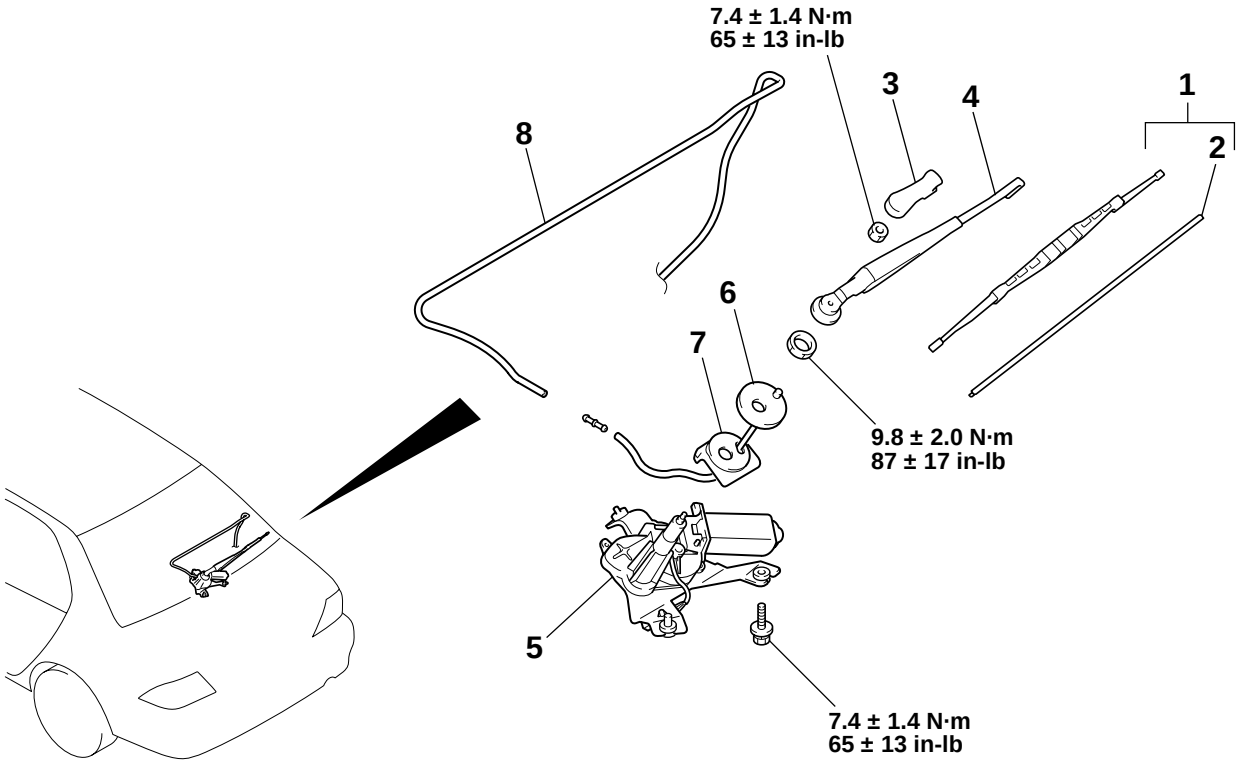
CHECK OF REAR WIPER OPERATION WHEN SHIFT LEVER IS AT THE "R" POSITION

1. When the shift lever is moved to the "R" position with the rear wiper switch at the "INT" position, the wiper should operate twice or three times at low speed after approximately one second.
2. If not, carry out the troubleshooting (Refer to GROUP 54B, Diagnosis P.54B-22).

REAR WIPER AND WASHER

REMOVAL AND INSTALLATION

M1511008500099



AC205663AB

- WASHER TANK ASSEMBLY AND REAR WASHER MOTOR (REFER TO P.51-21).

WIPER BLADE ASSEMBLY REMOVAL STEPS

>>C<< 1. WIPER BLADE ASSEMBLY
>>B<< 2. WIPER BLADE

REAR WIPER MOTOR AND REAR WASHER NOZZLE REMOVAL STEPS

3. COVER
4. WIPER ARM
<<A>> >>A<< 5. REAR WIPER MOTOR ASSEMBLY
6. NOZZLE AND COLLAR ASSEMBLY
7. PACKING AND WASHER ASSEMBLY

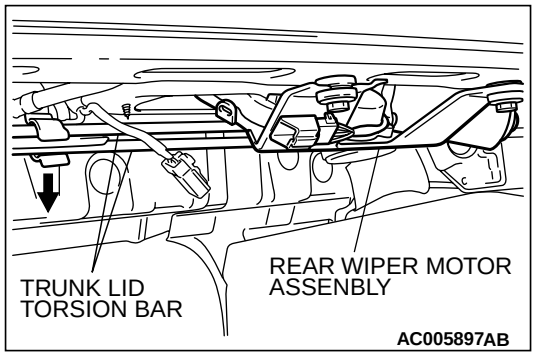
WASHER HOSE REMOVAL STEPS

- COWL SIDE TRIM, FRONT SCUFF PLATE, CENTER PILLAR TRIM LOWER, REAR SCUFF PLATE, REAR PILLAR TRIM AND REAR SHELF TRIM (REFER TO GROUP 52A, TRIM P.52A-11).
- REAR SEAT (REFER TO GROUP 52A, REAR SEAT P.52A-22).

8. REAR WASHER HOSE

NOTE: For removal and installation of the wiper and washer switch, refer to GROUP 54A, Column switch P.54A-101.

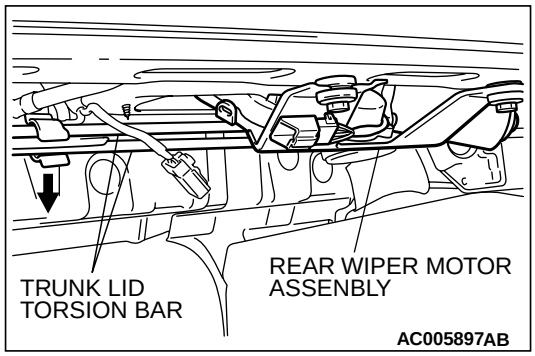
REMOVAL SERVICE POINT



<<A>> REAR WIPER MOTOR ASSEMBLY REMOVAL

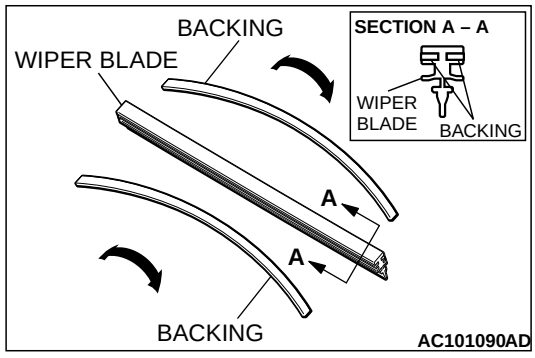
Close the trunk lid slightly and lower the trunk lid torsion bar slightly when removing the rear wiper motor assembly. If you fail to do this, the rear wiper motor assembly will interfere with the trunk lid torsion bar.

INSTALLATION SERVICE POINTS



>>A<< REAR WIPER MOTOR ASSEMBLY INSTALLATION

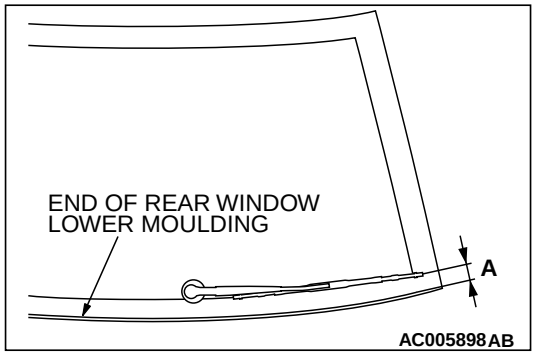
Close the trunk lid slightly and lower the trunk lid torsion bar slightly when installing the rear wiper motor assembly. If you fail to do this, the rear wiper motor assembly will interfere with the trunk lid torsion bar.



>>B<< WIPER BLADE INSTALLATION

⚠ CAUTION

Use a curved backing like that shown for the backing of a wiper blade to ensure sustained wiper wiping performance.



>>C<< WIPER BLADE ASSEMBLY INSTALLATION

Before installing the rear wiper arm and blade assembly, operate the rear wiper motor so that the motor stops at the predetermined park position. Install the rear wipe arm and blade assembly and adjust the rear wiper blade position so that the blade end stops at the predetermined position (standard position).

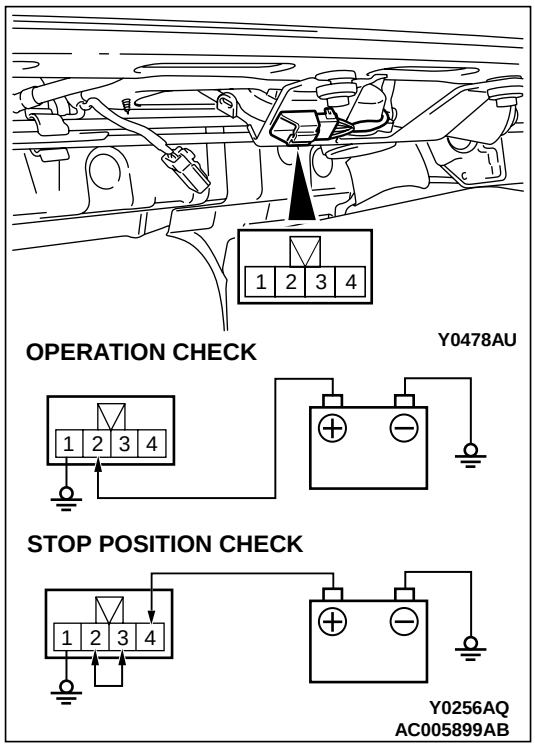
Standard value: (A) 38 ± 5 mm (1.5 ± 0.20 inch)

INSPECTION

M1511008600137

REAR WIPER MOTOR CHECK

Inspect the rear wiper motor is conducted by removing the harness connector with the motor attached to the vehicle.



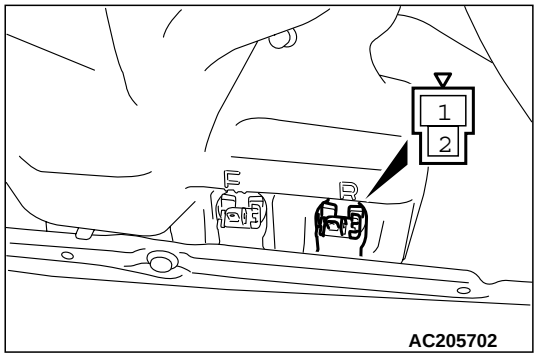
Wiper Motor Operation

Connect the battery to the rear wiper motor as shown in the illustration and check the motor operation.

Wiper Motor at Stop Position Operation

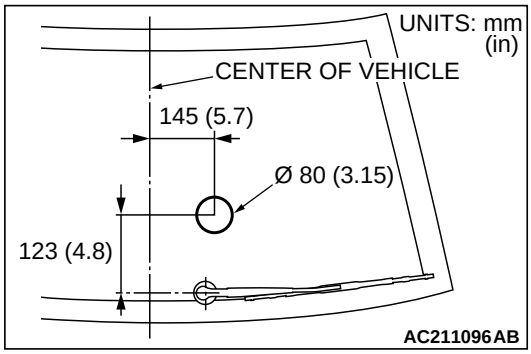
1. Run the wiper motor, disconnect the battery, and stop the motor.
2. Reconnect the battery as shown in the illustration, and confirm that after the motor starts turning it stops at the automatic stop position.

REAR WASHER MOTOR CHECK



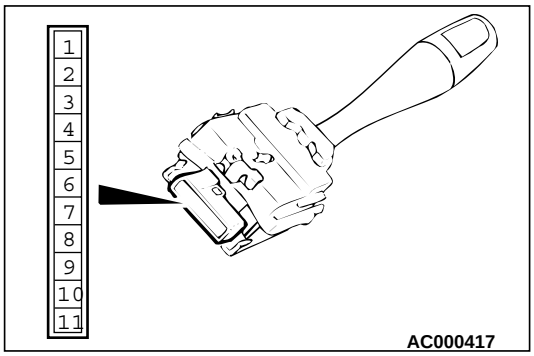
1. Remove the rear washer tank assembly with the washer hose attached. Then fill the washer tank with water.
2. Check to see that the water is vigorously sprayed when connecting the positive battery terminal to terminal number 2 and terminal number 1 to the negative battery terminal.

REAR WASHER FLUID EJECTION CHECK



Move the nozzle to adjust the position so that the spray is in the area shown in the illustration.

REAR WIPER AND WASHER SWITCH CHECK



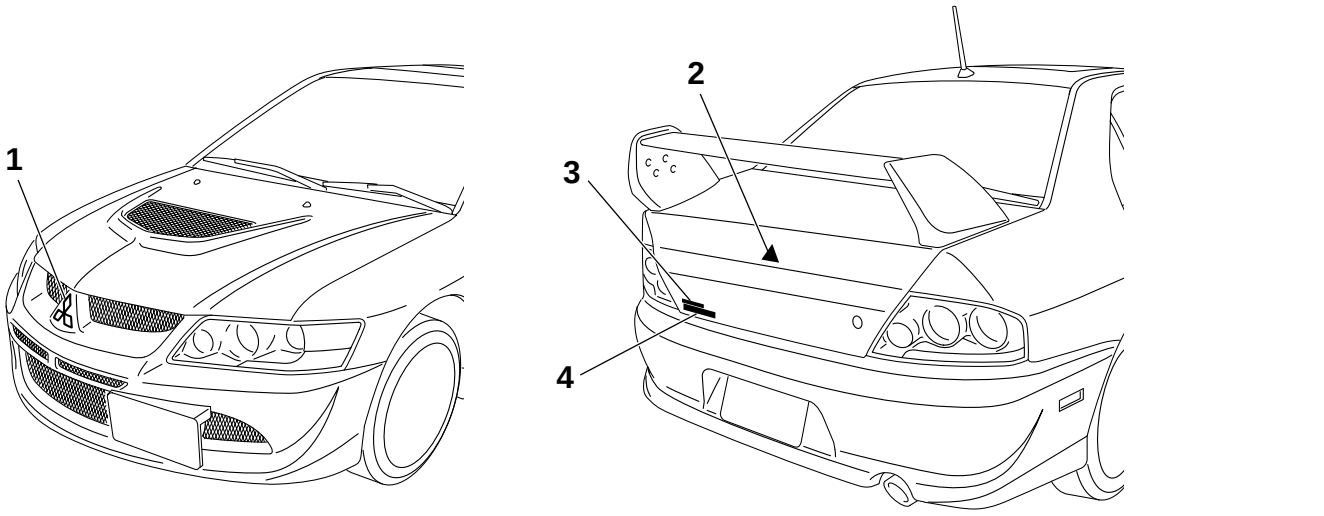
Check continuity between the switch terminals.

SWITCH POSITION	TESTER CONNECTION	SPECIFIED CONDITION
OFF	4 – 6, 5 – 6	Open circuit
Rear wiper switch	4 – 6	Less than 2 ohms
Rear washer switch	5 – 6	

MARK

REMOVAL AND INSTALLATION

M1511011800283



AC211058AB

>>A<< 1. FRONT THREE-DIAMOND MARK (REFER TO P.51-3).
>>A<< 2. REAR THREE-DIAMOND MARK
>>A<< 3. LANCER MARK
>>A<< 4. EVOLUTION MARK

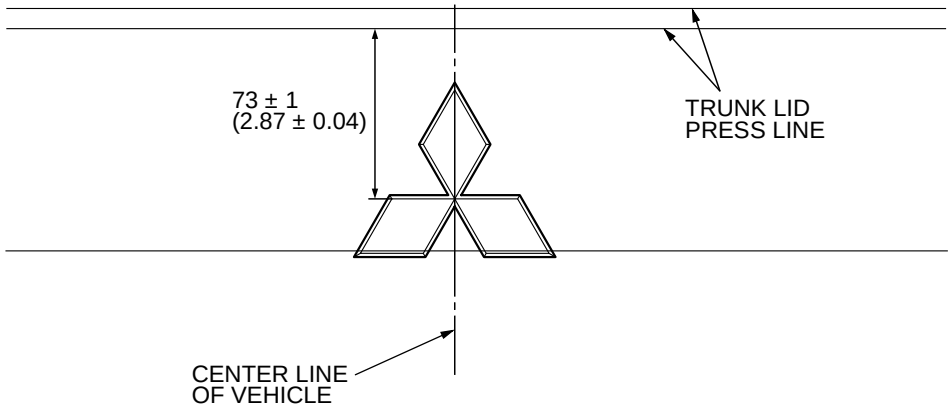
INSTALLATION SERVICE POINT

>>A<< MARK APPLICATION

1. Installation position
   Attach each mark to the position shown in the illustration.

THREE-DIAMOND MARK

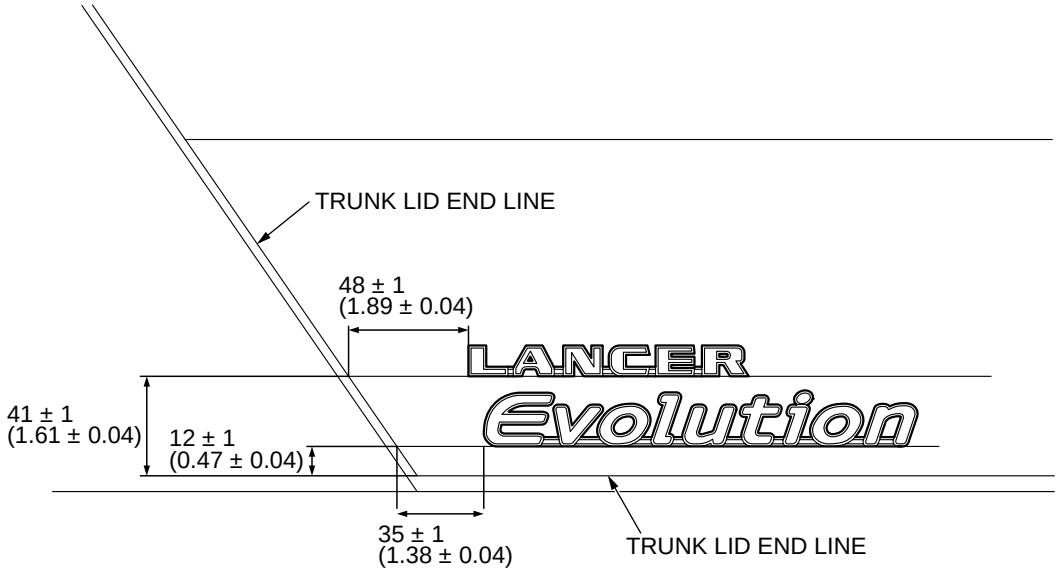
UNITS: mm (in)



AC210732AB

LANCER MARK, EVOLUTION MARK

UNITS: mm (in)



AC210731AB

2. Installation procedure
   (1) Use 3M™ AAD Part number 8906 or equivalent to clean the mark installation surfaces on the body.

⚠ CAUTION

When attaching the marks, the ambient temperature should be 20° – 38°C (60° – 100°F) and the air should be completely free of dust. If the ancient temperature is lower than 20°C (60°F), the marks and the places on the vehicle body where the marks are to be attached should be heated to 20° – 38°C (60° – 100°F).

   (2) Peel off the protection sheet on the back of the marks to paste it on the installation position.

DOOR MIRROR

GENERAL DESCRIPTION

M1511000100387

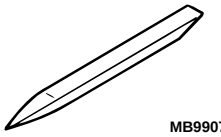
OPERATION
DOOR MIRROR

Remote Controlled Mirror Operation

- The mirror on the door mirror moves up/down and left/right by operating the remote controlled door mirror switch when the ignition switch is in the "ON" or "ACC" position.

SPECIAL TOOL

M1511000600445

TOOL	TOOL NUMBER AND NAME	SUPERSESSION	APPLICATION
 MB990784	MB990784 Ornament remover	General service tool	Removal of remote controlled mirror switch

TROUBLESHOOTING STRATEGY

M1511014600040

Diagnosis should be carried out by the following procedures.

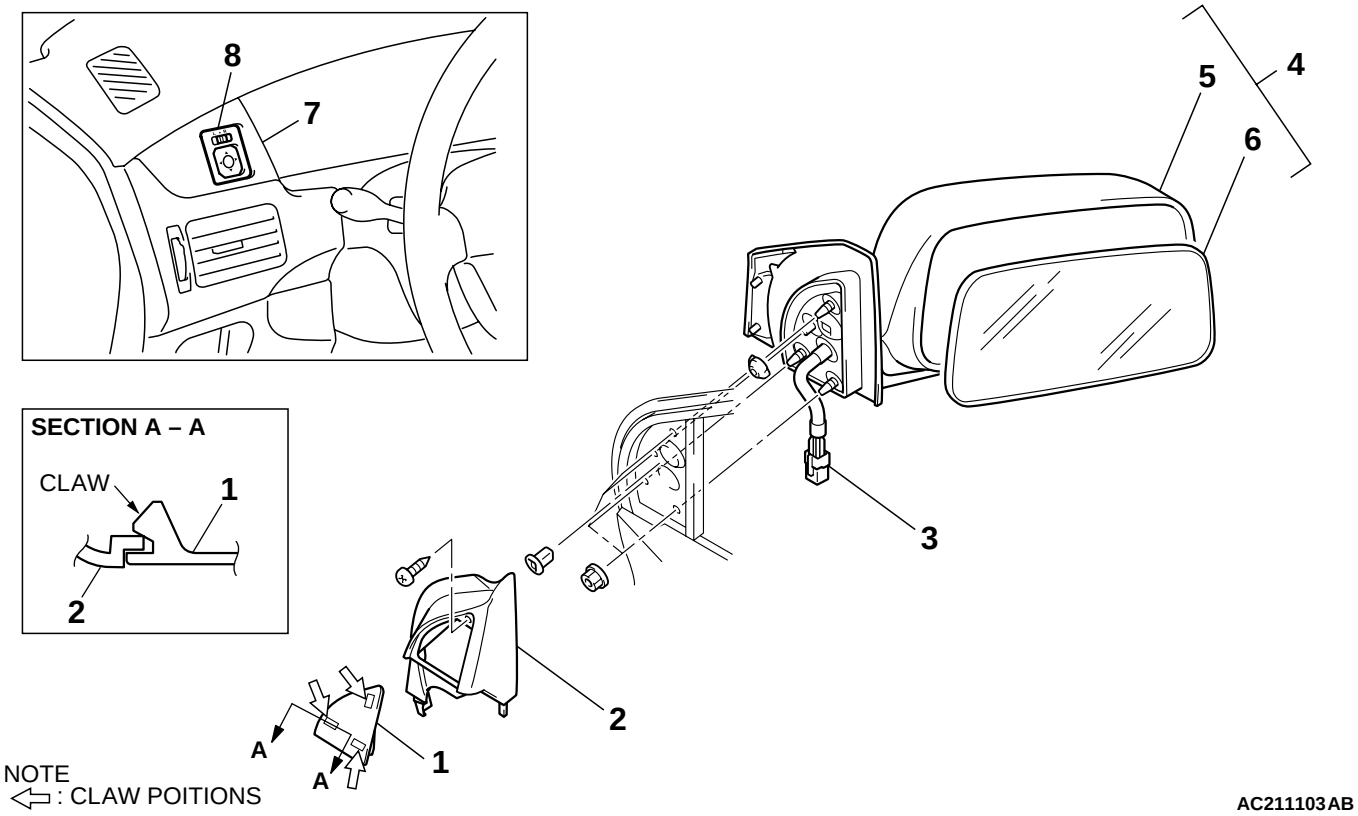
1. Gather the information from the customer.
2. Verify that the condition described by the customer exists.
3. Find the malfunction by the following Symptom Chart.
4. Verify the malfunction is eliminated.

SYMPTOM PROCEDURES

DOOR MIRROR

REMOVAL AND INSTALLATION

M1511006400212



AC211103AB

DOOR MIRROR REMOVAL STEPS

1. COVER
2. DELTA INNER COVER
3. HARNESS CONNECTOR <VEHICLES WITH REMOTE CONTROLLED MIRROR>
4. DOOR MIRROR ASSEMBLY
5. DOOR MIRROR BODY ASSEMBLY

<<A>> >>A<< 6. MIRROR

REMOTE CONTROLLED MIRROR SWITCH REMOVAL STEPS

7. INSTRUMENT PANEL ORNAMENT (REFER TO GROUP 52A, INSTRUMENT PANEL P.52A-3.)
8. REMOTE CONTROLLED MIRROR SWITCH

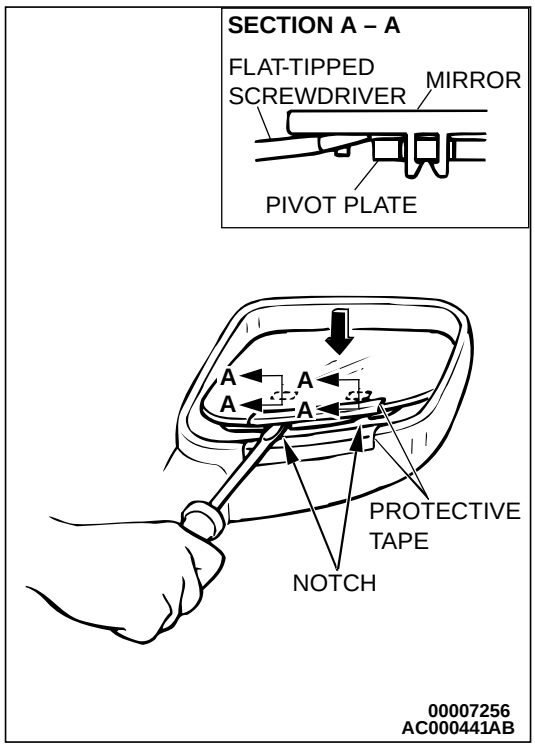
Required Special Tool:

- MB990784: Ornament Remover

REMOVAL SERVICE POINT

<<A>> MIRROR REMOVAL

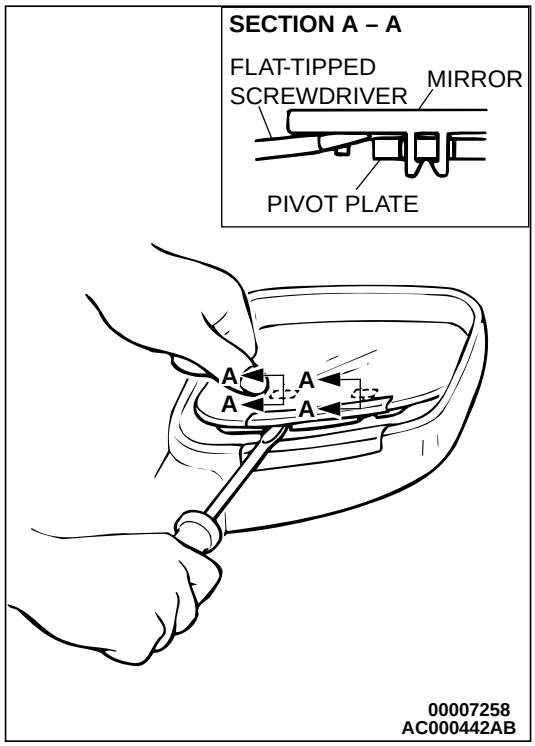
Push the top of the mirror with your hand to tilt it and attach the protective tape as shown in the illustration. Then insert a flat-tipped screwdriver in between the notch at the rear of the mirror and the pivot plate, and disengage the bottom of the mirror.



INSTALLATION SERVICE POINT

>>A<< MIRROR INSTALLATION

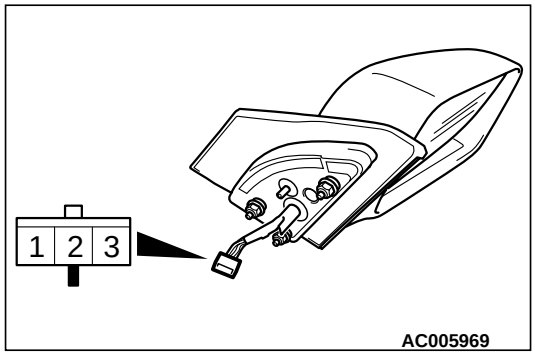
While supporting the clip position on the underside of the pivot plate with a flat-tipped screwdriver, press the clip at the front of the mirror to engage the bottom of the mirror.



INSPECTION

M1511006500242

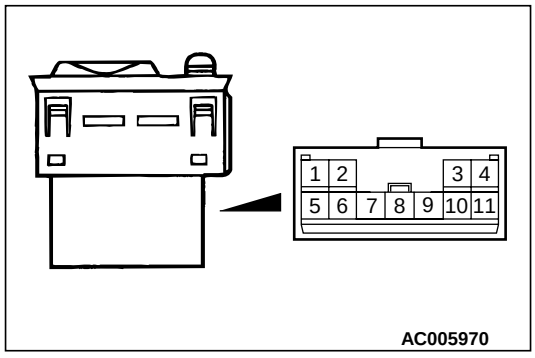
ELECTRIC REMOTE CONTROLLED MIRROR OPERATION CHECK



Check that the mirror moves as described in the table when each terminal is connected to the battery.

BATTERY CONNECTION	DIRECTION OPERATION
• Connect terminal 1 to the negative battery terminal. • Connect terminal 3 to the positive battery terminal.	Up
• Connect terminal 3 to the negative battery terminal. • Connect terminal 1 to the positive battery terminal.	Down
• Connect terminal 1 to the negative battery terminal. • Connect terminal 2 to the positive battery terminal.	Right
• Connect terminal 2 to the negative battery terminal. • Connect terminal 1 to the positive battery terminal.	Left

DOOR MIRROR CONTROL SWITCH CONTINUITY CHECK



SWITCH POSITION		TESTER CONNECTION	SPECIFIED CONDITION
OFF		9 – 2, 9 – 3, 9 – 6, 9 – 10, 9 – 11, 1 – 2, 1 – 3, 1 – 6, 1 – 10, 1 – 11	Open circuit
Left side	OFF	9 – 6, 9 – 10, 9 – 11, 1 – 6, 1 – 10, 1 – 11	Open circuit
	Up	1 – 6, 9 – 11	Less than 2 ohms
	Down	1 – 11, 6 – 9	
	Right	1 – 6, 9 – 10	
	Left	1 – 10, 6 – 9	

SWITCH POSITION		TESTER CONNECTION	SPECIFIED CONDITION
Right side	OFF	9 – 2, 9 – 3, 9 – 6, 1 – 2, 1 – 3, 1 – 6	Open circuit
	Up	1 – 6, 3 – 9	Less than 2 ohms
	Down	1 – 3, 6 – 9	
	Right	1 – 6, 2 – 9	
	Left	1 – 2, 6 – 9	

SPECIFICATIONS

FASTENER TIGHTENING SPECIFICATIONS

M1511015300257

ITEM	SPECIFICATION
Rear spoiler <TYPE A and TYPE B>	
Rear spoiler assembly bolt and nut	5.2 ± 0.2 N·m (46 ± 2 in-lb)
Windshield wiper and washer	
Wiper arm and blade assembly nut	27 ± 3 N·m (20 ± 2 ft-lb)
Wiper link assembly bolt	7.4 ± 1.4 N·m (65 ± 13 in-lb)
Wiper motor bolt	8.9 ± 1.9 N·m (79 ± 17 in-lb)
Washer tank assembly bolt	5.0 ± 1.0 N·m (44 ± 9 in-lb)
Rear wiper and washer	
Nozzle and collar assembly nut	9.8 ± 2.0 N·m (87 ± 17 in-lb)
Wiper arm and blade assembly nut	7.4 ± 1.4 N·m (65 ± 13 in-lb)
Wiper motor bolt	7.4 ± 1.4 N·m (65 ± 13 in-lb)

SERVICE SPECIFICATIONS

M1511000300251

ITEM	STANDARD VALUE
Windshield wiper blade park position mm (in)	34 ± 5 (1.3 ± 0.20)
Rear wiper blade park position mm (in)	38 ± 5 (1.5 ± 0.20)

ADHESIVES

M1511000500277

ITEM	SPECIFICATION
Front three-diamond mark	Adhesive tape: Double-sided tape 20 mm (0.79 in) width and 0.8 mm (0.03 in) thickness
Side air dam assembly	Adhesive tape: Double-sided tape 5 mm (0.20 in) width and 1.2 mm (0.05 in) thickness
Rear spoiler assembly <TYPE A>	Adhesive tape: Double-sided tape 5 mm (0.2 in) width and 0.8 mm (0.03 in) thickness and 5 mm (0.2 in) width and 1.6 mm (0.06 in) thickness
Rear spoiler assembly <TYPE B>	Adhesive tape: Double-sided tape 3 mm (0.12 in) thickness

COMPONENT IDENTIFICATIONS

M1511019000010

APPLICABLE LOCATION	IDENTIFICATION COLOR
Drip molding clip A	Yellow
Drip molding clip B	Blue
Drip molding clip C	Milky white
Front drip molding clip A	Orange
Front drip molding clip B	Purple
Front drip molding clip C	Blue
Rear drip molding clip	Gray