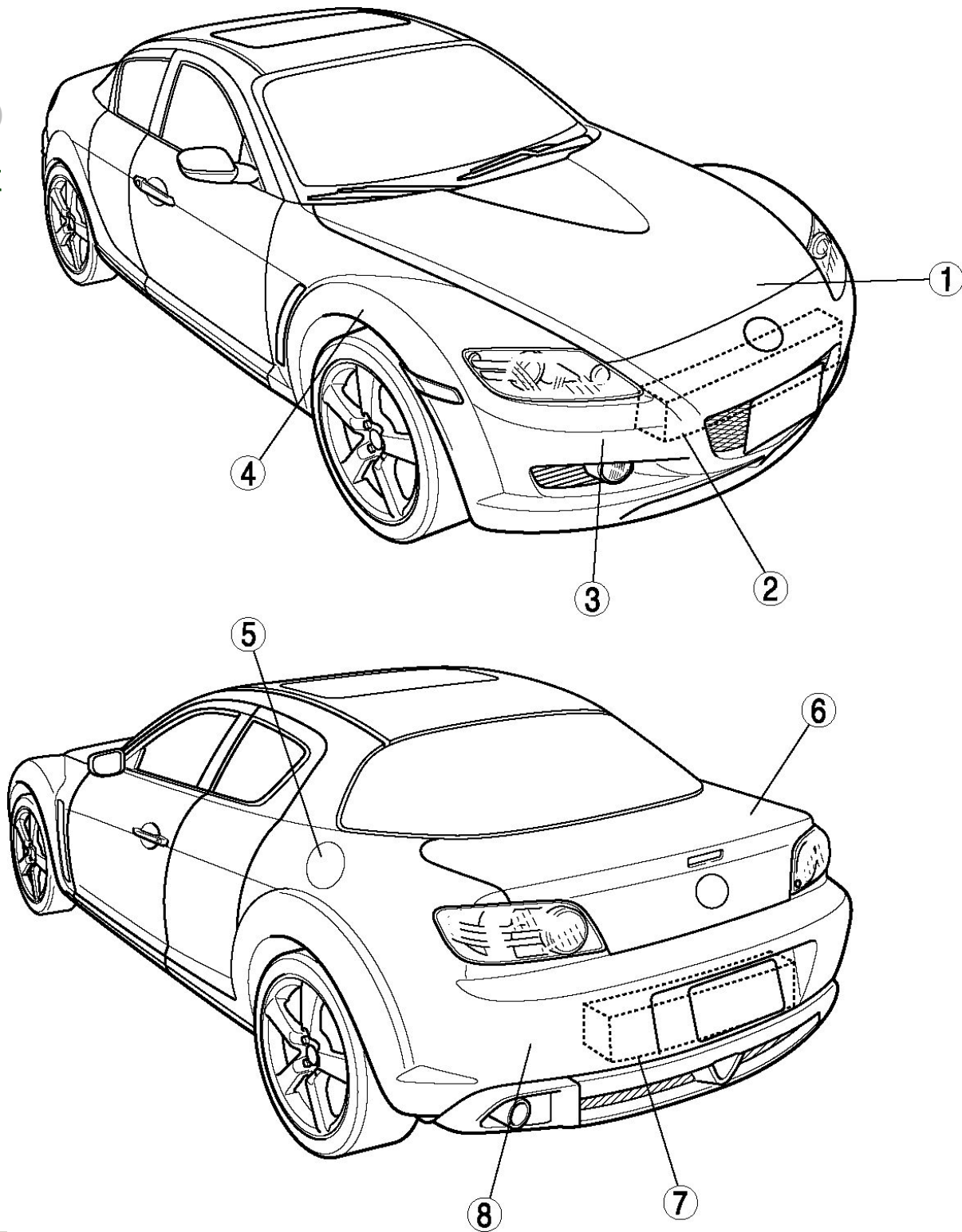


BODY (w)
LOCATION INDEX



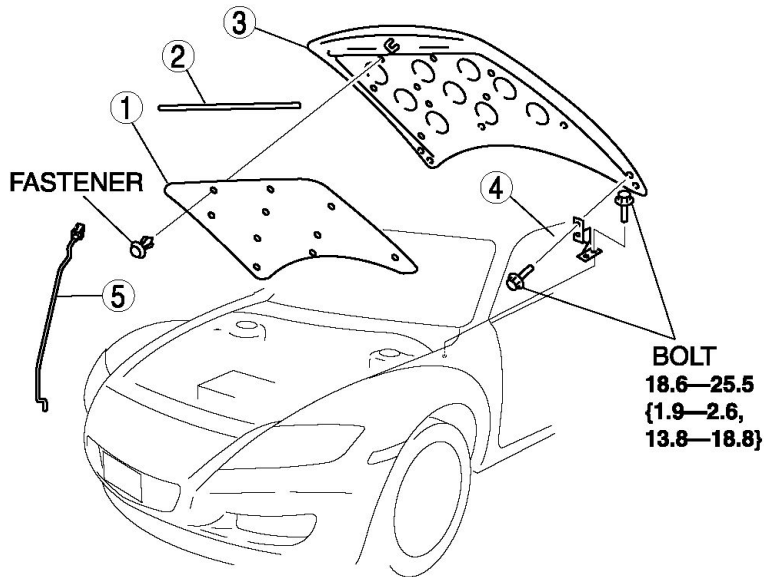
1	Hood
2	Front bumper reinforcement
3	Front bumper
4	Front fender panel
5	Fuel-filler lid
6	Trunk lid
7	Rear bumper reinforcement
8	Rear bumper

HOOD

HOOD REMOVAL/INSTALLATION

WARNING:

- Removing the hood without proper support can be dangerous. The hood may fall and injure you. Always perform the following procedure with at least another person.
1. Disconnect the negative battery cable.
 2. To remove the hood hinge, remove the following parts:
 - a. Front side marker lights
 - b. Front bumper
 - c. Front combination lights
 - d. Front fender panel
 3. Remove in the order indicated in the table.



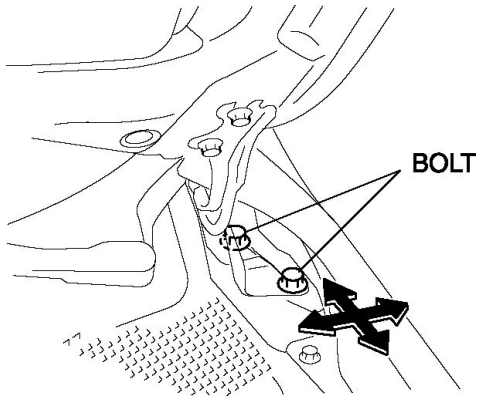
1	Hood insulator
2	Shroud seal weatherstrip
3	Hood
4	Hood hinge
5	Hood stay

4. Install in the reverse order of removal.
5. Adjust the hood.

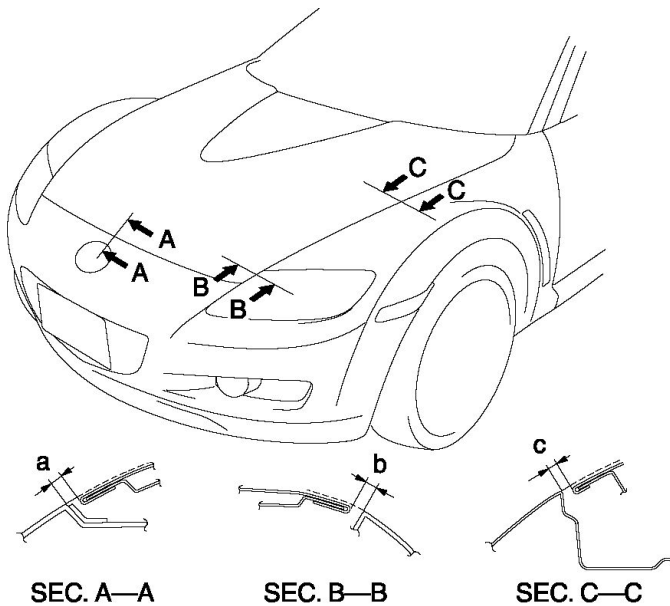
HOOD ADJUSTMENT

Gap Adjustment

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Front side marker lights
 - b. Front bumper
 - c. Front combination lights
 - d. Front fender panel
3. Loosen the hood hinge installation bolts and adjust the hood.



4. Tighten the bolts.
5. Verify that the gap between the hood and the body is within the specification.

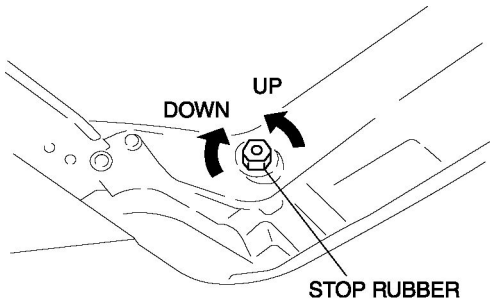


Standard clearance

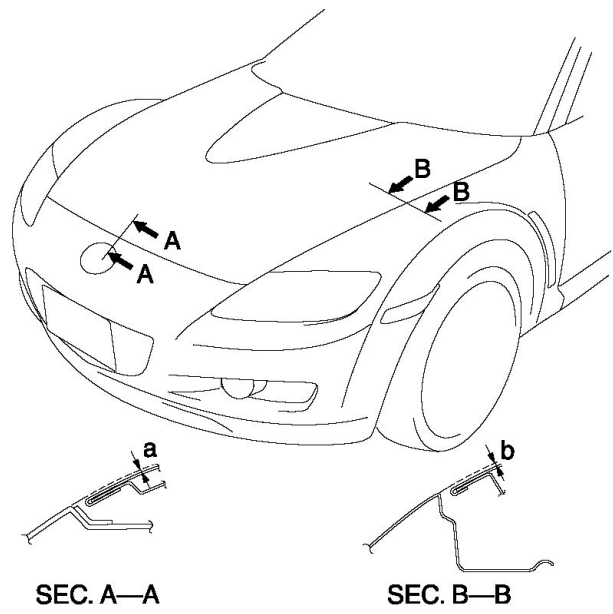
- a: 3.5—6.5 mm {0.14—0.25 in}
- b: 3.0—6.0 mm {0.12—0.23 in}
- c: 2.5—4.5 mm {0.10—0.17 in}

Height Difference Adjustment

1. Turn the stop rubber to adjust the height of the hood.



2. Verify that the height difference between the hood and the body is within the specification.



Standard clearance

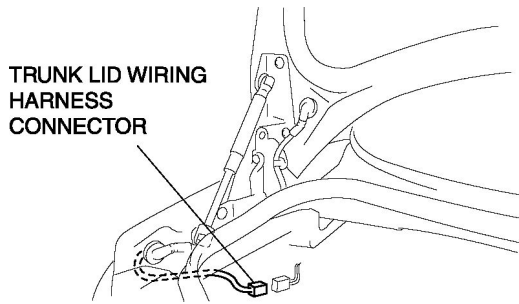
- a: -1.8—1.2 mm {-0.07—0.04 in}
- b: -1.0—1.0 mm {-0.03—0.03 in}

TRUNK LID

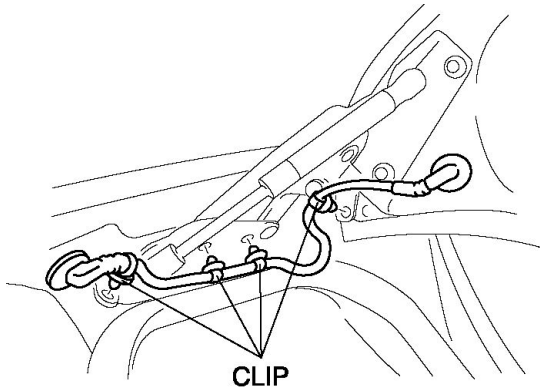
TRUNK LID REMOVAL/INSTALLATION

WARNING:

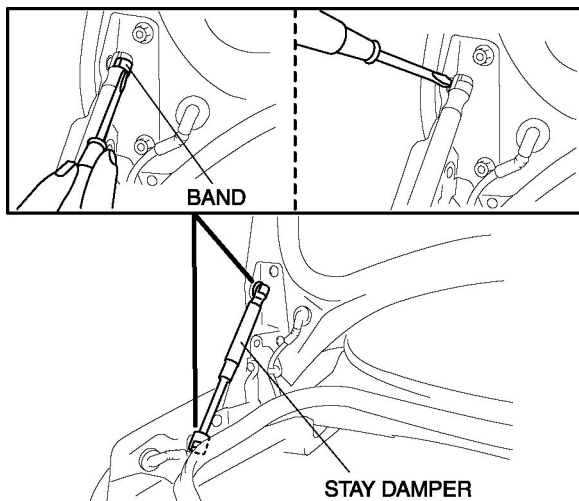
- Removing the stay damper without supporting the trunk lid can be dangerous. The trunk lid may fall and injure you. Be sure to open the trunk lid completely and support it securely before removing the stay damper.
1. Disconnect the negative battery cable.
 2. Disconnect the trunk lid wiring harness connector, then take the trunk lid harness out from the vehicle.



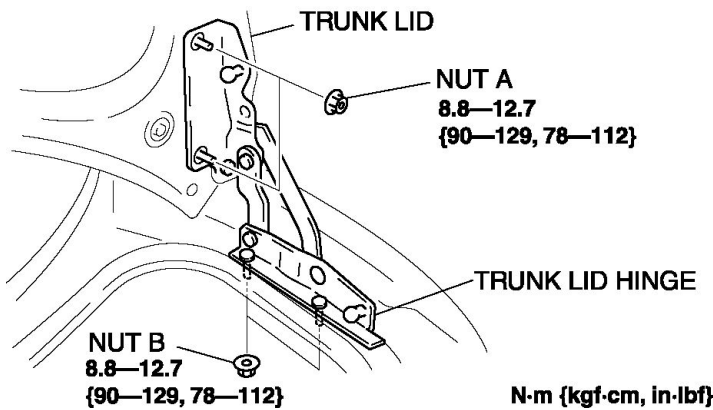
3. Remove the clips that secure the trunk lid wiring harness.



4. Pry off the stay damper band using a flathead screwdriver.



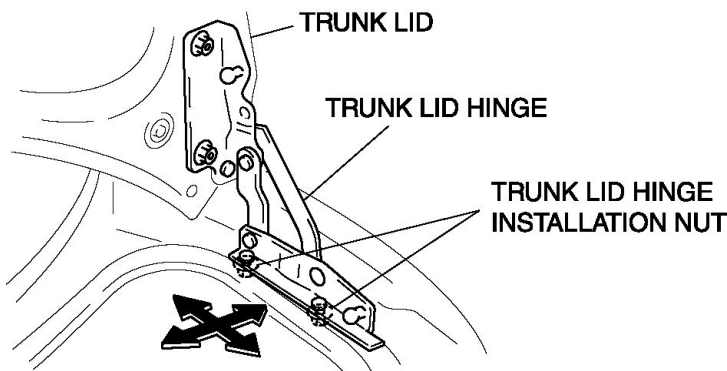
5. Pry out the connecting part of the stay damper and the hinge with a flathead screwdriver to disconnect them, then remove the stay damper.
6. Remove nuts A, then remove the trunk lid.



7. Remove nuts B, then remove the trunk lid hinge.
8. Install in the reverse order of removal.
9. Adjust the trunk lid.

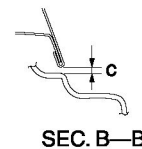
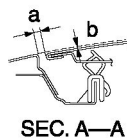
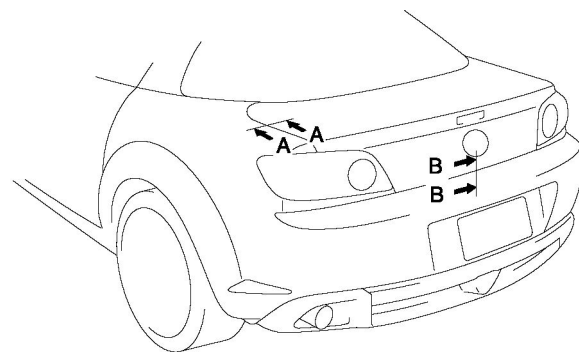
TRUNK LID ADJUSTMENT

1. Measure the gap and height difference between the trunk lid and the body.
2. Loosen the trunk lid hinge installation nuts or the trunk lid lock striker installation screws, and adjust the trunk lid.



Standard clearance

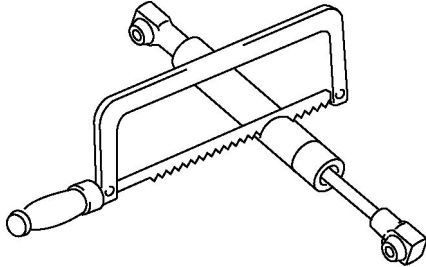
- a: 2.5—4.5 mm {0.10—0.17 in}
 - b: -1.0—1.0 mm {-0.03—0.03 in}
 - c: 4.0—8.0 mm {0.16—0.31 in}
3. Tighten the bolts or screws.



STAY DAMPER DISPOSAL

NOTE:

- The gas in the stay damper is colorless, odorless, and non-toxic.
1. Wear protective eye wear.
 2. Lay the stay damper flat.



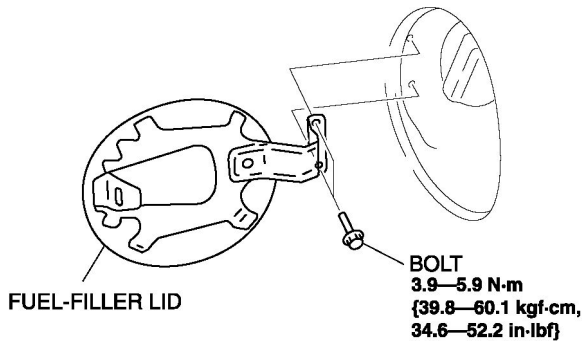
3. Saw **2—3 mm {0.08—0.11 in}** into the stay damper using a hacksaw, and allow the gas to escape from the stay damper.
4. Verify that the gas has escaped from the stay damper.
5. Discard the stay damper.

Notes:

FUEL-FILLER LID

FUEL-FILLER LID REMOVAL/INSTALLATION

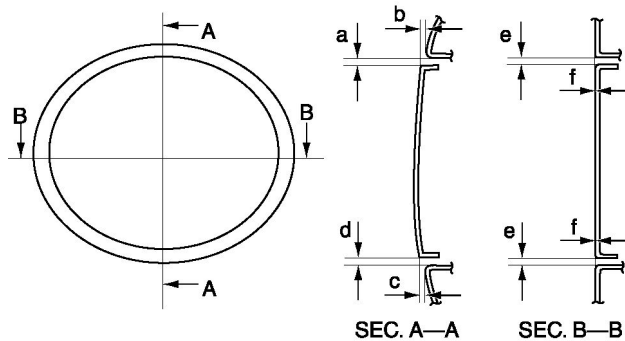
1. Remove the bolts.



2. Remove the fuel-filler lid.
3. Install in the reverse order of removal.
4. Adjust the fuel-filler lid.

FUEL-FILLER LID ADJUSTMENT

1. Measure the gap and height difference between the fuel-filler lid and the body.
2. Loosen the fuel-filler lid installation bolts, and adjust the fuel-filler lid.



Standard clearance

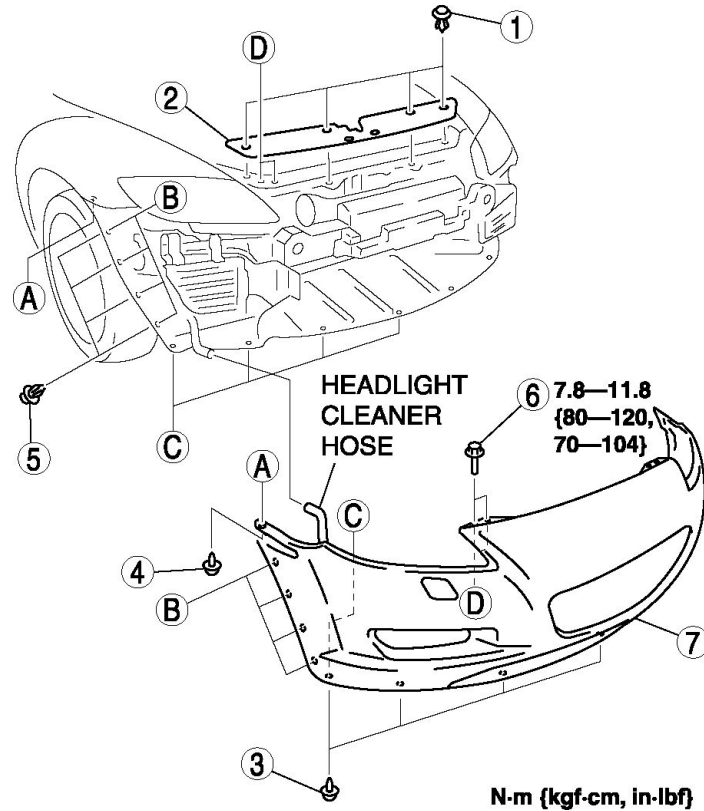
- a: 1.7—3.7 mm {0.07—0.14 in}
 - b: -0.5—1.5 mm {-0.01—0.05 in}
 - c: -1.0—1.0 mm {-0.03—0.03 in}
 - d: 1.8—3.8 mm {0.08—0.14 in}
 - e: 1.7—3.7 mm {0.07—0.14 in}
 - f: -0.8—1.2 mm {-0.03—0.04 in}
3. Tighten the bolts.

BUMPER

FRONT BUMPER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Disconnect the front fog light connectors for vehicles with front fog lights.
3. Remove the front side marker lights.
4. Remove in the order indicated in the table.

1	Fastener A
2	Seal plate
3	Screw A
4	Screw B
5	Fastener B
6	Bolt
7	Front bumper



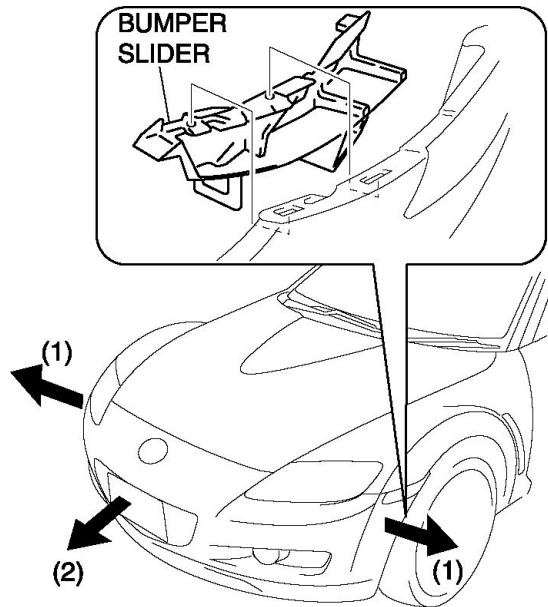
5. Disconnect the headlight cleaner hose for vehicles with the headlight cleaner.
6. Install in the reverse order of removal.
7. Adjust the front fog light aiming for vehicles with the front fog lights.

Front Bumper Removal Note

1. Pull the front bumper ends (wheel arch) outward to detach from the bumper slider.

CAUTION:

- When detaching the front bumper from the bumper slider, the front bumper could fall and be damaged. Secure the front bumper so that it does not fall.



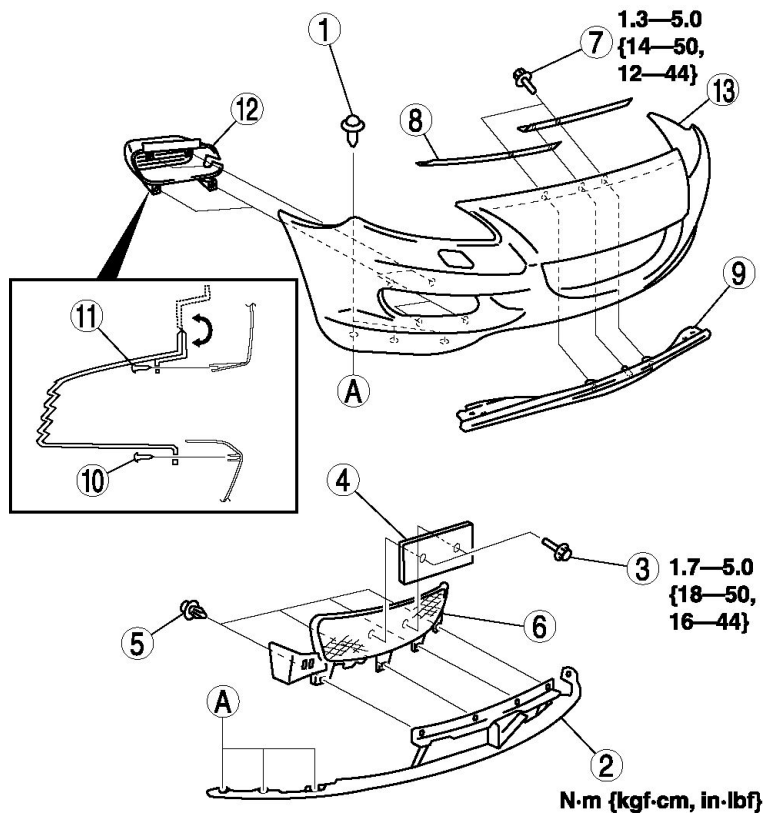
2. Remove the front bumper from the body.

Front Bumper Installation Note

1. Spread the front bumper ends apart.
2. Attach the front bumper to the body.
3. Press the front bumper connecting area into the body to engage with the bumper slider.

FRONT BUMPER DISASSEMBLY/ASSEMBLY

1. To disassemble the front bumper, remove the following parts:
 - a. Front fog lights (Vehicles with the front fog lights)
 - b. Headlight cleaner hose (Vehicles with the headlight cleaner)
 - c. Headlight cleaner nozzles (Vehicles with the headlight cleaner)
 - d. Headlight cleaner actuator (Vehicles with the headlight cleaner)
2. Disassemble in the order indicated in the table.

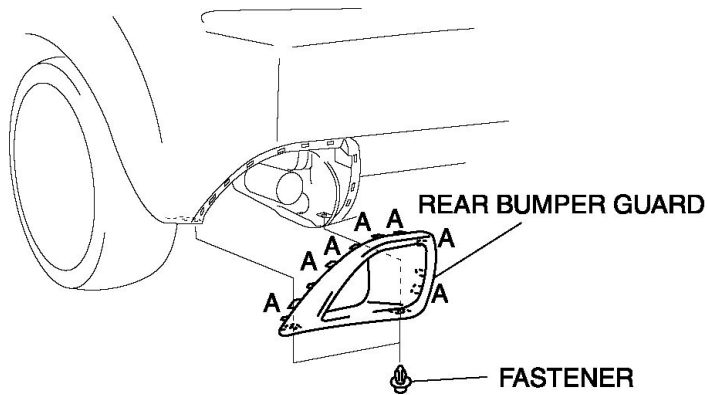


1	Screw A
2	Airdam skirt
3	Bolt A
4	License plate holder
5	Fastener
6	Front bumper mesh
7	Bolt B
8	Set plate
9	Front bumper retainer No.1
10	Screw B
11	Screw C
12	Front fog light hole cover
13	Front bumper fascia

3. Assemble in the reverse order of disassembly.

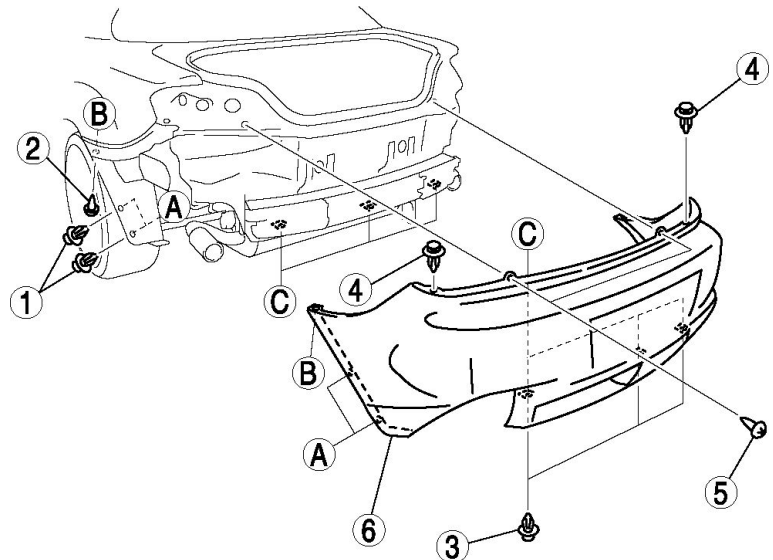
REAR BUMPER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the trunk end trim.
3. Remove the trunk side trim.(
4. Remove the rear combination lights.
5. Remove the fasteners.
6. Pull the rear bumper guard outward, detach tabs A, and then remove the rear bumper guard.



7. Remove in the order indicated in the table.

1	Fastener A
2	Screw A
3	Fastener B
4	Fastener C
5	Screw B
6	Rear bumper



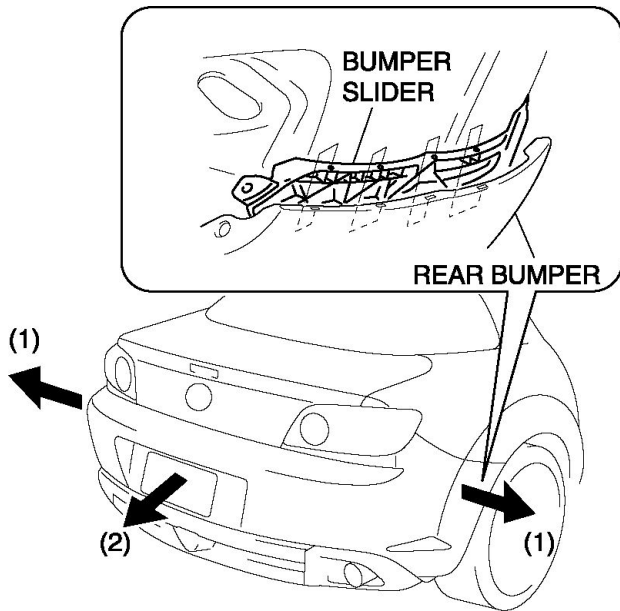
8. Install in the reverse order of removal.

Rear Bumper Removal Note

1. Pull the rear bumper ends (wheel arch) outward to detach from the bumper slider.

CAUTION:

- When detaching the rear bumper from the bumper slider, the rear bumper could fall and be damaged. Secure the rear bumper so that it does not fall.

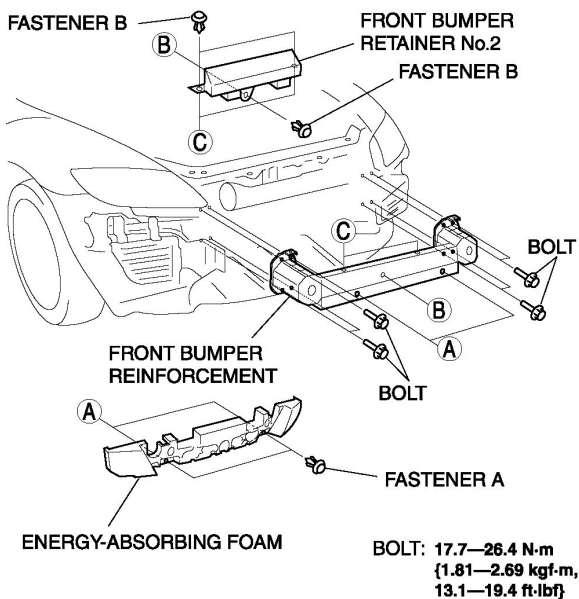


Rear bumper Installation Note

1. Spread the rear bumper ends (wheel arches) apart.
2. Attach the rear bumper to the body.
3. Press the rear bumper connecting area into the body to engage with the bumper slider.

FRONT BUMPER REINFORCEMENT REMOVAL/INSTALLATION

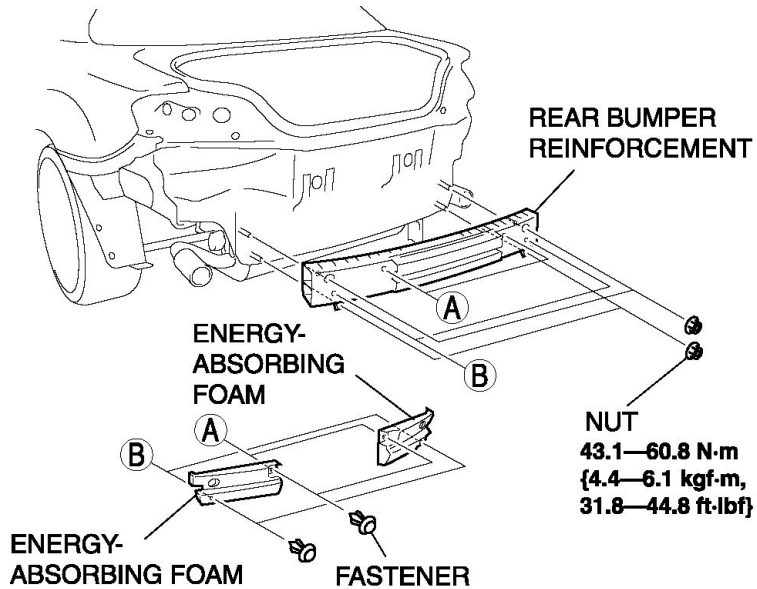
1. Disconnect the negative battery cable.
2. Remove the front side marker lights.
3. Remove the front bumper.
4. Remove fasteners A, then remove the energy-absorbing foam.



5. Remove fasteners B, then remove front bumper retainer No.2.
6. Remove the bolts, then remove the front bumper reinforcement.
7. Install in the reverse order of removal.

REAR BUMPER REINFORCEMENT REMOVAL/INSTALLATION

1. Remove the following parts:
 - a. Trunk end trim
 - b. Trunk side trim
 - c. Rear combination lights
 - d. Rear bumper
2. Remove the fasteners, then remove the energy-absorbing foam.

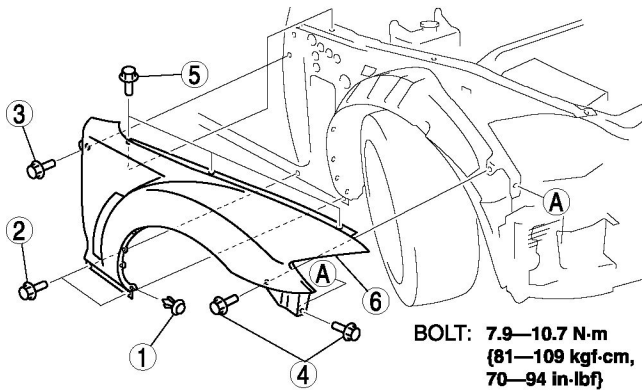


3. Remove the nuts, then remove the rear bumper reinforcement.
4. Install in the reverse order of removal.

FRONT FENDER PANEL

FRONT FENDER PANEL REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the front side marker lights.
3. Remove the front bumper.
4. Remove the front combination lights.
5. Remove in the order indicated in the table.

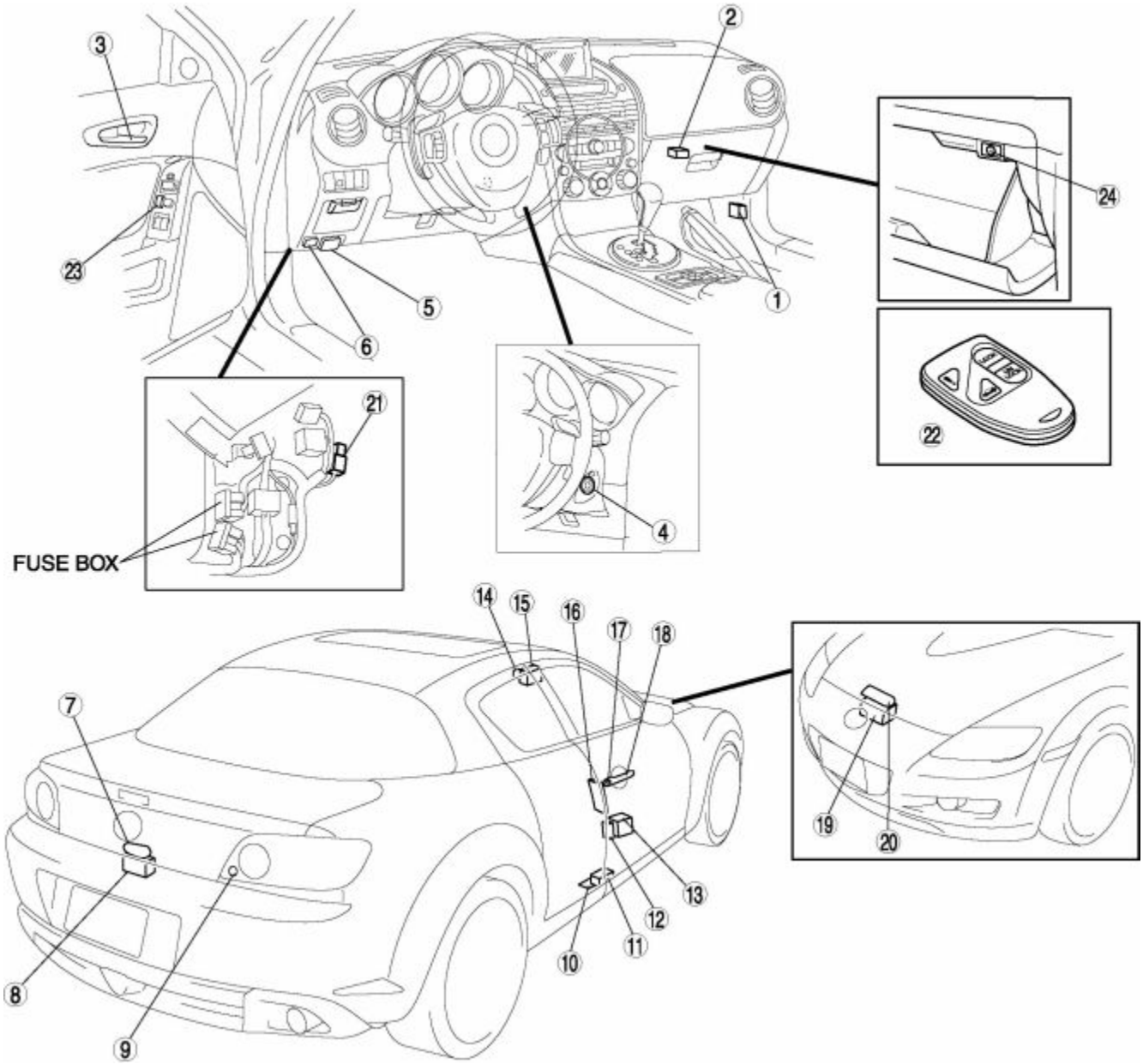


1	Fastener
2	Bolt A
3	Bolt B
4	Bolt C
5	Bolt D
6	Front fender panel

6. Install in the reverse order of removal.

SECURITY AND LOCKS

SECURITY AND LOCKS LOCATION INDEX



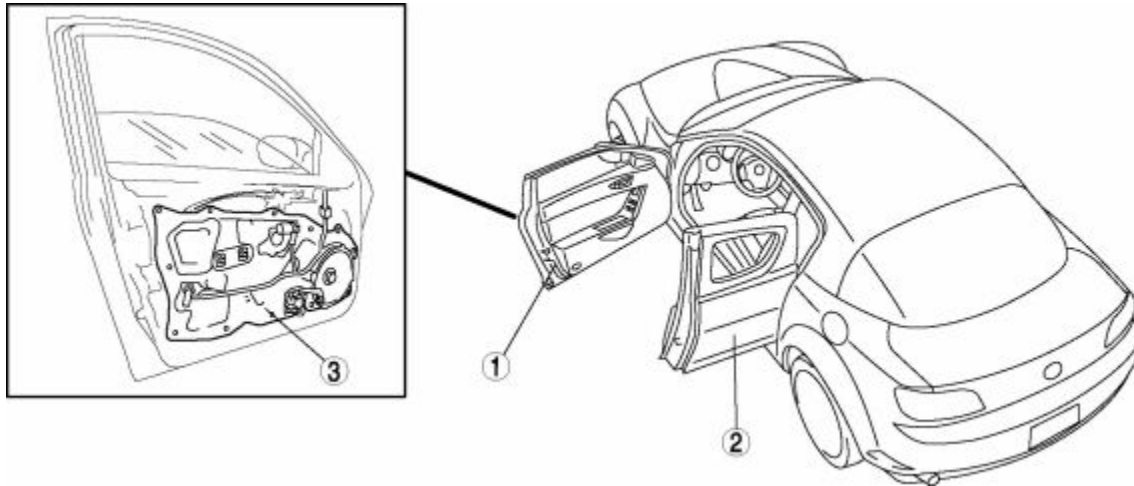
1	Keyless control module (See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .) (See KEYLESS CONTROL MODULE INSPECTION .)
2	Keyless receiver (See KEYLESS RECEIVER REMOVAL/INSTALLATION .) (See KEYLESS RECEIVER INSPECTION .)
3	Front inner handle (See FRONT INNER HANDLE REMOVAL/INSTALLATION .)
4	Coil (See COIL REMOVAL/INSTALLATION .)
5	Hood release lever (See HOOD LATCH AND RELEASE LEVER REMOVAL/INSTALLATION .) (See HOOD LATCH SWITCH INSPECTION .)
6	Trunk lid opener switch (See TRUNK LID OPENER SWITCH REMOVAL/INSTALLATION .) (See TRUNK LID OPENER SWITCH INSPECTION .)
7	Trunk lid striker (See TRUNK LID STRIKER REMOVAL/INSTALLATION .)
8	Trunk lid latch and opener (See TRUNK LID LATCH AND OPENER REMOVAL/INSTALLATION .) (See TRUNK LID OPENER INSPECTION .)
9	Trunk key cylinder (See TRUNK KEY CYLINDER REMOVAL/INSTALLATION .) (See TRUNK KEY CYLINDER SWITCH INSPECTION .)
10	Rear door lock striker (lower) (See REAR DOOR LOCK STRIKER REMOVAL/INSTALLATION .)
11	Rear door lower latch (See REAR DOOR LOWER LATCH REMOVAL/INSTALLATION .) (See REAR DOOR LOWER LATCH SWITCH INSPECTION .)
12	Front door lock striker (See FRONT DOOR LOCK STRIKER REMOVAL/INSTALLATION .)
13	Front door latch and lock actuator

	(See FRONT DOOR LATCH AND LOCK ACTUATOR REMOVAL/INSTALLATION .) (See FRONT DOOR LOCK ACTUATOR INSPECTION .)
14	Rear door lock striker (upper) (See REAR DOOR LOCK STRIKER REMOVAL/INSTALLATION .)
15	Rear door upper latch (See REAR DOOR UPPER LATCH REMOVAL/INSTALLATION .) (See REAR DOOR UPPER LATCH SWITCH INSPECTION .)
16	Rear door release handle (See REAR DOOR RELEASE HANDLE REMOVAL/INSTALLATION .)
17	Front door key cylinder (See FRONT DOOR KEY CYLINDER REMOVAL/INSTALLATION .)
18	Front outer handle (See FRONT OUTER HANDLE REMOVAL/INSTALLATION .)
19	Hood latch (See HOOD LATCH AND RELEASE LEVER REMOVAL/INSTALLATION .)
20	Hood striker (See HOOD STRIKER REMOVAL/INSTALLATION .)
21	Trunk lid opener relay (See RELAY INSPECTION .)
22	Transmitter (See TRANSMITTER BATTERY REPLACEMENT .) (See TRANSMITTER BATTERY INSPECTION .) (See TRANSMITTER ID CODE CHANGE .)
23	Door lock switch (See DOOR LOCK SWITCH REMOVAL/INSTALLATION .) (See DOOR LOCK SWITCH INSPECTION .)
24	Trunk opener cancel switch (See TRUNK LID OPENER CANCEL SWITCH REMOVAL/INSTALLATION .) (See TRUNK LID OPENER CANCEL SWITCH INSPECTION .)

DOORS AND LIFTGATE

DOOR

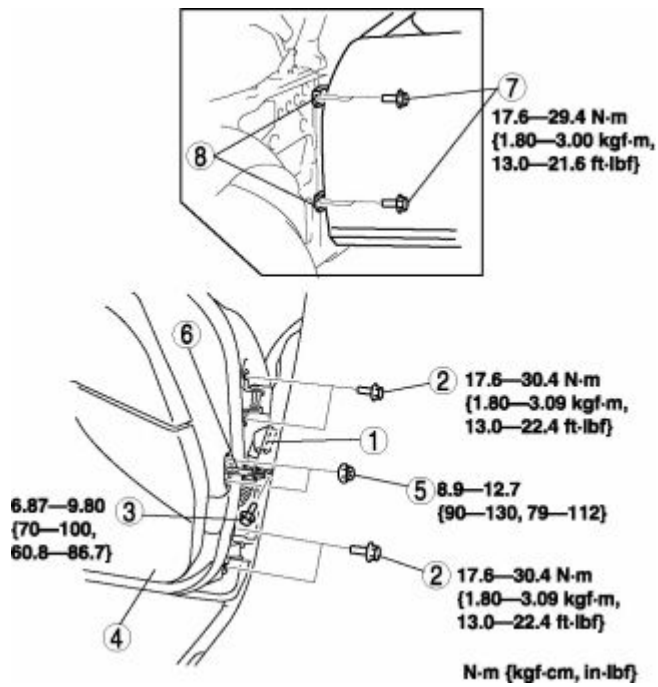
DOOR LOCATION INDEX



1	Front door (See FRONT DOOR REMOVAL/INSTALLATION .) (See DOOR ADJUSTMENT .)
2	Rear door (See REAR DOOR REMOVAL/INSTALLATION .) (See REAR DOOR ASSEMBLY/DISASSEMBLY .) (See DOOR ADJUSTMENT .)
3	Front door unit (See FRONT DOOR UNIT REMOVAL/INSTALLATION .)

FRONT DOOR REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. To remove the checker, remove the following parts:
 - a. Inner garnish (See INNER GARNISH REMOVAL/INSTALLATION .)
 - b. Front door trim (See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
 - c. Front door speaker (See FRONT DOOR SPEAKER REMOVAL/INSTALLATION .)
3. To remove the front door hinge, remove the following parts:
 - a. Front bumper (See FRONT BUMPER REMOVAL/INSTALLATION .)
 - b. Front fender panel (See FRONT FENDER PANEL REMOVAL/INSTALLATION .)
4. Remove in the order indicated in the table.

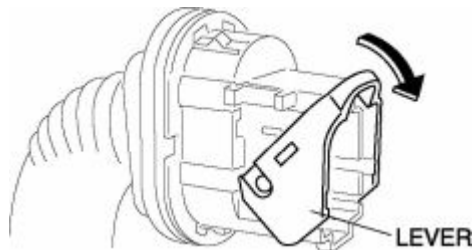


1	Connector (See Connector Removal Note .)
2	Bolt A
3	Bolt B
4	Front door
5	Nut
6	Checker
7	Bolt C
8	Front door hinge

5. Install in the reverse order of removal.
6. Adjust the front door. (See DOOR ADJUSTMENT .)

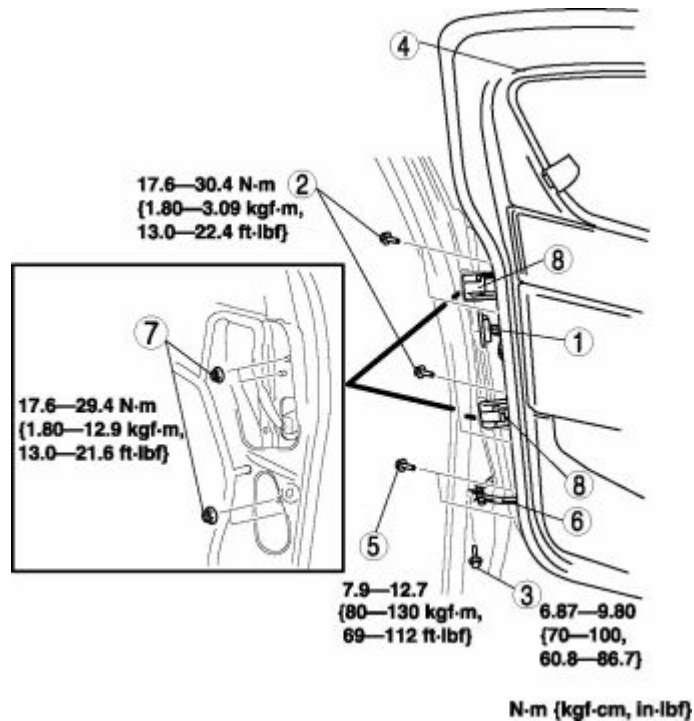
Connector Removal Note

1. Pull the rubber boot outward.
2. Pull down the lever in the direction indicated by the arrow and disconnect the connector.



REAR DOOR REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the rear seat cushion. (See REAR SEAT REMOVAL/INSTALLATION .)
3. Remove the seat belt rail. (See FRONT SEAT BELT REMOVAL/INSTALLATION .)
4. To remove the checker, remove the following parts:
 - a. Rear door lower trim (See REAR DOOR LOWER TRIM REMOVAL/INSTALLATION .)
5. To remove the rear door hinge, remove the following parts:
 - a. Rear seat cushion (See REAR SEAT REMOVAL/INSTALLATION .)
 - b. Tire house trim (See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
6. Remove in the order indicated in the table.

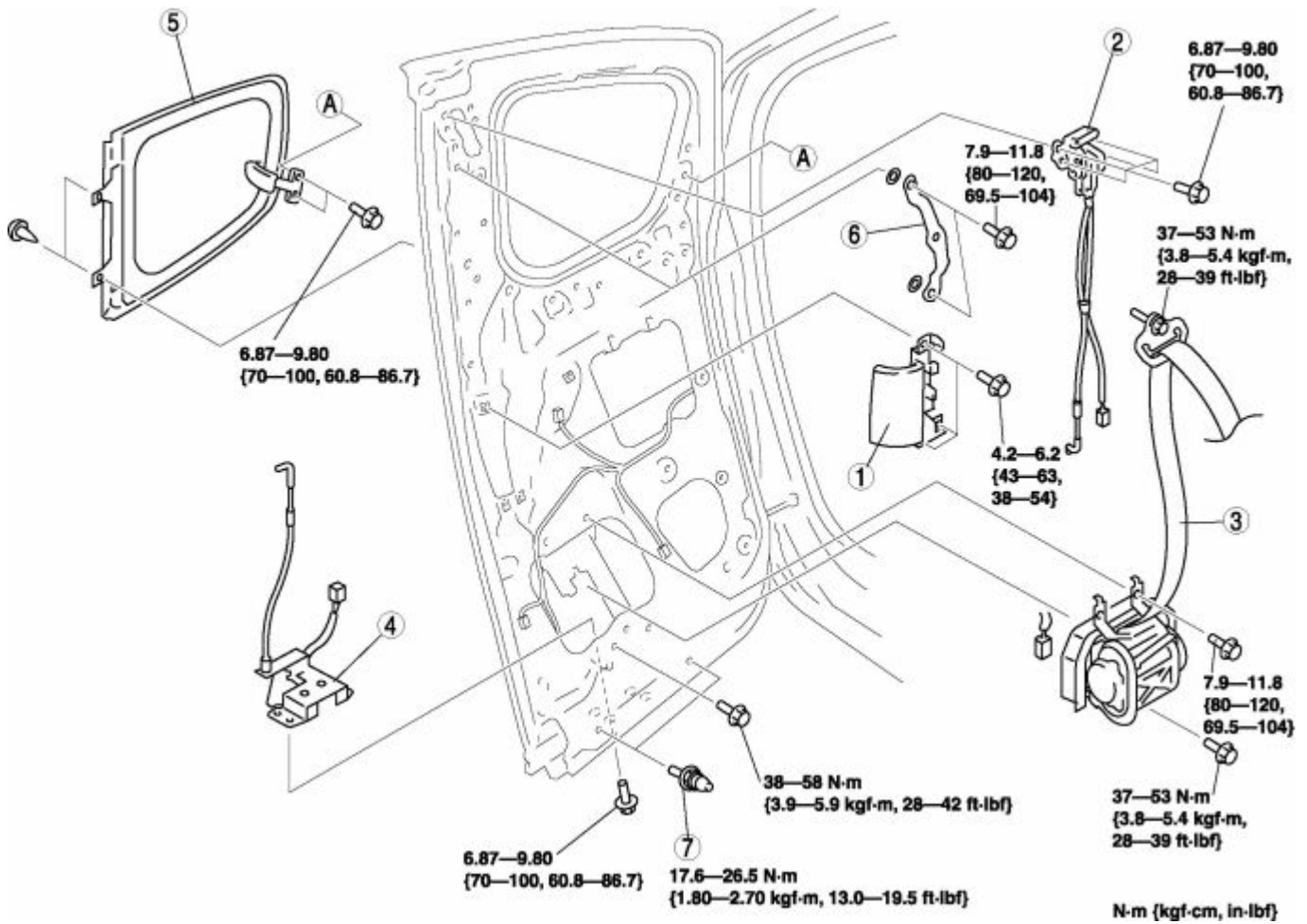


1	Connector
2	Bolt A
3	Bolt B
4	Rear door
5	Bolt C
6	Checker
7	Nut
8	Rear door hinge

7. Install in the reverse order of removal.
8. Adjust the rear door. (See DOOR ADJUSTMENT .)

REAR DOOR ASSEMBLY/DISASSEMBLY

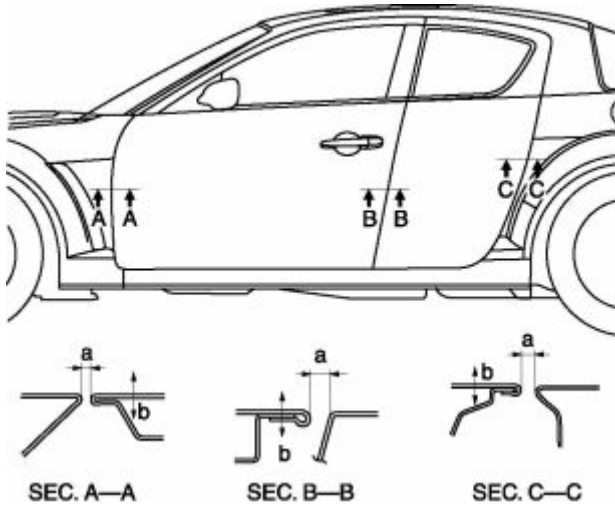
1. Disassemble in the order indicated in the table.
2. Assemble in the reverse order of disassembly.



1	Rear door release handle
2	Rear door upper latch
3	Front seat belt retractor
4	Rear door lower latch
5	Rear door glass
6	Bracket
7	Catch pin

DOOR ADJUSTMENT

1. Measure the gap and height difference between the front or rear door and the body.
2. Loosen the door hinge installation bolts or the door lock striker installation screws, and adjust the door.



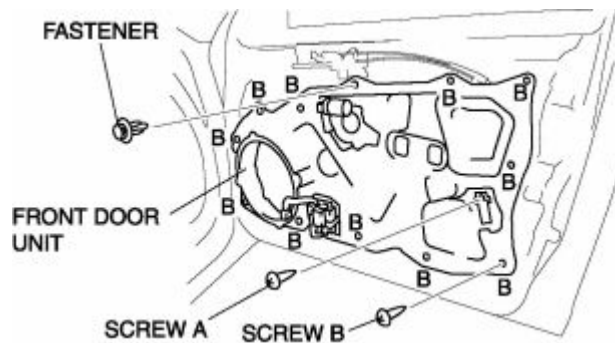
Standard clearance

- a: 3.0—5.0 mm {0.12—0.20 in}
 - b: -1.0—1.0 mm {-0.03—0.04 in}
3. Tighten the bolts or screws.

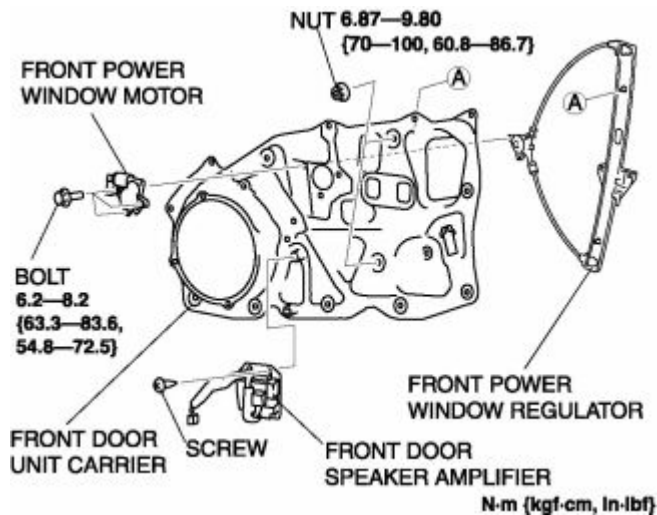
DOOR UNIT

FRONT DOOR UNIT REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Inner garnish (See INNER GARNISH REMOVAL/INSTALLATION .)
 - b. Front door trim (See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
 - c. Front door glass (See FRONT DOOR GLASS REMOVAL/INSTALLATION .)
 - d. Front door speaker (See FRONT DOOR SPEAKER REMOVAL/INSTALLATION .)
3. Disconnect the door lock actuator connector.
4. Remove the front door wiring harness from the front door unit.
5. Remove screw A.



6. Remove screws B and the fastener.
7. Remove the front door unit.
8. Remove the following parts:



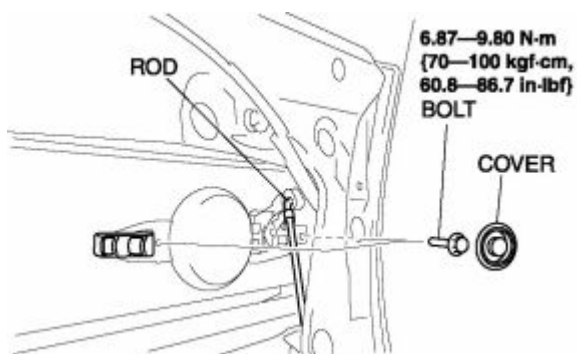
- Front power window motor
 - Front power window regulator
 - Front door speaker amplifier
9. Install in the reverse order of removal.

OPEN HANDLE

FRONT OUTER HANDLE REMOVAL/INSTALLATION

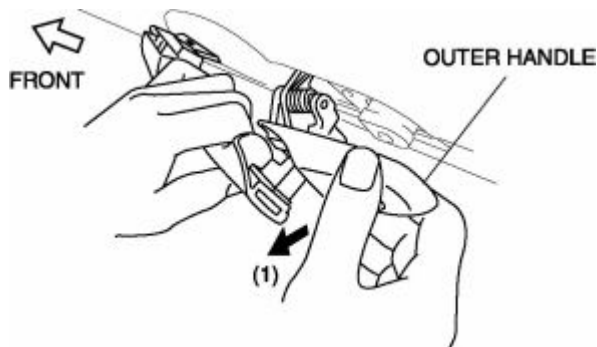
1. Remove the following parts:
 - a. Inner garnish (See INNER GARNISH REMOVAL/INSTALLATION .)
 - b. Front door trim (See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
 - c. Front door glass (See FRONT DOOR GLASS REMOVAL/INSTALLATION .)
 - d. Front door speaker (See FRONT DOOR SPEAKER REMOVAL/INSTALLATION .)
 - e. Front door unit (See FRONT DOOR UNIT REMOVAL/INSTALLATION .)

2. Detach the rod from the outer handle.



3. Remove the cover.
4. Remove the bolts.

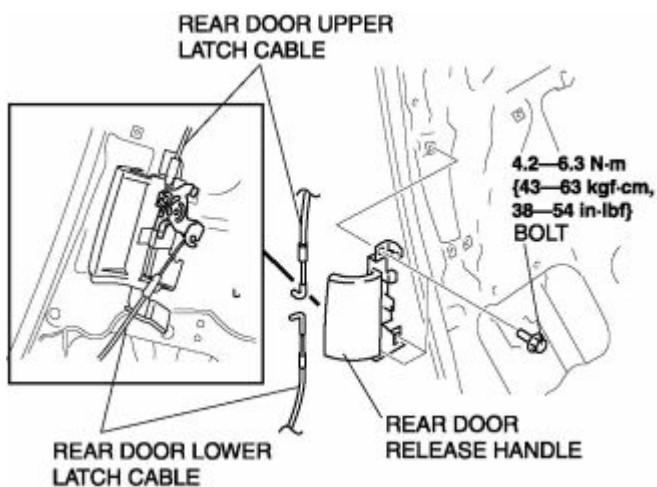
- Secure the rear part of the front outer handle and, with the front outer handle lever pulled outward (1), remove the rear part of the front outer handle from the front door.



- Pull out the front part of the front outer handle from the front door.
- Install in the reverse order of removal.

REAR DOOR RELEASE HANDLE REMOVAL/INSTALLATION

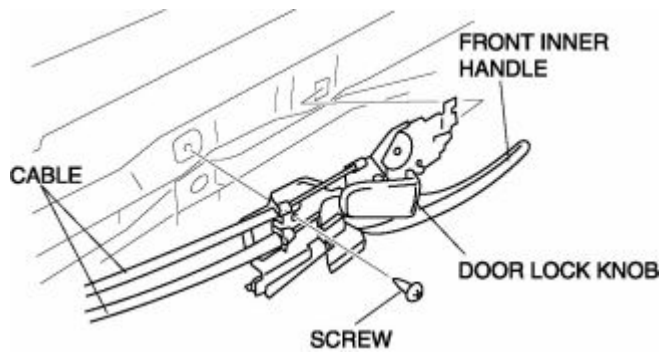
- Remove the rear door lower trim. (See REAR DOOR LOWER TRIM REMOVAL/INSTALLATION .)
- Remove the rear door upper trim. (See REAR DOOR UPPER TRIM REMOVAL/INSTALLATION .)
- Remove the bolts, then remove the rear door release handle.



4. Detach the rear door upper and lower latch cables.
5. Install in the reverse order of removal.

FRONT INNER HANDLE REMOVAL/INSTALLATION

1. Remove the inner garnish. (See INNER GARNISH REMOVAL/INSTALLATION .)
2. Remove the front door trim. (See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
3. Remove the screws, then remove the front inner handle.

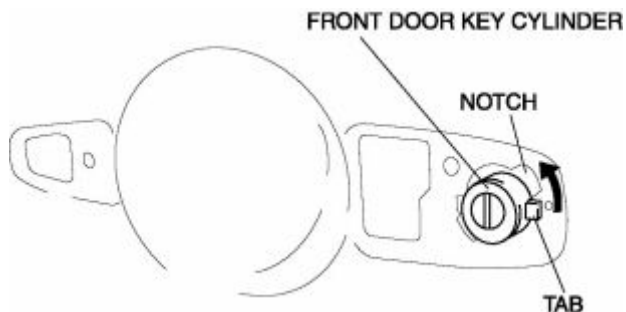


4. Detach the cables from the front inner handle and door lock knob.
5. Install in the reverse order of removal.

DOOR LOCK AND OPENER

FRONT DOOR KEY CYLINDER REMOVAL/INSTALLATION

1. Remove the following parts:
 - a. Inner garnish (See INNER GARNISH REMOVAL/INSTALLATION .)
 - b. Front door trim (See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
 - c. Front door glass (See FRONT DOOR GLASS REMOVAL/INSTALLATION .)
 - d. Front door speaker (See FRONT DOOR SPEAKER REMOVAL/INSTALLATION .)
 - e. Front door unit (See FRONT DOOR UNIT REMOVAL/INSTALLATION .)
 - f. Front outer handle (See FRONT OUTER HANDLE REMOVAL/INSTALLATION .)
2. Detach the front door key cylinder rod.
3. Turn the front door key cylinder so that the tab is aligned with the notch.



4. Remove the front door key cylinder by pulling it out from the front door.

5. Install in the reverse order of removal.

FRONT DOOR LATCH AND LOCK ACTUATOR REMOVAL/INSTALLATION

1. Remove the following parts:
 - a. Inner garnish (See INNER GARNISH REMOVAL/INSTALLATION .)

 - b. Front door trim (See FRONT DOOR TRIM REMOVAL/INSTALLATION .)

 - c. Front door glass (See FRONT DOOR GLASS REMOVAL/INSTALLATION .)

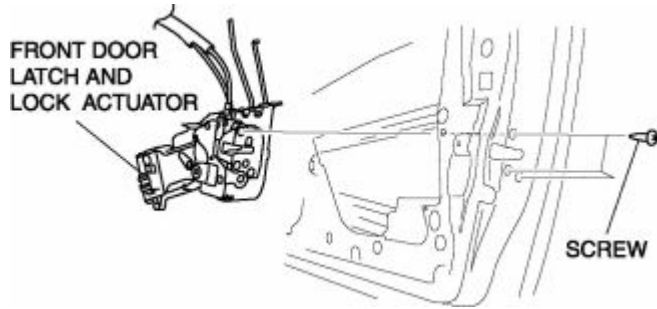
 - d. Front door speaker (See FRONT DOOR SPEAKER REMOVAL/INSTALLATION .)

 - e. Front door unit (See FRONT DOOR UNIT REMOVAL/INSTALLATION .)

2. Detach the cables from the inner handle and the door lock knob.

3. Detach the rods from the key cylinder and the front outer handle.

4. Remove the screws, then remove the front door latch and lock actuator.

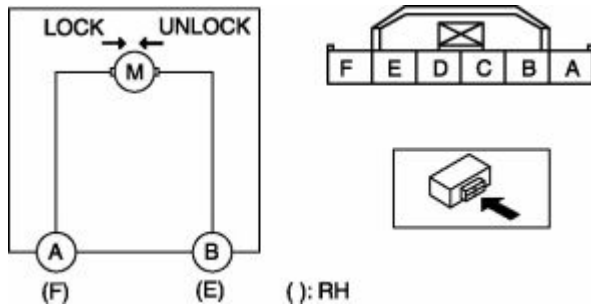


5. Install in the reverse order of removal.

FRONT DOOR LOCK ACTUATOR INSPECTION

Door Lock Actuator

1. Disconnect the front door lock actuator connector.
2. Apply battery positive voltage and connect the ground to the corresponding front door lock actuator terminals and inspect the front door lock actuator operation.



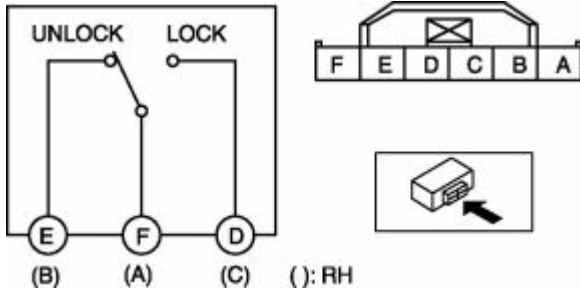
- If not as specified, replace the front door lock actuator.

Actuator operation	Connection	
	B+	GND
Lock	A	B
	(F)	(E)
Unlock	B	A
	(E)	(F)

()
RH

Door Lock-link Switch

1. Disconnect the front door lock actuator connector.
2. Inspect for continuity between the door lock-link switch terminals.



- If not as specified, replace the front door lock actuator.

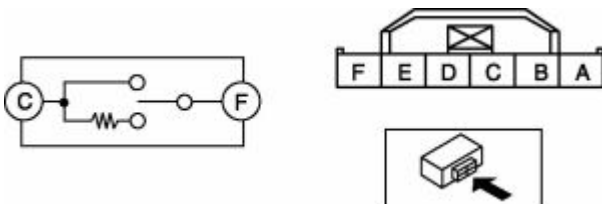
○—○ : Continuity

Lock knob position	Terminal		
	E (B)	F (A)	D (C)
Lock		○—○	
Unlock	○—○		

(): RH

Door Key Cylinder Switch

1. Disconnect the front door lock actuator connector.
2. Inspect for continuity between the door lock-link switch terminals.



- If not as specified, replace the front door lock actuator.

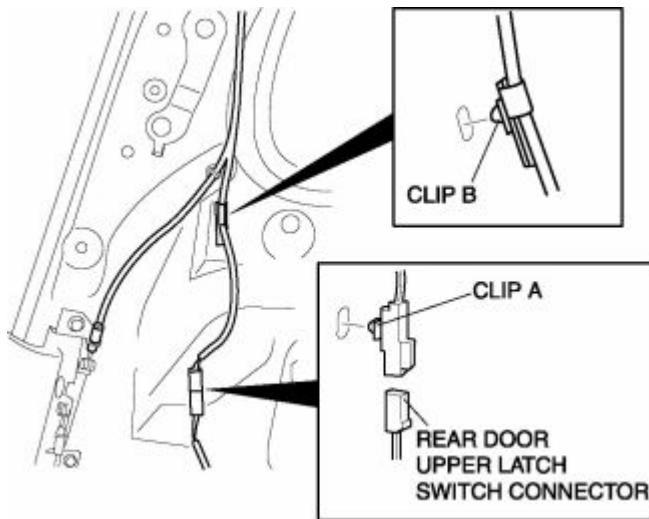
○—○ : Continuity ○≡○ : Resistance

Key cylinder position	Terminal	
	C	F
Neutral		
Lock	○——○	○ R
Unlock	○—	○

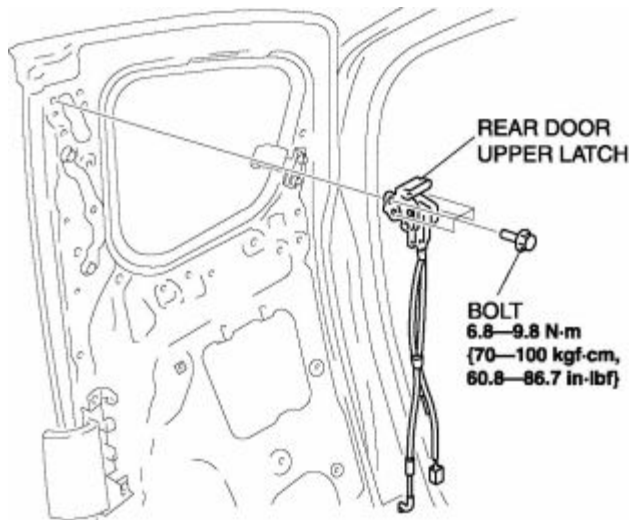
R: 950—1050 ohms

REAR DOOR UPPER LATCH REMOVAL/INSTALLATION

1. Remove the rear door lower trim. (See REAR DOOR LOWER TRIM REMOVAL/INSTALLATION .)
2. Remove the rear door upper trim. (See REAR DOOR UPPER TRIM REMOVAL/INSTALLATION .)
3. Remove clips A and B, and disconnect the rear door upper latch switch connector.



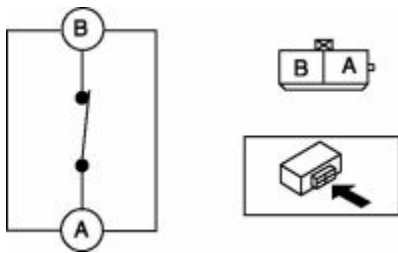
4. Remove the rear door upper latch cable from the release handle.
5. Remove the bolts, then remove the rear door upper latch.



6. Install in the reverse order of removal.

REAR DOOR UPPER LATCH SWITCH INSPECTION

1. Verify that the continuity is as indicated in the table.



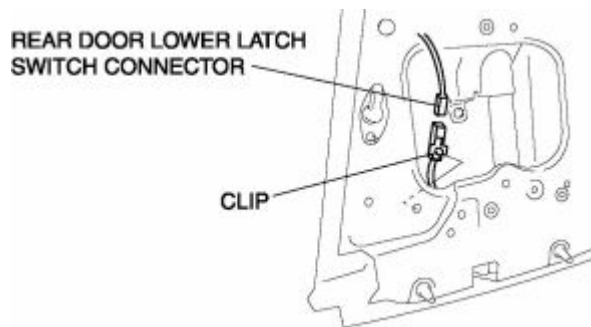
- If not as indicated in the table, replace the rear door upper latch.

○—○ :Continuity

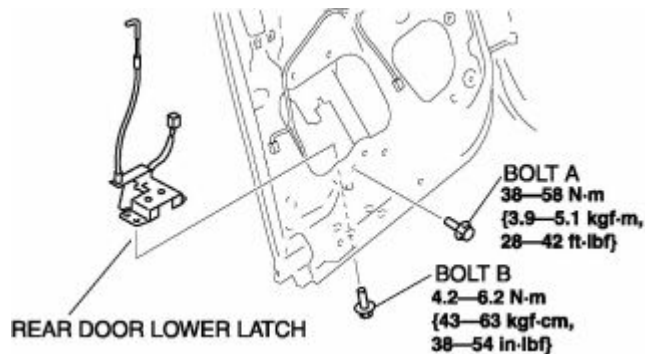
Switch position	Terminal	
	A	B
on (Rear door is open)	○—○	○—○
off (Rear door is closed)		

REAR DOOR LOWER LATCH REMOVAL/INSTALLATION

1. Remove the rear door lower trim. (See REAR DOOR LOWER TRIM REMOVAL/INSTALLATION .)
2. Remove the rear door upper trim. (See REAR DOOR UPPER TRIM REMOVAL/INSTALLATION .)
3. Remove the front seat belt retractor. (See FRONT SEAT BELT REMOVAL/INSTALLATION .)
4. Remove the rear door release handle. (See REAR DOOR RELEASE HANDLE REMOVAL/INSTALLATION .)
5. Detach the clip and disconnect the rear door lower latch switch connector.



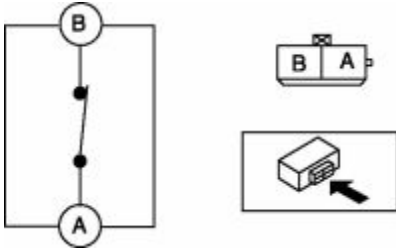
6. Remove bolt A.
7. Remove bolts B, then remove the rear door lower latch.



8. Install in the reverse order of removal.
9. Adjust the door. (See DOOR ADJUSTMENT .)

REAR DOOR LOWER LATCH SWITCH INSPECTION

1. Verify that the continuity is as indicated in the table.



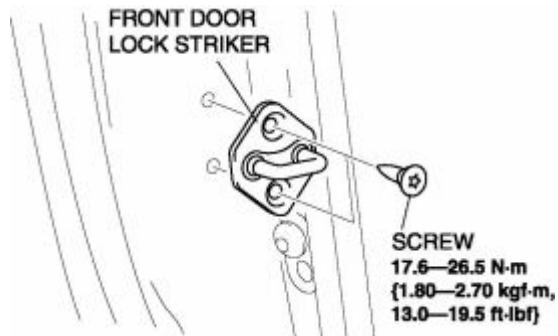
- If not as indicated in the table, replace the rear door lower latch.

○—○ :Continuity

Switch position	Terminal	
	A	B
on (Rear door is open)	○—○	○—○
off (Rear door is closed)		

FRONT DOOR LOCK STRIKER REMOVAL/INSTALLATION

1. Remove the screws, and then remove the front door lock striker.



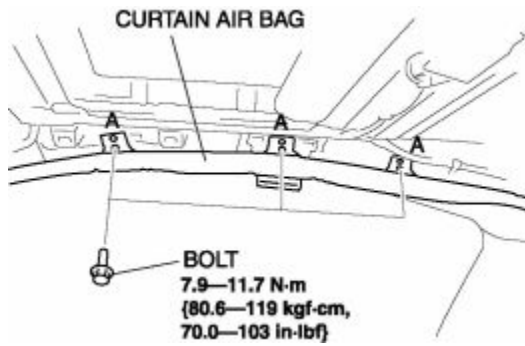
2. Install in the reverse order of removal.
3. Adjust the door. (See DOOR ADJUSTMENT .)

REAR DOOR LOCK STRIKER REMOVAL/INSTALLATION

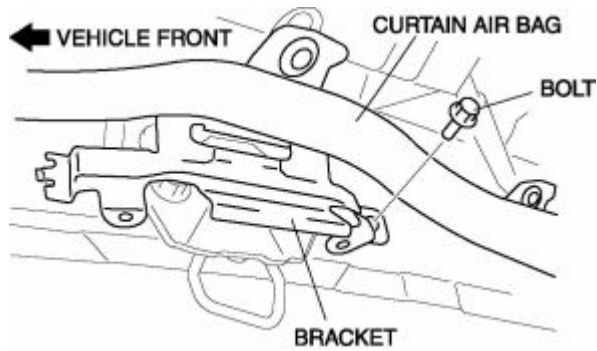
Upper

1. Remove the following parts:
 - a. A-pillar trim (See A-PILLAR TRIM REMOVAL/INSTALLATION .)
 - b. Sunvisor (See SUNVISOR REMOVAL/INSTALLATION .)
 - c. Assist handle (See ASSIST HANDLE REMOVAL/INSTALLATION .)
 - d. Roof side trim (See ROOF SIDE TRIM REMOVAL/INSTALLATION .)
 - e. Inner scuff plate (See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
 - f. Rear seat (See REAR SEAT REMOVAL/INSTALLATION .)
 - g. Tire house trim (See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - h. Rear pillar trim (See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - i. Interior light (See INTERIOR LIGHT REMOVAL/INSTALLATION .)
 - j. Map light (See MAP LIGHT REMOVAL/INSTALLATION .)
 - k. Headliner (See HEADLINER REMOVAL/INSTALLATION .)

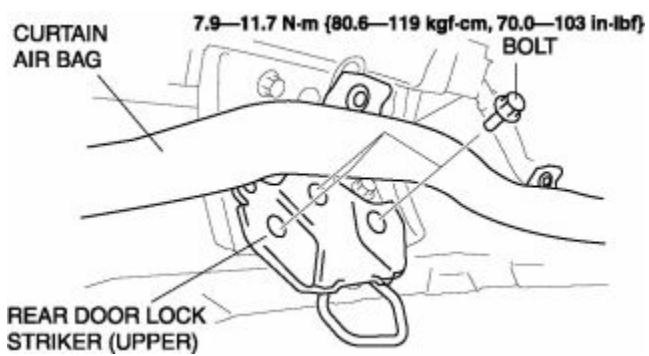
2. Remove the bolts A from the curtain air bag module.



3. Remove the bolt, then remove the bracket.



4. Remove the bolts, then remove the rear door lock striker (upper).

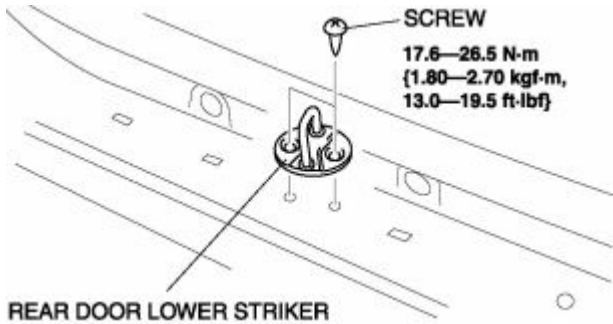


5. Install in the reverse order of removal.

6. Adjust the door. (See DOOR ADJUSTMENT .)

Lower

1. Remove the outer scuff plate. (See OUTER SCUFF PLATE REMOVAL/INSTALLATION .)
2. Remove the screws, then remove the rear door lock striker (lower).



3. Install in the reverse order of removal.
4. Adjust the door. (See DOOR ADJUSTMENT .)

DOOR LOCK SWITCH REMOVAL/INSTALLATION

LH

1. Remove the power window main switch. (See POWER WINDOW MAIN SWITCH REMOVAL/INSTALLATION .)

NOTE:

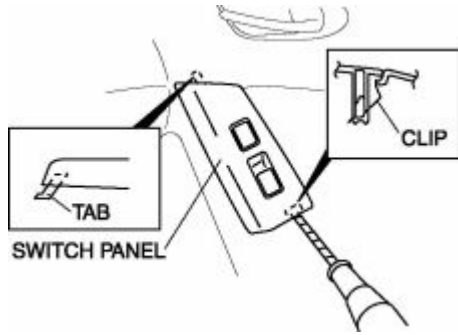
- The power door lock switch and the power window main switch are integrated.

2. Install in the reverse order of removal.

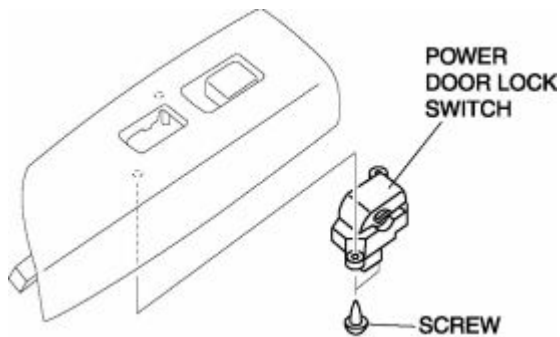
RH

1. Disconnect the negative battery cable.

- Using a flathead screwdriver wrapped with protective tape, pry up the rear of the switch panel and detach the clip .



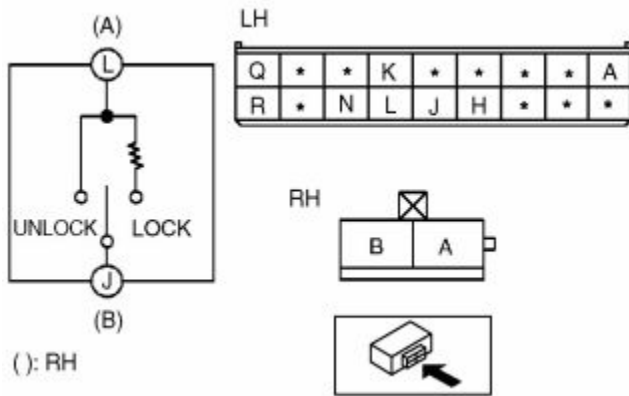
- Remove the switch panel from the front door trim keeping the tab from catching.
- Disconnect the power door lock switch connector and the power window subswitch connector.
- Remove the screws, then remove the power door lock switch.



- Install in the reverse order of removal.

DOOR LOCK SWITCH INSPECTION

- Inspect for continuity between the door lock switch terminals.



- If not as specified, replace the door lock switch.

○—○ : Continuity ○-W-○ : Resistance

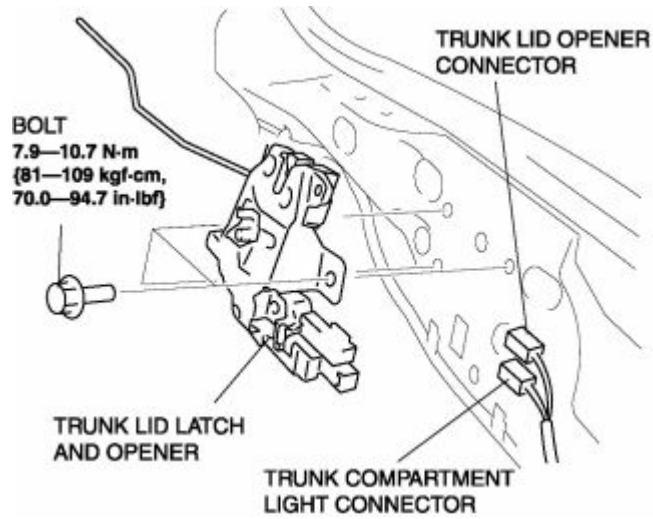
Position	Terminal	
	L (A)	J (B)
Lock	○—W—○	○—○
Unlock	○—○	○—○

(): RH R: 940—1060 ohms

TRUNK LID LOCK AND OPENER

TRUNK LID LATCH AND OPENER REMOVAL/INSTALLATION

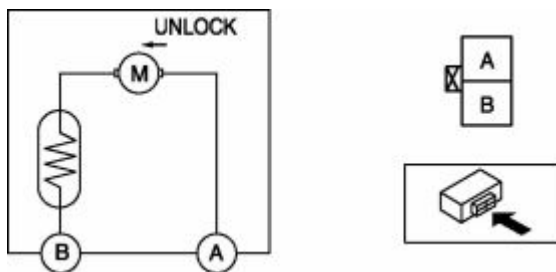
1. Disconnect the negative battery cable.
2. Remove the trunk end trim. (See TRUNK END TRIM REMOVAL/INSTALLATION .)
3. Detach the rod.
4. Disconnect the trunk lid opener connector and the trunk compartment light connector.



5. Remove the bolts, then remove the trunk lid latch and opener.
6. Install in the reverse order of removal.

TRUNK LID OPENER INSPECTION

1. Apply battery positive voltage and connect the ground to the corresponding the trunk lid opener terminals, and inspect the trunk lid opener operation.

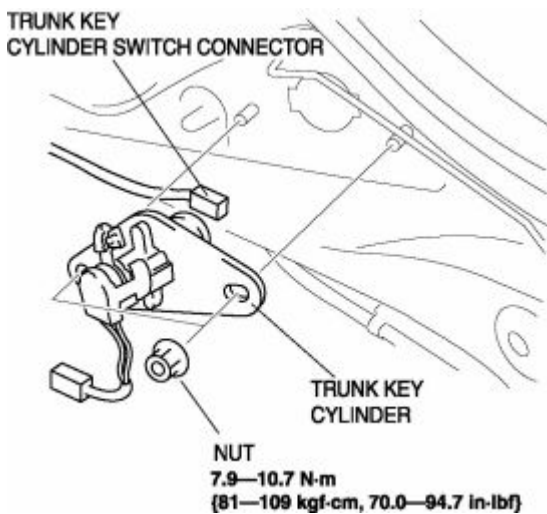


- If the trunk lid opener does not operate as indicated in the table, replace the trunk lid latch and opener.

Operation	Terminal	
	A	B
Unlocks	B+	Ground

TRUNK KEY CYLINDER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the trunk end trim. (See TRUNK END TRIM REMOVAL/INSTALLATION .)
3. Detach the rod.
4. Remove the nuts, then remove the trunk key cylinder.



5. Install in the reverse order of removal.

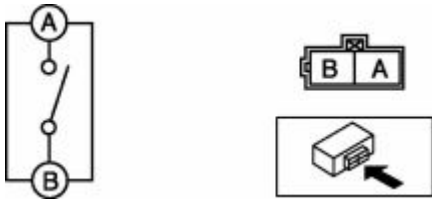
TRUNK KEY CYLINDER SWITCH INSPECTION

1. Remove the trunk key cylinder switch.
2. Inspect for continuity between the trunk key cylinder switch terminals.

○—○ : Continuity

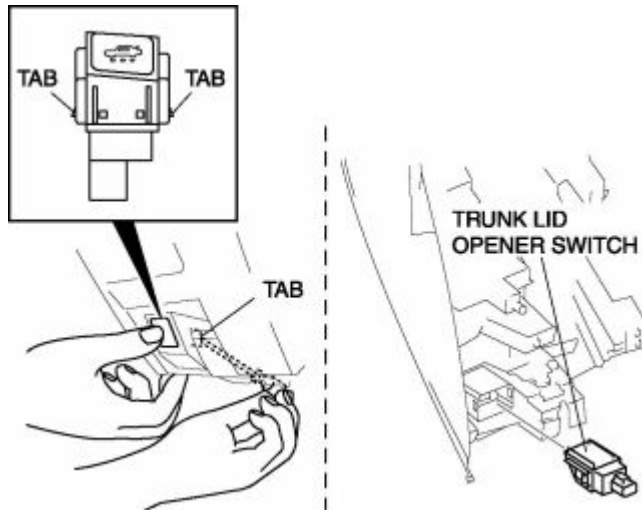
Operation	Terminal	
	A	B
On	○—○	○—○
Off		

- If not as specified, replace the trunk key cylinder.



TRUNK LID OPENER SWITCH REMOVAL/INSTALLATION

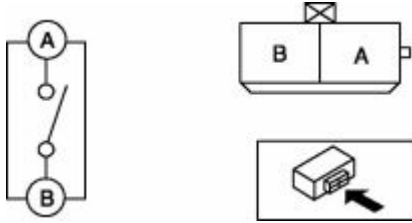
1. Disconnect the negative battery cable.
2. Using a small flathead screwdriver, detach the tabs of the trunk lid opener switch from the dashboard.



3. Push the trunk lid opener switch into the dashboard and remove.
4. Disconnect the trunk lid opener switch connector.
5. Install in the reverse order of removal.

TRUNK LID OPENER SWITCH INSPECTION

1. Remove the trunk lid open switch.
2. Inspect for continuity between the trunk lid open switch terminals.



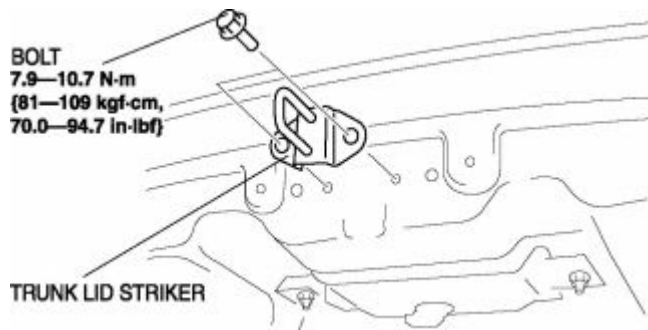
- If not as specified, replace the trunk lid open switch.

○—○ : Continuity

Operation	Terminal	
	A	B
On	○—○	○—○

TRUNK LID STRIKER REMOVAL/INSTALLATION

1. Remove the trunk end trim. (See TRUNK END TRIM REMOVAL/INSTALLATION .)
2. Remove the bolts, then remove the trunk lid striker.

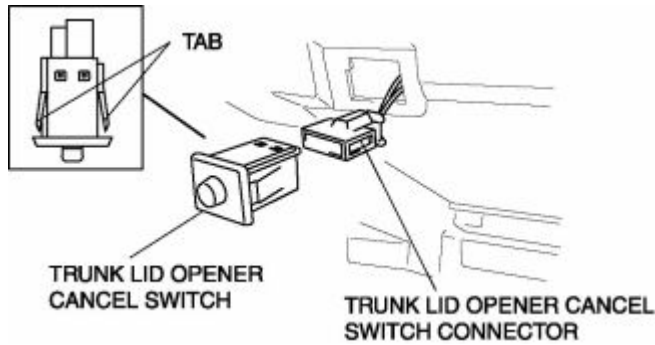


3. Install in the reverse order of removal.

TRUNK LID OPENER CANCEL SWITCH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.

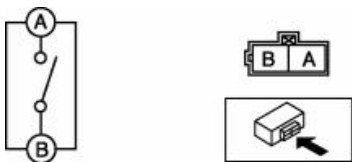
- Remove the glove compartment.
- Squeeze the tabs of the trunk lid opener cancel switch and pull it forward to remove it.



- Disconnect the trunk lid opener cancel switch connector.
- Remove the trunk lid opener cancel switch.
- Install in the reverse order of removal.

TRUNK LID OPENER CANCEL SWITCH INSPECTION

- Remove the trunk lid open cancel switch.
- Inspect for continuity between the trunk lid open cancel switch terminals.



- If not as specified, replace the trunk lid open cancel switch.

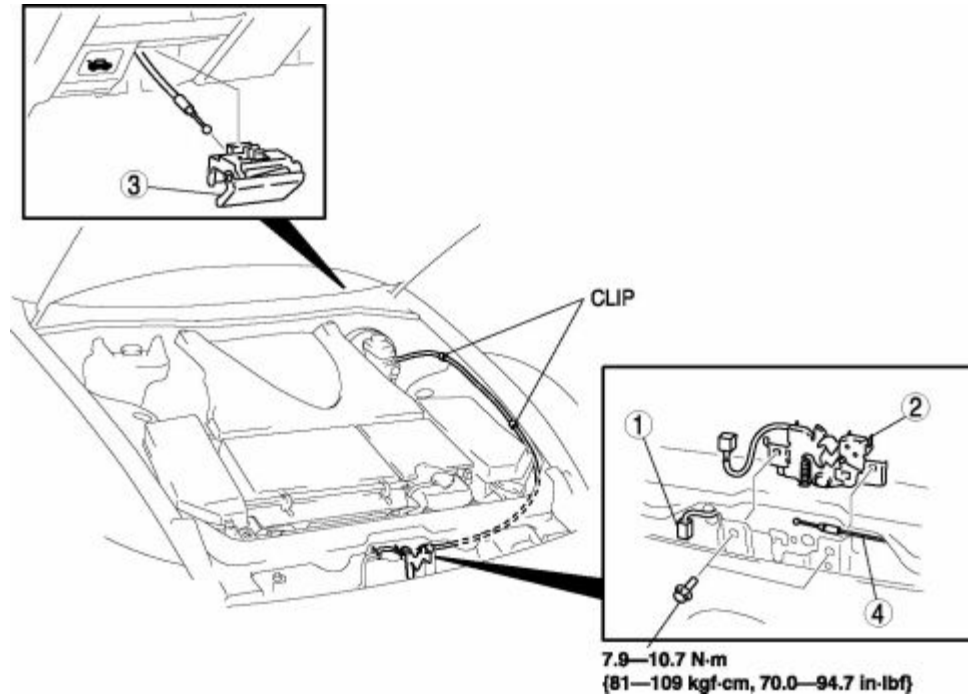
○—○ : Continuity

Operation	Terminal	
	A	B
On	○	○
Off		

HOOD LOCK AND OPENER

HOOD LATCH AND RELEASE LEVER REMOVAL/INSTALLATION

1. To remove the hood latch, remove the seal plate. (See FRONT BUMPER REMOVAL/INSTALLATION .)
2. Remove in the order indicated in the table.

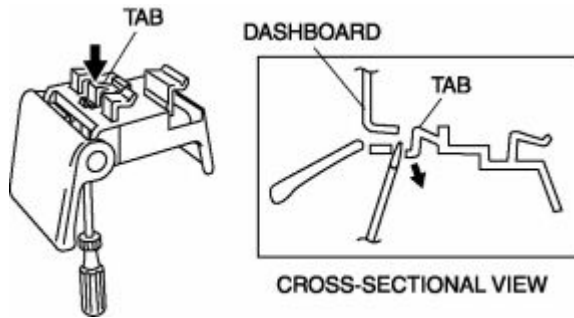


1	Connector
2	Hood latch
3	Hood release lever (See Hood Release Lever Removal Note .)
4	Hood release cable

3. Install in the reverse order of removal.
4. Adjust the hood. (See HOOD ADJUSTMENT .)

Hood Release Lever Removal Note

1. Pull the lever.
2. While pushing the tab in the direction of the arrow using a tape-wrapped, small flathead screwdriver, detach it from the dashboard.



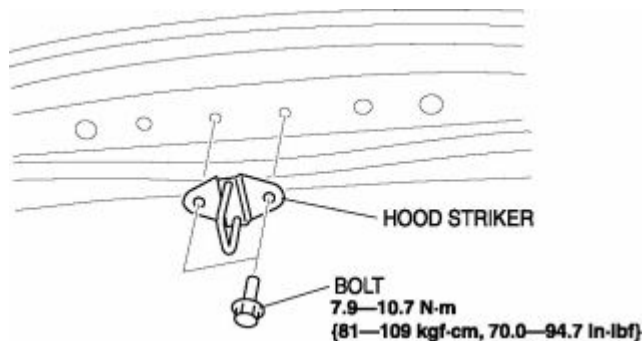
CAUTION:

- Remove the hood release lever while taking care not to damage the hood release cable with the flathead screwdriver.

3. Under the condition in Step 2, pull the hood release lever outward, then remove it from the dashboard.

HOOD STRIKER REMOVAL/INSTALLATION

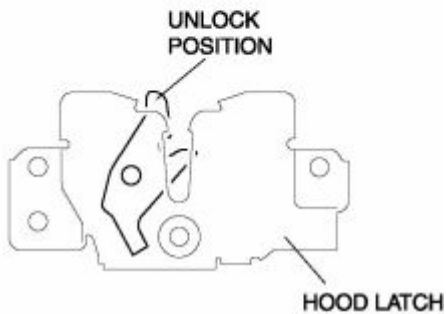
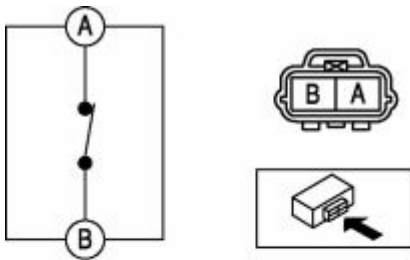
1. Remove the bolt, then remove the hood striker.



2. Install in the reverse order of removal.

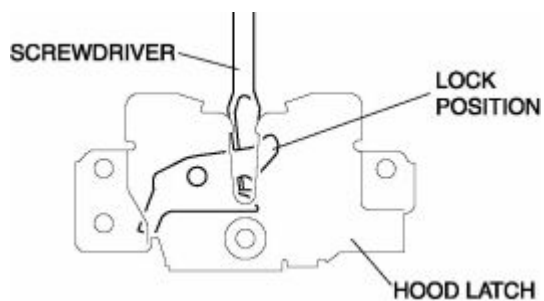
HOOD LATCH SWITCH INSPECTION

1. Open the hood.
2. Disconnect the negative battery cable.
3. Disconnect the hood latch switch connector.
4. Inspect for continuity between the hood latch switch terminals A and B.



- If there is no continuity, replace the hood latch switch.

5. Lock the hood latch using a flathead screwdriver or equivalent as shown.



6. Inspect for continuity between the hood latch switch terminals A and B
 - If there is continuity, replace the hood latch.

CAUTION:

- After the inspection, unlock the hood latch. If closing the hood with the hood latch locked, the hood latch and/or hood striker may be broken.

Notes:

FUEL-FILLER LID OPENER

FUEL-FILLER LID OPENER REMOVAL/INSTALLATION

1. To remove the fuel-filler lid opener, remove the trunk side trim (LH). (See TRUNK SIDE TRIM REMOVAL/INSTALLATION .)

2. When removing the fuel-filler lid opener lever, perform the following procedure:
 - a. Remove the inner scuff plate (driver's side). (See INNER SCUFF PLATE REMOVAL/INSTALLATION .)

 - b. Remove the front side trim (driver's side). (See FRONT SIDE TRIM REMOVAL/INSTALLATION .)

 - c. Remove the fasteners and the wiring harness clips, and then partially peel back the floor covering so that the fuel-filler lid opener lever can be removed.

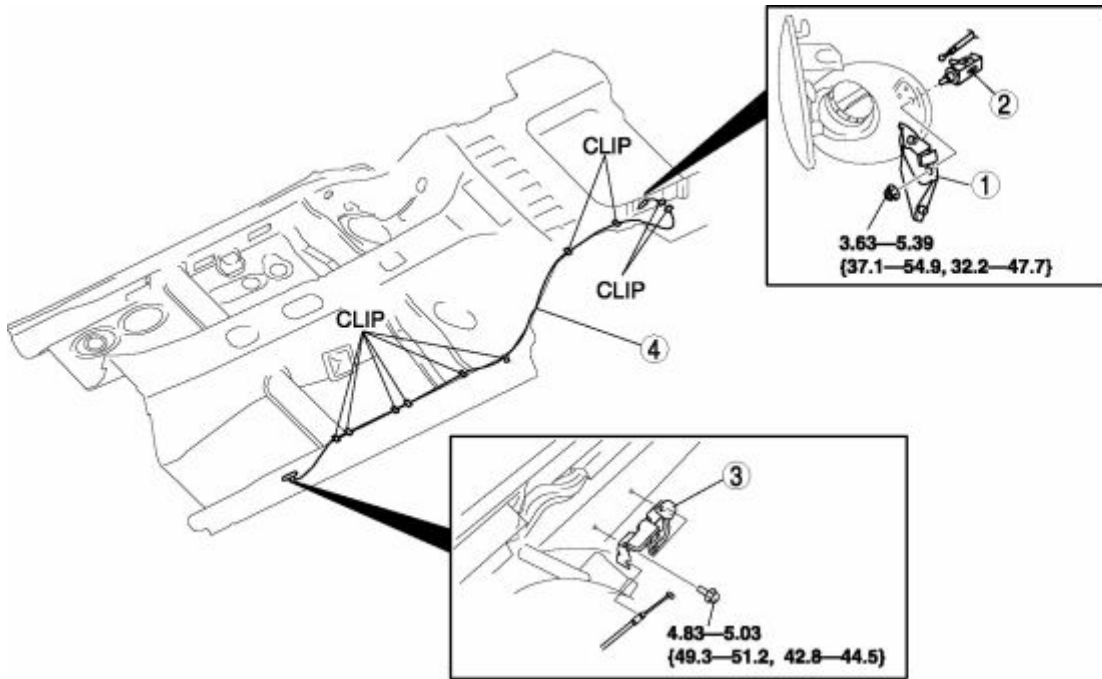
3. When removing the fuel-filler lid opener cable, perform the following procedure:
 - a. Partially peel back the trunk mat.

 - b. Remove the rear seat (driver's side). (See REAR SEAT REMOVAL/INSTALLATION)

 - c. Remove the tire house trim (driver's side). (See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)

 - d. Partially peel back the floor covering so that the fuel-filler lid opener cable can be removed.

4. Remove in the order indicated in the table.



N·m {kgf·cm, in·lbf}

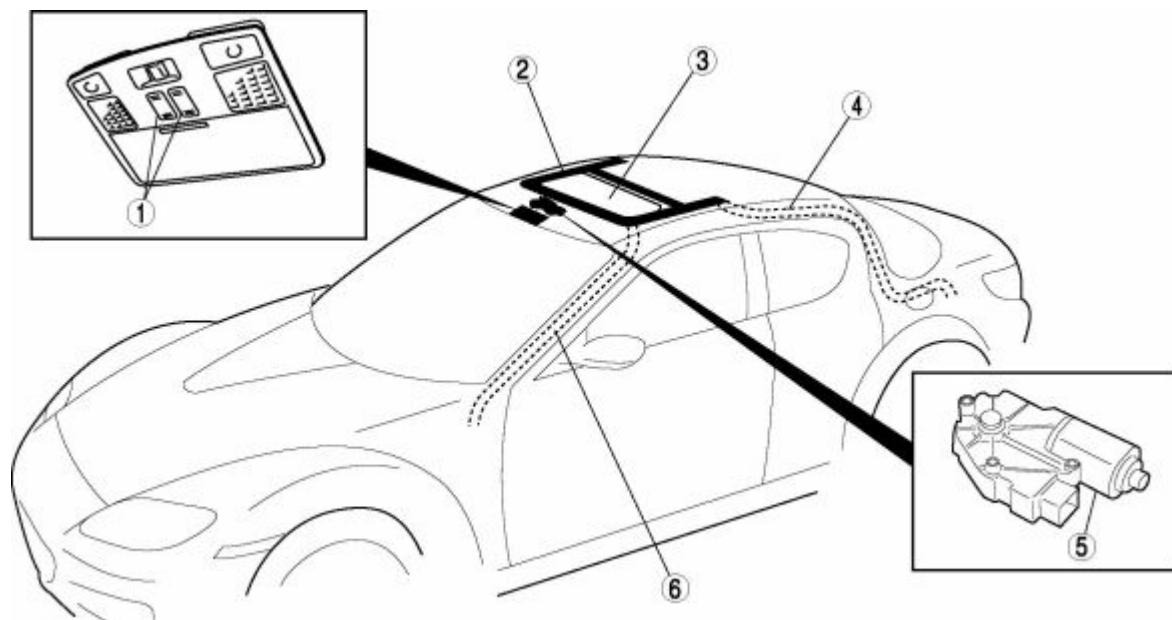
1	Stopper bracket
2	Fuel-filler lid opener
3	Fuel-filler lid opener lever
4	Fuel-filler lid opener cable

5. Install in the reverse order of removal.

6. Adjust the fuel-filler lid. (See FUEL-FILLER LID ADJUSTMENT .)

SUNROOF

SUNROOF LOCATION INDEX



1	Sunroof switch (See SUNROOF SWITCH REMOVAL/INSTALLATION .) (See SUNROOF SWITCH INSPECTION .)
2	Sunroof unit (See SUNROOF UNIT REMOVAL/INSTALLATION .) (See SUNROOF UNIT DISASSEMBLY/ASSEMBLY .)
3	Glass panel (See GLASS PANEL REMOVAL/INSTALLATION .) (See GLASS PANEL ADJUSTMENT .)
4	Rear drain hose (See REAR DRAIN HOSE REMOVAL .) (See REAR DRAIN HOSE INSTALLATION .)
5	Sunroof motor

(See SUNROOF MOTOR REMOVAL/INSTALLATION .)

(See SUNROOF MOTOR INSPECTION .)

Front drain hose

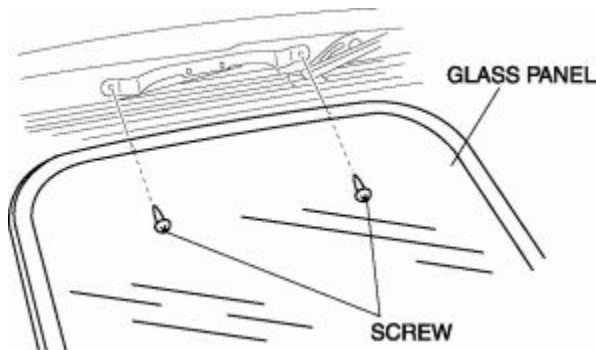
6 (See FRONT DRAIN HOSE REMOVAL .)

(See FRONT DRAIN HOSE INSTALLATION .)

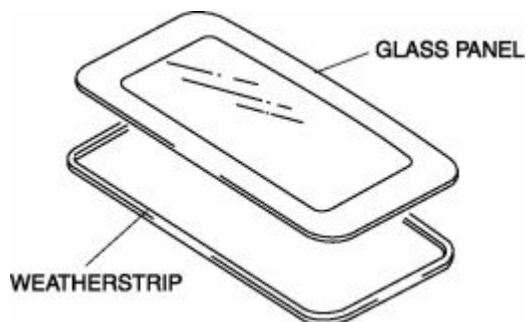
SUNROOF UNIT

GLASS PANEL REMOVAL/INSTALLATION

1. Fully close the glass panel.
2. Fully open the sunshade.
3. Remove the screws, then remove the glass panel.



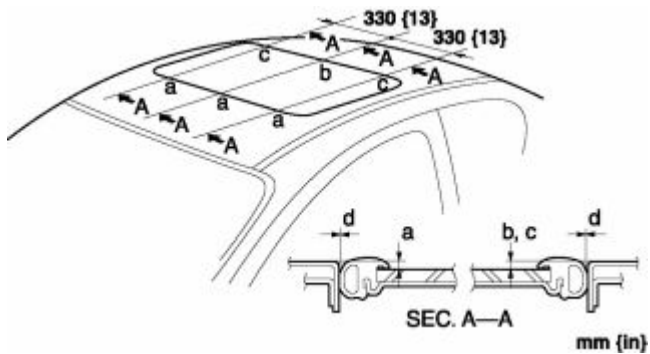
4. Remove the weatherstrip from the glass panel.



5. Install in the reverse order of removal.
6. Adjust the glass panel.(See GLASS PANEL ADJUSTMENT .)

GLASS PANEL ADJUSTMENT

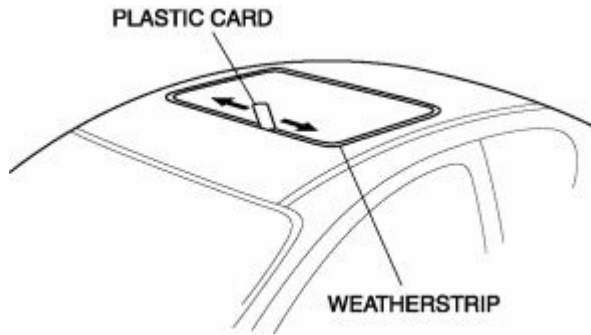
1. Fully close the glass panel.
2. Measure the gap and height difference between the glass panel and the body.
3. Loosen the glass panel installation screws and move the glass panel to adjust.



Standard clearance

- a: 0.2—2.2 mm {0.008—0.086 in}
- b: 0.2—2.2 mm {0.008—0.086 in}
- c: 0.25—2.25 mm {0.01—0.09 in}
- d: 0 mm {0 in}

4. Tighten the screws.
5. Insert any available thin plastic card between the weatherstrip and the body, and verify that they are sealed. (There is resistance when the plastic card is moved.)



- If they are not sealed, perform Steps 3—4 and adjust again.

DRAIN HOSE

FRONT DRAIN HOSE REMOVAL

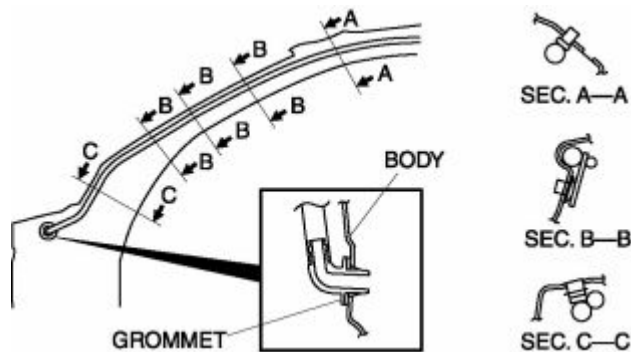
1. Remove the following parts:

- a. Roof side trim(See ROOF SIDE TRIM REMOVAL/INSTALLATION .)
- b. A-pillar trim(See A-PILLAR TRIM REMOVAL/INSTALLATION .)
- c. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
- d. Inner scuff plate(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
- e. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
- f. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
- g. Map light(See MAP LIGHT REMOVAL/INSTALLATION .)
- h. Interior light(See INTERIOR LIGHT REMOVAL/INSTALLATION .)

- i. Sunvisor(See SUNVISOR REMOVAL/INSTALLATION .)
- j. Assist handle(See ASSIST HANDLE REMOVAL/INSTALLATION .)
- k. Headliner(See HEADLINER REMOVAL/INSTALLATION .)

2. Disconnect the front drain hose from the sunroof frame.

3. Remove the front drain hose from the clips.



4. Pull the front drain hose into the vehicle interior and remove the front drain hose.

FRONT DRAIN HOSE INSTALLATION

CAUTION:

- If the front drain hose is pinched or bent at any point, the water in the hose may not drain and could leak inside the vehicle. During and after installation of the trims and headliner, always make sure there is no interference with the front drain hose. Correct any abnormality if found.
1. Apply soapy water to the part of the sunroof frame where the front drain hose is inserted.
 2. Insert the front drain hose end into the sunroof frame.

3. Install the front drain hose to the clips parallel to the pillar and free of looseness.
4. Insert the front drain hose grommet into the hole of the inner hinge pillar.
5. Install the following parts:
 - a. Headliner(See HEADLINER REMOVAL/INSTALLATION .)
 - b. Assist handle(See ASSIST HANDLE REMOVAL/INSTALLATION .)
 - c. Sunvisor(See SUNVISOR REMOVAL/INSTALLATION .)
 - d. Interior light(See INTERIOR LIGHT REMOVAL/INSTALLATION .)
 - e. Map light(See MAP LIGHT REMOVAL/INSTALLATION .)
 - f. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - g. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - h. Inner scuff plate(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
 - i. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
 - j. A-pillar trim(See A-PILLAR TRIM REMOVAL/INSTALLATION .)

- k. Roof side trim(See ROOF SIDE TRIM REMOVAL/INSTALLATION .)

REAR DRAIN HOSE REMOVAL

1. Remove the following parts:

- a. Roof side trim(See ROOF SIDE TRIM REMOVAL/INSTALLATION .)
- b. A-pillar trim(See A-PILLAR TRIM REMOVAL/INSTALLATION .)
- c. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
- d. Inner scuff plate(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
- e. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
- f. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
- g. Map light(See MAP LIGHT REMOVAL/INSTALLATION .)
- h. Interior light(See INTERIOR LIGHT REMOVAL/INSTALLATION .)
- i. Sunvisor(See SUNVISOR REMOVAL/INSTALLATION .)
- j. Assist handle(See ASSIST HANDLE REMOVAL/INSTALLATION .)

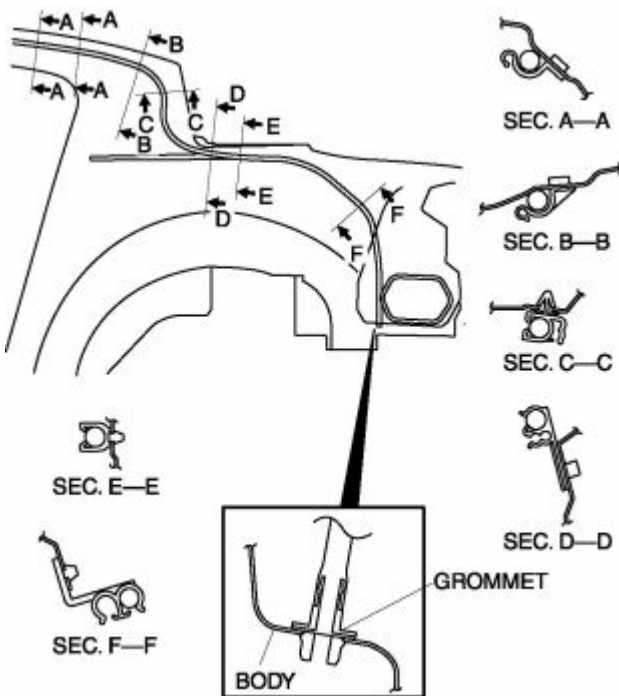
k. Headliner(See HEADLINER REMOVAL/INSTALLATION .)

l. Trunk end trim(See TRUNK END TRIM REMOVAL/INSTALLATION .)

m. Trunk side trim(See TRUNK SIDE TRIM REMOVAL/INSTALLATION .)

2. Remove the sunroof frame from the rear drain hose.

3. Remove the rear drain hose from the clips.



4. Pull the rear drain hose into the vehicle interior and remove the rear drain hose.

REAR DRAIN HOSE INSTALLATION

CAUTION:

- If the rear drain hose is pinched or bent at any point, the water in the hose may not drain and could leak inside the vehicle. During and after installation of the trims and headliner, always make sure there is no interference with the rear drain hose. Correct any abnormality if found.
1. Apply soapy water to the part of the sunroof frame where the rear drain hose is inserted.
 2. Insert the rear drain hose end into the sunroof frame.
 3. Install the rear drain hose to the clips parallel to the pillar and free of looseness.
 4. Insert the rear drain hose grommet into the hole of the inner rear pillar.
 5. Install the following parts:
 - a. Trunk side trim(See TRUNK SIDE TRIM REMOVAL/INSTALLATION .)
 - b. Trunk end trim(See TRUNK END TRIM REMOVAL/INSTALLATION .)
 - c. Headliner(See HEADLINER REMOVAL/INSTALLATION .)
 - d. Assist handle(See ASSIST HANDLE REMOVAL/INSTALLATION .)
 - e. Sunvisor(See SUNVISOR REMOVAL/INSTALLATION .)
 - f. Interior light(See INTERIOR LIGHT REMOVAL/INSTALLATION .)

- g. Map light(See MAP LIGHT REMOVAL/INSTALLATION .)
- h. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
- i. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
- j. Inner scuff plate(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
- k. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
- l. A-pillar trim(See A-PILLAR TRIM REMOVAL/INSTALLATION .)
- m. Roof side trim(See ROOF SIDE TRIM REMOVAL/INSTALLATION .)

SUNROOF UNIT

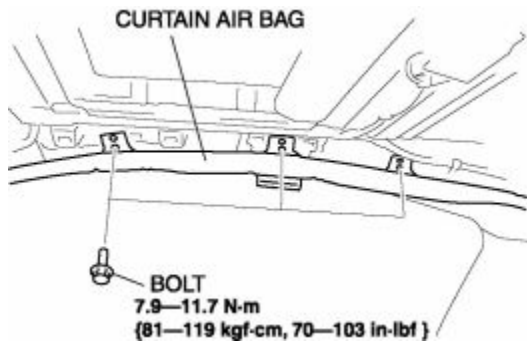
SUNROOF UNIT REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Roof side trim(See ROOF SIDE TRIM REMOVAL/INSTALLATION .)
 - b. A-pillar trim(See A-PILLAR TRIM REMOVAL/INSTALLATION)
 - c. Rear seat(See REAR SEAT REMOVAL/INSTALLATION)

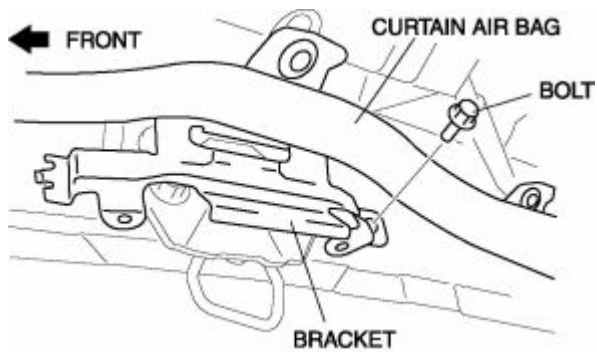
- d. Inner scuff plate(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
- e. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
- f. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
- g. Map light(See MAP LIGHT REMOVAL/INSTALLATION .)
- h. Interior light(See INTERIOR LIGHT REMOVAL/INSTALLATION .)
- i. Sunvisor(See SUNVISOR REMOVAL/INSTALLATION .)
- j. Assist handle(See ASSIST HANDLE REMOVAL/INSTALLATION .)
- k. Headliner(See HEADLINER REMOVAL/INSTALLATION .)
- l. Head impact pad(See HEAD IMPACT PAD REMOVAL/INSTALLATION .)
- m. Glass panel(See GLASS PANEL REMOVAL/INSTALLATION .)

3. Disconnect the front and rear drain hoses from the sunroof frame.

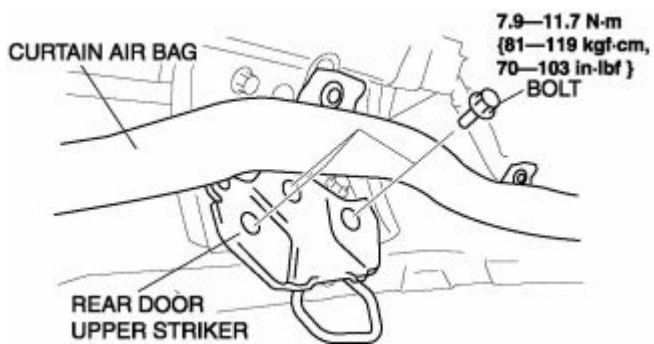
4. Remove the bolts from curtain air bag module points A.



5. Remove the bolt, then remove the bracket.

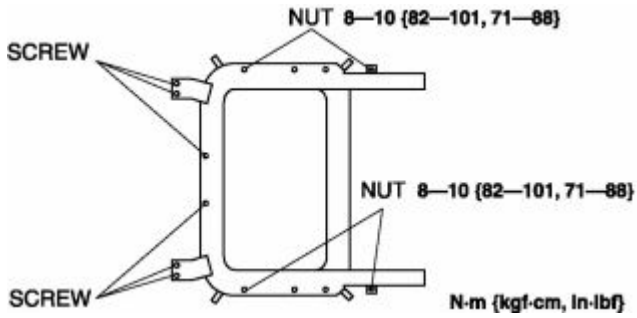


6. Remove the rear door striker (upper) .



7. Remove the rear set bracket.

8. Remove the nuts and screws, then remove the sunroof unit.

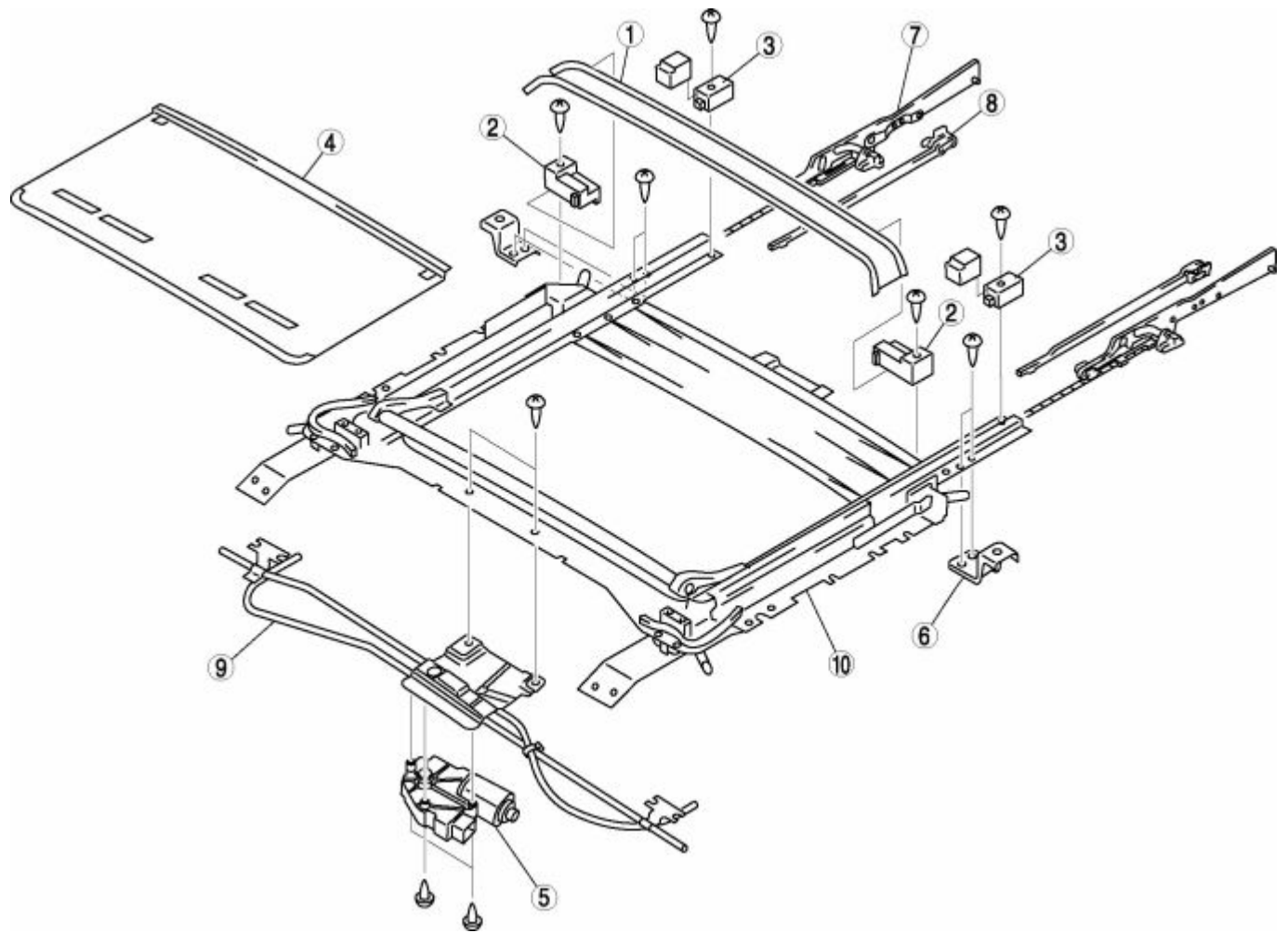


9. Install in the reverse order of removal.

10. Adjust the glass panel.(See GLASS PANEL ADJUSTMENT .)

SUNROOF UNIT DISASSEMBLY/ASSEMBLY

1. Remove the glass panel. (See GLASS PANEL REMOVAL/INSTALLATION .)
2. Disassemble in the order indicated in the table.
3. Assemble in the reverse order of disassembly.



1	Drip rail
2	Drip guide
3	Rear stopper
4	Sunshade
5	Sunroof motor (See Sunroof Motor Assembly Note .)
6	Set plate
7	Guide
8	Decoration link
9	Drive unit
10	Frame

Sunroof Motor Assembly Note

NOTE:

- If the guide is removed, initial position setting of the sunroof motor will be required. After installing the sunroof unit, perform initial position setting using the following procedure.
1. Press the CLOSE switch to fully close the glass panel.
 2. When the glass panel reaches the fully closed position, temporarily release the CLOSE switch and press it again **for approx. 13 s** continuously. Continue pressing the switch until the glass panel automatically stops at the fully closed position after reaching the mechanical lock position.
 3. When the glass panel stops at the fully closed position, temporarily release the CLOSE switch, then press it again within 5 s and hold.

NOTE:

- Press the CLOSE switch continuously until the glass panel opens to the fully open position, returns to the fully closed position and then stops.
4. Release the CLOSE switch when the glass panel stops at the fully closed position.

SUNROOF MOTOR

SUNROOF MOTOR REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.

2. Remove the following parts:
 - a. Roof side trim(See ROOF SIDE TRIM REMOVAL/INSTALLATION .)

 - b. A-pillar trim(See A-PILLAR TRIM REMOVAL/INSTALLATION .)

 - c. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)

 - d. Inner scuff plate(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)

 - e. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)

 - f. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)

 - g. Map light(See MAP LIGHT REMOVAL/INSTALLATION .)

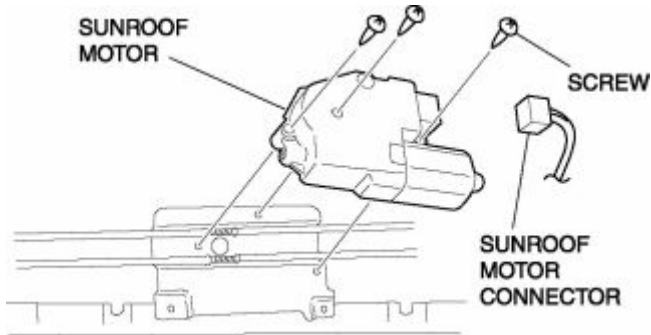
 - h. Interior light(See INTERIOR LIGHT REMOVAL/INSTALLATION .)

 - i. Sunvisor(See SUNVISOR REMOVAL/INSTALLATION .)

 - j. Assist handle(See ASSIST HANDLE REMOVAL/INSTALLATION .)

k. Headliner(See HEADLINER REMOVAL/INSTALLATION .)

3. Disconnect the sunroof motor connector.



4. Remove the screws, then remove the sunroof motor.
5. Install in the reverse order of removal.

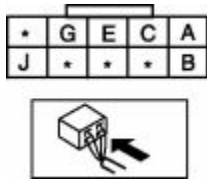
NOTE:

- If the glass panel or the sunroof motor is moved with the sunroof motor removed, initial position setting of the sunroof motor will be required. Perform initial position setting referring to the Sunroof Motor Assembly Note.(See Sunroof Motor Assembly Note .)

SUNROOF MOTOR INSPECTION

1. Measure the voltage at each terminal (other than terminal D).
 - If not as specified, inspect the parts listed under "Inspection item" and the related wiring harnesses.
2. Disconnect the negative battery cable.
3. Verify that continuity at terminal D is as indicated in the Terminal Voltage Table (Reference).
4. If the parts and wiring harnesses are okay but the system still does not work properly, replace the sunroof relay.

Terminal voltage list (Reference)



Terminal	Signal	Connected to	Test condition	Voltage (V)/Continuity	Inspection item
A	Slide open	Sunroof switch	Sunroof is fully opening.	B+	Sunroof switch (See SUNROOF SWITCH INSPECTION)
			Other	0	
B	Slide close /tilt down	Sunroof switch	Sunroof is closing/tilting down.	B+	Sunroof switch (See SUNROOF SWITCH INSPECTION)
			Other		
C	Tilt up	Sunroof switch	Sunroof is tilting up.	B+	Sunroof switch (See SUNROOF SWITCH INSPECTION)
			Other	0	
E	IG1	A/C 1.5 A Fuse	Turn the ignition switch to the ON position.	B+	A/C 1.5 A Fuse

G	GND	GND	Under any condition: Check for continuity to ground.	Continuity	GND
J	Power supply	DOOR LOCK 30 A Fuse	Under any condition	B+	DOOR LOCK 30 A Fuse

SUNROOF SWITCH

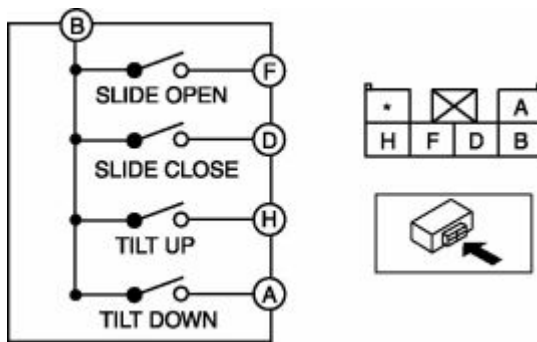
SUNROOF SWITCH REMOVAL/INSTALLATION

NOTE:

- The sunroof switch and the map light are a single unit.
1. Disconnect the negative battery cable.
 2. Remove the map light from the headliner.(See MAP LIGHT REMOVAL/INSTALLATION .)
 3. Install in the reverse order of removal.

SUNROOF SWITCH INSPECTION

1. Verify that the continuity between the sunroof switch is as indicated in the table.



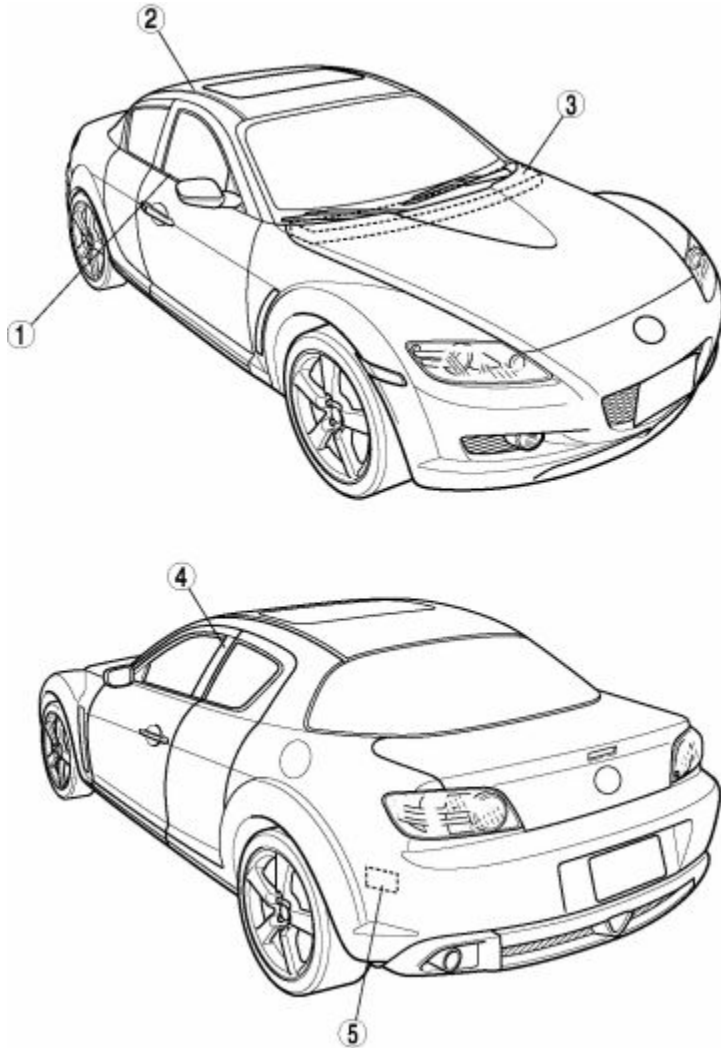
- If not as indicated in the table, replace the sunroof switch.

○—○ : Continuity

Switch position	Terminal				
	A	D	F	H	B
Slide open			○—○		
Slide close		○—○			
Tilt up				○—○	
Tilt down	○—○				
OFF					

EXTERIOR TRIM

EXTERIOR TRIM LOCATION INDEX



1	Front beltline molding (See FRONT BELTLINE MOLDING REMOVAL/INSTALLATION .)
2	Roof molding (See ROOF MOLDING REMOVAL .) (See ROOF MOLDING INSTALLATION .)
3	Cowl grille (See COWL GRILLE REMOVAL/INSTALLATION .)
4	Door sash film

(See DOOR SASH FILM REMOVAL .)

(See DOOR SASH FILM INSTALLATION .)

5

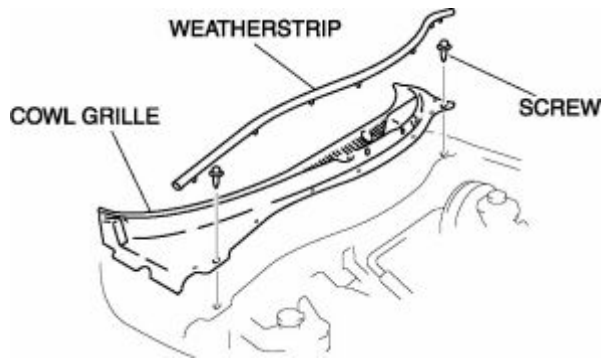
Extractor chamber

(See EXTRACTOR CHAMBER REMOVAL/INSTALLATION .)

COWL GRILL

COWL GRILL REMOVAL/INSTALLATION

1. Remove the windshield wiper arm and blade.(See WINDSHIELD WIPER ARM AND BLADE REMOVAL/INSTALLATION .)
2. Disconnect the windshield washer hose.(See WINDSHIELD WASHER HOSE REMOVAL/INSTALLATION .)
3. Remove the screws.

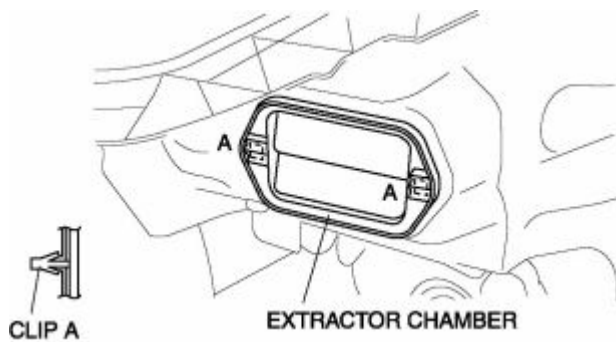


4. Remove the weatherstrip.
5. Remove the cowl grille.
6. Install in the reverse order of removal.

EXTERIOR PART

EXTRACTOR CHAMBER REMOVAL/INSTALLATION

1. Remove the following parts:
 - a. Trunk end trim(See TRUNK END TRIM REMOVAL/INSTALLATION .)
 - b. Trunk side trim(See TRUNK SIDE TRIM REMOVAL/INSTALLATION .)
 - c. Rear combination light(See REAR COMBINATION LIGHT REMOVAL/INSTALLATION .)
 - d. Rear bumper(See REAR BUMPER REMOVAL/INSTALLATION .)
2. Detach clips A by squeezing them from inside the vehicle, and remove the extractor chamber from the body.

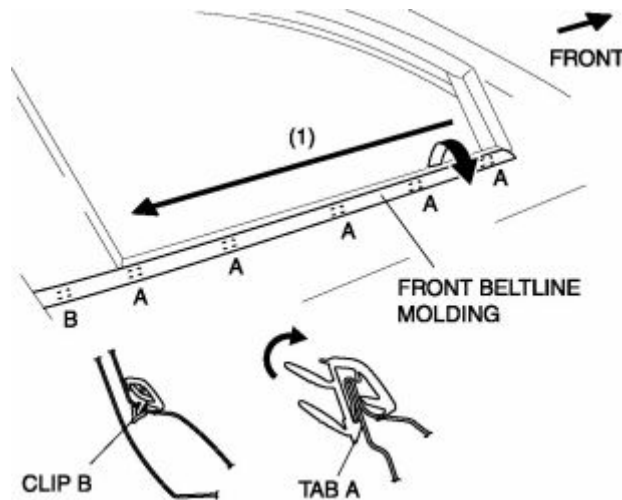


3. Install in the reverse order of removal.

EXTERIOR MOLDING

FRONT BELTLINE MOLDING REMOVAL/INSTALLATION

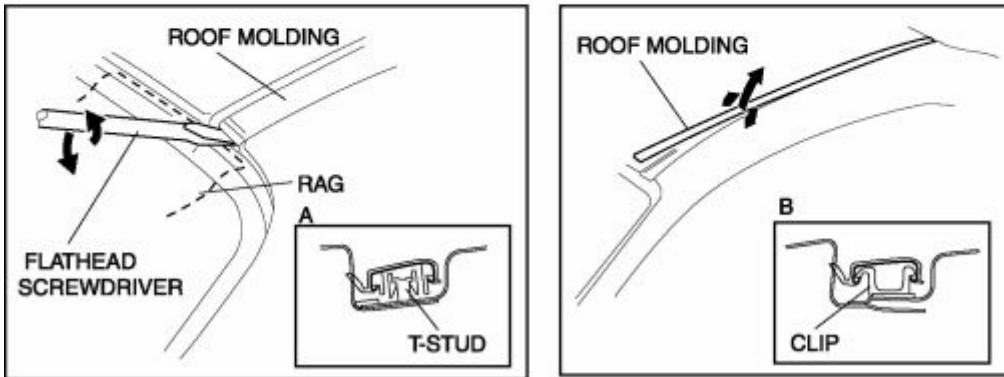
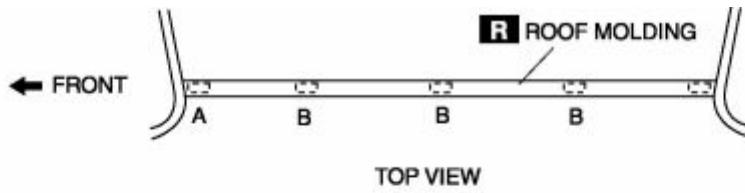
1. Remove the inner garnish. (See INNER GARNISH REMOVAL/INSTALLATION .)
2. Remove the power outer mirror installation screws and move the mirror to access the front end of the front beltline molding. (See POWER OUTER MIRROR REMOVAL/INSTALLATION .)
3. While partially peeling back the front beltline molding, detach tabs A along the direction (1) shown in the figure.



4. Remove clip B and front beltline molding.
5. Install in the reverse order of removal.

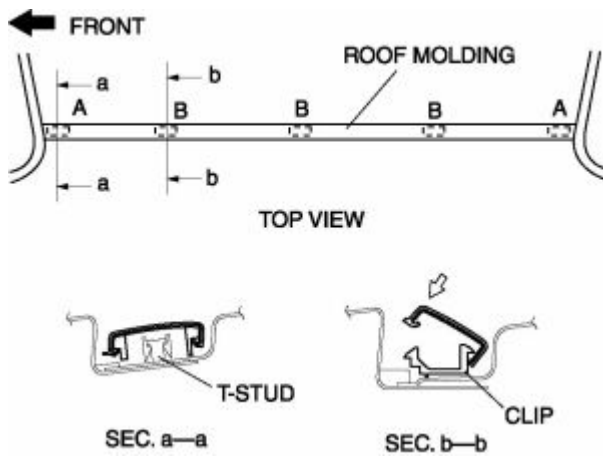
ROOF MOLDING REMOVAL

1. Detach the roof molding from the T-stud at section A, using a flathead screwdriver or equivalent tool.
2. While pulling the roof molding up, detach it from the clips at sections B, and then remove the roof molding.



ROOF MOLDING INSTALLATION

1. Attach the roof molding to the T-stud at section A.

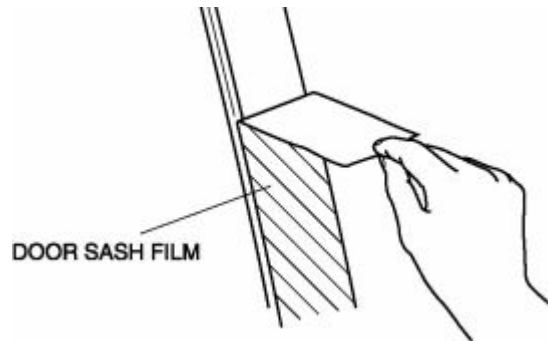


2. Hook the roof molding to clips B and press it in to attach.
3. Attach the roof molding to the T-stud at the rear portion of section A.

SASH FILM

DOOR SASH FILM REMOVAL

1. Partially peel back the glass run channel.
2. Warm up the door sash film using a hot air blower.
3. Peel off the door sash film by pulling outward from one end.

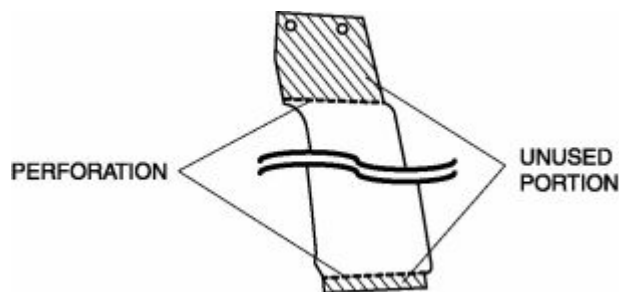


NOTE:

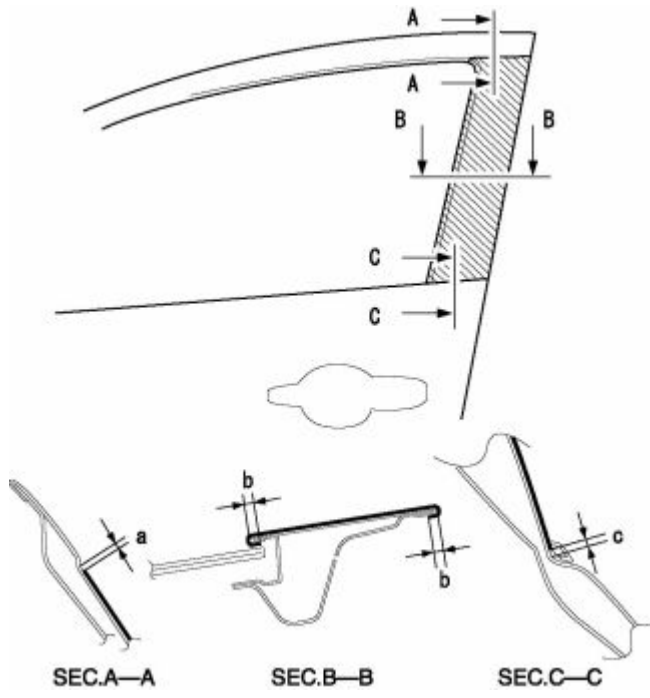
- Be sure to remove the door sash film slowly, because it can easily tear.

DOOR SASH FILM INSTALLATION

1. Remove any grease or dirt from the affixing surface of the door.
2. Cut away the unused portion along the dotted lines.



3. Peel off the backing paper and attach the door sash film onto the door as shown in the figure.



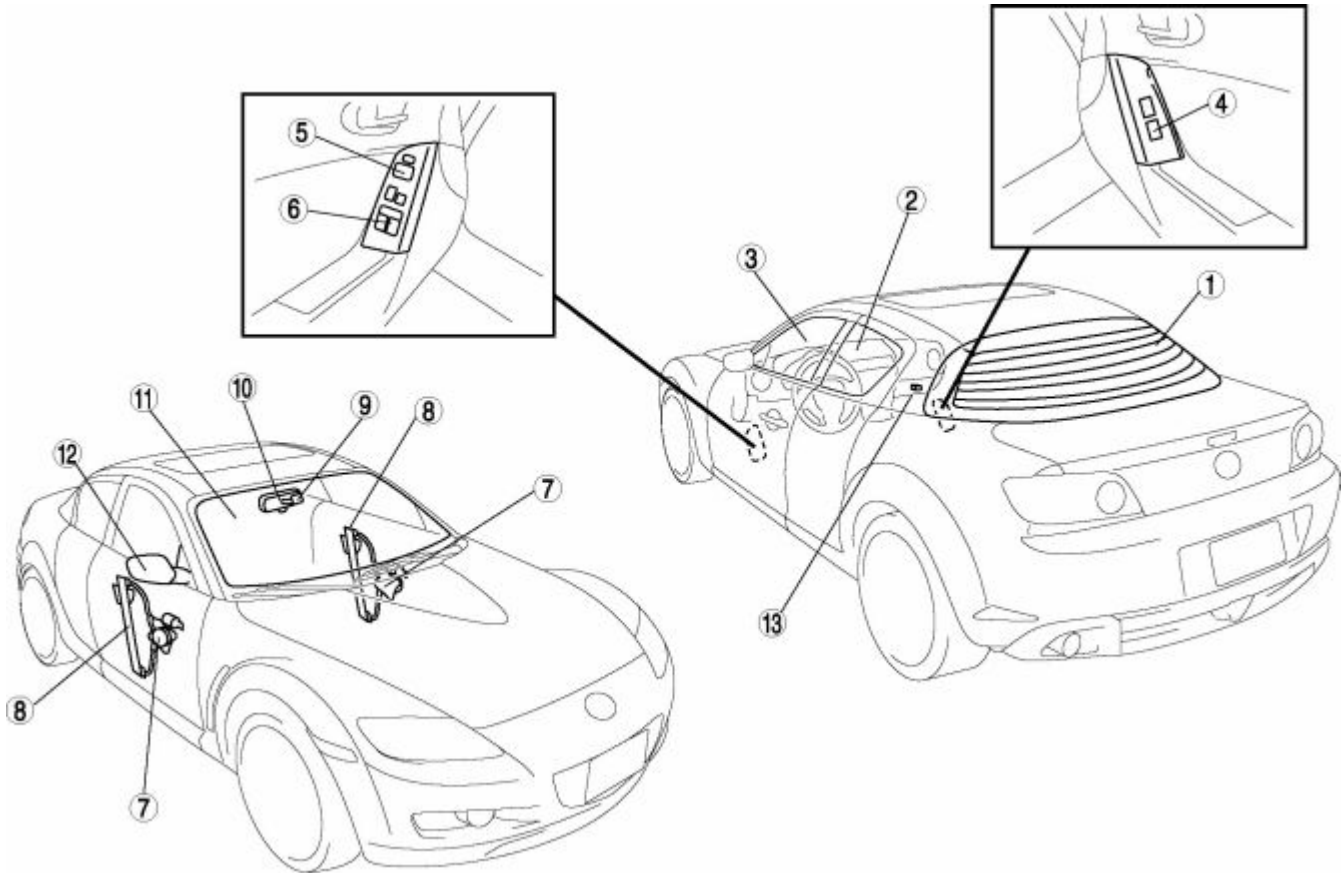
Standard clearance

- a: 0—1.0 mm {0—0.03 in}
- b: 3.0—5.0 mm {0.12—0.19 in}
- c: 3.0 mm {0.19 in} or less

4. Peel off the transparent protective film on the door sash film.

GLASS/WINDOWS/MIRRORS

GLASS/WINDOWS/MIRRORS LOCATION INDEX



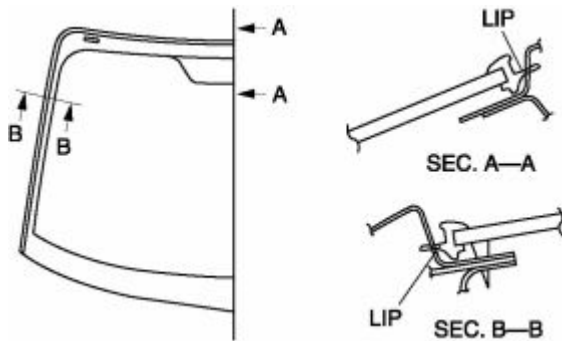
	Rear window glass (See REAR WINDOW GLASS REMOVAL .) 1 (See REAR WINDOW GLASS INSTALLATION .) (See FILAMENT INSPECTION .) (See FILAMENT REPAIR)
2	Rear door glass (See REAR DOOR GLASS REMOVAL/INSTALLATION .)
3	Front door glass (See FRONT DOOR GLASS REMOVAL/INSTALLATION .)
4	Power window subswitch

	(See POWER WINDOW SUBSWITCH REMOVAL/INSTALLATION .) (See POWER WINDOW SUBSWITCH INSPECTION .)
5	Power outer mirror switch (See POWER OUTER MIRROR SWITCH REMOVAL/INSTALLATION .) (See POWER OUTER MIRROR SWITCH INSPECTION .)
6	Power window main switch (See POWER WINDOW MAIN SWITCH REMOVAL/INSTALLATION .) (See POWER WINDOW MAIN SWITCH INSPECTION .)
7	Power window motor (See POWER WINDOW MOTOR REMOVAL/INSTALLATION .) (See POWER WINDOW MOTOR INSPECTION .)
8	Power window regulator (See POWER WINDOW REGULATOR REMOVAL/INSTALLATION .)
9	Base (See BASE REMOVAL .) (See BASE INSTALLATION .)
10	Rearview mirror (See REARVIEW MIRROR REMOVAL/INSTALLATION .)
11	Windshield (See WINDSHIELD REMOVAL .) (See WINDSHIELD INSTALLATION .)
12	Power outer mirror (See POWER OUTER MIRROR REMOVAL/INSTALLATION .) (See POWER OUTER MIRROR ASSEMBLY/DISASSEMBLY .) (See POWER OUTER MIRROR INSPECTION .)
13	Delayed power control module inspection (See DELAYED POWER CONTROL MODULE REMOVAL/INSTALLATION .) (See DELAYED POWER CONTROL MODULE INSPECTION .)

WINDOW GLASS

WINDSHIELD REMOVAL

1. Remove the following parts:
 - a. Windshield wiper arm and blade(See WINDSHIELD WIPER ARM AND BLADE REMOVAL/INSTALLATION .)
 - b. Cowl grille(See COWL GRILLE REMOVAL/INSTALLATION .)
 - c. Rearview mirror(See REARVIEW MIRROR REMOVAL/INSTALLATION .)
 - d. A-pillar trim(See A-PILLAR TRIM REMOVAL/INSTALLATION .)
 - e. Sunvisor(See SUNVISOR REMOVAL/INSTALLATION .)
 - f. Map light(See MAP LIGHT REMOVAL/INSTALLATION .)
2. Set the headliner out of the way.
3. Apply protective tape along the edge of the body.
4. Apply protective tape to the dashboard to protect it from damage.
5. Cut the windshield molding lip using a razor.



WARNING:

- Using a razor with bare hands can cause injury. Always wear gloves when using a razor.

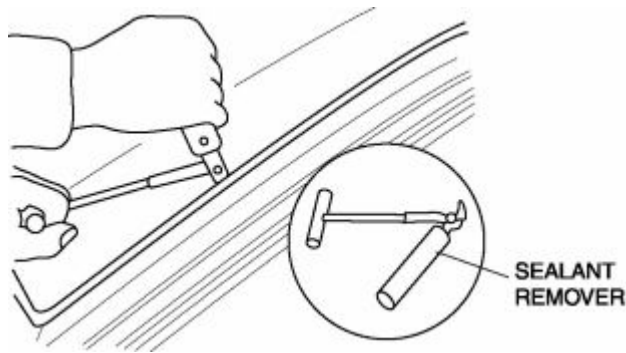
NOTE:

- The windshield molding is a replacement part.

Not Reusing Windshield

NOTE:

- For the areas of the sealant that are difficult to cut, use the **SST** (piano wire) and follow the procedure under "Reusing Windshield".
1. Remove the base.(See BASE REMOVAL .)
 2. Cut out the sealant all around the glass using a sealant remover.

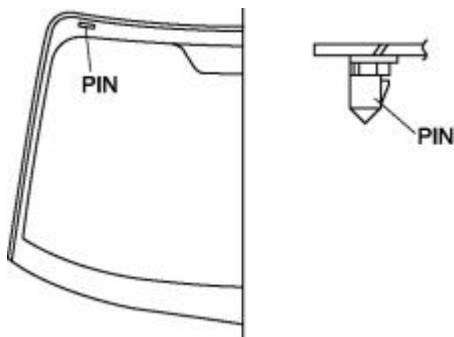


3. Remove the sealant by pulling it off.
4. Remove the windshield.

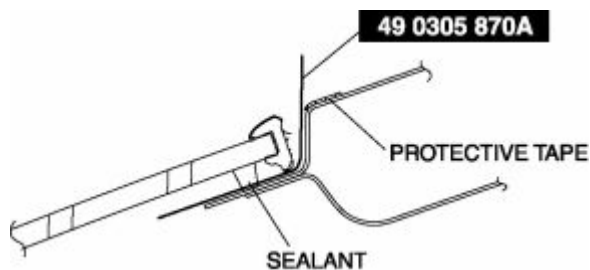
Reusing Windshield

NOTE:

- Before removing the windshield from the body, mark the position of the windshield by affixing tape to the windshield and body panel.
1. Make a hole through the sealant from the inside of the vehicle using an awl, avoiding the pins.



2. Pass the SST (piano wire), cut to sufficient length, through the hole.

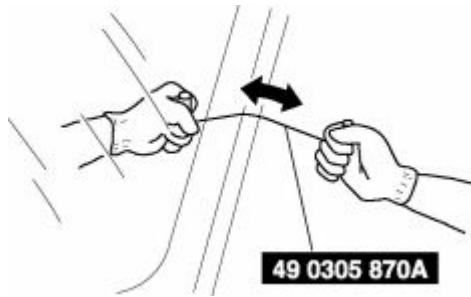


WARNING:

- Using the SST (piano wire) with bare hands can cause injury. Always wear gloves when using the SST (piano wire).
3. Wind each end of the SST (piano wire) around a bar.

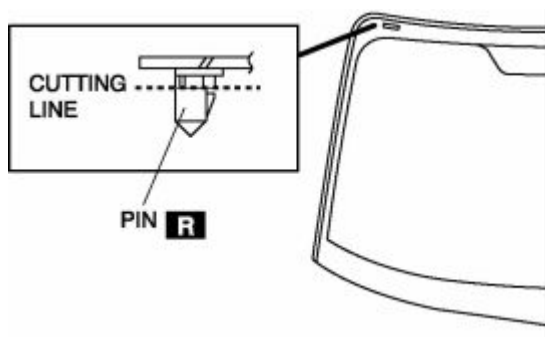
NOTE:

- Use a long sawing action to spread the work over the whole length of the SST (piano wire) to prevent it from breaking due to localized heating.
4. Fix one end of the SST (piano wire), and while pulling the other end, cut the sealant around the windshield.



NOTE:

- As the upper part of the pin adheres to the sealant, cut it using the SST (piano wire).
5. Cut the pins out.



6. Remove the windshield.
7. Mark the seating positions of the pins and remove the pins from the windshield.
8. Remove the windshield molding from the windshield.

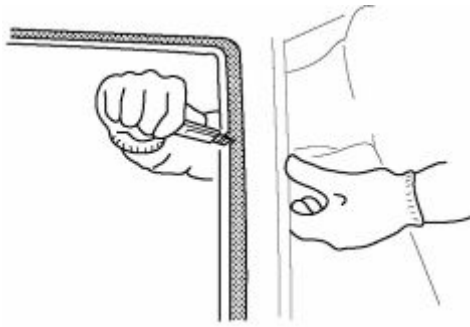
WINDSHIELD INSTALLATION

WARNING:

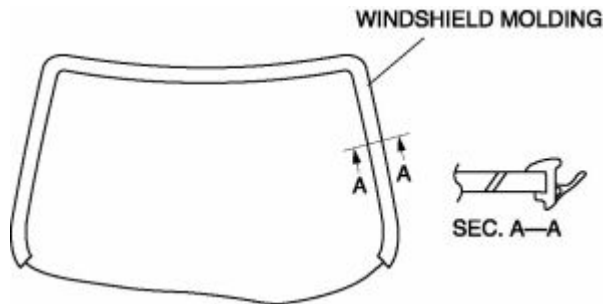
- Using a razor with bare hands can cause injury. Always wear gloves when using a razor.

CAUTION:

- Proper installation of the windshield may be difficult if sealant is cracked or the glass is pushed out by air pressure when a door is opened/closed with all the window glass closed. Leave all the windows open until the windshield is installed completely.
1. Cut away the old sealant using a razor so that a **1—2 mm {0.04—0.07 in}** thickness of sealant remains along the perimeter of the frame.



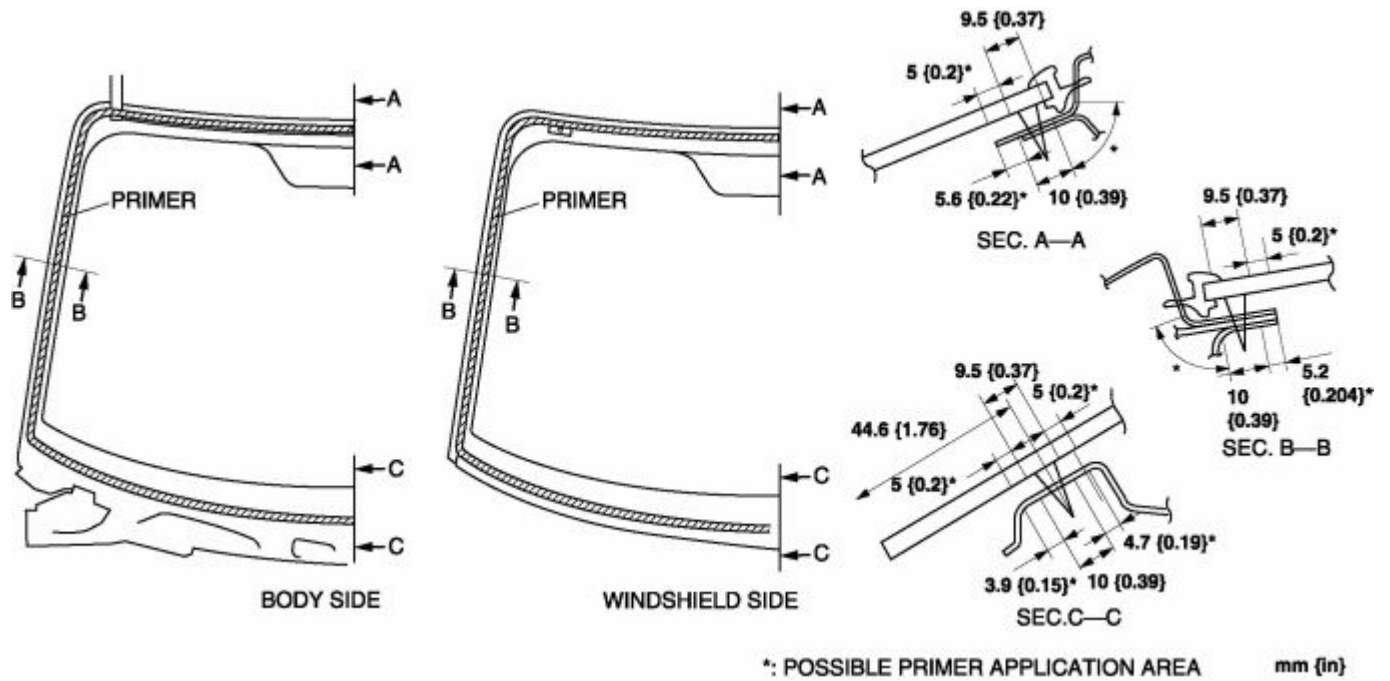
2. If the sealant has come off completely in any one place, apply some primer after degreasing, and allow it to dry for **approx. 30 min** .Then apply a **2 mm {0.08 in}** thickness of sealant.
3. Clean and degrease an **approx. 50 mm {2.0 in}** wide strip along the perimeter of the windshield and the bonding area on the body.
4. If installing a reused windshield, perform the following procedure:
 - a. Attach the pins to the seating positions where marked during removal.
 - b. Install the windshield molding.



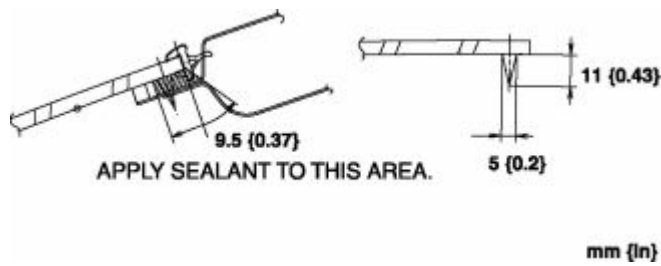
5. Use only glass primer on the glass, and body primer on the body and the molding, then allow it to dry for **approx. 30 min** .

CAUTION:

- Keep the area free of dirt, water and grease, and do not touch the surface. Otherwise, the primer may not properly bond to the surface of the glass and body, causing leaks to occur.

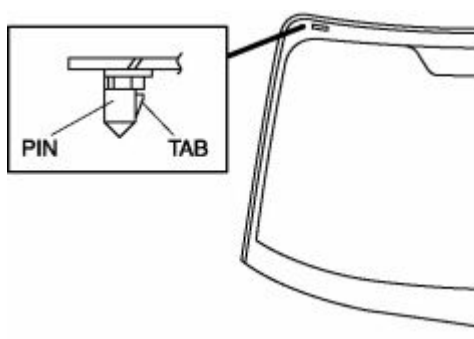


6. Apply sealant to the glass surface as shown in the figure.

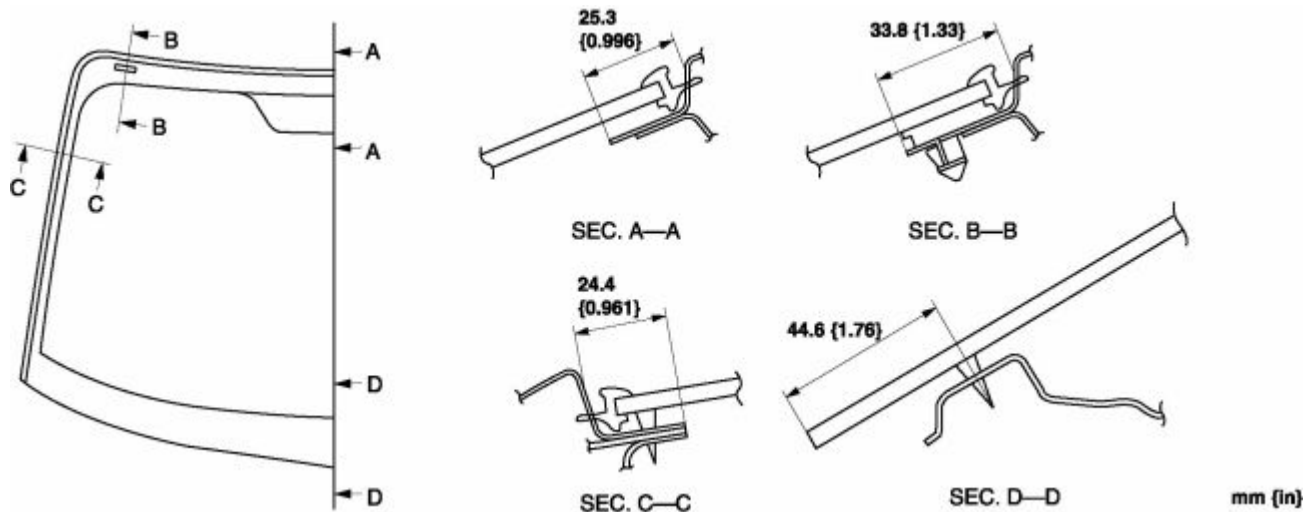


7. Insert the positioning pins to the body, then install the windshield.

8. Press the windshield pins to engage the tabs to the body.



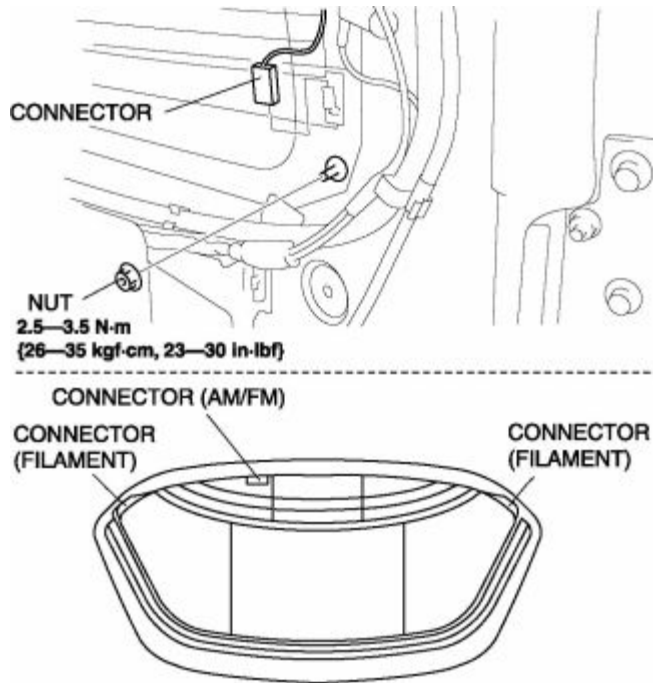
9. Press completely along the perimeter of the glass so that the measurement of the molding lip gap is within specification.



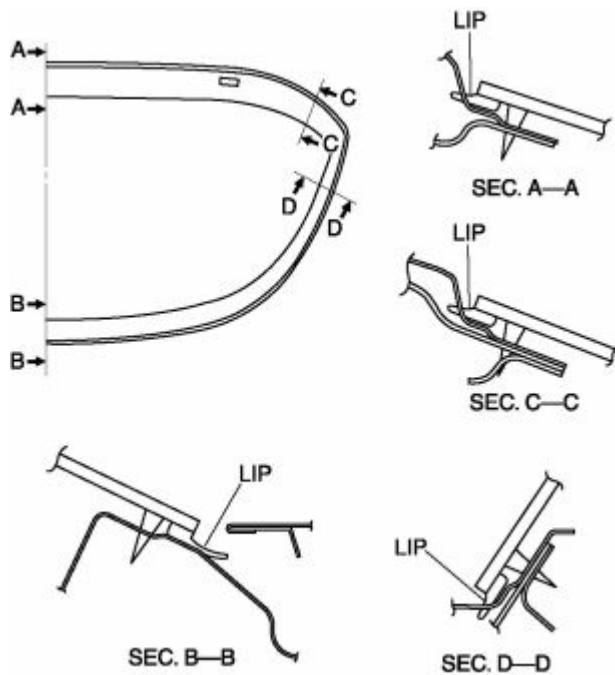
10. Install the following parts:
 - . Map light(See MAP LIGHT REMOVAL/INSTALLATION .)
 - a. Sunvisor(See SUNVISOR REMOVAL/INSTALLATION .)
 - b. A-pillar trim(See A-PILLAR TRIM REMOVAL/INSTALLATION .)
 - c. Rearview mirror(See REARVIEW MIRROR REMOVAL/INSTALLATION .)
 - d. Cowl grille(See COWL GRILLE REMOVAL/INSTALLATION .)
 - e. Windshield wiper arm and blade(See WINDSHIELD WIPER ARM AND BLADE REMOVAL/INSTALLATION .)
11. Allow the sealant to harden completely.
 - o Sealant hardening time: 24 h

REAR WINDOW GLASS REMOVAL

1. Remove the following parts:
 - a. Rear seat (See REAR SEAT REMOVAL/INSTALLATION .)
 - b. Tire house trim (See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - c. Rear pillar trim (See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - d. Rear package trim (See REAR PACKAGE TRIM REMOVAL/INSTALLATION .)
2. Remove the nut.



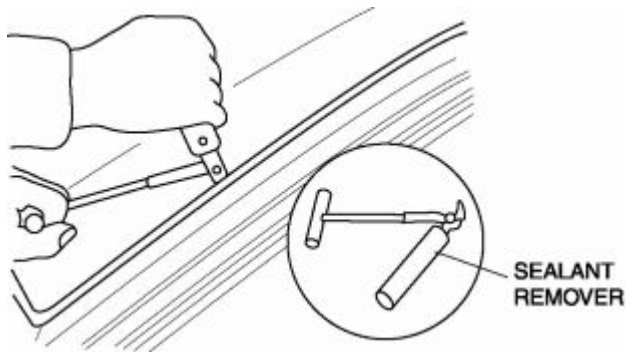
3. Disconnect the antenna and the filament connectors.
4. Apply protective tape along the edge of the body.
5. Cut the rear window molding lip using a razor.



Not Reusing Rear Window Glass

NOTE:

- For the areas of the sealant that are difficult to cut, use the SST (piano wire) and follow the procedure under "Reusing Rear Window Glass".
1. Cut out the sealant all around the glass using a sealant remover.

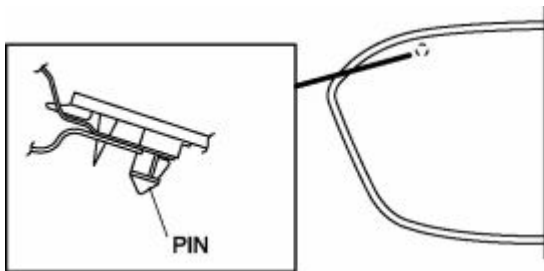


2. Remove the sealant by pulling it off.
3. Remove the rear window glass.

Reusing Rear Window Glass

NOTE:

- Before removing the rear window glass from the body, mark the position of the glass by affixing tape to the glass and body panel.
1. Make a hole through the sealant from the inside of the vehicle using an awl, avoiding the pins.



2. Pass the SST (piano wire), cut to sufficient length, through the hole.



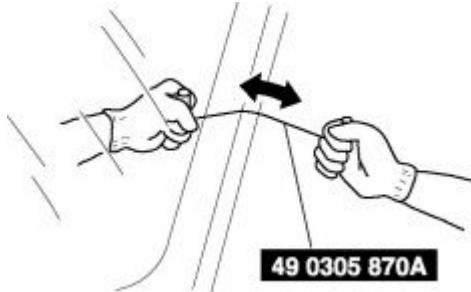
WARNING:

- Using the SST (piano wire) with bare hands can cause injury. Always wear gloves when using the SST (piano wire).
3. Wind each end of the SST (piano wire) around a bar.

NOTE:

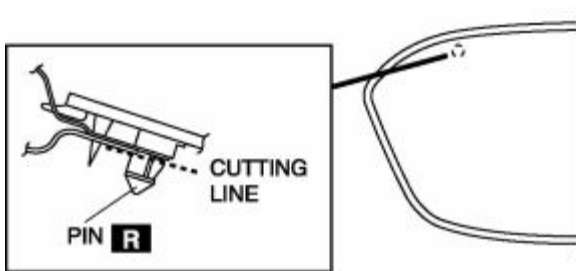
- Use a long sawing action to spread the work over the whole length of the SST (piano wire) to prevent it from breaking due to localized heating.

- Fix one end of the SST (piano wire), and while pulling the other end, cut the sealant around the rear window glass.



NOTE:

- As the upper part of the pin adheres to the sealant, cut it using the SST (piano wire).
- Cut the pins out.



- Remove the rear window glass.
- Mark the seating positions of the pins and remove the pins from the rear window glass.
- Remove the rear window molding from the rear window glass.

REAR WINDOW GLASS INSTALLATION

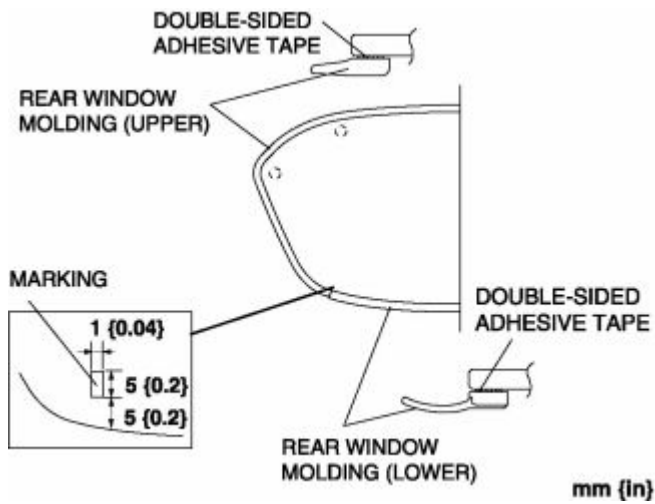
CAUTION:

- Proper installation of the windshield may be difficult if sealant is cracked or the glass is pushed out by air pressure when a door is opened/closed with all the window glass closed. Leave all the windows open until the rear window glass is installed completely.
- Cut away the old sealant using a razor so that a **1—2 mm {0.04—0.07 in}** thickness of sealant remains along the perimeter of the frame.

WARNING:

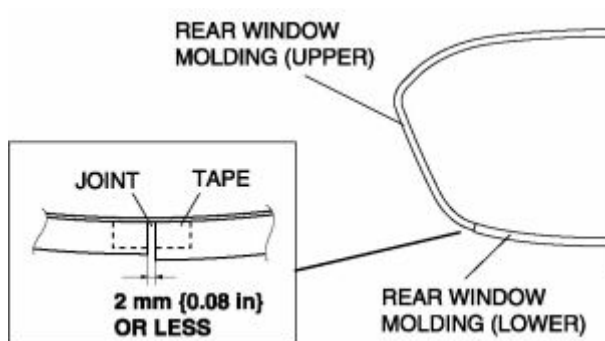
- Using a razor with bare hands can cause injury. Always wear gloves when using a razor.
- If the sealant has come off completely in any one place, apply some primer after degreasing, and allow it to dry for **approx. 30 min** .Then apply a **2 mm {0.08 in}** thickness of sealant.
 - Clean and degrease the perimeter **approx. 50 mm {2.0 in}** from the glass end and and the bonding area on the body.
 - If installing a reused rear window glass, perform the following procedure:
 - Clean and degrease the rear window molding installation area of the rear window glass.
 - Apply the glass primer to the rear window molding installation area of the rear window glass.

- c. Remove the remaining double-sided adhesive tape from the rear window molding, and install the rear window molding (upper) to the rear window glass while aligning the molding with the center of the marking on the glass.

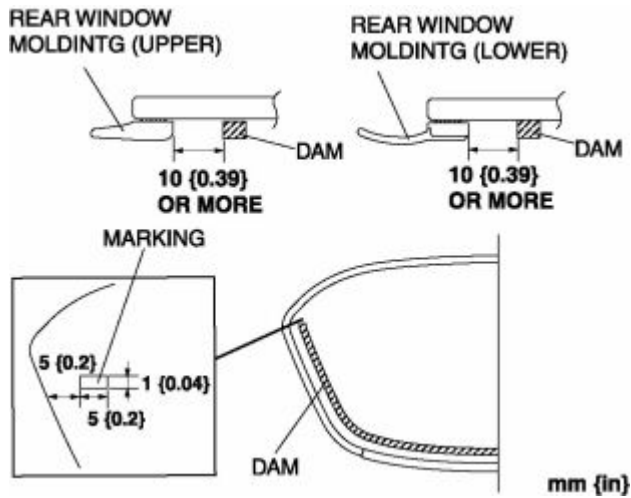


NOTE:

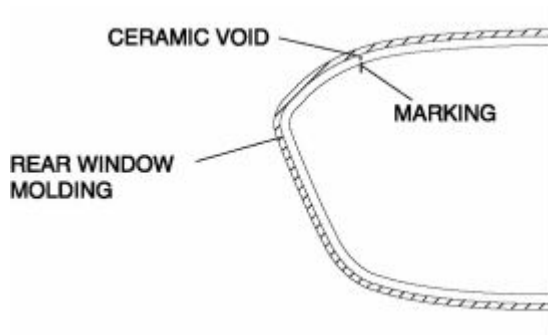
- Double-sided adhesive tape has been affixed to the new rear window molding.
- d. Install the rear window molding (lower).
- e. Apply the glass primer to the inside of the rear window molding at the joint between the upper and lower parts.



- f. Affix the tape to the inside of the rear window molding at the joint.
- g. Install the dam by aligning its end with the center of the marking on the glass as shown in the figure.



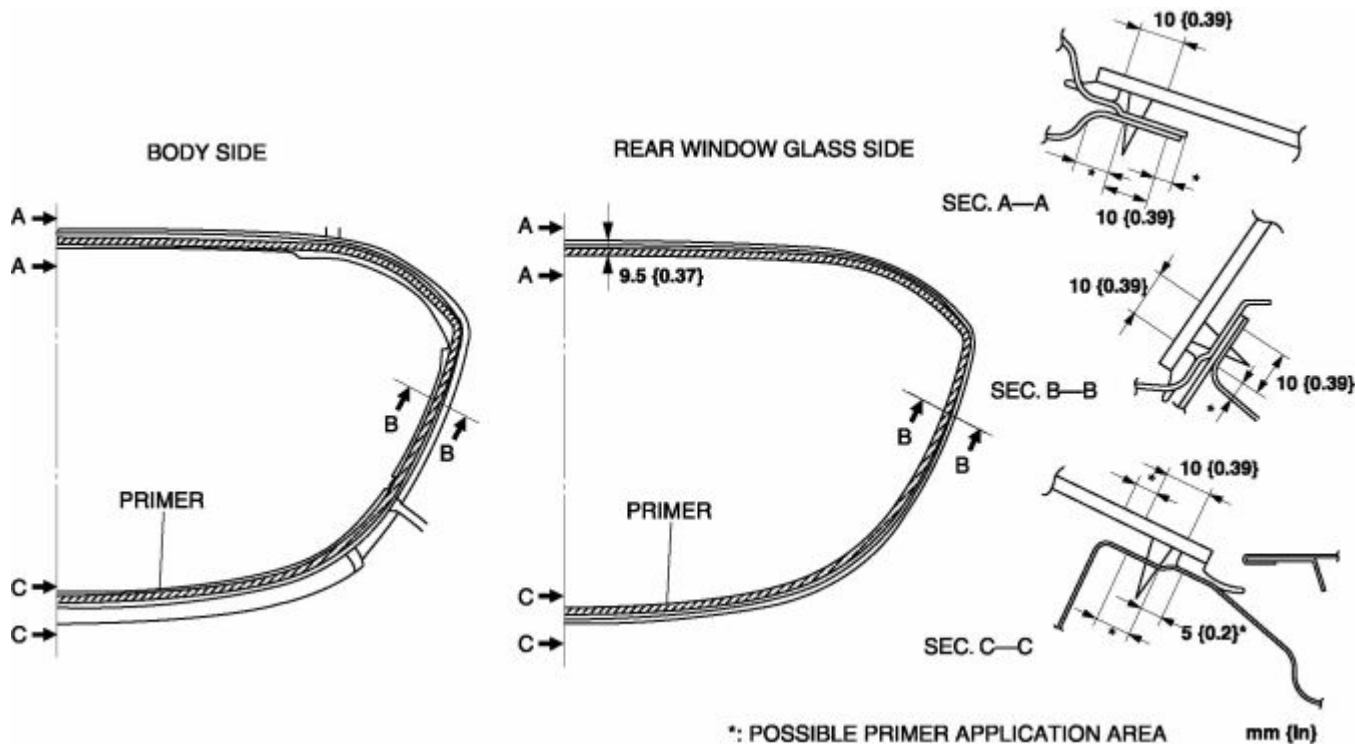
- h. Attach the pins to the seating positions where marked during removal.
5. Place a mark at the point on the rear window glass indicated in the figure.



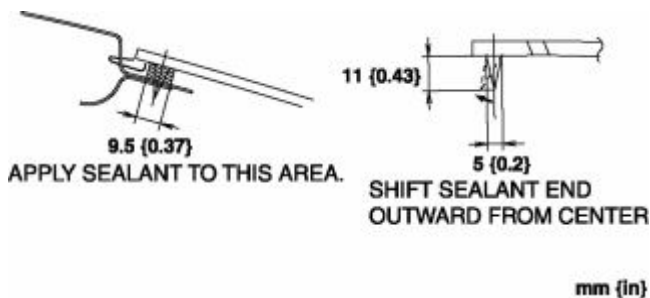
6. Use only glass primer on the rear window glass, and body primer on the rear window molding as shown in the figure. Allow it to dry for **approx. 30 min**.

CAUTION:

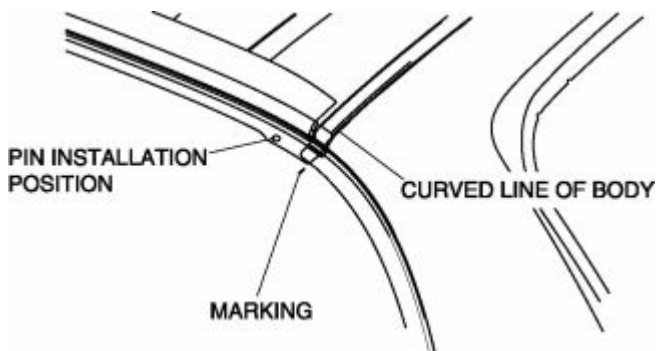
- Keep the area free of dirt, water and grease, and do not touch the surface. Otherwise, the primer may not properly bond to the surface of the glass and body, causing leaks to occur.



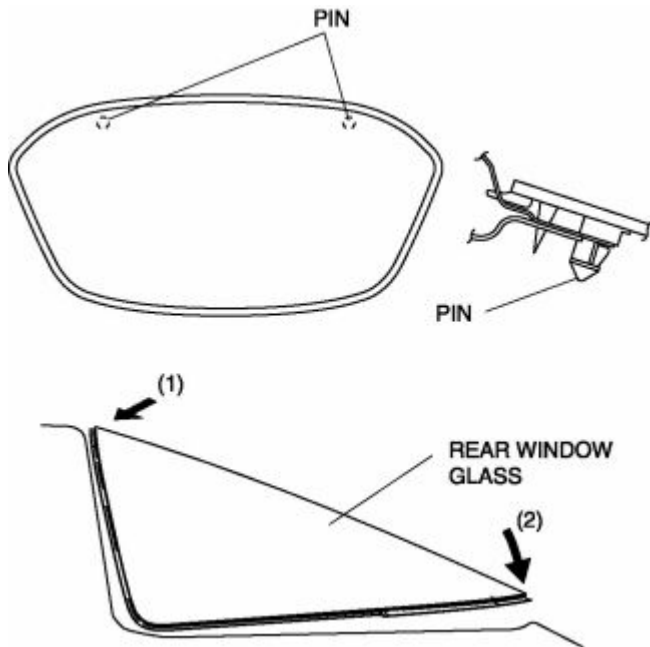
7. Apply sealant to the glass surface as shown in the figure.



8. Position the marking on the rear window glass and the curved line of the body (roof molding) left and right so that they are aligned.



9. Insert the pin into the body (1), and lower the rear part (2).



NOTE:

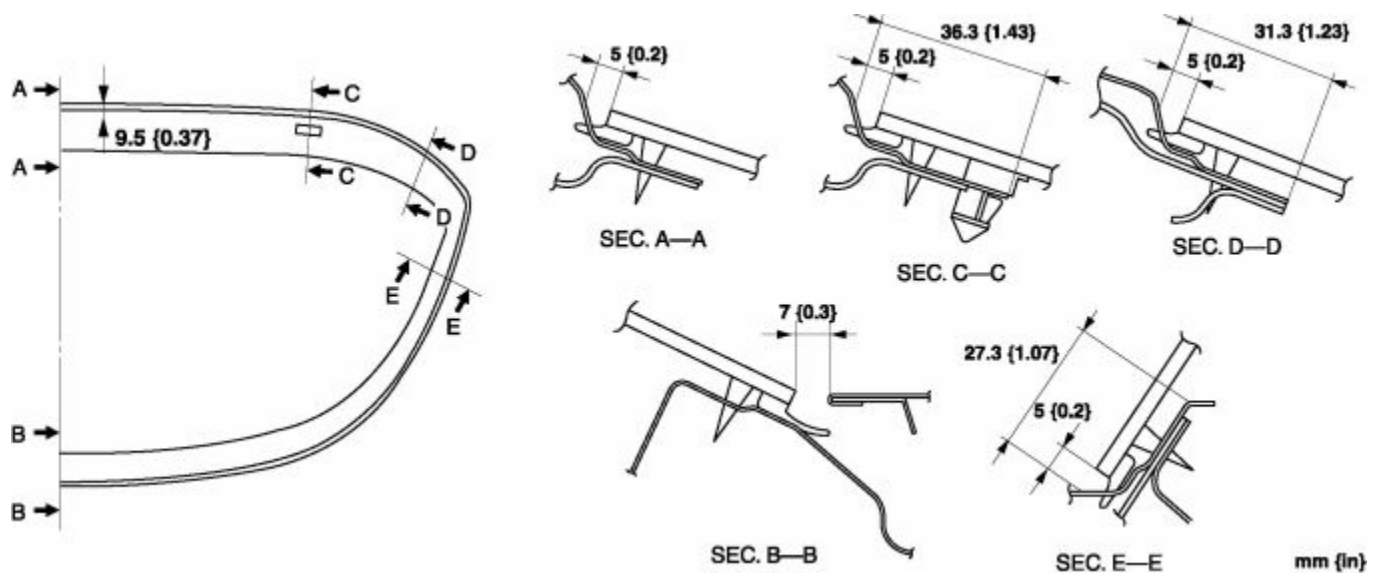
- If the rear window glass is tilted while inserting the pin into the body, the sealant will rub against the body flange, causing damage to the sealant. Do not tilt the rear window glass to the left or right while working.

10. Press the pins and engage the tabs to the body.

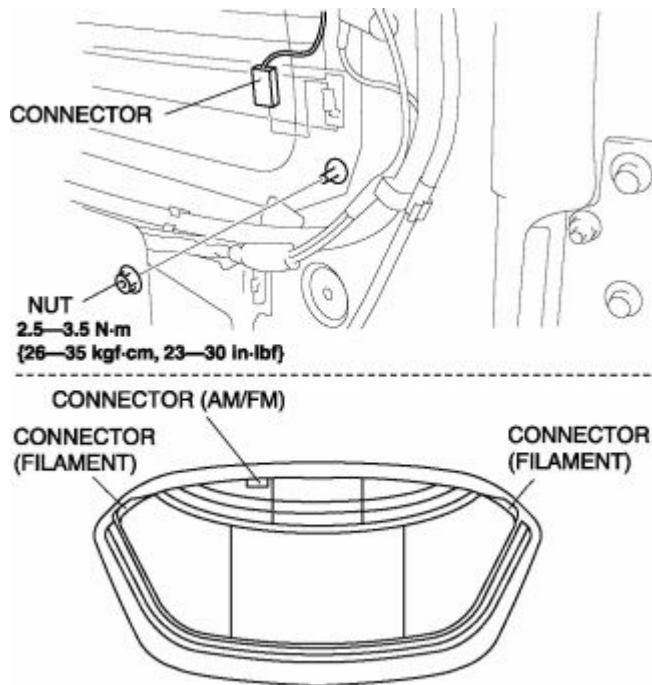
11. Press the rear window glass at (a) shown in the figure from the rear of the vehicle so that the measurement of the rear window molding lip gap is within specification.

CAUTION:

- If any sealant adheres to the antenna and/or filament, be sure to wipe it off.



12. Install the nut.

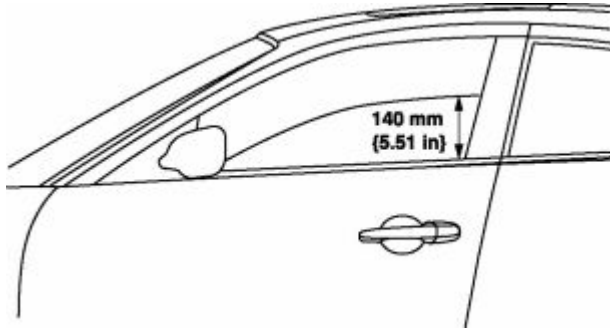


13. Connect the antenna and the filament connectors.
14. Install the following parts:
 - . Rear package trim (See REAR PACKAGE TRIM REMOVAL/INSTALLATION .)
 - a. Rear pillar trim (See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - b. Tire house trim (See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - c. Rear seat (See REAR SEAT REMOVAL/INSTALLATION .)
15. Allow the sealant to harden completely.
 - o Sealant hardening time: 24 h
16. Apply soapy water to the rear window molding side and blow air from the interior, then verify that there are no bubbles or air leakage.
 - If there are any bubbles or air leakage, repair the damaged part of the sealant and verify it again.

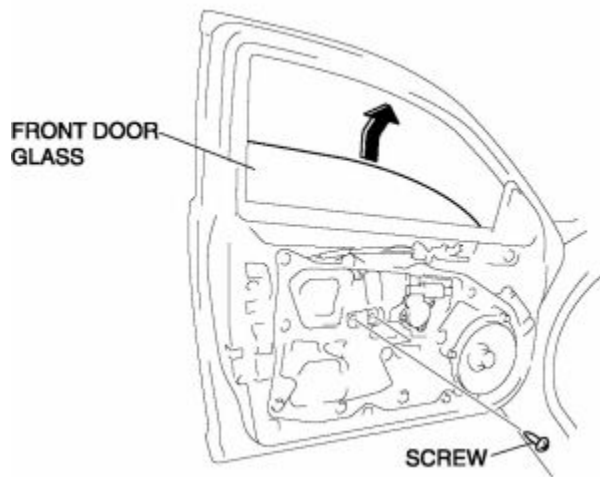
DOOR GLASS

FRONT DOOR GLASS REMOVAL/INSTALLATION

1. Position the front door glass so that the distance between the top of the front door glass and top of the front beltline molding is **140 mm {5.51 in}** .



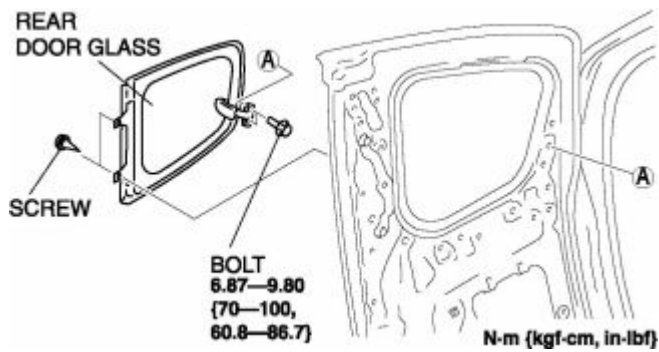
2. Disconnect the negative battery cable.
3. Remove the inner garnish.(See INNER GARNISH REMOVAL/INSTALLATION .)
4. Remove the front door trim.(See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
5. Remove the hole cover.
6. Remove the screws.



7. Lift the front door glass up, then remove it while tilting it in the direction of the arrow.
8. Install in the reverse order of removal.

REAR DOOR GLASS REMOVAL/INSTALLATION

1. Remove the inner handle cover.
2. Remove the rear door lower trim.(See REAR DOOR LOWER TRIM REMOVAL/INSTALLATION .)
3. Remove the rear door upper trim.(See REAR DOOR UPPER TRIM REMOVAL/INSTALLATION .)
4. Pull up the rear door weatherstrip and remove the screw.

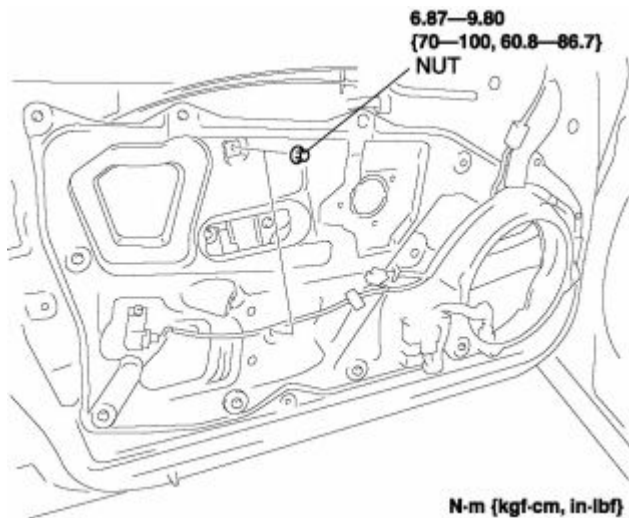


5. Remove the bolts.
6. Remove the rear door glass.
7. Install in the reverse order of removal.

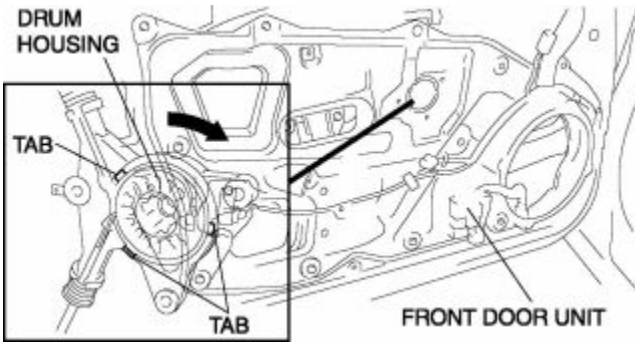
WINDOW REGULATOR

POWER WINDOW REGULATOR REMOVAL/INSTALLATION

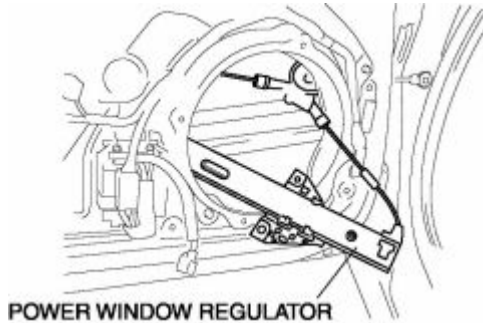
1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Inner garnish (See INNER GARNISH REMOVAL/INSTALLATION .)
 - b. Front door trim (See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
 - c. Front door speaker (See FRONT DOOR SPEAKER REMOVAL/INSTALLATION .)
 - d. Front door glass (See FRONT DOOR GLASS REMOVAL/INSTALLATION .)
 - e. Power window motor (See POWER WINDOW MOTOR REMOVAL/INSTALLATION .)
3. Remove the nuts.



4. Insert hand through the front speaker installation hole, rotate the drum housing in the direction shown in the figure and remove the drum housing from the door unit connection tabs.



- Remove the power window regulator from the speaker installation hole.



- Install in the reverse order of removal.

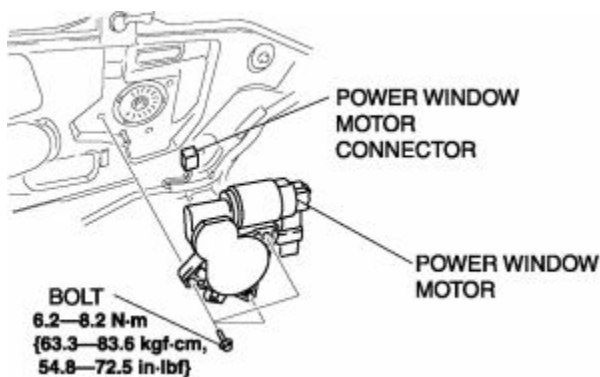
CAUTION:

- Make sure the cable does not unspool from the drum housing when installing.

WINDOW MOTOR

POWER WINDOW MOTOR REMOVAL/INSTALLATION

- Disconnect the negative battery cable.
- Remove the inner garnish.(See INNER GARNISH REMOVAL/INSTALLATION .)
- Remove the front door trim.(See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
- Remove the bolts.



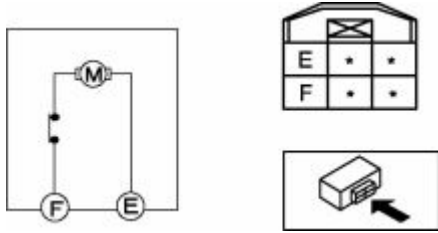
- Remove the power window motor from the power window regulator drum.
- Disconnect the power window motor connector.
- Install in the reverse order of removal.

NOTE:

- When installing the power window motor to the power window regulator drum, the drum housing tab may come off the door unit. If this happens, remove the door speaker, insert your hand in the speaker installation hole, connect the drum housing tabs, and while supporting the drum housing, install the power window motor to the drum.

POWER WINDOW MOTOR INSPECTION

1. Apply battery positive voltage to the power window motor terminals, and inspect the power window motor operation.



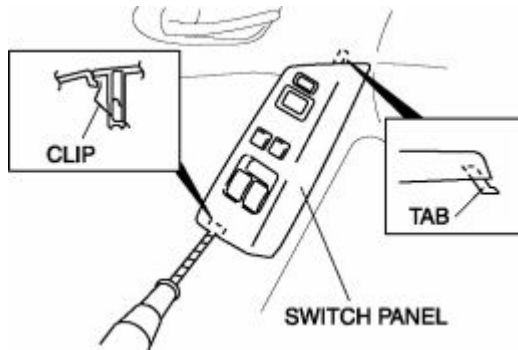
- If the power window motor does not operate as indicated in the table, replace it.

Operation	Terminal	
	F	E
Open	Ground	B+
Close	B+	Ground

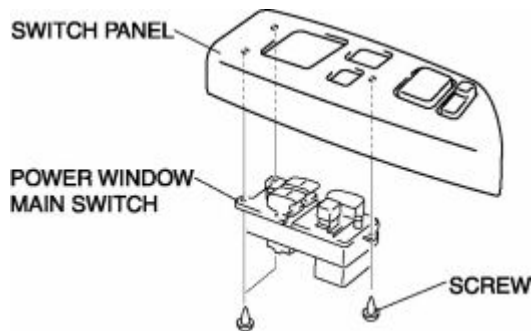
WINDOW SWITCH

POWER WINDOW MAIN SWITCH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Using a flathead screwdriver wrapped with protective tape, pry up the rear of the switch panel and detach the clip .



3. Remove the switch panel from the front door trim keeping the tab from catching.
4. Disconnect the power window main switch connector and the power mirror switch connector.
5. Remove the screws, then remove the power window main switch.



6. Install in the reverse order of removal.

POWER WINDOW MAIN SWITCH INSPECTION

1. When inspecting the passenger's side and the rear, turn the power-cut switch to UNLOCK.
2. Inspect for continuity between the power window main switch terminals.
 - If not as specified, replace the power window main switch.
3. Connect battery positive voltage to terminal N and ground to the terminal K. Verify that continuity exists.
 - If not as specified, replace the power window main switch.

Driver's side

○—○ : Continuity

Switch position	Terminal			
	N	K	A	Q
CLOSED	○	○	○	○
OFF		○	○	○
MANUAL OPEN AUTO OPEN	○	○	○	○

Passenger's side

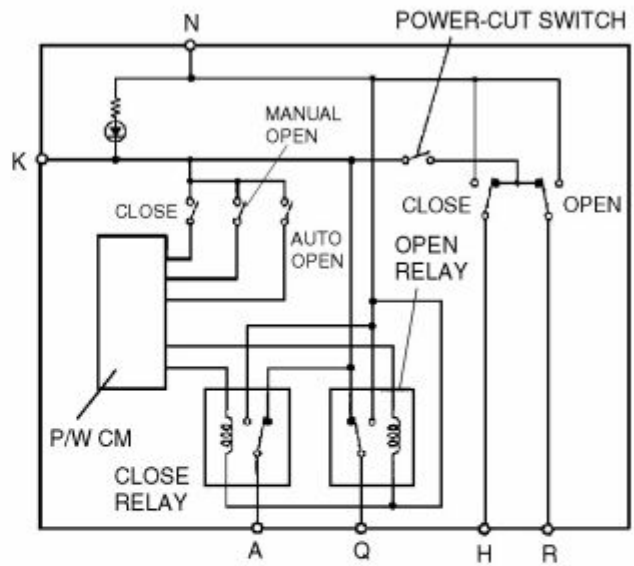
○—○ : Continuity

Switch position	Terminal			
	N	K	H	R
CLOSED	○	○	○	○
OFF		○	○	○
OPEN	○	○	○	○

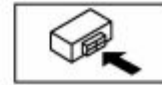
Power-cut switch

○—○ : Continuity

Switch position	Terminal				
	K	A	Q	H	R
UNLOCK	○	○	○	○	○
LOCK	○	○	○	○	○

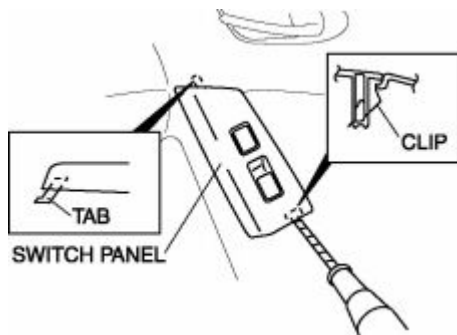


Q	*	*	K	*	*	*	A
R	*	N	*	J	H	*	*

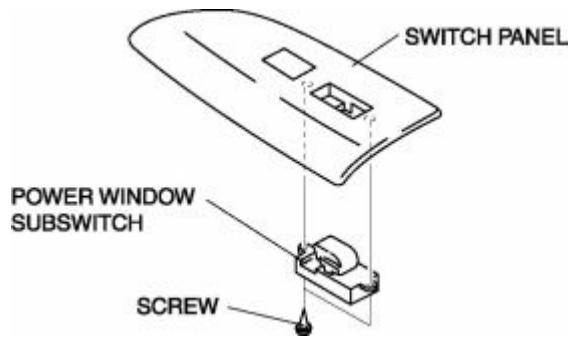


POWER WINDOW SUBSWITCH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Using a flathead screwdriver wrapped with protective tape, pry up the rear of the switch panel and detach the clip.



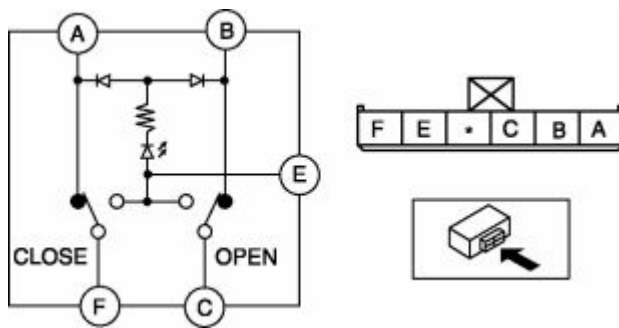
3. Remove the switch panel from the front door trim keeping the tab from catching.
4. Disconnect the power window subswitch connector.
5. Remove the screws, then remove the power window subswitch.



6. Install in the reverse order of removal.

POWER WINDOW SUBSWITCH INSPECTION

1. Verify continuity as indicated in the table.



- If not as indicated in the table, replace the power window subswitch.

○—○ : Continuity

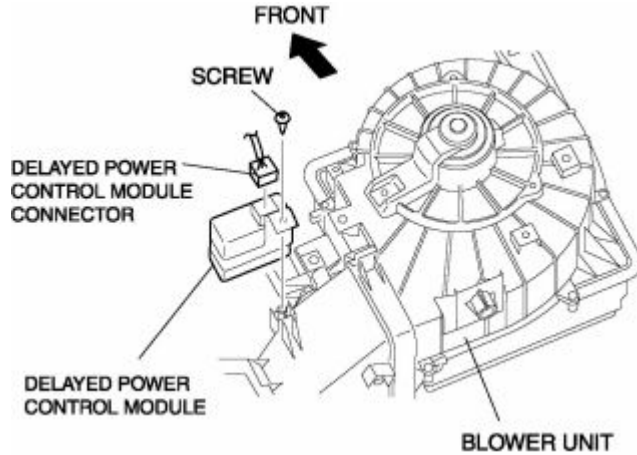
Switch position	Terminal				
	E	F	A	B	C
Close	○—○			○—○	
Off		○—○		○—○	
Open	○—○				○—○

2. Connect battery positive voltage to terminal E and ground to the terminal A. Verify that continuity exists.
 - If not as specified, replace the power window subswitch.
3. Connect battery positive voltage to terminal E and ground to the terminal B. Verify that continuity exists.
 - If not as specified, replace the power window subswitch.

POWER WINDOW SYSTEM

DELAYED POWER CONTROL MODULE REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Disconnect the delayed power control module connector.

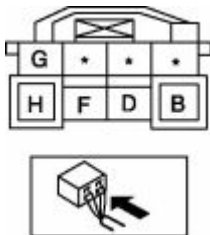


3. Remove the bolt and then remove the delayed power control module.
4. Install in the reverse order of removal.

DELAYED POWER CONTROL MODULE INSPECTION

1. Measure voltage or inspect for continuity according to the Terminal Voltage Table (Reference).
 - If the voltage is not as specified in the Terminal Voltage Table (Reference), inspect the parts under "Inspection item(s)".

Terminal Voltage Table (Reference)



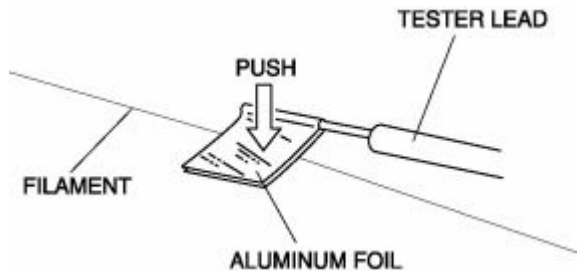
Terminal	Signal name	Connected to	Test condition		Voltage (V)/Continuity	Inspection item(s)
B	Door open/close	Power window main switch	Door switch pressed.	Turn the ignition switch to the ON position.	B+	<ul style="list-style-type: none"> • Power window main switch (See POWER WINDOW MAIN SWITCH INSPECTION)
				Within 40 s after turning the ignition switch to the LOCK position	B+	

				40 s or more after turning the ignition switch to the LOCK position	1.0 or less	<ul style="list-style-type: none"> • Related wiring harness
D	Ground	GND	Under any condition: Check for continuity to ground.		Continuity	GND
F	Door open/close	Door switch	Door switch pressed.		B+	<ul style="list-style-type: none"> • Door switch (See DOOR SWITCH INSPECTION) • Related wiring harness
			Door switch released.		1.0 or less	
G	IG1	Ignition switch	Turn the ignition switch to the ON position.		B+	<ul style="list-style-type: none"> • Ignition switch (See IGNITION SWITCH INSPECTION) • Related wiring harness
			Turn the ignition switch to the LOCK position.		1.0 or less	
H	Power supply	Power window 30 A fuse	Under any condition		B+	<ul style="list-style-type: none"> • Power window 30 A fuse • Related wiring harness

REAR WINDOW DEFROSTER

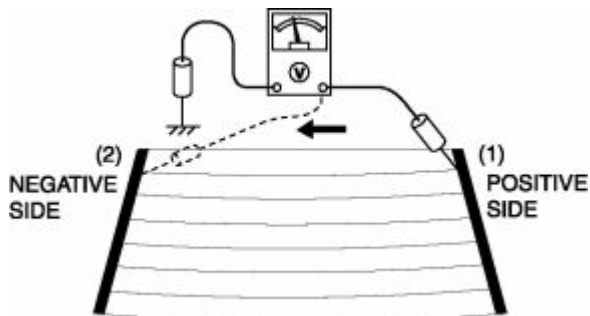
FILAMENT INSPECTION

1. Turn the ignition switch to the ON position.
2. Turn the rear window defroster switch on.



CAUTION:

- Directly touching the rear window defroster filament with the lead of the voltmeter could damage it. Wrap aluminum foil around the end of the lead and test the filament by touching it with the foil.
3. Connect the positive lead of the tester to the positive side of each filament and the negative lead to ground.
 4. Gradually slide the positive lead from the positive side to the negative side and verify that the voltage decreases accordingly.

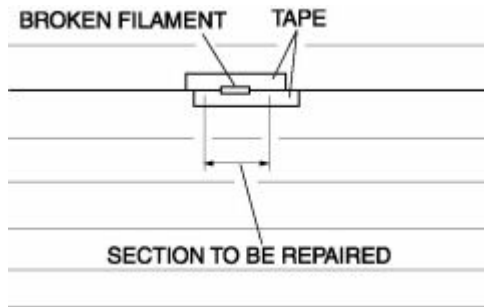


- If the voltage changes rapidly, the filament has a malfunction. Repair the filament.

Measured part	Voltage (Reference)
(1) to (2)	Approx. 12 V to 0 V

FILAMENT REPAIR

1. Clean the filament using isopropyl alcohol.
2. Attach tape to both sides of the filament.



3. Using a small brush or marking pen, apply silver paint.
4. After **2—3 min** , carefully remove the tape without damaging the applied area.

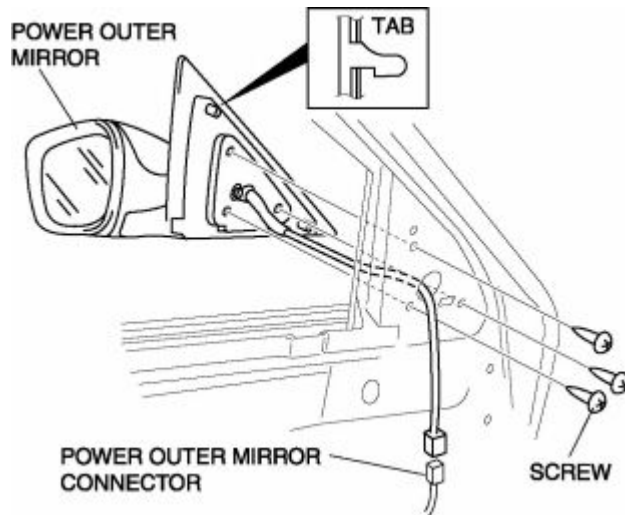
CAUTION:

- Do not operate the rear window defroster until the paint is completely dry. It may be cause other malfunctions if it is used before paint is dry.
5. Dry the repaired part using the following procedure.
 - When the room temperature is **25 °C {77 °F}** , leave as it is for **24 h** .
 - When a hot air blower is used, dry with the temperature of **150 °C {302 °F}** for **30 min** .

OUTER MIRROR

POWER OUTER MIRROR REMOVAL/INSTALLATION

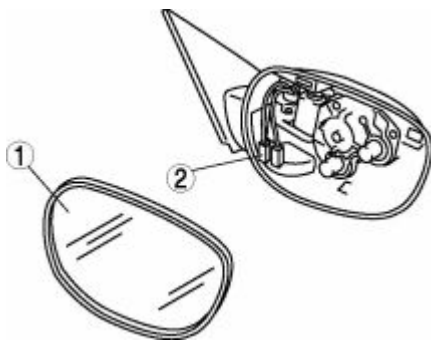
1. Disconnect the negative battery cable.
2. Remove the inner garnish. (See INNER GARNISH REMOVAL/INSTALLATION .)
3. Remove the front door trim. (See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
4. Disconnect the power outer mirror connector.



5. Remove the screws.
6. Push the power outer mirror against the vehicle and detach the tab while lifting the mirror up to remove.
7. Install in the reverse order of removal.

POWER OUTER MIRROR ASSEMBLY/DISASSEMBLY

1. Disassemble in the order indicated in the table.



	Outer mirror glass
1	(See Outer Mirror Glass Disassembly Note) (See Outer Mirror Glass Assembly Note)
2	Connector (vehicles with heated outer mirrors)

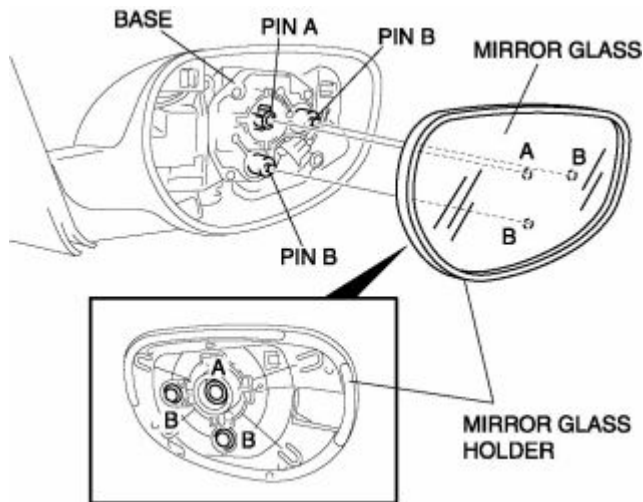
2. Assemble in the reverse order of disassembly.

Outer Mirror Glass Disassembly Note

1. Press area A of the mirror glass so that area B moves outward.



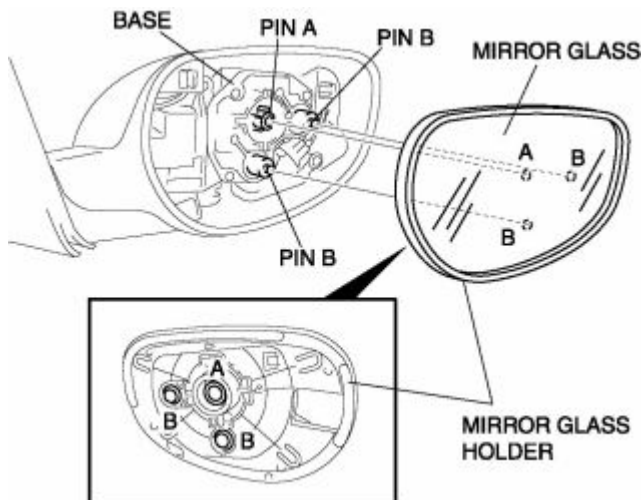
2. Detach pin A while lifting up the inside of the mirror glass holder.



3. Pull out the mirror glass holder and detach pins B.
4. Remove the mirror glass holder and the mirror glass as a single unit.

Outer Mirror Glass Assembly Note

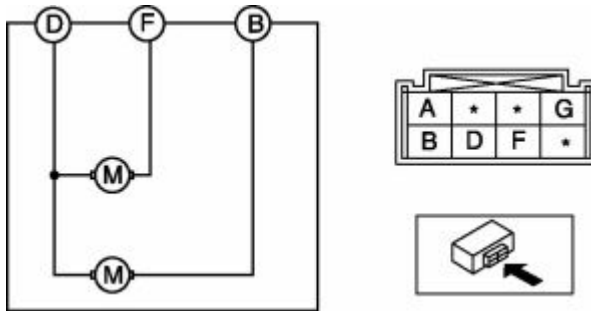
1. Press area A of the mirror glass into the base to attach pin A.



2. Press areas B of the mirror glass into the base to attach pins B.

POWER OUTER MIRROR INSPECTION

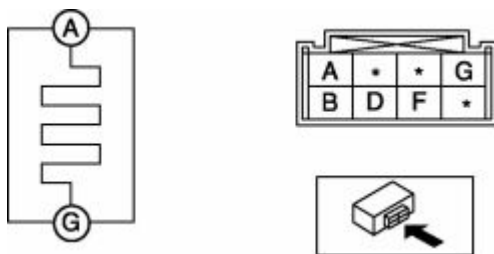
1. Apply battery positive voltage and connect the ground to the corresponding power outer mirror terminals, and then inspect the operation of the power outer mirror.



- If not as specified, replace the power outer mirror.

Operation	Terminal	
	B+	GND
Up	B	D
Down	D	B
Left	F	D
Right	D	F

2. Inspect for continuity between the power outer mirror heater terminals.



- If not as specified, replace the power outer mirror.

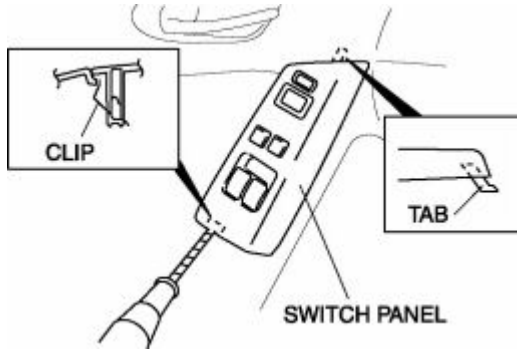
○—○ : Continuity

Operation	Terminal	
	A	G
Heater	○—○	○—○

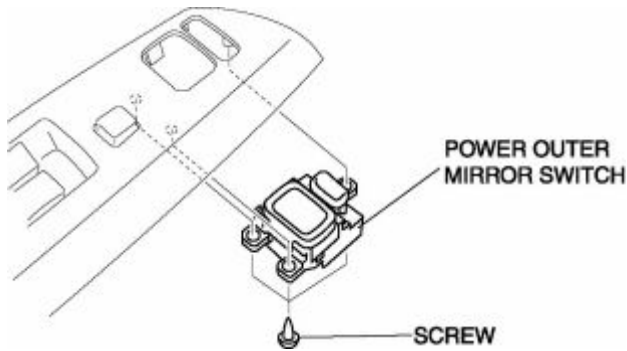
POWER OUTER MIRROR SWITCH

POWER OUTER MIRROR SWITCH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Disengage clips using a tape-wrapped flathead screwdriver.



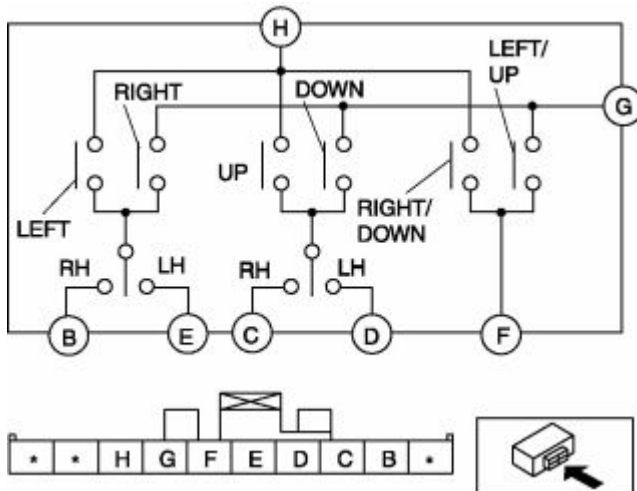
3. Remove the switch panel from the front door trim keeping the tab from catching.
4. Disconnect the power window main switch connector and power outer mirror switch connector.
5. Remove the screws and the power outer mirror switch.



6. Install in the reverse order of removal.

POWER OUTER MIRROR SWITCH INSPECTION

1. Inspect for continuity between the power outer mirror switch terminals using an ohmmeter.



- If not as specified, replace the power outer mirror switch.

○—○ : Continuity

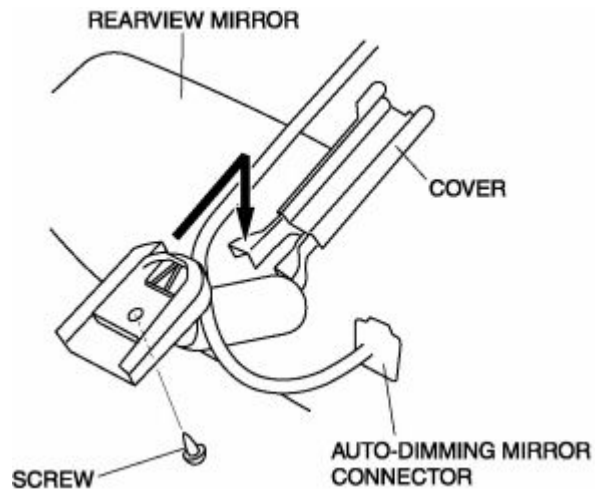
Operation		D	C	E	B	H	G	F
LH	Up	○				○		○—○
	Down	○					○	○—○
	Left			○		○		○—○
	Right			○			○	○—○
RH	Up		○			○		○—○
	Down		○				○	○—○
	Left				○	○		○—○
	Right				○		○	○—○

REARVIEW MIRROR

REARVIEW MIRROR REMOVAL/INSTALLATION

Auto-dimming Mirror

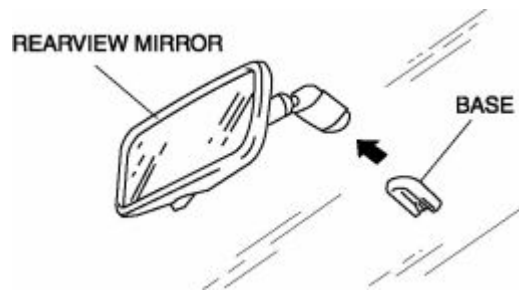
1. Disconnect the negative battery cable.
2. Remove the cover.



3. Disconnect the auto-dimming mirror connector.
4. Remove the screw.
5. Remove the rearview mirror.
6. Install in the reverse order of removal.

Normal Type

1. Pull the rearview mirror in the direction indicated by the arrow.



2. Install in the reverse order of removal.

AUTO-DIMMING MIRROR INSPECTION

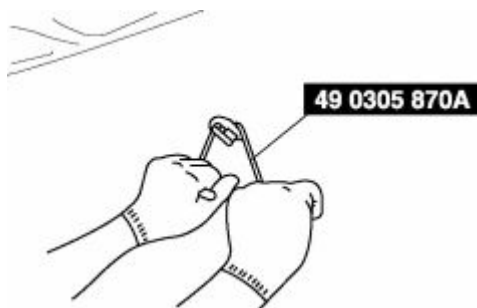
1. Cover the day/night sensor on the back of the mirror with a piece of black paper or cloth.
2. In a well-lit area, shine a light at the mirror to simulate glare from vehicles to the rear. Verify that the mirror dims automatically.
 - If not, replace the auto-dimming mirror.

NOTE:

- The mirror will dim within **2 min** if testing for the first time.

BASE REMOVAL

1. Remove the rearview mirror.
2. Wind each end of a wire around a bar.



WARNING:

- Using the SST (piano wire) with bare hands can cause injury. Always wear gloves when using the SST (piano wire).

NOTE:

- Use a long sawing action to spread the work over the whole length of the SST (piano wire) to prevent it from breaking.
3. Saw through the sealant to remove the base.

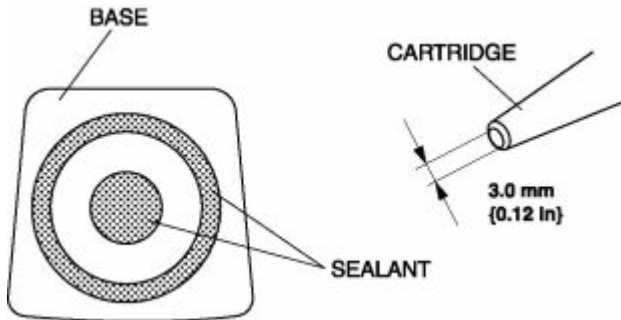
BASE INSTALLATION

1. Cut away all of the original sealant using a razor.
2. Clean and degrease the ceramic coating on the glass and the base.

- Apply primer to the bonding area of the glass and the base.

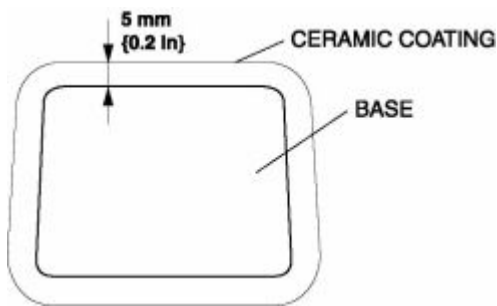
CAUTION:

- Keep the area free of dirt and grease, and do not touch the surface. Otherwise, the primer may not properly bond to the surface of the glass.
- Apply a **3.0 mm {0.12 in}** layer of sealant to the base.



NOTE:

- Use only glass primer on the glass, and body primer on the base. Allow the primer to dry for **approx. 30 min**.
- Center the base in the ceramic coating and press it onto the glass.



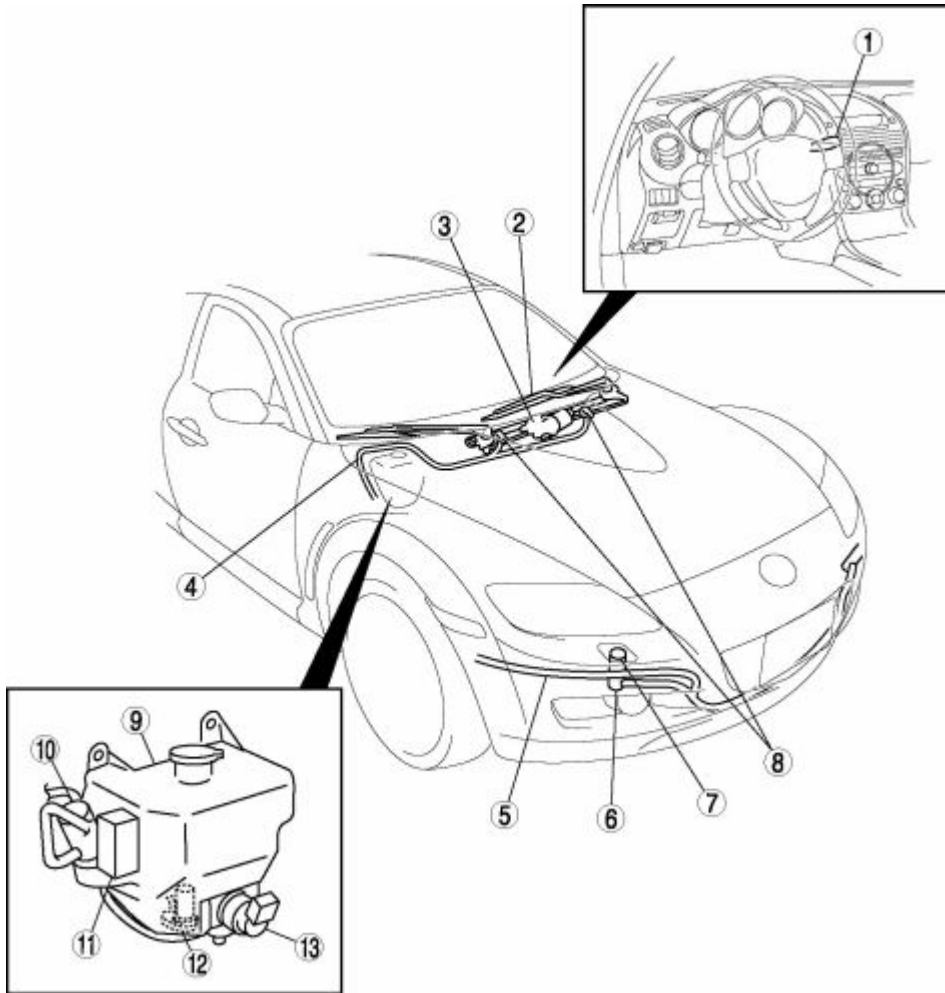
- Use isopropyl alcohol to remove any excess repair sealant. Hardening time of sealant

Temperature	Surface hardening time	Time required until vehicle can be put into service
5 °C {41 °F}	Approx. 1.5 h	Approx. 12 h
20 °C {68 °F}	Approx. 1 h	Approx. 4 h
35 °C {95 °F}	Approx. 10 min.	Approx. 2 h

- Install the rearview mirror.

WIPER/WASHER SYSTEMS

WIPER/WASHER SYSTEM LOCATION INDEX



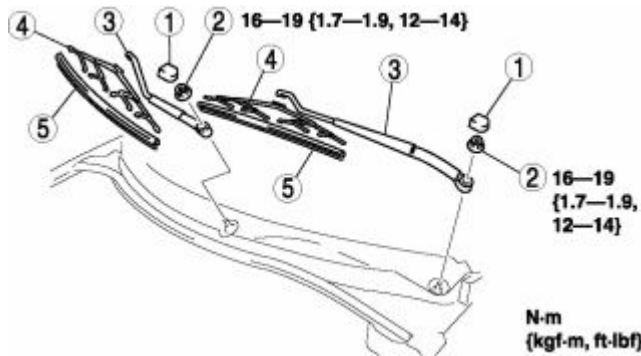
1	<p>Windshield wiper and washer switch</p> <p>(See WINDSHIELD WIPER AND WASHER SWITCH REMOVAL/INSTALLATION .)</p> <p>(See WINDSHIELD WIPER AND WASHER SWITCH INSPECTION .)</p>
2	<p>Windshield wiper arm and blade</p> <p>(See WINDSHIELD WIPER ARM AND BLADE REMOVAL/INSTALLATION .)</p> <p>(See WINDSHIELD WIPER ARM AND BLADE ADJUSTMENT .)</p>
3	<p>Windshield wiper motor</p> <p>(See WINDSHIELD WIPER MOTOR REMOVAL/INSTALLATION .)</p>

	(See WINDSHIELD WIPER MOTOR DISASSEMBLY/ASSEMBLY .) (See WINDSHIELD WIPER MOTOR INSPECTION .)
4	Windshield washer hose (See WINDSHIELD WASHER HOSE REMOVAL/INSTALLATION .)
5	Headlight cleaner hose (See HEADLIGHT CLEANER HOSE REMOVAL/INSTALLATION .)
6	Headlight cleaner actuator (See HEADLIGHT CLEANER ACTUATOR REMOVAL/INSTALLATION .)
7	Headlight cleaner nozzle (See HEADLIGHT CLEANER NOZZLE REMOVAL .) (See HEADLIGHT CLEANER NOZZLE INSTALLATION .)
8	Windshield washer nozzle (See WINDSHIELD WASHER NOZZLE REMOVAL/INSTALLATION .) (See WINDSHIELD WASHER NOZZLE ADJUSTMENT .) (See WINDSHIELD WASHER NOZZLE CLEANING .)
9	Windshield washer tank (See WINDSHIELD WASHER TANK REMOVAL/INSTALLATION .)
10	Headlight cleaner motor (See HEADLIGHT CLEANER MOTOR REMOVAL/INSTALLATION .) (See HEADLIGHT CLEANER MOTOR INSPECTION .)
11	Headlight cleaner relay (See HEADLIGHT CLEANER RELAY REMOVAL/INSTALLATION .) (See HEADLIGHT CLEANER RELAY INSPECTION .)
12	Washer fluid-level sensor (See WASHER FLUID-LEVEL SENSOR REMOVAL/INSTALLATION .) (See WASHER FLUID-LEVEL SENSOR INSPECTION .)
13	Windshield washer motor (See WINDSHIELD WASHER MOTOR REMOVAL/INSTALLATION .) (See WINDSHIELD WASHER MOTOR INSPECTION .)

WINDSHIELD WIPER ARM AND BLADE

WINDSHIELD WIPER ARM AND BLADE REMOVAL/INSTALLATION

1. Remove in the order indicated in the table.

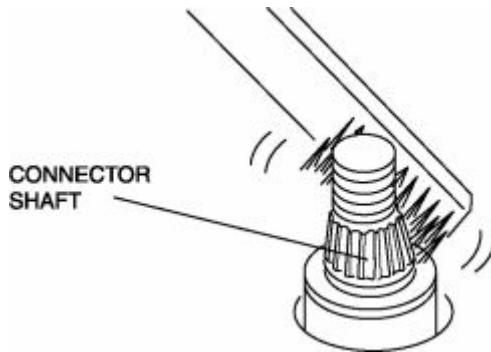


1	Cap
2	Nut
3	Windshield wiper arm (See Windshield Wiper Arm Installation Note .)
4	Windshield wiper blade
5	Rubber brush

2. Install in the reverse order of removal.
3. Adjust the windshield wiper arm and blade.(See WINDSHIELD WIPER ARM AND BLADE ADJUSTMENT .)

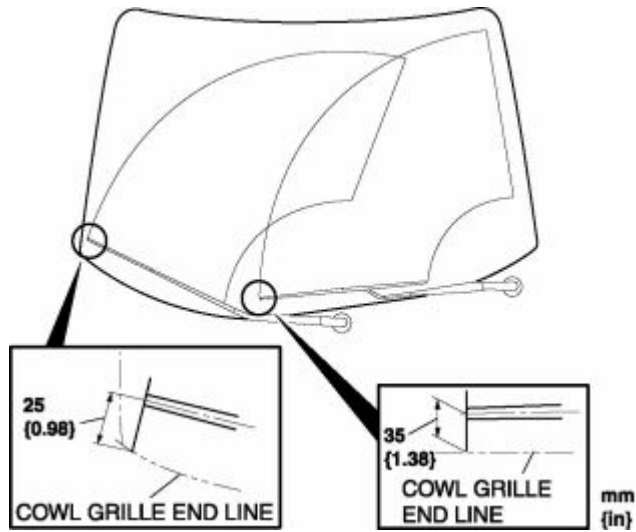
Windshield Wiper Arm Installation Note

1. Clean the windshield wiper arm connector shafts using a wire brush before installing the windshield wiper arms.



WINDSHIELD WIPER ARM AND BLADE ADJUSTMENT

1. Operate the windshield wipers, and turn off the windshield wiper motor to set the wipers in the park position.
2. Adjust the windshield wiper arm connector shafts to set the arm heights as shown.

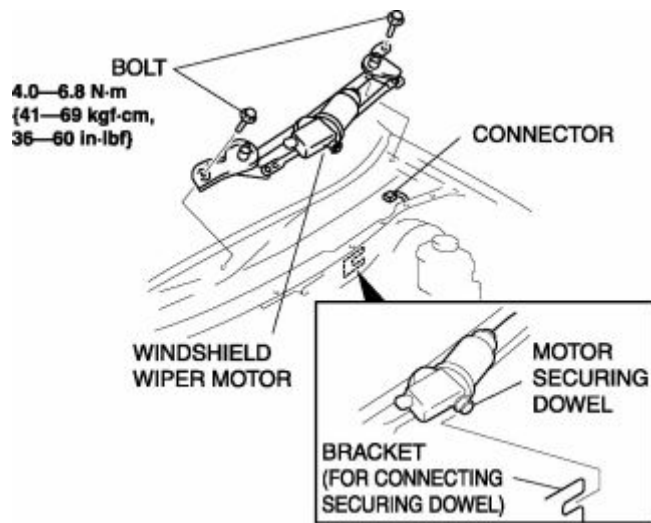


Notes:

WINDSHIELD WIPER MOTOR

WINDSHIELD WIPER MOTOR REMOVAL/INSTALLATION

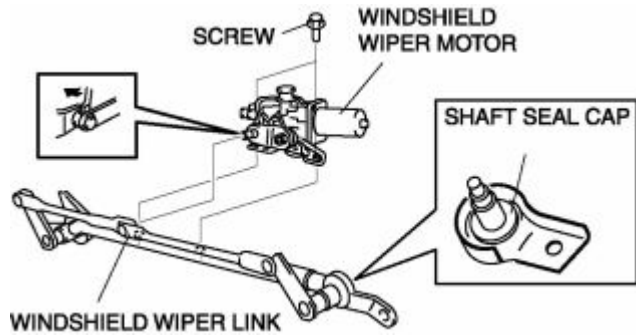
1. Disconnect the negative battery cable.
2. Remove the windshield wiper arm and blade.(See WINDSHIELD WIPER ARM AND BLADE REMOVAL/INSTALLATION .)
3. Remove the cowl grille.(See COWL GRILLE REMOVAL/INSTALLATION .)
4. Disconnect the connector.



5. Remove the bolts. Move the windshield wiper motor in the direction of the arrow, remove the securing dowel from the bracket, then remove the windshield wiper motor.
6. Install in the reverse order of removal.

WINDSHIELD WIPER MOTOR DISASSEMBLY/ASSEMBLY

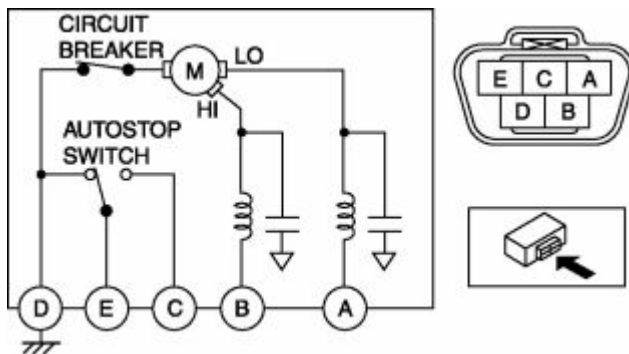
1. Disconnect the negative battery cable.
2. Remove the windshield wiper arm and blade.(See WINDSHIELD WIPER ARM AND BLADE REMOVAL/INSTALLATION .)
3. Remove the cowl grille.(See COWL GRILLE REMOVAL/INSTALLATION .)
4. Disconnect the connector.
5. Detach the connecting part between the windshield wiper motor and the windshield wiper link.



6. Remove the screws, then remove the windshield wiper motor.)
7. Assemble in the reverse order of disassembly.
8. Adjust the windshield wiper arm and blade.(See WINDSHIELD WIPER ARM AND BLADE ADJUSTMENT .)

WINDSHIELD WIPER MOTOR INSPECTION

1. Disconnect the windshield wiper motor connector.
2. Connect battery positive voltage to windshield wiper motor terminal A or B, and ground to terminal D, then verify that the windshield wipers operate as shown in the table.



- If the windshield wipers do not operate as indicated in the table, replace the windshield wiper motor.

Terminal connected to battery positive voltage	Operation condition
B	HI
A	LO

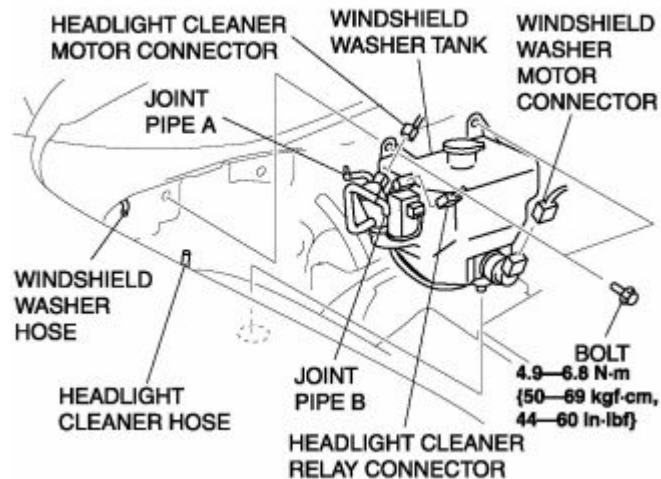
3. Operate the wipers, disconnect battery positive voltage from terminal B, and then verify that the wipers stop.
4. Connect windshield wiper motor terminals E and A, and apply battery positive voltage to terminal C.
5. Operate the wipers at low speed, and verify that they stop in the park position.
 - If there is any malfunction, replace the windshield wiper motor.

WINDSHIELD WASHER TANK

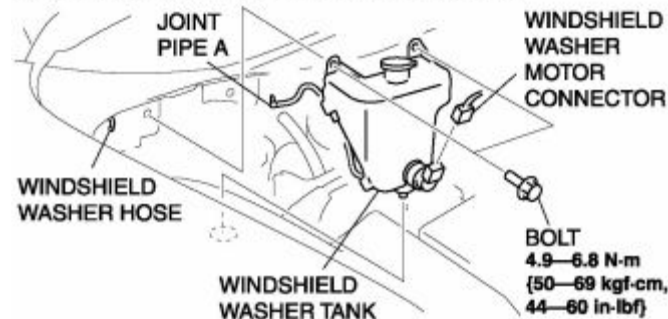
WINDSHIELD WASHER TANK REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Disconnect the windshield washer motor connector.

VEHICLES WITH THE HEADLIGHT CLEANER



VEHICLES WITHOUT THE HEADLIGHT CLEANER

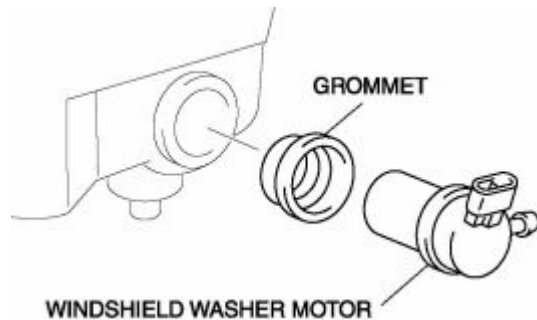


3. Disconnect the headlight cleaner motor connector. (Vehicles with the headlight cleaner)
4. Disconnect the headlight cleaner relay connector. (Vehicles with the headlight cleaner)
5. Disconnect the windshield washer hose from joint pipe A.
6. Disconnect the headlight cleaner hose from joint pipe B. (Vehicles with the headlight cleaner)
7. Remove the bolts, then remove the windshield washer tank.
8. Install in the reverse order of removal.

WINDSHIELD WASHER MOTOR

WINDSHIELD WASHER MOTOR REMOVAL/INSTALLATION

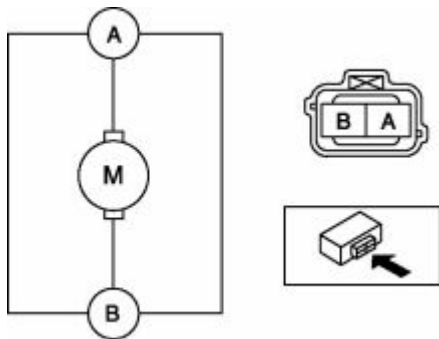
1. Disconnect the negative battery cable.
2. Remove the windshield washer tank.(See WINDSHIELD WASHER TANK REMOVAL/INSTALLATION .)
3. Remove the windshield washer motor, then remove the grommet.



4. Install in the reverse order of removal.

WINDSHIELD WASHER MOTOR INSPECTION

1. Disconnect the negative battery cable.
2. Remove the windshield washer tank.(See WINDSHIELD WASHER TANK REMOVAL/INSTALLATION .)
3. Connect battery positive voltage to windshield washer motor terminal A and terminal B to ground.

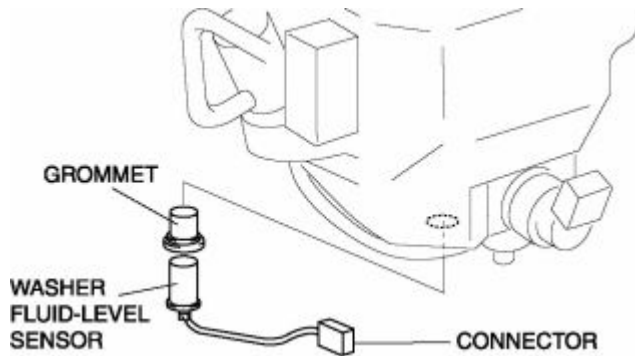


4. Verify that the windshield washer motor operates normally.
 - If there is any malfunction, replace the windshield washer motor.

WASHER FLUID-LEVEL SENSOR

WASHER FLUID-LEVEL SENSOR REMOVAL/INSTALLATION

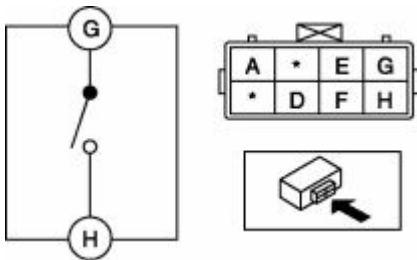
1. Disconnect the negative battery cable.
2. Remove the washer tank. (See WINDSHIELD WASHER TANK REMOVAL/INSTALLATION)
3. Disconnect the connector.



4. Remove the washer fluid-level sensor.
5. Remove the grommet.
6. Install in the reverse order of removal.

WASHER FLUID-LEVEL SENSOR INSPECTION

1. Disconnect the negative battery cable.
2. Inspect for continuity between the washer fluid-level sensor terminals using an ohmmeter.



- If not as specified, replace the washer fluid-level sensor.

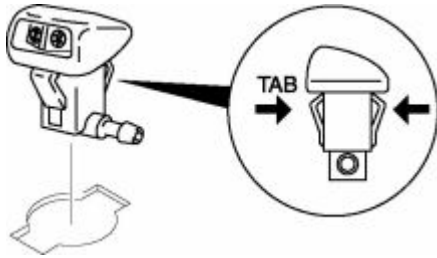
○—○ : Continuity

Fluid level	Terminal	
	G	H
Above low		
Below low	○—○	

WINDSHIELD WASHER NOZZLE

WINDSHIELD WASHER NOZZLE REMOVAL/INSTALLATION

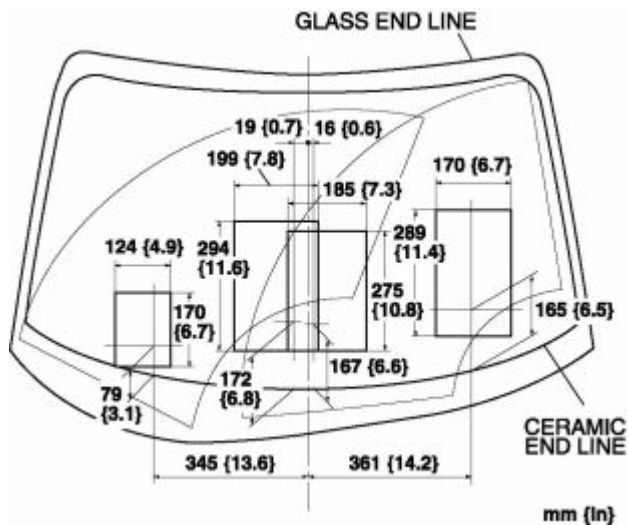
1. Remove the cowl grille.(See COWL GRILLE REMOVAL/INSTALLATION .)
2. Remove the windshield washer hose from the windshield washer nozzle.(See WINDSHIELD WASHER HOSE REMOVAL/INSTALLATION .)
3. Squeeze the tabs of the windshield washer nozzle.
4. Pull the windshield washer nozzle out to remove it.



5. Install in the reverse order of removal.

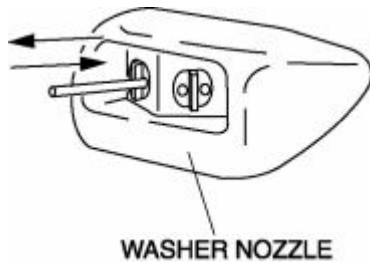
WINDSHIELD WASHER NOZZLE ADJUSTMENT

1. Insert a needle or an equivalent tool into the spray hole of the windshield washer nozzle, and adjust the nozzle direction as shown.



WINDSHIELD WASHER NOZZLE CLEANING

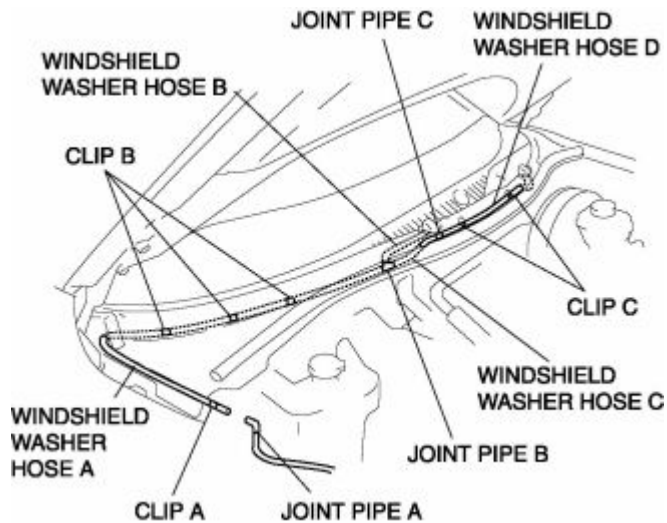
1. Clean the washer nozzle by inserting and moving a needle or an equivalent tool back and forth.



- If the nozzle becomes clogged again after cleaning, remove the hose from washer nozzle. Make sure there is enough washer fluid. Then turn the washer switch on and flush the inside of the hose.

WINDSHIELD WASHER HOSE REMOVAL/INSTALLATION

1. Remove the windshield wiper arm and blade.(See WINDSHIELD WIPER ARM AND BLADE REMOVAL/INSTALLATION .)
2. Disconnect joint pipe A, then remove windshield washer hose A from clip A.

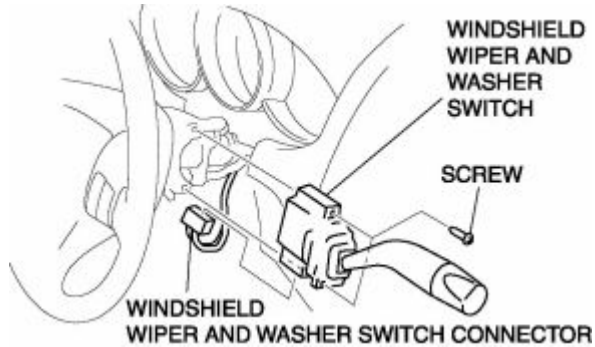


3. Remove the cowl grille.(See COWL GRILLE REMOVAL/INSTALLATION .)
4. Remove clips B.
5. Disconnect joint pipe B, then remove windshield washer hose A.
6. Disconnect windshield washer hose B from the washer nozzle, then remove windshield washer hose B.
7. Disconnect joint pipe C, then remove windshield washer hose C.
8. Remove windshield washer hose D from clips C.
9. Disconnect windshield washer hose D from the washer nozzle, then remove windshield washer hose D.
10. Install in the reverse order of removal.

WIPER AND WASHER SWITCH

WINDSHIELD WIPER AND WASHER SWITCH REMOVAL/INSTALLATION

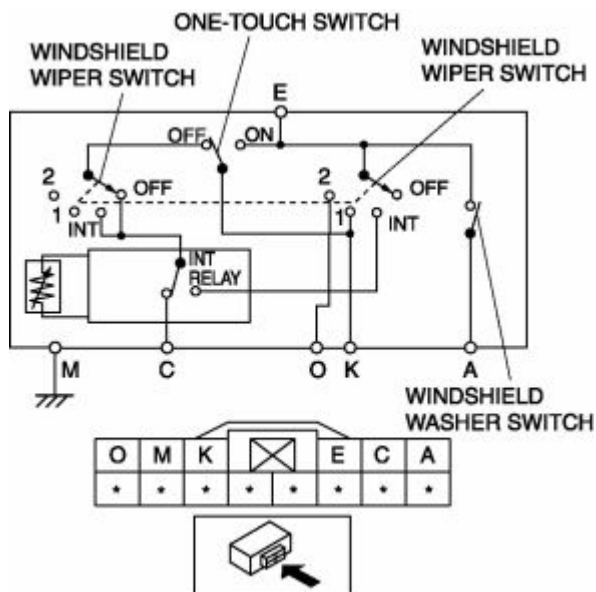
1. Disconnect the negative battery cable.
2. Remove the column cover.(See COLUMN COVER REMOVAL/INSTALLATION .)
3. Remove the ignition key illumination.(See IGNITION KEY ILLUMINATION BULB REMOVAL/INSTALLATION .)
4. Disconnect the windshield wiper and washer switch connector.



5. Remove the screws, then remove the windshield wiper and washer switch.
6. Install in the reverse order of removal.

WINDSHIELD WIPER AND WASHER SWITCH INSPECTION

1. Remove the column cover.(See COLUMN COVER REMOVAL/INSTALLATION .)
2. Remove the ignition key illumination.(See IGNITION KEY ILLUMINATION BULB REMOVAL/INSTALLATION .)
3. Remove the windshield wiper and washer switch.(See WINDSHIELD WIPER AND WASHER SWITCH REMOVAL/INSTALLATION .)
4. Verify that the continuity between the windshield wiper and washer switch is as indicated in the table.



- If not as indicated in the table, replace the windshield wiper and washer switch.

○—○ : Continuity

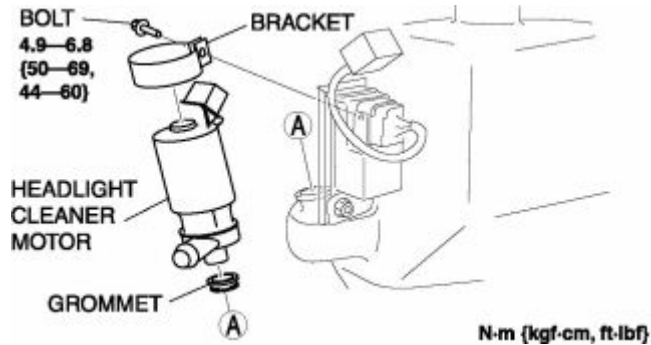
Switch position		One-touch switch	Terminal				
			A	C	E	K	O
Wind-shield wiper switch	OFF	OFF		○—○			
		ON			○—○		
	INT			○—○			
	1			○—○			
	2			○—○		○	
Wind-shield washer switch	ON		○—○				

Notes:

HEADLIGHT CLEANER

HEADLIGHT CLEANER MOTOR REMOVAL/INSTALLATION

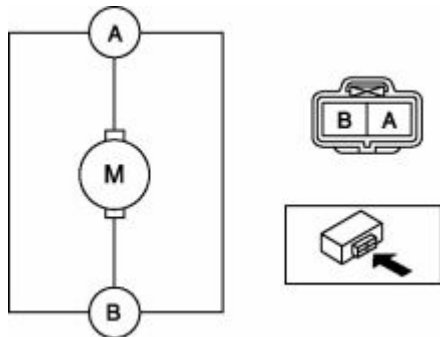
1. Disconnect the negative battery cable.
2. Remove the windshield washer tank.(See WINDSHIELD WASHER TANK REMOVAL/INSTALLATION .)
3. Remove the bolt, then remove the bracket.



4. Remove the headlight cleaner motor, then remove the grommet.
5. Install in the reverse order of removal.

HEADLIGHT CLEANER MOTOR INSPECTION

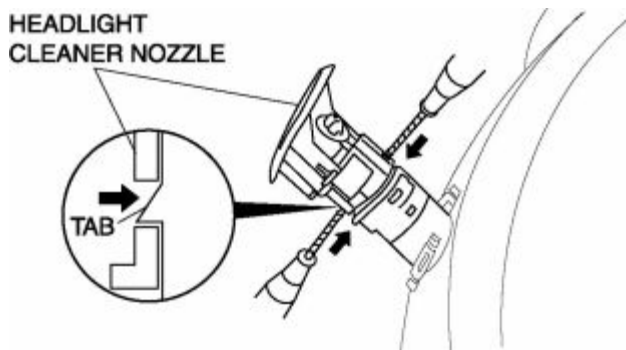
1. Disconnect the negative battery cable.
2. Remove the windshield washer tank.(See WINDSHIELD WASHER TANK REMOVAL/INSTALLATION .)
3. Connect battery positive voltage to headlight cleaner motor terminal A and terminal B to ground.



4. Verify that the headlight cleaner motor operates normally.
 - If there is any malfunction, replace the headlight cleaner motor.

HEADLIGHT CLEANER NOZZLE REMOVAL

1. Pull out the headlight cleaner nozzle.
2. While pushing the tab with a tape-wrapped flathead screwdriver, remove the headlight cleaner nozzle.

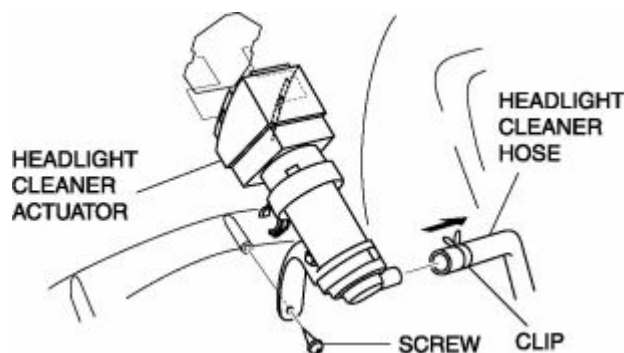


HEADLIGHT CLEANER NOZZLE INSTALLATION

1. Install the headlight cleaner nozzle by pushing it in until a click is heard.

HEADLIGHT CLEANER ACTUATOR REMOVAL/INSTALLATION

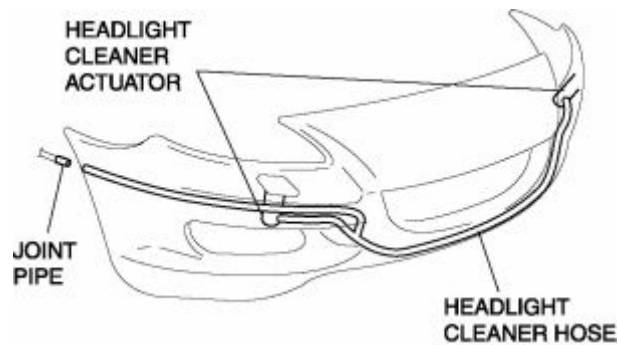
1. Disconnect the negative battery cable.
2. Remove the front side marker light. (See FRONT SIDE MARKER LIGHT REMOVAL/INSTALLATION .)
3. Remove the front bumper. (See FRONT BUMPER REMOVAL/INSTALLATION .)
4. Remove the headlight cleaner nozzle. (See HEADLIGHT CLEANER NOZZLE REMOVAL .)(See HEADLIGHT CLEANER NOZZLE INSTALLATION .)
5. Squeeze the clip tabs and slide the clip in the direction of the arrow.
6. Disconnect headlight cleaner hose from the headlight cleaner actuator.



7. Remove the screw, then remove the headlight cleaner actuator.
8. Install in the reverse order of removal.

HEADLIGHT CLEANER HOSE REMOVAL/INSTALLATION

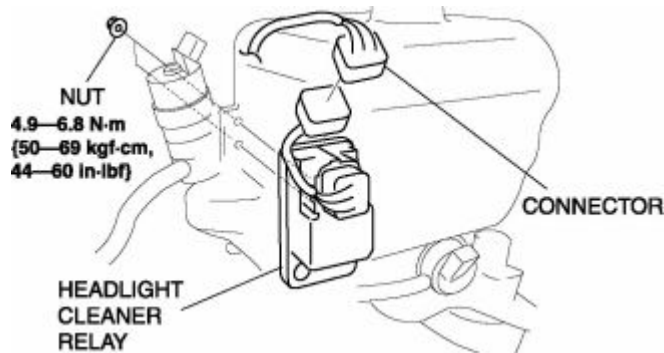
1. Disconnect the negative battery cable.
2. Remove the front side marker light.(See FRONT SIDE MARKER LIGHT REMOVAL/INSTALLATION .)
3. Remove the front bumper.(See FRONT BUMPER REMOVAL/INSTALLATION .)
4. Disconnect joint pipe.



5. Disconnect headlight cleaner hose from the headlight cleaner actuator.
6. Remove the headlight cleaner hose from the front bumper.
7. Install in the reverse order of removal.

HEADLIGHT CLEANER RELAY REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Disconnect the connector.
3. Remove the nuts, then remove the headlight cleaner relay.

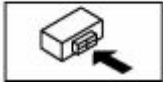
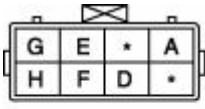


4. Install in the reverse order of removal.

HEADLIGHT CLEANER RELAY INSPECTION

1. Remove the headlight cleaner relay with the connector still connected.
2. Measure the voltage at each terminal (other than terminal F).
 - If the voltage is not as specified in the Terminal Voltage Table (Reference), inspect the parts under "Inspection item(s)".
3. Disconnect the negative battery cable.
4. Verify that continuity at terminal F is as indicated in the Terminal Voltage Table (Reference).
 - If there is any malfunction, inspect the parts under "Inspection item(s)".
 - If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, replace the headlight cleaner relay.

Terminal Voltage Table (Reference)

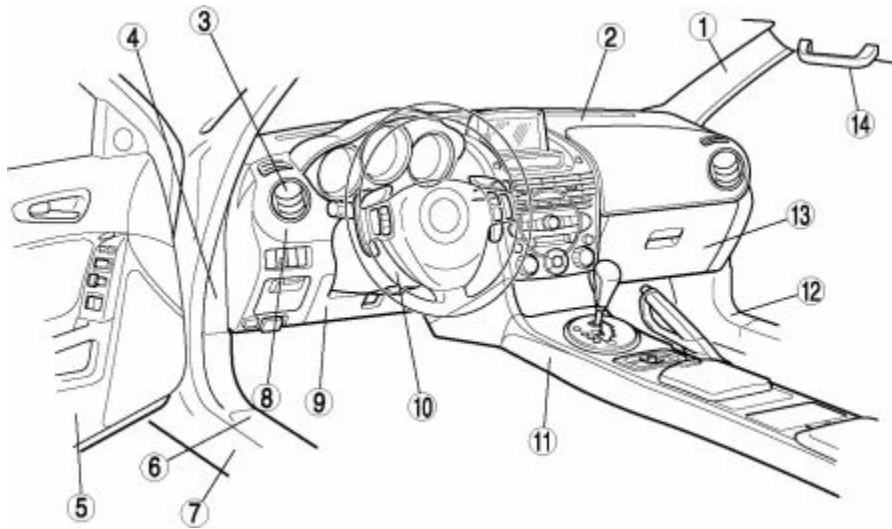


Terminal	Signal name	Connected to	Measured condition		Voltage (V)/Continuity	Inspection item(s)
A	Headlight cleaner motor output	Headlight cleaner motor	Headlight cleaner activated (auto-operation or manual operation activated)		Alternates between 1.0 or less and B+	<ul style="list-style-type: none"> • Headlight relay (See RELAY INSPECTION .) • Windshield wiper and washer switch (See WINDSHIELD WIPER AND WASHER SWITCH INSPECTION .) • Headlight cleaner motor (See HEADLIGHT CLEANER MOTOR INSPECTION .) • Related wiring harnesses
			Except above		B+	
D	Windshield washer motor output	Windshield wiper and washer switch	Turn the ignition switch to the ON position.	Turn the washer switch to the OFF position.	1.0 or less	<ul style="list-style-type: none"> • Headlight relay

				Turn the washer switch to the ON position.	B+	<p>(See RELAY INSPECTION .)</p> <ul style="list-style-type: none"> • Windshield wiper and washer switch (See WINDSHIELD WIPER AND WASHER SWITCH INSPECTION .) • Related wiring harnesses
E	Headlight	Headlight relay	Light switch at ON position.		B+	<ul style="list-style-type: none"> • Headlight relay <p>(See RELAY INSPECTION .)</p> <ul style="list-style-type: none"> • Related wiring harnesses
			Except above		1.0 or less	
F	GND	Body ground	Under any condition: Inspect for continuity to ground.		Continuity detected	<ul style="list-style-type: none"> • GND • Related wiring harnesses

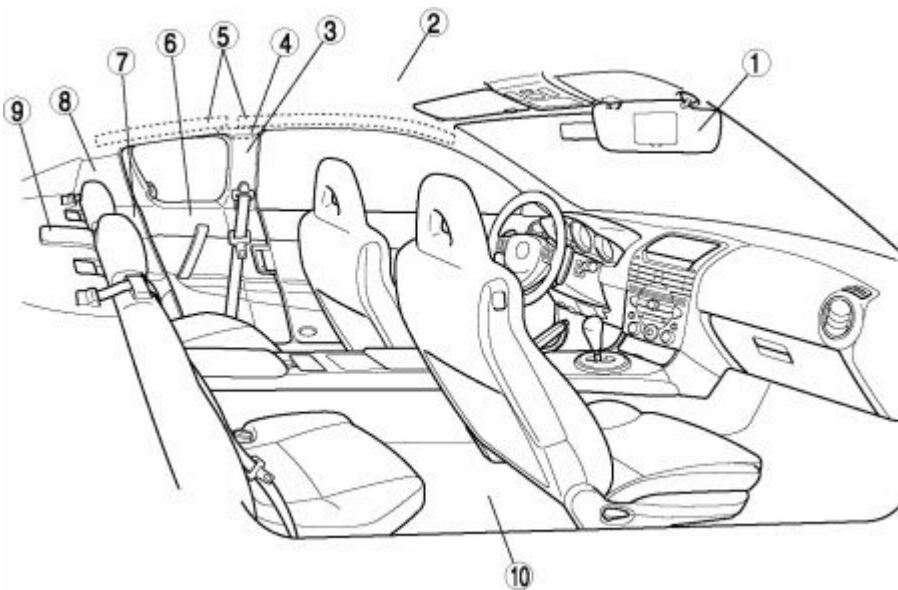
INTERIOR TRIM

INTERIOR TRIM LOCATION INDEX



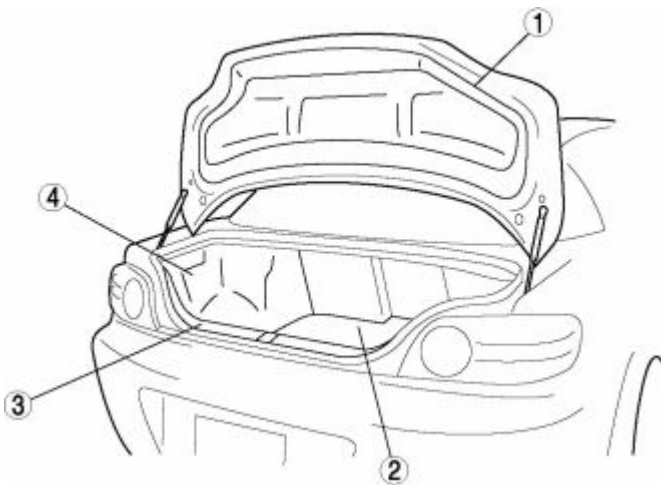
1	A-pillar trim (See A-PILLAR TRIM REMOVAL/INSTALLATION .)
2	Dashboard (See DASHBOARD REMOVAL/INSTALLATION .) (See DASHBOARD DISASSEMBLY/ASSEMBLY .)
3	Ventilator grille (See VENTILATOR GRILLE REMOVAL/INSTALLATION .)
4	Side panel (See SIDE PANEL REMOVAL/INSTALLATION .)
5	Front door trim (See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
6	Inner scuff plate (See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
7	Outer scuff plate (See OUTER SCUFF PLATE REMOVAL/INSTALLATION .)
8	Dashboard garnish (See DASHBOARD GARNISH REMOVAL/INSTALLATION .)

9	Lower panel (See LOWER PANEL REMOVAL/INSTALLATION .)
10	Column cover (See COLUMN COVER REMOVAL/INSTALLATION .)
11	Console (See CONSOLE REMOVAL/INSTALLATION .) (See CONSOLE DISASSEMBLY/ASSEMBLY .)
12	Front side trim (See FRONT SIDE TRIM REMOVAL/INSTALLATION .)
13	Glove compartment (See GLOVE COMPARTMENT REMOVAL/INSTALLATION .)
14	Assist handle (See ASSIST HANDLE REMOVAL/INSTALLATION .)



1	Sunvisor (See SUNVISOR REMOVAL/INSTALLATION .)
2	Headliner (See HEADLINER REMOVAL/INSTALLATION .)
3	Rear door upper trim (See REAR DOOR UPPER TRIM REMOVAL/INSTALLATION .)
4	Roof side trim

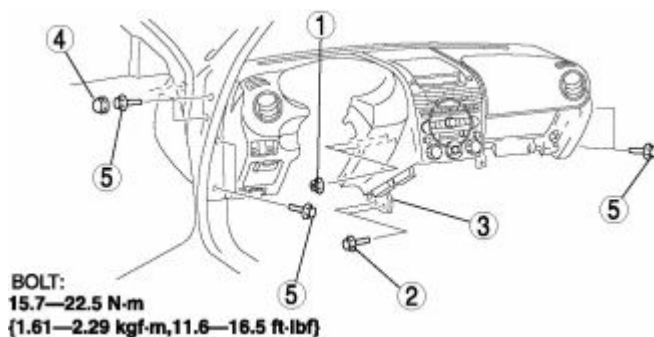
	(See ROOF SIDE TRIM REMOVAL/INSTALLATION .)
5	Head impact pad (See HEAD IMPACT PAD REMOVAL/INSTALLATION .)
6	Rear door lower trim (See REAR DOOR LOWER TRIM REMOVAL/INSTALLATION .)
7	Tire house trim (See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
8	Rear pillar trim (See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
9	Rear package trim (See REAR PACKAGE TRIM REMOVAL/INSTALLATION .)
10	Floor covering (See FLOOR COVERING REMOVAL/INSTALLATION .)



1	Trunk lid trim (See TRUNK LID TRIM REMOVAL/INSTALLATION .)
2	Trunk mat (See TRUNK MAT REMOVAL/INSTALLATION .)
3	Trunk end trim (See TRUNK END TRIM REMOVAL/INSTALLATION .)
4	Trunk side trim (See TRUNK SIDE TRIM REMOVAL/INSTALLATION .)

DASHBOARD REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Console (See CONSOLE REMOVAL/INSTALLATION .)
 - b. Glove compartment (See GLOVE COMPARTMENT REMOVAL/INSTALLATION .)
 - c. Side panels (See SIDE PANEL REMOVAL/INSTALLATION .)
 - d. Lower panel (See LOWER PANEL REMOVAL/INSTALLATION .)
 - e. Column cover (See COLUMN COVER REMOVAL/INSTALLATION .)
 - f. Steering shaft installation nuts (See STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION .)
 - g. A-pillar trim (See A-PILLAR TRIM REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.



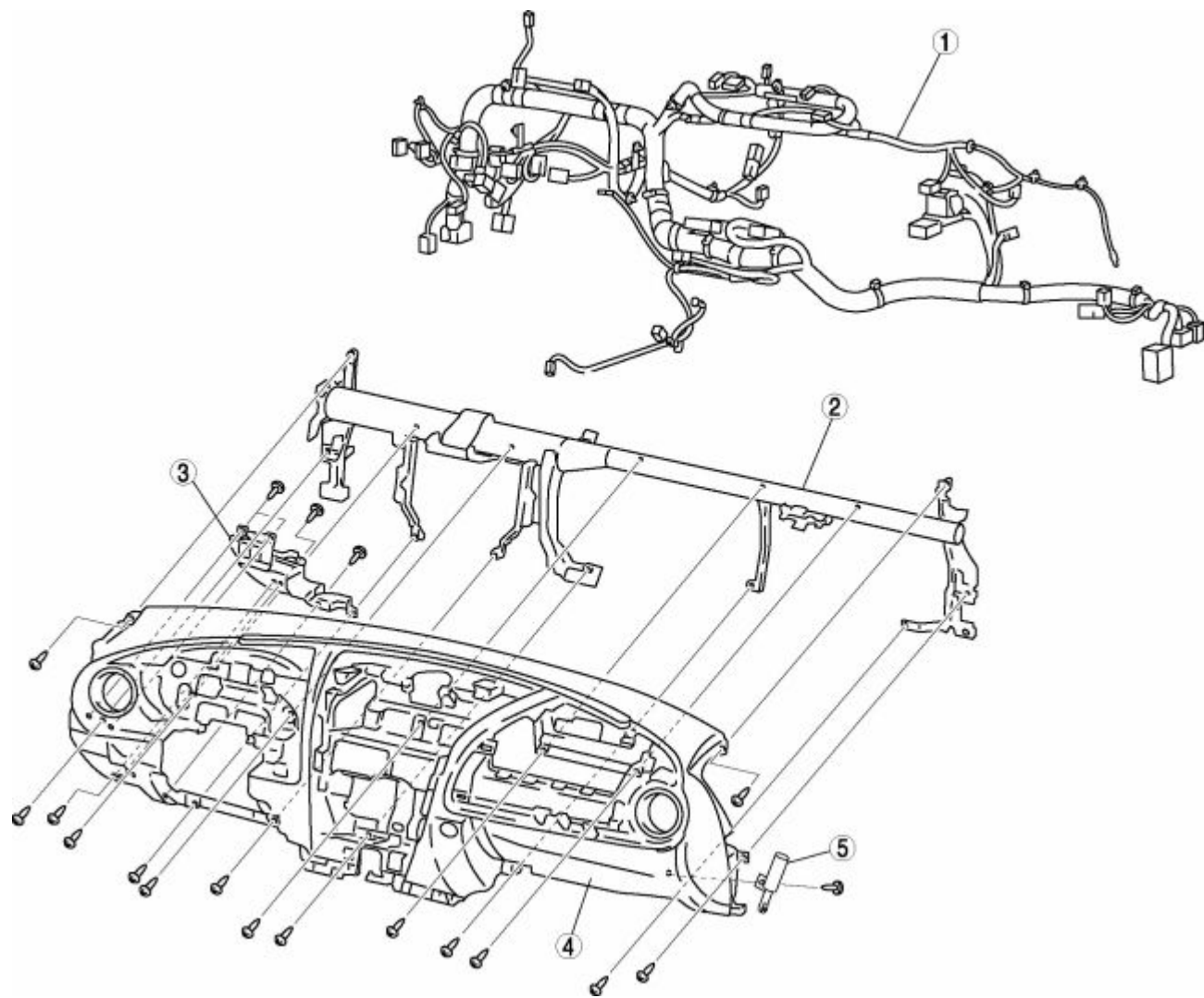
1	Nut
2	Bolt A
3	Bracket
4	Cap
5	Bolt B

WARNING:

- Removing the dashboard without supporting it can be dangerous. The dashboard may fall and injure you. Always perform the following procedure with at least another person.
4. Remove the dashboard.
 5. Take the dashboard off from the front driver-side door opening.
 6. Install in the reverse order of removal.

DASHBOARD DISASSEMBLY/ASSEMBLY

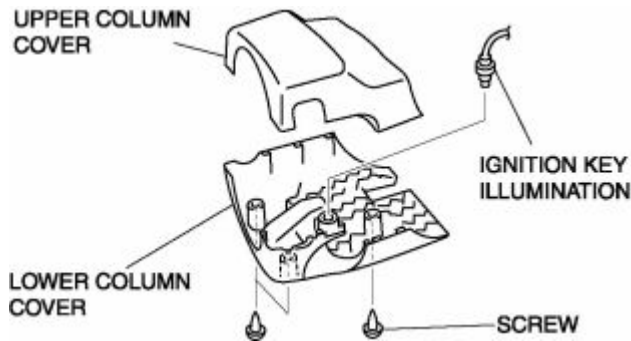
1. Remove the following parts:
 - a. Center panel module (See CENTER PANEL MODULE REMOVAL/INSTALLATION .)
 - b. Passenger-side air bag module (See PASSENGER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION .)
 - c. Instrument cluster (See INSTRUMENT CLUSTER REMOVAL/INSTALLATION .)
 - d. A/C unit (See A/C UNIT REMOVAL/INSTALLATION .)
 - e. Blower unit (See BLOWER UNIT REMOVAL/INSTALLATION .)
2. Disassemble in the order indicated in the table.
3. Assemble in the reverse order of disassembly.



1	Dashboard wiring harness
2	Dashboard member
3	Panel
4	Dashboard
5	Glove compartment damper

COLUMN COVER REMOVAL/INSTALLATION

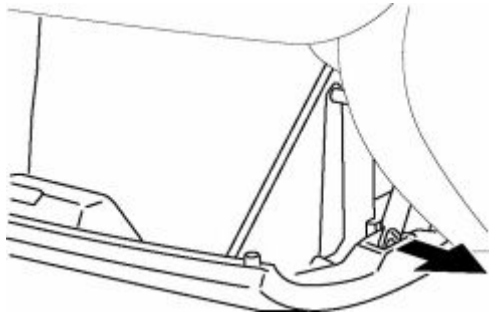
1. Disconnect the negative battery cable.
2. Remove the upper column cover.



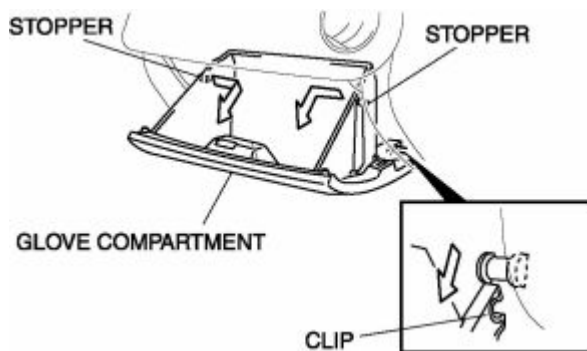
3. Remove the ignition key illumination.(See IGNITION KEY ILLUMINATION BULB REMOVAL/INSTALLATION .)
4. Remove the screws.
5. Remove the lower column cover.
6. Install in the reverse order of removal.

GLOVE COMPARTMENT REMOVAL/INSTALLATION

1. Pull the stay damper in the direction shown in the figure, and detach the connecting part between the glove compartment and the stay damper.



2. Press the stopper in and remove it.

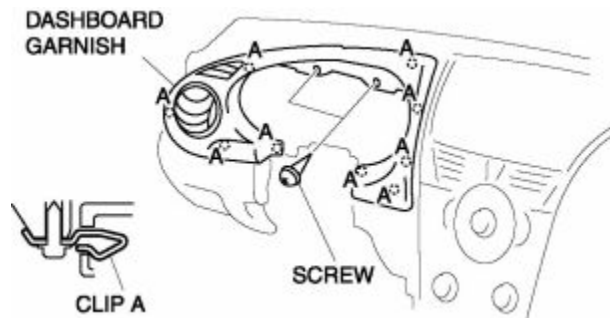


3. Lower the glove compartment.
4. Detach the clips from the dashboard and remove the glove compartment.
5. Install in the reverse order of removal.

INNER GARNISH

DASHBOARD GARNISH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the instrument cluster.(See INSTRUMENT CLUSTER REMOVAL/INSTALLATION .)
3. Remove the screws.

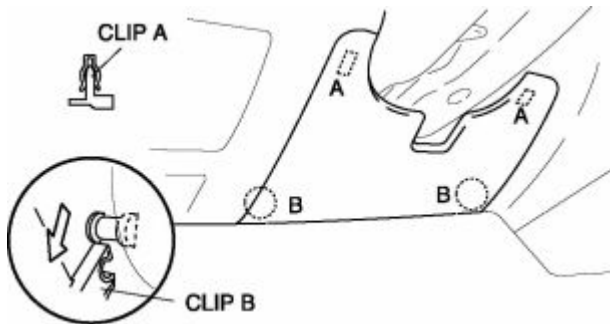


4. Pull the dashboard garnish outward, and detach clips A.
5. Remove the dashboard garnish.
6. Install in the reverse order of removal.

INTERIOR TRIM

LOWER PANEL REMOVAL/INSTALLATION

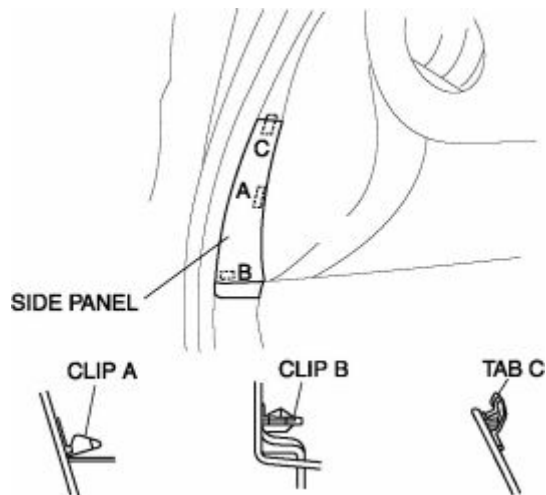
1. Pull the upper part of the lower panel, and detach clips A.



2. Detach clips B from the dashboard and remove the lower panel.
3. Install in the reverse order of removal.

SIDE PANEL REMOVAL/INSTALLATION

1. Remove the inner scuff plate.(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
2. Remove the front side trim.(See FRONT SIDE TRIM REMOVAL/INSTALLATION .)
3. Detach clips A and B, using a flathead screwdriver wrapped with protective tape.

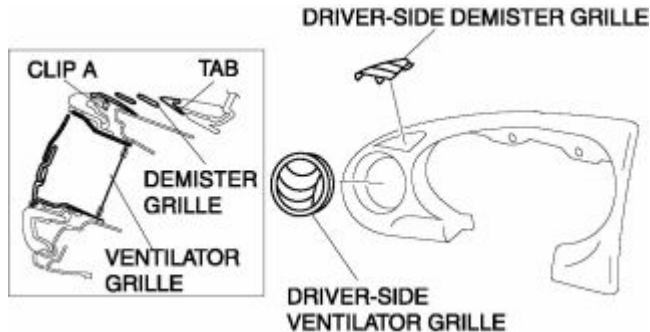


4. Pull the side panel outward and detach tab C from the dashboard, then remove the side panel.
5. Install in the reverse order of removal.

VENTILATOR GRILLE REMOVAL/INSTALLATION

Driver's Side

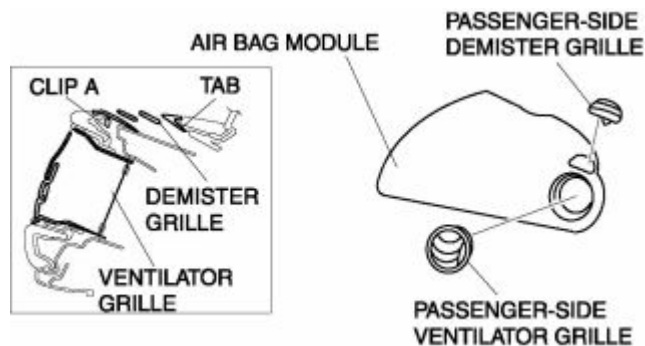
1. Disconnect the negative battery cable.
2. Remove the instrument cluster.(See INSTRUMENT CLUSTER REMOVAL/INSTALLATION .)
3. Remove the dashboard garnish.(See DASHBOARD GARNISH REMOVAL/INSTALLATION .)
4. Pull the driver-side demister grille upward and detach clip A.



5. Pull the driver-side demister grille outward and remove it.
6. Install in the reverse order of removal.

Passenger's Side

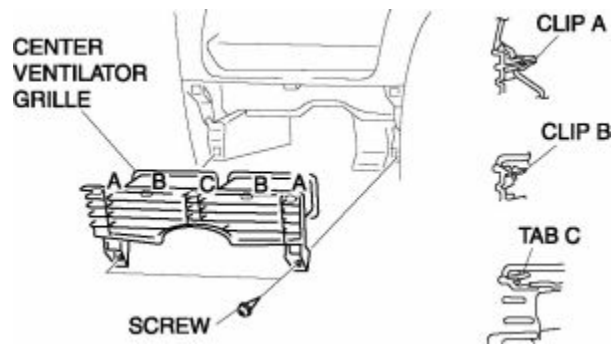
1. Disconnect the negative battery cable.
2. Remove the glove compartment.(See GLOVE COMPARTMENT REMOVAL/INSTALLATION .)
3. Remove the passenger-side air bag module.(See PASSENGER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION .)
4. Pull the passenger-side demister grille upward and detach clip A.



5. Pull the passenger-side demister grille outward and remove it.
6. Install in the reverse order of removal.

Center

1. Remove the console.(See CONSOLE REMOVAL/INSTALLATION .)
2. Remove the center panel module.(See CENTER PANEL MODULE REMOVAL/INSTALLATION .)
3. Remove the screws.

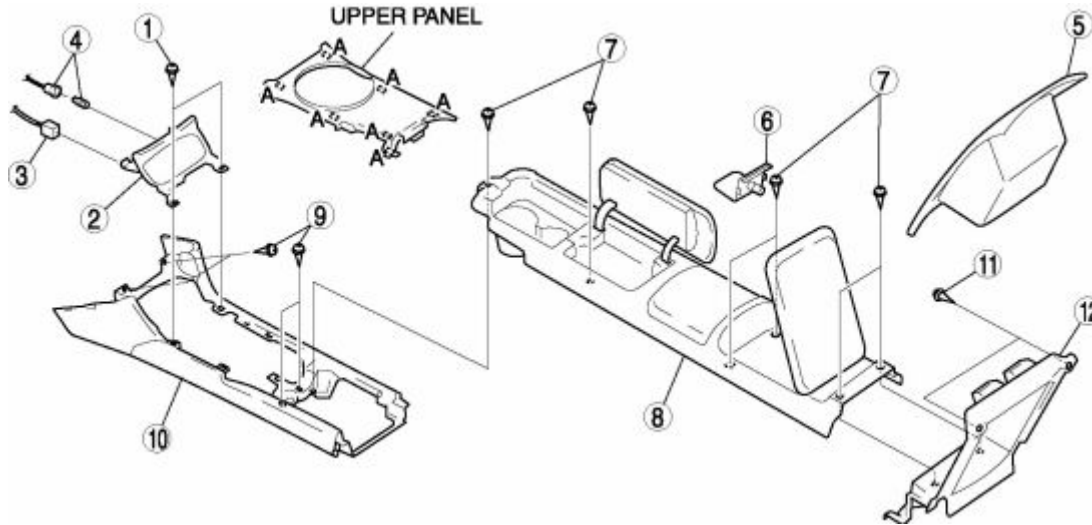


4. Pull the ventilator grille outward and detach clips A and B.
5. Detach tab C and remove the ventilator grille.
6. Install in the reverse order of removal.

CONSOLE

CONSOLE REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Detach clips A and remove the upper panel.
3. Disassemble in the order indicated in the table.



1	Screw A
2	Ashtray panel(See Ashtray Panel Removal Note)
3	Cigarette lighter connector
4	Ashtray illumination(See ASHTRAY ILLUMINATION BULB REMOVAL/INSTALLATION)
5	Storage compartment
6	Hole cover
7	Screw B
8	Rear console
9	Screw C
10	Front console
11	Screw D
12	Under cover

4. Install in the reverse order of removal.

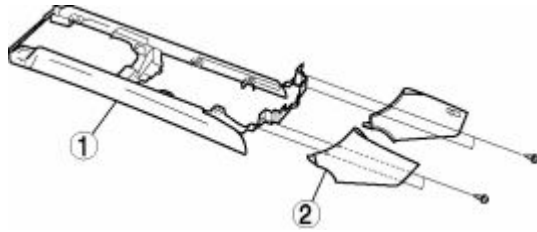
Ashtray Panel Removal Note

1. Remove the ashtray panel using a flathead screwdriver wrapped with protective tape.

CONSOLE DISASSEMBLY/ASSEMBLY

Front Console

1. Disassemble in the order indicated in the table.

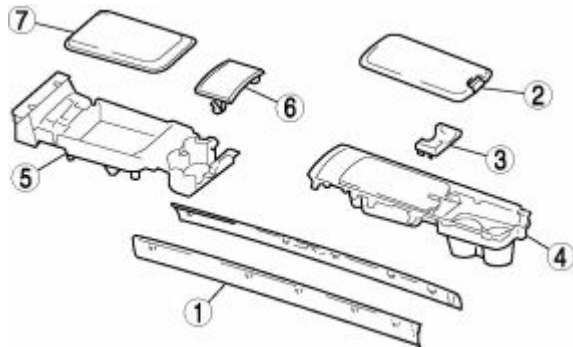


1	Front console
2	Side wall

2. Assemble in the reverse order of disassembly.

Rear Console

1. Disassemble in the order indicated in the table.



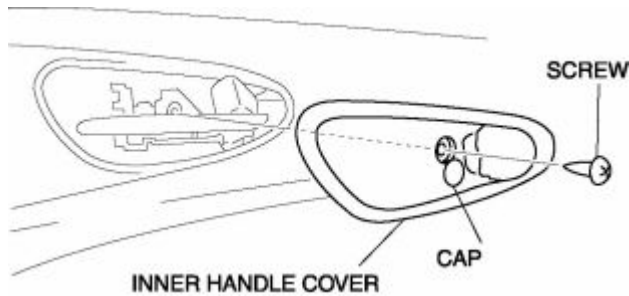
1	Rear console
2	Glove compartment lid
3	Console panel
4	Front console box
5	Rear console box
6	Console cover
7	Outer console lid

2. Assemble in the reverse order of disassembly.

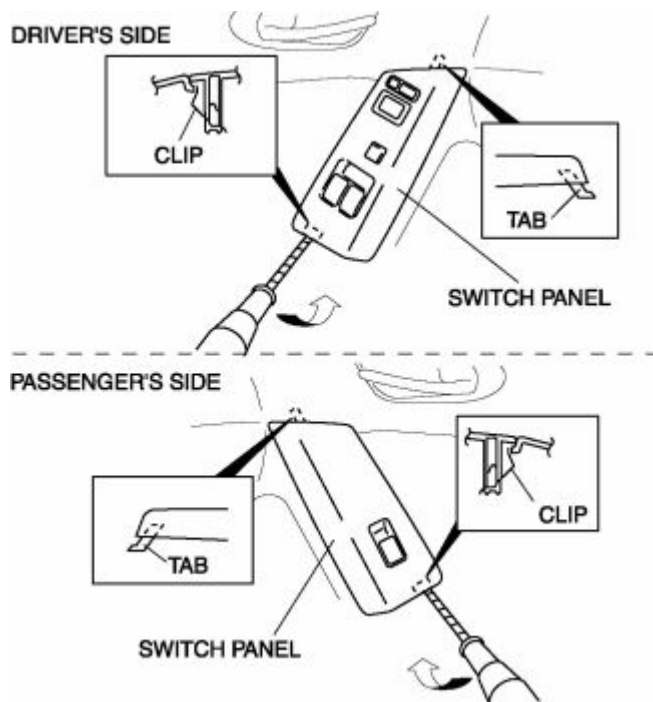
FRONT DOOR TRIM

FRONT DOOR TRIM REMOVAL/INSTALLATION

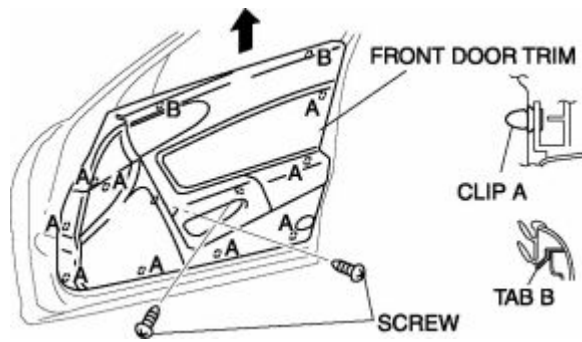
1. Disconnect the negative battery cable.
2. Using a small flathead screwdriver, open the cap and remove the screw, then remove the inner handle cover.



3. Remove the inner garnish. (See INNER GARNISH REMOVAL/INSTALLATION .)
4. Using a flathead screwdriver, pry up the rear part of the switch panel and detach the clip.



5. Remove the switch panel from the front door trim keeping the tab from catching.
6. Disconnect the power window main switch connector, the power mirror switch connector, and the power window subswitch connector.
7. Remove the screws.

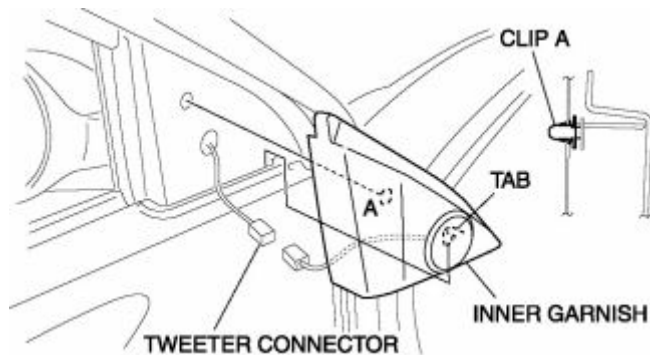


8. Detach clips A from the front door using a fastener remover.
9. Pull the front door trim upward, then detach tabs B from the front door.
10. Remove the courtesy light.(See COURTESY LIGHT BULB REMOVAL/INSTALLATION .)
11. Remove the front door trim.
12. Install in the reverse order of removal.

INNER GARNISH

INNER GARNISH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Pull the inner garnish outward and detach clip A.

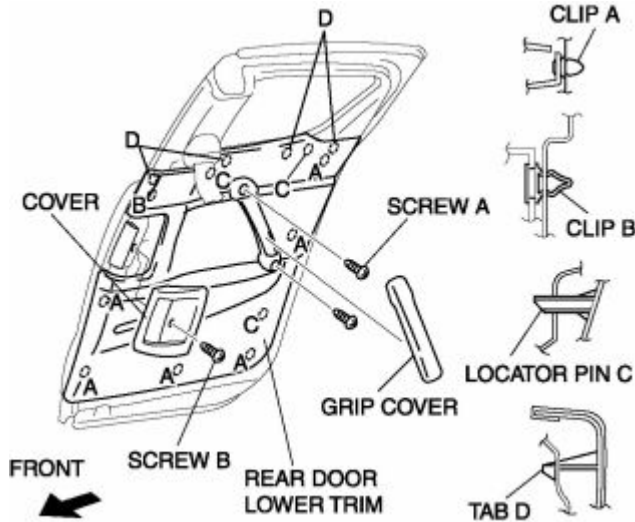


3. Detach the tab.
4. Disconnect the tweeter connector and remove the inner garnish.
5. Install in the reverse order of removal.

FRONT DOOR TRIM

REAR DOOR LOWER TRIM REMOVAL/INSTALLATION

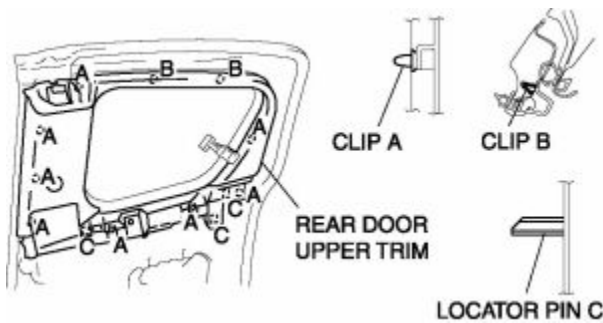
1. Remove the grip cover, then remove screws A.



2. Using a small flathead screwdriver, open the cap and remove screw B.
3. Remove the cover while rotating it to the front.
4. Detach clips A, B, locator pins C, and tabs D from the rear door using a fastener remover.
5. Remove the rear door lower trim.
6. Install in the reverse order of removal.

REAR DOOR UPPER TRIM REMOVAL/INSTALLATION

1. Remove the upper anchor of the front seat belt.(See FRONT SEAT BELT REMOVAL/INSTALLATION .)
2. Remove the rear door lower trim.(See REAR DOOR LOWER TRIM REMOVAL/INSTALLATION .)
3. Pull the rear door upper trim outward and detach clips A, B and locator pins C from the body.

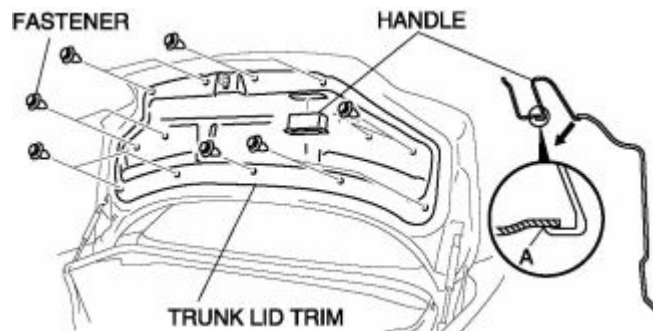


4. Remove the rear door upper trim.
5. Install in the reverse order of removal.

TRUNK TRIM

TRUNK LID TRIM REMOVAL/INSTALLATION

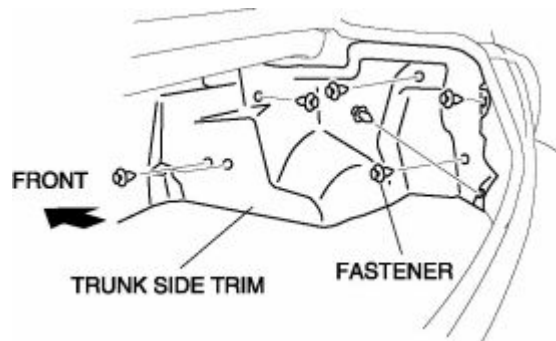
1. While supporting at point A, pull the handle in the direction of the arrow and remove it.



2. Remove the fasteners, then remove the trunk lid trim.
3. Install in the reverse order of removal.

TRUNK SIDE TRIM REMOVAL/INSTALLATION

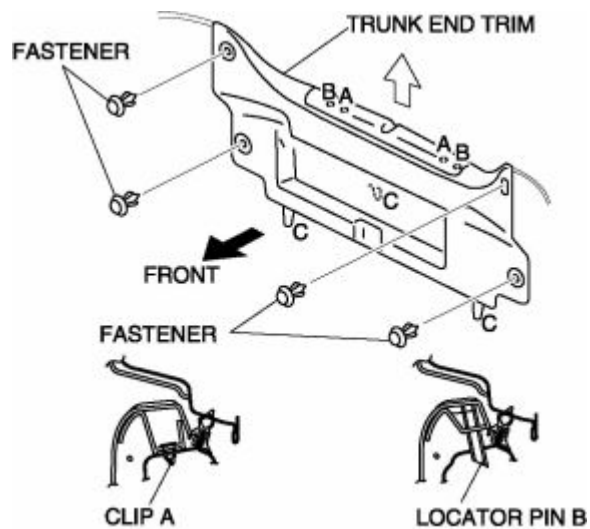
1. Remove the trunk end trim.(See TRUNK END TRIM REMOVAL/INSTALLATION .)
2. Remove the fasteners, then remove the trunk side trim.



3. Install in the reverse order of removal.

TRUNK END TRIM REMOVAL/INSTALLATION

1. Remove the fasteners.

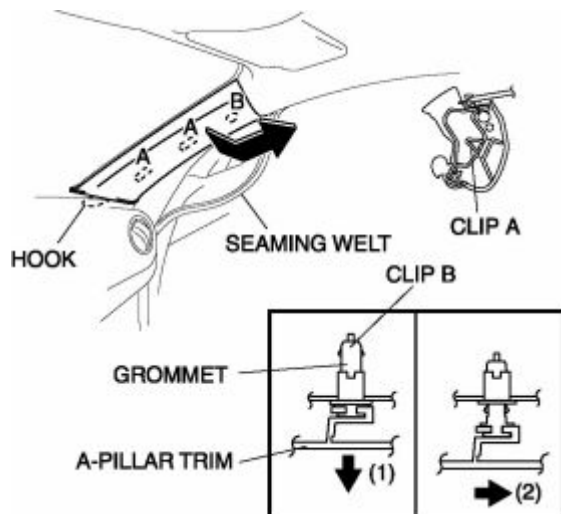


2. Pull the trunk end trim upward, then detach clips A, locator pins B, and tabs C.
3. Remove the trunk end trim.
4. Install in the reverse order of removal.

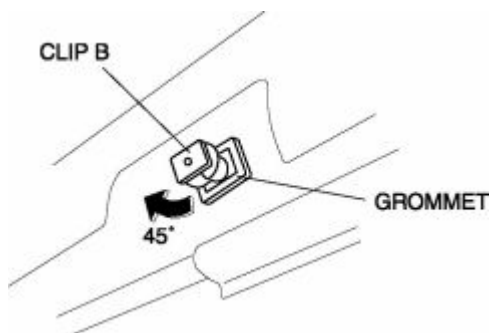
PILLAR TRIM

A-PILLAR TRIM REMOVAL/INSTALLATION

1. Partially peel back the seaming welt.
2. Detach clips A using a fastener remover.



3. Pull the A-pillar trim and detach clip B (1).
4. Pull the A-pillar trim upward and remove clip B from the A-pillar trim (2).
5. Pull clip B out and rotate it 45° .

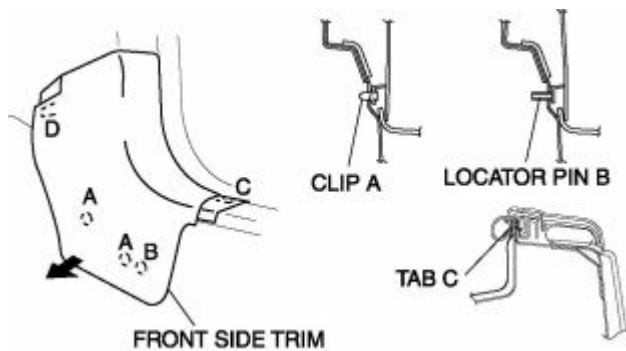


6. Remove clip B from the grommet by pulling it upward.
7. Install in the reverse order of removal.

FRONT SIDE TRIM

FRONT SIDE TRIM REMOVAL/INSTALLATION

1. Remove the inner scuff plate.(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
2. Partially peel back the seaming welt.
3. Pull the front side trim in the direction of the arrow and detach clips A and locator pin B.



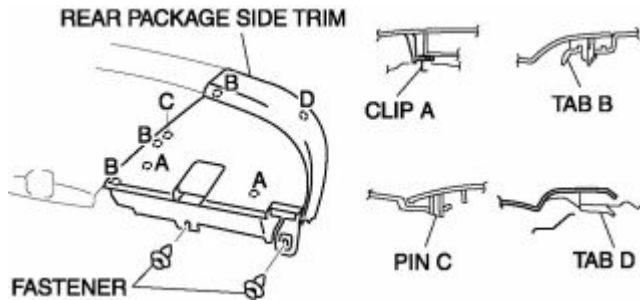
4. Detach the tab D, then remove the front side trim.
5. Install in the reverse order of removal.

Notes:

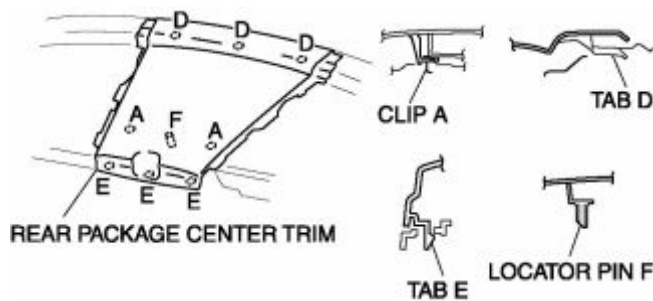
REAR SIDE TRIM

REAR PACKAGE TRIM REMOVAL/INSTALLATION

1. Remove the following parts:
 - a. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
 - b. Inner scuff plate(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
 - c. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - d. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
2. Remove the rear package side trim fasteners.



3. Pull the rear package side trim upward and detach clips A from the body.
4. Detach tabs B and pin C from the rear package center trim.
5. Detach tabs D from the body and remove the rear package side trim.
6. Pull the rear package center trim upward and detach clips A, tabs E, and locator pin F from the body.

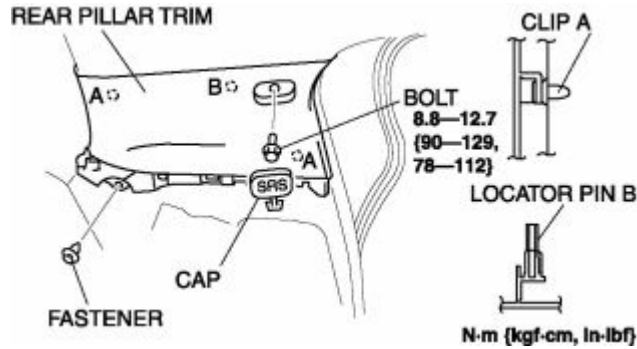


7. Detach tabs D from the body and remove the rear package center trim.
8. Install in the reverse order of removal.

PILLAR TRIM

REAR PILLAR TRIM REMOVAL/INSTALLATION

1. Remove the rear seat.(See REAR SEAT REMOVAL/INSTALLATION .)
2. Remove the inner scuff plate.(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
3. Remove the tire house trim.(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
4. Remove the cap using a fastener remover.(Vehicles with curtain air bags)

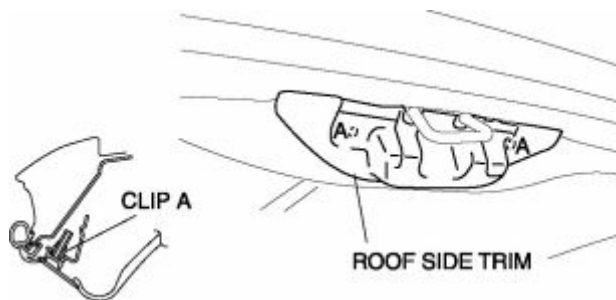


5. Remove the bolt.(Vehicles with curtain air bags)
6. Remove the fastener.
7. Detach clips A and locator pin B, using a fastener remover, and remove the rear pillar trim.
8. Install in the reverse order of removal.

HEADER TRIM

ROOF SIDE TRIM REMOVAL/INSTALLATION

1. Partially peel back the seaming welt.
2. Pull the roof side trim outward, detach clips A, and then remove the roof side trim.

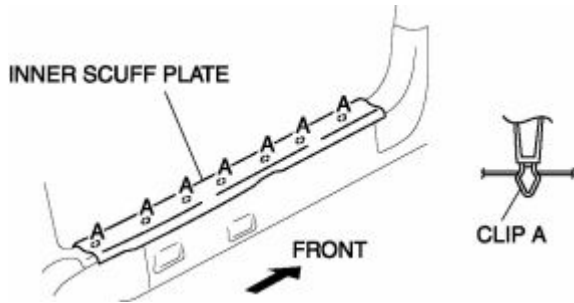


3. Install in the reverse order of removal.

SCUFF PLATE

INNER SCUFF PLATE REMOVAL/INSTALLATION

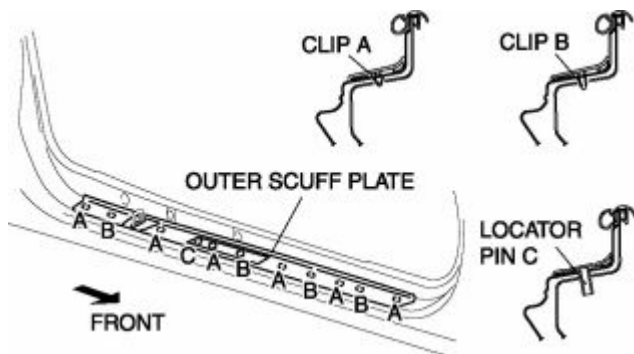
1. Pull the inner scuff plate upward, detach clips A from the body, and then remove the inner scuff plate.



2. Install in the reverse order of removal.

OUTER SCUFF PLATE REMOVAL/INSTALLATION

1. Pull the outer scuff plate upward, detach clips A, B, and locator pin C from the body, and then remove the outer scuff plate.

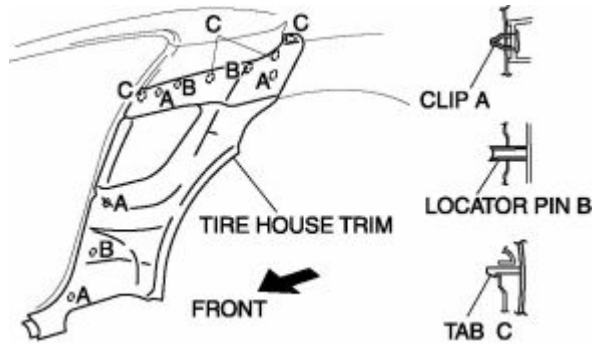


2. Install in the reverse order of removal.

REAR SIDE TRIM

TIRE HOUSE TRIM REMOVAL/INSTALLATION

1. Remove the rear seat.(See REAR SEAT REMOVAL/INSTALLATION .)
2. Remove the inner scuff plate.(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
3. Partially peel back the seaming welt.
4. Pull the tire house trim outward and detach clips A and locator pins B.

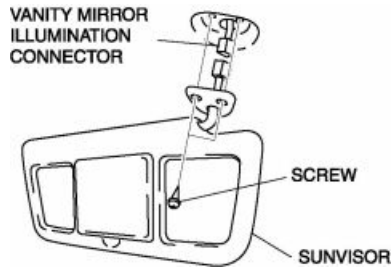


5. Detach tabs C and remove the tire house trim.
6. Install in the reverse order of removal.

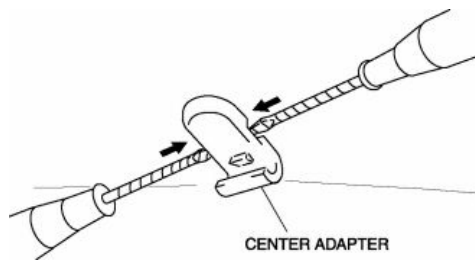
HEADLINER

SUNVISOR REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the screws.



3. Disconnect the vanity mirror illumination connector.
4. Remove the sunvisor.
5. Press the center adapter tabs in the directions of the arrows using two tape-wrapped flathead screwdrivers and remove it.



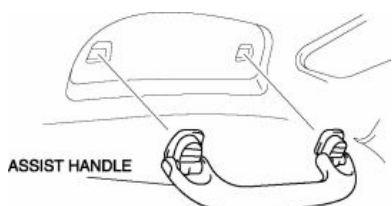
6. Install in the reverse order of removal.

ASSIST HANDLE REMOVAL/INSTALLATION

1. Insert a flathead screwdriver into the assist handle notch and remove the assist handle cover.



2. Pull the assist handle outward and remove it.

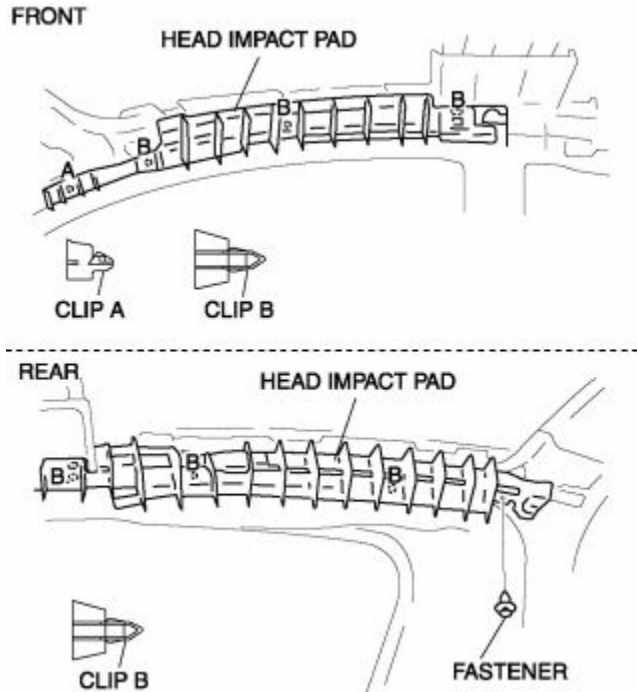


3. Install in the reverse order of removal.

HEAD IMPACT PAD

HEAD IMPACT PAD REMOVAL/INSTALLATION

1. Remove the following parts:
 - a. Roof side trim(See ROOF SIDE TRIM REMOVAL/INSTALLATION .)
 - b. A-pillar trim(See A-PILLAR TRIM REMOVAL/INSTALLATION .)
 - c. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
 - d. Inner scuff plate(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
 - e. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - f. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - g. Map light(See MAP LIGHT REMOVAL/INSTALLATION .)
 - h. Interior light(See INTERIOR LIGHT REMOVAL/INSTALLATION .)
 - i. Sunvisor(See SUNVISOR REMOVAL/INSTALLATION .)
 - j. Assist handle(See ASSIST HANDLE REMOVAL/INSTALLATION .)
 - k. Headliner(See HEADLINER REMOVAL/INSTALLATION .)
2. Remove the fastener.(Rear)



3. Pull the head impact pad outward and detach clips A and B.(Front)
4. Pull the head impact pad outward and detach clips B.(Rear)
5. Remove the head impact pad.
6. Install in the reverse order of removal.

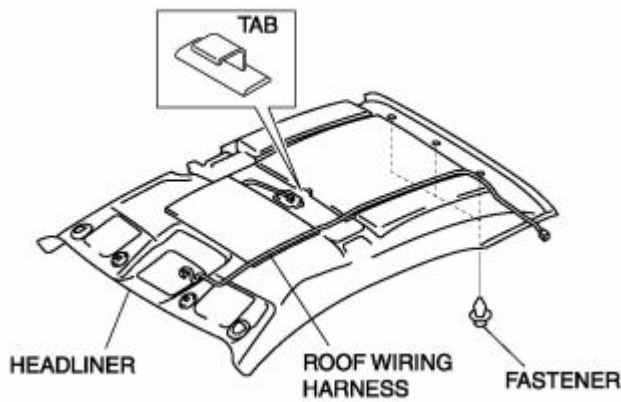
HEADLINER

HEADLINER REMOVAL/INSTALLATION

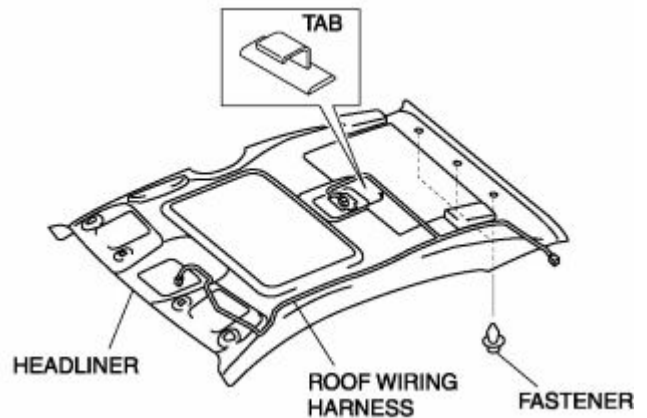
1. Disconnect the negative battery cable.
2. Partially peel back the seaming welt.
3. Remove the following parts:
 - a. Roof side trim (See ROOF SIDE TRIM REMOVAL/INSTALLATION .)

- b. Sunroof seaming welt (vehicles with sunroof)
 - c. A-pillar trim(See A-PILLAR TRIM REMOVAL/INSTALLATION .)
 - d. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
 - e. Inner scuff plate(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
 - f. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - g. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - h. Map light(See MAP LIGHT REMOVAL/INSTALLATION .)
 - i. Interior light(See INTERIOR LIGHT REMOVAL/INSTALLATION .)
 - j. Sunvisor(See SUNVISOR REMOVAL/INSTALLATION .)
 - k. Assist handle(See ASSIST HANDLE REMOVAL/INSTALLATION .)
4. Disconnect the roof wiring harness connector and remove the roof wiring harness connector clip from the body.
 5. Remove the fasteners.

WITHOUT SUNROOF



WITH SUNROOF

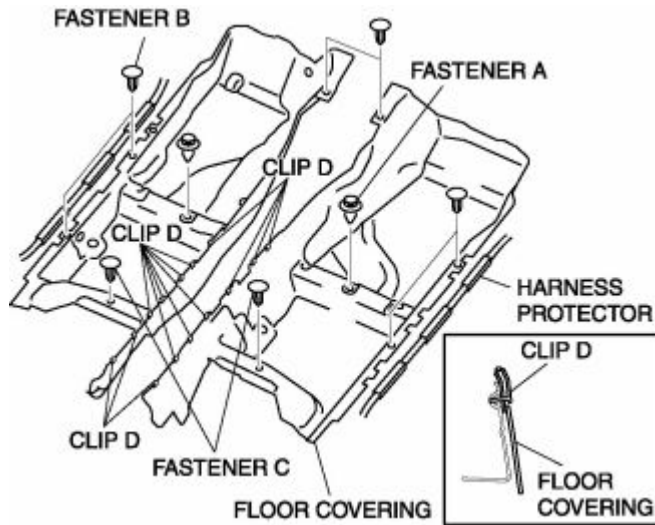


6. Detach the tab from the roof panel and remove the headliner.
7. Take the headliner out from the opened passenger-side door.
8. Install in the reverse order of removal.

FLOOR COVERING

FLOOR COVERING REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Front seat(See FRONT SEAT REMOVAL/INSTALLATION .)
 - b. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
 - c. Inner scuff plate(See INNER SCUFF PLATE REMOVAL/INSTALLATION .)
 - d. Ashtray illumination bulb(See ASHTRAY ILLUMINATION BULB REMOVAL/INSTALLATION .)
 - e. Console(See CONSOLE REMOVAL/INSTALLATION .)
 - f. Front side trim(See FRONT SIDE TRIM REMOVAL/INSTALLATION .)
 - g. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - h. Seat belt rail(See FRONT SEAT BELT REMOVAL/INSTALLATION .)
3. Remove fasteners A, B, and C.
4. Detach clip D and remove the floor covering.

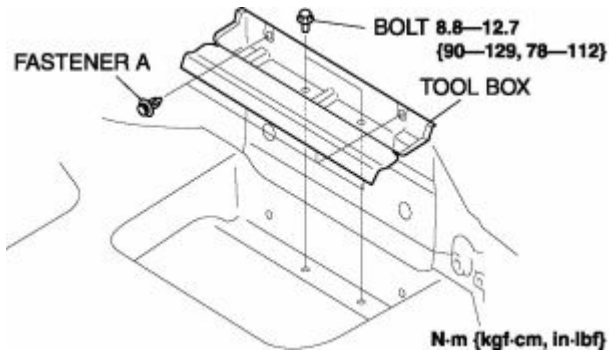


5. Take the floor covering out from the opened door.
6. Install in the reverse order of removal.

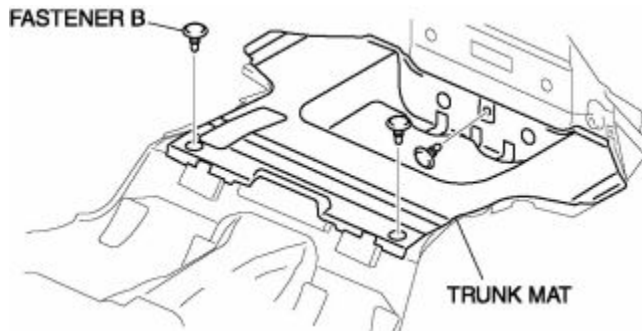
TRUNK TRIM

TRUNK MAT REMOVAL/INSTALLATION

1. Remove the trunk end trim.(See TRUNK END TRIM REMOVAL/INSTALLATION .)
2. Remove the trunk side trim.(See TRUNK SIDE TRIM REMOVAL/INSTALLATION .)
3. Remove the fasteners A and bolts, then remove the tool box.



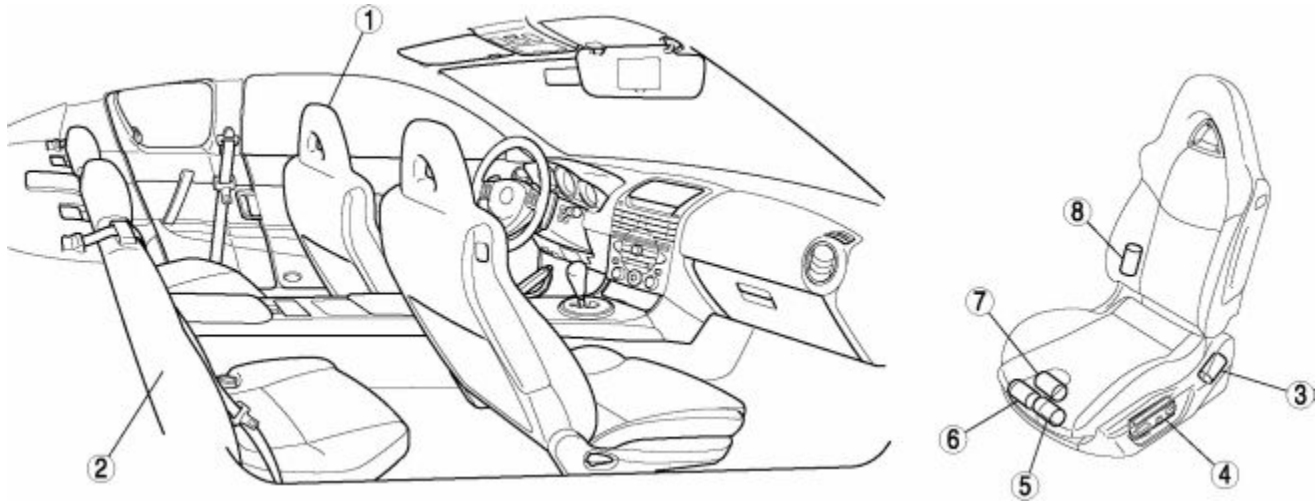
4. Remove the fasteners B, then remove the trunk mat.



5. Install in the reverse order of removal.

SEATS

SEATS LOCATION INDEX



1	Front seat (See FRONT SEAT REMOVAL/INSTALLATION .) (See FRONT SEAT DISASSEMBLY/ASSEMBLY .)
2	Rear seat (See REAR SEAT REMOVAL/INSTALLATION .) (See REAR SEAT DISASSEMBLY/ASSEMBLY .)
3	Recliner motor (See RECLINER MOTOR INSPECTION .)
4	Power seat switch (See POWER SEAT SWITCH INSPECTION .)
5	Front tilt motor (See FRONT TILT MOTOR INSPECTION .)
6	Rear tilt motor (See REAR TILT MOTOR INSPECTION .)
7	Slide motor (See SLIDE MOTOR INSPECTION .)
8	Lumbar support motor

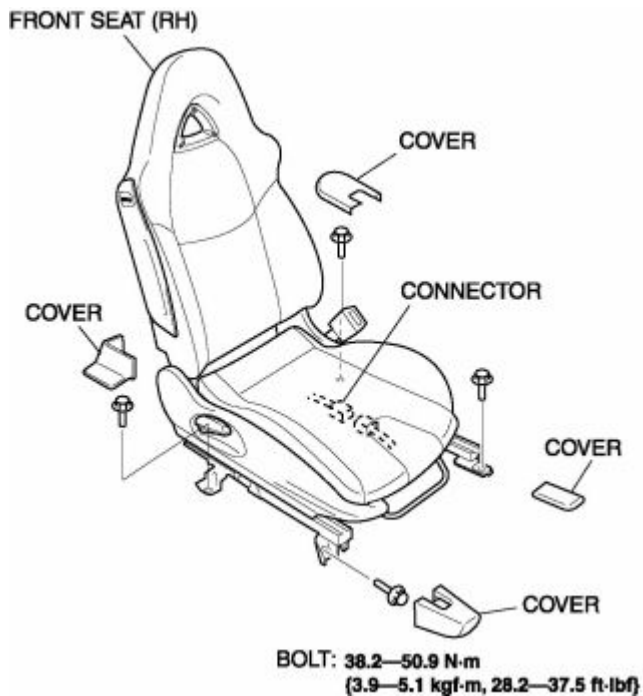
(See LUMBAR SUPPORT MOTOR INSPECTION .)

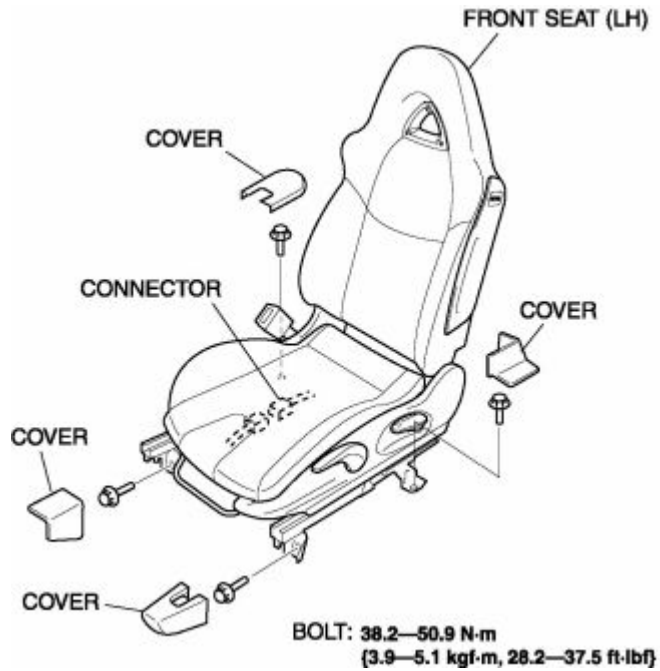
FRONT SEAT

FRONT SEAT REMOVAL/INSTALLATION

WARNING:

- Handling the front seat (with a side air bag) improperly can accidentally deploy the side air bag, which may seriously injure you. Read the service warnings before handling the front seat (with a side air bag).(See SERVICE WARNINGS .)
1. Turn the ignition switch to the LOCK position.
 2. Disconnect the negative battery cable and wait for **1 min or more** .
 3. Disconnect the connector.





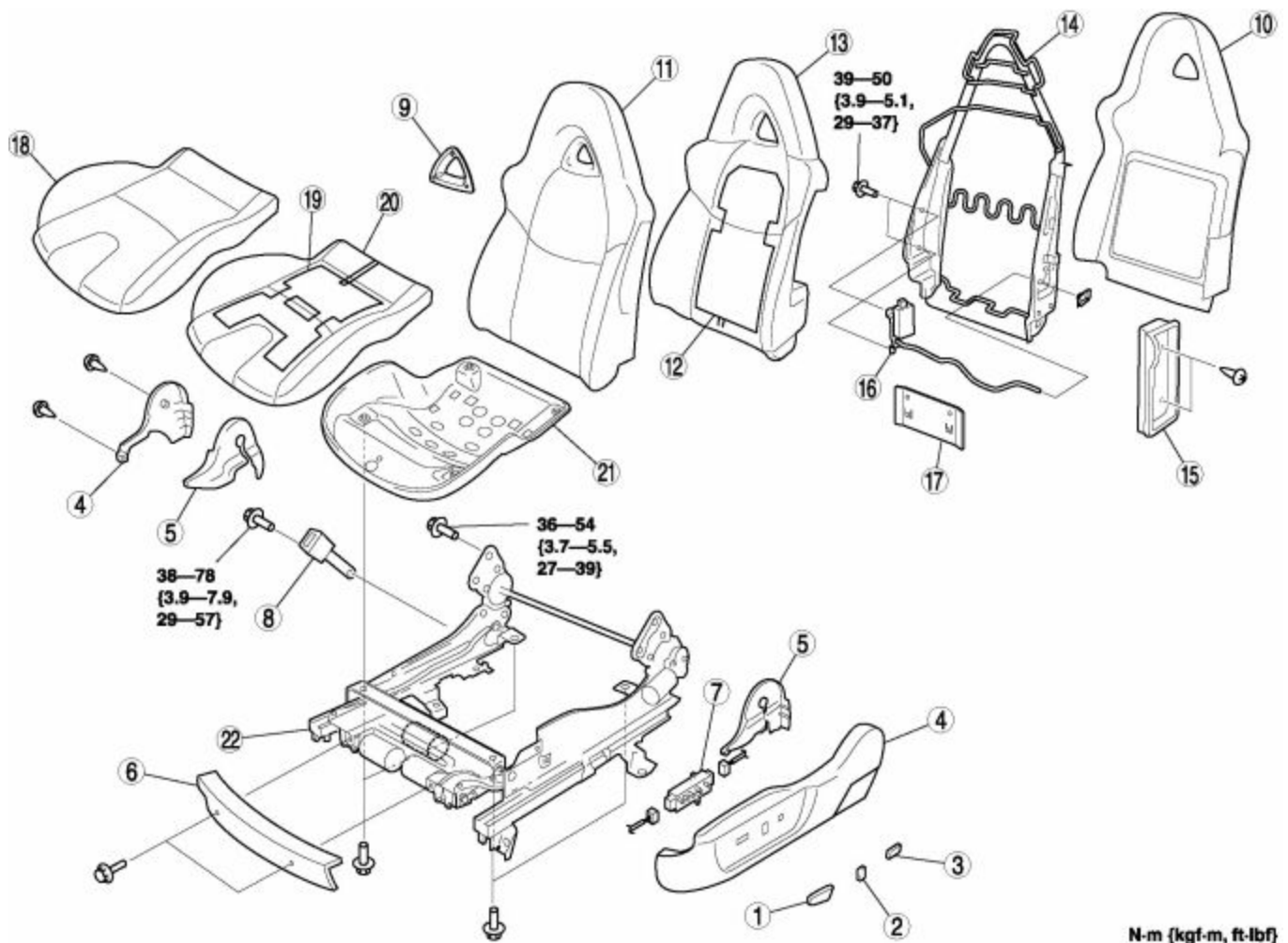
4. Remove the covers.
5. Remove the bolts, then remove the front seat.
6. Install in the reverse order of removal.

FRONT SEAT DISASSEMBLY/ASSEMBLY

WARNING:

- Handling the front seat (with a side air bag) improperly can accidentally deploy the side air bag, which may seriously injure you. Read the service warnings before handling the front seat (with a side air bag).(See SERVICE WARNINGS .)
1. For vehicles with side air bags, remove the side air bag module.(See SIDE AIR BAG MODULE REMOVAL/INSTALLATION .)
 2. Disassemble in the order indicated in the table.
 3. Assemble in the reverse order of disassembly.

Power Seat

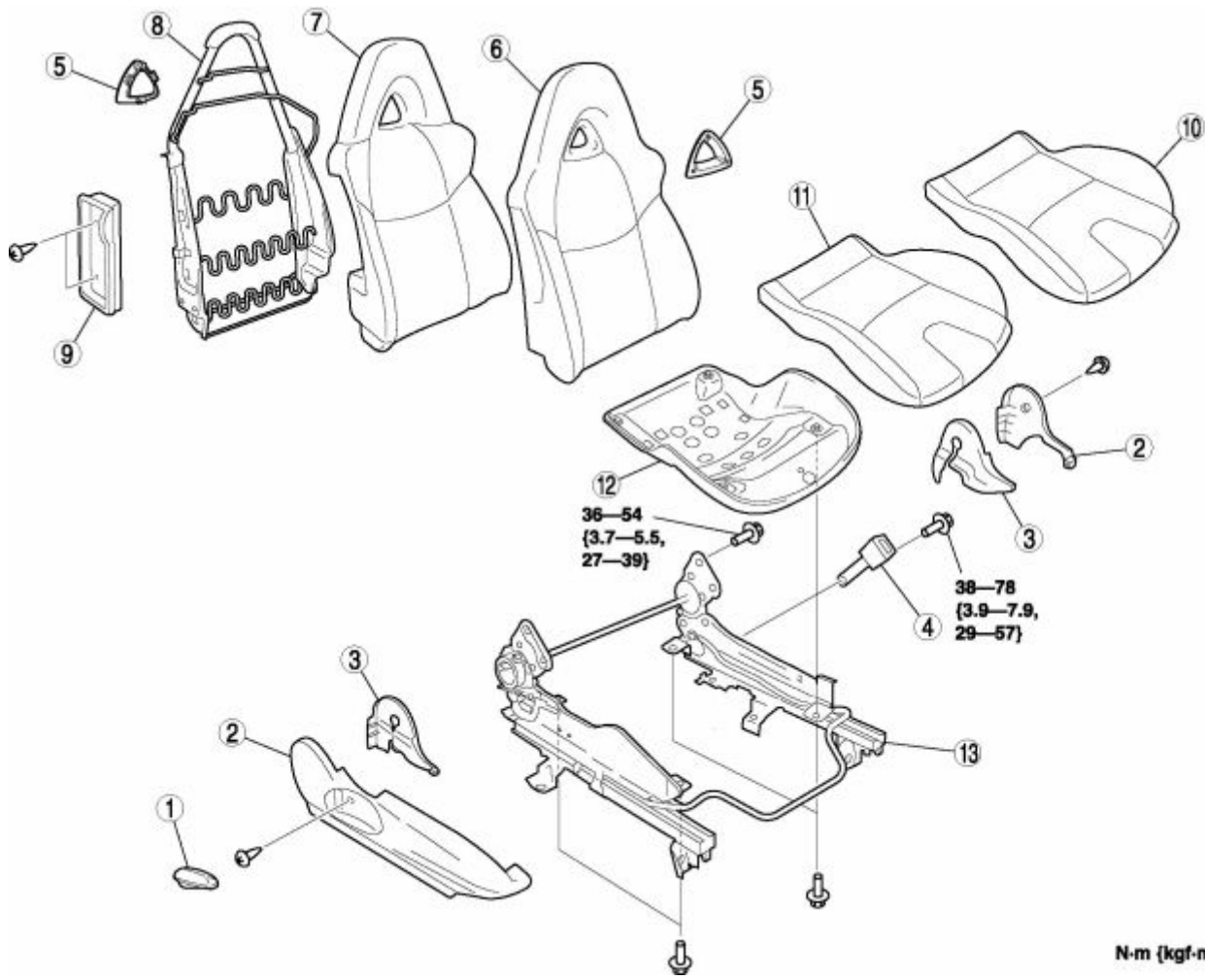


1	Slider switch knob
2	Recliner switch knob
3	Lumbar support switch knob
4	Side cover
5	Reverse cover
6	Front cover
7	Power seat switch
8	Front buckle
9	Cover
10	Seat back cover
11	Seat back trim
12	Seat warmer unit
13	Seat back pad
14	Seat back frame
15	Side air bag cover
16	Lumbar support motor

17	Seat back hardboard
18	Seat cushion trim
19	Seat warmer unit
20	Seat cushion pad
21	Seat cushion frame
22	Slide adjuster

Notes:

Manual Seat (RH)

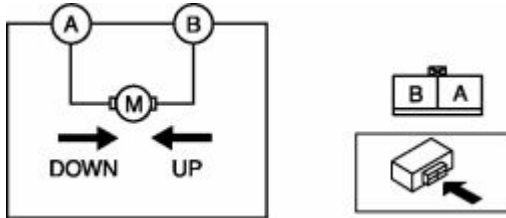


1	Recliner lever
2	Side cover
3	Reverse cover
4	Front buckle
5	Cover
6	Seat back trim
7	Seat back pad
8	Seat back frame
9	Side air bag cover
10	Seat cushion trim
11	Seat cushion pad
12	Seat cushion frame
13	Slide adjuster

POWER SEAT

FRONT TILT MOTOR INSPECTION

1. Disconnect the front tilt motor connector.
2. Connect battery positive voltage to front tilt motor terminal A or B, then verify that the front tilt motor operate as shown in the table.

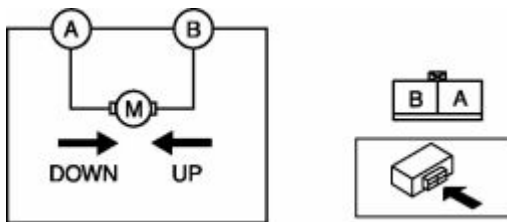


- If the front tilt motor does not operate as indicated in the table, replace the front tilt motor.

Motor operation	Connection	
	B+	GND
Up	B	A
Down	A	B

REAR TILT MOTOR INSPECTION

1. Disconnect the rear tilt motor connector.
2. Connect battery positive voltage to rear tilt motor terminal A or B, then verify that the rear tilt motor operate as shown in the table.

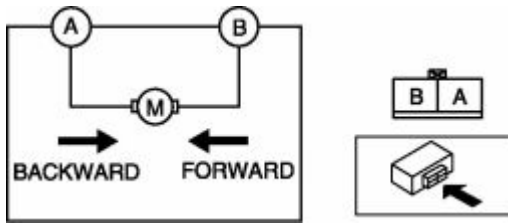


- If the rear tilt motor does not operate as indicated in the table, replace the rear tilt motor.

Motor operation	Connection	
	B+	GND
Up	B	A
Down	A	B

SLIDE MOTOR INSPECTION

1. Disconnect the slide motor connector.
2. Connect battery positive voltage to slide motor terminal A or B, then verify that the slide motor operate as shown in the table.

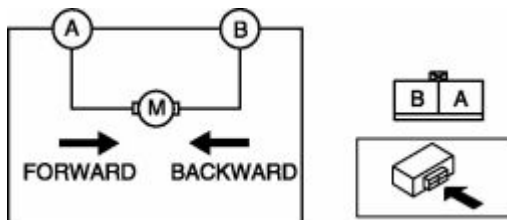


- If the slide motor does not operate as indicated in the table, replace the slide motor.

Motor operation	Connection	
	B+	GND
Forward	B	A
Backward	A	B

RECLINER MOTOR INSPECTION

1. Disconnect the recliner motor connector.
2. Connect battery positive voltage to recliner motor terminal A or B, then verify that the recliner motor operate as shown in the table.

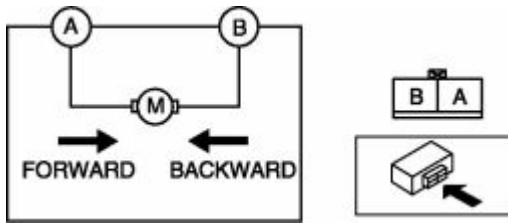


- If the recliner motor does not operate as indicated in the table, replace the recliner motor.

Motor operation	Connection	
	B+	GND
Forward	A	B
Backward	B	A

LUMBAR SUPPORT MOTOR INSPECTION

1. Disconnect the lumbar support motor connector.
2. Connect battery positive voltage to lumbar support motor terminal A or B, then verify that the lumbar support motor operate as shown in the table.



- If the lumbar support motor does not operate as indicated in the table, replace the lumbar support motor.

Motor operation	Connection	
	B+	GND
Forward	A	B
Backward	B	A

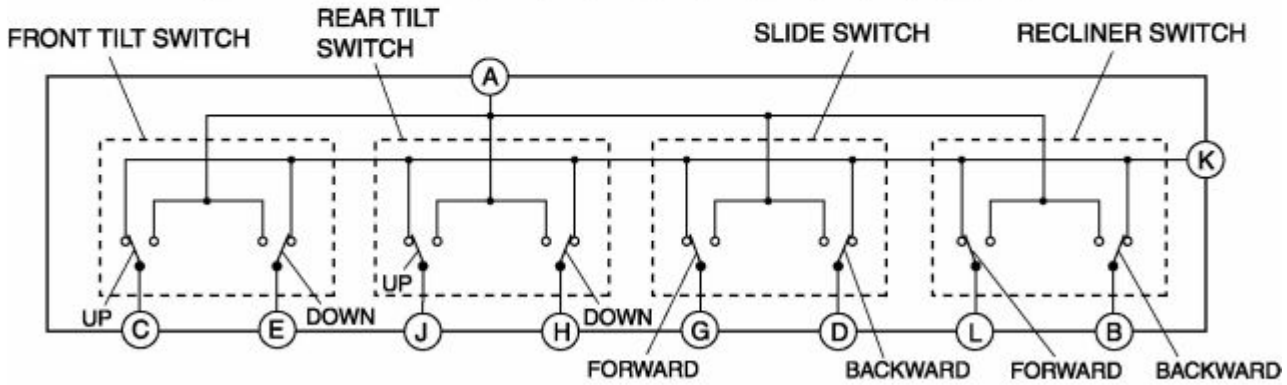
POWER SEAT SWITCH INSPECTION

Power Seat Switch

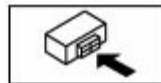
1. Disconnect the power seat switch connector.
2. Verify that the continuity between the power seat switch terminals is as indicated in the table.
 - If not as indicated in the table, replace the power seat switch.

○—○ : Continuity

Switch position		Terminal									
		A	B	C	D	E	G	H	J	K	L
Front tilt	UP	○		○			○				○
	OFF			○		○					○
	DOWN	○			○		○				○
Rear tilt	UP	○							○	○	
	OFF								○	○	○
	DOWN	○						○			○
Slide	FORWARD	○			○		○				○
	OFF				○		○				○
	BACKWARD	○			○			○			○
Recliner	FORWARD	○	○								○
	OFF		○								○
	BACKWARD	○	○								○

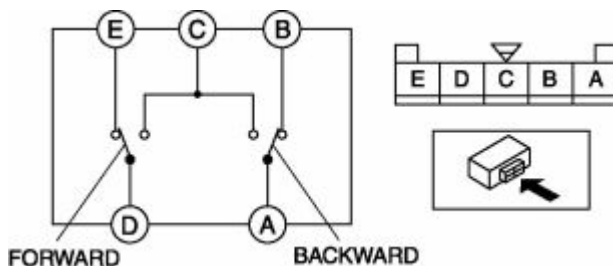


K	•	G	E	C	A
L	J	H	•	D	B



Lumbar Support Switch

1. Disconnect the lumbar support switch connector.
2. Verify that the continuity between the lumbar support switch terminals is as indicated in the table.



- If not as indicated in the table, replace the lumbar support switch.

○—○ : Continuity

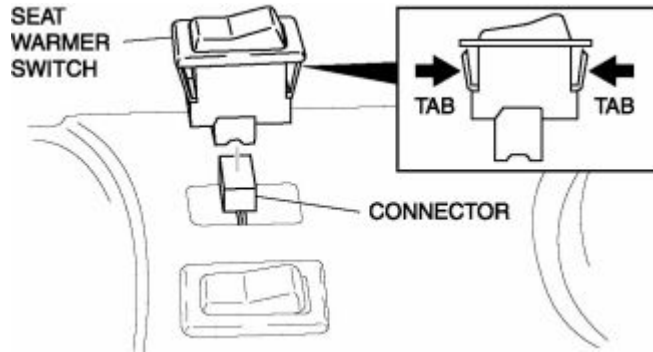
Switch position	Terminal				
	C	E	B	D	A
FORWARD	○	○	○	○	○
OFF		○	○	○	○
BACKWARD	○	○	○	○	○

Notes:

SEAT CUSHION WARMER

SEAT WARMER SWITCH REMOVAL/INSTALLATION

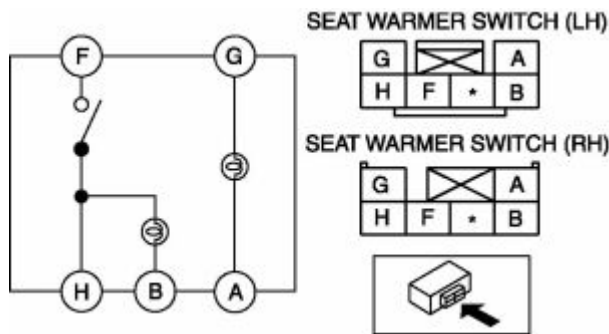
1. Disconnect the negative battery cable.
2. Remove the upper panel. (See CONSOLE REMOVAL/INSTALLATION .)
3. Disconnect the connector.



4. Squeeze the tabs of seat warmer switch and pull it outward to remove it.
5. Install in the reverse order of removal.

SEAT WARMER SWITCH INSPECTION

1. Disconnect the negative battery cable.
2. Verify that the continuity between the seat warmer switch terminals is as indicated in the table.



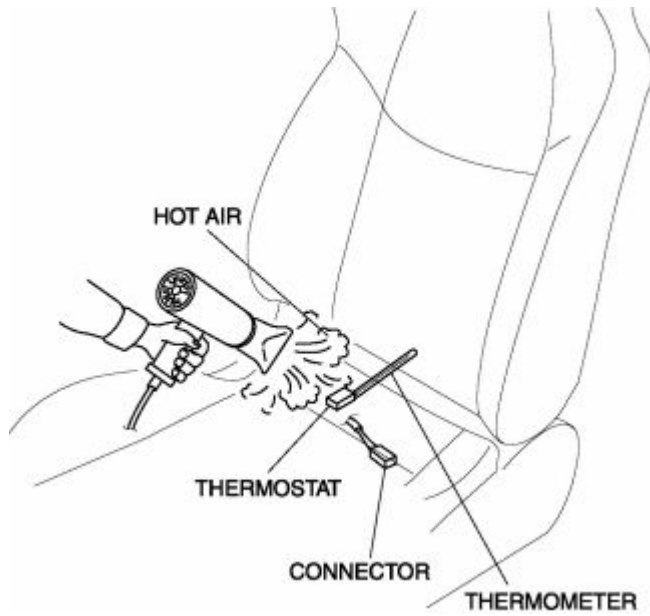
- If not as indicated in the table, replace the seat warmer switch.

○—○ : Continuity ○⊕○ : Bulb

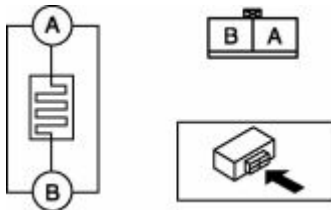
Switch position	Terminal				
	B	H	F	A	G
ON	○⊕○	○—○		○⊕○	
OFF	○⊕○			○⊕○	

SEAT WARMER INSPECTION

1. Remove the front seat.(See FRONT SEAT REMOVAL/INSTALLATION .)
2. Remove the seat cushion trim.(See FRONT SEAT DISASSEMBLY/ASSEMBLY .)
3. While inspecting for continuity between the terminals A and B of the connector, use a dryer to warm the thermostat of the seat warmer unit on seat cushion.



4. Verify that the continuity between the seat warmer terminals is as indicated in the table.



- If not as indicated in the table, replace the seat warmer switch.

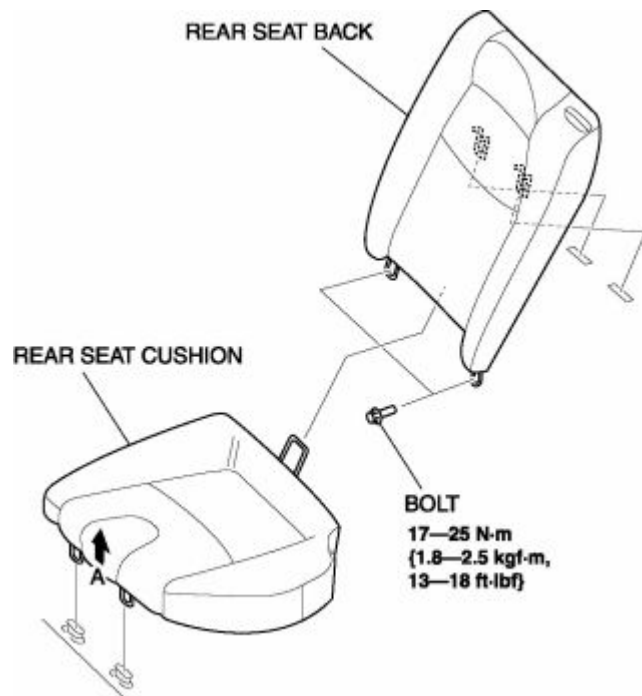
○—○ : Continuity

Thermostat temperature	Terminal	
	A	B
More than approx. 37 °C {99 °F}		
Less than approx. 28 °C {82 °F}	○—○	○—○

REAR SEAT

REAR SEAT REMOVAL/INSTALLATION

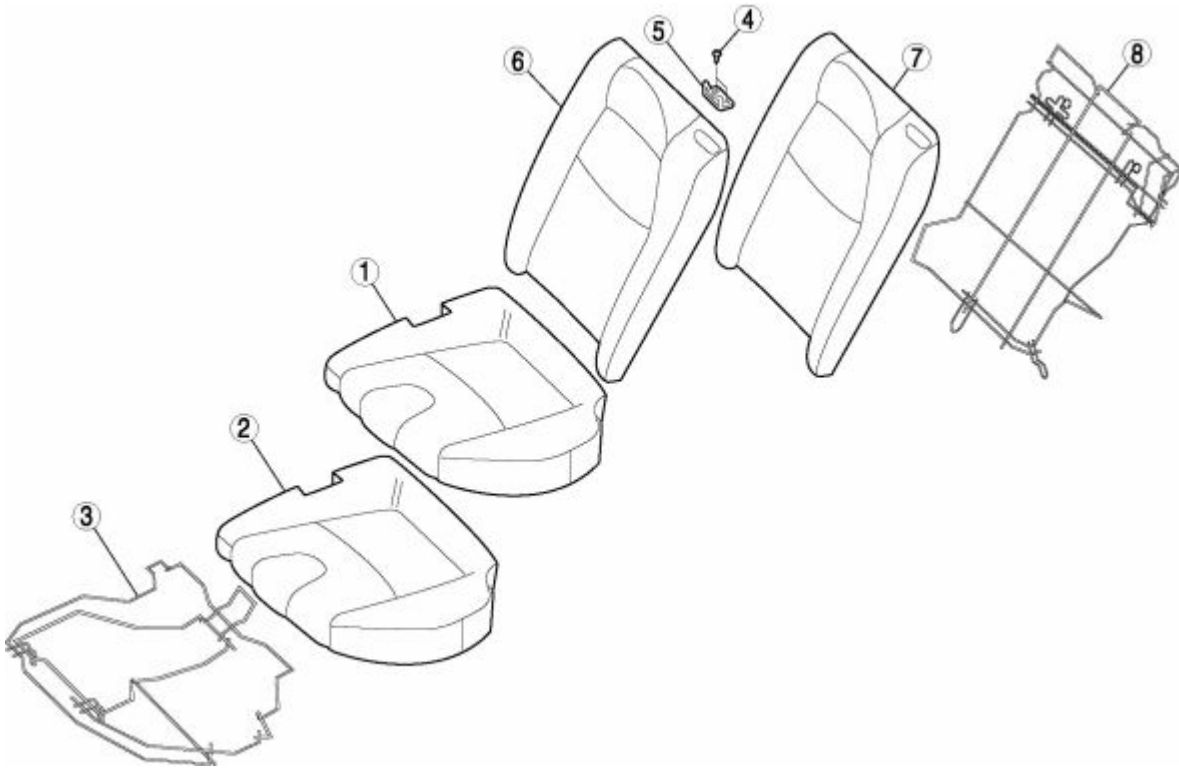
1. Lift the point A in the direction of the arrow, then remove the rear seat cushion.



2. Remove the bolts, then remove the rear seat back.
3. Install in the reverse order of removal.

REAR SEAT DISASSEMBLY/ASSEMBLY

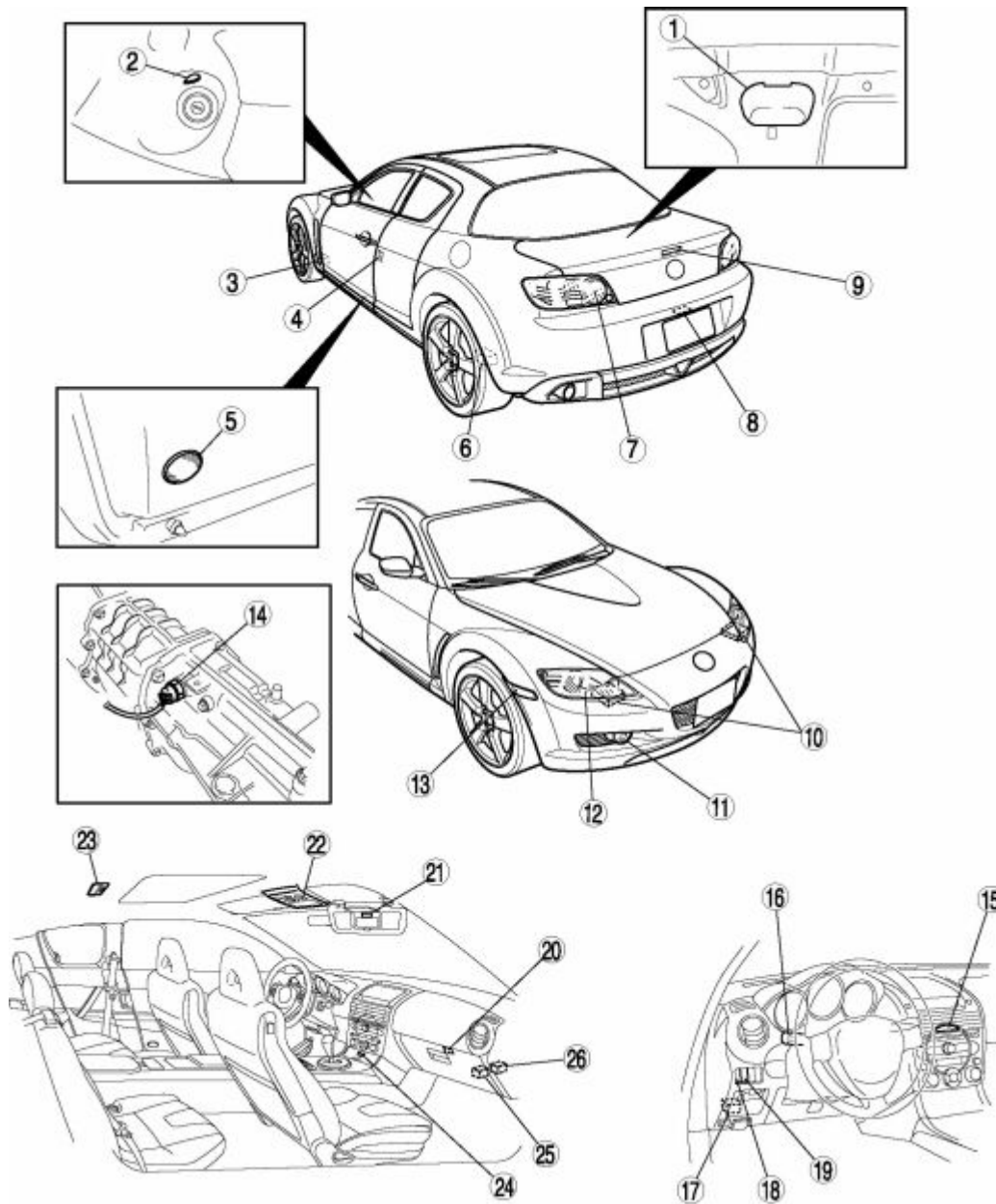
1. Disassemble in the order indicated in the table.
2. Assemble in the reverse order of disassembly.



1	Seat cushion trim
2	Seat cushion pad
3	Seat cushion frame
4	Screw
5	Belt guide
6	Seat back trim
7	Seat back pad
8	Seat back frame

LIGHTING SYSTEMS

LIGHTING SYSTEMS LOCATION INDEX



1	Trunk compartment light (See TRUNK COMPARTMENT LIGHT BULB REMOVAL/INSTALLATION .)
2	Ignition key illumination (See IGNITION KEY ILLUMINATION BULB REMOVAL/INSTALLATION .)
3	Front auto leveling sensor (See FRONT AUTO LEVELING SENSOR REMOVAL/INSTALLATION .)
4	Door switch

	(See DOOR SWITCH REMOVAL/INSTALLATION .) (See DOOR SWITCH INSPECTION .)
5	Courtesy light (See COURTESY LIGHT BULB REMOVAL/INSTALLATION .)
6	Rear auto leveling sensor (See REAR AUTO LEVELING SENSOR REMOVAL/INSTALLATION .)
7	Rear combination light (See REAR COMBINATION LIGHT REMOVAL/INSTALLATION .)
8	License plate light (See LICENSE PLATE LIGHT REMOVAL/INSTALLATION .)
9	High-mount brake light (See HIGH-MOUNT BRAKE LIGHT REMOVAL/INSTALLATION .)
10	Discharge headlight control module (See DISCHARGE HEADLIGHT CONTROL MODULE REMOVAL/INSTALLATION .)
11	Front fog light (See FRONT FOG LIGHT REMOVAL/INSTALLATION .) (See FRONT FOG LIGHT AIMING .) (See FRONT FOG LIGHT BULB REMOVAL/INSTALLATION .)
12	Front combination light (See FRONT COMBINATION LIGHT REMOVAL/INSTALLATION .) (See HEADLIGHT AIMING .) (See HEADLIGHT BULB REMOVAL/INSTALLATION .) (See FRONT TURN LIGHT BULB REMOVAL/INSTALLATION .) (See DISCHARGE HEADLIGHT SERVICE WARNINGS .)
13	Front side marker light (See FRONT SIDE MARKER LIGHT REMOVAL/INSTALLATION .)
14	Back-up light switch (See BACK-UP LIGHT SWITCH REMOVAL/INSTALLATION .) (See BACK-UP LIGHT SWITCH INSPECTION .)

15	Hazard warning switch (See HAZARD WARNING SWITCH INSPECTION .)
16	Light switch (See LIGHT SWITCH REMOVAL/INSTALLATION .) (See LIGHT SWITCH INSPECTION .) (See FRONT FOG LIGHT SWITCH INSPECTION .)
17	Flasher control module (See FLASHER CONTROL MODULE REMOVAL/INSTALLATION .) (See FLASHER CONTROL MODULE INSPECTION .)
18	Headlight leveling switch (See HEADLIGHT LEVELING SWITCH REMOVAL/INSTALLATION .) (See HEADLIGHT LEVELING SWITCH INSPECTION .)
19	Panel light control switch (See PANEL LIGHT CONTROL SWITCH REMOVAL/INSTALLATION .) (See PANEL LIGHT CONTROL SWITCH INSPECTION .)
20	Glove compartment light (See GLOVE COMPARTMENT LIGHT BULB REMOVAL/INSTALLATION .)
21	Vanity mirror illumination (See VANITY MIRROR ILLUMINATION BULB REMOVAL/INSTALLATION .)
22	Map light (See MAP LIGHT REMOVAL/INSTALLATION .) (See MAP LIGHT INSPECTION .)
23	Interior light (See INTERIOR LIGHT REMOVAL/INSTALLATION .) (See INTERIOR LIGHT INSPECTION .)
24	Ashtray illumination (See ASHTRAY ILLUMINATION BULB REMOVAL/INSTALLATION .)
25	Auto leveling control module (See AUTO LEVELING CONTROL MODULE REMOVAL/INSTALLATION .)

DRL control module

26 (See DRL CONTROL MODULE REMOVAL/INSTALLATION .)

(See DRL CONTROL MODULE INSPECTION .)

DISCHARGE HEADLIGHT SERVICE WARNINGS

DISCHARGE HEADLIGHT BULB SERVICE WARNINGS

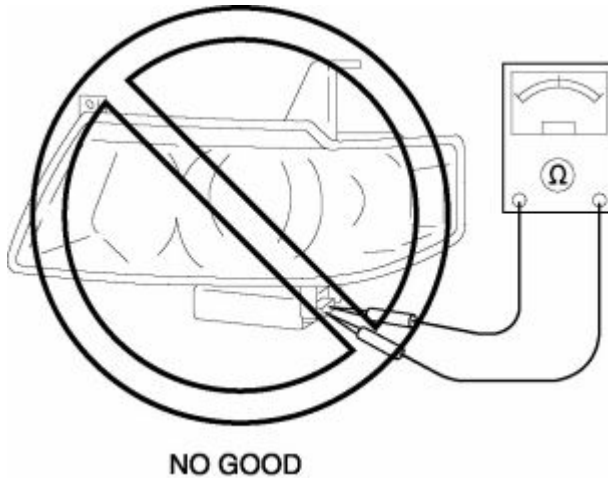
- To prevent electrical shock when replacing the discharge headlight bulb, dry hands thoroughly, and carry out work in an area out of rain.
- When the light switch is on, approx. 25,000 V of high voltage passes through the discharge headlight bulb socket. Because of the danger of electrical shock, do not insert fingers or a tester.



- When the headlights are on, high voltage flows around the socket and bulb. When turning on the discharge headlights while working, always leave the headlights in the vehicle-installed condition to prevent electrical shock.

DISCHARGE HEADLIGHT CONTROL MODULE SERVICE WARNINGS

- Because of the danger of electrical shock, when inspecting with a tester, do not inspect the discharge headlight control module as a single unit or disassemble it.



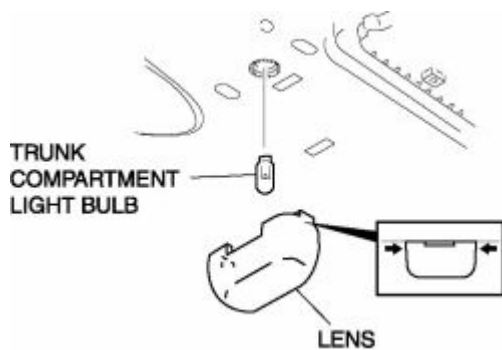
DISCHARGE HEADLIGHT CONTROL MODULE REUSE

- If the discharge headlight control module is dented or damaged in any way, replace the module with a new one to prevent electrical shock and improper operation.
- Although the control module may temporarily operate normally even though it has received an impact, it is possible that the interior may have been damaged. When reusing the control module, inspect the following items regarding discharge headlight illumination to verify that there are no malfunctions.
 - Verify that the discharge headlights illuminate normally by testing them several times under cold illumination (headlights off for approx. 10 min or more and then turned on) and hot illumination (headlights on for approx. 15 min or more, turned off for approx. 1 min, and then turned on again) conditions.
 - Inspect the headlight illumination in the period from directly after cold illumination until they are uniformly illuminated (approx. 5 min) and verify that there is no flickering or inconsistent brightness.
 - Turn on the headlights for approx. 30 min with normal condition bulbs and verify that there is no brightness difference between the right and left, and that illumination is consistent.

TRUNK COMPARTMENT LIGHT

TRUNK COMPARTMENT LIGHT BULB REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the lens, then remove the trunk compartment light bulb.

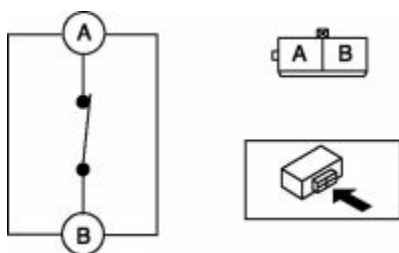


3. Install in the reverse order of removal.

TRUNK COMPARTMENT LIGHT SWITCH INSPECTION

NOTE:

- The trunk compartment light switch is built into the trunk lock.
1. Remove the trunk lid trim.(See TRUNK LID TRIM REMOVAL/INSTALLATION .)
 2. Disconnect the trunk compartment light switch connector.
 3. Verify that the continuity between the trunk compartment light switch terminals is as indicated in the table.



- If not as indicated in the table, replace the trunk lock.

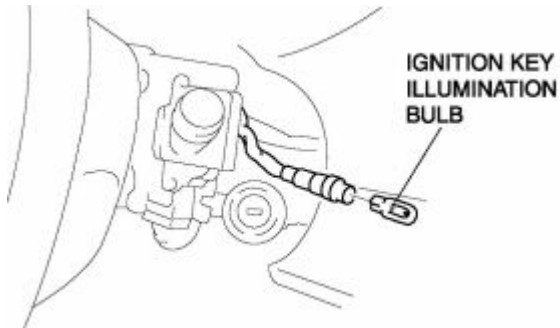
○—○ : Continuity

Measured condition	Terminal	
	A	B
ON (trunk lid open)	○—○	○—○
OFF (trunk lid closed)		

IGNITION KEY ILLUMINATION

IGNITION KEY ILLUMINATION BULB REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the column cover.(See COLUMN COVER REMOVAL/INSTALLATION .)
3. Remove the ignition key illumination bulb.

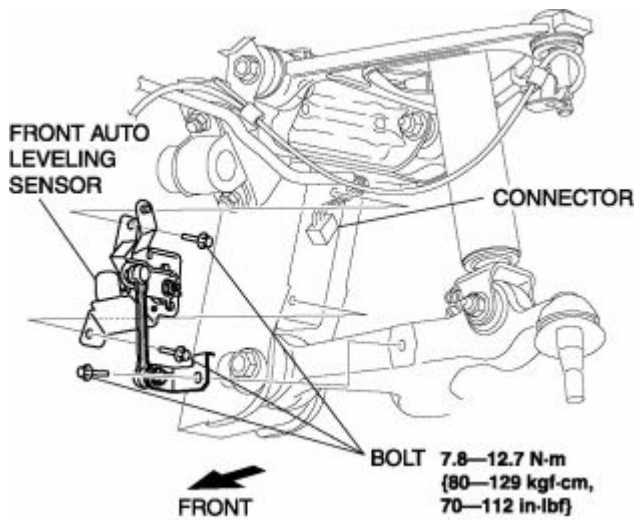


4. Install in the reverse order of removal.

HEADLIGHT AUTO LEVELING SYSTEM

FRONT AUTO LEVELING SENSOR REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Jack up the vehicle and remove the wheel and tire.
3. Disconnect the connector.

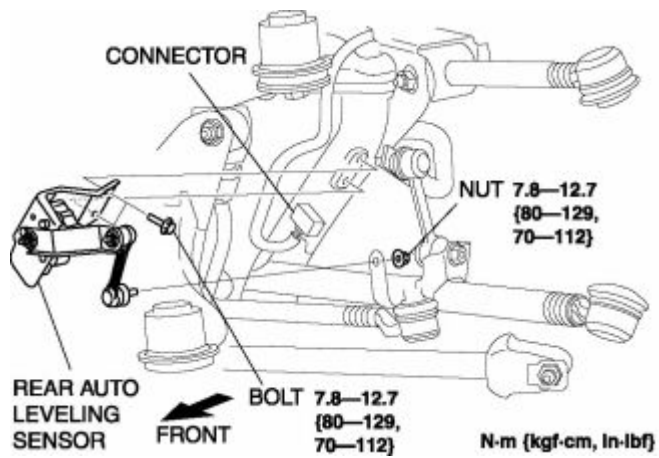


4. Remove the bolts and then remove the front auto leveling sensor.
5. Install in the reverse order of removal.

REAR AUTO LEVELING SENSOR REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Jack up the vehicle and remove the wheel and tire.

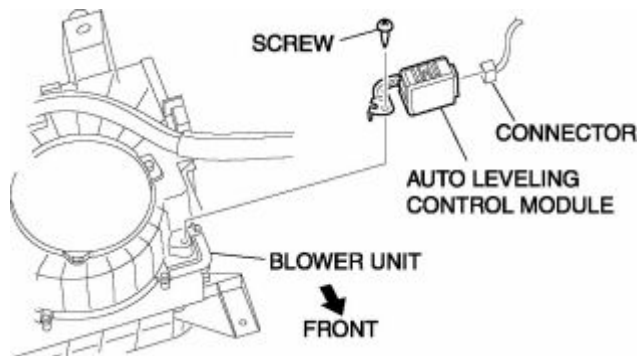
3. Disconnect the connector.



4. Remove the bolts and nut, then remove the rear auto leveling sensor.
5. Install in the reverse order of removal.

AUTO LEVELING CONTROL MODULE REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Disconnect the connector.

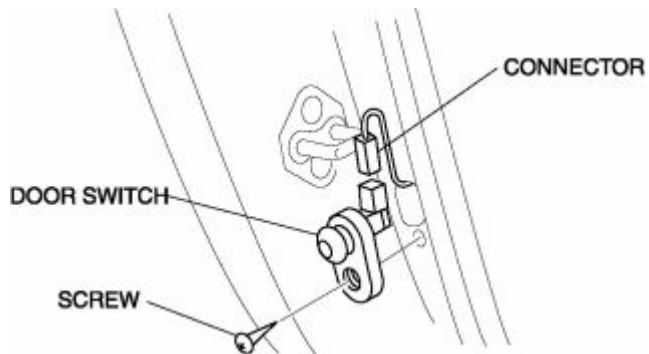


3. Remove the screw and then remove the auto leveling control module.
4. Install in the reverse order of removal.

DOOR SWITCH

DOOR SWITCH REMOVAL/INSTALLATION

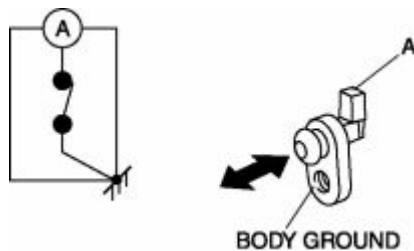
1. Disconnect the negative battery cable.
2. Remove the screw.



3. Disconnect the connector and remove the door switch.
4. Install in the reverse order of removal.

DOOR SWITCH INSPECTION

1. Remove the door switch.(See DOOR SWITCH REMOVAL/INSTALLATION .)
2. Verify that the continuity between door switch terminal and the body ground is as indicated in the table.



- If not as indicated in the table, replace the door switch.

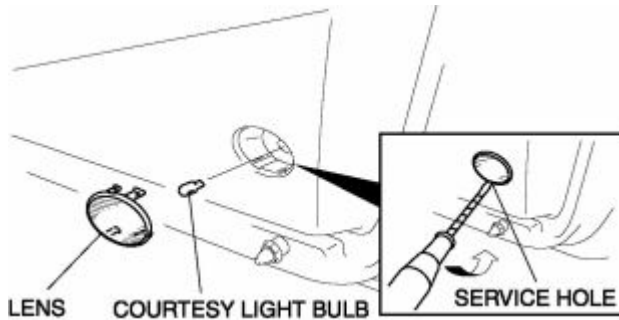
○—○ : Continuity

Switch position	Terminal	
	A	Body ground
Door switch pressed		
Door switch released	○—○	○—○

COURTESY LIGHT

COURTESY LIGHT BULB REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the lens, then remove the courtesy light bulb.

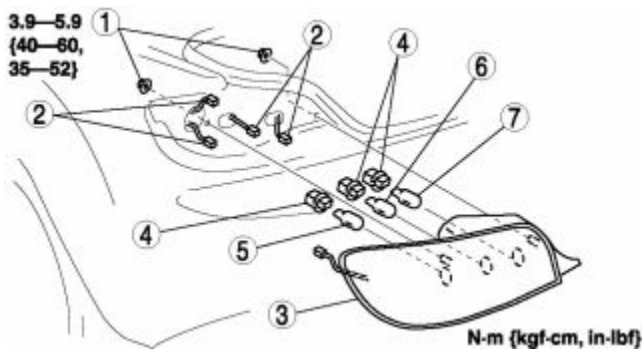


3. Install in the reverse order of removal.

REAR COMBINATION LIGHT

REAR COMBINATION LIGHT REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the trunk end trim.(See TRUNK END TRIM REMOVAL/INSTALLATION .)
3. Remove the trunk side trim.(See TRUNK SIDE TRIM REMOVAL/INSTALLATION .)
4. Remove in the order indicated in the table.



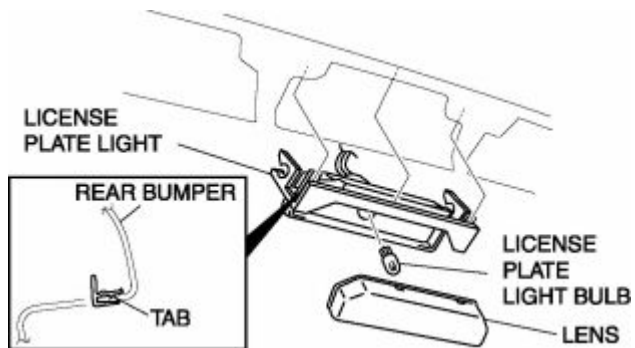
1	Nut
2	Connector
3	Rear combination light
4	Socket
5	Rear turn light bulb
6	Back-up light bulb
7	Stop/taillight bulb

5. Install in the reverse order of removal.

LICENSE PLATE LIGHT

LICENSE PLATE LIGHT REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the lens, then remove the license plate light bulb.

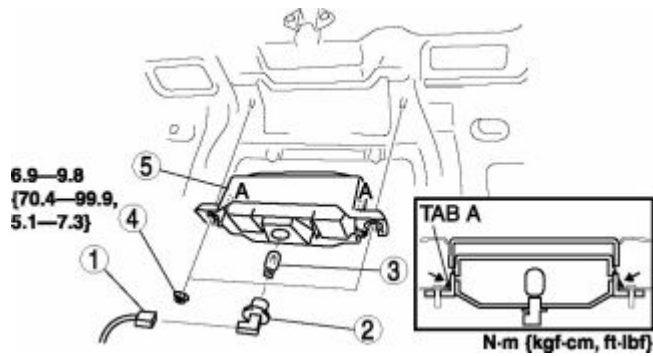


3. Detach the license plate light from the rear bumper.
4. Remove the following parts:
 - a. Trunk end trim(See TRUNK END TRIM REMOVAL/INSTALLATION .)
 - b. Trunk side trim(See TRUNK SIDE TRIM REMOVAL/INSTALLATION .)
 - c. Rear combination light(See REAR COMBINATION LIGHT REMOVAL/INSTALLATION .)
 - d. Rear bumper(See REAR BUMPER REMOVAL/INSTALLATION .)
5. Disconnect the license plate light connector and remove the license plate light.
6. Install in the reverse order of removal.

HIGH-MOUNT BRAKE LIGHT

HIGH-MOUNT BRAKE LIGHT REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the trunk lid trim.(See TRUNK LID TRIM REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.



1	Connector
2	Socket
3	High-mount brake light bulb
4	Nut
5	High-mount brake light

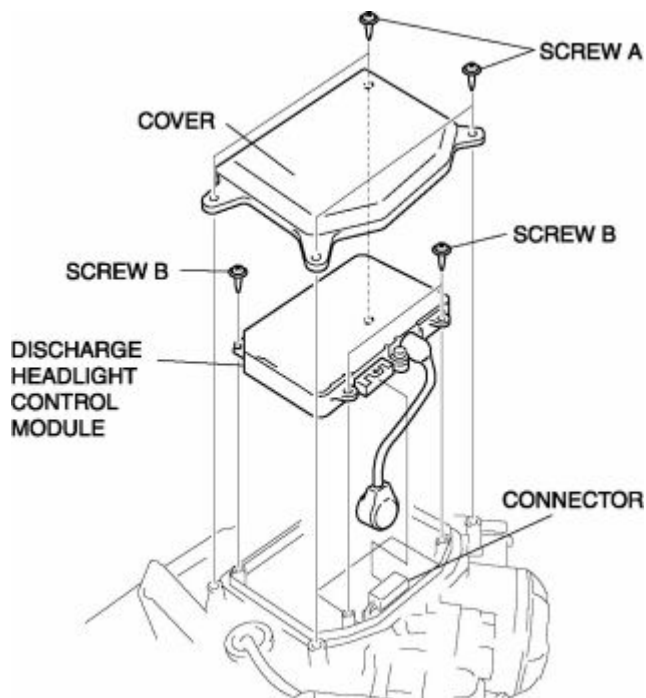
4. Install in the reverse order of removal.

DISCHARGE HEADLIGHT

DISCHARGE HEADLIGHT CONTROL MODULE REMOVAL/INSTALLATION

WARNING:

- Incorrect servicing of the discharge headlights could result in electrical shock. Before servicing the discharge headlights, always refer to the discharge headlight service warnings. (See DISCHARGE HEADLIGHT SERVICE WARNINGS .)
1. Disconnect the negative battery cable.
 2. Remove the front side marker lights.(See FRONT SIDE MARKER LIGHT REMOVAL/INSTALLATION .)
 3. Remove the front bumper.(See FRONT BUMPER REMOVAL/INSTALLATION .)
 4. Remove the front combination lights.(See FRONT COMBINATION LIGHT REMOVAL/INSTALLATION .)
 5. Remove screws A, then remove the cover.



6. Disconnect the connector.
7. Remove screws B, then remove the discharge headlight control module.
8. Install in the reverse order of removal.

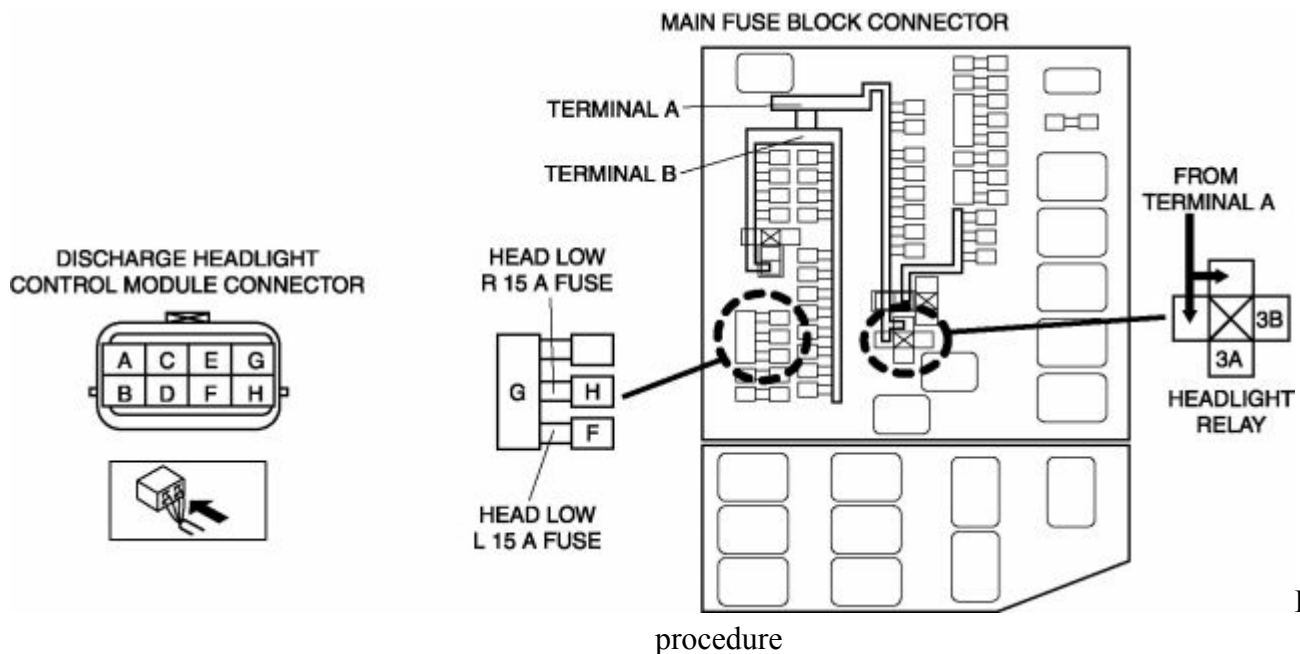
DISCHARGE HEADLIGHT SYSTEM INSPECTION

Discharge headlight inoperative

WARNING:

- Incorrect servicing of the discharge headlights could result in electrical shock. Before servicing the discharge headlights, always refer to the discharge headlight service warnings. (See DISCHARGE HEADLIGHT SERVICE WARNINGS .)

Terminal layout



Inspection

procedure

STEP	INSPECTION	ACTION
1		Yes Go to Step 6.

	<p>INSPECT POWER SUPPLY CIRCUIT OF DISCHARGE HEADLIGHT CONTROL MODULE</p> <ul style="list-style-type: none"> • Disconnect the discharge headlight control module connector. • Turn the headlight switch to the HEADLIGHT (LO) position. • Measure the voltage at discharge headlight control module connector (harness-side) terminal C. • Is the voltage approx. 12 V ? 	No	Go to the next step.
2	<p>INSPECT FUSE</p> <ul style="list-style-type: none"> • Turn the headlight switch to the OFF position. • Remove the HEAD LOW R 15 A fuse (RH) or HEAD LOW L 15 A fuse (LH). • Inspect the fuses. • Are the fuses normal? 	Yes	Go to the next step.
		No	Replace the fuse.
3	<p>INSPECT HEADLIGHT RELAY</p> <ul style="list-style-type: none"> • Remove the headlight relay. (See RELAY LOCATION .) • Inspect the headlight relay. (See RELAY INSPECTION .) • Is the headlight relay normal? 	Yes	Go to the next step.
		No	Replace the headlight relay. (See RELAY LOCATION .)
4	<p>INSPECT LIGHT SWITCH</p> <ul style="list-style-type: none"> • Inspect the light switch. (See LIGHT SWITCH INSPECTION .) • Is the light switch normal? 	Yes	Go to the next step.
		No	Replace the light switch. (See LIGHT SWITCH REMOVAL/INSTALLATION .)
5		Yes	Go to the next step.

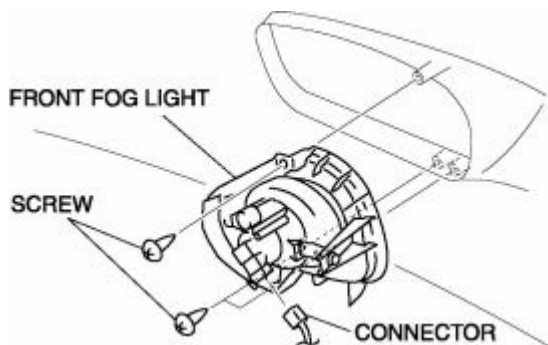
	<p>INSPECT WIRING HARNESS BETWEEN BATTERY AND DISCHARGE HEADLIGHT CONTROL MODULE</p> <ul style="list-style-type: none"> • Disconnect the negative battery cable. • Inspect for continuity between the following terminals: <ul style="list-style-type: none"> ▪ Battery (positive terminal) and headlight relay (main fuse block terminal A) ▪ Headlight relay terminal 3A and HEAD LOW R 15 A fuse (RH) terminal G ▪ Headlight relay terminal 3A and HEAD LOW L 15 A fuse (LH) terminal G ▪ HEAD LOW R 15 A fuse (RH) terminal H and discharge headlight control module terminal C ▪ HEAD LOW L 15 A fuse (LH) terminal F and discharge headlight control module terminal C • Are the wiring harnesses normal? 		
6	<p>INSPECT WIRING HARNESS BETWEEN DISCHARGE HEADLIGHT CONTROL MODULE AND GROUND</p> <ul style="list-style-type: none"> • Inspect wiring harness between discharge headlight control module terminal D and ground for following: <ul style="list-style-type: none"> ▪ Short to power supply ▪ Open circuit • Inspect the headlight relay. (See RELAY INSPECTION .) • Is the wiring harness normal? 	Yes	Go to the next step.
7	<p>VERIFY WHETHER MALFUNCTION IS IN DISCHARGE HEADLIGHT BULB OR DISCHARGE HEADLIGHT CONTROL MODULE</p> <ul style="list-style-type: none"> • Install any other discharge headlight bulb (low-beam). (See HEADLIGHT BULB REMOVAL/INSTALLATION .) • Connect the discharge headlight control module connector. • Turn the headlight switch to the HEADLIGHT (LO) position. • Does the headlight (low-beam) illuminate? 	Yes	System inspection completed.
		No	<p>Replace the discharge headlight control module.</p> <p>(See DISCHARGE HEADLIGHT CONTROL MODULE REMOVAL/INSTALLATION .)</p>

FRONT FOG LIGHT

FRONT FOG LIGHT REMOVAL/INSTALLATION

LH

1. Disconnect the negative battery cable.
2. Remove the front side marker lights.(See FRONT SIDE MARKER LIGHT REMOVAL/INSTALLATION .)
3. Remove the front bumper.(See FRONT BUMPER REMOVAL/INSTALLATION .)
4. Disconnect the connector.

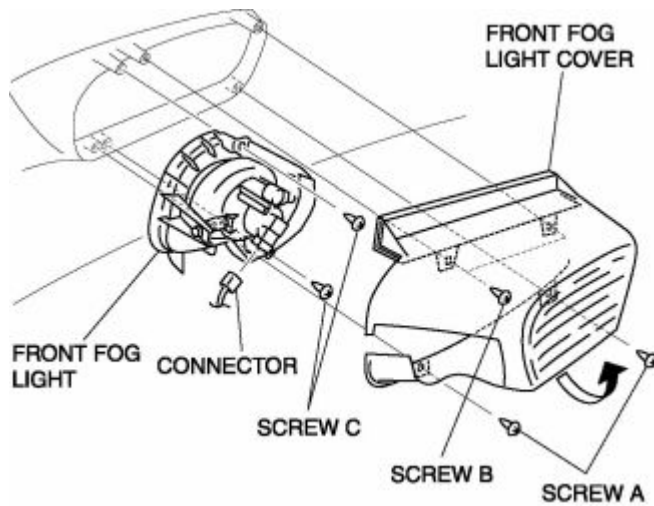


5. Remove the screws, then remove the front fog light.
6. Install in the reverse order of removal.
7. Adjust the front fog light aiming.(See FRONT FOG LIGHT AIMING .)

RH

1. Disconnect the negative battery cable.

2. Remove the front side marker lights.(See FRONT SIDE MARKER LIGHT REMOVAL/INSTALLATION .)
3. Remove the front bumper.(See FRONT BUMPER REMOVAL/INSTALLATION .)
4. Disconnect the connector.
5. Remove screws A and pull back the front fog light cover in the direction of the arrow.

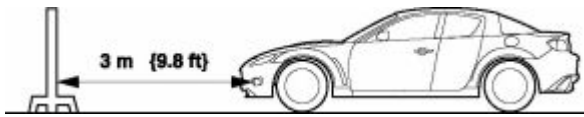


6. Remove screw B, then remove the front fog light cover.
7. Remove screws C, then remove the front fog light.
8. Install in the reverse order of removal.
9. Adjust the front fog light aiming.(See FRONT FOG LIGHT AIMING .)

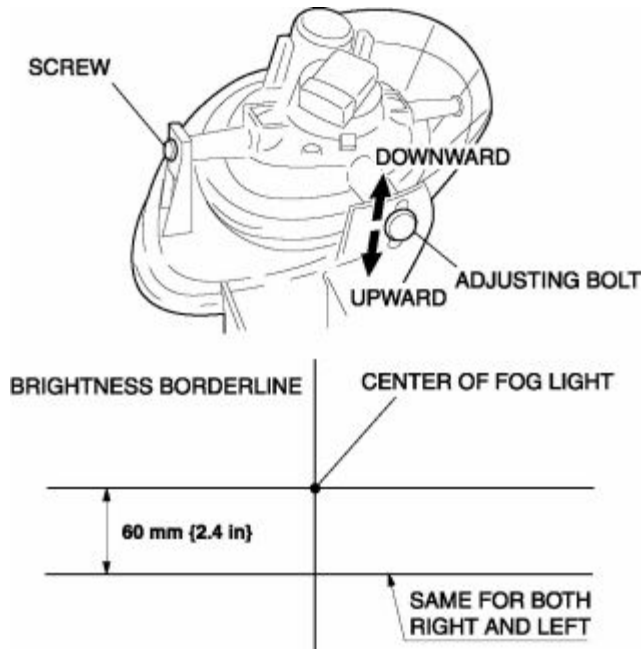
FRONT FOG LIGHT AIMING

1. Adjust the tire pressure to the specification.

2. Position the unloaded vehicle on a flat, level surface.
3. Seat one person in the driver's seat.
4. Position the vehicle straight ahead and perpendicular to a white screen.
5. Set the fog lights **3 m {9.8 ft}** from the white screen.

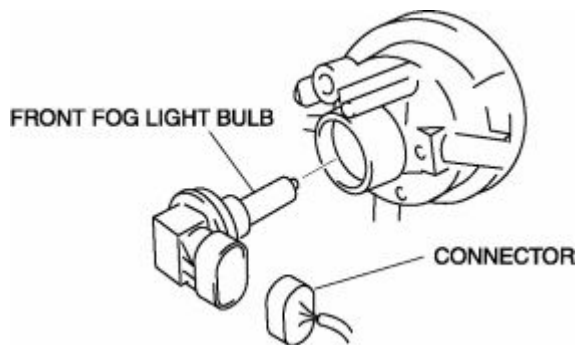


6. Place an object in front of the fog light not being adjusted to block its light beam.
7. Start the engine so that the battery remains charged.
8. Turn the front fog lights on.
9. Loosen the screw and the adjusting bolt, move the front fog light in the direction of the arrows, and adjust the front fog light beam to the position shown in the figure.
10. Tighten the adjusting bolt, then tighten the screw.



FRONT FOG LIGHT BULB REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Slightly bend back the mudguard.
3. Disconnect the connector and remove the front fog light bulb.(See Front Fog Light Bulb Removal Note .)



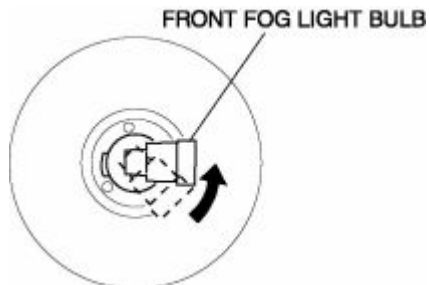
CAUTION:

- A halogen bulb generates extremely high heat when it is illuminated. If the surface of the bulb is soiled, excessive heat will build up and the life of the bulb will be shortened. When handling the bulb, hold the flange, not the glass.

4. Install in the reverse order of removal.

Front Fog Light Bulb Removal Note

1. Remove the front fog light bulb by turning it in the direction of the arrow.

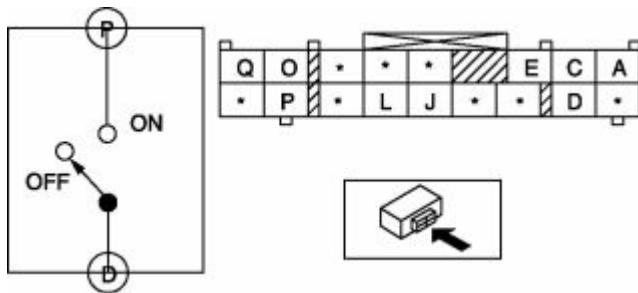


Notes:

FRONT FOG LIGHT SWITCH

FRONT FOG LIGHT SWITCH INSPECTION

1. Remove the column cover.(See COLUMN COVER REMOVAL/INSTALLATION .)
2. Remove the ignition key illumination.(See IGNITION KEY ILLUMINATION BULB REMOVAL/INSTALLATION .)
3. Remove the light switch.(See LIGHT SWITCH REMOVAL/INSTALLATION .)
4. Verify that the continuity between the light switch terminals is as indicated in the table.



- If not as indicated in the table, replace the light switch.

○—○ : Continuity

Switch position	Terminal	
	P	D
OFF		
ON	○—○	○—○

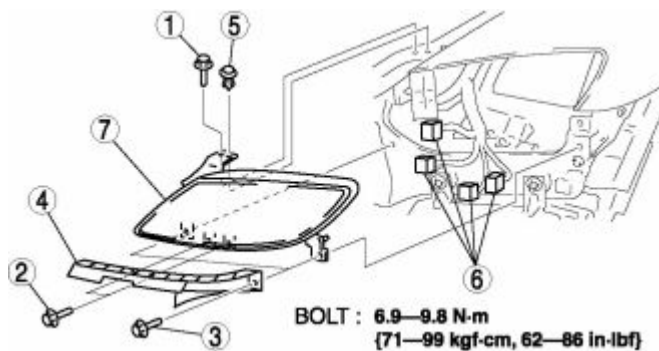
FRONT COMBINATION LIGHT

FRONT COMBINATION LIGHT REMOVAL/INSTALLATION

WARNING:

- Incorrect servicing of the discharge headlights could result in electrical shock. Before servicing the discharge headlights, always refer to the discharge headlight service warnings.(See DISCHARGE HEADLIGHT SERVICE WARNINGS .)
1. Disconnect the negative battery cable.

2. Remove the front side marker lights.(See FRONT SIDE MARKER LIGHT REMOVAL/INSTALLATION .)
3. Remove the front bumper.(See FRONT BUMPER REMOVAL/INSTALLATION .)
4. Remove in the order indicated in the table.



1	Bolt A
2	Bolt B
3	Bolt C
4	Cover
5	Fastener
6	Connector
7	Front combination light

5. Install in the reverse order of removal.
6. Adjust the headlight aiming.(See HEADLIGHT AIMING)

HEADLIGHT

HEADLIGHT AIMING

1. Adjust the tire pressure to the specification.
2. Position the unloaded vehicle on a flat, level surface.
3. Seat one person in the driver's seat.
4. Position the vehicle straight ahead and perpendicular to the white screen.
5. Set the headlights **3 m {9.8 ft}** from the white screen.

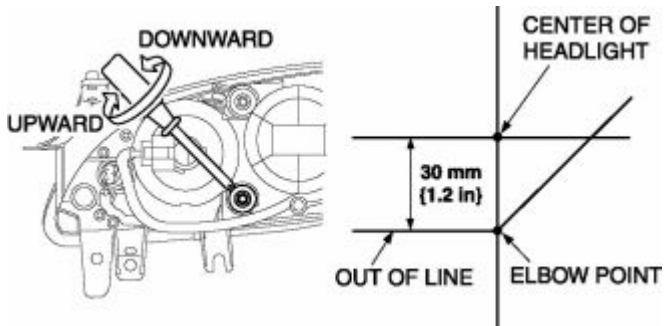


6. Place an object in front of the headlight not being adjusted to block its light beam.
7. Start the engine so that the battery remains charged.
8. Turn on the low-beam headlight.
9. Set the headlight leveling switch to the 0 position.(Vehicles with discharge headlights)
10. Adjust the headlight by loosening the adjusting screws as shown in the figure.

NOTE:

- If the adjusting screws are tightened first, then loosened, they will continue to loosen when the vehicle is in motion and may cause the headlights to become misaligned. Always turn the screws in the tightening direction.

11. Turn the adjusting screws to adjust the headlight so that the elbow point is in the shaded area shown in the figure.

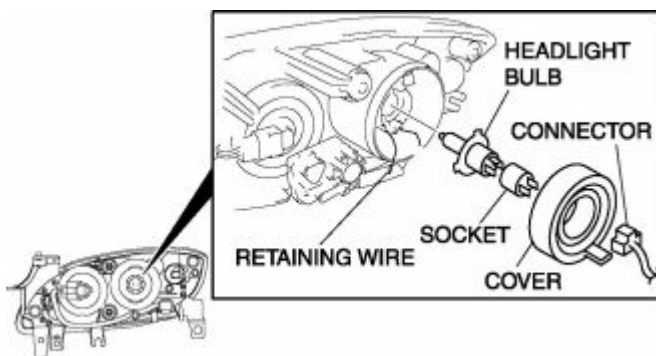


HEADLIGHT BULB REMOVAL/INSTALLATION

Low-beam

Halogen type

1. Disconnect the negative battery cable.
2. Remove the fasteners, then slightly bend back the mudguard.
3. Disconnect the connector.



CAUTION:

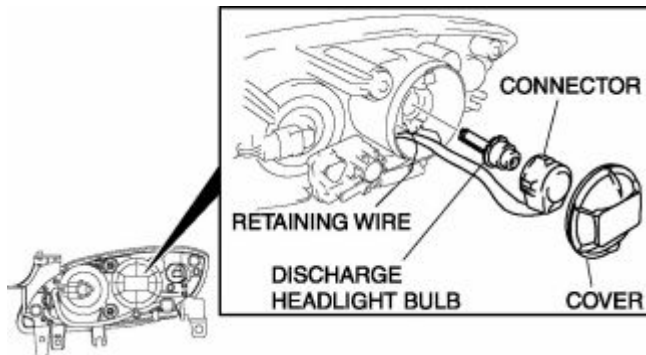
- A halogen bulb generates extremely high heat when it is illuminated. If the surface of the bulb is soiled, excessive heat will build up and the life of the bulb will be shortened. When replacing the bulb, hold the metal flange, not the glass.

4. Remove the cover.
5. Remove the socket, then remove the headlight bulb.
6. Install in the reverse order of removal.

Discharge type

WARNING:

- Incorrect servicing of the discharge headlights could result in electrical shock. Before servicing the discharge headlights, always refer to the discharge headlight service warnings. (See DISCHARGE HEADLIGHT SERVICE WARNINGS .)
1. Disconnect the negative battery cable.
 2. Remove the fasteners, then slightly bend back the mudguard.
 3. Remove the cover.



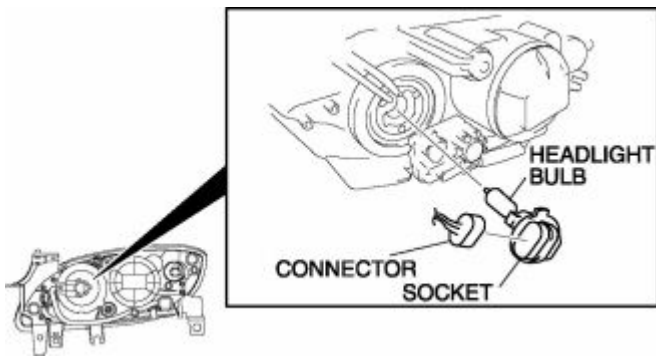
CAUTION:

- The bulb generates extremely high heat when it is illuminated. If the surface of the bulb is soiled, excessive heat will build up and the life of the bulb will be shortened. When replacing the bulb, hold the metal flange, not the glass.
4. Remove the connector, then remove the discharge headlight bulb.

5. Install in the reverse order of removal.

High-beam

1. Disconnect the negative battery cable.
2. Remove the fasteners, then slightly bend back the mudguard.
3. Disconnect the connector.



CAUTION:

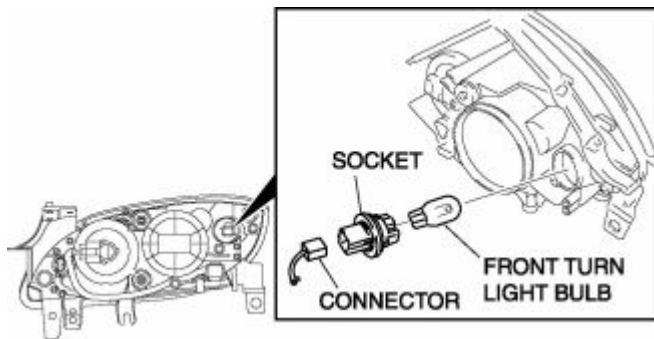
- A halogen bulb generates extremely high heat when it is illuminated. If the surface of the bulb is soiled, excessive heat will build up and the life of the bulb will be shortened. When replacing the bulb, hold the metal flange, not the glass.

4. Remove the socket, then remove the headlight bulb.
5. Install in the reverse order of removal.

FRONT TURN LIGHT

FRONT TURN LIGHT BULB REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the fasteners, then slightly bend back the mudguard.
3. Disconnect the connector.

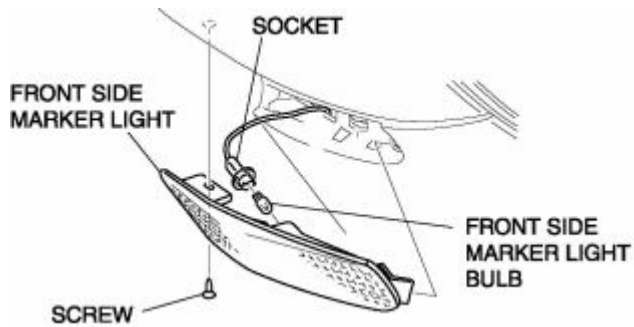


4. Remove the socket, then remove the front turn light bulb.
5. Install in the reverse order of removal.

FRONT SIDE MARKER LIGHT

FRONT SIDE MARKER LIGHT REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the screw.

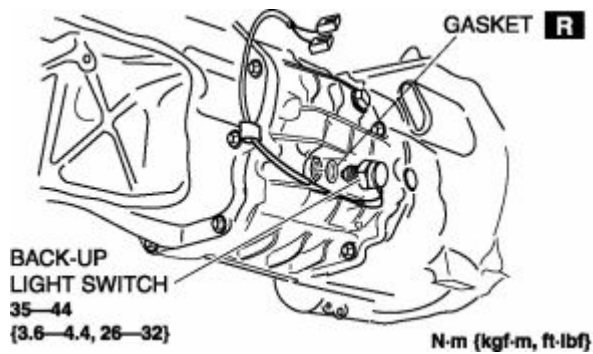


3. Remove the front side marker light.
4. Detach the socket and remove the front side marker light bulb.
5. Install in the reverse order of removal.

BACK-UP LIGHT SWITCH

BACK-UP LIGHT SWITCH REMOVAL/INSTALLATION

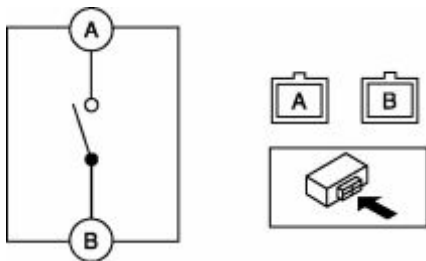
1. Disconnect the negative battery cable.
2. Disconnect the back-up light switch connector and remove the back-up light switch.



3. Install in the reverse order of removal.

BACK-UP LIGHT SWITCH INSPECTION

1. Disconnect the back-up light switch connector.
2. Verify that the continuity between the back-up light switch terminals is as indicated in the table.



- If not as indicated in the table, replace the back-up light switch.

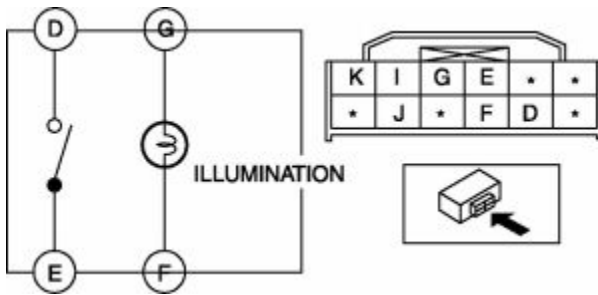
○—○ : Continuity

Shift lever position	Terminal	
	A	B
Reverse Except above	○—○	

HAZARD WARNING SWITCH

HAZARD WARNING SWITCH INSPECTION

1. Remove the console.(See CONSOLE REMOVAL/INSTALLATION .)
2. Remove the lower panel.(See LOWER PANEL REMOVAL/INSTALLATION .)
3. Remove the center panel module.(See CENTER PANEL MODULE REMOVAL/INSTALLATION .)
4. Verify that the continuity between the hazard switch terminals is as indicated in the table.



- If not as indicated in the table, replace the center panel.

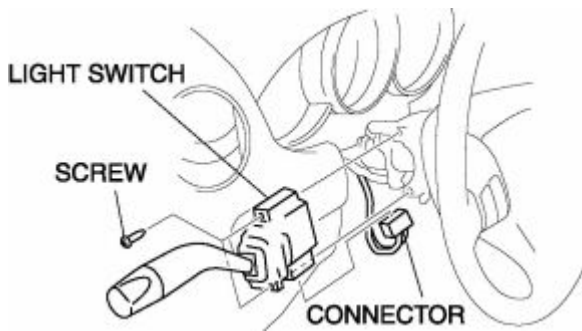
○—○ : Continuity ○—Ⓢ—○ : Bulb

Switch position	Terminal			
	D	E	F	G
OFF	○—○		○—Ⓢ—○	○—Ⓢ—○
ON			○—Ⓢ—○	○—Ⓢ—○

LIGHT SWITCH

LIGHT SWITCH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the column cover.(See COLUMN COVER REMOVAL/INSTALLATION .)
3. Remove the ignition key illumination.(See IGNITION KEY ILLUMINATION BULB REMOVAL/INSTALLATION .)
4. Disconnect the connector.



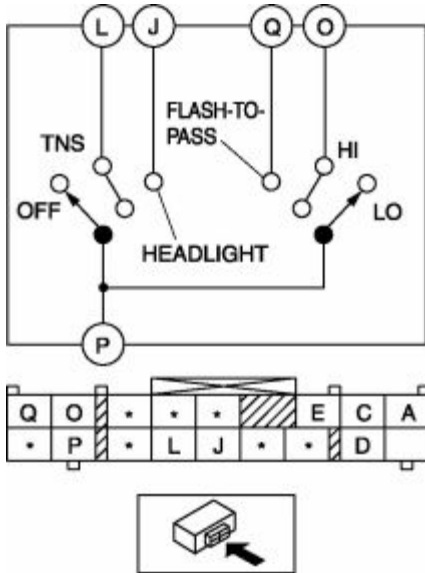
5. Remove the screws and then remove the light switch.
6. Install in the reverse order of removal.

LIGHT SWITCH INSPECTION

1. Remove the column cover.(See COLUMN COVER REMOVAL/INSTALLATION .)
2. Remove the ignition key illumination.(See IGNITION KEY ILLUMINATION BULB REMOVAL/INSTALLATION .)
3. Remove the light switch.(See LIGHT SWITCH REMOVAL/INSTALLATION .)

4. Verify that the continuity between the light switch terminals is as indicated in the table.

Headlight Switch

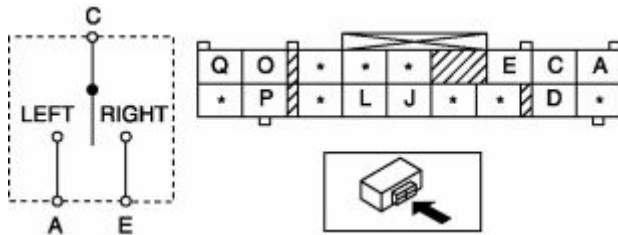


- If not as indicated in the table, replace the light switch.

○—○ : Continuity

Switch position			Terminal				
Light	Dimmer	Flash-to-pass	J	L	P	O	Q
OFF	-	OFF					
		ON				○—○	
TNS	-	OFF		○—○			
		ON		○—○	○—○	○—○	
Headlight	LO	OFF	○—○	○—○			
		ON	○—○	○—○	○—○	○—○	
	HI	-	○—○	○—○	○—○	○—○	

Turn Switch



○—○ : Continuity

Switch position	Terminal		
	A	C	E
Left	○—○		
OFF			
Right		○—○	

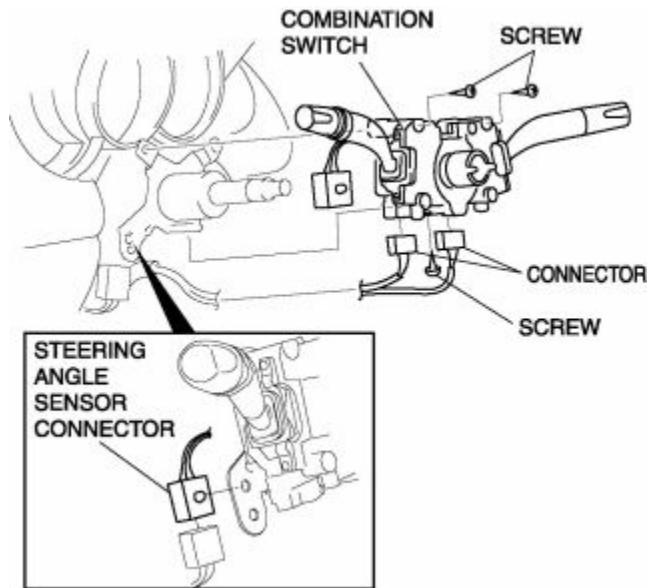
COMBINATION SWITCH

COMBINATION SWITCH REMOVAL/INSTALLATION

WARNING:

- For vehicles with DSC, if the negative battery cable or the steering angle sensor connector is disconnected, the stored initial position of the steering angle sensor will be cleared and the DSC will not operate properly, making the vehicle unsafe to drive. Perform the steering angle sensor initialization procedure after connecting the negative battery cable.

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Driver-side air bag module (See DRIVER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION .)
 - b. Steering wheel (See STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION .)
 - c. Column cover (See COLUMN COVER REMOVAL/INSTALLATION .)
 - d. Ignition key illumination (See IGNITION KEY ILLUMINATION BULB REMOVAL/INSTALLATION .)
 - e. Clock spring (See CLOCK SPRING REMOVAL/INSTALLATION .)
3. Disconnect the connector.

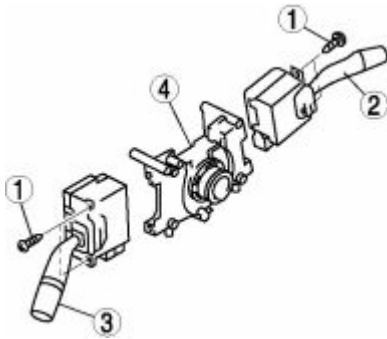


4. Disconnect the steering angle sensor connector. (Vehicles with DSC)
5. Remove the screws and then remove the combination switch.
6. Install in the reverse order of removal.
7. Perform the steering angle sensor initialization procedure. (Vehicles with DSC)(See STEERING ANGLE SENSOR INITIALIZATION PROCEDURE)

COMBINATION SWITCH DISASSEMBLY/ASSEMBLY

CAUTION:

- For vehicles with DSC: If the disc on the combination switch is deformed or has foreign material adhering to it, performance of the steering angle sensor may be reduced, causing abnormal operation. When handling the combination switch, be careful not to deform the disc and make sure there is no foreign material on it.
1. Disassemble in the order indicated in the table.



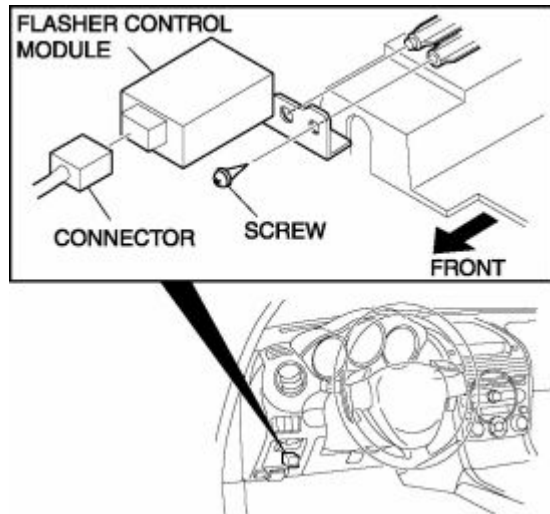
1	Screw
2	Wiper and washer switch
3	Light switch
4	Body

2. Assemble in the reverse order of disassembly.

FLASHER CONTROL MODULE

FLASHER CONTROL MODULE REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Disconnect the connector.



3. Remove the screw and then remove the flasher control module.
4. Install in the reverse order of removal.

FLASHER CONTROL MODULE INSPECTION

1. Remove the flasher control module with the connector still connected.
2. Measure the voltage at each terminal (other than terminal F).
 - If the voltage is not as specified in the Terminal Voltage Table (Reference), inspect the parts under "Inspection item(s)".
3. Disconnect the flasher control module connector.

4. Verify that continuity at terminal F is as indicated in the Terminal Voltage Table (Reference).
 - If there is any malfunction, inspect the parts under "Inspection item(s)".
 - If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, replace the flasher control module.

Terminal Voltage Table (Reference)



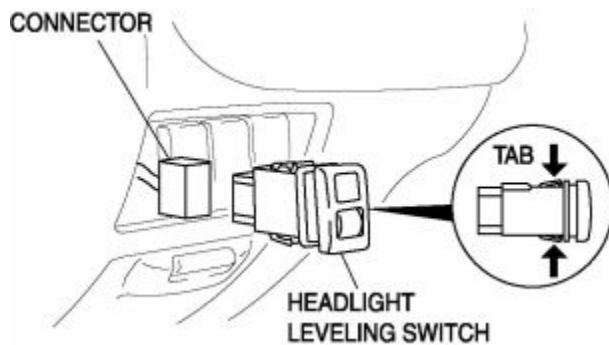
Terminal	Signal name	Connected to	Measured condition		Voltage (V)/Continuity	Inspection item(s)
A	Power supply	HAZARD 15 A fuse	Under any condition		B+	<ul style="list-style-type: none"> • HAZARD 15 A fuse • Related wiring harnesses
D	Flasher control module output	Turn light (LH)	Turn light switch (LH) is on.	Turn light (LH) flashes.	Alternates between 1.0 or less and B+	<ul style="list-style-type: none"> • Turn light (LH) • Related wiring harnesses
			Hazard warning switch is on.			
			Except above			
F	GND	Body ground	Under any condition: Inspect for continuity to ground.		Continuity detected	<ul style="list-style-type: none"> • GND
G	Flasher control module output	Turn light (RH)	Turn light switch (RH) is on.	Turn light (RH) flashes.	Alternates between 1.0 or less and B+	<ul style="list-style-type: none"> • Turn light (RH) • Related wiring harnesses
			Hazard warning switch is on.			
			Except above			
H	Hazard warning	Hazard warning	Hazard warning switch is on.		1.0 or less	

	warning switch input	warning switch	Hazard warning switch is off.		B+	<ul style="list-style-type: none"> Hazard warning switch <p>(See HAZARD WARNING SWITCH INSPECTION .)</p> <ul style="list-style-type: none"> Related wiring harnesses
I	Turn switch (RH) input	Turn switch	Turn the ignition switch to the ON position.	Turn switch (RH) is on.	B+	<ul style="list-style-type: none"> Turn switch <p>(See LIGHT SWITCH INSPECTION .)</p> <ul style="list-style-type: none"> Related wiring harnesses
			Except above		1.0 or less	
J	Turn switch (LH) input	Turn switch	Turn the ignition switch to the ON position.	Turn switch (LH) is on.	B+	<ul style="list-style-type: none"> Turn switch <p>(See LIGHT SWITCH INSPECTION .)</p> <ul style="list-style-type: none"> Related wiring harnesses
			Except above		1.0 or less	

HEADLIGHT LEVELING SWITCH

HEADLIGHT LEVELING SWITCH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the headlight leveling switch. (See Headlight Leveling Switch Removal Note .)
3. Disconnect the connector.



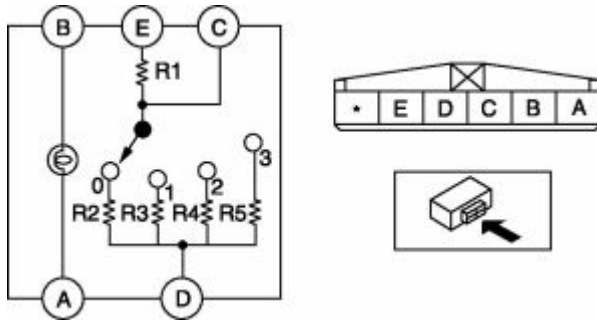
4. Install in the reverse order of removal.

Headlight Leveling Switch Removal Note

1. Reach into the dashboard through the underside of the lower panel and, while pushing on the tabs of the headlight leveling switch, pull it outward.

HEADLIGHT LEVELING SWITCH INSPECTION

1. Remove the headlight leveling switch. (See HEADLIGHT LEVELING SWITCH REMOVAL/INSTALLATION .)
2. Verify that continuity between the headlight leveling switch terminals is as indicated in the table.



- If not as indicated in the table, replace the headlight leveling switch.

○-w-○ : Resistance ○-⊕-○ : Bulb

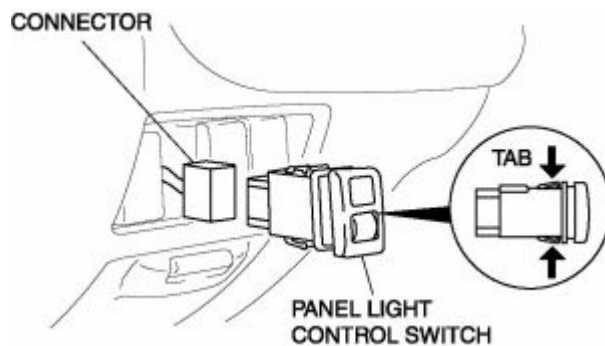
Switch position	Terminal				
	E	C	D	B	A
0	○-R ₁ -○		○-R ₂ -○		○-⊕-○
1	○-R ₁ -○		○-R ₃ -○		○-⊕-○
2	○-R ₁ -○		○-R ₄ -○		○-⊕-○
3	○-R ₁ -○		○-R ₅ -○		○-⊕-○

R₁: 300 ohms R₂: 2,700 ohms R₃: 1,000 ohms
R₄: 470 ohms R₅: 300 ohms

PANEL LIGHT CONTROL SWITCH

PANEL LIGHT CONTROL SWITCH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the panel light control switch.(See Panel Light Control Switch Removal Note .)
3. Disconnect the connector.



4. Install in the reverse order of removal.

Panel Light Control Switch Removal Note

1. Reach into the dashboard through the underside of the lower panel and, while pushing on the tabs of the panel light control switch, pull it outward.

PANEL LIGHT CONTROL SWITCH INSPECTION

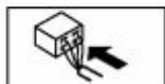
1. Connect the panel light control switch connector.
2. Connect the negative battery cable.
3. Measure the voltage at each terminal (other than terminal D).
 - If the voltage is not as specified in the Terminal Voltage Table (Reference), inspect the parts under "Inspection item(s)".

4. Disconnect the panel light control switch connector.

5. Verify that continuity at terminal D is as indicated in the Terminal Voltage Table (Reference).

- If there is any malfunction, inspect the parts under "Inspection item(s)".
 - If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, replace the panel light control switch.

Terminal Voltage Table (Reference)



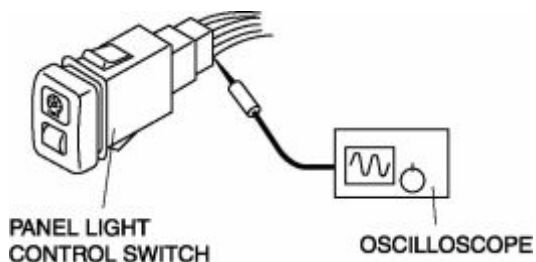
Terminal	Signal name	Connected to	Measured condition	Measured condition	Voltage (V)/Continuity	Inspection item(s)
A	Illumination	Instrument cluster	Inspect using an oscilloscope. (See Terminals A and F Inspection .)		-	<ul style="list-style-type: none"> • Instrument cluster • Each illumination • Related wiring harnesses
F		Each illumination				
B	TNS	TNS relay	Turn the light switch to the TNS or ON position.		B+	<ul style="list-style-type: none"> • TNS relay (See RELAY INSPECTION .) • ILLUMI 10 A fuse • Related wiring harnesses
			Turn the light switch to the OFF position.		1.0 or less	
D	GND	Body ground	Under any condition: Inspect for continuity to		Continuity detected	

			ground.			<ul style="list-style-type: none"> GND Related wiring harnesses
G	IG1	Ignition switch	Turn the ignition switch to the ON position.	B+	1.0 or less	<ul style="list-style-type: none"> Ignition switch <p>(See IGNITION SWITCH INSPECTION .)</p> <ul style="list-style-type: none"> Related wiring harnesses
			Turn the ignition switch to the ACC or LOCK position.			
H	Dimmer cancel	Instrument cluster/center panel module	Turn the light switch to the TNS or ON position.	Dimmer cancel switch is on.	B+	<ul style="list-style-type: none"> Instrument cluster Center panel module Related wiring harnesses
				Dimmer cancel switch is off.	1.0 or less	

Terminals A and F Inspection

1. Measure the wave pattern of panel light control switch terminals A and F using an oscilloscope.
 - Oscilloscope setting :

5 V/DIV (Y) , 5 ms/div (X) , DC range

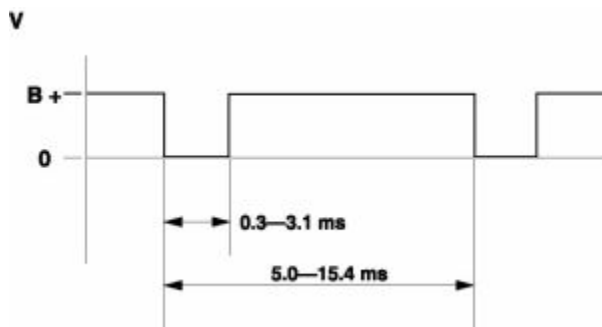


- 3.
4. Turn the light switch to the TNS or ON position.
5. Turn the panel light control switch to the brightest setting.

6. Verify that the wave pattern is as shown in the figure.



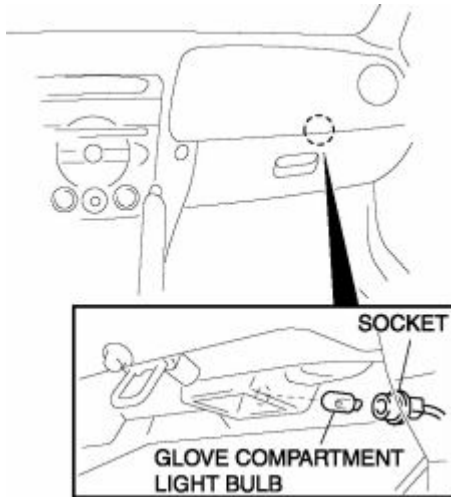
7. Turn the panel light control switch to the darkest position and verify that the wave pattern is as shown in the figure.



GLOVE COMPARTMENT LIGHT

GLOVE COMPARTMENT LIGHT BULB REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the socket, then remove the glove compartment light bulb.

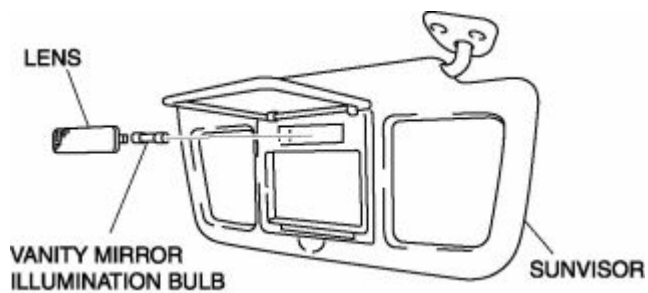


3. Install in the reverse order of removal.

VANITY MIRROR ILLUMINATION

VANITY MIRROR ILLUMINATION BULB REMOVAL/INSTALLATION

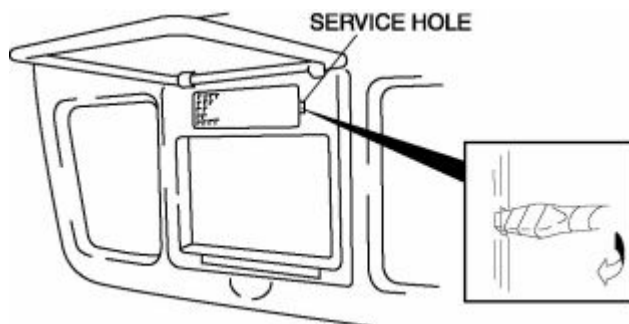
1. Disconnect the negative battery cable.
2. Remove the lens.(See Lens Removal Note .)
3. Remove the vanity mirror illumination bulb.



4. Install in the reverse order of removal.

Lens Removal Note

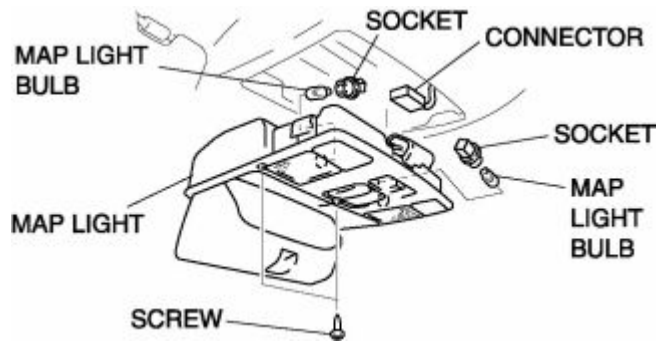
1. Insert a tape-wrapped flathead screwdriver into the service hole and pry with the screwdriver in the direction shown by the arrow to remove the lens.



INTERIOR LIGHT

MAP LIGHT REMOVAL/INSTALLATION

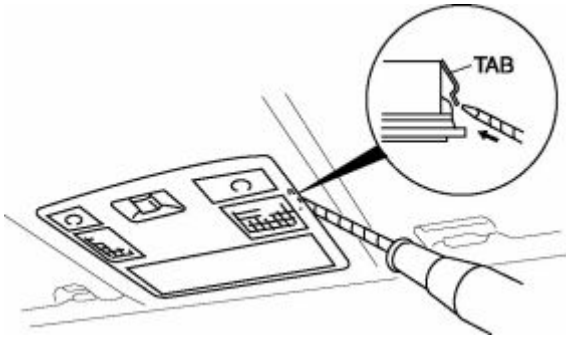
1. Disconnect the negative battery cable.
2. Remove the screws.



3. Remove the map light.(See Map Light Removal Note .)
4. Disconnect the connector.
5. Remove the socket, then remove the map light bulb.
6. Install in the reverse order of removal.

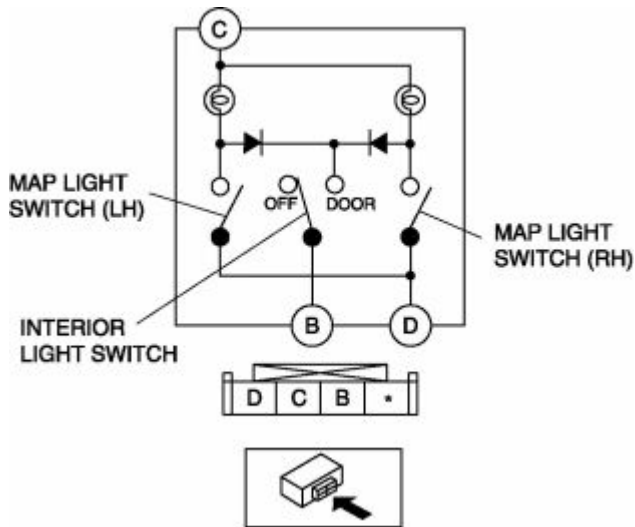
Map Light Removal Note

1. Insert a tape-wrapped flathead screwdriver into the gap between the headliner and the map light.
2. Press the tab, and remove the map light.



MAP LIGHT INSPECTION

1. Remove the map light.(See MAP LIGHT REMOVAL/INSTALLATION .)
2. Verify that the continuity between the map light terminals is as indicated in the table.



- If not as indicated in the table, replace the map light.

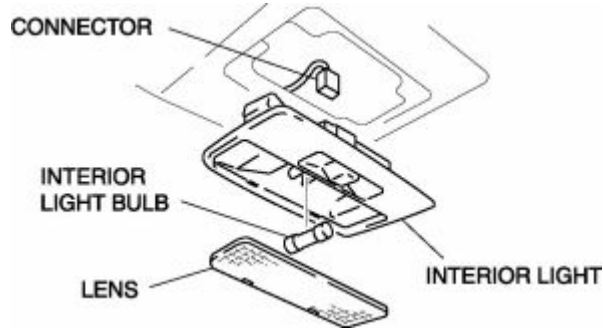
○—(U)—○ : Bulb

Switch position		Terminal		
Map light switch	Interior light switch	B	C	D
ON	-		○—(U)—○	
-	DOOR	○—(U)—○		
-	OFF			

INTERIOR LIGHT

INTERIOR LIGHT REMOVAL/INSTALLATION

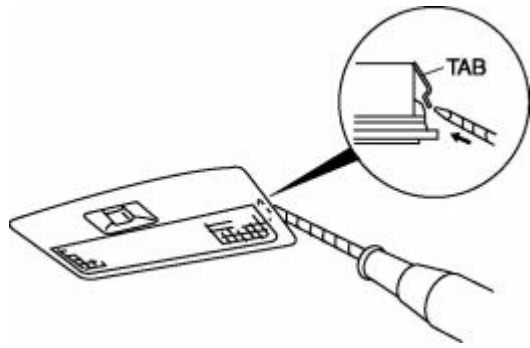
1. Disconnect the negative battery cable.
2. Remove the lens.(See Lens Removal Note .)
3. Remove the interior light bulb.
4. Remove the interior light.(See Interior Light Removal Note .)



5. Disconnect the connector.
6. Install in the reverse order of removal.

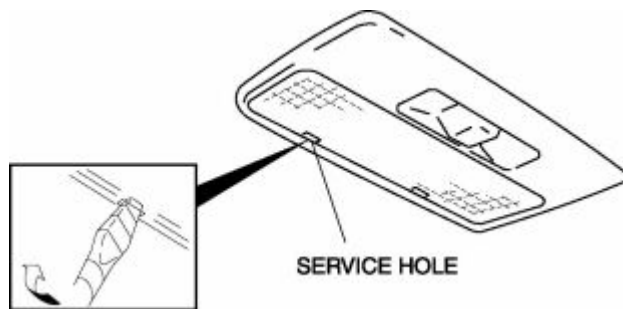
Interior Light Removal Note

1. Insert a tape-wrapped flathead screwdriver into the gap between the headliner and the interior light.
2. Press the tab, and remove the interior light.



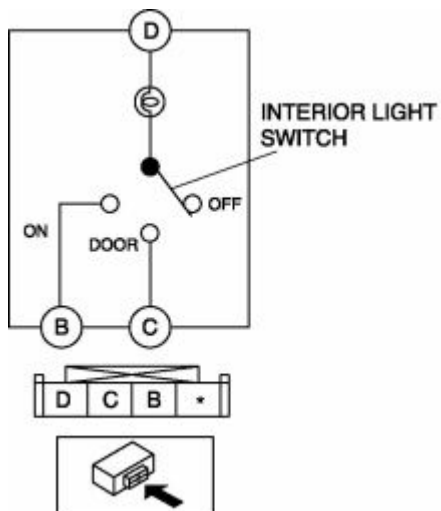
Lens Removal Note

1. Insert a tape-wrapped flathead screwdriver into the service hole and pry with the screwdriver in the direction shown by the arrow to remove the lens.



INTERIOR LIGHT INSPECTION

1. Remove the interior light.(See INTERIOR LIGHT REMOVAL/INSTALLATION .)
2. Verify that the continuity between the interior light terminals is as indicated in the table.



- If not as indicated in the table, replace the interior light.

○ ⊕ ○ : Bulb

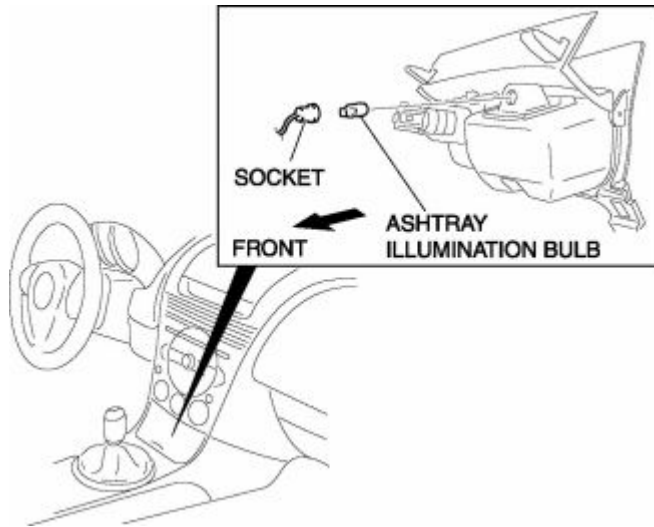
Switch position	Terminal		
	B	C	D
ON	○	○ ⊕ ○	○
DOOR		○ ⊕ ○	○
OFF			

Notes:

ASHTRAY ILLUMINATION BULB

ASHTRAY ILLUMINATION BULB REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the ashtray panel.(See CONSOLE REMOVAL/INSTALLATION .)
3. Remove the socket, then remove the ashtray illumination bulb.

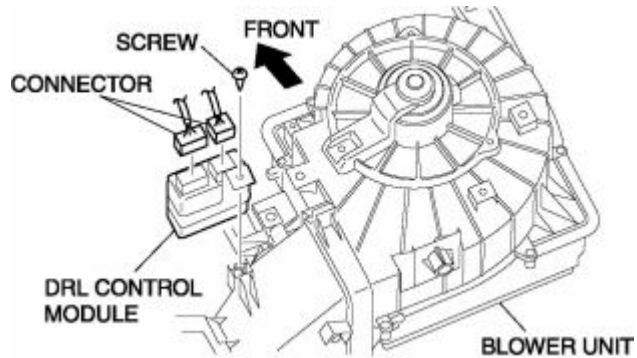


4. Install in the reverse order of removal.

DRL CONTROL MODULE

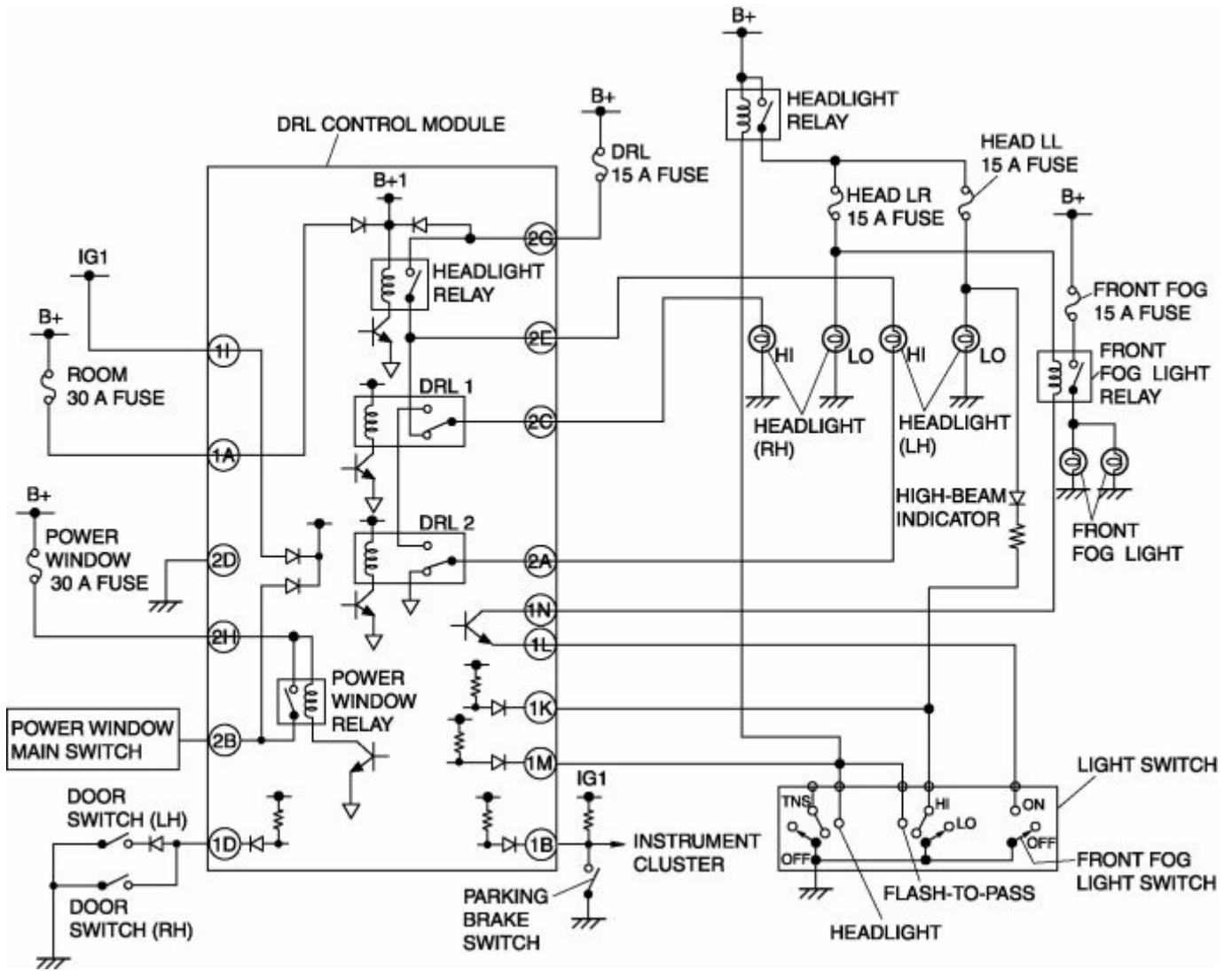
DRL CONTROL MODULE REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Disconnect the connectors.



3. Remove the screw and then remove the DRL control module.
4. Install in the reverse order of removal.

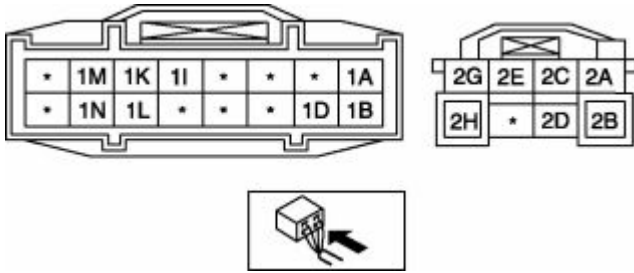
DRL SYSTEM WIRING DIAGRAM



DRL CONTROL MODULE INSPECTION

1. Connect the connector to the DRL control module.
2. Connect the negative battery cable.
3. Measure the voltage at the DRL control module using voltmeter.
 - When inspecting terminal 1B, 1D or 2D for continuity, disconnect the DRL control module connector.
4. If the value are not as specified in the Terminal Voltage List (Reference), inspect the parts under "Inspection item(s)" and related wiring harnesses.
5. If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, replace the DRL control module.

Terminal Voltage Table (Reference)



Terminal	Signal name	Connected to	Test condition	Voltage (V)/Continuity	Inspection item(s)
1A	Power supply	ROOM 30 A fuse	Under any condition	B+	<ul style="list-style-type: none"> ROOM 30 A fuse Related wiring harness
1B	Parking brake lever pulled/released	Parking brake switch	Parking brake lever pulled: Check for continuity to ground.	Continuity	<ul style="list-style-type: none"> Parking brake switch <p>(See PARKING BRAKE SWITCH INSPECTION .)</p> <ul style="list-style-type: none"> Related wiring harness
			Parking brake lever released: Check for continuity to ground.	No	
1D	Door open/close	Door switch	Door switch pressed.	B+	<ul style="list-style-type: none"> Door switch <p>(See DOOR SWITCH INSPECTION .)</p> <ul style="list-style-type: none"> Related wiring harness
			Door switch released.	1.0 or less	

1I	IG1	Ignition switch	Turn the ignition switch to the ON position.	B+	1.0 or less	<ul style="list-style-type: none"> Ignition switch (See IGNITION SWITCH INSPECTION .)
			Turn the ignition switch to the LOCK position.			
1K	High-beam on/off	Light switch	Turn the ignition switch to the ON position.	Dimmer switch at HI	1.0 or less	<ul style="list-style-type: none"> Light switch (See LIGHT SWITCH INSPECTION .)
				Dimmer switch at LO	B+	
1L	Front fog light switch ON/OFF	Front fog light switch	Light switch at 2nd position	Front fog light switch is on.	1.0 or less	<ul style="list-style-type: none"> Light switch (See LIGHT SWITCH INSPECTION .)
				Front fog light switch is off.	B+	
1M	Flash-to-pass	Light switch	Turn the ignition switch to the ON position.	Flash-to-pass activated.	1.0 or less	<ul style="list-style-type: none"> Light switch (See LIGHT SWITCH INSPECTION .)
				Flash-to-pass not activated.	B+	

1N	Front fog light relay operation	Front fog light relay	Light switch at 2nd position and dimmer switch at LO	Front fog light switch is on.	1.0 or less	<ul style="list-style-type: none"> • FOG 15 A fuse • Front fog light relay (See RELAY INSPECTION .)
				Front fog light switch is off.	B+	
2A	Headlight (LH) operation (high-beam)	Headlight (high-beam)	Light switch at 2nd position	Dimmer switch at LO	1.0 or less	<ul style="list-style-type: none"> • Headlight (LH) • Related wiring harness
				Dimmer switch at HI	1.0 or less	
2B	Power window	Power window main switch	Door switch pressed	Turn the ignition switch to the ON position.	B+	<ul style="list-style-type: none"> • Power window main switch (See POWER WINDOW MAIN SWITCH INSPECTION)
				Turn the ignition switch to the LOCK position.	1.0 or less	
2C	Headlight (RH) operation (high-beam)	Headlight (high-beam)	Light switch at 2nd position	Dimmer switch at LO	1.0 or less	<ul style="list-style-type: none"> • Headlight (RH) • Related wiring harness
				Dimmer switch at HI	B+	
2D	Ground	GND	Under any condition: Check for continuity to ground.		Continuity	GND
2E	Headlight (LH) operation (high-beam)	Headlight (high-beam)	Light switch at 2nd position	Dimmer switch at LO	1.0 or less	

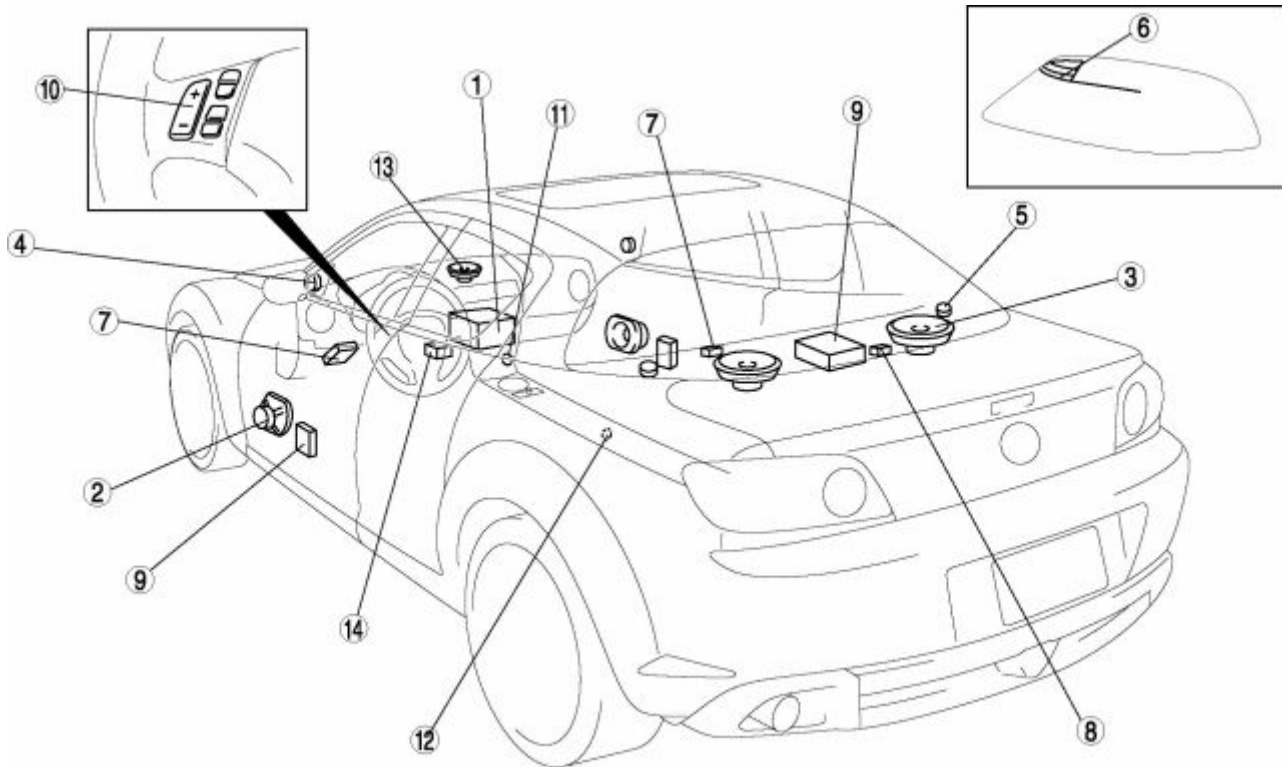
	operation (high-beam)		at 2nd position	Dimmer switch at HI	B+	<ul style="list-style-type: none"> • Headlight (LH) • Related wiring harness
2G	Power supply	DRL 15 A fuse	Under any condition		B+	<ul style="list-style-type: none"> • Headlight 15 A fuse • Related wiring harness
2H	Power supply	Power window 30 A fuse	Under any condition		B+	<ul style="list-style-type: none"> • Power window 30 A fuse • Related wiring harness

ENTERTAINMENT

AUDIO

ENTERTAINMENT LOCATION INDEX

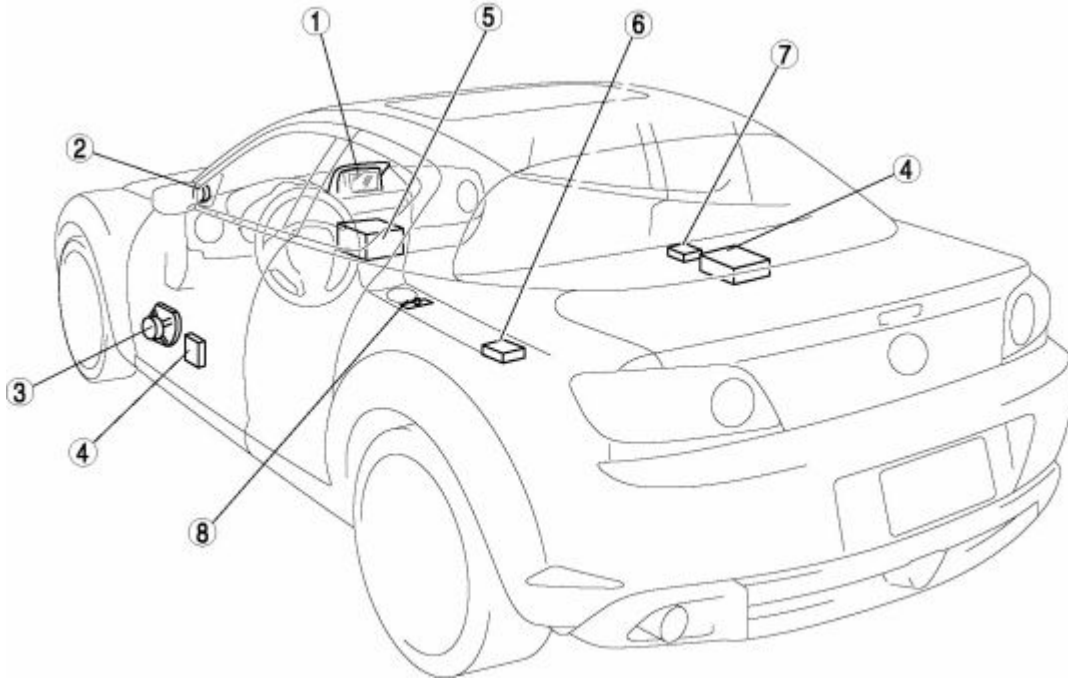
Audio System



1	Audio unit (See CENTER PANEL MODULE REMOVAL/INSTALLATION) (See CENTER PANEL MODULE DISASSEMBLY/ASSEMBLY) (See AUDIO UNIT DISASSEMBLY/ASSEMBLY)
2	Front door speaker (See FRONT DOOR SPEAKER REMOVAL/INSTALLATION) (See FRONT DOOR SPEAKER INSPECTION)
3	Rear speaker (See REAR SPEAKER REMOVAL/INSTALLATION) (See REAR SPEAKER INSPECTION)
4	Front tweeter (See FRONT TWEETER REMOVAL/INSTALLATION)

	(See FRONT TWEETER INSPECTION)
5	Rear tweeter (See REAR TWEETER REMOVAL/INSTALLATION) (See REAR TWEETER INSPECTION)
6	Glass antenna (See GLASS ANTENNA INSPECTION) (See ANTENNA FEEDER LOCATION) (See AM/FM ANTENNA FEEDER NO.1 INSPECTION) (See AM/FM ANTENNA FEEDER NO.2 INSPECTION)
7	Noise filter (See NOISE FILTER REMOVAL/INSTALLATION) (See NOISE FILTER INSPECTION)
8	Condenser (See CONDENSER REMOVAL/INSTALLATION)
9	Audio amplifier (See AUDIO AMPLIFIER REMOVAL/INSTALLATION)
10	Audio control switch (See AUDIO CONTROL SWITCH REMOVAL/INSTALLATION) (See AUDIO CONTROL SWITCH INSPECTION)
11	Cigarette lighter (See CIGARETTE LIGHTER REMOVAL/INSTALLATION) (See CIGARETTE LIGHTER INSPECTION)
12	Accessory socket (See ACCESSORY SOCKET REMOVAL/INSTALLATION) (See ACCESSORY SOCKET INSPECTION)
13	Center speaker (See CENTER SPEAKER REMOVAL/INSTALLATION) (See CENTER SPEAKER INSPECTION)
14	AUDIOPILOT microphone (BOSE specification vehicle) (See AUDIOPILOT MICROPHONE REMOVAL/INSTALLATION)

Car-navigation System



1	LCD unit (See LCD UNIT REMOVAL/INSTALLATION)
2	Front tweeter (See FRONT TWEETER REMOVAL/INSTALLATION) (See FRONT TWEETER INSPECTION)
3	Front door speaker (See FRONT DOOR SPEAKER REMOVAL/INSTALLATION) (See FRONT DOOR SPEAKER INSPECTION)
4	Audio amplifier (See AUDIO AMPLIFIER REMOVAL/INSTALLATION)
5	Audio unit (See CENTER PANEL MODULE REMOVAL/INSTALLATION) (See CENTER PANEL MODULE DISASSEMBLY/ASSEMBLY) (See AUDIO UNIT DISASSEMBLY/ASSEMBLY)
6	Car-navigation unit (See CAR-NAVIGATION UNIT REMOVAL/INSTALLATION)
7	GPS antenna (See GPS ANTENNA REMOVAL/INSTALLATION)
8	Car-navigation control switch

(See CAR-NAVIGATION CONTROL SWITCH REMOVAL/INSTALLATION)

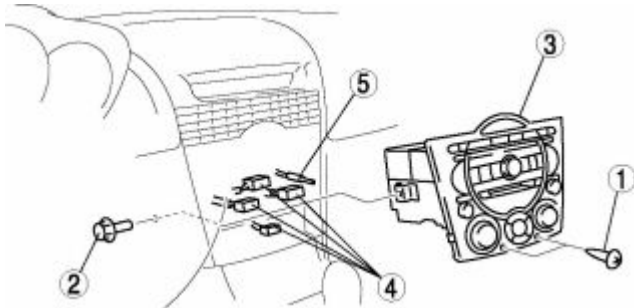
(See CAR-NAVIGATION CONTROL SWITCH INSPECTION)

Notes:

AUDIO UNIT

CENTER PANEL MODULE REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the lower panel.(See LOWER PANEL REMOVAL/INSTALLATION .)
3. Remove the console.(See CONSOLE REMOVAL/INSTALLATION .)
4. Remove in the order indicated in the table.



1	Screw
2	Bolt
3	Center panel module (See Center Panel Module Removal Note .)
4	Connector
5	Antenna feeder

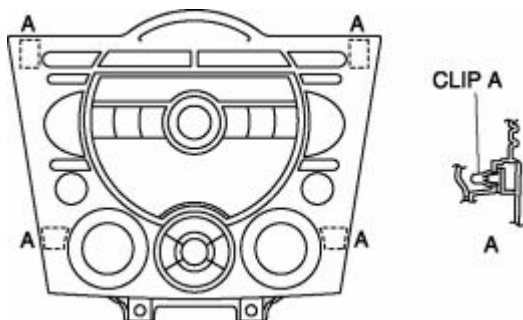
5. Install in the reverse order of removal.

CAUTION:

- When installing the center panel module, make sure that the wiring harness and antenna feeder are not caught between the unit and dashboard.If the wiring harness or the antenna feeder is caught between the unit and dashboard, it may cause malfunctions.

Center Panel Module Removal Note

1. Pull the center panel module outward, detach clip A from the dashboard, and then remove the center panel module.

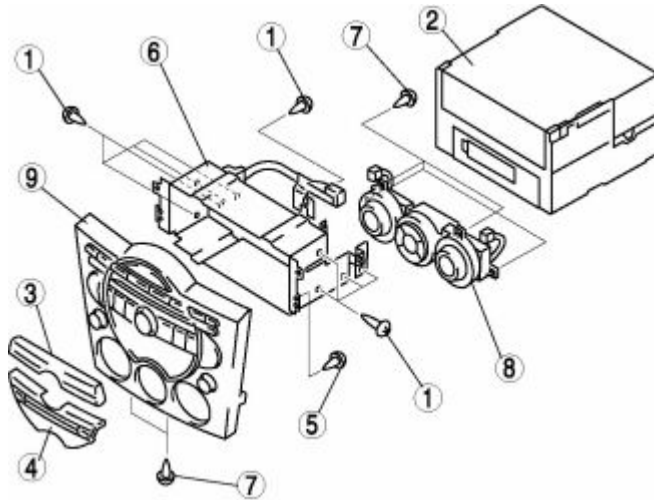


CENTER PANEL MODULE DISASSEMBLY/ASSEMBLY

CAUTION:

- Before disassembling the center panel module, spread a cloth on the floor to put the disassembled parts on. This protects the surface of the panel from scratches or dirt.

1. Disassemble in the order indicated in the table.



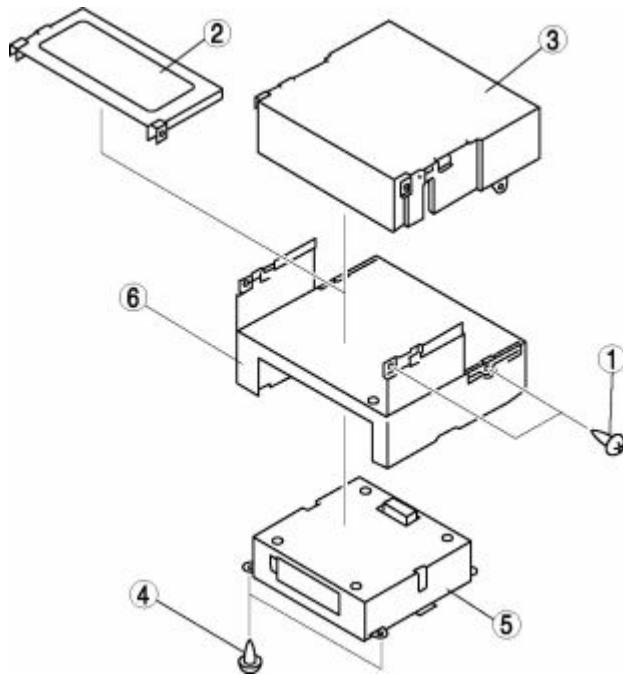
1	Screw A
2	Audio unit
3	Cover (upper module)
4	Cover (lower module)
5	Screw B
6	Bracket
7	Screw C
8	Climate control unit
9	Center panel

2. Assemble in the reverse order of disassembly.

AUDIO UNIT

AUDIO UNIT DISASSEMBLY/ASSEMBLY

1. Disassemble in the order indicated in the table.



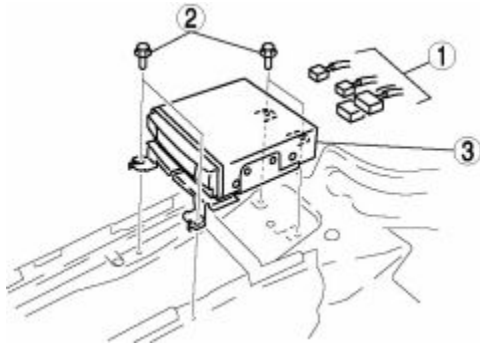
1	Screw
2	Cover (vehicles without the upper module)
3	Upper module
4	Screw
5	Lower module
6	Base unit

2. Assemble in the reverse order of disassembly.

CAR-NAVIGATION UNIT

CAR-NAVIGATION UNIT REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the console.(See CONSOLE REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.



1	Connector
2	Bolt
3	Car-navigation unit

4. Install in the reverse order of removal.

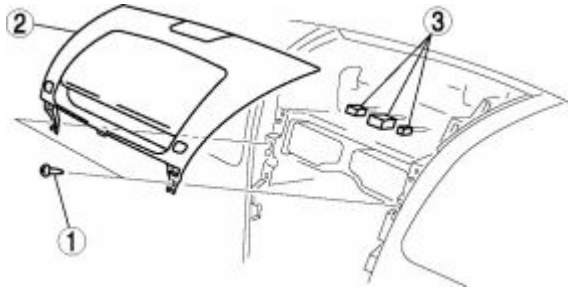
CAR-NAVIGATION SYSTEM DIAGNOSIS SCREEN INFORMATION

1. Select "SET UP MENU".
2. Select "SYSTEM INFORMATION".
3. Select "VERSION".
4. Press the joystick up **2 times** , then down **2 times** .
5. Select one of two menus "WIRING CHECK" or "GPS".
 - WIRING CHECK
 - Speed (MPH)
 - ACC voltage
 - Speed pulse
 - Accuracy level
 - GPS

LCD UNIT

LCD UNIT REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Lower panel(See LOWER PANEL REMOVAL/INSTALLATION .)
 - b. Console(See CONSOLE REMOVAL/INSTALLATION .)
 - c. Center panel module(See CENTER PANEL MODULE REMOVAL/INSTALLATION .)
 - d. Center ventilator grille(See VENTILATOR GRILLE REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.

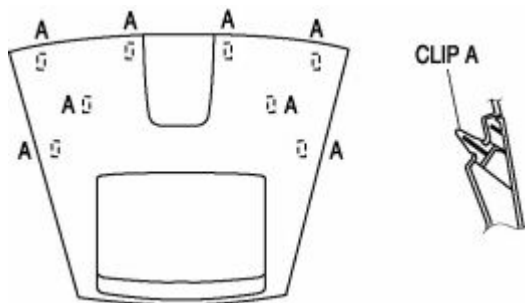


1	Screw
2	LCD unit (See LCD Unit Removal Note .)
3	Connector

4. Install in the reverse order of removal.

LCD Unit Removal Note

1. Pull the lower LCD unit outward, detach clip A from the dashboard, and then remove the LCD unit.

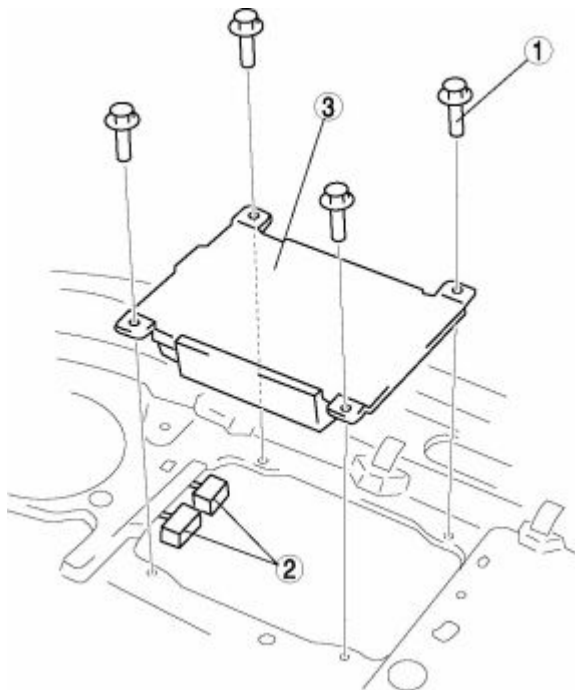


AUDIO AMPLIFIER

AUDIO AMPLIFIER REMOVAL/INSTALLATION

Main Amplifier

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Console(See CONSOLE REMOVAL/INSTALLATION .)
 - b. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
 - c. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - d. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - e. Rear package center trim, rear package side trim(See REAR PACKAGE TRIM REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.

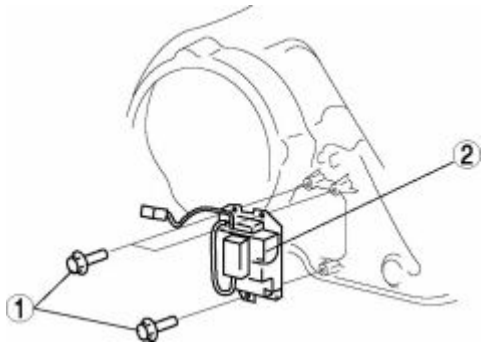


1	Bolt
2	Connector
3	Main amplifier

4. Install in the reverse order of removal.

Front Door Speaker Amplifier

1. Disconnect the negative battery cable.
2. Remove the front door trim.(See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
3. Remove the front door speaker.(See FRONT DOOR SPEAKER REMOVAL/INSTALLATION .)
4. Remove in the order indicated in the table.



1	Bolt
2	Front door speaker amplifier

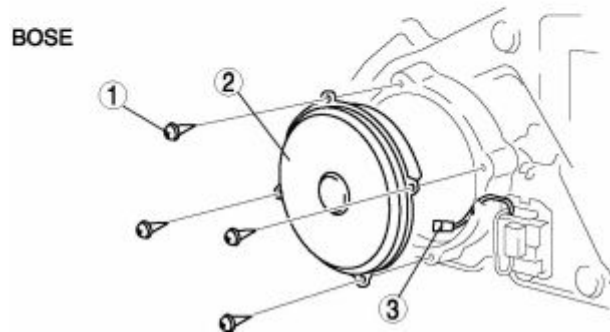
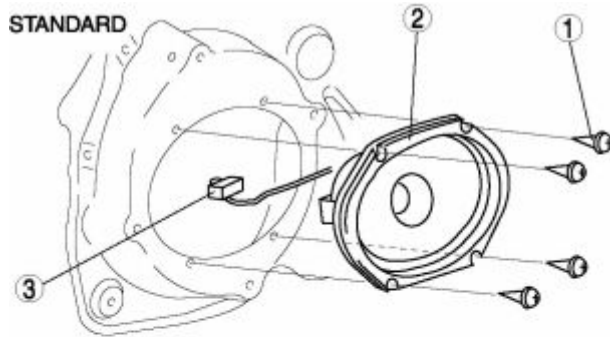
5. Install in the reverse order of removal.

Notes:

SPEAKER

FRONT DOOR SPEAKER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the front door trim.(See FRONT DOOR TRIM REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.

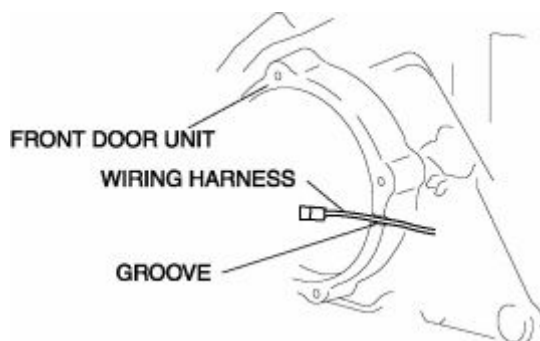


1	Screw
2	Front door speaker (See Front Door Speaker Installation Note .)
3	Connector

4. Install in the reverse order of removal.

Front Door Speaker Installation Note

1. Remove the speaker with the wiring harness passing through the groove of the front door module.

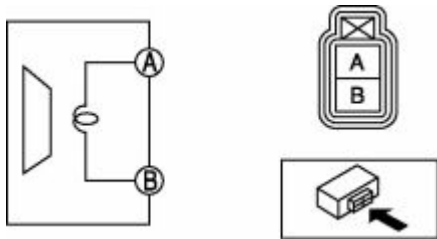


CAUTION:

- If the speaker is installed with the wiring harness out of the groove, an open circuit in the wiring harness could occur.

FRONT DOOR SPEAKER INSPECTION

1. Verify the resistance between front door speaker terminals.



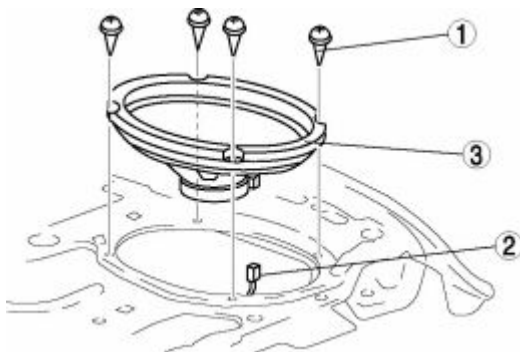
- If the resistance is not within the specification, replace the front door speaker.

Resistance

- Standard: 4 ohms
 - BOSE: 0.5 ohms
2. Connect a **1.5 V** battery to the front door speaker and verify that noise is sound from the front door speaker.
 - If no sound is output, replace the front door speaker.

REAR SPEAKER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Remove the rear seat.(See REAR SEAT REMOVAL/INSTALLATION .)
 - b. Remove the console.(See CONSOLE REMOVAL/INSTALLATION .)
 - c. Remove the tire house trim.(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - d. Remove the rear pillar trim.(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - e. Remove the rear package center trim, the rear package side trim.(See REAR PACKAGE TRIM REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.



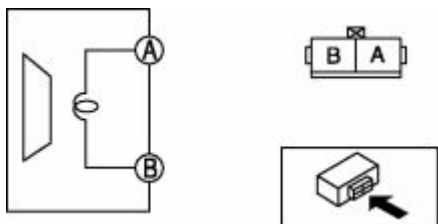
1	Screw
2	Connector

3 Rear door speaker

4. Install in the reverse order of removal.

REAR SPEAKER INSPECTION

1. Verify the resistance between rear speaker terminals.



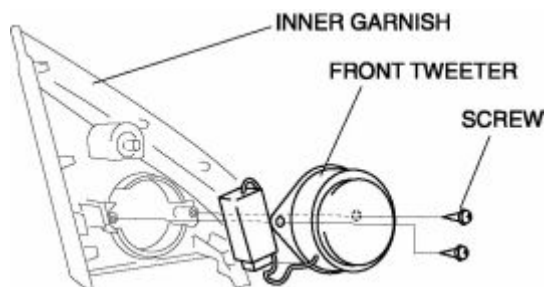
- If the resistance is not within the specification, replace the rear speaker.

Resistance

- Standard: 4 ohms
 - BOSE: 2 ohms
2. Connect a **1.5 V** battery to the rear door speaker and verify that noise is sound from the rear door speaker.
 - If no sound is output, replace the rear door speaker.

FRONT TWEETER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the inner garnish from the front door.
3. Remove the screws.

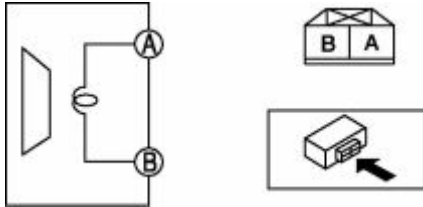


4. Remove the front tweeter.
5. Install in the reverse order of removal.

FRONT TWEETER INSPECTION

Standard

1. Verify the resistance between front tweeter terminals.



- If the continuity is as indicated in the table, replace the front tweeter.

○—○ :Resistance

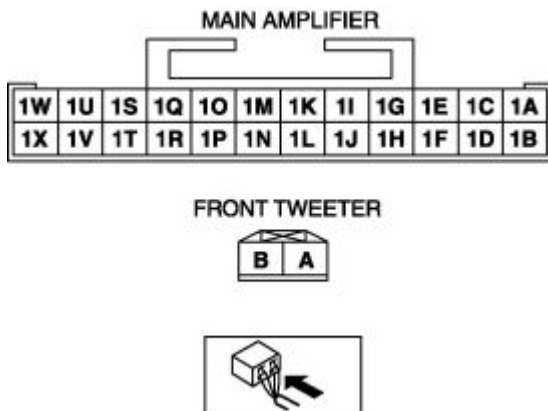
Test condition	Terminal	
	A	B
Under any condition	○—○	○—○

R: 3.2 Ohms

2. Connect a **1.5 V** battery to the front tweeter and verify that noise is sound from the front tweeter.
 - If no sound is output, replace the front tweeter.

BOSE

1. Verify that sound is output from the front door speaker.
 - If sound is output, go to the next step.
 - If no sound is not output, inspect the front door speaker and the related wiring harnesses.
2. Remove the following parts:
 - a. Remove the rear seat.(See REAR SEAT REMOVAL/INSTALLATION .)
 - b. Remove the console.(See CONSOLE REMOVAL/INSTALLATION .)
 - c. Remove the tire house trim.(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - d. Remove the rear pillar trim.(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - e. Remove the rear package center trim and the rear package side trim.(See REAR PACKAGE TRIM REMOVAL/INSTALLATION .)
 - f. Remove the main amplifier.(See AUDIO AMPLIFIER REMOVAL/INSTALLATION .)
3. Verify that the continuity between the front tweeter and the main amplifier is as indicated in the table.
 - If the continuity is not as indicated in the table, repair or replace the related wiring harnesses.
 - If the continuity is as indicated in the table, replace the front tweeter.



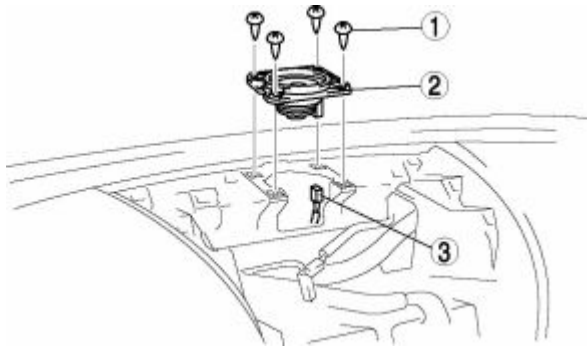
○—○: Continuity

Step	Front tweeter		Main amplifier	
	A	B	[1W], (1S)	[1U], (1Q)
1	○	—	○	
2		○	—	○

[]: RH, (): LH

CENTER SPEAKER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Lower panel(See LOWER PANEL REMOVAL/INSTALLATION .)
 - b. Console(See CONSOLE REMOVAL/INSTALLATION .)
 - c. Center panel module(See CENTER PANEL MODULE REMOVAL/INSTALLATION .)
 - d. Center ventilator grille(See VENTILATOR GRILLE REMOVAL/INSTALLATION .)
 - e. LCD unit(See LCD UNIT REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.

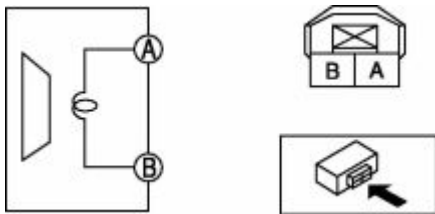


1	Screw
2	Center speaker
3	Connector

4. Install in the reverse order of removal.

CENTER SPEAKER INSPECTION

1. Verify the resistance between center speaker terminals.



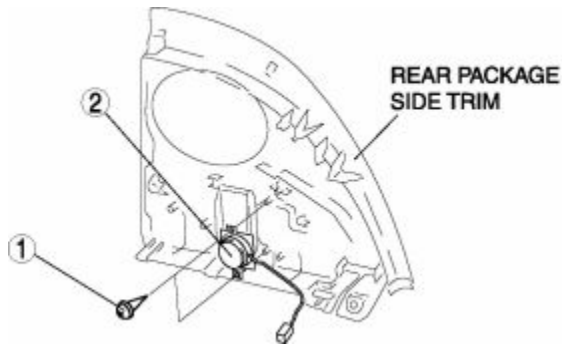
- If the resistance is not within the specification, replace the center speaker.

Resistance

- 1.8 ohms
2. Connect a **1.5 V** battery to the center speaker and verify that sound is output from the center speaker.
 - If no sound is output, replace the center speaker.

REAR TWEETER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
 - b. Console(See CONSOLE REMOVAL/INSTALLATION .)
 - c. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - d. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - e. Rear package side trim(See REAR PACKAGE TRIM REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.

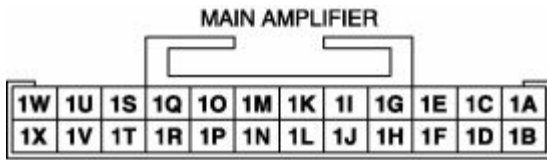


1	Screw
2	Rear tweeter

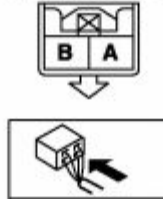
4. Install in the reverse order of removal.

REAR TWEETER INSPECTION

1. Verify that sound is output from the rear speaker.
 - If sound is output, go to the next step.
 - If no sound is not output, inspect the rear speaker and the related wiring harnesses.
2. Remove the main amplifier.(See AUDIO AMPLIFIER REMOVAL/INSTALLATION .)
3. Verify that the continuity between the rear tweeter and the main amplifier is as indicated in the table.
 - If not as indicated in the table, repair or replace the related wiring harnesses.
 - If as indicated in the table, replace the rear tweeter.



REAR TWEETER



○—○: Continuity

Step	Rear tweeter		Main amplifier	
	A	B	[1M], (1I)	[1O], (1K)
	1	○	○	○
2		○		○

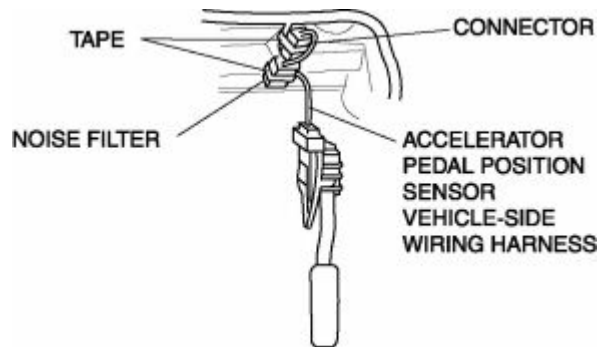
[]: RH, (): LH

NOISE FILTER

NOISE FILTER REMOVAL/INSTALLATION

Brake Light Noise Filter

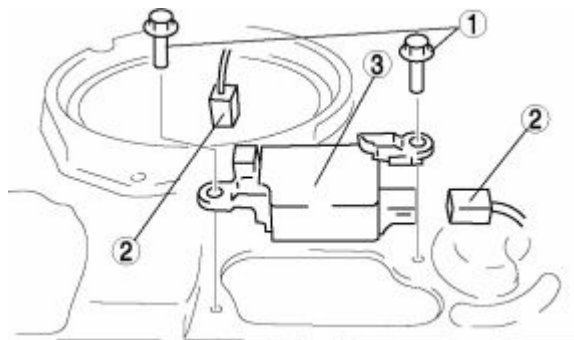
1. Disconnect the negative battery cable.
2. Remove the lower panel.(See LOWER PANEL REMOVAL/INSTALLATION .)
3. Peel off the tape.



4. Disconnect the connector and remove the brake light noise filter.
5. Install in the reverse order of removal.

Rear Window Defroster Noise Filter

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
 - b. Console(See CONSOLE REMOVAL/INSTALLATION .)
 - c. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - d. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - e. Rear package center trim, rear package side trim(See REAR PACKAGE TRIM REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.



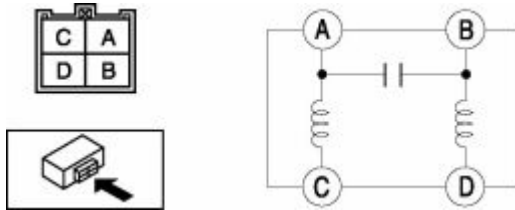
1	Bolt
2	Connector
3	Noise filter

4. Install in the reverse order of removal.

NOISE FILTER INSPECTION

Brake Light Noise Filter

1. Verify the resistance and continuity between the brake light noise filter terminals.



- If the resistance is not as indicated in the table, replace the brake light noise filter.

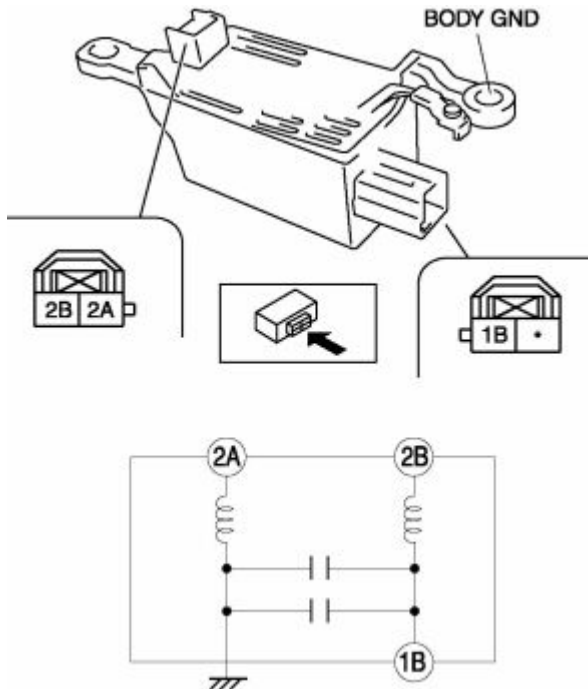
○—W—○: Resistance

Measured condition	Terminal			
	A	B	C	D
Under any condition	○—W—R—○		○—W—R—○	

R: 0.1 ohm

Rear Window Defroster Noise Filter

1. Verify the resistance between rear window defroster noise filter terminals.



- If the resistance is not as indicated in the table, replace the rear window defroster noise filter.

○—Ω—○: Resistance

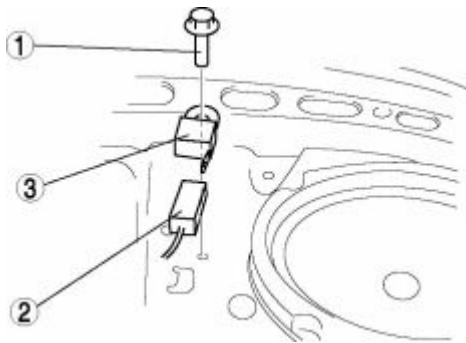
Test condition	Terminal			
	Body GND	1B	2A	2B
Under any condition	○	—Ω—	○	
		○	—Ω—	○

R: 0.1 ohm

CONDENSER

CONDENSER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
 - b. Console(See CONSOLE REMOVAL/INSTALLATION .)
 - c. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - d. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - e. Rear package center trim, rear package side trim(See REAR PACKAGE TRIM REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.



1	Bolt
2	Connector
3	Condenser

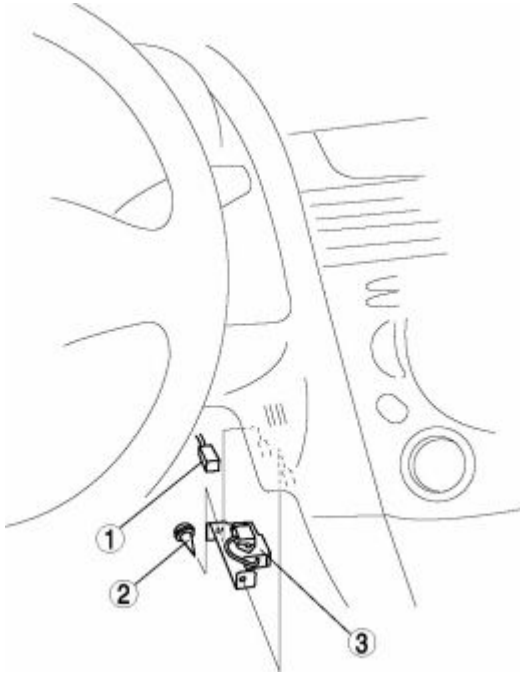
4. Install in the reverse order of removal.

MICROPHONE

AUDIPIOLOT MICROPHONE REMOVAL/INSTALLATION

NOTE:

- "AudioPilot" is a registered trademark of Bose Corporation.
1. Disconnect the negative battery cable.
 2. Remove the lower panel.(See LOWER PANEL REMOVAL/INSTALLATION .)
 3. Remove in the order indicated in the table.



1	Connector
2	Screw
3	AUDIPIOLOT microphone

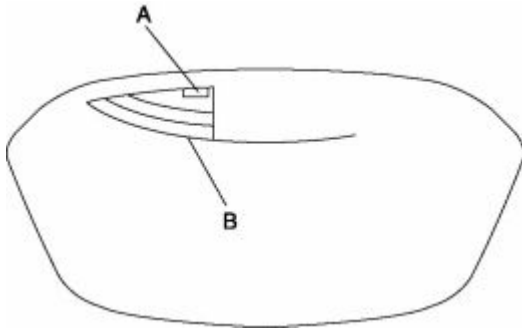
4. Install in the reverse order of removal.

ANTENNA

GLASS ANTENNA INSPECTION

AM/FM

1. Inspect the glass antenna for damage.
2. Verify the continuity between the glass antenna terminals.



- If there is any malfunction, repair the glass antenna.(See FILAMENT REPAIR .)

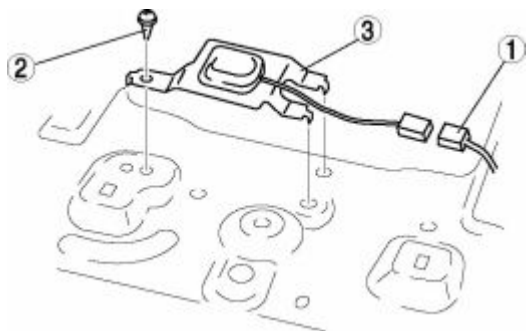
○—○ : Continuity

Test condition	Terminal	
	A	B
Under any condition	○—	—○

GPS ANTENNA

GPS ANTENNA REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - a. Rear seat(See REAR SEAT REMOVAL/INSTALLATION .)
 - b. Console(See CONSOLE REMOVAL/INSTALLATION .)
 - c. Tire house trim(See TIRE HOUSE TRIM REMOVAL/INSTALLATION .)
 - d. Rear pillar trim(See REAR PILLAR TRIM REMOVAL/INSTALLATION .)
 - e. Rear package center trim, rear package side trim(See REAR PACKAGE TRIM REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.

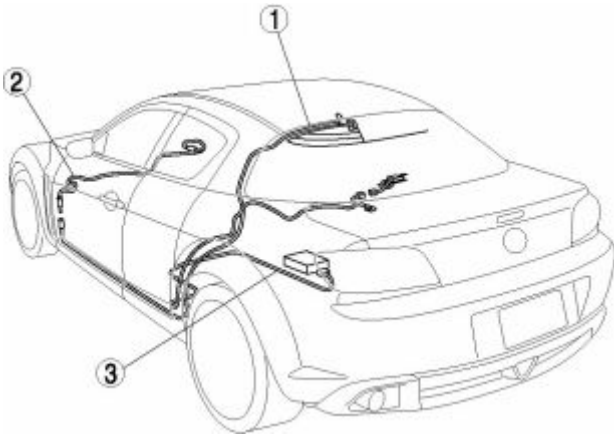


1	Connector
2	Screw
3	GPS antenna

4. Install in the reverse order of removal.

ANTENNA FEEDER

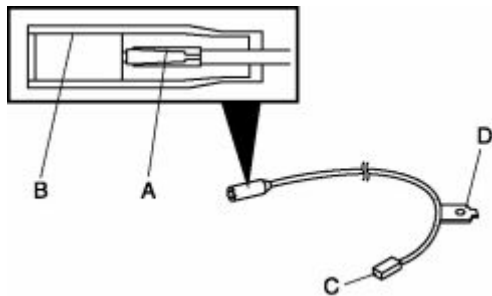
ANTENNA FEEDER LOCATION



1	AM/FM antenna feeder No.1
2	AM/FM antenna feeder No.2
3	GPS antenna feeder

AM/FM ANTENNA FEEDER NO.1 INSPECTION

1. Verify that the continuity is as indicated in the table.



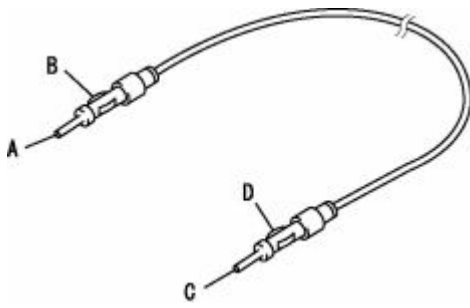
- If not as indicated in the table, replace the AM/FM antenna feeder No.1.

○—○ : Continuity

Step	Terminal			
	A	B	C	D
1	○	—	○	
2		○	—	○

AM/FM ANTENNA FEEDER NO.2 INSPECTION

1. Verify that the continuity is as indicated in the table.



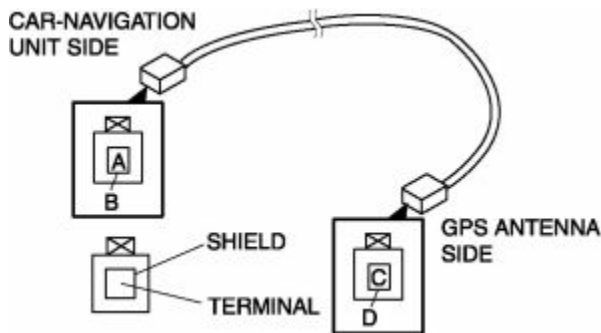
- If not as indicated in the table, replace the AM/FM antenna feeder No.2.

○—○ : Continuity

Step	Terminal			
	A	B	C	D
1	○		○	
2		○		○

GPS ANTENNA FEEDER INSPECTION

1. Verify that the continuity is as indicated in the table.



- If not as indicated in the table, replace the GPS antenna feeder.

○—○ : Continuity

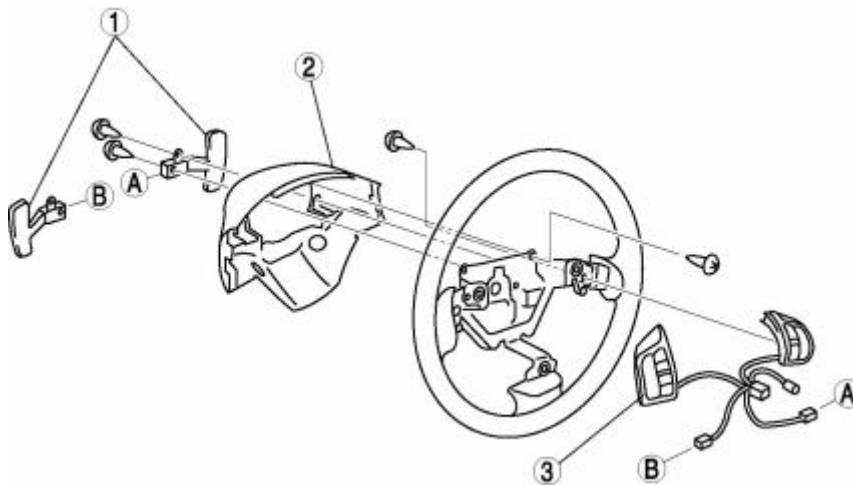
Step	Terminal			
	A	B	C	D
1	○		○	
2		○		○

AUDIO CONTROL SWITCH

AUDIO CONTROL SWITCH REMOVAL/INSTALLATION

NOTE:

- For vehicles with the cruise control system, the audio control switch harness and the cruise control switch harness are united, therefore they cannot be separated.
1. Disconnect the negative battery cable.
 2. Remove the driver-side air bag module.(See DRIVER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION .)
 3. Remove the steering wheel.(See STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION .)
 4. Remove in the order indicated in the table.

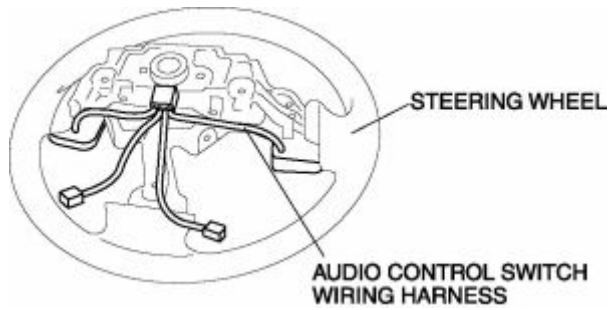


1	Steering shift switch (AT vehicles)
2	Cover
3	Audio control switch (See Audio Control Switch Installation Note .)

5. Install in the reverse order of removal.

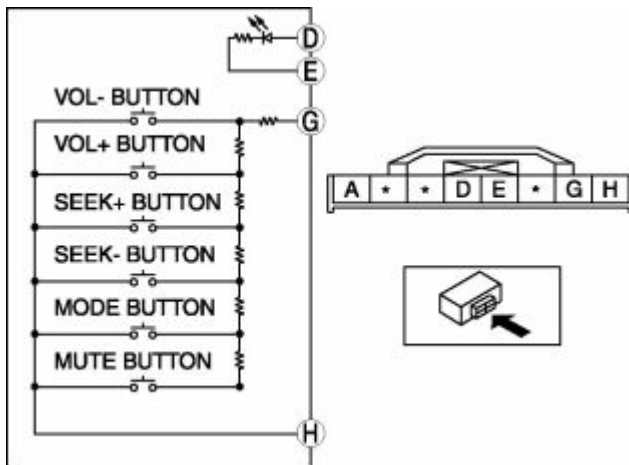
Audio Control Switch Installation Note

1. Install the audio control switch so that the audio control switch wiring harness passes behind the steering wheel as shown in the figure.

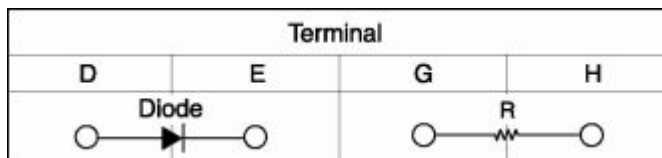


AUDIO CONTROL SWITCH INSPECTION

1. Disconnect the negative battery cable.
2. Remove the driver-side air bag module.(See DRIVER-SIDE AIR BAG MODULE REMOVAL/INSTALLATION .)
3. Disconnect the audio control switch connector.
4. Verify the resistance and continuity between the audio control switch terminals.



- If the resistance and continuity are not as indicated in the tables, replace the audio control light switch.



R:

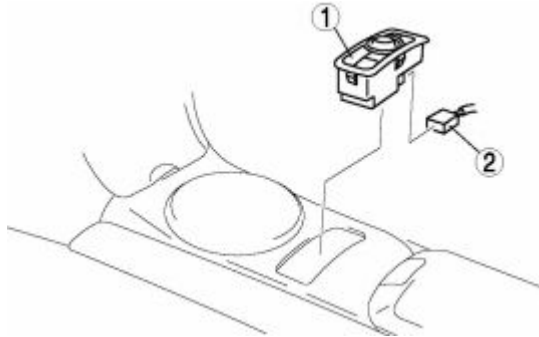
Resistance. See the table.

Switch position	Resistance (ohm)
VOL- switch ON	51—56
VOL+ switch ON	140—154
SEEK+ switch ON	286—315
SEEK- switch ON	534—589
MODE switch ON	985—1,080
MUTE switch ON	1,940—2,130
OFF	4,800—5,290

CAR-NAVIGATION CONTROL SWITCH

CAR-NAVIGATION CONTROL SWITCH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the upper panel. (See CONSOLE REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.

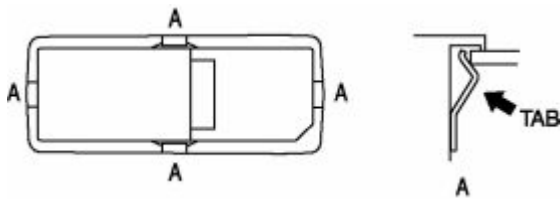


1	Car-navigation control switch (See Car-Navigation Control Switch Removal Note .)
2	Connector

4. Install in the reverse order of removal.

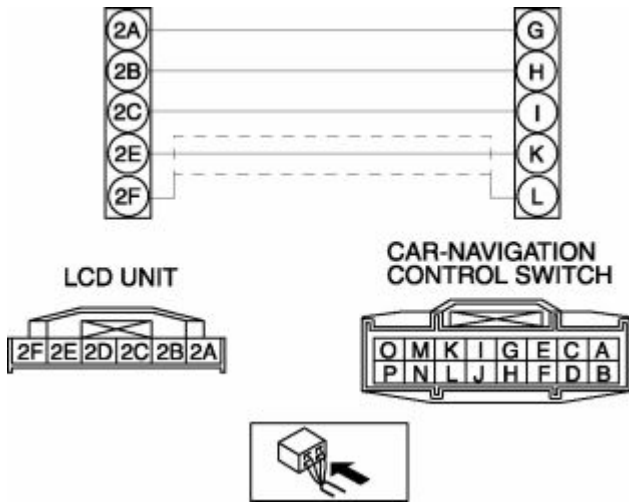
Car-Navigation Control Switch Removal Note

1. Remove the car-navigation control switch while pressing tabs A as shown in the figure.



CAR-NAVIGATION CONTROL SWITCH INSPECTION

1. Operate the car-navigation control switch and verify that the car-navigation system operates normally.
 - If the system does not operate normally, go to the next step.
2. Inspect the wiring harness between the LCD unit and the car-navigation control unit for an open circuit, power short, or a short to ground.

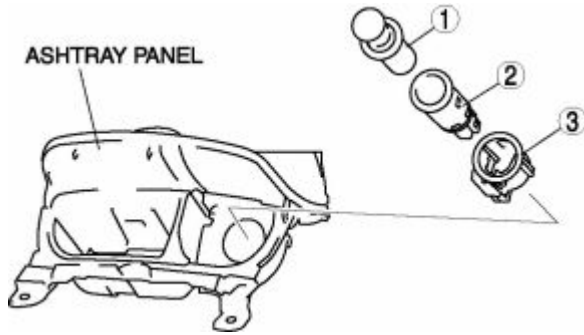


- If there is any malfunction in the wiring harnesses, repair or replace the applicable wiring harness.
- If the wiring harnesses are normal, replace the car-navigation control switch.

CIGAR LIGHTER

CIGARETTE LIGHTER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the ashtray.
3. Remove in the order indicated in the table.

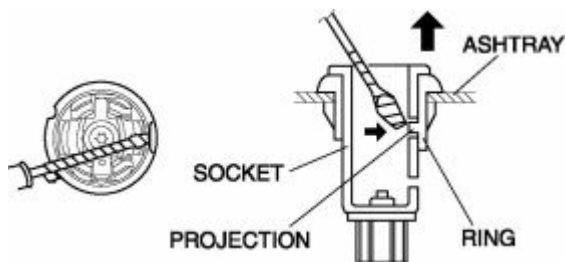


1	Cigarette lighter plug
2	Socket(See Socket Removal Note .)
3	Ring (See Ring Removal Note .)

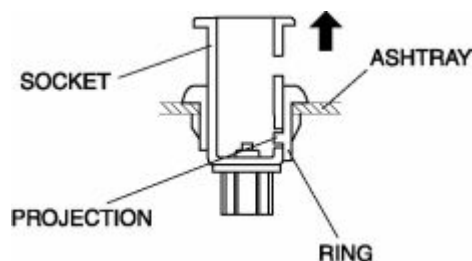
4. Install in the reverse order of removal.

Socket Removal Note

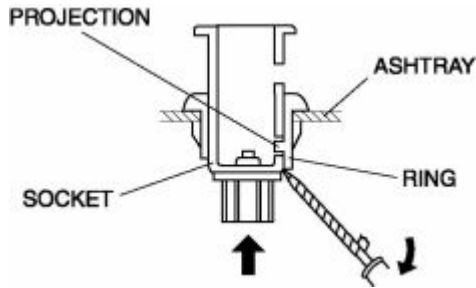
1. Insert a tape-wrapped flathead screwdriver into the socket hole and push on the ring projection to lift the socket outward.



2. Lift out the socket until the ring projection locks into the lower socket hole as shown in the figure.



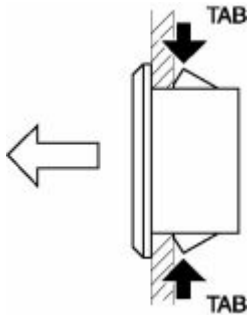
- From the rear of the ashtray, insert a tape-wrapped flathead screwdriver between the socket and the ring as shown in the figure.



- While lifting the ring projection with the flathead screwdriver, push out and remove the socket.

Ring Removal Note

- Pull the ring outward while pressing the tabs.



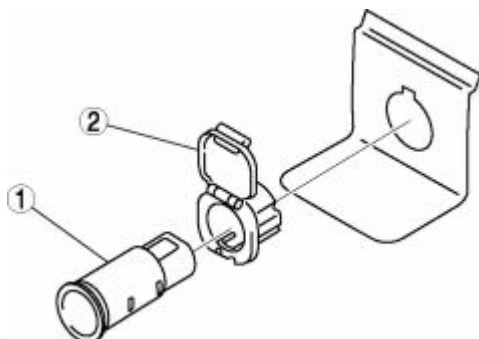
CIGARETTE LIGHTER INSPECTION

- Turn the ignition switch to the ACC position.
- Press the cigarette lighter into the socket and verify that it returns to its original position in **10—20 s**.
 - If the cigarette lighter does not operate normally, replace the cigarette lighter and the socket.

ACCESSORY SOCKET

ACCESSORY SOCKET REMOVAL/INSTALLATION

- Disconnect the negative battery cable.
- Remove the hole cover. (See CONSOLE REMOVAL/INSTALLATION .)
- Remove in the order indicated in the table.

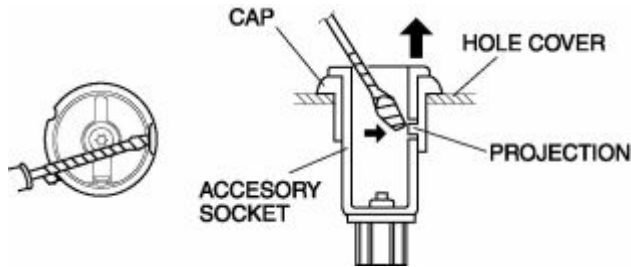


1	Accessory socket (See Accessory Socket Removal Note .)
2	Cap (See Cap Removal Note .)

4. Install in the reverse order of removal.

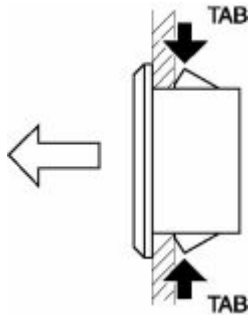
Accessory Socket Removal Note

1. While pressing a tape-wrapped flathead screwdriver against the cap projection, pull the accessory socket outward.



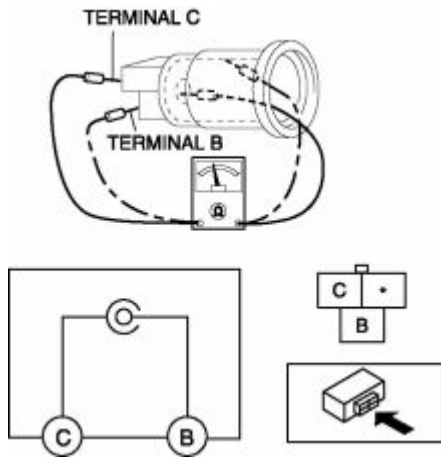
Cap Removal Note

1. While pressing the tabs, pull the cap outwards.



ACCESSORY SOCKET INSPECTION

1. Connect a tester as shown in the figure and verify that there is continuity.



- If the continuity cannot be verified, replace the accessory socket.

SYMPTOM TROUBLESHOOTING [AUDIO]

AUDIO

FOREWORD

- Refer to section 00 and thoroughly read and understand the basic flow of troubleshooting in order to properly perform the procedures.
- For the steps that have an asterisk (*), inspect the connector/terminal connection for continuity and damage. If the connection is poor, reconnect it, or repair or replace the appropriate parts if necessary.

TROUBLESHOOTING INDEX

- To diagnose the appropriate area, use the chart below to verify the symptoms.

No.	TROUBLESHOOTING ITEM	DESCRIPTION	PAGE
1	ALC (automatic level control) do not operate. (ABS HU/CM or DSC HU/CM operates normally.)	<ul style="list-style-type: none">• Malfunction in vehicle speed signal line audio unit.	(See NO.1 ALC (AUTOMATIC LEVEL CONTROL) DO NOT OPERATE. (ABS HU/CM OPERATES NORMALLY.))

NO.1 ALC (AUTOMATIC LEVEL CONTROL) DO NOT OPERATE. (ABS HU/CM OPERATES NORMALLY.)

1	ALC (automatic level control) do not operate. (ABS HU/CM operates normally.)
TROUBLESHOOTING HINTS	
<ul style="list-style-type: none">• Malfunction in vehicle speed signal line of audio unit.<ul style="list-style-type: none">▪ Audio unit malfunction▪ ABS HU/CM malfunction▪ Malfunction in wiring harness between audio unit and ABS HU/CM	

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> Is ALC function operating? 	Yes	Go to next step.
		No	Make ALC function operate, then go to Step 5.
2	<ul style="list-style-type: none"> Inspect DTC of PCM. Is DTC P0500 (VSS circuit malfunction) displayed? 	Yes	Go to applicable DTC inspection.
		No	Go to next step.
3*	<ul style="list-style-type: none"> Disconnect audio unit connector (24-pin) and ABS HU/CM connector (28-pin). Is there continuity between audio unit connector (24-pin) terminal 1I and ABS HU/CM connector (28-pin) terminal 1V? 	Yes	Go to next step.
		No	Repair wiring harness between audio unit and ABS HU/CM, then go to Step 5.
4	<ul style="list-style-type: none"> Inspect wiring harness between audio unit connector (24-pin) terminal 1I and ABS HU/CM connector (28-pin) terminal 1V for short to ground. Is there short to ground? 	Yes	Repair wiring harness between audio unit and ABS HU/CM, then go to next step.
		No	Replace base unit, then go to next step. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY.)
5	<ul style="list-style-type: none"> Does ALC operate normally? 	Yes	Complete troubleshooting, then explain repairs to customer.
		No	Recheck malfunction symptoms, then repeat from Step 1 if malfunction recurs.

SYMPTOM TROUBLESHOOTING [CAR-NAVIGATION SYSTEM]

CAR-NAVIGATION SYSTEM

CAR-NAVIGATION SYSTEM

Troubleshooting Index

- Use the chart below verify the trouble in order to diagnose the appropriate area.

No.	Malfunction symptom
1	While vehicle is in reverse, vehicle locator mark goes forward.
2	In navigation mode, vehicle locator mark skips.
3	Even when headlight switch is turned on, daytime screen does not change to night time screen. (Front and rear combination lights operate normally.)

NO.1 WHILE VEHICLE IS IN REVERSE, VEHICLE LOCATOR MARK GOES FORWARD.

- When performing an asterisked (*) troubleshooting inspection, shake the wiring harness and connectors while doing the inspection to discover whether poor contact points are the cause of any intermittent malfunction. If there is a problem, check to make sure connectors, terminals and wiring harness are connected correctly and undamaged.

1	While vehicle is in reverse, vehicle locator mark goes forward.
TROUBLESHOOTING HINTS	
<ul style="list-style-type: none">• Malfunction in shift position (R range (AT) or reverse position (MT)) signal line of car-navigation unit.<ul style="list-style-type: none">▪ Car-navigation unit malfunction▪ Malfunction in wiring harness between car-navigation unit and transaxle range switch▪ Transaxle range switch malfunction	

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> While the vehicle is in reverse, are back-up lights illuminated? 	Yes	Go to next step.
		No	Repair back-up light circuit, then go to next step.
2*	<ul style="list-style-type: none"> Disconnect car-navigation unit connector (16-pin). Turn ignition switch to ON position. Shift selector lever to R range (AT) or reverse position (MT). Measure voltage at the following terminal of car-navigation unit connector (16-pin, harness side): <ul style="list-style-type: none"> Terminal 1L (Shift position (R range (AT) or reverse position (MT)) signal) Is voltage 9 V or more ? 	Yes	Replace car-navigation unit (available at Clarion service center) or get it repaired at Panasonic Service center, then go to next step.
		No	<p>AT</p> <ul style="list-style-type: none"> Inspect wiring harness between car-navigation unit (16-pin, terminal 1L) and transaxle range switch, then go to next step. <p>MT</p> <ul style="list-style-type: none"> Inspect wiring harness between car-navigation unit (16-pin, terminal 1L) and back-up light switch, then go to next step.
3	<ul style="list-style-type: none"> Does vehicle locator mark indicate actual position of vehicle? 	Yes	Complete troubleshooting, then explain repairs to customer.
		No	Recheck malfunction symptoms, then repeat from Step 1 if malfunction recurs.

NO.2 IN NAVIGATION MODE, VEHICLE LOCATOR MARK SKIPS.

2	In navigation mode, vehicle locator mark skips.
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TROUBLESHOOTING HINTS

- Malfunction in vehicle speed signal line of car-navigation unit.
 - Car-navigation unit malfunction
 - ABS HU/CM malfunction (with ABS)
 - DSC HU/CM malfunction (with DSC)
 - Malfunction in wiring harness between car-navigation unit and instrument cluster

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> • Disconnect car-navigation unit connector (16-pin). • Jack up vehicle and run engine at low speed. • Measure voltage at the following terminal of car-navigation unit connector (16-pin): <ul style="list-style-type: none"> ▪ Terminal 1H (Vehicle speed signal) • Is voltage approx. 2.5 V (reference)? <p>NOTE:</p> <ul style="list-style-type: none"> • Vehicle speed signal is in electrical pulses of approx. 0 V to 5 V. 	Yes	Replace car-navigation unit (available at Clarion service center) or get it repaired at Panasonic service center, then go to Step 4.
		No	Go to next step.
2*	<ul style="list-style-type: none"> • Disconnect ABS HU/CM connector (28-pin) or DSC HU/CM connector (34-pin). • Is there continuity between car-navigation unit connector (16-pin) terminal 1H and ABS HU/CM connector (28-pin) terminal V, or car-navigation unit connector (16-pin) terminal 1H and DSC HU/CM connector (34-pin) terminal AA? 	Yes	Go to next step.
		No	Repair wiring harness between car-navigation unit and ABS HU/CM, or car-navigation unit and DSC HU/CM, then go to Step 4.
3	<ul style="list-style-type: none"> • Inspect wiring harness between car-navigation unit connector (16-pin) terminal 1H and ABS HU/CM connector (28-pin) terminal V, or car-navigation unit connector (16-pin) terminal 1H and DSC HU/CM connector (34-pin) terminal AA for short to ground. • Is there short to ground? 	Yes	Repair wiring harness between car-navigation unit and ABS HU/CM, or car-navigation unit and DSC HU/CM, then go to next step.
		No	Replace instrument cluster, then go to next step.
4	<ul style="list-style-type: none"> • Does vehicle locator mark operate normally? 	Yes	Complete troubleshooting, then explain repairs to customer.
		No	Recheck malfunction symptoms, then repeat from Step 1 if malfunction recurs.

NO.3 EVEN WHEN HEADLIGHT SWITCH IS TURNED ON, DAYTIME SCREEN DOES NOT CHANGE TO NIGHT TIME SCREEN. (FRONT AND REAR COMBINATION LIGHTS OPERATE NORMALLY.)

3	Even when headlight switch is turned on, daytime screen does not change to night time screen. (Front and rear combination lights operate normally.)
TROUBLESHOOTING HINTS	
<ul style="list-style-type: none"> • Malfunction in TNS (+) signal line of LCD unit <ul style="list-style-type: none"> ▪ LCD unit malfunction ▪ Malfunction in wiring harness between LCD unit and TNS relay 	

Diagnostic procedure

STEP	INSPECTION	ACTION	
1*	<ul style="list-style-type: none"> • Turn headlight switch on. • Measure voltage at the following terminal of LCD unit connector (24-pin): <ul style="list-style-type: none"> ▪ Terminal 1V (TNS (+) signal) • Is voltage 10 V or more ? 	Yes	Replace LCD unit (available at Panasonic service center) or get it repaired at Panasonic service center, then go to next step.
		No	Repair wiring harness between LCD unit and TNS relay, then go to next step.
2	<ul style="list-style-type: none"> • When headlight switch is turned on, does daytime screen change to night time screen? 	Yes	Complete troubleshooting, then explain repairs to customer.
		No	Recheck malfunction symptoms, then repeat from Step 1 if malfunction recurs.

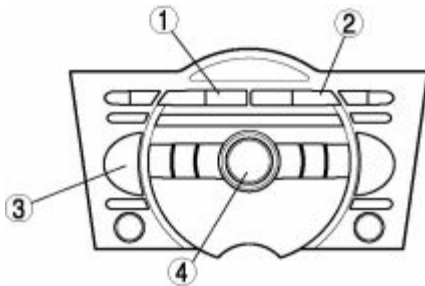
ON-BOARD DIAGNOSTIC [AUDIO]

AUDIO

STARTING PROCEDURE FOR ON-BOARD DIAGNOSTIC TEST MODE

NOTE:

- All DTCs displayed in the on-board diagnostic test mode should be entered in the Audio Repair Order Form.
1. Turn the ignition switch to the ACC or ON position.
 2. While pressing the POWER button, simultaneously press the AM button and the TAPE/MD button for **2 s or more**.



1	AM button
2	TAPE/MD button
3	SEEK button
4	POWER button

NOTE:

- If several DTCs are in the memory, they can be displayed using the SEEK button.
3. To stop the on-board diagnostic test mode, turn the ignition switch to the LOCK position.

SUPPLIER IDENTIFICATION PROCEDURE

NOTE:

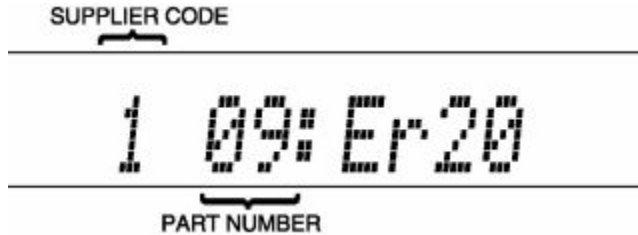
- The supplier can vary with the module. When asking the supplier (service center) for repair or replacement, identify the supplier and fill in the Audio Repair Order Form using the following procedures.

Identification Using the Label or Inscribed Lettering

1. Remove the audio unit.
2. Verify the supplier by referring to the label attached to each unit.

Identification Using the On-board Diagnostic Test Mode.

1. Start the on-board diagnostic test mode.
2. Identify the device and supplier codes by referring to the LCD display.



NOTE:

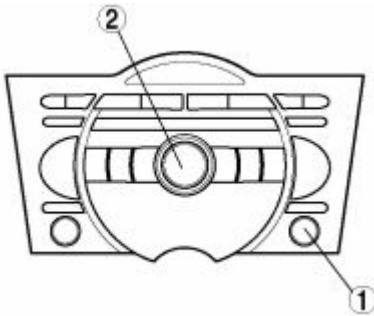
- If no DTC is stored, no codes will be displayed.

Device code	Device code
00	Cassette deck
03	CD player
05	CD changer (external)
06	CD changer (upper module)
07	MD player
09	Base unit

Supplier code	Supplier name
1	FMS audio
2	Panasonic
3	CLARION

MEMORY CLEARING PROCEDURE

1. Start the on-board diagnostic test mode.
2. While pressing the POWER button, simultaneously press the AUDIO CONT button for **2 s or more** .



1	AUDIO CONT button
2	POWER button

CAUTION:

- Before clearing the memory, be sure to enter all of the DTCs displayed in the on-board diagnostic test mode in the Audio Repair Order Form.

3. To stop the on-board diagnostic test mode, turn the ignition switch to the LOCK position.

DTC TABLE [AUDIO SYSTEM]

Screen display		System malfunction location
DTC (When starting on-board diagnostic test function)	Error message (When error is found)	
09: Er22	—	Base unit (peripheral circuit for tuner)
09: Er20	—	Power supply circuit to base unit
00: Er10	—	Cassette deck communication circuit system
03: Er10	—	CD player communication circuit system
05: Er10	—	CD changer (external) communication circuit system
06: Er10	—	CD changer (upper module) communication circuit system
07: Er10	—	MD player communication circuit system
03: Er01	—	CD player system
03: Er02	CHECK CD	CD player system
03: Er07	CHECK CD	CD player system
00: Er01	—	Cassette deck system
00: Er03	—	Cassette deck system
00: Er04	CHECK TAPE	Cassette tape system
05: Er01	—	CD changer (external) system
05: Er07	CHECK CD	CD changer (external) system
06: Er01	—	CD changer (upper module) system
06: Er02	CHECK CD	CD changer (upper module) system
06: Er07	CHECK CD	CD changer (upper module) system
07: Er01	—	MD player system
07: Er02	CHECK MD	MD player system
07: Er07	CHECK MD	MD player system
07: Er08	CHECK MD	MD system
10: Er01	—	CD player system MP3 operation
10: Er02	CHECK CD	CD player system MP3 operation
no Er	—	No DTCs stored

DTC 09:ER22

DTC 09:Er22	Base unit (peripheral circuit for tuner)
DETECTION CONDITION	<ul style="list-style-type: none">• Base unit detects malfunction in inner circuit (related to tuner).
POSSIBLE CAUSE	<ul style="list-style-type: none">• Base unit malfunction

Diagnostic procedure

INSPECTION		ACTION
Clear the DTC and operate the radio for 3 s or more . Is DTC 09: Er22 indicated?	Yes	Replace the base unit. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
	No	DTC troubleshooting completed.

DTC 09:ER20

DTC 09:Er20	Power supply circuit of base unit
DETECTION CONDITION	<ul style="list-style-type: none"> Voltage detected at base unit terminals 1B and 1R is less than 8.5 V , or more than 16 V (must not be 16V) .
POSSIBLE CAUSE	<ul style="list-style-type: none"> Weak battery Malfunction in wiring harness between battery and base unit

Diagnostic procedure

STEP	INSPECTION	ACTION
1	Remove the ROOM 15 A fuse and ACC 7.5 A fuse.	Yes Go to the next step.
	Are the fuses normal?	No Replace the fuse.
2	Measure the battery voltage.	Yes Go to the next step.
	Is the voltage between 8.5—16 V ?	No Battery malfunction <ul style="list-style-type: none"> Inspect the charge/discharge system.
3		Yes Go to the next step.

	<p>Measure the voltage between fuse block terminals 1B and 2F.</p> <p>Is the voltage between 8.5—16 V ?</p>	No	<p>Inspect fuses, ACC relay and related wiring harnesses between the battery and fuse block.</p> <ul style="list-style-type: none"> If there is any malfunction, repair or replace the applicable part.
4	<p>Install the ROOM 15 A fuse and ACC 7.5 A fuse.</p> <p>Turn the ignition switch to the ACC position.</p> <p>Measure the voltage at the audio unit connector terminals 1B and 1R.</p> <p>Is the voltage between 8.5—16 V ?</p>	Yes	Go to the next step.
		No	Repair the wiring harness between the fuse block and base unit.
5	<p>Turn the ignition switch to the ACC or ON position and hold for 30 s or more .</p> <p>Is DTC 09: Er20 displayed?</p>	Yes	Replace the base unit. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DTC 00:ER10

DTC 00:Er10	Cassette deck—base unit communication line
DETECTION CONDITION	<ul style="list-style-type: none"> • Base unit detects communication error with cassette deck.
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Malfunction of connectors between base unit and cassette deck • Cassette deck malfunction • Base unit malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	Remove the cassette deck and verify the connector condition (bent pins, poor female terminal connection, trapped foreign material) Is the connector normal?	Yes	Go to the next step.
		No	Repair the connector and go to the next step.
2	Assemble the cassette deck to the base unit and verify the assembly condition. Is the assembly condition normal?	Yes	Go to the next step.
		No	Repair the assembly and go to the next step.
3	Clear the DTC, turn the ignition switch to the ON position and then hold for 3 s or more . Is DTC 00: Er10 displayed?	Yes	Replace the base unit and cassette deck. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DTC 03:Er10

DTC 03:Er10	CD player—base unit communication line
DETECTION CONDITION	<ul style="list-style-type: none"> Base unit detects communication error with CD player.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Malfunction of connectors between base unit and CD player CD player malfunction Base unit malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	Remove the CD player and verify the connector condition (bent pins, poor female terminal connection, trapped foreign material). Is the connector normal?	Yes	Go to the next step.
		No	Repair the connector and go to the next step.
2	Assemble the CD player to the base unit and verify assembly condition. Is assembly condition normal?	Yes	Go to the next step.
		No	Repair the assembly condition and go to the next step.
3	Clear the DTC, turn the ignition switch to the ON position and then hold for 3 s or more . Is DTC 03: Er10 displayed?	Yes	Replace the base unit and CD player. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DTC 06:ER10

DTC 06:Er10	CD changer (upper module)—base unit communication line
DETECTION CONDITION	<ul style="list-style-type: none"> Base unit detects communication error with CD changer (upper module).
POSSIBLE CAUSE	<ul style="list-style-type: none"> Malfunction of connectors between base unit and CD changer (upper module) CD changer (upper module) malfunction Base unit malfunction

Diagnostic procedure

STEP	INSPECTION		ACTION
1	Verify the connections of the base unit and CD changer connectors.	Yes	Go to the next step.
	Are the connections normal?	No	Repair the connections and go to the next step.
2	Inspect the wiring harness between the base unit and CD Changer (external).	Yes	Go to the next step.
	Is the wiring harness normal?	No	Repair the wiring harness and go to the next step.
3	Clear the DTC, turn the ignition switch to the ON position and then hold for 3 s or more .	Yes	Replace the base unit and CD changer (external). (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
	Is DTC 06: Er10 displayed?	No	DTC troubleshooting completed.

DTC 07:ER10

DTC 07:Er10	MD player—base unit communication line
DETECTION CONDITION	<ul style="list-style-type: none"> • Base unit detects communication error with MD player.
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Malfunction of connectors between base unit and MD player • MD player malfunction • Base unit malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	Remove the MD player and inspect the connector condition (bent pins, poor female terminal connection, trapped foreign material). Is the connector normal?	Yes	Go to the next step.
		No	Repair the connector and go to the next step.
2	Assemble the MD player to the base unit and verify assembly condition. Is assembly condition normal?	Yes	Go to the next step.
		No	Repair the assembly condition and go to the next step.
3	Clear the DTC, turn the ignition switch to the ON position and then hold for 3 s or more . Is DTC 07: Er10 displayed?	Yes	Replace the base unit and MD player. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DTC 03:ER01

DTC 03:Er01	CD player
DETECTION CONDITION	<ul style="list-style-type: none"> • CD player cannot implement insert and eject commands.
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Defective CD (broken or foreign material stuck/attached) • CD player malfunction

STEP	INSPECTION		ACTION
1	Verify the condition of the CD when the error occurs. Is the CD normal?	Yes	Go to the next step.
		No	Repair (remove foreign material) or replace the CD, and go to the next step.
2	Clear the DTC. Insert then eject a normal CD. Is DTC 03: Er01 displayed?	Yes	Replace the CD player. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DTC 03:ER02

DTC 03:Er02	CD player
DETECTION CONDITION	<p>NOTE:</p> <ul style="list-style-type: none"> When error occurs, error message "CHECK CD" is displayed in the LCD. Cannot play CD normally or change tracks.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Defective CD (scratches or dirt) CD player malfunction

STEP	INSPECTION	ACTION			
1	Play the CD and change tracks. Can tracks be changed?	Yes	Go to Step 3.		
		No	<table border="1"> <tr> <td>Cannot change to specific tracks.</td> <td>Go to the next step.</td> </tr> <tr> <td>Cannot change to any track.</td> <td> Replace the CD and try to change tracks again. <ul style="list-style-type: none"> If the function is normal, go to Step 3. If the function is not normal, replace the CD player. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .) </td> </tr> </table>	Cannot change to specific tracks.	Go to the next step.
Cannot change to specific tracks.	Go to the next step.				
Cannot change to any track.	Replace the CD and try to change tracks again. <ul style="list-style-type: none"> If the function is normal, go to Step 3. If the function is not normal, replace the CD player. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .) 				
2	Verify the condition of the CD when the error occurs. Is the CD normal?	Yes	Go to the next step.		
		No	Repair (remove foreign material, clean) or replace the CD, and go to the next step.		
3	Clear the DTC. Play the CD and change tracks. Is DTC 03: Er02 displayed?	Yes	Replace the CD player. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)		
		No	DTC troubleshooting completed.		

DTC 03:ER07

DTC 03:Er07	CD player
DETECTION CONDITION	<p>NOTE:</p> <ul style="list-style-type: none"> • When error occurs, error message "CHECK CD" is displayed in the LCD. • Base unit detects CD reading error.
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Defective CD (scratches or dirt) • CD player malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	Verify the condition of the CD when the error occurs.	Yes Go to the next step.
	Is the CD normal?	No Repair (remove foreign material, clean) or replace the CD, and go to the next step.
2	Clear the DTC and insert a normal CD.	Yes Replace the CD player. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
	Play the CD. Is DTC 03: Er07 displayed?	No DTC troubleshooting completed.

DTC 00:ER01

DTC 00:Er01	Cassette deck
DETECTION CONDITION	<ul style="list-style-type: none"> • Cassette deck cannot implement insert and eject commands.
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Defective cassette tape (deformation, broken, or foreign material stuck/attached) • Cassette deck malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	Can cassette tape be ejected?	Yes	Go to the next step.
		No	Replace the cassette deck.
2	Verify condition of the cassette tape when the error occurs. Is the cassette tape normal?	Yes	Go to the next step.
		No	Repair (remove foreign material) or replace the cassette tape, and go to the next step.
3	Clear the DTC. Insert then eject a normal cassette tape. Is DTC 00: Er01 displayed?	Yes	Replace the cassette deck. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DTC 00:ER03

DTC 00:Er03	Cassette deck
DETECTION CONDITION	<ul style="list-style-type: none"> Base unit detects that reel built into cassette deck does not operate.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Defective cassette tape (tape slack, pinched tape in internal cassette deck) Cassette deck malfunction

Diagnostic procedure

STEP	INSPECTION		ACTION
1	Verify condition of the cassette tape when the error occurs. Is the cassette tape normal?	Yes	Go to the next step.
		No	Repair (tighten slack, clear pinched tape inside cassette deck) or replace the cassette tape, and go to the next step.
2	Clear the DTC, and then insert a normal cassette tape. Play the cassette tape for 20 s or more . Is DTC 00: Er03 displayed?	Yes	Replace the cassette deck. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DTC 00:ER04

DTC 00:Er04	Cassette tape
DETECTION CONDITION	<p>NOTE:</p> <ul style="list-style-type: none"> • When error occurs, error message "CHECK TAPE" is displayed in the LCD. • Cassette tape is worn out.
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Tape wear • Cassette deck malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	Verify condition of the cassette tape when the error occurs.	Yes Go to the next step.
	Is the cassette tape normal?	No Replace the cassette tape and go to the next step.
2	Clear the DTC, and then insert a normal cassette tape.	Yes Replace the cassette deck. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
	Play the cassette tape for 20 s or more . Is DTC 00: Er04 displayed?	No DTC troubleshooting completed.

DTC 06:ER01

DTC 06:Er01	CD changer (upper module)
DETECTION CONDITION	<ul style="list-style-type: none">• CD changer (upper module) cannot implement insert, eject, and disc change commands.
POSSIBLE CAUSE	<ul style="list-style-type: none">• Defective CD (broken or foreign material stuck/attached)• CD changer (upper module) malfunction

Diagnostic procedure

STEP	INSPECTION		ACTION
1	Can CD be ejected?	Yes	Go to the next step.
		No	Replace the CD changer (upper module).
2	Verify the condition of the CD when the error occurs.	Yes	Go to the next step.
	Is the CD normal?	No	Repair (remove foreign material) or replace the CD, and go to the next step.
3	Clear the DTC.	Yes	Replace the CD changer (upper module). (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
	Insert then eject a normal CD. Is DTC 06: Er01 displayed?	No	DTC troubleshooting completed.

DTC 06:ER02

DTC 06:Er02	CD changer (upper module)
DETECTION CONDITION	<p>NOTE:</p> <ul style="list-style-type: none"> When error occurs, error message "CHECK CD" is displayed in the LCD. Cannot play CD normally or change tracks.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Defective CD (scratches or dirt) CD changer (upper module) malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	Play all the CDs in the changer and change tracks. Can tracks be changed?	Yes	Go to Step 3.
		No	Cannot change to specific tracks. Go to the next step. Cannot change to any track. <ul style="list-style-type: none"> If the function is normal, go to Step 3. If the function is not normal, replace the CD changer (upper module). (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
2	Verify the condition of the CD when the error occurs. Is the CD normal?	Yes	Go to the next step.
		No	Repair (remove foreign material, clean) or replace the CD, and go to the next step.
3	Clear the DTC. Play the CD and change tracks. Is DTC 06: Er02 displayed?	Yes	Replace the CD changer (upper module). (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DTC 06:ER07

DTC 06:Er07	CD changer (upper module)
DETECTION CONDITION	<p>NOTE:</p> <ul style="list-style-type: none"> When error occurs, error message "CHECK CD" is displayed in the LCD. Base unit detects CD reading error.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Defective CD (scratches or dirt) CD changer (upper module) malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION		
1	Play all the CDs in the changer. Are they read normally?	Yes	Go to Step 3.	
		No	Cannot read specific CDs.	Go to the next step.
			Cannot read any CD.	Go to Step 3.
2	Verify the condition of the CD when the error occurs. Is the CD normal?	Yes	Go to the next step.	
		No	Repair (remove foreign material, clean) or replace the CD, and go to the next step.	
3	Clear the DTC, and then insert a normal CD. Play the CD for 12 s or more . Is DTC 06: Er07 displayed?	Yes	Replace the CD changer (upper module). (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)	
		No	DTC troubleshooting completed.	

DTC 07:ER01

DTC 07:Er01	MD player
DETECTION CONDITION	<ul style="list-style-type: none"> MD player cannot implement insert and eject commands.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Defective MD (broken or foreign material stuck/attached) MD player malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	Can MD be ejected?	Yes	Go to the next step.
		No	Replace the MD player.
2	Verify the condition of the MD when the error occurs. Is the MD normal?	Yes	Go to the next step.
		No	Repair (remove foreign material) or replace the MD, and go to the next step.
3	Clear the DTC. Insert then eject a normal MD. Is DTC 07: Er01 displayed?	Yes	Replace the MD player. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DTC 07:ER02

DTC 07:Er02	MD player
DETECTION CONDITION	<p>NOTE:</p> <ul style="list-style-type: none"> When error occurs, error message "CHECK MD" is displayed in the LCD. Cannot play MD normally or change tracks.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Defective MD (scratches or dirt) MD player malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	Play the MD and change tracks. Can tracks be changed?	Yes	Go to Step 3.
		No	Cannot change to specific tracks. Cannot change to any track. <ul style="list-style-type: none"> If the function is normal, go to Step 3. If the function is not normal, replace the MD player. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
2	Verify the condition of the MD when the error occurs. Is the MD normal?	Yes	Go to the next step.
		No	Repair (remove foreign material, clean) or replace the MD, and go to the next step.
3	Clear the DTC. Play the MD and change tracks. Is DTC 07: Er02 displayed?	Yes	Replace the MD player. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DTC 07:ER07

DTC 07:Er07	MD player
DETECTION CONDITION	<p>NOTE:</p> <ul style="list-style-type: none"> • When error occurs, error message "CHECK MD" is displayed in the LCD. • Base unit detects MD reading error.
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Defective MD (scratches or dirt) • MD player malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	Verify the condition of the MD when the error occurs.	Yes Go to the next step.
	Is the MD normal?	No Repair (remove foreign material, clean) or replace the MD, and go to the next step.
2	Clear the DTC, and then insert a normal MD.	Yes Replace the MD player. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
	Play the MD for 12 s or more . Is DTC 07: Er07 displayed?	No DTC troubleshooting completed.

DTC 07:ER08

DTC 07:Er08	MD
DETECTION CONDITION	<ul style="list-style-type: none">• Blank unrecorded MD is inserted.
POSSIBLE CAUSE	<ul style="list-style-type: none">• Blank unrecorded MD

Diagnostic procedure

ACTION
<ul style="list-style-type: none">• Insert a recorded MD into the MD player.• Inform customer that a blank MD had been inserted into the MD player.

DTC 10:ER01

DTC 10:Er01	CD player system MP3 operation
DETECTION CONDITION	<ul style="list-style-type: none">• CD player cannot implement insert and eject commands.
POSSIBLE CAUSE	<ul style="list-style-type: none">• Defective CD (broken or foreign material stuck/attached)• CD player system MP3 operation malfunction

Diagnostic procedure

STEP	INSPECTION		ACTION
1	Verify the condition of the CD when the error occurs. Is the CD normal?	Yes	Go to the next step.
		No	Repair (remove foreign material, clean) or replace the CD, and go to the next step.
2	Clear the DTC and insert a normal CD. Play the CD. Is DTC 10: Er10 displayed?	Yes	Replace the CD player system MP3 operation. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DTC 10:ER02

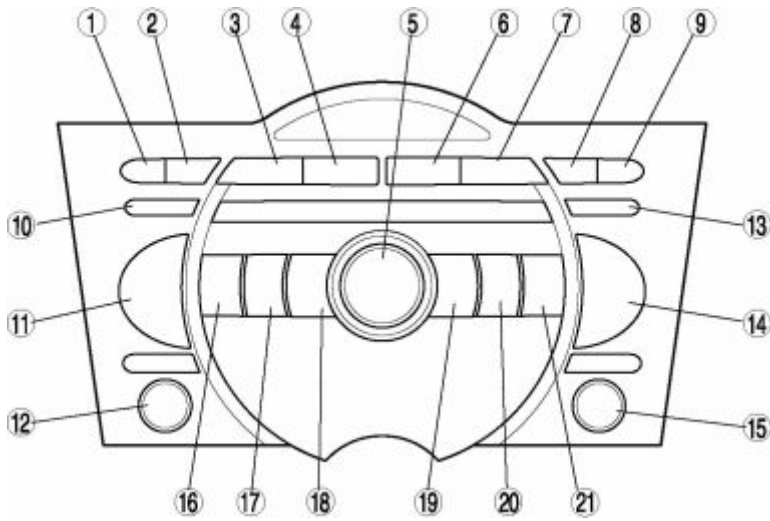
DTC 10:Er02	CD player system MP3 operation
DETECTION CONDITION	<p>NOTE:</p> <ul style="list-style-type: none"> When error occurs, error message "CHECK CD" is displayed in the LCD. Cannot play CD normally or change tracks.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Defective CD (scratches or dirt) CD player system MP3 operation malfunction

STEP	INSPECTION	ACTION	
1	Play the CD and change tracks. Can tracks be changed?	Yes	Go to Step 3.
		No	Cannot change to specific tracks. Cannot change to any track.
2	Verify the condition of the CD when the error occurs. Is the CD normal?	Yes	Go to the next step.
		No	Repair (remove foreign material, clean) or replace the CD, and go to the next step.
3	Clear the DTC. Play the CD and change tracks. Is DTC 10: Er02 displayed?	Yes	Replace the CD player system MP3 operation. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)
		No	DTC troubleshooting completed.

DIAGNOSTIC ASSIST FUNCTION

Structural View


BUTTONS



1	SET button
2	CLOCK button
3	FM1/2 button
4	AM button
5	POWER/VOLUME button
6	CD button
7	TAPE/MD button
8	DISP button
9	AMB button
10	LOAD button
11	SEEK button
12	AUTO-M button
13	EJECT button
14	SCAN button
15	AUDIO CONT button
16	Preset 1 button
17	Preset 2 button
18	Preset 3 button
19	Preset 4 button
20	Preset 5 button
21	Preset 6 button

LCD Inspection

1. With the audio power on, press the POWER button and simultaneously press the SEEK button (upper) for **approx. 1 s** .
2. Inspect according to the following table:

INSPECTION	DISPLAY	ACTION	
Start the LCD inspection mode.		The characters displayed on the LCD are not truncated or faint.	The LCD is normal.
		Except above	Replace the base unit. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)

3. Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

Button Inspection

1. With the audio power on, press the POWER button and simultaneously press the CLOCK button for **approx. 1 s** .
2. Inspect according to the following table:

INSPECTION	DISPLAY	ACTION	
<ul style="list-style-type: none"> • Start the button inspection mode. • Press all buttons. 	—	The buzzer sounds.	The button is normal.
		The buzzer does not sound.	Replace the base unit. (See AUDIO UNIT DISASSEMBLY/ASSEMBLY .)

- Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

Speaker Inspection

- With the audio power on, press the POWER button and simultaneously press the AUTO-M button for **approx. 1 s**.
- Inspect according to the following table:

INSPECTION	DISPLAY	ACTION	
<ul style="list-style-type: none"> • Start the speaker inspection mode. • Does each speaker output sound in the following order? <ol style="list-style-type: none"> 1. Front passenger-side door speaker and tweeter 2. Front driver-side door speaker and tweeter 3. Driver-side rear speaker 4. Passenger-side rear speaker 	—	Yes	Speakers, and wiring harness between the base unit and speakers are normal
		No	<ul style="list-style-type: none"> • Inspect the following parts. <ul style="list-style-type: none"> ▪ Malfunctioning speaker ▪ Wiring harness between base unit and malfunctioning speaker

- Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

Radio Reception Condition Inspection

- With the audio power on, press the POWER button and simultaneously press the PRESET 2 button for **approx. 1 s**.
- Inspect according to the following table:

CAUTION:

- Even if the system is normal, radio reception may be difficult depending on where the system is inspected (indoors/outdoors, or conditions at the location). Before inspecting the system, verify that radio reception is adequate.
- When inspecting, select a frequency band (radio station) with the best reception.

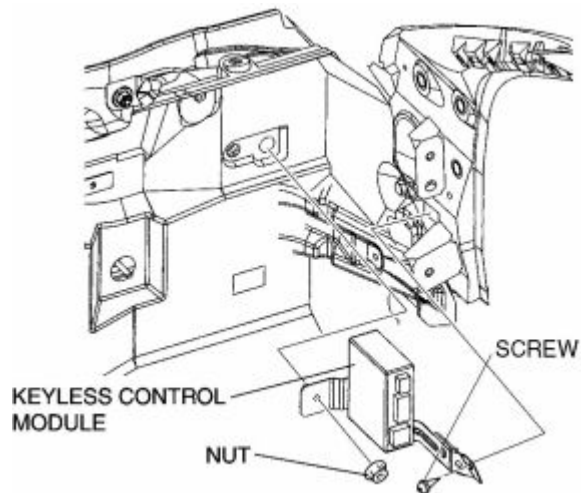
INSPECTION	DISPLAY	ACTION
Start the radio reception condition inspection mode.	NORMAL CONDITION S-METER 5 S-METER 9	Antenna, antenna feeder and base unit are normal
	S-METER 3 S-METER 4	Change the frequency (radio station) and inspect again.
	MALFUNCTION PRESENT S-METER 0 S-METER 2	<ul style="list-style-type: none"> ○ Inspect the antenna and antenna feeder. <ul style="list-style-type: none"> • If either the antenna or the antenna feeder is not normal, replace the malfunctioning part. • If the antenna and antenna feeder are normal, replace the base unit.

3. Turn the audio off or the ignition switch to the LOCK position to stop the diagnostic assist function.

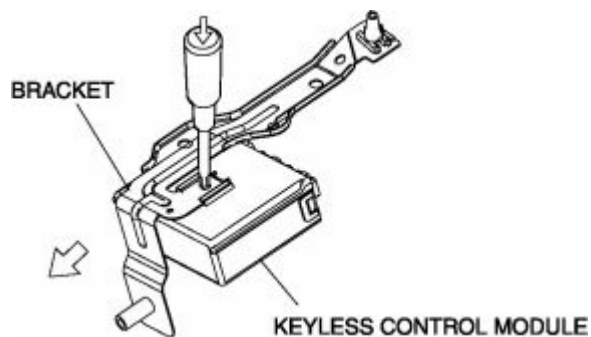
SECURITY UNIT

KEYLESS CONTROL MODULE REMOVAL/INSTALLATION

1. When replacing the keyless control module, perform the following procedure:
 - KEYLESS CONTROL MODULE CONFIGURATION (See KEYLESS CONTROL MODULE CONFIGURATION .)
2. Disconnect the negative battery cable.
3. Remove the front side trim. (See FRONT SIDE TRIM REMOVAL/INSTALLATION .)
4. Remove the nut and screw.



5. Remove the connector clip installed to the bracket by shifting the keyless control module downward.
6. Disconnect the keyless control module connector.
7. Push the stopper with a small screwdriver and remove the bracket in the direction shown by the arrow.



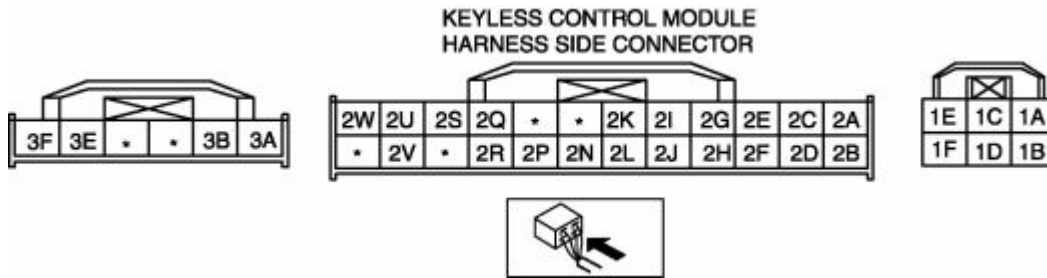
8. Install in the reverse order of removal.
9. When replacing the keyless control module of vehicles with the immobilizer system, perform the following procedure:
 - IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .
 - Transmitter ID code change (See TRANSMITTER ID CODE CHANGE .)

KEYLESS CONTROL MODULE INSPECTION

1. Measure the voltage or inspect for continuity according to the Terminal Voltage Table (Reference).

- If the voltage is not as specified in the Terminal Voltage Table (Reference), inspect the parts under "Inspection item(s)".
2. If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, perform symptom troubleshooting.

Terminal Voltage Table (Reference)



Terminal	Signal name	Connected to	Measurement condition	Voltage (V)/Continuity	Inspection item(s)
1A	Power supply	D.LOCK 15 A fuse	Under any condition	B+	<ul style="list-style-type: none"> • D.LOCK 15 A fuse • Battery • Inspect related harness.
1B	Interior light control	<ul style="list-style-type: none"> • Map light • Interior light 	Within 5 min after any door is opened.	1.0 or less	<ul style="list-style-type: none"> • ROOM 15 A fuse • Map light (See
			5 min or more after any door is opened.	B+	

		<ul style="list-style-type: none"> Courtesy light 	All doors are closed.	B+	MAP LIGHT INSPECTION .) <ul style="list-style-type: none"> Interior light (See INTERIOR LIGHT INSPECTION .) Courtesy light Door switch (See DOOR SWITCH INSPECTION .) Rear door upper latch (See REAR DOOR UPPER LATCH SWITCH INSPECTION .) Rear door lower latch (See REAR DOOR LOWER LATCH SWITCH INSPECTION .) Inspect related harness.
1C	Unlock output	Driver-side door lock actuator	While driver-side door lock actuator is unlocking.	1.0 or less→ B+→ 1.0 or less	<ul style="list-style-type: none"> Driver-side door lock actuator (See FRONT DOOR LOCK ACTUATOR INSPECTION .) D.LOCK 15 A fuse
			Other	1.0 or less	
1D	Lock output	Door lock actuator	While lock actuator is locking.	1.0 or less→ B+→ 1.0 or less	<ul style="list-style-type: none"> Front door lock actuator (See FRONT DOOR LOCK ACTUATOR INSPECTION .) D.LOCK 15 A fuse
			Other	1.0 or less	
1E	GND	Body ground	Under any condition: Inspect for continuity to	Continuity detected	GND

			ground.		
1F	Unlock output	Passenger-side door lock actuator	While passenger-side lock actuator is unlocking. (Transmitter UNLOCK button is pressed twice within 5 s.)	1.0 or less→ B+→ 1.0 or less	<ul style="list-style-type: none"> • Passenger-side door lock actuator (See FRONT DOOR LOCK ACTUATOR INSPECTION .) • D.LOCK 15 A fuse
			Other	1.0 or less	
2A	Power supply	ROOM 15 A fuse	Under any condition	B+	ROOM 15 A fuse
2B	IG1	Ignition relay	Ignition switch at ON	B+	<ul style="list-style-type: none"> • Ignition relay (See RELAY INSPECTION .) • D.LOCK 15 A fuse • Inspect related harness.
			Ignition switch at LOCK or ACC	1.0 or less	
2C	Horn on/off	Horn relay	Other	B+	<ul style="list-style-type: none"> • Horn relay (See RELAY INSPECTION .) • Inspect related harness.
			Transmitter LOCK button is pressed twice within 5 s. .	B+→ 1.2 or less→ B+	
2D	Hood open/closed	Hood latch switch	Hood is open.	5	<ul style="list-style-type: none"> • Hood latch switch (See HOOD LATCH SWITCH INSPECTION .) • Inspect related harness.
			Hood is closed.	1.0 or less	
2E	Trunk lid unlock	Trunk lid opener relay	Transmitter trunk lid button is pressed.	B+→ 1.2 or less→ B+	

			Other	B+	<ul style="list-style-type: none"> • Trunk lid opener relay (See RELAY INSPECTION .) • Trunk lid opener cancel switch (See TRUNK LID OPENER CANCEL SWITCH INSPECTION .) • Inspect related harness.
2F	Key reminder switch	Key reminder switch	Key is in steering lock. (key reminder switch on)	B+	<ul style="list-style-type: none"> • Key reminder switch (See KEY REMINDER SWITCH INSPECTION .) • Inspect related harness.
			Other	1.0 or less	
2G	Trunk compartment light switch on/off	Trunk compartment light switch	Trunk lid is open.	1.0 or less	<ul style="list-style-type: none"> • Trunk compartment light switch • Trunk compartment light • Inspect related harness.
			Trunk lid is closed.	B+	
2L	Unlock input (Passenger-door lock-link switch)	Passenger-door lock-link switch	Passenger-door is locked.	5	Passenger-door lock-link switch (See FRONT DOOR LOCK ACTUATOR INSPECTION .)
			Passenger-door is unlocked.	1.0 or less	
2H	Trunk key cylinder unlock	Trunk key cylinder switch	Trunk key cylinder is unlocked	1.0 or less	

			Other	5	<ul style="list-style-type: none"> Trunk key cylinder switch (See TRUNK KEY CYLINDER SWITCH INSPECTION .) Inspect related harness
2I	Hazard	Flasher control module	Transmitter LOCK button is pressed.	B+→ 1.0 or less→ B+	<ul style="list-style-type: none"> Flasher control module (See FLASHER CONTROL MODULE INSPECTION .) Inspect related harness.
			Transmitter UNLOCK button is pressed.	B+→ 1.0 or less→ B+→ 1.0 or less→ B+	
			Theft-deterrent system alarm: Active	1.0 or less	
2J	Security light	Instrument cluster	Security light off	B+	<ul style="list-style-type: none"> Instrument cluster (See INSTRUMENT CLUSTER INSPECTION .) Inspect related harness.
			Within approx. 3 s after ignition switch is turned to ON position (security light illuminates)	5.5 or less	
2K	Door open/closed	Door switch	Any door is open. (Door switch on)	2.0 or less	

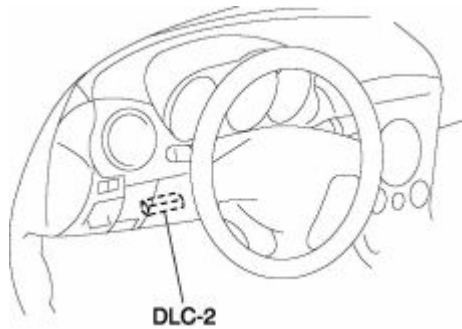
			All doors are closed. (Door switch off)	B+	<ul style="list-style-type: none"> Instrument cluster (See INSTRUMENT CLUSTER INSPECTION .) Door switch (See DOOR SWITCH INSPECTION .) Rear door upper latch (See REAR DOOR UPPER LATCH SWITCH INSPECTION .) Rear door lower latch (See REAR DOOR LOWER LATCH SWITCH INSPECTION .) Inspect related harness.
2N	ENABLE	Keyless receiver	Any transmitter button is pressed without key in steering lock. (key reminder switch off)	5 → 1.0 or less	<ul style="list-style-type: none"> Keyless receiver (See KEYLESS RECEIVER INSPECTION .) Inspect related harness.
			Key is in steering lock. (key reminder switch on)	5	
2P	DATA	Keyless receiver	Any transmitter button is pressed without key in steering lock. (key reminder switch off)	1.0 or less → changes positively	<ul style="list-style-type: none"> Keyless receiver (See KEYLESS RECEIVER INSPECTION .) Inspect related harness.
			Key is in steering lock. (key reminder switch on)	1.0 or less	
2Q	Lock input (Driver-side door lock-link switch)	Driver-side door lock-link switch	Driver-side door is locked.	1.0 or less	Driver-side door lock-link switch (See FRONT DOOR LOCK ACTUATOR INSPECTION .)
			Driver-side door is unlocked.	5	
2R	Unlock input (Driver-side door lock-link switch)	Driver-side door lock-link switch	Driver-side door is locked.	5	Driver-side door lock-link switch (See

	(Driver-side door lock-link switch)		Driver-side door is unlocked.	1.0 or less	link switch (See FRONT DOOR LOCK ACTUATOR INSPECTION .)
2S	Lock/unlock input (Driver-side door key cylinder switch)	Driver-side door key cylinder switch	Driver-side door key cylinder is locked.	Approx. 2.5	<ul style="list-style-type: none"> • Driver-door key cylinder switch (See FRONT DOOR LOCK ACTUATOR INSPECTION .) • Inspect related harness.
			Driver-side door key cylinder is unlocked.	1.0 or less	
			Other	5	
2U	Lock release power supply	Buckle switch	Within 60 min after any door is opened	B+	<ul style="list-style-type: none"> • Instrument cluster (See INSTRUMENT CLUSTER INSPECTION .) • Door switch (See DOOR SWITCH INSPECTION .) • Rear door upper latch (See REAR DOOR UPPER LATCH SWITCH INSPECTION .) • Rear door lower latch (See REAR DOOR LOWER LATCH SWITCH INSPECTION .) • Front buckle switch (See FRONT BUCKLE SWITCH INSPECTION .) • Inspect related harness.
2W	GND	Body ground	Under any condition: Inspect for continuity to ground.	Continuity detected	GND

2V	Lock/unlock input (Door lock switch)	Door lock switch	Door lock switch is locked.	Approx. 2.5	<ul style="list-style-type: none"> • Door lock switch (See DOOR LOCK SWITCH INSPECTION . • Inspect related harness.
			Door lock switch is unlocked.	1.0 or less	
			Other	5	
3A	HS-CAN+	PCM	Under any condition: Inspect wiring harness to PCM for continuity.	Continuity detected	-
3B	HS-CAN-	PCM	Under any condition: Inspect wiring harness to PCM for continuity.	Continuity detected	-
3E	Tx	Coil	Ignition switch at ON	8 or more	<ul style="list-style-type: none"> • Coil • Inspect related harness.
			Ignition switch at LOCK or ACC	1.0 or less	
3F	Rx	Coil	Ignition switch at ON	8 or more	<ul style="list-style-type: none"> • Coil • Inspect related harness.
			Ignition switch at LOCK or ACC	1.0 or less	

KEYLESS CONTROL MODULE CONFIGURATION

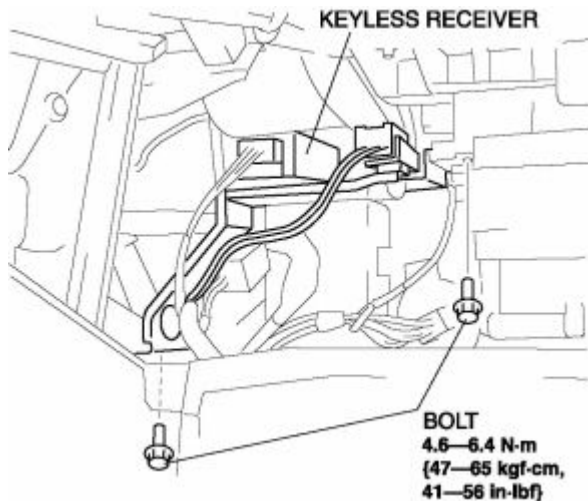
1. Connect the WDS or equivalent to the DLC-2.



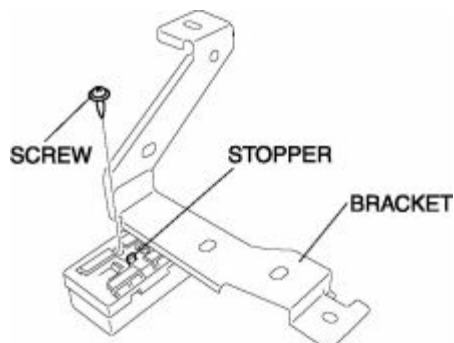
2. Select "Module programming" from the menu.
3. Select "Programmable Module Installation".
4. Select "RKE" from the menu and perform procedure according to the directions on the WDS or equivalent screen.

KEYLESS RECEIVER REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the glove compartment. (See GLOVE COMPARTMENT REMOVAL/INSTALLATION .)
3. Remove the bolts.



4. Remove the connector clip installed to the bracket by shifting the keyless receiver downward.
5. Disconnect the keyless receiver connector.



NOTE:

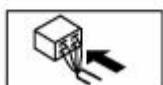
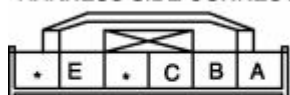
- The screw which fixes the keyless receiver and bracket is for a body ground connection. Be sure to secure the screw when installing.
6. Push the stopper in with a small screwdriver and remove the bracket.
 7. Install in the reverse order of removal.

KEYLESS RECEIVER INSPECTION

1. Measure the voltage at each terminal.
 - If the voltage is not as specified in the Terminal Voltage Table (Reference), inspect the parts under "Inspection item (s)".
2. If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, perform symptom troubleshooting.

Terminal Voltage Table (Reference)

KEYLESS RECEIVER
HARNESS SIDE CONNECTOR



Terminal	Signal name	Connected to	Measurement condition	Voltage (V)/Continuity	Inspection item (s)
A	Power supply	ROOM 15 A fuse	Under any condition	B+	ROOM 15 A fuse
B	ENABLE	Keyless control module	Any transmitter button is operated without key in steering lock (key reminder switch off).	5 → 1.0 or less	<ul style="list-style-type: none"> • Transmitter • Keyless control module (See KEYLESS CONTROL MODULE INSPECTION) • Inspect related harness.
			Key is in steering lock (key reminder switch on).	5	
C	DATA	Keyless control module	Any transmitter button is operated without key in steering lock (key reminder switch off).	1.0 or less → changes positively	<ul style="list-style-type: none"> • Transmitter

			Key is in steering lock (key reminder switch on).	1.0 or less	<ul style="list-style-type: none"> • Keyless control module (See KEYLESS CONTROL MODULE INSPECTION) • Inspect related harness.
E	GND	Body ground	Under any condition: Inspect for continuity to ground.	Continuity detected	GND

SYMPTOM TROUBLESHOOTING [KEYLESS ENTRY SYSTEM]

KEYLESS ENTRY SYSTEM

KEYLESS ENTRY SYSTEM PRELIMINARY INSPECTION

- Perform the following preliminary inspection before troubleshooting.

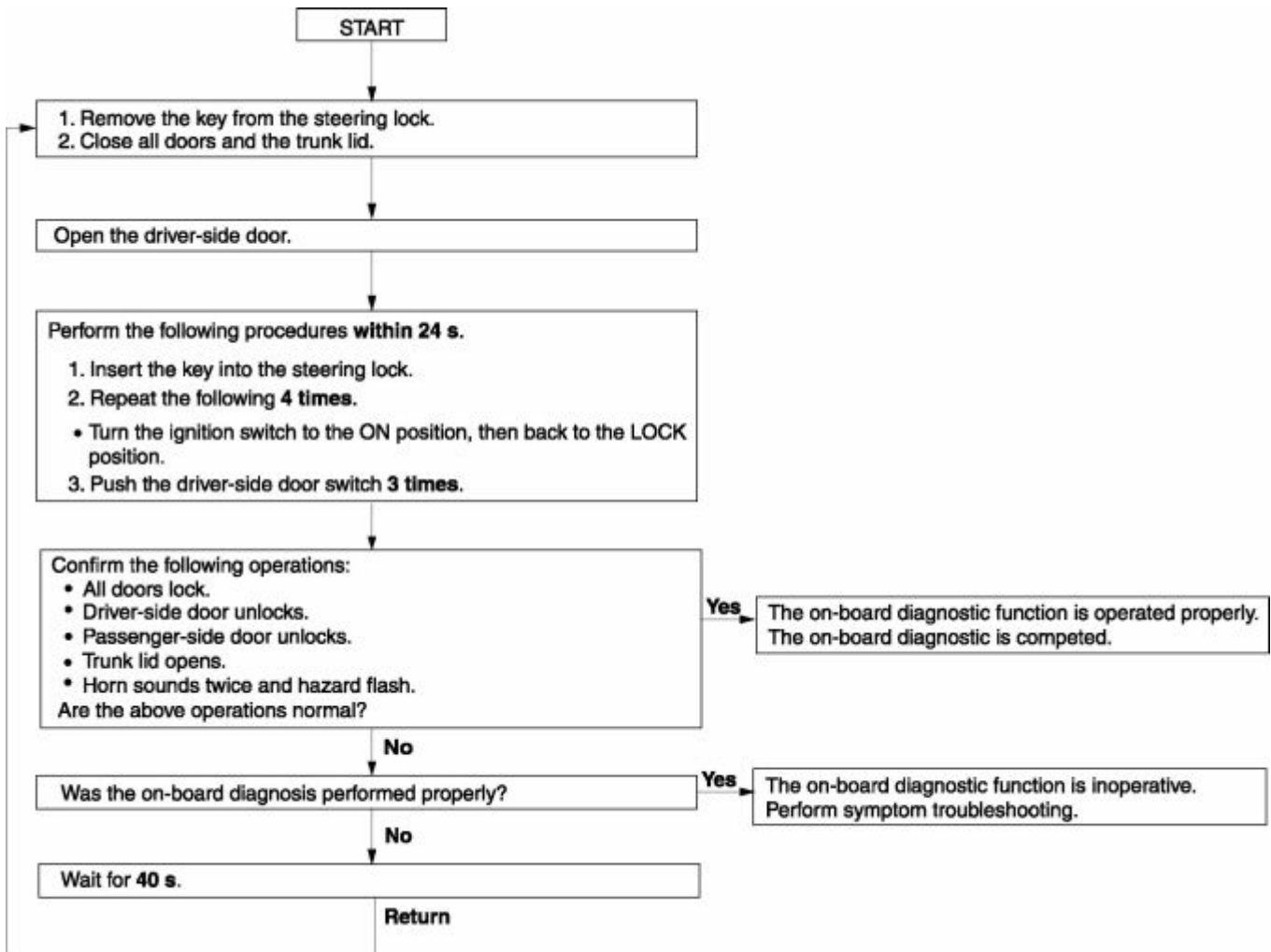
STEP	INSPECTION	ACTION	
1	<ul style="list-style-type: none"> • Is an after-market system installed? 	Yes	Perform troubleshooting according to after-market keyless entry system manual.
		No	Go to the next step.
2	<ul style="list-style-type: none"> • Did the customer activate the keyless entry system with the key inserted into the steering lock? 	Yes	Go to the next step.
		No	<ul style="list-style-type: none"> • Explain to the customer that the system does not work with the key inserted into the steering lock. • Go to the next step.
3	<ul style="list-style-type: none"> • Did the customer use the keyless entry system in particular area, such as being near TV towers, power plants, power lines, or factories? 	Yes	<p>Attempt to lock/unlock the doors with the transmitter in a non-interference area.</p> <p>If system operates:</p> <ul style="list-style-type: none"> • Area of operation is suspect. Explain effect of outside interference on the transmitter to the customer. <p>If system does not operate:</p> <ul style="list-style-type: none"> • Go to the next step.
		No	Go to the next step.

4	<ul style="list-style-type: none"> Are any of the following after-market electrical parts on the vehicle? <ul style="list-style-type: none"> Cellular phone Radio-wave equipment Remote engine starter TV, etc. 	Yes	<p>Disconnect the after-market electrical part connectors and attempt to lock/unlock the doors with the transmitter.</p> <p>If system operates:</p> <ul style="list-style-type: none"> The after-market electrical parts are interfering with the keyless entry system. <p>If system does not operate:</p> <ul style="list-style-type: none"> Go to the next step.
		No	Go to the next step.
5	<ul style="list-style-type: none"> Perform the on-board diagnostic function. <p>(See KEYLESS ENTRY SYSTEM ON-BOARD DIAGNOSIS .)</p> <ul style="list-style-type: none"> Does the on-board diagnostic function work? 	Yes	Go to the next step.
		No	<ul style="list-style-type: none"> Go to Step 1 of NO. 1 ONE OR MORE ON-BOARD DIAGNOSTIC FUNCTIONS INOPERATIVE. Go to Step 1 of NO. 2 ALL ON-BOARD DIAGNOSTIC FUNCTIONS INOPERATIVE.
6	<ul style="list-style-type: none"> Attempt to reprogram the transmitter ID code. Can the transmitter ID code be reprogrammed? 	Yes	The system is normal.
		No	Go to Step 1 of troubleshooting NO. 3 TRANSMITTER ID CODE CANNOT BE REPROGRAMMED.

KEYLESS ENTRY SYSTEM ON-BOARD DIAGNOSIS

NOTE:

- When the trunk lid opener cancel switch is at the ON position, the trunk lid does not unlock even when the trunk lid button is pressed. Verify that the trunk lid opener cancel switch is at the OFF position when performing the on-board diagnostic test.
- The trunk lid opener cancel switch is located in the glove compartment.



SYMPTOM TROUBLESHOOTING CHART

No.	Troubleshooting item	Description
1	One or more on-board diagnostic functions inoperative	<ul style="list-style-type: none">Malfunction in trunk lid opener system, horn system, hazard warning light system, or door lock linkage system
2	All on-board diagnostic functions inoperative	<ul style="list-style-type: none">Malfunction in keyless control module power supply circuit, door switch circuit, or keyless control module ground circuit
3	Transmitter ID code cannot be reprogrammed	<ul style="list-style-type: none">Malfunction in transmitter battery, transmitter, keyless receiver bracket, keyless receiver bracket ground screw, or keyless control module circuit

NO.1 ONE OR MORE ON-BOARD DIAGNOSTIC FUNCTIONS INOPERATIVE

- When performing an asterisked (*) troubleshooting inspection, slightly shake the wiring harness and connectors while performing the inspection to discover whether poor contact points are the cause of any intermittent malfunctions. If there is a problem, verify that the connectors, terminals and wiring harnesses are connected correctly and undamaged.

1	One or more on-board diagnostic functions inoperative
DESCRIPTION	<ul style="list-style-type: none"> • Malfunction in trunk lid opener system, horn system, hazard warning light system, or door lock linkage system
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Malfunction in trunk lid opener system <ul style="list-style-type: none"> ▪ Trunk lid opener relay circuit malfunction ▪ Keyless control module malfunction • Malfunction in horn system <ul style="list-style-type: none"> ▪ Horn circuit malfunction ▪ Keyless control module malfunction ▪ Malfunction in wiring harness between keyless control module and horn relay • Malfunction in hazard warning light system <ul style="list-style-type: none"> ▪ Hazard warning light circuit ▪ Keyless control module malfunction ▪ Malfunction in wiring harness between keyless control module and hazard warning lights ▪ Malfunction in wiring harness between keyless control module and flasher control module • Malfunction in door lock linkage • Malfunction in keyless control module door lock/unlock signal circuit <ul style="list-style-type: none"> ▪ Keyless control module malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	INSPECT HORN AND HAZARD WARNING LIGHT OPERATION DURING ON-BOARD DIAGNOSIS <ul style="list-style-type: none"> • Do all of the following items work during on-board diagnostic function operation? <ul style="list-style-type: none"> ▪ Hazard warning lights flash. ▪ Horns sounds intermittently. ▪ Trunk lid opens. 	Yes	Go to Step 11.
		No	Go to the next step.
2	INSPECT HAZARD WARNING LIGHT OPERATION DURING ON-BOARD DIAGNOSIS <ul style="list-style-type: none"> • Do the hazard warning lights flash during on-board diagnostic function operation? 	Yes	Go to Step 5.
		No	Go to the next step.
3	INSPECT HAZARD WARNING LIGHT CIRCUIT <ul style="list-style-type: none"> • Do the hazard warning lights flash when hazard warning switch is on? 	Yes	Go to the next step.
		No	Inspect the hazard warning light circuit.
*4	INSPECT IF MALFUNCTION IS IN WIRING HARNESS (BETWEEN KEYLESS CONTROL MODULE AND FLASHER CONTROL MODULE) OR KEYLESS CONTROL MODULE <ul style="list-style-type: none"> • Measure the voltage at keyless control module connector terminal 2I during on-board diagnostic function operation. <ul style="list-style-type: none"> ▪ When hazard warning lights flashed: Alternates between B+ and below 1.0 V • Is the voltage as above? 	Yes	Reinspect the malfunction symptoms, then repeat from Step 1 if malfunction recurs.
		No	<ul style="list-style-type: none"> • Inspect the wiring harness between the keyless control module and flasher control module. <ul style="list-style-type: none"> ▪ If the wiring harness is normal, replace the keyless control module and reprogram the transmitter ID code, then go to Step 14. ▪ If the wiring harness is malfunctioning, repair the wiring harness, then go to Step 14.
5		Yes	Go to Step 8.

	INSPECT HORN OPERATION DURING ON-BOARD DIAGNOSIS <ul style="list-style-type: none"> • Dose horn sound intermittently during on-board diagnostic function operation? 	No	Go to the next step.
6	INSPECT HORN CIRCUIT <ul style="list-style-type: none"> • Does horn sound when the horn switch on the vehicle is pressed? 	Yes	Go to the next step.
		No	Inspect the horn circuit.
*7	INSPECT IF MALFUNCTION IS IN WIRING HARNESS (NO CONTINUITY BETWEEN KEYLESS CONTROL MODULE AND HORN RELAY) OR KEYLESS CONTROL MODULE <ul style="list-style-type: none"> • Turn the ignition switch to the LOCK position. • Disconnect the keyless control module connector and horn relay connector. • Is there continuity between keyless control module connector terminal 2C and horn relay connector? 	Yes	Replace the keyless control module and reprogram the keyless control module ID code, then go to Step 14.
		No	Repair the wiring harness between the keyless control module and horn relay, then go to Step 14.
8	CHECK TRUNK LID OPERATION DURING ON-BOARD DIAGNOSIS <ul style="list-style-type: none"> • Does the trunk lid open during on-board diagnostic function operation? 	Yes	Go to Step 11.
		No	Go to the next step.
9	INSPECT TRUNK LID OPENER SYSTEM <ul style="list-style-type: none"> • Does the trunk lid open by the trunk lid opener switch? 	Yes	Go to the next step.
		No	Inspect the trunk lid opener system.
*10	INSPECT IF MALFUNCTION IS IN TRUNK LID OPENER RELAY CIRCUIT OR KEYLESS CONTROL MODULE <ul style="list-style-type: none"> • Disconnect the keyless control module connector. • Measure the voltage at keyless control module connector terminal 2E. • Is the voltage approx. 12 V ? 	Yes	Replace the keyless control module and the reprogram transmitter ID code, then go to Step 14.
		No	Inspect the trunk lid opener relay circuit.
11	VERIFY THAT ALL DOORS LOCK AND UNLOCK DURING ON-BOARD DIAGNOSIS <ul style="list-style-type: none"> • Do all doors unlock and lock during on-board diagnostic function operation? 	Yes	Reinspect the malfunction symptoms, then repeat from Step 1 if the malfunction recurs.
		No	Go to the next step.

12	INSPECT DOOR LOCK LINKAGE <ul style="list-style-type: none"> Operate the door lock knob and verify the door locks and unlocks manually. Does every door lock system work? 	Yes	Go to the next step.
		No	Inspect the door lock linkage.
*13	INSPECT IF MALFUNCTION IS IN DOOR LOCK ACTUATOR, KEYLESS CONTROL MODULE GROUND CIRCUIT OR ELSEWHERE <ul style="list-style-type: none"> Measure the voltage at keyless control module connector terminals 1C and 1D. <ul style="list-style-type: none"> All doors locked: Cycles 1.0 V or less → B+ → 1.0 V or less (terminal 1D) All doors unlocked: Cycles B+ → 1.0 V or less → B+ (terminal 1C) Is the voltage as above? 	Yes	Reinspect the malfunction symptoms, then repeat from Step 1 if the malfunction recurs.
		No	<ul style="list-style-type: none"> Inspect the keyless control module the connector. Inspect the wiring harness between the keyless control module and door lock actuator. <ul style="list-style-type: none"> If the above parts are normal, go to the next step. If any of above parts are malfunctioning, repair the malfunctioning part.
14	REINSPECT MALFUNCTION SYMPTOM AFTER REPAIR <ul style="list-style-type: none"> Does the keyless entry system operate properly? 	Yes	Troubleshooting completed. Explain repairs to customer.
		No	Reinspect the malfunction symptoms, then repeat from Step 1 if malfunction recurs.

NO.2 ALL ON-BOARD DIAGNOSTIC FUNCTIONS INOPERATIVE

- When performing an asterisked (*) troubleshooting inspection, slightly shake the wiring harness and connectors while performing the inspection to discover whether poor contact points are the cause of any intermittent malfunctions. If there is a problem, verify that the connectors, terminals and wiring harnesses are connected correctly and undamaged.
- The door switches include the rear door upper latch switches and rear door lower latch switches.

2	All on-board diagnostic functions inoperative
DESCRIPTION	<ul style="list-style-type: none"> • Malfunction in keyless control module power supply circuit, door switch circuit, trunk lid compartment light circuit, keyless control module ground circuit, or keyless receiver.
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Malfunction in IG1 or B+ signal circuit of keyless control module <ul style="list-style-type: none"> ▪ Keyless control module power supply fuse malfunction ▪ Malfunction in wiring harness between keyless control module power supply fuses and keyless control module • Malfunction in door open/closed signal circuit of keyless control module <ul style="list-style-type: none"> ▪ Door switch system malfunction ▪ Keyless control module malfunction ▪ Malfunction in wiring harness between keyless control module and door switch • Malfunction in trunk lid open signal circuit of keyless control module <ul style="list-style-type: none"> ▪ Trunk lid compartment light switch system malfunction ▪ Keyless control module malfunction ▪ Malfunction in wiring harness between keyless control module and trunk lid compartment light switch • Malfunction in keyless control module GND signal circuit <ul style="list-style-type: none"> ▪ Malfunction in wiring harness between keyless control module and ground • Malfunction in keyless receiver <ul style="list-style-type: none"> ▪ Keyless receiver malfunction ▪ Malfunction in wiring harness between keyless control module and keyless receiver

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	INSPECT KEYLESS CONTROL MODULE POWER SUPPLY FUSES <ul style="list-style-type: none"> Are the keyless control module power supply fuses normal? 	Yes	Go to the next step.
		No	Inspect for a short to ground in circuit of blown fuse. Repair or replace if necessary. Install an appropriate amperage fuse.
2	INSPECT DOOR SWITCH INSTALLATION <ul style="list-style-type: none"> Are the door switches installed securely? 	Yes	Go to the next step.
		No	Install the door switches securely, then go back to Step 5 of KEYLESS ENTRY SYSTEM PRELIMINARY INSPECTION.
*3	INSPECT IF MALFUNCTION IS IN WIRING HARNESS (NO CONTINUITY BETWEEN FUSE BLOCK AND KEYLESS CONTROL MODULE) OR ELSEWHERE <ul style="list-style-type: none"> Turn the ignition switch to the ON position. Measure the voltage at the following keyless control module terminals: <ul style="list-style-type: none"> IG1 signal (terminal 2B) B+ signal (terminal 2A) Is the voltage B+ ? 	Yes	Go to the next step.
		No	Repair the wiring harness between the fuse block and keyless control module, then go to Step 13.
*4	INSPECT IF MALFUNCTION IS IN WIRING HARNESS (SHORT TO B+ BETWEEN FUSE BLOCK AND KEYLESS CONTROL MODULE, OR BETWEEN KEYLESS CONTROL MODULE AND GROUND) OR ELSEWHERE <ul style="list-style-type: none"> Turn the ignition switch to the LOCK position. Disconnect the keyless control module connector. Measure the voltage at the following keyless control module connector terminal: <ul style="list-style-type: none"> IG1 signal (terminal 2B) Is the voltage B+ ? 	Yes	Repair the malfunctioning wiring harness, then go to Step 13.
		No	Go to the next step.
*5		Yes	Go to the next step.

	<p>INSPECT IF MALFUNCTION IS IN WIRING HARNESS (NO CONTINUITY BETWEEN KEYLESS CONTROL MODULE AND GROUND) OR ELSEWHERE</p> <ul style="list-style-type: none"> Is there continuity between keyless control module connector terminal 2W and ground? 	No	Repair the wiring harness between the keyless control module and ground, then go to Step 13.
6	<p>INSPECT FOR CHECK CODE 04 IN INSTRUMENT CLUSTER</p> <ul style="list-style-type: none"> Inspect the door switch using the instrument cluster input/output check mode. <p>(See INSTRUMENT CLUSTER INPUT/OUTPUT CHECK MODE .)</p> <ul style="list-style-type: none"> Is DTC 04 displayed? 	Yes	Go to the next step.
		No	Repair the door switch system using the DTC 04 inspection procedure, then go to Step 13.
7	<p>INSPECT KEYLESS CONTROL MODULE OR WIRING HARNESS (BETWEEN KEYLESS CONTROL MODULE AND DOOR SWITCHES, TRUNK LID COMPARTMENT LIGHT SWITCH FOR CONTINUITY)</p> <ul style="list-style-type: none"> Open the driver-side door. Is there continuity between keyless control module connector terminal 2K, 2G and ground? 	Yes	Replace the keyless control module and reprogram the keyless control module ID code, then go to the next step.
		No	Repair the wiring harness between the keyless control module, door switches, and trunk lid compartment light switch, then go to the next step.
8	<p>INSPECT POWER SUPPLY FUSE</p> <ul style="list-style-type: none"> Is the keyless receiver power supply fuse normal? 	Yes	Go to the next step.
		No	Inspect for a short to ground in circuit of blown fuse. Repair or replace if necessary. Install an appropriate amperage fuse.
9	<p>INSPECT IF MALFUNCTION IS IN WIRING HARNESS (NO CONTINUITY BETWEEN FUSE BLOCK AND KEYLESS RECEIVER) OR ELSEWHERE</p> <ul style="list-style-type: none"> Turn the ignition switch to the ON position. Measure the voltage at the following keyless receiver terminal: <ul style="list-style-type: none"> IG1 signal (terminal 1A) Is the voltage B+ ? 	Yes	Go to the next step.
		No	Repair the wiring harness between the fuse block and keyless receiver, then go to Step 13.
10		Yes	Go to the next step.

	<p>INSPECT IF MALFUNCTION IS IN WIRING HARNESS (NO CONTINUITY BETWEEN KEYLESS RECEIVER AND GROUND) OR ELSEWHERE</p> <ul style="list-style-type: none"> Is there continuity between keyless receiver connector terminal 1E and ground? 	No	Repair the wiring harness between the keyless receiver and ground, then go to Step 13.
11	<p>INSPECT IF MALFUNCTION IS IN WIRING HARNESS (NO CONTINUITY BETWEEN KEYLESS RECEIVER AND KEYLESS CONTROL MODULE) OR ELSEWHERE</p> <ul style="list-style-type: none"> Turn the ignition switch to the ON position. Disconnect the keyless receiver connector and keyless control module. Is there continuity between the following terminals? <ul style="list-style-type: none"> Terminal 1B—terminal 2N Terminal 1C—terminal 2P 	Yes	Go to the next step.
		No	Repair the wiring harness between the keyless receiver and keyless control module, then go to Step 13.
12	<p>INSPECT IF MALFUNCTION IS IN WIRING HARNESS (NO CONTINUITY BETWEEN KEYLESS RECEIVER AND KEYLESS CONTROL MODULE) OR KEYLESS CONTROL MODULE</p> <ul style="list-style-type: none"> Measure the voltage at keyless control module terminal 2N. <ul style="list-style-type: none"> When transmitter operated: <ul style="list-style-type: none"> Any transmitter button is operated without key in steering lock (key reminder switch off): 5 V→1.0 V or less Key is in steering lock (key reminder switch on):5 V Is the voltage normal? 	Yes	Replace the keyless control module, then go to the next step.
		No	Replace the keyless receiver, then go to the next step.
13	<p>REINSPECT MALFUNCTION SYMPTOM AFTER REPAIR</p> <ul style="list-style-type: none"> Does the keyless entry system operate properly? 	Yes	Troubleshooting completed. Explain repairs to the customer.
		No	Reinspect the malfunction symptoms, then repeat from Step 1 if the malfunction recurs.

NO.3 TRANSMITTER ID CODE CANNOT BE REPROGRAMMED

3	Transmitter ID code cannot be reprogrammed
DESCRIPTION	<ul style="list-style-type: none"> Malfunction in transmitter battery, transmitter, keyless receive bracket, keyless receive bracket ground screw, or keyless control module circuit. keyless receive circuit.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Malfunction in transmitter battery, transmitter, keyless receive bracket, keyless receive bracket ground screw, or keyless control module, or keyless receive.

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	INSPECT TRANSMITTER BATTERY INSTALLATION AND TYPE <ul style="list-style-type: none"> Visually inspect the transmitter battery. Are the below items correct? <ul style="list-style-type: none"> Transmitter battery installation (correct polarity) Battery type (CR2025) 	Yes	Go to the next step.
		No	Install the transmitter battery properly or replace with the specified transmitter battery (CR2025), then go to Step 13.
2	INSPECT TRANSMITTER BATTERY TERMINALS FOR RUST AND POOR CONNECTION <ul style="list-style-type: none"> Visually inspect the transmitter. <ul style="list-style-type: none"> Is there rust on the transmitter battery terminals (positive or negative)? Is there poor connection between the terminals and battery? 	Yes	Replace the transmitter battery or repair the transmitter battery terminal, then go to Step 13.
		No	Go to the next step.
3	INSPECT TRANSMITTER BATTERY <ul style="list-style-type: none"> Inspect the transmitter battery. Is the battery voltage normal? 	Yes	Go to the next step.
		No	Replace the transmitter battery, then go to Step 13.
4		Yes	Go to the next step.

	INSPECT KEYLESS RECEIVE BRACKET INSTALLATION <ul style="list-style-type: none"> Is the keyless receive bracket installed securely? 	No	Install bracket securely, then go back to Step 6 of KEYLESS ENTRY SYSTEM PRELIMINARY inspection.
5	INSPECT GROUND SCREW INSTALLATION BETWEEN KEYLESS RECEIVE AND KEYLESS RECEIVE BRACKET <ul style="list-style-type: none"> Are the keyless receive and keyless receive bracket connected securely to the ground screw? 	Yes	Go to the next step.
		No	Install the screw securely, then go back to Step 6 of KEYLESS ENTRY SYSTEM PRELIMINARY inspection.
6	INSPECT IF MALFUNCTION IS IN TRANSMITTER BATTERY OR ELSEWHERE <ul style="list-style-type: none"> Replace with a transmitter battery known to be good. Does the keyless entry system operate properly? 	Yes	Replace the transmitter battery, then go to Step 13.
		No	Go to the next step.
7	INSPECT IF MALFUNCTION IS IN TRANSMITTER OR KEYLESS CONTROL MODULE <ul style="list-style-type: none"> Reprogram the keyless control module ID code using another known good transmitter. Does the keyless entry system operate properly? 	Yes	Replace the transmitter and reprogram the transmitter ID code, then go to Step 13.
		No	Go to the next step.
8	INSPECT POWER SUPPLY FUSE <ul style="list-style-type: none"> Is the keyless receiver power supply fuse normal? 	Yes	Go to the next step.
		No	Inspect for a short to ground in circuit of blown fuse. Repair or replace if necessary. Install an appropriate amperage fuse, then go to Step 13.
9	INSPECT IF MALFUNCTION IS IN WIRING HARNESS (NO CONTINUITY BETWEEN FUSE BLOCK AND KEYLESS RECEIVER) OR ELSEWHERE <ul style="list-style-type: none"> Measure the voltage at the following keyless receiver terminal: <ul style="list-style-type: none"> Power supply signal (terminal 1A) Is the voltage B+ ? 	Yes	Go to the next step.
		No	Repair the wiring harness between the fuse block and keyless receiver, then go to Step 13.
10	INSPECT IF MALFUNCTION IS IN WIRING HARNESS (NO CONTINUITY BETWEEN KEYLESS RECEIVER AND GROUND) OR ELSEWHERE <ul style="list-style-type: none"> Is there continuity between keyless receiver connector terminal 1E and ground? 	Yes	Go to the next step.
		No	Repair the wiring harness between the keyless receiver and ground, then go to Step 13.

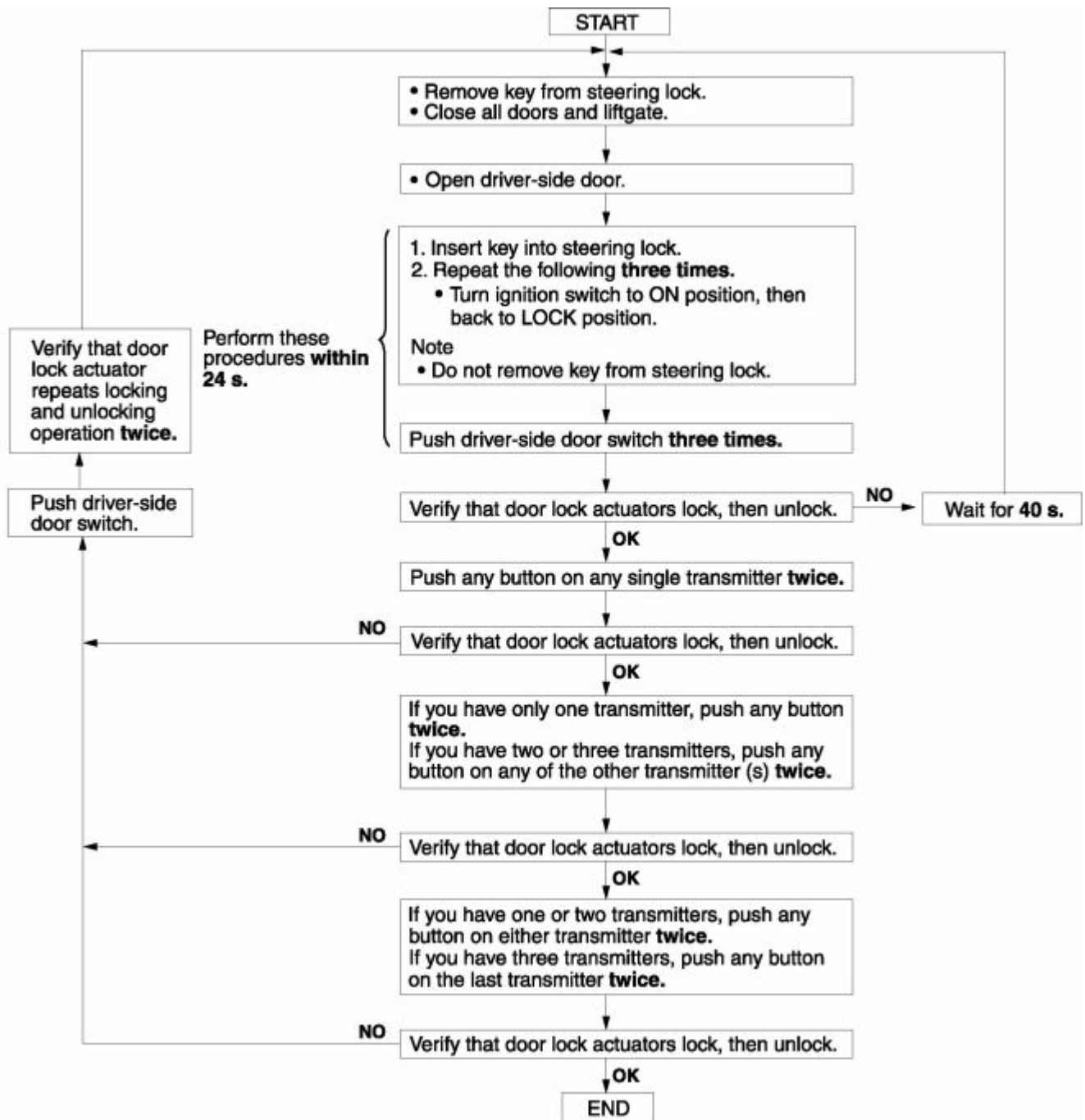
11	INSPECT IF MALFUNCTION IS IN WIRING HARNESS (NO CONTINUITY BETWEEN KEYLESS RECEIVER AND KEYLESS CONTROL MODULE) OR ELSEWHERE <ul style="list-style-type: none"> • Disconnect the keyless receiver connector and keyless control module. • Is there continuity between the following terminals? <ul style="list-style-type: none"> ▪ Terminal 1B—terminal 2N ▪ Terminal 1C—terminal 2P 	Yes	Go to the next step.
		No	Repair the wiring harness between the keyless receiver and keyless control module, then go to Step 13.
12	INSPECT IF MALFUNCTION IS IN WIRING HARNESS (NO CONTINUITY BETWEEN KEYLESS RECEIVER AND KEYLESS CONTROL MODULE) OR KEYLESS CONTROL MODULE <ul style="list-style-type: none"> • Measure the voltage at keyless control module terminal 2N. <ul style="list-style-type: none"> ▪ When transmitter operated: <ul style="list-style-type: none"> • Any transmitter button is operated without key in steering lock (key reminder switch off): 5 V → 1.0 V or less • Key is in steering lock (key reminder switch on): 5 V • Is the voltage normal? 	Yes	Replace the keyless control module, then go to the next step.
		No	Replace the keyless receiver, then go to the next step.
13	REINSPECT MALFUNCTION SYMPTOM AFTER REPAIR <ul style="list-style-type: none"> • Does the keyless entry system operate properly? 	Yes	Troubleshooting completed. Explain repairs to the customer.
		No	Reinspect the malfunction symptoms, then repeat from Step 1 if the malfunction recurs.

TRANSMITTER

TRANSMITTER ID CODE CHANGE

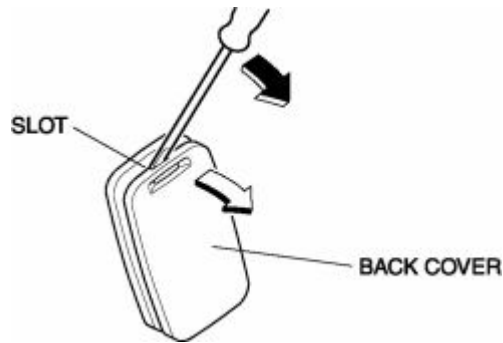
NOTE:

- When programming the ID code into a keyless control module, verify that other transmitters are not being operated in the vicinity.
- After ID code programming, remove the key from the steering lock and verify that all doors lock/unlock normally using the transmitter.

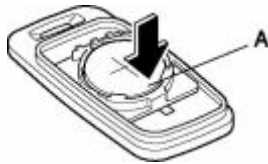


TRANSMITTER BATTERY REPLACEMENT

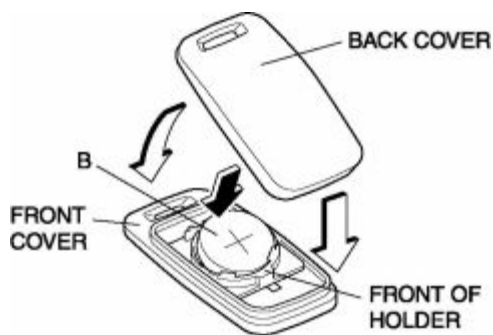
1. Insert a small screwdriver into the slot and gently pry open the transmitter.



2. Press the portion of the battery indicated by A and remove the battery.



3. Install a new battery (CR2025) into the front portion of the holder with the positive pole (+) facing up. Press on the B portion of the battery to set the battery.
4. Align the front and back covers and snap the transmitter shut.



Battery specification

- Lithium CR2025 × 1

NOTE:

- The batteries will last about **2 years** when used **10 times** a day.

TRANSMITTER BATTERY INSPECTION

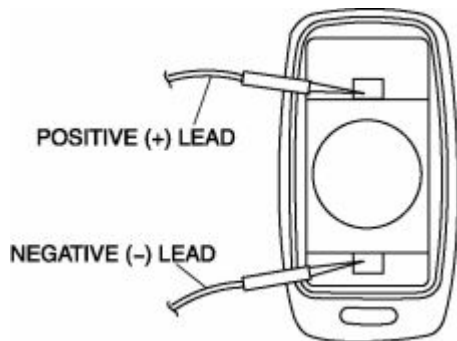
CAUTION:

- Since the battery voltage does not drop fully if the button is pushed for only 4 seconds or less, it can not be properly examined to see whether it is good or bad. Always push the button for 5 seconds.

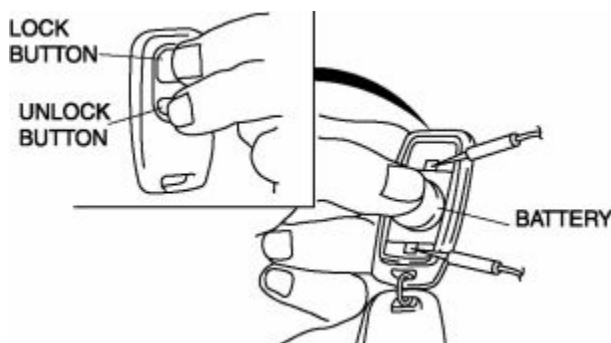
NOTE:

- A correct measurement cannot be obtained if the battery temperature is low. Make sure the battery is at **18 °C {64 °F} or more** for **at least 30 minutes** before reinspecting if a measurement value is under the standard voltage.

1. Remove the transmitter cover.
2. Apply the ohmmeter leads to the positions as indicated in the figure.



3. While pressing the battery as shown in the figure, press the LOCK and UNLOCK buttons on the transmitter at the same time to start measurement of the voltage.



4. Release the buttons after **5 seconds** .

5. Verify that the minimum voltage is the standard voltage or more for **10 seconds** after starting measurement.
 - If the voltage is under the standard voltage, replace the battery.

Standard voltage

- 2.7 V

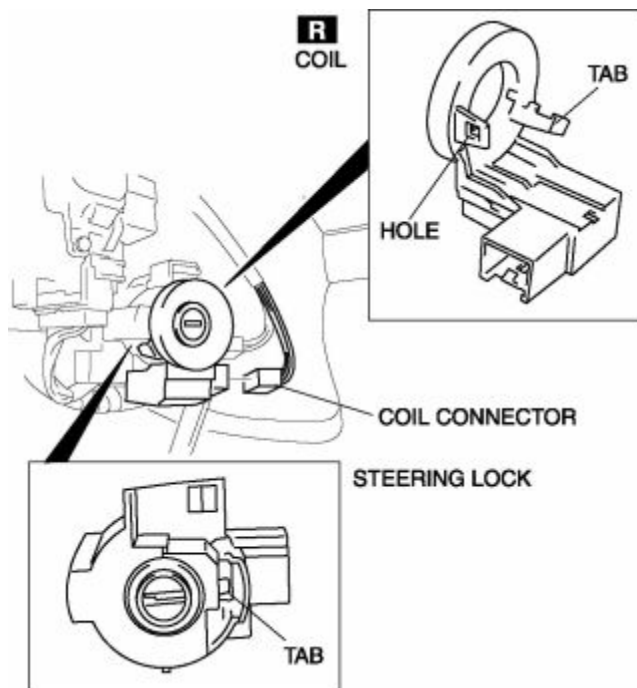
Notes:

IMMOBILIZER SYSTEM

COIL REMOVAL/INSTALLATION

NOTE:

- The coil should not be removed unless it is being replaced.
1. Disconnect the negative battery cable.
 2. Remove the column cover. (See COLUMN COVER REMOVAL/INSTALLATION .)
 3. Disconnect the coil connector.



4. Detach the steering lock tab from hole on the coil.
5. Detach the coil tab from the steering lock and remove the coil.
6. Install in the reverse order of removal.

IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING

Foreword

- When performing the following procedures, the immobilizer resetting using the WDS or equivalent must also always be performed: "Keyless control module replacement", "PCM replacement", "Keyless control module and PCM joint replacement", "Key ID number clearing". The engine will not start unless all work is performed using the WDS or equivalent.
- There are two methods for registering an additional key: Using the WDS or equivalent and using two keys that are able to start the engine.
- When replacing any of the immobilizer system component parts, adding/erasing keys or performing other functions, refer to the following table and perform the applicable procedure (Nos.1 to 5).

Situation	Items necessary to perform procedure (always have these ready before beginning the procedure)	Cautionary notes	No.
Making a spare key when the customer has two or more keys that can start the engine. Or registering an additional key.	<ul style="list-style-type: none"> • Keys for registration 	<ul style="list-style-type: none"> • If "Customer Spare Key Programming Disable" has previously been performed using the WDS or equivalent, the WDS or equivalent must be used to register an additional key. In that case, perform procedure No.2. 	1
Making a spare key when the customer has one key that can start the engine or no keys. Or registering an additional key.	<ul style="list-style-type: none"> • Keys for registration • WDS or equivalent 	-	2
Clearing previously registered key ID numbers.	<ul style="list-style-type: none"> • Keys for registration (two or more keys) • WDS or equivalent 	<ul style="list-style-type: none"> • All key ID numbers registered in the vehicle are cleared. • Unless keys are re-registered after clearing the key ID numbers, the engine cannot be started. Before beginning the procedure, verify that the customer has turned in all of the keys for the vehicle. • Unless two or more keys are registered after clearing the key ID numbers, the engine cannot be started. • The keys (two or more keys) readied 	3

		before beginning the procedure do not have to be new keys. Any key that is capable of starting the engine before beginning the procedure can be used.	
Replacing all keys. (When replacing the steering lock or similar procedure)	<ul style="list-style-type: none"> • New keys (two or more keys) • WDS or equivalent 	<ul style="list-style-type: none"> • Since the steering lock is replaced, keys used before replacement become unusable. Have two new keys or more ready before beginning the procedure. • Unless keys are registered after replacing the steering lock, the engine cannot be started. 	3
Changing the method for registering additional keys. (Method for registering other keys using two keys that can start the engine is disabled.)	<ul style="list-style-type: none"> • WDS or equivalent 	<ul style="list-style-type: none"> • After performing this procedure it is not possible to register additional keys according to procedure No.1. The system can be returned to the original setting. The WDS or equivalent must always be used to change the system setting. 	4
Changing the method for registering additional keys. (Method for registering other keys using two keys that can start the engine is enabled.)	<ul style="list-style-type: none"> • WDS or equivalent 	<ul style="list-style-type: none"> • This is the default setting on new vehicles. 	4
Replacing the keyless control module.	<ul style="list-style-type: none"> • New keyless control module • Keys for registration (two or more keys) • WDS or equivalent 	<ul style="list-style-type: none"> • Unless keys are re-registered after replacement, the engine cannot be started. Before beginning the procedure, verify that the customer has turned in all of the keys for the vehicle. • Unless two or more keys are registered after replacement, the engine cannot be started. • The keys (two or more keys) readied before beginning the procedure do not have to be new keys. Any key that is capable of starting the engine before beginning the procedure can be used. 	5
Replacing the PCM.	<ul style="list-style-type: none"> • New PCM • WDS or 	-	5

	equivalent		
Replacing the PCM and keyless control module.	<ul style="list-style-type: none"> • New PCM • New keyless control module • Keys for registration (two or more keys) • WDS or equivalent 	<ul style="list-style-type: none"> • Unless keys are re-registered after replacement, the engine cannot be started. Before beginning the procedure, verify that the customer has turned in all of the keys for the vehicle. • Unless two or more keys are registered after replacement, the engine cannot be started. • The keys (two or more keys) readied before beginning the procedure do not have to be new keys. Any key that is capable of starting the engine before beginning the procedure can be used. 	5
Replacing the coil.	<ul style="list-style-type: none"> • New coil 	<ul style="list-style-type: none"> • It is not necessary to reset the immobilizer system. 	-
Replacing the instrument cluster.	<ul style="list-style-type: none"> • New instrument cluster 	<ul style="list-style-type: none"> • It is not necessary to reset the immobilizer system. 	-

CAUTION:

- The following conditions may cause poor signal communication between the key and vehicle, resulting in the engine not starting or a key registration error. Do not perform key registration under the following conditions:
 - If any of the following items are touching or near the key head.
 - Spare keys
 - Keys for other vehicles equipped with an immobilizer system
 - Any metallic object
 - Any electronic device, or any credit or other cards with magnetic strips

EXAMPLES:



METAL RING LYING ON KEY HEAD



METAL PART OF ANOTHER KEY TOUCHING KEY HEAD



KEY IS CLOSE TO OR TOUCHING ANOTHER IMMOBILIZER SYSTEM KEY



METAL OBJECT TOUCHING KEY HEAD

NOTE:

- Within the following procedures, the term a "valid key" means a "key that can start the engine".
- After adding/registering keys, clearing ID numbers or replacing any component part of the immobilizer unit, verify that all keys can start the engine **within 5 s**.
- When verifying that the keys can start the engine, wait at least **5 s or more** between inserting them.
- If the engine cannot be started using a registered key, repeat the procedure from the beginning.
- Do not start the engine until the key registration procedure for all the necessary keys is completed. If the engine is started during the registration procedure, registration is stopped at that point. Repeat the procedure starting from the beginning if the engine is started before completion.
- Two or more key ID numbers must be registered for the engine to start.
- A maximum of eight key ID numbers can be registered for one vehicle. The WDS or equivalent can be used to verify the number of key ID numbers registered to a single vehicle.
- Do not select WDS or equivalent that are not indicated within the procedures.

No.1 Additional Key Registration Procedure (Using Two Valid Keys)

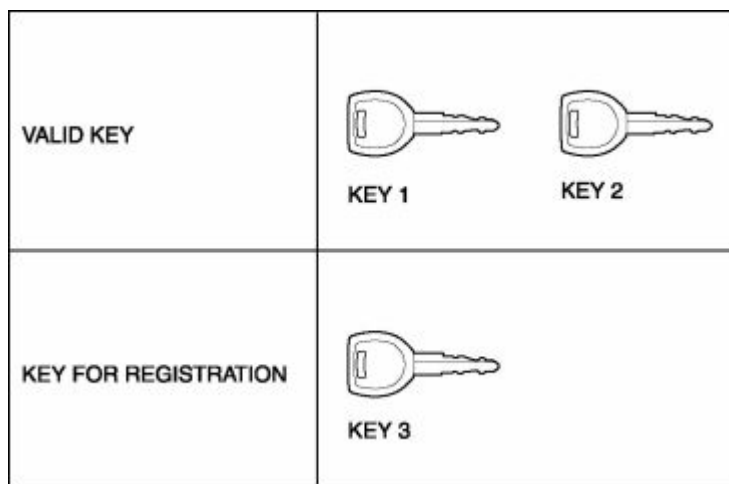
Conditions

- Customer has two or more valid keys.

NOTE:

- A maximum of eight keys can be registered for any one vehicle. If key registration is not successful and DTC 15 appears even though the procedure was performed properly, use the WDS or equivalent and verify the number of keys that have been registered.
- If eight keys have already been registered, and it is necessary to register other keys, the previously registered key ID numbers must first be cleared. Perform key ID number clearing according to " No.3 Key Replacement Procedure (Clearing Previously Registered Key ID Numbers, Key Re-registration) ".

Procedure



1. Have an additional key (key 3) ready for registration.
2. Using key 1, turn the ignition switch to the ON position.

3. Verify that the security light illuminates for **approx. 3 s** and then goes out.
4. Using key 1, turn the ignition switch to the LOCK position **within approx. 4 s** after the security light goes out.
5. Remove key 1
6. Repeat Steps 2—5 using key 2.
7. Repeat Steps 2—5 using key 3.
8. If additional keys need to be registered, repeat Steps 1—7 in the same manner as key 3.

No.2 Additional Key Registration Procedure (Using the WDS or Equivalent)

Conditions

- Customer has only one valid key. Or customer has no valid keys. (Can also be performed even if there are two or more valid keys)

NOTE:

- A maximum of eight keys can be registered for any one vehicle. If key registration is not successful and DTC 15 appears even though the procedure was performed properly, use the WDS or equivalent and verify the number of keys that have been registered.
- If eight keys have already been registered, and it is necessary to register other keys, the previously registered key ID numbers must first be cleared. Perform key ID number clearing according to " No.3 Key Replacement Procedure (Clearing Previously Registered Key ID Numbers, Key Re-registration) ".

Procedure

1. Have one key (key 1) ready for registration.
2. Using key 1, turn the ignition switch to the ON position.

NOTE:

- Although the security light flashes and DTC 15 is displayed, this does not indicate an improper procedure. Continue to perform the procedure as indicated.

3. Connect the WDS or equivalent to the DLC-2.
4. Select "Body/Security/PATS function" from the screen menu of the WDS or equivalent.
5. Perform security access as indicated on the WDS or equivalent screen. (See No.6 Security Access Procedure .)
6. Select "Program Additional Ignition Key" from the screen menu of the WDS or equivalent.

NOTE:

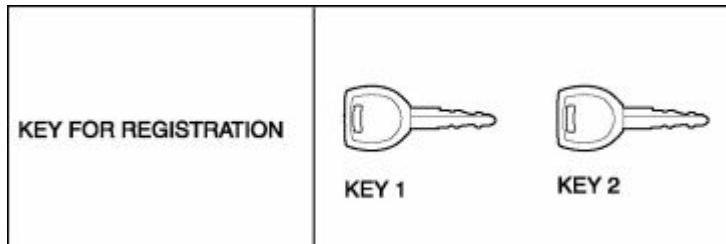
- After selecting this menu, "Successful" appears on the WDS or equivalent screen. When this occurs, registration is completed for the key turning the ignition switch to the ON position.
 - If the necessary number of keys have been registered, the additional key registration procedure is completed with this step. Go to Step 10.
 - If additional keys need to be registered, go to the next step.
7. After verifying that the PATS function menu is displayed again on the WDS or equivalent screen, turn the ignition switch to the LOCK position and remove key 1.
 8. Using an additional key requiring registration, turn the ignition switch to the ON position.
 9. Return to Step 6.
 10. After verifying that the PATS function menu is displayed again on the WDS or equivalent screen, select "Exit" to complete the WDS or equivalent function.
 11. After Step 10, wait **10 s or more** and turn the ignition switch to the LOCK position.

No.3 Key Replacement Procedure (Clearing Previously Registered Key ID Numbers, Key Re-registration)

Conditions

- Customer has two or more keys for registration after clearing the key ID numbers.

Procedure



1. Have two or more keys (key 1, key 2) ready for registration after the clearing the key ID numbers.
2. Using key 1, turn the ignition switch to the ON position.

NOTE:

- Although the security light flashes and DTC 15 is displayed, this does not indicate an improper procedure. Continue to perform the procedure as indicated.
3. Connect the WDS or equivalent to the DLC-2.
 4. Select "Body/Security/PATS function" from the screen menu of the WDS or equivalent.
 5. Perform security access as indicated on the WDS or equivalent screen. (See No.6 Security Access Procedure .)
 6. Select "Ignition key ID number Erase" from the screen menu of the WDS or equivalent and perform the tasks according to the WDS or equivalent screen.
 7. After verifying that the PATS function menu is displayed again on the WDS screen, select "Exit" to complete the WDS or equivalent function.

8. After Step 7, wait **10 s or more** and turn the ignition switch to the LOCK position using key 1.
9. Using key 1, turn the ignition switch to the ON position.
10. After verifying that the security light illuminates **for 3 s or more** , turn the ignition switch to the LOCK position and remove key 1.

NOTE:

- Although the security light flashes and DTC 21 is displayed, this does not indicate an improper procedure. Continue to perform the procedure as indicated.

11. Using key 2, turn the ignition switch to the ON position.
12. Verify that the security light illuminates **for approx. 3 s** and then goes out.
13. After verifying that the security light goes out, turn the ignition switch to the LOCK position using key 2, and then remove key 2.
14. If additional keys need to be registered, repeat Steps 11—13 in the same manner as key 2. Steps 11—13 must be performed **within 1 min** for each key. If the ignition switch is maintained in the ON position **for 1 min or more** , key registration according to Steps 11—13 will not be possible. If this occurs, refer to " No.1 Additional Key Registration Procedure (Using Two Valid Keys) " to register any additional keys.

No.4 Changing the Method for Registering Additional Keys

NOTE:

- This procedure is for changing the enable/disable setting of the "No.1 Additional Key Registration Procedure (Using Two Valid Keys)".
- The default setting for new vehicles and keyless control modules is 'Enabled'.
- By disabling the "No.1 Additional Key Registration Procedure (Using Two Valid Keys)", only the WDS or equivalent can be used to register additional keys, thereby preventing two valid keys from being used

to create an unauthorized spare key. This function is for use by rental car or other companies with vehicle fleets.

Procedure

- Using any key, turn the ignition switch to the ON position. (Either a valid or an unregistered key can be used.)

NOTE:

- When using an unregistered key, although the security light flashes and DTC 15 is displayed, this does not indicate an improper procedure. Continue to perform the procedure as indicated.

- Connect the WDS or equivalent to the DLC-2.
- Select "Body/Security/PATS function" from the screen menu of the WDS or equivalent.
- Perform security access as indicated on the WDS or equivalent screen. (See No.6 Security Access Procedure .)
- Select either "Customer Spare Key Programming Enable" or "Customer Spare Key Programming Disable" from the screen menu of the WDS or equivalent. Depending on the selected menu, the additional key registration method is as shown below:

Setting	Additional key registration method	
	Procedure using two valid keys	Procedure using the WDS or equivalent
Customer Spare Key Programming Enable	X	X
Customer Spare Key Programming Disable	-	X

X

Procedure is possible

-

Procedure is not possible

- After verifying that the PATS function menu is displayed again on the WDS or equivalent screen, select "Exit" to complete the WDS or equivalent function.

- After Step 6, wait **10 s or more** and then turn the ignition switch to the LOCK position.

No.5 Resetting Procedure for the Immobilizer System when Replacing the PCM or Keyless Control Module

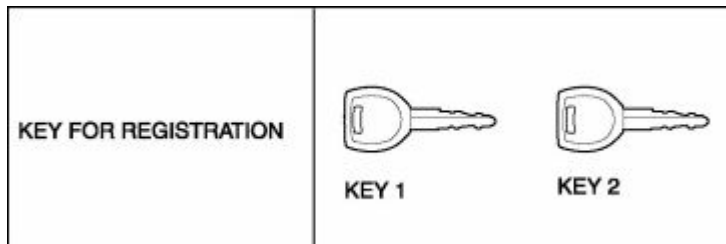
Conditions

- When only replacing the PCM: No conditions.
- When only replacing the keyless control module: Customer has two or more keys for registration after replacement.
- PCM and keyless control module replaced at the same time: Customer has two or more keys for registration after replacement.

CAUTION:

- When replacing the PCM and the keyless control module at the same time, follow the same instructions described in the procedure for "when replacing the keyless control module".
- When replacing only the PCM, start from Step 2. Also, when key 1 is indicated within the procedure, any valid key can be used.
- Before starting Step 1, complete the procedure for PCM and keyless control module replacement.

Procedure



- Have two or more keys (key 1, key 2) ready for registration.
- Using key 1, turn the ignition switch to the ON position.

NOTE:

- When replacing only the PCM: The security light illuminates **for 3 s** and then goes out.
 - When replacing only the keyless control module: Although the security light flashes and DTC 15 is displayed, this does not indicate an improper procedure. Continue to perform the procedure as indicated.
- Connect the WDS or equivalent to the DLC-2.

4. Select "Body/Security/PATS function" from the screen menu of the WDS or equivalent.
5. Perform security access as indicated on the WDS or equivalent screen. (See No.6 Security Access Procedure .)
6. Select "Parameter Reset" from the screen menu of the WDS or equivalent.
7. Perform security access again as indicated on the WDS or equivalent screen. (See No.6 Security Access Procedure .)
8. Select the replaced part as indicated on the WDS or equivalent screen.
 - When replacing only the PCM: Select "PCM".
 - When replacing only the keyless control module: Select "RKE".

NOTE:

- At this time, do not select any other parts from the screen menu of the WDS or equivalent.
9. After verifying that the PATS function menu is displayed again on the WDS or equivalent screen, select "Exit" to complete the WDS or equivalent function.
 10. After Step 9, wait **10 s or more** and turn the ignition switch to the LOCK position using key 1.
 11. Using key 1, turn the ignition switch to the ON position.

NOTE:

- When replacing only the PCM: The security light illuminates **for 3 s** and then goes out.
 - When replacing only the keyless control module: Although the security light flashes and DTC 21 is displayed, this does not indicate an improper procedure. Continue to perform the procedure as indicated.
12. Perform the following procedures:

- When replacing only the PCM: After verifying that the security light goes out, turn the ignition switch to the LOCK position. (Procedure completed)
- When replacing only the keyless control module: After verifying that the security light illuminates **for 3 s or more**, turn the ignition switch to the LOCK position, remove key 1, and then go to the next step.

13. Using key 2, turn the ignition switch to the ON position.

14. Verify that the security light illuminates **for approx. 3 s** and then goes out.

15. After verifying that the security light goes out, turn the ignition switch to the LOCK position using key 2, and then remove key 2.

16. If an additional key needs to be registered, repeat Steps 13—15 in the same manner as key 2. Steps 13—15 must be performed **within 1 min** for each key. If the ignition switch is maintained in the ON position **for 1 min or more**, key registration according to Steps 13—15 will not be possible. If this occurs, refer to " No.1 Additional Key Registration Procedure (Using Two Valid Keys) " to register any additional keys.

No.6 Security Access Procedure

NOTE:

- Security access must be performed when performing the following functions: "Program Additional Ignition Key", "Ignition key ID number Erase", "Customer Spare Key Programming Enable/Disable" and "Parameter Reset".

Procedure

1. Connect the WDS or equivalent to the DLC-2.
2. Select "Body/Security/PATS function" from the screen menu of the WDS or equivalent.
3. Security access is started and the WDS displays "Outcode".

CAUTION:

- After reading out the "Outcode", do not turn ignition switch from LOCK to ON position 5 times, otherwise the "Outcode" value will be changed.
4. Input the corresponding "Incode" for the "Outcode" displayed on the WDS or equivalent screen.
 5. After successfully performing security access, "Program Additional Ignition Key", "Ignition key ID number Erase" or "Customer Spare Key Programming Enable/Disable" is displayed on the WDS or equivalent screen. When performing "Parameter Reset", security access is requested two times and after successfully performing it the second time, "Replacement Module" is displayed.

Notes:

SYMPTOM TROUBLESHOOTING [IMMOBILIZER SYSTEM]

IMMOBILIZER SYSTEM

TROUBLESHOOTING INDEX

No.	TROUBLESHOOTING ITEM	DESCRIPTION
1	The security light display is not normal.	<ul style="list-style-type: none">• The security light remains illuminated 2 min or more after the ignition switch is turned to the ON position• The security light does not illuminate when the ignition switch is turned to the ON position.• The security light remains illuminated while the ignition switch is at the LOCK position.• The security light does not flash or the flashing interval is abnormal while the ignition switch is at the LOCK position.

NO.1 SECURITY LIGHT DISPLAY IS NOT NORMAL

1	The security light display is not normal.
DESCRIPTION	<ul style="list-style-type: none">• The security light remains illuminated 2 min or more after the ignition switch is turned to the ON position• The security light does not illuminate when the ignition switch is turned to the ON position.• The security light remains illuminated while the ignition switch is at the LOCK position.• The security light does not flash or the flashing interval is abnormal while the ignition switch is at the LOCK position.

POSSIBLE CAUSE	<ul style="list-style-type: none"> • Keyless control module malfunction • Instrument cluster malfunction • Open or short circuit in the wiring harness between the instrument cluster and keyless control module <p>NOTE:</p> <ul style="list-style-type: none"> • If the security light remains illuminated for approx. 1 min after the ignition switch is turned to the ON position and then displays a DTC, perform immobilizer system malfunction diagnosis according to that DTC. (See DTC TABLE (IMMOBILIZER SYSTEM) .) • While performing immobilizer system security access using the WDS or equivalent, the security light does not illuminate even if the ignition switch is turned to the ON position. Verify the illumination condition of the security light by disconnecting the DLC-2 to release security access.
	<p>NOTE: SECURITY LIGHT FLASHING SEQUENCE WHEN IGNITION SWITCH IS TURNED TO LOCK POSITION (IMMOBILIZER SYSTEM IS NORMAL)</p> <p>The diagram shows a pulse train where the light is illuminated for approximately 1.9 seconds, goes out for approximately 0.1 seconds, and then illuminates again for approximately 1.9 seconds.</p>

Diagnostic Procedure

STEP	INSPECTION	ACTION
1	<ul style="list-style-type: none"> • Turn the ignition switch to the ON position. • Do other warning lights in the instrument cluster illuminate normally? 	Yes Go to the next step.
		No Inspect the instrument cluster. (See INSTRUMENT CLUSTER INSPECTION .)
2	<ul style="list-style-type: none"> • Turn the ignition switch to the LOCK position. 	Yes Replace the instrument cluster. (See INSTRUMENT CLUSTER REMOVAL/INSTALLATION .)

	<ul style="list-style-type: none"> • Disconnect the negative battery cable. • Disconnect the instrument cluster connector (24-pin). • Connect the negative battery cable. • Does the security light illuminate? 	No	Go to the next step.
3	<ul style="list-style-type: none"> • Disconnect the negative battery cable. • Ground instrument cluster terminal 2F using a jumper wire. • Connect the negative battery cable. • Does the security light illuminate? 	Yes	Go to the next step.
		No	Replace the instrument cluster. (See INSTRUMENT CLUSTER REMOVAL/INSTALLATION .)
4	<ul style="list-style-type: none"> • Disconnect the negative battery cable. • Disconnect the instrument cluster connector. • Connect the keyless control module connector. • Connect the negative battery cable. • Turn the ignition switch to the ON position. • Does the security light illuminate? 	Yes	Replace the keyless control module. (See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .)
		No	Repair the wiring harness.

ON-BOARD DIAGNOSTIC [IMMOBILIZER SYSTEM]

IMMOBILIZER SYSTEM

FOREWORD

- Malfunction diagnosis of the immobilizer system occurs automatically when the ignition switch is turned from the LOCK (ACC) to the ON (START) position.
- Results of the malfunction diagnosis can be verified from the DTCs. There are two methods of DTC verification: By the flashing pattern of the security light and by using the WDS or equivalent.
- First, verify that the fuses are normal.
- The PID/data monitor function can be used to verify the number of key ID numbers registered for a single vehicle.

CAUTION:

- Always use the WDS or equivalent to verify DTCs even if the security light displays a DTC. If the security light itself has a malfunction, it is possible that a DTC may not be properly displayed. There are certain DTCs which can only be verified using the WDS or equivalent, not the security light.
- DTCs for the immobilizer system that are stored in the keyless control module and PCM are cleared when the ignition switch is turned from the ON to the LOCK (ACC) position.
- If DTCs are not displayed even though the engine does not start or stalls, perform the following symptom troubleshooting:
 - NO.3 WILL NOT CRANK
- DTCs may not be displayed due to a security light malfunction. Perform the following symptom troubleshooting:
 - NO.1 SECURITY LIGHT DISPLAY IS NOT NORMAL
- The following conditions may cause poor signal communication between the key and vehicle, resulting in the engine not starting or a key registration error. Do not perform any work under the following conditions:
 - If any of the following items are touching or near the key head.
 - Spare keys
 - Keys for other vehicles equipped with an immobilizer system
 - Any metallic object
 - Any electronic device, or any credit or other cards with magnetic strips

EXAMPLES:



METAL RING LYING ON KEY HEAD



METAL PART OF ANOTHER KEY TOUCHING KEY HEAD



KEY IS CLOSE TO OR TOUCHING ANOTHER IMMOBILIZER SYSTEM KEY



METAL OBJECT TOUCHING KEY HEAD

NOTE:

- If two or more abnormalities are detected as a result of malfunction diagnosis, only the DTC with the lowest number of those detected will be displayed by the security light. However, multiple DTCs are stored at the same time.

- If two or more immobilizer system DTCs are verified, first repair the part indicated by the security light displayed DTC. After completely repairing one location, turn the ignition switch from the LOCK to the ON position and perform immobilizer system malfunction diagnosis.

DTC INSPECTION (IMMOBILIZER SYSTEM)

Security Light

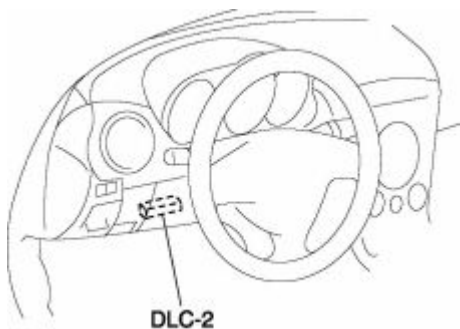
1. Turn the ignition switch to the ON position.
2. Verify the security light state.
 - If there is any malfunction:
 - After any malfunction is detected, the security light will function as follows **for approx. 1 min** .
 - DTC 16 and lower: Flashes
 - DTC 21 and higher: Illuminated
 - If there is no malfunction:
 - The security light illuminates **for approx. 3 s** and goes out.
3. When any malfunction has been detected, read DTCs via flashing patterns displayed after the security light flashes or is illuminated **for approx. 1 min** .
 - Perform troubleshooting according to the corresponding DTC inspection.

NOTE:

- A verified DTC is flashed 10 times repeatedly by the security light.
- If multiple DTCs are verified, the security light displays only the smallest DTC.

WDS or Equivalent

1. Connect the WDS or equivalent to the DLC-2.












2. Verify if any DTCs are displayed.

- If any DTCs are displayed, carry out troubleshooting according to the corresponding DTC inspection.

3. Disconnect the WDS or equivalent.

DTC TABLE (IMMOBILIZER SYSTEM)

DTC		WDS or equivalent display*		Detection condition	Page
Security light flashing pattern	Keyless control module	PCM			
				11	
12		B2103	P1260	Coil malfunction	SECURITY LIGHT: 12, DTC B2103/P1260
13		B1600	P1260	The key ID number data cannot be read.	SECURITY LIGHT: 13, DTC B1600/P1260
		B2431	P1260	Key ID number registration error	SECURITY LIGHT: 13, DTC B2431/P1260
14		B1602	P1260	The keyless control module cannot read key ID number data normally.	SECURITY LIGHT: 14, DTC B1602/P1260
15		B1601	P1260	The keyless control module has detected unregistered key ID number.	SECURITY LIGHT: 15, DTC B1601/P1260
16		U2510	P1260	Communication error between the keyless control module and the PCM (no response)	SECURITY LIGHT: 16, DTC U2510/P1260, U1147/P1260
		U1147	P1260	Communication error between the keyless control module and the PCM (mismatched conditions)	
21		B1213	P1260	Only one key ID number is registered.	SECURITY LIGHT: 21, DTC B1213/P1260

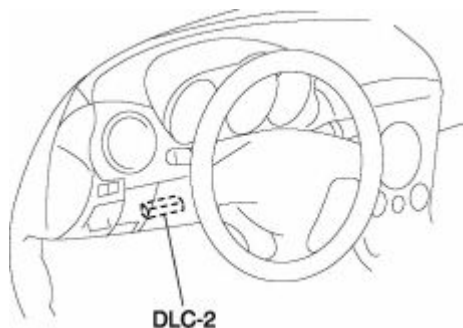
22		B2141	P1260	Communication error between the keyless control module and the PCM (data transfer error)	SECURITY LIGHT: 22, DTC B2141/P1260
23		B2139	P1260	ID number data in the PCM and the keyless control module do not match.	SECURITY LIGHT: 23, DTC B2139/P1260
Not illuminated		B1342	-	Keyless control module malfunction	DTC B1342 (KEYLESS CONTROL MODULE)

*

The letters at the beginning of each DTC are only displayed when using the WDS or equivalent, and refer to the following: B= Body system, P= Powertrain system, U= Network communication system.

PID/DATA MONITOR INSPECTION

1. Connect the WDS or equivalent to the DLC-2.



2. Display the PID/data monitor items.
 - Verify a displayed item according to the PID/data monitor table.
3. Disconnect the WDS or equivalent.

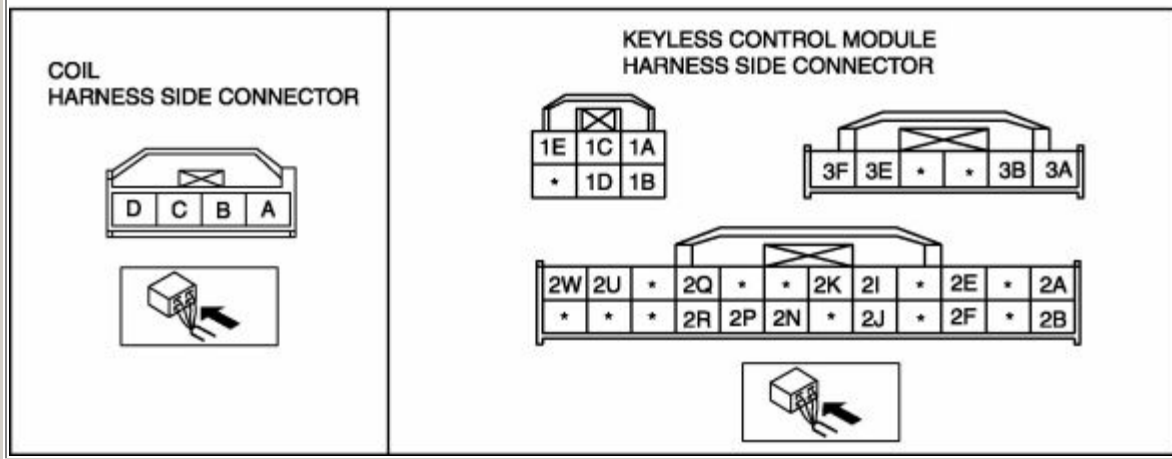
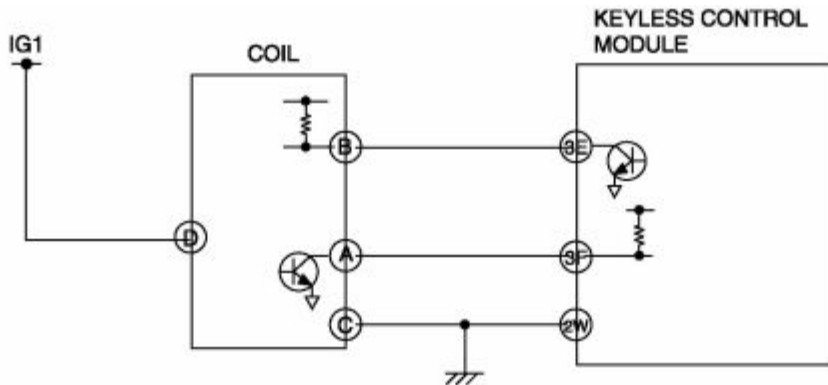
PID/DATA MONITOR TABLE

PID name (definition)	Detection condition
CCNT_DD (Number of continuous DTCs)	<ul style="list-style-type: none">• DTCs are detected: 1—255• No DTCs are detected: 0
NUMKEYS (Number of key ID numbers registered in the keyless control module)	Number of key ID numbers registered: 0—8

IMMOBILIZER SYSTEM

SECURITY LIGHT: 11, DTC B1681/P1260

SECURITY LIGHT: 11	No detected communication with the coil
DTC: B1681/P1260	
DETECTION CONDITION	<ul style="list-style-type: none"> No detected communication with the coil
POSSIBLE CAUSE	<ul style="list-style-type: none"> Coil malfunction Keyless control module malfunction Malfunction in the related wiring harnesses



Diagnostic Procedure

STEP	INSPECTION	ACTION	
1	INSPECT COIL POWER SUPPLY SYSTEM <ul style="list-style-type: none"> • Disconnect the coil connector. • Turn the ignition switch to the ON position. • Measure the voltage at coil connector terminal D. <ul style="list-style-type: none"> ▪ Is the voltage 8 V or more ? 	Yes	Go to the next step.
		No	Repair the wiring harness.
2	INSPECT WIRING HARNESS BETWEEN COIL AND GROUND <ul style="list-style-type: none"> • Turn the ignition switch to the LOCK position. • Inspect the wiring harness between coil connector terminal C and ground for the following: <ul style="list-style-type: none"> ▪ Short to power supply ▪ Open circuit • Is the wiring harness normal? 	Yes	Go to the next step.
		No	Repair the wiring harness.
3	INSPECT COIL INPUT SIGNAL CIRCUIT <ul style="list-style-type: none"> • Connect the coil connector. • Turn the ignition switch to the ON position. • Measure the voltage at coil connector terminal B. <ul style="list-style-type: none"> ▪ Is the voltage 8 V or more ? 	Yes	Go to Step 7.
		No	Go to the next step.
4	INSPECT COIL INPUT SIGNAL CIRCUIT <ul style="list-style-type: none"> • Turn the ignition switch to the LOCK position. • Disconnect the keyless control module connector. • Turn the ignition switch to the ON position. • Measure the voltage at keyless control module connector terminal 3E. <ul style="list-style-type: none"> ▪ Is the voltage 8 V or more ? 	Yes	Replace the keyless control module and perform procedures for when replacing the keyless control module only. (See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .) (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)
		No	Go to the next step.

5	INSPECT COMMUNICATION CIRCUIT (INPUT) FOR CONTINUITY <ul style="list-style-type: none"> • Turn the ignition switch to the LOCK position. • Is there continuity between coil connector terminal B and keyless control module connector terminal 3E? 	Yes	Go to the next step.
		No	Repair the wiring harness.
6	INSPECT COIL INPUT SIGNAL CIRCUIT <ul style="list-style-type: none"> • Measure the resistance between coil connector terminal B and ground. <ul style="list-style-type: none"> ▪ Is the resistance 10 kilohms or more ? 	Yes	Replace the coil. (See COIL REMOVAL/INSTALLATION .)
		No	Repair the wiring harness.
7	INSPECT COIL OUTPUT SIGNAL CIRCUIT <ul style="list-style-type: none"> • Connect the coil connector and the keyless control module connector. • Turn the ignition switch to the ON position. • Measure the voltage at coil connector terminal A. <ul style="list-style-type: none"> ▪ Is the voltage 8 V or more ? 	Yes	Replace the coil. (See COIL REMOVAL/INSTALLATION .)
		No	Go to the next step.
8	INSPECT COIL OUTPUT SIGNAL CIRCUIT <ul style="list-style-type: none"> • Turn the ignition switch to the LOCK position. • Disconnect the coil connector. • Turn the ignition switch to the ON position. • Measure the voltage at coil connector terminal A. <ul style="list-style-type: none"> ▪ Is the voltage 8 V or more ? 	Yes	Replace the coil. (See COIL REMOVAL/INSTALLATION .)
		No	Go to the next step.
9		Yes	Repair the wiring harness.

	<p>INSPECT COMMUNICATION CIRCUIT (OUTPUT) FOR CONTINUITY</p> <ul style="list-style-type: none"> • Turn the ignition switch to the LOCK position. • Disconnect the keyless control module connector. • Is there continuity between coil connector terminal A and keyless control module connector terminal 3F? 	No	Go to the next step.
10	<p>INSPECT COIL OUTPUT SIGNAL CIRCUIT</p> <ul style="list-style-type: none"> • Measure the resistance between keyless control module connector terminal 3F and ground. <ul style="list-style-type: none"> ▪ Is the resistance 10 kilohms or more ? 	Yes	<p>Replace the keyless control module and perform procedures for when replacing the keyless control module only.</p> <p>(See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .)</p> <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p>
		No	Repair the wiring harness.






SECURITY LIGHT: 12, DTC B2103/P1260

SECURITY LIGHT: 12	Coil malfunction
DTC: B2103/P1260	
DETECTION CONDITION	<ul style="list-style-type: none"> • Coil malfunction
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Coil malfunction • Poor connection of the coil connector

Diagnostic Procedure

STEP	INSPECTION	ACTION
1	INSPECT CONNECTOR CONNECTION <ul style="list-style-type: none"> • Are the coil connector and the keyless control module connector securely connected? 	Yes (See COIL REMOVAL/INSTALLATION .)
		No Connect the connector securely.

SECURITY LIGHT: 13, DTC B1600/P1260






SECURITY LIGHT: 13	The key ID number data cannot be read.
DTC: B1600/P1260	
DETECTION CONDITION	<ul style="list-style-type: none"> The key ID number data cannot be read.
POSSIBLE CAUSE	<ul style="list-style-type: none"> No transponder in the key Transponder malfunction (Key ID number is not output) Coil malfunction Keyless control module malfunction Any of the following items are touching or near the key head. <ul style="list-style-type: none"> Spare keys Keys for other vehicles equipped with an immobilizer system Any metallic object Any electronic device, or any credit or other cards with magnetic strips
	<p>EXAMPLES:</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p>METAL RING LYING ON KEY HEAD</p> </div> <div style="text-align: center;">   <p>METAL PART OF ANOTHER KEY TOUCHING KEY HEAD</p> </div> <div style="text-align: center;">  <p>KEY IS CLOSE TO OR TOUCHING ANOTHER IMMOBILIZER SYSTEM KEY</p> </div> <div style="text-align: center;">  <p>METAL OBJECT TOUCHING KEY HEAD</p> </div> </div>

Diagnostic Procedure

STEP	INSPECTION	ACTION	
1	VERIFY DTC USING WDS OR EQUIVALENT <ul style="list-style-type: none"> Is B1600/P1260 displayed? 	Yes	Go to Step 3.
		No	Go to the next step.
2	VERIFY DTC USING WDS OR EQUIVALENT <ul style="list-style-type: none"> Is B2431/P1260 displayed? 	Yes	SECURITY LIGHT: 13, WDS or equivalent: B2431/P1260. (See SECURITY LIGHT: 13, DTC B2431/P1260 .)
		No	Go to the next step.
3	VERIFY WHETHER KEY IS VALID OR NOT <ul style="list-style-type: none"> Are there any keys with which the engine can be started, other than the key that is a cause of the displayed DTC? 	Yes	Go to Step 5.
		No	Go to the next step.
4	VERIFY WHETHER MALFUNCTION IS IN KEY OR COIL <ul style="list-style-type: none"> Using the WDS or equivalent, register an additional key. (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .) Using the registered key, turn the ignition switch to the ON position. Verify the DTC using the WDS or equivalent. <ul style="list-style-type: none"> Is B1600/P1260 displayed again? 	Yes	Replace the coil, then go to Step 6. (See COIL REMOVAL/INSTALLATION .)
		No	<ul style="list-style-type: none"> Dispose of the malfunctioning key. Register a new key if necessary. (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)
5	VERIFY WHETHER MALFUNCTION IS IN KEY OR COIL	Yes	Replace the coil, then go to the next step. (See COIL REMOVAL/INSTALLATION .)

	<ul style="list-style-type: none"> Using another valid key, turn the ignition switch to the ON position. Verify the DTC using the WDS or equivalent. <ul style="list-style-type: none"> Is B1600/P1260 displayed again? 	No	<ul style="list-style-type: none"> Dispose of the malfunctioning key. Register a new key if necessary. <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p>
6	<p>INSPECT KEYLESS CONTROL MODULE</p> <ul style="list-style-type: none"> Using the registered key, turn the ignition switch to the ON position. <ul style="list-style-type: none"> Is B1600/P1260 displayed again? 	Yes	<p>Replace the keyless control module and perform procedures for when replacing the keyless control module only.</p> <p>(See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .)</p> <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p>
		No	DTC troubleshooting completed.






SECURITY LIGHT: 13, DTC B2431/P1260

SECURITY LIGHT: 13	Key ID number registration error
DTC: B2431/P1260	
DETECTION CONDITION	<ul style="list-style-type: none"> • Key ID number registration error
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Errors during key ID number registration procedure • Any of the following items are touching or near the key head. <ul style="list-style-type: none"> ▪ Spare keys ▪ Keys for other vehicles equipped with an immobilizer system ▪ Any metallic object ▪ Any electronic device, or any credit or other cards with magnetic strips
	<p>EXAMPLES:</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>METAL RING LYING ON KEY HEAD</p> </div> <div style="text-align: center;">   <p>METAL PART OF ANOTHER KEY TOUCHING KEY HEAD</p> </div> <div style="text-align: center;">  <p>KEY IS CLOSE TO OR TOUCHING ANOTHER IMMOBILIZER SYSTEM KEY</p> </div> <div style="text-align: center;">  <p>METAL OBJECT TOUCHING KEY HEAD</p> </div> </div>

Diagnostic Procedure

STEP	INSPECTION	ACTION	
1	VERIFY DTC USING WDS OR EQUIVALENT <ul style="list-style-type: none"> Is B2431/P1260 displayed? 	Yes	Go to Step 3.
		No	Go to the next step.
2	VERIFY DTC USING WDS OR EQUIVALENT <ul style="list-style-type: none"> Is B1600/P1260 displayed? 	Yes	SECURITY LIGHT: 13, WDS or equivalent: B1600/P1260. (See SECURITY LIGHT: 13, DTC B1600/P1260 .)
		No	Go to the next step.
3	INSPECT KEYLESS CONTROL MODULE <ul style="list-style-type: none"> Using the WDS or equivalent, clear the key ID number and re-register it. (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .) <p>NOTE:</p> <ul style="list-style-type: none"> Two or more keys must be registered to start the engine. Using the registered key, turn the ignition switch to the ON position. Verify the DTC using the WDS or equivalent. <ul style="list-style-type: none"> Is B2431/P1260 displayed again? 	Yes	Replace the keyless control module and perform procedures for when replacing the keyless control module only. (See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .) (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)
		No	DTC troubleshooting completed.

SECURITY LIGHT: 14, DTC B1602/P1260

SECURITY LIGHT: 14	The keyless control module cannot read key ID number data normally.
DTC: B1602/P1260	
DETECTION CONDITION	<ul style="list-style-type: none"> The keyless control module cannot read key ID number data normally.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Transponder (key) malfunction Coil malfunction Keyless control module malfunction Any of the following items are touching or near the key head. <ul style="list-style-type: none"> Spare keys Keys for other vehicles equipped with an immobilizer system Any metallic object Any electronic device, or any credit or other cards with magnetic strips
	<p>EXAMPLES:</p> <div style="display: flex; flex-wrap: wrap; justify-content: space-around;"> <div style="text-align: center;">  <p>METAL RING LYING ON KEY HEAD</p> </div> <div style="text-align: center;">   <p>METAL PART OF ANOTHER KEY TOUCHING KEY HEAD</p> </div> <div style="text-align: center;">  <p>KEY IS CLOSE TO OR TOUCHING ANOTHER IMMOBILIZER SYSTEM KEY</p> </div> <div style="text-align: center;">  <p>METAL OBJECT TOUCHING KEY HEAD</p> </div> </div>

Diagnostic Procedure

STEP	INSPECTION	ACTION
1	<p>VERIFY WHETHER KEY IS VALID OR NOT</p> <ul style="list-style-type: none"> Using another registered key, turn the ignition switch to the ON position. If there is not another registered key, register an additional key using the WDS or equivalent and turn the ignition key to the ON position using the registered key. <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p> <ul style="list-style-type: none"> Is the DTC displayed again? <ul style="list-style-type: none"> SECURITY LIGHT: 14 WDS or equivalent: B1602/P1260 	<p>Yes</p> <p>Replace the coil, then go to the next step. (See COIL REMOVAL/INSTALLATION .)</p>
		<p>No</p> <ul style="list-style-type: none"> Dispose of the malfunctioning key. Register a new key if necessary. <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p>
2	<p>INSPECT KEYLESS CONTROL MODULE</p> <ul style="list-style-type: none"> Using another registered key, turn the ignition switch to the ON position. Is the DTC displayed again? <ul style="list-style-type: none"> SECURITY LIGHT: 14 WDS or equivalent: B1602/P1260 	<p>Yes</p> <p>Replace the keyless control module and perform procedures for when replacing the keyless control module only. (See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .)</p> <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p>
		<p>No</p> <p>DTC troubleshooting completed.</p>

SECURITY LIGHT: 15, DTC B1601/P1260

SECURITY LIGHT: 15	The keyless control module has detected unregistered key ID number.
DTC: B1601/P1260	
DETECTION CONDITION	<ul style="list-style-type: none">• The keyless control module has detected unregistered key ID number.
POSSIBLE CAUSE	<ul style="list-style-type: none">• No keys have been registered after replacing the keyless control module.• Unregistered key used• Attempt made to register a ninth key• Keyless control module malfunction

Diagnostic Procedure

STEP	INSPECTION	ACTION	
1	<p>VERIFY NUMBER OF REGISTERED KEYS</p> <ul style="list-style-type: none"> Using the WDS or equivalent, perform the PID/data monitor inspection and confirm the number of registered keys. <p>(See PID/DATA MONITOR TABLE .)</p> <ul style="list-style-type: none"> Are one or more keys registered? 	Yes	Go to the next step.
		No	Go to Step 3.
2	<p>VERIFY NUMBER OF REGISTERED KEYS</p> <ul style="list-style-type: none"> Using the WDS or equivalent, perform the PID/data monitor inspection and confirm the number of registered keys. <p>(See PID/DATA MONITOR TABLE .)</p> <ul style="list-style-type: none"> Are eight keys registered? 	Yes	Using the WDS or equivalent, clear the key ID numbers as necessary, then go to the next step.
		No	Go to the next step.
3	<p>INSPECT KEYLESS CONTROL MODULE</p> <ul style="list-style-type: none"> Using the WDS or equivalent, register the key ID number. <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p> <p>NOTE:</p> <ul style="list-style-type: none"> Two or more keys must be registered to start the engine. Using the registered key, turn the ignition switch to the ON position. Is the DTC displayed again? <ul style="list-style-type: none"> SECURITY LIGHT: 15 WDS or equivalent: B1601/P1260 	Yes	<p>Replace the keyless control module and perform procedures for when replacing the keyless control module only.</p> <p>(See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .)</p> <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p>
		No	DTC troubleshooting completed.

SECURITY LIGHT: 16, DTC U2510/P1260, U1147/P1260

SECURITY LIGHT: 16	DTC: U2510/P1260	Communication error between the keyless control module and the PCM (no response)
	DTC: U1147/P1260	Communication error between the keyless control module and the PCM (mismatched conditions)
DETECTION CONDITION		<p>Keyless control module DTC: U2510</p> <ul style="list-style-type: none"> • Communication error between the keyless control module and the PCM (no response) <p>Keyless control module DTC: U1147</p> <ul style="list-style-type: none"> • Communication error between the keyless control module and the PCM (mismatched conditions)
POSSIBLE CAUSE		<ul style="list-style-type: none"> • Malfunction in the wiring harness (CAN line) between the keyless control module and the PCM • PCM malfunction • Keyless control module malfunction

Diagnostic Procedure

STEP	INSPECTION	ACTION
1	<p>VERIFY DTC USING WDS OR EQUIVALENT</p> <ul style="list-style-type: none"> Are either U1900 or U0073, or both, displayed, by either the keyless control module or the PCM, or both? 	<p>Yes</p> <p>Perform troubleshooting according to the corresponding DTC inspection.</p> <p>(See DTC U0073, U1900, U2516 .)</p>
		<p>No</p> <p>Replace the keyless control module and perform procedures for when replacing the keyless control module only.</p> <p>(See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .)</p> <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p> <p>Go to the next step.</p>
2	<p>VERIFY DTC</p> <ul style="list-style-type: none"> Using the registered key, turn the ignition switch to the ON position. Is the DTC displayed? <ul style="list-style-type: none"> SECURITY LIGHT: 16 WDS or equivalent: U2510 or U1147/P1260 	<p>Yes</p> <p>Replace the PCM and perform procedures for when replacing the PCM only.</p> <p>(See PCM REMOVAL/INSTALLATION .)</p> <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p>
		<p>No</p> <p>DTC troubleshooting completed.</p>

SECURITY LIGHT: 21, DTC B1213/P1260

SECURITY LIGHT: 21	Only one key ID number is registered.
DTC: B1213/P1260	
DETECTION CONDITION	<ul style="list-style-type: none"> • Only one key is registered.
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Only one registered key

Diagnostic Procedure

STEP	INSPECTION	ACTION
1	<p>VERIFY NUMBER OF REGISTERED KEYS</p> <ul style="list-style-type: none"> • Using the WDS or equivalent, perform the PID/data monitor inspection and confirm the number of registered keys. <p>(See PID/DATA MONITOR TABLE .)</p> <ul style="list-style-type: none"> • Are two or more keys registered? 	<p>Yes</p> <p>Replace the keyless control module and perform procedures for when replacing the keyless control module only.</p> <p>(See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .)</p> <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p>
		<p>No</p> <ul style="list-style-type: none"> • Using the WDS or equivalent, clear the key ID number and register a new key if necessary. <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p> <ul style="list-style-type: none"> • Go to the next step.

2	VERIFY DTC <ul style="list-style-type: none"> • Using the registered key, turn the ignition switch to the ON position. • Is the DTC displayed again? <ul style="list-style-type: none"> ▪ SECURITY LIGHT: 21 ▪ WDS or equivalent: B1213/P1260 	Yes	Replace the keyless control module and perform procedures for when replacing the keyless control module only. (See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .) (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)
		No	DTC troubleshooting completed.

SECURITY LIGHT: 22, DTC B2141/P1260

SECURITY LIGHT: 22	Communication error between the keyless control module and the PCM (data transfer error)
DTC: B1241/P1260	
DETECTION CONDITION	<ul style="list-style-type: none">• Communication error between the keyless control module and the PCM (data transfer error)
POSSIBLE CAUSE	<ul style="list-style-type: none">• Malfunction in the wiring harness (CAN line) between the keyless control module and the PCM• Keyless control module malfunction• PCM malfunction

Diagnostic Procedure

STEP	INSPECTION	ACTION	
1	VERIFY DTC USING WDS OR EQUIVALENT <ul style="list-style-type: none"> Are either U1900 or U0073, or both displayed, by either the keyless control module or the PCM, or both? 	Yes	Perform troubleshooting according to the corresponding DTC inspection. (See DTC U0073, U1900, U2516 .)
		No	Go to the next step.
2	VERIFY DTC <ul style="list-style-type: none"> Using the registered key, turn the ignition switch to the ON position. Is the DTC displayed? <ul style="list-style-type: none"> SECURITY LIGHT: 22 WDS or equivalent: B2141/P1260 	Yes	<ul style="list-style-type: none"> Perform procedures for when replacing the PCM only. (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .) <ul style="list-style-type: none"> Go to the next step.
		No	DTC troubleshooting completed.
3	EXAMINE KEYLESS CONTROL MODULE AND PCM <ul style="list-style-type: none"> Is the DTC displayed again? <ul style="list-style-type: none"> SECURITY LIGHT: 22 WDS or equivalent: B2141/P1260 	Yes	<ul style="list-style-type: none"> Replace the keyless control module and perform procedures for when replacing the keyless control module only. (See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .) (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .) <ul style="list-style-type: none"> Go to the next step.
		No	DTC troubleshooting completed.
4	EXAMINE PCM <ul style="list-style-type: none"> Is the DTC displayed again? <ul style="list-style-type: none"> SECURITY LIGHT: 22 WDS or equivalent: B2141/P1260 	Yes	Replace the PCM and perform procedures for when replacing the PCM only. (See PCM REMOVAL/INSTALLATION .) (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)
		No	DTC troubleshooting completed.

SECURITY LIGHT: 23, DTC B2139/P1260

SECURITY LIGHT: 23	ID number data in the PCM and the keyless control module do not match.
DTC: B2139/P1260	
DETECTION CONDITION	<ul style="list-style-type: none"> ID number data in the keyless control module and the PCM are different.
POSSIBLE CAUSE	<ul style="list-style-type: none"> Necessary procedures were not performed using the WDS or equivalent after replacing the PCM. Keyless control module malfunction PCM malfunction

Diagnostic Procedure

STEP	INSPECTION		ACTION
1	VERIFY DTC USING WDS OR EQUIVALENT <ul style="list-style-type: none"> Are either U1900 or U0073, or both, displayed, by either the keyless control module or the PCM, or both. 	Yes	Perform troubleshooting according to the corresponding DTC inspection. (See DTC U0073, U1900, U2516 .)
		No	Go to the next step.
2	<ul style="list-style-type: none"> Perform procedures for when replacing the PCM only. (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .) <ul style="list-style-type: none"> Using the registered key, turn the ignition switch to the ON position. Is the DTC displayed? <ul style="list-style-type: none"> SECURITY LIGHT: 23 WDS or equivalent: B2139/P1260 	Yes	<ul style="list-style-type: none"> Replace the keyless control module and perform procedures for when replacing the keyless control module only. (See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .) (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .) <ul style="list-style-type: none"> Go to the next step.
		No	DTC troubleshooting completed.

3	<ul style="list-style-type: none"> • Are any or all of the following DTCs displayed again? <ul style="list-style-type: none"> ▪ SECURITY LIGHT: 23 ▪ WDS or equivalent: B2139/P1260 	Yes	<p>Replace the PCM and perform procedures for when replacing the PCM only.</p> <p>(See PCM REMOVAL/INSTALLATION .)</p> <p>(See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)</p>
		No	DTC troubleshooting completed.

DTC B1342 (KEYLESS CONTROL MODULE)

DTC: B1342 (KEYLESS CONTROL MODULE)	Keyless control module malfunction
DETECTION CONDITION	<ul style="list-style-type: none"> Keyless control module malfunction
POSSIBLE CAUSE	<ul style="list-style-type: none"> Keyless control module malfunction

DETECTION CONDITION

- Keyless control module malfunction

POSSIBLE CAUSE

- Keyless control module malfunction

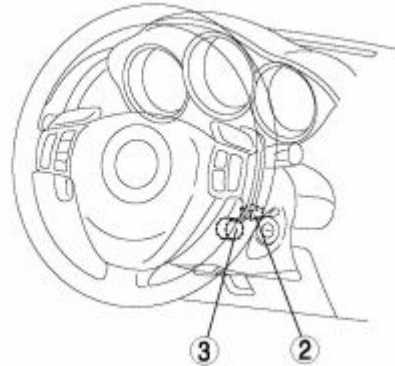
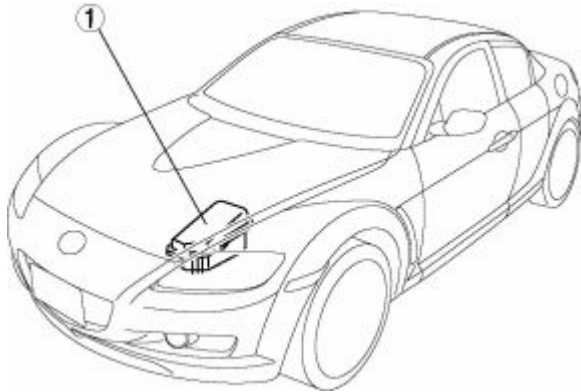
Diagnostic Procedure

STEP	INSPECTION	ACTION
1	EXAMINE KEYLESS CONTROL MODULE <ul style="list-style-type: none"> Is the DTC displayed? <ul style="list-style-type: none"> WDS or equivalent: B1342 	Yes Replace the keyless control module and perform procedures for when replacing the keyless control module only. (See KEYLESS CONTROL MODULE REMOVAL/INSTALLATION .) (See IMMOBILIZER SYSTEM COMPONENT REPLACEMENT/KEY ADDITION AND CLEARING .)
		No DTC troubleshooting completed.

POWER SYSTEMS

POWER SUPPLY SYSTEM

POWER SYSTEM LOCATION INDEX



1	Main fuse block (See MAIN FUSE REMOVAL/INSTALLATION) (See RELAY LOCATION) (See RELAY INSPECTION)
2	Key reminder switch (See KEY REMINDER SWITCH REMOVAL/INSTALLATION) (See KEY REMINDER SWITCH INSPECTION)
3	Ignition switch (See IGNITION SWITCH REMOVAL/INSTALLATION) (See IGNITION SWITCH INSPECTION)

FUSE

FUSE SERVICE CAUTIONS

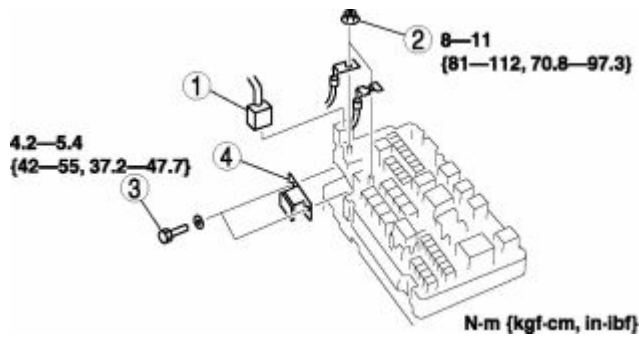
CAUTION:

- Determine and correct the cause of the burnt fuse before replacing it with the specified type. If the fuse is replaced before doing this, it may burn again.

MAIN FUSE

MAIN FUSE REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the main fuse block cover.
3. Remove in the order indicated in the table.

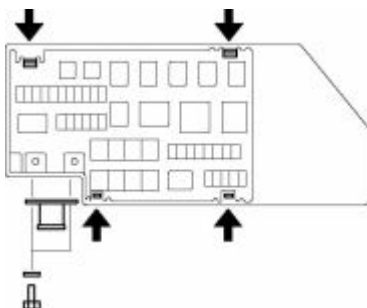


1	Connector
2	Nut
3	Bolt(See Bolt Removal Note .)
4	Main fuse

4. Install in the reverse order of removal.

Bolt Removal Note

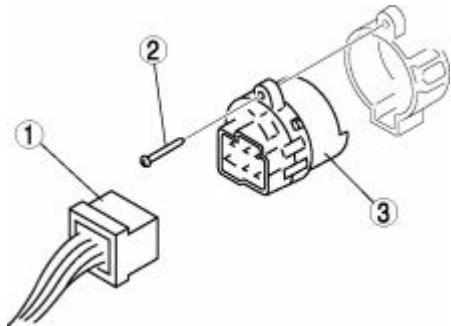
1. Press the tabs in the direction indicated by the arrows, lift the main fuse block, and then remove the bolt.



IGNITION SWITCH

IGNITION SWITCH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the column cover. (See COLUMN COVER REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.

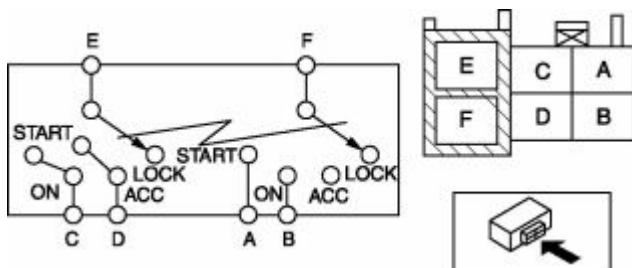


1	Connector
2	Screw
3	Ignition switch

4. Install in the reverse order of removal.

IGNITION SWITCH INSPECTION

1. Verify that the continuity between the ignition switch terminals is as indicated in the table.



- If not as indicated in the table, replace the ignition switch.

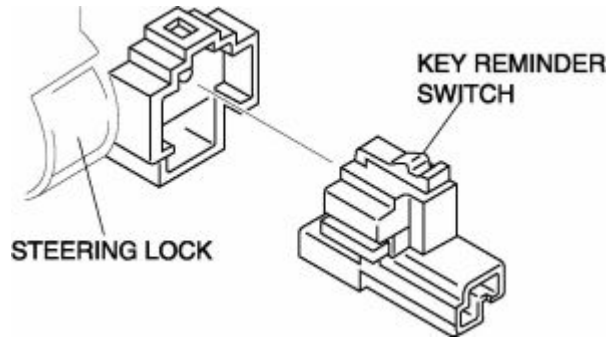
○—○: Continuity

Ignition key position	Terminal					
	E	F	D	C	B	A
LOCK						
ACC	○	—	○			
ON	○	—	○	—	○	
START	○	—	○	—	○	—

KEY REMINDER SWITCH

KEY REMINDER SWITCH REMOVAL/INSTALLATION

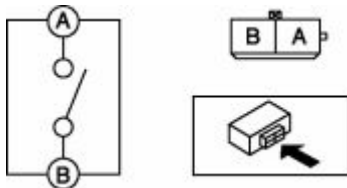
1. Disconnect the negative battery cable.
2. Remove the column cover. (See COLUMN COVER REMOVAL/INSTALLATION .)
3. Disconnect the key reminder switch connector.
4. Remove the key reminder switch.



5. Install in the reverse order of removal.

KEY REMINDER SWITCH INSPECTION

1. Verify that the continuity between the key reminder switch terminals is as indicated in the table.



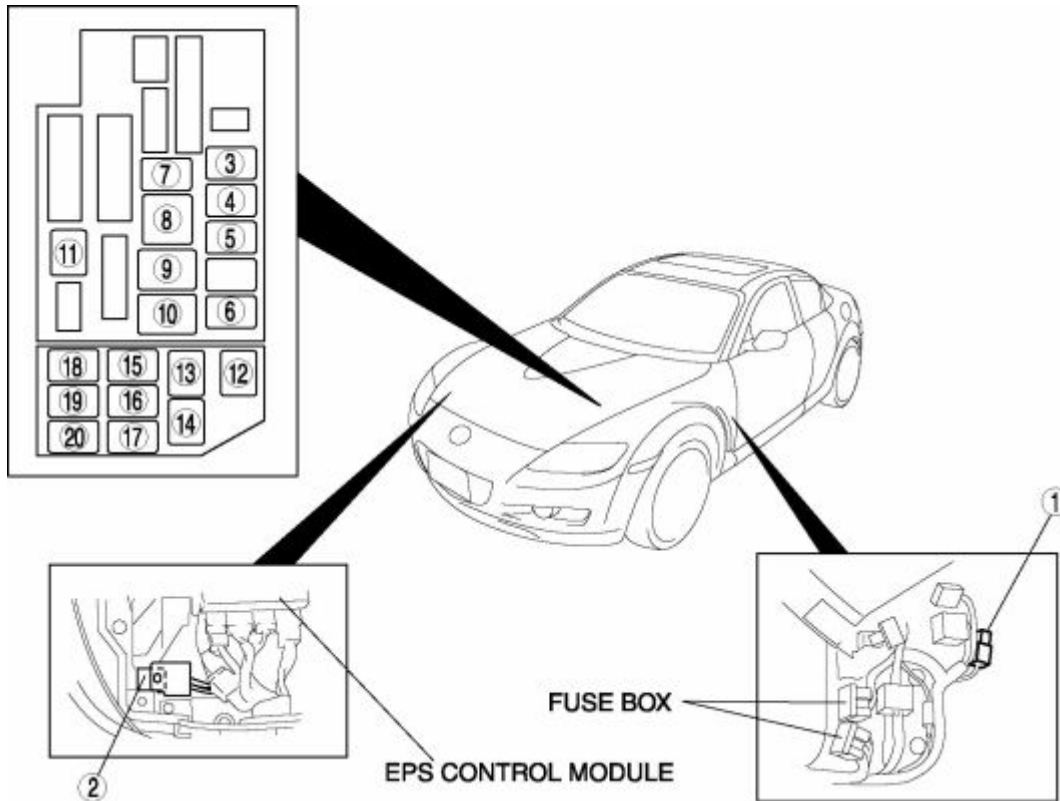
- If not as indicated in the table, replace the key reminder switch.

○—○ : Continuity

Key position	Terminal	
	A	B
Key inserted	○	○
Key removed		

RELAY

RELAY LOCATION



1	Trunk lid opener relay
2	AIR pump relay
3	ACC relay
4	Horn relay
5	Front fog light relay
6	Drive-by-wire relay
7	Main relay
8	Headlight relay
9	Starter relay
10	Ignition relay
11	TNS relay
12	Cooling fan relay No.3
13	A/C relay
14	Rear window defroster relay
15	Cooling fan relay No.1
16	Seat warmer relay
17	Fuel pump relay
18	Cooling fan relay No.2

19	Blower relay
20	Fuel pump speed control relay

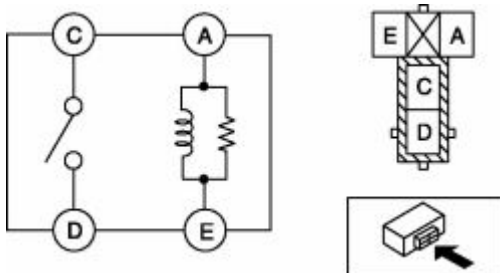
RELAY INSPECTION

Relay type

Terminal type	Part name
4 terminals	Type A <ul style="list-style-type: none"> • Main relay • TNS relay • ACC relay • Front fog light relay • Drive-by-wire relay • Cooling fan relay No.1 • Cooling fan relay No.2 • A/C relay • Blower relay • Rear window defroster relay • Fuel pump speed control relay • Fuel pump relay • Horn relay • Trunk lid opener relay
	Type B <ul style="list-style-type: none"> • Ignition relay • Starter relay • Headlight relay • AIR pump relay
5 terminals	Type C Cooling fan relay No.3

Type A

1. Verify the continuity between the relay terminals.



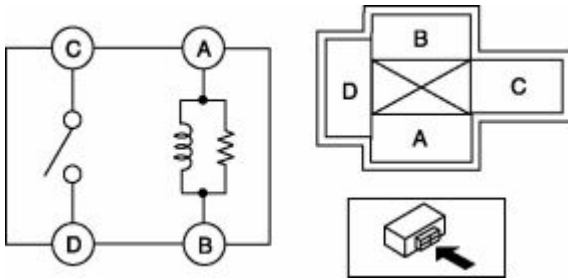
- If not as indicated in the table, replace the relay.

○—○ : Continuity

Step	Terminal			
	A	E	C	D
1	○—○			
2	B+	GND	○—○	

Type B

1. Verify the continuity between the relay terminals.



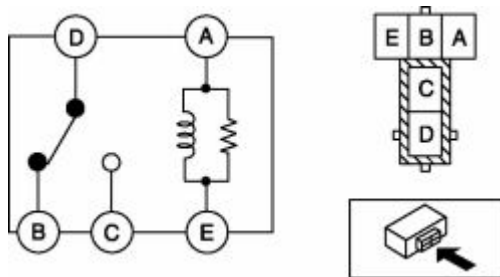
- If not as indicated in the table, replace the relay.

○—○ : Continuity

Step	Terminal			
	A	B	C	D
1	○—○			
2	B+	GND	○—○	

Type C

1. Verify the continuity between the relay terminals.



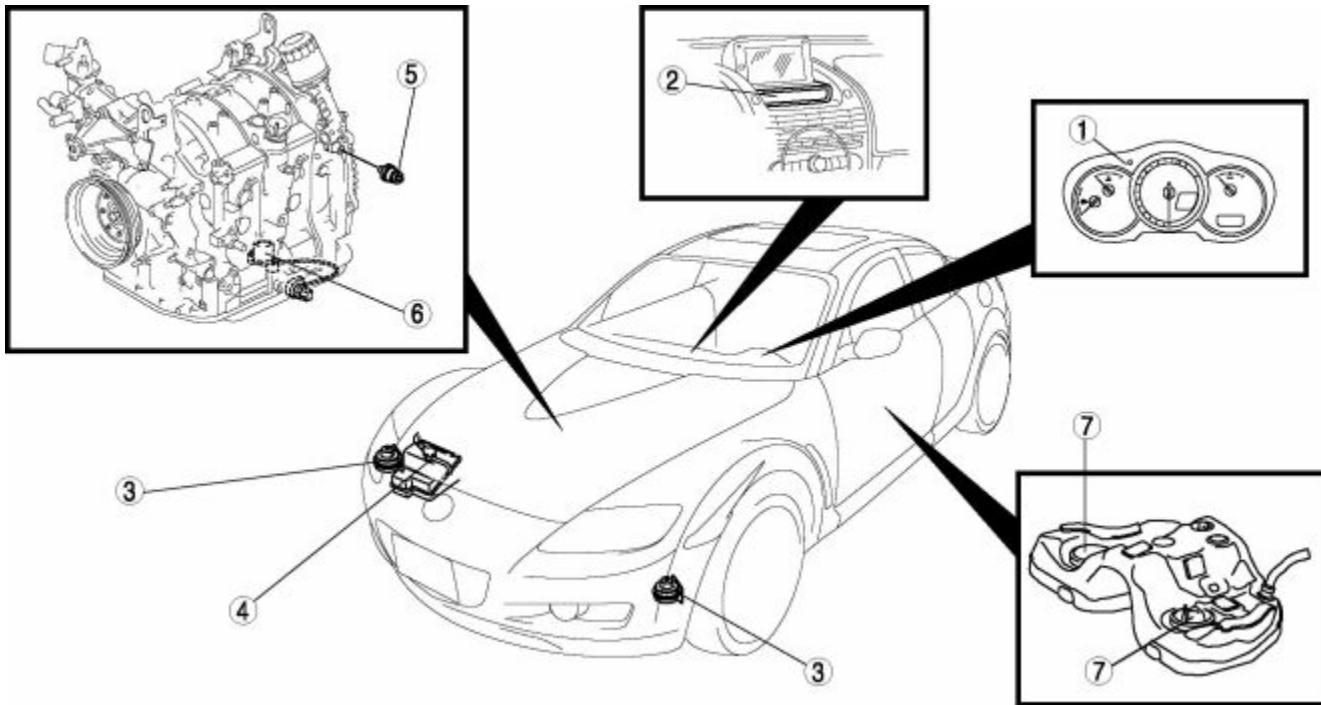
- If not as indicated in the table, replace the relay.

○—○ : Continuity

Step	Terminal				
	A	E	B	C	D
1	○—○		○—○		
2	B+	GND		○—○	

INSTRUMENTATION/DRIVER INFO

INSTRUMENTATION/DRIVER INFO. LOCATION INDEX



1	Instrument cluster (See INSTRUMENT CLUSTER REMOVAL/INSTALLATION) (See INSTRUMENT CLUSTER DISASSEMBLY/ASSEMBLY) (See INSTRUMENT CLUSTER INSPECTION) (See INSTRUMENT CLUSTER INPUT/OUTPUT CHECK MODE)
2	Information display (See INFORMATION DISPLAY REMOVAL/INSTALLATION)
3	Horn (See HORN REMOVAL/INSTALLATION)
4	Coolant level switch (See COOLANT LEVEL SWITCH INSPECTION)
5	Oil pressure switch (See OIL PRESSURE SWITCH INSPECTION)
6	Oil level switch

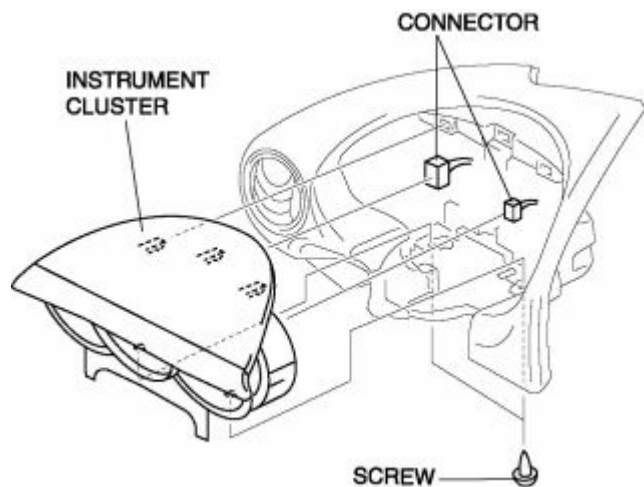
	(See OIL LEVEL SWITCH INSPECTION)
7	Fuel gauge sender unit (See FUEL GAUGE SENDER UNIT INSPECTION)

INSTRUMENT CLUSTER

INSTRUMENT CLUSTER REMOVAL/INSTALLATION

CAUTION:

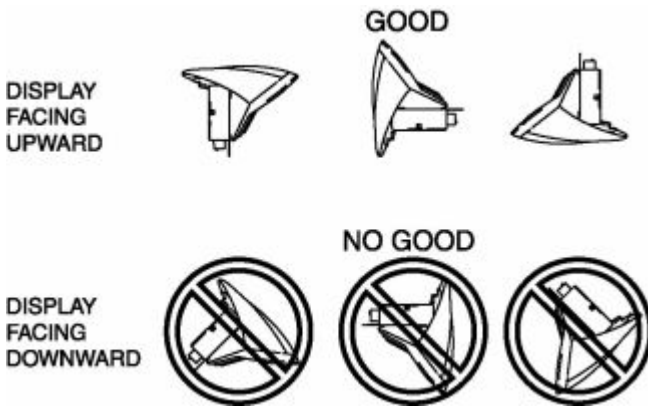
- When replacing the instrument cluster, the configuration procedure must be performed before removing the instrument cluster. Replacing the instrument cluster without performing the configuration procedure will result in system malfunction.
1. Perform the instrument cluster configuration when replacing it. (See INSTRUMENT CLUSTER CONFIGURATION .)
 2. Disconnect the negative battery cable.
 3. Remove the column cover. (See COLUMN COVER REMOVAL/INSTALLATION .)
 4. Remove the screw.



5. Pull the instrument cluster outward and remove it.
6. Disconnect the connector.
7. Install in the reverse order of removal.

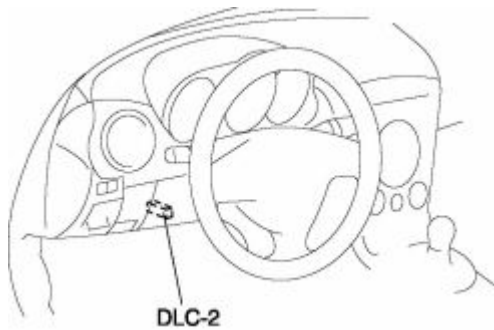
CAUTION:

- The removed instrument cluster should be placed with the display side up to prevent grease from leaking from the meters.



INSTRUMENT CLUSTER CONFIGURATION

1. Connect the WDS or equivalent to the DLC-2 (16-pin).



2. Input vehicle information following the directions on the screen.
3. Select "Module programming" from the menu.
4. Select "Programmable Module Installation".
5. Select the item below, and follow the directions on the screen.

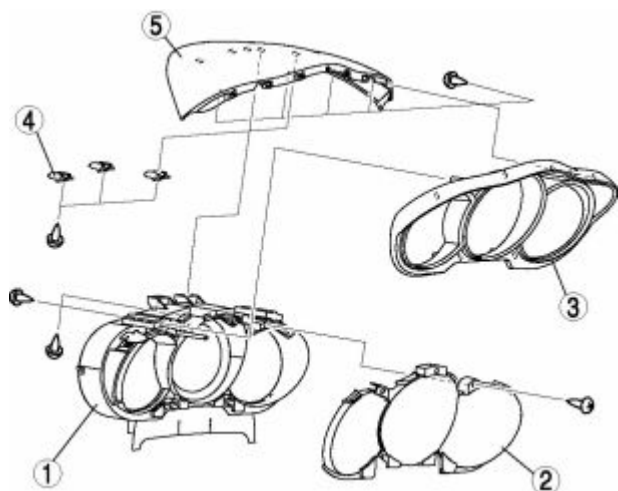
Item

- "IC"

INSTRUMENT CLUSTER DISASSEMBLY/ASSEMBLY

CAUTION:

- Do not drop the instrument cluster or damage the printed board. This will lead to a system malfunction.
1. Disassemble in the order indicated in the table.



1	Instrument cluster unit
2	Lens
3	Cover
4	Clip
5	Meter hood

2. Assemble in the reverse order of disassembly.

INSTRUMENT CLUSTER INSPECTION

Speedometer

Using the input/output check mode

1. Inspect the speedometer by setting it to check code 12 of the input/output check mode. (See INSTRUMENT CLUSTER INPUT/OUTPUT CHECK MODE .)

Using a speedometer tester

1. Adjust the tire pressure to the specification.
2. Using a speedometer tester, verify that the tester reading is as indicated in the table below.

Speedometer tester indication (km/h)	Allowable range (km/h)
20	19—21
40	39—41
60	59—61
80	79—81
100	99—101
120	119—121
140	139—141
Speedometer tester indication (mph)	Allowable range (mph)

10	9—11
20	19—21
30	29—31
40	39—41
50	49—51
70	69—71
80	78—82

4. Verify that the speedometer reading is within the range indicated in the table.
 - If the speedometer does not move or the indication is not within the allowable range, inspect the ABS HU/CM (vehicles with ABS), DSC HU/CM (vehicles with DSC) and related wiring harnesses.
 - If the ABS HU/CM (vehicles with ABS), DSC HU/CM (vehicles with DSC) and related wiring harnesses are normal, replace the instrument cluster.

Tachometer

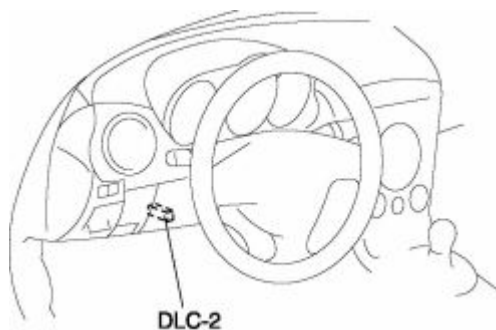
Using the input/output check mode

1. Inspect the tachometer by setting it to check code 13 of the input/output check mode. (See INSTRUMENT CLUSTER INPUT/OUTPUT CHECK MODE .)

Using WDS or external diagnostic equipment

CAUTION:

- If the engine speed exceeds the allowable range, the engine could be damaged. Therefore, when inspecting the tachometer, do not allow the engine speed to exceed the allowable range indication on the tachometer.
1. Connect the WDS or external diagnostic equipment to the diagnostic connector 2 (16-pin).



2. Compare the data monitor item (RPM) with the tachometer indication.
 - If the tachometer does not operate properly, inspect the PCM and related wiring harnesses.
 - If the PCM and related harnesses do not have any malfunction, replace the instrument cluster.

Fuel gauge

1. Inspect the fuel gauge by setting it to check code 23 of the input/output check mode.(See INSTRUMENT CLUSTER INPUT/OUTPUT CHECK MODE .)

Water temperature gauge

1. Inspect the water temperature gauge by setting it to check code 25 of the input/output check mode.(See INSTRUMENT CLUSTER INPUT/OUTPUT CHECK MODE .)

Oil pressure gauge

1. Inspect the oil pressure gauge by setting it to check code 28 of the input/output check mode.(See INSTRUMENT CLUSTER INPUT/OUTPUT CHECK MODE .)

INSTRUMENT CLUSTER INPUT/OUTPUT CHECK MODE

NOTE:

- In this mode, it is possible to verify the items in the following chart.

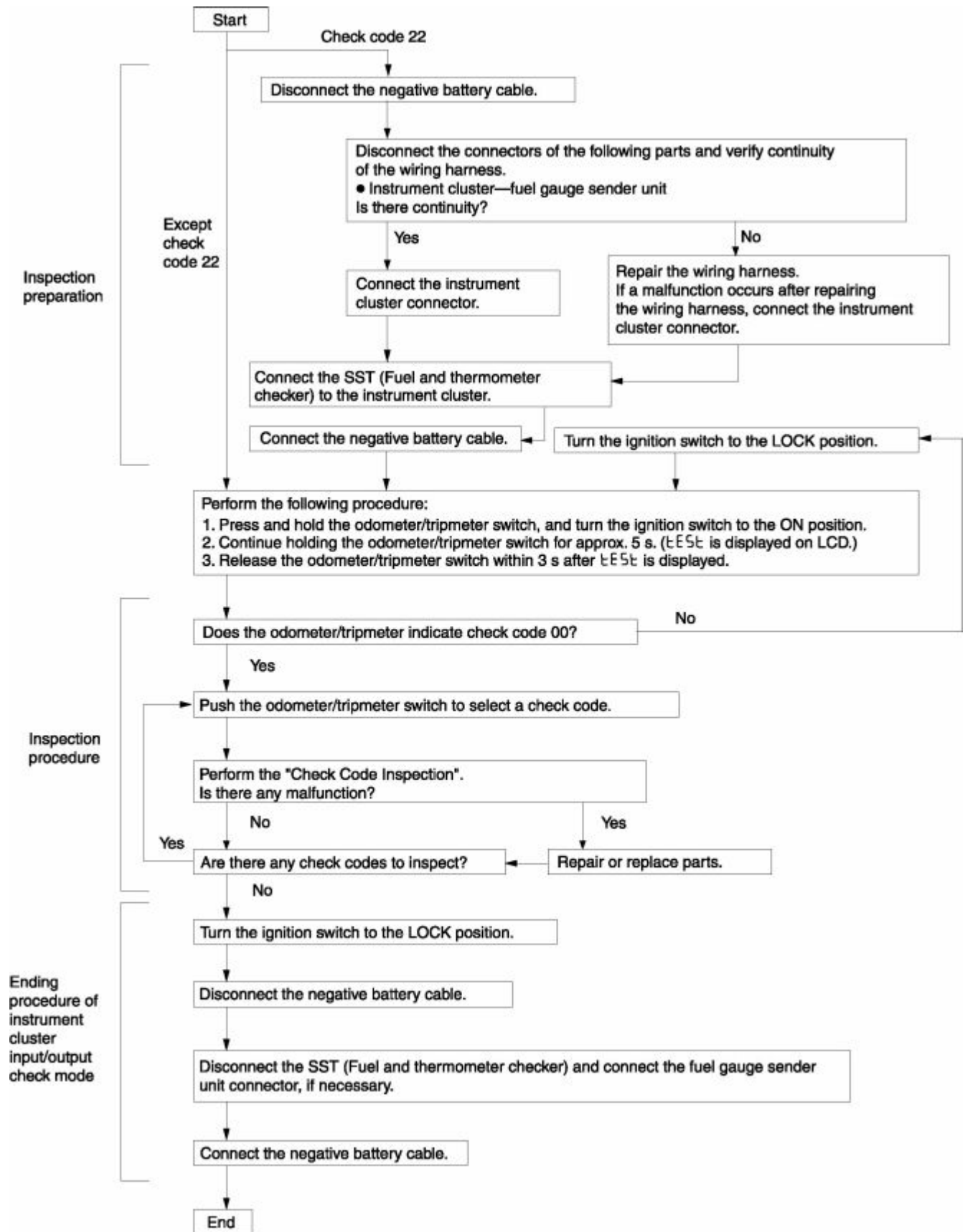
Check Code Table

Check code	Check item	Related items
01	Buckle switch	Buckle switch
04	Door switch	<ul style="list-style-type: none"> • Lights-on reminder warning alarm • Key reminder warning alarm • Power door lock system • Ignition key illumination system • Interior light control
08	TNS relay	<ul style="list-style-type: none"> • Lights-on reminder warning alarm • Each illumination light
12	Speedometer (LCD)	Speedometer
13	Tachometer	Tachometer
14	Buzzer	Buzzer
16	Fuel-level warning light	Fuel-level warning light
18	Ignition key illumination	Ignition key illumination system
22	Fuel gauge sender unit	Fuel gauge
23	Fuel gauge	Fuel gauge
25	Water temperature gauge	Water temperature gauge
26	<ul style="list-style-type: none"> • Odometer/tripmeter (LCD) 	<ul style="list-style-type: none"> • Odometer/tripmeter (LCD)

	• Warning and indicator light	• Warning and indicator light
28	Oil pressure gauge	Oil pressure gauge
31	Key reminder switch	Key reminder warning alarm
55	Dimmer switch (panel light control switch)	Panel light control

NOTE:

- Check codes which are not listed may be indicated, but they cannot be inspected.
- The check codes are displayed in numerical order. (While performing the inspection, if you want to inspect a check code with a number smaller than the code number you are currently inspecting, terminate the check mode then repeat the inspection from the beginning.)
- If a speed signal is input to the instrument cluster (the wheels are rotated) while a code other than check code 50 or 51 is displayed, the input/output check mode will be cancelled.
- The check codes can be fast-forwarded by pushing and holding the odometer/tripmeter switch for **1 s or more** .



Checking Order

NOTE:

- When inspecting more than two check codes, begin with the code with the highest ranking.

Priority order of inspection	Ignition switch position	Check code
1	ON	22
2		01, 04, 08, 12, 13, 14, 16, 18, 23, 25, 26, 28, 55
3	LOCK	31

Check Code Inspection

Check code 01

Check code 01		Buckle switch ON/OFF signal	
STEP	INSPECTION CONDITION	DISPLAY	ACTION
1	Unfasten driver-side seat belt. (Buckle switch on.)	ON	Go to next step.
		OFF	Measure voltage at instrument cluster terminal 2G. Is voltage 0 V ? <ul style="list-style-type: none"> If as specified, replace instrument cluster. If not as specified, inspect following parts. <ul style="list-style-type: none"> Buckle switch Wiring harness (Buckle switch—instrument cluster)
2	Fasten driver-side seat belt. (Buckle switch off.)	ON	Measure voltage at instrument cluster terminal 2G. Is voltage B+ ? <ul style="list-style-type: none"> If as specified, replace instrument cluster. If not as specified, inspect following parts. <ul style="list-style-type: none"> Buckle switch Wiring harness (Buckle switch—instrument cluster)
		OFF	Input signal to instrument cluster is okay.

Check code 04

Check code 04		Door switch ON/OFF signal	
STEP	INSPECTION CONDITION	DISPLAY	ACTION
1	Open the front driver-side door.(The door switch is on.)	ON	Close the front driver-side door, then go to the next step.
		OFF	<p>Verify that the voltage of the instrument cluster terminal 2E is 1.0 V or less .</p> <ul style="list-style-type: none"> • If the voltage is as specified, replace the instrument cluster. • If the voltage is not as specified, inspect the following parts: <ul style="list-style-type: none"> ▪ Door switch ▪ Wiring harness (Instrument cluster—door switch)
2	Close all doors.(Door switches are off.)	ON	<p>Verify that the voltage of the instrument cluster terminal 2E is B+ .</p> <ul style="list-style-type: none"> • If the voltage is as specified, replace the instrument cluster. • If the voltage is not as specified, inspect the following parts: <ul style="list-style-type: none"> ▪ Door switch ▪ Wiring harness (Instrument cluster—door switch)
		OFF	Input signal to the instrument cluster is normal.

Check code 08

Check code 08		TNS relay ON/OFF signal	
STEP	INSPECTION CONDITION	DISPLAY	ACTION
1	Turn the headlight switch to the TNS position.(TNS relay ON)	ON	Go to the next step.
		OFF	<p>Verify that the voltage of instrument cluster terminal 1B is B+ .</p> <ul style="list-style-type: none"> • If the voltage is as specified, replace the instrument cluster. • If the voltage is not as specified, inspect the following parts: <ul style="list-style-type: none"> ▪ TNS relay ▪ Wiring harness (Battery—TNS relay—instrument cluster)
2	Turn the headlight switch off.(TNS relay OFF)	ON	<p>Verify that the voltage of the instrument cluster terminal 1B is 1.0 V or less .</p> <ul style="list-style-type: none"> • If the voltage is as specified, replace the instrument cluster. • If the voltage is not as specified, inspect the following parts: <ul style="list-style-type: none"> ▪ TNS relay ▪ Wiring harness (TNS relay—instrument cluster)
		OFF	Input signal to the instrument cluster is normal.

Check code 12

Check code 12		Speedometer display signal	
INSPECTION CONDITION	DISPLAY	ACTION	
Select check code 12.	00	All segments in the speedometer illuminate.	The speedometer is normal.
		Except above	Replace the instrument cluster.
	Err	—	

Check code 13

Check code 13		Tachometer operation signal	
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 13, wait for approx. 2 s .	□ □	The tachometer needle moves full scale then returns to approx. 3,000 rpm .	The tachometer is normal.
	Err	Except above	Replace the instrument cluster.
	—		

Check code 14


Check code 14		Buzzer operation signal	
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 14, wait approx. 2 s .	□ □	The buzzer sounds.	The buzzer is normal.
		The buzzer does not sound.	Replace the instrument cluster.

Check code 16

Check code 16		Fuel-level warning light flashing signal	
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 16, wait approx. 2 s .	□ □ (FLASHING)	Fuel-level warning light flashes three times .	The fuel-level warning light is normal.
		Except above	Replace the instrument cluster.

Check code 18


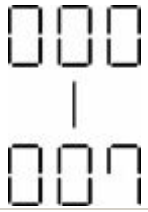
Check code 18		Ignition key illumination on/off signal	
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 18, wait approx. 2 s .		Ignition key illumination flashes three times .	The ignition key illumination is normal.

	 (FLASHING)	Except above	Verify that the voltage of the instrument cluster terminal 1K is B+ . <ul style="list-style-type: none"> • If the voltage is as specified, replace the instrument cluster. • If the voltage is not as specified, replace the following parts: <ul style="list-style-type: none"> ▪ Ignition key illumination ▪ Wiring harness (Battery—ignition key illumination—instrument cluster)
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Check code 22

CAUTION:

- While inspecting with check code 22, the measured value is displayed in both odometer and tripmeter segments of the odometer/tripmeter. Verify both readings.

Check code 22		Fuel level signal	
STEP	INSPECTION CONDITION	DISPLAY	ACTION
1	Select check code 22 with the fuel gauge sender unit connector disconnected.		Go to the next step.
		Except above	Replace the instrument cluster.
2	Connect terminals 2T and 2R, 2T and 2P of the instrument cluster.		Go to the next step.
		Except above	Replace the instrument cluster.

3	Using the SST (Fuel and thermometer checker) or resistor, input 80 ohms between instrument cluster terminals 2T and 2R, and 2T and 2P.	071 089	Go to the next step.
		Except above	Replace the instrument cluster.
4	Using the SST (Fuel and thermometer checker) or resistor, input 160 ohms between instrument cluster terminals 2T and 2R, and 2T and 2P.	147 173	Go to the next step.
		Except above	Replace the instrument cluster.
5	Using the SST (Fuel and thermometer checker) or resistor, input 240 ohms between instrument cluster terminals 2T and 2R, and 2T and 2P.	221 259	Inspect the fuel gauge sender unit.
		Except above	Replace the instrument cluster.


Check code 23

Check code 23		Fuel gauge operation signal	
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 23, wait approx. 2 s .	□□	The fuel gauge indicates status in the following order approx. every 2 s . • F→1/2→E→F (fixed)	The fuel gauge is normal.
		Except above	Replace the instrument cluster.
	Err	Replace the instrument cluster.	

Check code 25

Check code 25		Water temperature gauge operation signal	
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 25, wait approx. 2 s .	□ □	The water temperature gauge indicates status in the following order approx. every 2 s . <ul style="list-style-type: none"> • H→Center→C→H (fixed) 	The water temperature gauge is normal.
		Except above	Replace the instrument cluster.
	Err	Replace the instrument cluster.	

Check code 26

Check code 26		Odometer/tripmeter display signal	
INSPECTION CONDITION	DISPLAY	ACTION	
Select check code 26.		<ul style="list-style-type: none"> • Display is normal. • Warning and indicator light (Controlled by CAN system-related module) illuminated. <ul style="list-style-type: none"> ▪ Generator warning light ▪ AT warning light ▪ DSC indicator light ▪ DSC OFF light ▪ ABS warning light ▪ Brake system warning light ▪ Cruise control main indicator light ▪ Cruise control set indicator light ▪ Selector indicator light ▪ MIL ▪ Oil level warning light ▪ Coolant level warning light ▪ EPS warning light ▪ TPMS warning light 	<ul style="list-style-type: none"> • The odometer/tripmeter is normal. • Warning and indicator is normal.
		Except above	Replace the instrument cluster.

Check code 28

Check code 28		Oil pressure gauge operation signal	
INSPECTION CONDITION	DISPLAY	ACTION	
After selecting check code 28, wait approx. 2 s .		Oil pressure gauge needle is fixed a little above the center of the scale.	The oil pressure gauge is normal.
	□ □	Except above	Replace the instrument cluster.
	E r r	Replace the instrument cluster.	

Check code 31

Check code 31		Key reminder switch ON/OFF signal	
STEP	INSPECTION CONDITION	DISPLAY	ACTION
1	Remove the key from the steering lock, then reinsert the key into the steering lock after selecting check code 31.(The key reminder switch is on.)	□ □	Go to the next step.
		□ F F	<p>Verify that the voltage of instrument cluster terminal 2W is B+ .</p> <ul style="list-style-type: none"> • If the voltage is as specified, replace the instrument cluster. • If the voltage is not as specified, inspect the following parts: <ul style="list-style-type: none"> ▪ Key reminder switch ▪ Wiring harness (Battery—key reminder switch—instrument cluster)

2	Remove the key from the steering lock.(The key reminder switch is off.)	ON	<p>Verify that the voltage of the instrument cluster terminal 2W is 1.0V or less .</p> <ul style="list-style-type: none"> • If the voltage is as specified, replace the instrument cluster. • If the voltage is not as specified, inspect the following parts: <ul style="list-style-type: none"> ▪ Key reminder switch ▪ Wiring harness (Key reminder switch—instrument cluster)
		OFF	Input signal to the instrument cluster is normal.

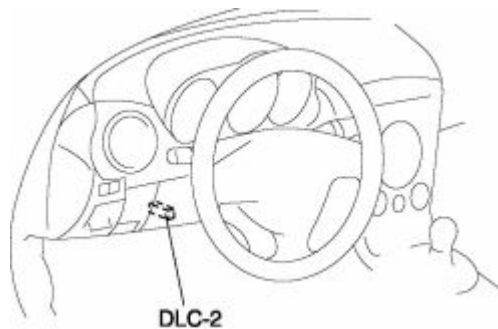
Check code 55

Check code 55		Dimmer switch ON/OFF signal	
STEP	INSPECTION CONDITION	DISPLAY	ACTION
1	After selecting the check code 55, turn the panel light control switch toward bright until a click is heard.(Dimmer switch ON)	ON	Go to the next step.
		OFF	<p>Verify that the voltage of the instrument cluster terminal 2U is B+ .</p> <ul style="list-style-type: none"> • If the voltage is as specified, replace the instrument cluster. • If the voltage is not as specified, inspect the following parts: <ul style="list-style-type: none"> ▪ Panel light control switch ▪ Wiring harness (Battery—panel light control switch—instrument cluster)

2	Turn the panel light control switch toward dark until a click is heard.(Dimmer switch ON)	ON	<p>Verify that the voltage of the instrument cluster terminal 2U is 1.0V or less .</p> <ul style="list-style-type: none"> • If the voltage is as specified, replace the instrument cluster. • If the voltage is not as specified, inspect the following parts: <ul style="list-style-type: none"> ▪ Panel light control switch ▪ Wiring harness (Battery—panel light control switch—instrument cluster)
		OFF	Input signal to the instrument cluster is normal.

DATA MONITORING AND RECORDING PROCEDURE

1. Connect the WDS or equivalent to the diagnostic connector 2 (16-pin).



2. Verify the data monitor items.

Indication Item Table

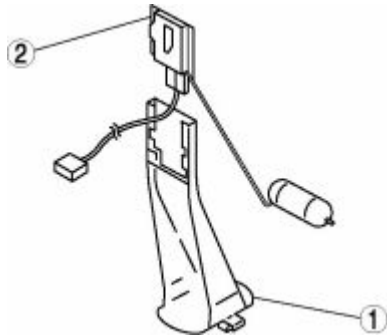
Monitor item	Input-output signal/part name	Unit/State		Terminal
CCNT_HE	DTC	Number of continuous DTCs		—
ECT_GAUGE	Water temperature gauge	°F	°C	1J, 1L
FUEL	Fuel flow rate	l/min		
ODO COUNT	Odometer	m		
OPSC	Oil pressure gauge	—		
SPEEDSG	Speedometer	mph	km/h	
rpm	Tachometer	rpm		

FUEL GAUGE SENDER UNIT

FUEL GAUGE SENDER UNIT REMOVAL/INSTALLATION

Fuel Gauge Sender Unit (Main)

1. Remove the rear seat.(See REAR SEAT REMOVAL/INSTALLATION .)
2. Drain the fuel from the fuel tank. (See FUEL PUMP UNIT REMOVAL/INSTALLATION .)
3. Disconnect the negative battery cable.
4. Remove the fuel pump unit.(See FUEL PUMP UNIT REMOVAL/INSTALLATION .)
5. Remove in the order indicated in the table.



1	Fuel gauge sender unit stay (See Fuel gauge sender unit stay removal note .)
2	Fuel gauge sender unit

6. Install in the reverse order of removal.

Fuel gauge sender unit stay removal note

CAUTION:

- A deformed fuel gauge sender unit arm could cause the fuel level to be indicated incorrectly. When holding the fuel gauge sender unit stay, grasp any part other than the arm portion.
1. Rotate the fuel gauge sender unit stay counter-clockwise to remove it.



Fuel Gauge Sender Unit (Sub)

Removal

WARNING:

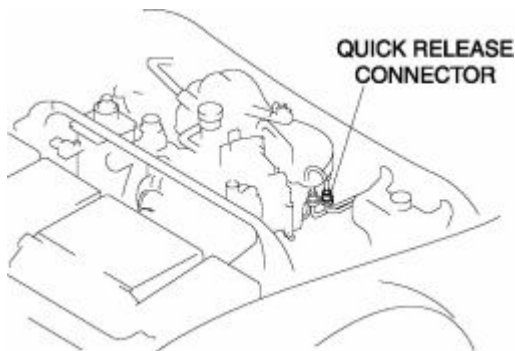
- Fuel is very flammable liquid. If fuel spills or leaks from the pressurized fuel system, it will cause serious injury or death and facility breakage. Fuel can also irritate skin and eyes. To prevent this, always complete the "Fuel Line Safety Procedure", while referring to the "BEFORE SERVICE PRECAUTIONS".
 - Fuel is very flammable liquid. If fuel spills or leaks from the pressurized fuel system, it will cause serious injury or death and facility breakage. Fuel can also irritate skin and eyes. To prevent this, before performing the fuel gauge sender unit (sub) removal/installation, always complete the "Fuel leak inspection after fuel gauge sender unit (sub) installation".
1. Follow the precautions before performing any work operations, and prevent the fuel from spilling from the fuel system.
 2. Drain fuel from the fuel tank.

WARNING:

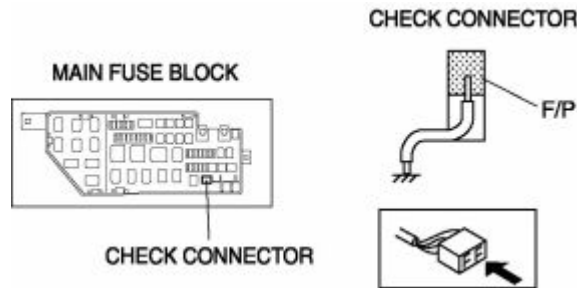
- A person charged with static electricity could cause a fire or explosion, resulting in death or serious injury. Before draining fuel, make sure to discharge static electricity by touching a vehicle.

CAUTION:

- When the fuel gauge indicates 3/4 or more, the fuel level is higher than the installation surface of the fuel pump and the fuel suction pipe bracket. Due to this condition, fuel may spill or leak out when performing this procedure. Before performing this procedure, always drain out fuel so that the fuel tank is half full or less (according to the fuel gauge needle).
- c. Disconnect the quick release connector (engine compartment side). (See QUICK RELEASE CONNECTOR REMOVAL/INSTALLATION .)



- d. Attach a long hose to the disconnected fuel pipe and drain the fuel into a proper receptacle.
- e. Ground check connector terminal F/P to the body using a jumper wire.



CAUTION:

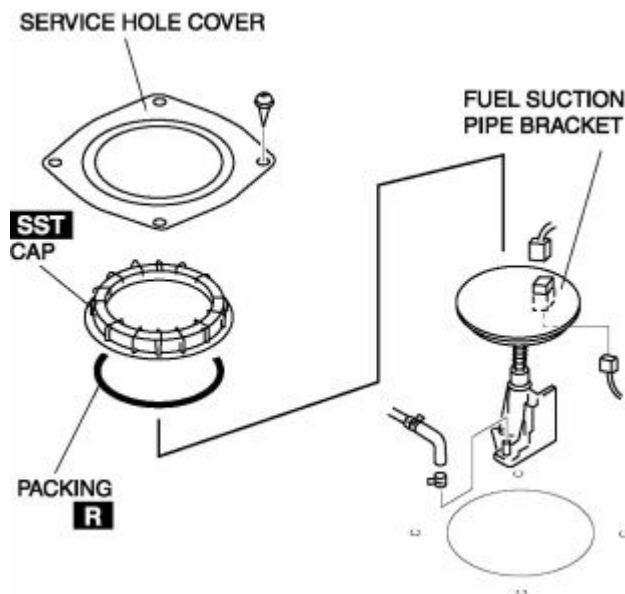
- Shorting the wrong terminal of the check connector may cause malfunctions. Make sure to short only the specified terminal.
- f. Turn the ignition switch to the ON position and operate the fuel pump for **approx. 20 min** .

CAUTION:

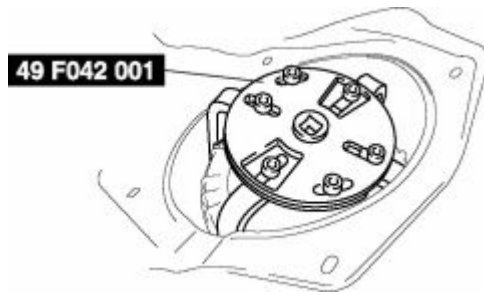
- The fuel pump may malfunction if it is operated without any fuel in the fuel tank (fuel pump idling). Constantly monitor the amount of fuel being discharged and immediately stop operation of the pump when essentially no fuel is being discharged.
- g. When essentially no fuel is being discharged from the hose, turn the ignition switch to the LOCK position.

NOTE:

- When operating the fuel pump with a full fuel tank, fuel discharge will become erratic after **approx. 10 min** but will continue for **approx. 10 min** more and then essentially no fuel will be discharged. At this time the fuel gauge needle will be at the halfway position.
- h. Disconnect the jumper wire.
 i. Disconnect the negative battery cable.
 j. Remove the driver's side rear seat.(See REAR SEAT REMOVAL/INSTALLATION .)
 k. Remove the service hole cover.

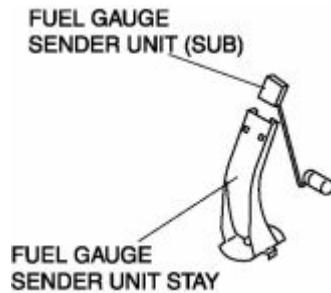


- l. Remove the cap using the SST .



CAUTION:

- The cap could be damaged if the SST is used with any play between the cap and the SST. Securely attach the SST so that there is no gap between the SST tabs and the side of the cap.
 - m. Remove the packing.
 - n. Remove the fuel suction pipe bracket.
 - o. Drain any remaining fuel from the hole where the fuel suction pipe bracket was removed.
3. Rotate the fuel gauge sender unit stay clockwise to remove it.

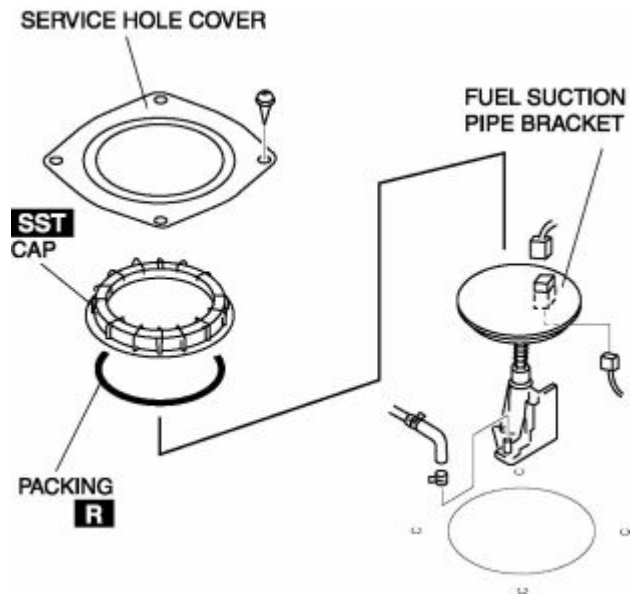


CAUTION:

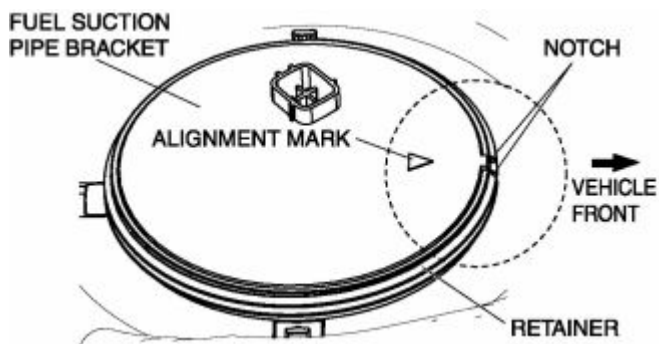
- A deformed fuel gauge sender unit arm could cause the fuel level to be indicated incorrectly. When holding the fuel gauge sender unit stay, grasp any part other than the arm portion.
4. Remove the fuel gauge sender unit (sub) from the fuel gauge sender unit stay.

Installation

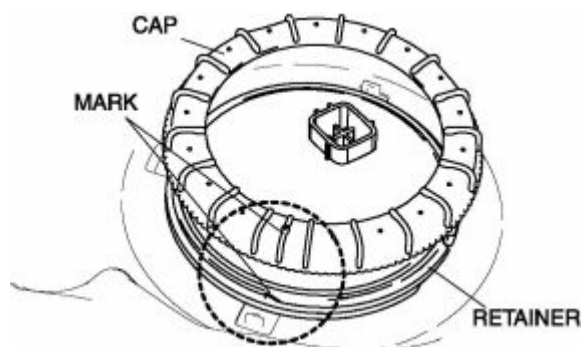
1. Install the fuel gauge sender unit (sub) to the fuel gauge sender unit stay.
2. Insert the fuel suction pipe bracket into the installation hole.



- Align the fuel suction pipe bracket alignment marks and the retainer notch as shown in the figure.



- Install the packing.
- Align the positions of the cap and retainer as shown in the figure, and tighten them **one full rotation** by hand.



- If the retainer and cap cannot be tighten by hand, remove the cap, verify that there is no damage or misalignment on the retainer and cap, and then tighten again.
- While keeping the alignment mark and the retainer notch aligned, tighten the cap to the rotation angle and specified torque using the SST .
 - If the specified torque cannot be obtained even when the cap is rotated to the specified rotation angle, replace with a new cap and retainer and repeat Step 3.

CAUTION:

- The cap could be damaged if the SST is used with any play between the cap and the SST. Securely attach the SST so that there is no gap between the SST tabs and the side of the cap.

Rotation angle

- 50—140°

(Total angle for Step 5 and Step 6 is 410—500°.)

Cap tightening torque

- 80—135 N·m {8.2—13.7 kgf·m, 59—99 ft·lbf}

7. Install the service hole cover.
8. Install the rear seat.(See REAR SEAT REMOVAL/INSTALLATION .)
9. Connect the negative battery cable.
10. Inspect all parts by performing the "AFTER REPAIR PROCEDURE". (See AFTER REPAIR PROCEDURE .)
11. Perform the "Fuel leak inspection after fuel gauge sender unit (sub) installation". (See Fuel leak inspection after fuel gauge sender unit (sub) installation .)

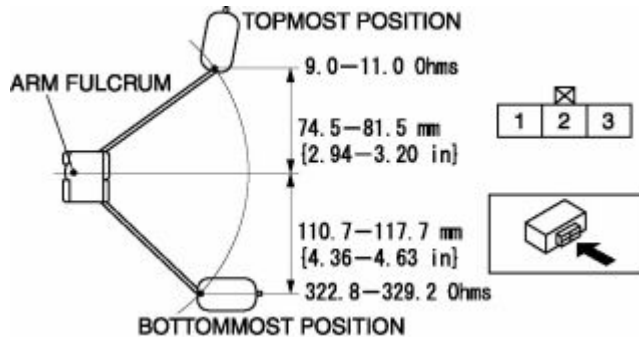
Fuel leak inspection after fuel gauge sender unit (sub) installation

1. Drive the vehicle from a standstill or brake suddenly **5—6 times** at a low speed.
2. Stop the vehicle and verify that there is no fuel leakage from the fuel tank.

FUEL GAUGE SENDER UNIT INSPECTION

Fuel Gauge Sender Unit (Main)

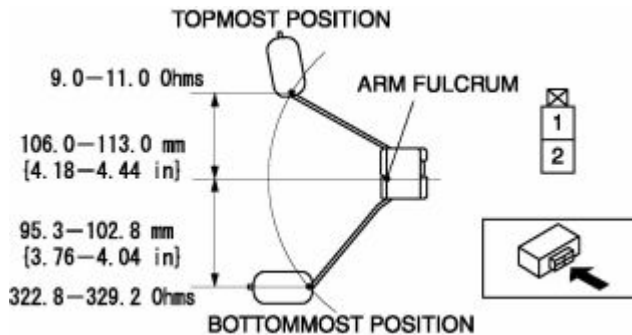
1. Move the float to the topmost and bottommost positions, and verify that the resistance between terminals A and B of the fuel gauge sender unit (main) and the position of the float are as shown in the figure.



- If they are not as shown in the figure, replace the fuel gauge sender unit (main).

Fuel Gauge Sender Unit (Sub)

1. Move the float to the topmost and bottommost positions, and verify that the resistance between terminals A and B of the fuel gauge sender unit (sub) and the position of the float are as shown in the figure.



- If they are not as shown in the figure, replace the fuel gauge sender unit (sub).

OIL PRESSURE SWITCH

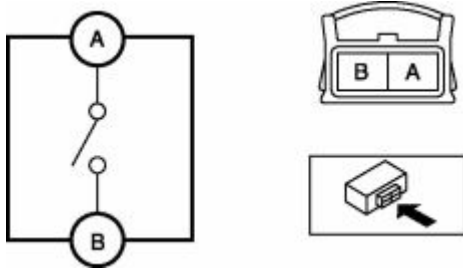
OIL PRESSURE SWITCH INSPECTION

1. Verify that the oil pressure warning light illuminates when the ignition switch is at the ON position.
2. Verify that the oil pressure warning light goes off when the engine is started.
 - If the oil pressure warning light does not illuminate or remains illuminated, inspect the related wiring harness.
 - If the related wiring harness are normal, inspect the oil pressure. (See OIL PRESSURE INSPECTION .)
 - If the oil pressure is normal, replace the oil pressure switch.

OIL LEVEL SWITCH

OIL LEVEL SWITCH INSPECTION

1. Disconnect the oil level switch connector.
2. Verify the continuity between the oil level switch terminals.
 - If the continuity is not as indicated in the tables, replace the oil level switch. (See OIL PAN REMOVAL/INSTALLATION .)



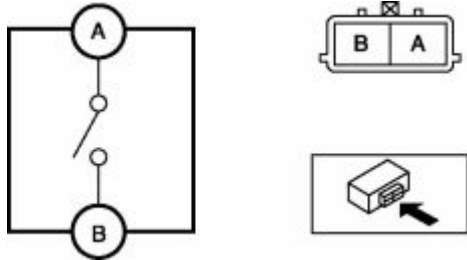
○—○ : Continuity

Condition	Terminal	
	A	B
Oil level is between F and L marks on the dipstick		
Oil level is below the L marks on the dipstick	○—○	○—○

COOLANT RESERVER TANK

COOLANT LEVEL SWITCH INSPECTION

1. Disconnect the coolant level switch.
2. Verify the continuity between the coolant level switch terminals.
 - If the continuity is not as indicated in the tables, replace the coolant reserve tank.



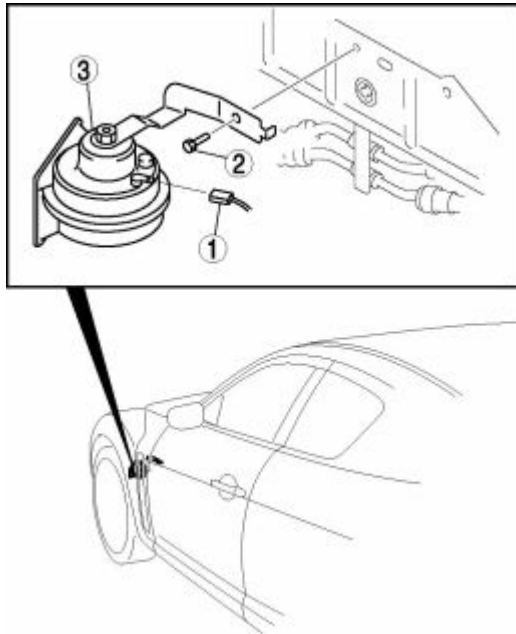
○—○ : Continuity

Amount of engine coolant	Terminal	
	A	B
Above LOW		
Below LOW	○—○	○—○

HORN

HORN REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Slightly bend back the mudguard.
3. Remove in the order indicated in the table.



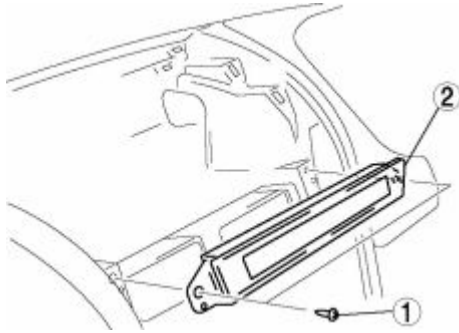
1	Connector
2	Bolt
3	Horn

4. Install in the reverse order of removal.

INFORMATION DISPLAY

INFORMATION DISPLAY REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the lower panel.(See LOWER PANEL REMOVAL/INSTALLATION .)
3. Remove the console.(See CONSOLE REMOVAL/INSTALLATION .)
4. Remove the center panel module.(See CENTER PANEL MODULE REMOVAL/INSTALLATION .)
5. Remove the LCD unit.(See LCD UNIT REMOVAL/INSTALLATION .)
6. Remove in the order indicated in the table.



1	Screw
2	Information display

7. Install in the reverse order of removal.

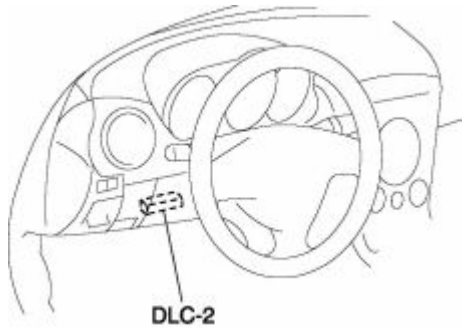
ON-BOARD DIAGNOSTIC [INSTRUMENTATION/DRIVER INFO.]

INSTRUMENT CLUSTER

DTC INSPECTION

WDS or Equivalent

1. Connect the WDS or equivalent to the DLC-2.



2. Verify if any DTCs are displayed.
 - If any DTCs are displayed, perform the troubleshooting according to the corresponding DTC inspection.
3. Disconnect the WDS or equivalent.

DTC TABLE [INSTRUMENT CLUSTER]

DTC	Description	Page
B1342	Instrument cluster malfunction	(See DTC B1342 [INSTRUMENT CLUSTER])
B2477	Configuration error	(See DTC B2477)

DTC B1342 [INSTRUMENT CLUSTER]

DTC B1342	<ul style="list-style-type: none"> Instrument cluster malfunction
DETECTION CONDITION	<ul style="list-style-type: none"> Malfunction in the Instrument cluster internal circuit
POSSIBLE CAUSE	<ul style="list-style-type: none"> Instrument cluster malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	INSPECT INSTRUMENT CLUSTER <ul style="list-style-type: none"> Clear DTC from memory. Turn the ignition switch to the LOCK position. Turn the ignition switch to the ON position. Is B1342 displayed? 	Yes Replace the instrument cluster. (See INSTRUMENT CLUSTER REMOVAL/INSTALLATION .)
		No DTC troubleshooting completed.

DTC B2477

DTC B2477	<ul style="list-style-type: none"> • Configuration error
DETECTION CONDITION	<ul style="list-style-type: none"> • Configuration error • Malfunction in the instrument cluster internal circuit
POSSIBLE CAUSE	<ul style="list-style-type: none"> • Instrument cluster malfunction

Diagnostic procedure

STEP	INSPECTION	ACTION
1	PERFORM INSTRUMENT CLUSTER CONFIGURATION <ul style="list-style-type: none"> • Perform instrument cluster configuration. • Is B2477 displayed? 	Yes Replace the instrument cluster. (See INSTRUMENT CLUSTER REMOVAL/INSTALLATION .)
		No Go to next step.
2	VERIFY TROUBLESHOOTING OF DTC B2477 COMPLETED <ul style="list-style-type: none"> • Clear DTC from memory. • Is B2477 displayed? 	Yes Go to applicable DTC inspection.
		No DTC troubleshooting completed.

ON-BOARD DIAGNOSTIC [MULTIPLEX COMMUNICATION SYSTEM]

CAN SYSTEM

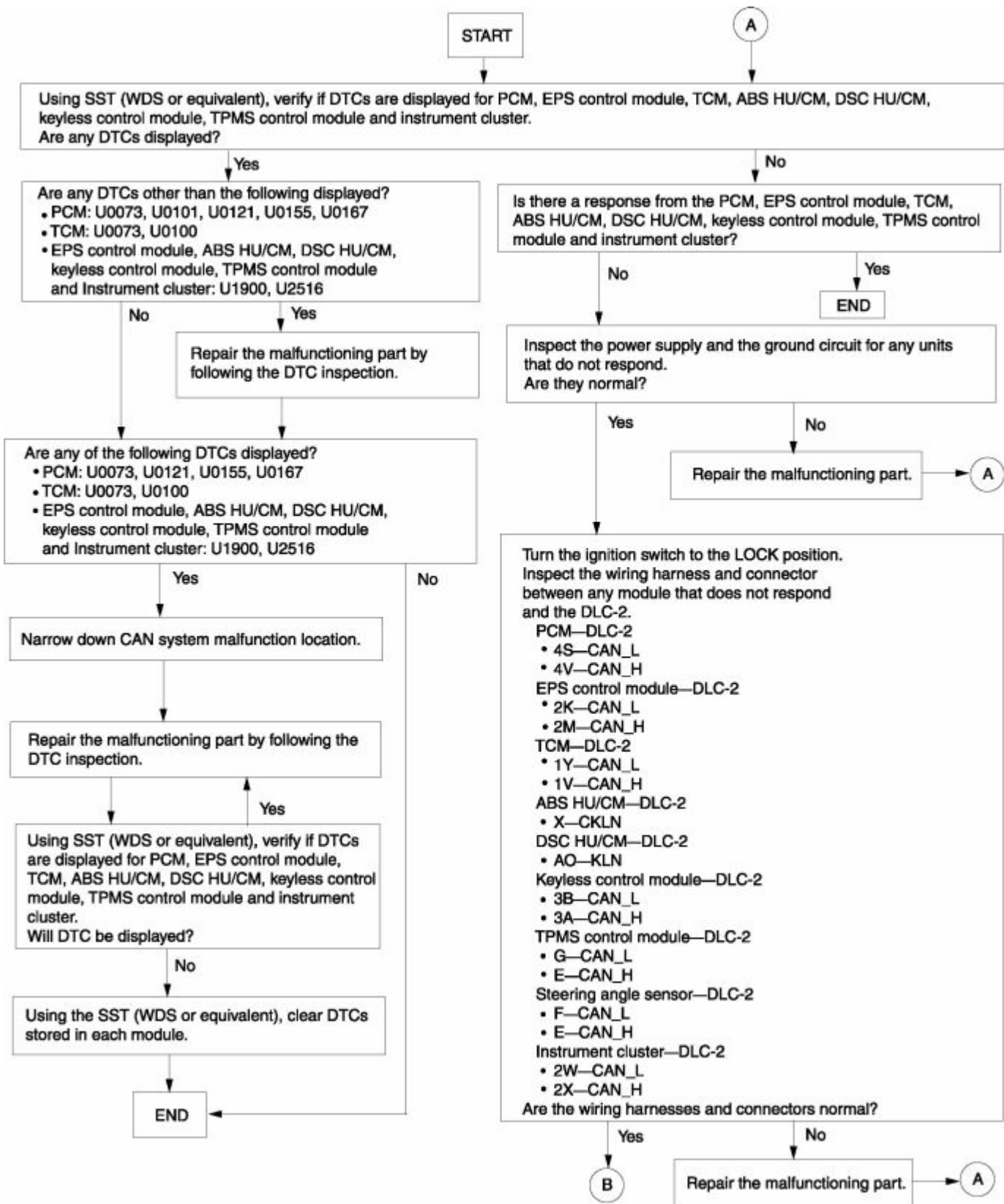
MULTIPLEX COMMUNICATION SYSTEM

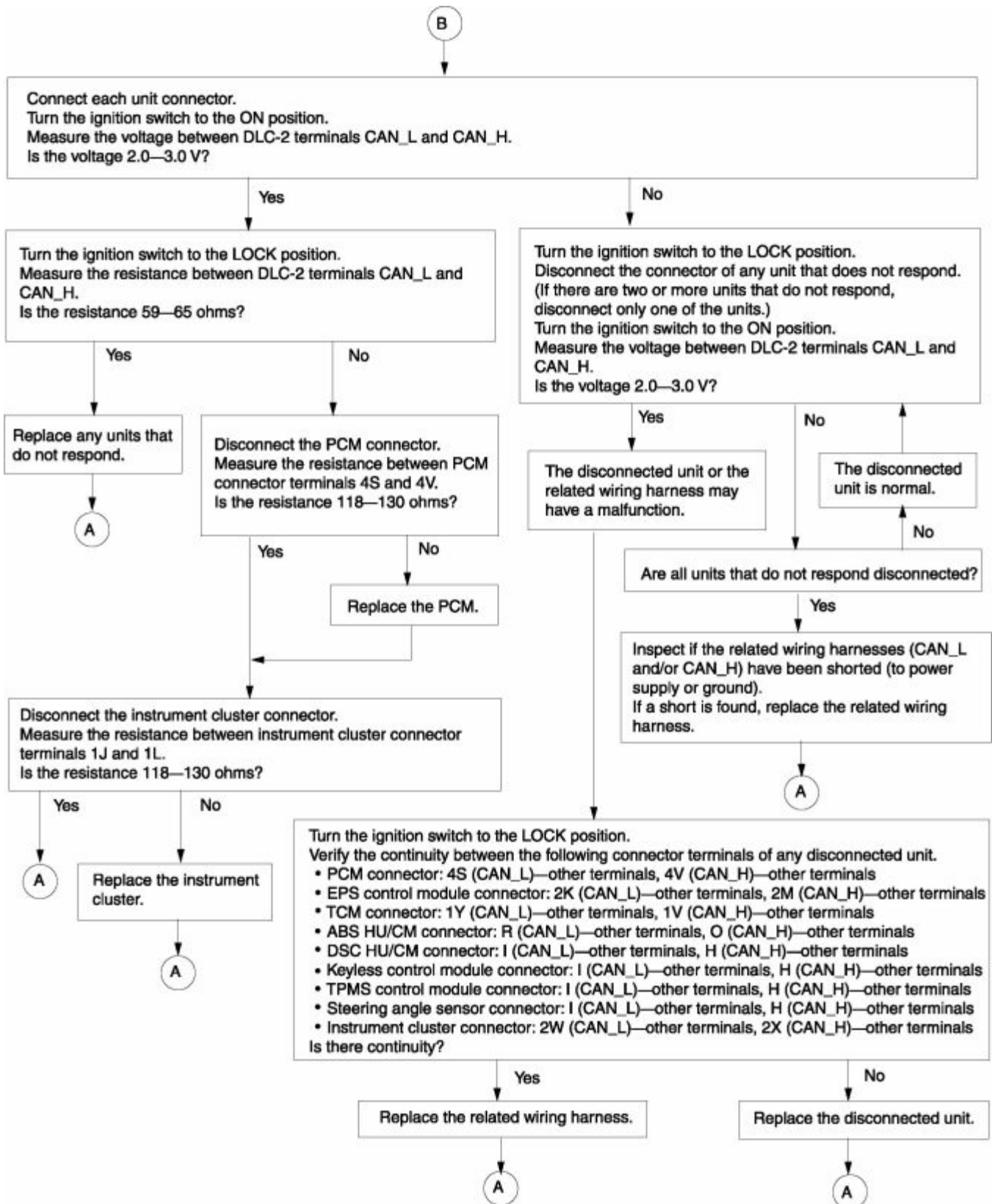
Outline

- If the controller area network (CAN) system is malfunctioning, read the DTCs of the following modules, using the WDS or equivalent to determine the malfunctioning system.
 - PCM
 - EPS control module
 - TCM (AT)
 - ABS HU/CM (with ABS)
 - DSC HU/CM (with DSC)
 - Steering angle sensor (with DSC)
 - Keyless control module
 - TPMS control module
 - Instrument cluster

Flowchart

- Use the following flowchart to verify the cause of the trouble.





DTC TABLE [MULTIPLEX COMMUNICATION SYSTEM]

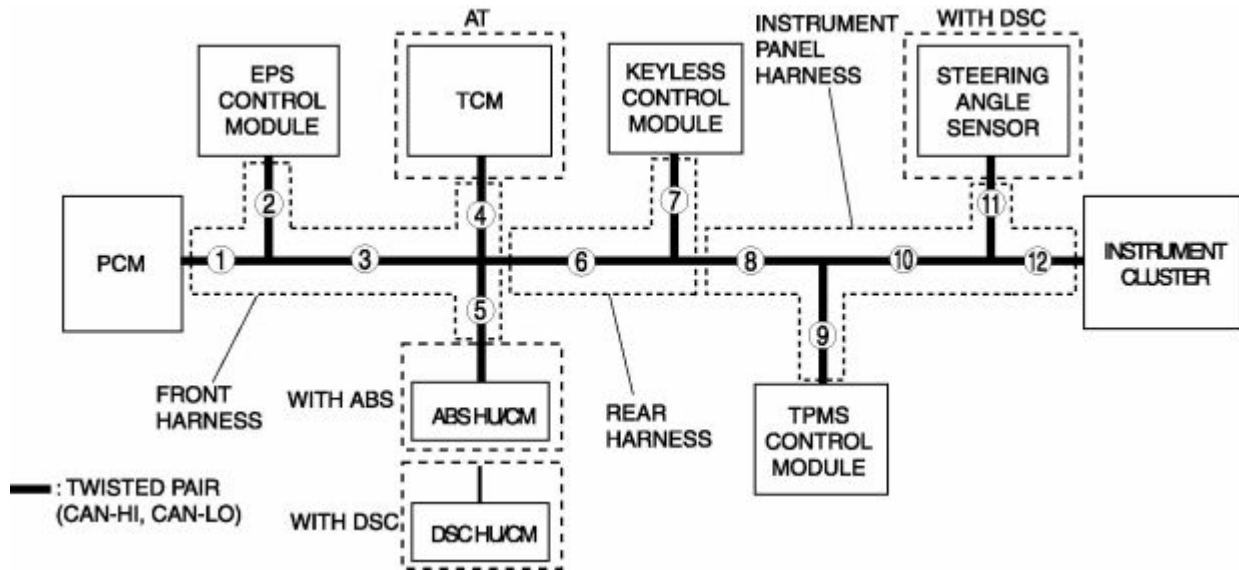
DTC	Malfunction location	DTC output module	Page
U0073	CAN system communication error	<ul style="list-style-type: none"> • PCM • TCM • EPS control module • Keyless control module 	(See DTC U0073, U1900, U2516)
U0100	Communication error to PCM	TCM	(See PROCEDURES FOR DETERMINING THE LOCATION OF A MALFUNCTION)
U0101	Communication error to TCM	PCM	
U0121	Communication error to ABS HU/CM		
U0155	Communication error to instrument cluster		
U0167	Communication error to keyless control module		
U2510 U1147	Communication error to PCM	Keyless control module	
U1900	CAN system communication error	<ul style="list-style-type: none"> • ABS HU/CM • DSC HU/CM • EPS control module • Steering angle sensor • Keyless control module • TPMS control module • Instrument cluster 	(See DTC U0073, U1900, U2516)
U2516	CAN system wiring harness open or short circuit	<ul style="list-style-type: none"> • ABS HU/CM • DSC HU/CM • Steering angle sensor • Instrument cluster 	

PID/DATA MONITOR TABLE [MULTIPLEX COMMUNICATION SYSTEM]

PID name (definition)	Condition	Specification	PID monitor module	Terminal
ABS_MSG (Missing message from the ABS (DSC) HU/CM)	Present	Circuit in the ABS (DSC) HU/CM is normal.	Instrument cluster	<ul style="list-style-type: none"> • ABS HU/CM: O, R • DSC HU/CM: H, I • Instrument cluster: 1J, 1L
	Not Present	Circuit in the ABS (DSC) HU/CM is disable.		
TCM_MSG (Missing message from the TCM)	Present	Circuit in the TCM is normal.		<ul style="list-style-type: none"> • TCM: 1V, 1Y • Instrument cluster: 1J, 1L
	Not Present	Circuit in the TCM is disable.		
EPS_MSG (Missing message from the EPS control module)	Present	Circuit in the EPS control module is normal		<ul style="list-style-type: none"> • EPS control module: 2K, 2M • Instrument cluster: 1J, 1L
	Not Present	Circuit in the EPS control module is disable		
PCM_MSG (Missing message from the PCM)	Present	Circuit in the PCM is normal.		<ul style="list-style-type: none"> • PCM: 4S, 4V • Instrument cluster: 1J, 1L
	Not Present	Circuit in the PCM is disable.		
TPM_MSG (Missing message from the TPMS control module)	Present	Circuit in the TPMS control module is normal		<ul style="list-style-type: none"> • TPMS control module: E, G • Instrument cluster: 1J, 1L
	Not Present	Circuit in the TPMS control module is disable		

PROCEDURES FOR DETERMINING THE LOCATION OF A MALFUNCTION

System Wiring Diagram



1	Wiring harness 1	Front harness
2	Wiring harness 2	
3	Wiring harness 3	
4	Wiring harness 4	
5	Wiring harness 5	
6	Wiring harness 6	Rear harness
7	Wiring harness 7	
8	Wiring harness 8	Instrument panel harness
9	Wiring harness 9	
10	Wiring harness 10	
11	Wiring harness 11	
12	Wiring harness 12	

PCM

1. Check the display of DTC U0121 and/or U0155, using the **SST** (WDS or equivalent). (See DTC TABLE [MULTIPLEX COMMUNICATION SYSTEM] .)
2. Referring to the following table, determine the malfunctioning part of the CAN system.

Module	Communication status				Malfunction location
	ABS HU/CM DSC HU/CM	TCM	Keyless control module	Instrument cluster	
PCM	Error	Error	Error	Error	<ul style="list-style-type: none"> • Wiring harness 1 • Wiring harness 3 • PCM
	Error	OK	OK	OK	<ul style="list-style-type: none"> • Wiring harness 5 • ABS HU/CM • DSC HU/CM
	OK	Error	OK	OK	<ul style="list-style-type: none"> • Wiring harness 4 • TCM
	OK	OK	Error	OK	<ul style="list-style-type: none"> • Wiring harness 7 • Keyless control module
	OK	OK	OK	Error	<ul style="list-style-type: none"> • Wiring harness 8 • Wiring harness 10 • Wiring harness 12 • Instrument cluster

EPS Control Module

1. Check the display of DTC U1900, using the **SST** (WDS or equivalent). (See DTC TABLE [MULTIPLEX COMMUNICATION SYSTEM] .)

Malfunction location

- Wiring harness 1
- Wiring harness 2
- Wiring harness 3
- Wiring harness 5
- PCM
- ABS HC/CM or DSC HU/CM
- EPS control module

ABS HU/CM or DSC HU/CM

1. Check the display of DTC U1900, using the **SST** (WDS or equivalent). (See DTC TABLE [MULTIPLEX COMMUNICATION SYSTEM] .)

Malfunction location

- Wiring harness 1
- Wiring harness 3
- Wiring harness 5
- Wiring harness 6
- Wiring harness 8
- Wiring harness 10
- Wiring harness 11
- PCM
- Steering angle sensor
- ABS HU/CM or DSC HU/CM

TCM

1. Check the display of DTC U0100, using the **SST** (WDS or equivalent). (See DTC TABLE [MULTIPLEX COMMUNICATION SYSTEM] .)

Malfunction location

- Wiring harness 1
- Wiring harness 3
- Wiring harness 4
- PCM
- TCM

Keyless Control Module

1. Check the display of DTC U1900, using the **SST** (WDS or equivalent). (See DTC TABLE [MULTIPLEX COMMUNICATION SYSTEM] .)

Malfunction location

- Wiring harness 1
- Wiring harness 3
- Wiring harness 6
- Wiring harness 7
- PCM
- Keyless control module

Steering Angle Sensor

1. Check the display of DTC U1900, using the **SST** (WDS or equivalent). (See DTC TABLE [MULTIPLEX COMMUNICATION SYSTEM] .)

Malfunction location

- Wiring harness 11
- DSC HU/CM
- Steering angle sensor

Instrument Cluster

1. Access and monitor the "PCM_MSG", "EPS_MSG", "TPM_MSG", "TCM_MSG" and "ABS_MSG" of PID using the **SST** (WDS or equivalent).
2. Referring to the PID/DATA MONITOR, confirm the display status of the PID. (See PID/DATA MONITOR TABLE [MULTIPLEX COMMUNICATION SYSTEM] .)
3. Referring to the following table, determine the malfunctioning part of the CAN system.

Module	Communication status					Malfunction location
	TCM	ABS HU/CM DSC HU/CM	EPS control module	TPMS control module	PCM	
Instrument cluster	Error	Error	Error	Error	Error	<ul style="list-style-type: none"> • Wiring harness 8 • Wiring harness 10 • Wiring harness 12 • Instrument cluster
	Error	OK	OK	OK	OK	<ul style="list-style-type: none"> • Wiring harness 4 • TCM

	OK	Error	OK	OK	OK	<ul style="list-style-type: none"> • Wiring harness 5 • Wiring harness 6 • ABS HU/CM • DSC HU/CM
	OK	OK	Error	OK	OK	<ul style="list-style-type: none"> • Wiring harness 2 • Wiring harness 3 • EPS control module
	OK	OK	OK	Error	OK	<ul style="list-style-type: none"> • Wiring harness 9 • Wiring harness 10 • TPMS control module
	OK	OK	OK	OK	Error	<ul style="list-style-type: none"> • Wiring harness 1 • PCM

DTC U0073, U1900, U2516

DTC	U0073	CAN system communication error
	U1900	
	U2516	CAN system wiring harness open or short circuit
DETECTION CONDITION	<p>WARNING:</p> <ul style="list-style-type: none"> Detection conditions are for understanding DTC outline before performing inspection. Performing inspection with only detection conditions may cause injury due to operating error or damage the system. When performing inspection, always follow inspection procedure. CAN system related harness malfunction Related module communication error 	
POSSIBLE CAUSE	<ul style="list-style-type: none"> Open or short circuit in wiring harness Malfunction of connectors between PCM, TCM, ABS HU/CM, DSC HU/CM, EPS control module, keyless control module, TPMS control module and instrument cluster PCM malfunction EPS control module malfunction Keyless control module malfunction TCM malfunction TPMS control module malfunction ABS HU/CM malfunction DSC HU/CM malfunction Instrument cluster malfunction 	
<p>The diagram illustrates the CAN bus network architecture. A central horizontal line represents the CAN bus, with nodes connected to it. From left to right, the nodes are: PCM (connected at point 1), EPS Control Module (connected at point 2), TCM (connected at point 4), Keyless Control Module (connected at point 7), Instrument Panel Harness (connected at point 8), TPMS Control Module (connected at point 9), Steering Angle Sensor (connected at point 11), and Instrument Cluster (connected at point 12). Additional components are connected to the bus: ABS HU/CM (connected at point 5) and DSC HU/CM (connected at point 5) are connected to the bus between points 4 and 5. The diagram also shows connections to the front and rear harnesses. A legend indicates that a solid line represents a twisted pair (CAN-HI, CAN-LO). Dashed boxes indicate components that are present only with specific options: AT (TCM), WITH ABS (ABS HU/CM), WITH DSC (DSC HU/CM), and WITH DSC (Steering Angle Sensor).</p>		

Diagnostic procedure

STEP	INSPECTION	ACTION	
1	<p>DETERMINING LOCATION OF A MALFUNCTION</p> <ul style="list-style-type: none"> Determine malfunctioning part of CAN system. <p>(See PROCEDURES FOR DETERMINING THE LOCATION OF A MALFUNCTION)</p> <ul style="list-style-type: none"> Is malfunctioning part wiring harness 12 (instrument panel harness) or instrument cluster? 	Yes	Go to Step 13.
		No	Go to the next step.
2	<p>DETERMINING LOCATION OF A MALFUNCTION</p> <ul style="list-style-type: none"> Is malfunctioning part wiring harness 11 (instrument panel harness) or steering angle sensor? 	Yes	Go to Step 24.
		No	Go to the next step.
3	<p>DETERMINING LOCATION OF A MALFUNCTION</p> <ul style="list-style-type: none"> Is malfunctioning part wiring harness 10 (instrument panel harness)? 	Yes	Go to Step 30.
		No	Go to the next step.
4	<p>DETERMINING LOCATION OF A MALFUNCTION</p> <ul style="list-style-type: none"> Is malfunctioning part wiring harness 9 (instrument panel harness) or TPMS control module? 	Yes	Go to Step 26.
		No	Go to the next step.
5	<p>DETERMINING LOCATION OF A MALFUNCTION</p> <ul style="list-style-type: none"> Is malfunctioning part wiring harness 8 (instrument panel harness)? 	Yes	Go to Step 32.
		No	Go to the next step.
6	<p>DETERMINING LOCATION OF A MALFUNCTION</p> <ul style="list-style-type: none"> Is malfunctioning part wiring harness 7 (rear harness) or keyless control module? 	Yes	Go to Step 28.
		No	Go to the next step.
7	<p>DETERMINING LOCATION OF A MALFUNCTION</p> <ul style="list-style-type: none"> Is malfunctioning part wiring harness 6 (rear harness)? 	Yes	Go to Step 34.
		No	Go to the next step.
8	<p>DETERMINING LOCATION OF A MALFUNCTION</p> <ul style="list-style-type: none"> Is malfunctioning part wiring harness 5 (front harness) or ABS (DSC) HU/CM? 	Yes	Go to Step 22.
		No	Go to the next step.
9	<p>DETERMINING LOCATION OF A MALFUNCTION</p>	Yes	Go to Step 36.

	<ul style="list-style-type: none"> Is malfunctioning part wiring harness 3 (front harness)? 	No	Go to the next step.
10	<p>DETERMINING LOCATION OF A MALFUNCTION</p> <ul style="list-style-type: none"> Is malfunctioning part wiring harness 4 (front harness) or the TCM? 	Yes	Go to Step 38.
		No	Go to the next step.
11	<p>DETERMINING LOCATION OF A MALFUNCTION</p> <ul style="list-style-type: none"> Is malfunctioning part wiring harness 2 (front harness) or EPS control module? 	Yes	Go to Step 40.
		No	Go to the next step.
12	<p>DETERMINING LOCATION OF A MALFUNCTION</p> <ul style="list-style-type: none"> Is malfunctioning part wiring harness 1 (front harness) or PCM? 	Yes	Go to Step 42.
		No	Troubleshooting completed.
13	<p>INSPECT INSTRUMENT CLUSTER CONNECTOR</p> <ul style="list-style-type: none"> Disconnect negative battery cable. Disconnect instrument cluster connector. Is instrument cluster connector normal? 	Yes	Go to the next step.
		No	Replace wiring harness.
14	<ul style="list-style-type: none"> Is inspected vehicle AT? 	Yes	Go to the next step.
		No	Go to Step 16.
15	<p>INSPECT WIRING HARNESS BETWEEN TCM AND INSTRUMENT CLUSTER</p> <ul style="list-style-type: none"> Disconnect TCM connector. Inspect following wiring harness between TCM and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> 1Y—1L (CAN_L) 1V—1J (CAN_H) Is wiring harness normal? 	Yes	Go to the next step
		No	Replace wiring harness.
16		Yes	Go to the next step

	<p>INSPECT WIRING HARNESS BETWEEN ABS (DSC) HU/CM AND INSTRUMENT CLUSTER</p> <ul style="list-style-type: none"> • Disconnect ABS (DSC) HU/CM connector. • Inspect following wiring harness between ABS (DSC) HU/CM and instrument cluster terminals for short to ground, short power supply, and open circuit: <p style="text-align: center;">ABS</p> <ul style="list-style-type: none"> ▪ R—1L (CAN_L) ▪ O—1J (CAN_H) <p style="text-align: center;">DSC</p> <ul style="list-style-type: none"> ▪ I—1L (CAN_L) ▪ H—1J (CAN_H) • Is wiring harness normal? 		
17	<p>INSPECT WIRING HARNESS BETWEEN PCM AND INSTRUMENT CLUSTER</p> <ul style="list-style-type: none"> • Disconnect PCM connector. • Inspect following wiring harness between PCM and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ 4S—1L (CAN_L) ▪ 4V—1J (CAN_H) • Is wiring harness normal? 	Yes	Go to the next step
18	<p>INSPECT WIRING HARNESS BETWEEN STEERING ANGLE SENSOR AND INSTRUMENT CLUSTER</p> <ul style="list-style-type: none"> • Disconnect steering angle sensor connector. • Inspect following wiring harness between steering angle sensor and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ F—1L (CAN_L) ▪ E—1J (CAN_H) • Is wiring harness normal? 	Yes	Go to the next step
19		Yes	Go to the next step

	<p>INSPECT WIRING HARNESS BETWEEN TPMS CONTROL MODULE AND INSTRUMENT CLUSTER</p> <ul style="list-style-type: none"> • Disconnect TPMS control module connector. • Inspect following wiring harness between TPMS control module and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ G—1L (CAN_L) ▪ E—1J (CAN_H) • Is wiring harness normal? 	No	Replace wiring harness.
20	<p>INSPECT WIRING HARNESS BETWEEN EPS CONTROL MODULE AND INSTRUMENT CLUSTER</p> <ul style="list-style-type: none"> • Disconnect EPS control module connector. • Inspect following wiring harness between EPS control module and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ 2K—1L (CAN_L) ▪ 2M—1J (CAN_H) • Is wiring harness normal? 	Yes	Go to the next step
		No	Replace wiring harness.
21	<p>INSPECT WIRING HARNESS BETWEEN KEYLESS CONTROL MODULE AND INSTRUMENT CLUSTER</p> <ul style="list-style-type: none"> • Disconnect keyless control module connector. • Inspect following wiring harness between keyless control module and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ 3B—1L (CAN_L) ▪ 3A—1J (CAN_H) • Is wiring harness normal? 	Yes	Replace instrument cluster, then go to Step 44.
		No	Replace wiring harness.
22	<p>INSPECT ABS (DSC) HU/CM CONNECTOR</p> <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect ABS (DSC) HU/CM connector. • Is ABS (DSC) HU/CM connector normal? 	Yes	Go to the next step.
		No	Replace wiring harness.
23	<p>INSPECT WIRING HARNESS BETWEEN ABS (DSC) HU/CM AND INSTRUMENT CLUSTER</p>	Yes	Replace ABS HU/CM (DSC HU/CM), then go to Step 44.

	<ul style="list-style-type: none"> • Disconnect instrument cluster connector. • Inspect following wiring harness between ABS (DSC) HU/CM and instrument cluster terminals for short to ground, short power supply, and open circuit: <p style="text-align: center;">ABS</p> <ul style="list-style-type: none"> ▪ R—1L (CAN_L) ▪ O—1J (CAN_H) <p style="text-align: center;">DSC</p> <ul style="list-style-type: none"> ▪ I—1L (CAN_L) ▪ H—1J (CAN_H) • Is wiring harness normal? 	No	Replace wiring harness.
24	INSPECT STEERING ANGLE SENSOR CONNECTOR <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect steering angle sensor connector. • Is steering angle sensor connector normal? 	Yes	Go to the next step.
		No	Replace wiring harness.
25	INSPECT WIRING HARNESS BETWEEN STEERING ANGLE SENSOR AND INSTRUMENT CLUSTER <ul style="list-style-type: none"> • Disconnect instrument cluster connector. • Inspect following wiring harness between steering angle sensor and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ F—1L (CAN_L) ▪ E—1J (CAN_H) • Is wiring harness normal? 	Yes	Replace steering angle sensor, then go to Step 44.
		No	Replace wiring harness.
26	INSPECT TPMS CONTROL MODULE CONNECTOR <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect TPMS control module connector. • Is TPMS control module connector normal? 	Yes	Go to the next step.
		No	Replace wiring harness.
27	INSPECT WIRING HARNESS BETWEEN TPMS CONTROL MODULE AND INSTRUMENT CLUSTER	Yes	Replace TPMS control module, then go to Step 44.

	<ul style="list-style-type: none"> • Disconnect instrument cluster connector. • Inspect following wiring harness between TPMS control module and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ G—1L (CAN_L) ▪ E—1J (CAN_H) • Is wiring harness normal? 	No	Replace wiring harness.
28	INSPECT KEYLESS CONTROL MODULE CONNECTOR <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect keyless control module connector. • Is keyless control module connector normal? 	Yes	Go to the next step.
		No	Replace wiring harness.
29	INSPECT WIRING HARNESS BETWEEN KEYLESS CONTROL MODULE AND INSTRUMENT CLUSTER <ul style="list-style-type: none"> • Disconnect instrument cluster connector. • Inspect following wiring harness between keyless control module and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ 3B—1L (CAN_L) ▪ 3A—1J (CAN_H) • Is wiring harness normal? 	Yes	Replace keyless control module, then go to Step 44.
		No	Replace wiring harness.
30	INSPECT WIRING HARNESS BETWEEN TPMS CONTROL MODULE AND STEERING ANGLE SENSOR <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect TPMS control module connector. • Disconnect steering angle sensor connector. • Inspect following wiring harness between TPMS control module and steering angle sensor terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ G—F (CAN_L) ▪ E—E (CAN_H) • Is wiring harness normal? 	Yes	Go to the next step
		No	Replace wiring harness.
31		Yes	Go to Step 44.

	<p>INSPECT WIRING HARNESS BETWEEN TPMS CONTROL MODULE AND INSTRUMENT CLUSTER</p> <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect TPMS control module connector. • Disconnect instrument cluster connector. • Inspect following wiring harness between TPMS control module and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ G—1L (CAN_L) ▪ E—1J (CAN_H) • Is wiring harness normal? 	No	Replace wiring harness.
32	<p>INSPECT WIRING HARNESS BETWEEN TPMS CONTROL MODULE AND KEYLESS CONTROL MODULE</p> <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect TPMS control module connector. • Disconnect keyless control module connector. • Inspect following wiring harness between TPMS control module and keyless control module terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ G—3B (CAN_L) ▪ E—3A (CAN_H) • Is wiring harness normal? 	Yes	Go to the next step
33	<p>INSPECT WIRING HARNESS BETWEEN KEYLESS CONTROL MODULE AND INSTRUMENT CLUSTER</p> <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect keyless control module connector. • Disconnect instrument cluster connector. • Inspect following wiring harness between keyless control module and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ 3B—1L (CAN_L) ▪ 3A—1J (CAN_H) • Is wiring harness normal? 	No	Replace wiring harness.
34		Yes	Go to the next step

	<p>INSPECT WIRING HARNESS BETWEEN ABS (DSC) HU/CM AND KEYLESS CONTROL MODULE</p> <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect ABS (DSC) HU/CM connector. • Disconnect keyless control module connector. • Inspect following wiring harness between ABS (DSC) HU/CM and keyless control module terminals for short to ground, short power supply, and open circuit: <p style="text-align: center;">ABS</p> <ul style="list-style-type: none"> ▪ R—3B (CAN_L) ▪ O—3A (CAN_H) <p style="text-align: center;">DSC</p> <ul style="list-style-type: none"> ▪ I—3B (CAN_L) ▪ H—3A (CAN_H) • Is wiring harness normal? 		
35	<p>INSPECT WIRING HARNESS BETWEEN ABS (DSC) HU/CM AND INSTRUMENT CLUSTER</p> <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect ABS (DSC) HU/CM connector. • Disconnect instrument cluster connector. • Inspect following wiring harness between ABS (DSC) HU/CM and instrument cluster terminals for short to ground, short power supply, and open circuit: <p style="text-align: center;">ABS</p> <ul style="list-style-type: none"> ▪ R—1L (CAN_L) ▪ O—1J (CAN_H) <p style="text-align: center;">DSC</p> <ul style="list-style-type: none"> ▪ I—1L (CAN_L) ▪ H—1J (CAN_H) • Is wiring harness normal? 		
36			

	<p>INSPECT WIRING HARNESS BETWEEN EPS CONTROL MODULE AND ABS (DSC) HU/CM</p> <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect EPS control module connector. • Disconnect ABS (DSC) HU/CM connector. • Inspect following wiring harness between EPS control module and ABS (DSC) HU/CM terminals for short to ground, short power supply, and open circuit: <p style="text-align: center;">ABS</p> <ul style="list-style-type: none"> ▪ 2K—R (CAN_L) ▪ 2M—O (CAN_H) <p style="text-align: center;">DSC</p> <ul style="list-style-type: none"> ▪ 2K—I (CAN_L) ▪ 2M—H (CAN_H) • Is wiring harness normal? 		
37	<p>INSPECT WIRING HARNESS BETWEEN PCM AND ABS (DSC) HU/CM</p> <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect PCM connector. • Disconnect ABS (DSC) HU/CM connector. • Inspect following wiring harness between PCM and ABS (DSC) HU/CM terminals for short to ground, short power supply, and open circuit: <p style="text-align: center;">ABS</p> <ul style="list-style-type: none"> ▪ 4S—R (CAN_L) ▪ 4V—O (CAN_H) <p style="text-align: center;">DSC</p> <ul style="list-style-type: none"> ▪ 4S—I (CAN_L) ▪ 4V—H (CAN_H) • Is wiring harness normal? 	Yes	Go to Step 44.
38	<p>INSPECT TCM CONNECTOR</p> <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect TCM connector. • Is TCM connector normal? 	Yes	Go to the next step.
		No	Replace wiring harness.
		No	Replace wiring harness.
		No	Replace wiring harness.

39	INSPECT WIRING HARNESS BETWEEN TCM AND INSTRUMENT CLUSTER <ul style="list-style-type: none"> • Disconnect instrument cluster connector. • Inspect following wiring harness between TCM and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ 1Y—1L (CAN_L) ▪ 1V—1J (CAN_H) • Is wiring harness normal? 	Yes	Replace TCM, then go to Step 44.
		No	Replace wiring harness.
40	INSPECT EPS CONTROL MODULE CONNECTOR <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect EPS control module connector. • Is EPS control module connector normal? 	Yes	Go to the next step.
		No	Replace wiring harness.
41	INSPECT WIRING HARNESS BETWEEN EPS CONTROL MODULE AND INSTRUMENT CLUSTER <ul style="list-style-type: none"> • Disconnect instrument cluster connector. • Inspect following wiring harness between EPS control module and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ 2K—1L (CAN_L) ▪ 2M—1J (CAN_H) • Is wiring harness normal? 	Yes	Replace EPS control module, then go to Step 44.
		No	Replace wiring harness.
42	INSPECT PCM CONNECTOR <ul style="list-style-type: none"> • Disconnect negative battery cable. • Disconnect PCM connector. • Is PCM connector normal? 	Yes	Go to the next step.
		No	Replace wiring harness.
43	INSPECT WIRING HARNESS BETWEEN PCM AND INSTRUMENT CLUSTER <ul style="list-style-type: none"> • Disconnect PCM connector. • Inspect following wiring harness between PCM and instrument cluster terminals for short to ground, short power supply, and open circuit: <ul style="list-style-type: none"> ▪ 4S—1L (CAN_L) ▪ 4V—1J (CAN_H) • Is wiring harness normal? 	Yes	Replace PCM, then go to the next step.
		No	Replace wiring harness.
44	CHECK DTC INDICATE	Yes	Repeat from Step 1.

	<ul style="list-style-type: none"> • Connect PCM connector. • Connect EPS control module connector. • Connect TCM connector. • Connect ABS (DSC) HU/CM connector. • Connect keyless control module connector. • Connect TPMS control module connector. • Connect steering angle sensor connector. • Connect instrument cluster connector. • Clear DTC from module memory using SST (WDS or equivalent). • Perform KOEO/KOER self-test. • Are DTCs U0073, U1900 and/or U2516 indicated? 	No	Troubleshooting completed.
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