

510 Exterior Trim, Bumpers

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GENERAL

This repair group includes repair information for the outside rear view mirror, front and rear bumpers, and the easily removable exterior trim parts.

OUTSIDE REAR VIEW MIRRORS

The remote controlled mirrors come in two styles: heated and unheated. Many of the mirror components are separately available from an authorized BMW dealer, including the glass and outside plastic housing.

Outside mirror glass, replacing

CAUTION —

Mirror should be at or above room temperature before removal. Otherwise, small plastic parts or glass will break.

1. Insert thin pry tool (wooden or tape-wrapped screwdriver) between bottom mirror edge and mirror housing and carefully pry out mirror glass from housing. See Fig. 1.
2. Heated mirror: remove heating element harness connectors from back of mirror glass.
3. Install new glass into position by pressing firmly until it snaps into place.

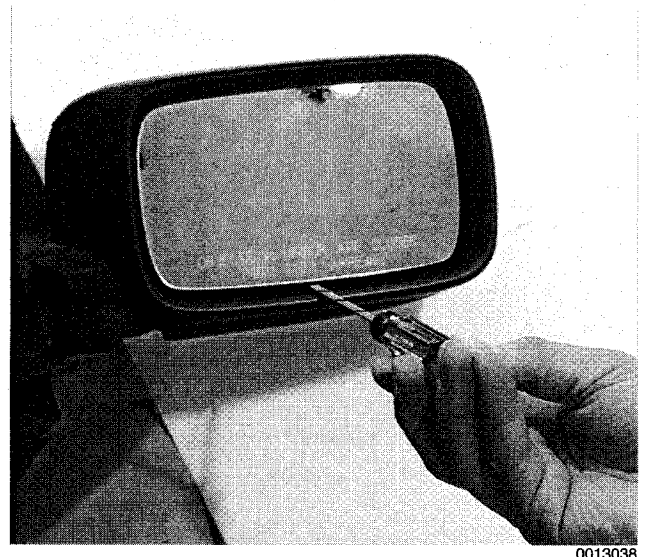


Fig. 1. Prying mirror glass out of mirror housing. Note screwdriver shaft wrapped with tape.

Outside mirror housing, removing and installing

1. Remove mirror glass as described above.
2. Remove housing retaining screws and lift off rear housing. See Fig. 2.
3. Tilt mirror housing forward and compress plastic retainers and lift off front housing. See Fig. 3.
4. Installation is reverse of removal. Check mirror function before installing covering parts.

OUTSIDE REAR VIEW MIRRORS

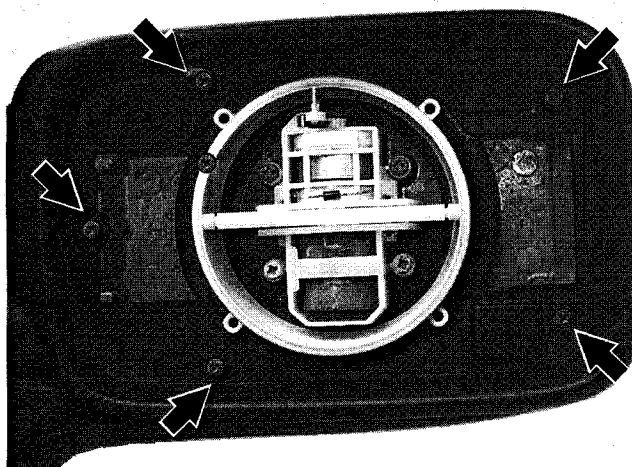


Fig. 2. Mirror housing retaining screws (**arrows**).

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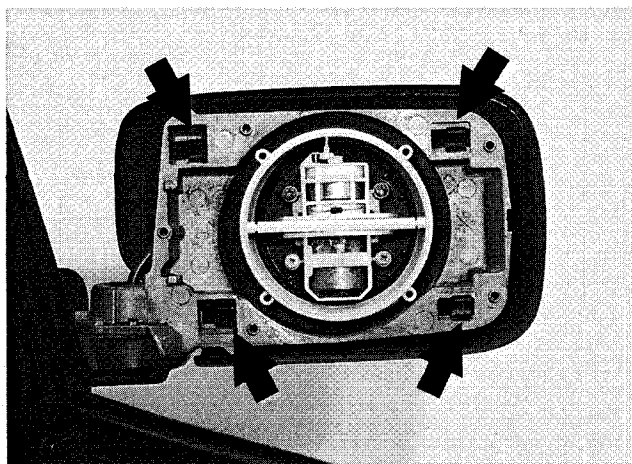


Fig. 3. Use needle-nose pliers to release retainers (**arrows**).

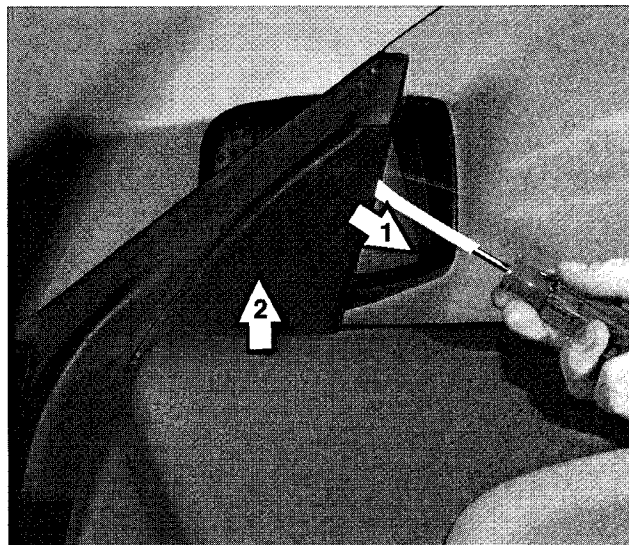
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Outside mirror, removing and installing

1. Remove triangular trim plate by prying and lifting gently from door frame. See Fig. 4. Unhook harness splice connector from base of trim plate.
2. Separate harness connector. Support mirror and remove mirror mounting bolts. Lift mirror off door. See Fig. 5.
3. Installation is reverse of removal. Check mirror function before installing covering parts.

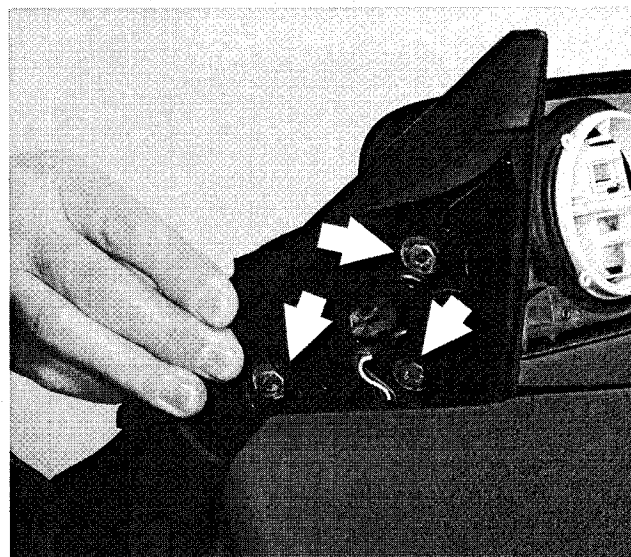
Tightening Torque

- Outside mirror to door (M6) 6 Nm (4.5 ft-lb)



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Fig. 4. Pry plastic trim in direction of **arrow 1**, then lift off in direction of **arrow 2**.



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Fig. 5. Mirror mounting bolts (**arrows**). Two-door body style shown.

BUMPERS

Front bumper, removing and installing

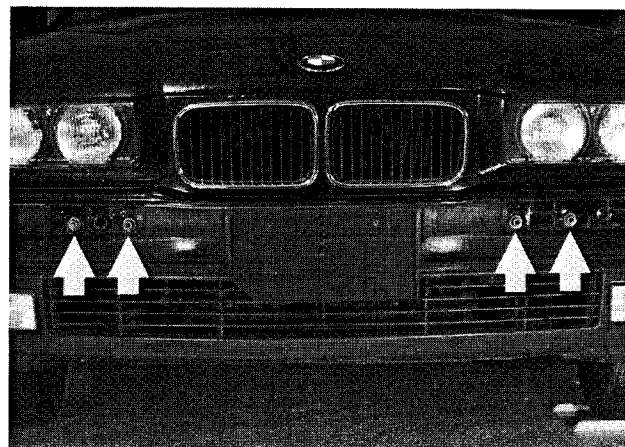
Refer to Fig. 6. when removing and installing the front bumper.

1. Raise and properly support vehicle.

WARNING —

Make sure that the car is firmly supported on jack stands designed for the purpose. Place the jack stands beneath a structural chassis point. Do not place jack stands under suspension parts.

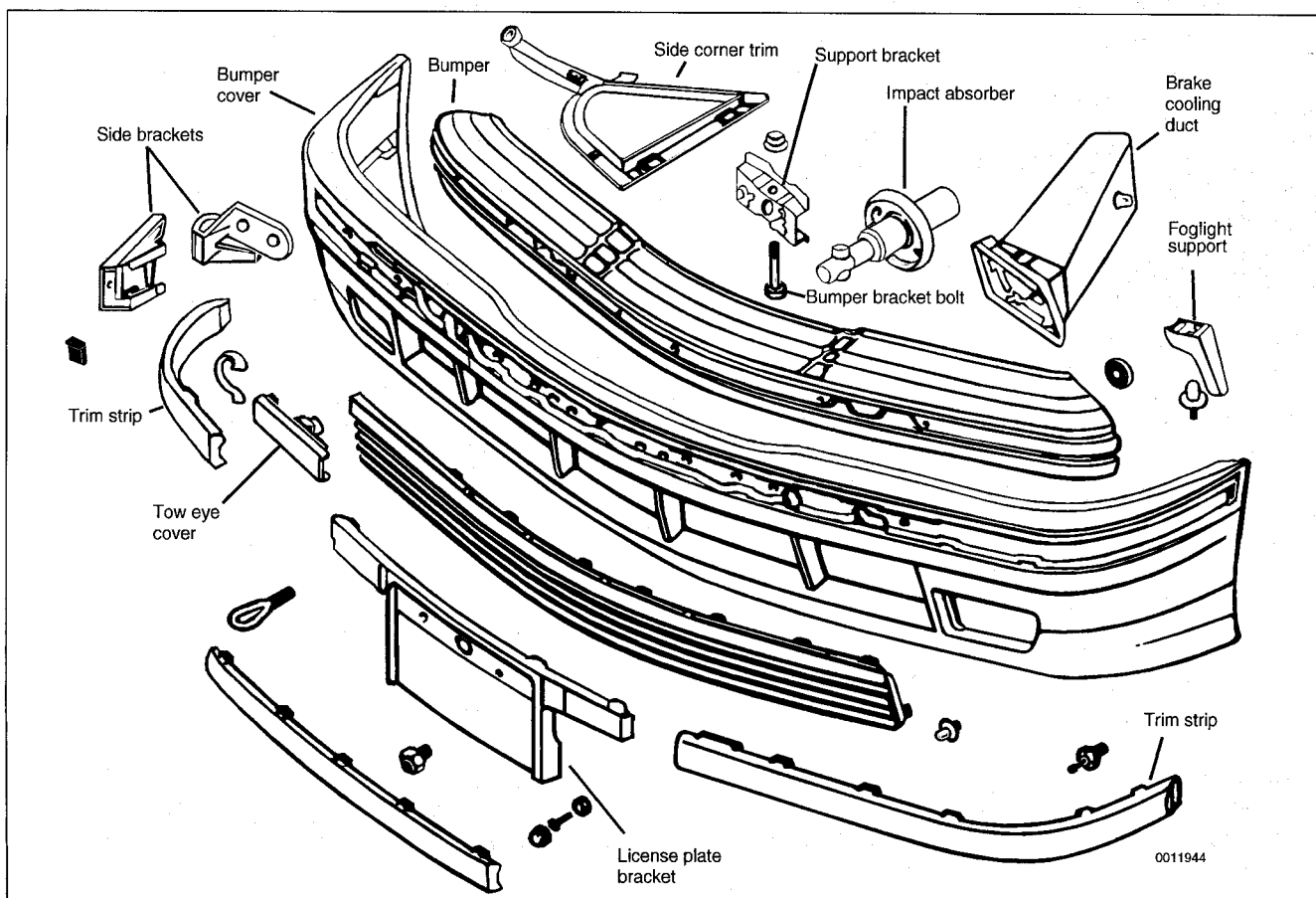
2. Unclip left trim strip by prying gently under plastic trim at front of bumper. Similarly, unclip towing eye cover from right side.
3. Remove four mounting nuts from bumper mounts (two nuts on each mount). See Fig. 7.
4. Working underneath car, remove screws from left and right side corner trim, then remove trim.



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Fig. 7. Front bumper mounting nuts (arrows). Left trim and towing eye cover on right have been removed.

5. Remove bumper cover retaining screws in front wheel well (left and right sides). See Fig. 8.
6. Disconnect harness connectors at foglight sockets (if applicable).



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Fig. 6. Front bumper assembly.

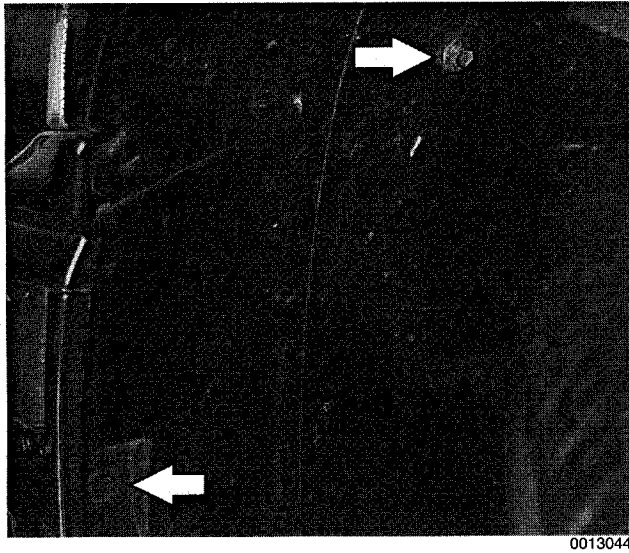


Fig. 8. Bumper cover retaining screws (arrows) in left wheel well.

7. Disconnect harness connectors at outside temperature sensor at rear of left side of bumper and temperature switch at rear of right side of bumper (if applicable).
8. Slide bumper straight off side brackets.
9. Installation is reverse of removal, noting the following:
 - Slide side brackets on bumper and body carefully together.
 - Make sure tabs on trim strip engage slots in bumper correctly.

Tightening Torque

- Bumper to bumper bracket (M8 nut) 22 Nm (16 ft-lb)

Front bumper impact absorber, replacing

The bumper mounting bracket and impact absorber mounting hardware are accessible with the front bumper removed, as described above. See Fig. 9.

NOTE —

Install the bumper bracket bolt with thread locking compound such as Loctite®270 or equivalent.

Tightening Torques

- Bumper bracket to impact absorber (M10 nut) 55 Nm (41 ft-lb)
- Impact absorber to chassis (M6 nut) . . . 9 Nm (7 ft-lb)

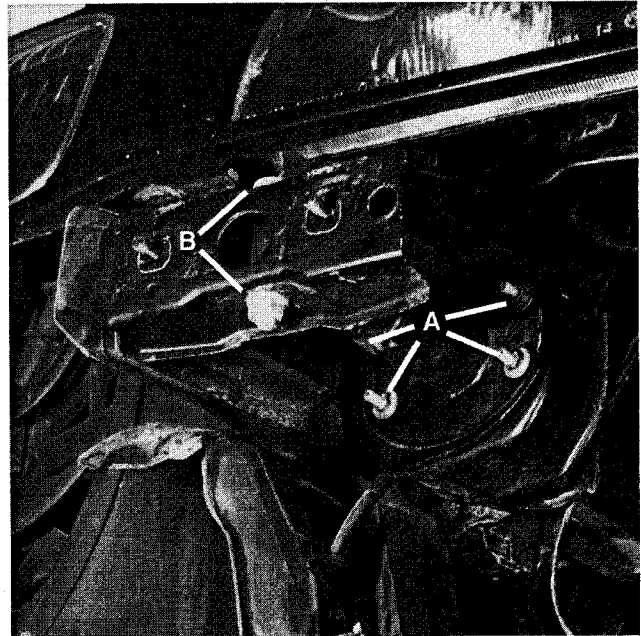


Fig. 9. Front bumper impact absorber mounting nuts (A) and bumper bracket hardware (B).

Rear bumper, removing and installing

When removing and installing the rear bumper or its components, refer to Fig. 10.

1. Raise and properly support vehicle.

WARNING —

Make sure that the car is firmly supported on jack stands designed for the purpose. Place the jack stands beneath a structural chassis point. Do not place jack stands under suspension parts.

2. Working under bumper, remove screws or expansion rivets at corners and middle of lower bumper panel. Pull panel backward, uncoupling it from bumper cover. See Fig. 11.
3. Remove bumper cover expansion rivets and screws inside left and right rear wheel wells.
4. Remove left and right bumper bracket mounting bolts and remove bumper. See Fig. 12.
5. Installation is reverse of removal.

NOTE —

Install the bumper bracket bolt with thread locking compound such as Loctite®270 or equivalent.

BUMPERS

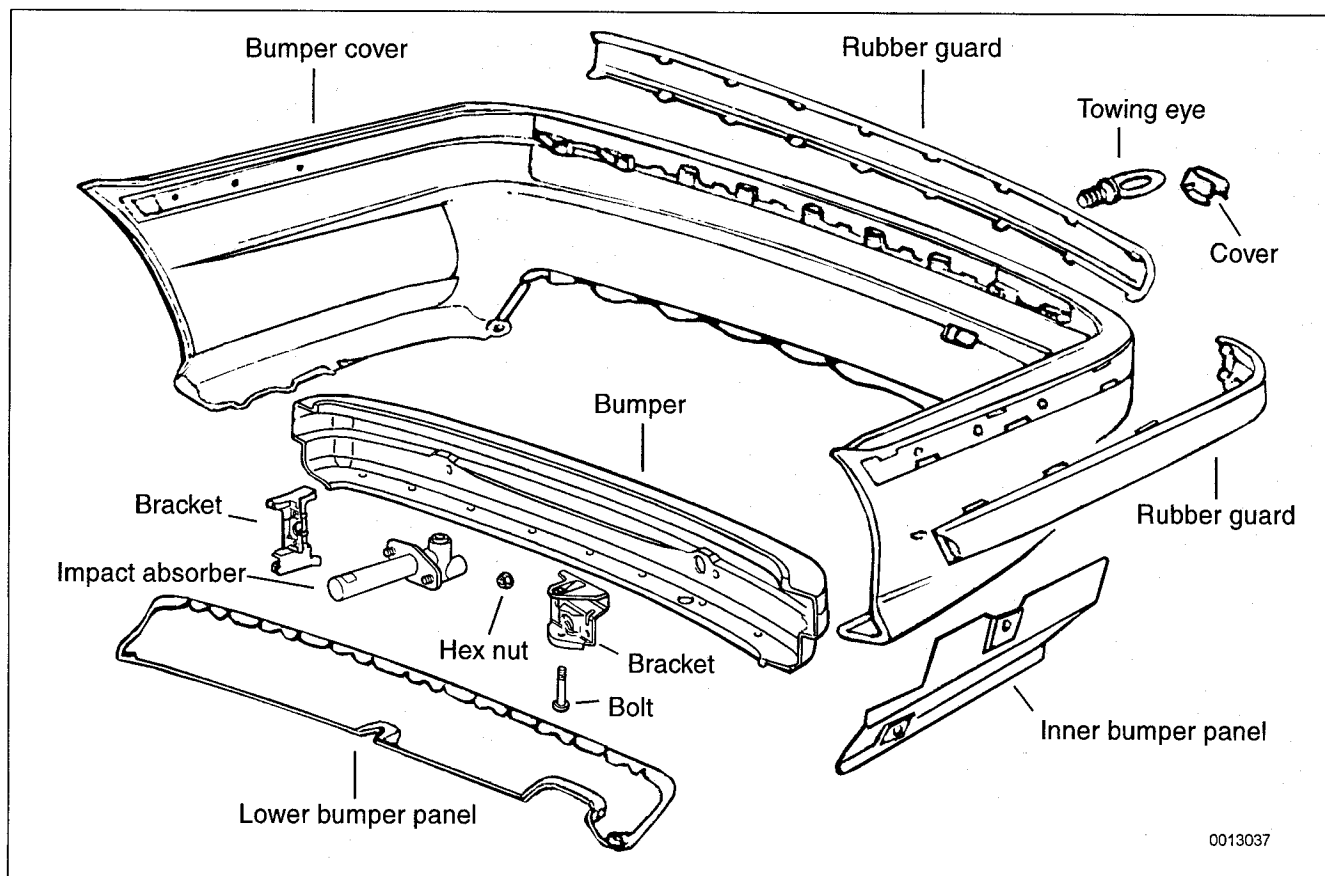
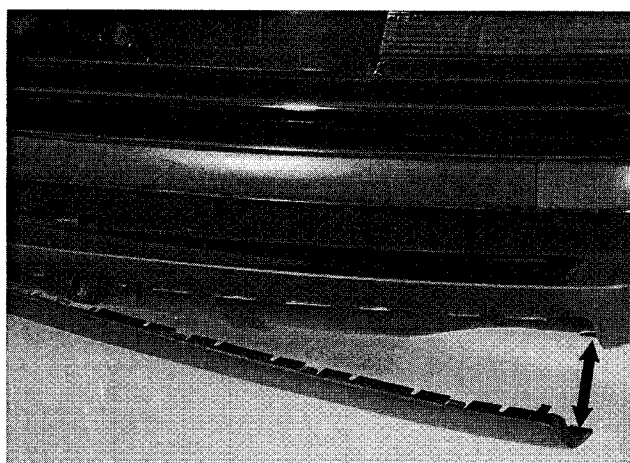
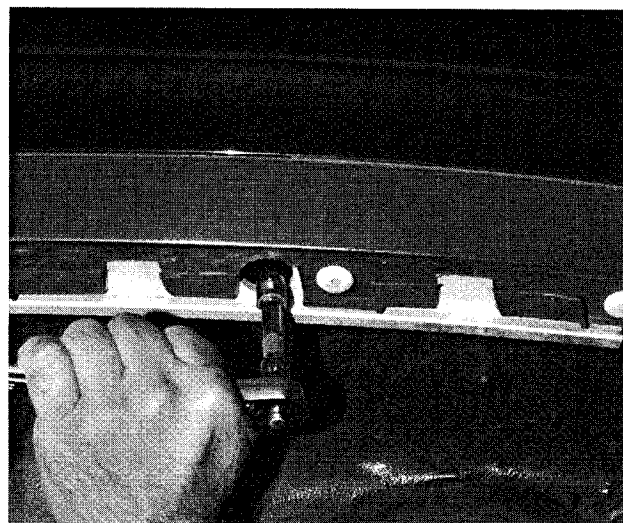


Fig. 10. Rear bumper assembly.



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Fig. 11. Expansion rivet at corner of rear bumper lower panel (arrow). Some models use screws. Pull panel backward to disengage from bumper cover.



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Fig. 12. Insert tool through rear bumper mount bores to remove mounting bolts (right side shown).

Tightening Torque

- Bumper bracket to impact absorber (M10 bolt) 42 Nm (31 ft-lb)

Rear bumper impact absorber, replacing

1. Remove bumper as described above.
2. Remove luggage compartment floor covering.
3. Right side: Remove battery and battery tray.
4. Remove fasteners from left or right luggage compartment floor panels and lift out panel. See Fig. 13. Impact absorber mounting nuts can now be accessed.

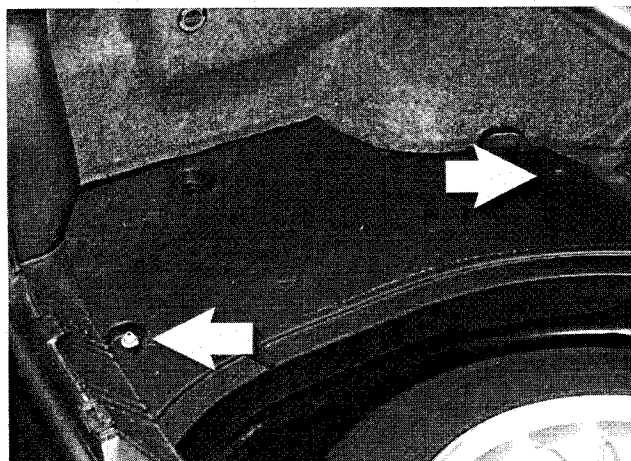


Fig. 13. Luggage compartment floor panel fasteners (arrows). (Left side shown. Right side is similar)

5. Installation is reverse of removal.

Tightening Torques

- Bumper bracket to impact absorber (M10 bolt) 42 Nm (31 ft-lb)
- Impact absorber to chassis (M8 nut) 22 Nm (16 ft-lb)

Bumper height, adjusting

The adjustment procedure given below applies to either the front or rear bumper. A 14mm allen socket is needed to make the adjustment.

1. Raise and properly support vehicle.

WARNING —

Make sure that the car is firmly supported on jack stands designed for the purpose. Place the jack stands beneath a structural chassis point. Do not place jack stands under suspension parts.

2. Front bumper:
 - Remove bumper as described earlier.
 - Remove bumper bracket bolt. Refer to Fig. 9.

3. Rear bumper:

- Remove lower bumper panel as described in **Rear bumper, removing and installing**.
- Remove bumper bracket mounting bolt at impact absorber.

4. Using a 12-inch extension and a 14mm Allen socket, turn adjusting collar clockwise or counterclockwise as needed to change height of adjusting collar. See Fig. 14.

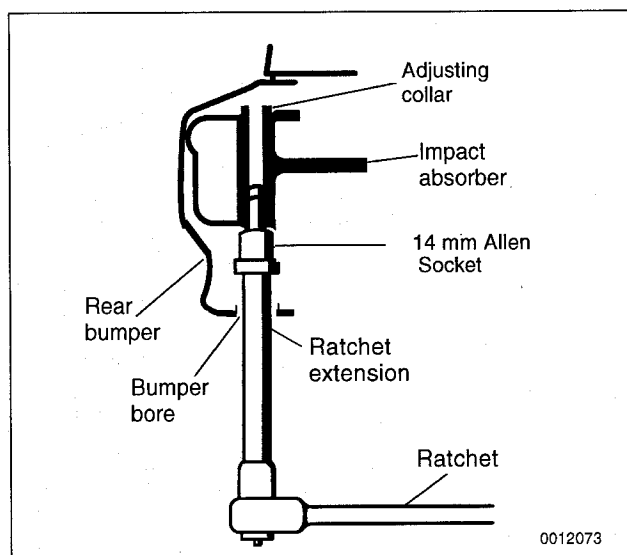


Fig. 14. Adjust bumper height at threaded adjusting collar in bumper impact absorber.

5. Reinstall mounting bolts and check bumper height. Re-fit front bumper.

Tightening Torques

- Front bumper to bumper bracket (M8 nut) 22 Nm (16 ft-lb)
- Front bumper bracket to impact absorber (M10 bolt) 55 Nm (41 ft-lb)
- Rear bumper bracket to impact absorber (M10 bolt) 42 Nm (31 ft-lb)

EXTERIOR TRIM

Much of the exterior trim is retained to the body by plastic clips and fasteners that may be damaged during removal. Be sure to have the necessary fasteners on hand when removing exterior trim pieces.

BMW emblem, removing and installing

The procedure given below applies to both front and rear emblems.

1. Wrap end of a screwdriver with tape.

CAUTION—

Protect hood paint by covering area around emblem with tape.

2. Carefully pry out emblem. See Fig. 15.

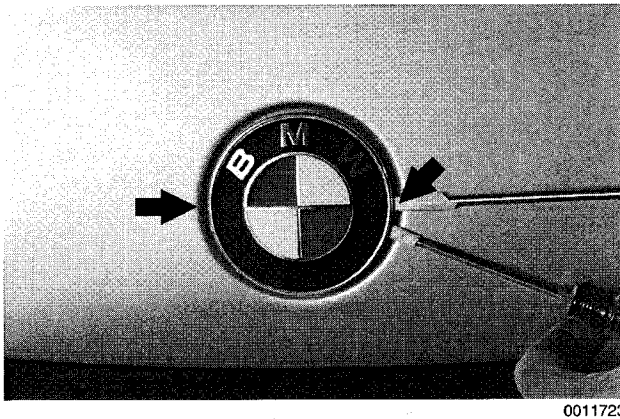


Fig. 15. BMW emblem being removed. Pry up emblem carefully on either side (**arrows**). Note tape on screwdriver tips.

3. Installation is reverse of removal.

- Replace plastic inserts in body if damaged.
- If emblem fits loosely into inserts, use a small amount of body molding tape or adhesive on rear of emblem before installing.

Body side molding, replacing

To remove body side moldings, carefully pry the moldings straight off. See Fig. 16.

Installation is the reverse of removal. Replace any clips or clip covering boots damaged during removal.

Radiator grille, removing and installing

1. Remove plastic front radiator shroud or air duct, as needed
2. Lightly tap center of grille toward radiator and remove from panel opening. Chrome ring pulls out from front. See Fig. 17.
3. To replace, snap grille and chrome piece together. Push assembly into front panel, pressing at top and bottom until it snaps into place.

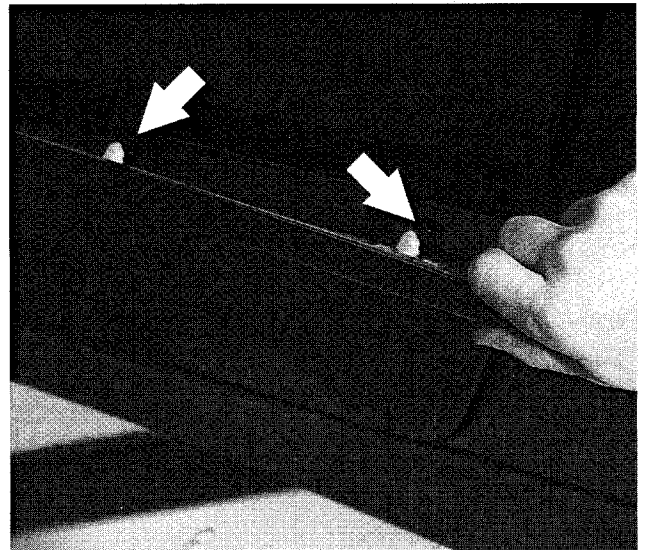


Fig. 16. Body side molding retaining clips (**arrows**).

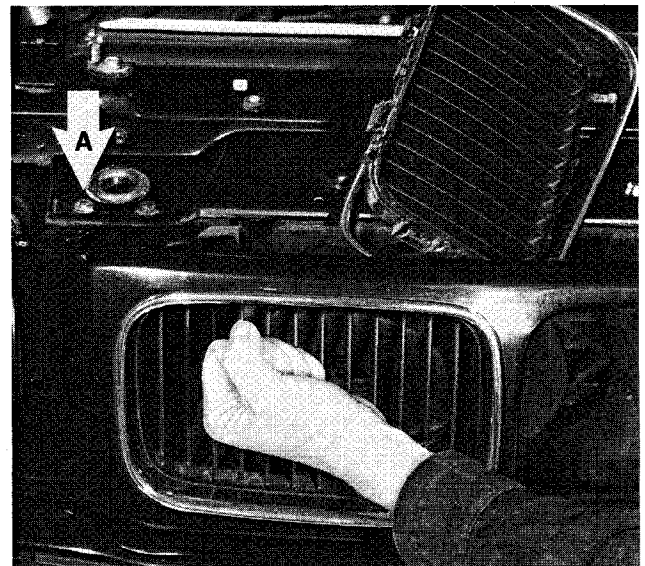


Fig. 17. Radiator grille being tapped inward. Right side front panel top retaining screw is shown at **A**.

Front panel, removing and installing

The front panel is shown in Fig. 18.

1. Remove front bumper as described earlier.
2. Remove headlights. See **630 Exterior Lighting**.
3. Remove radiator grille as described earlier.
4. With engine hood open, remove front panel retaining screws at left and right sides of radiator. See Fig. 19.

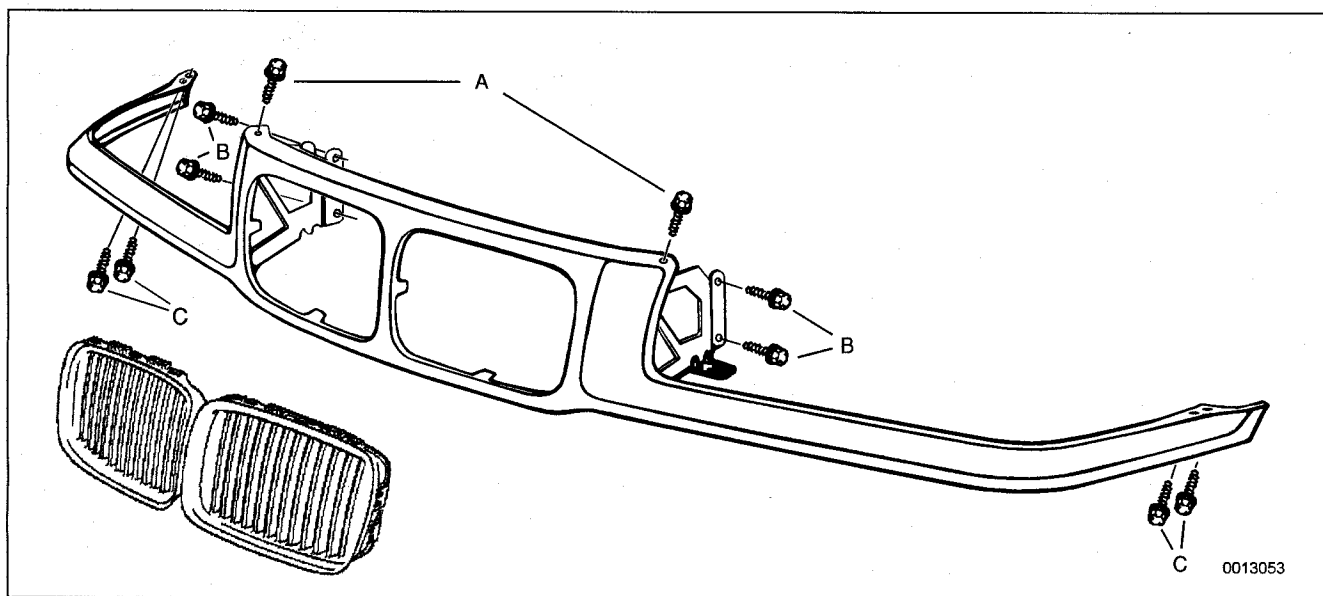


Fig. 18. Front panel assembly. Note top retaining screws (A), retaining screws at radiator support (B), and side retaining screws (C).

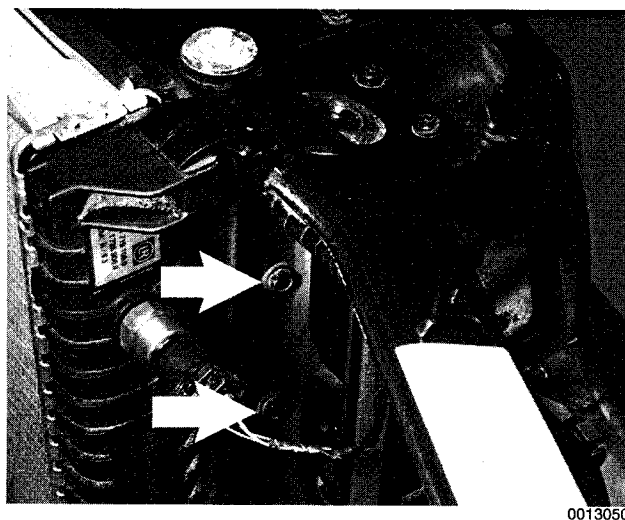


Fig. 19. Front panel retaining screws at radiator (arrows). Right side shown. To remove left side screws it may be necessary to remove air filter housing or duct.

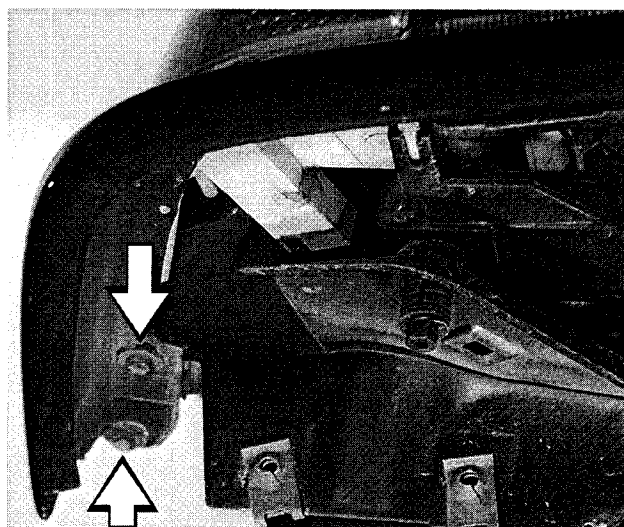


Fig. 20. Front bumper must be off to access far right and left front panel retaining screws from below (arrows). (Right side shown.)

5. Remove front panel top retaining screws near hood latches. Refer to Fig. 17.
6. Working under car, remove left and right side panel retaining screws. See Fig. 20.
7. Remove panel and repair or replace with painted part.
8. Installation is reverse of removal.

