

SECTION 14

FRONT AND REAR BUMPERS

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GENERAL DESCRIPTION

FRONT BUMPERS

ADJUST

Attachment of bumpers is such that slotted holes in the frame and bumper to frame attachment bars provide fore and aft, lateral, as well as vertical adjustment.

REMOVE - GRAND PRIX (Fig. 14-1)

1. Remove valance panel (Fig. 14-2).
2. Remove plastic bumper to radiator support filler.
3. Remove upper reinforcement to bumper bolts.
4. Support bumper - remove bumper hanger bar to frame attaching bolts.
5. Remove bumper from vehicle.
6. Remove grille shells (Fig. 14-3).
7. Remove bumper reinforcement.

REMOVE PONTIAC (Fig. 14-4)

CENTER SECTION

1. Remove plastic bumper to radiator support filler.
2. Remove upper support bracket.
3. Remove grille shells (Fig. 14-5).
4. Remove rear bolt of lower support bracket.
5. Remove center section to end section attaching bolts (3 bolts per side) thru grille opening.

6. Remove center section by pulling forward.
7. Remove bumper emblem and bumper reinforcement.

COMPLETE ASSEMBLY (Fig. 14-4)

1. Remove plastic bumper to radiator support filler.
2. Remove upper reinforcement bolts.
3. Remove valance panel (Fig. 14-6).
4. Support bumper - remove bumper hanger to frame attaching bolts.
5. With aid of helper remove bumper assembly.
6. Remove bumper reinforcement.
7. Remove grille shells.
8. Remove attaching bolts and separate sections.

REMOVE TEMPEST (Fig. 14-7)

1. Remove valance panel.
2. Support bumper - remove bumper hanger to bumper reinforcement bolts.
3. Remove bumper assembly.
4. Remove grille shells (Fig. 14-8).
5. Remove bumper reinforcement.

REMOVE G.T.O. (Fig. 14-9)

1. Remove parking lamp assembly.

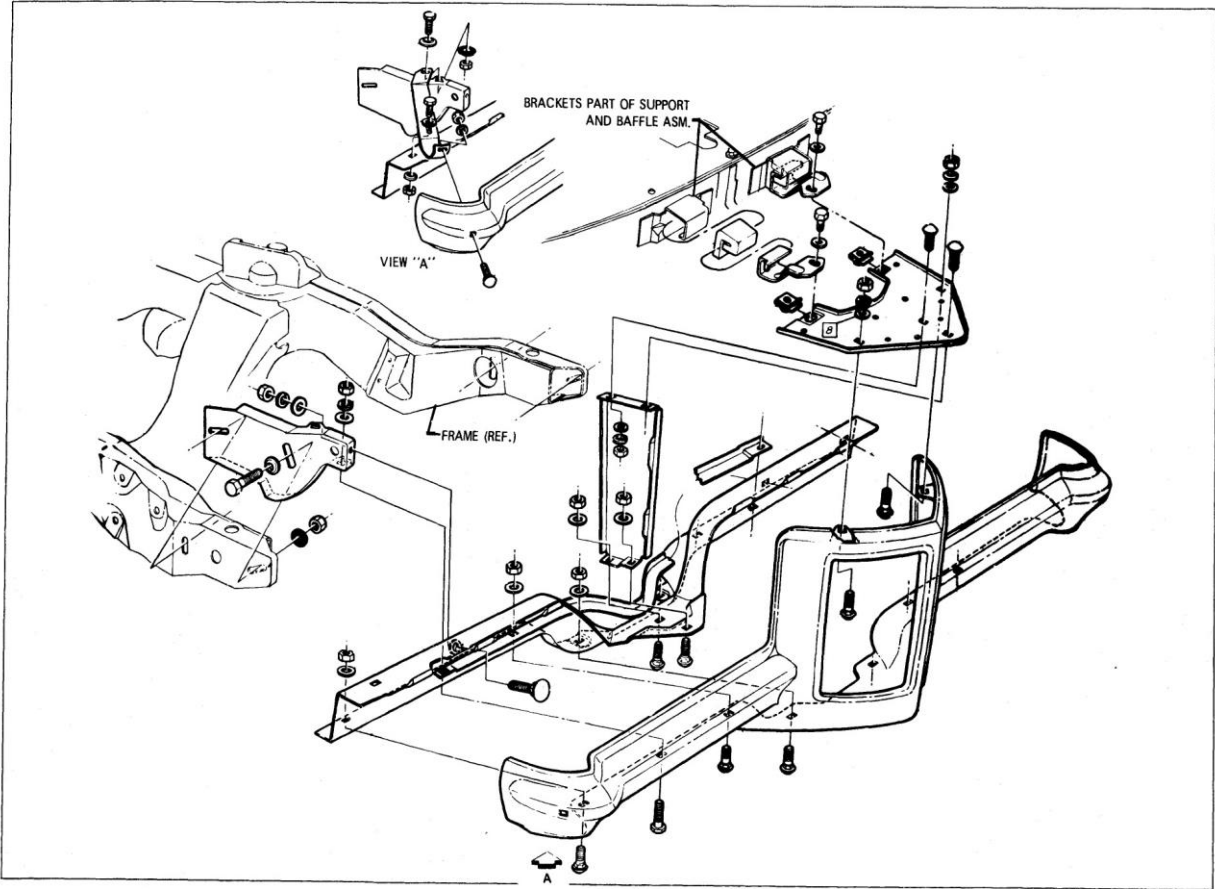


Fig. 14-1 Grand Prix Front Bumper Assembly

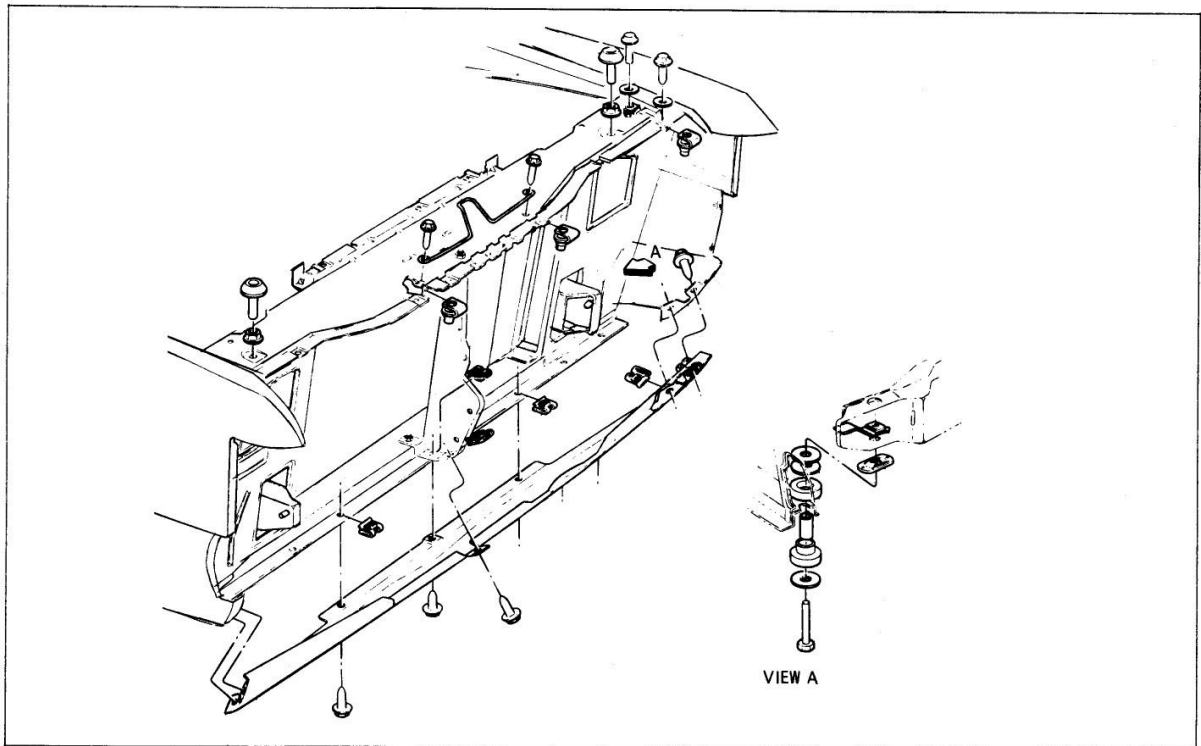


Fig. 14-2 Grand Prix Front Valance Panel

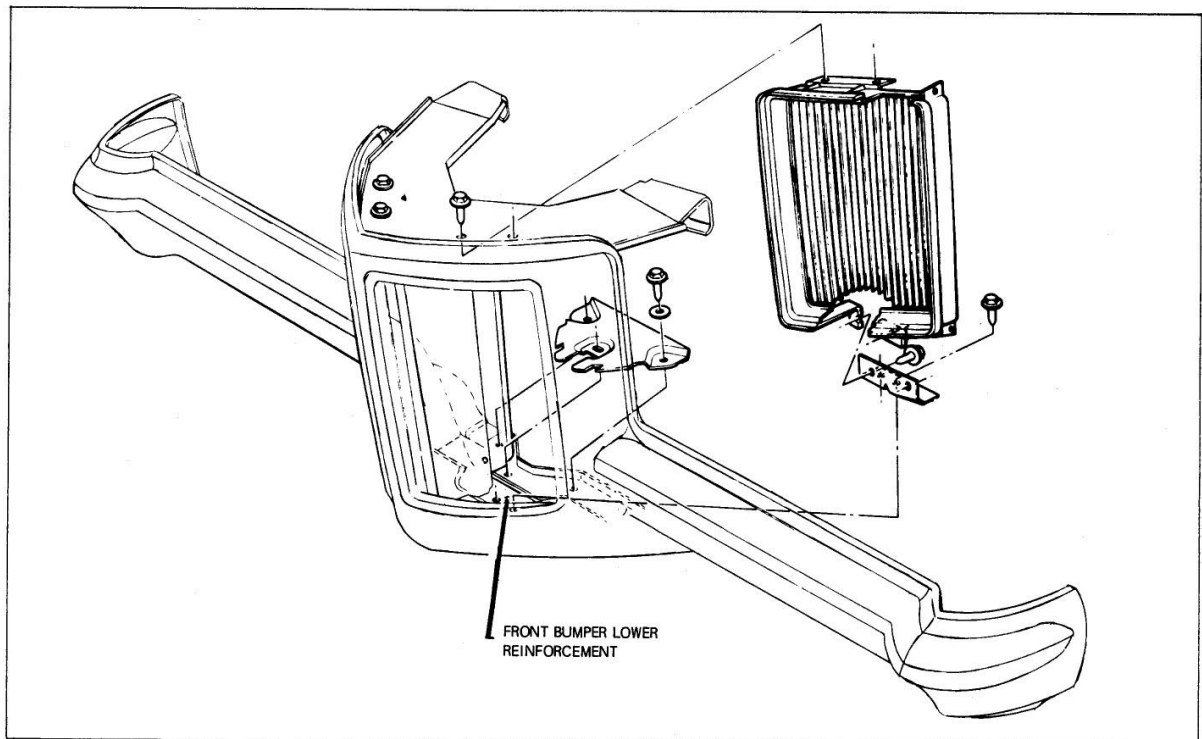


Fig. 14-3 Grand Prix Grille

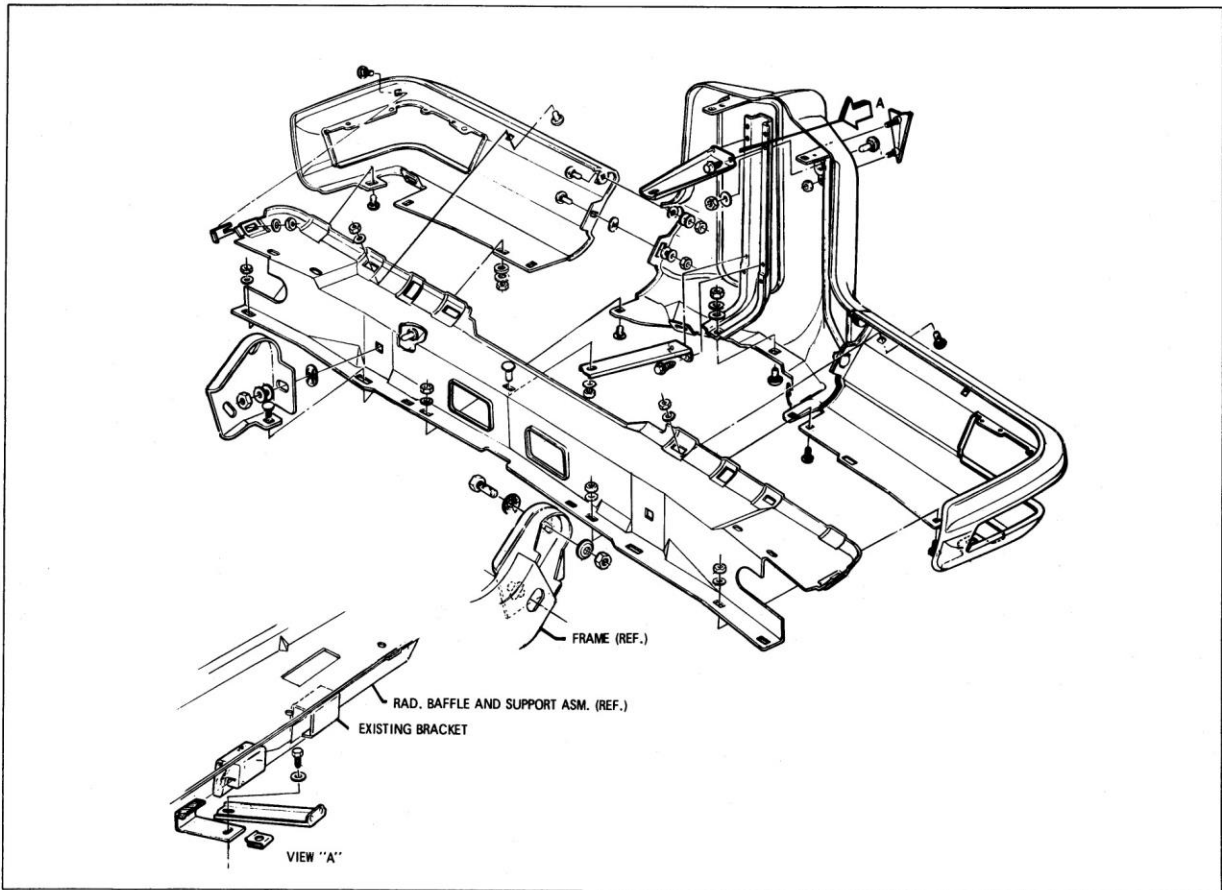


Fig. 14-4 Pontiac Front Bumper Assembly

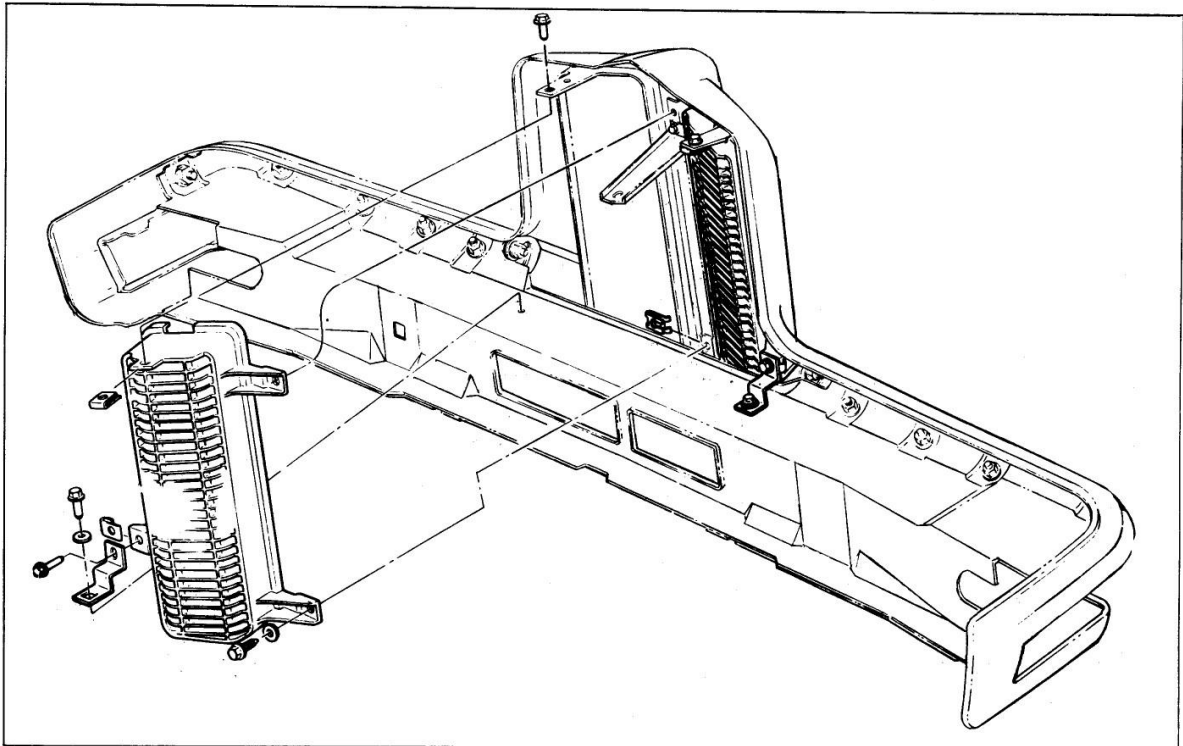


Fig. 14-5 Pontiac Grille

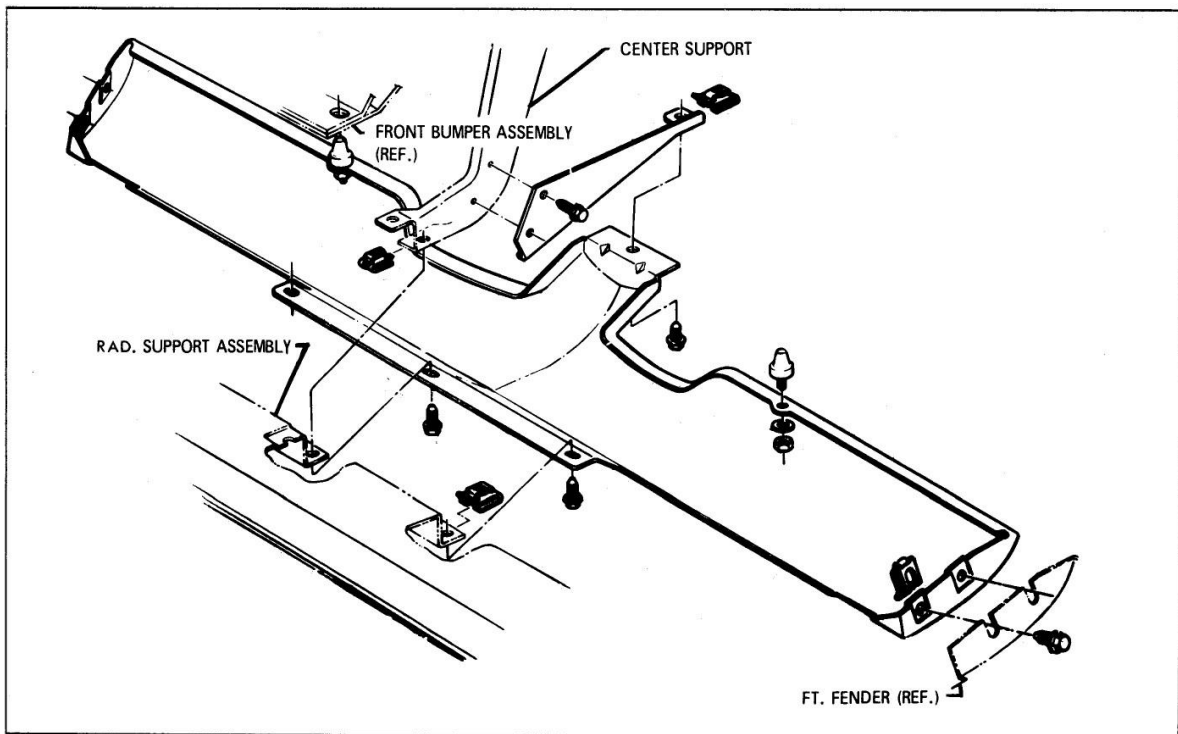


Fig. 14-6 Pontiac Front Valance Panel

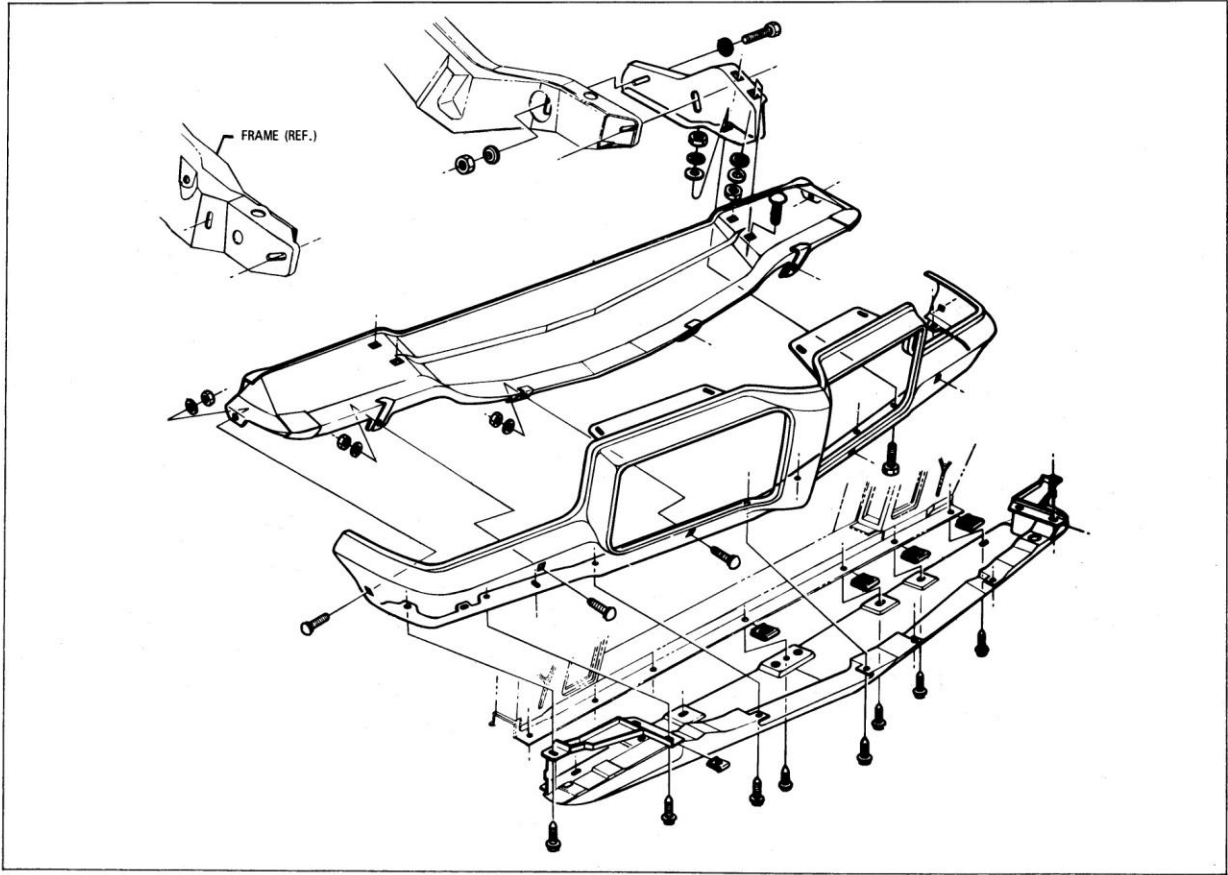


Fig. 14-7 Tempest Front Bumper and Valance Panel

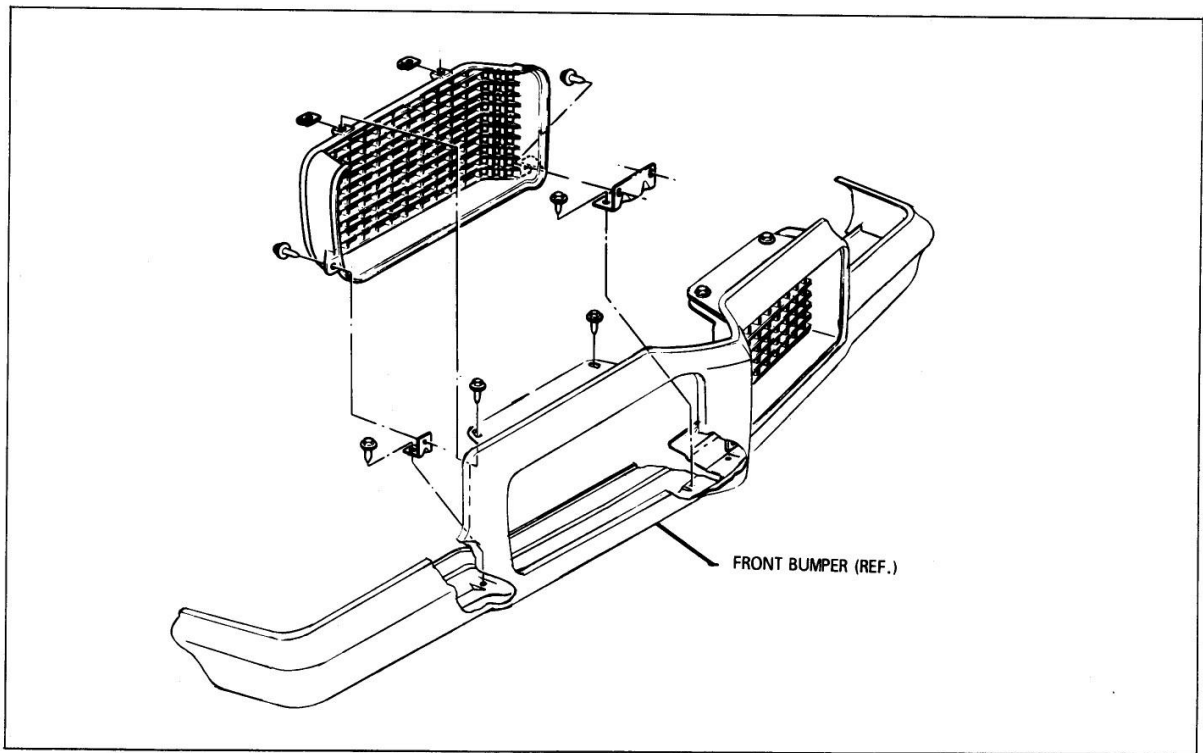


Fig. 14-8 Tempest Grille

2. Remove valance panel.
3. Remove bumper to radiator support filler.
4. Remove upper support bolts.
5. Disconnect headlamps.
6. Support bumper - remove bumper hanger to bumper reinforcement bolts.
7. Remove bumper assembly.
8. Remove headlamp assembly.
9. Remove bumper reinforcement.
10. Remove grille shells (Fig. 14-10)

REPLACE - ALL

1. To install, reverse above procedures making sure the front bumper is properly aligned with the front end sheet metal. Adjust front bumper stabilizers to contact sheet metal.
2. Torque all face bar to attachment bar bolts 20-30 lb. ft. and all attachment bar to frame bolts 60-80 lb. ft.

NOTE: Always check headlight aim whenever any GTO bumper is removed or readjusted.

REAR BUMPERS

All rear bumpers except on station wagons contain a center opening for access to the gasoline filler. The tail light assemblies are mounted in the bumper on all models except station wagons. All station wagon bumpers have a step built in (Optional on Tempest) for easier access to the rear compartment.

Shims may be required at the center hanger bar bracket where the face bar is mounted to prevent possible rattles.

REMOVE - GRAND PRIX (Fig. 14-11)

1. Remove valance panel (Fig. 14-12).
2. Remove license lamp assembly.
3. Disconnect tail lamps.
4. From below bumper, remove bumper hanger to body attaching bolts.
5. Remove plugs in trunk to gain access to brackets bolts.
6. Support bumper - remove bumper bracket attaching nuts.

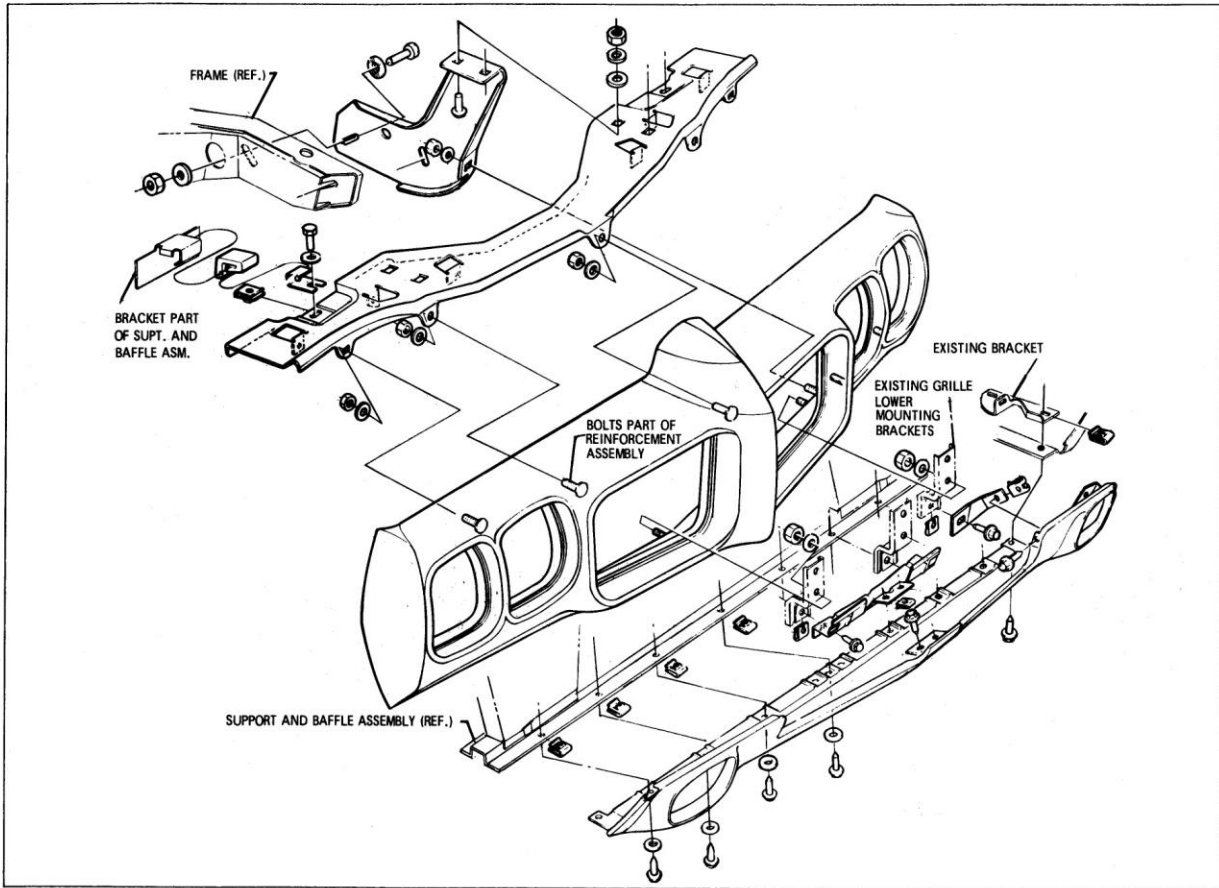


Fig. 14-9 G.T.O. Front Bumper and Valance Panel

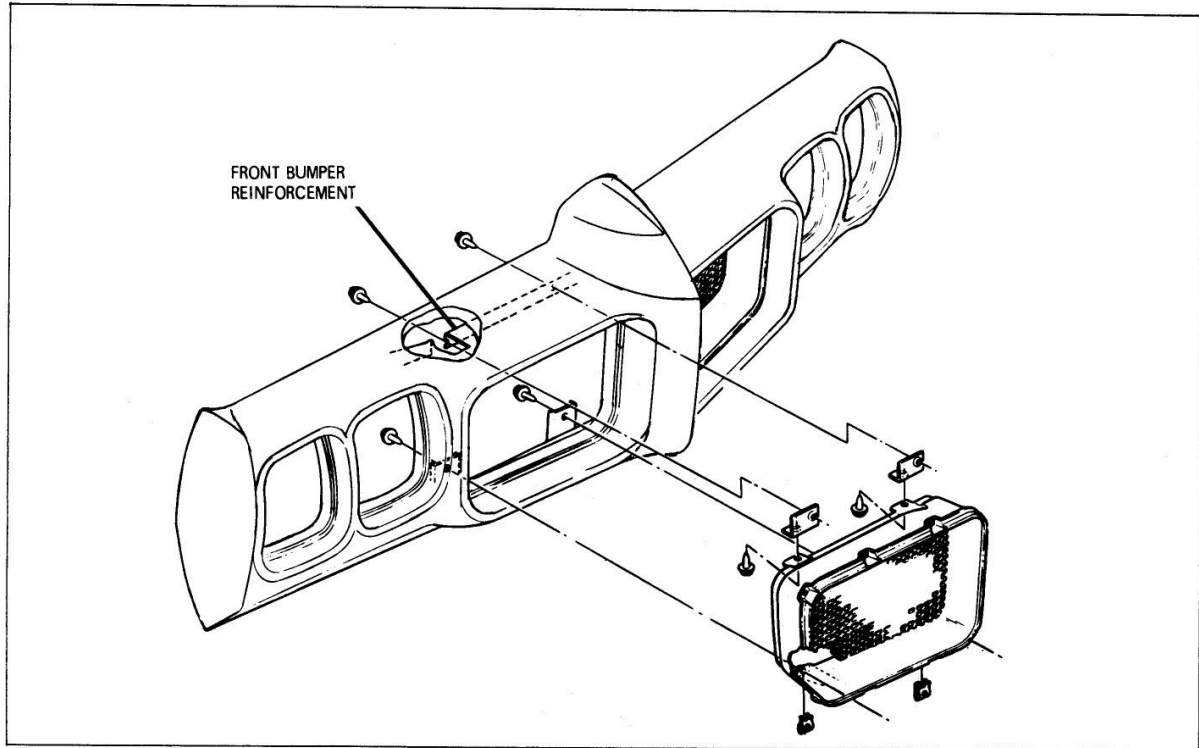


Fig. 14-10 G.T.O. Grille

7. Remove all bumper brackets and license door.
8. Remove tail lamp assemblies.

REMOVE - PONTIAC (Fig. 14-13)

1. Remove valance panel (Fig. 14-14).
2. Remove tail lamp assemblies (twist lock type sockets).
3. Remove license lamp.
4. Through filler door opening, remove center bracket attaching screws.
5. Remove plug in trunk to gain access to bracket bolts.
6. Support bumper-remove four (4) bracket attaching nuts and remove bumper.
7. Remove brackets and license door.

REMOVE PONTIAC STATION WAGON (Fig. 14-15 and 14-16)

1. Remove screws from step treads.

2. Remove treads.
3. Remove license lamp assembly.
4. Remove lower attaching bolts.
5. Support bumper-remove upper attaching bolts.
6. Remove attaching braces and brackets.
7. Remove the latch cover assembly from tailgate as follows.
 - a. Open tailgate.
 - b. Remove inner latch cover to expose outer latch cover bolts.
 - c. Remove outer latch cover.

NOTE: *The bumper may be adjusted laterally only to align the right hand side of step opening with striker on body.*

REMOVE - TEMPEST (Fig. 14-17)

1. Remove valance panel (Fig. 14-17).
2. Remove license lamp assembly.

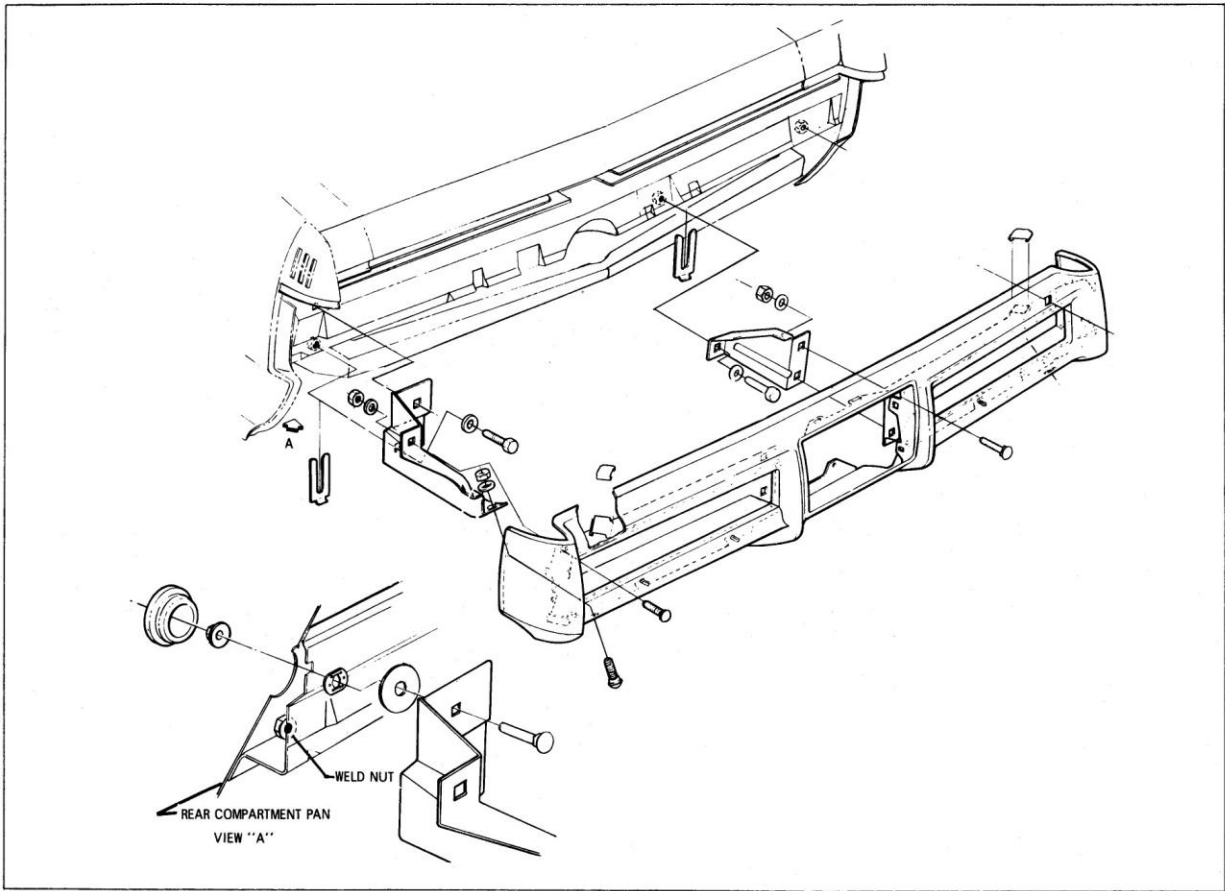


Fig. 14-11 Grand Prix Rear Bumper Assembly

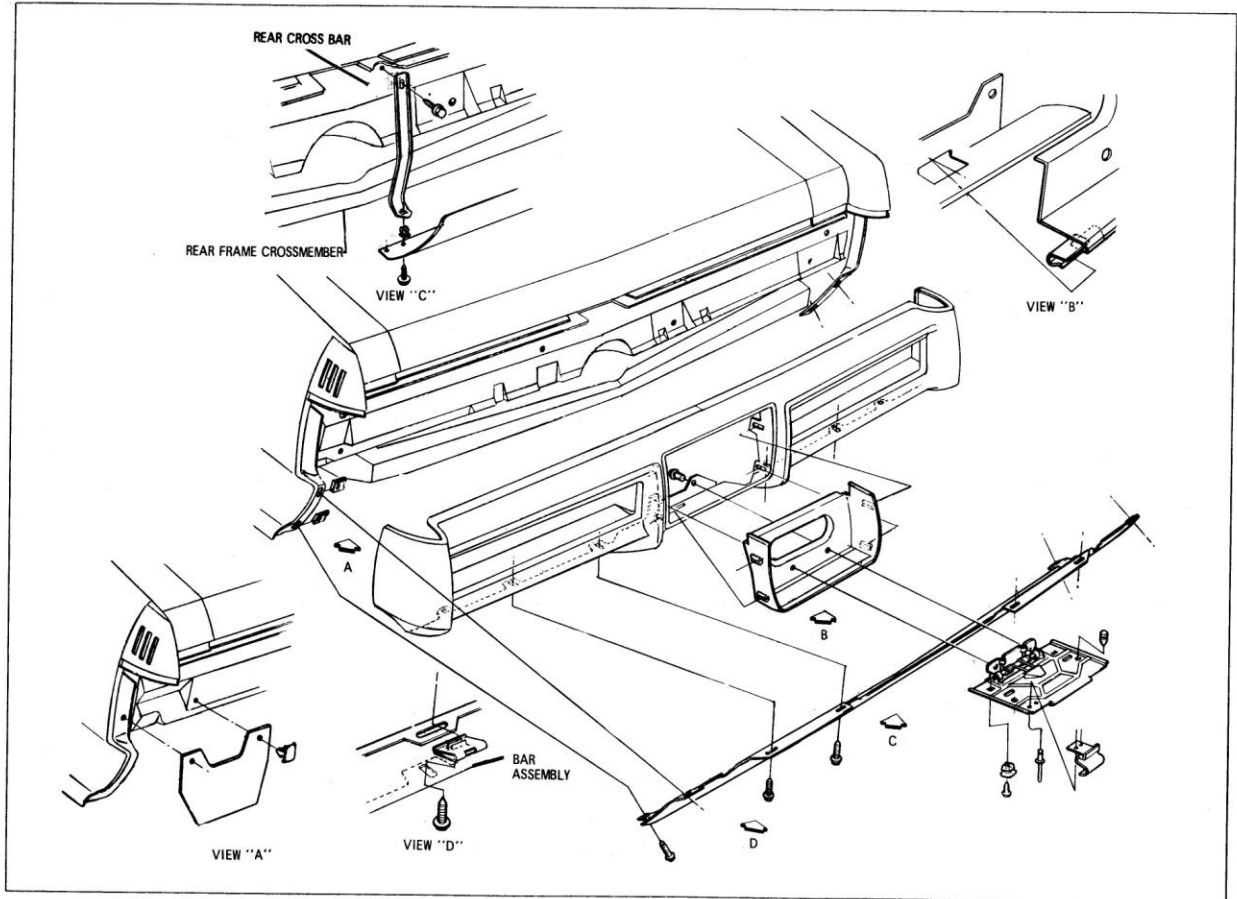


Fig. 14-12 Grand Prix Rear Valance Panel

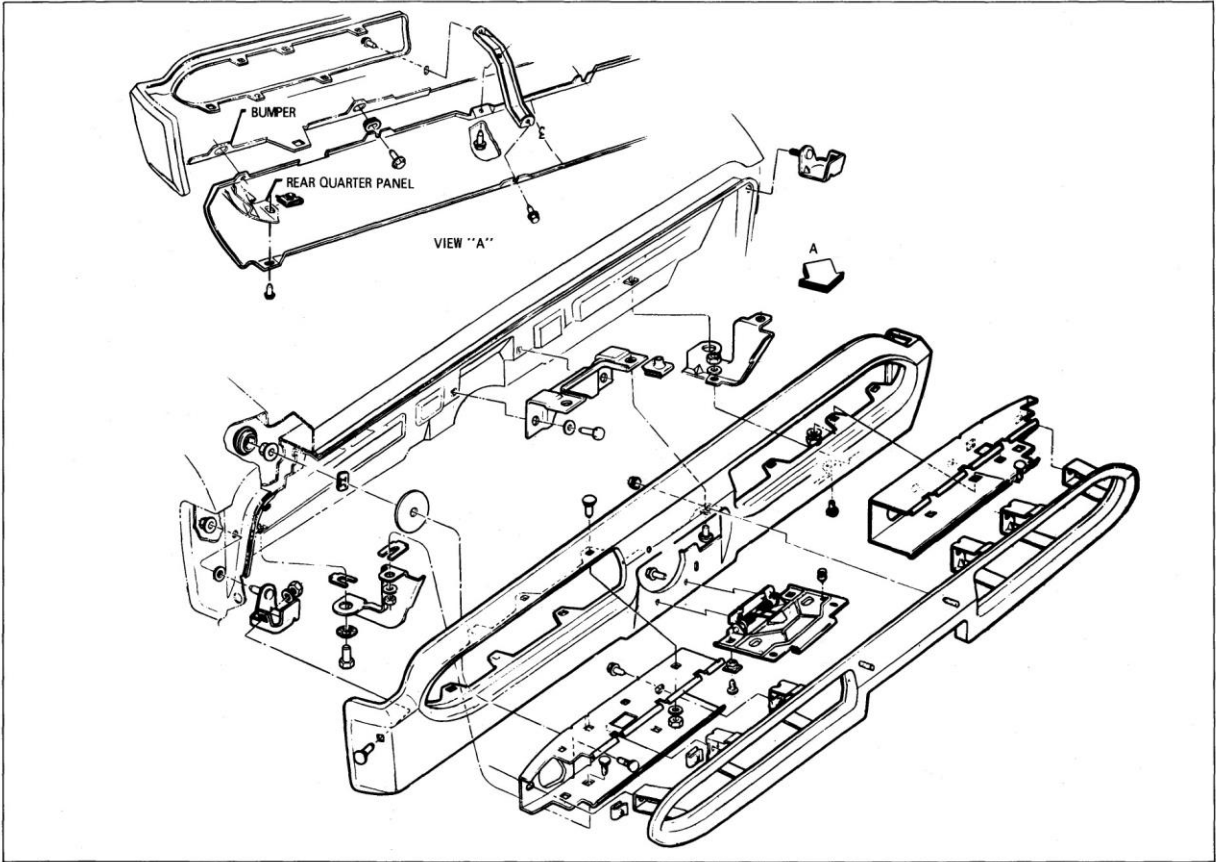


Fig. 14-13 Pontiac Bonneville Rear Bumper Assembly

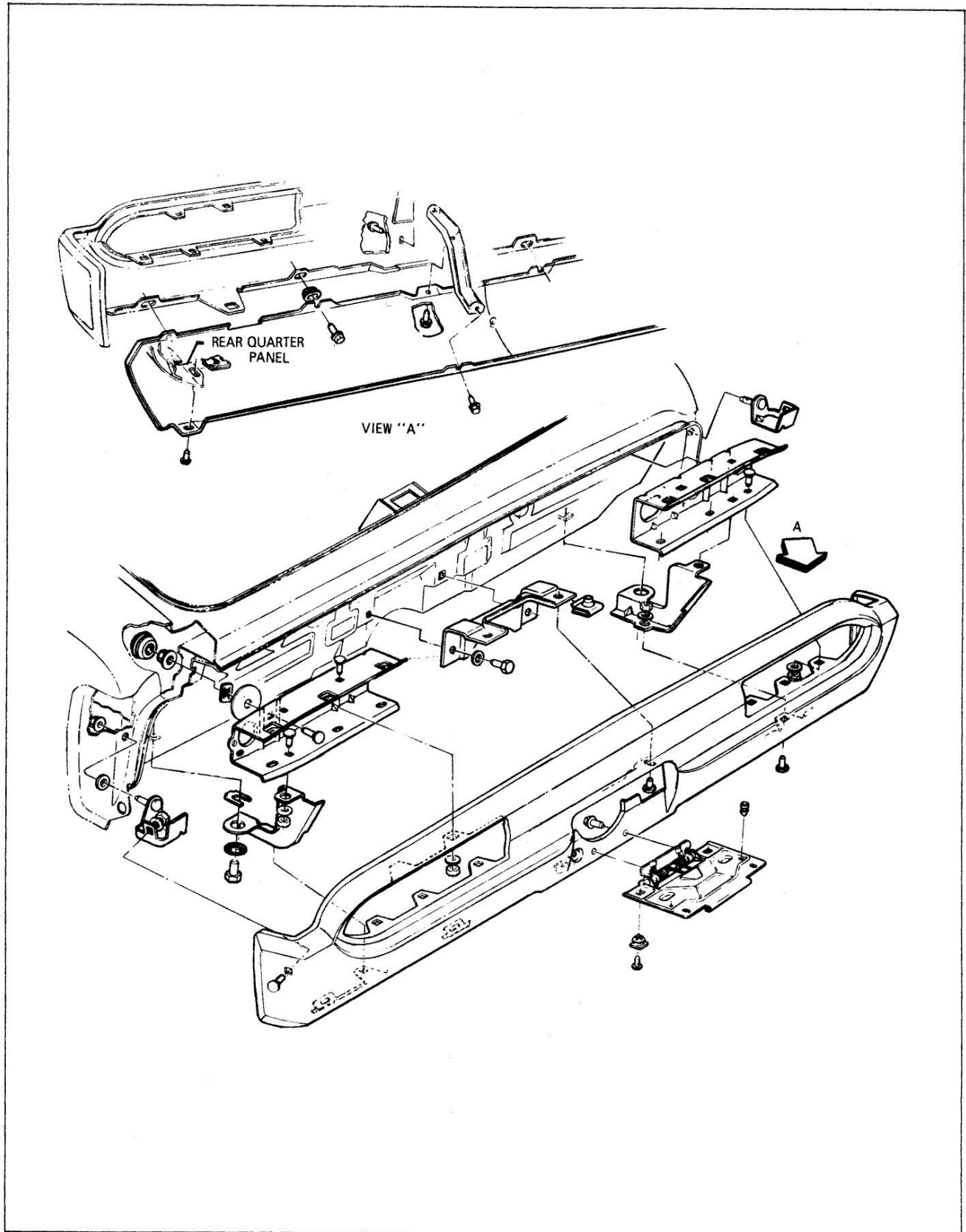


Fig. 14-14 Pontiac Rear Bumper Assembly

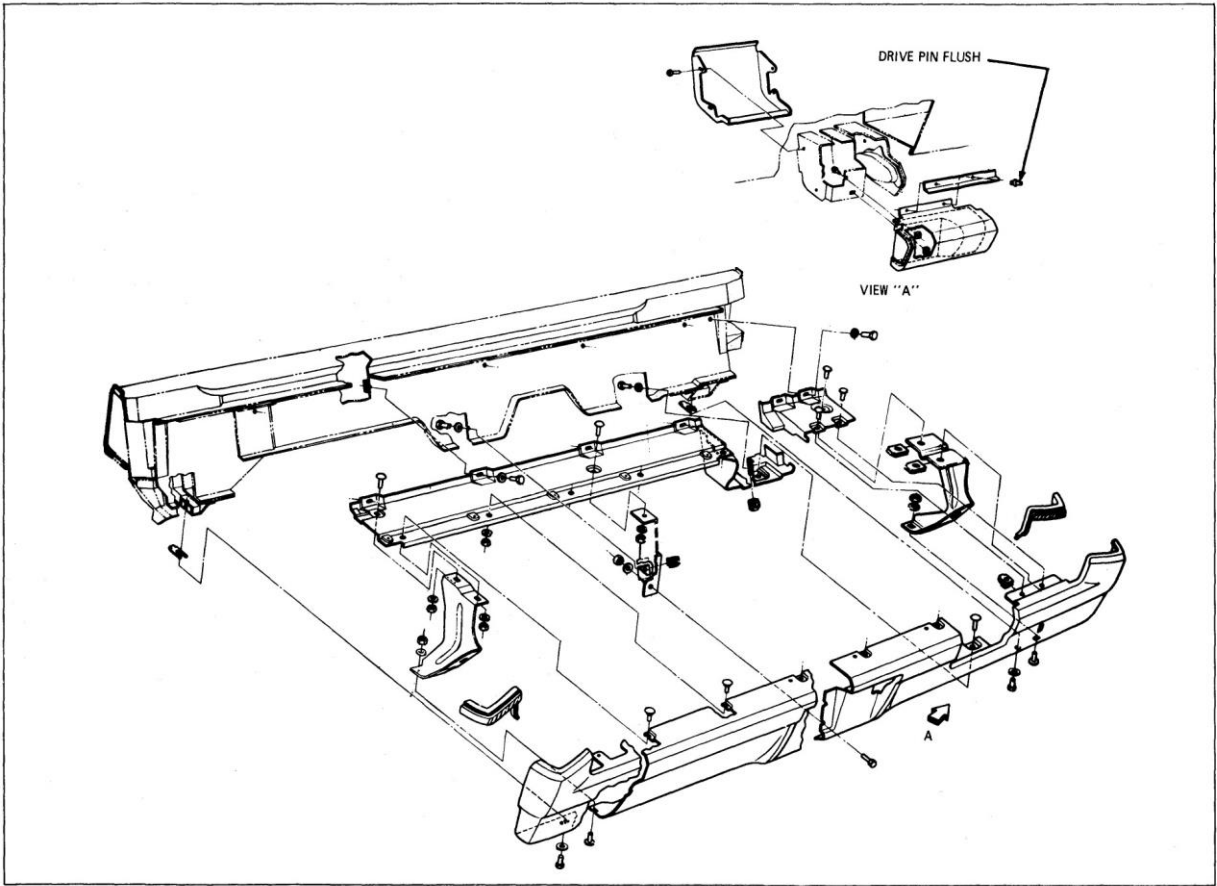


Fig. 14-15 Pontiac Station Wagon Rear Bumper Assembly

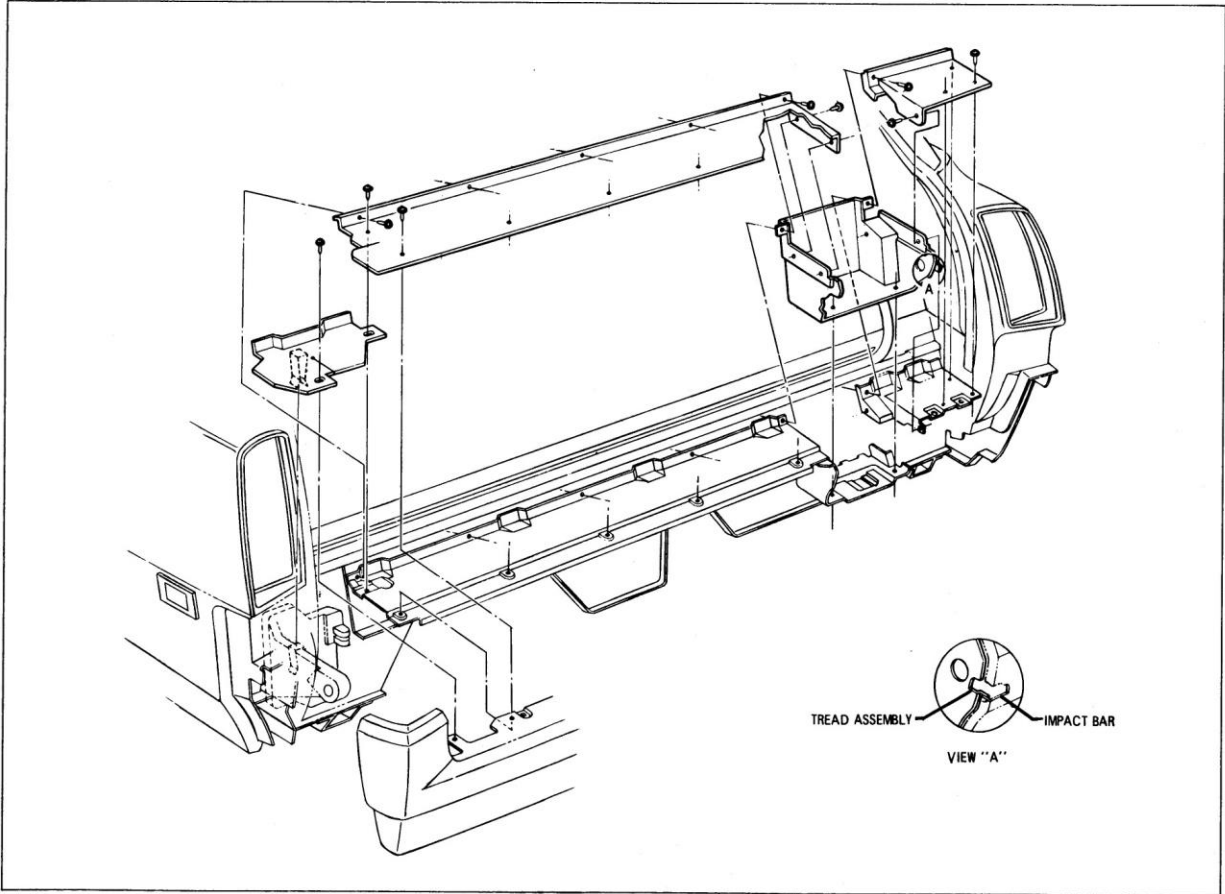


Fig. 14-16 Pontiac Station Wagon Step and Tread Assembly

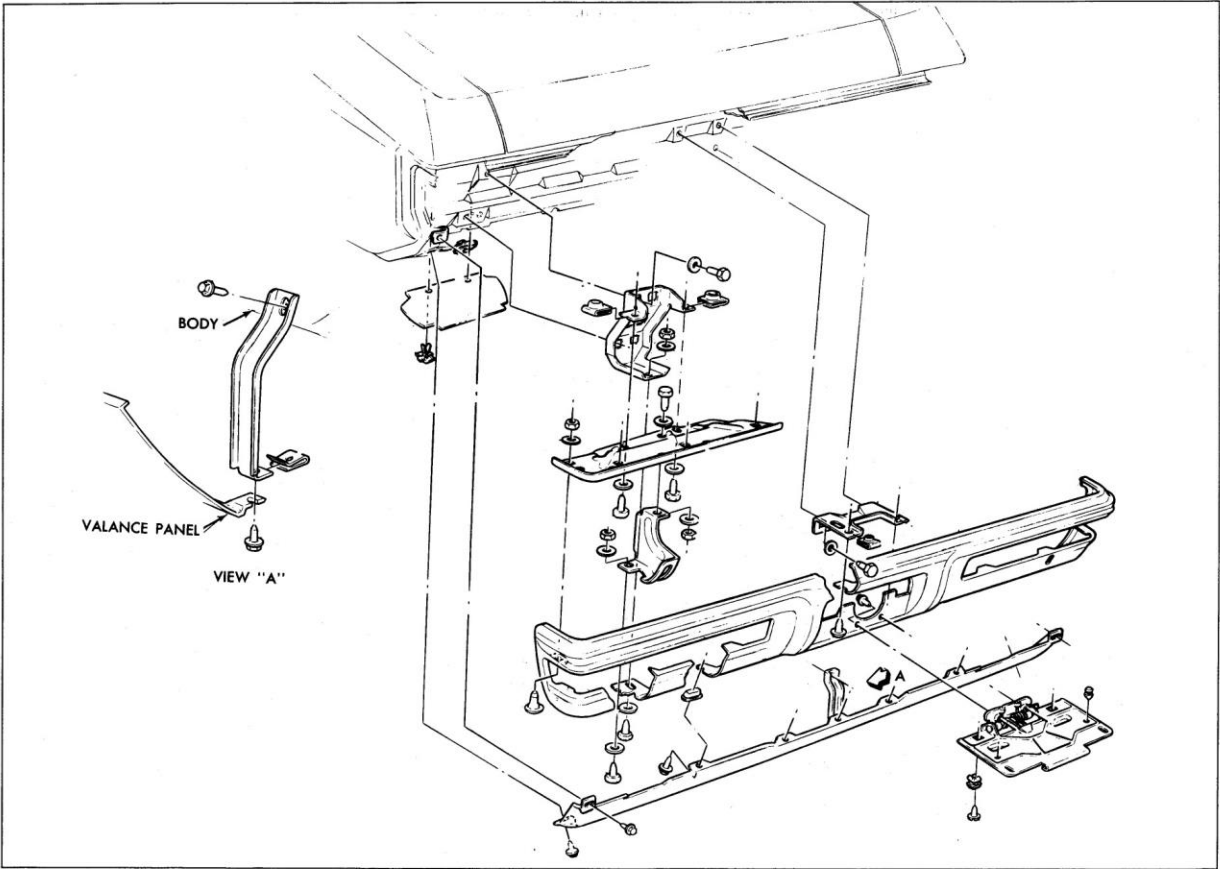


Fig. 14-17 Tempest Rear Bumper Assembly

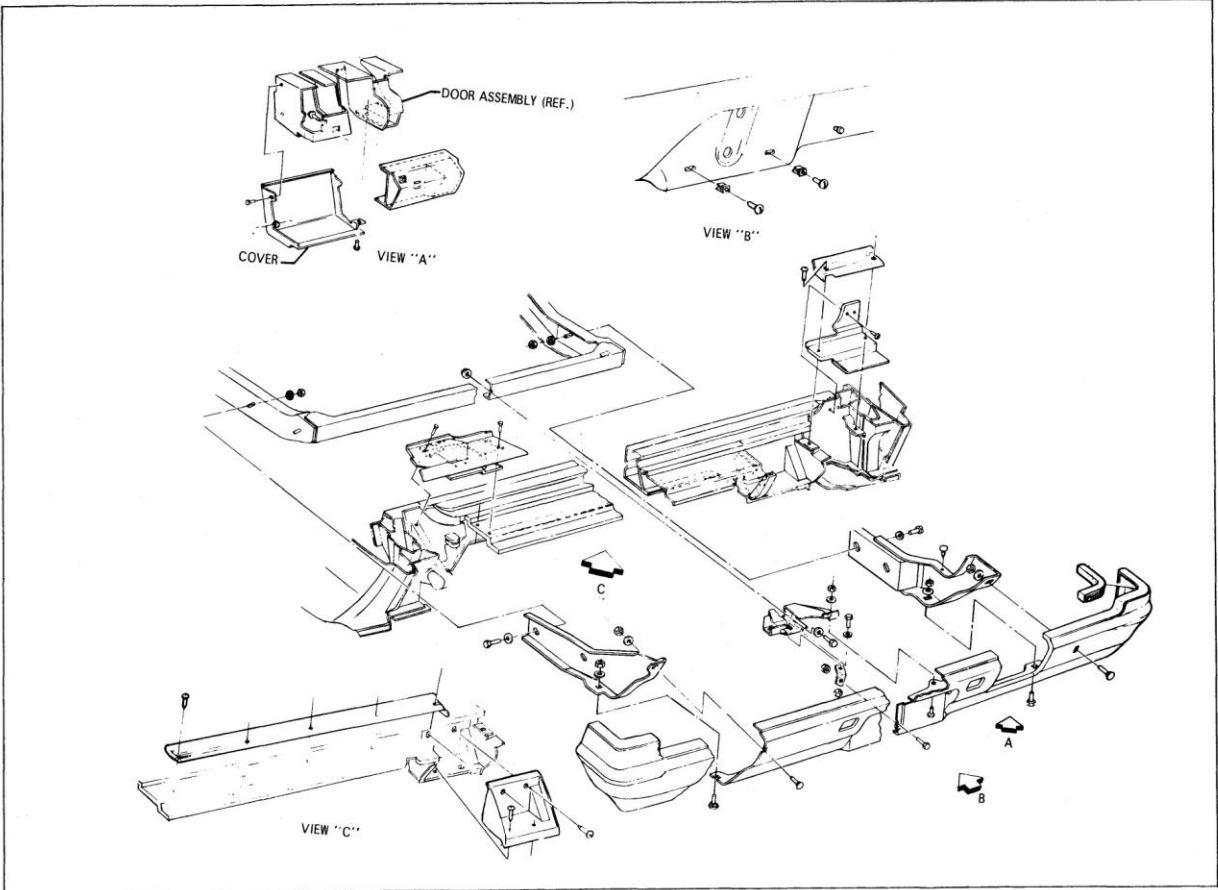


Fig. 14-18 Tempest Station Wagon (With Dual Acting Tailgate) Rear Bumper Assembly

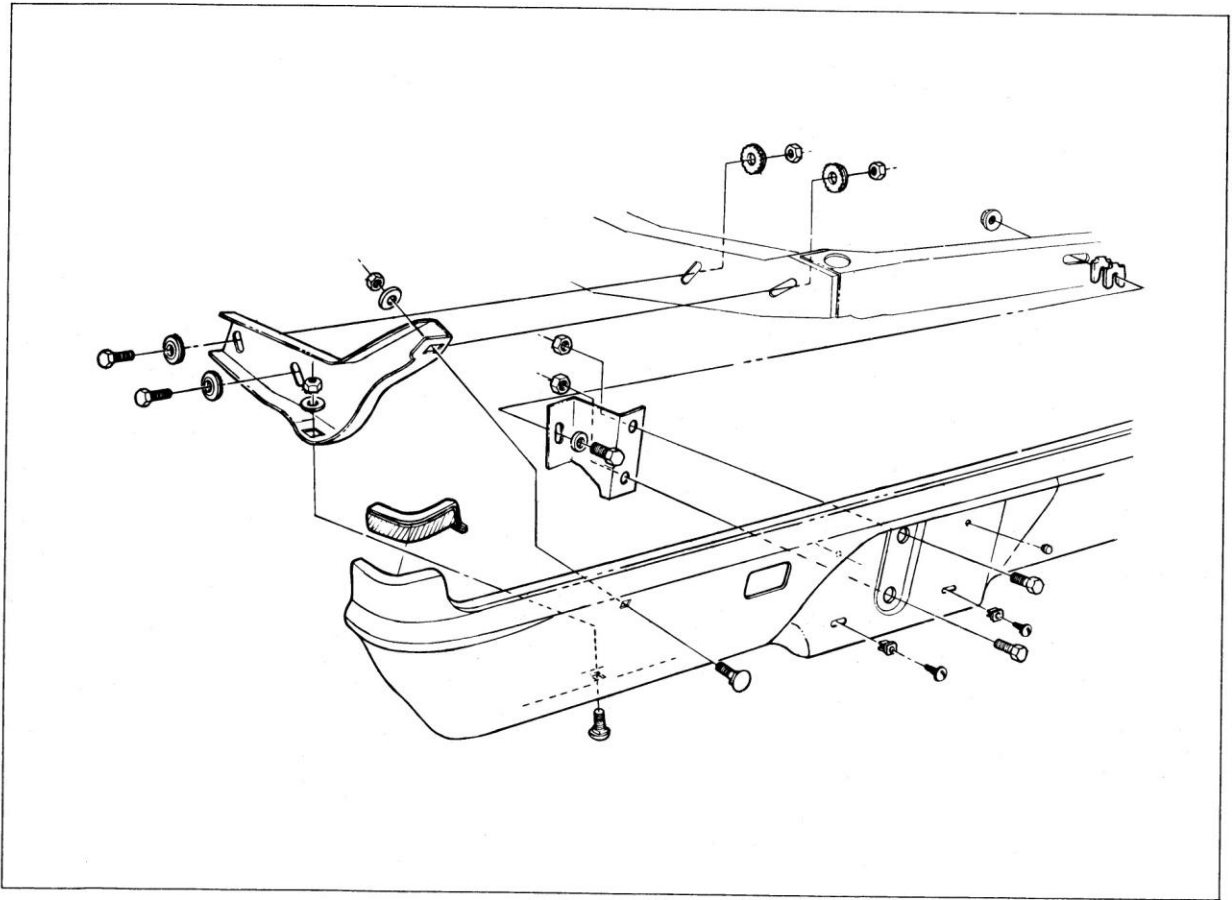


Fig. 14-19 Tempest Station Wagon Rear Bumper Assembly

3. Disconnect tail lamps.
4. Support bumper-remove bumper hanger to body bolts.
5. Remove brackets from bumper.

REMOVE - TEMPEST STATION WAGON (FIG. 14-18, 19)

1. Disconnect all lights contained in or attached to the bumper.
2. Remove step and tread assembly (with dual acting tailgate only).
3. Support bumper-remove hanger bracket to frame attaching bolts.
4. Remove brackets from bumper.
5. To remove the latch cover assembly from the station wagon tailgate, proceed as follows:
 - a. Open tailgate.
 - b. Remove inner cover to expose outer latch cover bolts.
 - c. Remove outer latch cover.

NOTE: *The bumper is fully adjustable to permit aligning the step opening with the striker on body.*

REPLACE BUMPERS - ALL

1. To install, reverse the above procedures making sure rear bumper assembly is properly aligned.

NOTE: *If splash shields were removed at any time during the above operations, they must be replaced before installing bumper.*

2. Torque the attachment bolts as follows:

Face bar to attachment bar bolts -	
all	20-30 lb. ft.
Attachment bar to frame bolts -	
Tempest only	60-80 lb. ft.
Attachment bracket to body bolts -	
Pontiac and Grand Prix	45-60 lb. ft.

POLYURETHANE REPAIR

DESCRIPTION

The polyurethane bumper material will withstand minor impacts and the resultant damage such as occur in parking lots by recovering its original shape. The paint film responds to impact in a similar manner without cracking or splitting. In addition, the paint

finish may be polished for removal of surface marks as with an acrylic paint film. If, however, an area of damage in the bumper does not recover its shape, or the surface is gouged, a repair system has been developed to restore the original shape and appearance of the foam base material. The polyurethane material is used for GTO front bumpers, and Bonneville rear bumper applique.

The repair sequence amounts to a filling operation with a flexible epoxy resin. After curing, the patch is dressed to conform to the surrounding contour. The refinish operation includes application of a glazing compound which, after drying, is sanded smooth. Followed by a primer, color coat and clear top coat. The application and refinishing methods employed with this material conformed to generally known and accepted existing methods -- only the material is different.

REPAIR PROCEDURE

a. FILLING

Material:

- Part A - Flexible Resin
- Part B - Resin Hardener

Equipment:

- Putty Knife
- Squeegee
- Heat Lamp(s)
- #220 & #400 Sandpaper
- DA Sander w/#80 Discs
- Body File w/Holder

1. Clean the repair area with a wax, grease and silicone removing solvent. With a DA sander adjusted to a feathering action and fitted with a #80 grit disc, remove the paint film in and surrounding the area to be filled. This is necessary because the patching compound will adhere only to the foam base material.

2. If the surface to be repaired is cut or gouged, use the DA sander and a clean disc to enlarge the cut or gouged area(s). This must be done to ensure removal of grease, oil, or dirt from the area to be contacted by the repair material. This action should also taper the edges of the cut to minimize the possibility of highlighting the repair.

3. Mix the patching compound and hardening agent at the prescribed portion (10 to 1). The patching compound and hardening agent should be mixed until a uniform color is achieved.

4. Fill the repair area with the mixed compound to a height slightly above the surrounding contour. Work out air bubbles, if present.

NOTE: *Thinly spread the remaining mixture on a clean, hard surface to lengthen pot life. This may be used later on the cured patch for repair of pin holes.*

5. Place a heat lamp approximately 15 inches from the patched surface for 15 to 30 minutes, or until the repair material will not transfer to the touch.

6. Remove the heat lamp and allow the patch to return to room temperature. The repair patch will harden with cooling.

7. Dress the patch to contour with a curved-tooth body file, followed by sanding with #220 sandpaper and block.

CAUTION: *The cured repair material is slightly harder than the original foam and may easily be undercut.*

8. If the patch is uneven or porous, repeat steps 4 thru 7.

b. REFINISHING

The polyurethane bumper and applique can not be spot refinished. The complete bumper or applique have to be refinished using a primer prior the color coat and clear top coat. Under no circumstances, however, should regular paint materials be used in refishing this bumper. As mentioned earlier, the glaze coat, primer coat color coats and clear top coats that are to be used are specially formulated with an elastomer vehicle so that the cured film may bend under impact without cracking or splitting.

Material:

Glazing Compound
Primer
Color
Top Coat Clear
Thinner
220 and # 400 Sandpaper

Equipment: Suction Spray Gun with same nozzle and air cap combination used for acrylic application.

1. Featheredge the repair area by dry-sanding with #220 sandpaper followed by #400 grit sandpaper.

2. Thoroughly mix the glazing compound and spray-apply the material in the same manner as PX primer-surfacer. Apply two or three coats, allowing flash-time between coats.

3. Allow 15 to 30 minutes drying time at room temperature. When dry, water-sand the glazed area

with #400 sandpaper. Block-sand for maximum leveling.

NOTE: *Dry-sanding clogs the sandpaper due to the elastomer-type vehicle used in the compound.*

4. Re-clean the repair area with a final solvent wash.

5. Apply a coat of polyurethane primer.

6. Thoroughly stir the color and apply in sufficient quantity to achieve hiding only--one dry coat followed by a wet coat.

NOTE: *If mottling occurs, the metallic color control method of color application corrects this problem.*

7. Allow the color to dry 5 to 10 minutes at room temperature.

8. Thoroughly mix and apply the top coat clear, using two coats as done previously with the color.

CAUTION: *Wet application of clear coats causes considerable darkening of the color.*

9. Air-dry of the clear coats require 8 hours at room temperature. Force-dry is recommended for 1/2 hour at 150° - 170°F.

10. Compounding reduces the gloss, for this reason, rubbing compound should be used only if a reduction of gloss is desired.

NOTE: *In using this material, the following cautions should be noted:*

All the bumper refinishing materials are packaged at spraying viscosity. Only if "veiling" occurs during application will additional reduction be necessary.

Reduce these refinish materials with the special thinner only--never use acrylic thinner.

The top coat clear material has a tendency to yellow if subjected to prolonged, elevated temperatures (300°F).

The clear coat tends to soften the color over which it is applied. For this reason, premature feathering (within 24 hours) of air-dried film, as in overlap of a previously repaired area, will TEAR and PEEL the color off the surface.