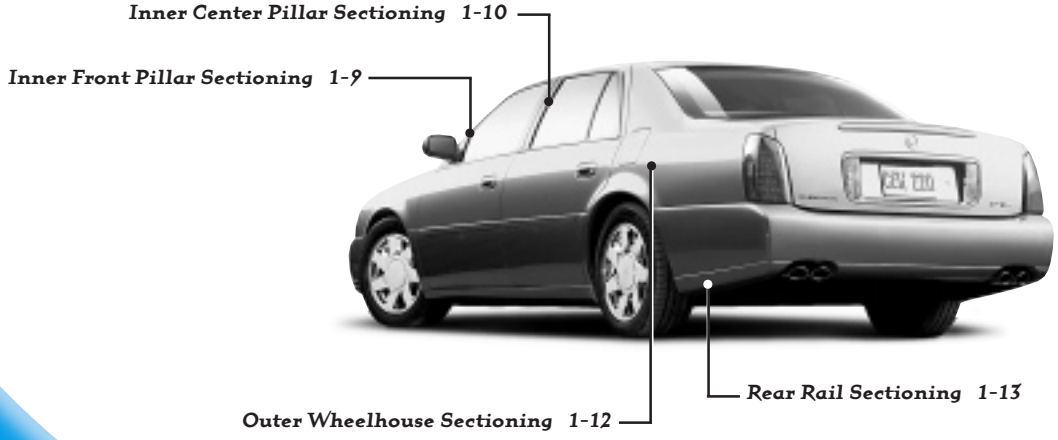
2000 Cadillac DeVille



Cadillac

Outer Front Pillar, Center Pillar and Quarter Panel Sectioning

CAUTION: When performing service on or near the Supplemental Inflatable Restraint (SIR) components or the SIR wiring, the SIR system must be disabled. Failure to follow the correct procedure could cause air bag deployment, personal injury or unnecessary SIR system repairs.

The full body side outer panel comes as a one-piece assembly and can be replaced at factory seams after removal of glass and roof. Any one of these procedures can be performed separately, or in any combination, dependent upon the extent of damage to the vehicle. Sectioning must take place in specified areas only (Fig. 1-1). Remove front glass when sectioning front pillar and rear glass for rear pillar repair.

IMPORTANT: When replacing panels that involve servicing stationary glass, refer to GM Service Bulletin 43-10-48 before performing any priming or refinishing.

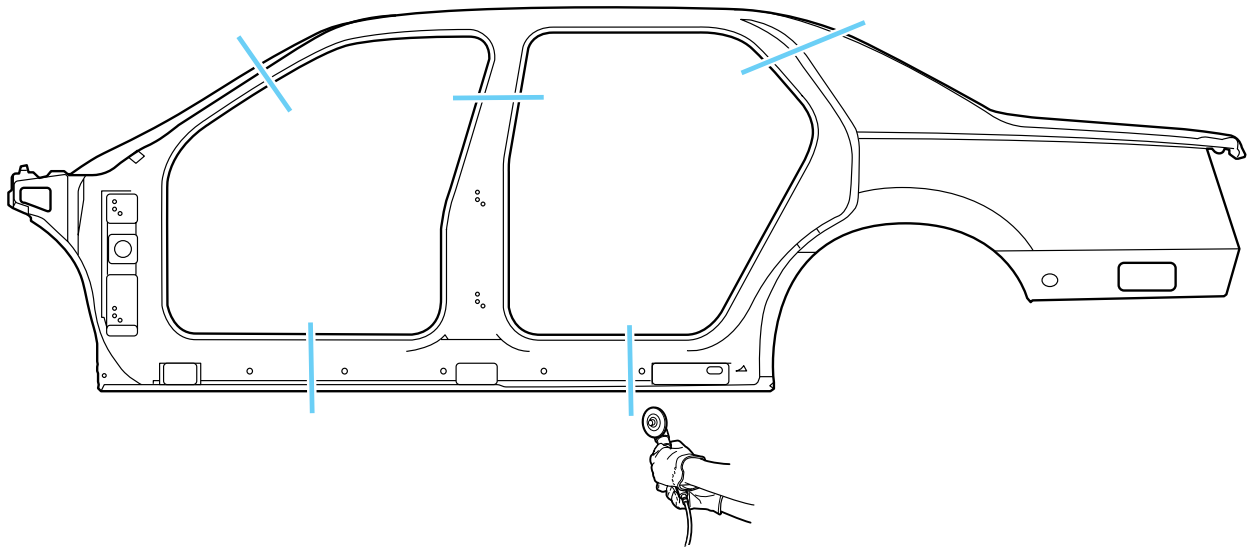


Fig. 1-1 — 2000 DeVille Outer Frame Sectioning Locations

Outer Front Pillar Sectioning

Removal Procedure

IMPORTANT: Sectioning should be performed only in the recommended areas. Failure to do so may compromise the structural integrity of the vehicle.

1. Visually inspect and restore as much of the damage as possible to factory specifications.
2. Remove the following:
   - Fender
   - Windshield
   - Door
   - Hinge pillar blocks
3. Determine sectioning locations. Section in approved areas only (see Fig. 1-1).
4. Mark locations and cut part through outer panel only.
5. Locate factory welds and drill out, noting number and locations of welds (Fig. 1-2).
6. Locate and drill out spot welds on weather strip retainer as necessary. It is not necessary to remove complete retainer.
7. Remove outer panel.
8. Note placement and number of foam baffles for new installation. If baffles are damaged, replacement service parts are available.

   IMPORTANT: Hinge pillar blocks must be replaced if damaged.
9. Clean adhesive and sealer from hydroformed reinforcement tube as necessary. Note location for reinstallation.

Service Part Preparation

1. Cut service part in corresponding locations to fit original cut lines. Leave a gap of one-and-one half times the metal thickness of sectioning joint.
2. Create 100 mm (4 in) backing plate on rocker panel from unused portion of service part (Fig. 1-3).
3. In windshield pillar area, use the hydroformed inner rail for backing plate.
4. Drill 8 mm (5/16 in) plug weld holes in service part according to original locations as noted. Drill plug weld holes spaced 40 mm (1-5/8 in) apart along backing plate location 25 mm (1 in) from joint edge.

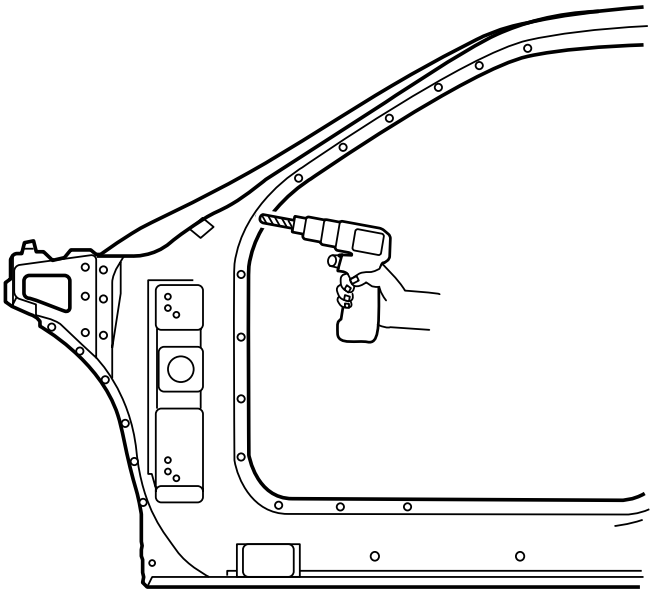


Fig. 1-2 — Drill Out Welds

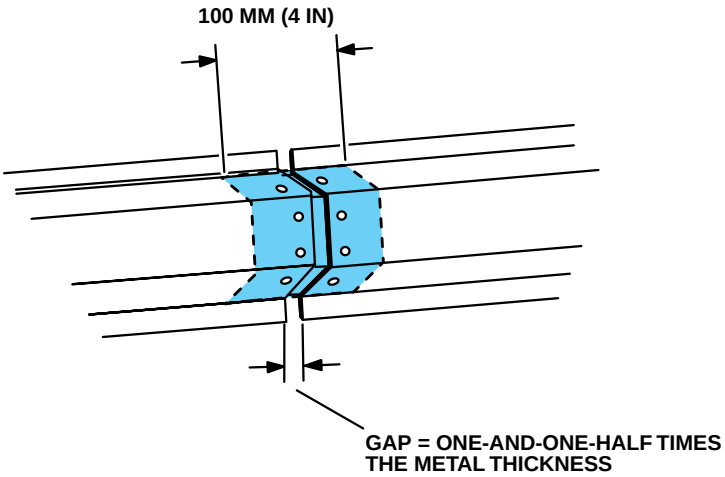


Fig. 1-3 — Rocker Panel Backing Plate

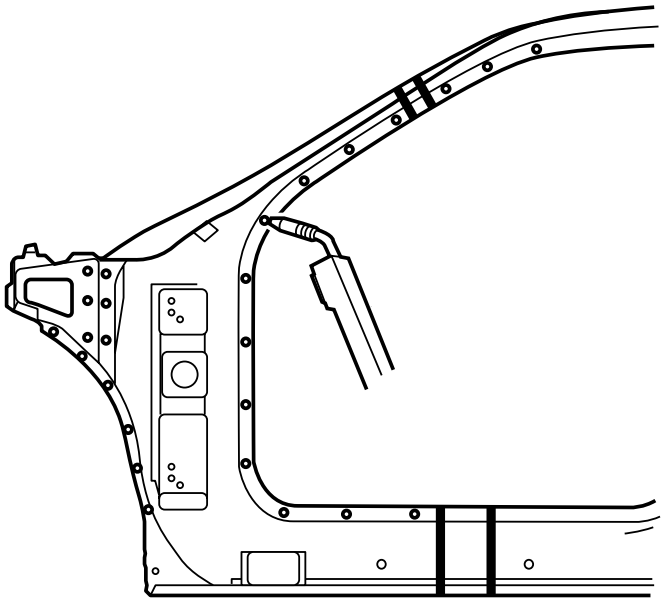


Fig. 1-4 — Plug Weld and Stitch Weld

Installation Procedure

IMPORTANT: Remove all foam prior to welding this section of the service panel.

1. Prepare mating surfaces.
2. Apply weld-through primer to mating surfaces prior to assembly.
3. Weld backing plates to vehicle at rocker.

   IMPORTANT: Replace hinge pillar blocks prior to welding outer panel.
4. Apply windshield bonding adhesive to the hydroformed reinforcement as noted from removal procedure.
5. Position service part on vehicle. Clamp in place. Check for proper fit.
6. Plug weld accordingly (Fig. 1-4).
7. Stitch weld along both sectioning joints. Make 25 mm (1 in) welds along the seam with 25 mm (1 in) gaps between, then go back and complete the stitch weld to ensure structural integrity of the vehicle.
8. Install insulating foam as necessary in areas noted from original baffle locations.

   IMPORTANT: Prior to refinishing, refer to the publication GM4901M-D-2000 "GM Approved Refinish Materials" for recommended products. Do not combine paint systems. Refer to paint manufacturer's recommendations.
9. Refinish as necessary.

Outer Center Pillar Sectioning

Removal Procedure

IMPORTANT: Sectioning should be performed only in the recommended areas. Failure to do so may compromise the structural integrity of the vehicle.

1. Locate an approved sectioning area in the center pillar (Fig. 1-5).
2. Mark and scribe a line. This is the cut location.
3. Cut Center Pillar at cut line. Use caution not to cut inner reinforcement.
4. Create cut lines on rocker within approved sectioning locations. Cut the rocker vertically along cut lines.
5. Drill out factory welds. Note number and location of welds.
6. Remove the damaged part.
7. Note placement and number of foam baffles for new installation. If baffles are damaged, replacement service parts are available.

   IMPORTANT: Hinge pillar blocks must be replaced if damaged.

Preparation Of Service Part

1. On the service part, at center pillar mark a horizontal line in corresponding locations to original sectioning cut. Leave a gap of one-and-one-half times the thickness of the metal at the sectioning joint (Fig. 1-6).
2. Mark vertical cut lines in rocker areas to correspond with original section lines. Leave a gap of one-and-one-half times the metal thickness (see Fig. 1-3).
3. Cut the outer doorframe opening service part along these three section lines.
4. Cut two 100 mm (4 in) pieces from the unused portion of the service part for backing plates in rocker.
5. Cut one 50 mm (2 in) backing plate for pillar (Fig. 1-6). Remove the flange on each side of the backing plates so that they will fit behind the sectioning joint.
6. Drill 8 mm (5/16 in) plug weld holes in service part according to original locations, as noted. Drill plug weld holes spaced 40 mm (1-5/8 in) apart along backing plate locations. Space these holes 25 mm (1 in) from the joint edge on the rocker panels and 13 mm (1/2 in) from the joint edge on the pillar.

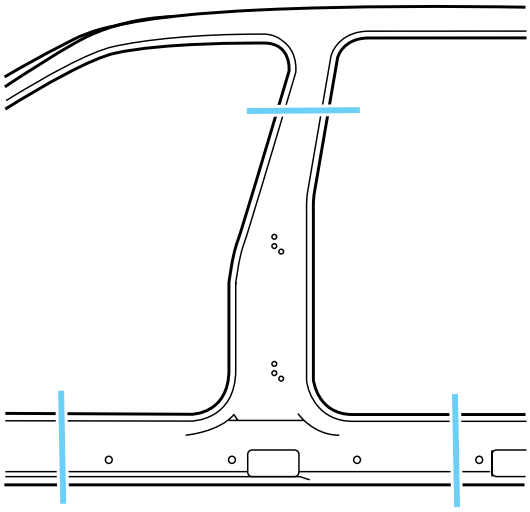


Fig. 1-5 — Outer Center Pillar – Sectioning Locations

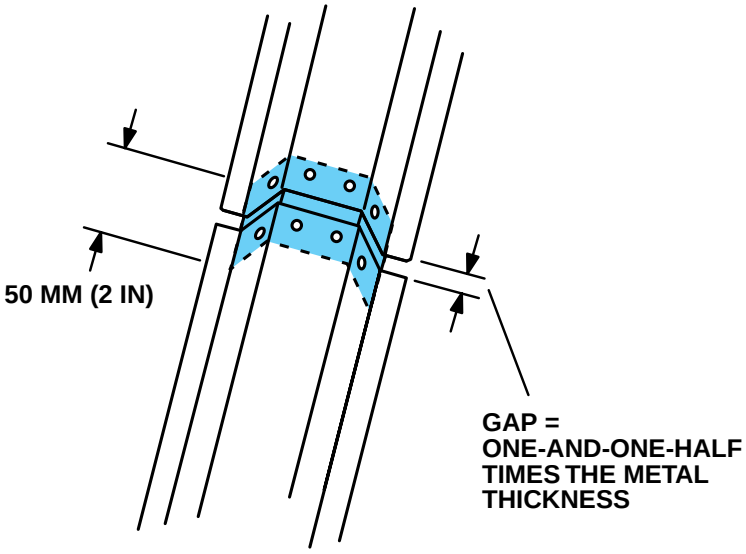


Fig. 1-6 — Create Pillar Backing Plate

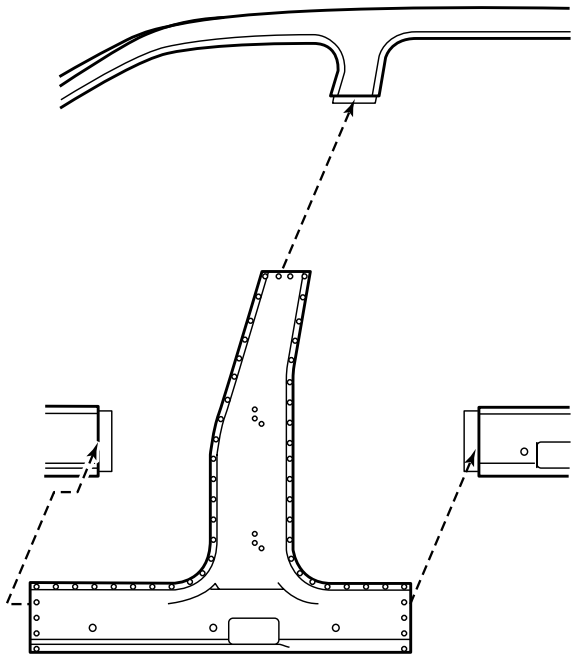


Fig. 1-7 — Outer Center Pillar – Installation

Installation Procedure

1. Install sleeves on vehicle at rocker and center pillar areas using plug welds.
2. Replace hinge blocks and bolts.
3. Prepare mating surfaces.

   IMPORTANT: Prior to refinishing, refer to the publication GM4901M-D-2000 "GM Approved Refinish Materials" for recommended products. Do not combine paint systems. Refer to paint manufacturer's recommendations.
4. Apply weld-through primer to mating surfaces prior to assembly.
5. Align part and clamp in place. Check fit (Fig. 1-7).
6. Spot blast plug weld areas.
7. Plug weld as necessary in original spot weld locations and at backing plates.
8. Stitch weld at section joints, one inch on and one inch off, as necessary, then go back and complete the stitch weld. This will create a solid joint with minimal heat distortion.
9. Dress welds and finish seams as necessary.
10. Refinish as necessary.

Quarter Panel Sectioning

Removal Procedure

The service part comes with lower quarter panel extension and taillamp pocket attached. These parts can be left on the vehicle if not damaged. Drill out factory welds on the car and service part and use the outer panel only.

IMPORTANT: When replacing panels that involve servicing stationary glass, refer to GM Service Bulletin 43-10-48 before performing any priming or refinishing.

IMPORTANT: Sectioning should be performed only in the recommended areas (Fig. 1-8). Failure to do so may compromise the structural integrity of the vehicle.

IMPORTANT: It may be necessary to unplug and remove one end of the body wiring harness that runs through quarter pillar lower extension if it is necessary to replace extension.

1. Visually inspect and restore as much of the damage as possible to the factory specifications.
2. Remove all related panels and components.
3. Remove all sealers, sound deadeners and anti-corrosion materials as necessary.
4. Determine sectioning locations in rocker area (Fig. 1-8).
5. Mark a line and cut in approved sectioning areas of rocker.
6. In upper quarter panel door opening, locate the fourth weatherstrip hole (1).
7. Measure down 25 mm (1 in) and mark a line.
8. In back-glass opening, locate rear edge of roof panel.
9. Measure down 25 mm (1 in), and scribe a second line. Connect marks at both locations to create a cut line.
10. Cut part at marked locations.
11. Locate, mark and drill out all factory welds. Note the number and location of welds for installation of the service assembly.
12. Remove damaged panel. Note placement and number of foam baffles for new installation. If baffles are damaged, replacement service parts are available.

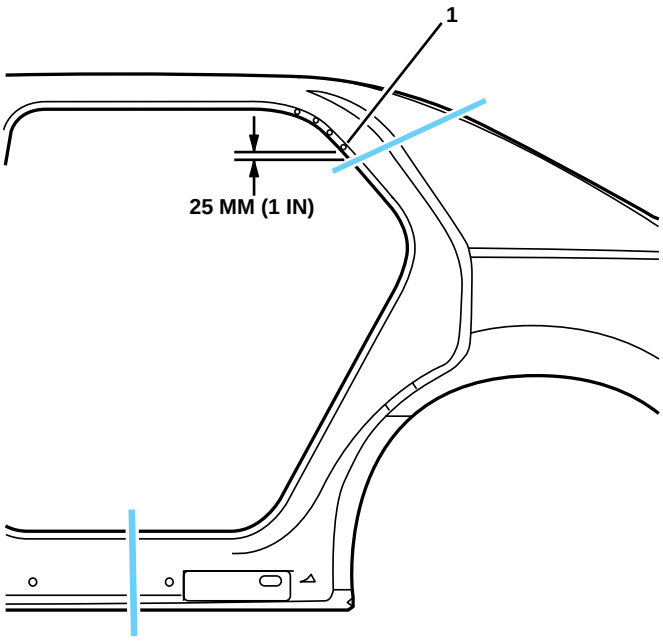


Fig. 1-8 — Outer Rear Pillar Sectioning

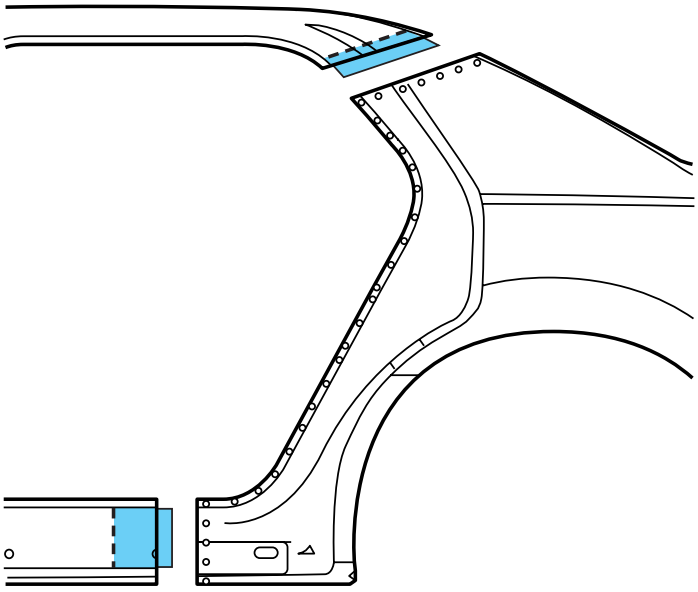


Fig. 1-9 — Outer Rear Pillar Preparation

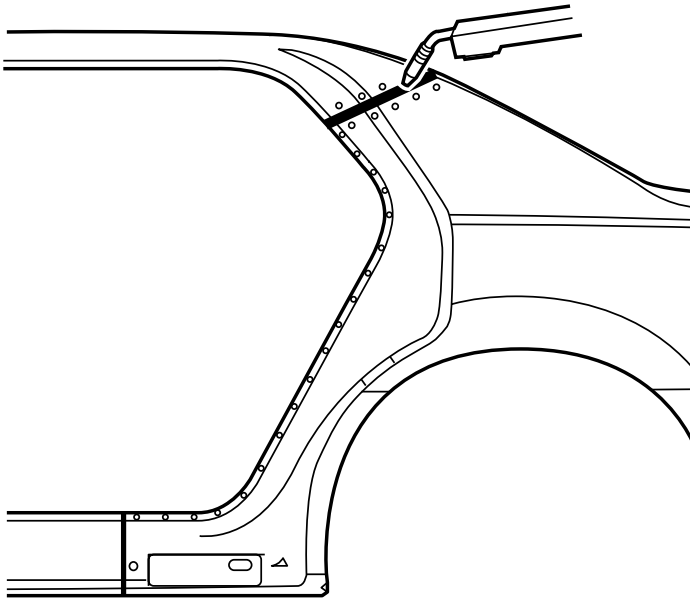


Fig. 1-10 — Outer Rear Pillar Installation

Preparation Of Service Part

1. Cut service part in corresponding locations to fit original cut lines. Leave a gap of one-and-one-half times the metal thickness of sectioning joint (Fig. 1-9).
2. Create 100 mm (4 in) backing plate on rocker panel from unused portion of service part.
3. Create a 50 mm (2 in) backing plate on quarter panel from unused portion of old quarter panel.
4. Drill 8 mm (5/16 in) plug weld holes as noted from original locations. At backing plates,drill 8 mm plug weld holes 13 mm (1/2 in) from seam spaced 40 mm (1 1/2 in) apart.

Installation Procedure

1. Position service part on vehicle. Check fit using body dimensions.
2. Temporarily remove service part.
3. Prepare mating surfaces.

   IMPORTANT: Prior to refinishing, refer to the publication GM4901M-D-2000 "GM Approved Refinish Materials" for recommended products. Do not combine paint systems. Refer to paint manufacturer's recommendations.
4. Apply weld through primer to mating surfaces.
5. Install GM P/N 12399117 Sealing Strip between outer wheelhouse and gas door pocket.
6. Weld backing plates into position on body.
7. Position service part and clamp in place. Spot blast plug weld areas. Plug weld as necessary in original locations and along backing plates.
8. Stitch weld along entire sectioning joint. Make 25 mm (1 in) welds along the seam with 25 mm (1 in) gaps between them (Fig. 1-10).
9. Go back and complete the stitch weld. This will create a solid joint with minimal heat distortion.
10. Clean and prepare welded surfaces, as necessary.
11. Install all sealers, sound deadeners and anti-corrosion materials as necessary. Install acoustic foam baffles as noted from original part.
12. Apply two-part catalyzed primer.
13. Refinish as necessary.
14. Install all related panels and components.

Inner Front Pillar, Center Pillar and Rear Wheelhouse Sectioning

CAUTION: When performing service on or near the SIR components or the SIR wiring, the SIR system must be disabled. Failure to follow the correct procedure could cause air bag deployment, personal injury or unnecessary SIR system repairs.

The full bodyside inner panel comes as a one piece assembly and can be replaced at factory seams after removal of outer panel, roof and glass. Any one of these procedures can be performed separately, or in any combination dependent upon the extent of damage to the vehicle.

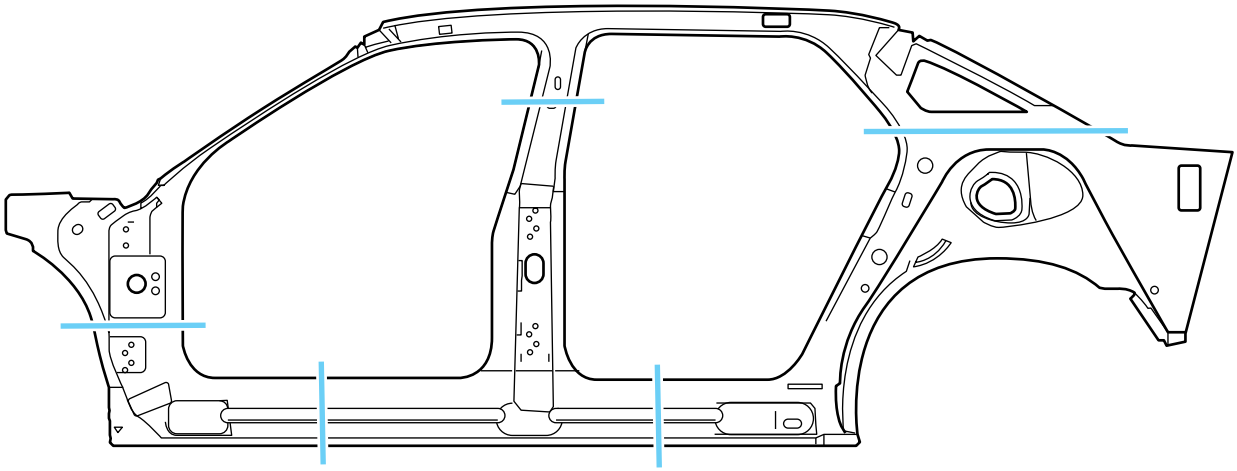


Fig. 1-11 — 2000 DeVille Inner Frame Sectioning Locations

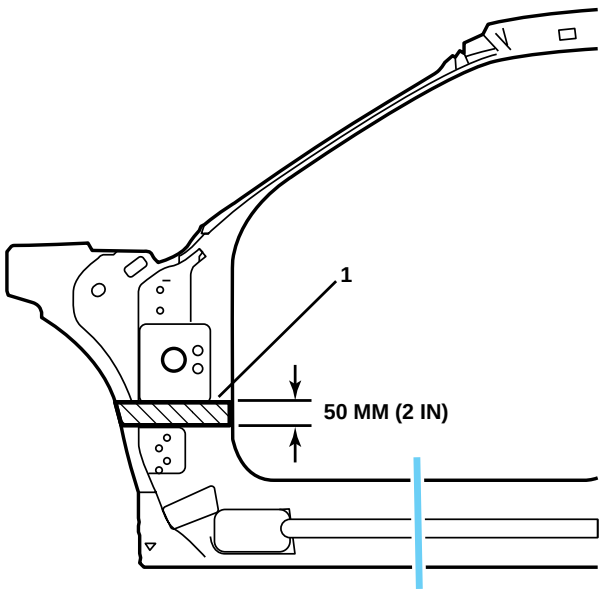


Fig. 1-12 — 2000 DeVille Inner Front Pillar Sectioning Locations

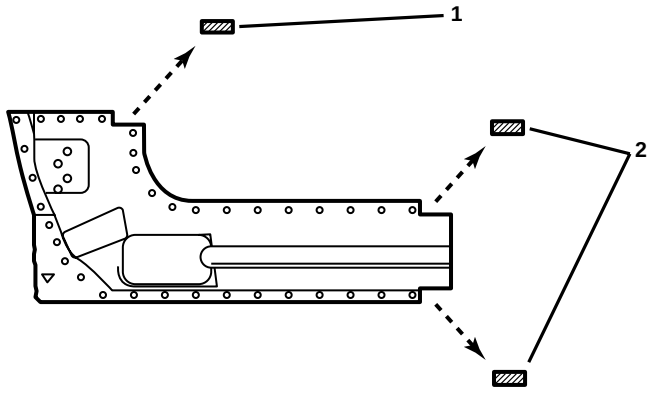


Fig. 1-13 — 2000 DeVille Inner Front Pillar Service Part

Inner Front Pillar Sectioning

Removal Procedure

IMPORTANT: Sectioning should be performed only in the recommended areas. Failure to do so may compromise the structural integrity of the vehicle.

1. Visually inspect and restore as much of the damage as possible to factory specifications.
2. Remove outer panel according to specified directions in Outer Panel Removal procedure.
3. Remove all necessary components to allow access to repair area.
4. Locate and mark a horizontal line 50 mm (2 in) down from the raised, square portion of the hinge pillar (Fig. 1-12). This will be your cut location (1).
5. At rocker panel, locate and mark a vertical cut line in the approved sectioning location (Fig. 1-12).
6. Cut at the two marked locations. Use caution to cut through one layer of metal only.
7. Locate and drill out factory welds noting the number and location of welds.
8. Remove damaged section from vehicle.

Preparation of Service Part

1. On hinge pillar, scribe a cut line 25 mm (1 in) below the raised, square portion of the hinge pillar. This will create a 25 mm (1 in) overlap on the service part.
2. Notch the panel on the door weather-strip flange (1) to prevent excessive metal thickness in this area (Fig. 1-13).
3. In rocker area, locate and mark a cut line in the recommended sectioning area. Allow for a 50 mm (2 in) overlap to the vehicle sectioning areas (Fig. 1-13).
4. Cut along marked sectioning lines to create service part.
5. Notch upper and lower edges of service part (2) to prevent excessive metal thickness in this area (Fig. 1-13).
6. Drill plug weld holes spaced 40 mm (1-5/8 in) apart along overlap flanges. Place holes 25 mm (1 in) from edge on rocker panel and 13 mm (1/2 in) from edge on hinge pillar.

Installation Procedure

1. Prepare mating surfaces.
   IMPORTANT: Prior to refinishing, refer to the publication GM4901M-D-2000 "GM Approved Refinish Materials" for recommended products. Do not combine paint systems. Refer to paint manufacturer's recommendations.
2. Prime with two-part catalyzed primer.
3. Position part on vehicle and clamp in place. Measure and check for fit (Fig.1-14).
4. Spot blast plug weld areas.
5. Plug weld accordingly.
6. Stitch weld at hinge pillar and rocker panel.
7. Dress and finish weld seam as necessary.
8. Refinish as necessary.
9. Install related panels and components as necessary.

Inner Center Pillar Sectioning

Removal Procedure

1. Remove necessary trim and outer panels.
2. Secure wiring harness away from repair area.
3. Locate the laser weld in the center pillar upper area (Fig. 1-15).
4. Measure down 25 mm (1 in) from the laser weld line and scribe a horizontal line. This is the cut location.
5. At the front door rocker area, scribe a vertical cut line within the preferred sectioning area.
6. At the rear door rocker area, scribe a vertical cut line within the preferred sectioning area.
7. Cut on the three scribed lines.
8. Drill out factory spot welds noting their location for installation of the service part.
9. Remove the damaged panel.

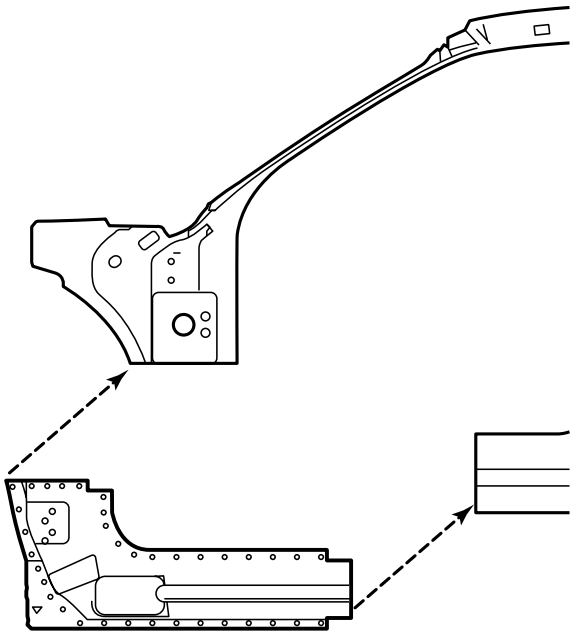


Fig. 1-14 — 2000 DeVille Inner Center Pillar Detail

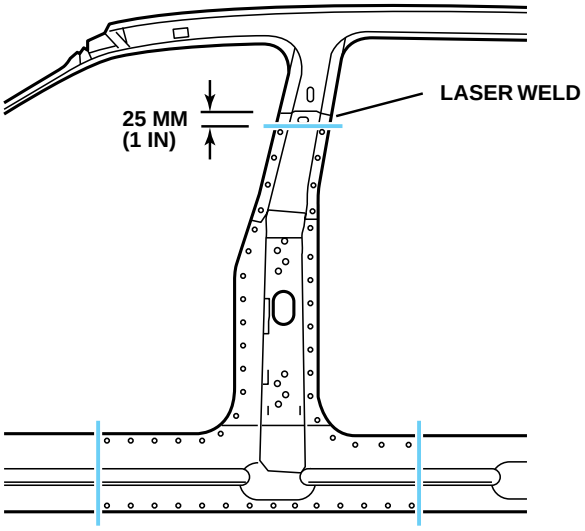


Fig. 1-15 — 2000 DeVille Inner Center Pillar

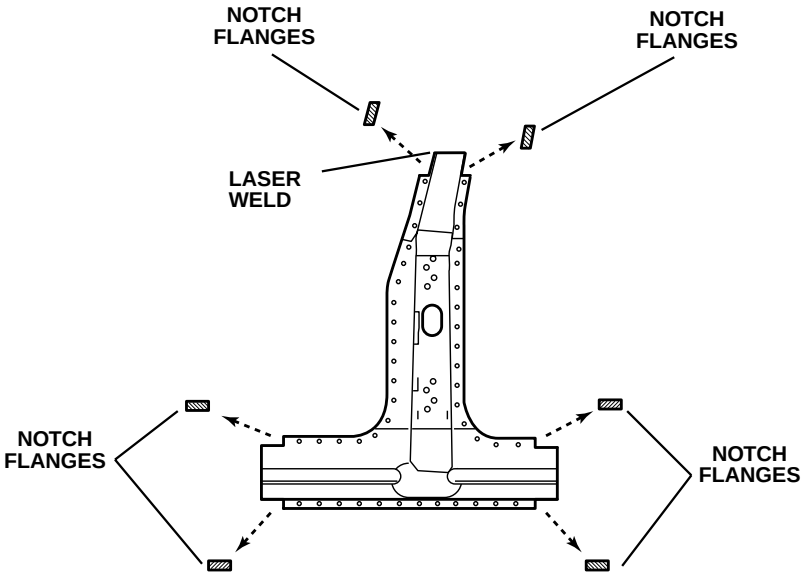


Fig. 1-16 — 2000 DeVille Inner Center Pillar – Preparation

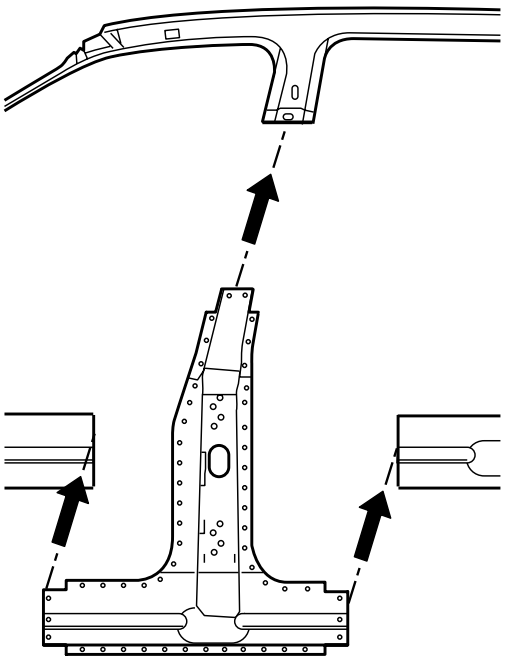


Fig. 1-17 — 2000 DeVille Inner Center Pillar – Installation

Preparation of Service Part

1. Cut center pillar at laser weld location. This will allow a 25 mm (1 in) overlap to the vehicle for welding (Fig. 1-16).
2. Notch the weather strip flange to prevent excessive metal thickness in these areas.
3. In front and rear door rocker areas of service part, scribe vertical cut lines to allow a 50 mm (2 in) overlap of original cut lines on vehicle.
4. Cut on the scribed lines. Notch the weatherstrip and lower flanges to prevent excessive metal thickness in these areas.
5. Drill 8 mm (5/16 in) plug weld holes every 40 mm (1-5/8 in) along rocker overlaps, 25 mm (1 in) from edge of overlap. On center pillar, drill weld holes 13 mm (1/2 in) from edge.
6. Drill 8 mm (5/16 in) plug weld holes on weld flanges as noted from original panel.

Installation Procedure

1. Prepare mating surfaces.

   IMPORTANT: Prior to refinishing, refer to the publication GM4901M-D-2000 "GM Approved Refinish Materials" for recommended products. Do not combine paint systems. Refer to paint manufacturerís recommendations.
2. Prime repair areas with two-part catalyzed primer.
3. Clamp part in position. Check for proper fit (Fig. 1-17).
4. Spot blast plug weld areas.
5. Plug weld as necessary.
6. Stitch weld along sectioned areas.
7. Finish seams as necessary.
8. Refinish as necessary.
9. Install all related panels and components.

Outer Wheelhouse Sectioning

Removal Procedure

1. Locate horizontal laser-weld line in upper quarter area (Fig. 1-18).
2. Measure down 25 mm (1 in) and scribe a cut line.
3. On the vehicle rocker area, locate and scribe a vertical cut line in the recommended section area.
4. Cut panel at scribed locations.
5. Drill out factory welds. Note the number and location of welds.
6. Remove the damaged panel.

Preparation Of Service Part

1. Locate laser weld line on service part (Fig. 1-19).
2. Cut along laser weld line.
3. In specified sectioning location of rocker area, create a vertical cut line. Allow for a 50 mm (2 in) overlap of service part to rocker area on the vehicle.
4. Cut service part along marked locations.
5. Trim a 20 mm x 50 mm (7/8 in x 2 in) tab at top and bottom of section area of service part to allow for a flush fit at pinch welds.
6. Drill plug weld holes in service part as noted from original panel.
7. Drill 8 mm (5/16 in) plug weld holes along section areas 25 mm (1 in) from edge on rocker and 13 mm (1/2 in) from edge in upper quarter area.

Installation Procedure

1. Install new part and clamp in place. Check for fit.

   IMPORTANT: Prior to refinishing, refer to the publication GM4901M-D-2000 "GM Approved Refinish Materials" for recommended products. Do not combine paint systems. Refer to manufacturer's recommendations.
2. Apply two-part catalyzed primer.
3. Spot blast weld areas.
4. Perform stitch weld, plug weld, grind and finish as necessary.
5. Use a brushable seam sealer on inside seam.
6. Install all related panels and components.

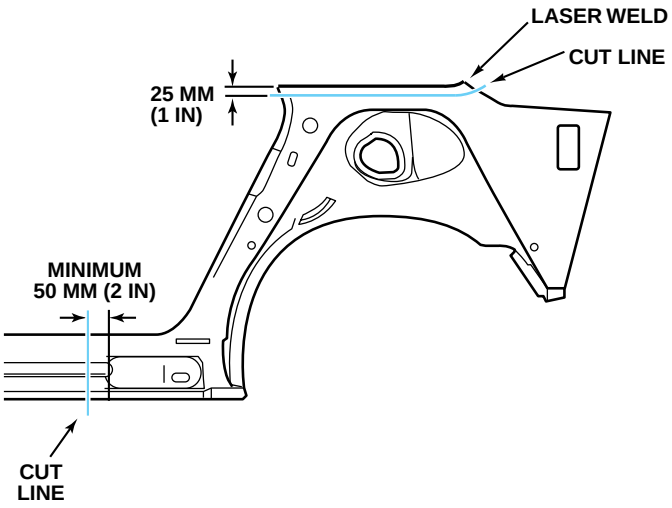


Fig. 1-18 — 2000 DeVille Outer Wheelhouse Removal

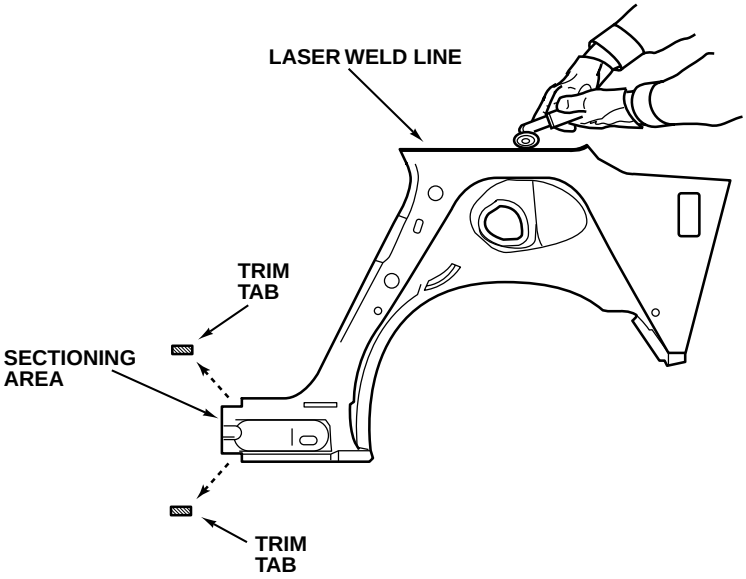


Fig. 1-19 — 2000 DeVille Outer Wheelhouse Preparation

Rear Rail Sectioning

The rear rail is available as a complete assembly. It consists of an outer panel, two inner reinforcements, a rail extension, and all necessary component mounting brackets (Fig. 1-20). The outer panel and rear mounting brackets are also available separately to facilitate sectioning. Additionally, there is a crossbar that connects the two rear rails for added strength and rigidity.

Complete rear rail replacement can be performed by drilling out all the factory welds. The outboard flange at the forward end of the rail must be cut in one location and bent upward, and the bottom flange of the crossbar must be bent downward. The rear rail can then be lowered from the vehicle (see Fig. 1-21). When installing the service rail, the outboard flange must be cut and bent up, installed, then straightened, and aligned. Weld as necessary.

Rear rail sectioning procedures can be used to repair the rear rail if just the portion rearward of the crossbar is damaged. The rear rail outer panel is available separately for sectioning.

NOTE: The rail extension panel can also be purchased separately.

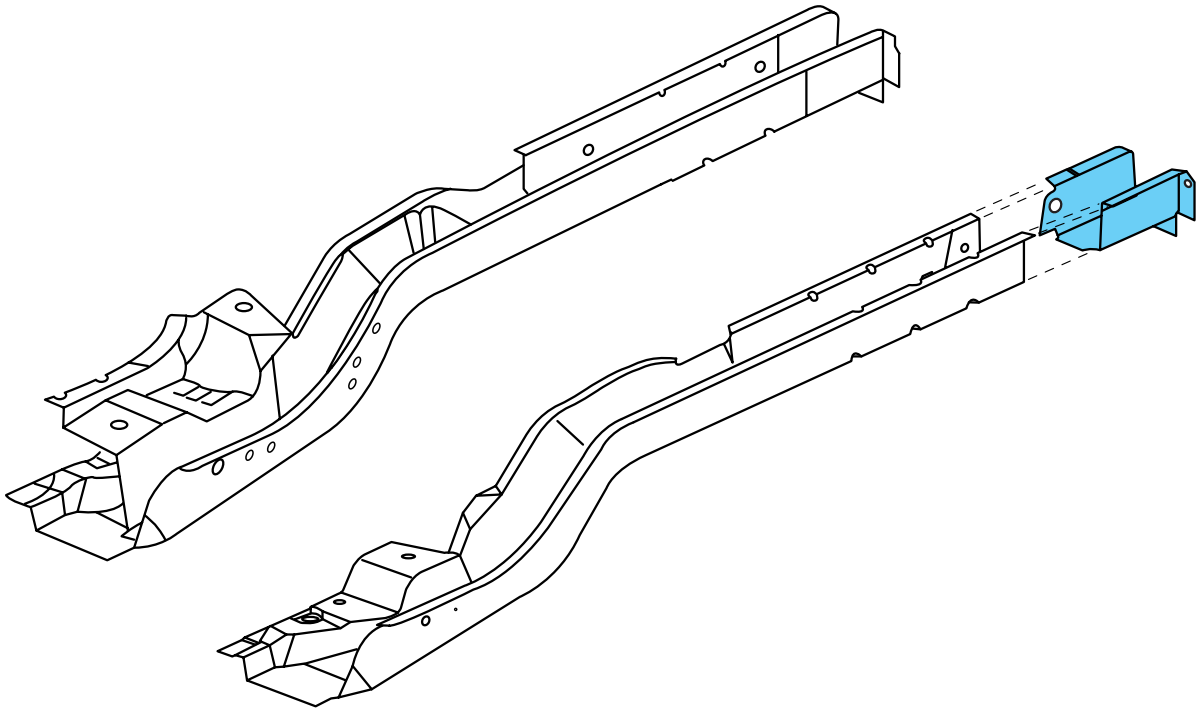


Fig. 1-20 — Rear Rail Panels

Removal Procedure

1. Visually inspect and restore as much of the damage as possible to factory specifications.
2. Remove all related panels and components.
3. Cut the rear rail along the rearward flange of the crossbar (Fig. 1-21). Continue this cut around the rear rail.
4. Drill out the factory welds on the end of the rear rail inner reinforcement and extension.
5. Remove the damaged portion of the rear rail and rail extension.
6. Either move the end of the rear rail inner reinforcement forward, or cut this part and remove it from the rear rail.

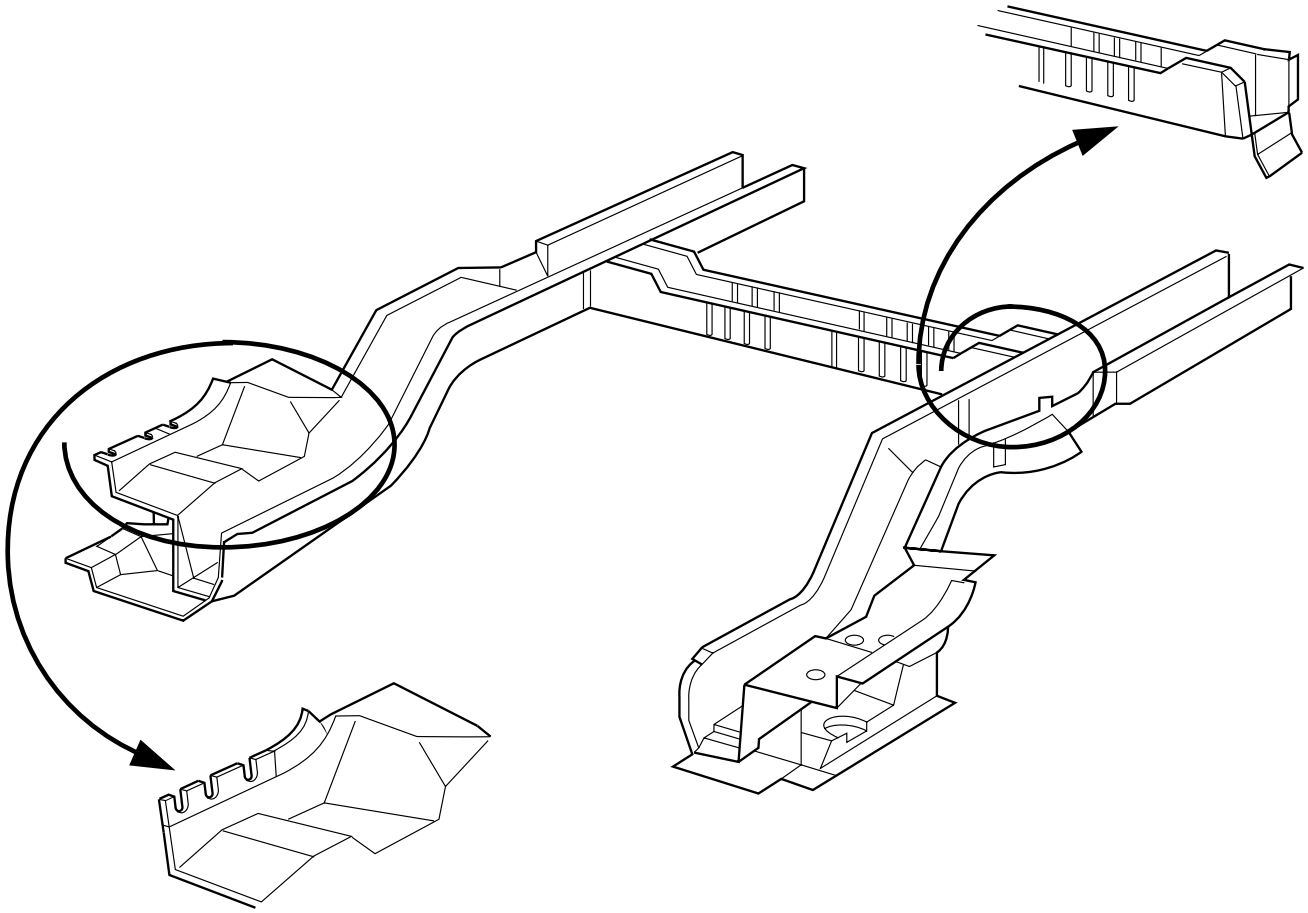


Fig. 1-21 — Full Rail Replacement

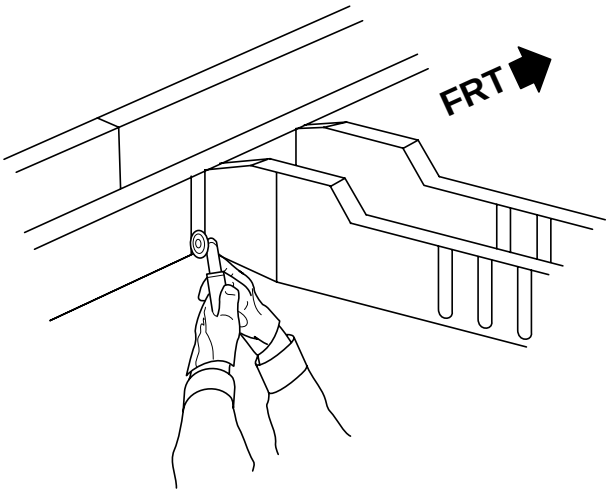


Fig. 1-22 — Cut the Rail for Sectioning

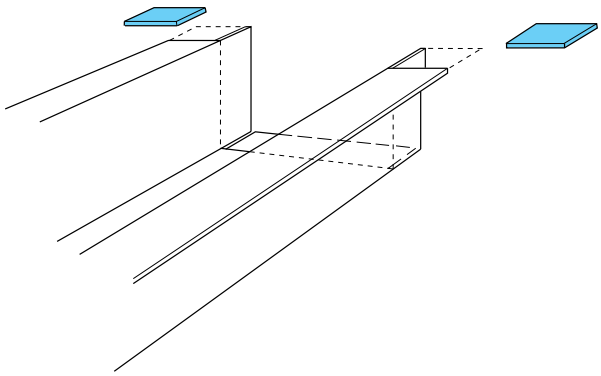


Fig. 1-23 — Create Tabs on the New Rail Section

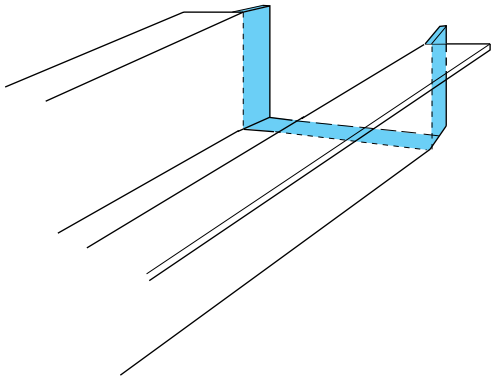


Fig. 1-24 — Step Tabs Inward on the New Rail Section

Installation Procedure

1. Using the original part as a guide, mark a line on the service rail 35 mm (1-5/16 in) forward of the cut made to the original part; this should be approximately 535 mm (21 in) without the extension attached to the rail. This will provide an overlap for welding the service section (see Fig. 1-20).
2. Cut the service rail along the marked lines and discard the unused section (Fig. 1-22).
3. Cut and remove approximately 35 mm (1-5/16 in) of the flanges on the service-rail. Cut a 5 mm (1/4 in) gap approximately 35 mm (1-5/16 in) along the corners of the service rail to create tabs (Fig. 1-23).
4. Step the tabs inward to allow the service rail to fit inside the original rail (Fig. 1-24).
5. Position the modified service rail inside the original rail, allowing 35 mm (1-5/16 in) of overlap.
6. Check the position of the service rear rail section using three-dimensional measuring equipment and tack weld in three locations along all three sides of the rail (Fig. 1-25). Stitch weld along the entire seam and replace factory welds as necessary.
7. Drill two 8 mm (5/16 in) holes for plug welding in each of the three sides of the rail approximately 30 mm (1-3/16 in) from the sectioning joint, plug weld through the drilled holes into the service rail.
8. Clean and prepare welded surfaces.

   IMPORTANT: Prior to refinishing, refer to the publication GM4901M-D-2000 "GM Approved Refinish Materials" for recommended products. Do not combine paint systems. Refer to manufacturer's recommendations.
9. Apply sealers and anti-corrosion materials as necessary.
10. Prime with two-part catalyzed primer.
11. Install all related components.

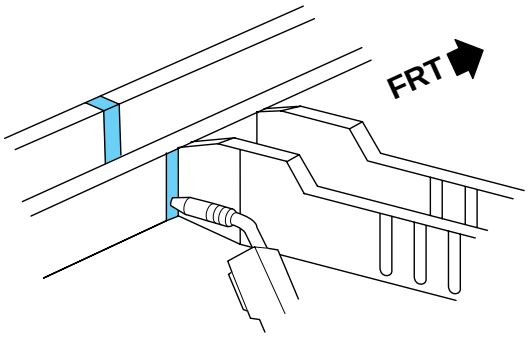
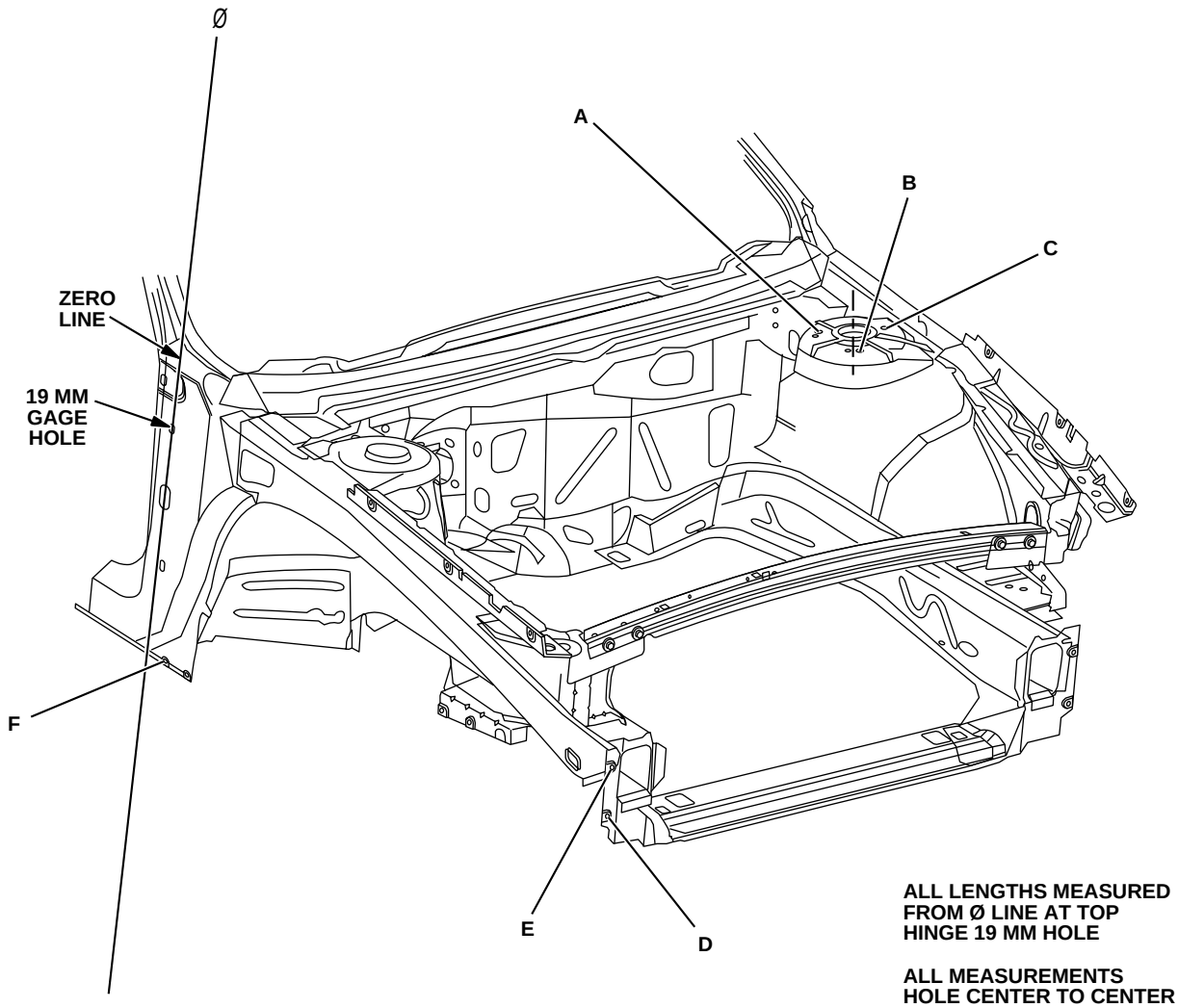


Fig. 1-25 — Install the New Rail Section

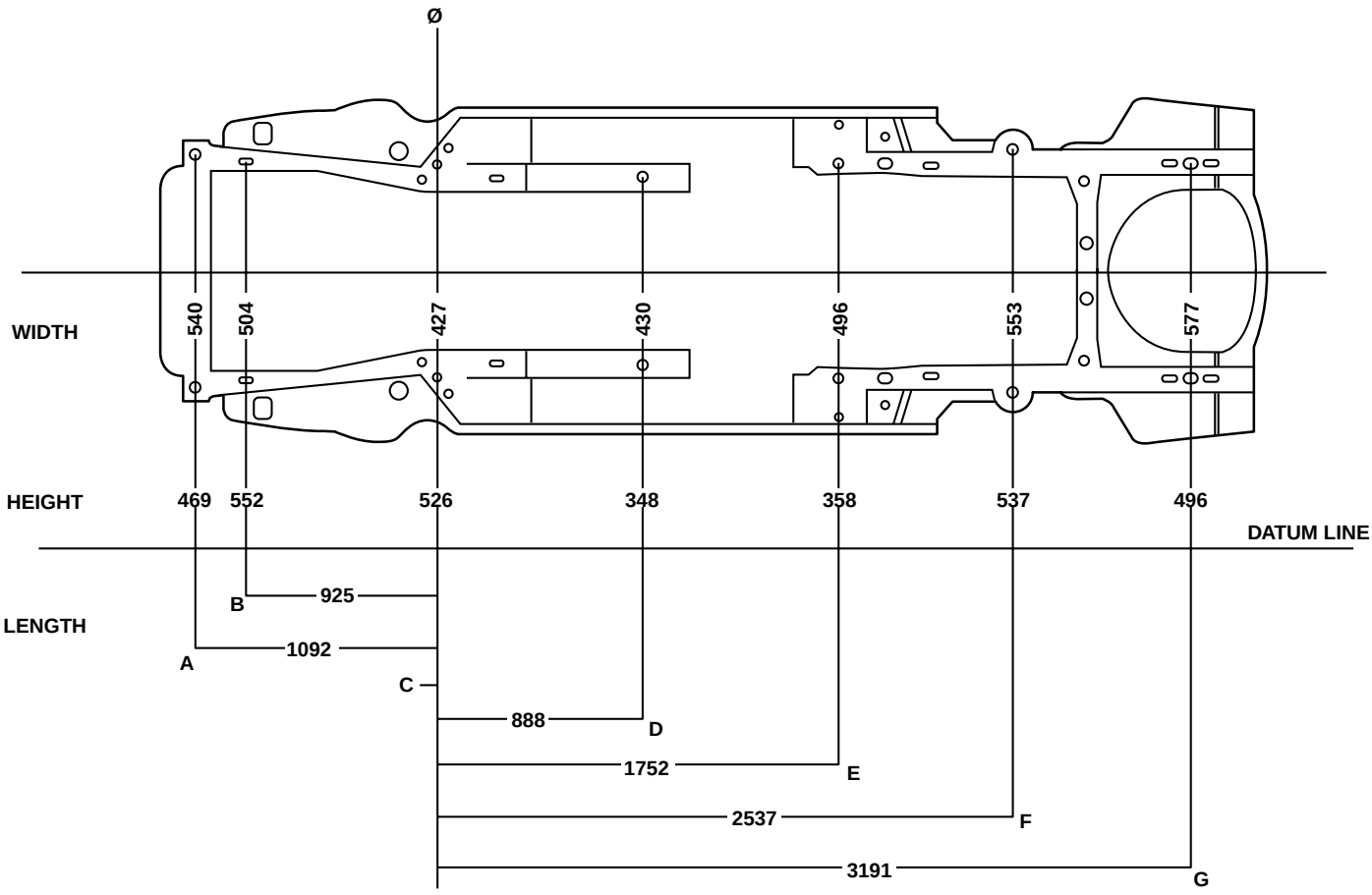
Engine Compartment Dimensions – 2000 Cadillac DeVille



Description	Location	Length	Width	Height
Strut mount hole	A	367	565	1014
Strut mount hole	B	509	575	1029
Strut mount hole	C	437	693	1027
Bumper mount hole	D	1273	603	520
Bumper mount hole	E	1273	605	640
Fender mount hole	F	12	774	368

All dimensions are measured in millimeters, from a zero line, center line, and a common datum. All dimensions are symmetrical, unless otherwise specified.

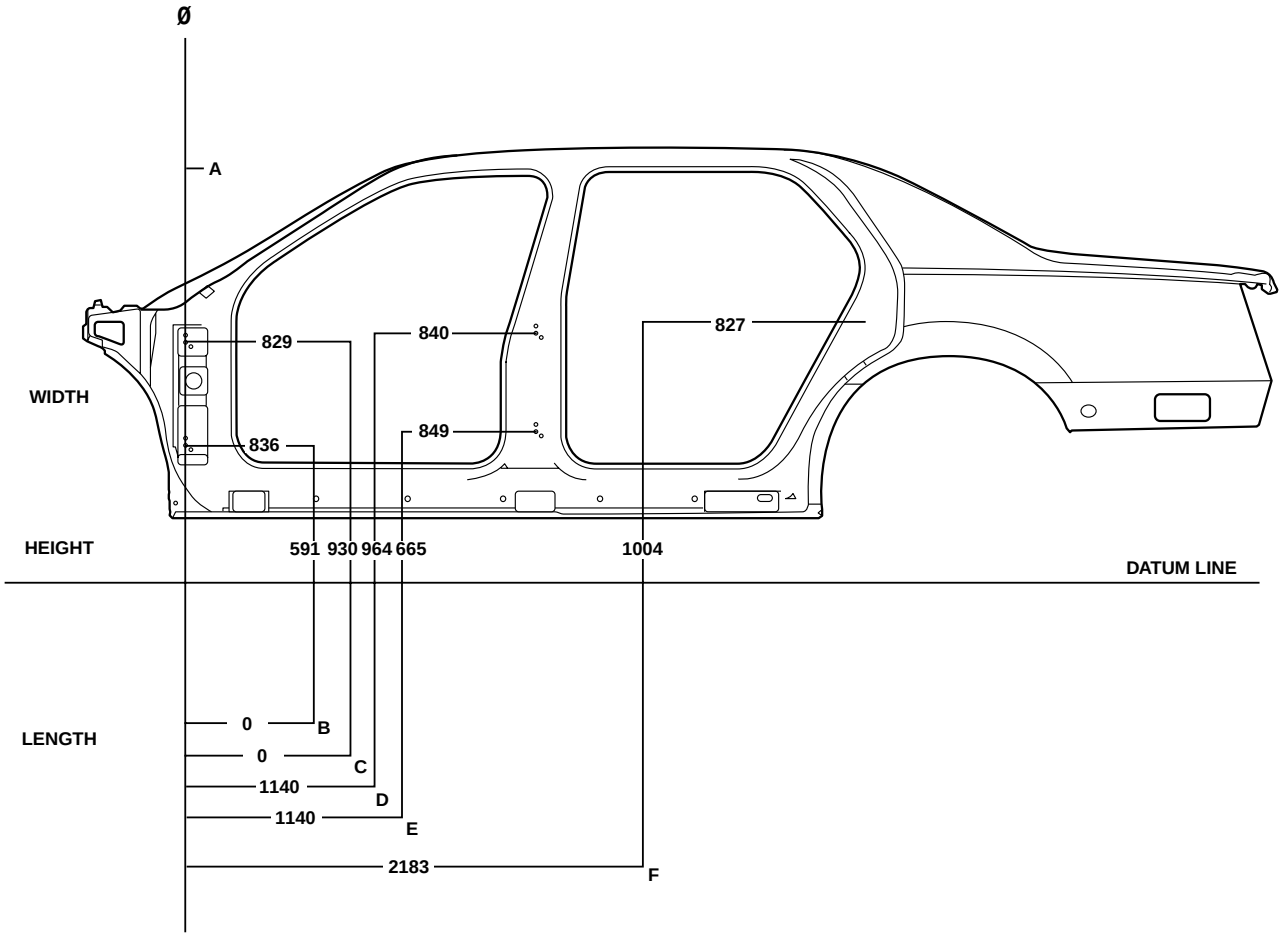
Underbody Dimensions – 2000 Cadillac DeVille



Description	Location	Length	Width	Height
28 mm mounting nut	A	1092	540	469
19 mm x 25 mm gage slot	B	925	504	552
16 mm gage hole	C	0	427	526
19 mm gage hole	D	888	430	348
23 mm gage hole	E	1752	496	358
Top spring mounting pad	F	2537	553	537
19 mm x 25 mm gage hole	G	3191	577	496

All dimensions are measured in millimeters, from a zero line, center line, and a common datum. All dimensions are symmetrical, unless otherwise specified.

Body Side Dimensions – 2000 Cadillac DeVille



Description	Location	Length	Width	Height
19 mm gage hole	A	0	—	—
19 mm gage hole	B	0	836	591
19 mm gage hole	C	0	829	930
19 mm gage hole	D	1140	840	964
Lower hinge bolt hole	E	1140	849	665
16 mm upper latch mounting hole	F	2183	827	1004

All dimensions are measured in millimeters, from a zero line, center line, and a common datum. All dimensions are symmetrical, unless otherwise specified.