

2021-22 COLLISION

Body Panel Replacement - Canyon & Colorado

COLLISION REPAIR POSITION STATEMENTS

Please refer to [COLLISION REPAIR POSITION STATEMENTS](#) .

COLLISION REPAIR POSITION STATEMENTS

OEM Position Statements can be found on our website. Please go to suncollision.com/about-us/oem-permissions/.

REPAIR INSTRUCTIONS

FRONT END LOWER CENTER TIE BAR REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Foam Sound Deadeners Warning](#) .

WARNING: Refer to [Battery Disconnect Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

1. Disable the SIR system and then disconnect the negative battery cable. Refer to [Glass and Sheet Metal Handling Warning](#) .

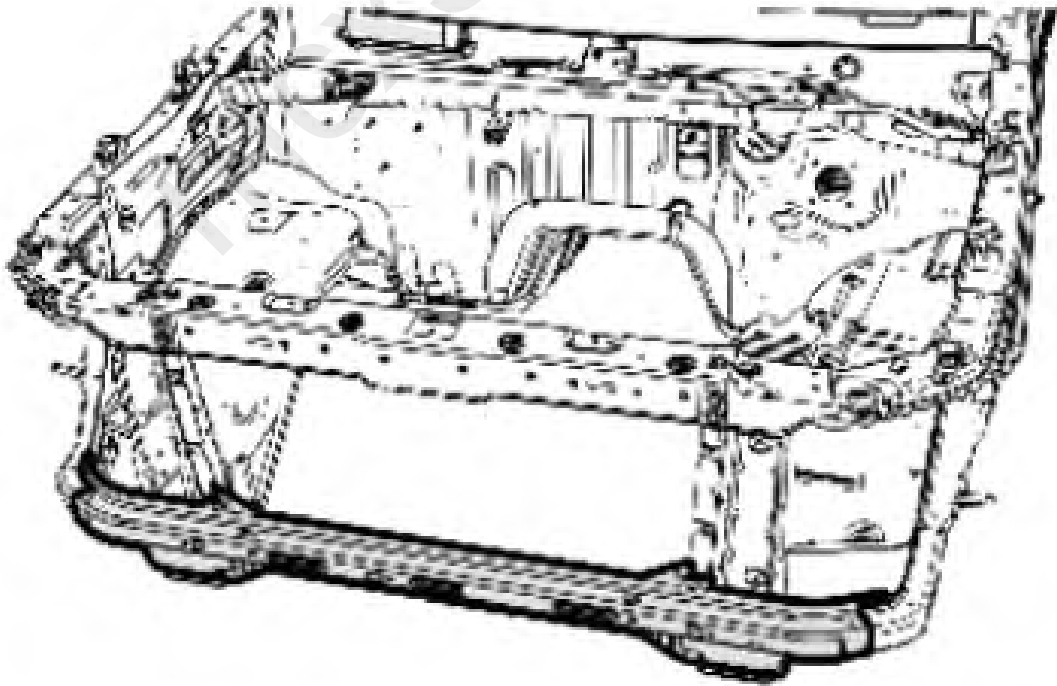
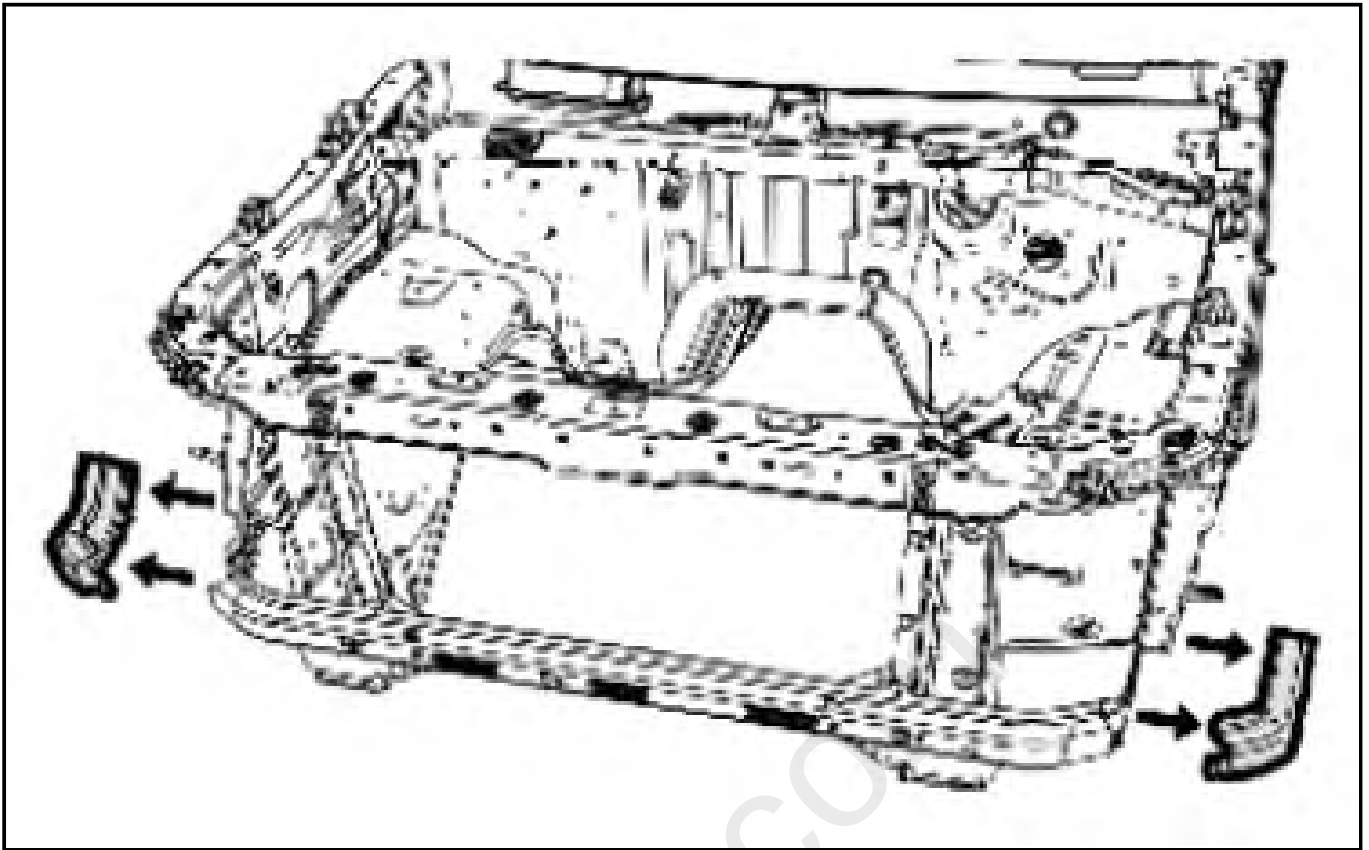


Fig. 1: Front End Lower Center Tie Bar Component Location
Courtesy of GENERAL MOTORS COMPANY

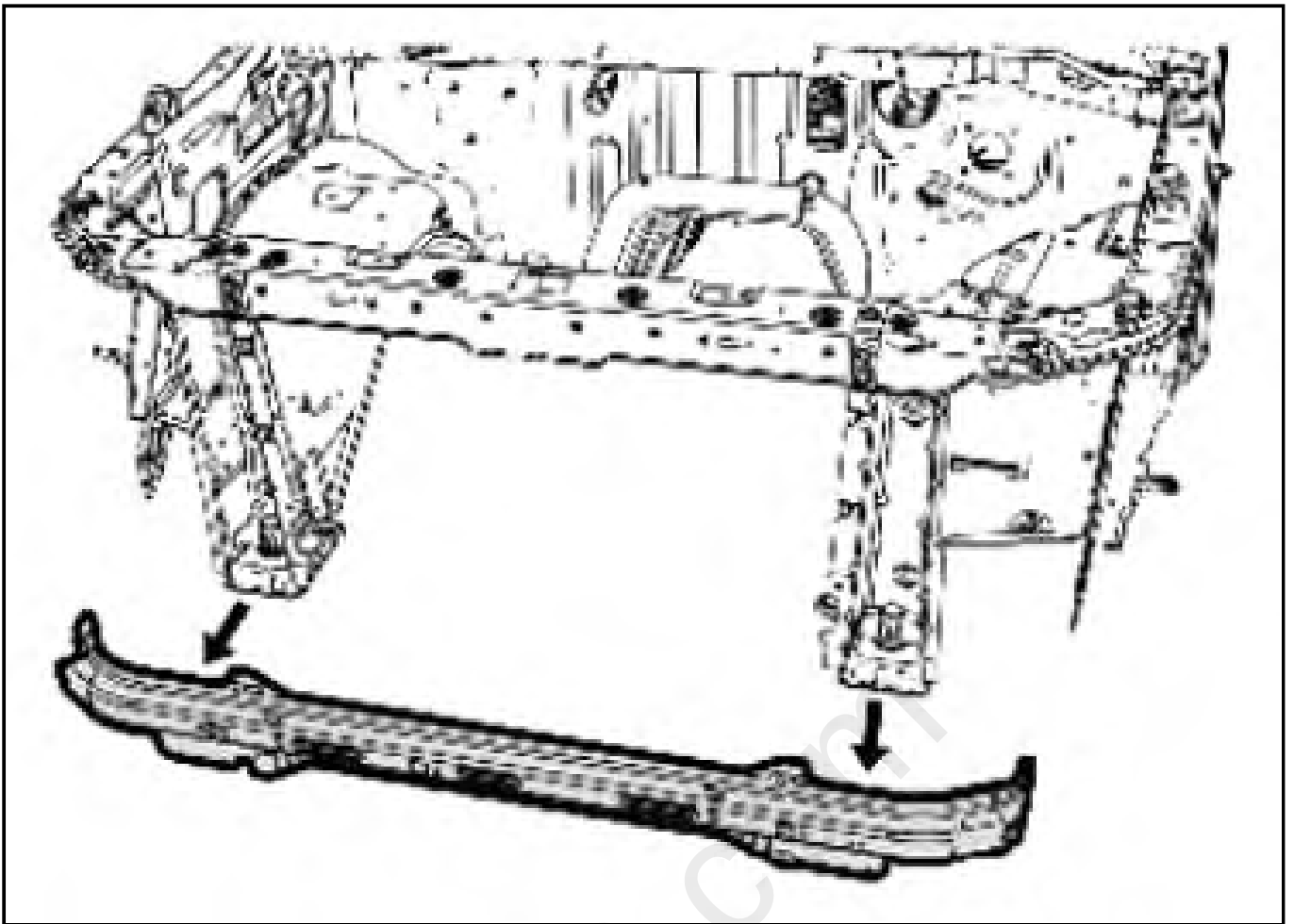
2. Remove all related panels and components (1).
3. Restore as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .

4. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .



NOTE: Record the number and location of the original welds for installation of the service assembly. Do not damage any inner panels, reinforcements, or adjacent panels during the removal process.

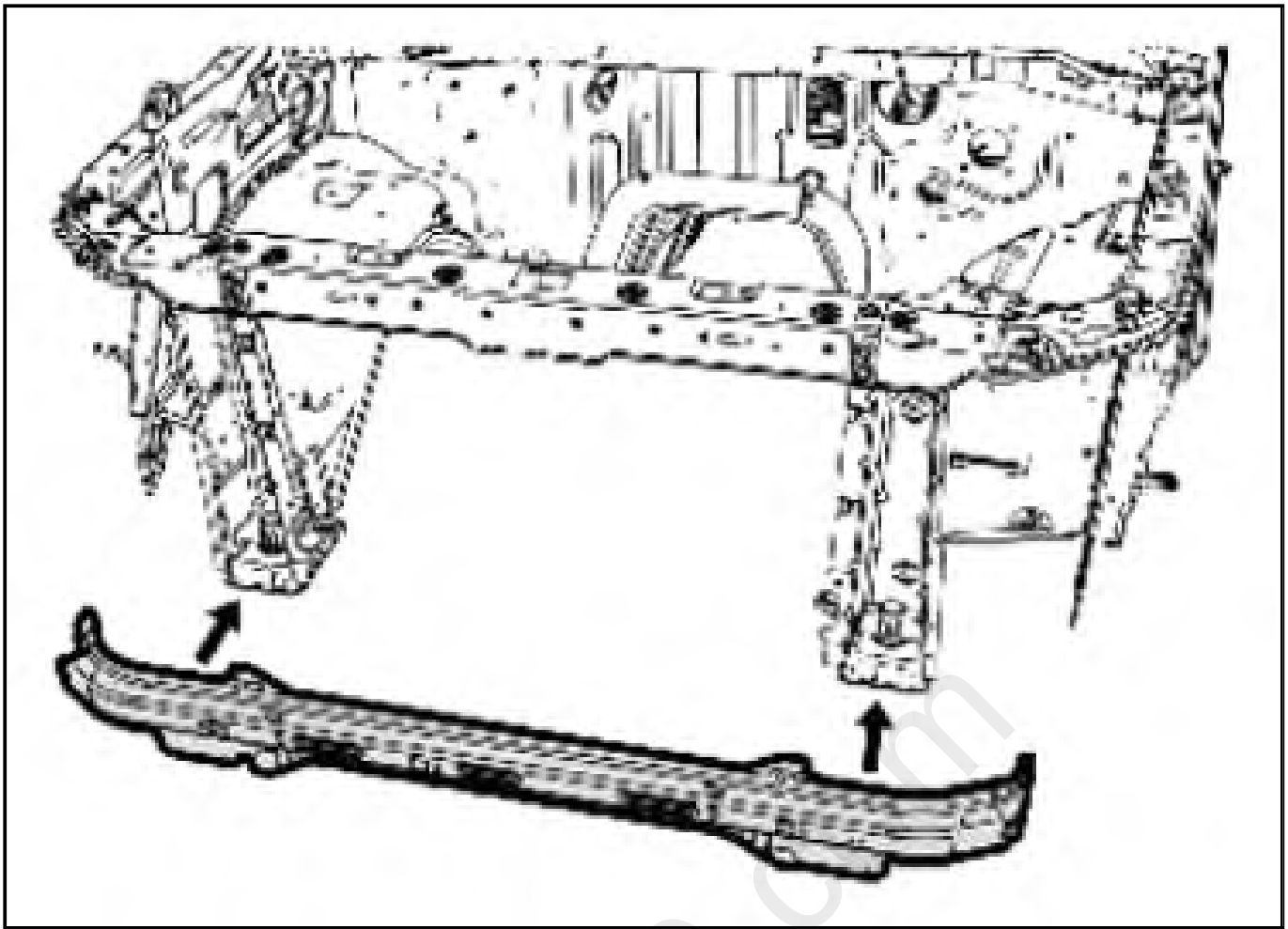
5. Remove factory welds as required, to remove the front end lower tie bar end panels (1).
6. Remove the front end lower tie bar end panels.



NOTE: Record the number and location of the original welds for installation of the service assembly. Do not damage any inner panels, reinforcements, or adjacent panels during the removal process.

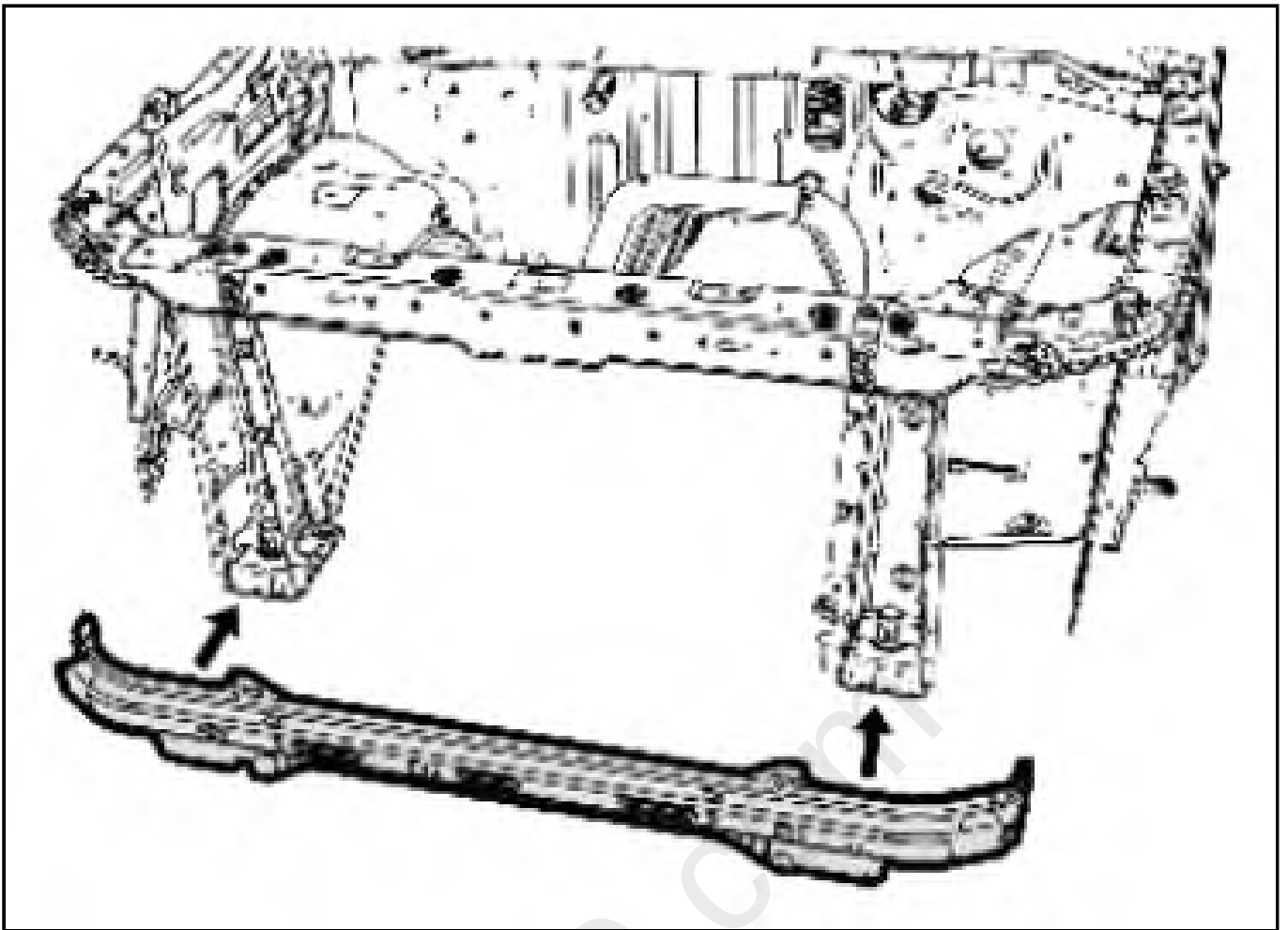
7. Remove factory welds as required, to remove the front end lower center tie bar (1).
8. Remove the front end lower center tie bar.

Installation Procedure

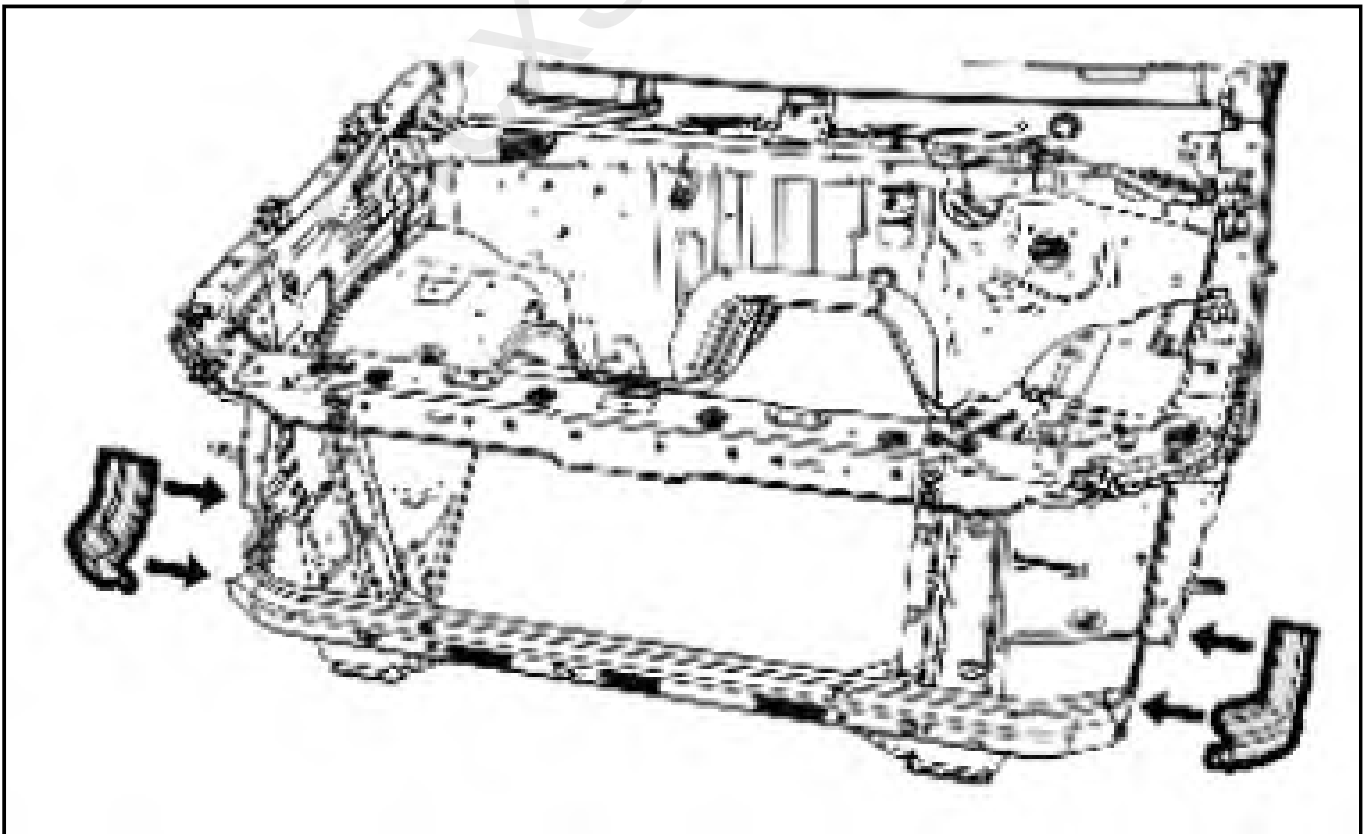


NOTE: If the location of the original welds can not be determined, space the weld every 40 mm (1 1/2 in) apart. If MIG plug welding is used, proper sized plug weld holes will be required in one of the joining surfaces, based on the thickness of the panels being welded.

1. Prepare all mating surfaces as necessary.
2. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#)

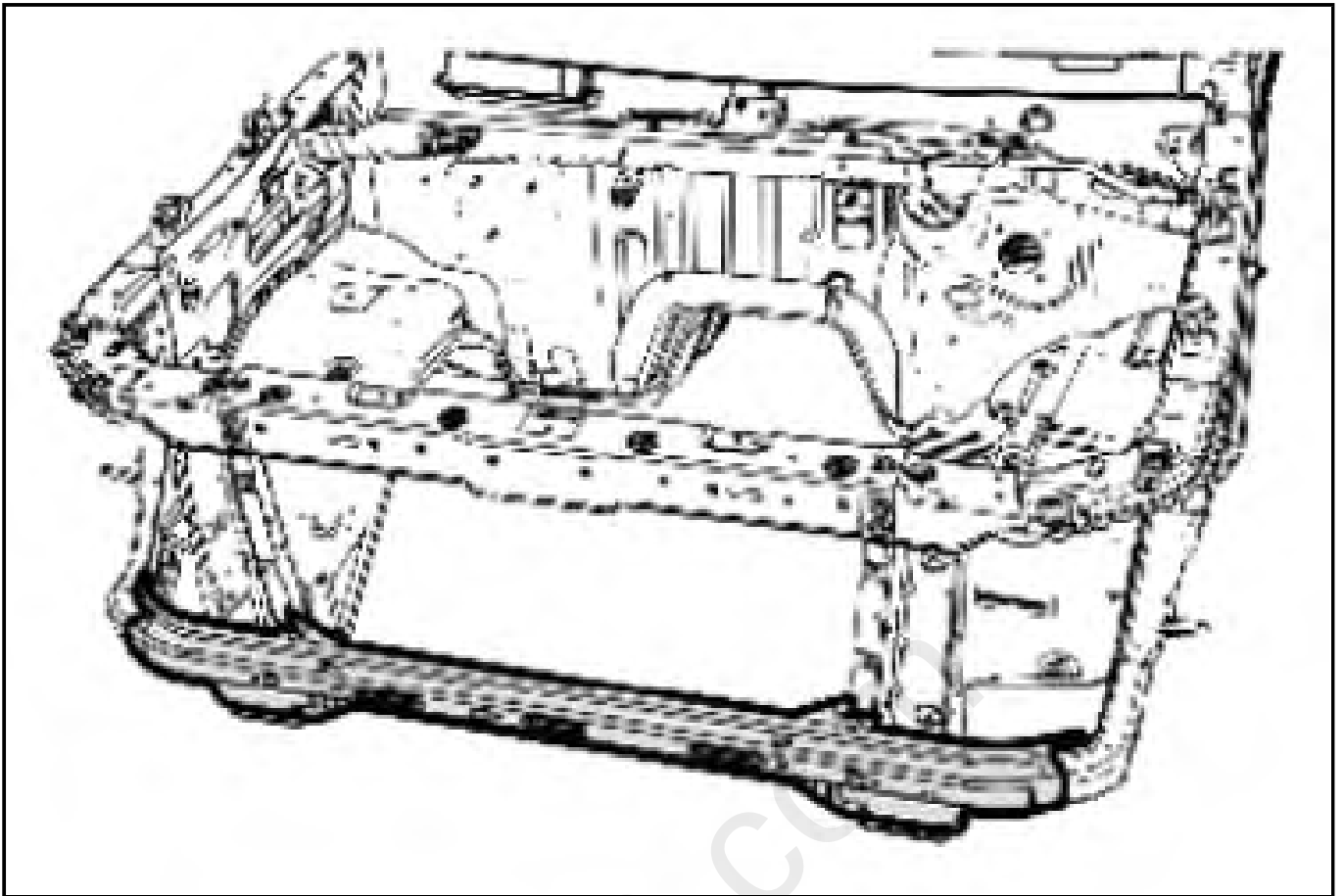


3. Position the front end lower center tie bar on the vehicle using 3-dimensional measuring equipment. Clamp the front end lower center tie bar in place (1).
4. Weld as required.



5. Install the front end lower tie bar end panels in the proper location (1).
6. Weld as required.

7. Clean and prepare all welded surfaces.



8. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

9. Paint and repair the area. Refer to [Basecoat/Clearcoat Paint Systems](#) .

10. Install all related panels and components.

11. Enable the SIR system and then connect the negative battery cable. Refer to [SIR Disabling and Enabling](#) .

FRONT WHEELHOUSE PANEL REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Foam Sound Deadeners Warning](#) .

WARNING: Refer to [Battery Disconnect Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

1. Disable the SIR system and then disconnect the negative battery cable. Refer to [SIR Disabling and Enabling](#) .

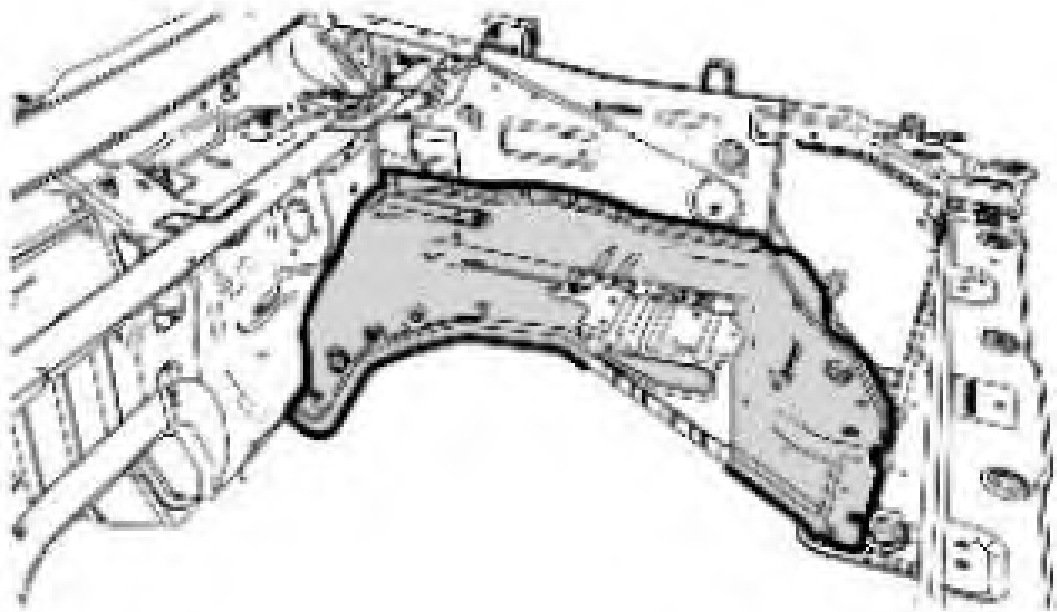
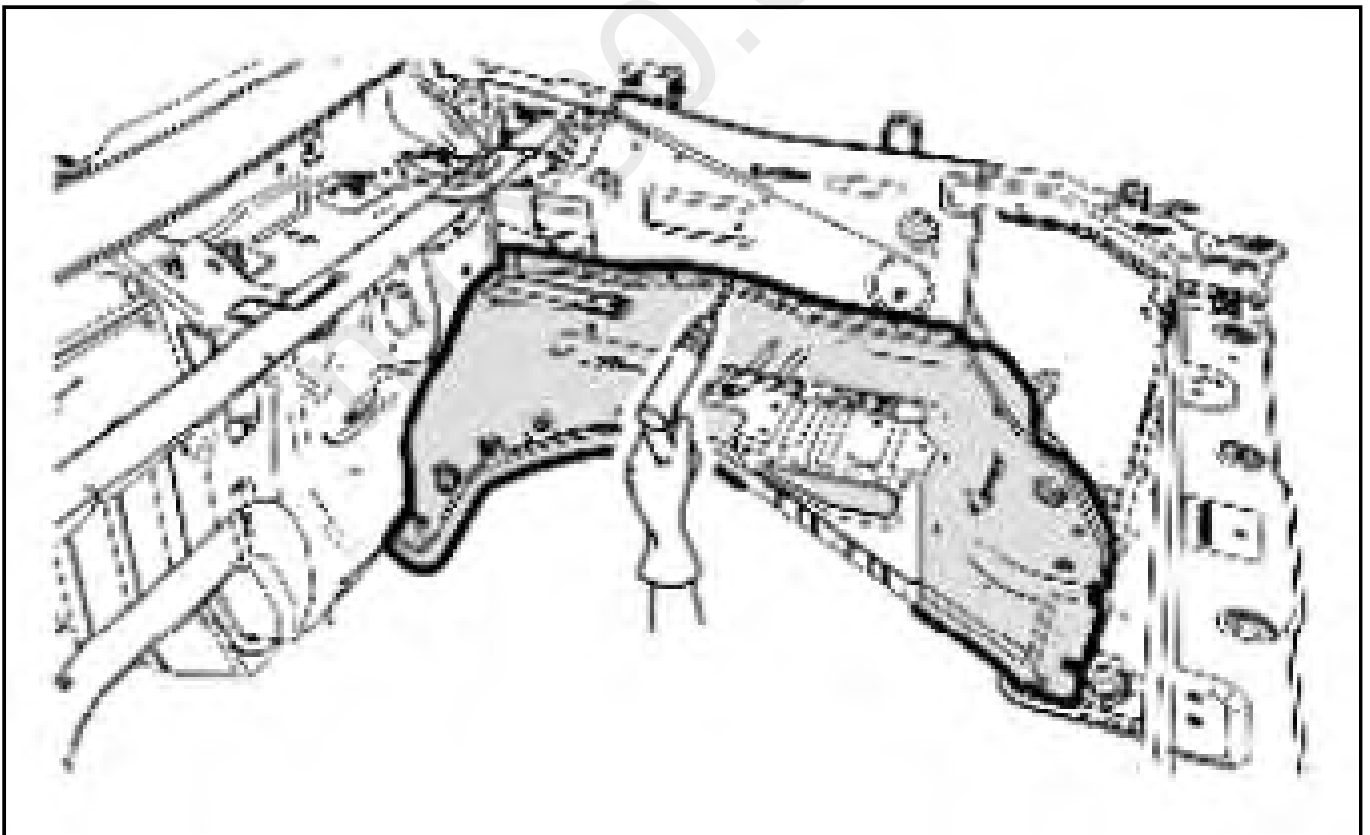


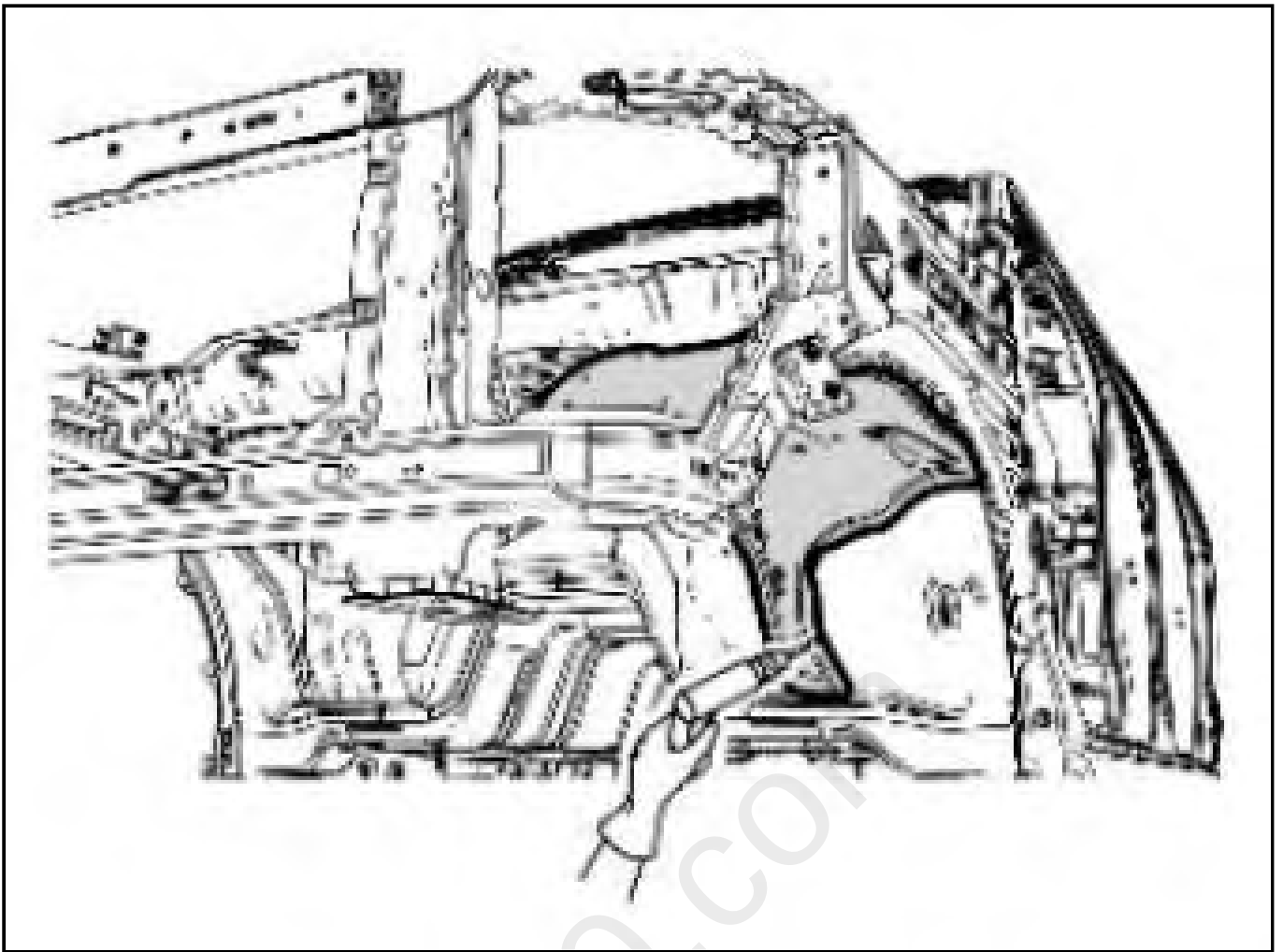
Fig. 2: Front Wheelhouse Panel Component Location
Courtesy of GENERAL MOTORS COMPANY

2. Remove all related panels and components.
3. Repair as much of the damage as possible to factory specifications. Refer to **BODY DIMENSIONS** .
4. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to **Anti-Corrosion Treatment And Repair** .

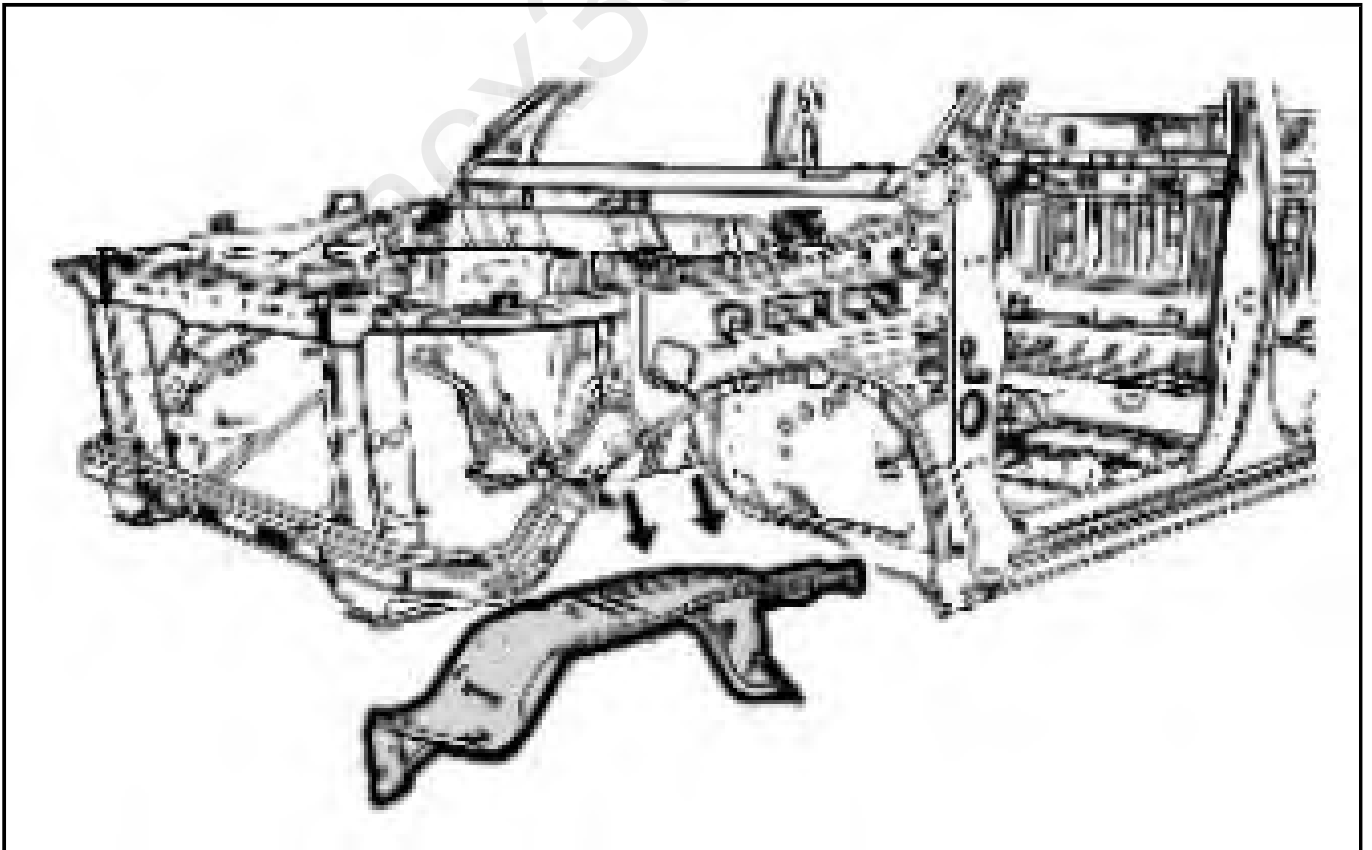


NOTE: Do not damage any inner panels, reinforcements, or adjacent panels during the removal process.

5. Record the number and location of the original welds for installation of the service assembly.

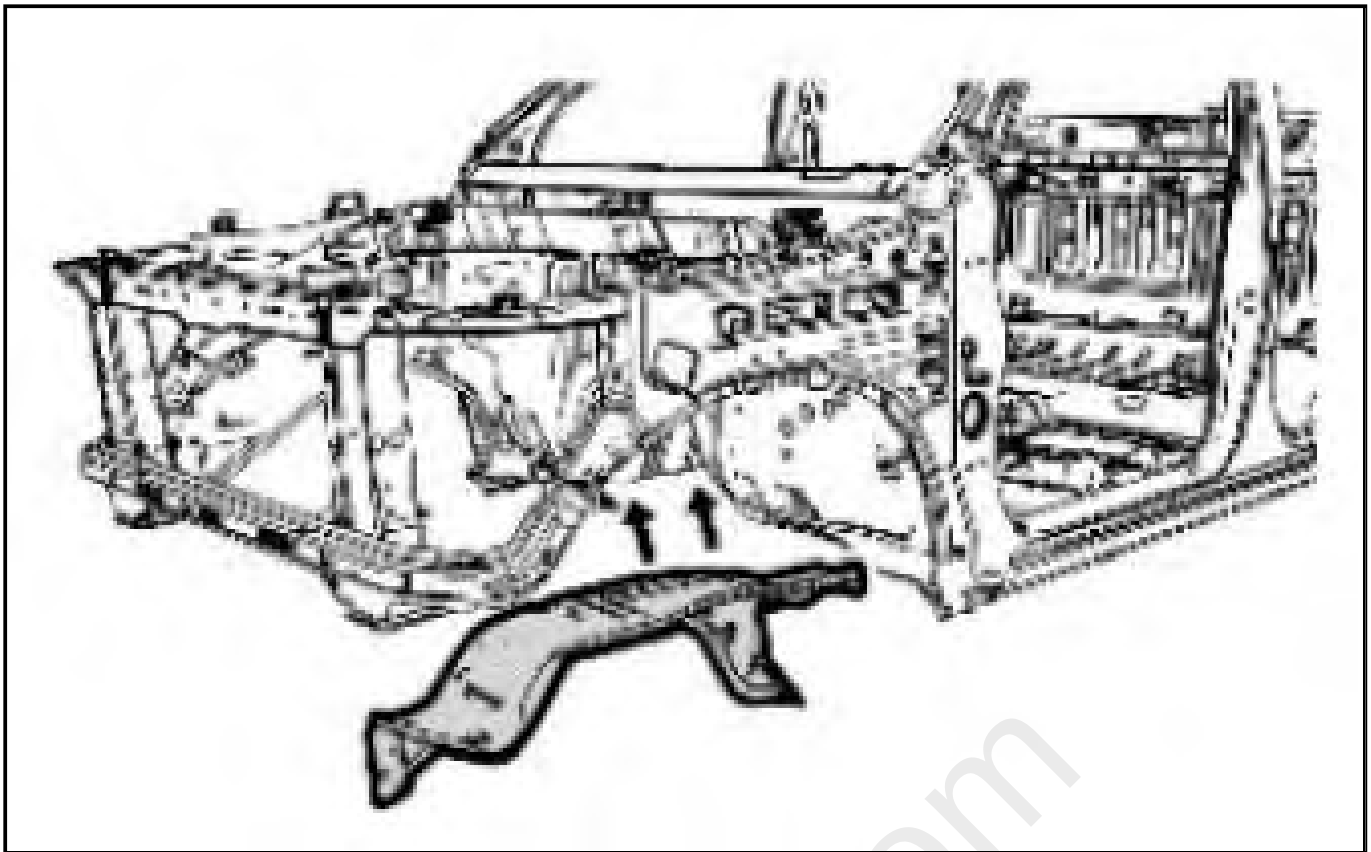


6. Remove factory welds as required, to remove the front wheelhouse panel (1).



7. Remove the front wheelhouse panel.

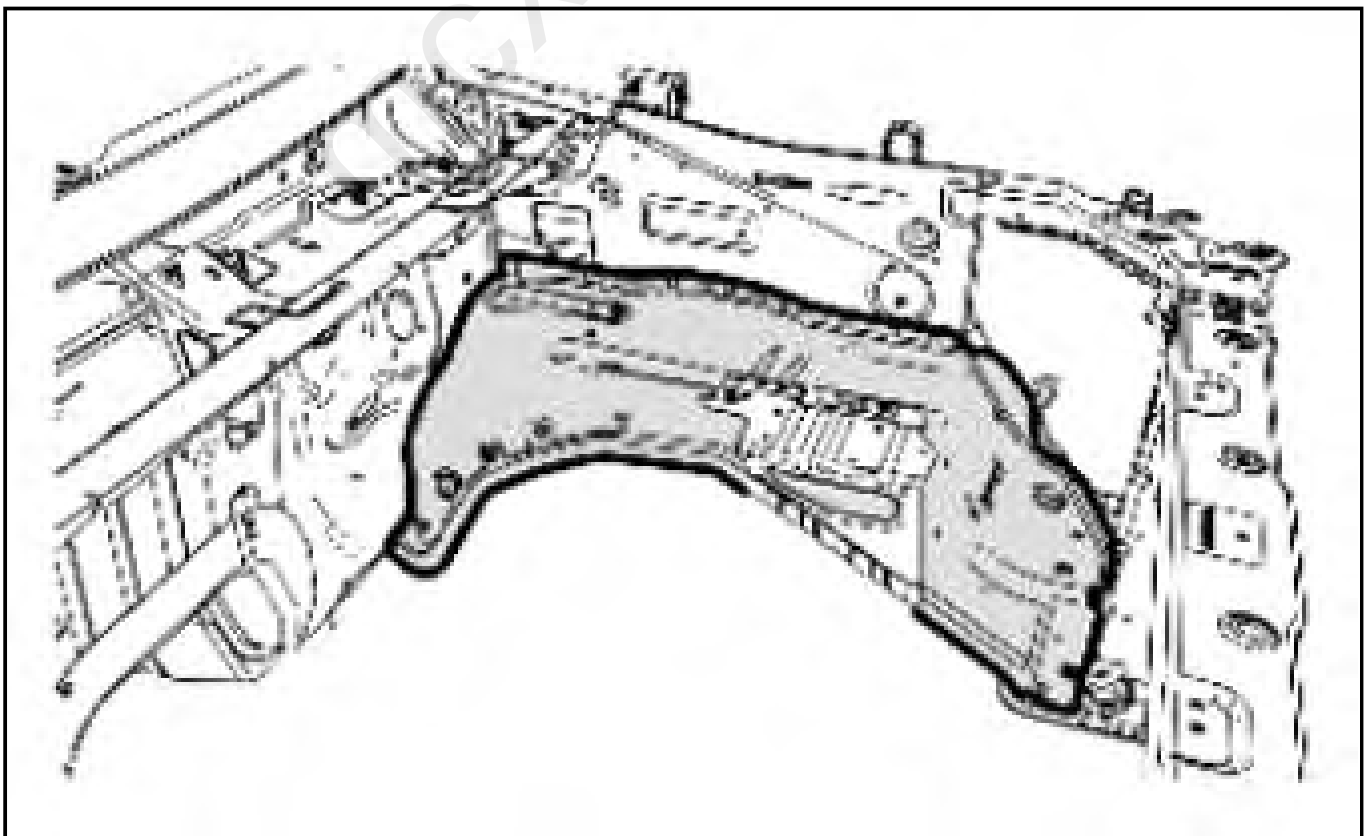
Installation Procedure



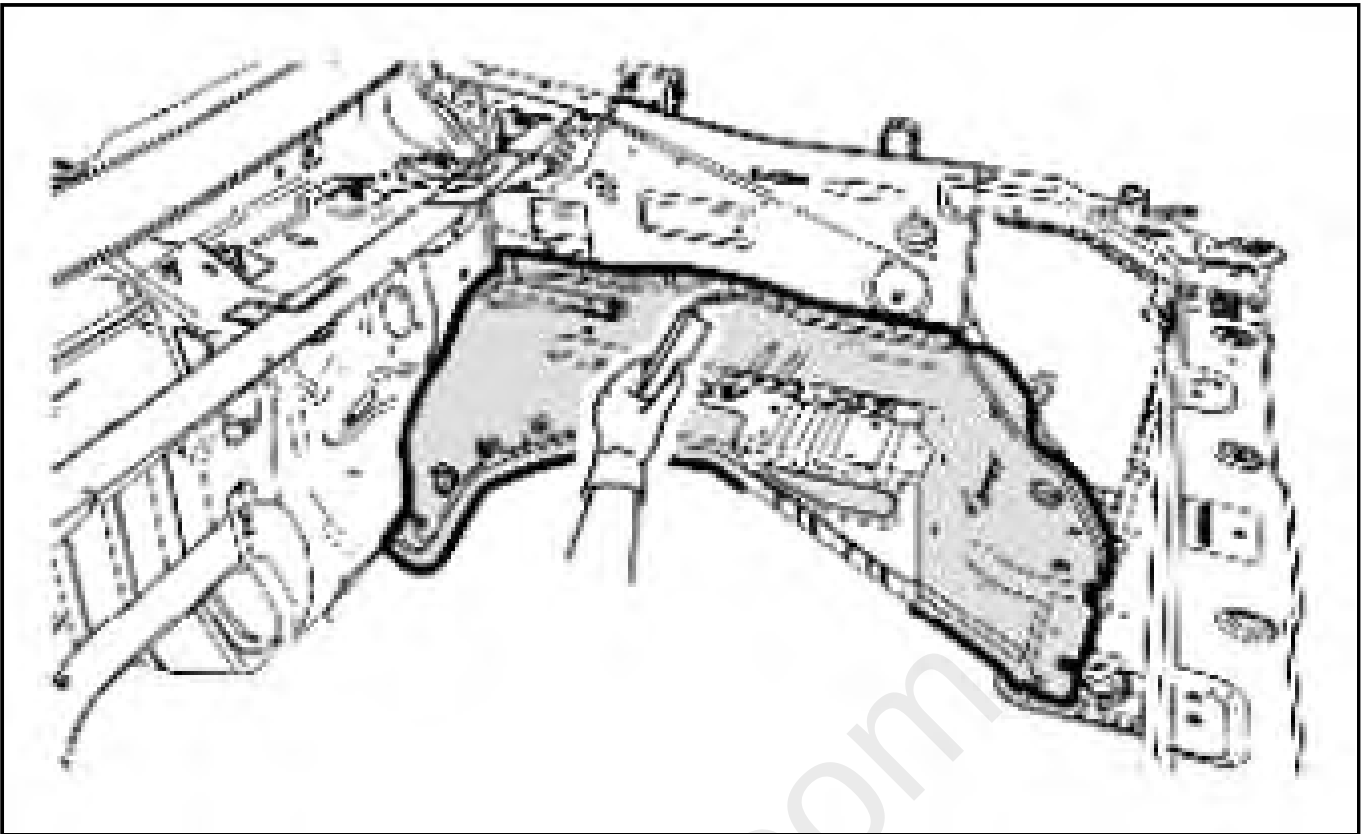
NOTE:

If the location of the original welds can not be determined, space the welds every 40 mm (1 1/2 in) apart. If MIG plug welding is used, proper sized plug weld holes will be required in one of the joining surfaces, based on the thickness of the panels being welded.

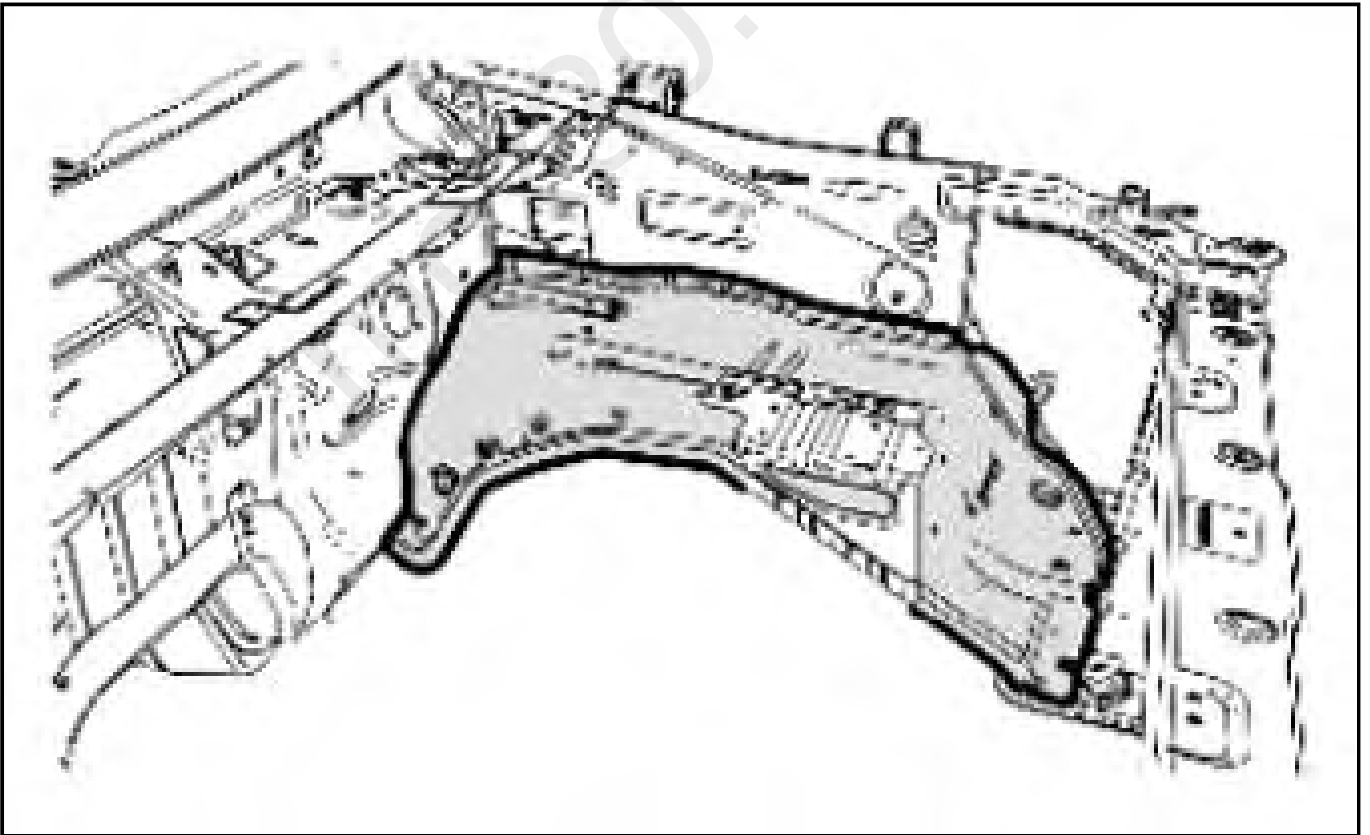
1. Prepare all mating surfaces as necessary.
2. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#)



3. Position the front wheelhouse.



4. Weld as required.



5. Clean and prepare all welded surfaces.

6. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

7. Paint and repair the area. Refer to [Basecoat/Clearcoat Paint Systems](#) .

8. Install all related panels and components.

9. Enable the SIR system and then connect the negative battery cable. Refer to [SIR Disabling and Enabling](#) .

FRONT COMPARTMENT UPPER SIDE RAIL REPLACEMENT (OUTER)

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Foam Sound Deadeners Warning](#) .

WARNING: Refer to [Battery Disconnect Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

1. Disable the SIR system and then disconnect the negative battery cable. Refer to [Glass and Sheet Metal Handling Warning](#) .
2. Remove all related panels and components.
3. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .
4. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

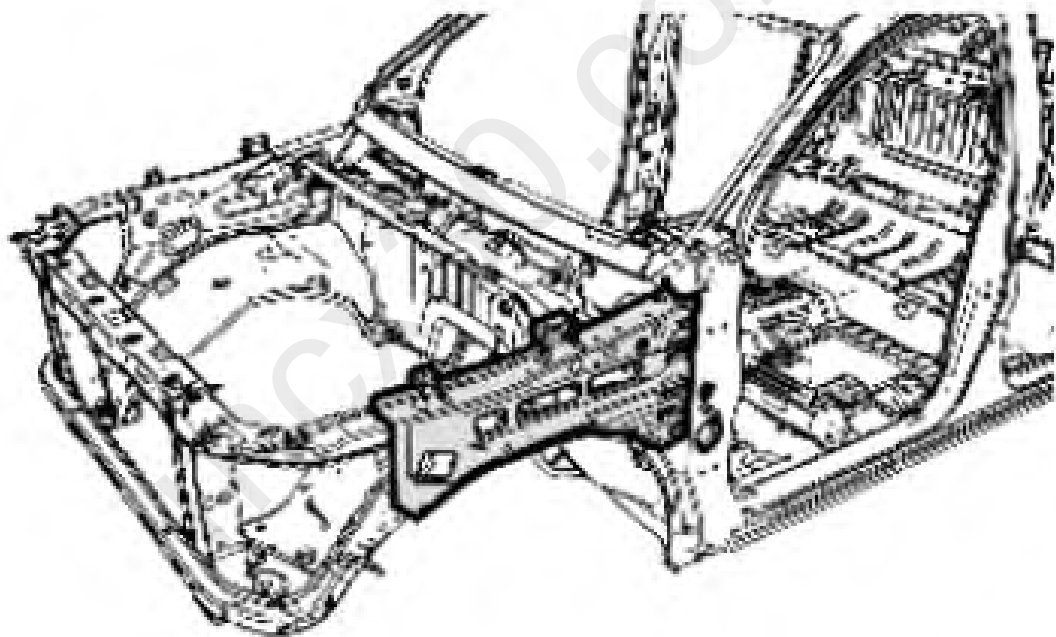


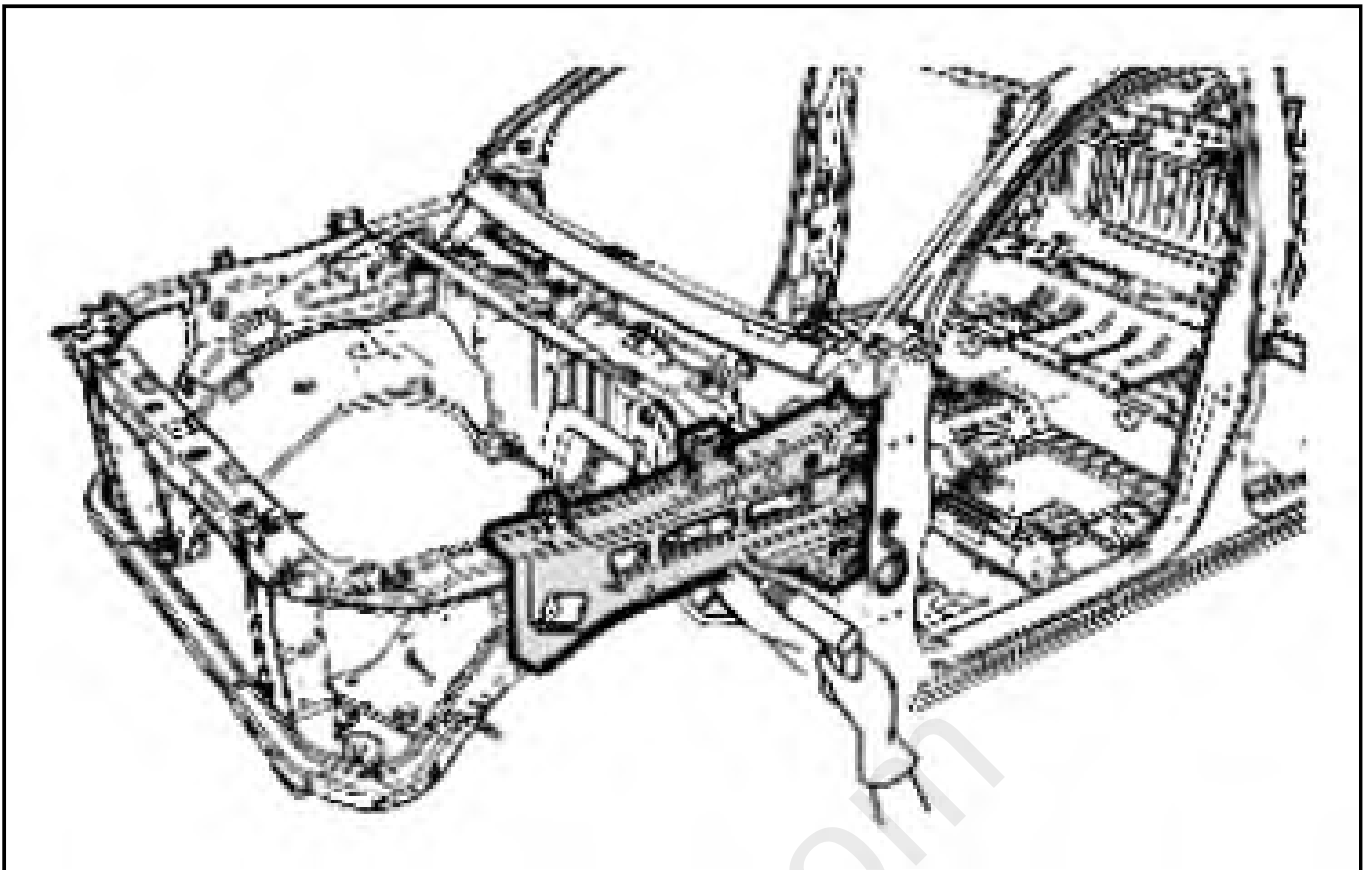
Fig. 3: Front Compartment Upper Side Rail Component Location (Outer)

Courtesy of GENERAL MOTORS COMPANY

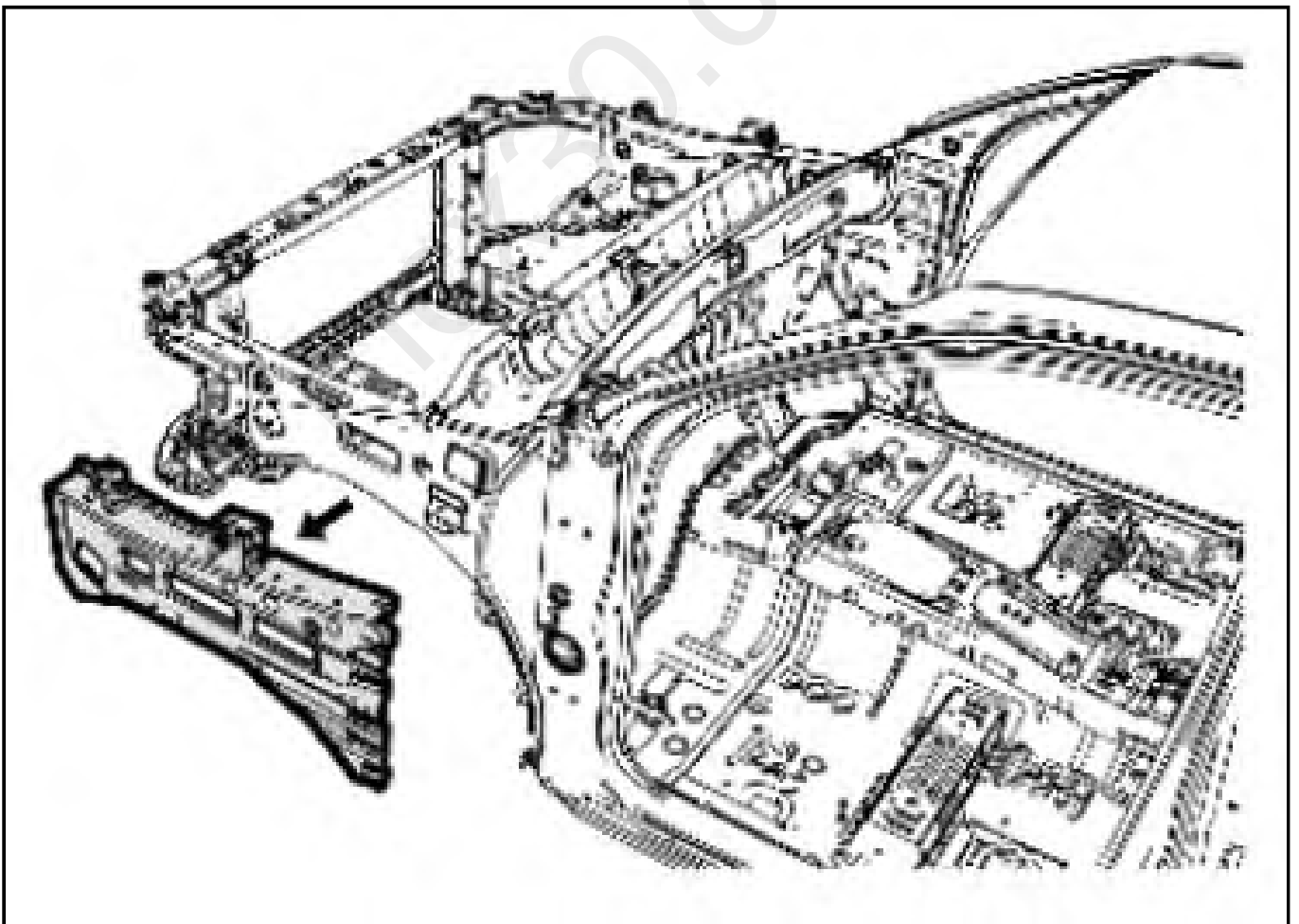
NOTE: Do not damage any inner panels or reinforcements.

NOTE: Record the number and location of the original welds for installation of the service assembly. Do not damage any inner panels, reinforcements, or adjacent panels during the removal process.

5. Note the MIG Slot Braze joints where the rail attaches to the hinge pillar. These braze joints must be replaced with MIG braze rather than MIG Weld. Grind the MIG braze enough to release the part without damaging the hinge pillar.



6. Remove all factory welds as required, to remove the front compartment upper side rail (1).

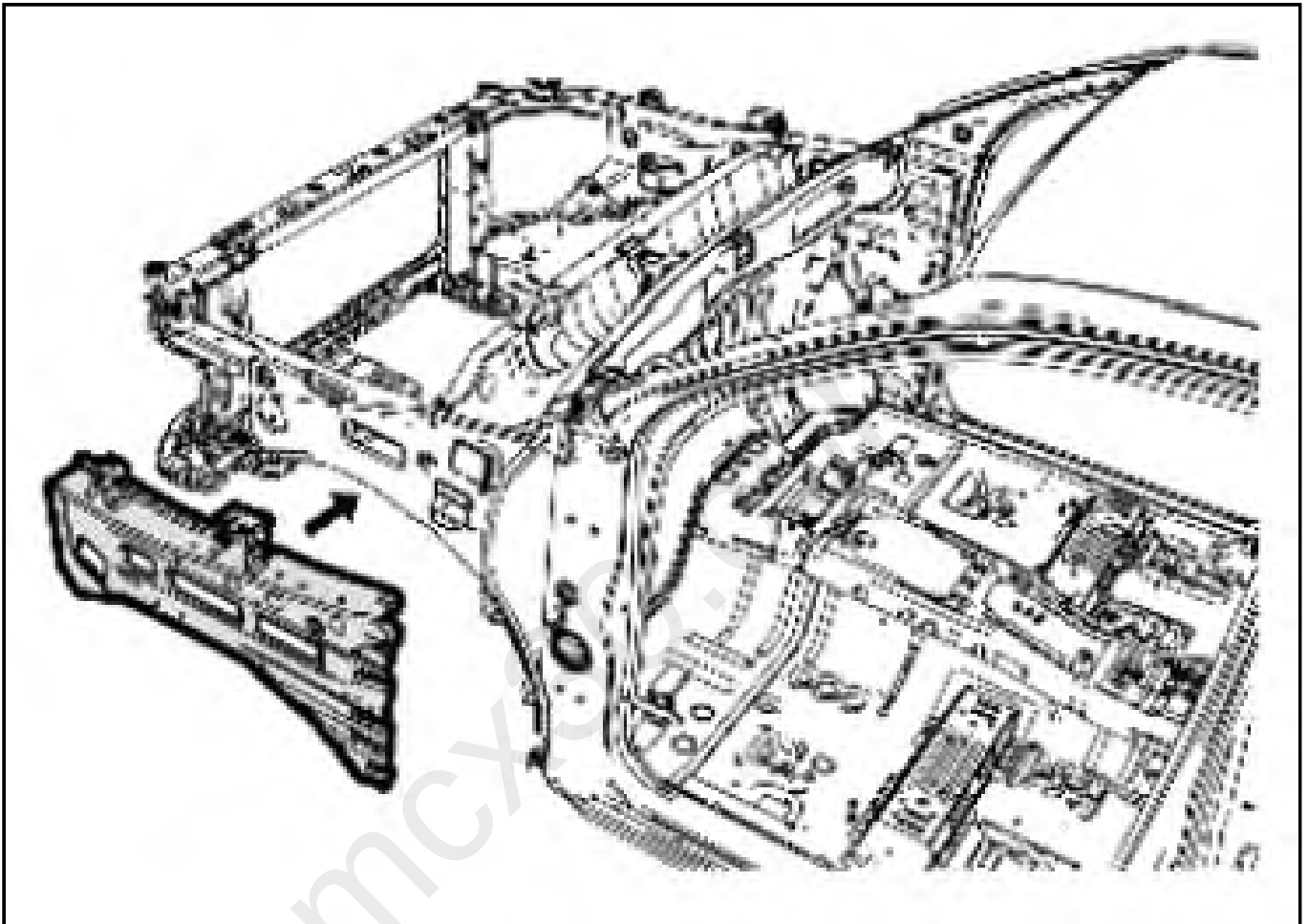


7. Remove the front compartment upper side rail.

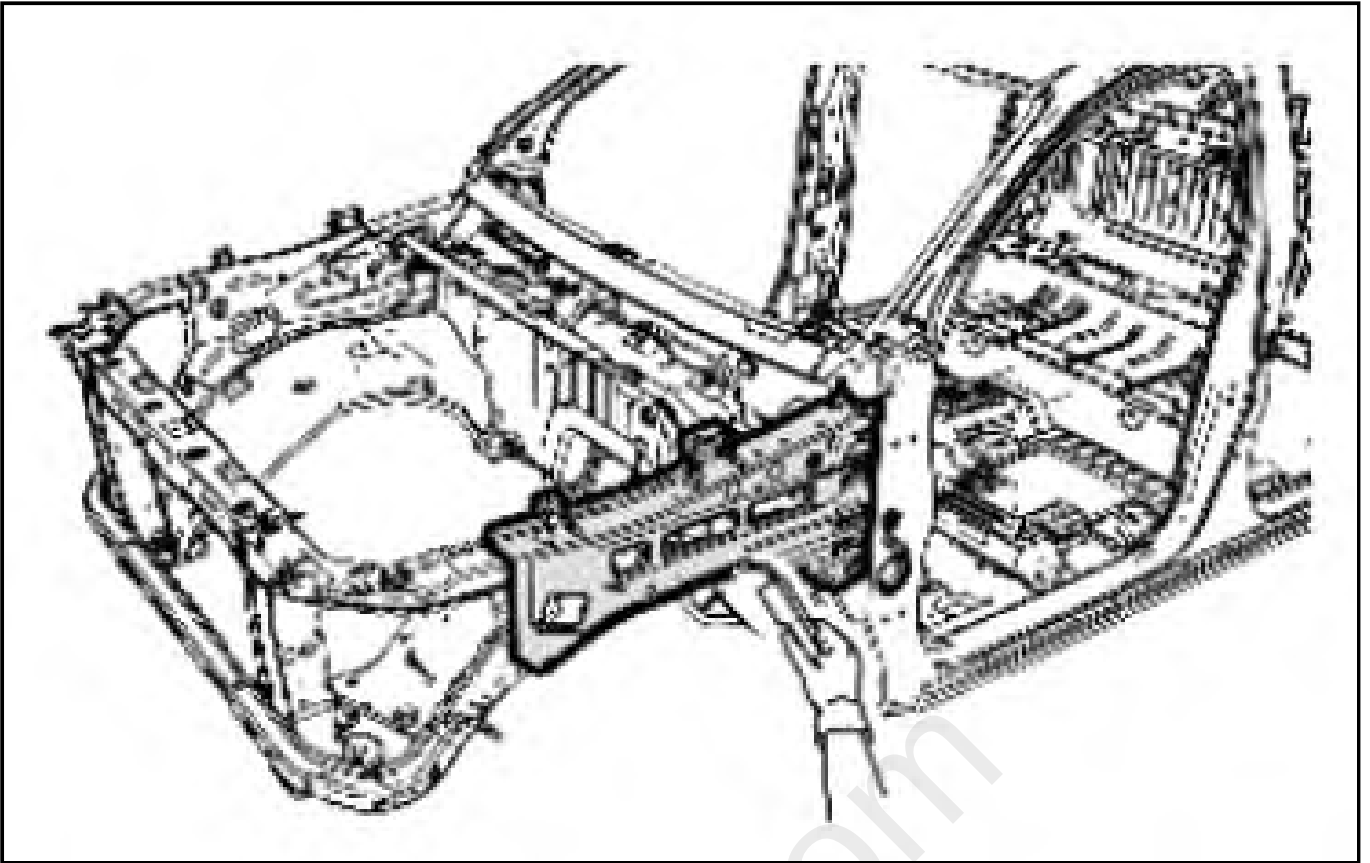
NOTE: If the location of the original welds cannot be determined, space the welds every 40 mm (1 1/2 in) apart. If MIG plug welding is used, proper sized plug weld holes will be required in one of the joining surfaces, based on the thickness of the panels being welded.

NOTE: Every MIG Brazed seam/slot must be MIG Brazed in repair.

1. Prepare all mating surfaces as necessary.
2. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#)



3. Install the front compartment upper side rail in the proper location (1).



4. Weld/Braze as required.
5. Clean and prepare all welded surfaces.
6. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
7. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
8. Install all related panels and components.
9. Enable the SIR system and then connect the negative battery cable. Refer to [SIR Disabling and Enabling](#) .

OUTER WINDSHIELD FRAME PILLAR SECTIONING

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

WARNING: Refer to [Collision Sectioning Warning](#) .

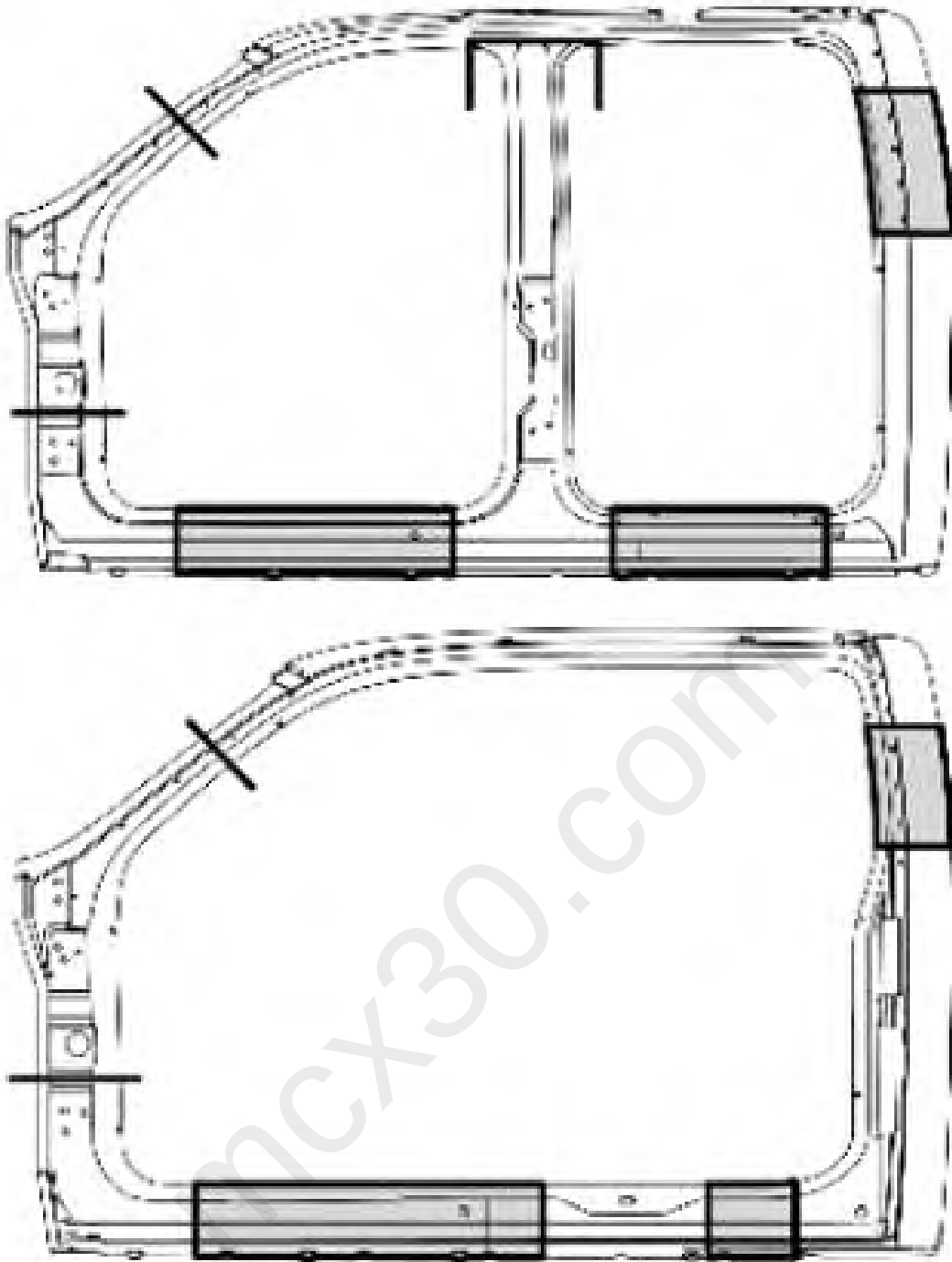


Fig. 4: Outer Windshield Frame Pillar Sectioning Component Location

Courtesy of GENERAL MOTORS COMPANY

NOTE: The door frame can be replaced at the factory seams, but requires the removal of the windshield and roof. The sectioning procedures have been developed as a more cost-effective alternative to complete replacement. The specific area to be sectioned is determined by the extent of the damage to the vehicle.

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .

WARNING: Refer to [Foam Sound Deadeners Warning](#) .

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

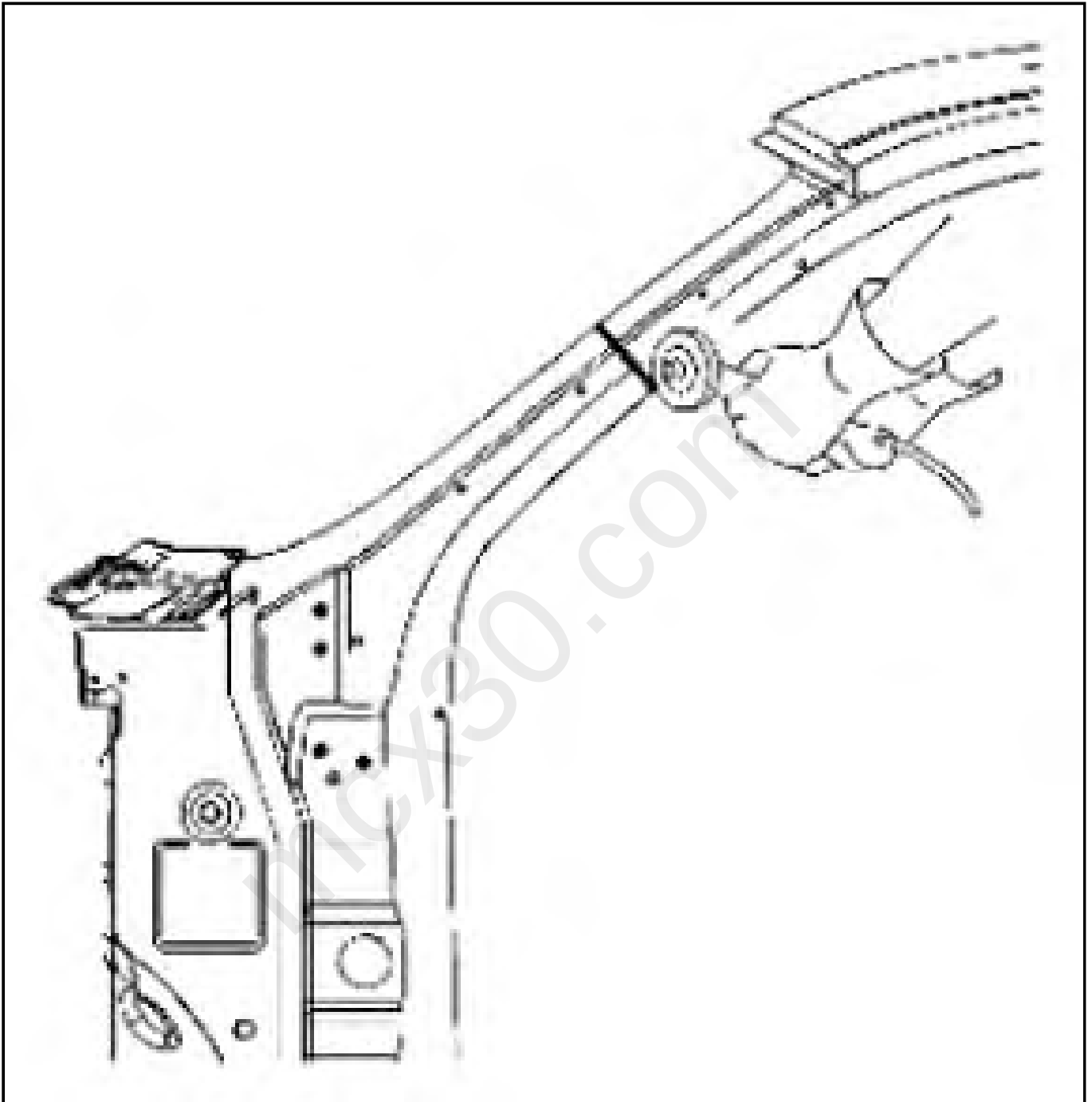
6. Perform additional sectioning procedures as necessary. Refer to the following procedures:

[Rocker Outer Panel Sectioning](#)

[Front Hinge Pillar Sectioning](#)

[Center Pillar Sectioning](#)

[Rear Pillar Sectioning \(Lower\)](#)[Rear Pillar Sectioning \(Complete\)](#)

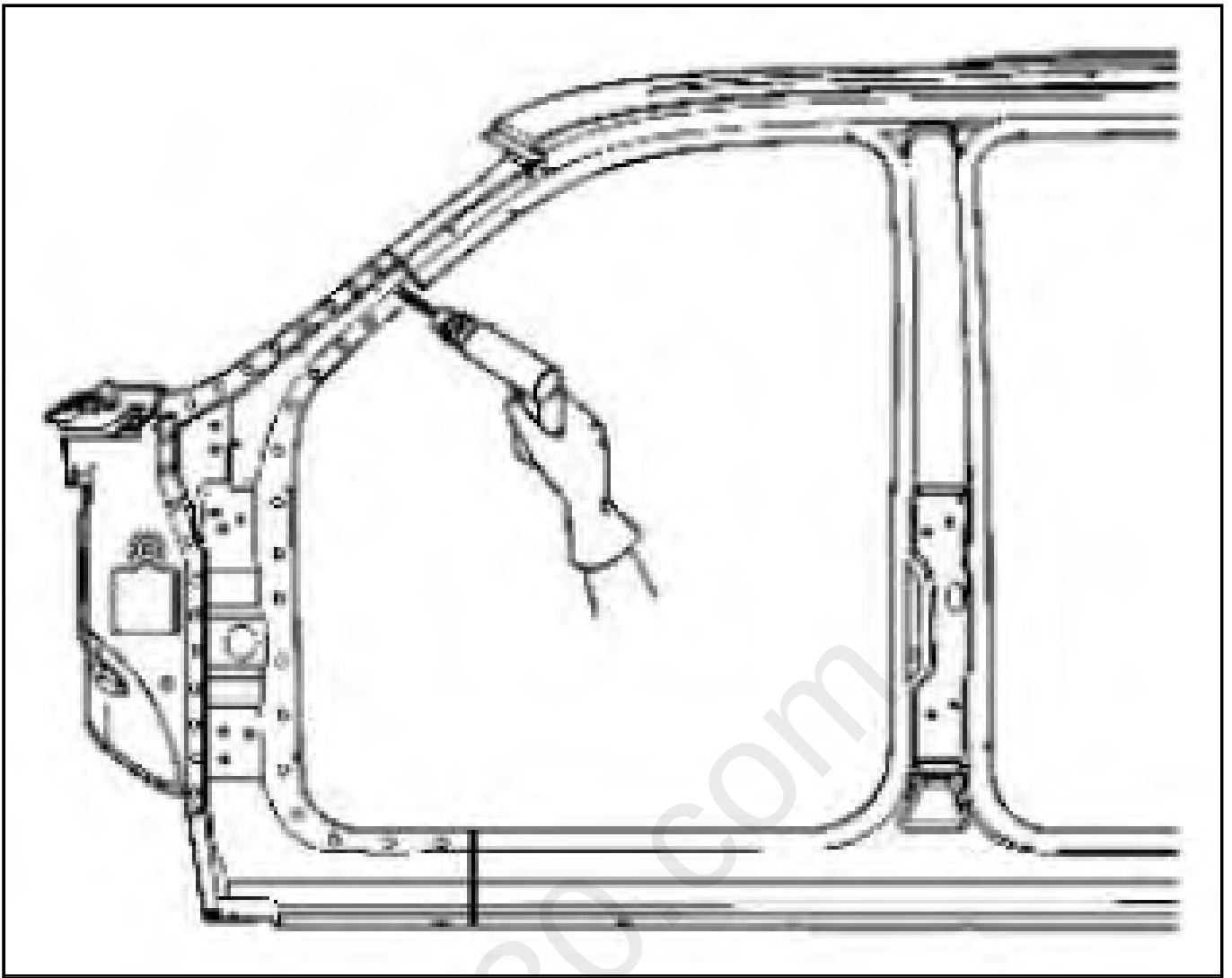


NOTE:

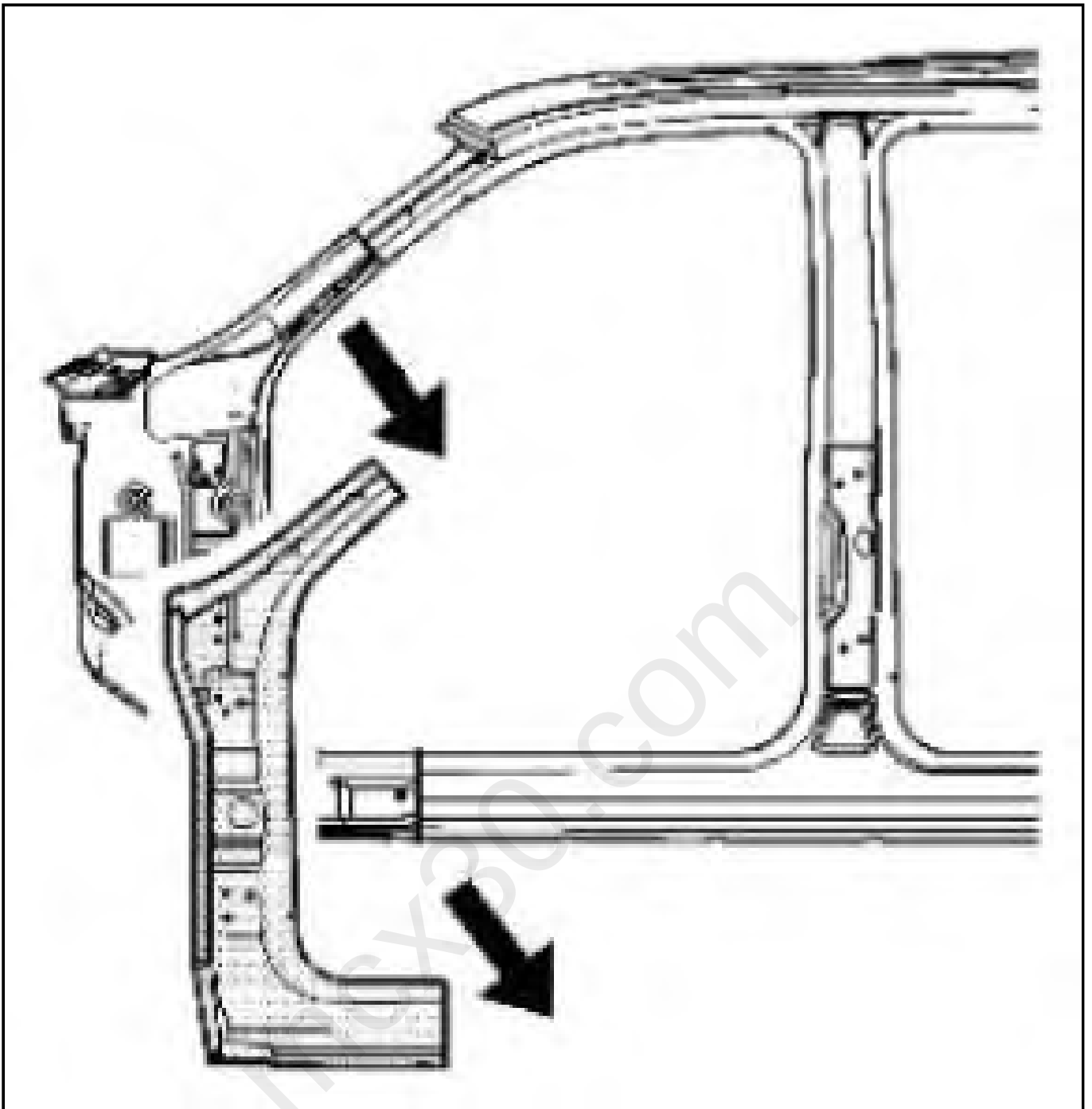
Perform the sectioning in the flat area.

Do not damage any inner panels or reinforcements.

7. Perform the lower sectioning at 30 mm (1.18 in) from the inner reinforcement or choose the procedure that fits better according to the collision.
8. Cut the panel in the locations where sectioning is to be performed.

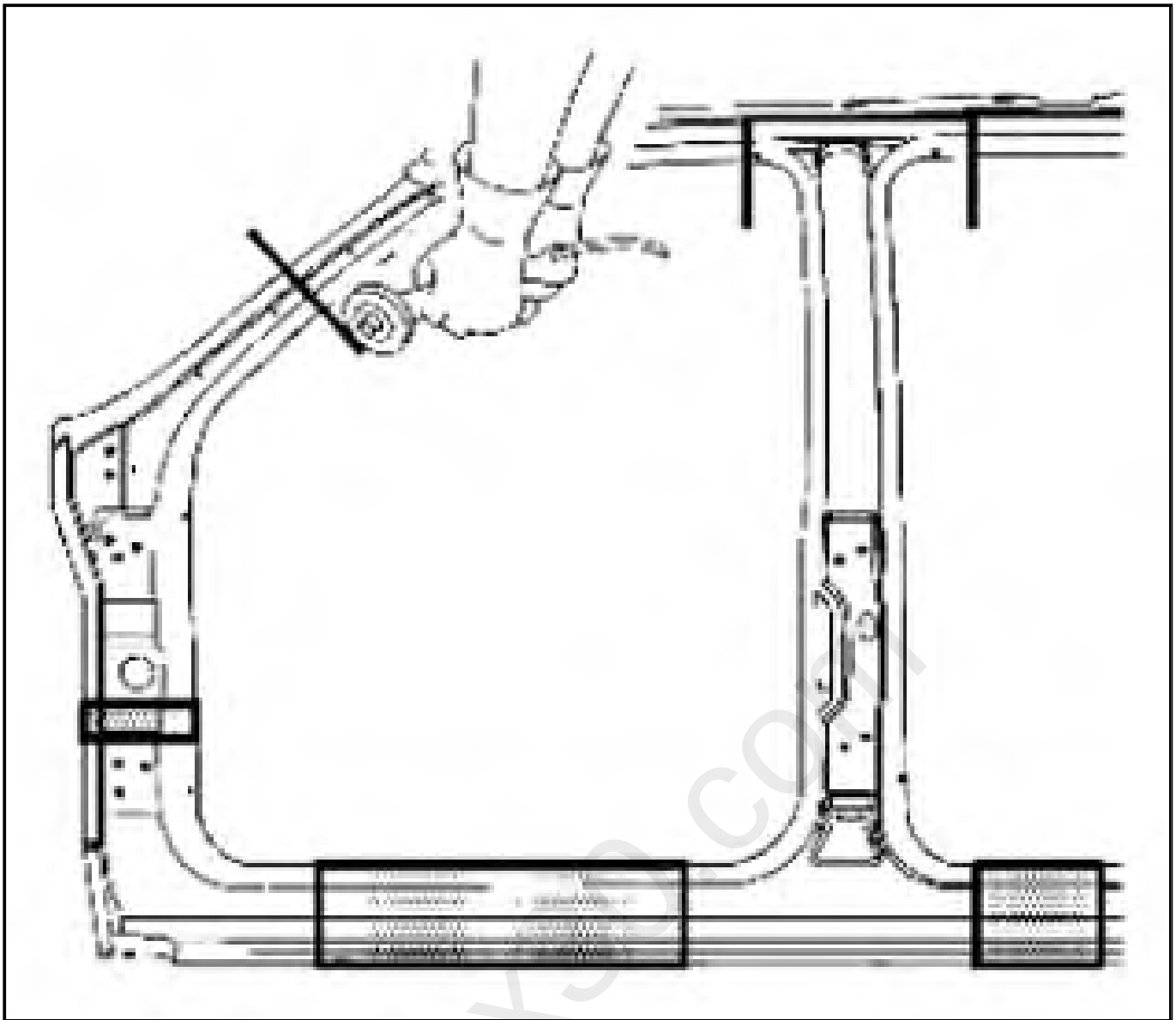


9. Locate and drill out all factory welds. Note the number and location of the welds for installation of the service part.

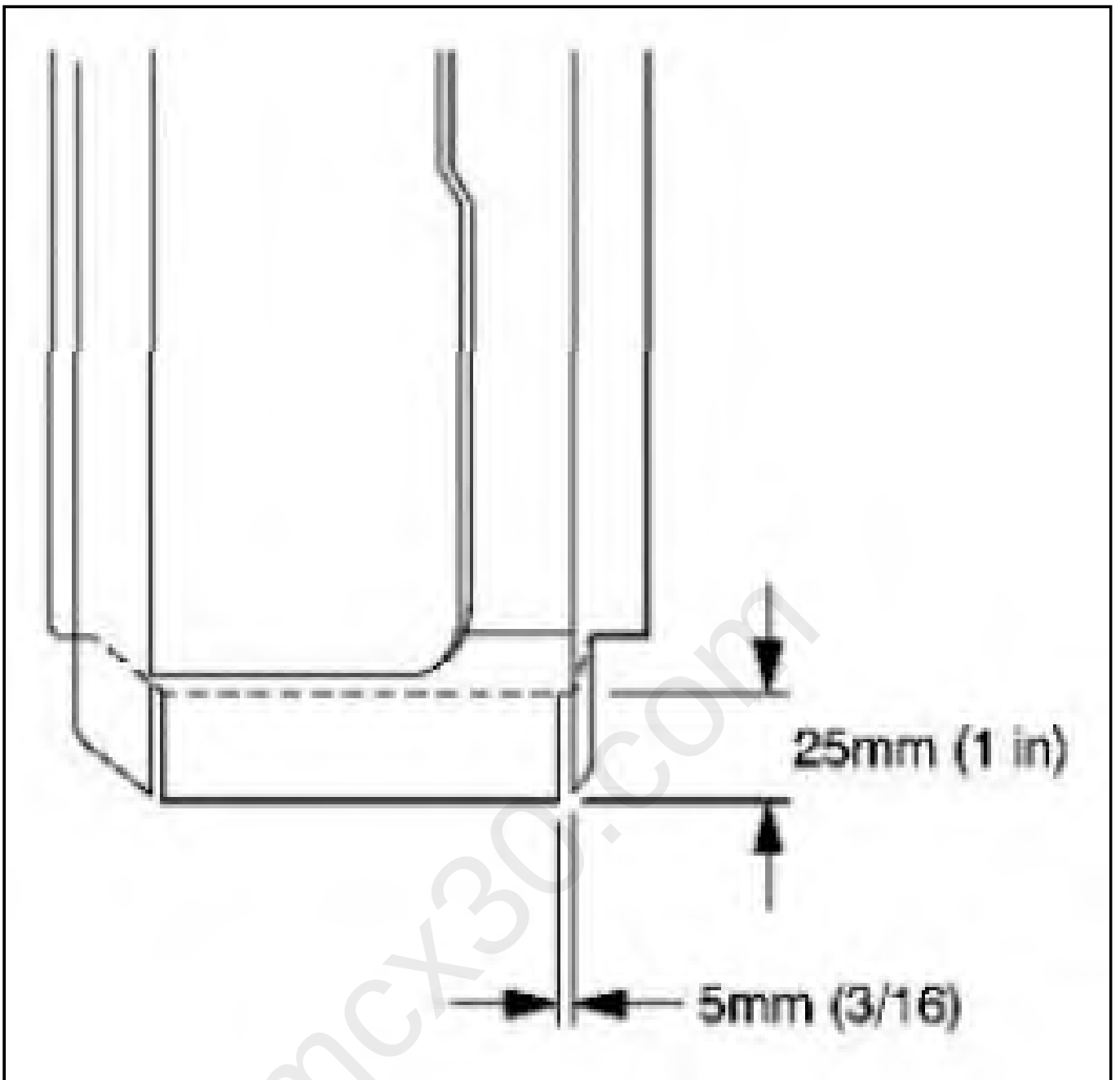


10. Remove the damaged body side.

Installation Procedure

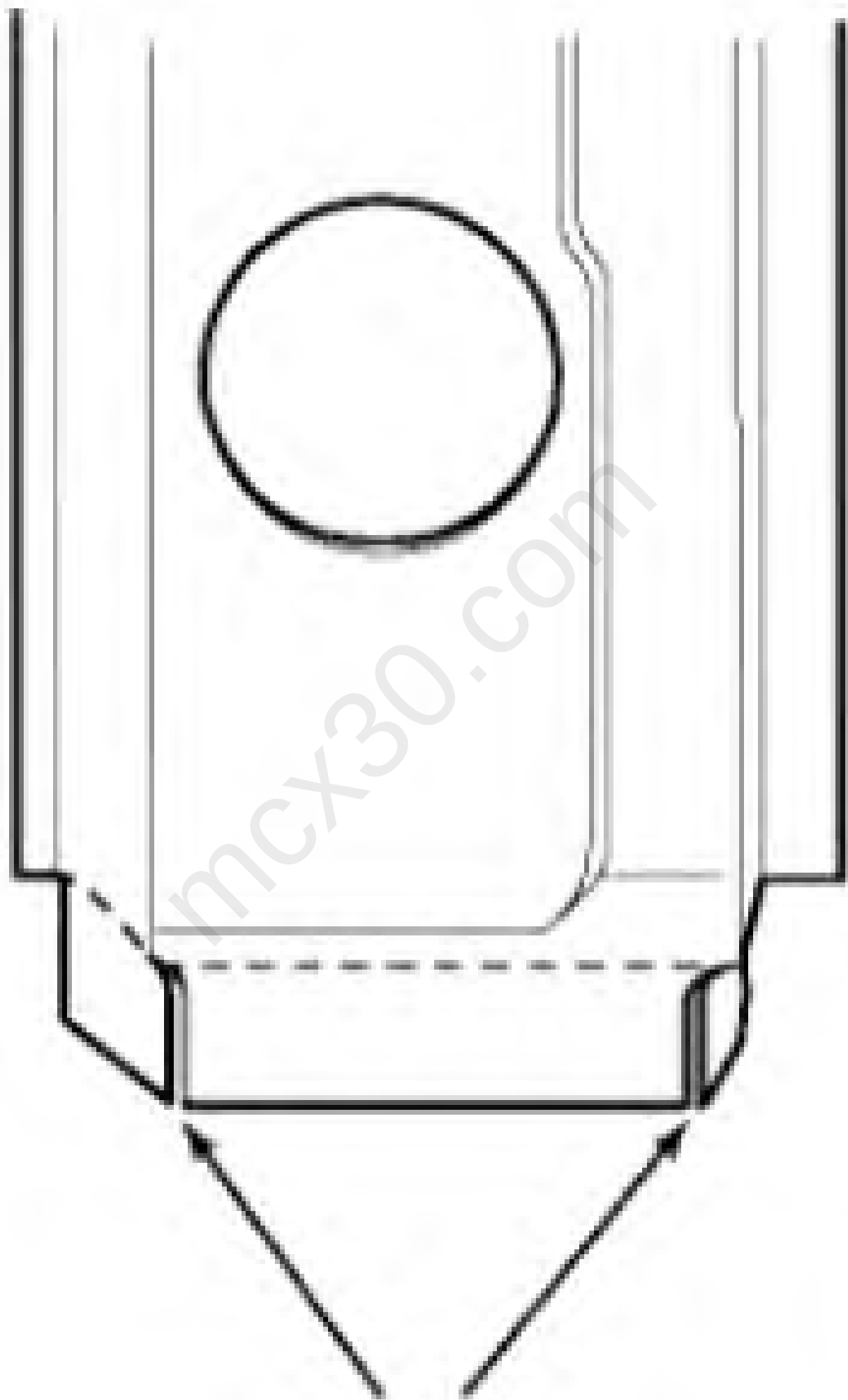


1. From the service part, cut the panel in corresponding locations to overlap the remaining original panel by 25 mm (1 in) at each joint location.



2. Cut and remove 25 mm (1 in) from the flanges on either side of the remaining section of the original pillar. Cut 5 mm (3/16 in) wide gaps in the bottom corners.

mcx30.com

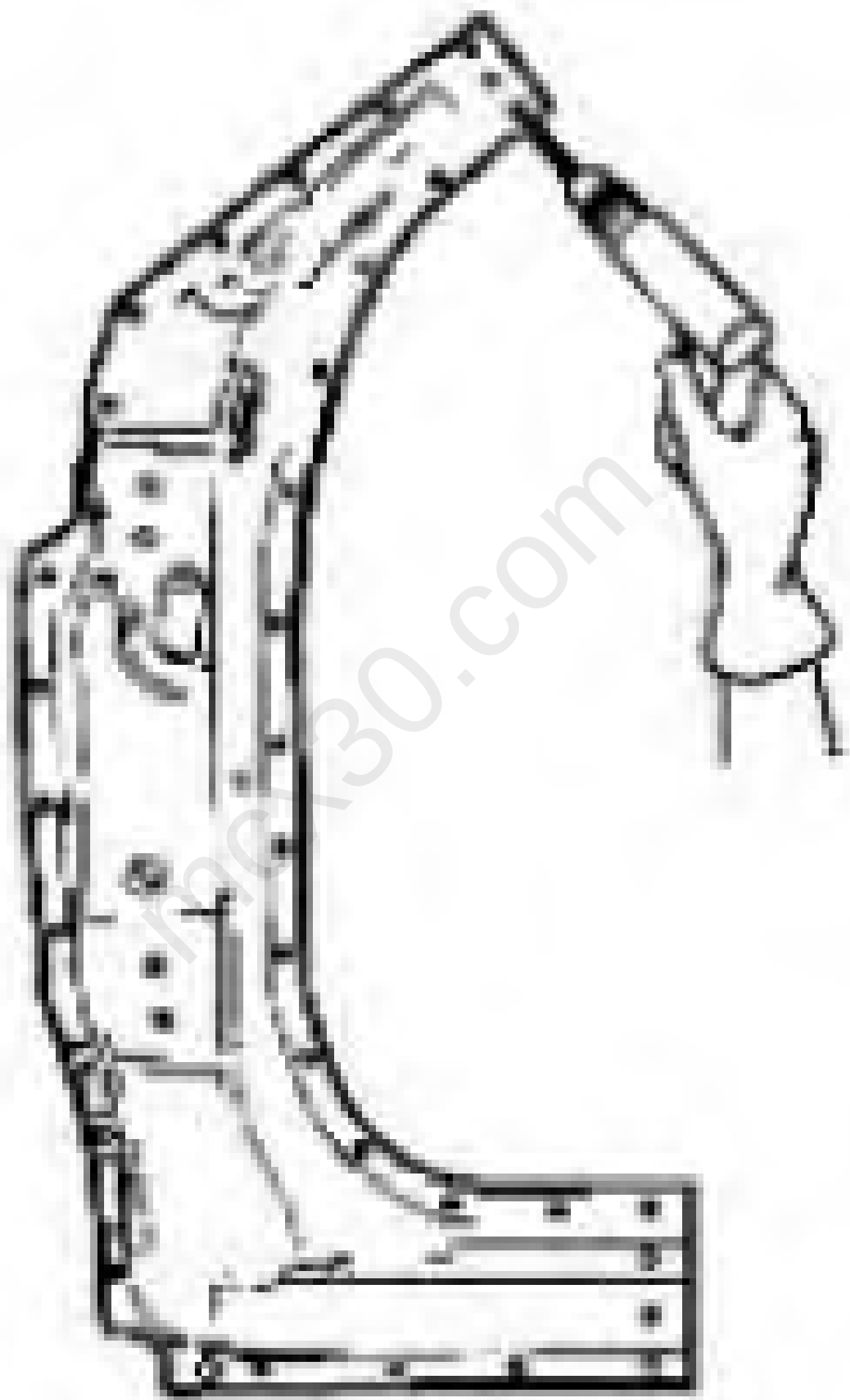


1

3. Step the tabs (1) inward to allow the door frame opening service section to fit over the original hinge pillar.

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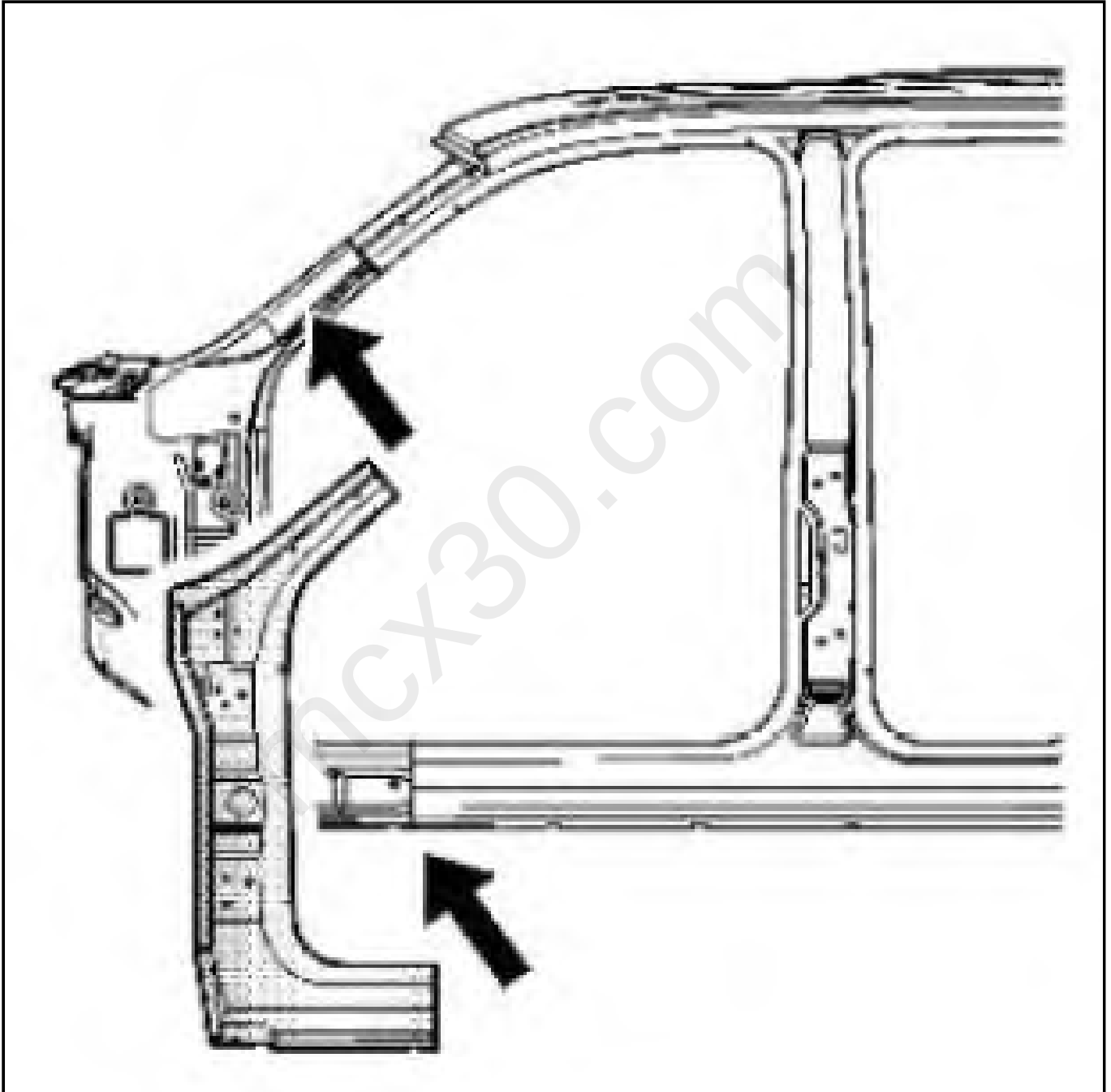
mcx30.com



NOTE:

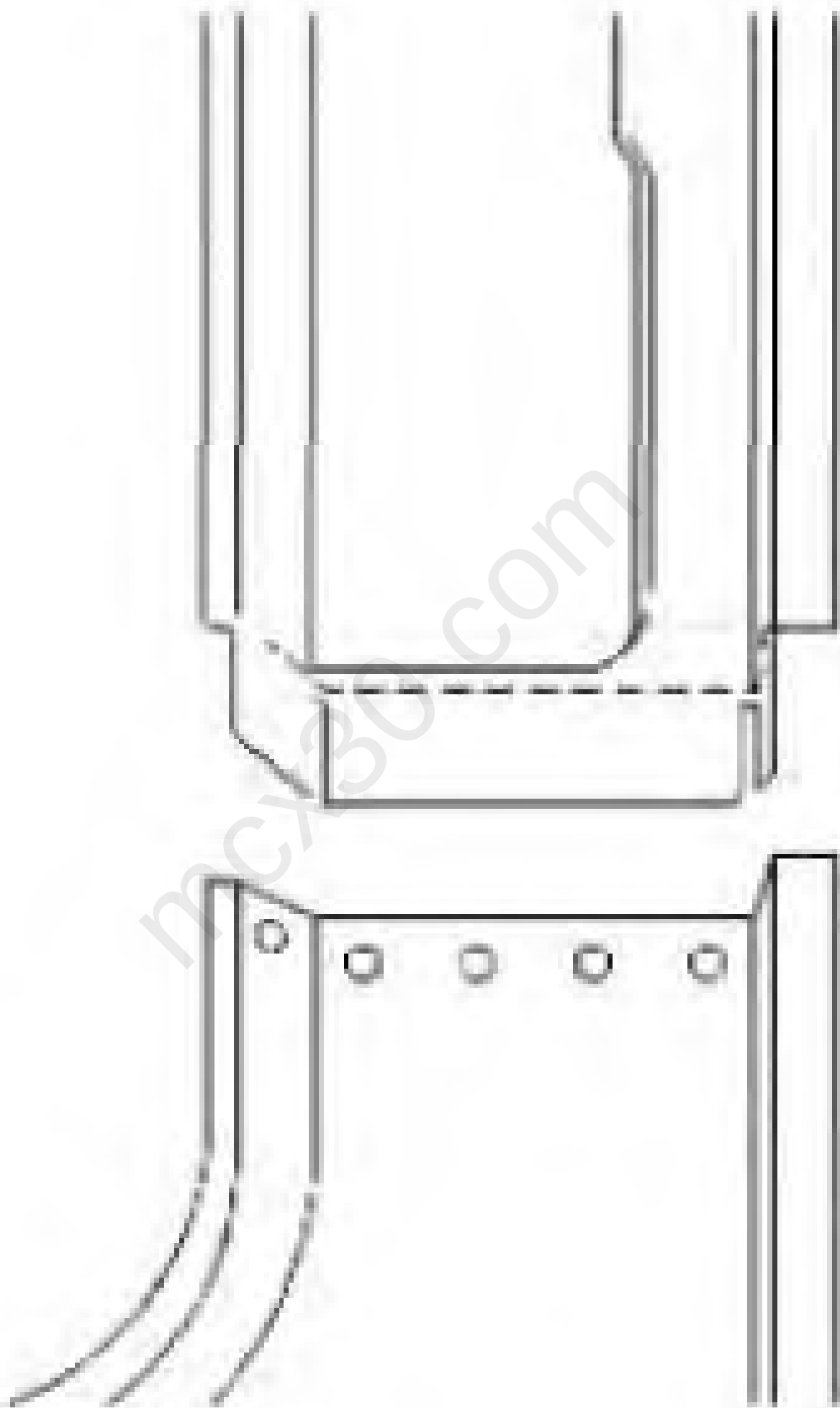
If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

4. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel and along the sectioning cut.
5. Prepare all attachment surfaces as necessary.
6. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#)

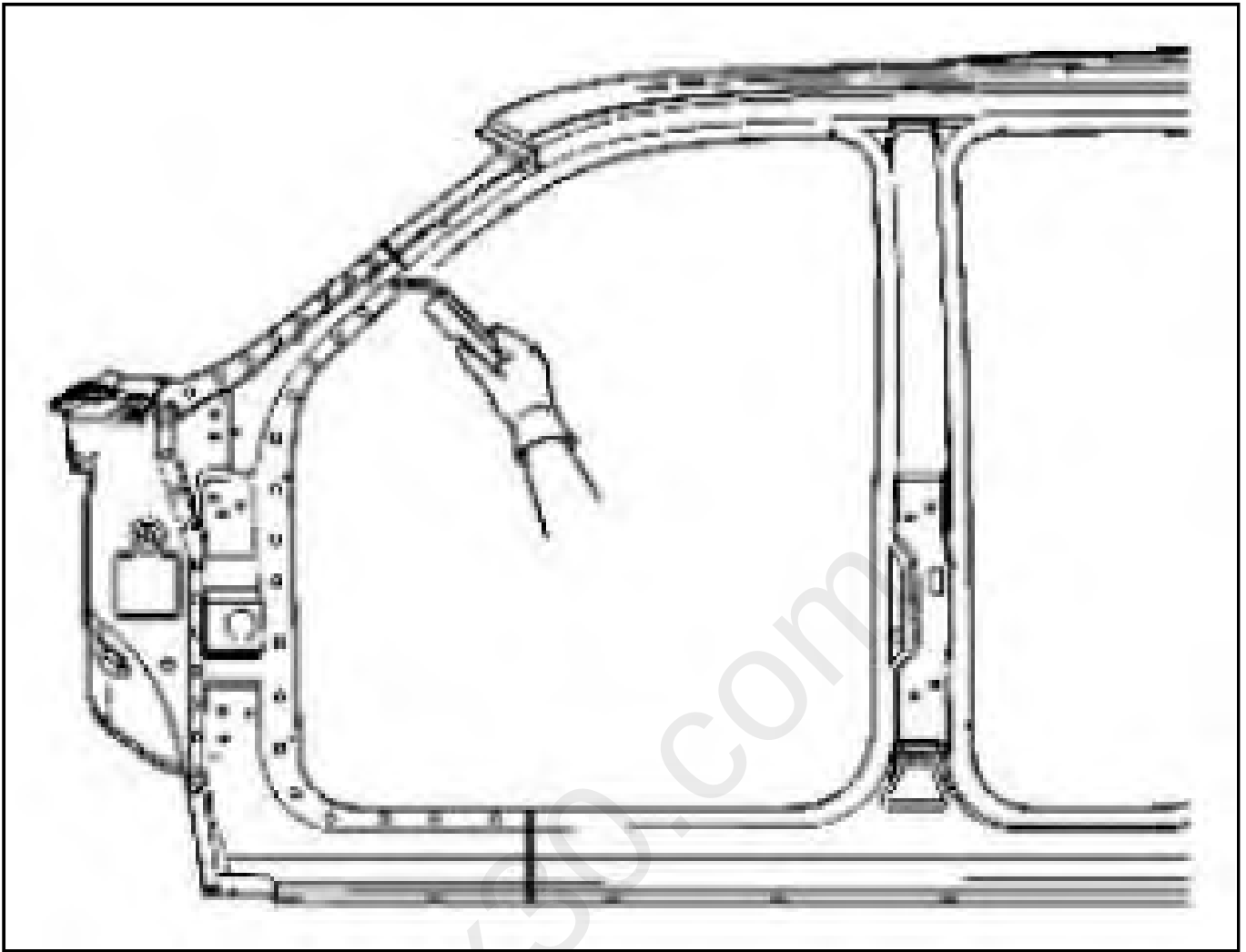


7. Position the body side to the vehicle using 3-dimensional measuring equipment. Clamp in place.

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8. Fit the new part on the original panel.



9. Plug weld accordingly.

NOTE: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam with 25 mm (1 in) gaps between them. Complete the stitch weld.

10. Clean and prepare all welded surfaces.

11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

12. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .

13. Install all related panels and components.

14. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

15. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

BODY HINGE PILLAR LOWER REINFORCEMENT REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .

2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

3. Remove all related panels and components.
4. Repair as much of the damage as possible. Refer to [BODY DIMENSIONS](#) .
5. Remove the sealers and anti-corrosion materials from the repair area. Refer to [Anti-Corrosion Treatment And Repair](#) .

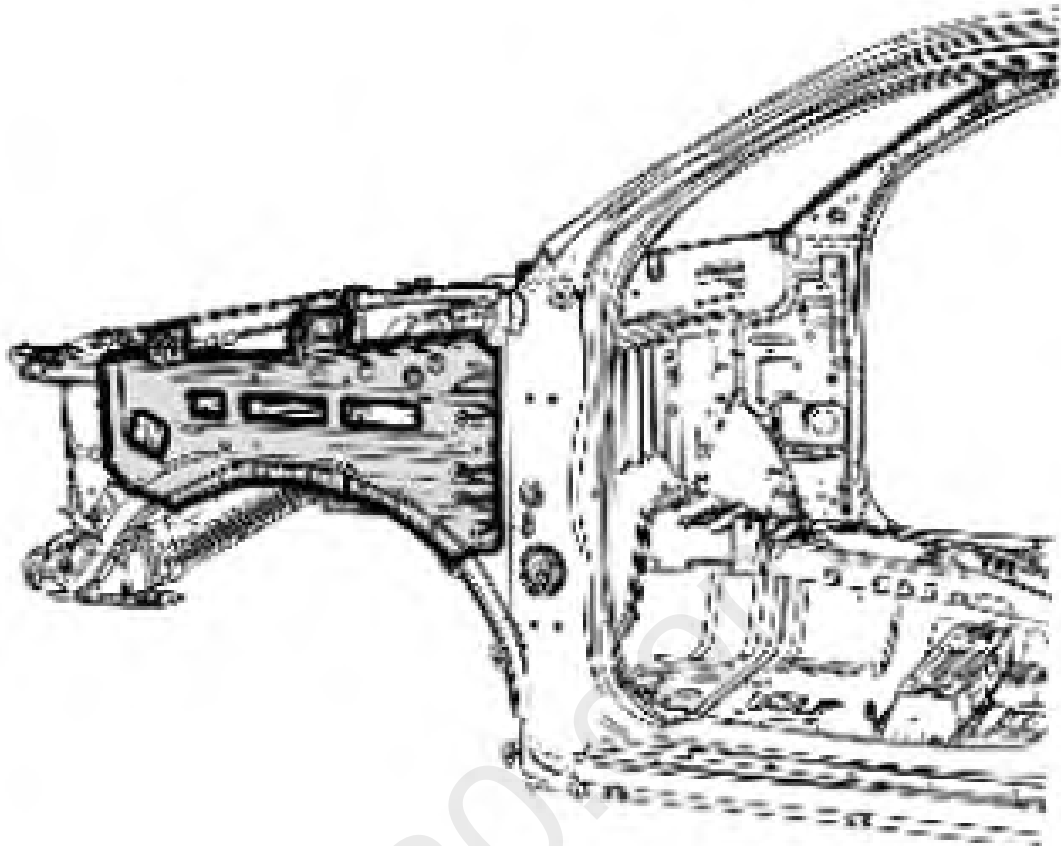
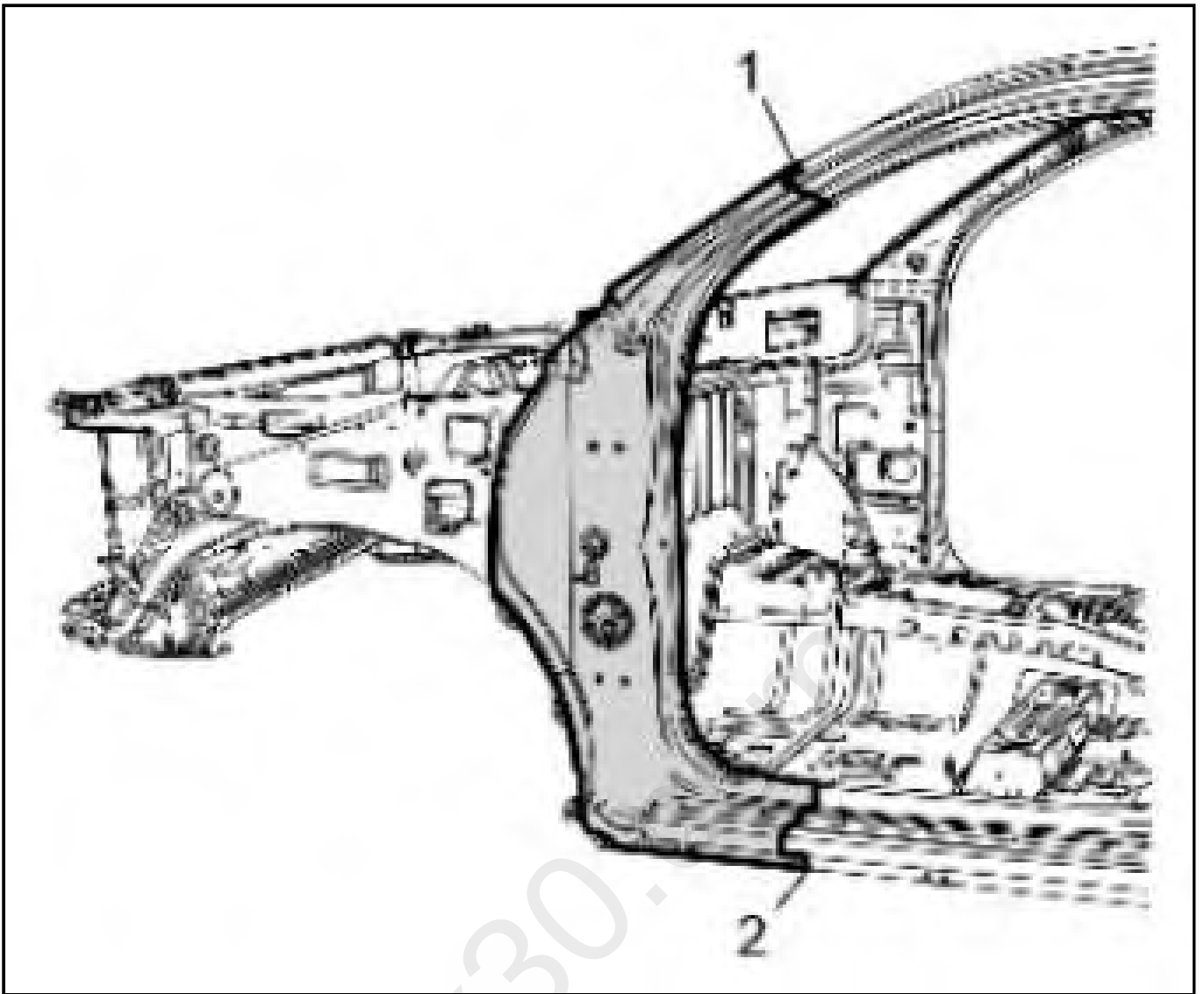


Fig. 5: Body Hinge Pillar Lower Reinforcement Component Location
Courtesy of GENERAL MOTORS COMPANY

6. Remove the Front Compartment Upper Side Rail (Outer). Refer to [Front Compartment Upper Side Rail Replacement \(Outer\)](#).

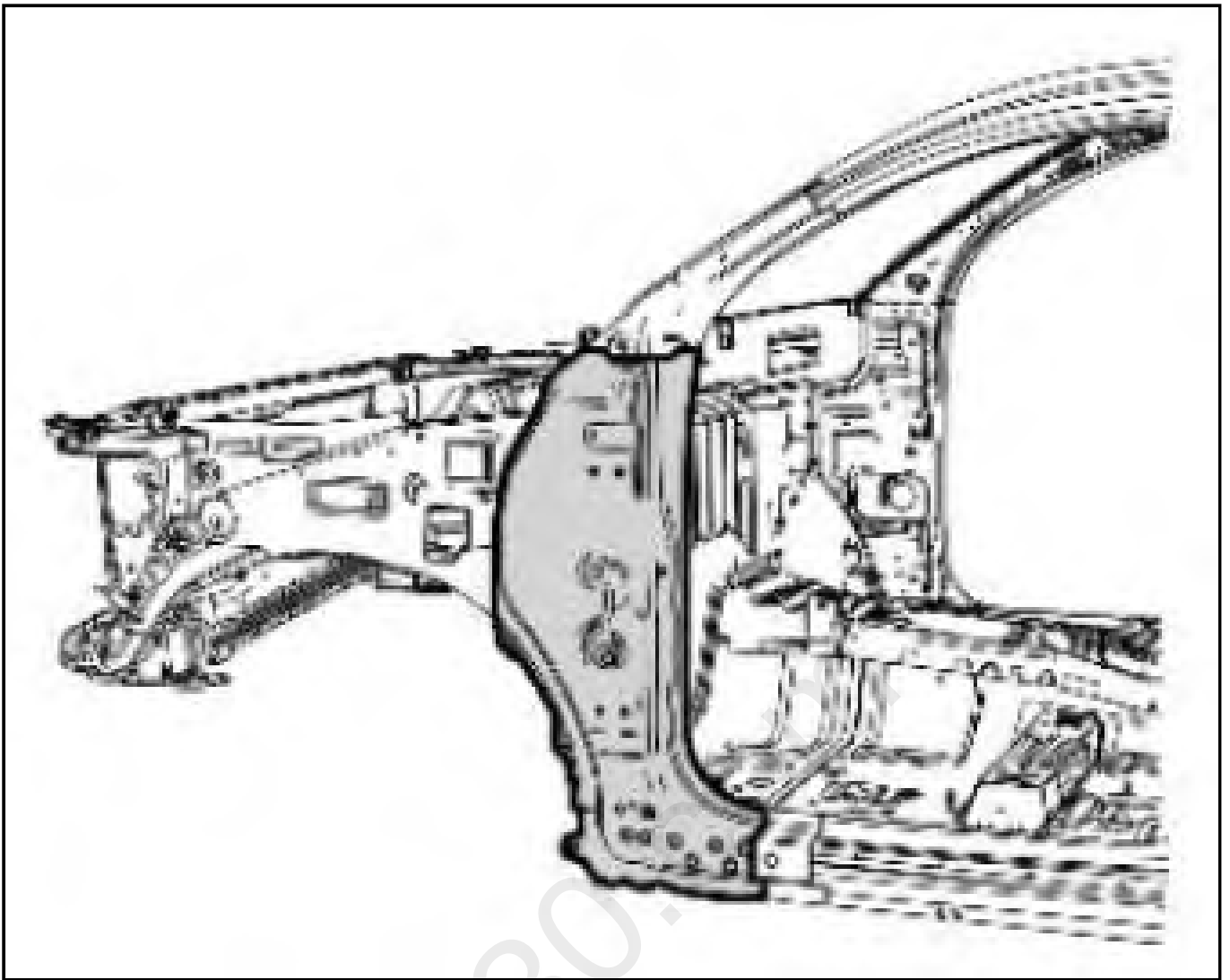


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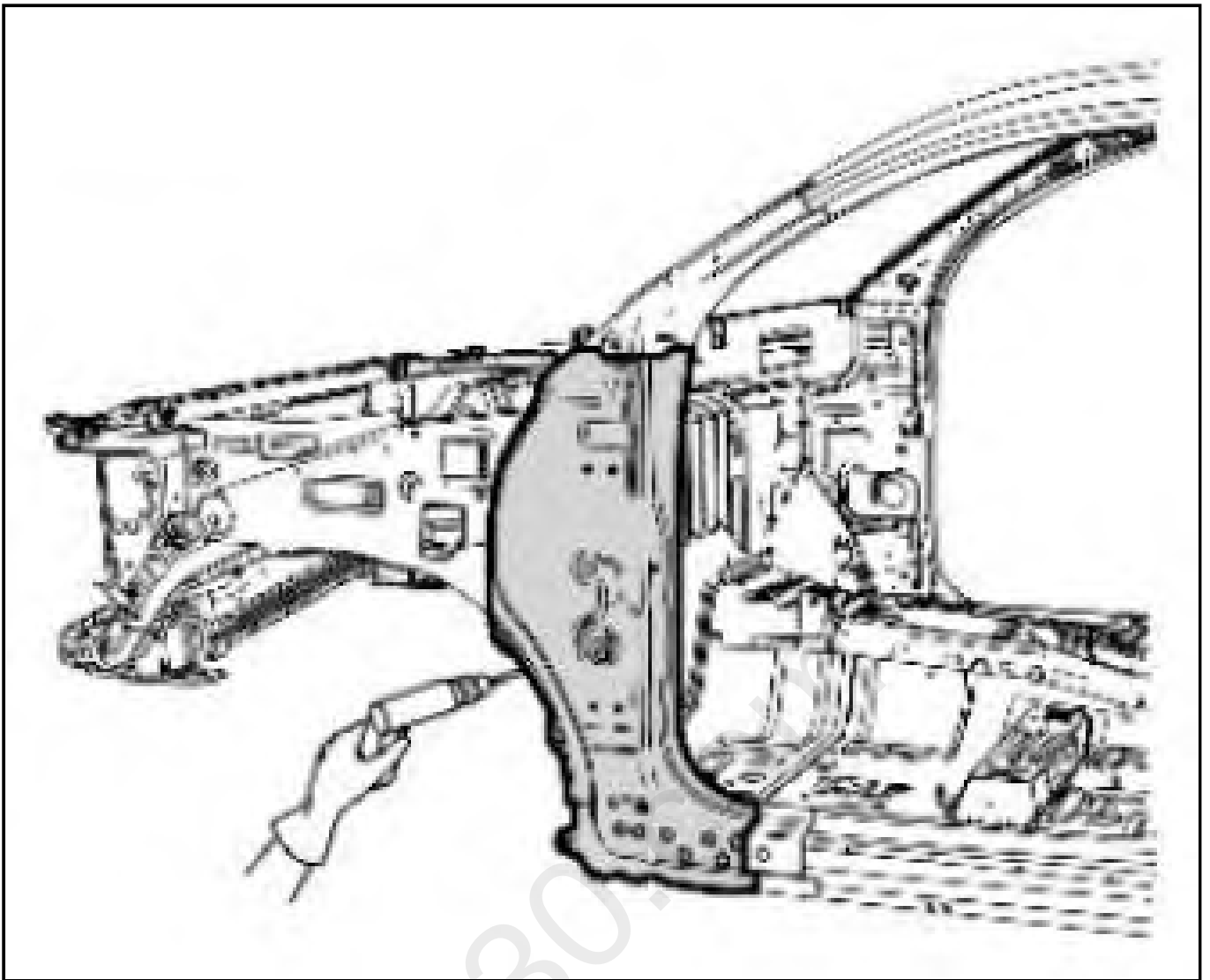
Perform the sectioning in the flat area.

Do not damage any inner panels or reinforcements.

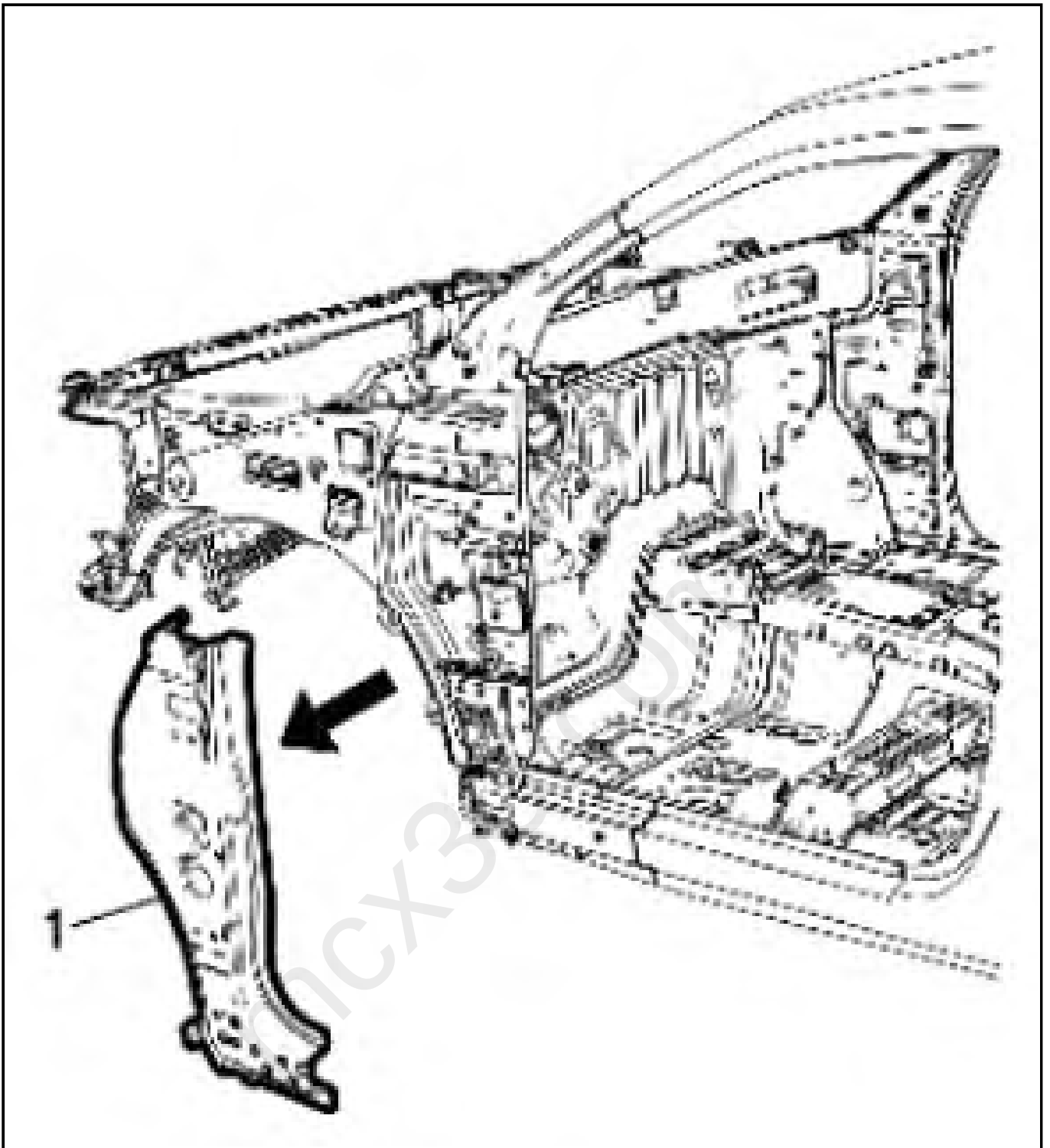
7. Cut the outer body side panel at locations (1) and (2).
8. Locate and drill all the necessary factory welds between locations 1 and 2 and remove sectioned outer body side panel.



9. Locate and mark all the necessary factory welds of the front hinge pillar body.



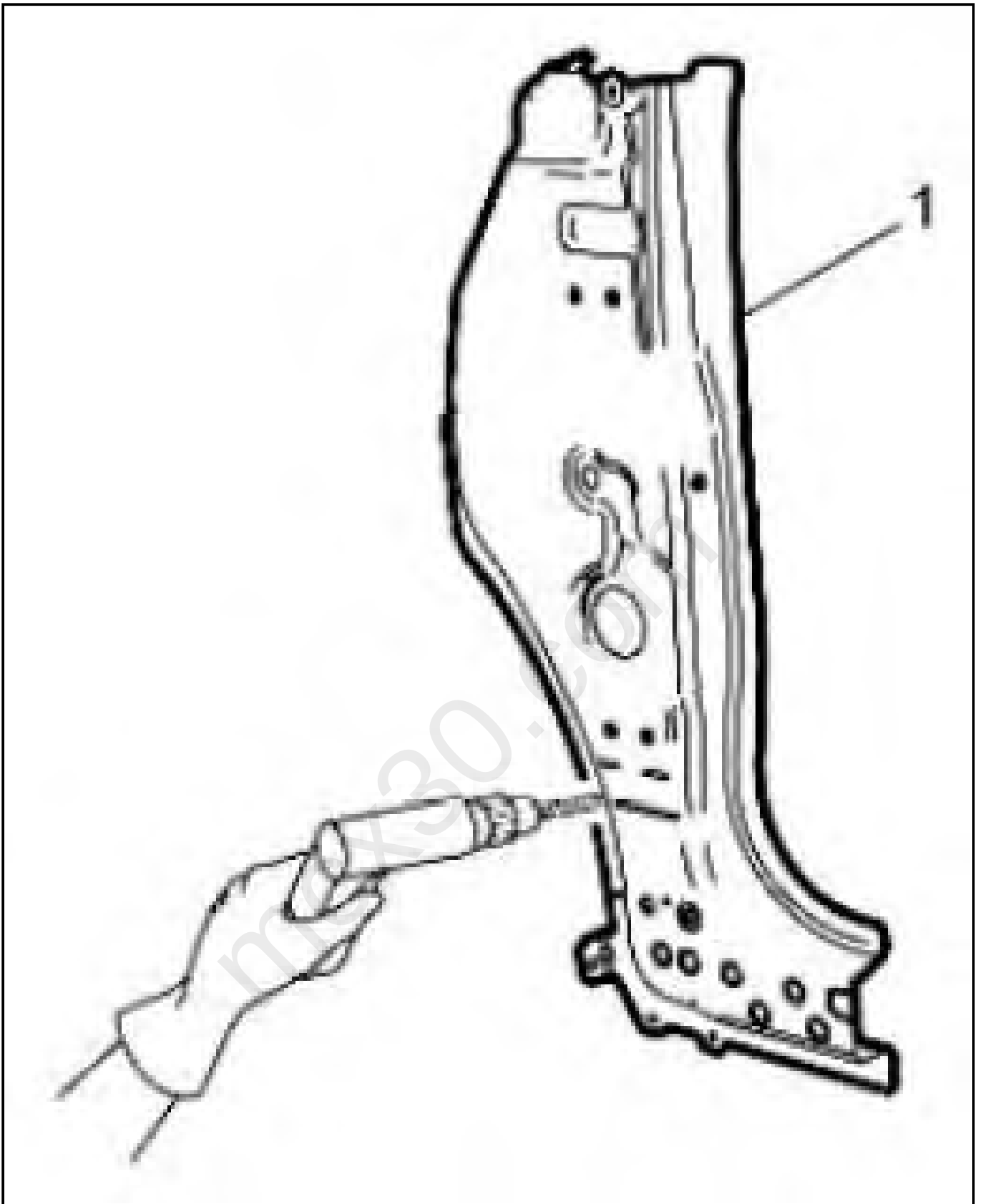
10. Drill all factory welds. Note the number and location of welds for installation of the body hinge pillar lower reinforcement.



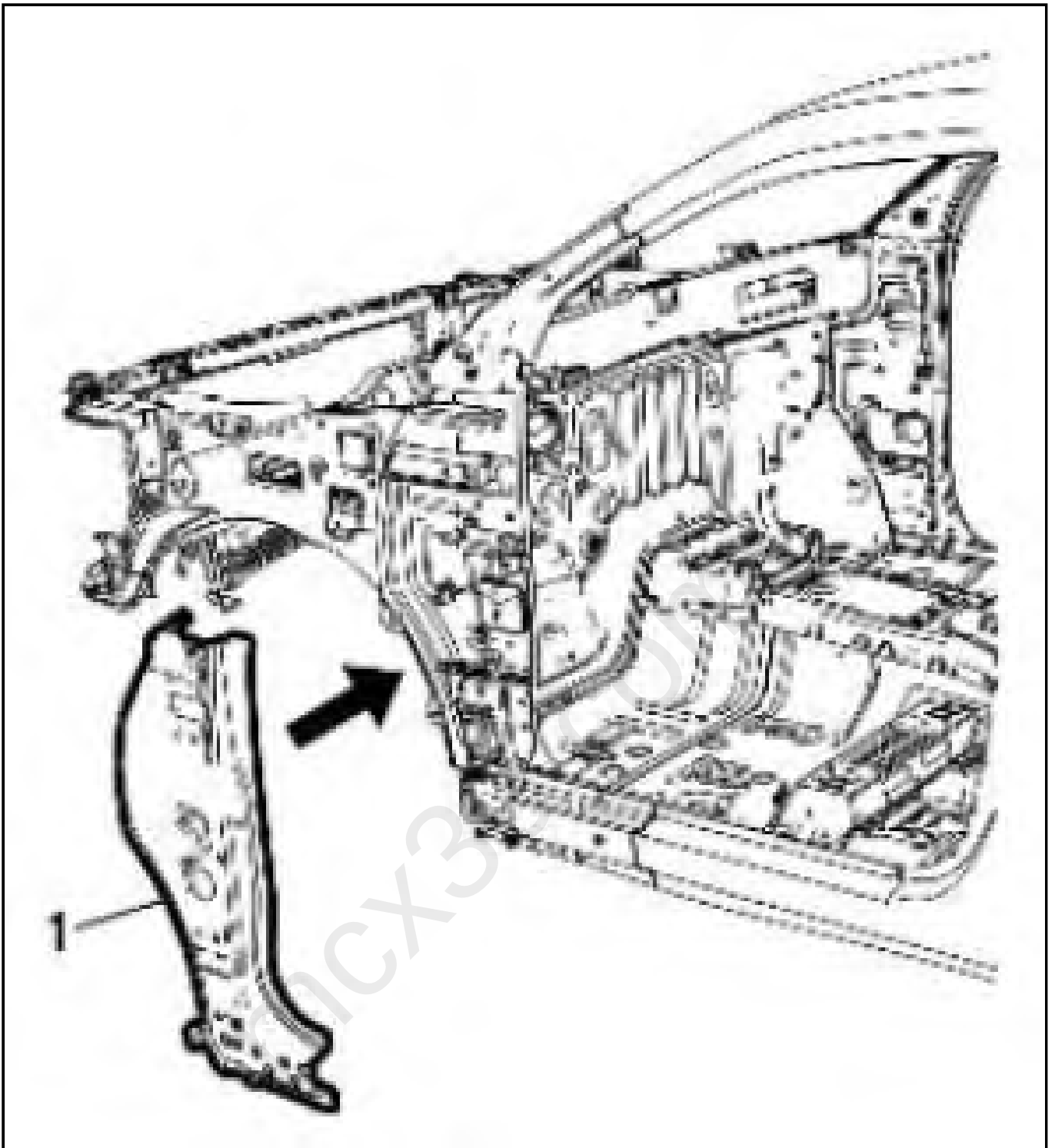
11. Remove the damaged body hinge pillar lower reinforcement (1).

Installation Procedure

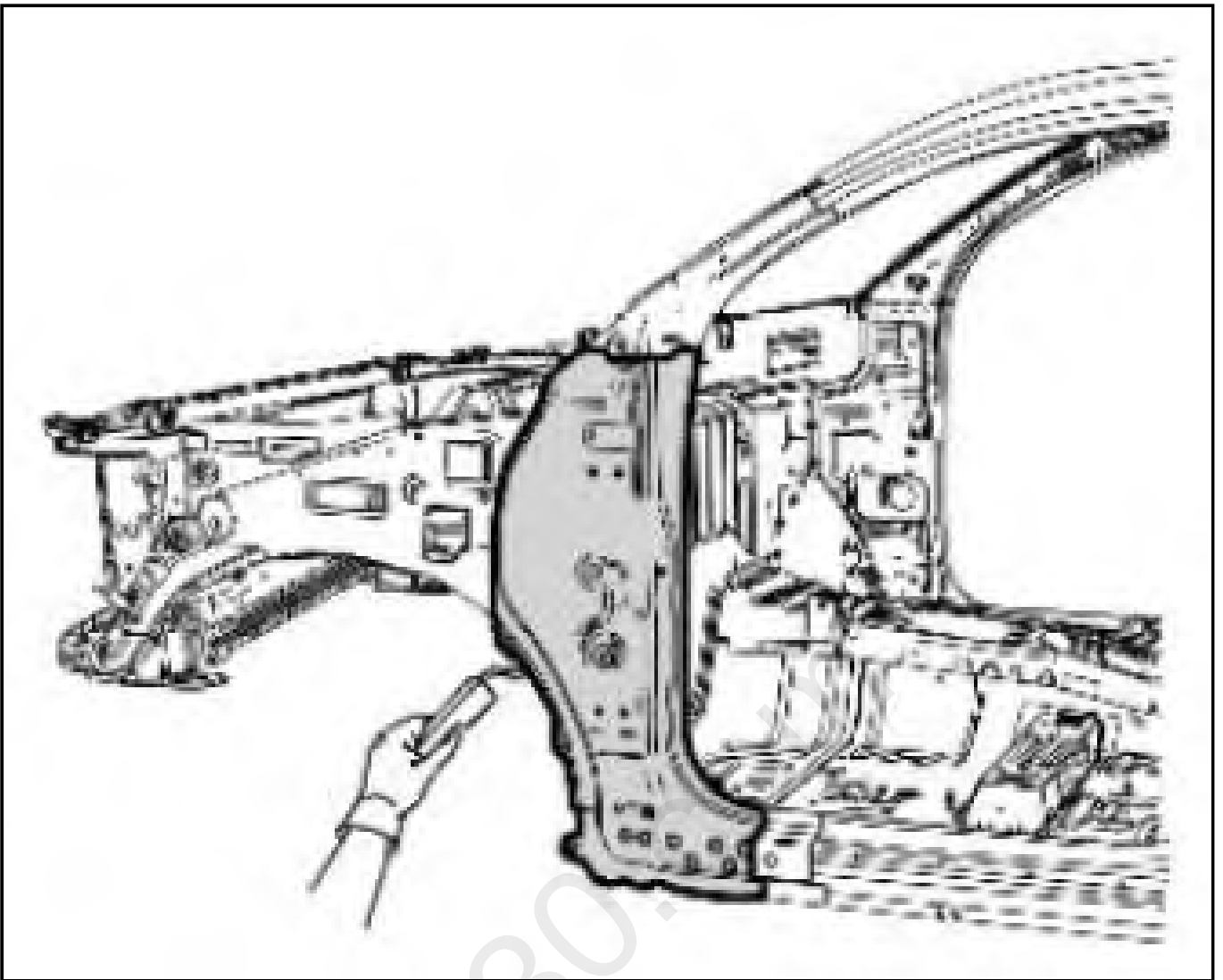
1. Prepare all mating surfaces as necessary.
2. Align the body hinge pillar lower reinforcement.



3. Drill **8 mm (5/16 in)** holes for plug welding along the edges of the front hinge pillar body as noted from the original panel (1).
4. Clean and prepare the attaching surfaces for welding.



5. Position the body hinge pillar lower reinforcement on the vehicle (1).
6. Verify the fit of the front hinge pillar body reinforcement.
7. Clamp the front hinge pillar body reinforcement into position.



8. Plug weld accordingly.
9. From the service part, cut the panel in corresponding locations to overlap the remaining original panel by 25 mm (1 in) at each joint location.
10. Replace the sectioned hinge pillar portion of the outer bodyside. Refer to [Outer Windshield Frame Pillar Sectioning](#).
11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#).
12. Paint the repaired area. Refer to [Basecoat/Clearcoat Paint Systems](#).
13. Install all related panels and components. Refer to [Outer Windshield Frame Pillar Sectioning](#).
14. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#).
15. Enable the SIR system. Refer to [SIR Disabling and Enabling](#).

ROOF OUTER PANEL REPLACEMENT (ADHESIVE WELD BONDING PROCEDURE)

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#).

NOTE: When replacing panels that involve servicing of stationary windows, refer to [Adhesive Installation of Windshields](#), and [Adhesive Installation of Rear Windows](#), before performing any priming or refinishing.

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#).
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#).

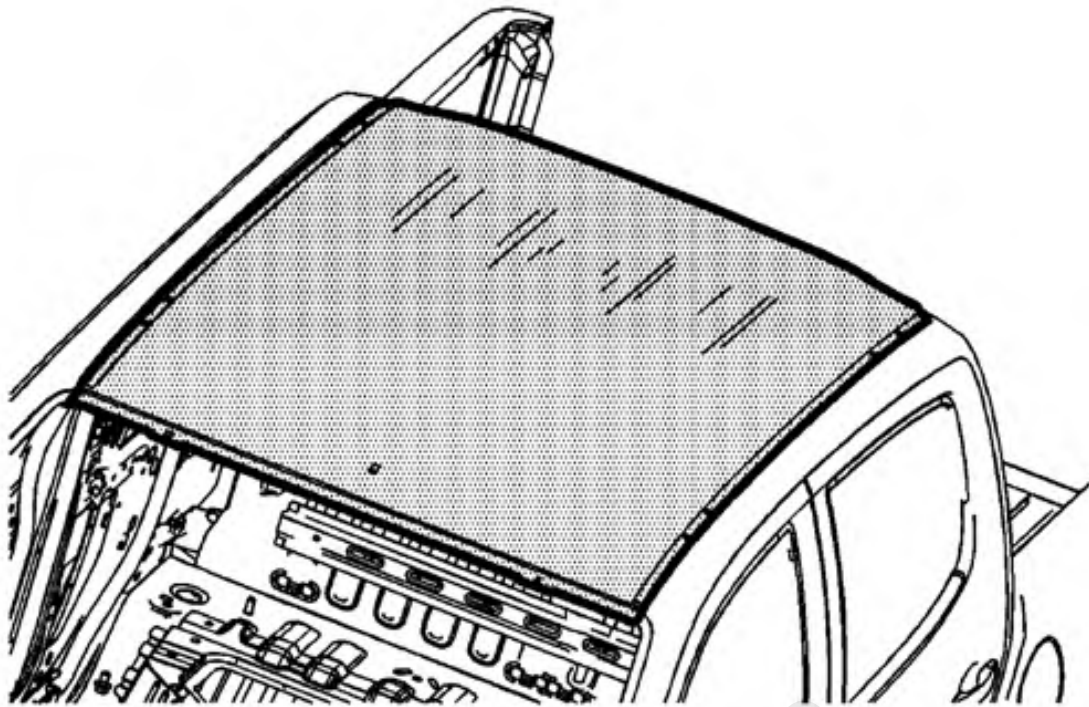
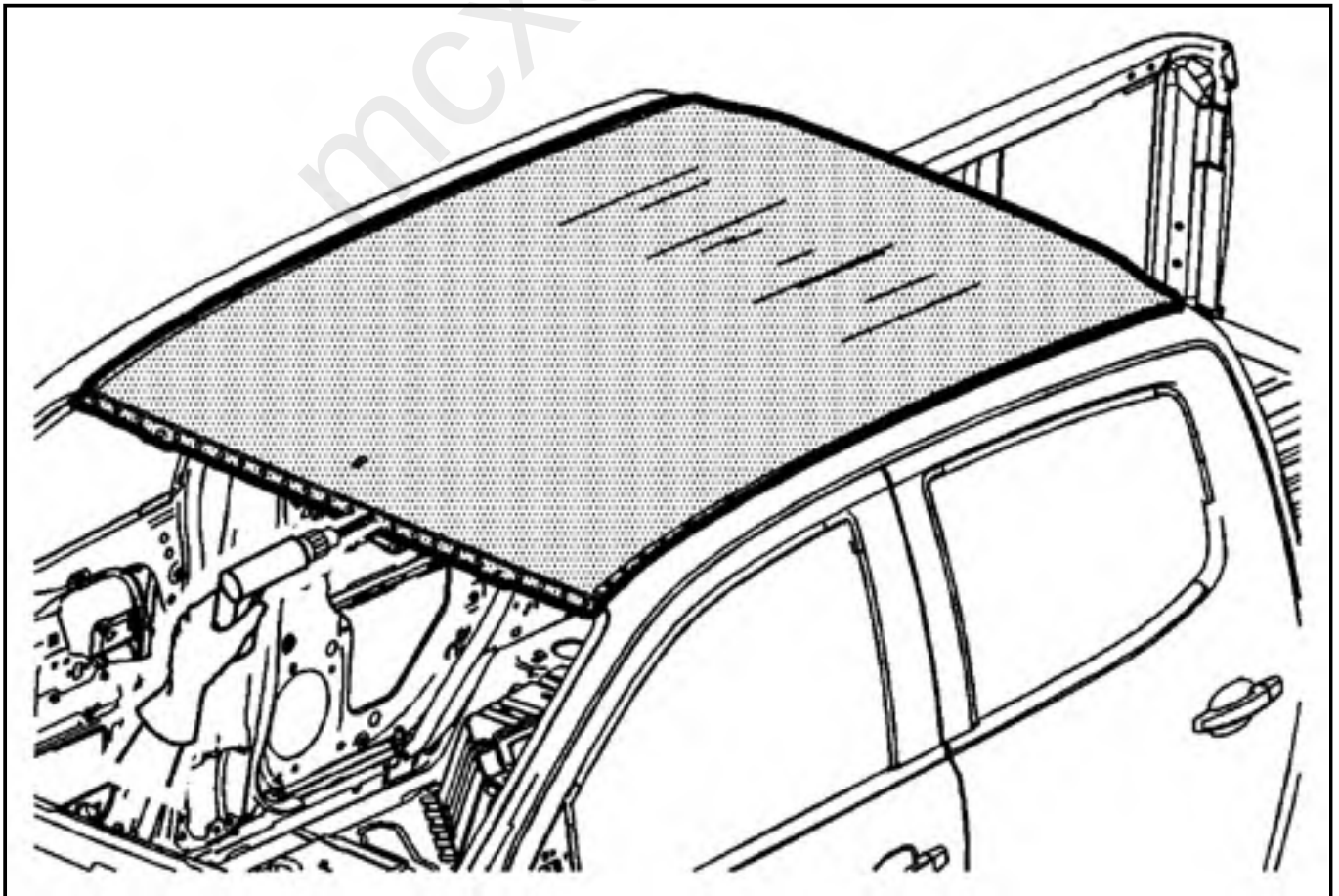


Fig. 6: Roof Outer Panel Component Location (Adhesive Weld Bonding Procedure)
 Courtesy of GENERAL MOTORS COMPANY

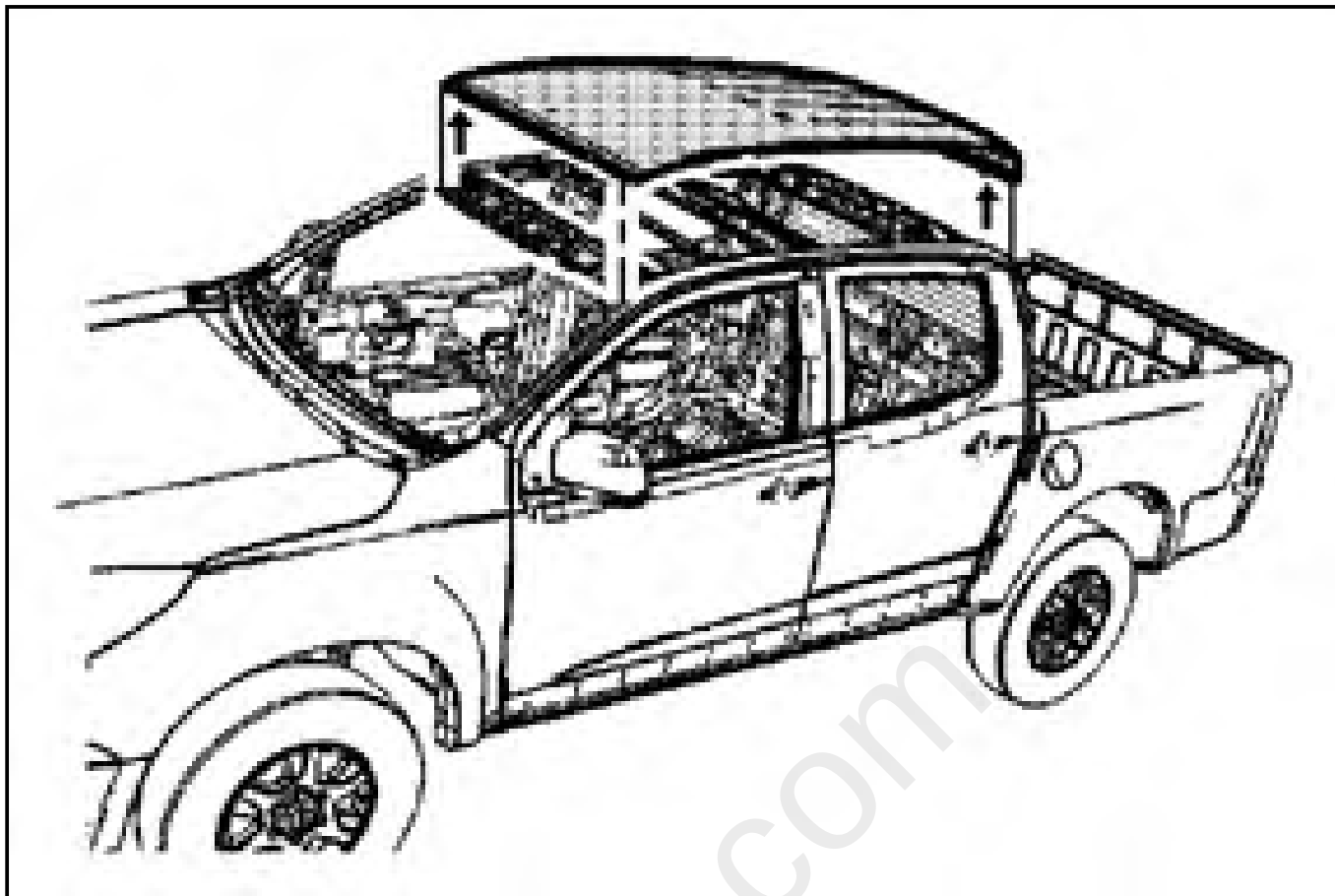
3. Remove all related panels and components.
4. Repair as much of the damage as possible, to factory specifications. Refer to [BODY DIMENSIONS](#) .
5. Note the location, and remove the sealers and anti-corrosion materials from the repair area, as necessary.

Refer to [Anti-Corrosion Treatment And Repair](#) .

6. Remove the windshield. Refer to [Windshield Replacement](#) .
7. Remove the rear window. Refer to [Rear Window Replacement](#) .



8. Locate and drill out all factory welds. Note the number and location of welds for installation of the roof panel.

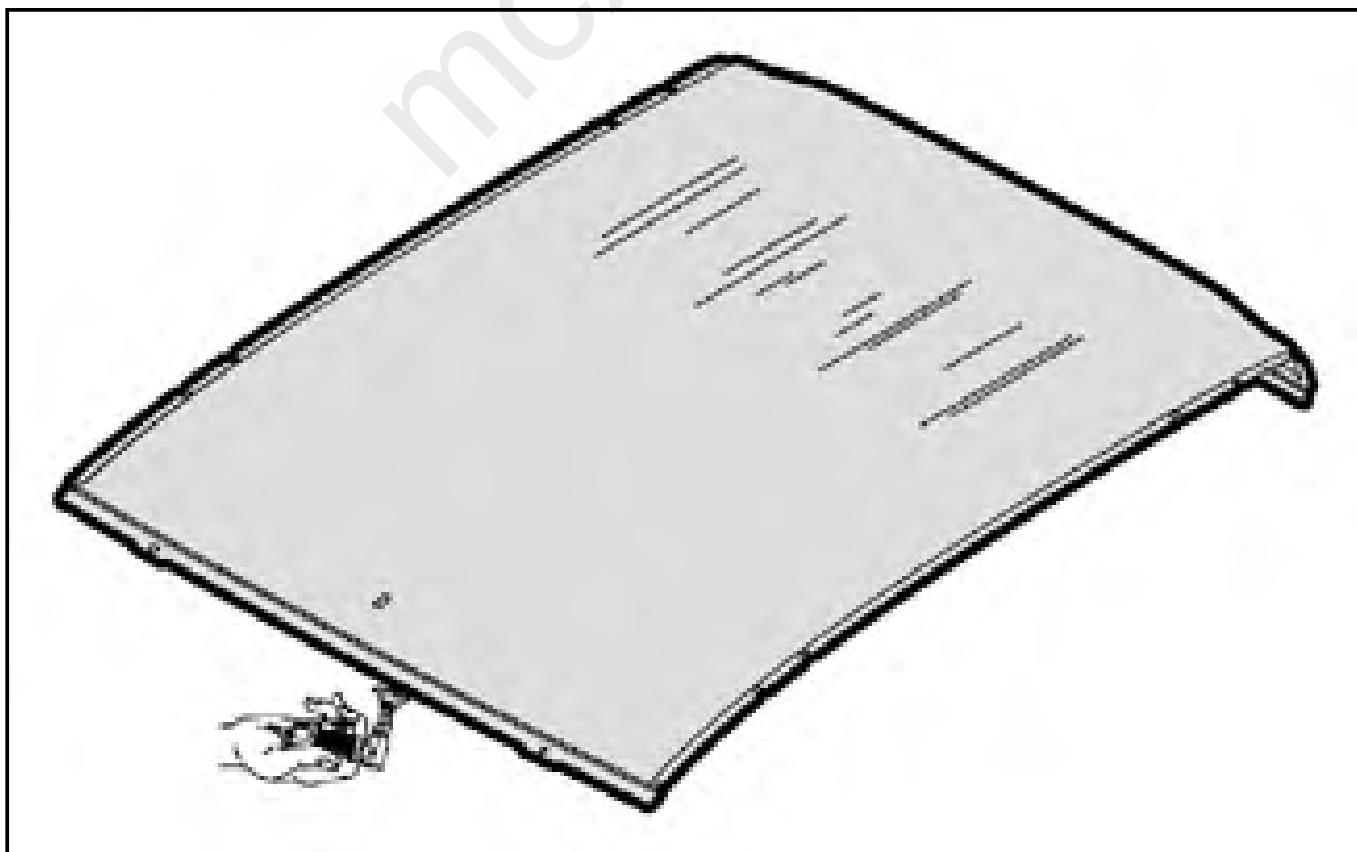


9. With an assistant remove the roof panel.

Installation Procedure

NOTE:

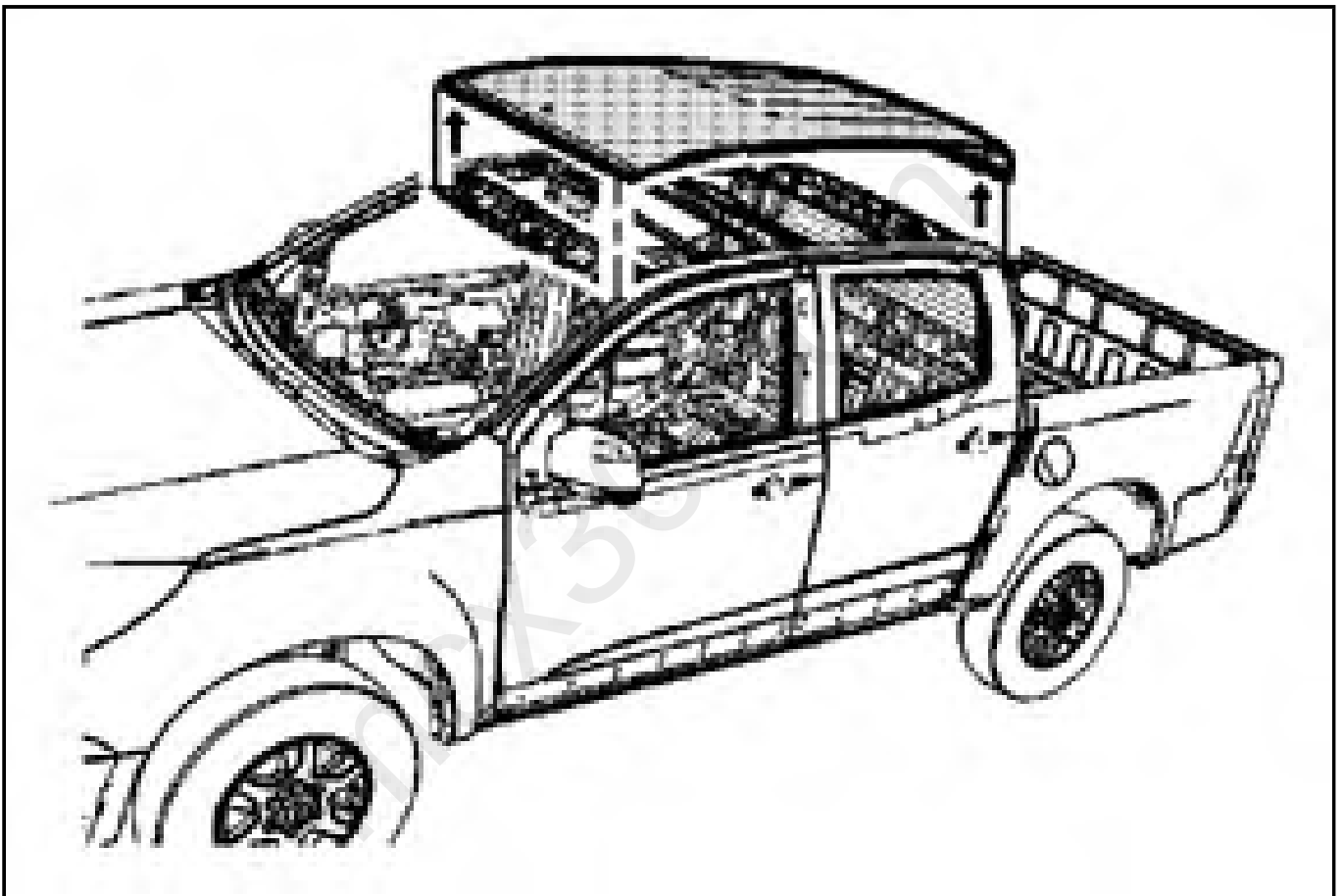
Before you begin the repair, refer to [METAL PANEL BONDING](#) for proper adhesive preparations and general information.



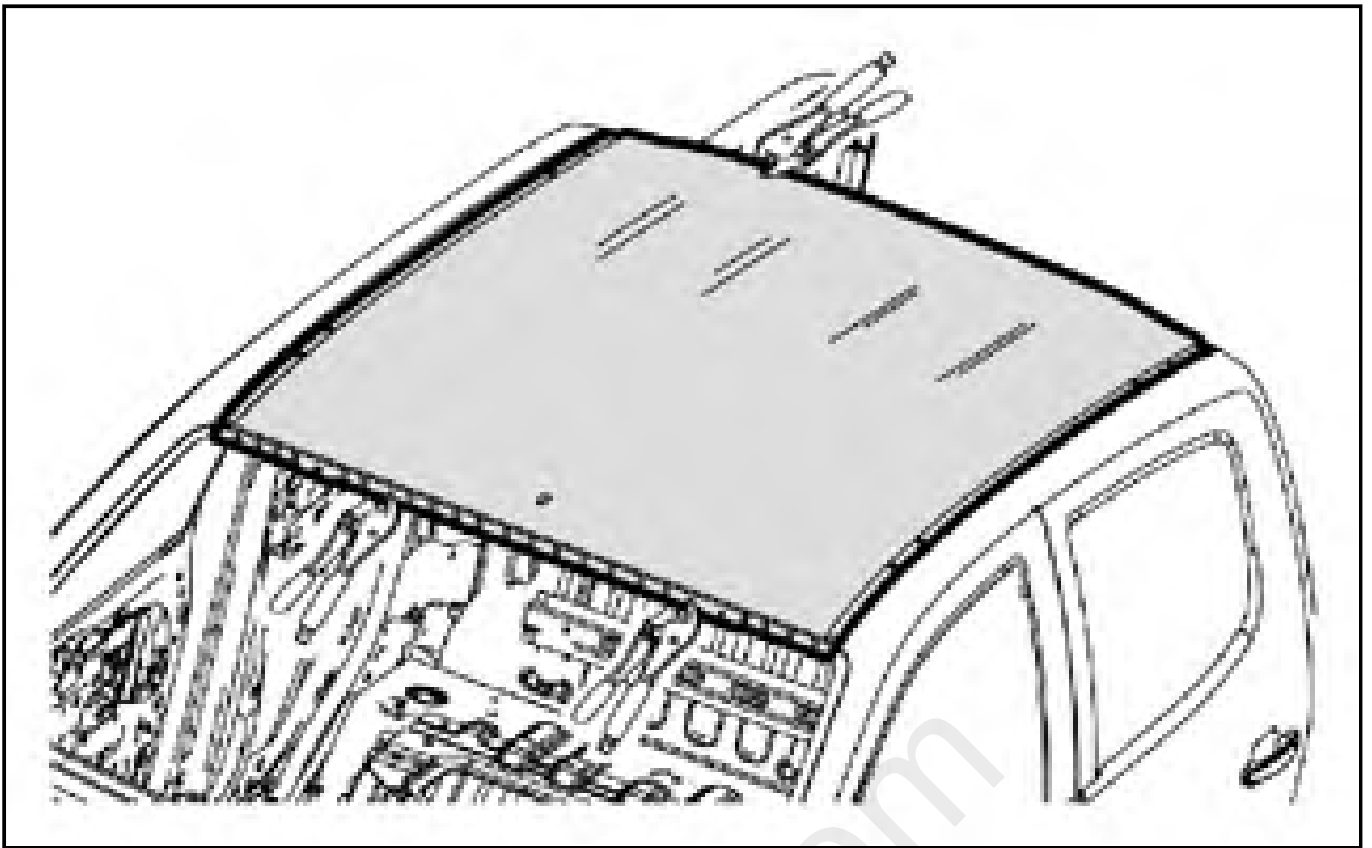
1. Grind the surface of the roof panel mating flanges to bare steel with an 80 grit Roloc disc. Do not damage the corners or thin the metal during the grinding process.
2. Grind the mating flanges of the service roof panel with an 80 grit Roloc disc to remove the E-coating. Do not damage the corners or thin the metal during the grinding operation.
3. Clean all mating surfaces, as necessary and test fit the replacement roof panel.

NOTE: Do not allow the adhesive to cure prior to installing the service side panel.

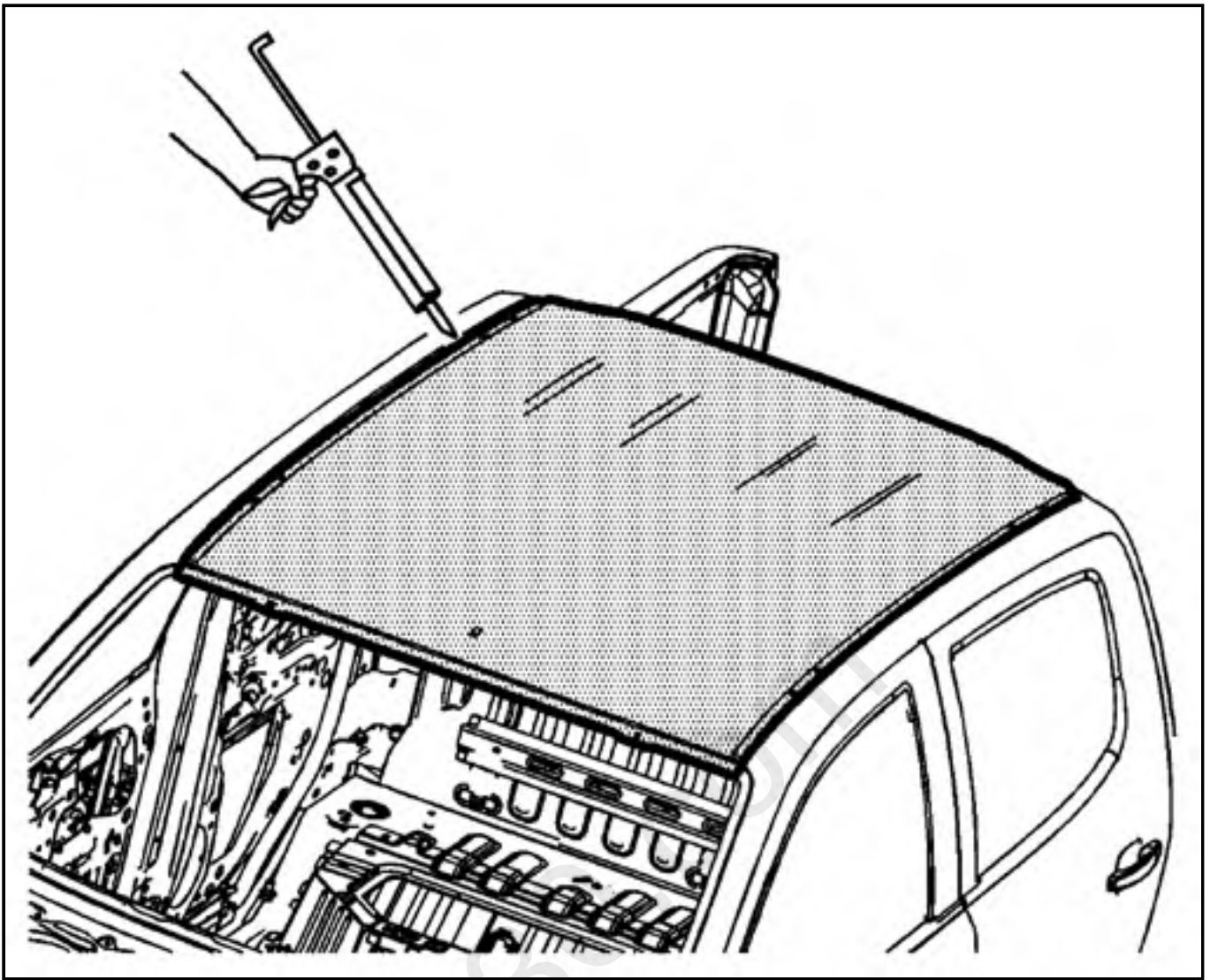
4. Apply a 3-6 mm (1/8-1/4 in) bead of Steel Panel Bonding Impact Resistant adhesive on the roof panel mating surface. **METAL PANEL BONDING**.
5. Using a small acid brush, spread a coat of adhesive on the mating surfaces of roof panel and vehicle. Cover all of the bare metal to ensure corrosion protection.
6. Apply a 9-13 mm (3/8-1/2 in) bead of Steel Panel Bonding Impact Resistant adhesive on the roof panel mating surface of the vehicle. **METAL PANEL BONDING**.



7. With the aid of an assistant, position the roof panel to the body.



8. Clamp the service roof panel into position.
9. Weld the flange of the windshield opening and the rear window opening with resistance spot welding through the adhesive.
10. Using lacquer thinner remove the excess adhesive from the bed side panel area.



11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
12. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
13. Install the windshield. Refer to [Windshield Replacement](#) .
14. Install the rear window. Refer to [Rear Window Replacement](#) .
15. Install all related panels and components.
16. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
17. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

ROOF OUTER PANEL REPLACEMENT (WELD ON PROCEDURE)

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

NOTE: When replacing panels that involve servicing of stationary windows, refer to [Adhesive Installation of Windshields](#) , and [Adhesive Installation of Rear Windows](#) , before performing any priming or refinishing.

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

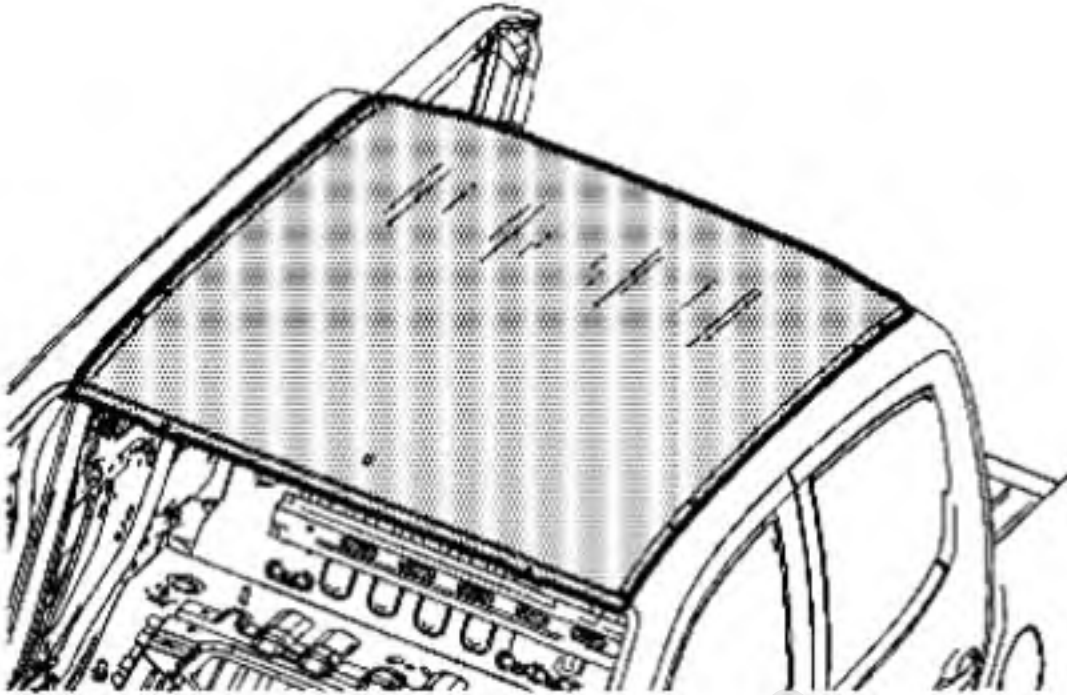
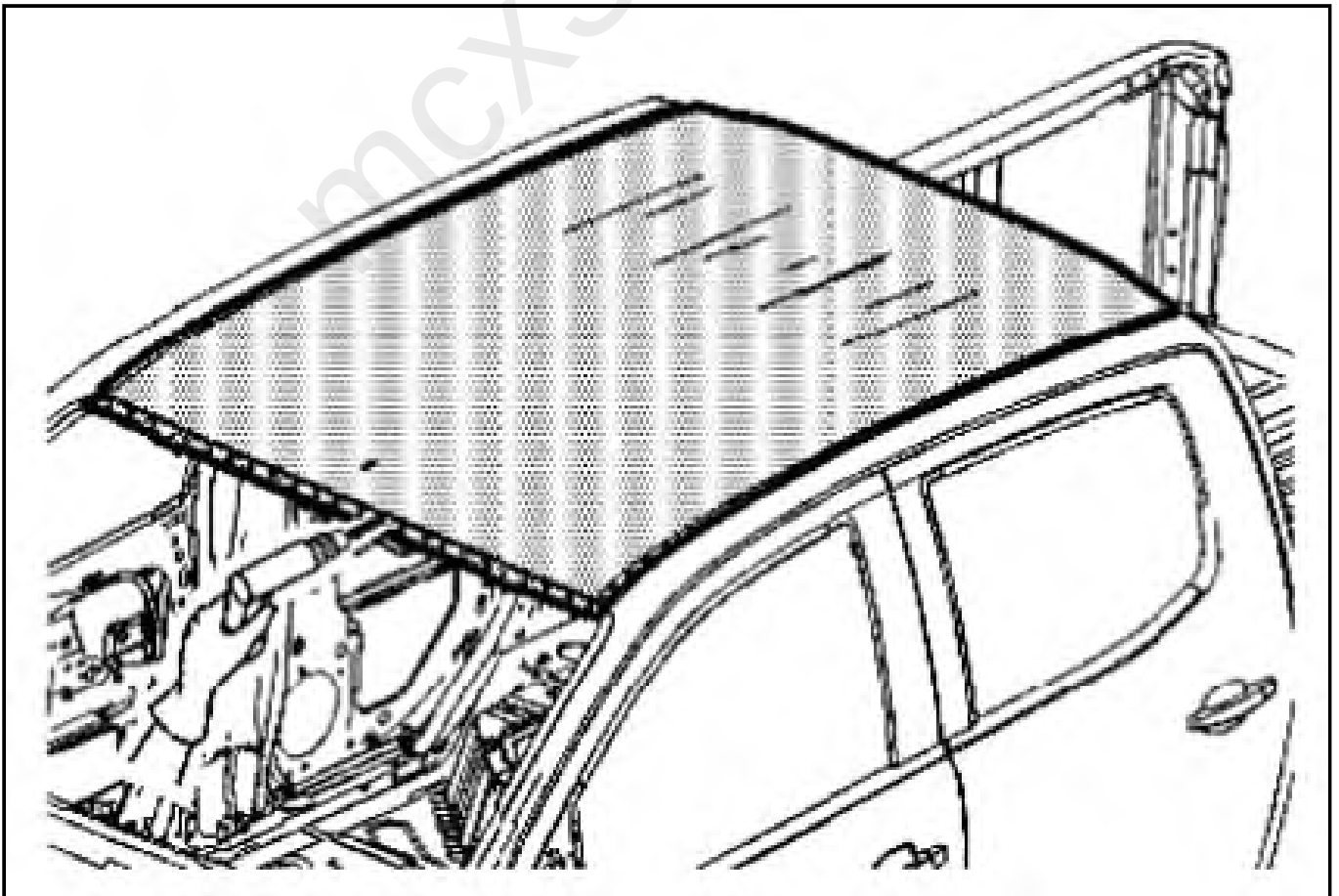


Fig. 7: Roof Outer Panel Component Location (Weld On Procedure)
Courtesy of GENERAL MOTORS COMPANY

3. Remove all related panels and components.
4. Repair as much of the damage as possible, to factory specifications. Refer to [BODY DIMENSIONS](#) .
5. Note the location, and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
6. Remove the windshield. Refer to [Windshield Replacement](#) .
7. Remove the rear window. Refer to [Rear Window Replacement](#) .

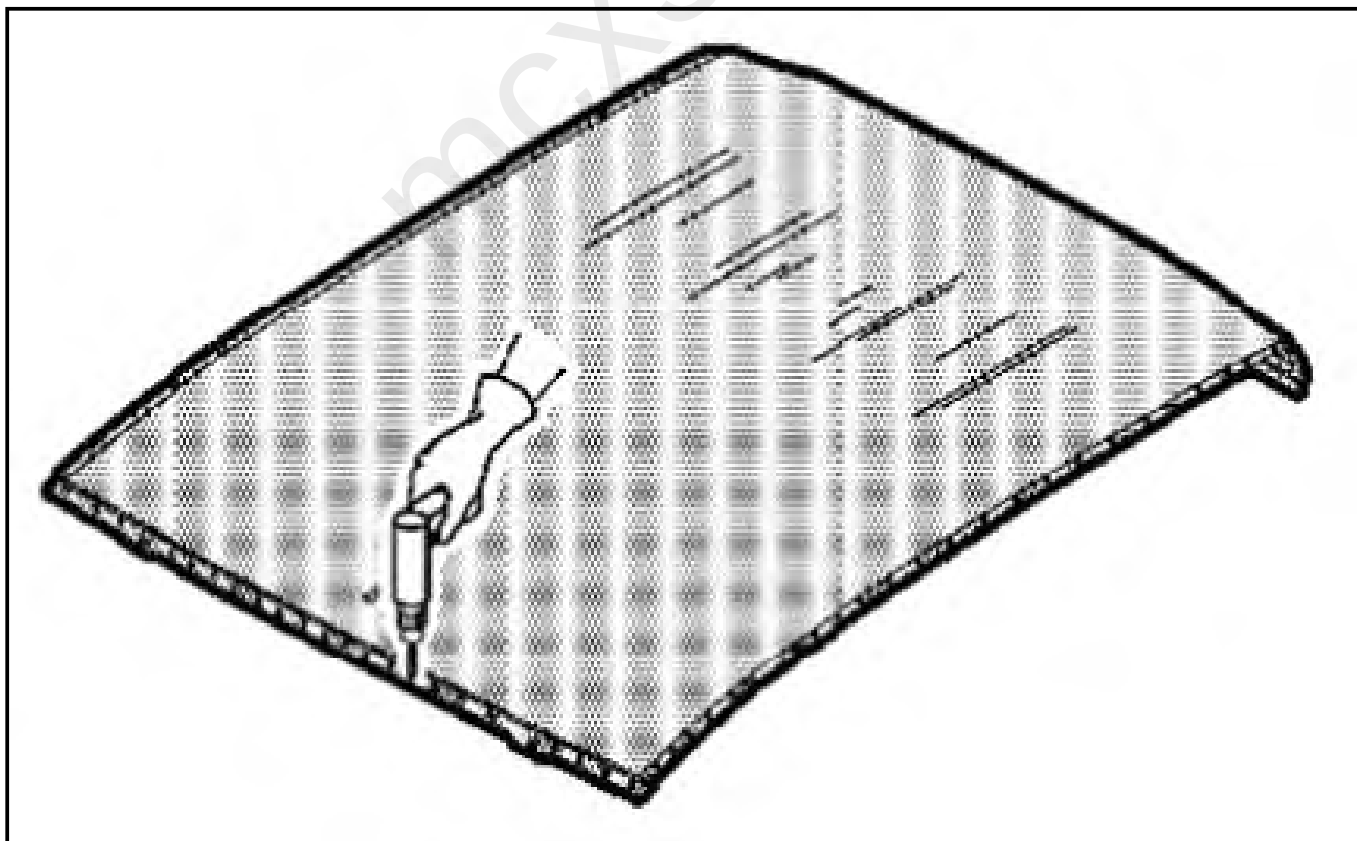


8. Locate and drill out all factory welds. Note the number and location of welds for installation of the roof panel.



9. With an assistant remove the roof panel.

Installation Procedure

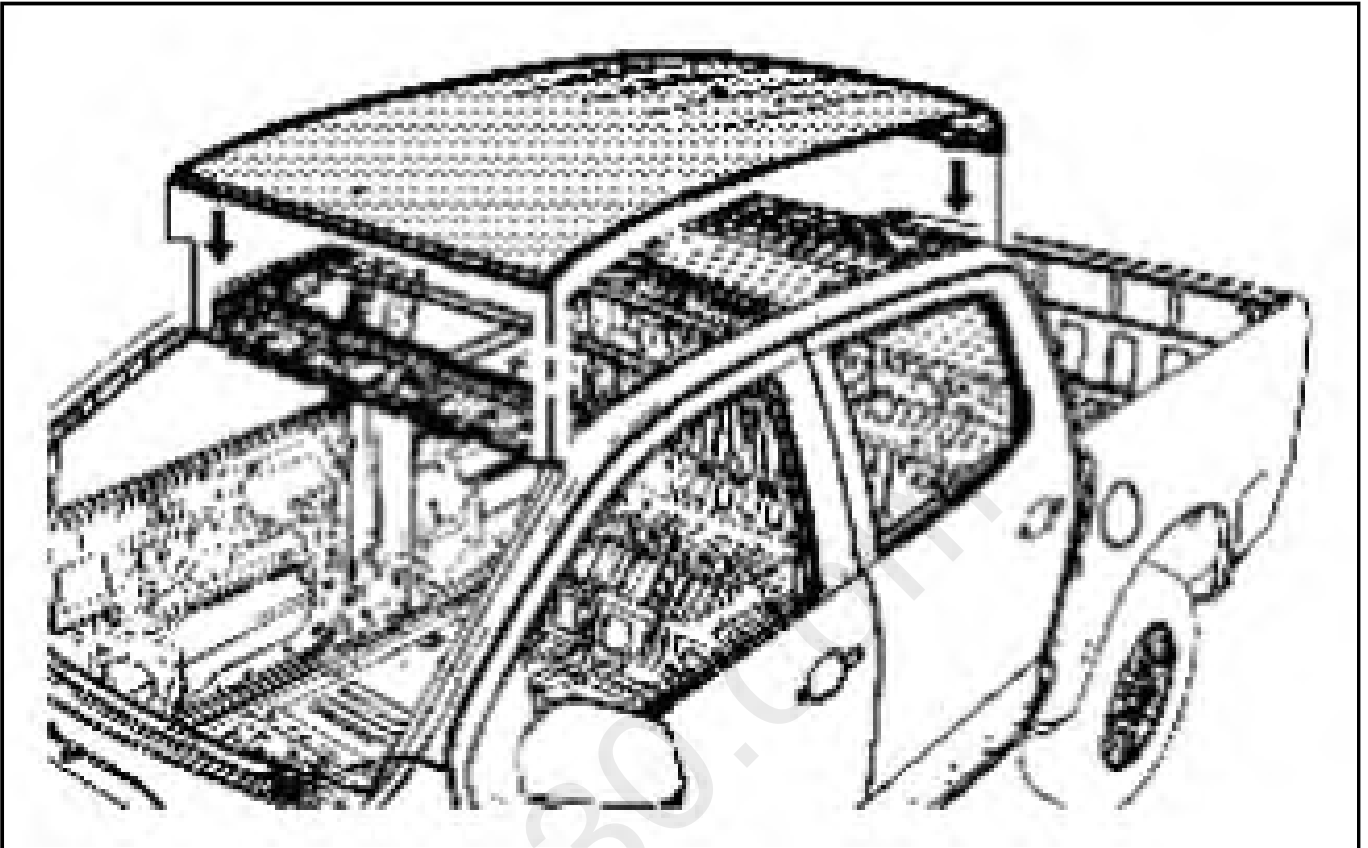


1. Drill 8 mm (5/16 in) plug weld holes, as necessary, in locations noted from the original panel.

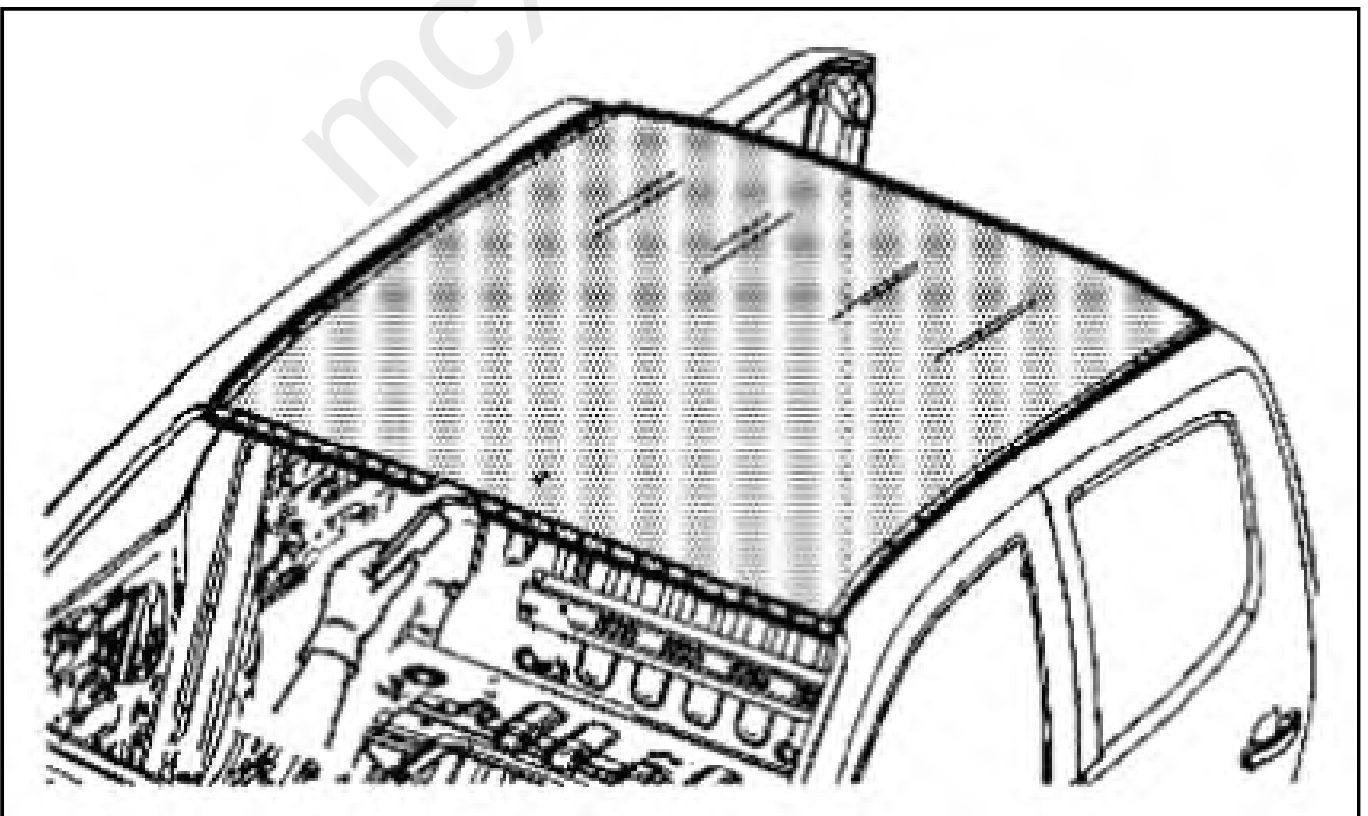
NOTE:

If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive is present, space the plug weld holes every 40 mm (1 1/2 in) apart.

2. Prepare all mating surfaces, as necessary.
3. Apply GM-approved Weld-Thru coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#) .

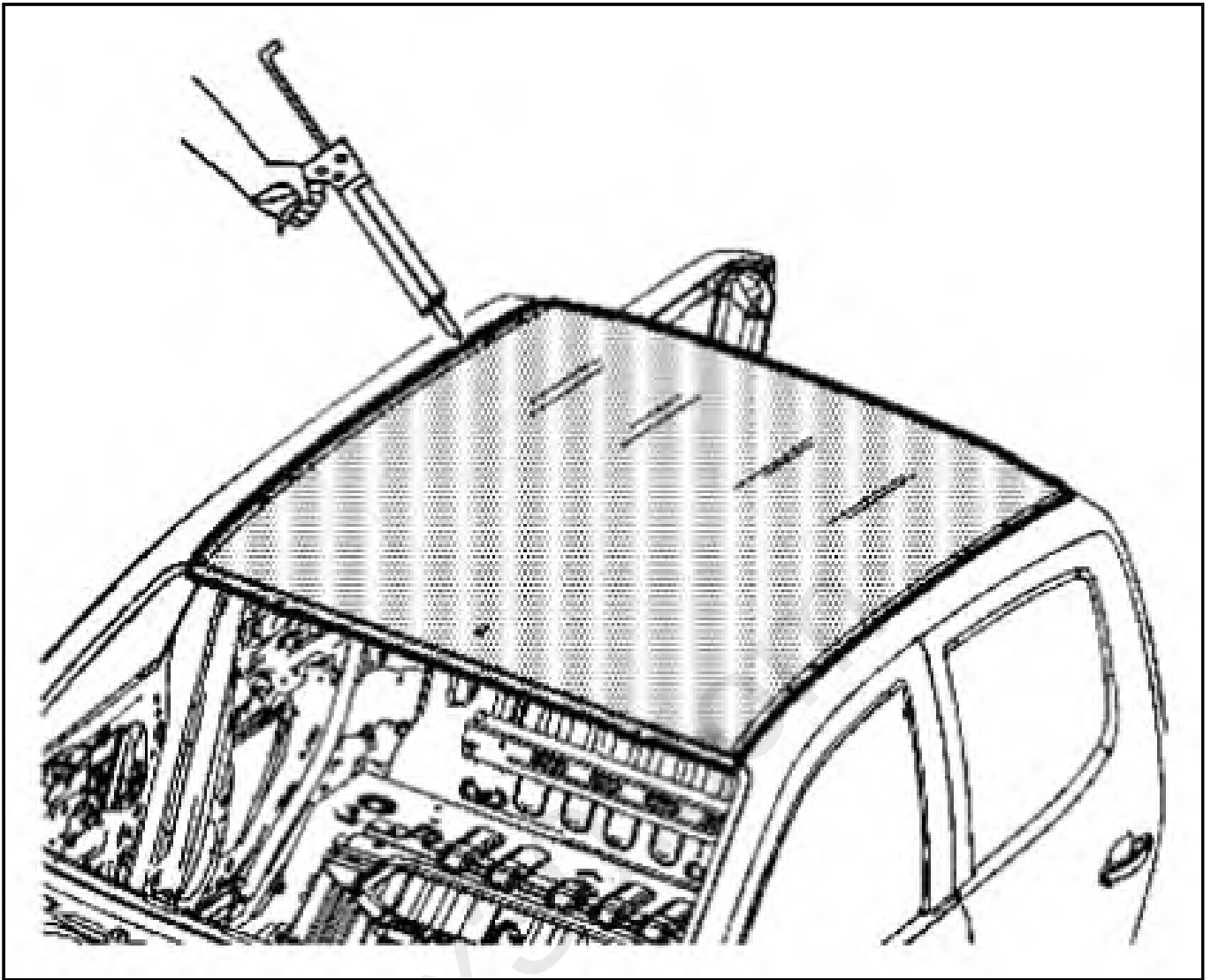


4. With the aid of an assistant, position the roof panel to the body.



5. Plug weld accordingly.

6. Clean and prepare all welded surfaces.



7. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
8. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
9. Install the windshield. Refer to [Windshield Replacement](#) .
10. Install the rear window. Refer to [Rear Window Replacement](#) .
11. Install all related panels and components.
12. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
13. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

WINDSHIELD FRAME HEADER FRONT PANEL REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

NOTE: This procedure is similar to all cabs.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

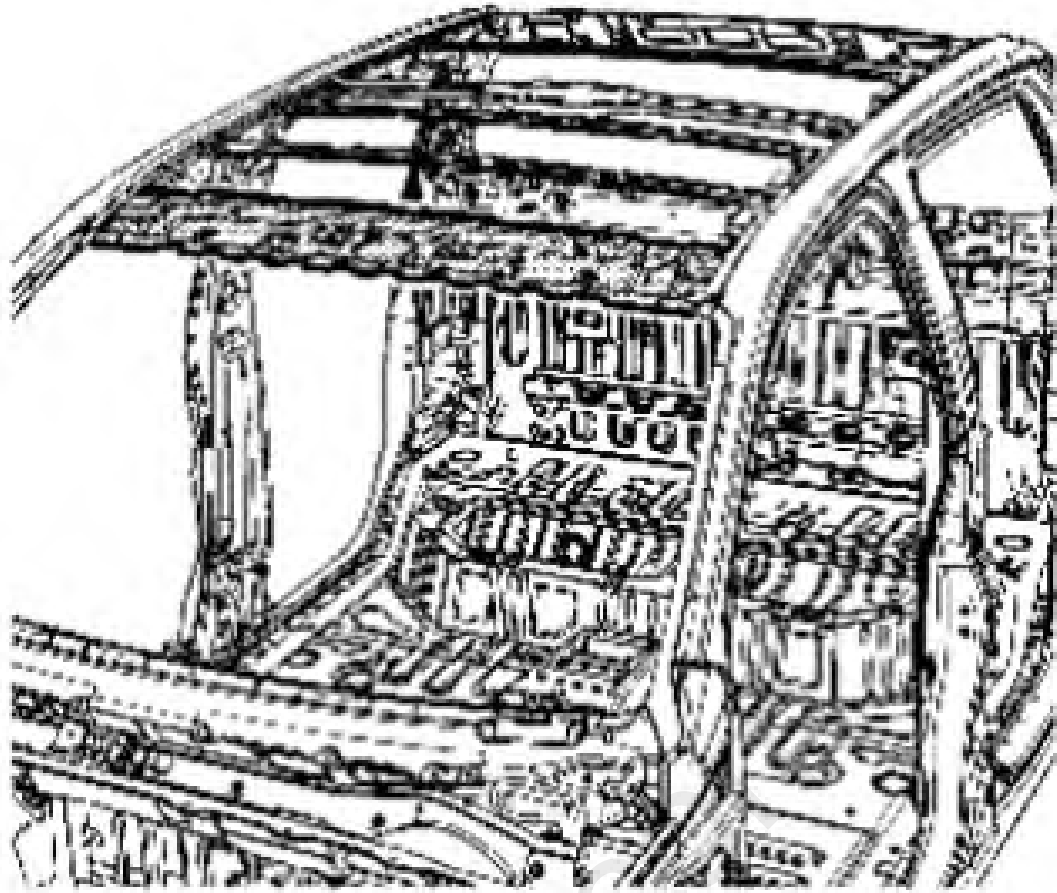
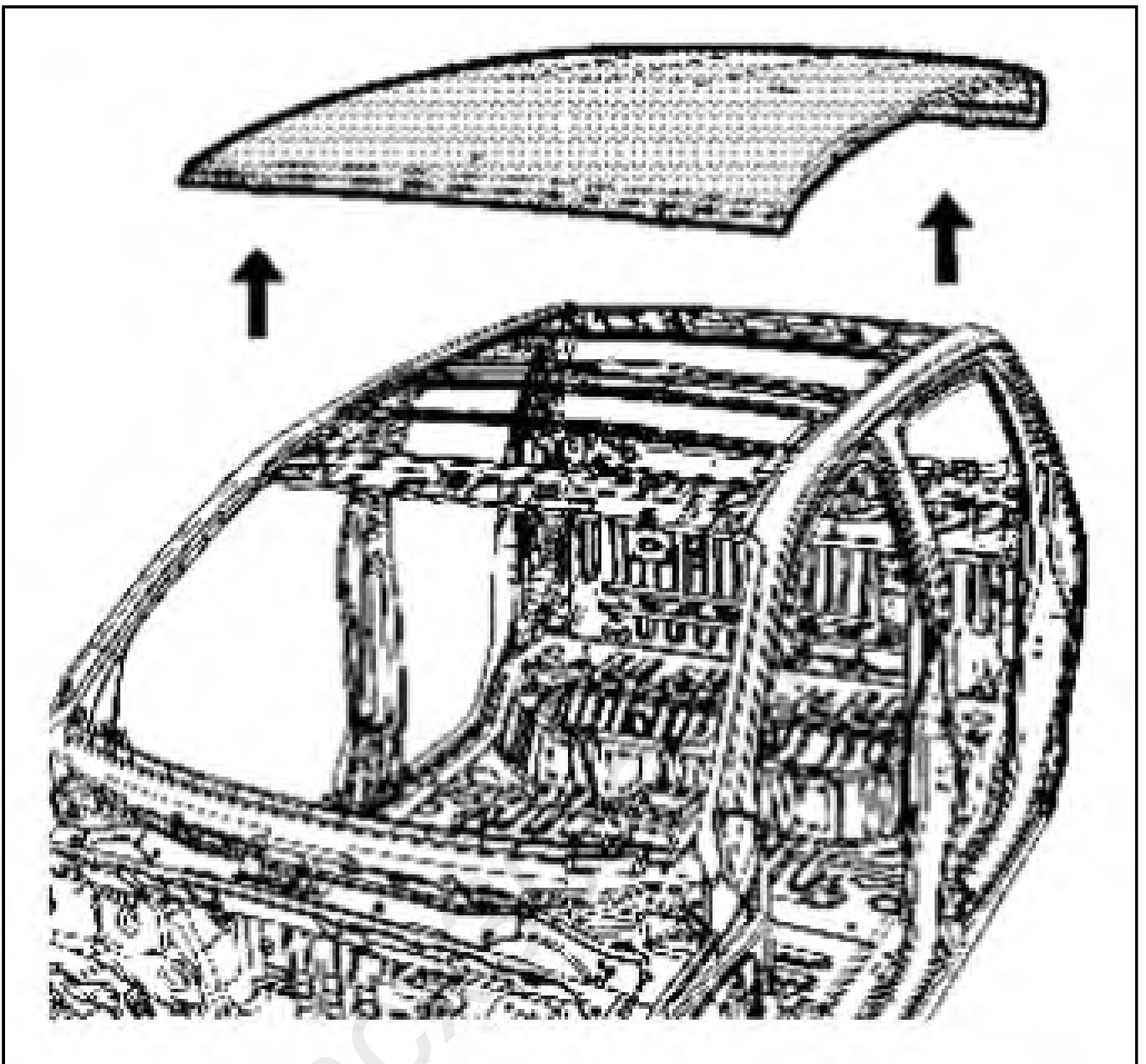


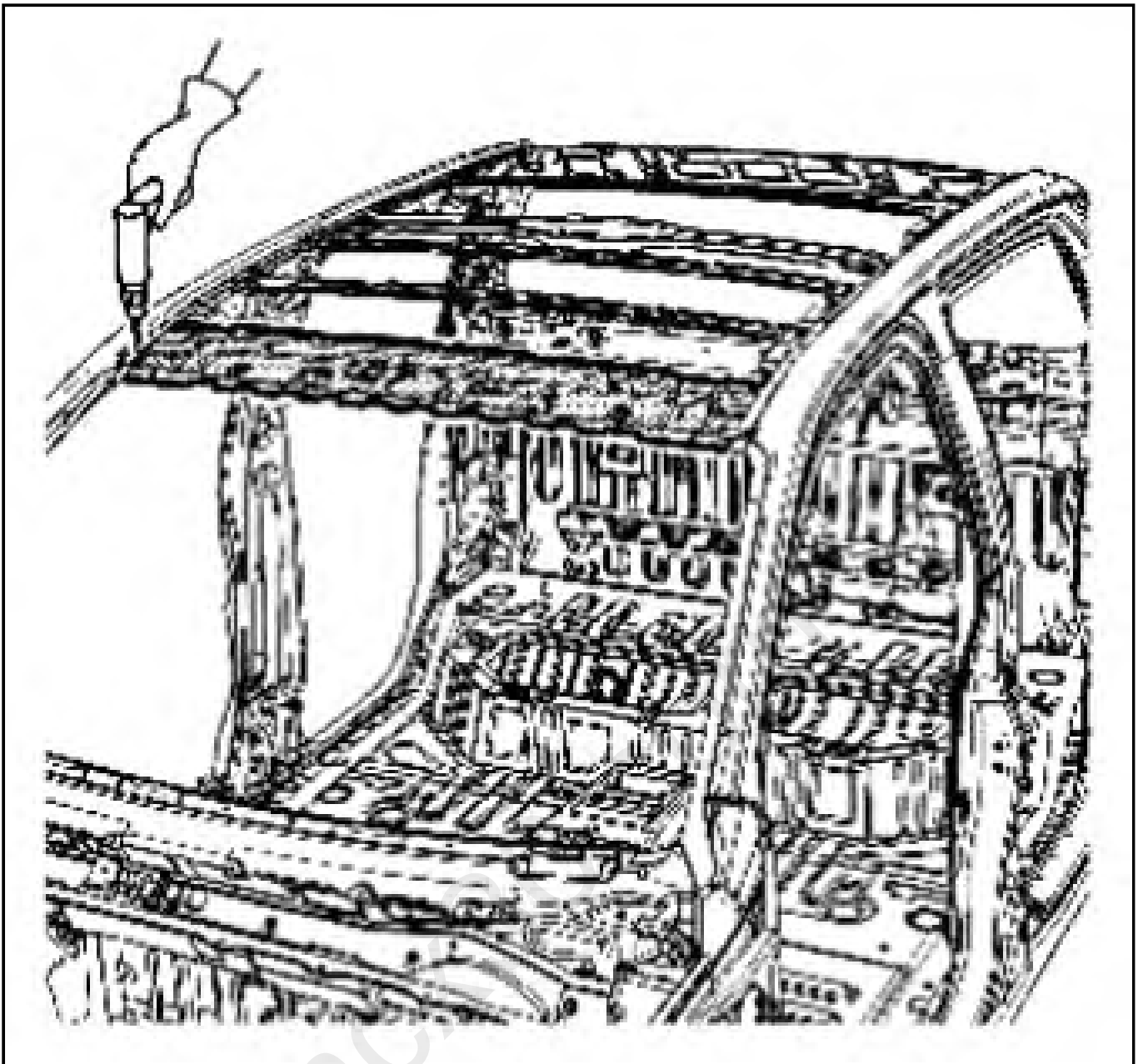
Fig. 8: Windshield Frame Header Front Panel Component Location

Courtesy of GENERAL MOTORS COMPANY

3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to [**BODY DIMENSIONS**](#) .
5. Note the location and remove the sealers and anticorrosion materials from the repair area, as necessary. Refer to [**Anti-Corrosion Treatment And Repair**](#) .

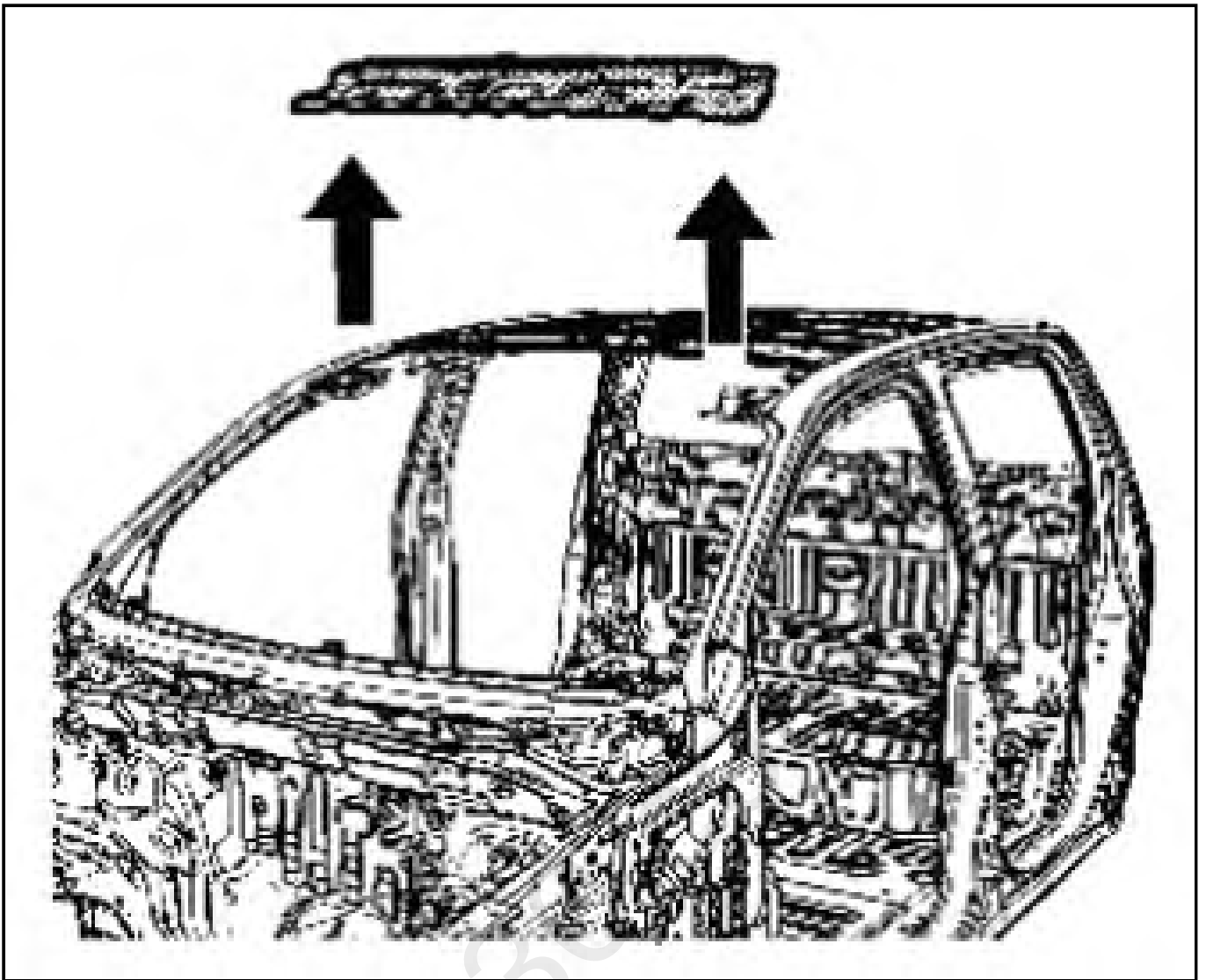


6. Remove the roof panel. Refer to [Roof Outer Panel Replacement \(Adhesive Weld Bonding Procedure\)](#)[Roof Outer Panel Replacement \(Weld On Procedure\)](#).
7. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .



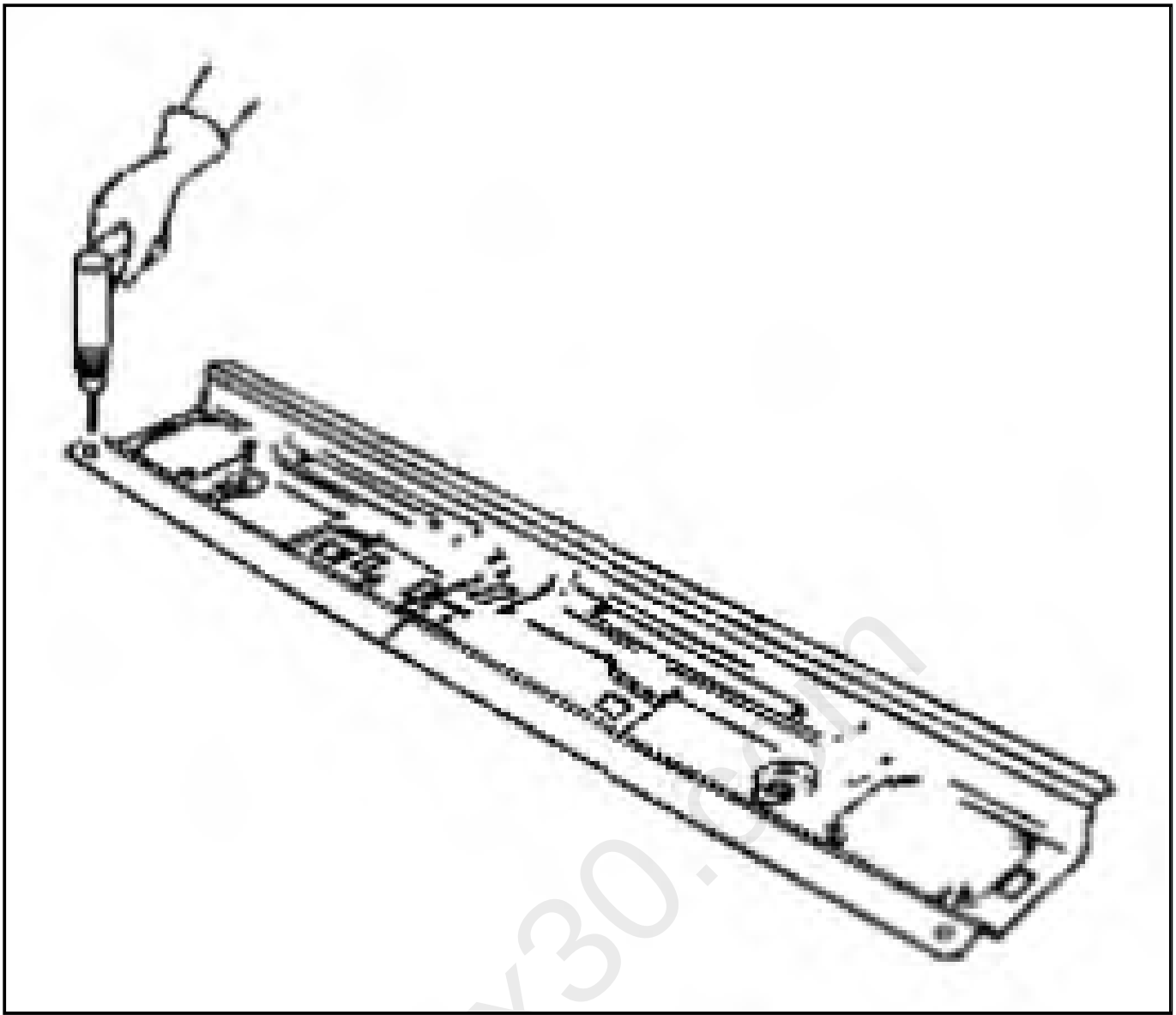
NOTE: Do not damage any inner panels or reinforcements.

8. Locate and drill out all factory welds. Note the number and location of welds for installation of the service part.



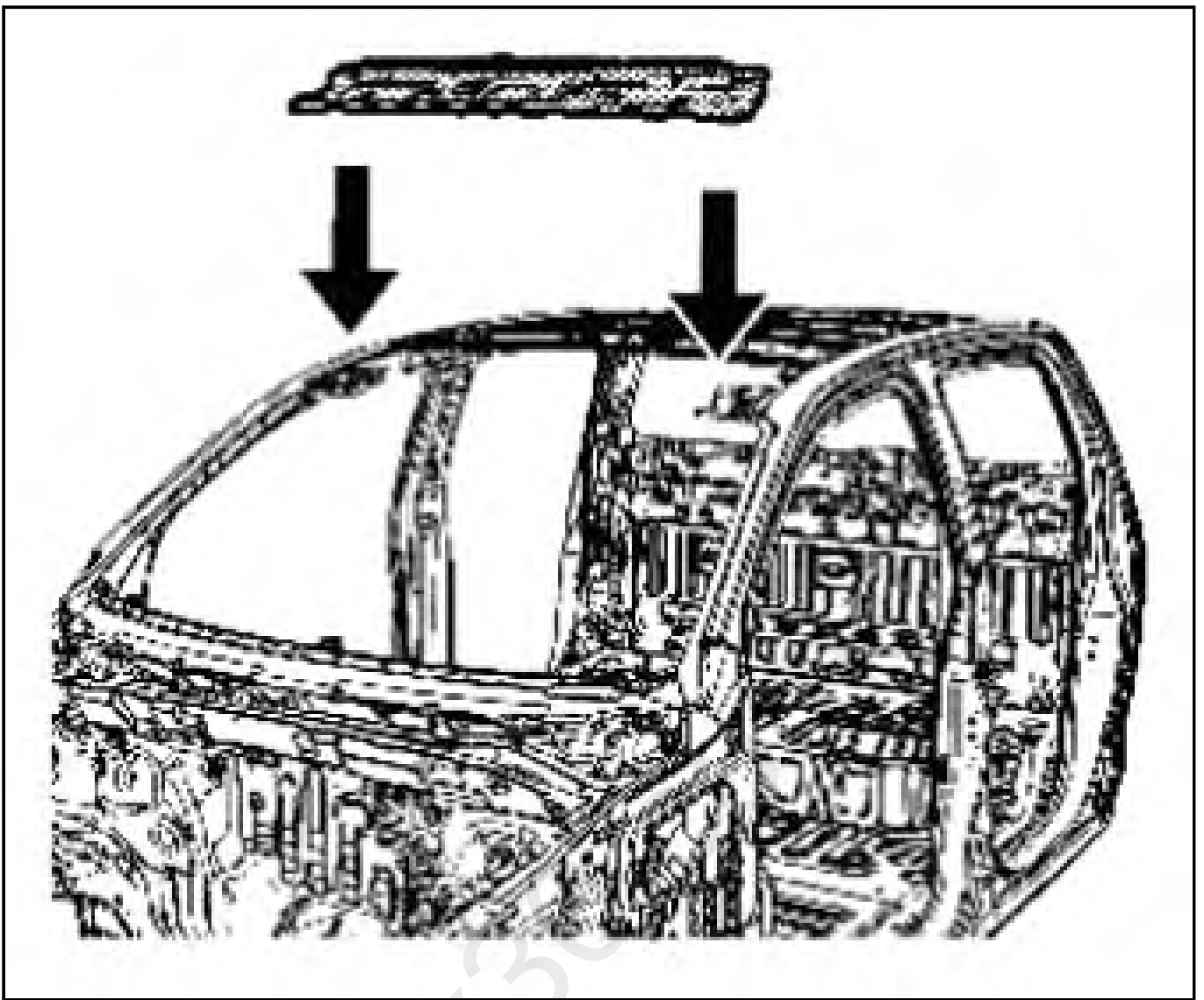
9. Remove the damaged windshield header panel.

Installation Procedure

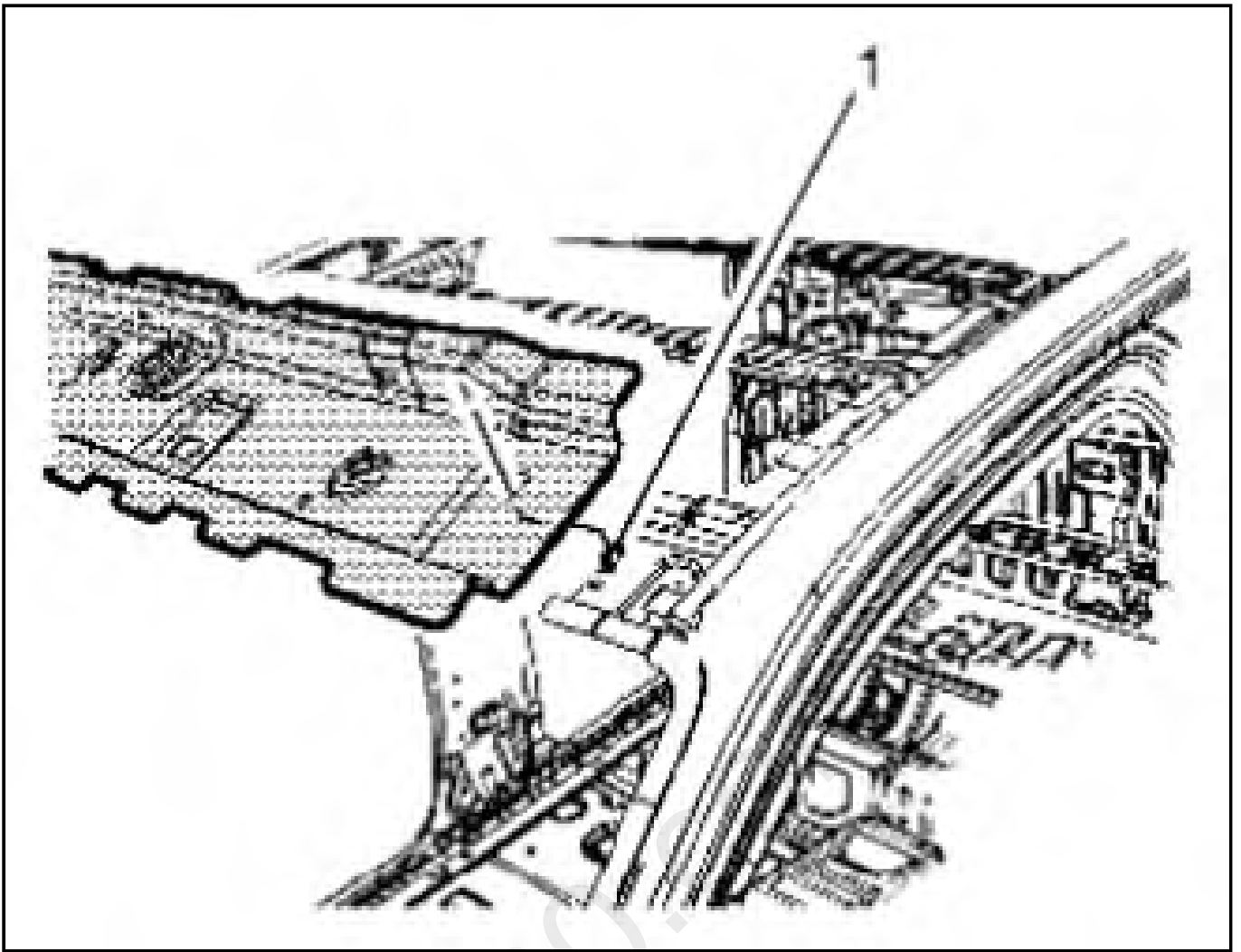


NOTE: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive is present, space the plug weld holes every 40 mm (1 1/2 in) apart.

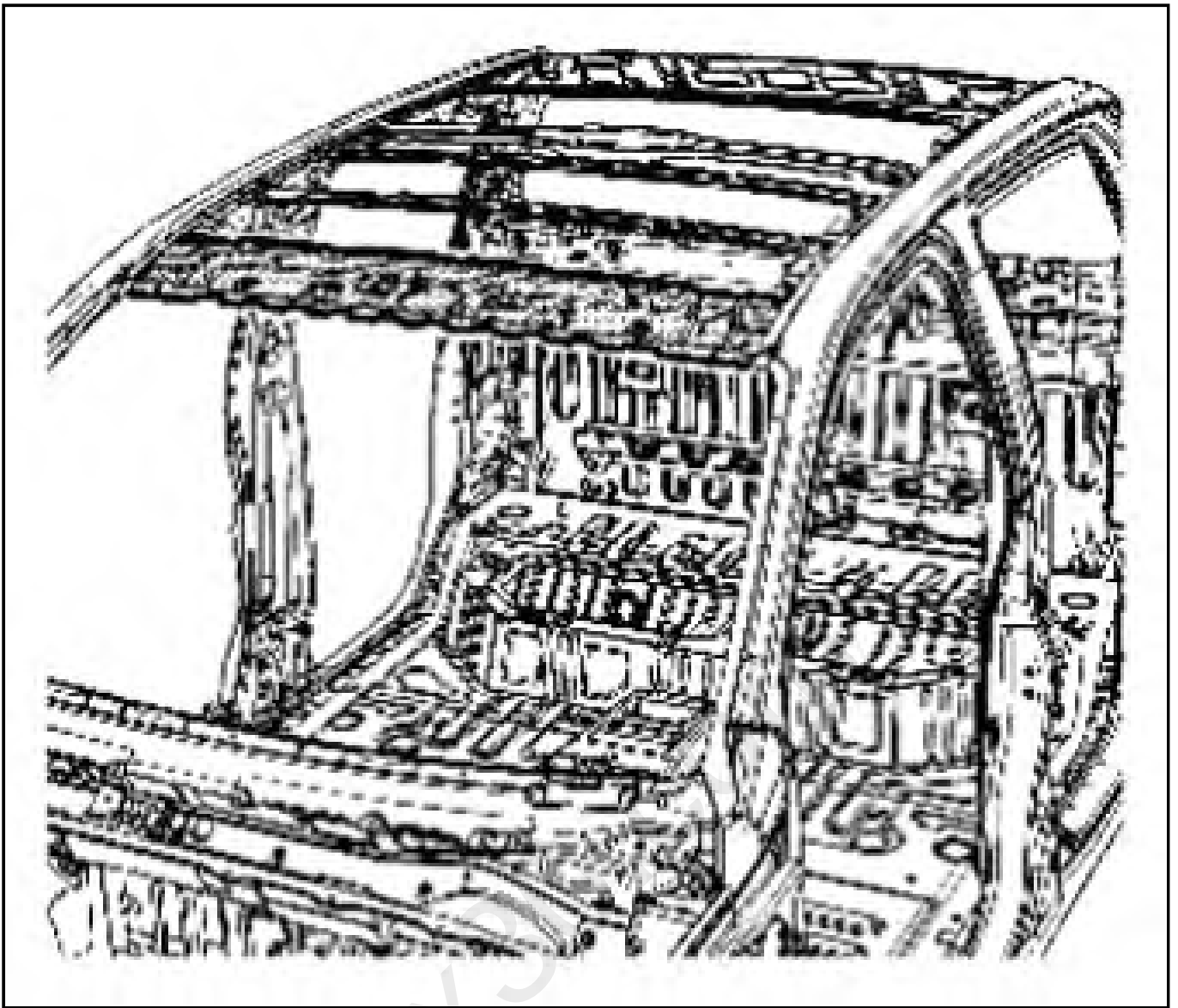
1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#)



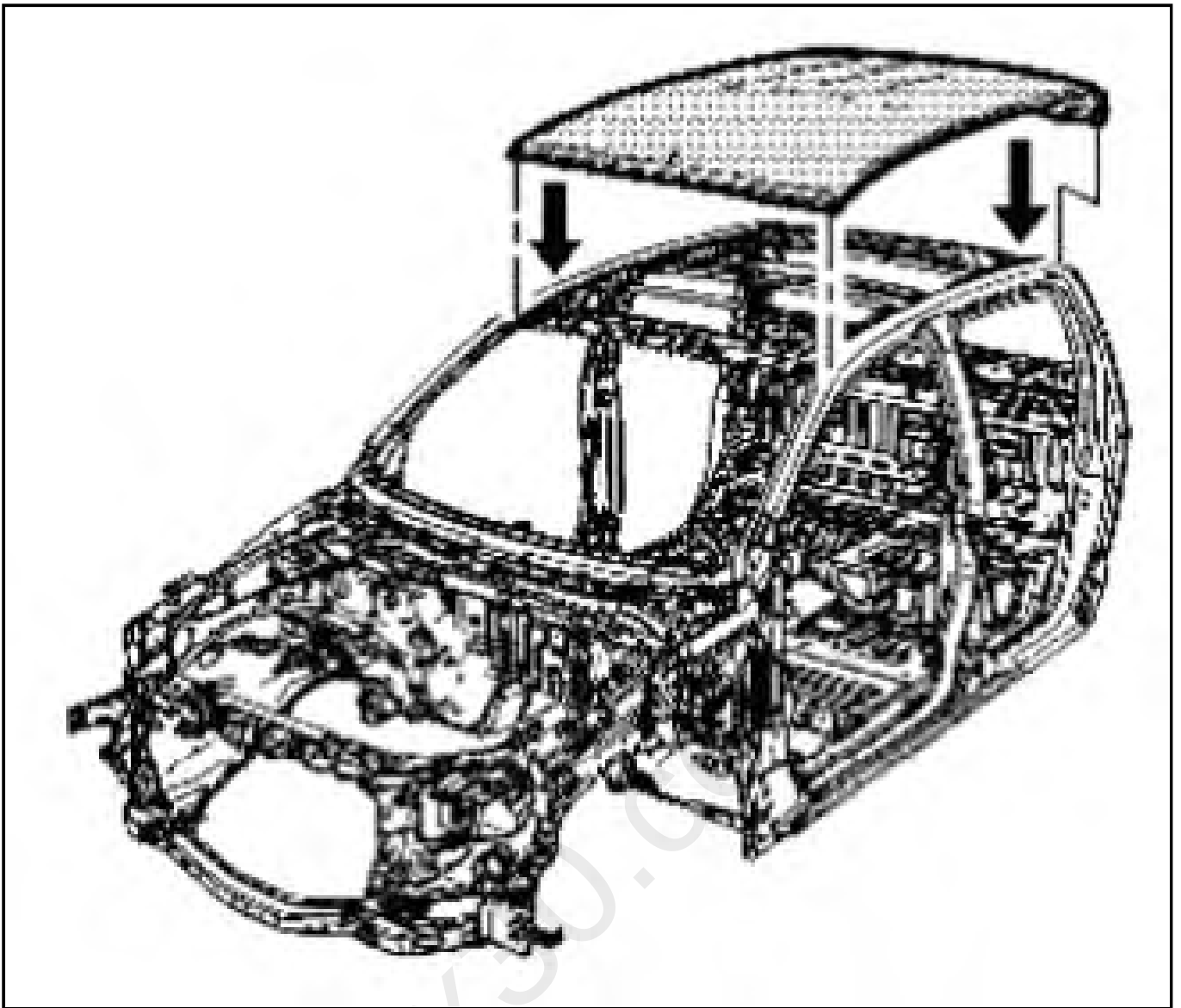
4. Position the windshield header panel.



5. Align the roof header panel over the locator tabs (1).



6. Plug weld accordingly.



7. Install the roof panel. Refer to [Roof Outer Panel Replacement \(Adhesive Weld Bonding Procedure\)](#), [Roof Outer Panel Replacement \(Weld On Procedure\)](#).
8. Clean and prepare all welded surfaces.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
10. Paint and repair the area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
11. Install all related panels and components.
12. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
13. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

ROOF REAR HEADER PANEL REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

NOTE: This procedure is similar to all cabs.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

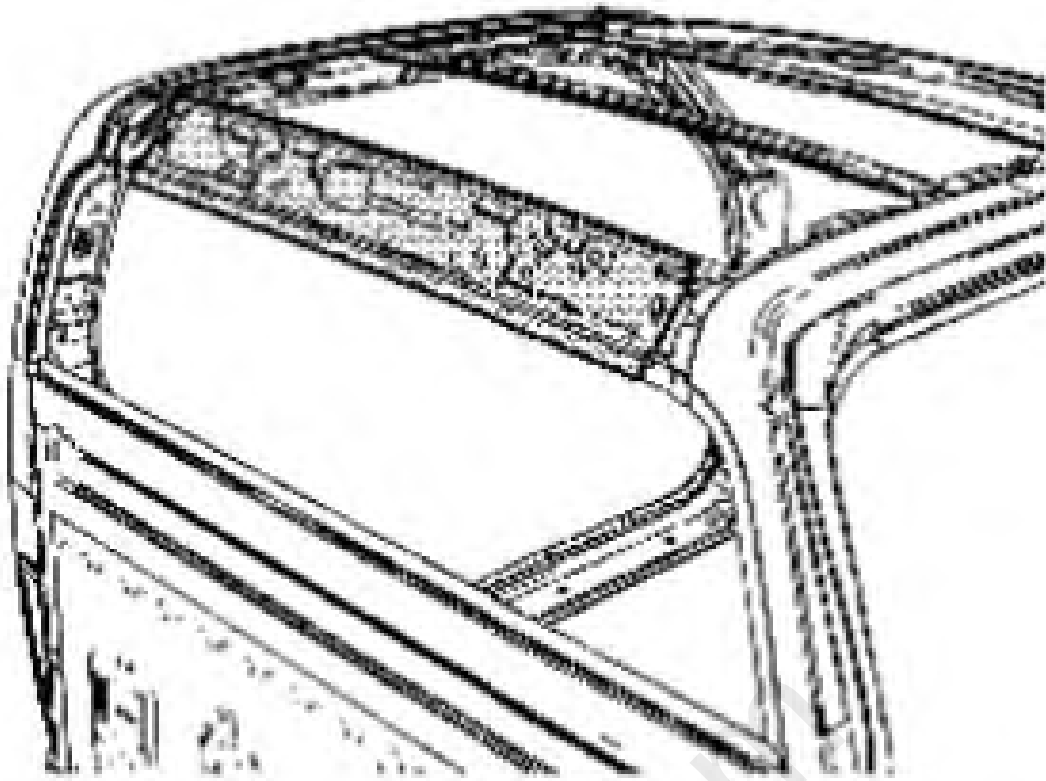
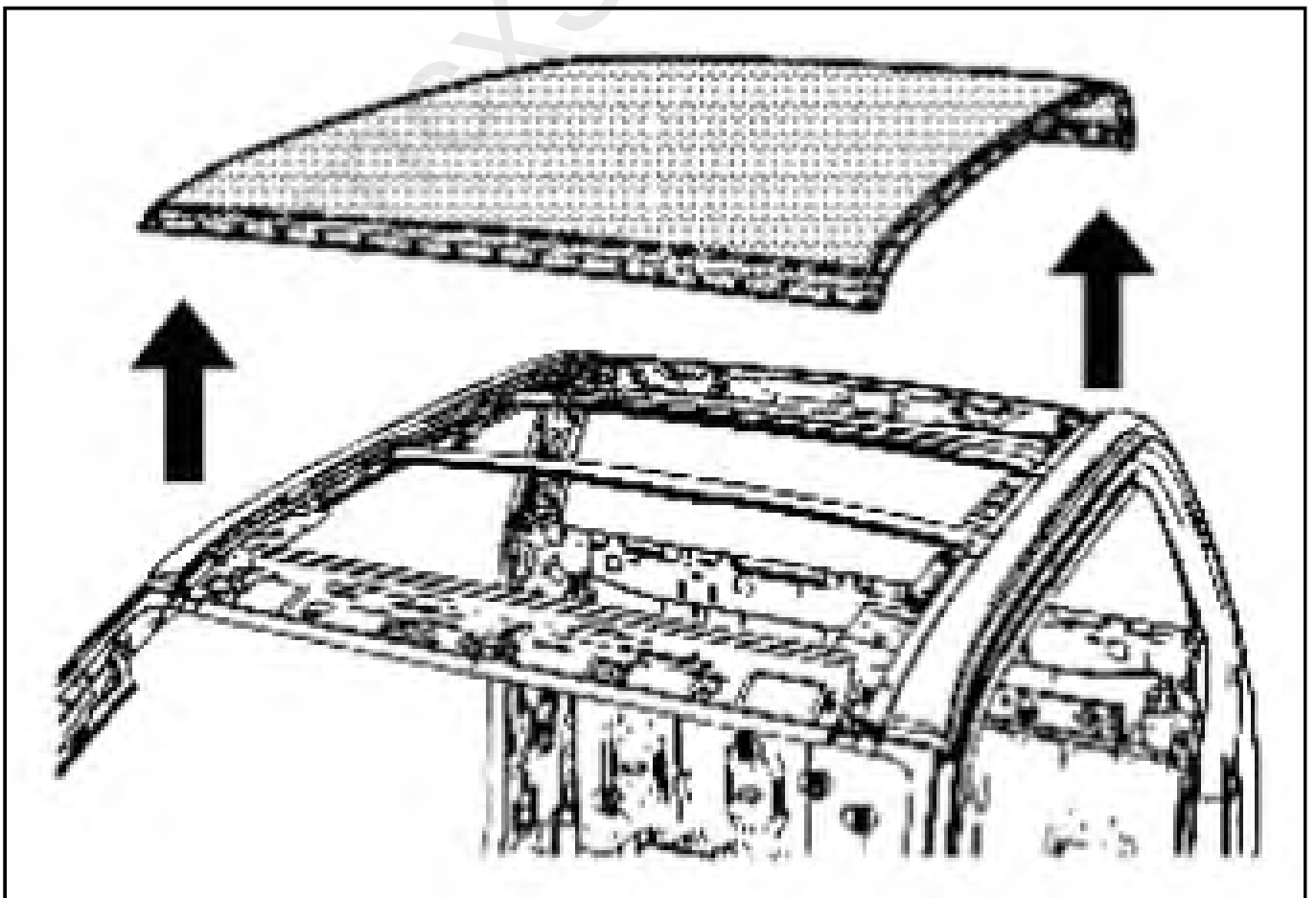
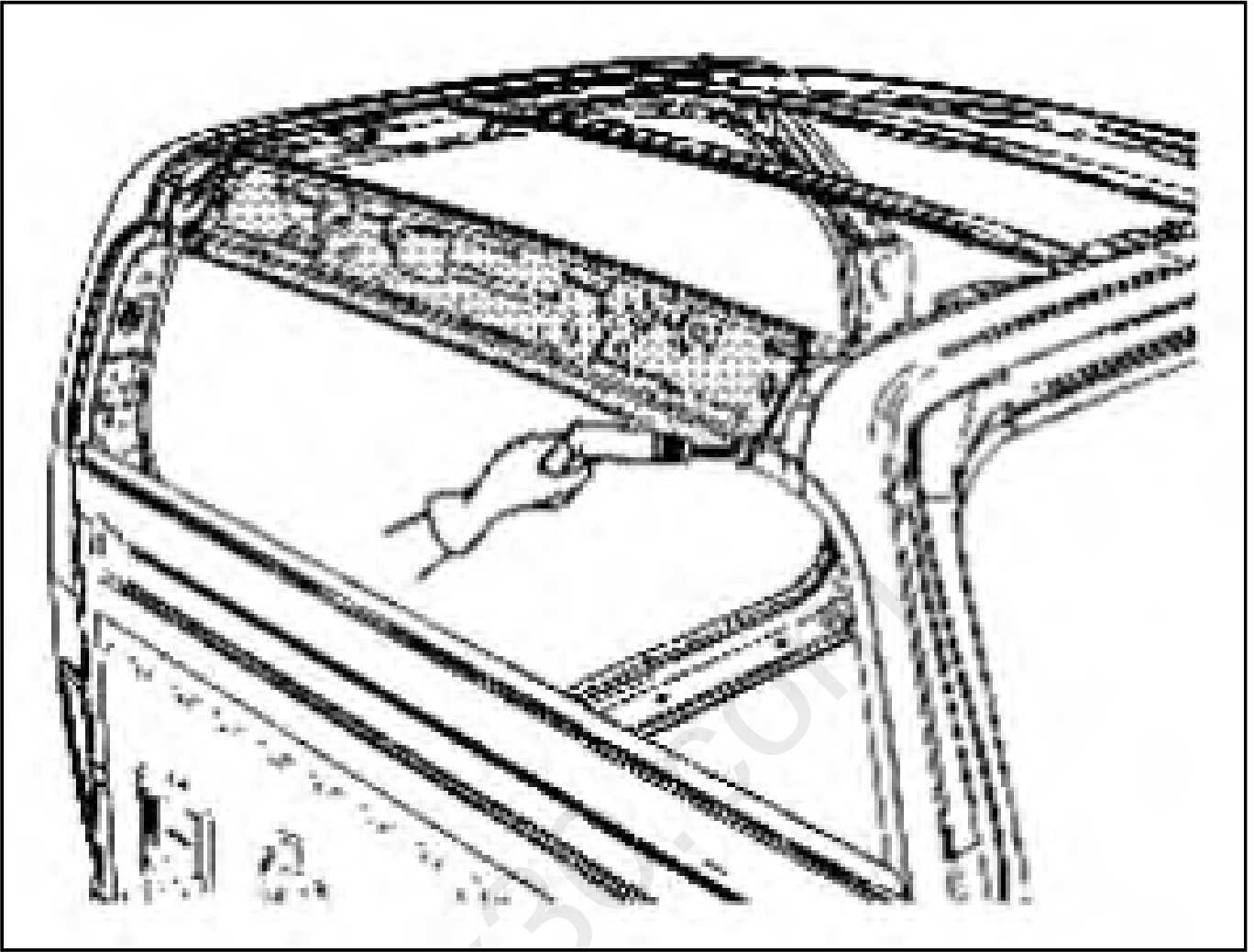


Fig. 9: Roof Rear Header Panel Component Location
 Courtesy of GENERAL MOTORS COMPANY

3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

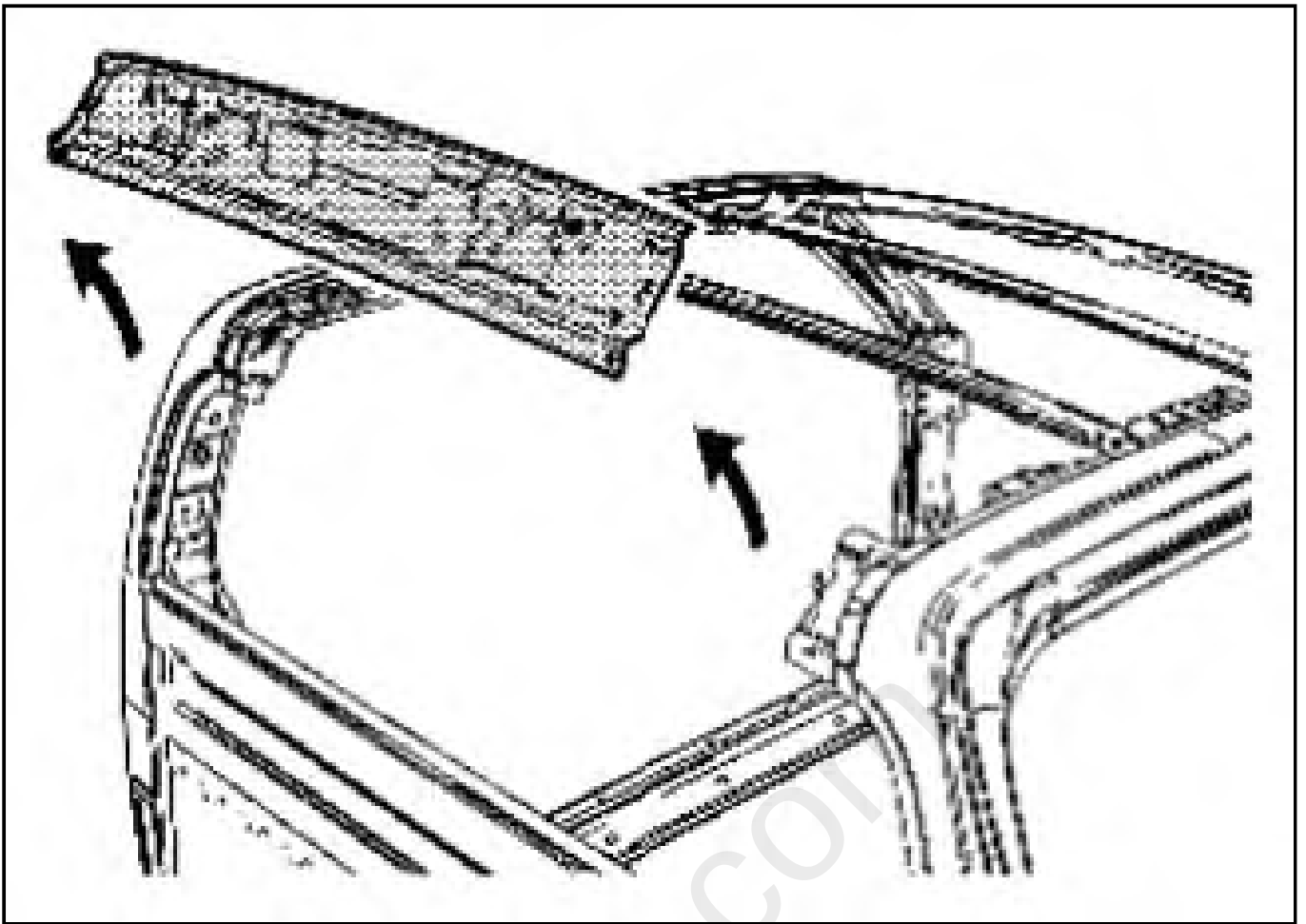


6. Remove the roof panel. Refer to [Roof Outer Panel Replacement \(Adhesive Weld Bonding Procedure\)](#), [Roof Outer Panel Replacement \(Weld On Procedure\)](#).



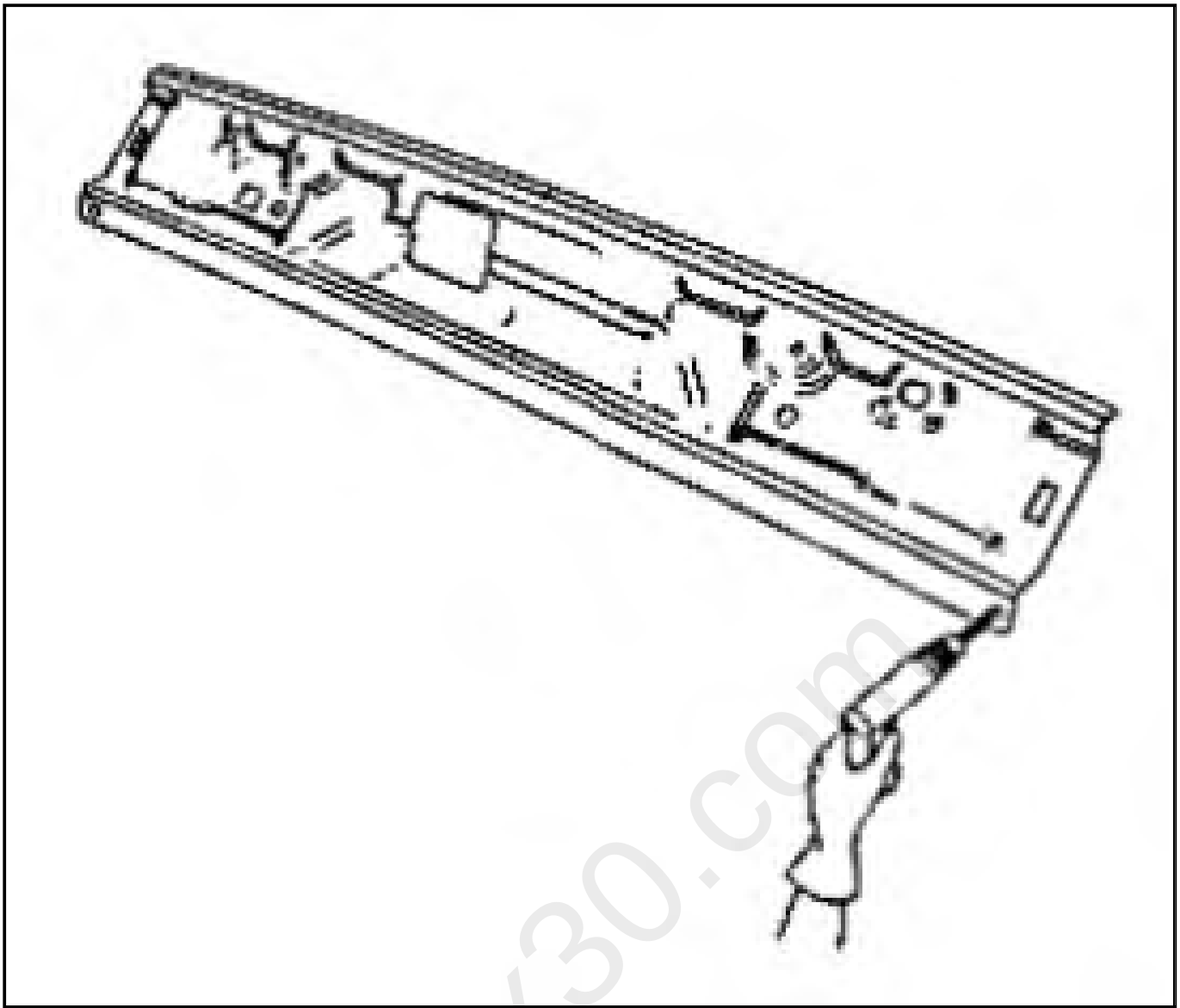
NOTE: Do not damage any inner panels or reinforcements.

7. Locate and drill out all factory welds. Note the number and location of welds for installation of the service part.



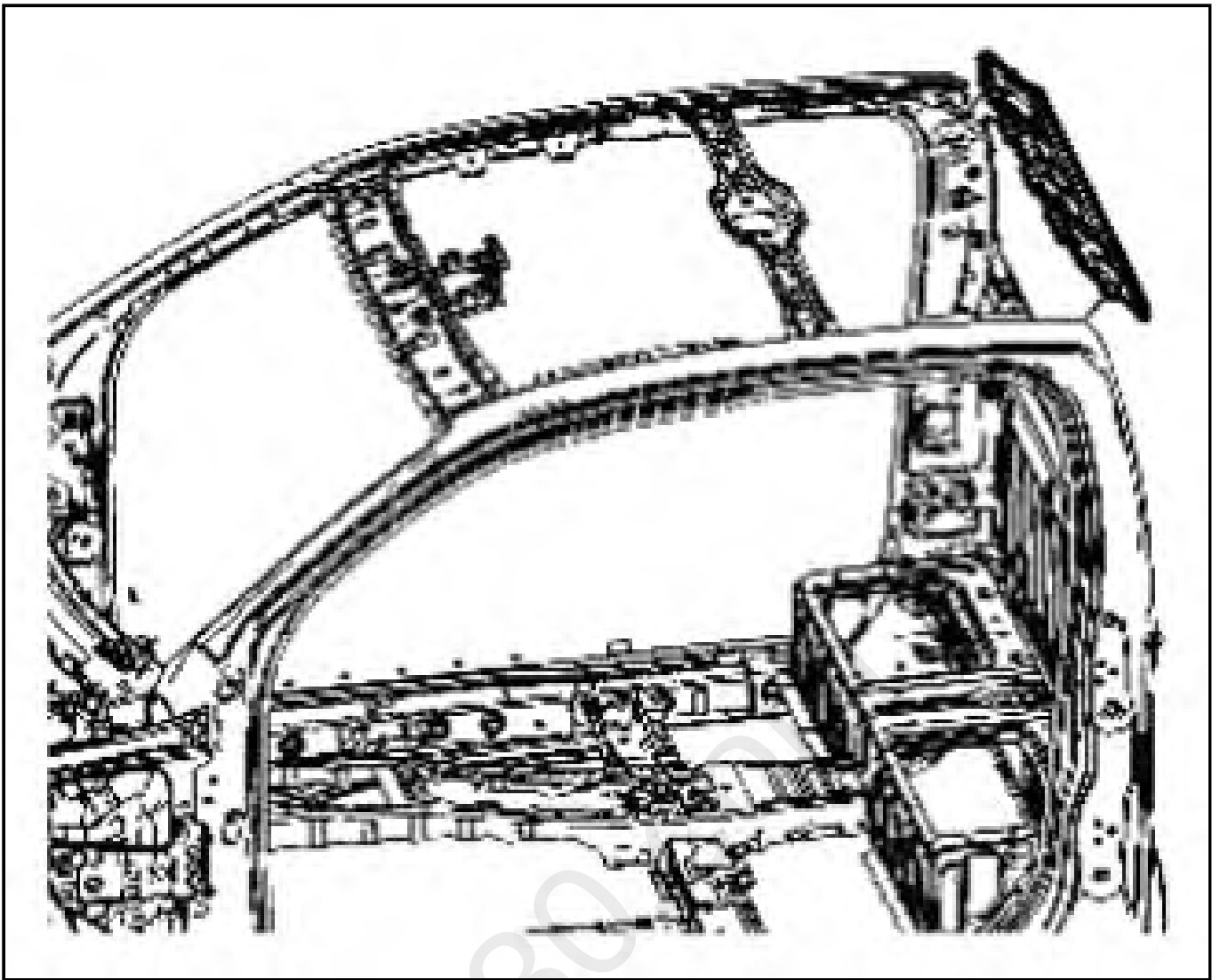
8. Remove the damaged roof header panel.

Installation Procedure

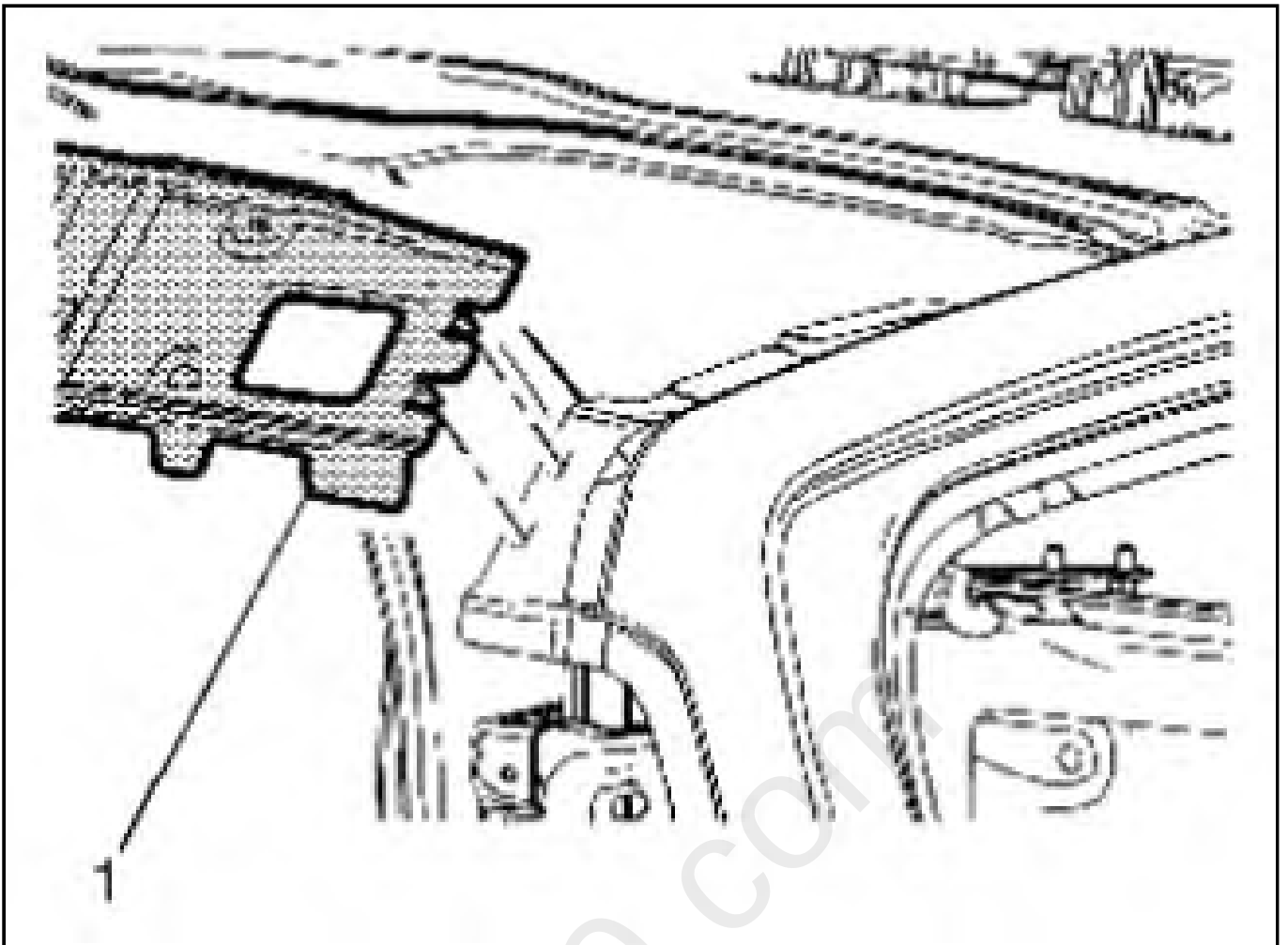


NOTE: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive is present, space the plug weld holes every 40 mm (1 1/2 in) apart.

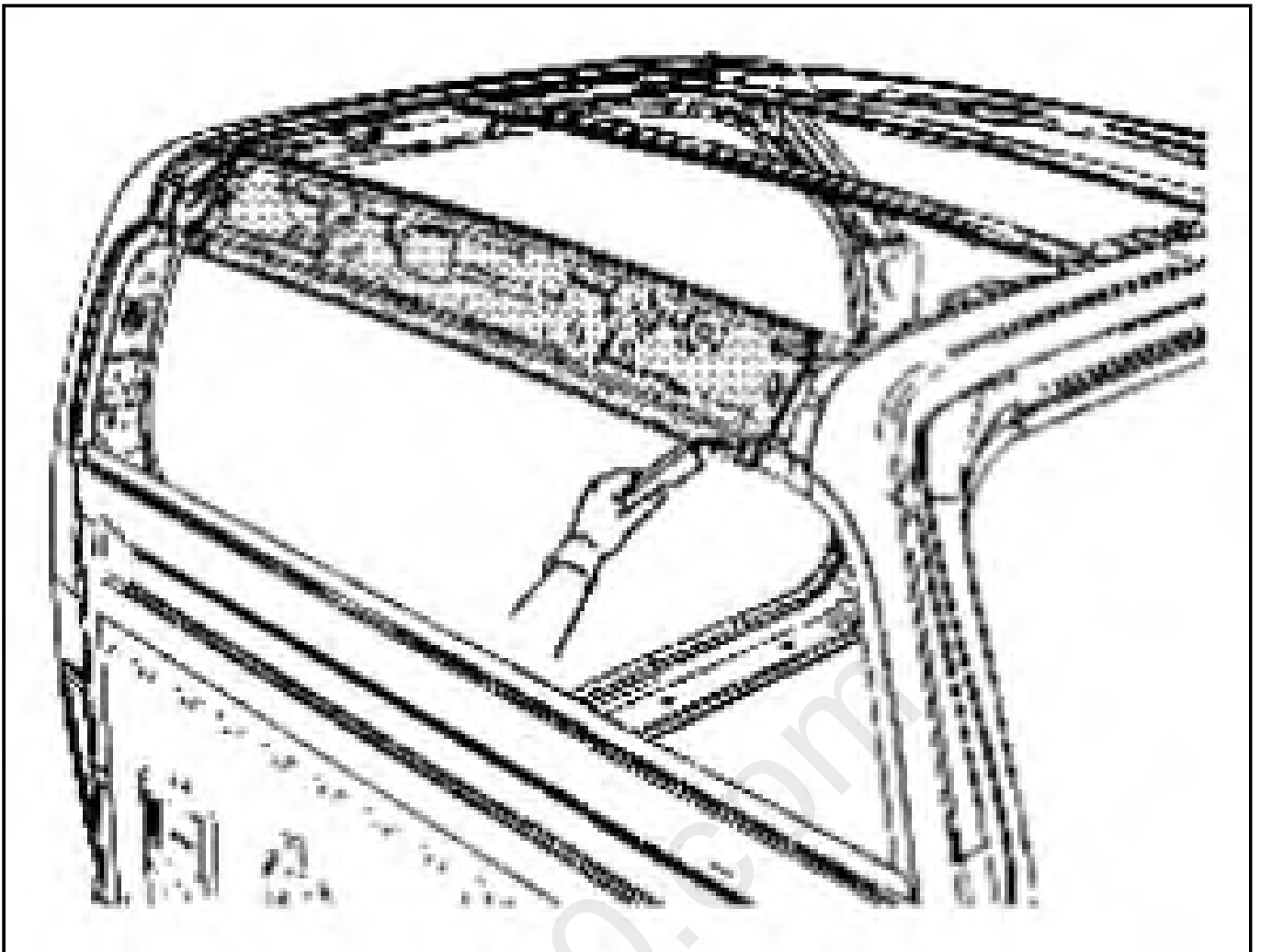
1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#)



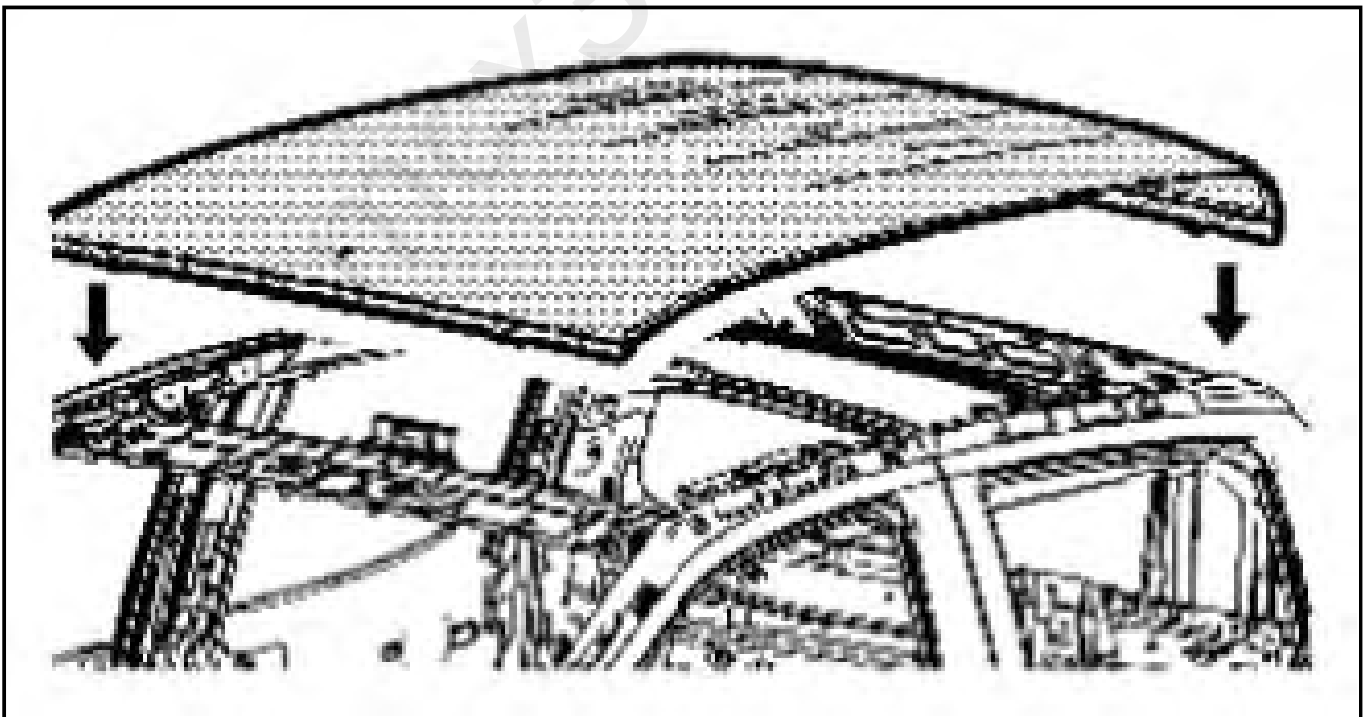
4. Position the roof header panel.



5. Align the roof header panel over the locator tabs (1).



6. Plug weld accordingly.



7. Install the roof panel. Refer to [Roof Outer Panel Replacement \(Adhesive Weld Bonding Procedure\)](#)[Roof Outer Panel Replacement \(Weld On Procedure\)](#).
8. Clean and prepare all welded surfaces.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
10. Paint and repair the area. Refer to [Basecoat/Clearcoat Paint Systems](#) .

11. Install all related panels and components.
12. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
13. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

ROCKER INNER PANEL REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components. Refer to the following procedures:
 - [Rocker Outer Panel Sectioning](#)
 - [Rocker Inner Panel Reinforcement Replacement](#)
 - [Body Hinge Pillar Lower Reinforcement Replacement](#)
 - [Back Body Pillar Inner Panel Reinforcement Replacement](#)
 - [Center Pillar Inner Panel Replacement](#)
4. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .
5. Remove the sealers and anti-corrosion materials from the repair area. Refer to [Anti-Corrosion Treatment And Repair](#) .

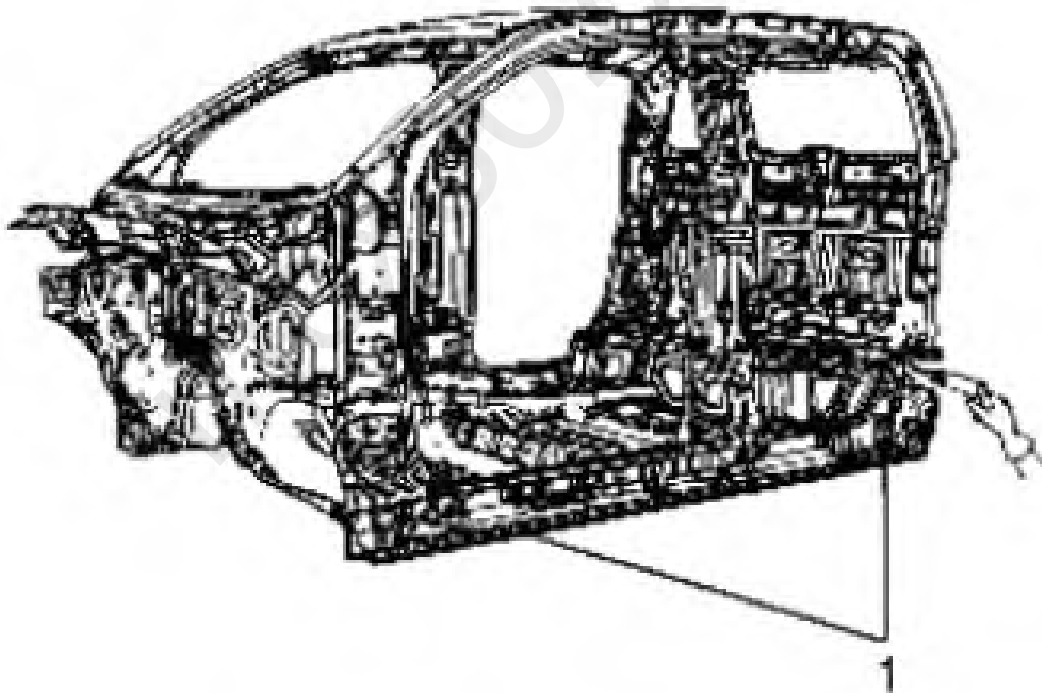
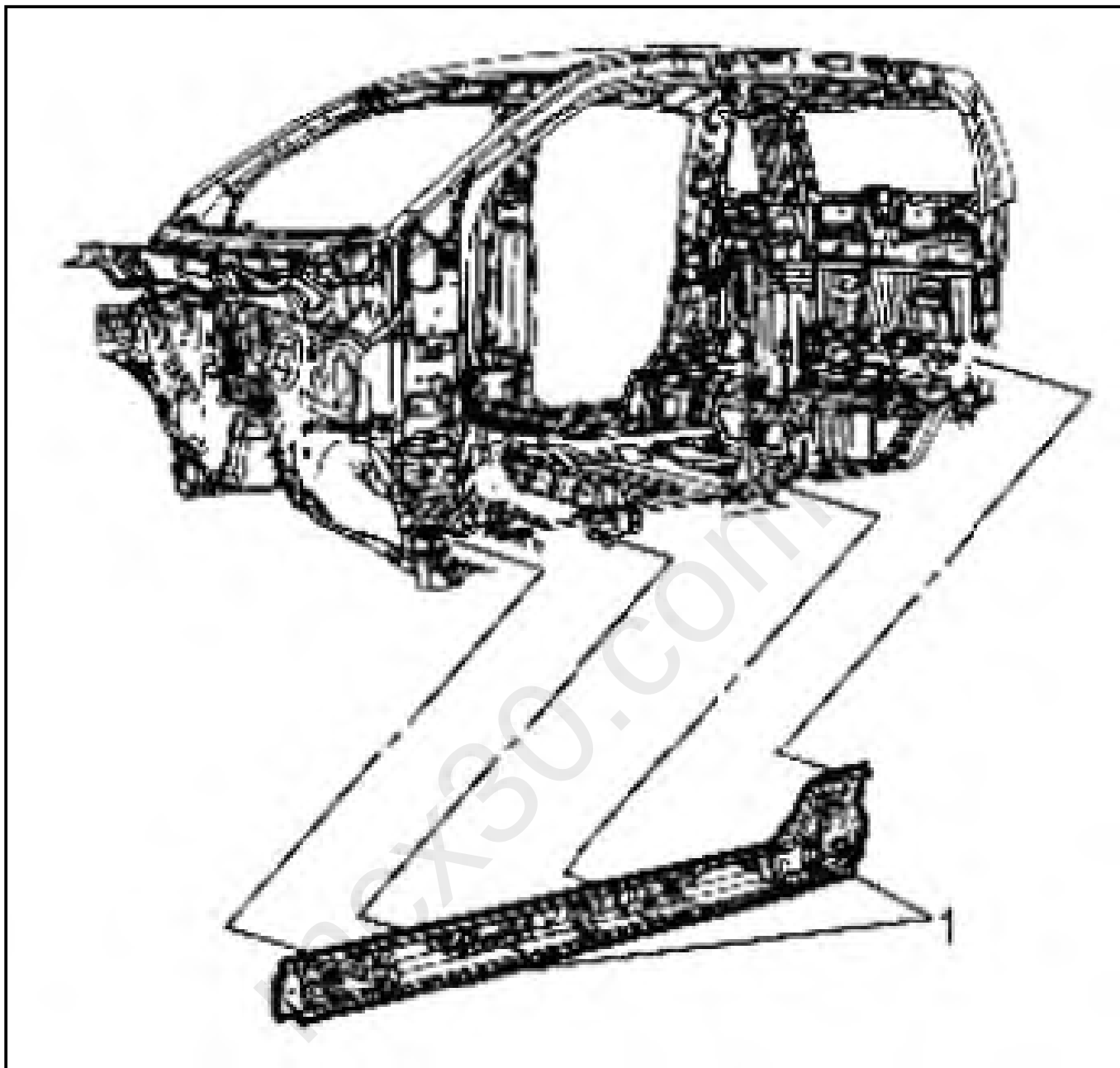


Fig. 10: Rocker Inner Panel Component Location
Courtesy of GENERAL MOTORS COMPANY

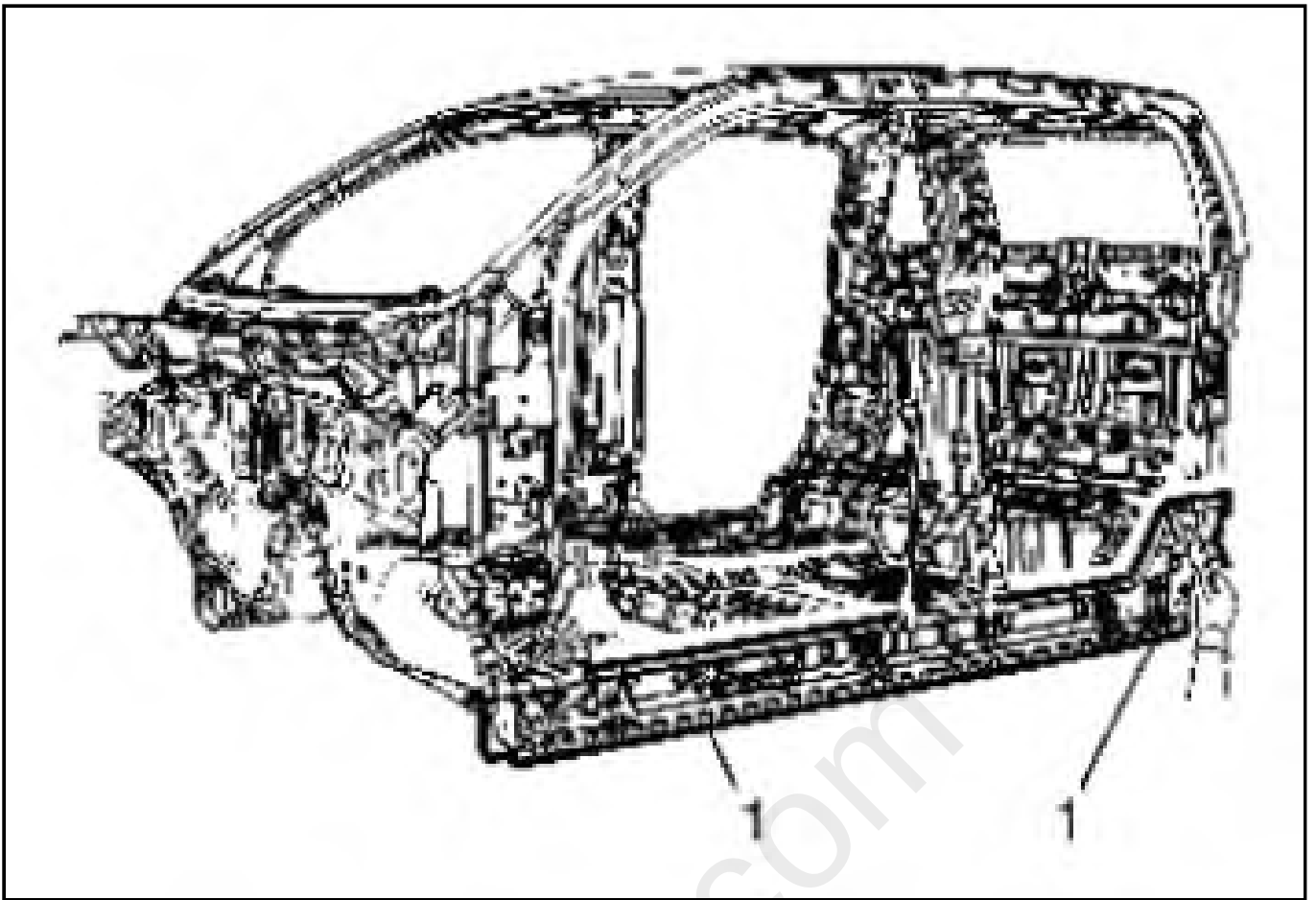
6. Carefully move the center pillar inner panel as needed to drill the rocker inner pane.
7. Locate and mark all the necessary factory welds of the rocker inner panel.
8. Drill all factory welds (1). Note the number and location of welds for installation of the service assembly.
9. Remove the damaged rocker inner panel.

Installation Procedure

1. Drill **8 mm (5/16 in)** holes for plug welding along the edges of the quarter outer panel (1) as noted from the original panel.
2. Clean and prepare the attaching surfaces for welding.



3. Position the rocker inner panel on the vehicle.
4. Verify the fit of the panel.
5. Clamp the rocker inner panel into position.



6. Carefully move the center pillar inner panel as needed to weld the rocker inner pane.
7. Plug the weld accordingly.
8. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
9. Paint the repaired area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
10. Install all related panels and components.
11. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
12. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

ROCKER INNER PANEL REINFORCEMENT REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components.
4. Perform additional procedures as necessary. Refer to the following procedures:
 - [Rocker Outer Panel Sectioning](#)
 - [Body Hinge Pillar Lower Reinforcement Replacement](#)
 - [Back Body Pillar Inner Panel Reinforcement Replacement](#)
 - [Center Pillar Inner Panel Replacement](#)
5. Restore as much of the damage as possible to factory specifications using 3-dimensional measuring equipment.

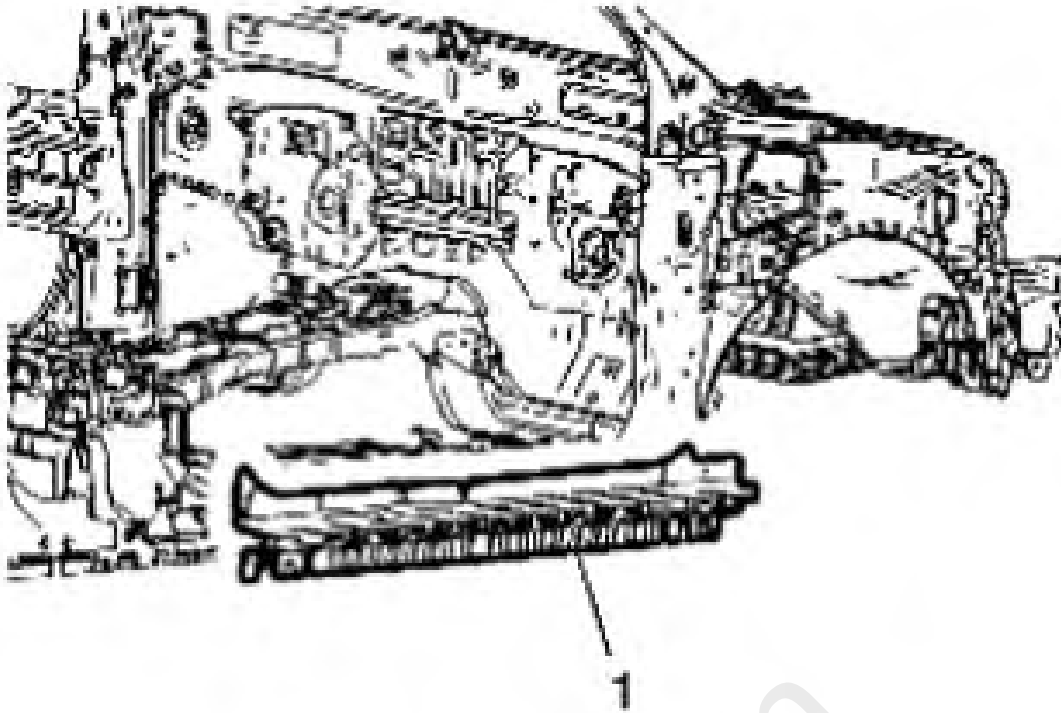


Fig. 11: Rocker Inner Panel Reinforcement Component Location

Courtesy of GENERAL MOTORS COMPANY

6. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary (1).
Refer to **ANTI-CORROSION TREATMENT AND REPAIR**.

NOTE:

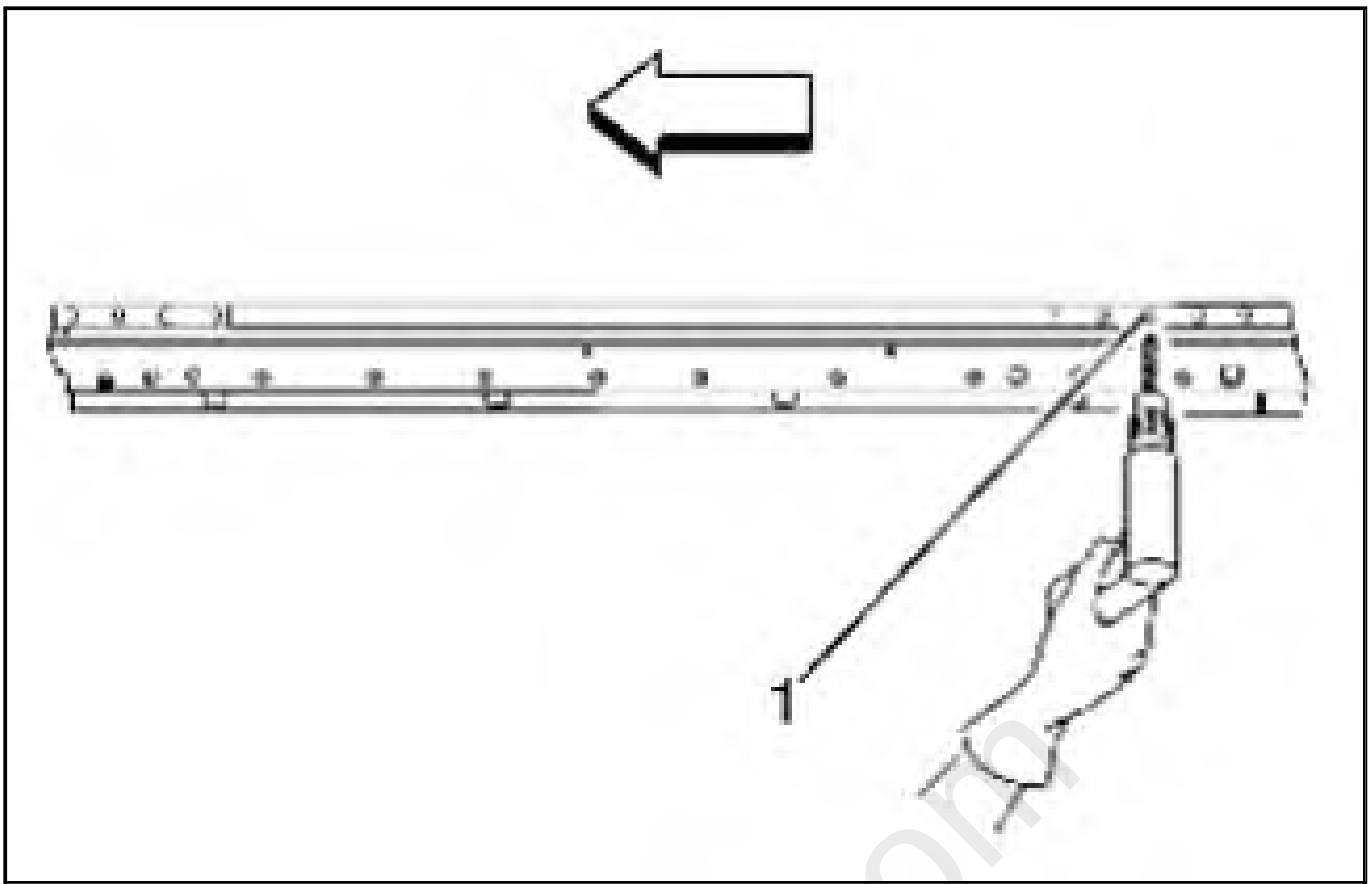
Removing only the body hinge pillar lower reinforcement and releasing only the welds that attach the back body pillar inner panel reinforcement, if possible, removes the rocker inner panel reinforcement by sliding it out. Choose the procedure that fits better according to the collision

Do not damage any inner panels or reinforcements.

Record the number and location of the original welds for installation of the service part.

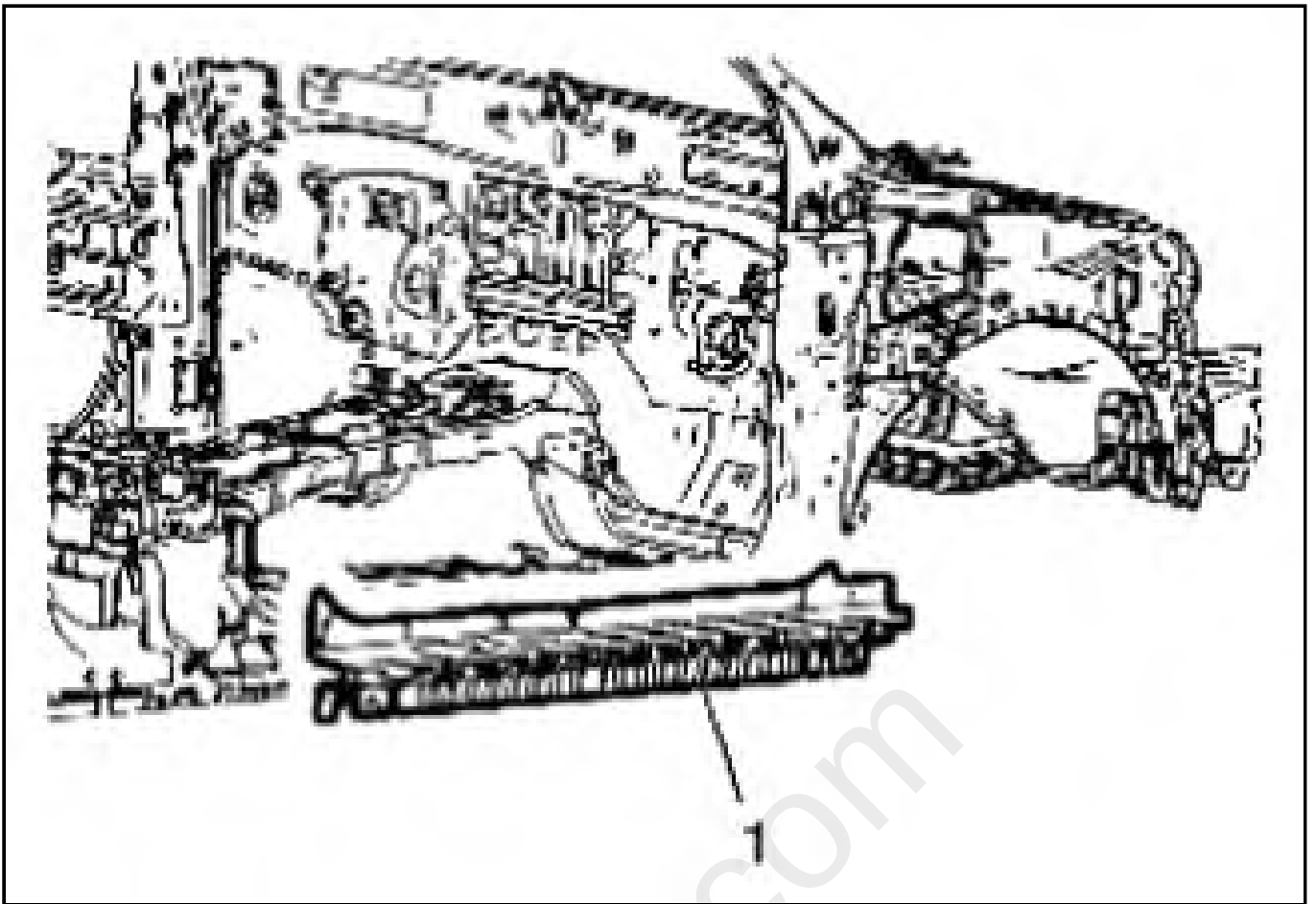
7. Locate and drill out all factory welds (1).
8. Remove the damaged inner rocker panel.

Installation Procedure



NOTE: If the location of the original plug welds cannot be determined or structural weld-thru adhesive was present, space plug weld holes every 40 mm (1 1/2 in) apart.

1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary (1), in the locations noted from the original panel.
2. Prepare all attachment surfaces as necessary.
3. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#).



4. Position the inner rocker panel.
5. Clamp service parts in position.
6. Inspect the vehicle for proper dimensions using 3-dimensional equipment.
7. Plug weld accordingly (1).
8. Clean and prepare all welded surfaces.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
10. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
11. Install all related panels and components.
12. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
13. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

ROCKER OUTER PANEL SECTIONING

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

WARNING: Refer to [Collision Sectioning Warning](#) .

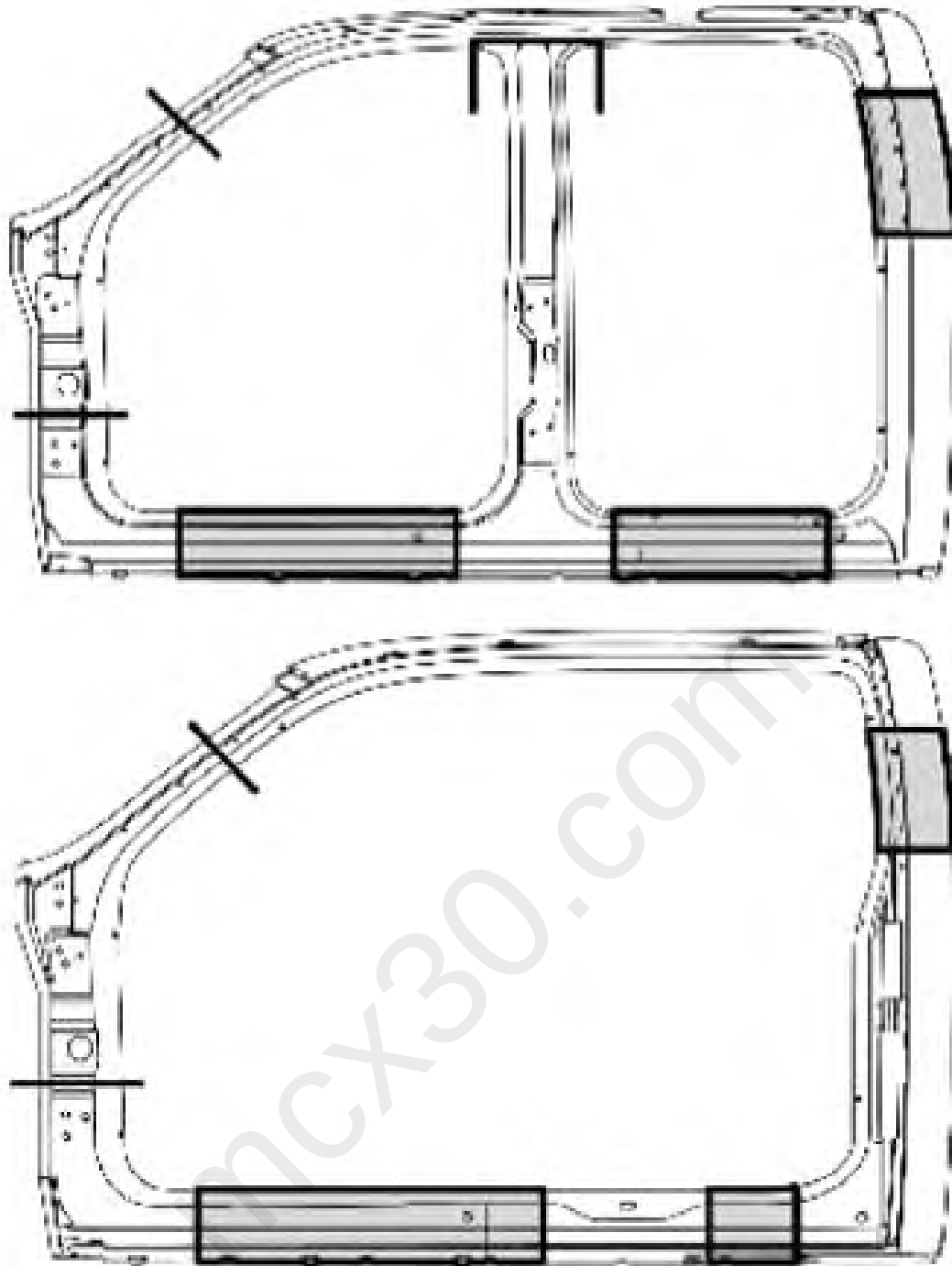


Fig. 12: Rocker Outer Panel Sectioning Component Location

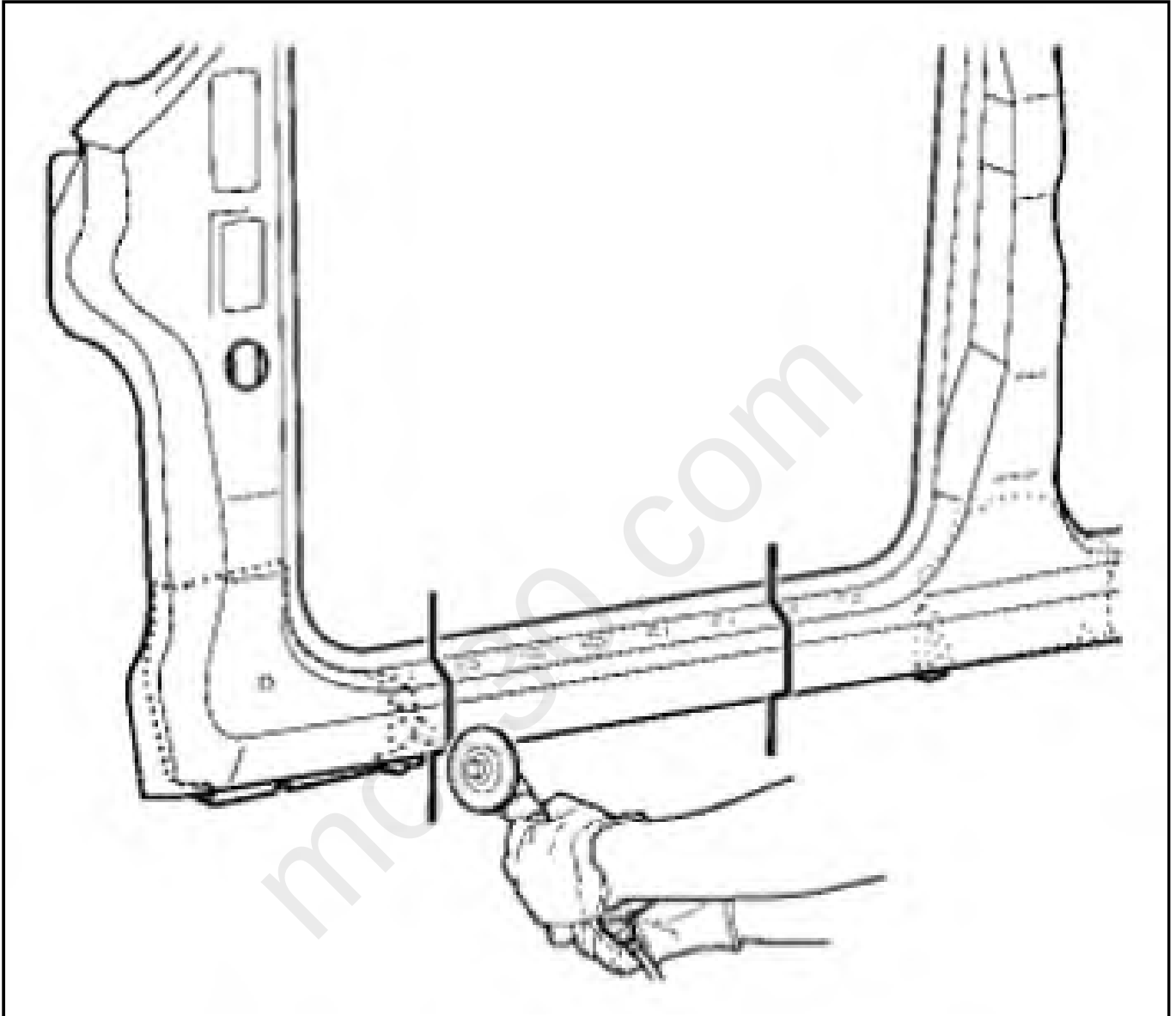
Courtesy of GENERAL MOTORS COMPANY

NOTE: The door frame can be replaced at the factory seams, but requires the removal of the windshield, roof, and quarter panel. The sectioning procedures have been developed as a more cost-effective alternative to complete replacement. The specific area to be sectioned is determined by the extent of the damage to the vehicle.

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .

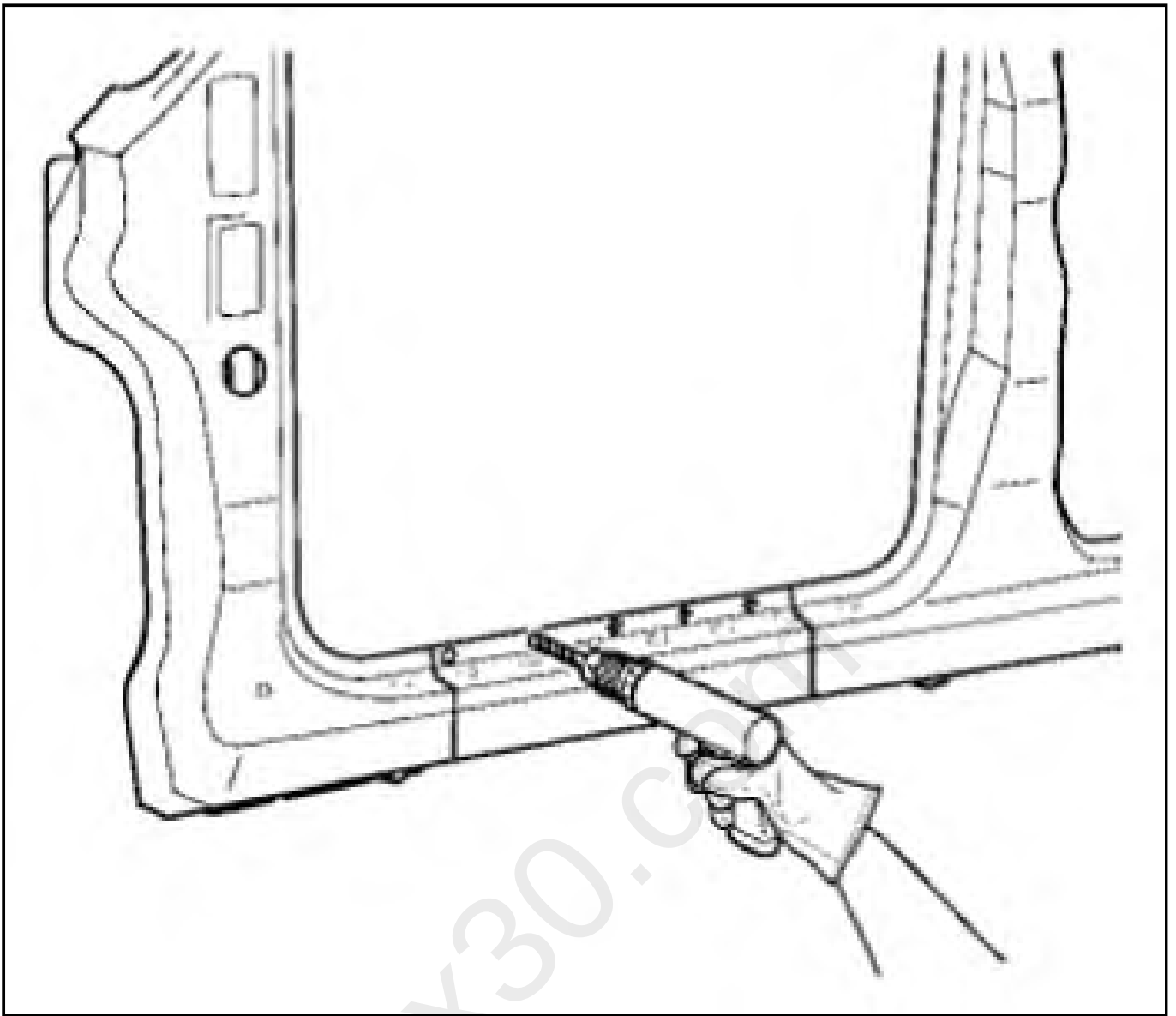
WARNING: Refer to [Foam Sound Deadeners Warning](#) .

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
6. Perform additional sectioning procedures as necessary. Refer to the following procedures:
- [Outer Windshield Frame Pillar Sectioning](#)
 - [front Hinge Pillar Sectioning](#)
 - [Center Pillar Sectioning](#)
 - [Rear Pillar Sectioning \(Lower\)](#)[Rear Pillar Sectioning \(Complete\)](#)

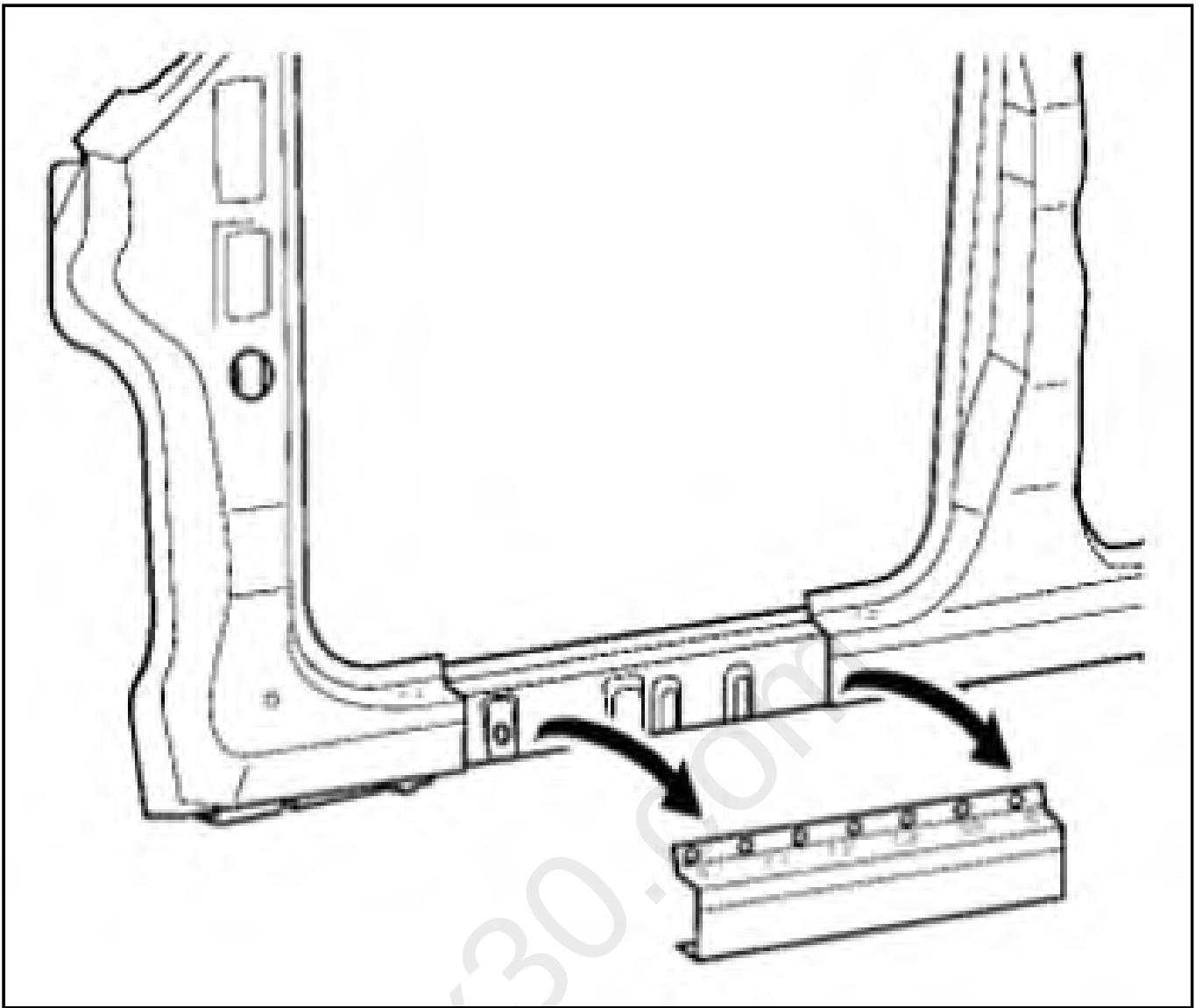


NOTE: Do not damage any inner panels or reinforcements.

7. Cut the panel in the locations where sectioning is to be performed.

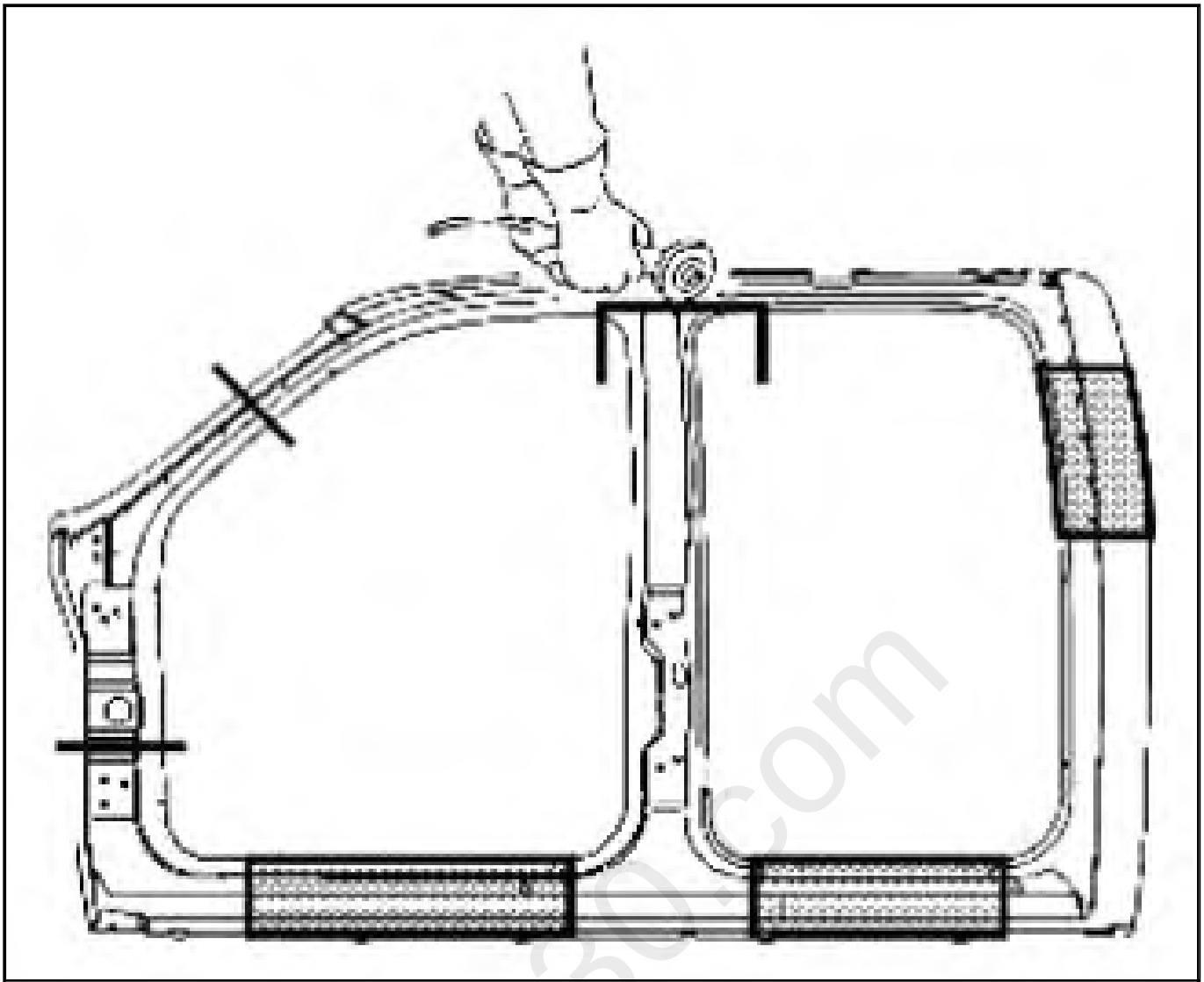


8. Locate and drill out all factory welds. Note the number and location of the welds for installation of the service part.

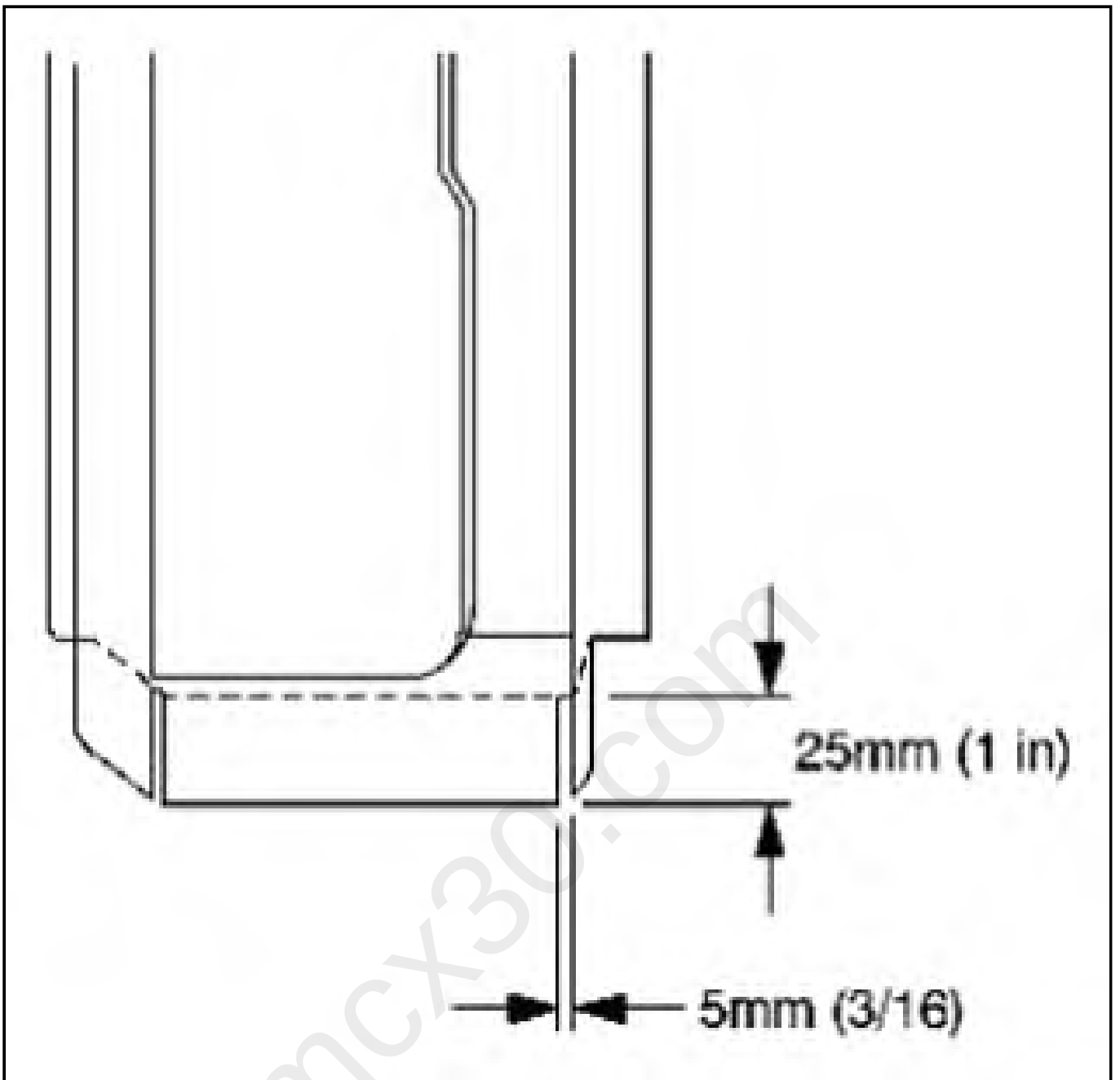


9. Remove the damaged body side.

Installation Procedure

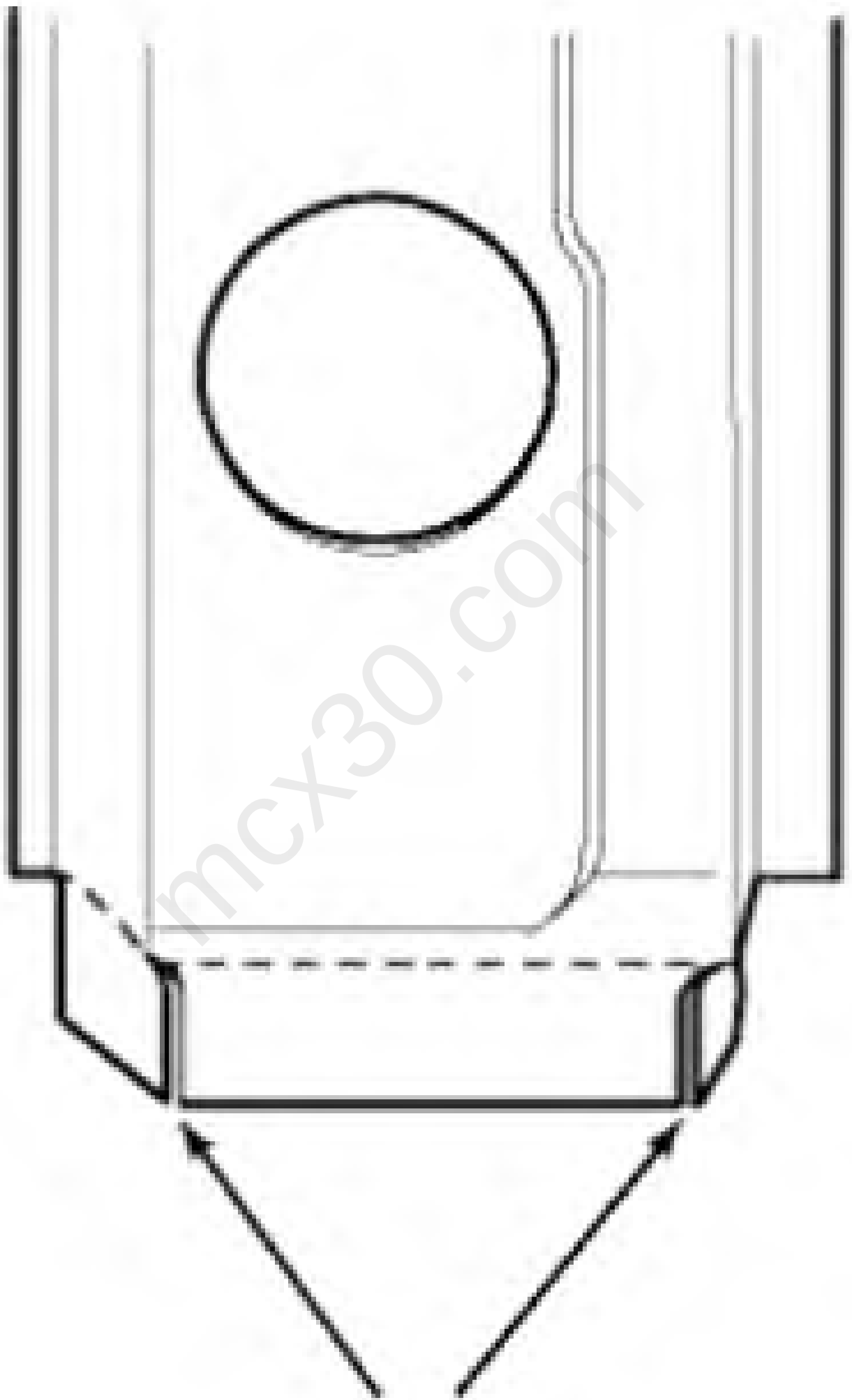


1. From the service part, cut the panel in corresponding locations to overlap the remaining original panel by 25 mm (1 in) at each joint location.

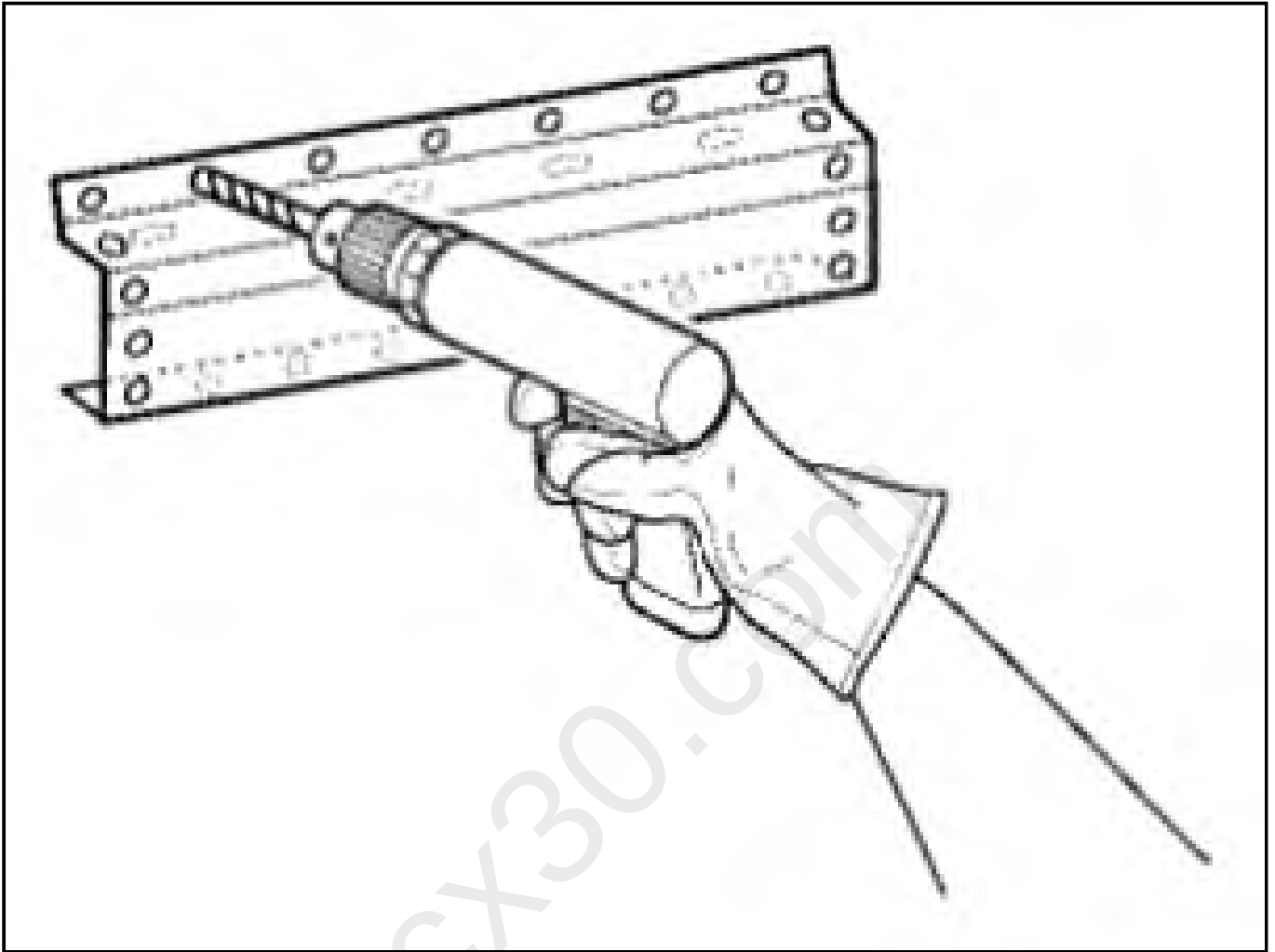


2. Cut and remove 25 mm (1 in) from the flanges on either side of the remaining section of the original pillar. Cut 5 mm (3/16 in) wide gaps in the bottom corner.

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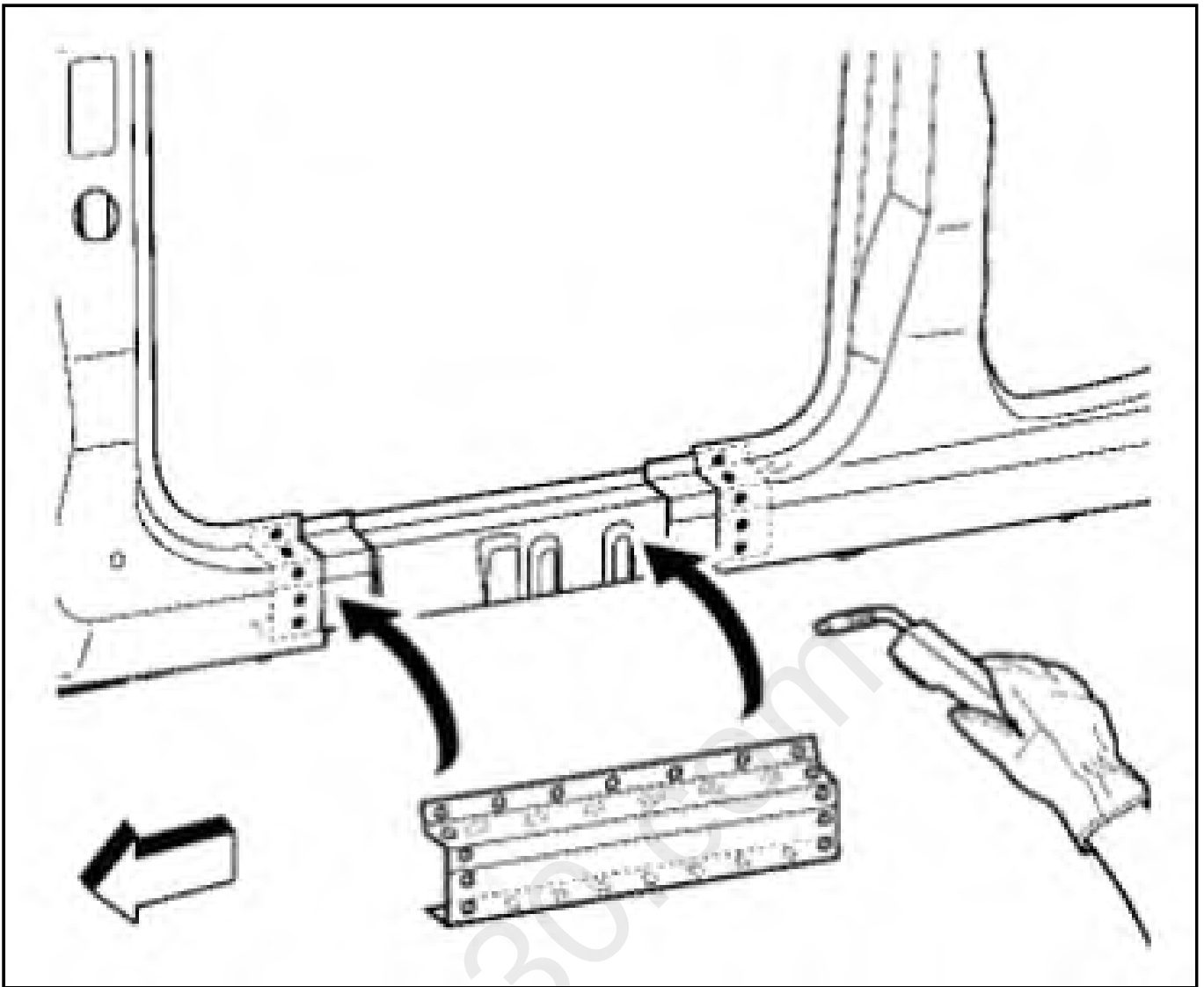


3. Step the tabs (1) inward to allow the door frame opening service section to fit over the original hinge pillar.



NOTE: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

4. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel and along the sectioning cut.
5. Prepare all attachment surfaces as necessary.
6. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to [ANTI-CORROSION TREATMENT AND REPAIR](#).



7. Position the body side to the vehicle using 3-dimensional measuring equipment. Clamp in place.

8. Fit the new part on the original panel.

NOTE: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam with 25 mm (1 in) gaps between them. Complete the stitch weld.

9. Clean and prepare all welded surfaces.

10. Plug weld accordingly.

11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

12. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .

13. Install all related panels and components.

14. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

15. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

BACK BODY PILLAR INNER PANEL REINFORCEMENT REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components.
4. Perform additional procedures as necessary. Refer to [Rear End Panel Replacement](#), [Rocker Outer Panel Sectioning](#), [Roof Outer Panel Replacement \(Adhesive Weld Bonding Procedure\)](#), [Roof Outer Panel Replacement \(Weld On Procedure\)](#) and [Outer Door Frame Sectioning](#).
5. Restore as much of the damage as possible to factory specifications using 3-dimensional measuring equipment.
6. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

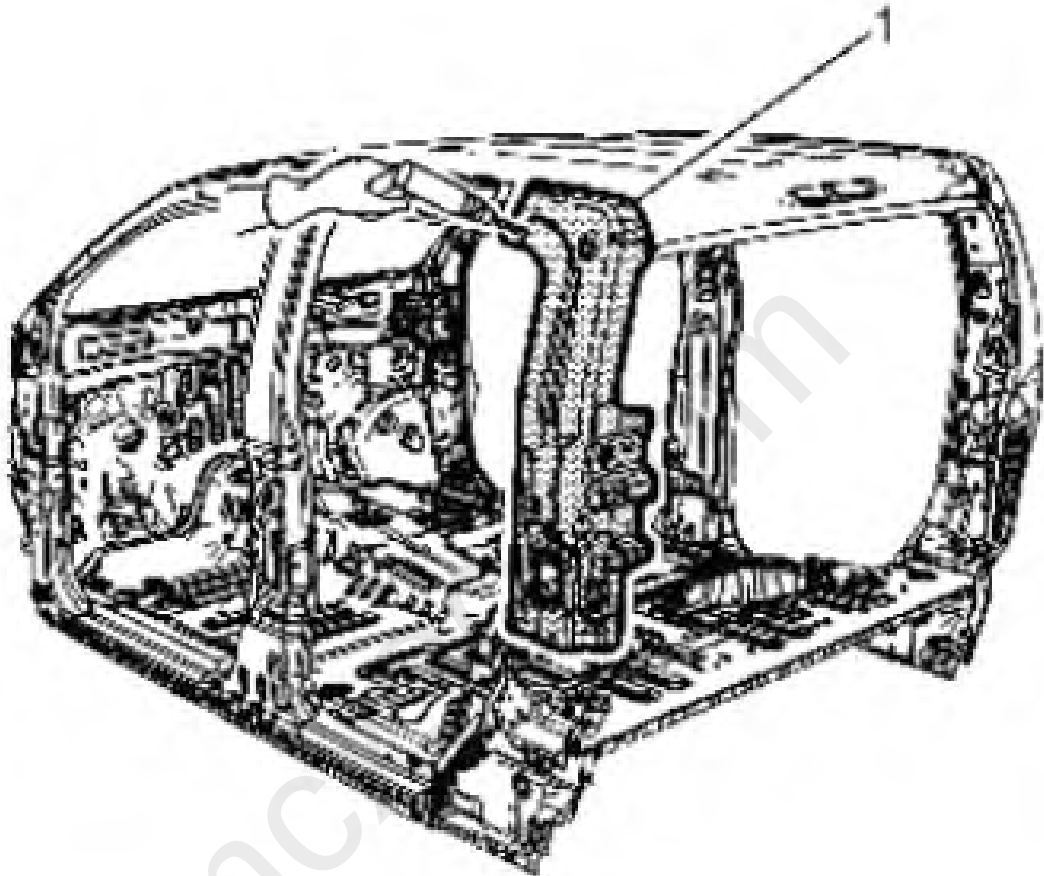


Fig. 13: Back Body Pillar Inner Panel Reinforcement Component Location

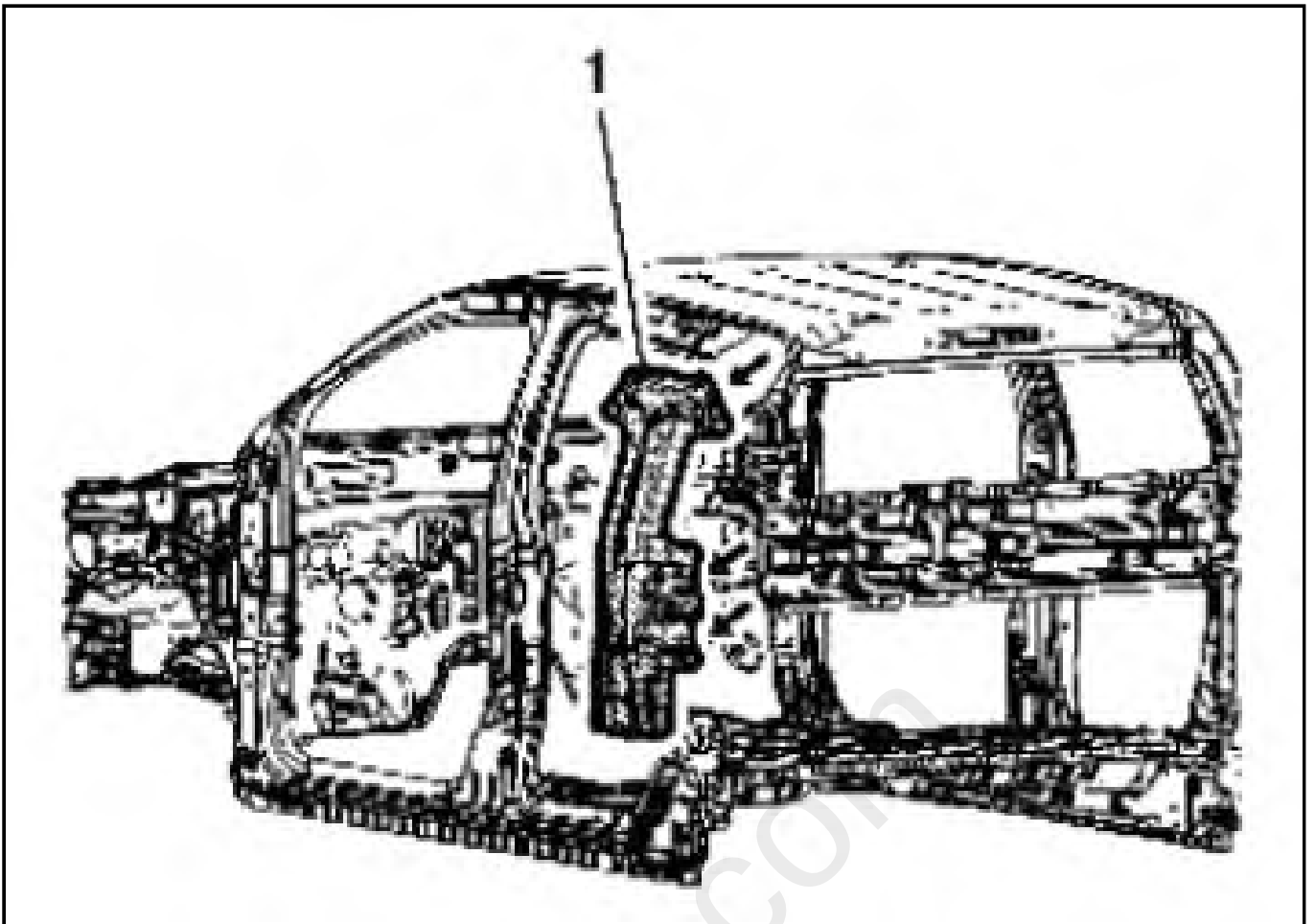
Courtesy of GENERAL MOTORS COMPANY

NOTE:

Do not damage any inner panels or reinforcements.

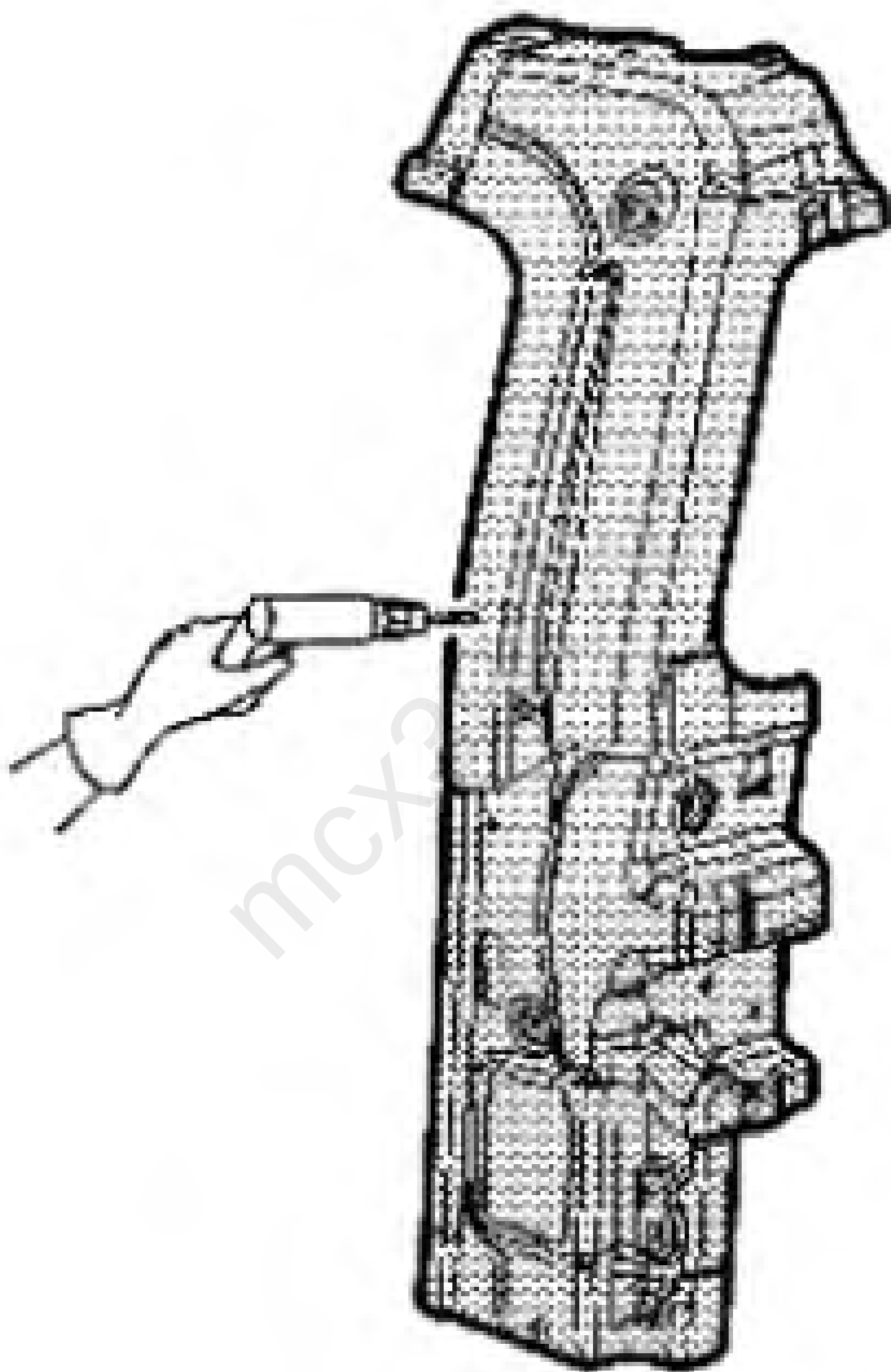
Record the number and location of the original welds for installation of the service part.

7. Locate and drill out all factory welds (1).



8. Remove the damaged back body pillar inner panel reinforcement (1).

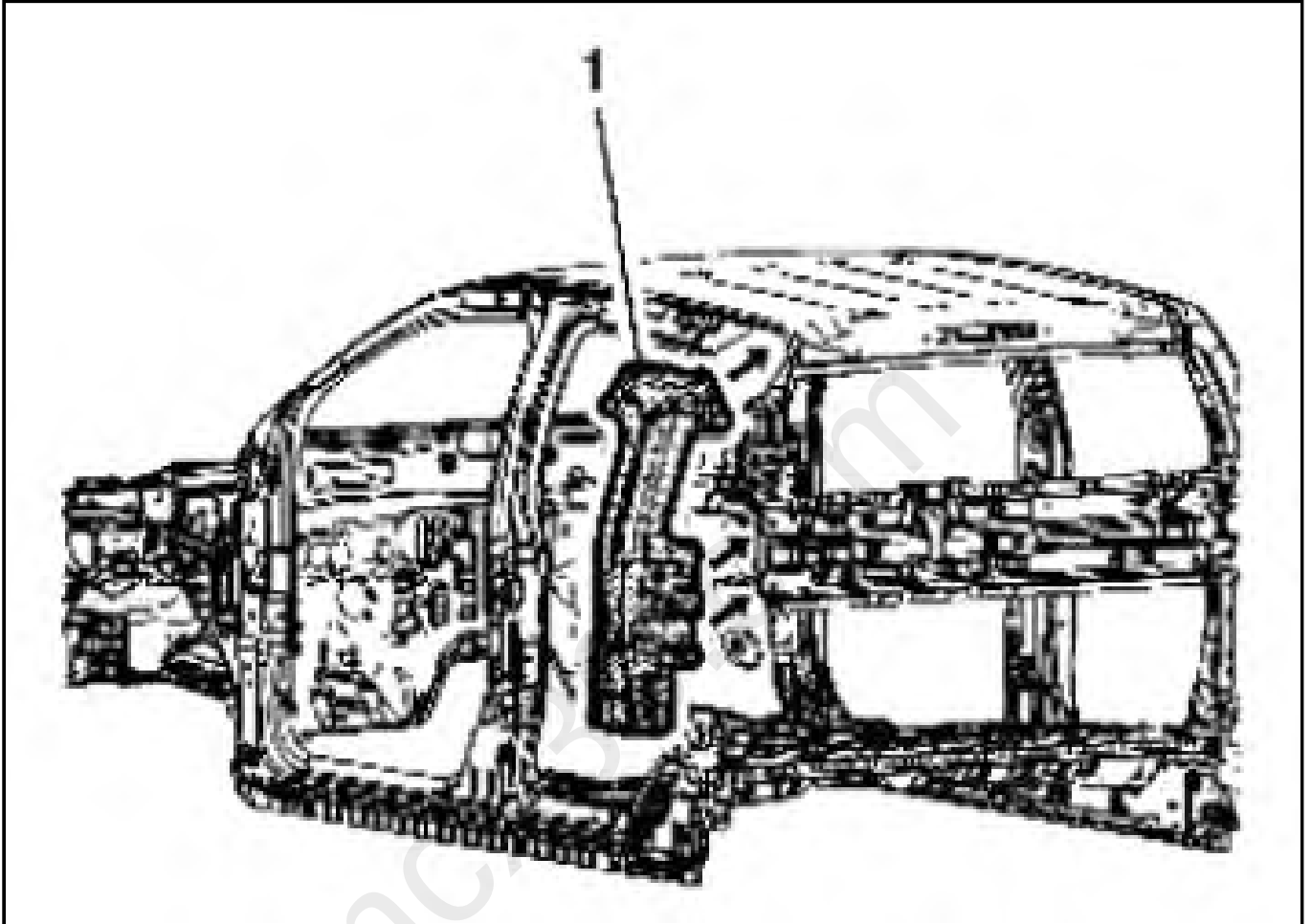
Installation Procedure



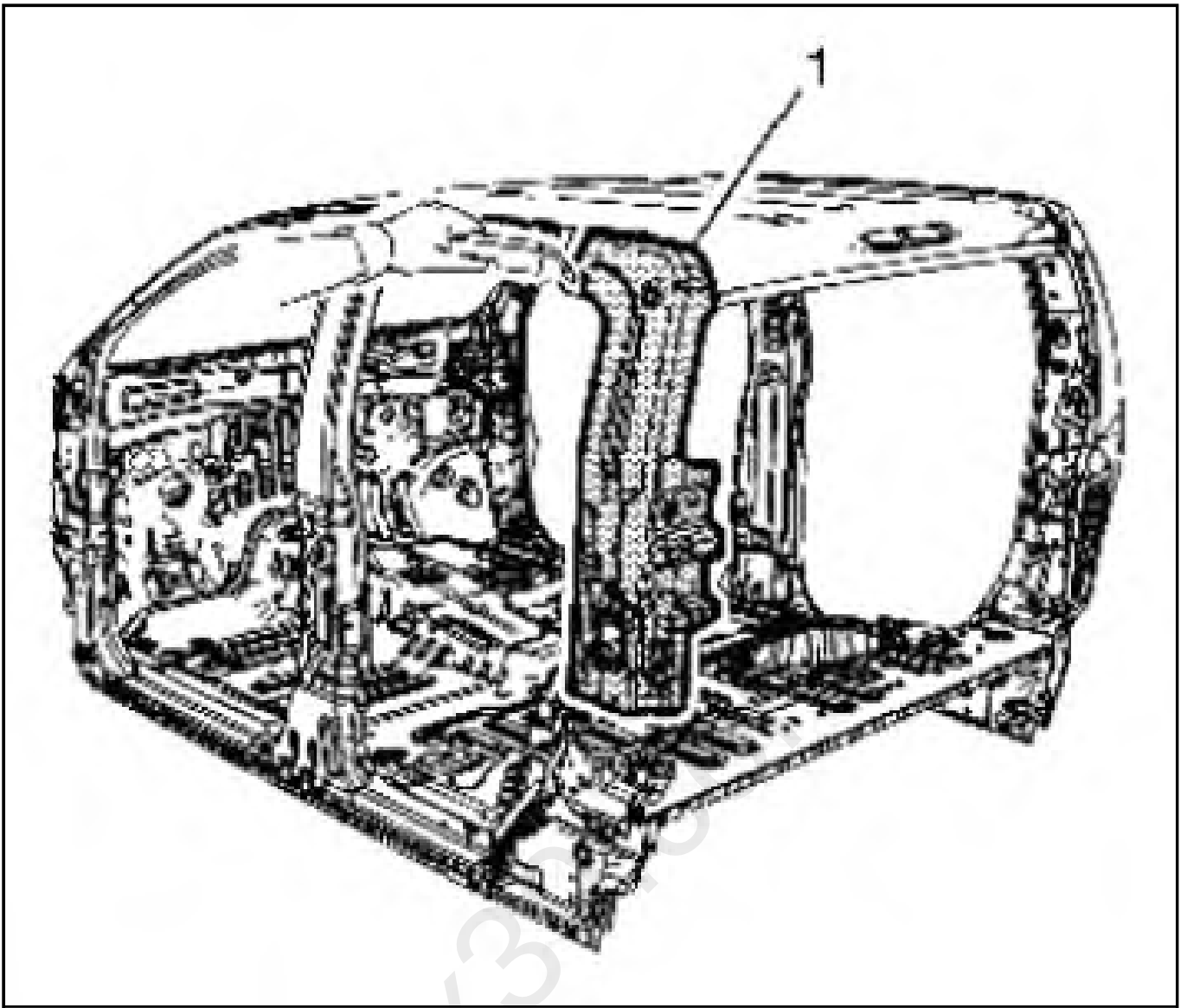
NOTE:

If the location of the original plug welds cannot be determined or structural weld-thru adhesive was present, space plug weld holes every 40 mm (1 1/2 in) apart.

1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary (1), in the locations noted from the original panel.
2. Prepare all attachment surfaces as necessary.
3. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#).



4. Position the back body pillar inner panel (1).
5. Clamp service parts in position.
6. Inspect the vehicle for proper dimensions using 3-dimensional equipment.



7. Plug weld accordingly (1).
8. Clean and prepare all welded surfaces.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
10. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
11. Install all related panels and components.
12. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
13. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

FRONT SIDE DOOR OUTER PANEL REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

NOTE: Before beginning the repair, refer to [METAL PANEL BONDING](#) for proper adhesive applicator preparations and general information.

1. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
2. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .

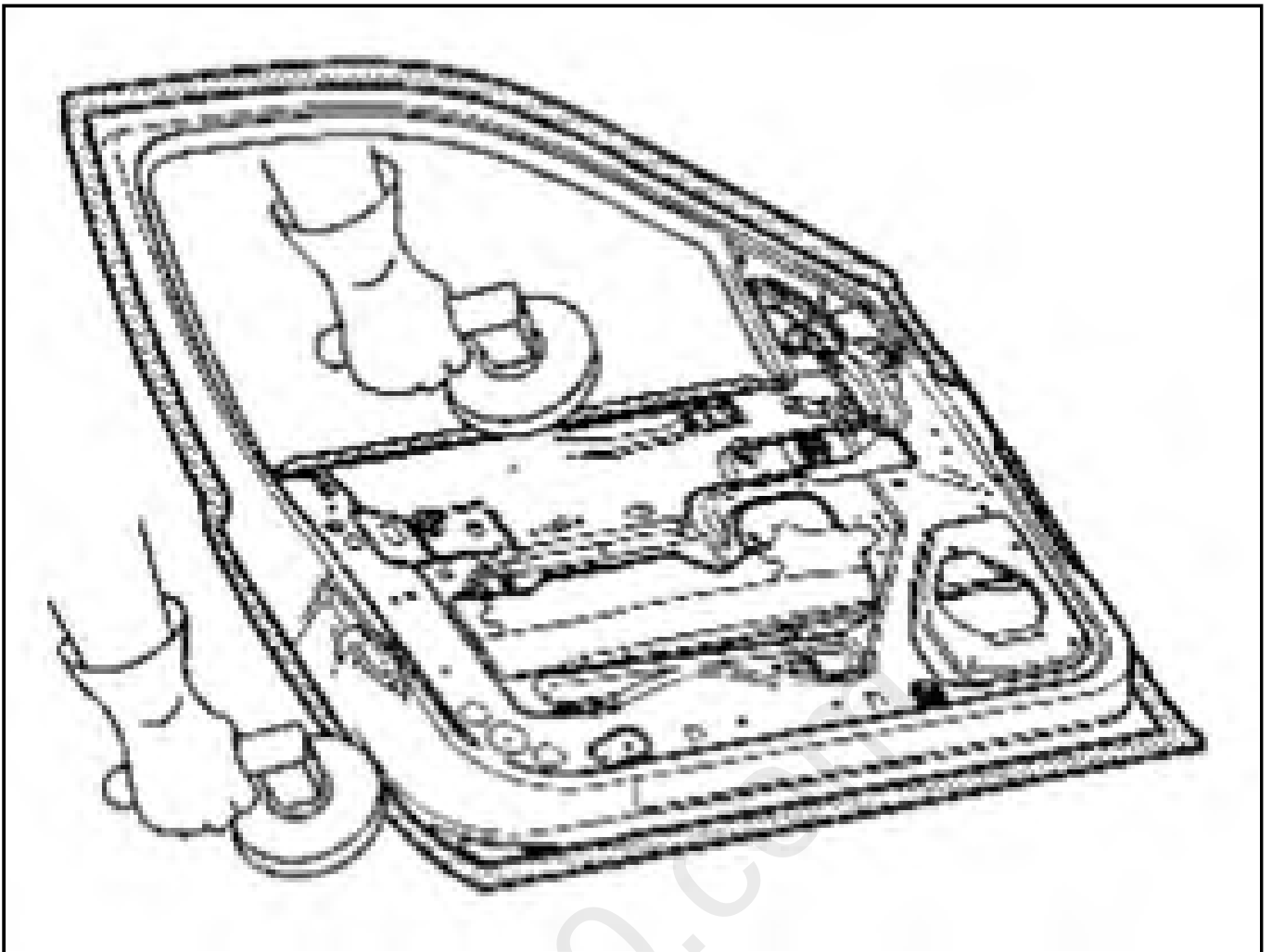
5. Remove the door assembly. Refer to [Front Side Door Replacement](#) .



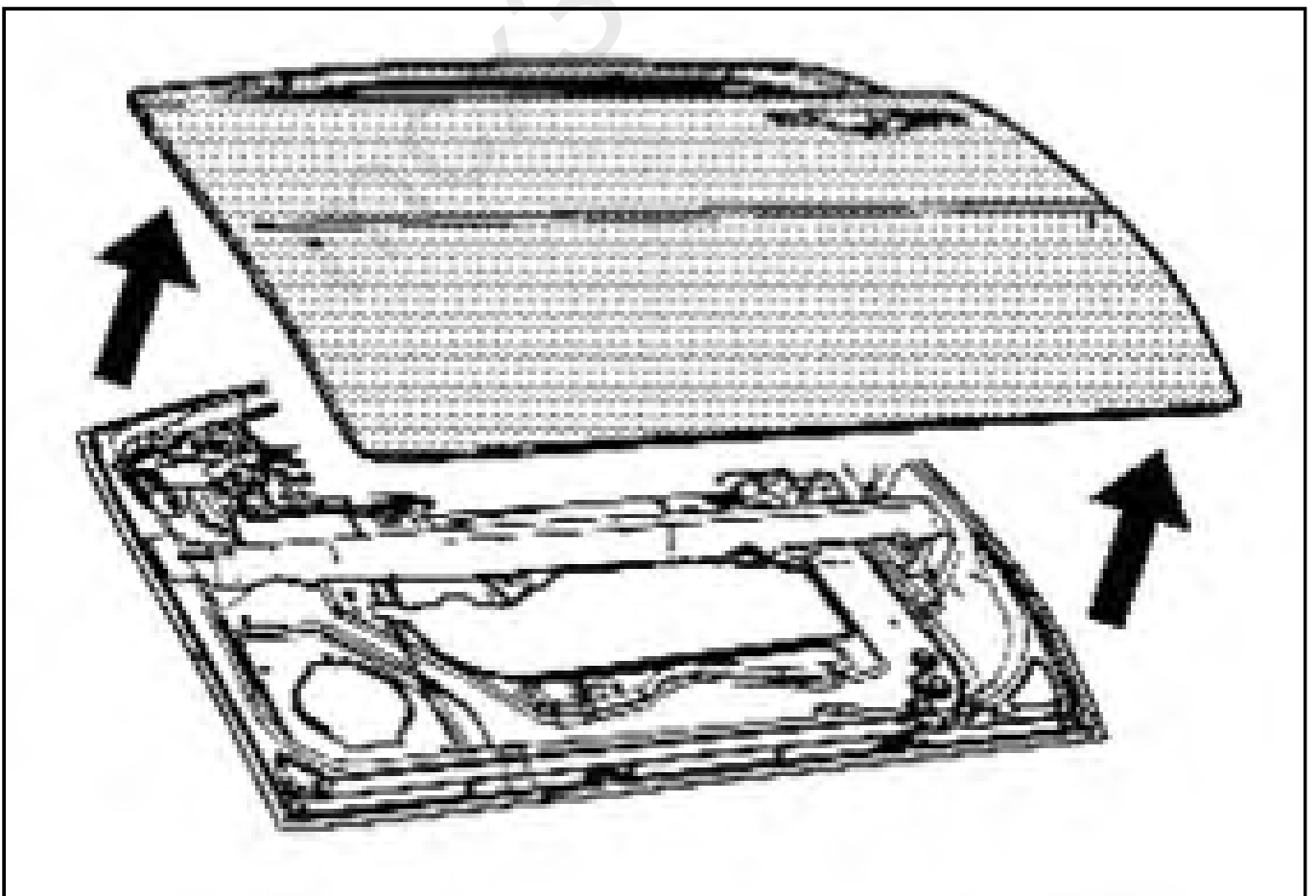
Fig. 14: Front Side Door Outer Panel Component Location

Courtesy of GENERAL MOTORS COMPANY

6. Locate and drill out all factory welds. Note the number and location of welds for installation of the service panel.



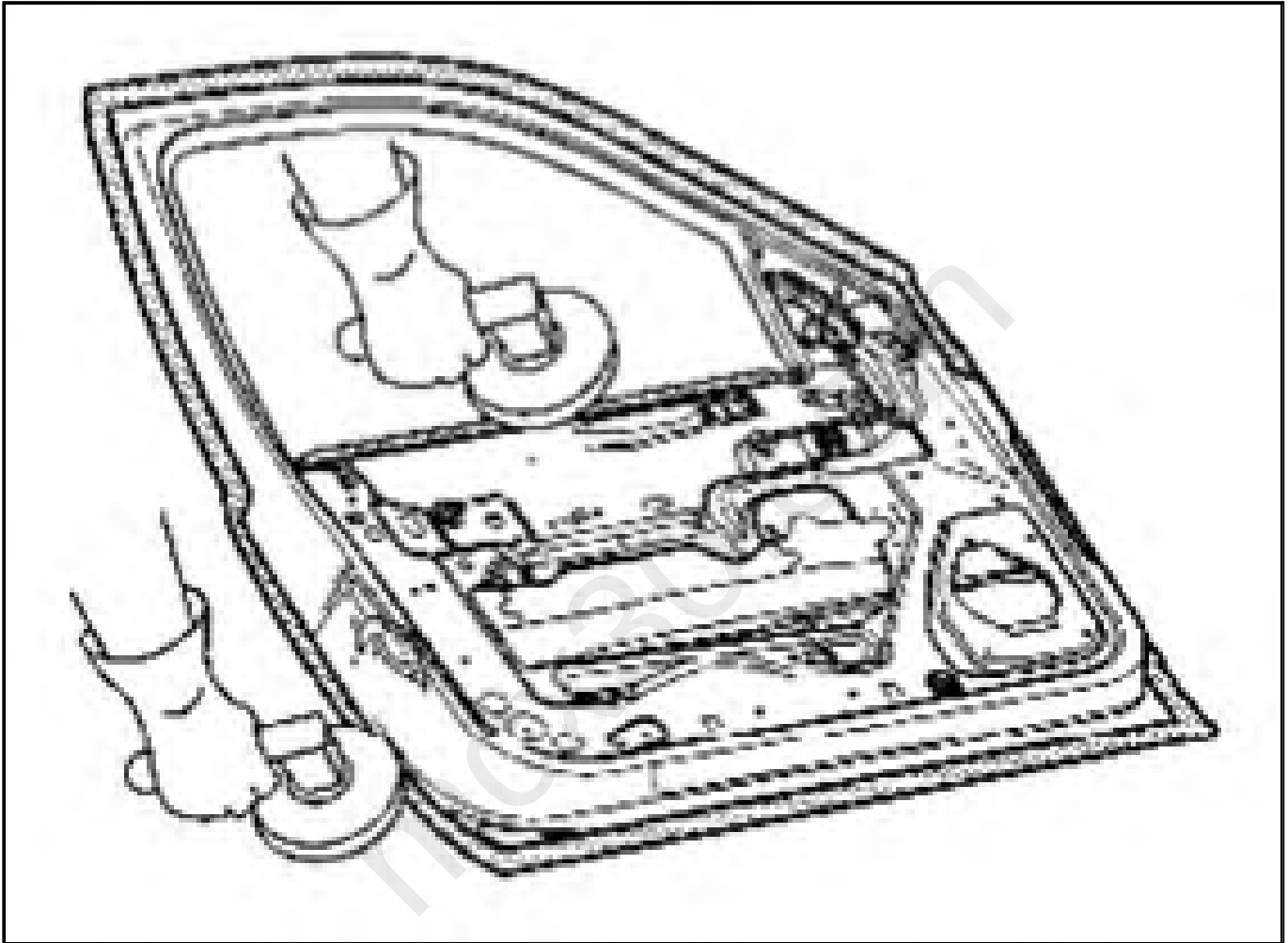
7. Grind the edges of the door outer panel to separate the outer door panel from the door shell.



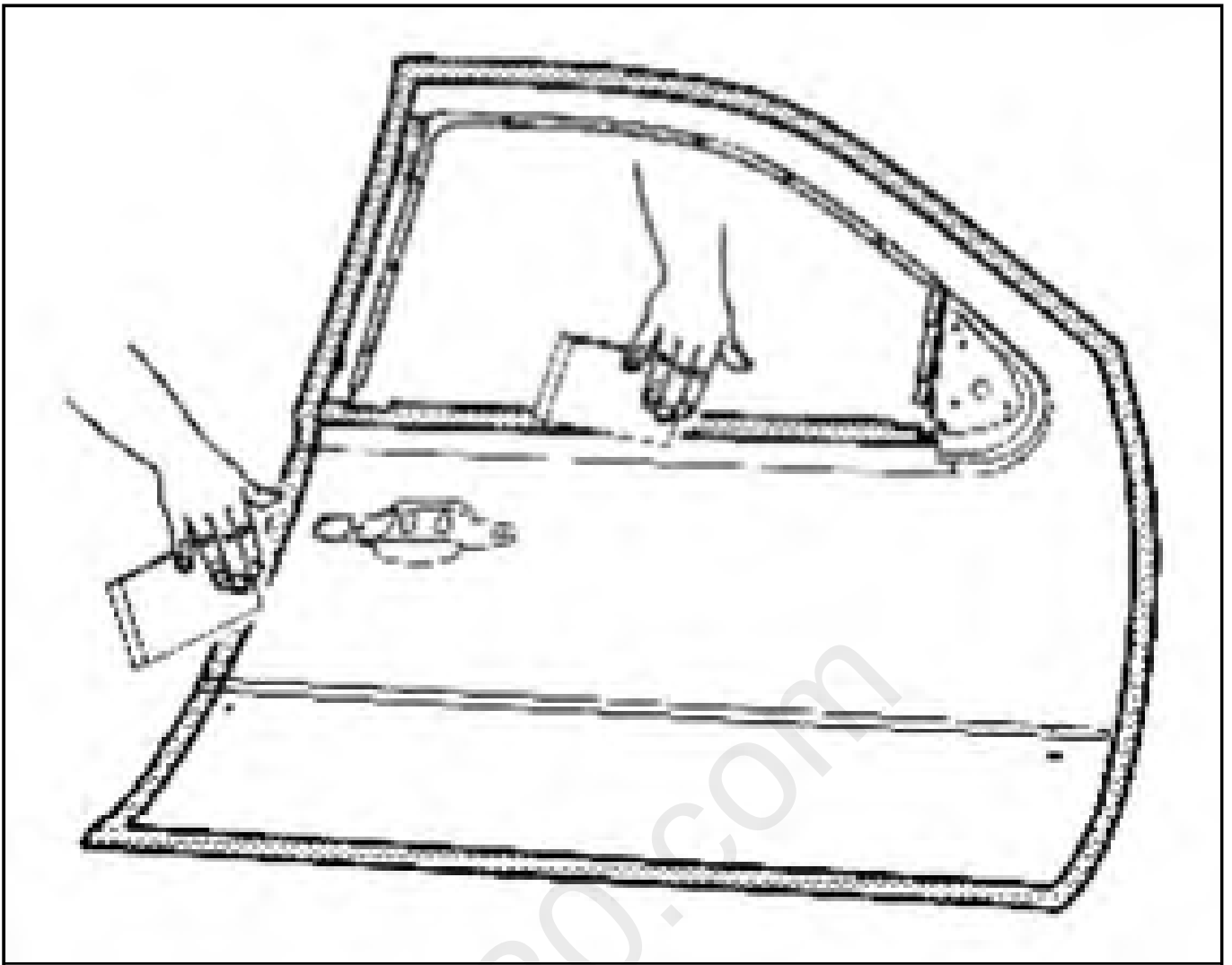
WARNING:

Inspection of the door guard beam for damage must be performed before replacement of the door outer panel. If damage to the door guard beam is found the door must be replaced. Failure to do so may compromise the structural integrity of the vehicle and may cause personal injury if the vehicle is involved in a collision.

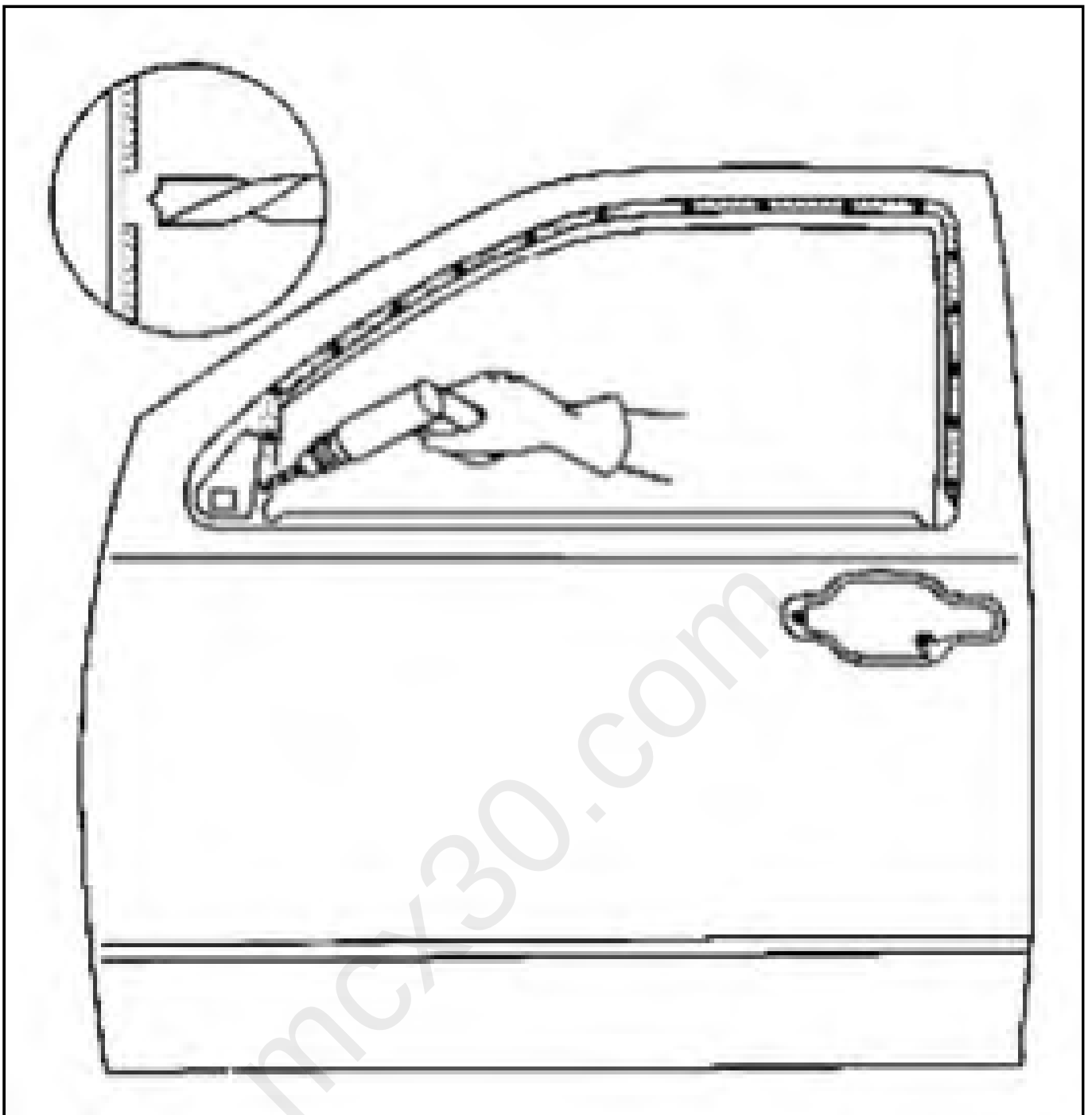
8. Remove the outer door panel.
9. Remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
10. Straighten the edges of the door shell.

Installation Procedure

1. Using a grinding disk grind the surface of the door shell mating flanges to bare steel.



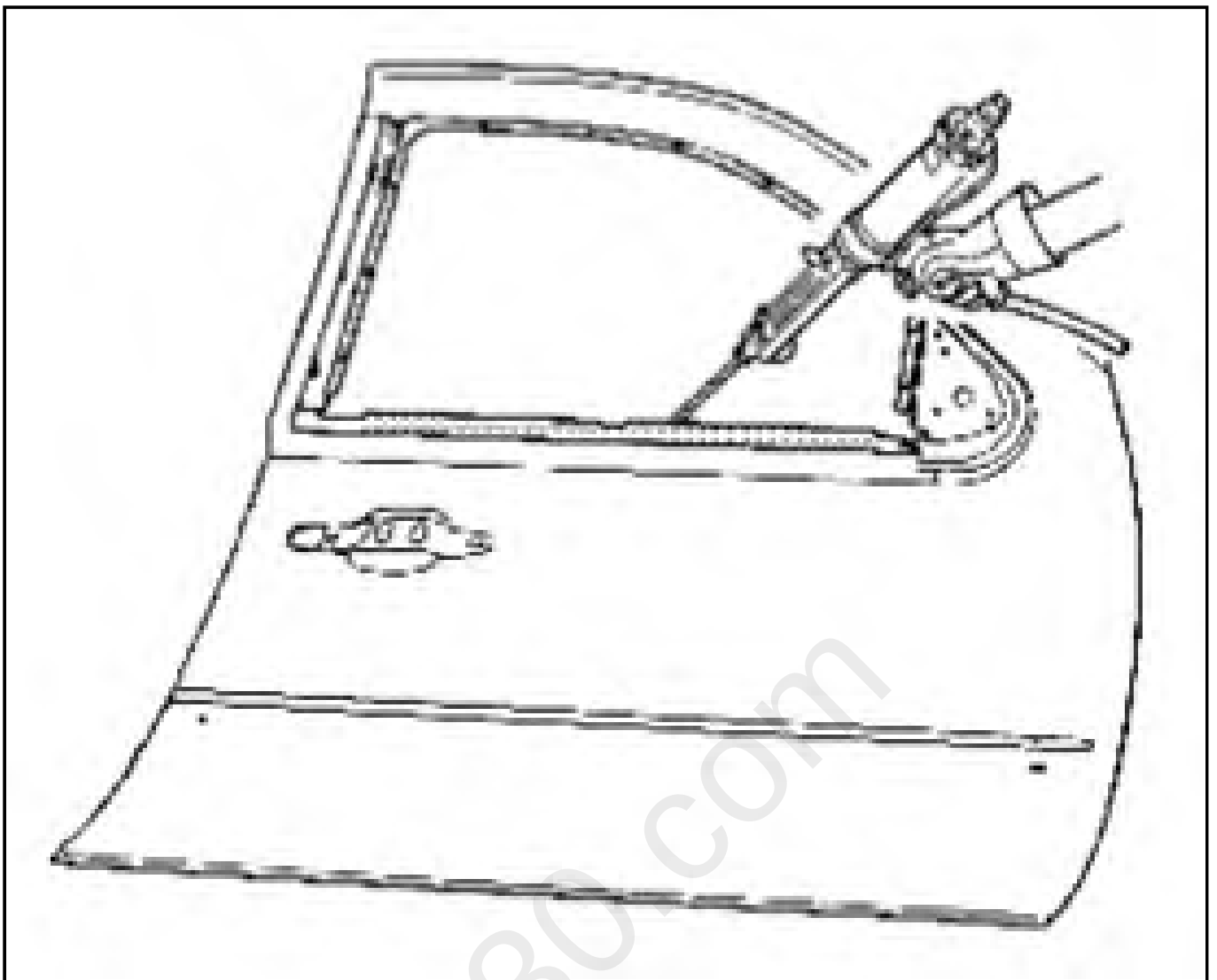
2. Scuff the opposing mating surfaces of the door outer panel to remove the gloss of the E-Coat.



3. Drill 8 mm (5/16 in) plug weld holes, as necessary, in the locations noted from the original panel.

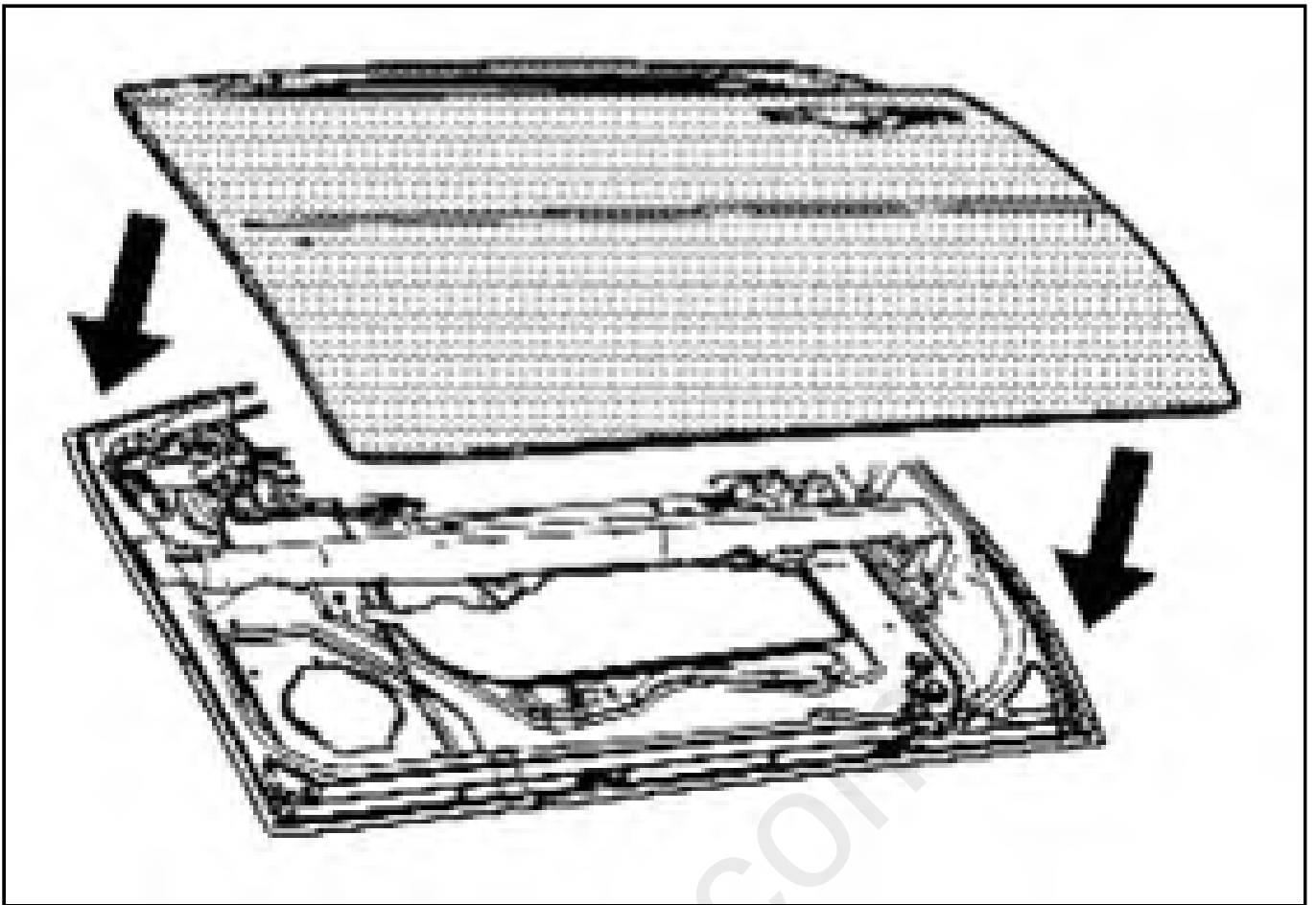
NOTE: In any area damaged beyond recognition, space plug weld holes every 40 mm (1 in) apart.

4. Clean the mating surfaces.



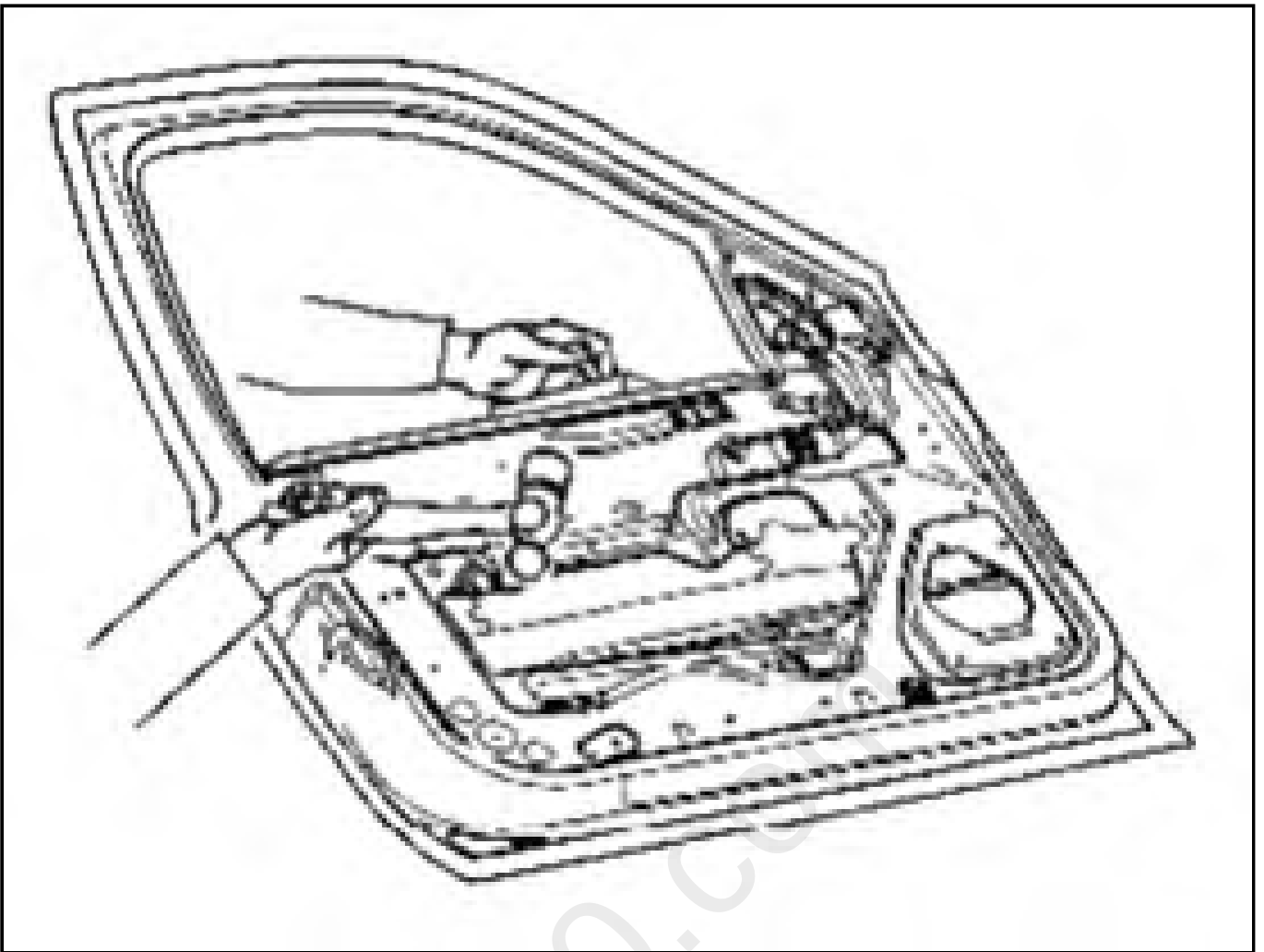
NOTE: Do not allow the door to totally cure off the vehicle, as proper alignment of the door outer panel to the door shell will be difficult.

5. Apply a 3-6 mm (1/8-1/4 in) bead of metal panel bonding adhesive to both of the mating surfaces.
6. Using a small acid brush, spread a coat of adhesive to cover all the bare metal surfaces to ensure corrosion protection.
7. Apply a 9-13 mm (3/8-1/2 in) bead of metal bonding adhesive to the mating surfaces of the service panel.



NOTE: Do NOT pull the panels apart after being joined together. Slide the panels against each other to realign the panels.

8. Install the door outer panel to the door shell.
9. Clamp the door outer panel into position, as required.

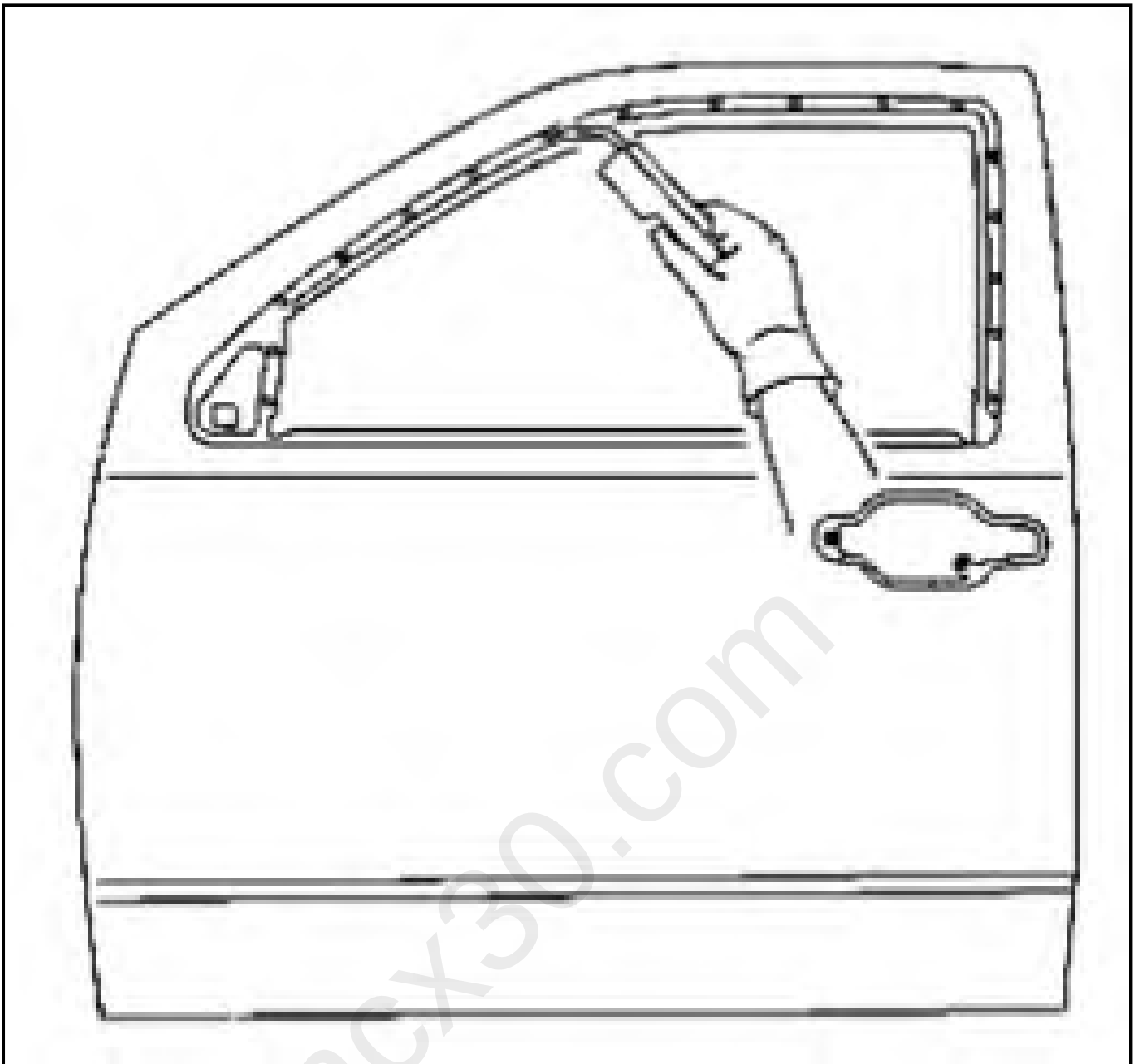


10. Using a hammer re-hem the hem flanges around the door shell.

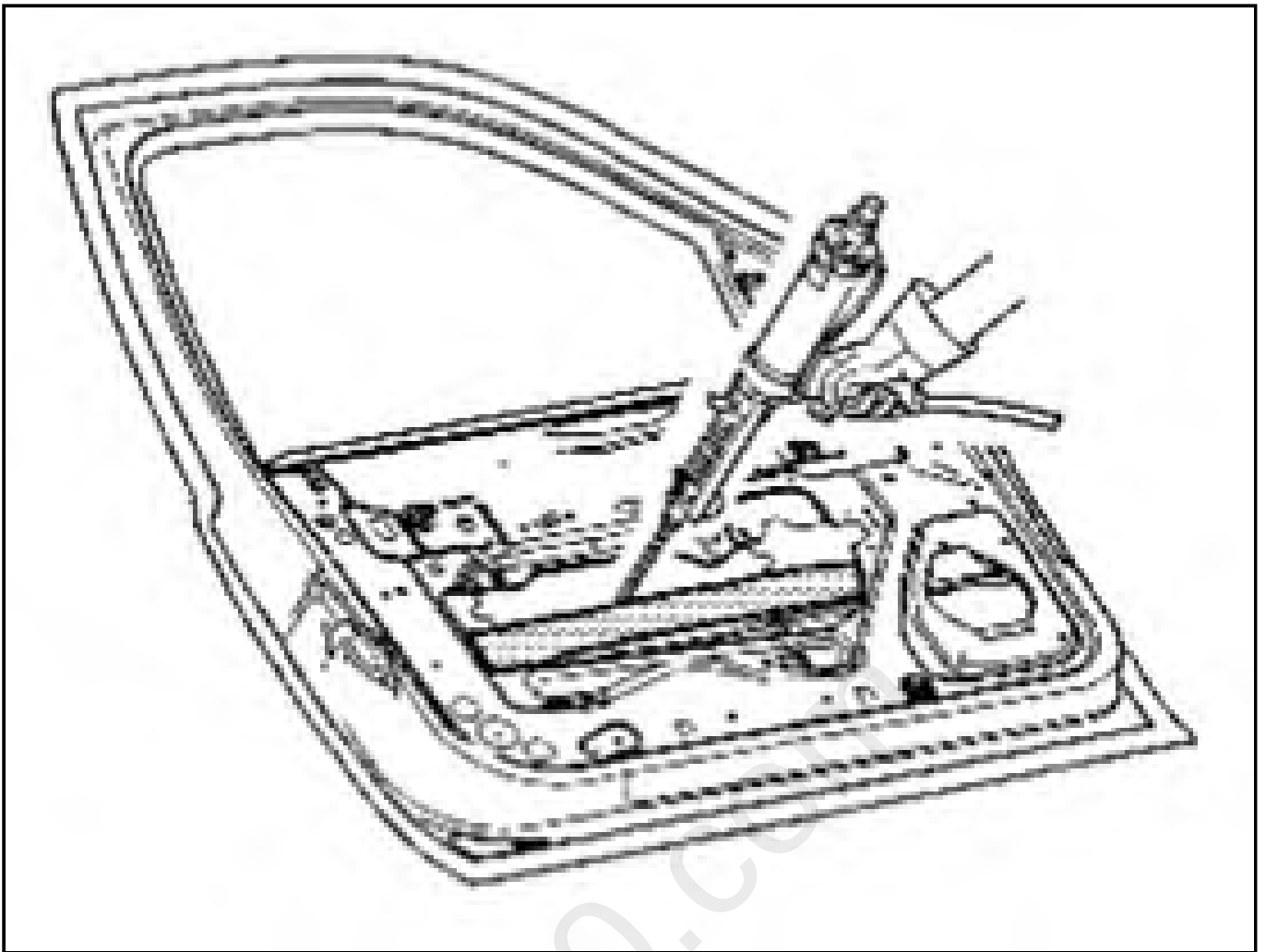
Continue to hammer in stages along the hem flanges.

11. Using lacquer thinner remove the excess adhesive from the door panel area.

12. Install the door to the vehicle. Inspect the door outer panel for proper alignment; then adjust the alignment, as required. Refer to [Front Side Door Replacement](#) .



13. Using metal-inert gas (MIG), weld the door outer panel to the door frame in the locations noted at the upper door frame.
14. Clean and prepare all welded surfaces.



15. Apply Fusor super flexible anti-flutter foam-fast set, Fusor P/N 121/124, or equivalent, in a continuous bead the entire length between the belt line reinforcement and the door outer panel.
16. Apply Fusor super flexible anti-flutter foam-fast set, Fusor P/N 121/124, or equivalent, in a continuous bead the entire length between the door outer panel and the inner safety beam making multiple passes behind the side impact sensor portion of the beam as required to fill in any gaps.
17. Paint the repaired area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
18. Install all related panels and components.
19. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .
20. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

REAR SIDE DOOR OUTER PANEL REPLACEMENT (EXTENDED CAB)

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

NOTE: Before beginning the repair, refer to [METAL PANEL BONDING](#) for proper adhesive applicator preparations and general information.

1. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
2. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .
5. Remove the side door assembly. Refer to [Rear Side Door Replacement \(Crew Cab\)](#) , [Rear Side Door Replacement \(Extended Cab\)](#) .

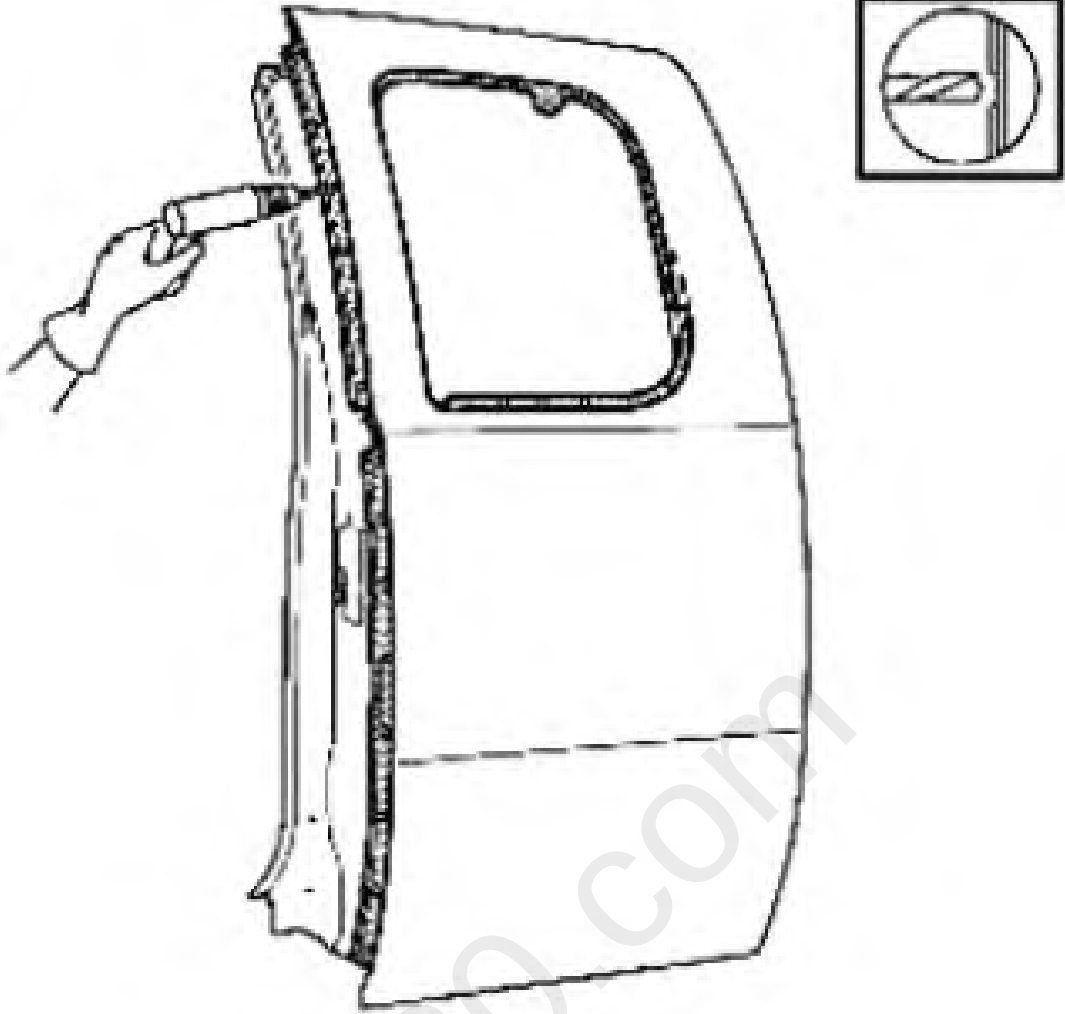
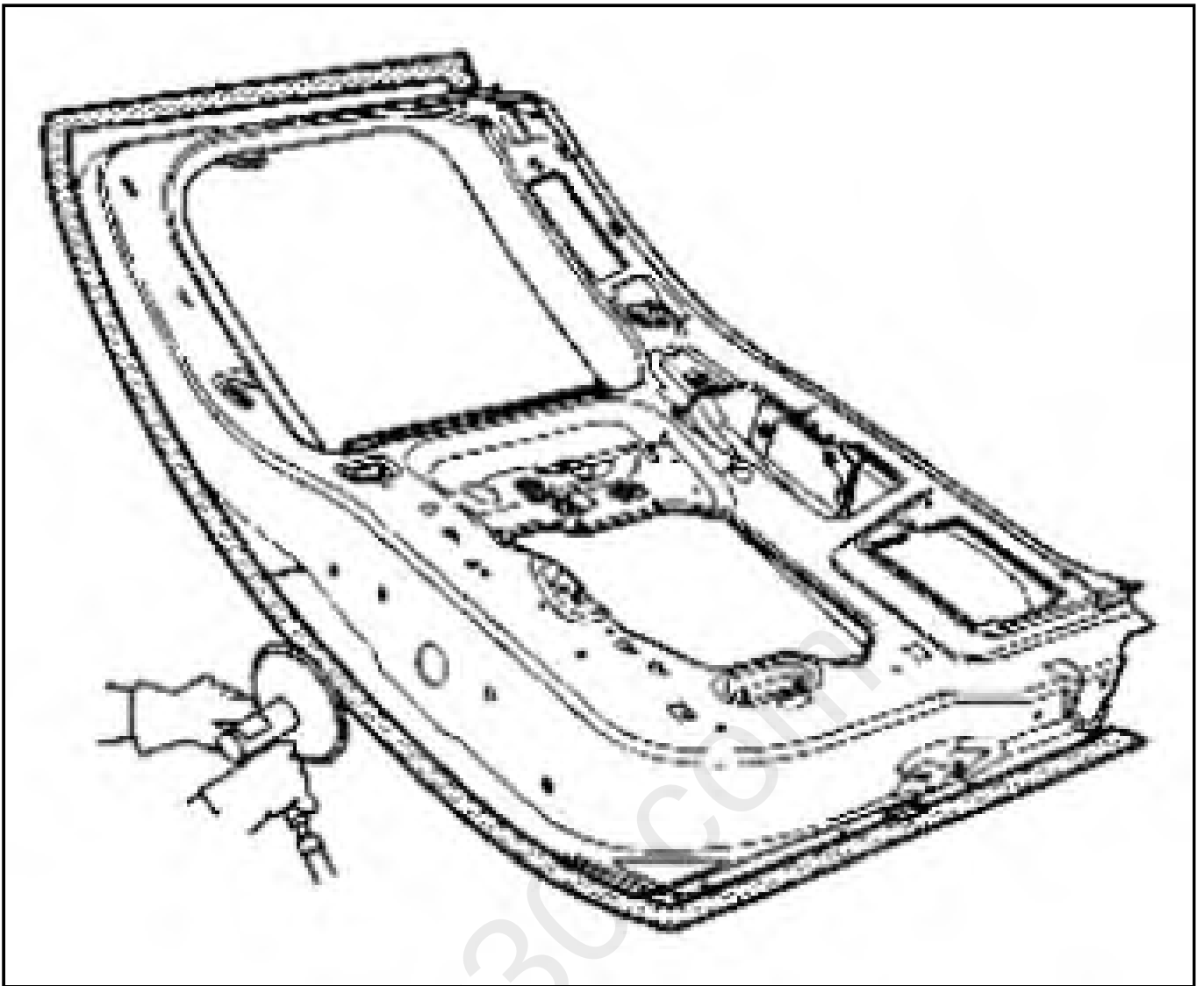


Fig. 15: Rear Side Door Outer Panel Component Location (Extended Cab)

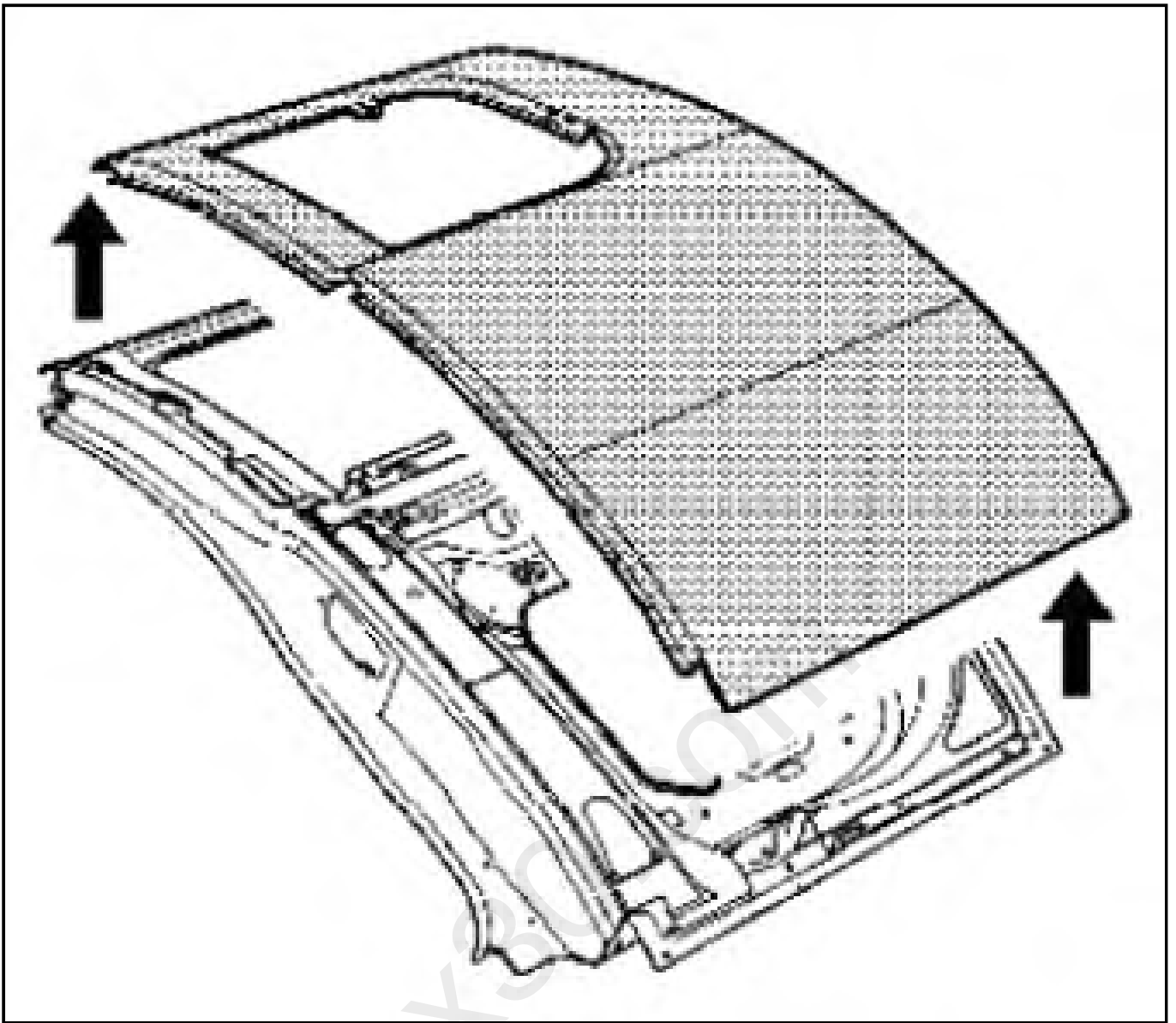
Courtesy of GENERAL MOTORS COMPANY

6. Locate and drill out all factory welds. Note the number and location of welds for the installation of the service panel.



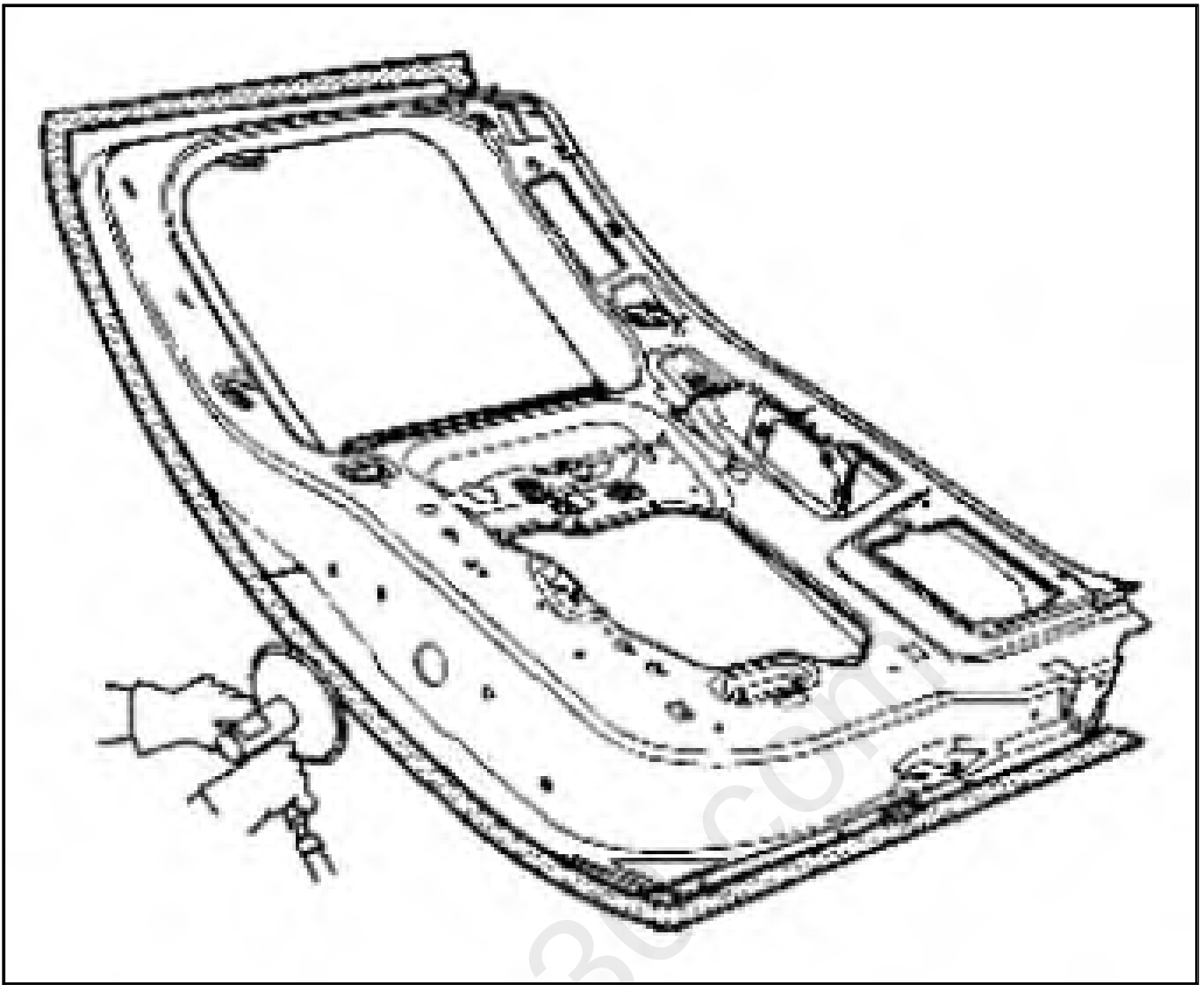
NOTE: Remove the hem flange at the upper belt reinforcement.

7. Grind the edges of the door outer panel to separate the outer door panel from the door shell.

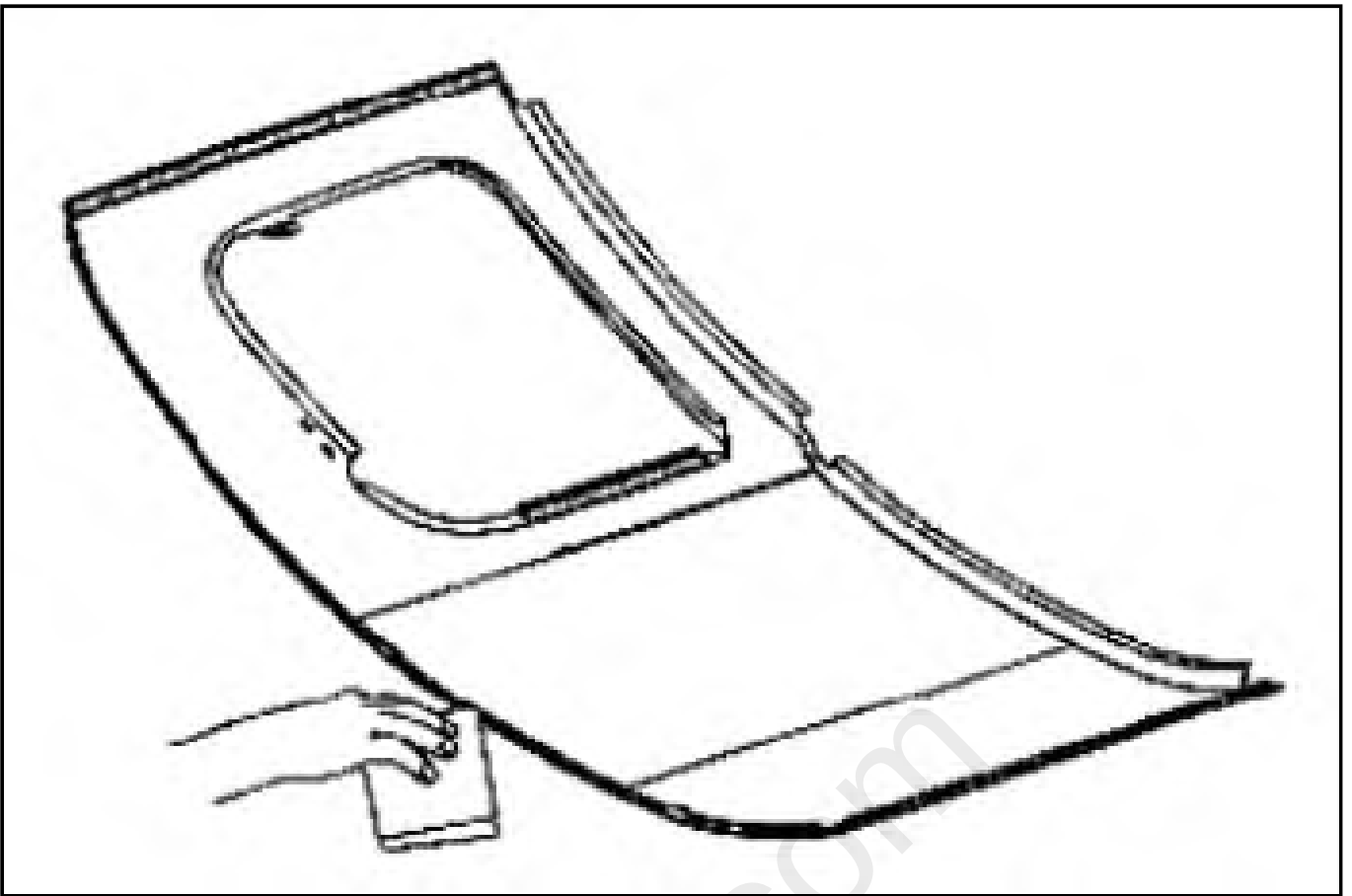


8. Remove the outer door panel.
9. Remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
10. Straighten the edges of the door shell.

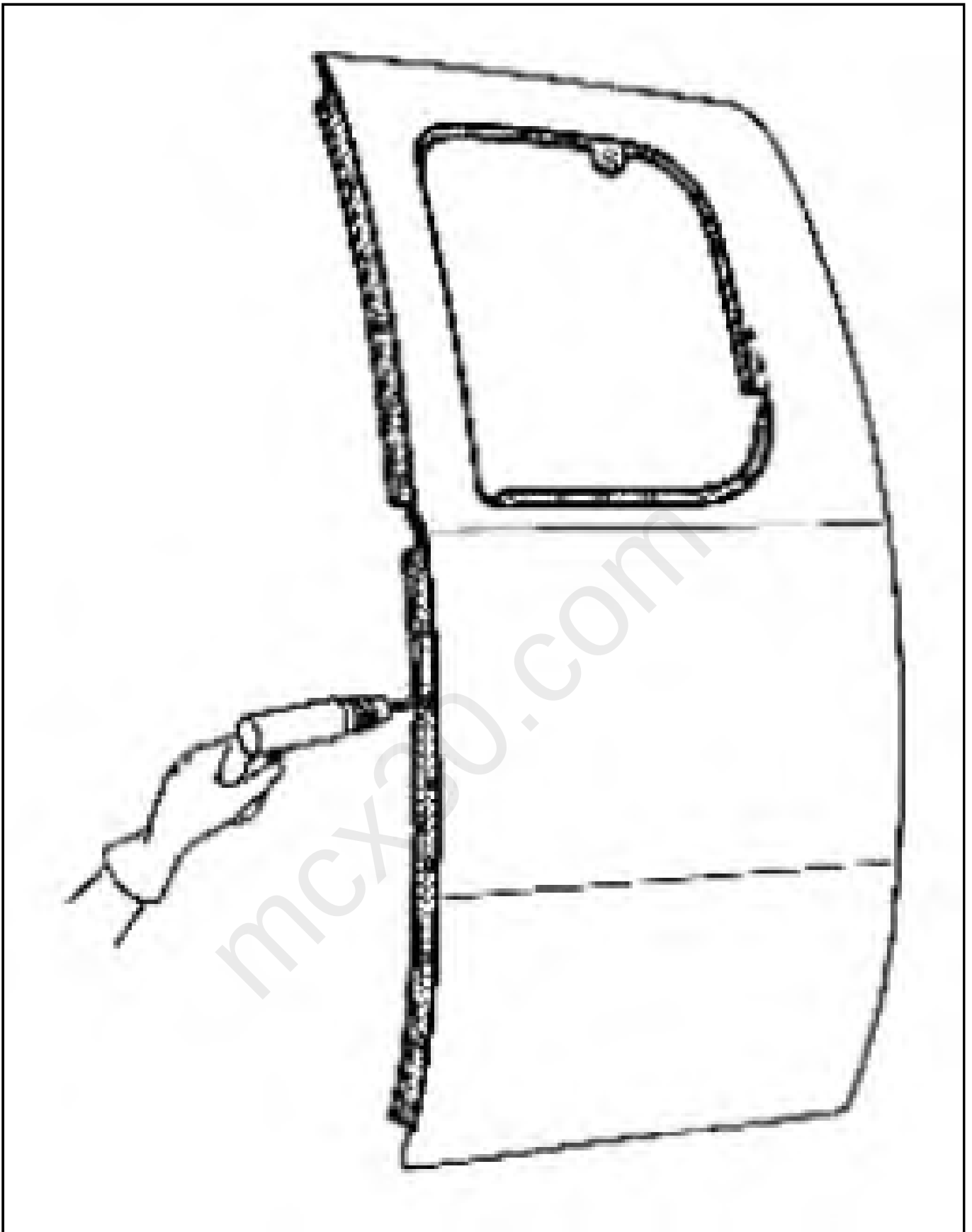
Installation Procedure



1. Using a grinding disk grind the surface of the door shell mating flanges to bare steel.



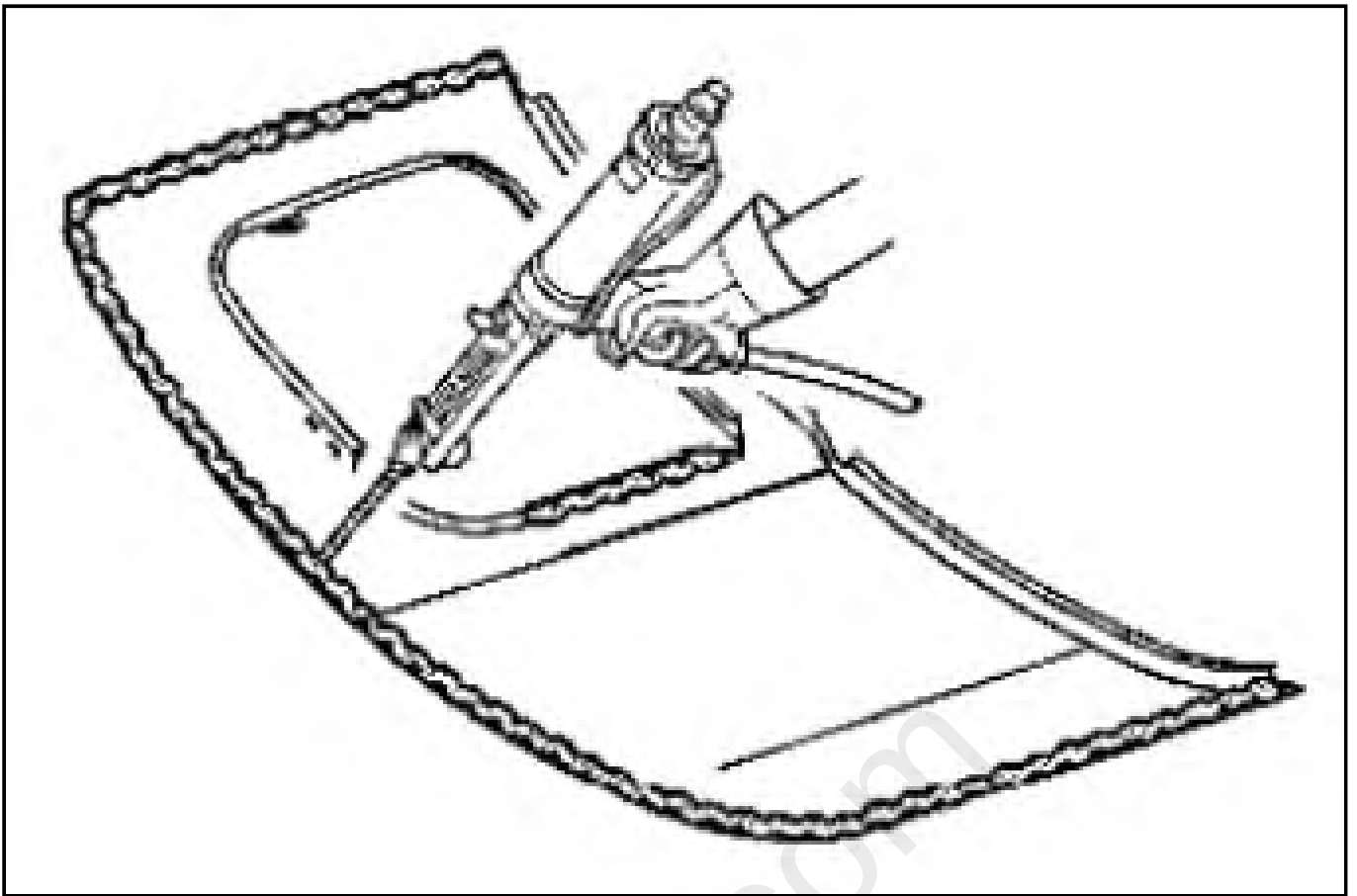
2. Scuff the opposing mating surfaces of the door outer panel to remove the gloss of the E-Coat.



3. Drill 8 mm (5/16 in) plug weld holes, as necessary, in the locations noted from the original panel.

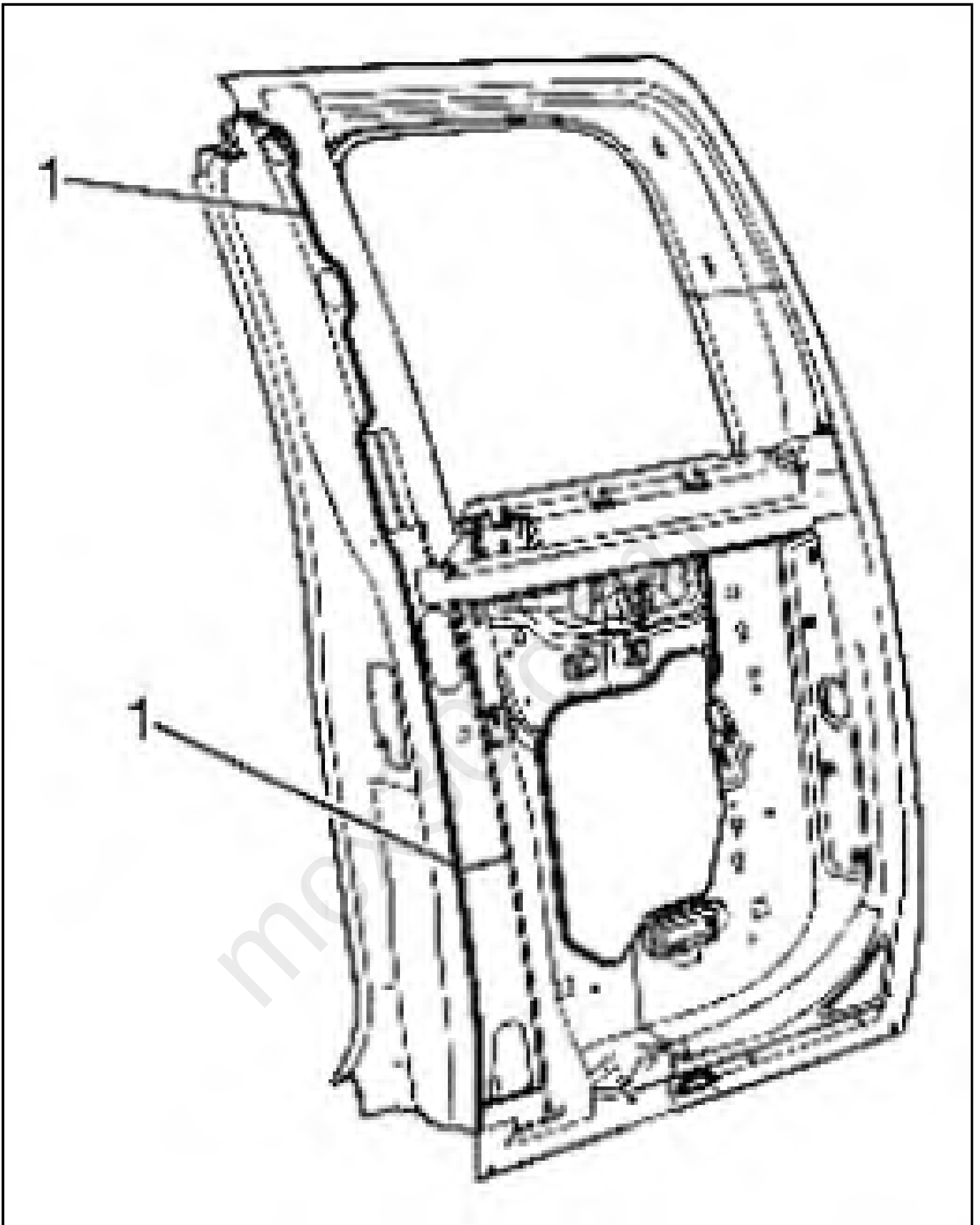
NOTE: In any area damaged beyond recognition, space plug weld holes every 40 mm (1 in) apart.

4. Clean the mating surfaces.

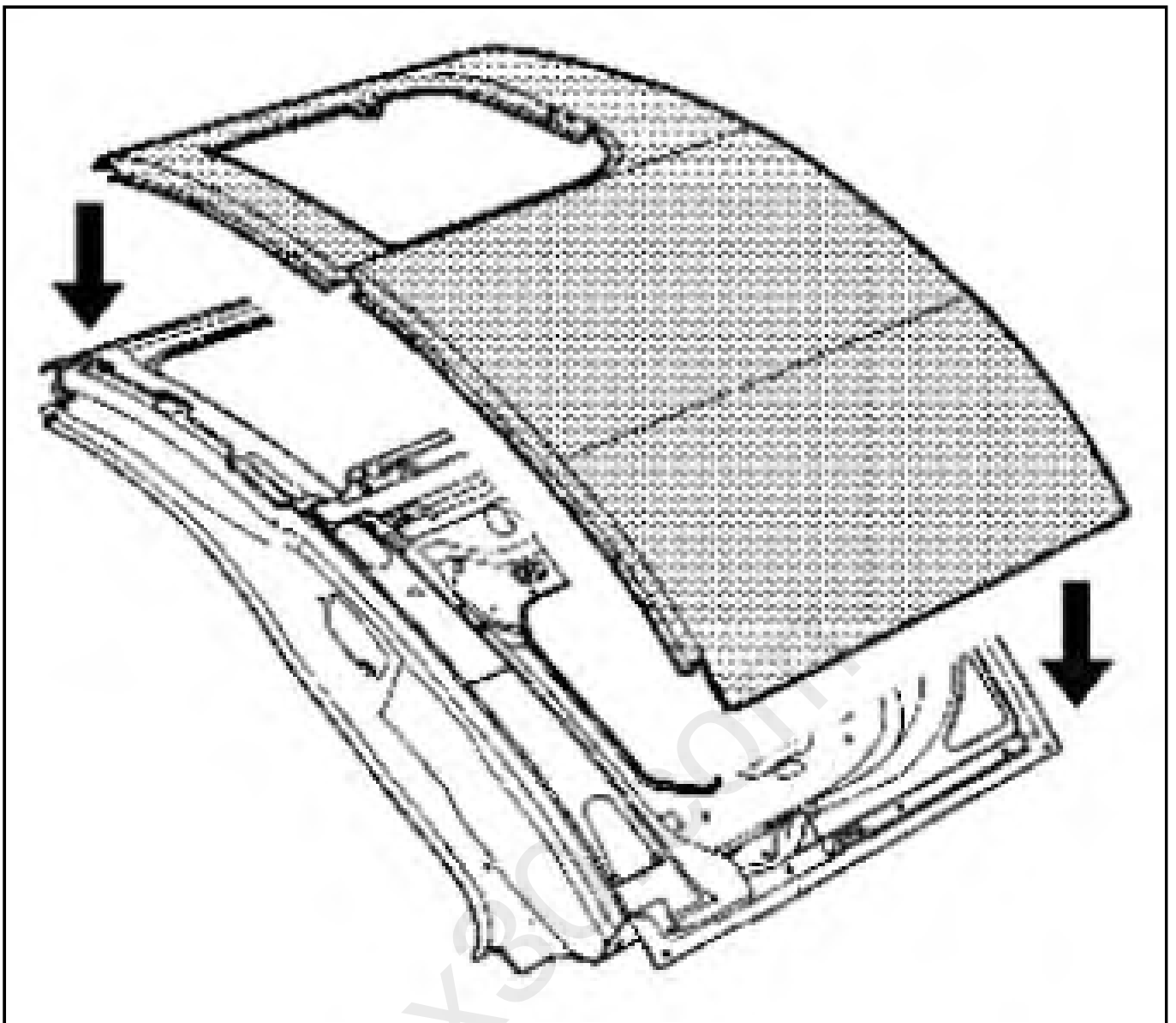


NOTE: Do not allow the door to totally cure off the vehicle, as proper alignment of the door outer panel to the door shell will be difficult.

5. Apply a 3-6 mm (1/8-1/4 in) bead of metal panel bonding adhesive to both of the mating surfaces.
6. Using a small acid brush, spread a coat of adhesive to cover all the bare metal surfaces to ensure corrosion protection.
7. Apply a 9-13 mm (3/8-1/2 in) bead of metal bonding adhesive to the mating surfaces of the service panel.

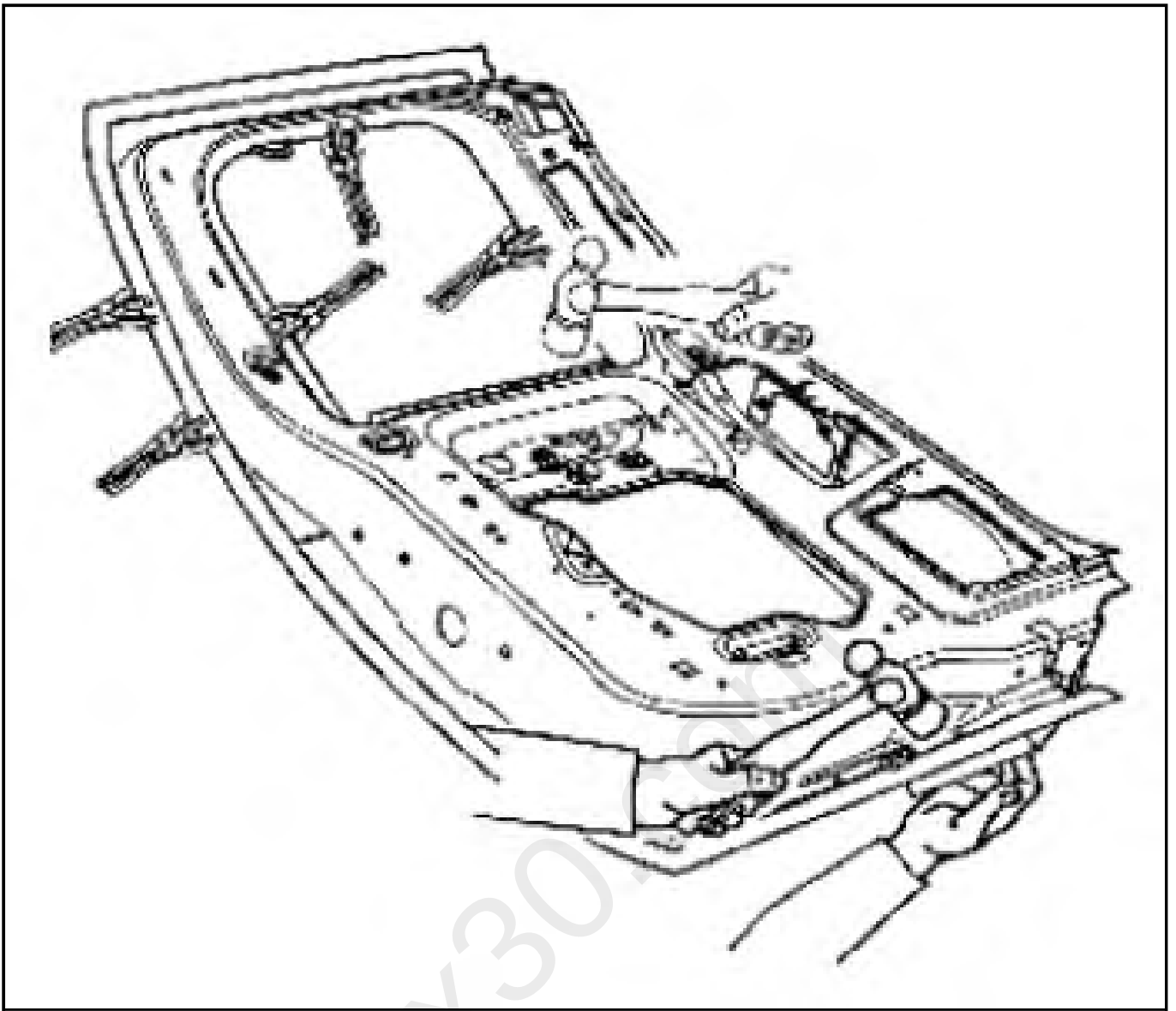


8. Apply a 3-6 mm (1/8-1/4 in) bead of metal bonding adhesive along the front portion of the door shell (1).



NOTE: Do NOT pull the panels apart after being joined together. Slide the panels against each other to realign the panels.

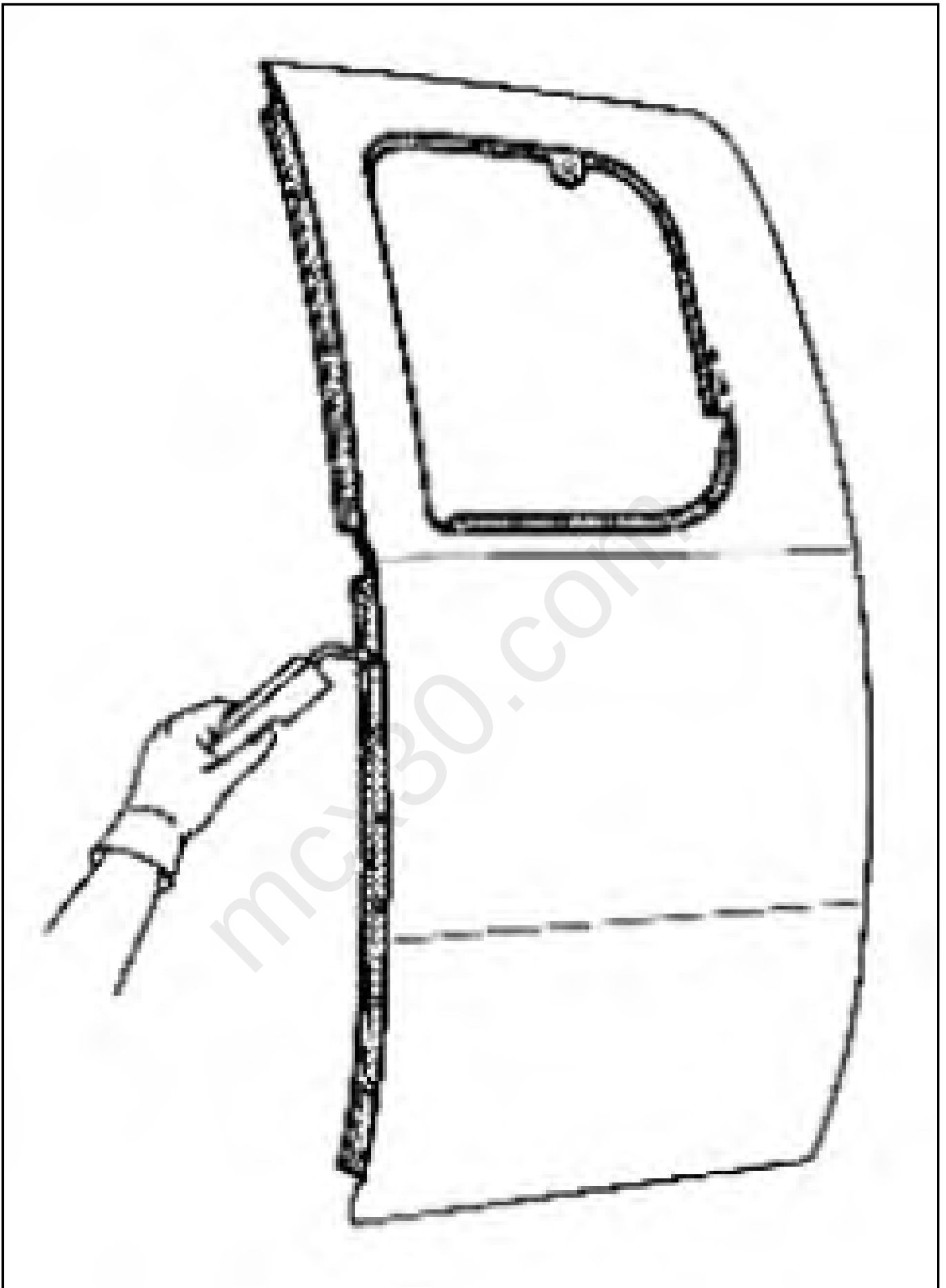
9. Install the door outer panel to the door shell.
10. Clamp the door outer panel into position, as required.



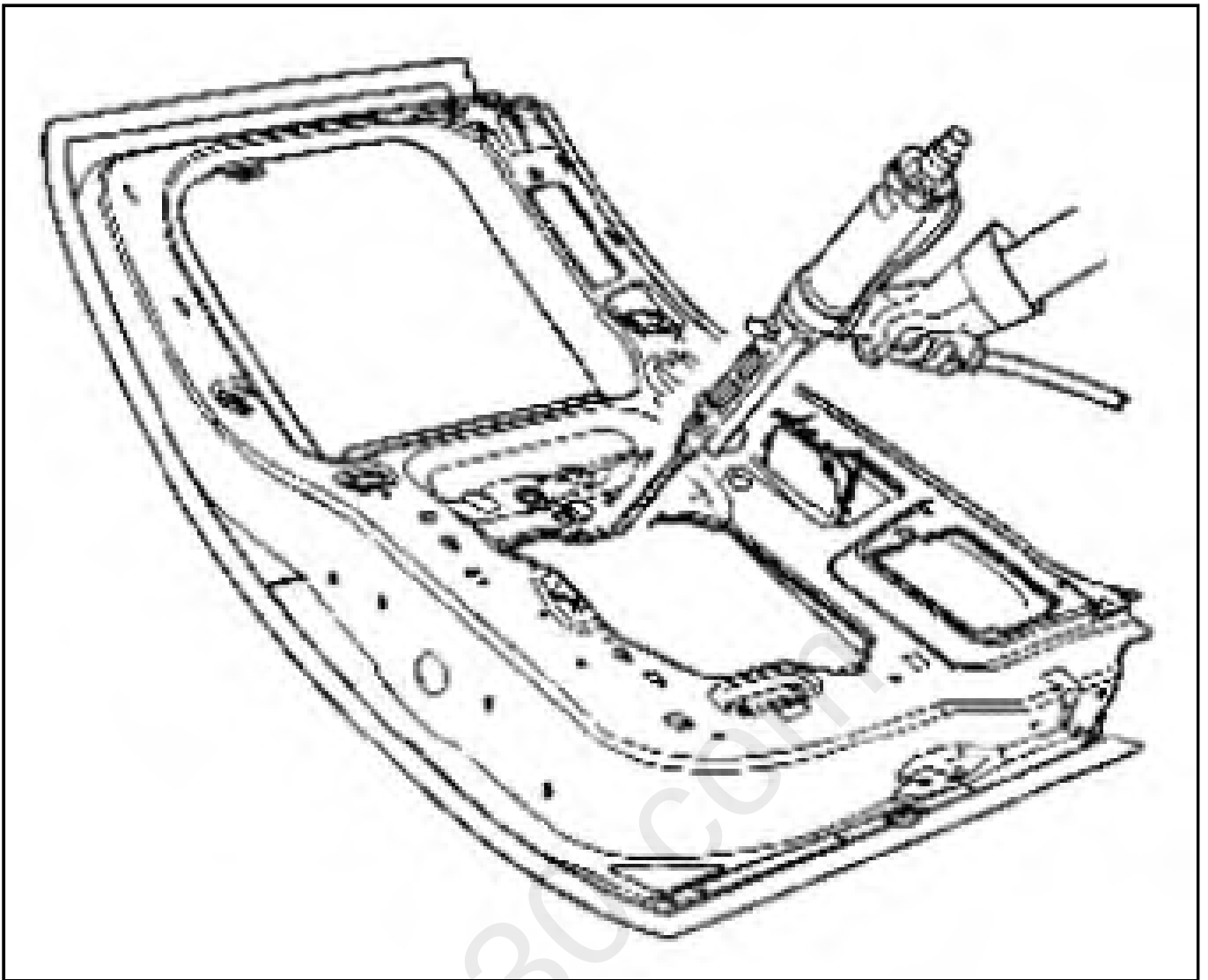
11. Using a hammer re-hem the hem flanges around the door shell.

Continue to hammer in stages along the hem flanges.

12. Remove the excess adhesive from the door panel area.
13. Install the side door to the vehicle. Inspect the door outer panel for proper alignment; then adjust the alignment, as required. Refer to [Rear Side Door Replacement \(Crew Cab\)](#) , [Rear Side Door Replacement \(Extended Cab\)](#) .



14. Using metal-inert gas (MIG), weld the door outer panel to the door frame in the locations noted at the upper door frame.
15. Clean and prepare all welded surfaces.



16. Apply Fusor super flexible anti-flutter foam-fast set, Fusor P/N 121/124, or equivalent, in a continuous bead the entire length between the belt line reinforcement and the door outer panel.
17. Apply Fusor super flexible anti-flutter foam-fast set, Fusor P/N 121/124, or equivalent, in a continuous bead the entire length between the door outer panel and the inner safety beam making multiple passes behind the side impact sensor portion of the beam as required to fill in any gaps.
18. Paint the repaired area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
19. Install all related panels and components.
20. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .
21. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

REAR SIDE DOOR OUTER PANEL REPLACEMENT (CREW CAB)

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

NOTE: Before beginning the repair, refer to [METAL PANEL BONDING](#) for proper adhesive applicator preparations and general information.

1. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
2. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .

5. Remove the side door assembly. Refer to [Rear Side Door Replacement \(Crew Cab\)](#) [Rear Side Door Replacement \(Extended Cab\)](#) .

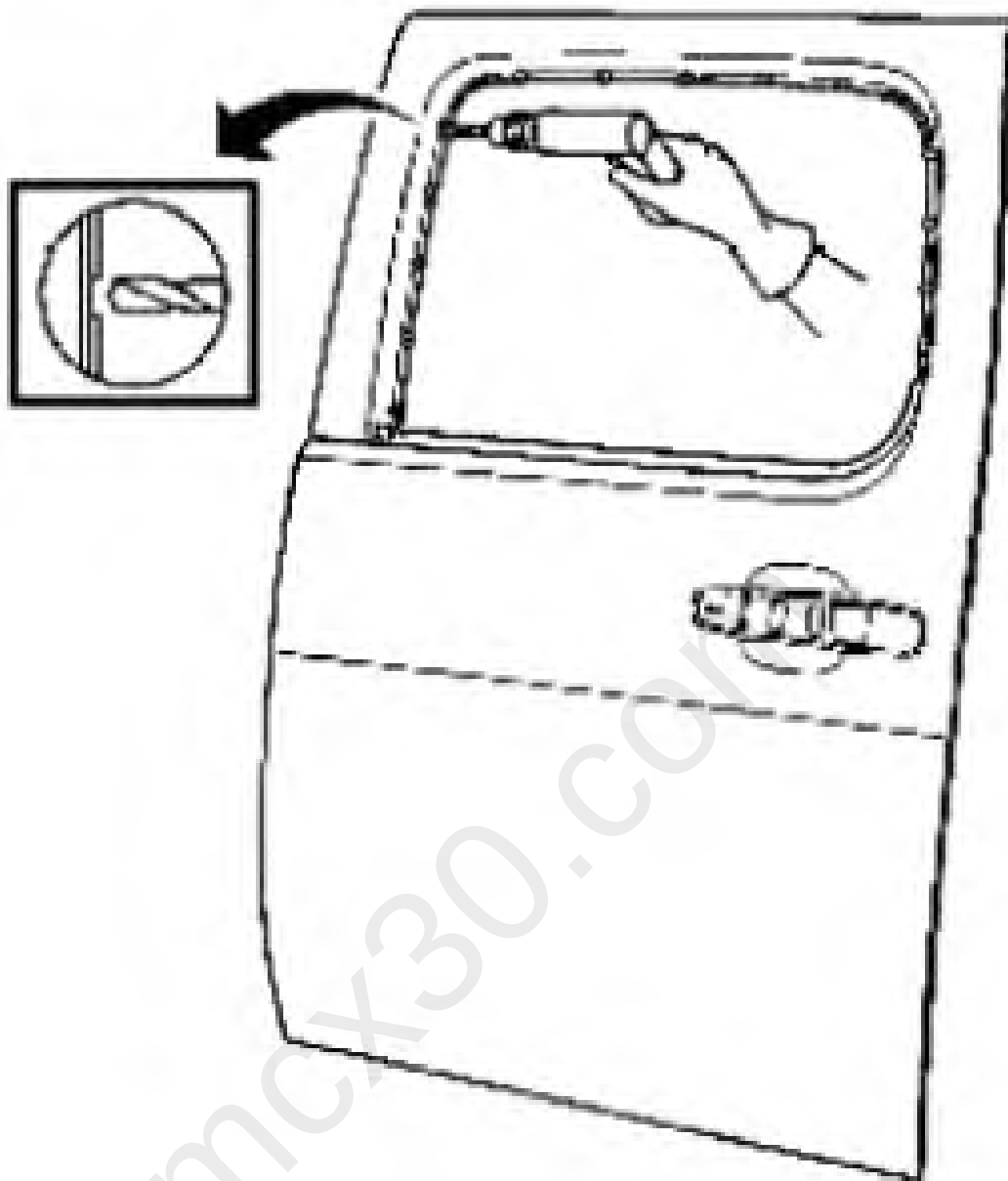
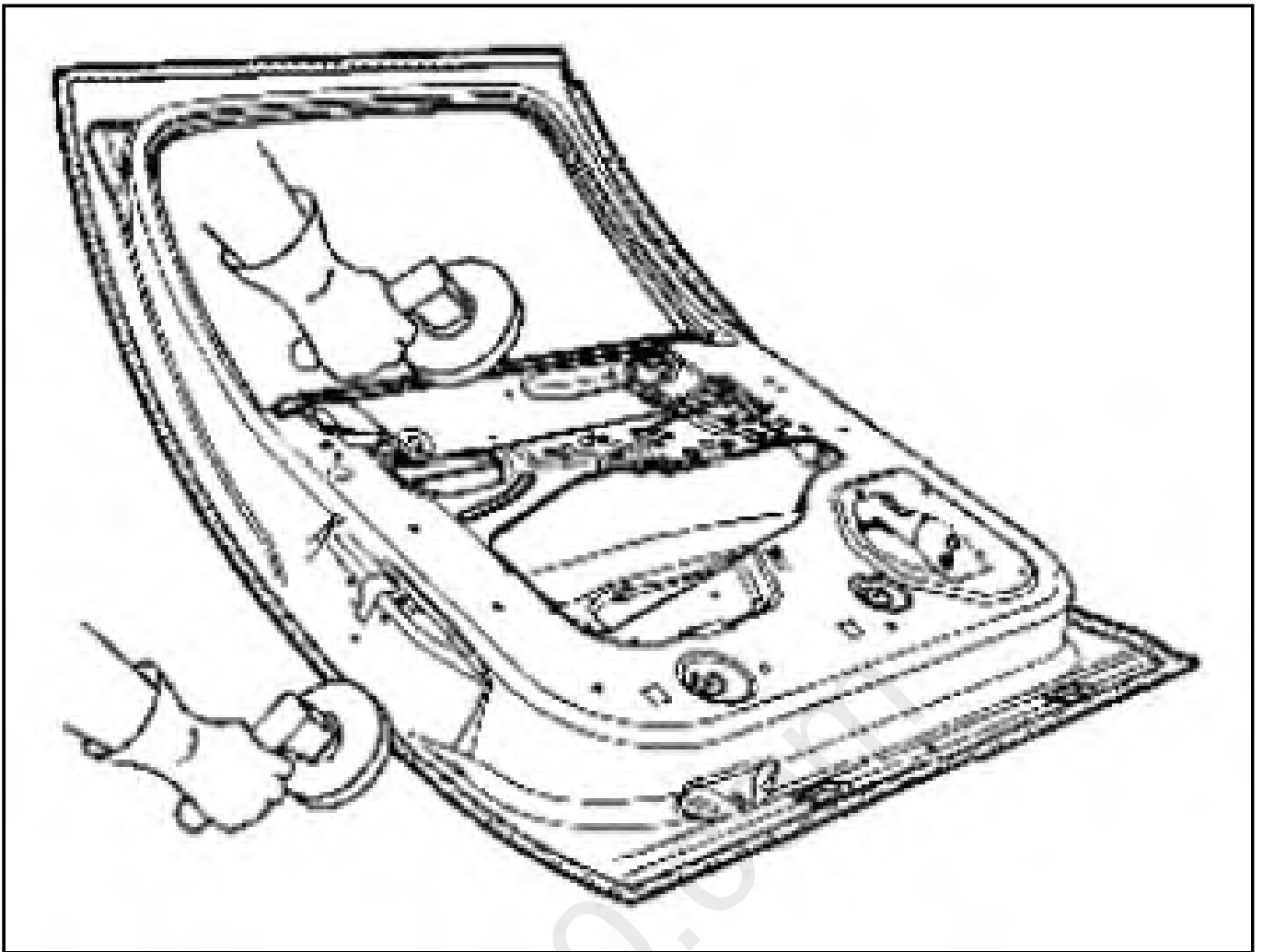


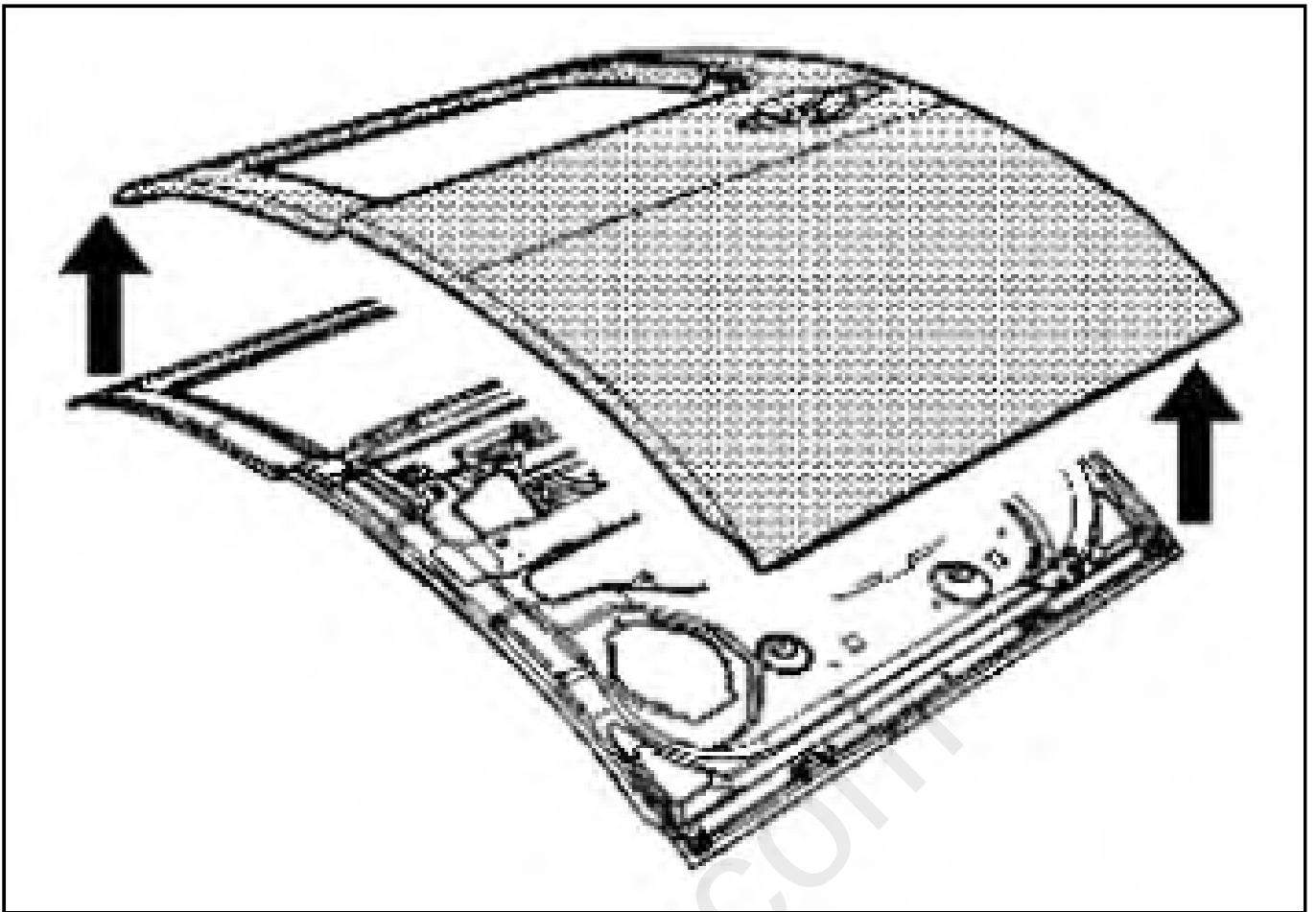
Fig. 16: Rear Side Door Outer Panel Component Location (Crew Cab)
Courtesy of GENERAL MOTORS COMPANY

6. Locate and drill out all factory welds. Note the number and location of welds for the installation of the service panel.



NOTE: Remove the hem flange at the upper belt reinforcement.

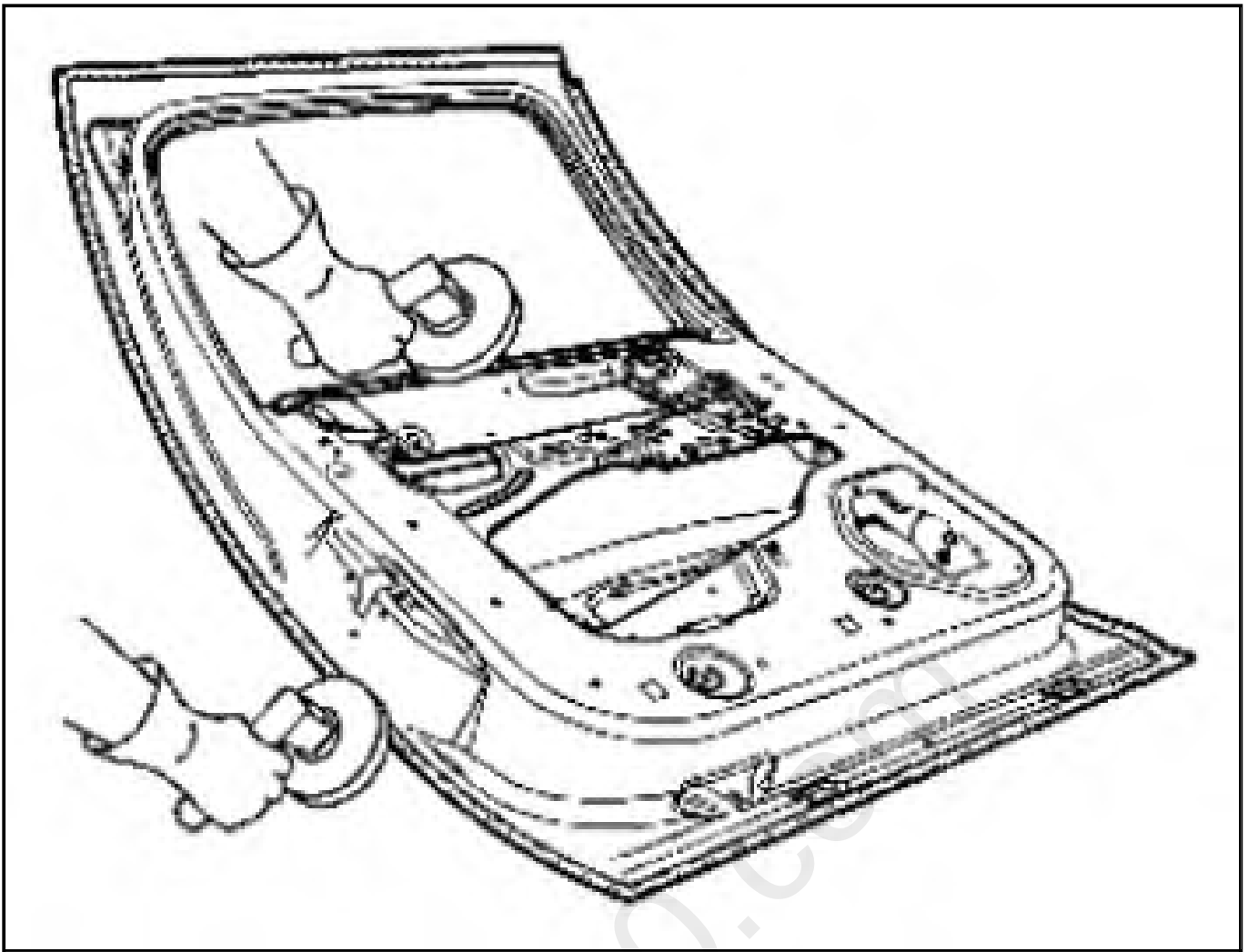
7. Grind the edges of the door outer panel to separate the outer door panel from the door shell.



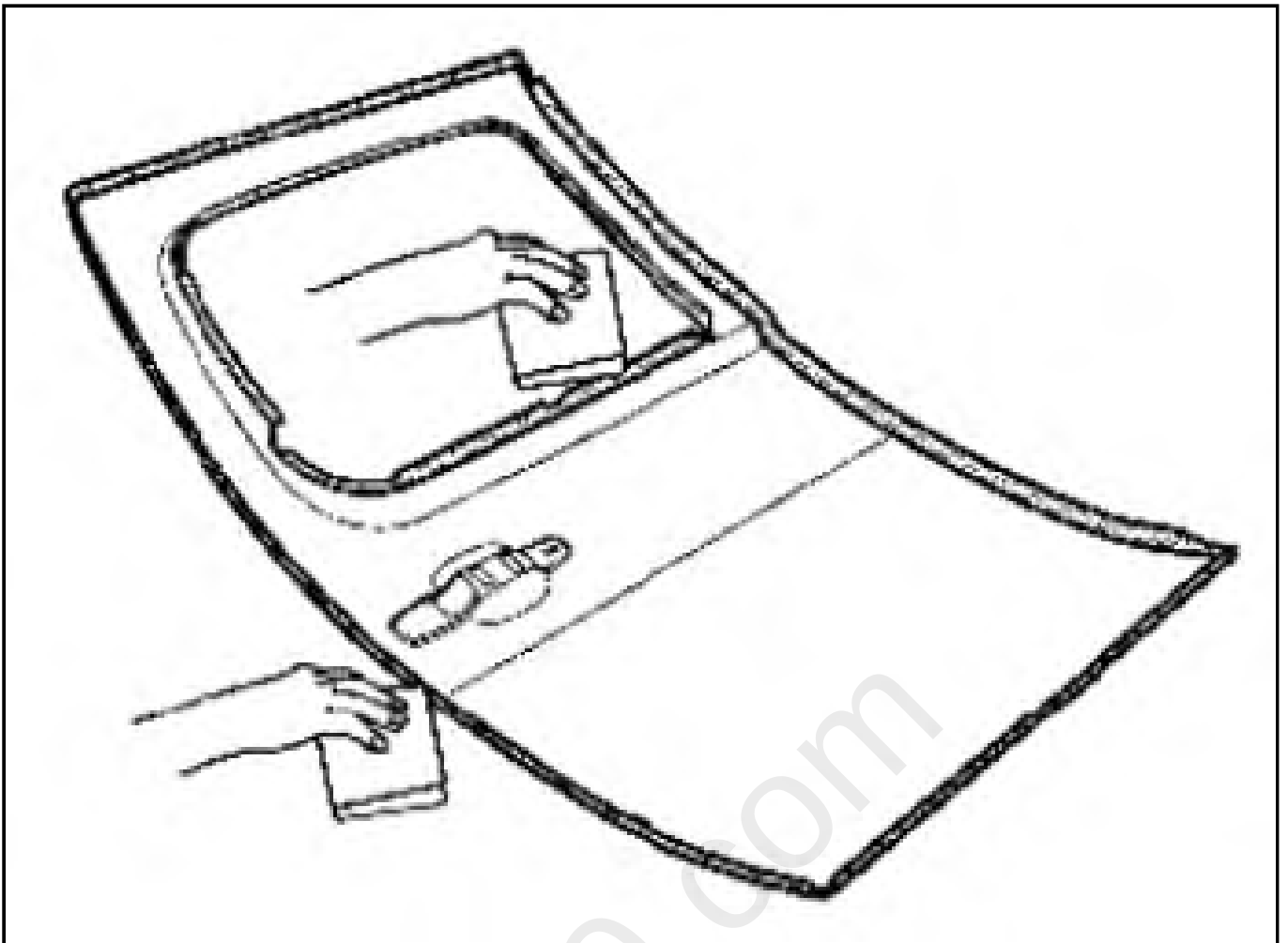
WARNING: Inspection of the door guard beam for damage must be performed before replacement of the door outer panel. If damage to the door guard beam is found the door must be replaced. Failure to do so may compromise the structural integrity of the vehicle and may cause personal injury if the vehicle is involved in a collision.

8. Remove the outer door panel.
9. Remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
10. Straighten the edges of the door shell.

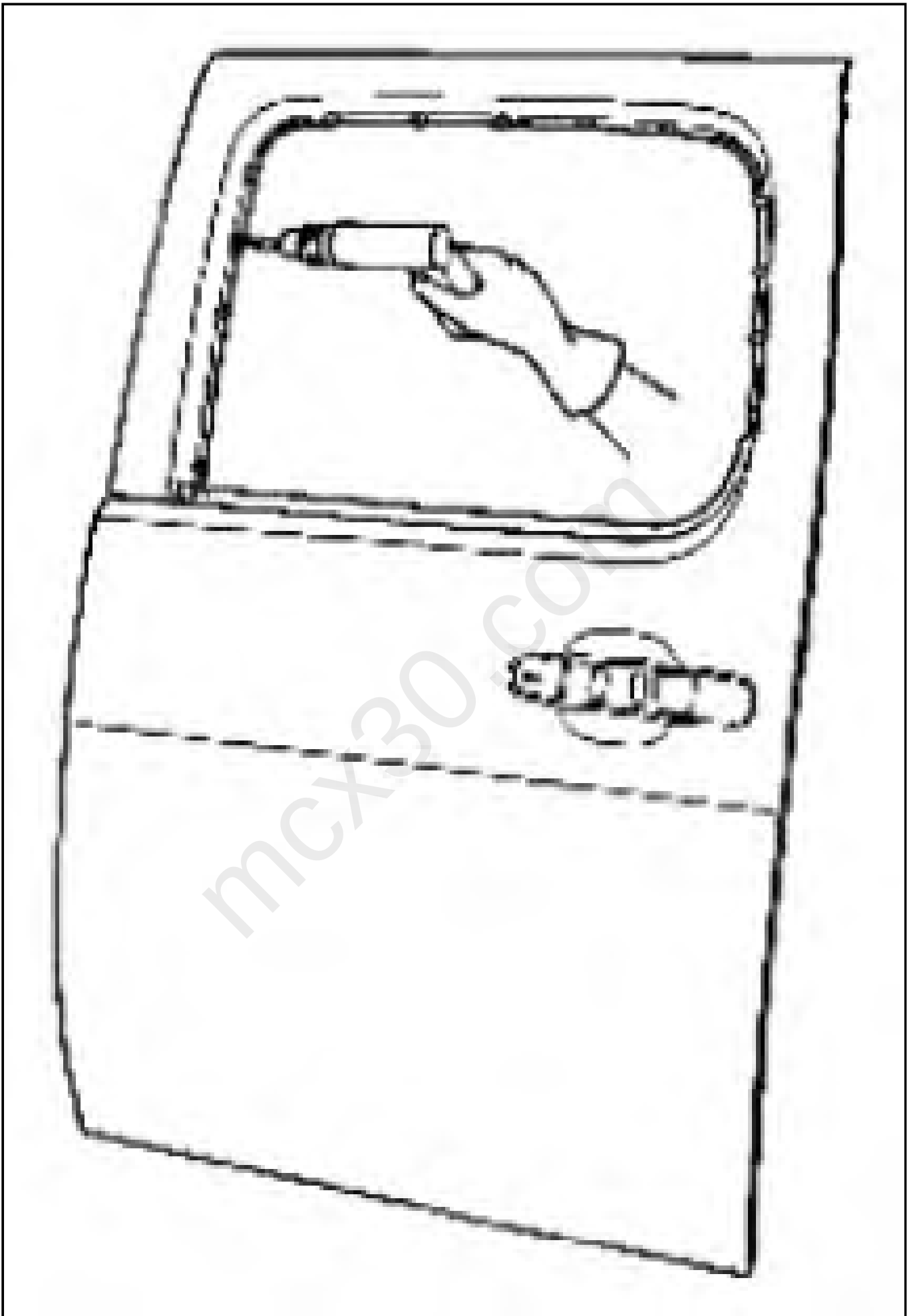
Installation Procedure



1. Using a grinding disk grind the surface of the door shell mating flanges to bare steel.



2. Scuff the opposing mating surfaces of the door outer panel to remove the gloss of the E-Coat.



3. Drill 8 mm (5/16 in) plug weld holes, as necessary, in the locations noted from the original panel.

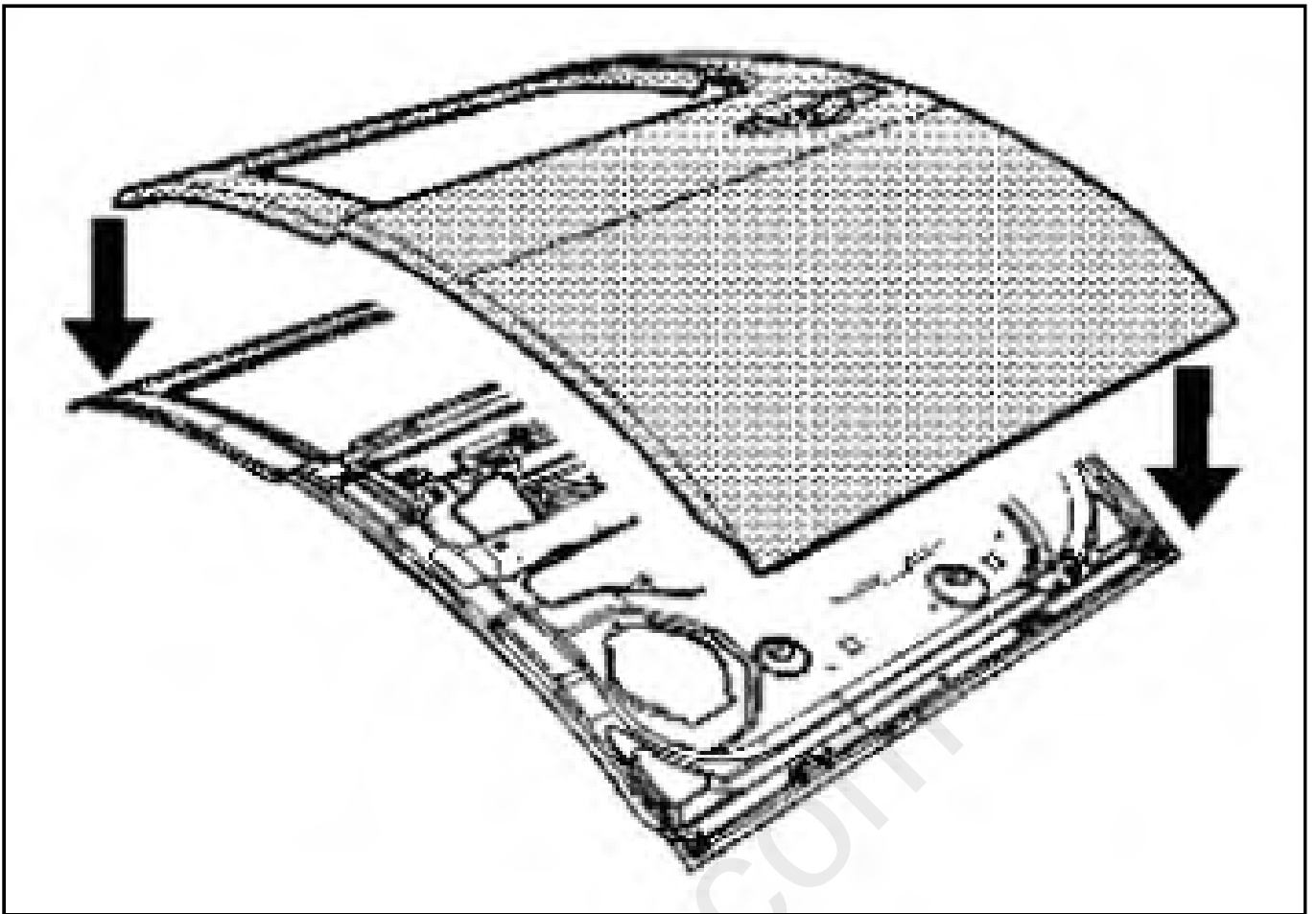
NOTE: In any area damaged beyond recognition, space plug weld holes every 40 mm (1 in) apart.

4. Clean the mating surfaces.



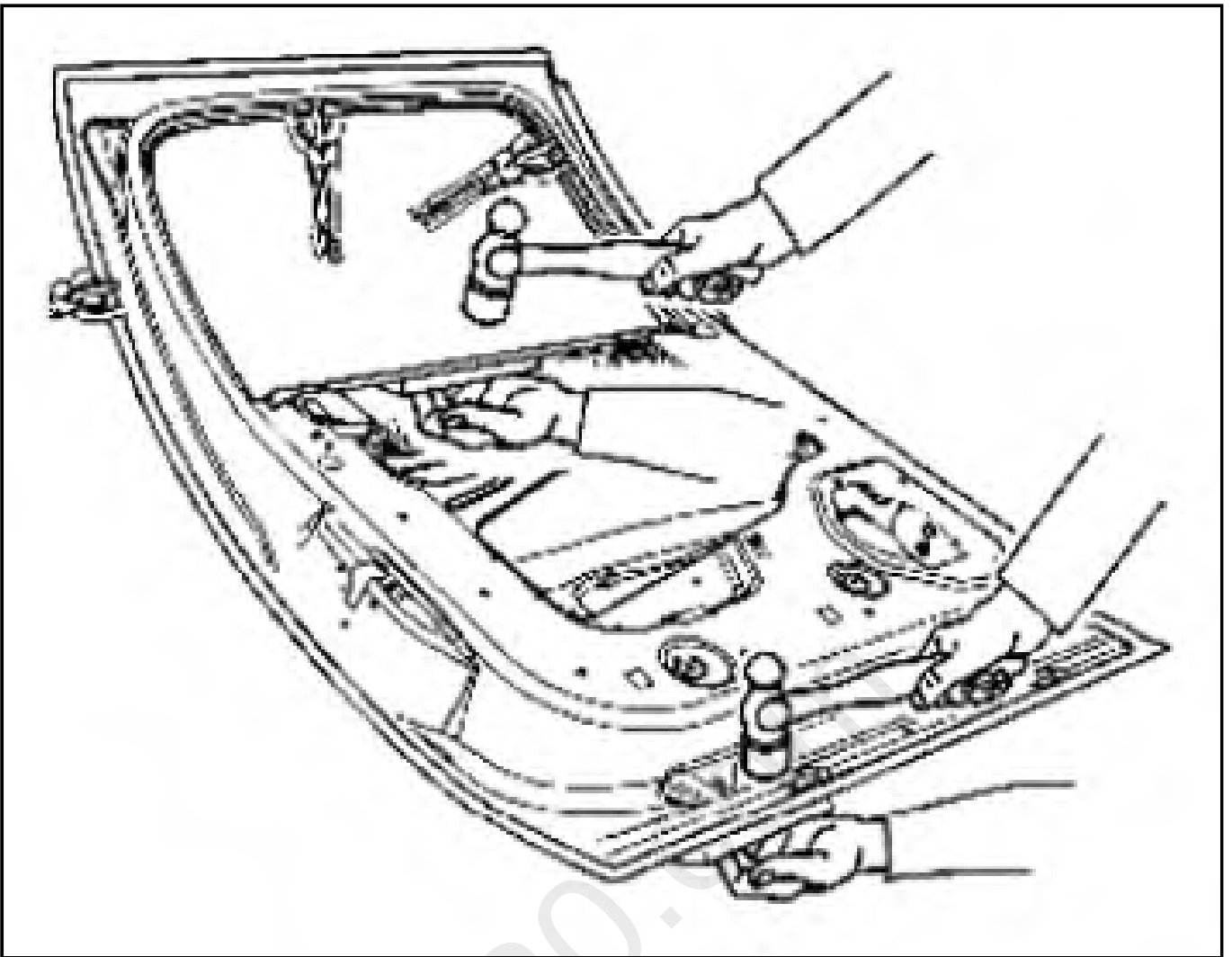
NOTE: Do not allow the door to totally cure off the vehicle, as proper alignment of the door outer panel to the door shell will be difficult.

5. Apply a 3-6 mm (1/8-1/4 in) bead of metal panel bonding adhesive to both of the mating surfaces.
6. Using a small acid brush, spread a coat of adhesive to cover all the bare metal surfaces to ensure corrosion protection.
7. Apply a 9-13 mm (3/8-1/2 in) bead of metal bonding adhesive to the mating surfaces of the service panel.



NOTE: Do NOT pull the panels apart after being joined together. Slide the panels against each other to realign the panels.

8. Install the door outer panel to the door shell.
9. Clamp the door outer panel into position, as required.

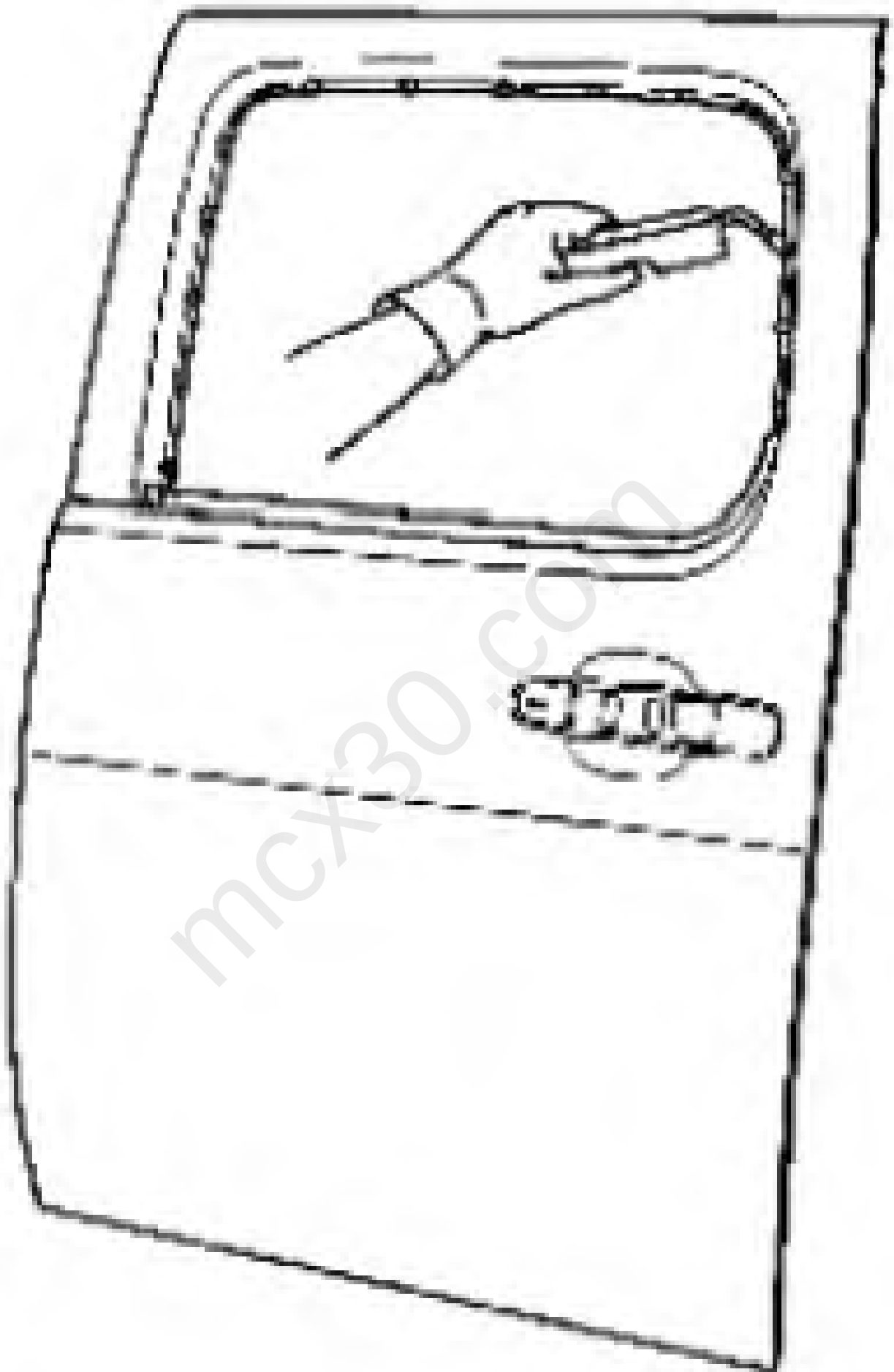


10. Using a hammer re-hem the hem flanges around the door shell.

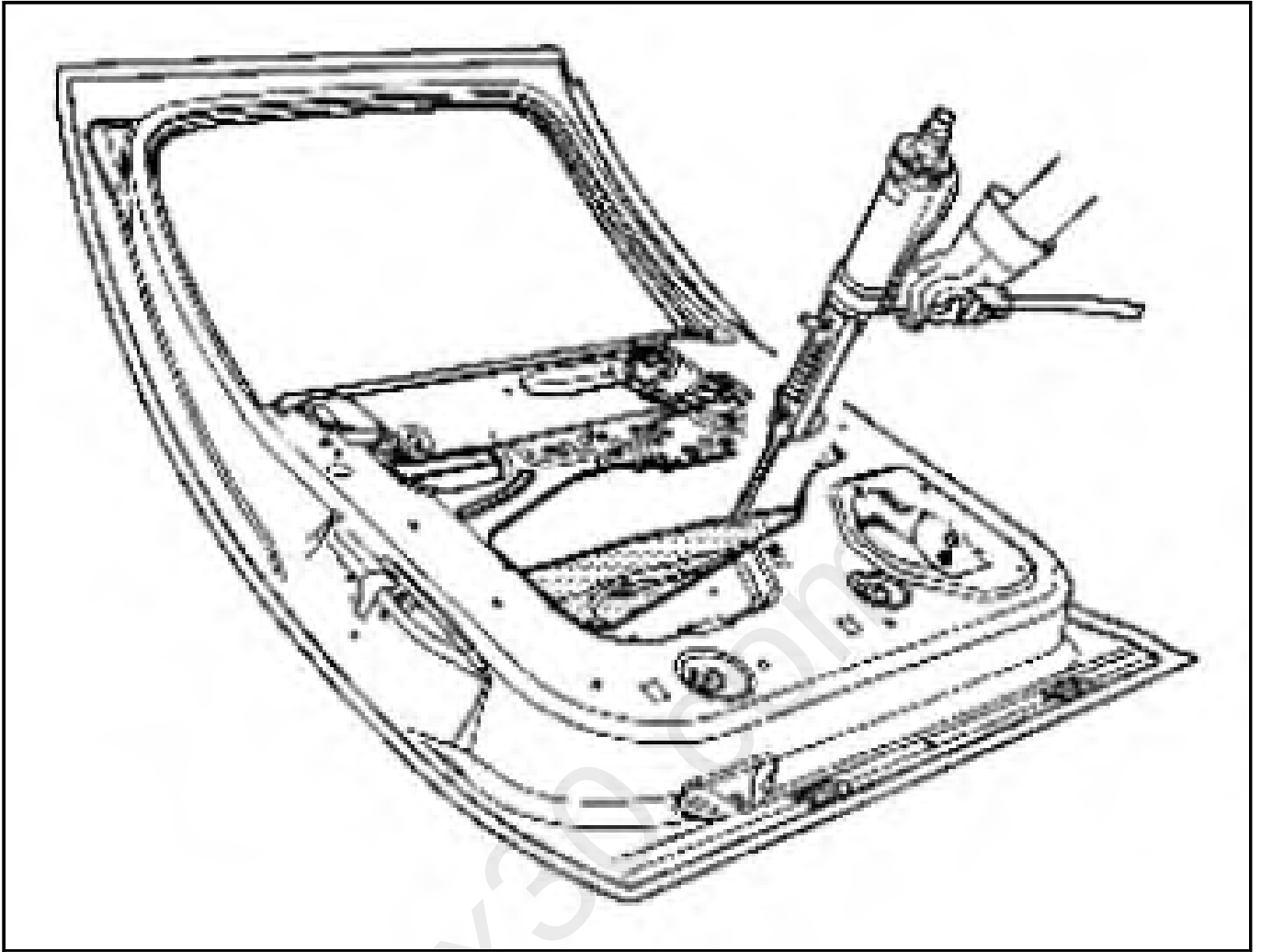
Continue to hammer in stages along the hem flanges.

11. Remove the excess adhesive from the door panel area.

12. Install the rear side door to the vehicle. Inspect the door outer panel for proper alignment; then adjust the alignment, as required. Refer to [Rear Side Door Replacement \(Crew Cab\)](#) [Rear Side Door Replacement \(Extended Cab\)](#) .



13. Using metal-inert gas (MIG), weld the door outer panel to the door frame in the locations noted at the upper door frame.
14. Clean and prepare all welded surfaces.



15. Apply Fusor super flexible anti-flutter foam-fast set, Fusor P/N 121/124, or equivalent, in a continuous bead the entire length between the belt line reinforcement and the door outer panel.
16. Apply Fusor super flexible anti-flutter foam-fast set, Fusor P/N 121/124, or equivalent, in a continuous bead the entire length between the door outer panel and the inner safety beam making multiple passes behind the side impact sensor portion of the beam as required to fill in any gaps.
17. Paint the repaired area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
18. Install all related panels and components.
19. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .
20. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

RADIATOR SUPPORT REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

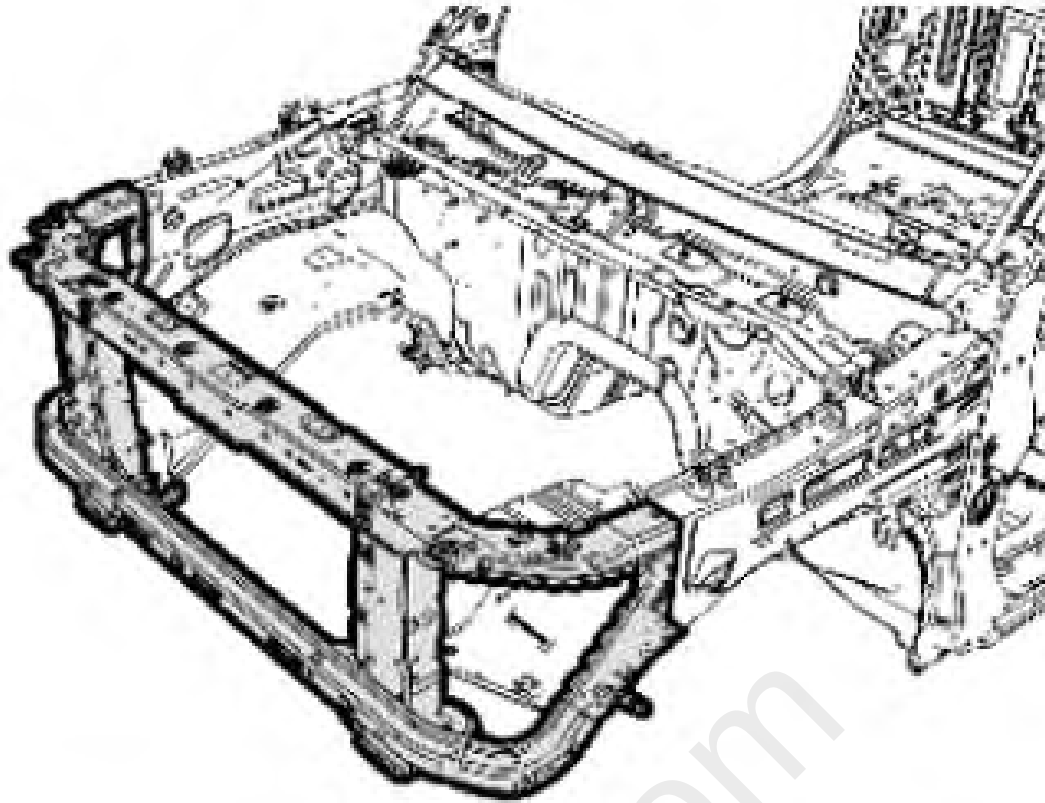
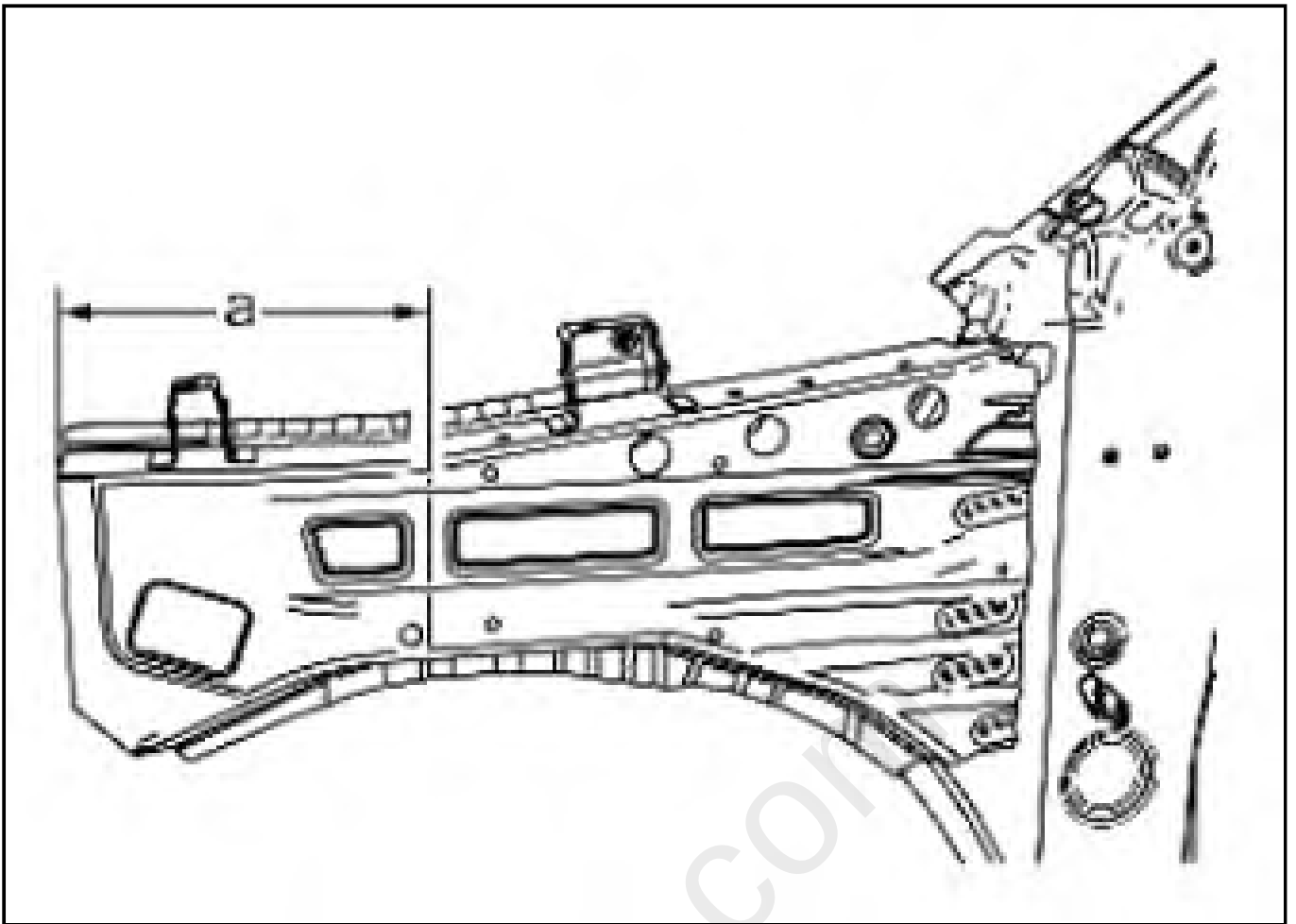


Fig. 17: Radiator Support Component Location

Courtesy of GENERAL MOTORS COMPANY

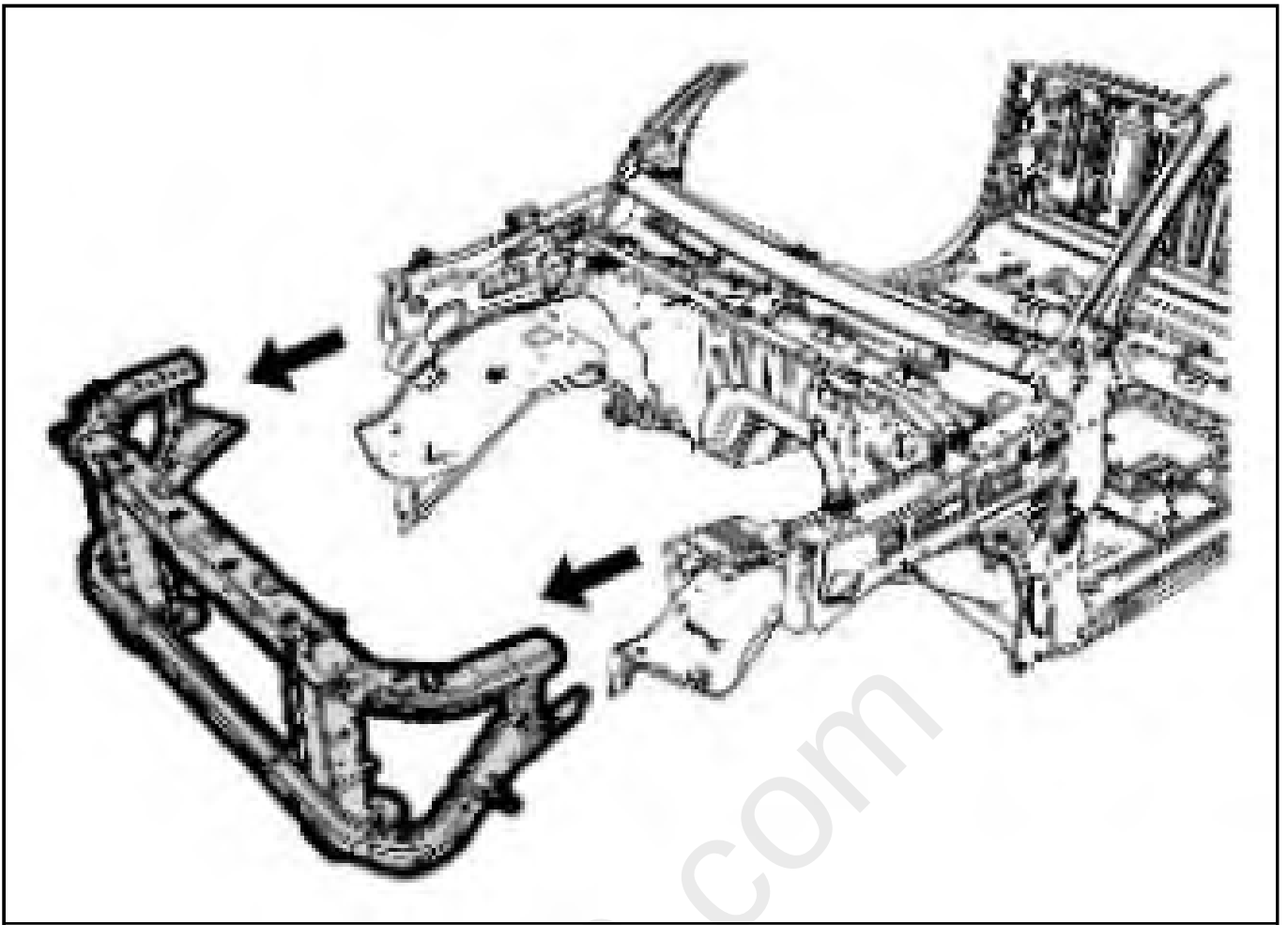
3. Remove all related panels and components.
4. Restore as much of the damage as possible to factory specifications. Refer to **BODY DIMENSIONS** .
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to **Anti-Corrosion Treatment And Repair** .



6. Measure rearward from front edge of LH Upper Outer Rail 280 mm (A) and scribe a vertical line on Upper Outer Rail. Repeat for the RH Upper Outer Rail, except measure rearward from front edge of rail 260 mm (A). Scribe a vertical line on RH Upper Outer Rail.
7. Cut Upper Outer Rail vertically at line made in step 6. Locate and drill out factory spot welds in front of Upper Outer Rail and remove front half of the Upper Outer Rail to gain access to remaining welds attaching the Radiator Support to the vehicle.

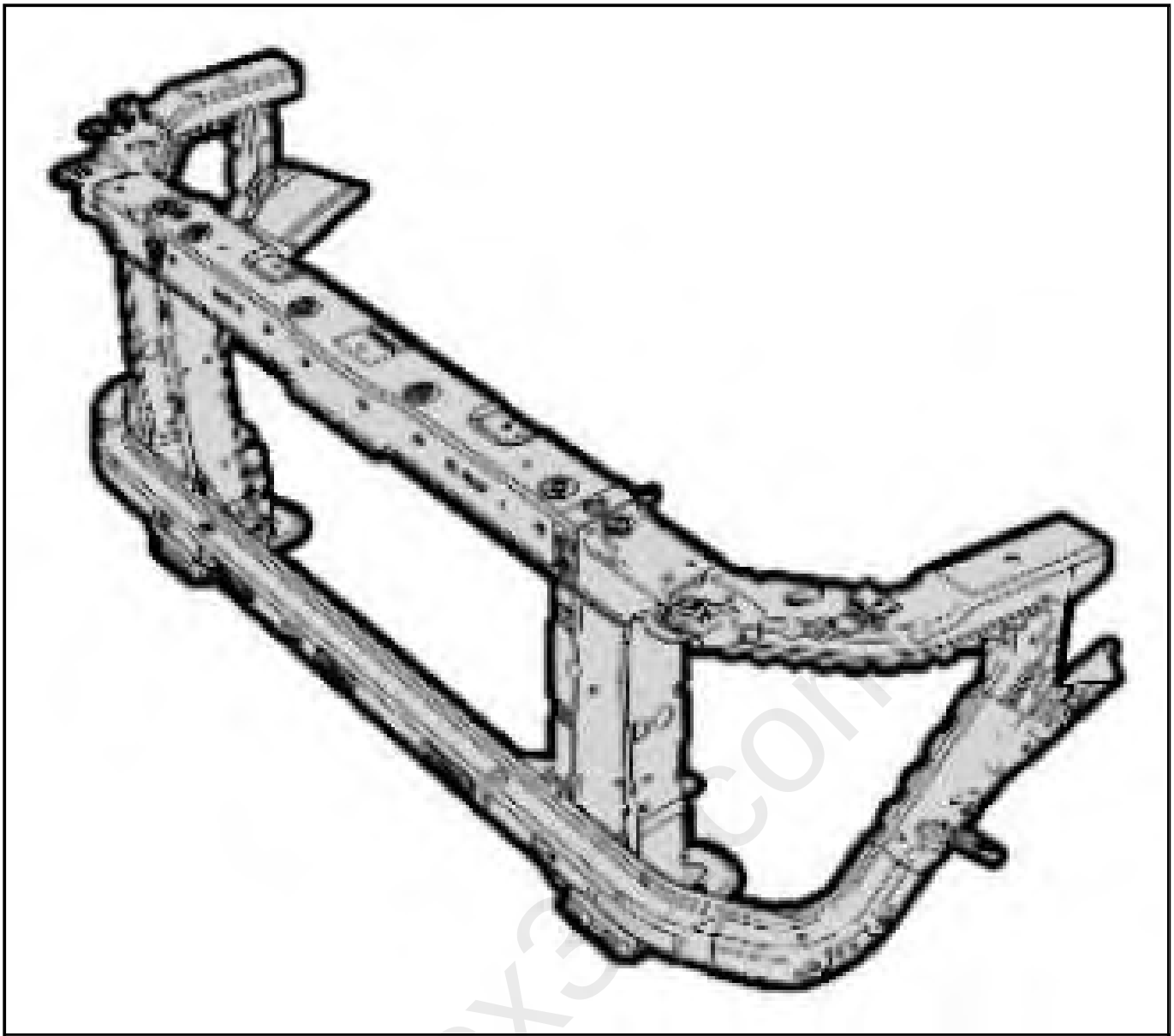
NOTE: Do not damage any inner panels or reinforcements.

8. Locate and drill out all factory welds. Note the number and location of welds for installation of the radiator support.



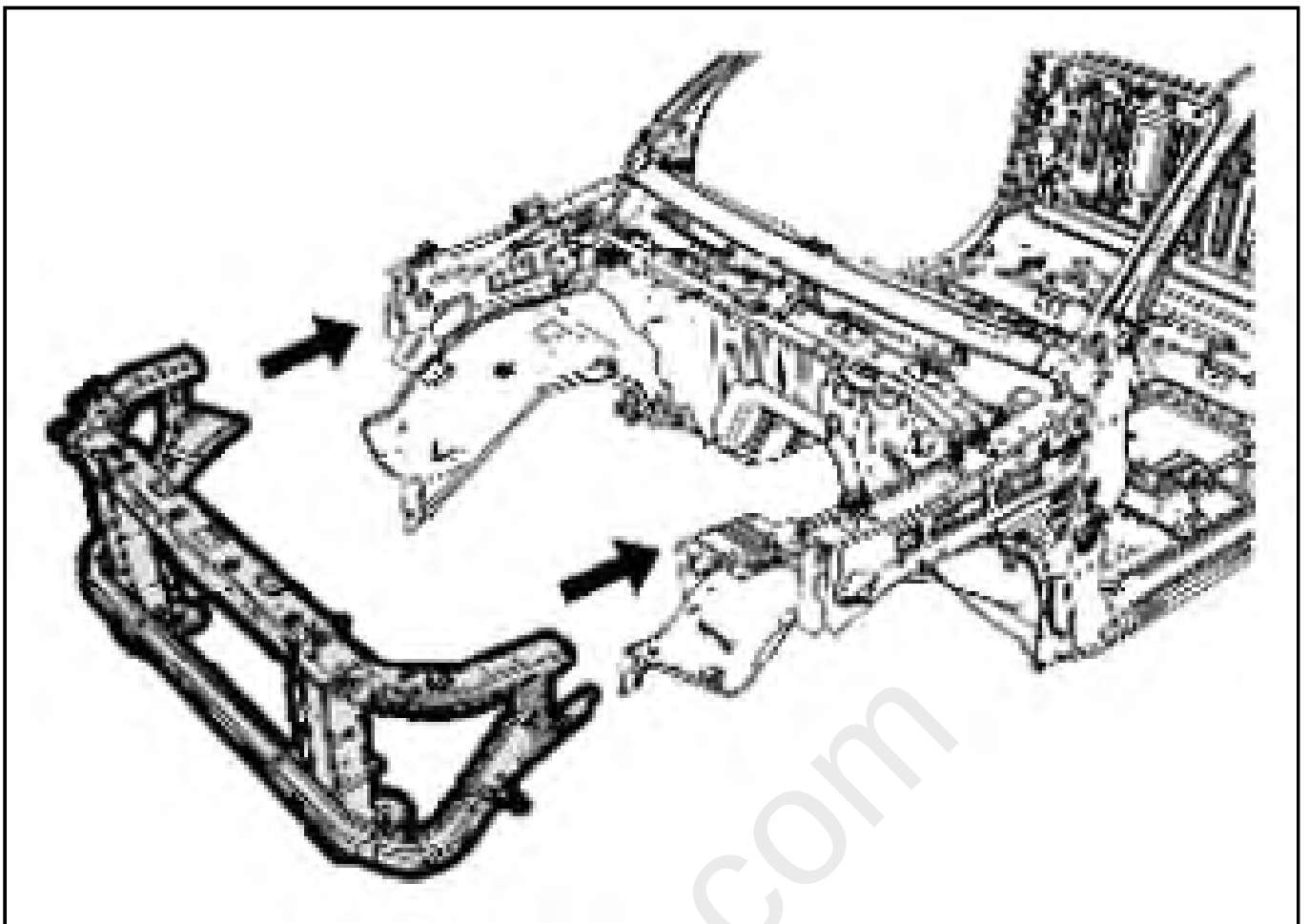
9. Remove the damaged radiator support.

Installation Procedure

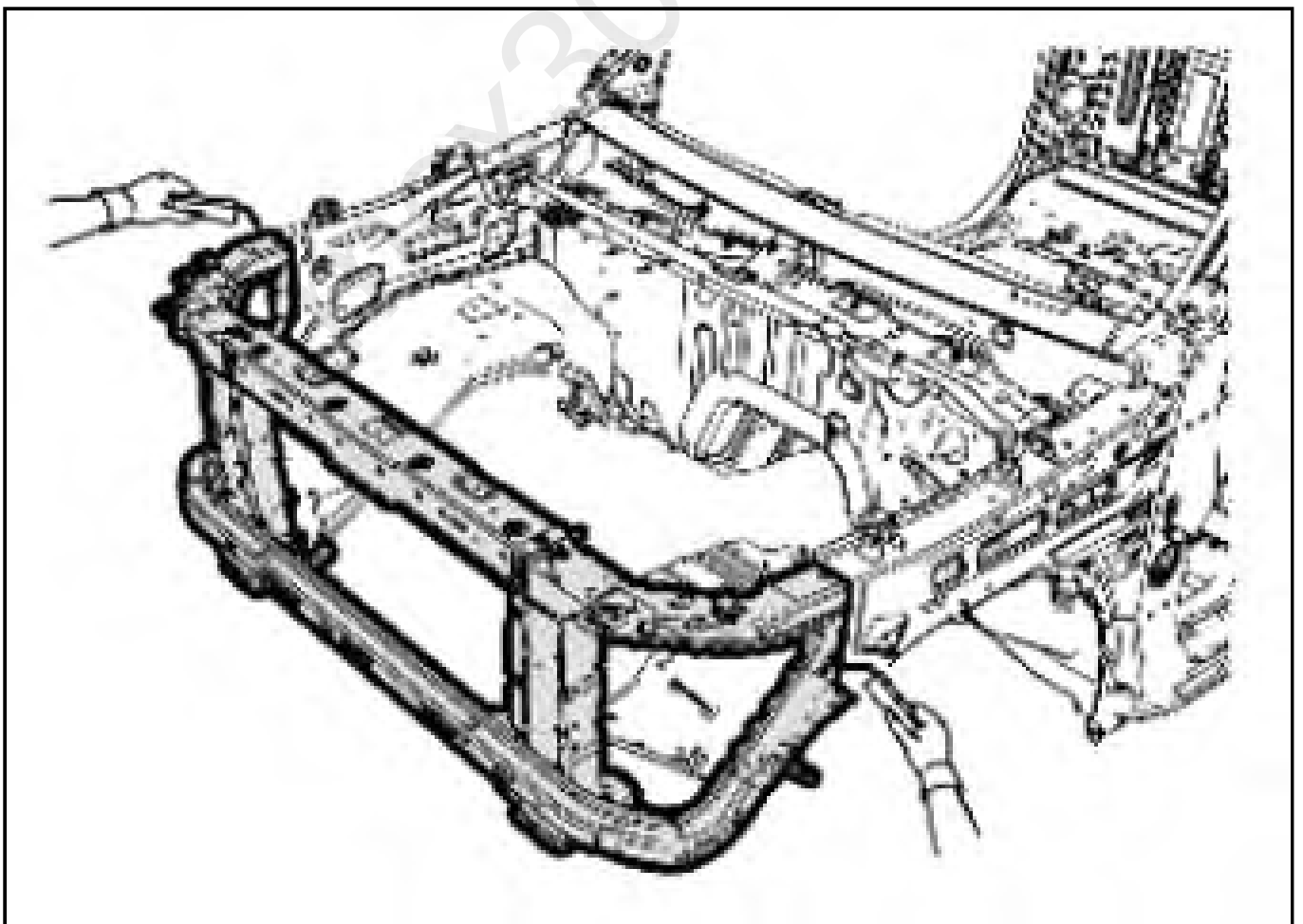


NOTE: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive is present, space the spot weld locations or plug weld holes every 40 mm (1 1/2 in) apart.

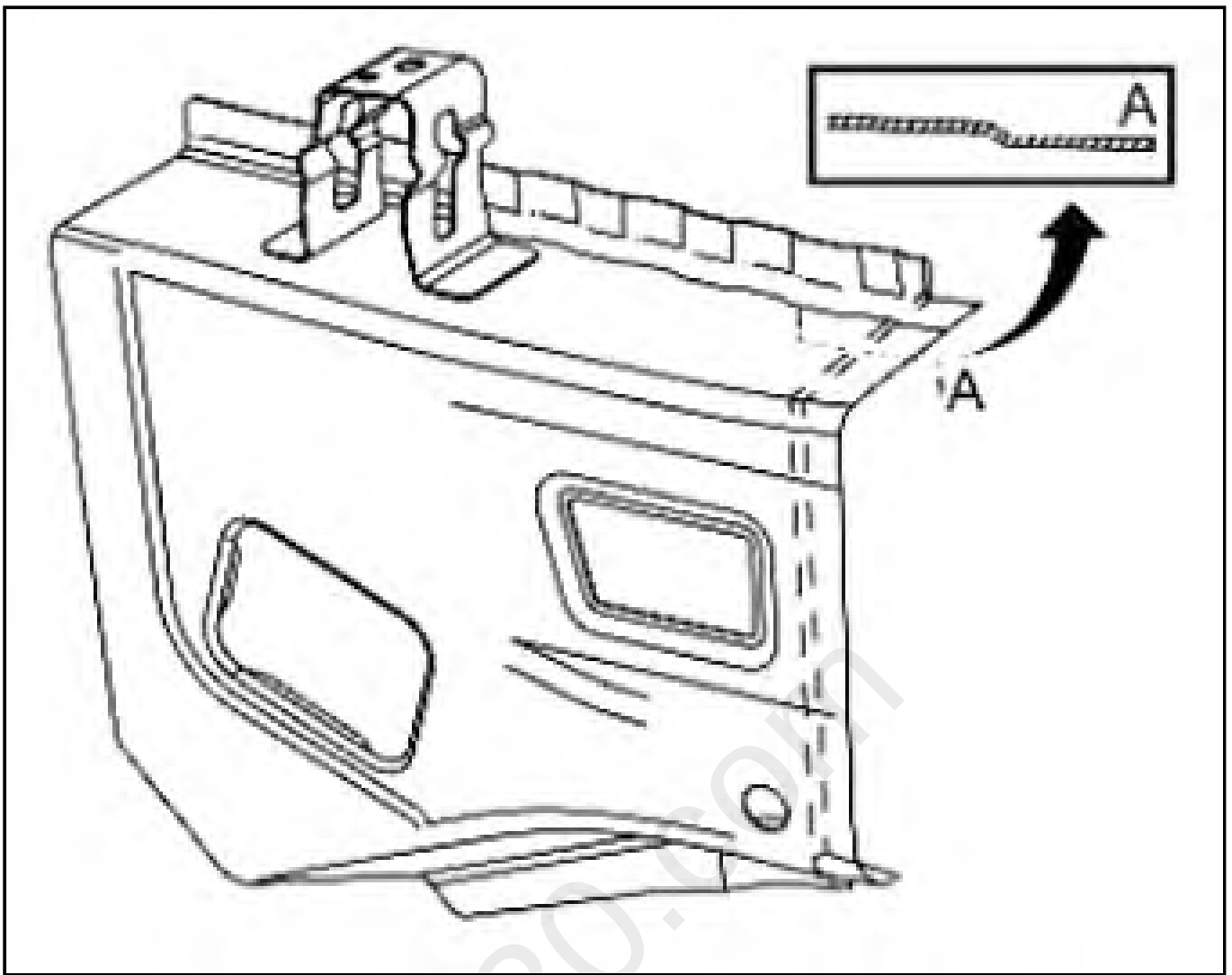
1. Drill 8 mm (5/16 in) plug weld holes as necessary only in locations noted from the original panel that cannot be resistance spot welded for installation.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru coating or equivalent to all mating surfaces that will not have adhesive in them. Refer to [Anti-Corrosion Treatment And Repair](#) .



4. Position the radiator support. Verify correct location with 3 dimensional measuring equipment.



5. Resistance spot or plug weld accordingly.



6. Cut upper outer rail sections 25 mm longer than the sections cut during removal from new upper outer rails. Prepare a step flange on the new front section for the joint where the rail section will re-attach.
7. Clean and prepare all welded surfaces.
8. Install front section prepared in step 6 and weld in place. Stitch weld along sectioning joint taking time to allow part to cool avoiding distortion until the joint is fully welded. All other welds should be resistance spot welded.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
10. Paint the repaired area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
11. Install all related panels and components.
12. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
13. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

FRONT HINGE PILLAR SECTIONING

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

WARNING: Refer to [Collision Sectioning Warning](#) .

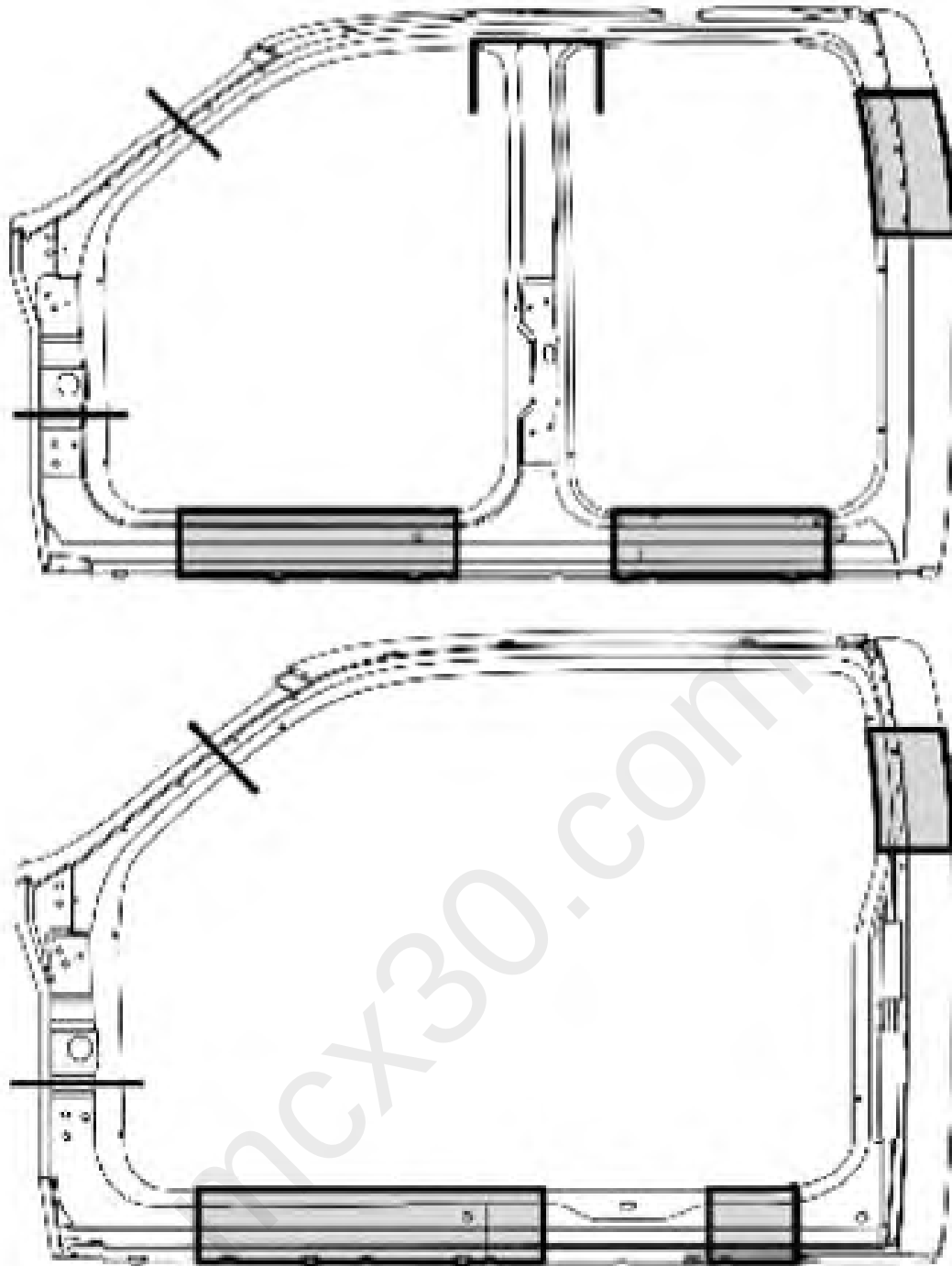


Fig. 18: Front Hinge Pillar Sectioning Component Location

Courtesy of GENERAL MOTORS COMPANY

NOTE: The door frame can be replaced at the factory seams, but requires the removal of the windshield, roof, and quarter panel. The sectioning procedures have been developed as a more cost-effective alternative to complete replacement. The specific area to be sectioned is determined by the extent of the damage to the vehicle.

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .

WARNING: Refer to [Foam Sound Deadeners Warning](#) .

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

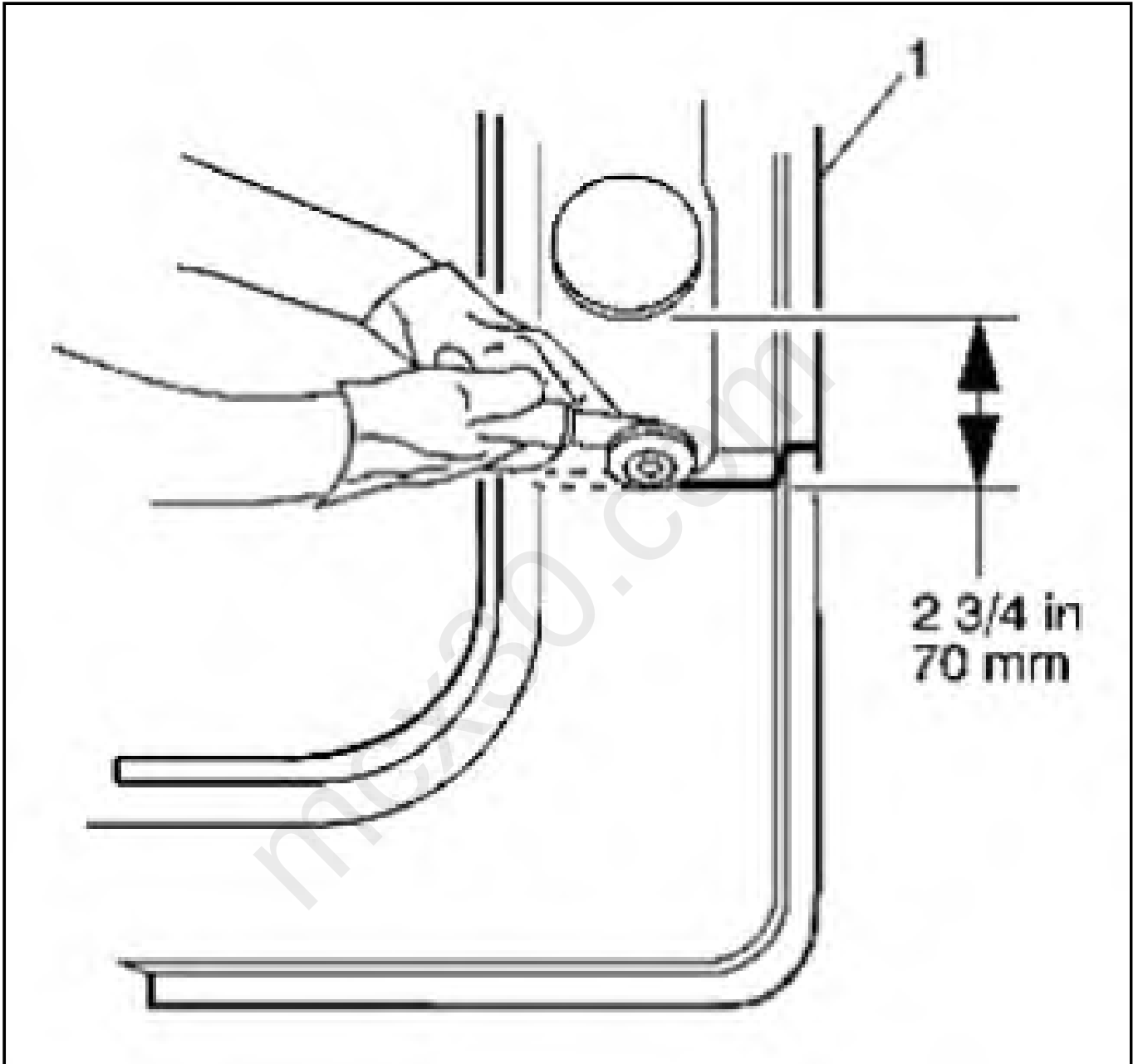
6. Perform additional sectioning procedures as necessary. Refer to the following procedures:

[Outer Windshield Frame Pillar Sectioning](#)

[Rocker Outer Panel Sectioning](#)

[Center Pillar Sectioning](#)

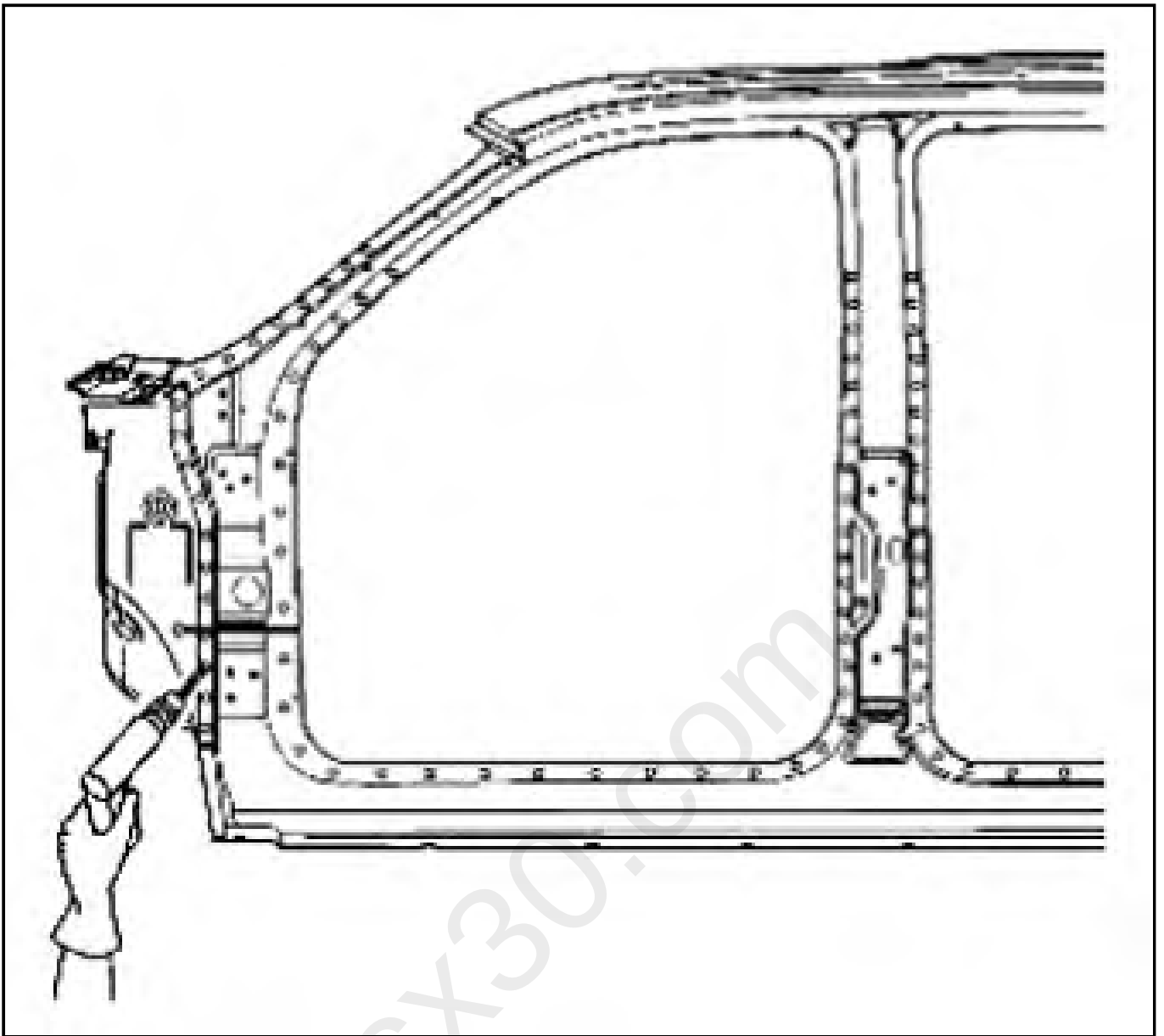
[Rear Pillar Sectioning \(Lower\)](#)[Rear Pillar Sectioning \(Complete\)](#)



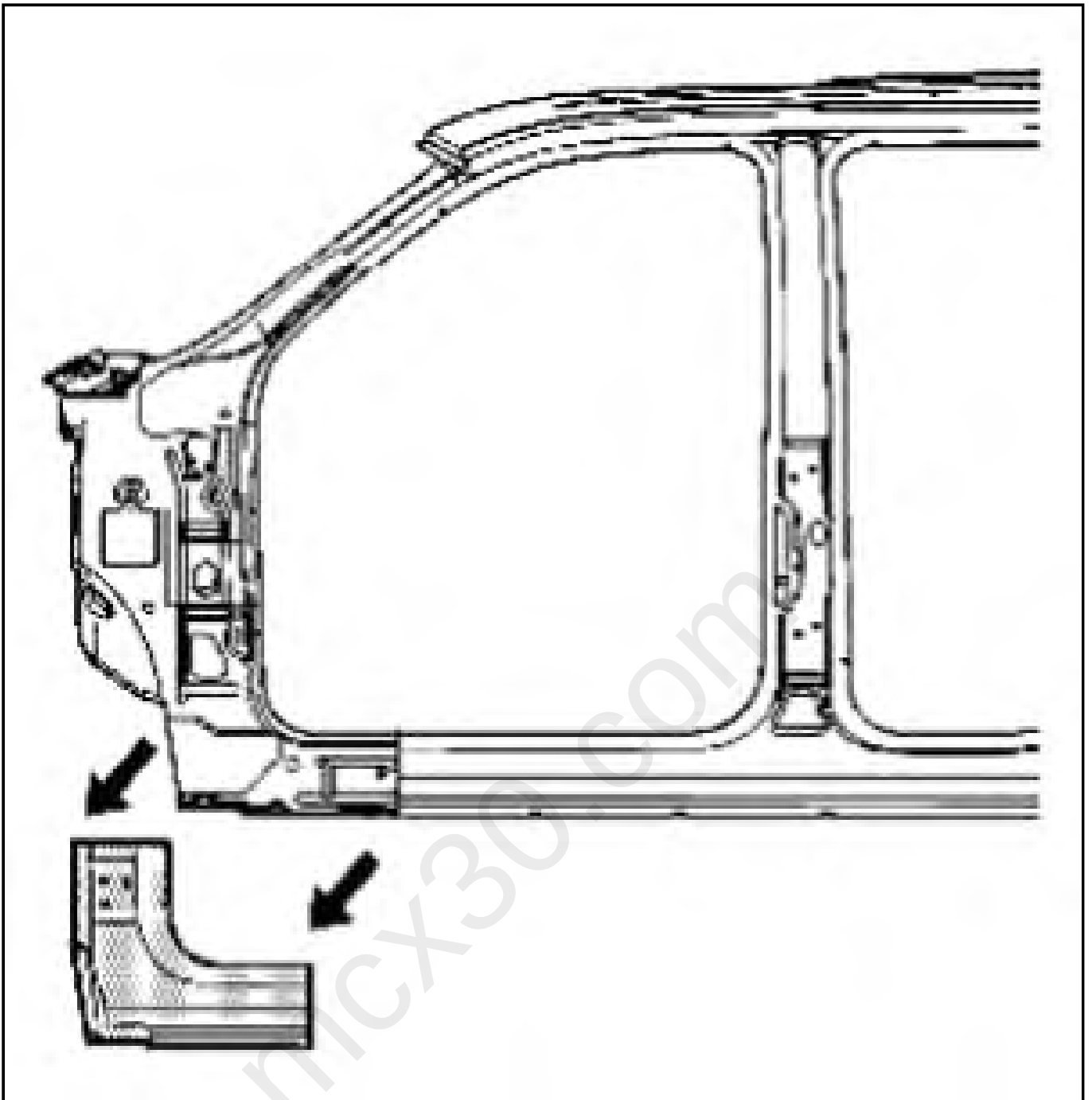
7. Measure 70 mm (2 3/4 in) down from the large wiring harness hole in the hinge pillar (1). Mark a horizontal line.

NOTE: Do not damage any inner panels or reinforcements.

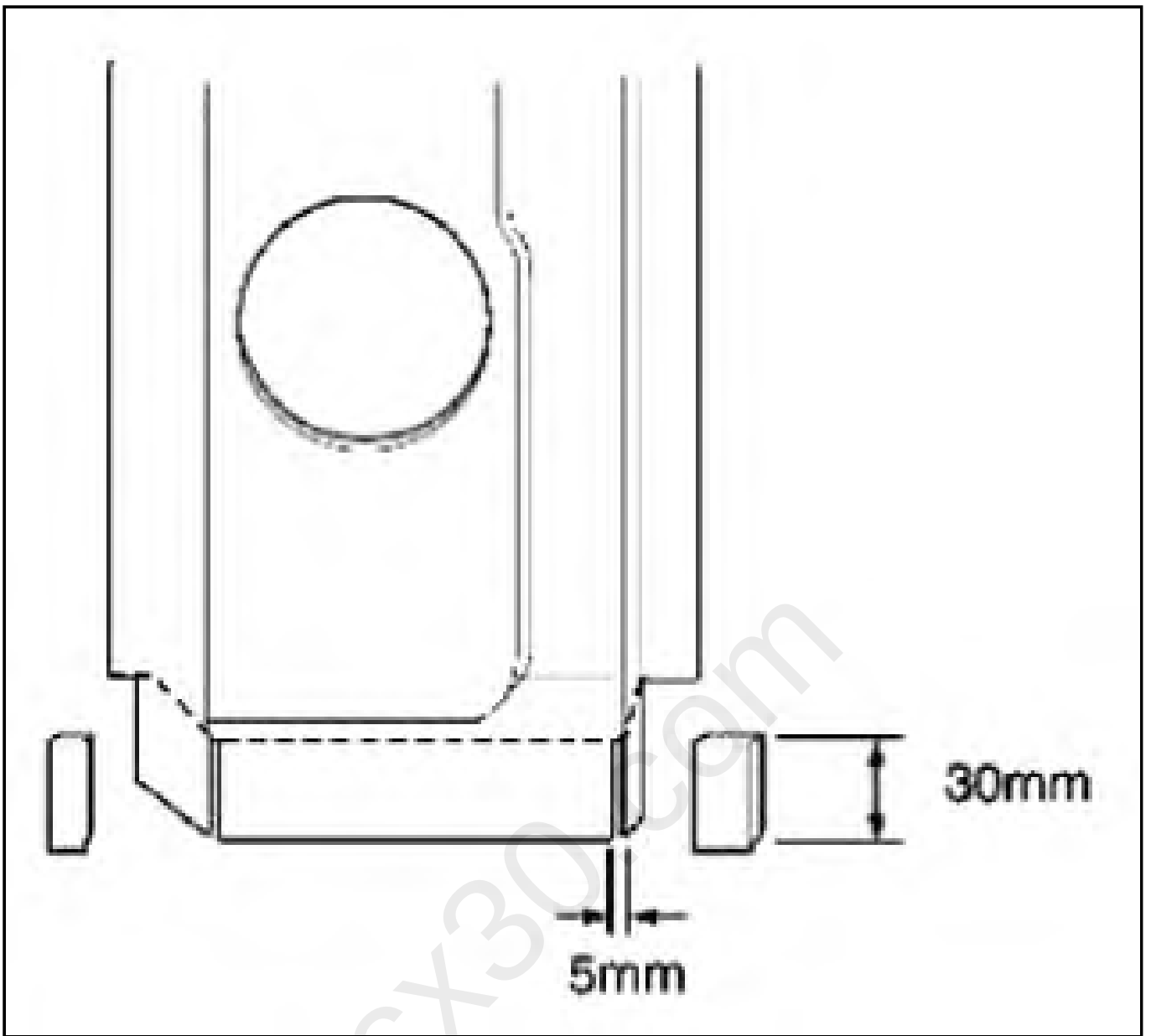
8. Cut the panel in the locations where sectioning is to be performed.



9. Locate and drill out all factory welds. Note the number and location of the welds for installation of the service part.

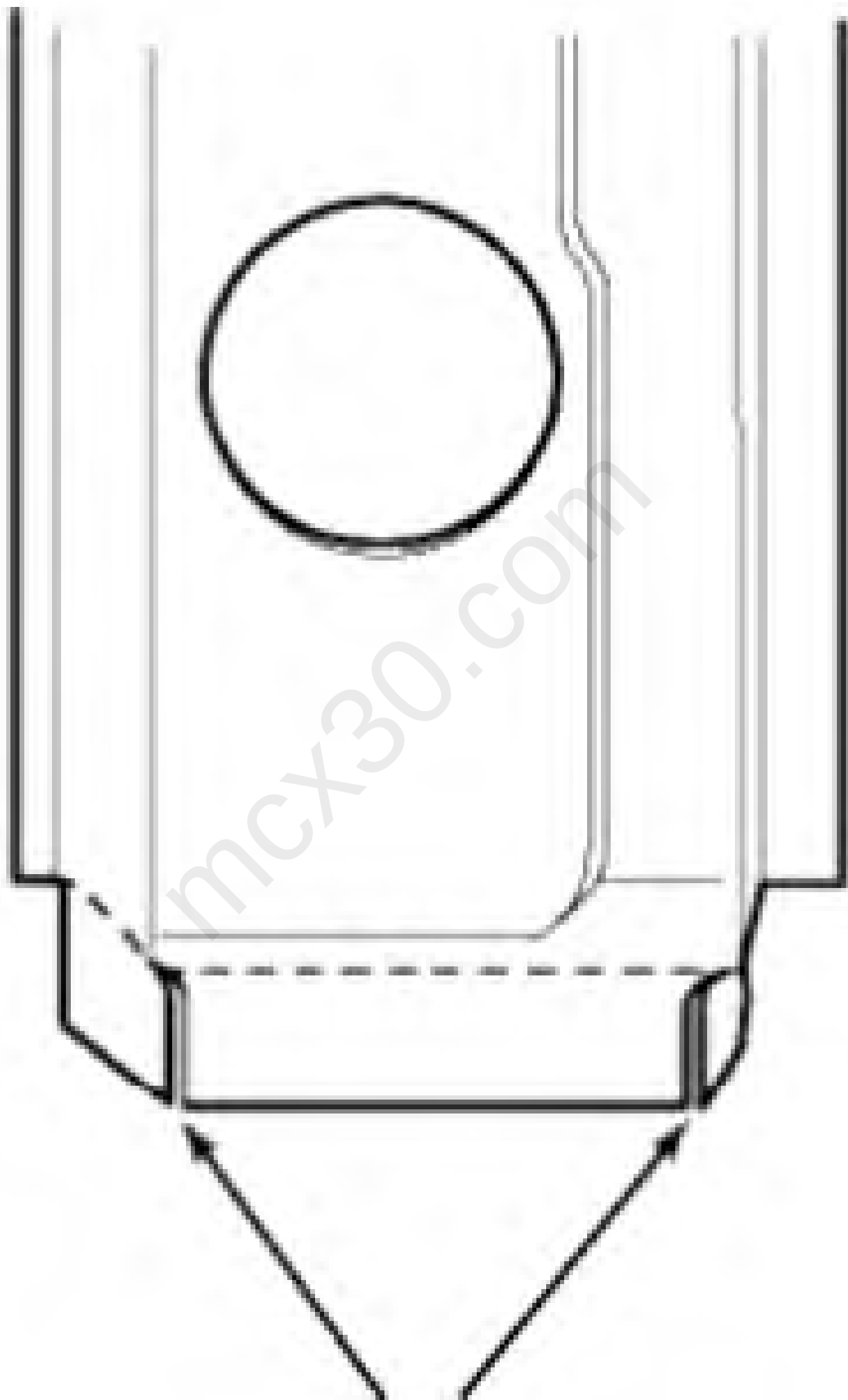


10. Remove the damaged hinge pillar.



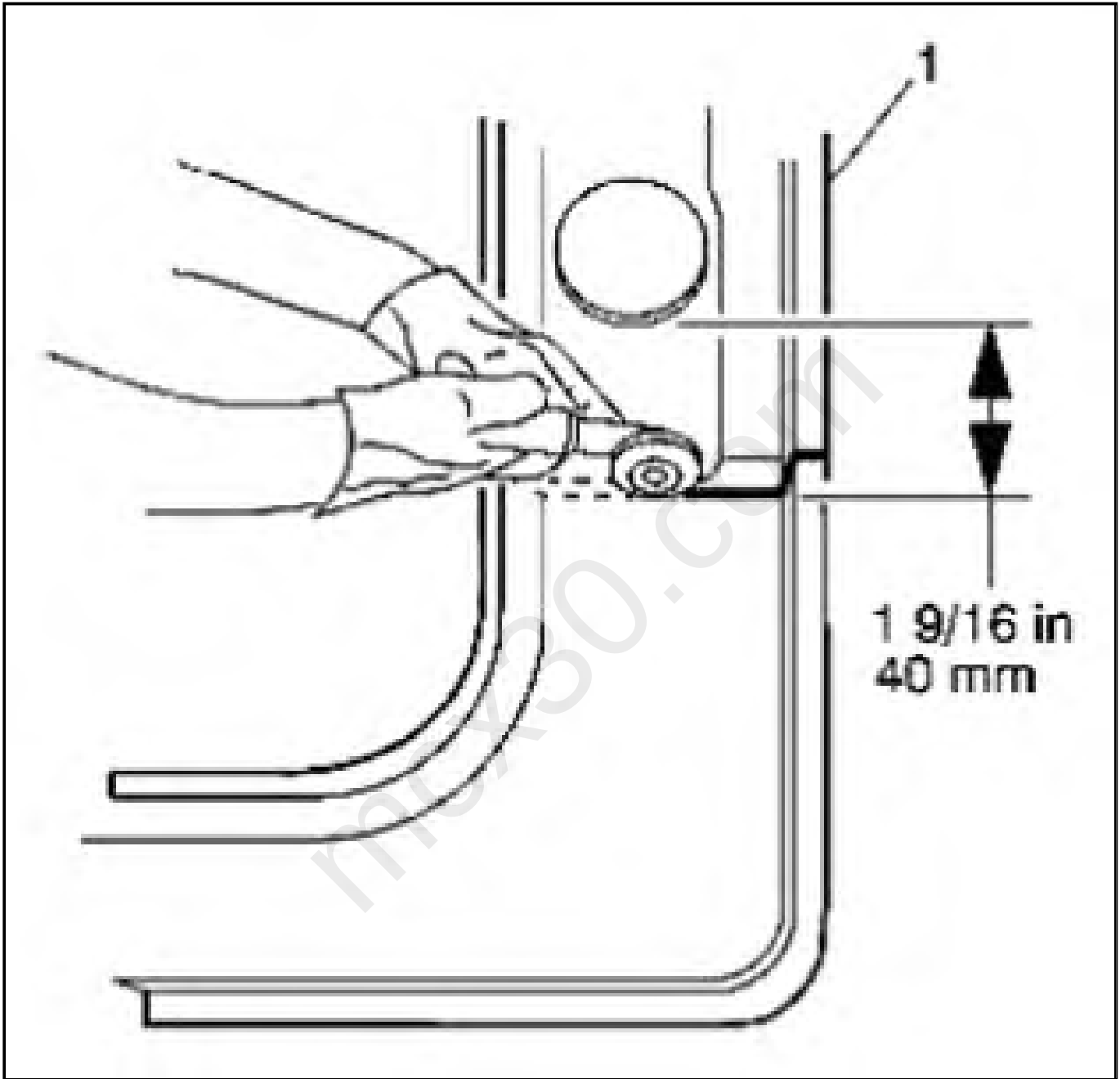
11. Cut and remove 30 mm (1 3/16 in) from the flanges on either side of the remaining section of the original pillar.
Cut 5 mm (3/16 in) wide gaps in the bottom corners.

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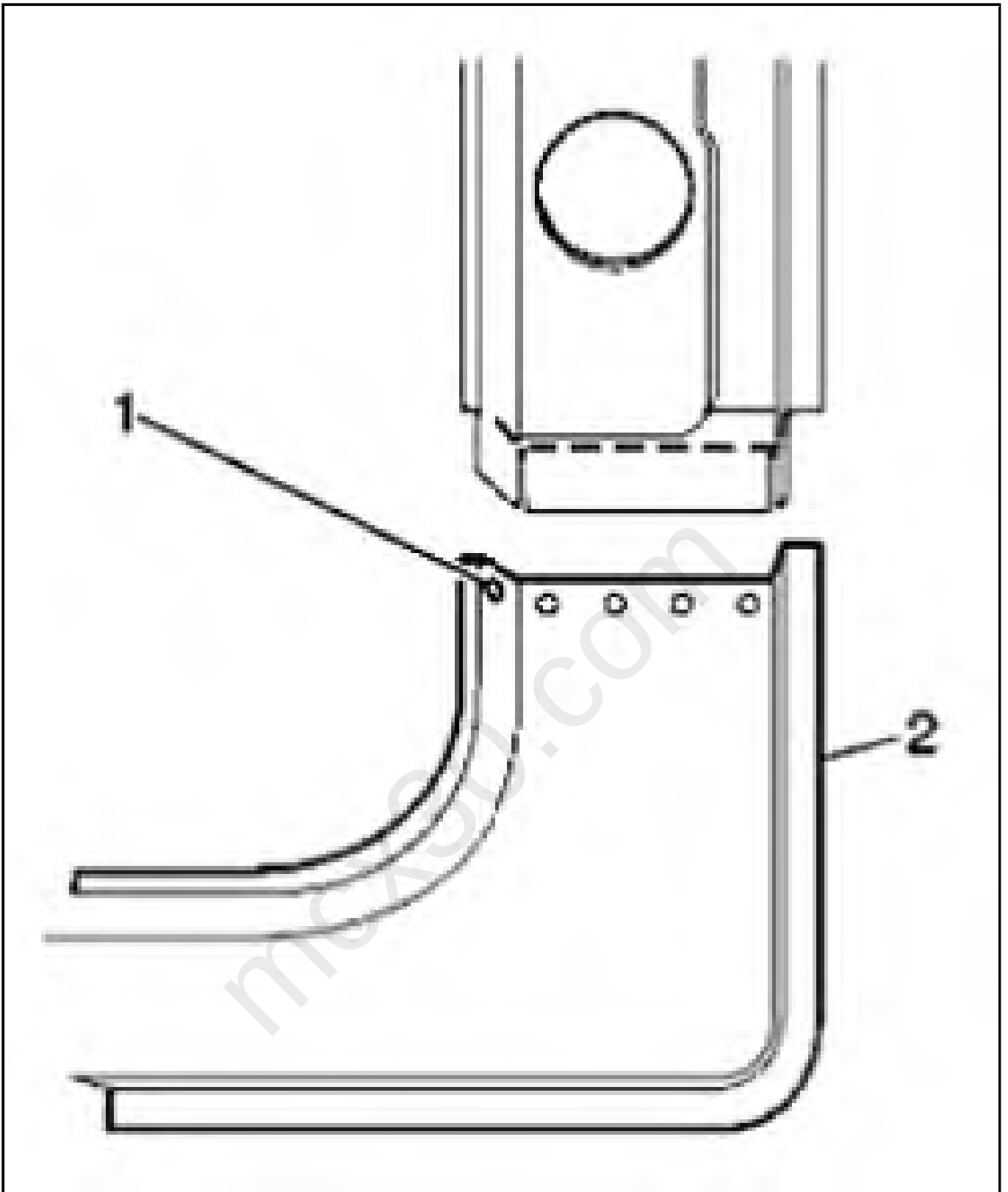


12. Step the tabs (1) inward to allow the door frame opening service section to fit over the original hinge pillar.

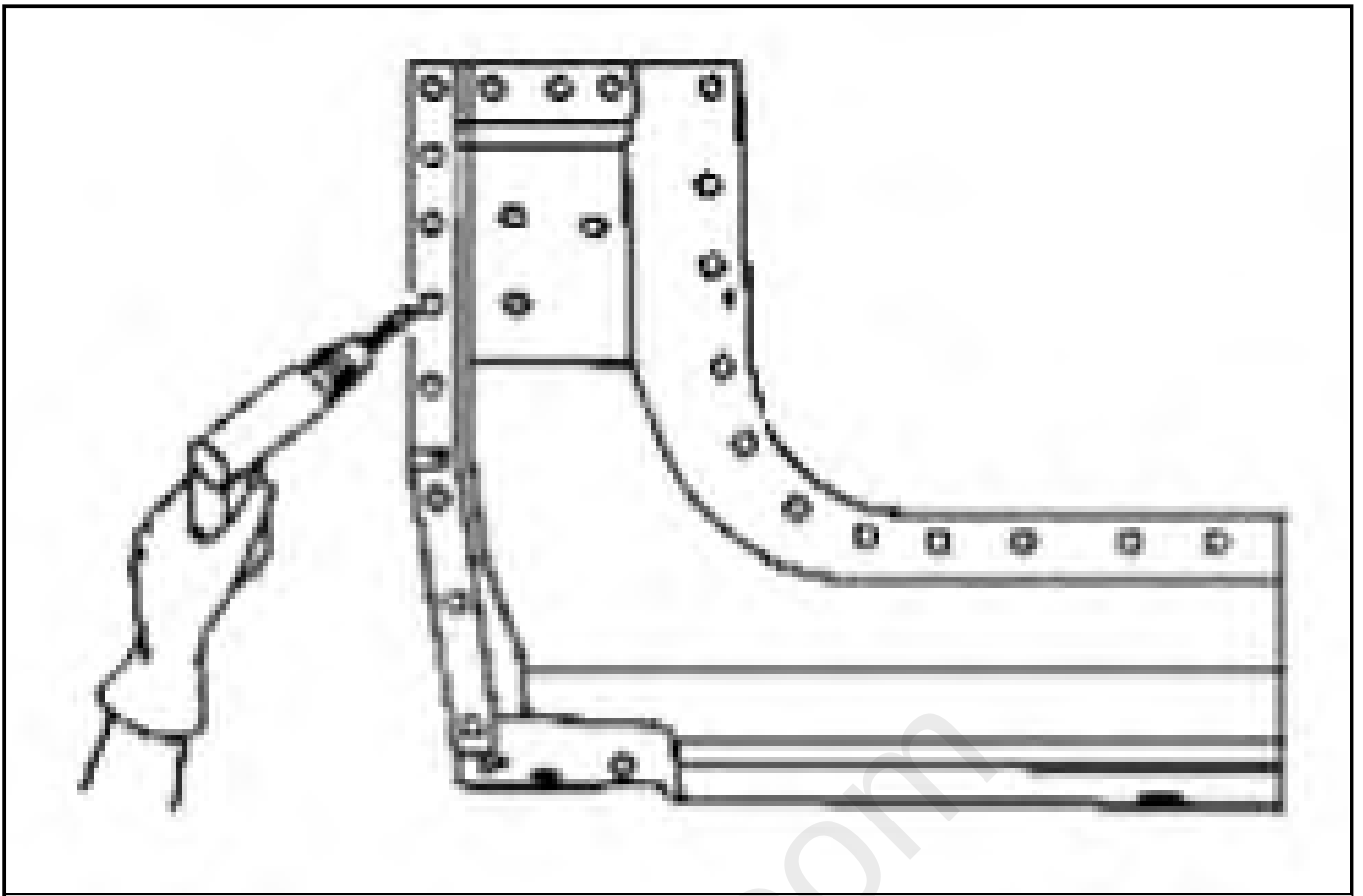
Installation Procedure



1. On the service body side, measure 40 mm (1 9/16 in) down from the large wiring harness hole in the hinge pillar. Mark a horizontal line. Cut the hinge pillar (1) along this line.
2. Perform additional sectioning procedures as necessary to remove the unused areas of the service part.

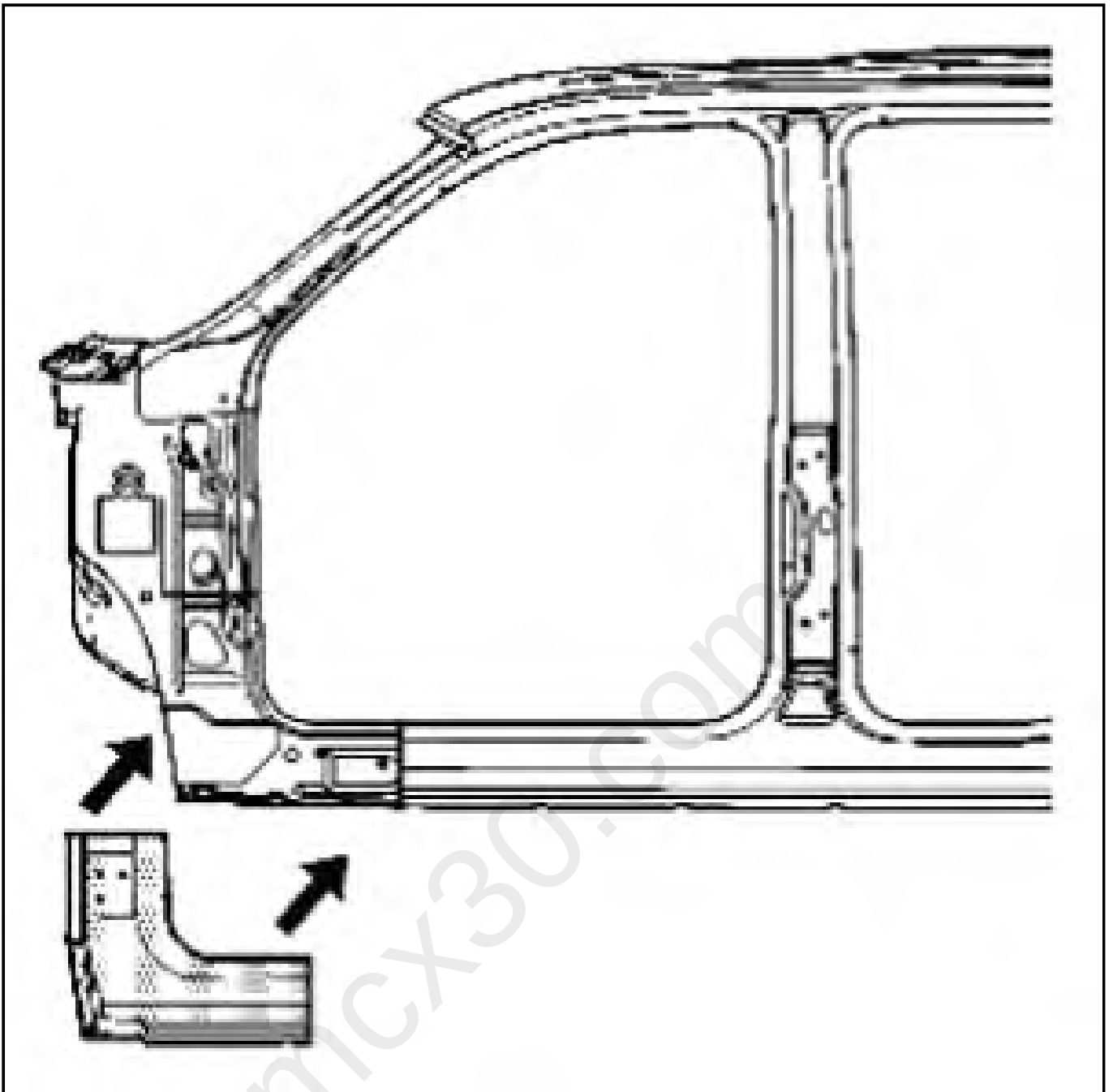


3. Drill 8 mm (5/16 in) plug weld holes along the sectioning cut on the remaining original part (2). Locate these holes approximately 25 mm (1 in) (a) from the edge and spaced 40 mm (1 1/2 in) apart.

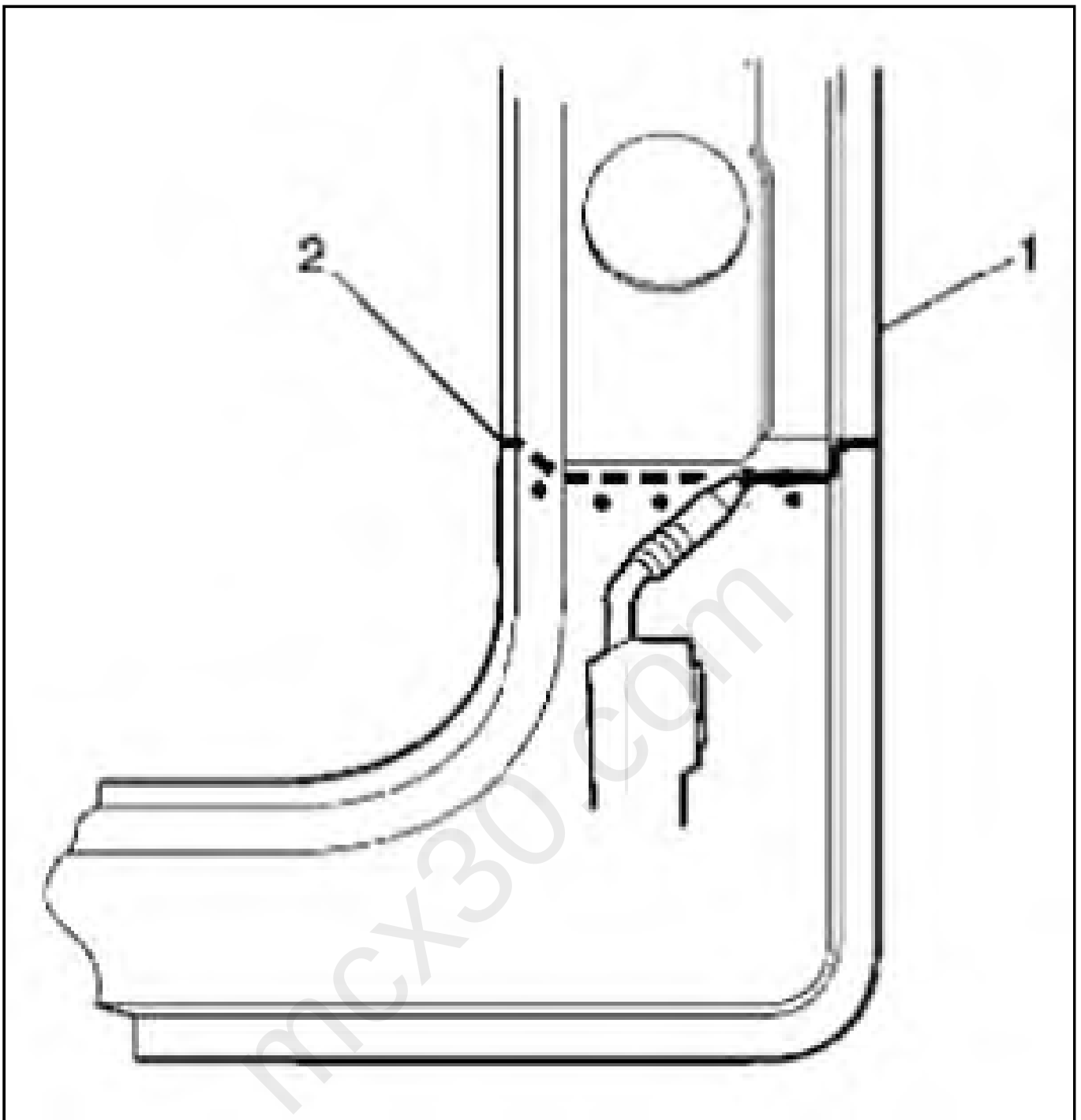


NOTE: If the location of the original plug weld holes cannot be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

4. Drill 8 mm (5/16 in) plug weld holes in the service part, as necessary, in the locations noted from the original panel and along the sectioning cut.
5. Prepare all attachment surfaces, as necessary.
6. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#)



7. Position the hinge pillar to the vehicle using 3-dimensional measuring equipment. Clamp in place.



8. Plug weld accordingly.

NOTE: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam (2) with 25 mm (1 in) gaps between them. Complete the stitch weld.

9. Clean and prepare all welded surfaces.
10. Apply the sealers and anti-corrosion materials to the repair area (1), as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
11. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
12. Install all related panels and components.
13. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
14. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

BODY HINGE PILLAR OUTER PANEL REINFORCEMENT REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components.
4. Repair as much of the damage as possible. Refer to [BODY DIMENSIONS](#) .
5. Remove the sealers and anti-corrosion materials from the repair area. Refer to [Anti-Corrosion Treatment And Repair](#) .
6. Locate and mark all the necessary factory welds of the body hinge pillar outer panel reinforcement.

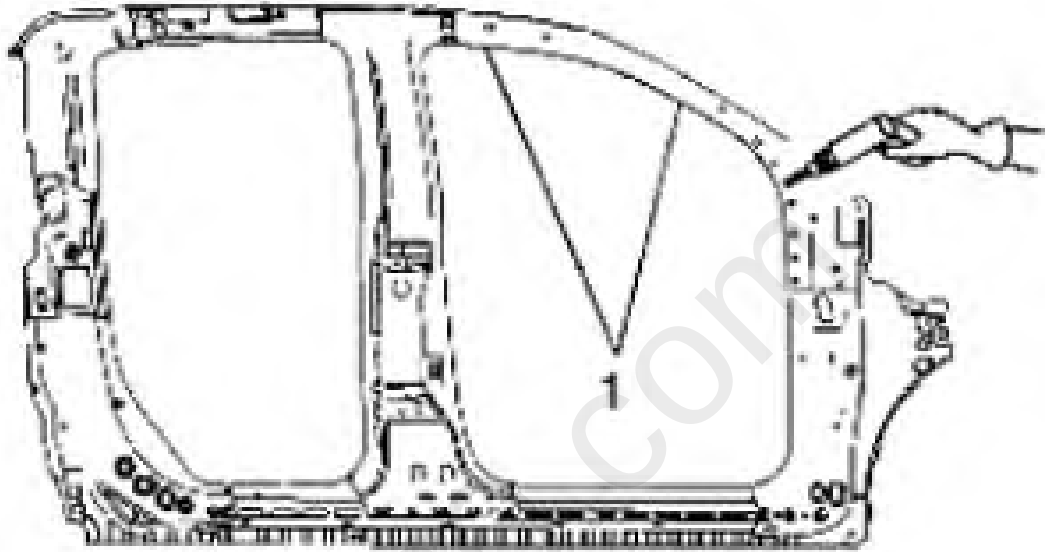
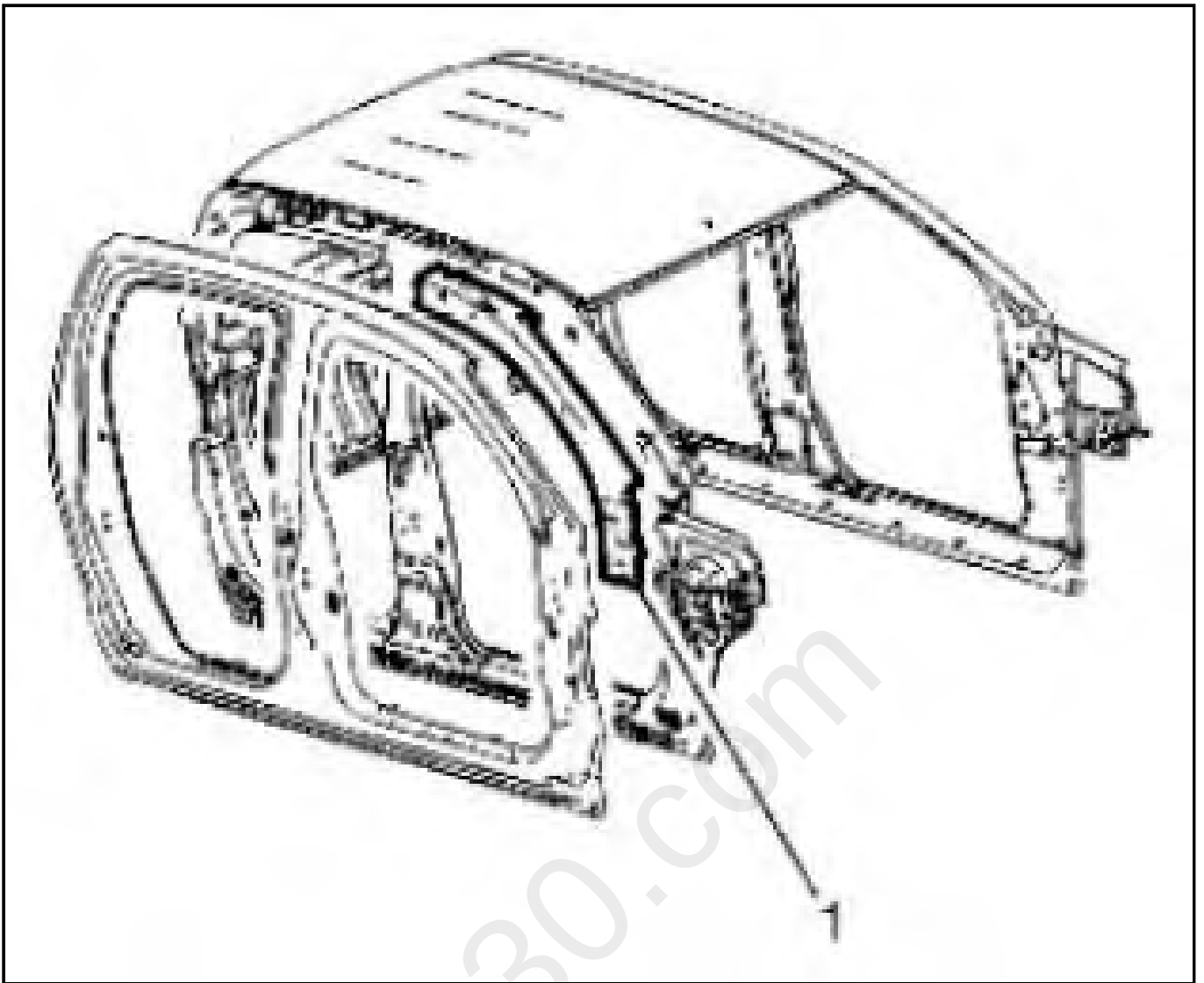


Fig. 19: Body Hinge Pillar Outer Panel Reinforcement Component Location
Courtesy of GENERAL MOTORS COMPANY

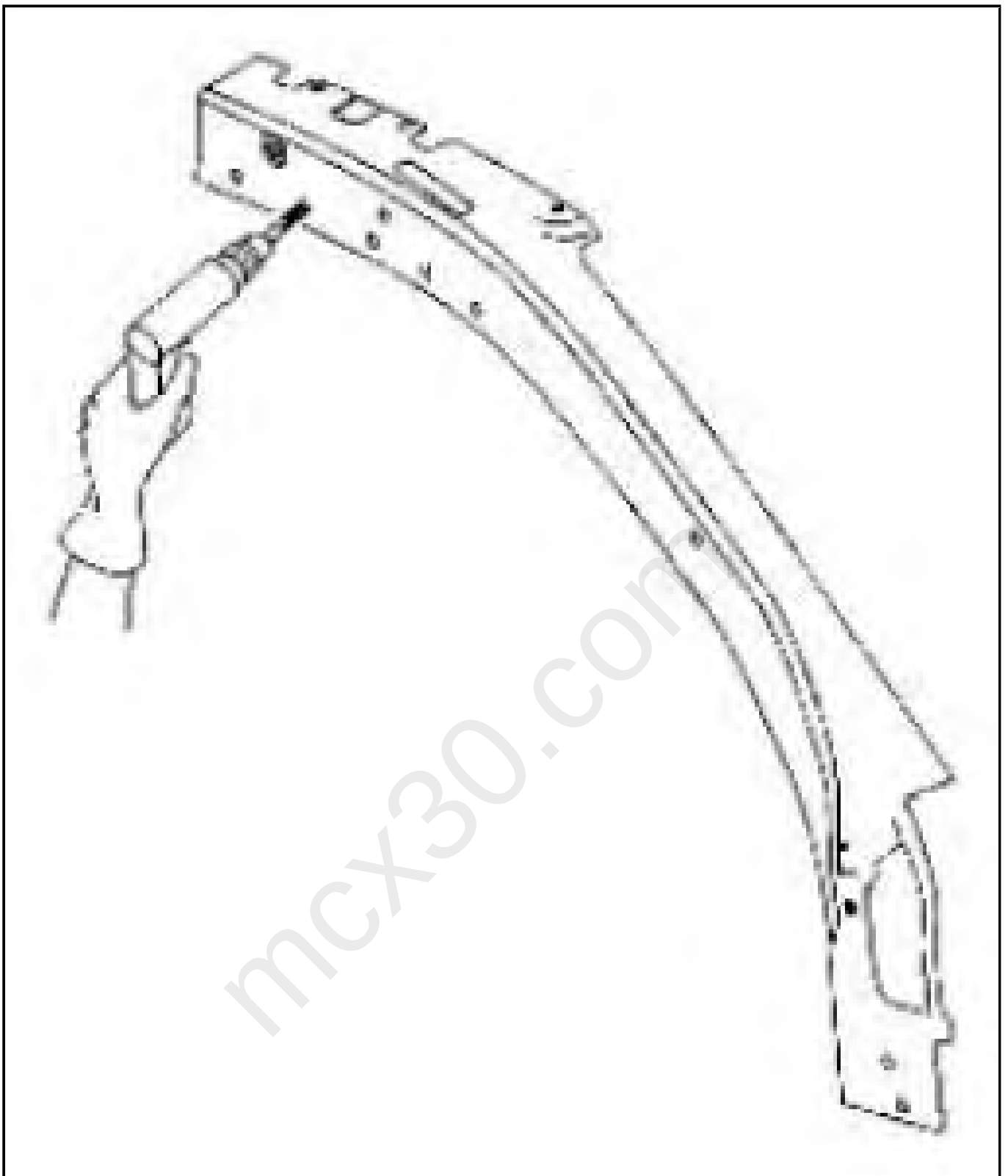
7. Drill all factory welds (1). Note the number and location of welds for installation of the service assembly.



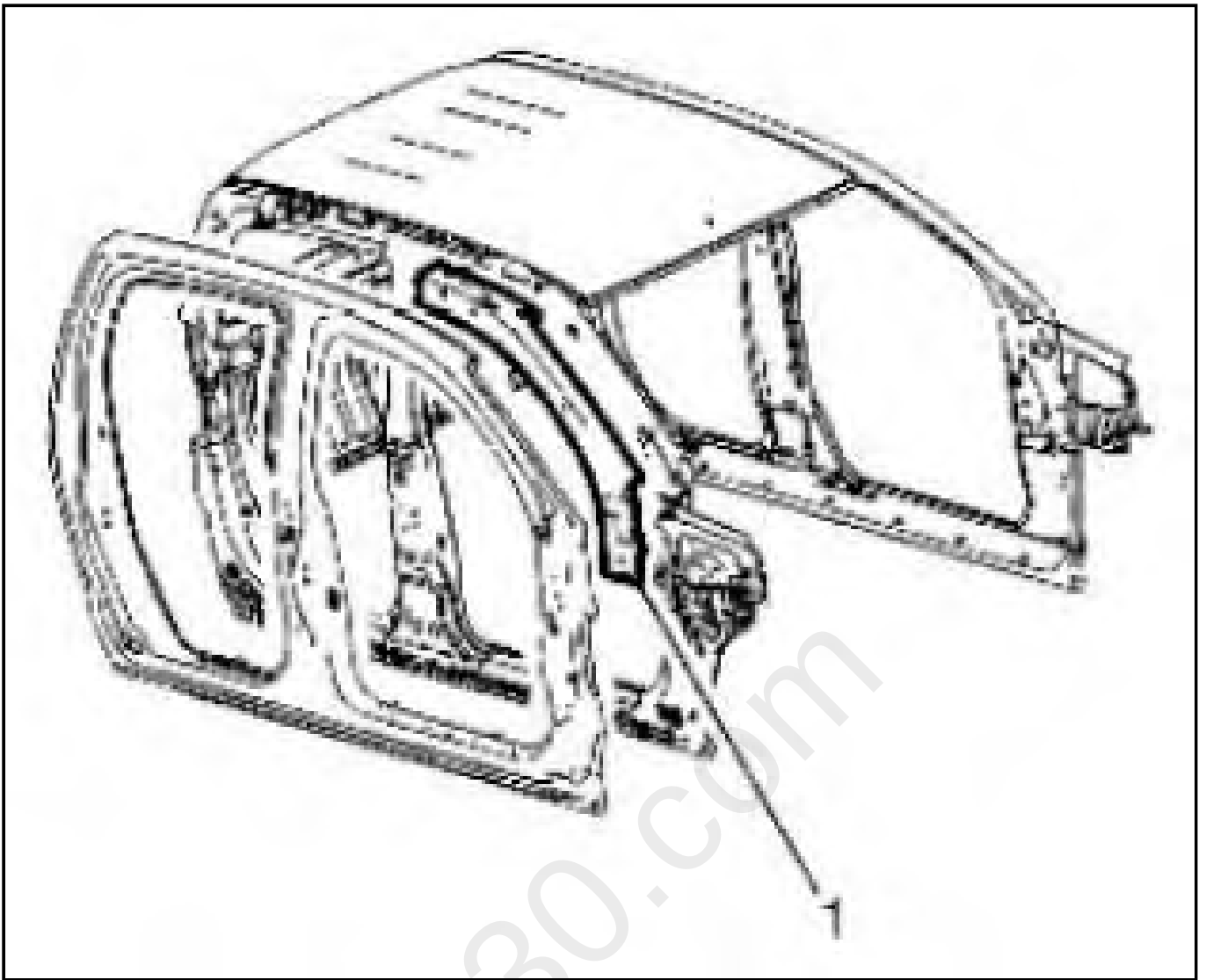
8. Remove the damaged body hinge pillar outer panel reinforcement (1).

Installation Procedure

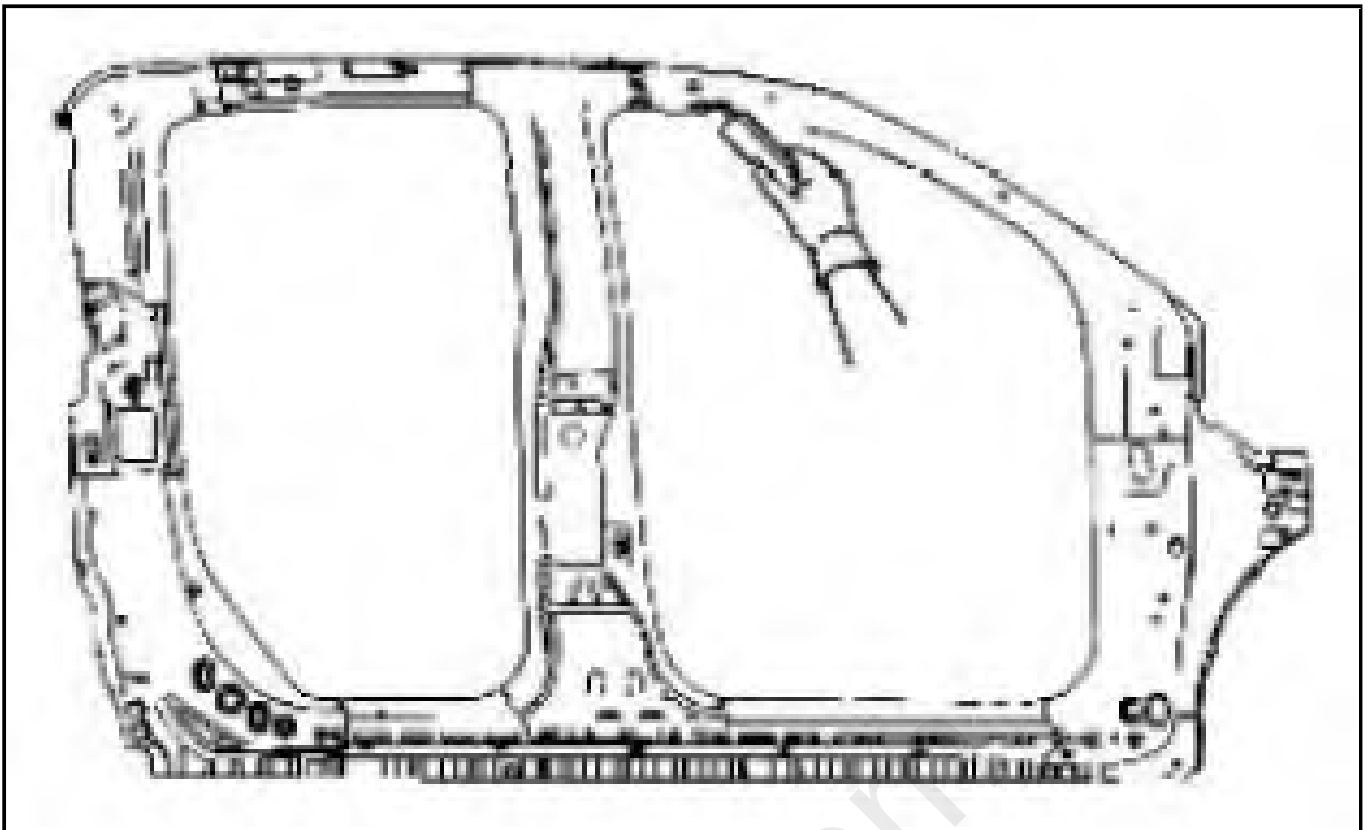
1. Prepare all mating surfaces as necessary.
2. Align the body hinge pillar outer panel reinforcement.



3. Drill **8 mm (5/16 in)** holes for plug welding along the edges of the body hinge pillar outer panel reinforcement as noted from the original panel.
4. Clean and prepare the attaching surfaces for welding.



5. Position the body hinge pillar outer panel reinforcement on the vehicle (1).
6. Verify the fit of the hinge pillar outer panel reinforcement.
7. Clamp the hinge pillar outer panel reinforcement into position.



8. Plug weld accordingly.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
10. Paint the repaired area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
11. Install all related panels and components.
12. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
13. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

CENTER PILLAR INNER PANEL REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Foam Sound Deadeners Warning](#) .

WARNING: Refer to [Battery Disconnect Warning](#) .

NOTE: The center pillar outer panel reinforcement is made of Ultra High Strength Steel. Sectioning, or repair of Ultra High Strength Steel is not recommended. It should be replaced as a complete assembly at factory locations. Refer to [ULTRA HIGH STRENGTH STEEL](#) .

NOTE: This procedure was developed to allow access for the complete replacement of the center pillar outer panel reinforcement without removing the roof panel. There are sectioning procedures available for various locations of the body side outer panel. The location should be chosen based on the extent of the damage to the vehicle and other inner reinforcements that need to be replaced. Sectioning should be performed only in the recommended areas. Failure to do so may compromise the structural integrity of the vehicle. Refer to other service procedures for additional sectioning locations. This procedure shows a crew cab, the extended cab is similar.

1. Disable the SIR System and then disconnect the negative battery cable. Refer to [SIR Disabling and Enabling](#) .
2. Remove all related panels and components.
3. Repair as much of the damaged area as possible. Refer to [BODY DIMENSIONS](#) .
4. Remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

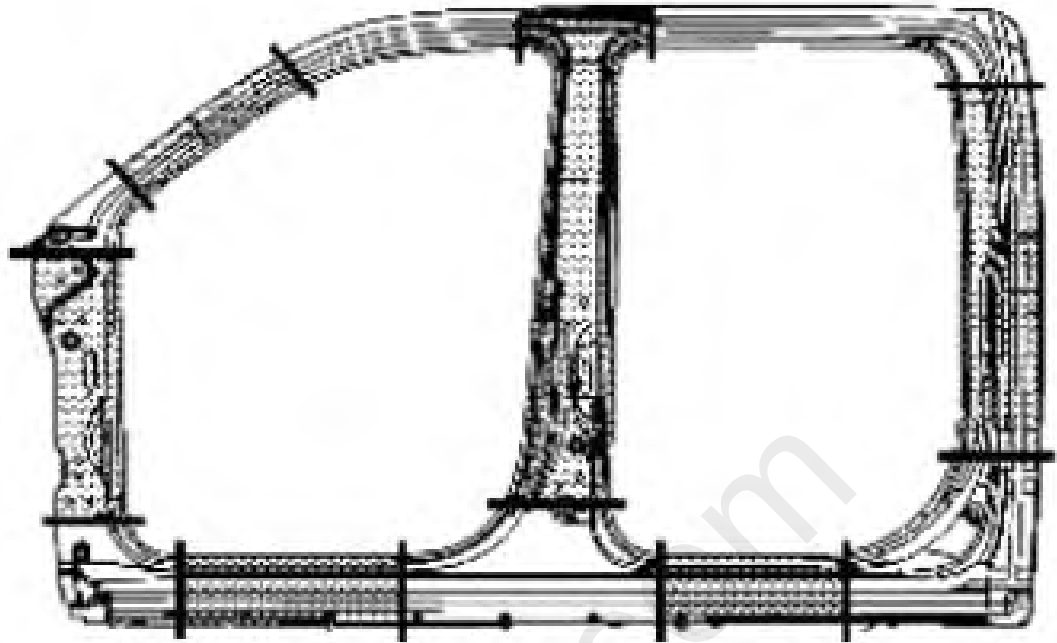
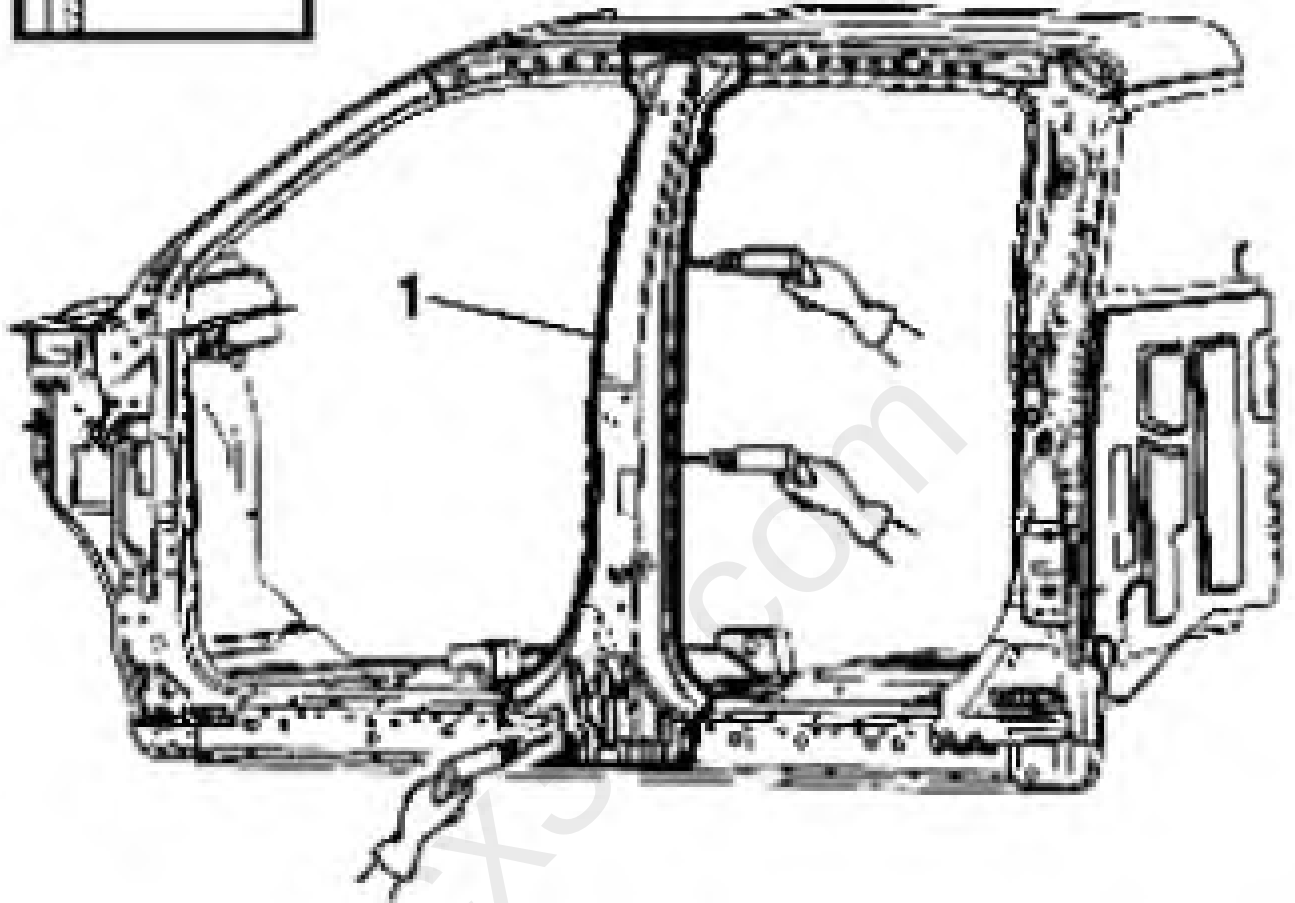
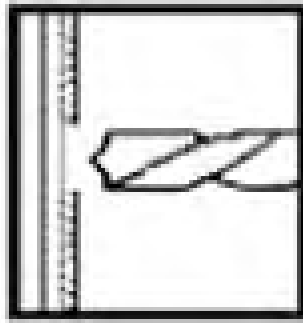


Fig. 20: Center Pillar Inner Panel Component Location

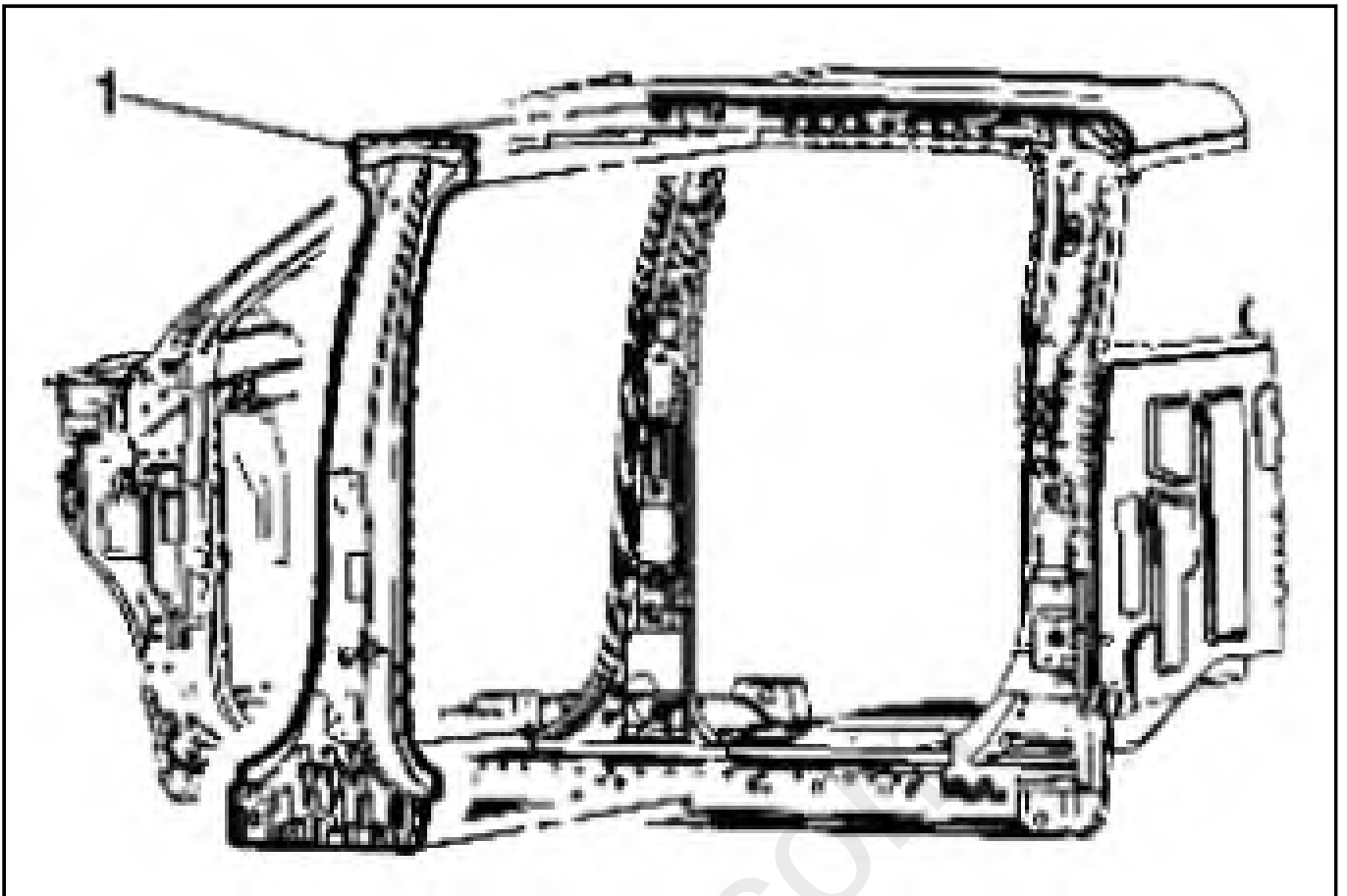
Courtesy of GENERAL MOTORS COMPANY

5. Remove body side outer as necessary for access to the Center Pillar Outer Panel Reinforcement.



NOTE: Record the number and location of welds for installation of the service assembly.

6. Remove all necessary factory welds (1).

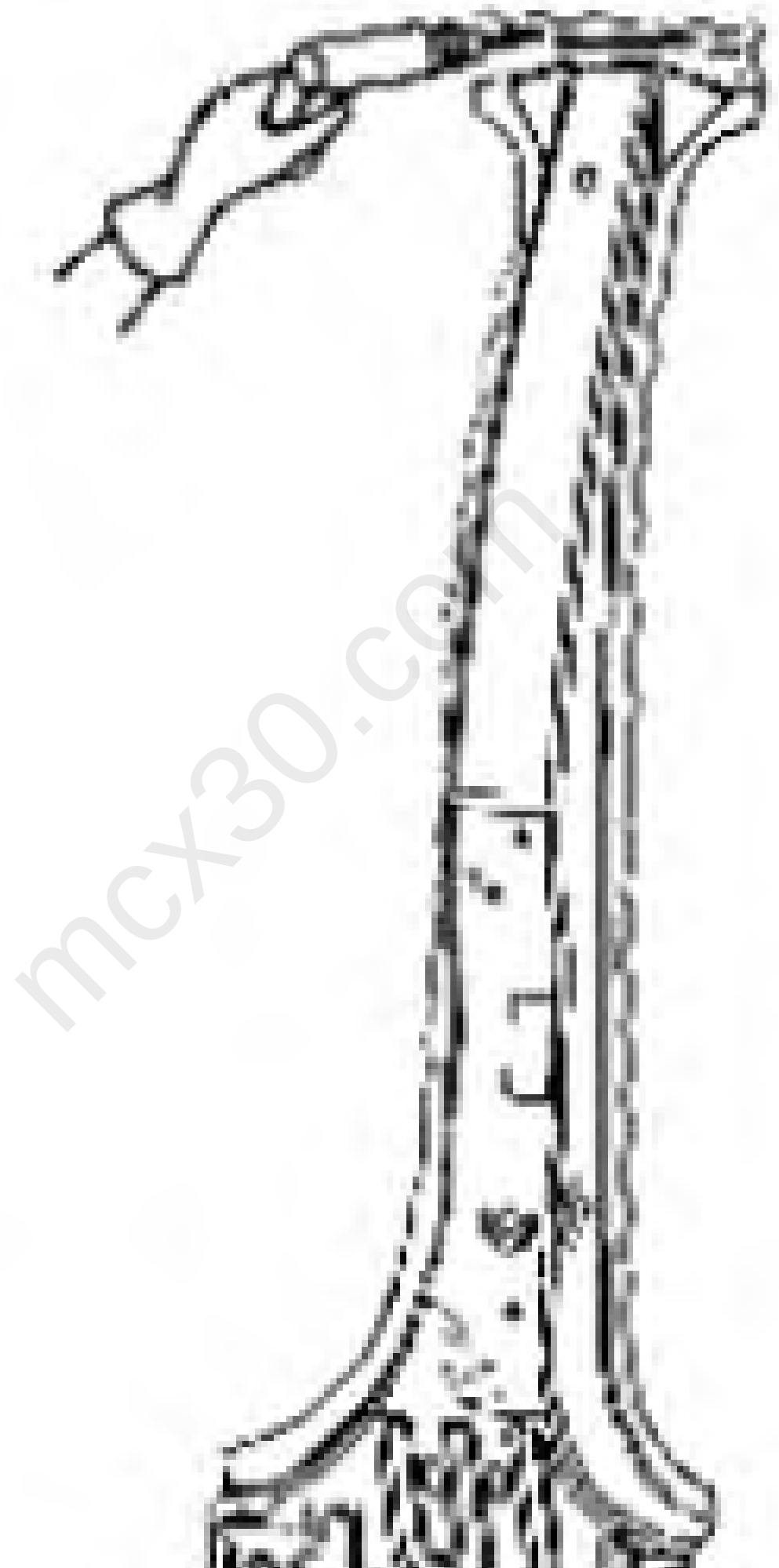


7. Remove the damaged center pillar reinforcement (1).

Installation Procedure

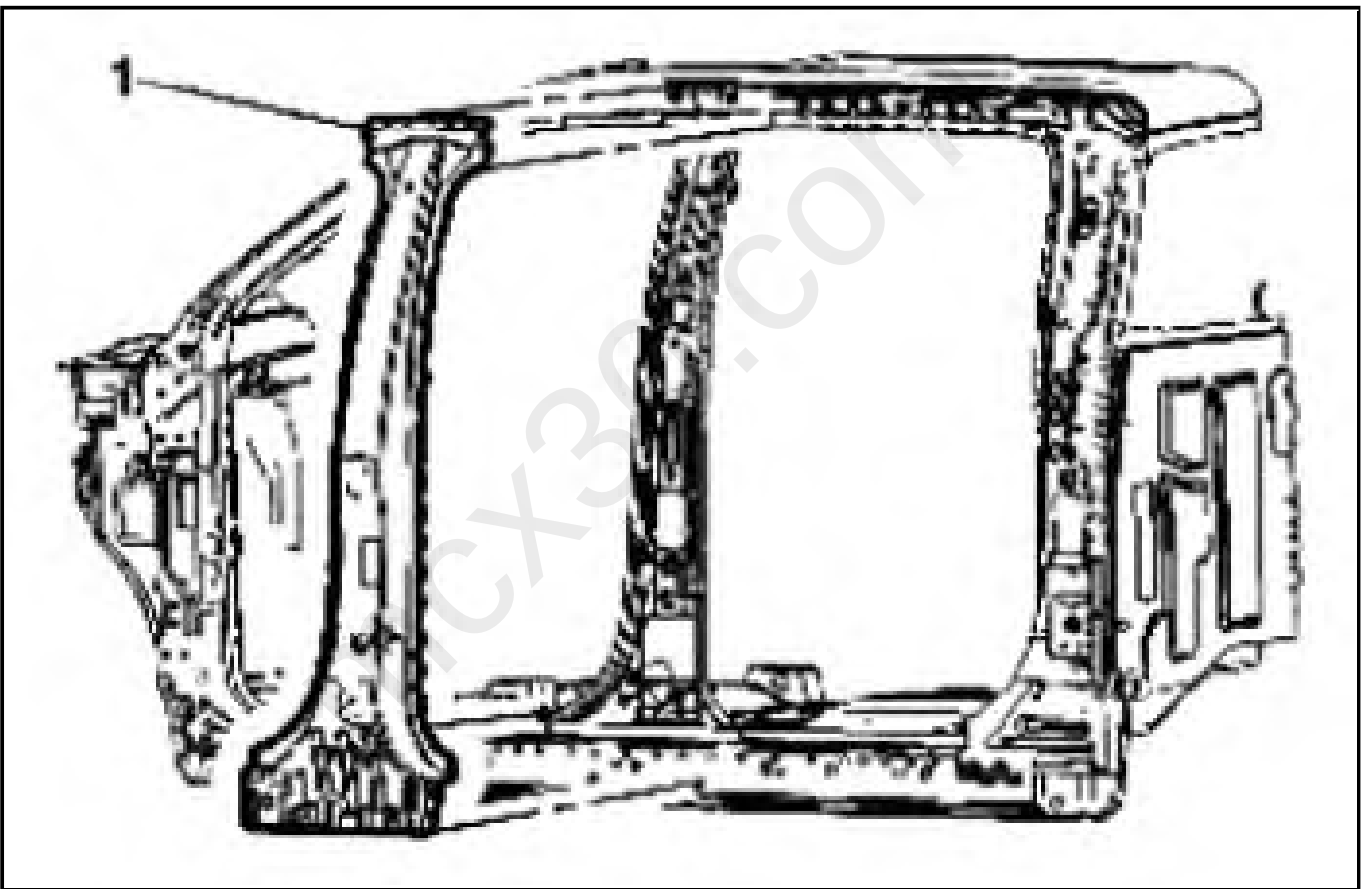
1. Clean and prepare all mating surfaces, as necessary for welding.
2. Align the center pillar reinforcement.

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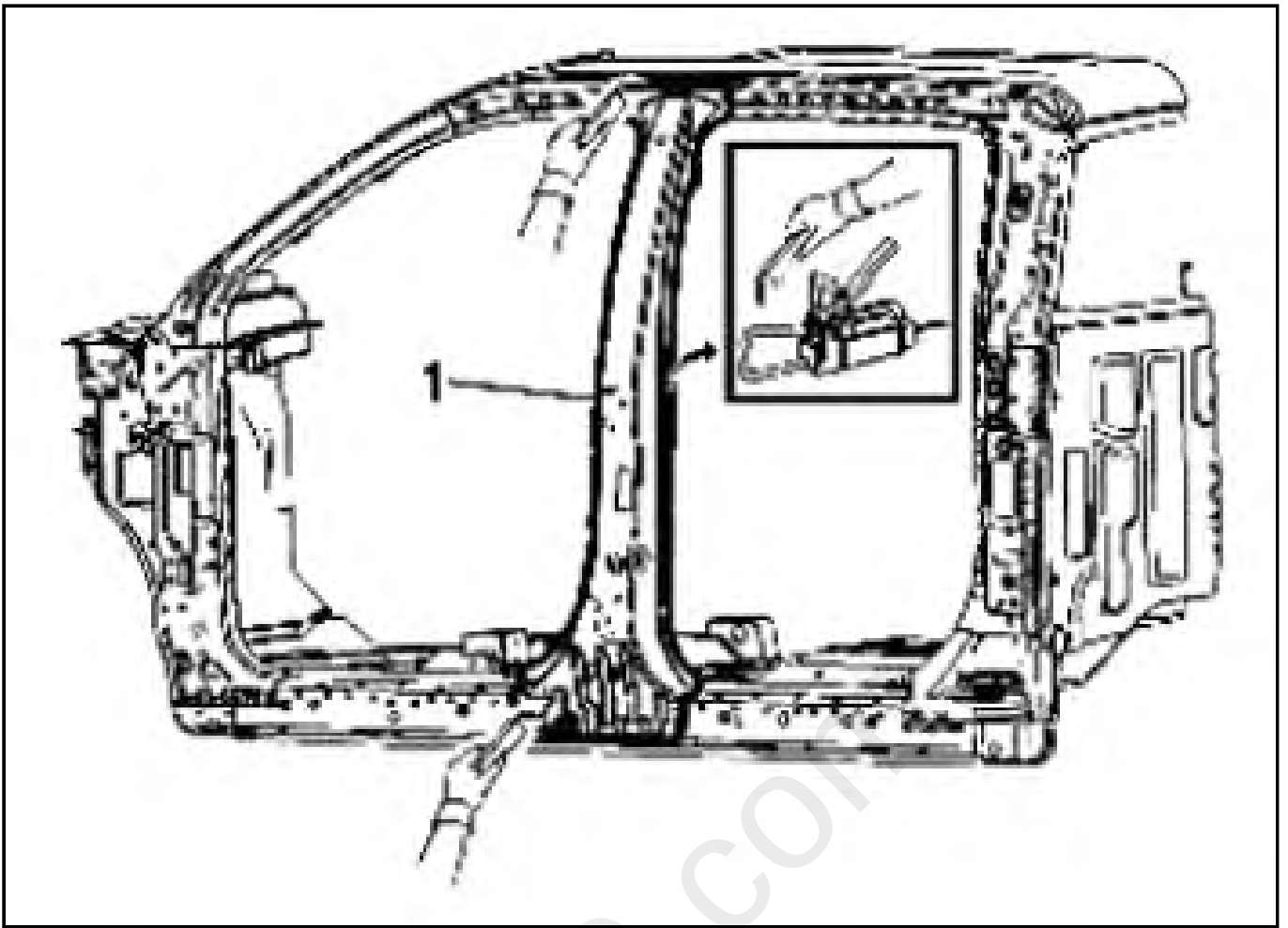




3. Drill 8 mm (5/16 in) for plug welding along the top and bottom of the center pillar reinforcement (1) as noted from the original panel.



4. Position the center pillar reinforcement (1) on the vehicle using 3-dimensional measuring equipment.
5. Verify the fit of the center pillar reinforcement.
6. Clamp the center pillar reinforcement into position.



7. Weld accordingly at the original weld locations (1).
8. Complete body side outer sectioning as necessary.
9. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
10. Paint the repaired area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
11. Install all related panels and components.
12. Enable the SIR system and then connect the negative battery cable. Refer to [SIR Disabling and Enabling](#) .

CENTER PILLAR SECTIONING

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

WARNING: Refer to [Collision Sectioning Warning](#) .

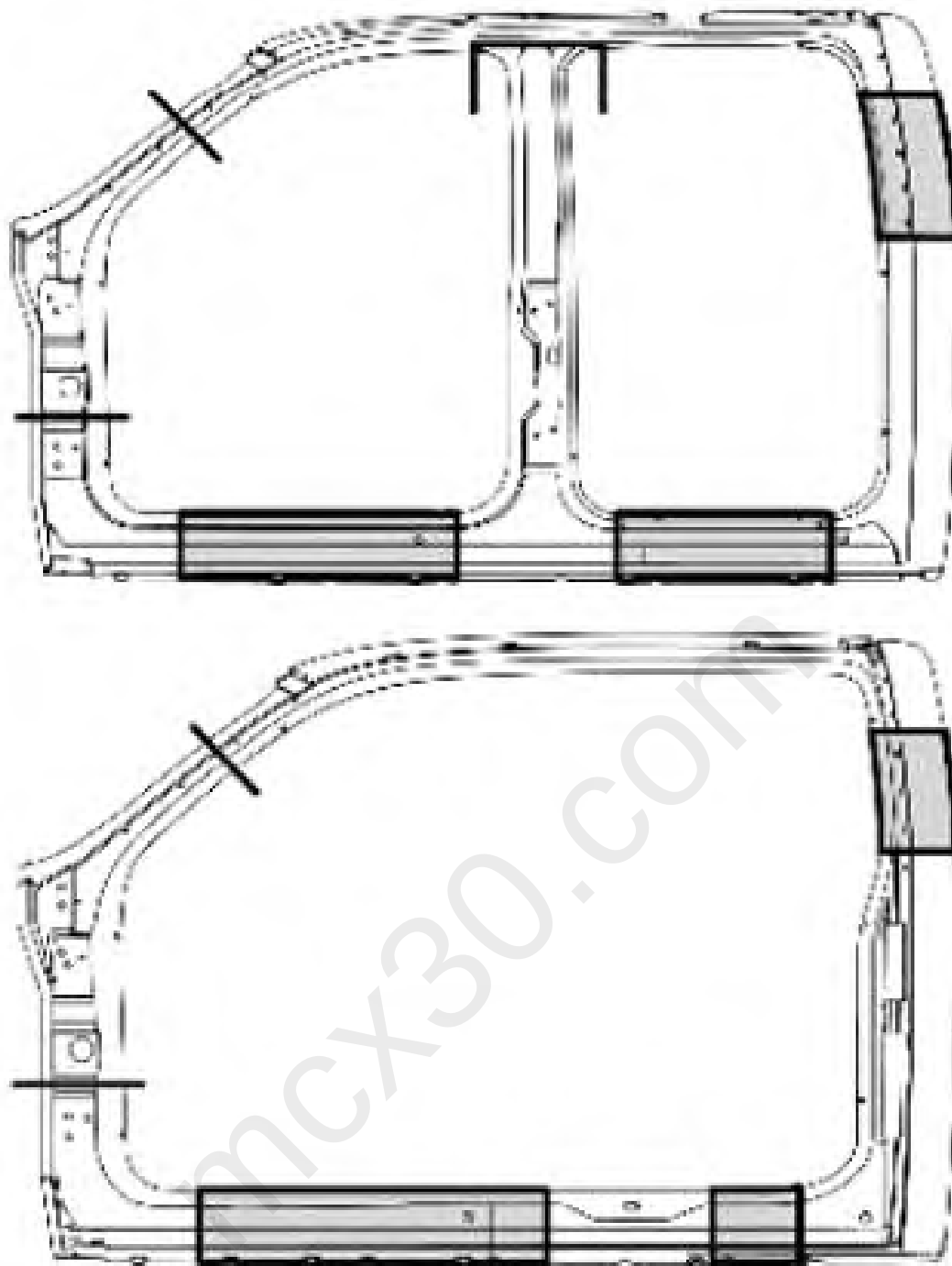


Fig. 21: Center Pillar Sectioning Component Location

Courtesy of GENERAL MOTORS COMPANY

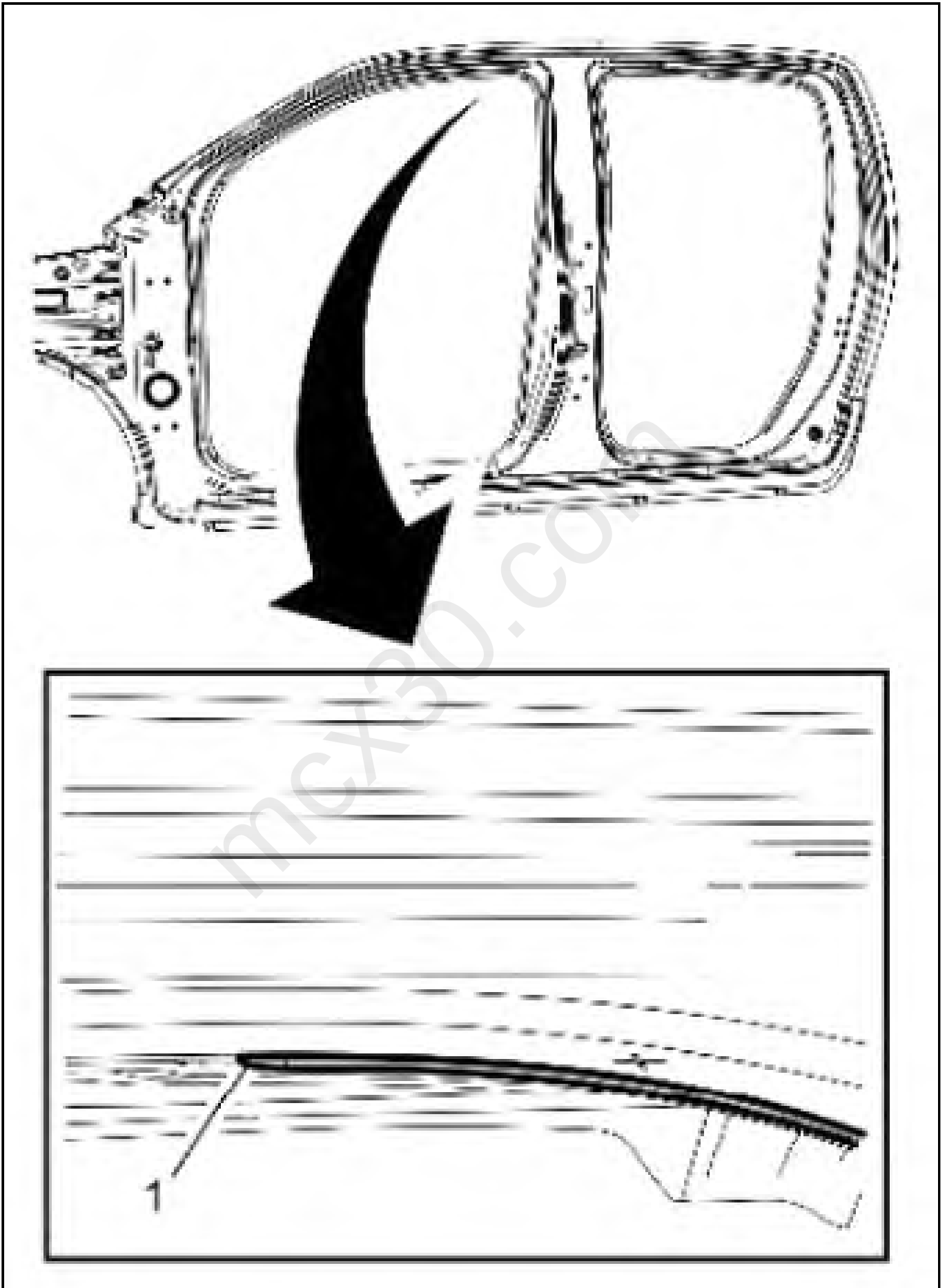
1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .

WARNING: Refer to [Foam Sound Deadeners Warning](#) .

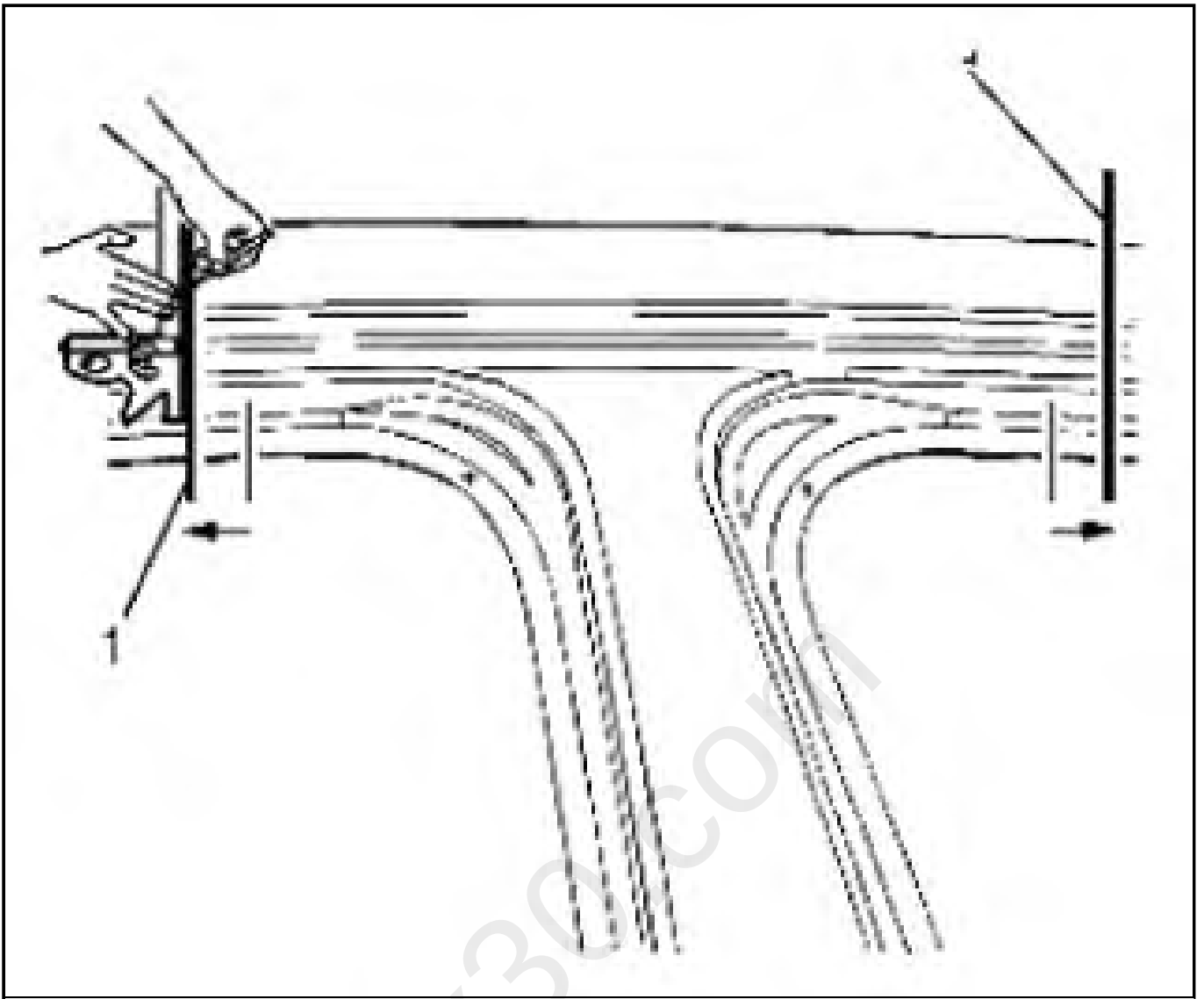
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
6. Perform additional sectioning procedures as necessary. Refer to the following procedures:
[Outer Windshield Frame Pillar Sectioning](#)
[Front Hinge Pillar Sectioning](#)

Rocker Outer Panel Sectioning

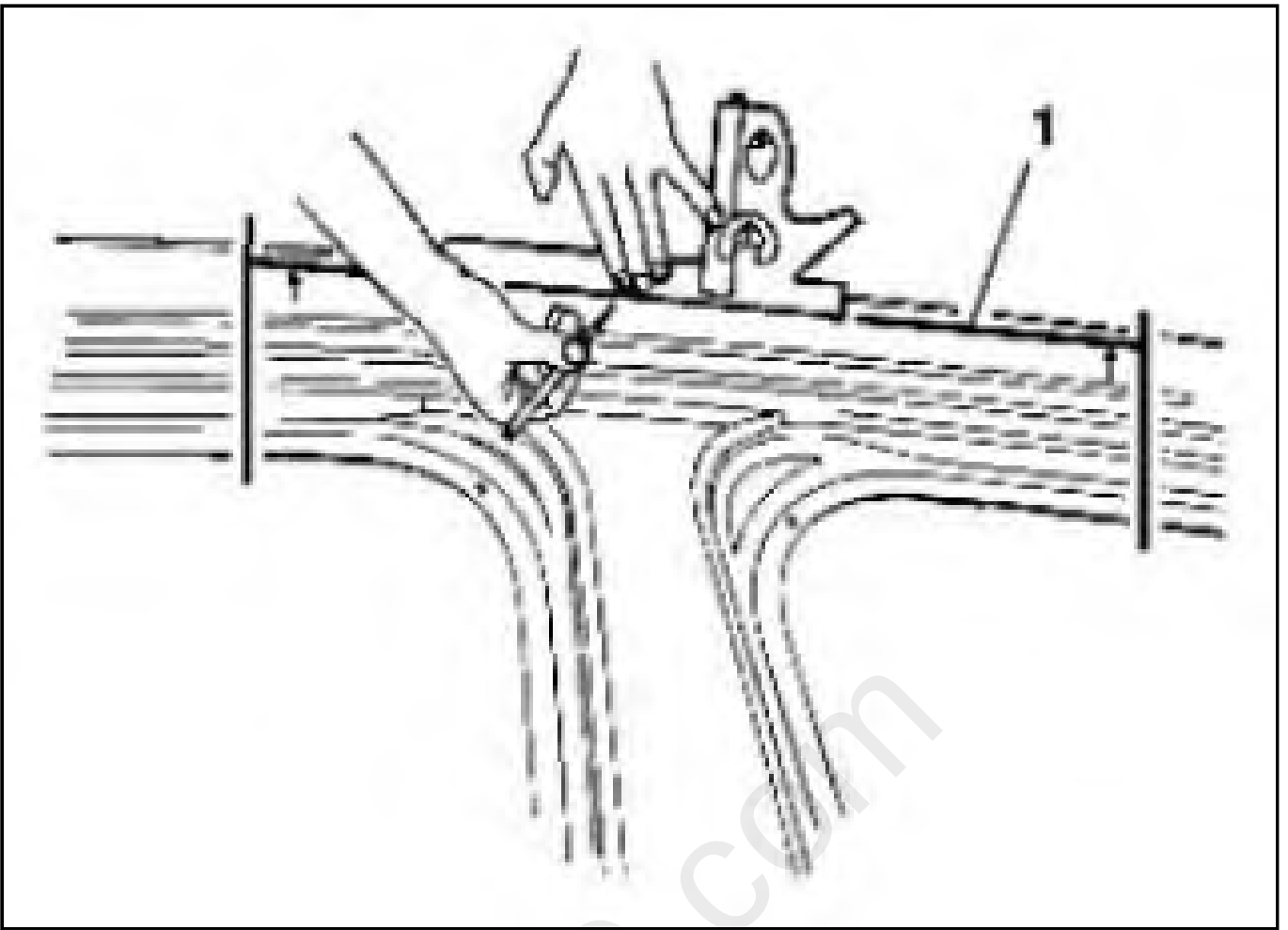
Rear Pillar Sectioning (Lower)Rear Pillar Sectioning (Complete).



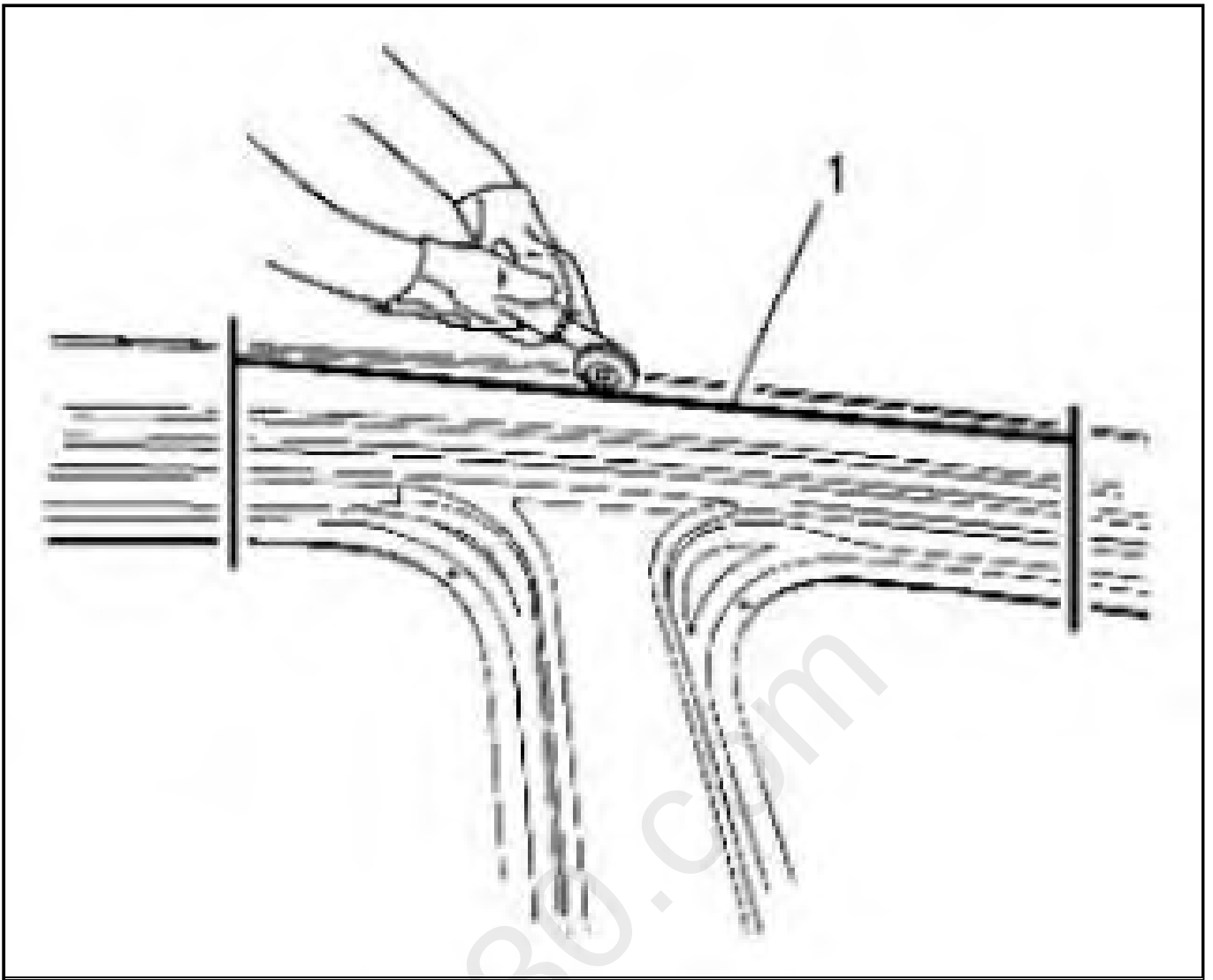
7. Remove the weatherstrip, observe the flange in the center pillar area. There will be a 4-metal stack-up. The layer below the bodyside outer is the center pillar inner reinforcement (1).



8. Measure 30 mm (1.18 in) from the forward and rearward edges of the center pillar inner reinforcement and mark a vertical line (1).

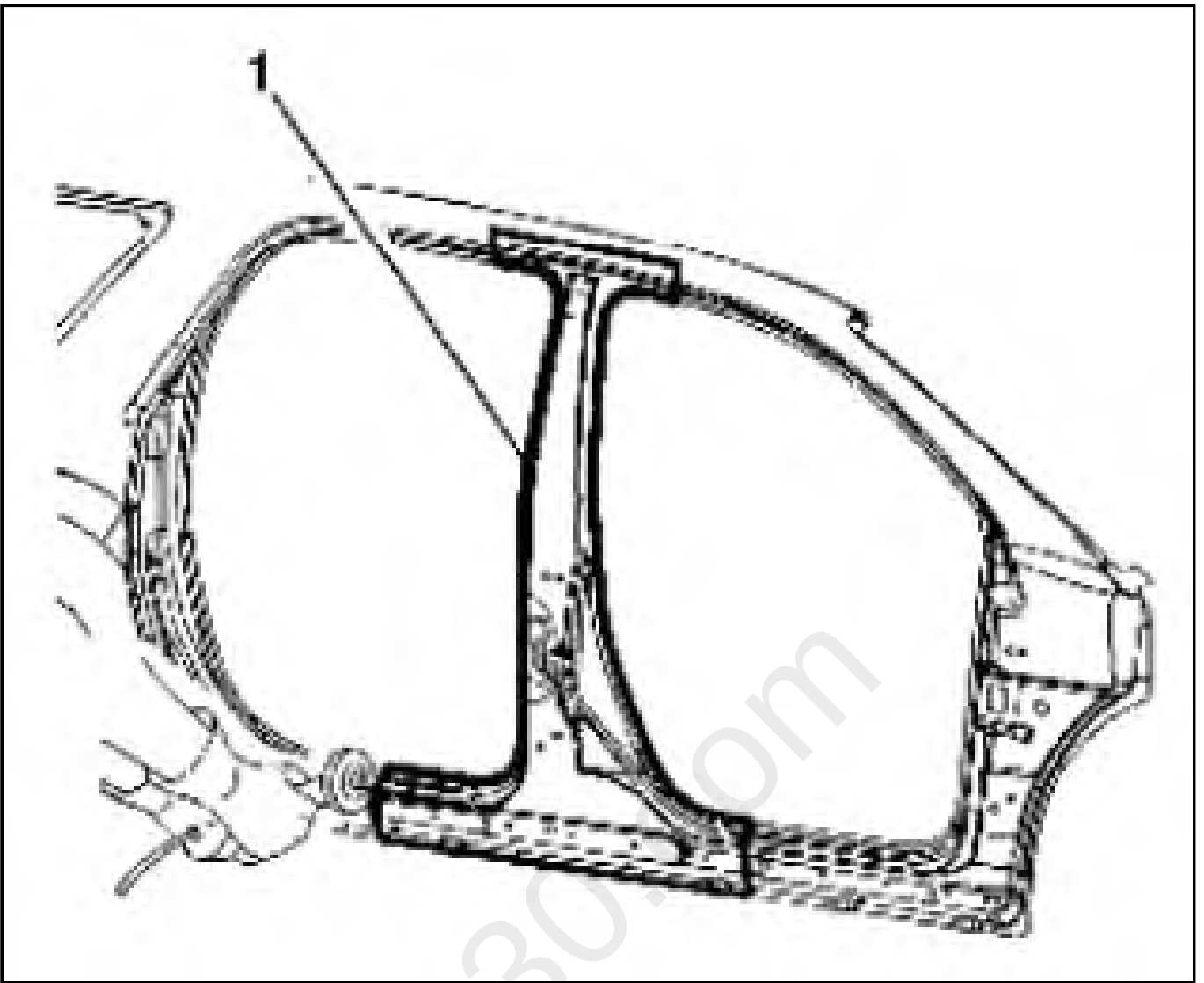


9. Measure up 30 mm (1.18 in) from the door opening feature line (1) and mark a horizontal line.

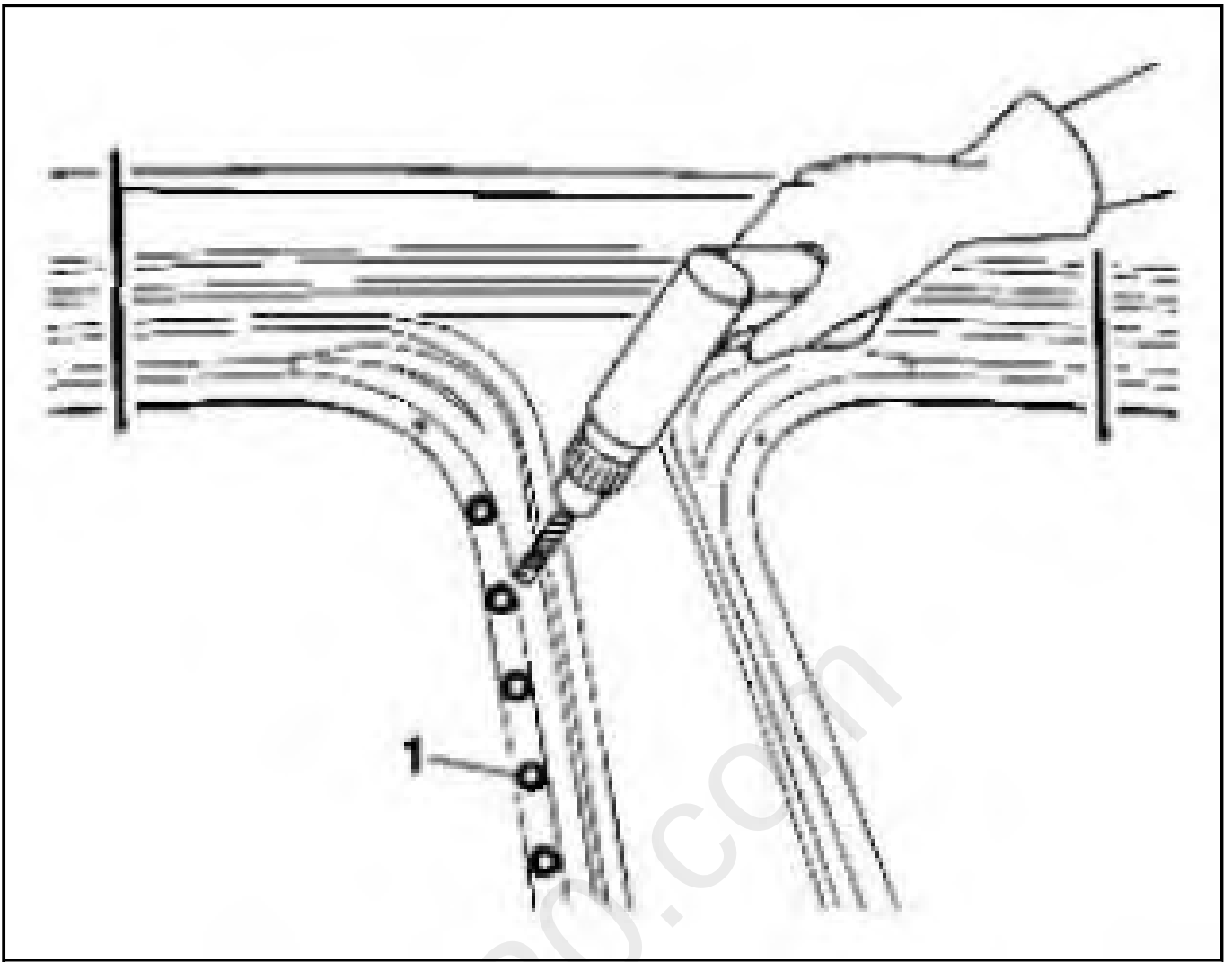


NOTE: Do not damage any inner panels or reinforcements.

10. Cut the panel in the locations where sectioning is to be performed.

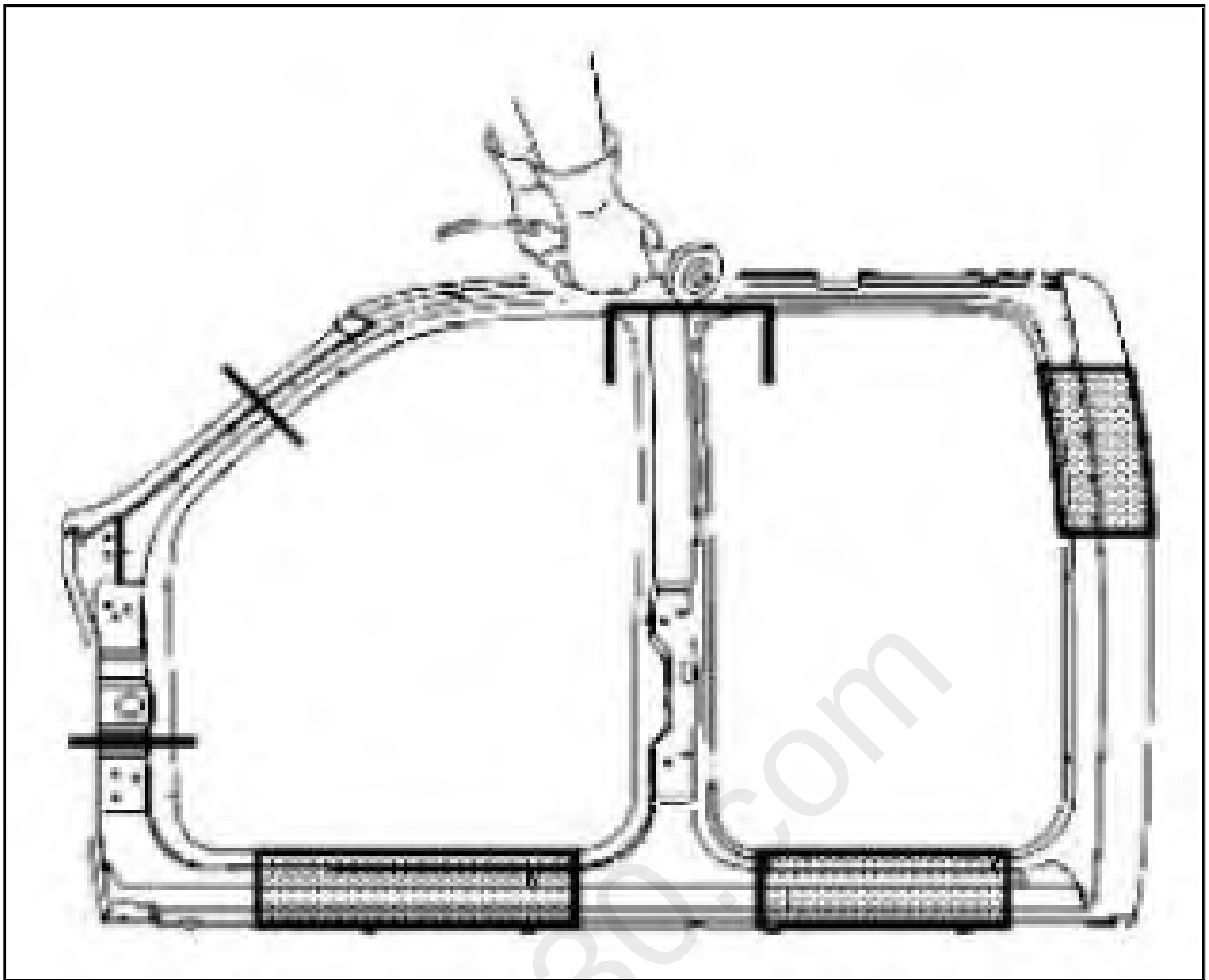


11. Measure 30 mm (1.18 in) from the forward and rearward edges of the center pillar inner reinforcement and mark a vertical line (1).

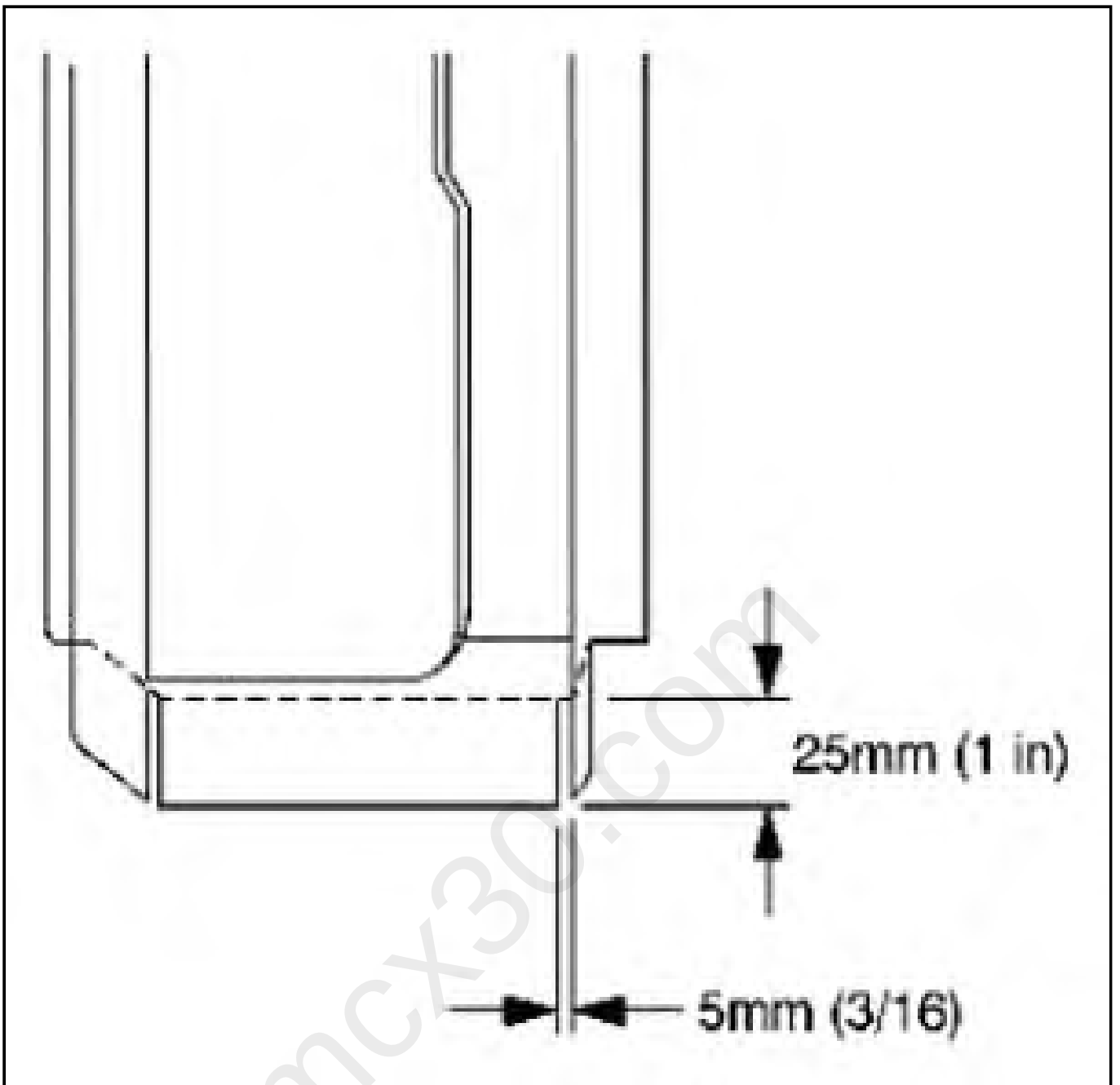


12. Locate and drill out all factory welds (1). Note the number and location of the welds for installation of the service part.
13. Remove the damaged pillar section.

Installation Procedure

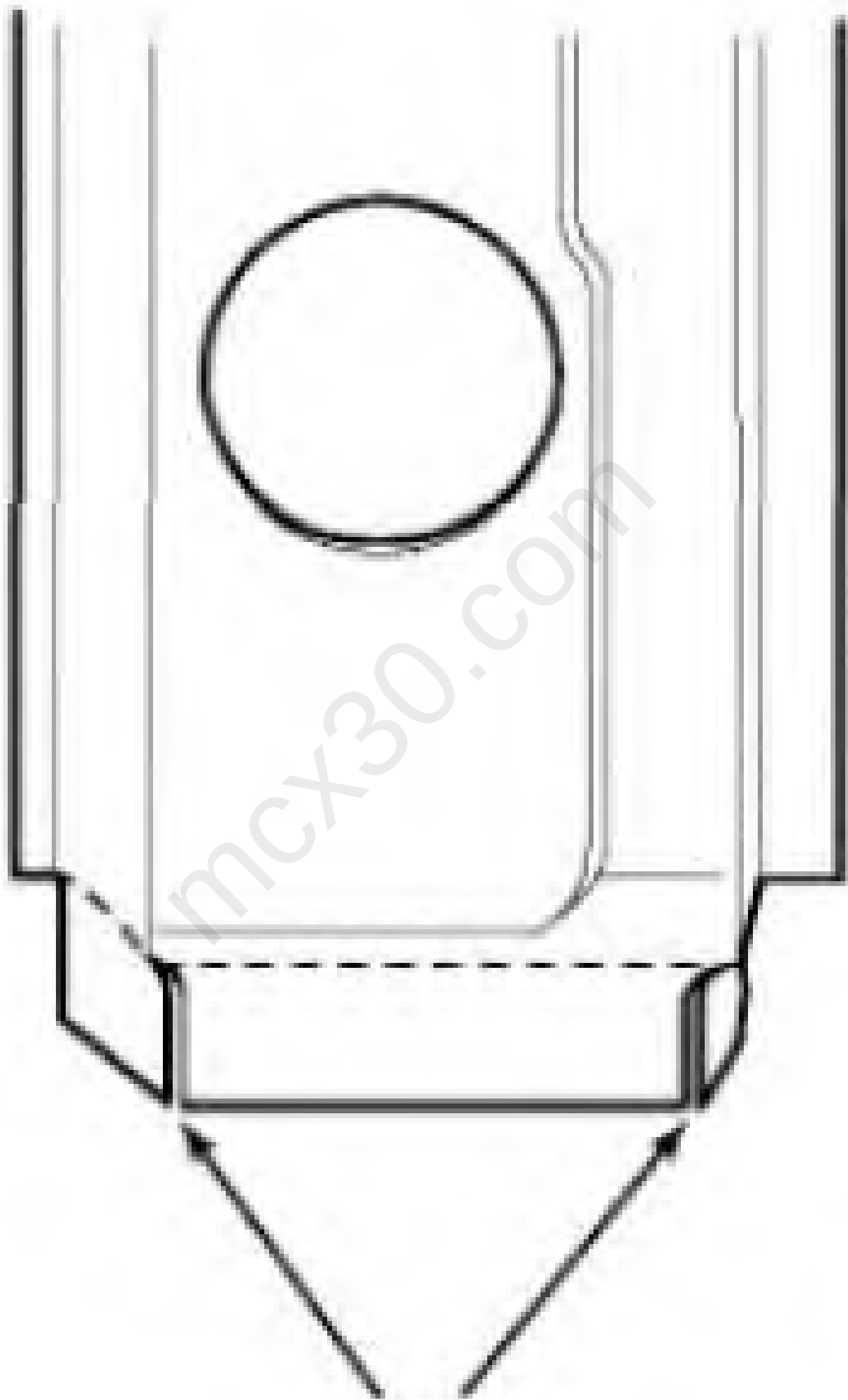


1. From the service part, cut the panel in corresponding locations to overlap the remaining original panel by 25 mm (1 in) at each joint location.



2. Cut and remove 25 mm (1 in) from the flanges on either side of the remaining section of the original pillar. Cut 5 mm (3/16 in) wide gaps in the bottom corners.

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1

3. Step the tabs (1) inward to allow the door frame opening service section to fit over the original hinge pillar.

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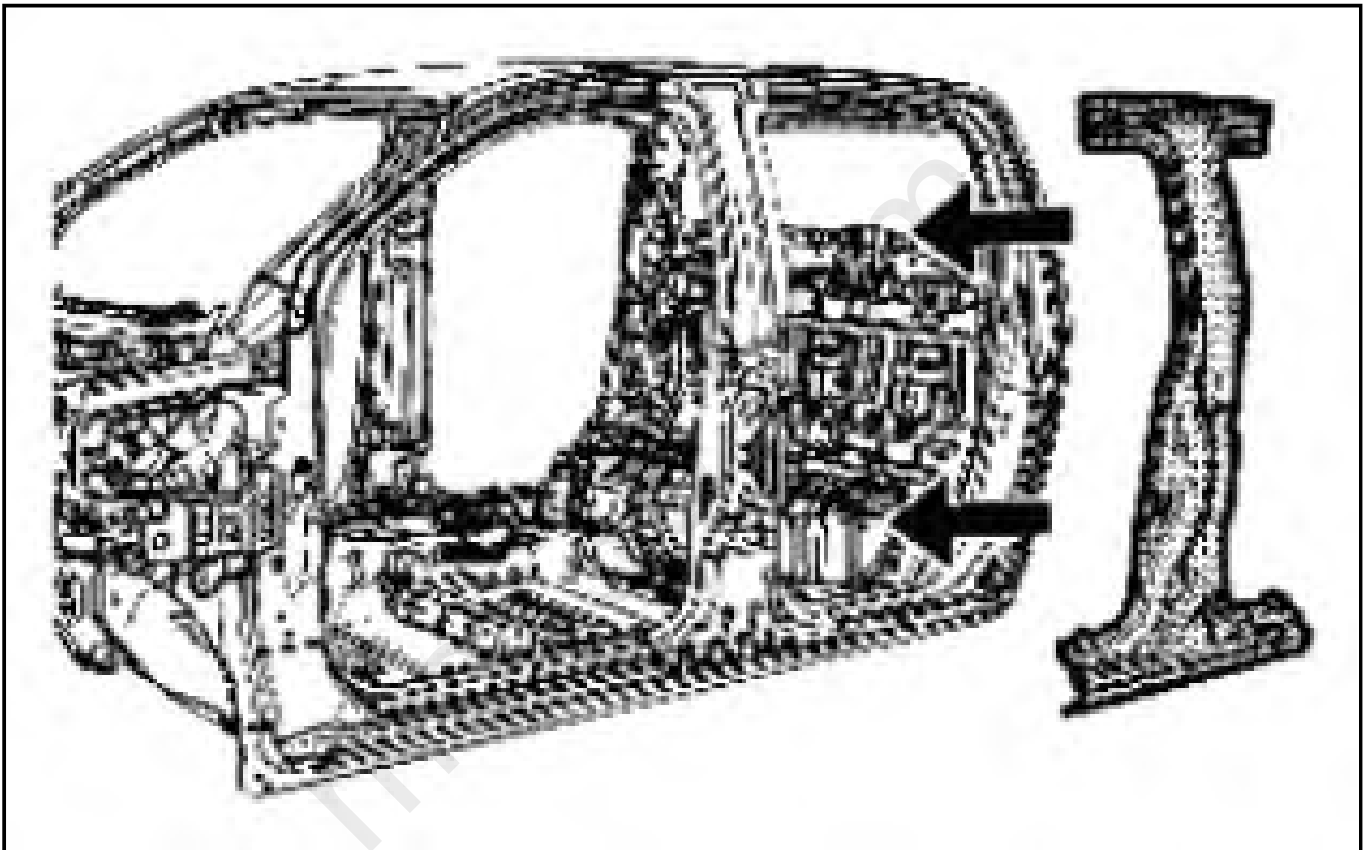
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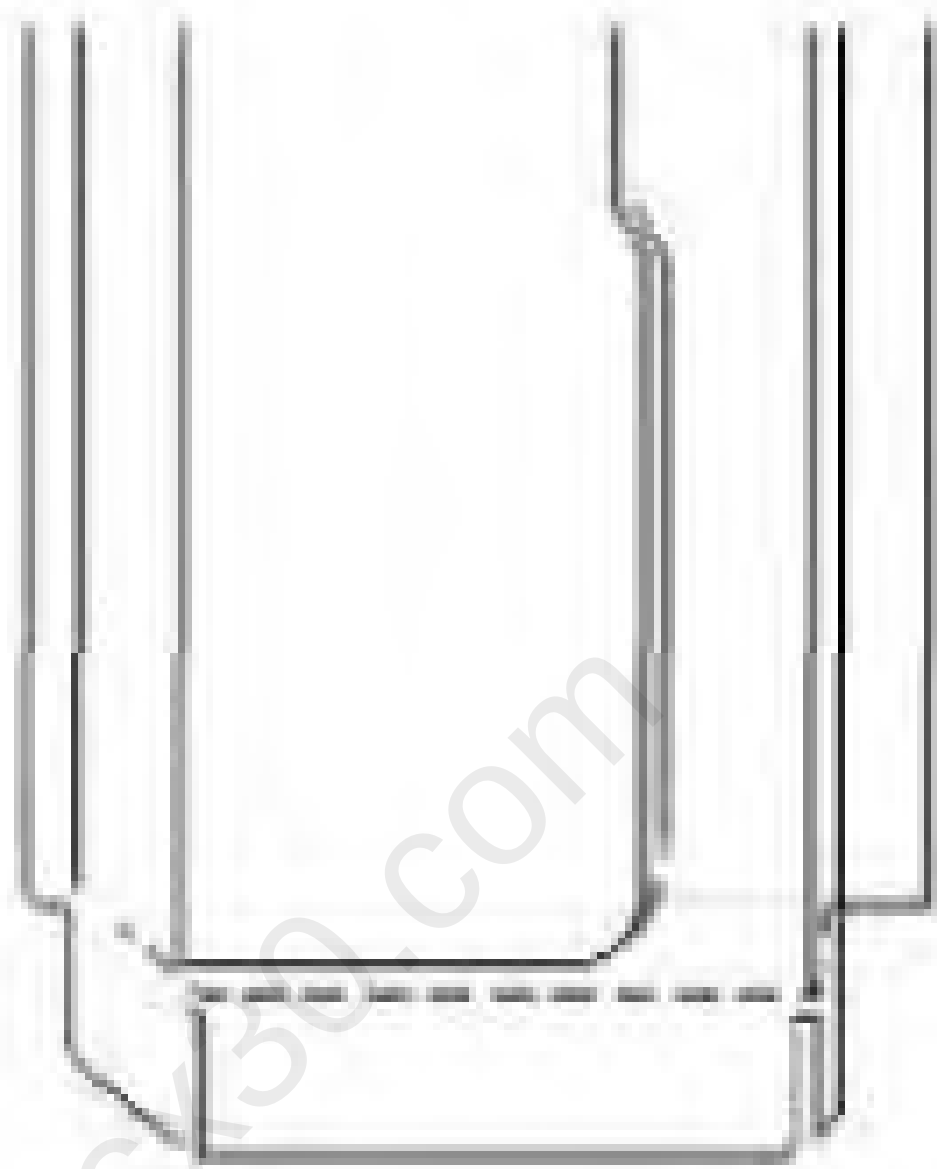
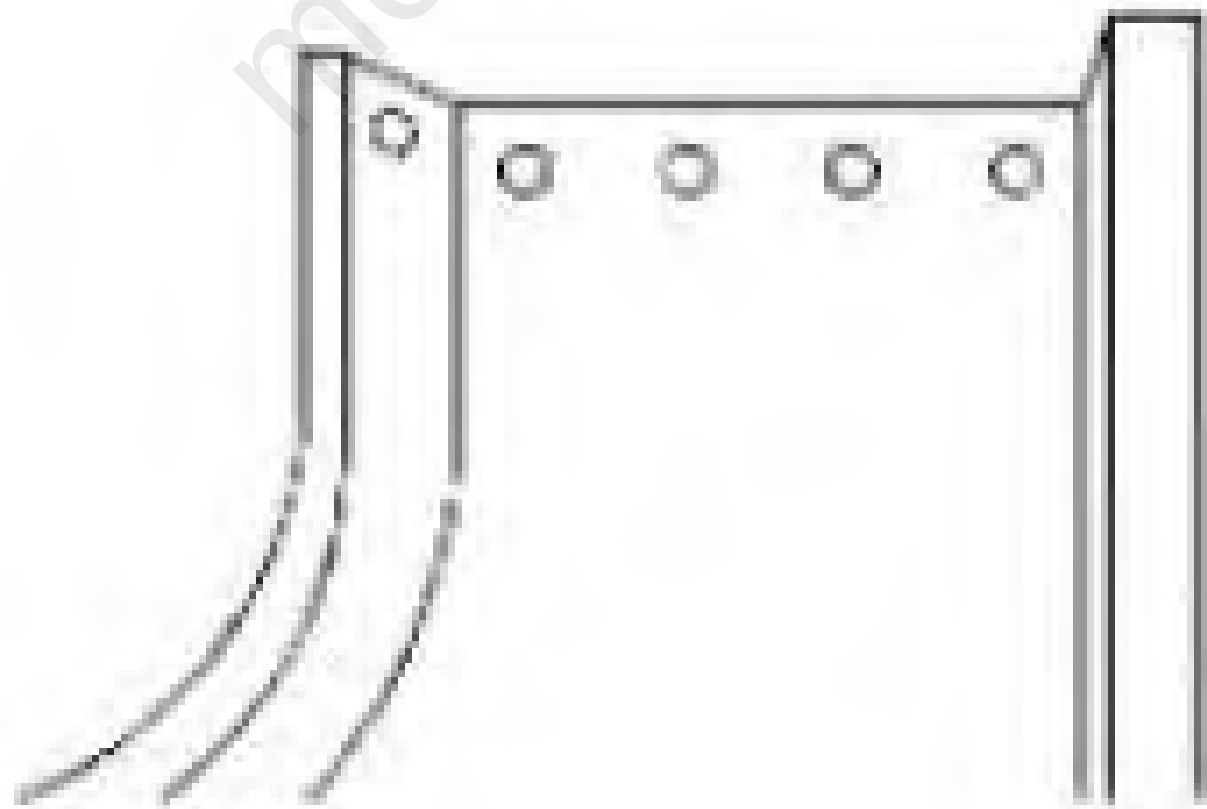
NOTE: If the location of the original plug weld holes cannot be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

4. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel and along the sectioning cut.
5. Prepare all attachment surfaces, as necessary.
6. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#).

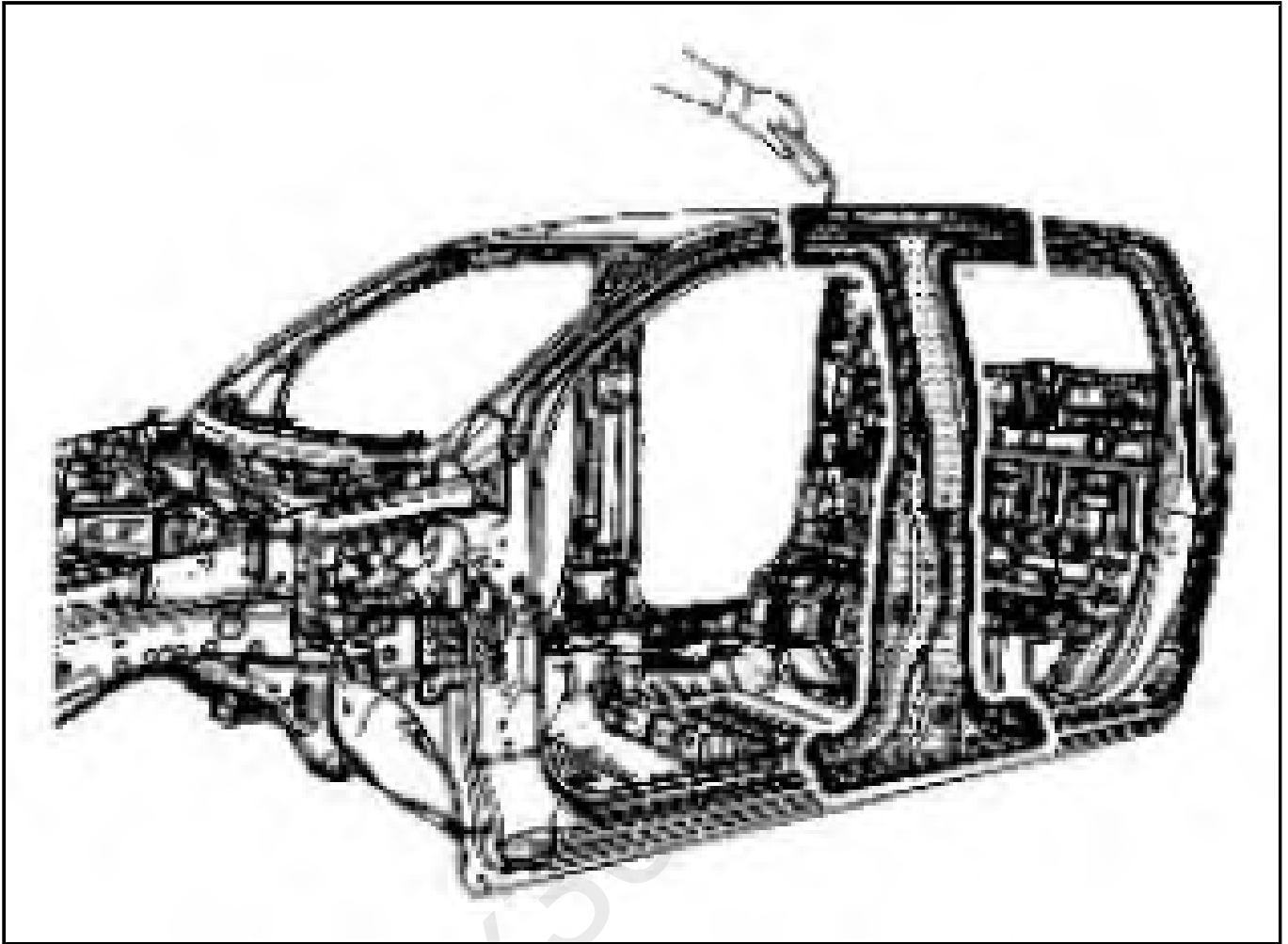


7. Position the center pillar to the vehicle using 3-dimensional measuring equipment. Clamp in place.

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8. Fit the new part on the original panel.



9. Plug weld accordingly.

NOTE: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam with 25 mm (1 in) gaps between them. Complete the stitch weld.

10. Clean and prepare all welded surfaces.

11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

12. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .

13. Install all related panels and components.

14. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

15. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

REAR PILLAR SECTIONING (LOWER)

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

WARNING: Refer to [Collision Sectioning Warning](#) .

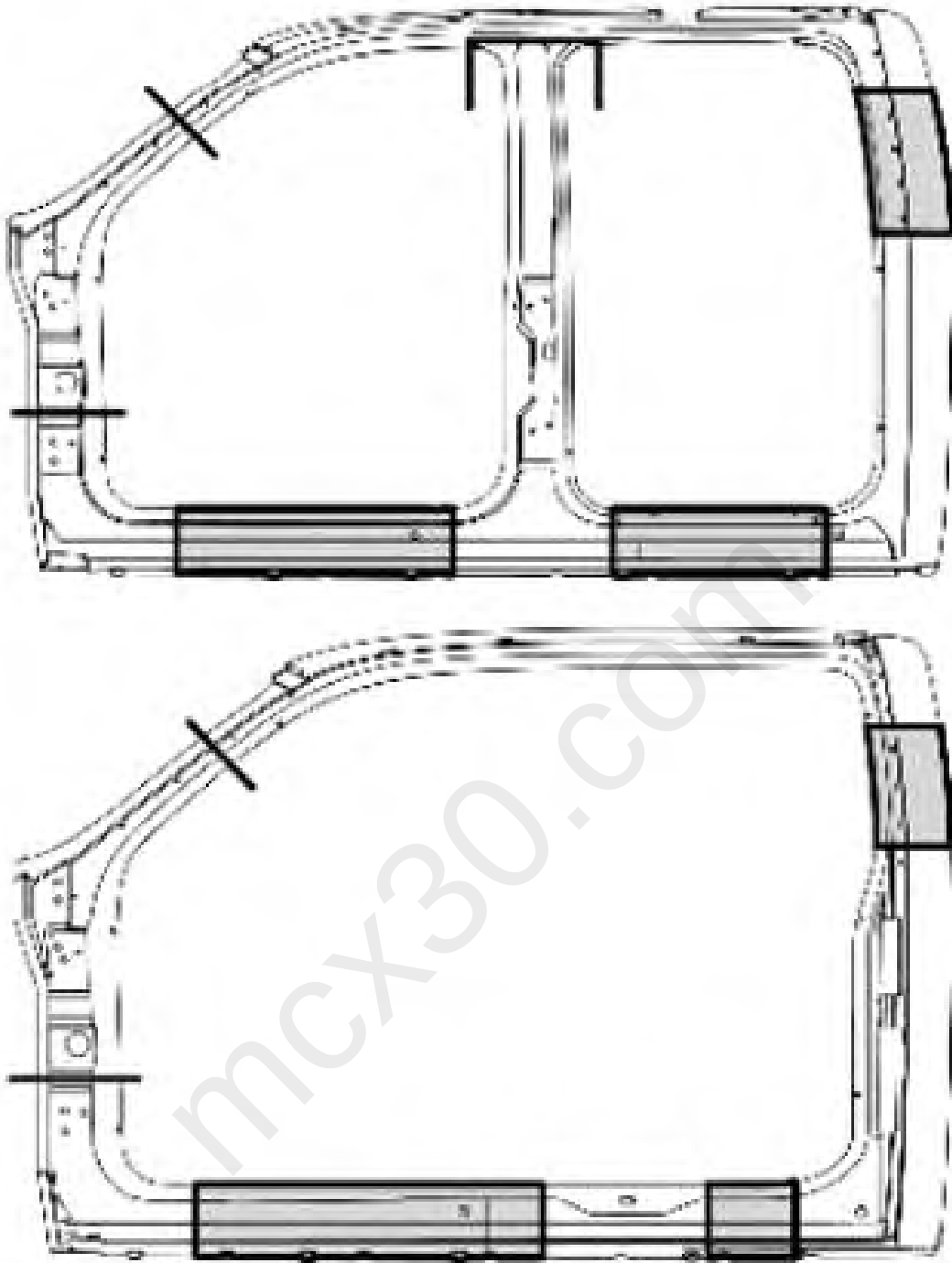


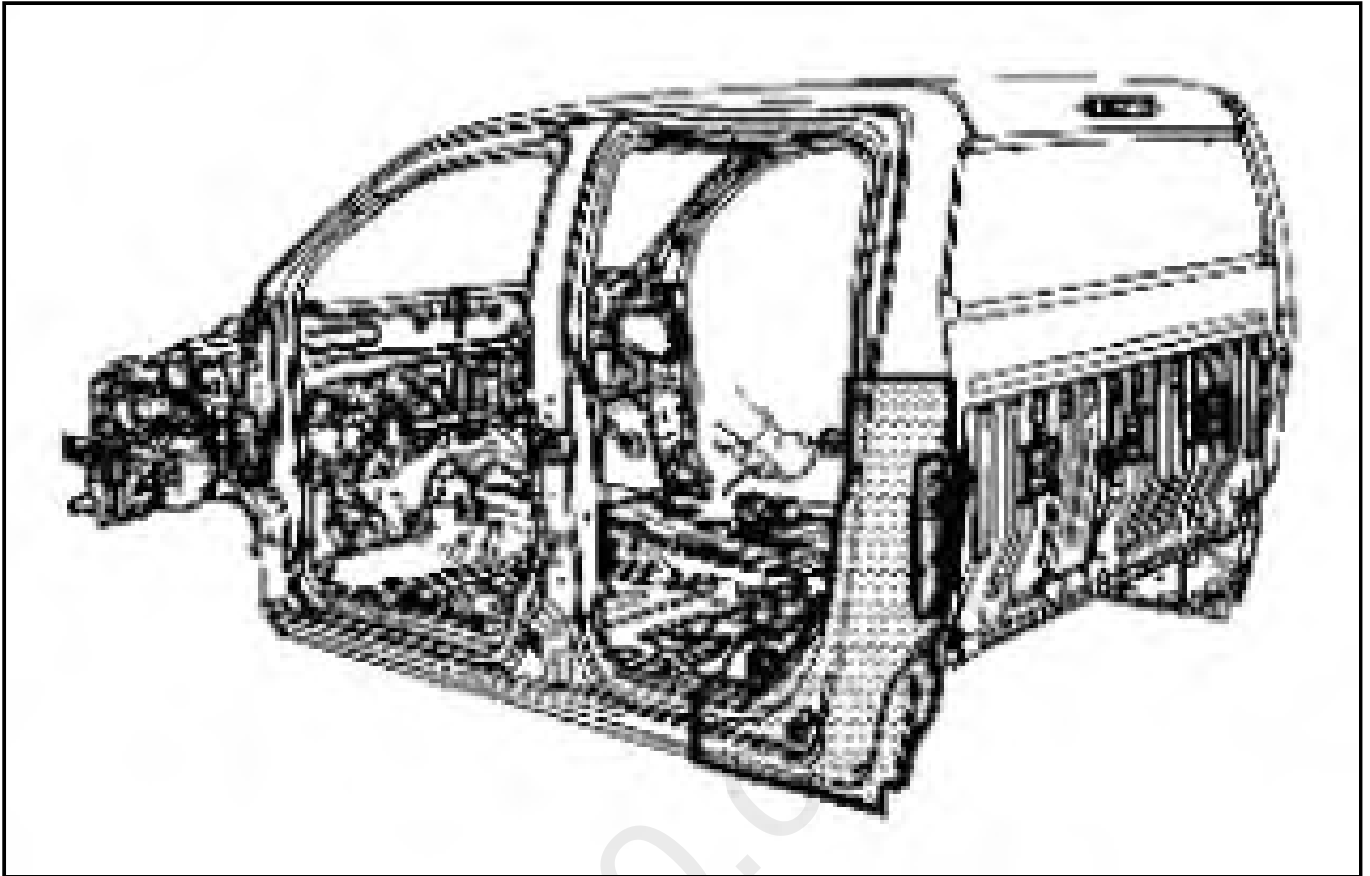
Fig. 22: Rear Pillar Sectioning Component Location (Lower)
Courtesy of GENERAL MOTORS COMPANY

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .

WARNING: Refer to [Foam Sound Deadeners Warning](#) .

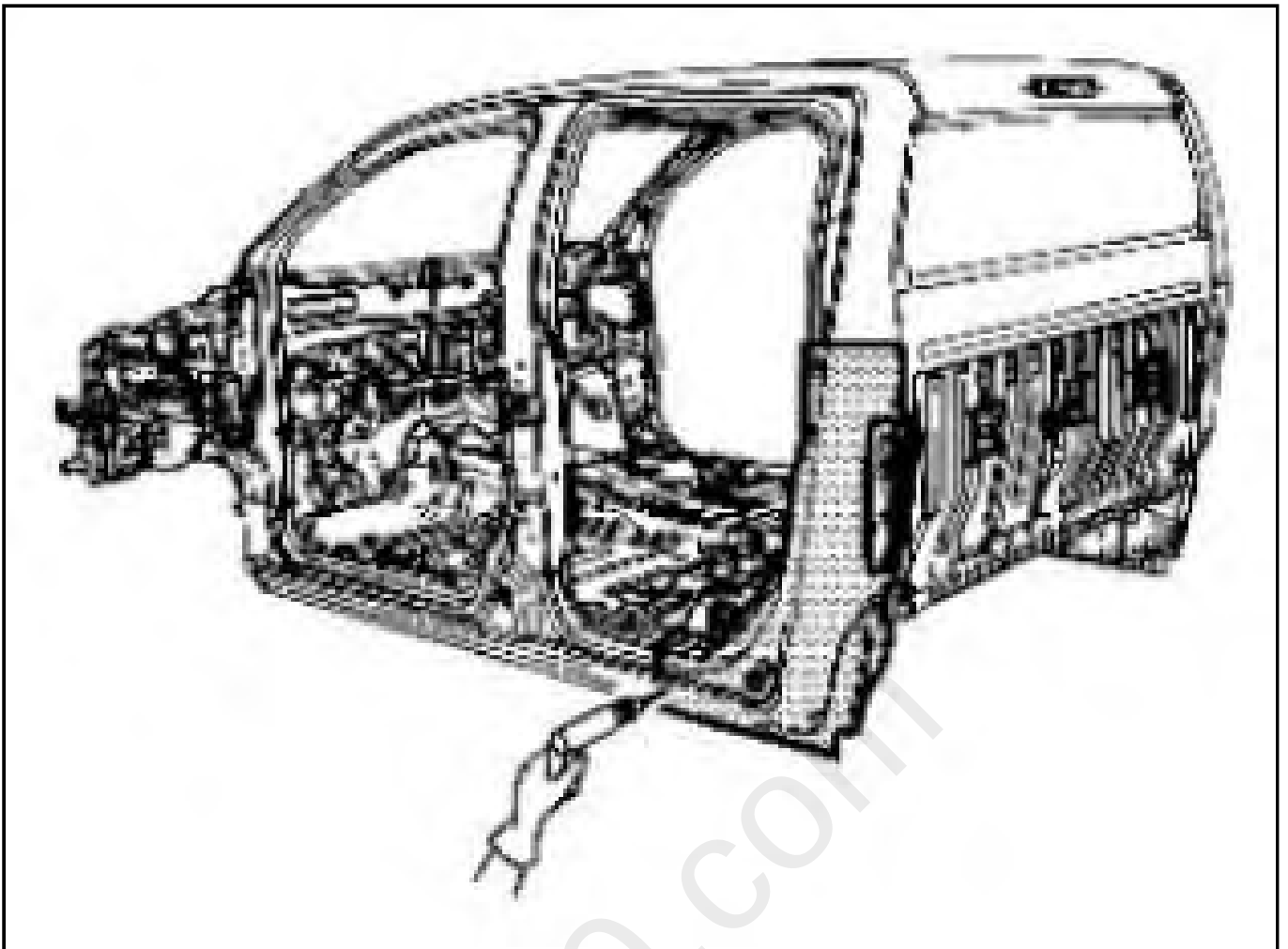
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [ANTI-CORROSION TREATMENT AND REPAIR](#) .
6. Perform additional sectioning procedures, as necessary. Refer to the following procedures:
[Outer Windshield Frame Pillar Sectioning](#)

Center Pillar Sectioning

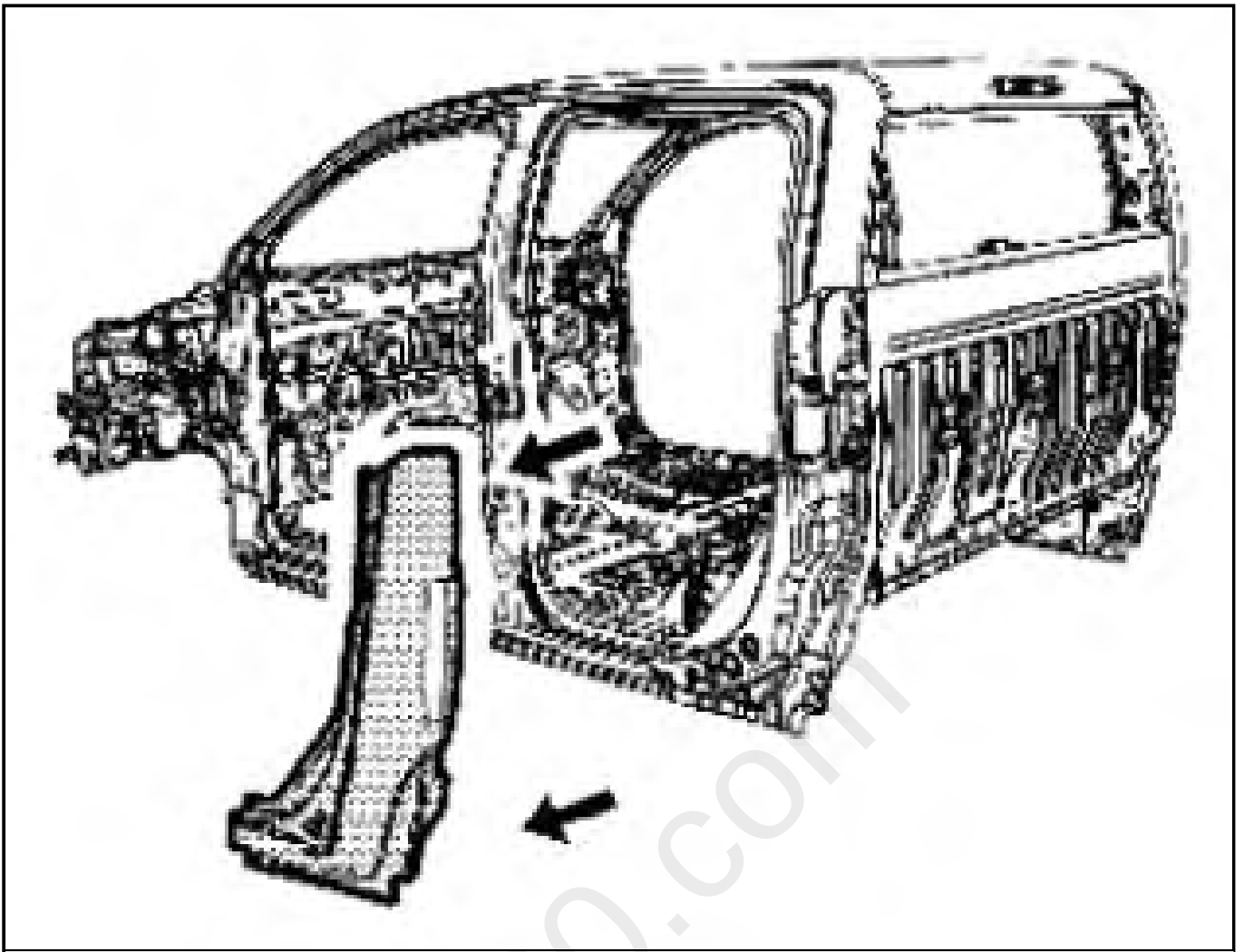


NOTE: Do not damage any inner panels or reinforcements.

8. Cut the panel in the locations where sectioning is to be performed.

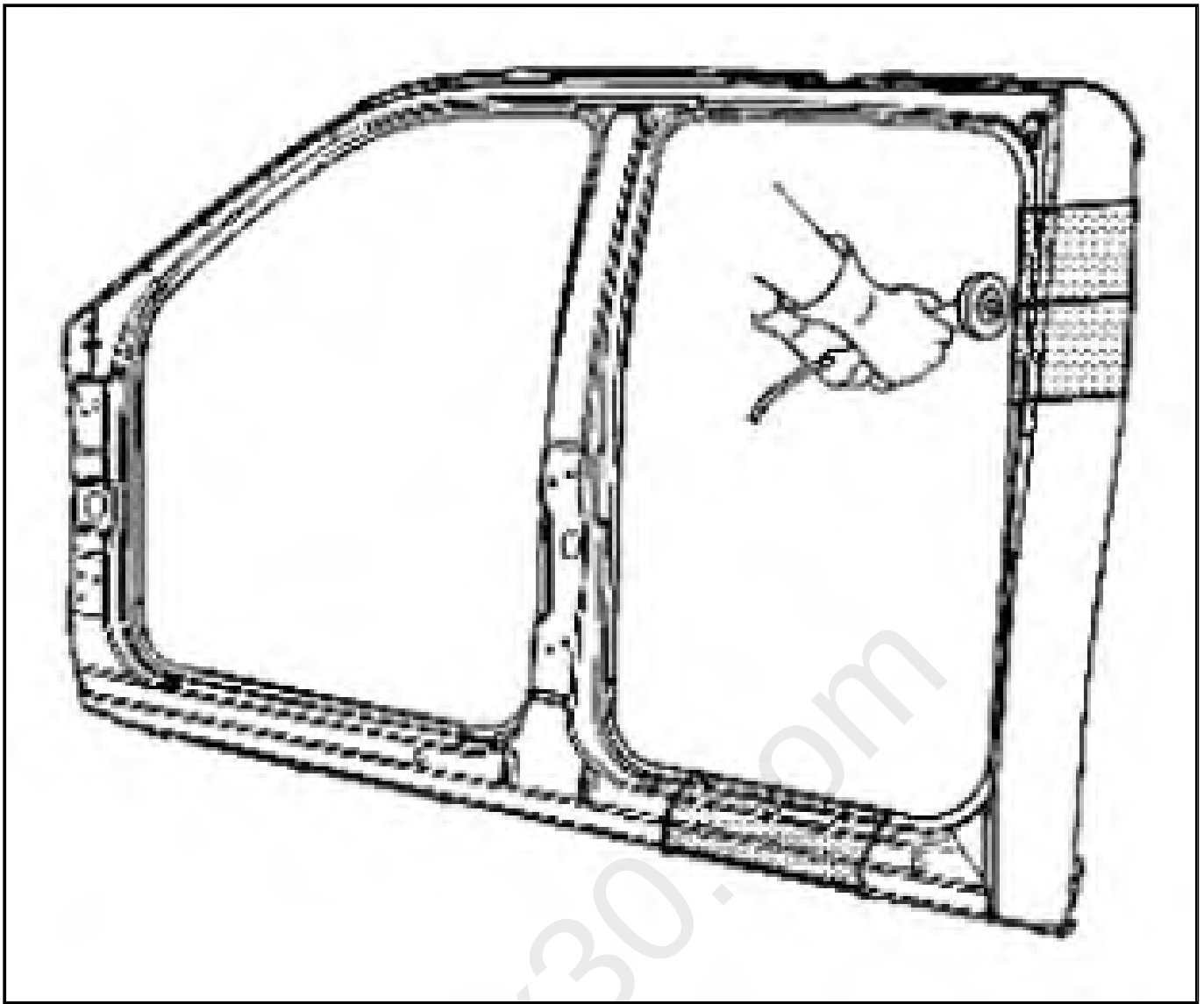


9. Locate and drill out all factory welds. Note the number and location of the welds for installation of the service part.

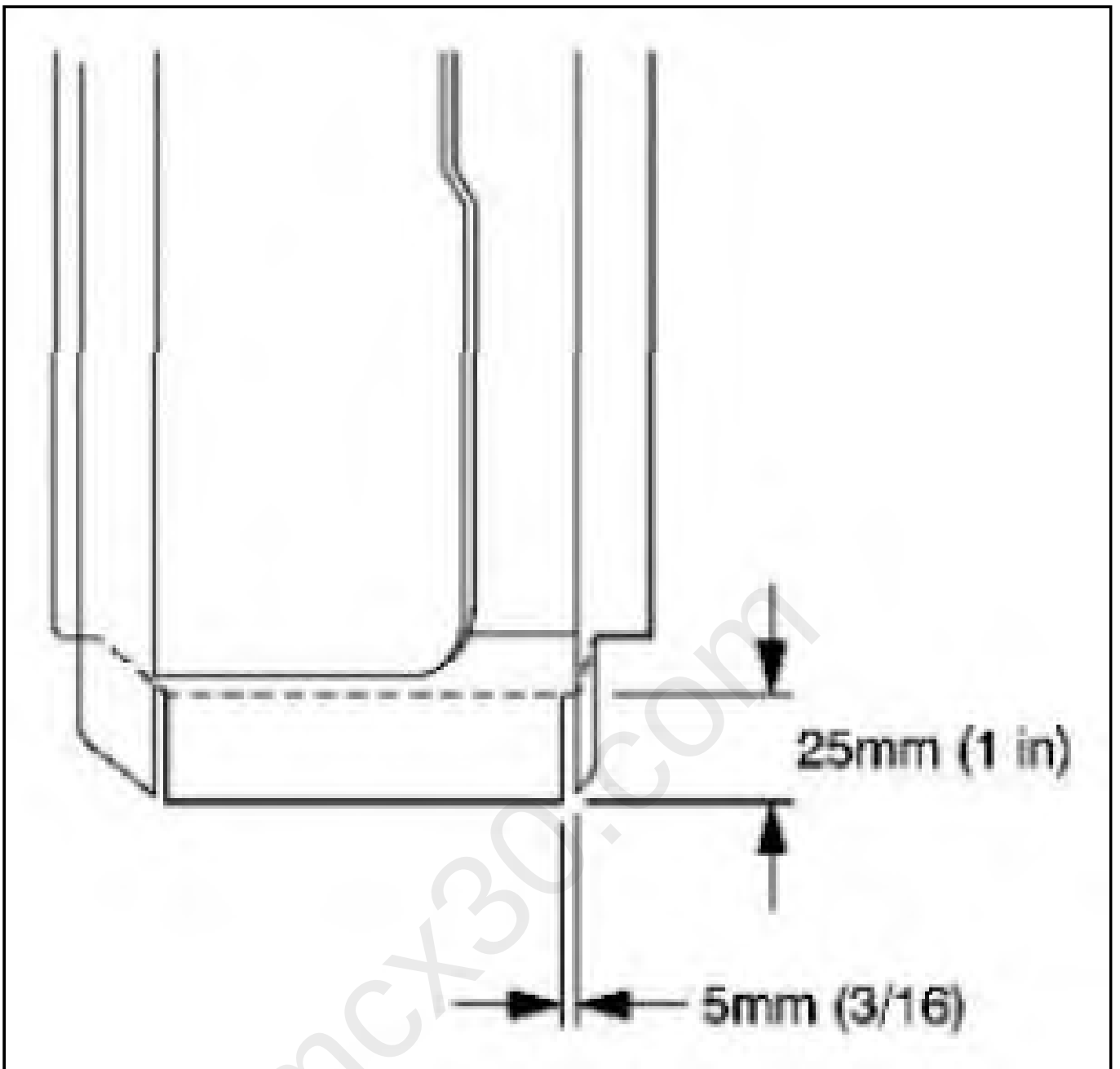


10. Remove the damaged pillar section.

Installation Procedure

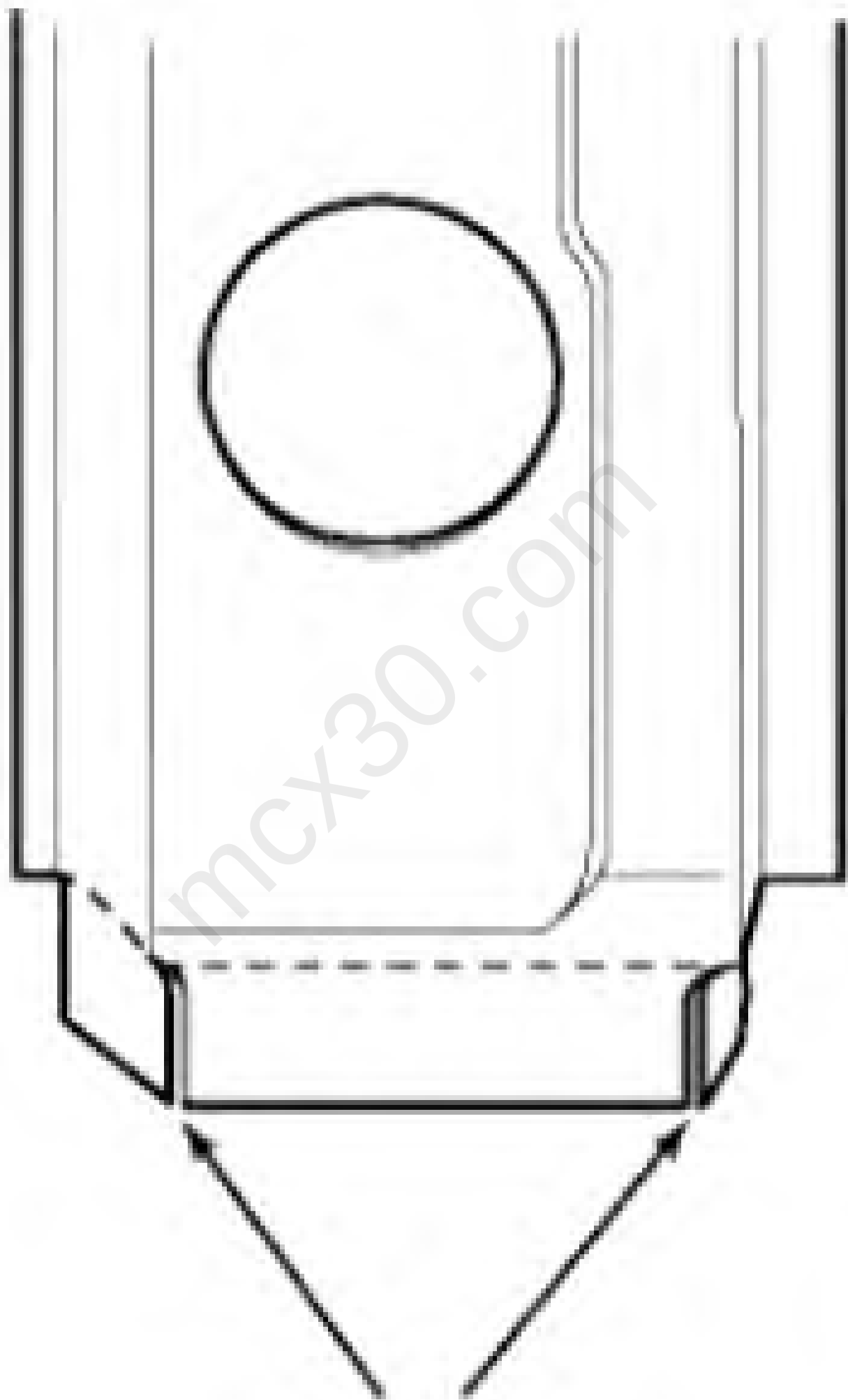


1. From the service part, cut the panel in corresponding locations to overlap the remaining original panel by 25 mm (1 in).



2. Cut and remove 25 mm (1 in) from the flanges on either side of the remaining section of the original pillar. Cut 5 mm (3/16 in) wide gaps in the bottom corners.

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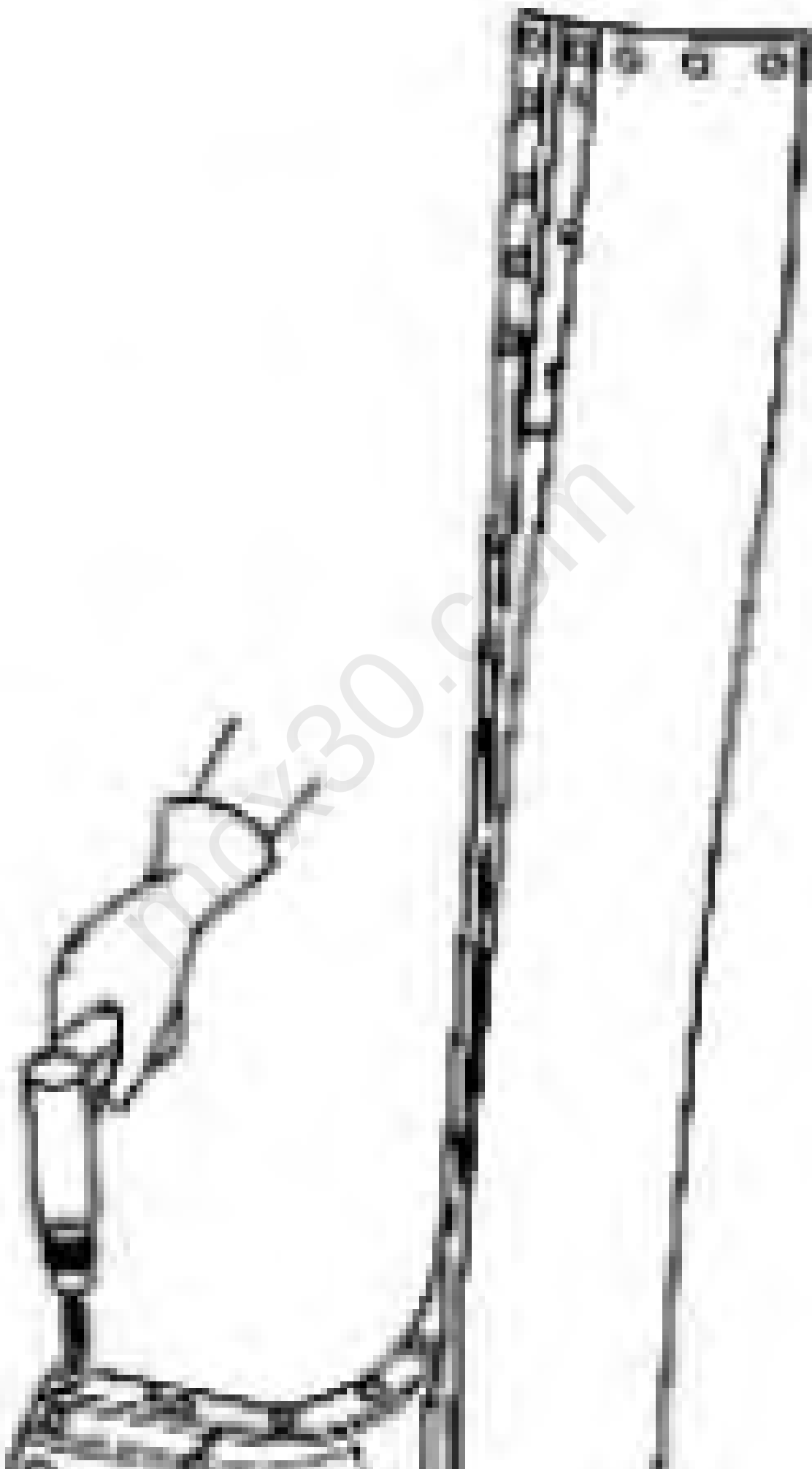


1

3. Step the tabs (1) inward to allow the door frame opening service section to fit over the original hinge pillar.

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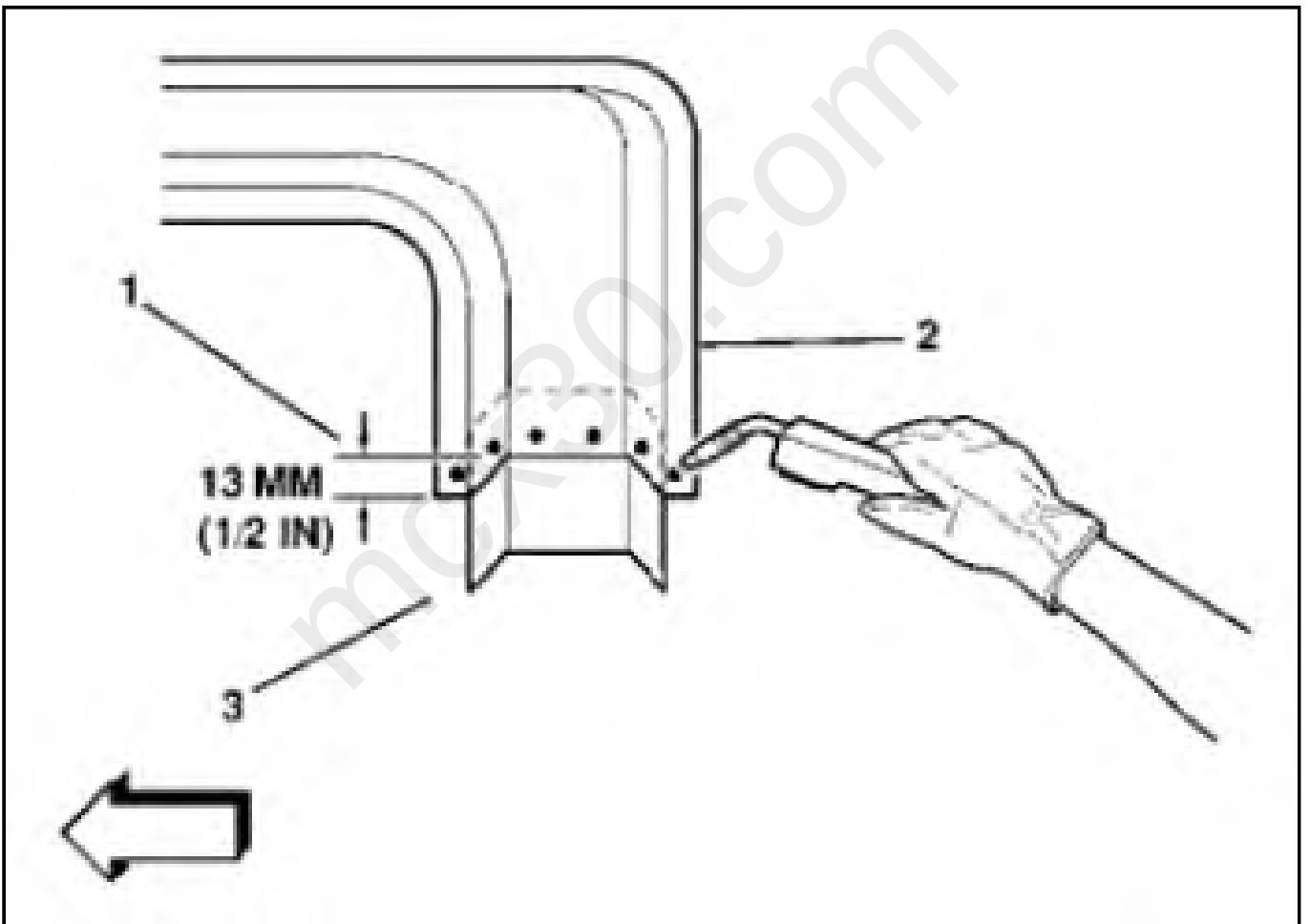
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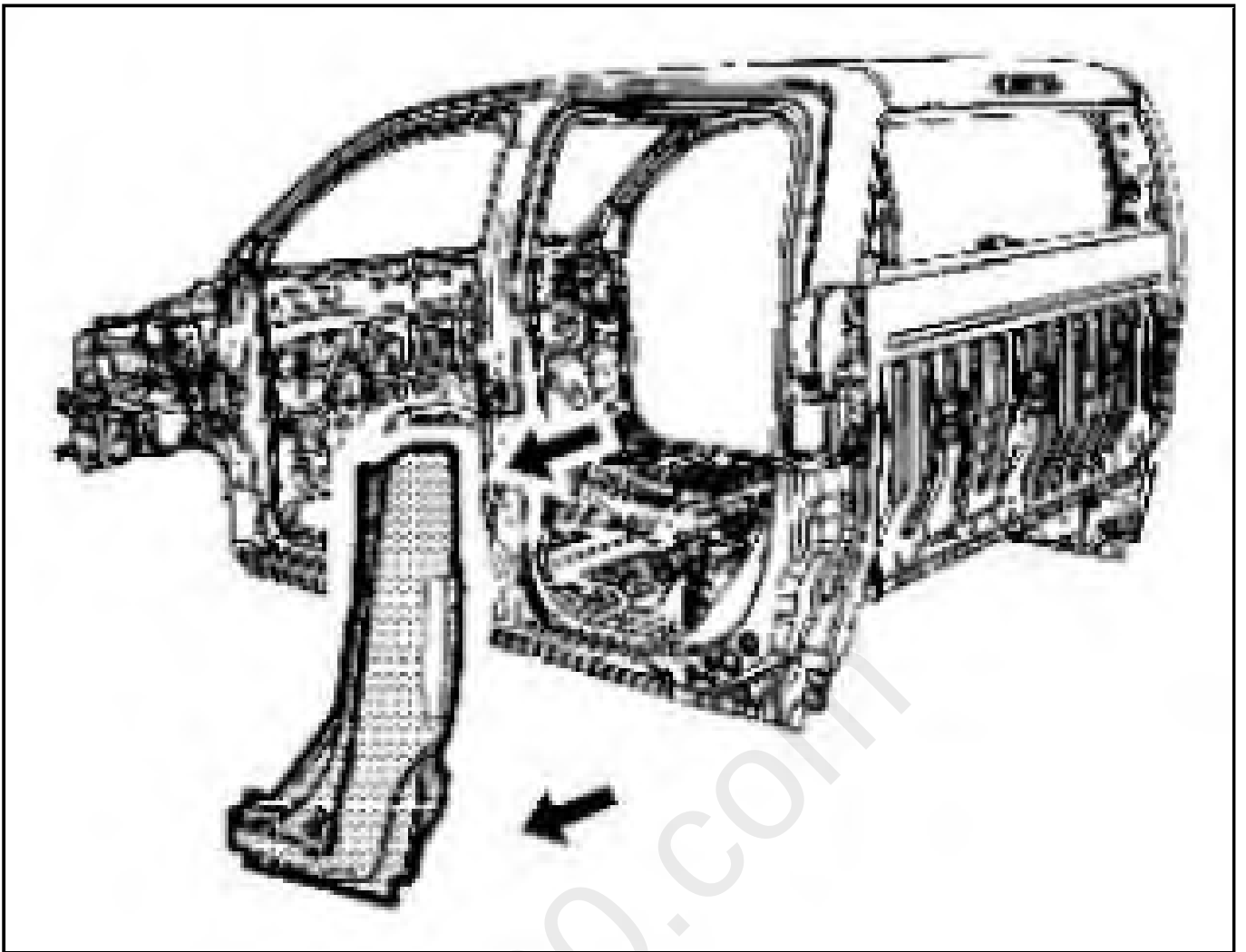


NOTE: If the location of the original plug weld holes cannot be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

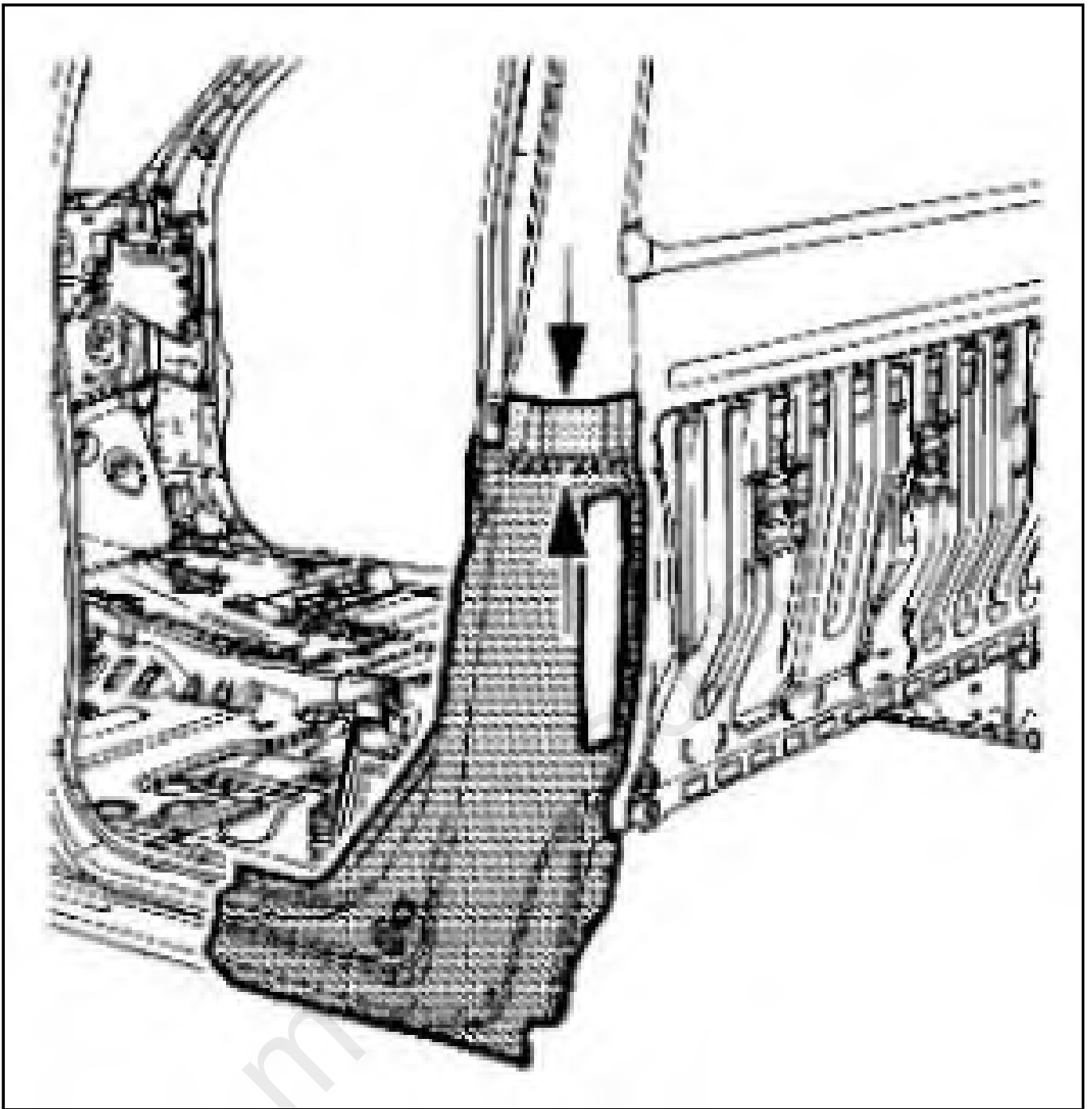
4. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel and along the sectioning cut.



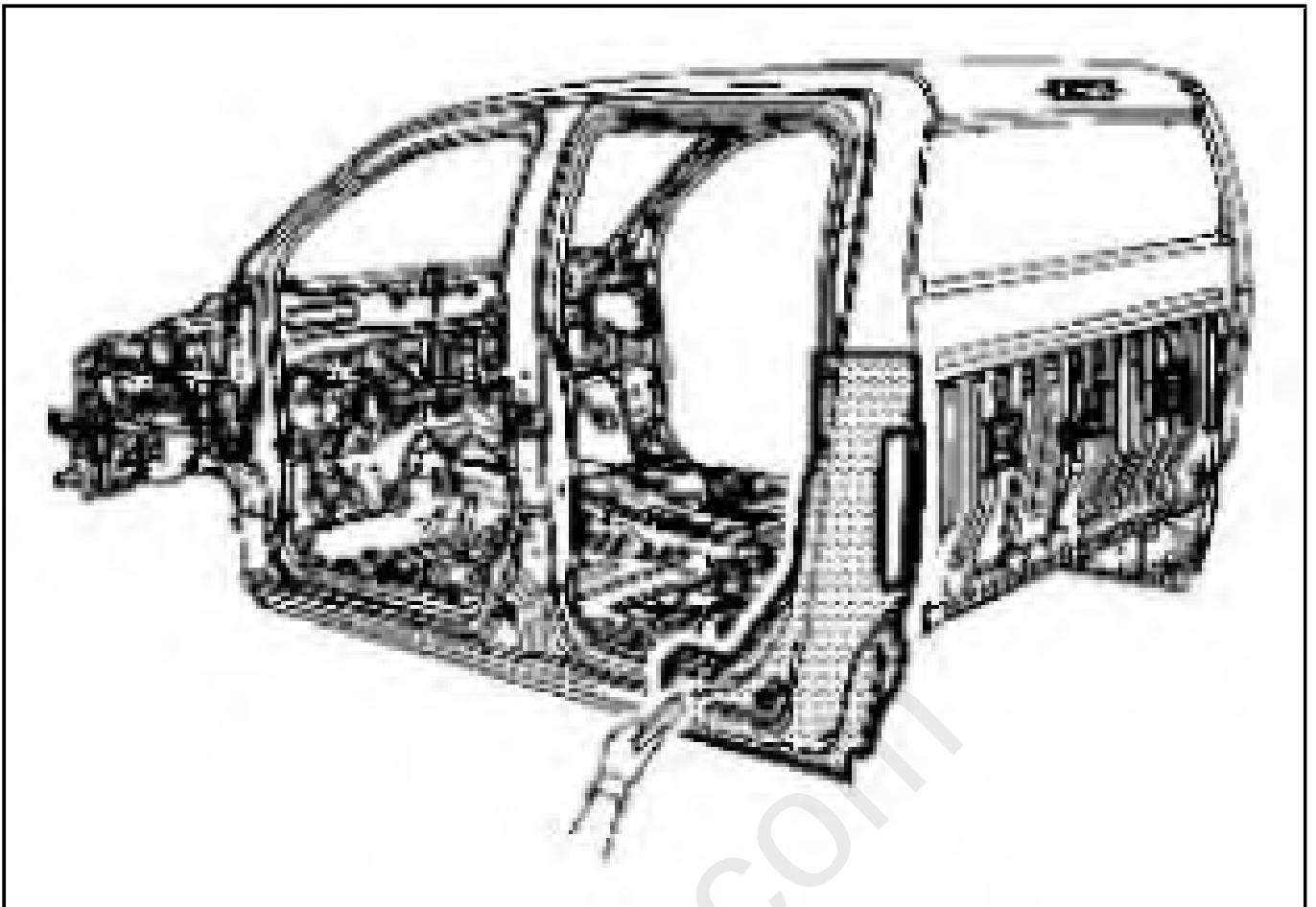
5. Prepare all attachment surfaces, as necessary.
6. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#)



7. Position the rear pillar to the vehicle using 3-dimensional measuring equipment. Clamp in place.



8. Fit the new part on the original panel.



9. Plug weld accordingly.

NOTE: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam with 25 mm (1 in) gaps between them. Complete the stitch weld.

10. Clean and prepare all welded surfaces.
11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
12. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
13. Install all related panels and components.
14. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
15. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

REAR PILLAR SECTIONING (COMPLETE)

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

WARNING: Refer to [Collision Sectioning Warning](#) .

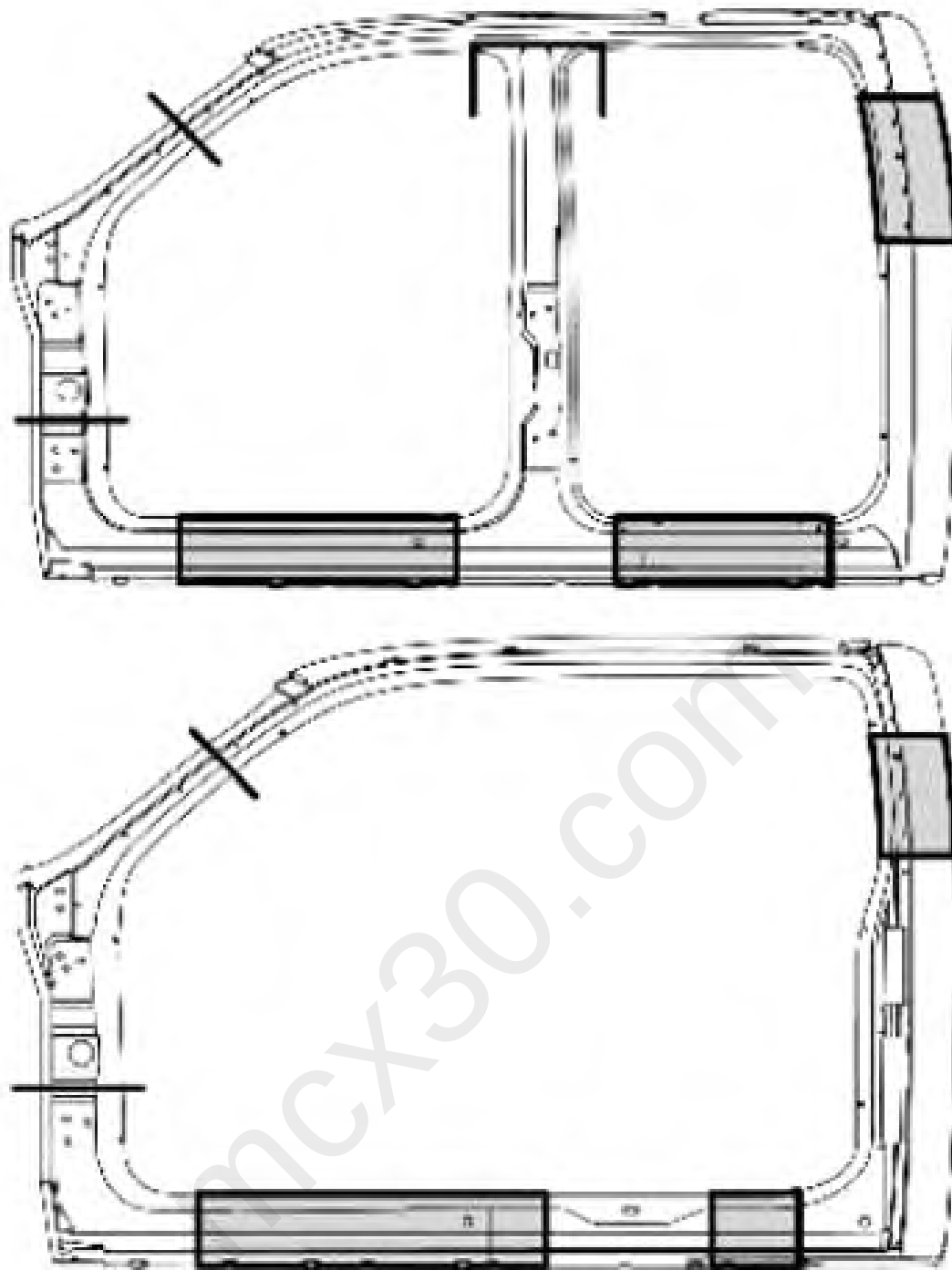


Fig. 23: Rear Pillar Sectioning Component Location (Complete)

Courtesy of GENERAL MOTORS COMPANY

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to [BODY DIMENSIONS](#) .

WARNING: Refer to [Foam Sound Deadeners Warning](#) .

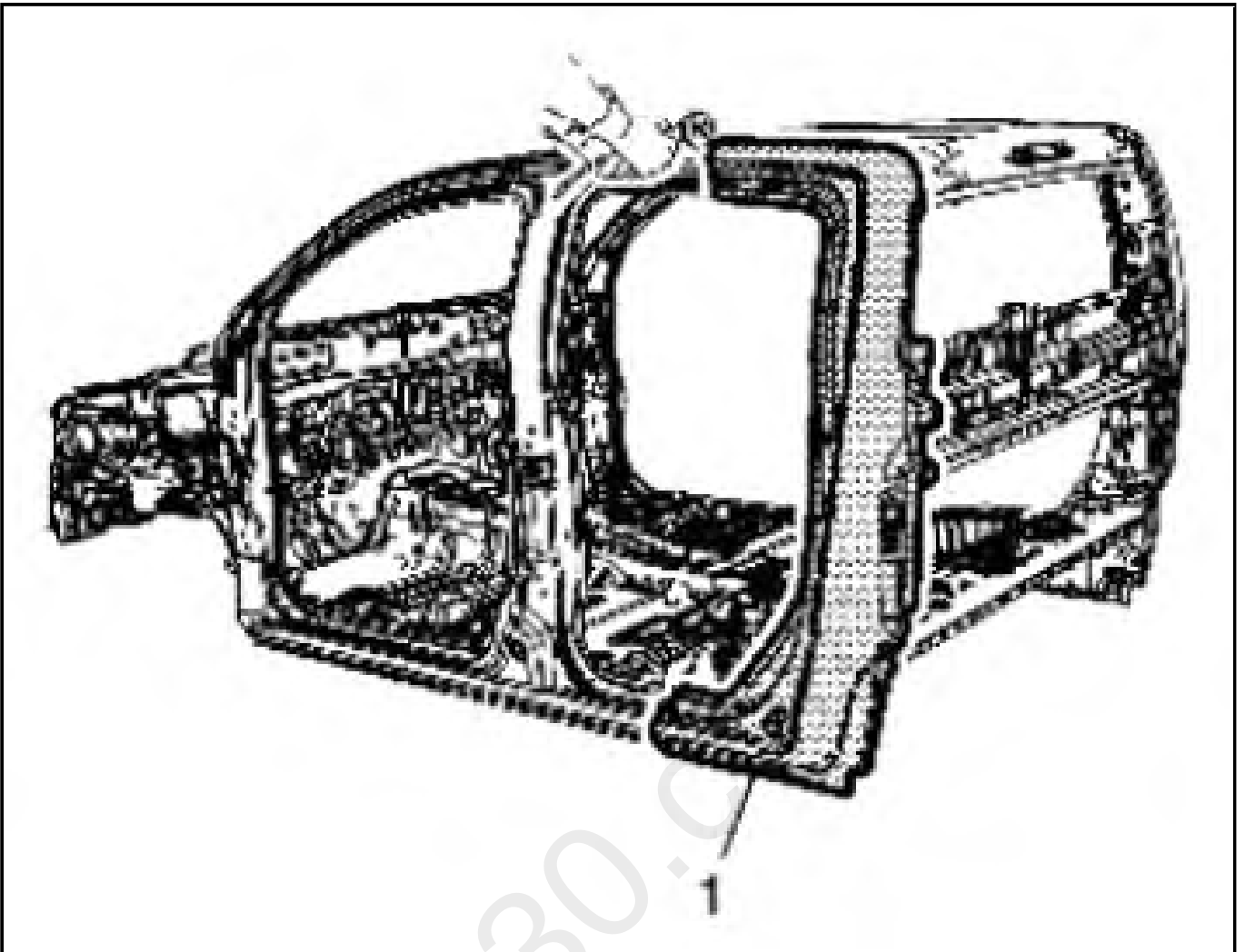
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
6. Perform additional sectioning procedures, as necessary. Refer to the following procedures:

[Outer Windshield Frame Pillar Sectioning](#)

[Front Hinge Pillar Sectioning](#)

[Rocker Outer Panel Sectioning](#)

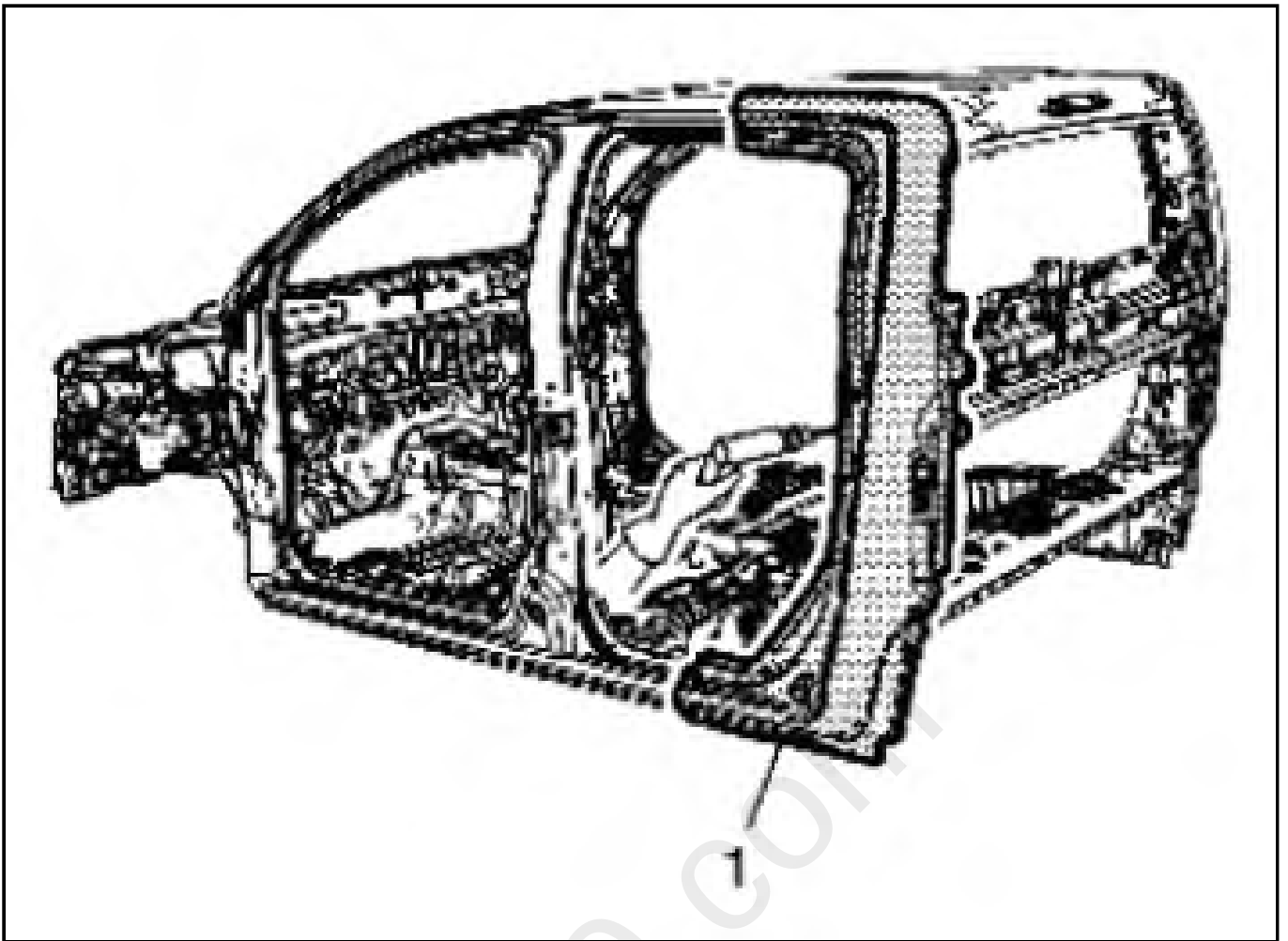
Center Pillar Sectioning



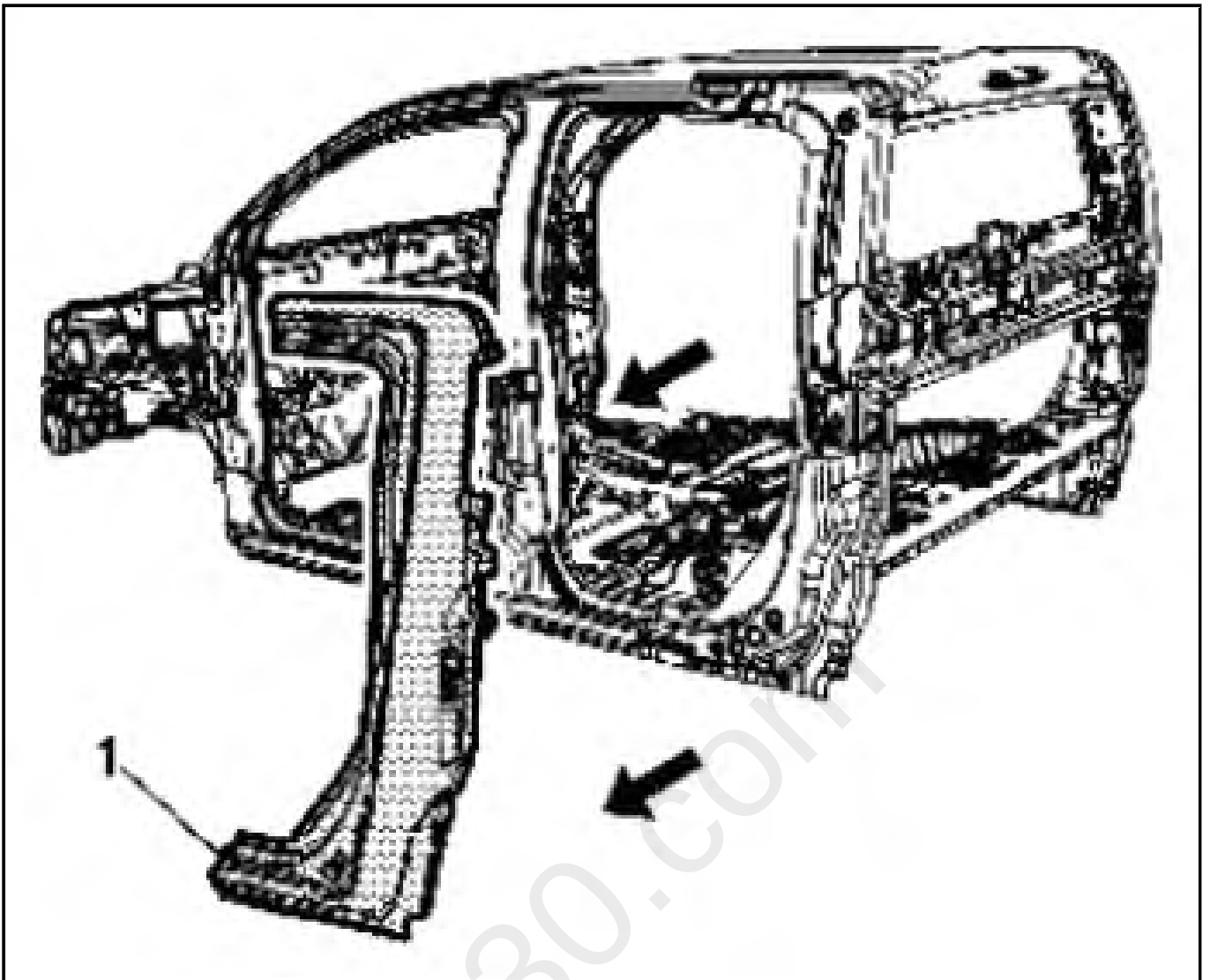
7. Perform the sectioning (1) at 170 mm (6.7 in) from the point indicated and 30 mm (1.18 in) from the inner reinforcement or choose the procedure that fits better according to the collision.

NOTE: Do not damage any inner panels or reinforcements.

8. Cut the panel in the locations where sectioning is to be performed.

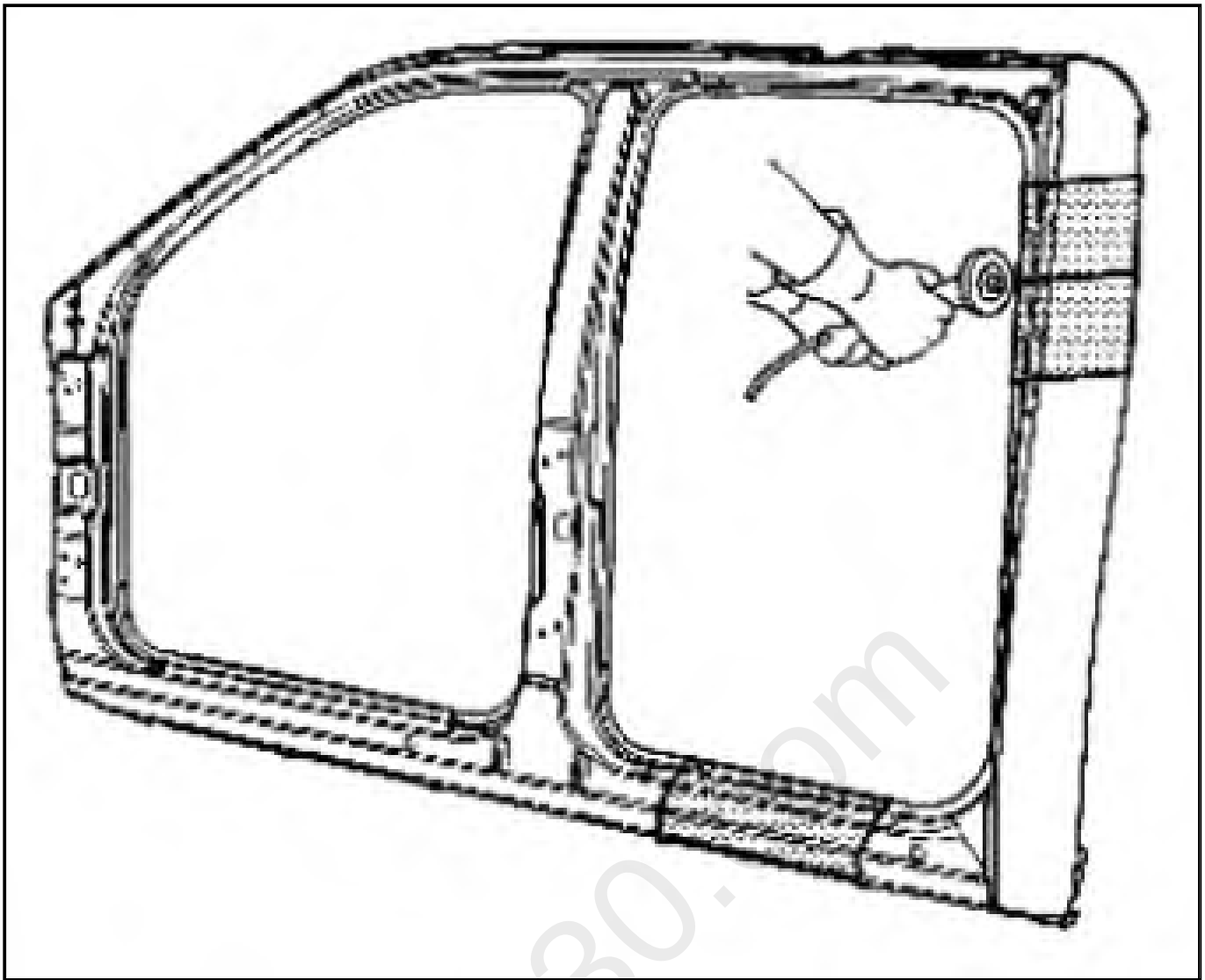


9. Locate and drill out all factory welds (1). Note the number and location of the welds for installation of the service part.

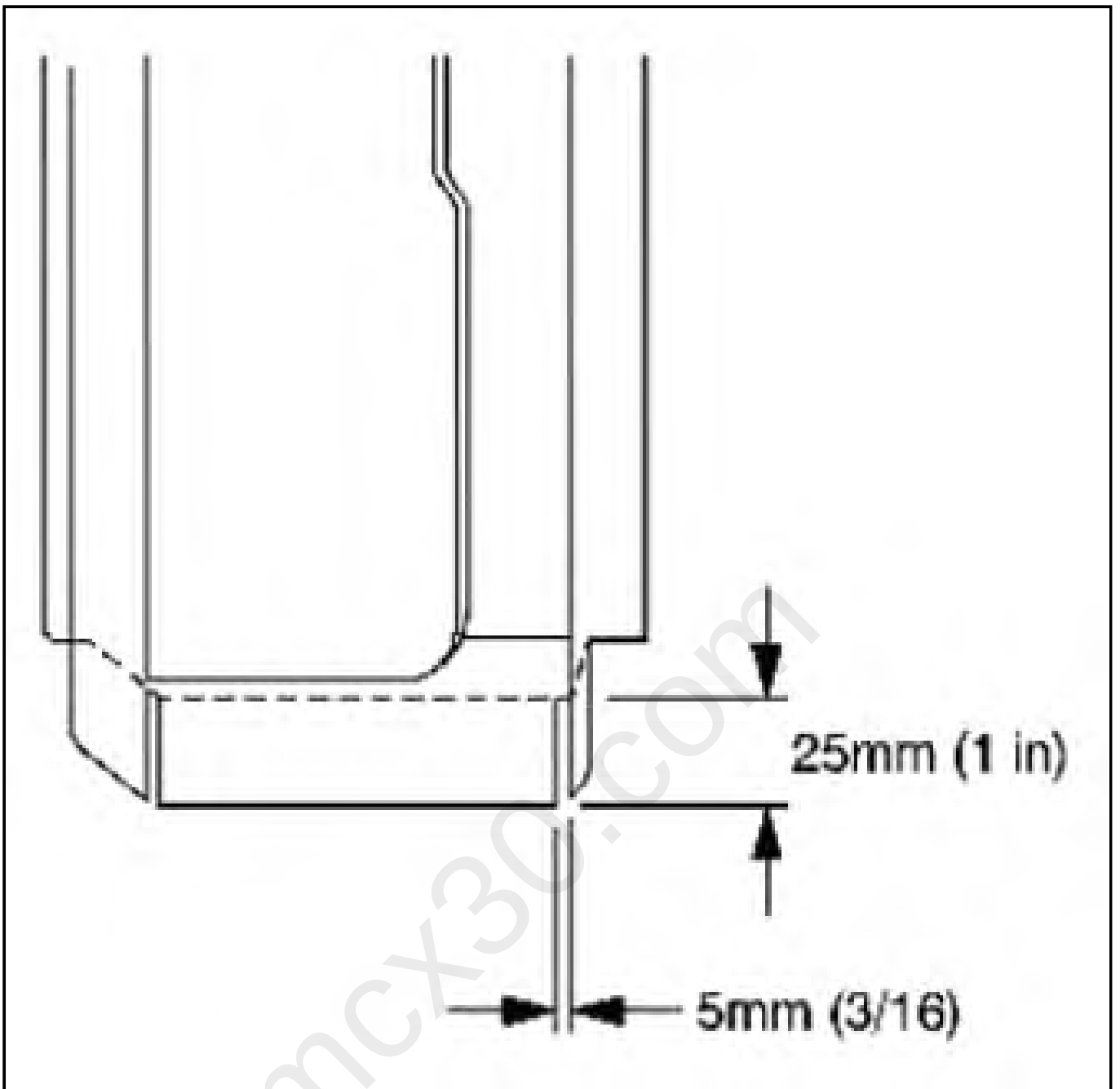


10. Remove the damaged pillar section (1).

Installation Procedure

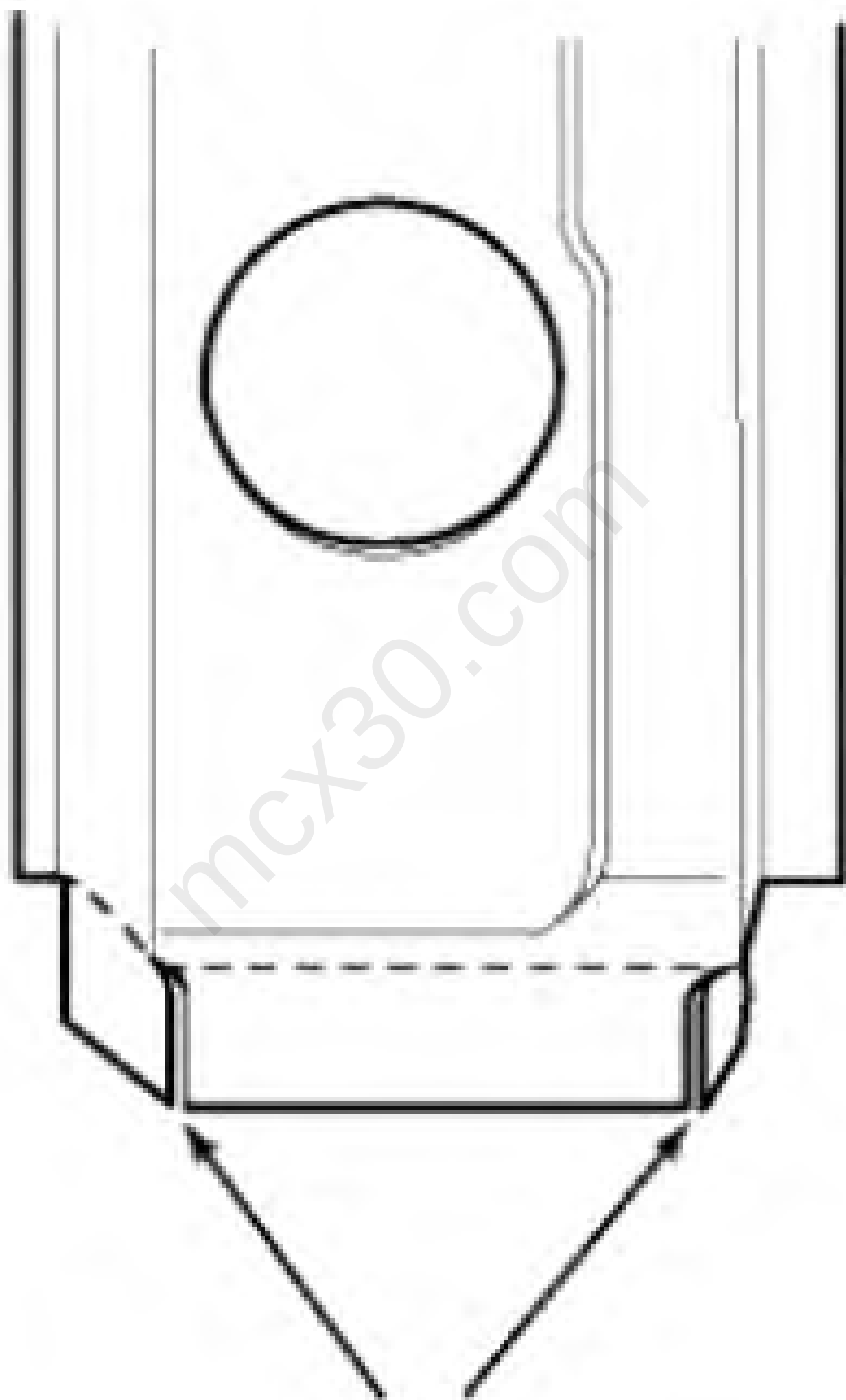


1. From the service part, cut the panel in corresponding locations to overlap the remaining original panel by 25 mm (1 in).



2. Cut and remove 25 mm (1 in) from the flanges on either side of the remaining section of the original pillar. Cut 5 mm (3/16 in) wide gaps in the bottom corners.

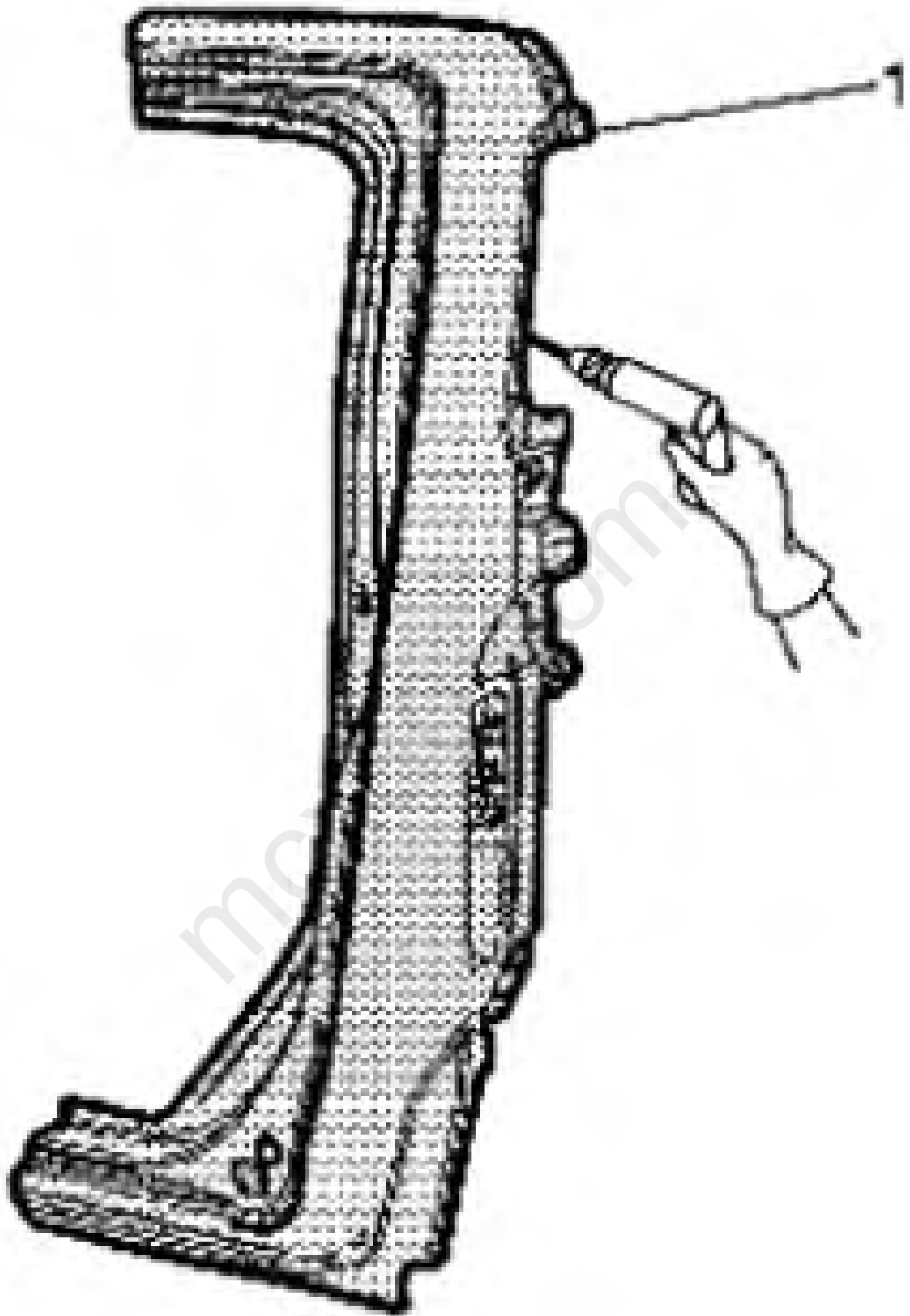
mcx30.com



1

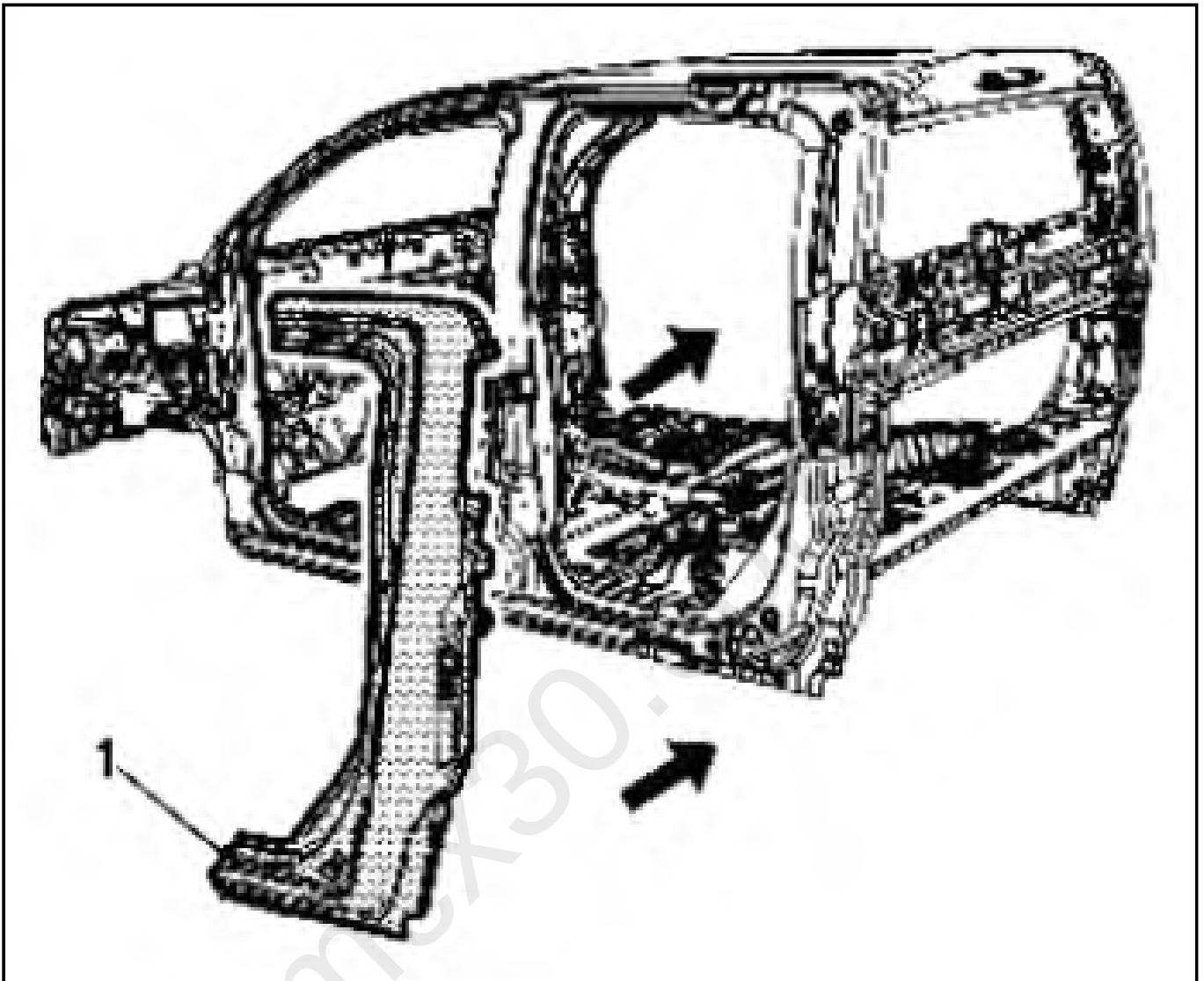
3. Step the tabs (1) inward to allow the door frame opening service section to fit over the original hinge pillar.

mcx30.com

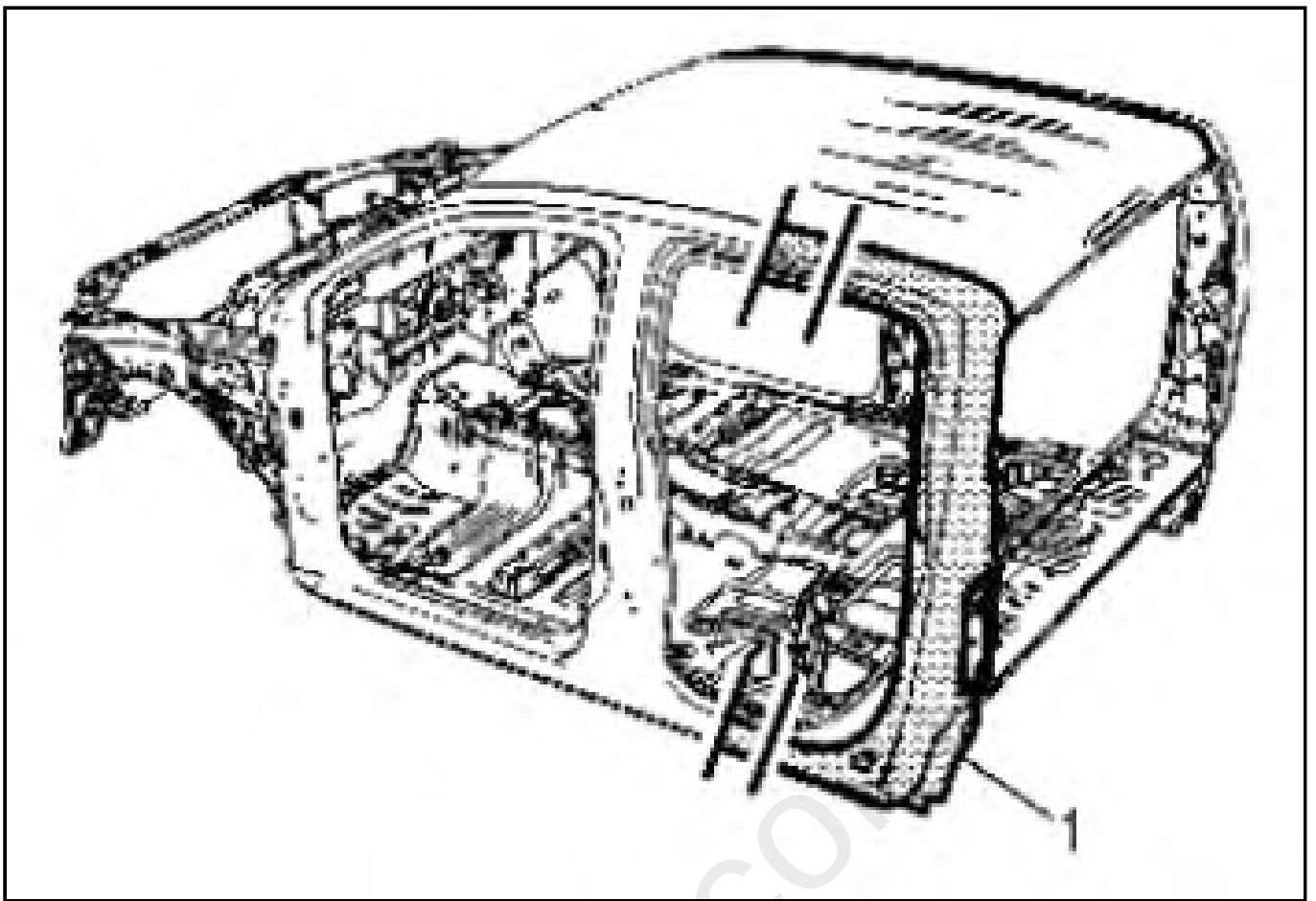


NOTE: If the location of the original plug weld holes cannot be determined, or if structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

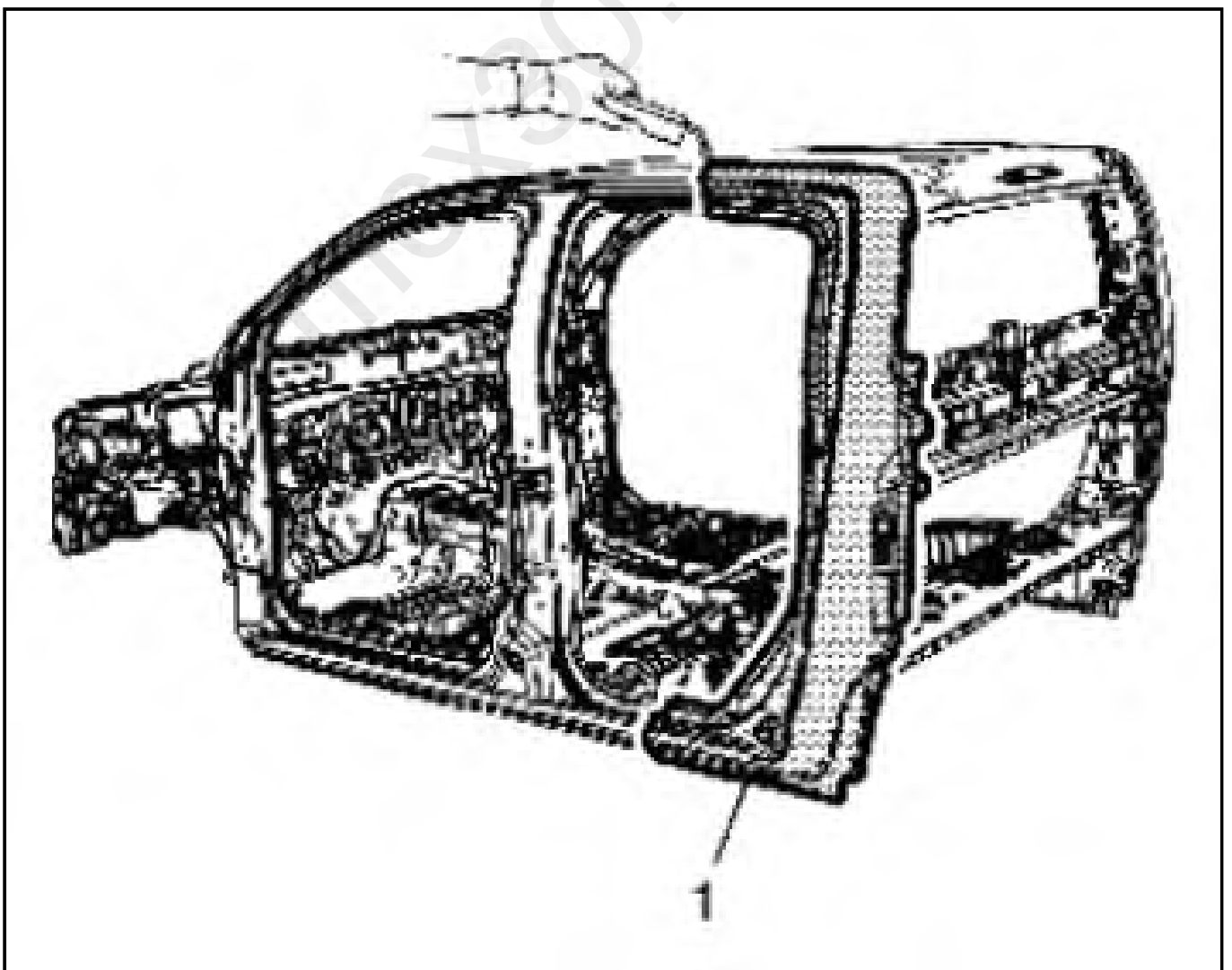
4. Drill 8 mm (5/16 in) plug weld holes in the service part (1) as necessary in the locations noted from the original panel and along the sectioning cut.
5. Prepare all attachment surfaces, as necessary.
6. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#).



7. Position the rear pillar (1) to the vehicle using 3-dimensional measuring equipment. Clamp in place.



8. Fit the new part (1) on the original panel.



9. Plug weld accordingly (1).

NOTE: To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam with 25 mm (1 in) gaps between them. Complete the stitch weld.

10. Clean and prepare all welded surfaces.

11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

12. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .

13. Install all related panels and components.

14. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

15. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

OUTER DOOR FRAME SECTIONING

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Sectioning Locations

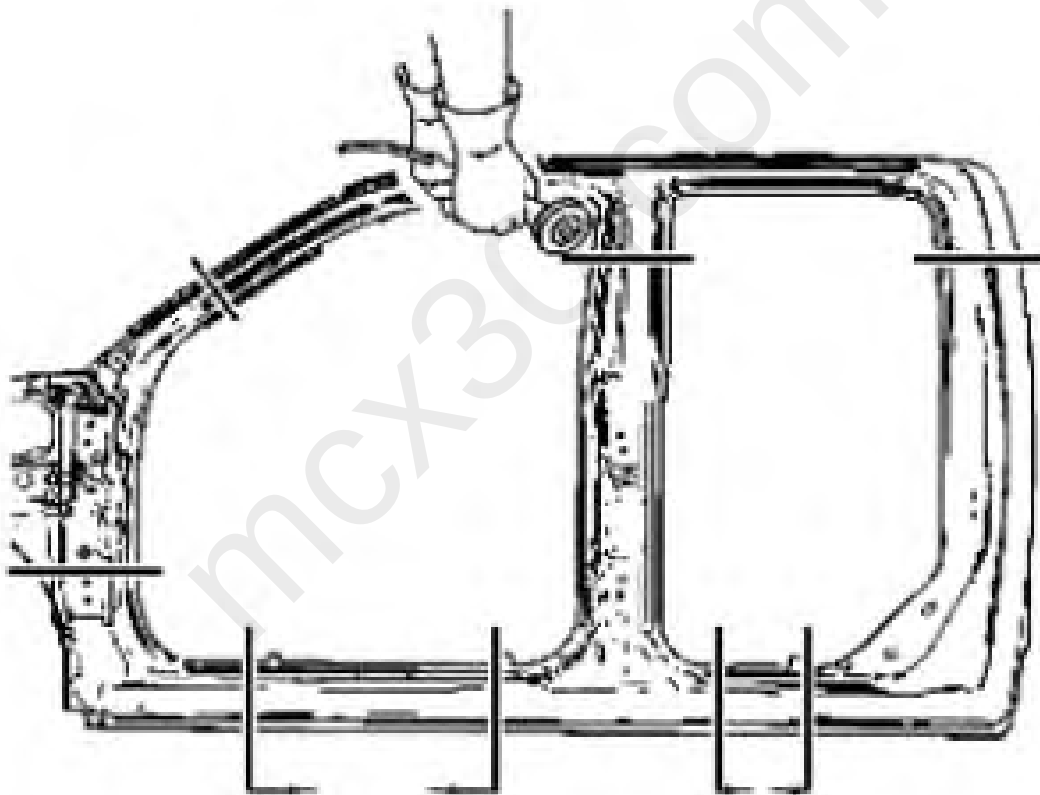


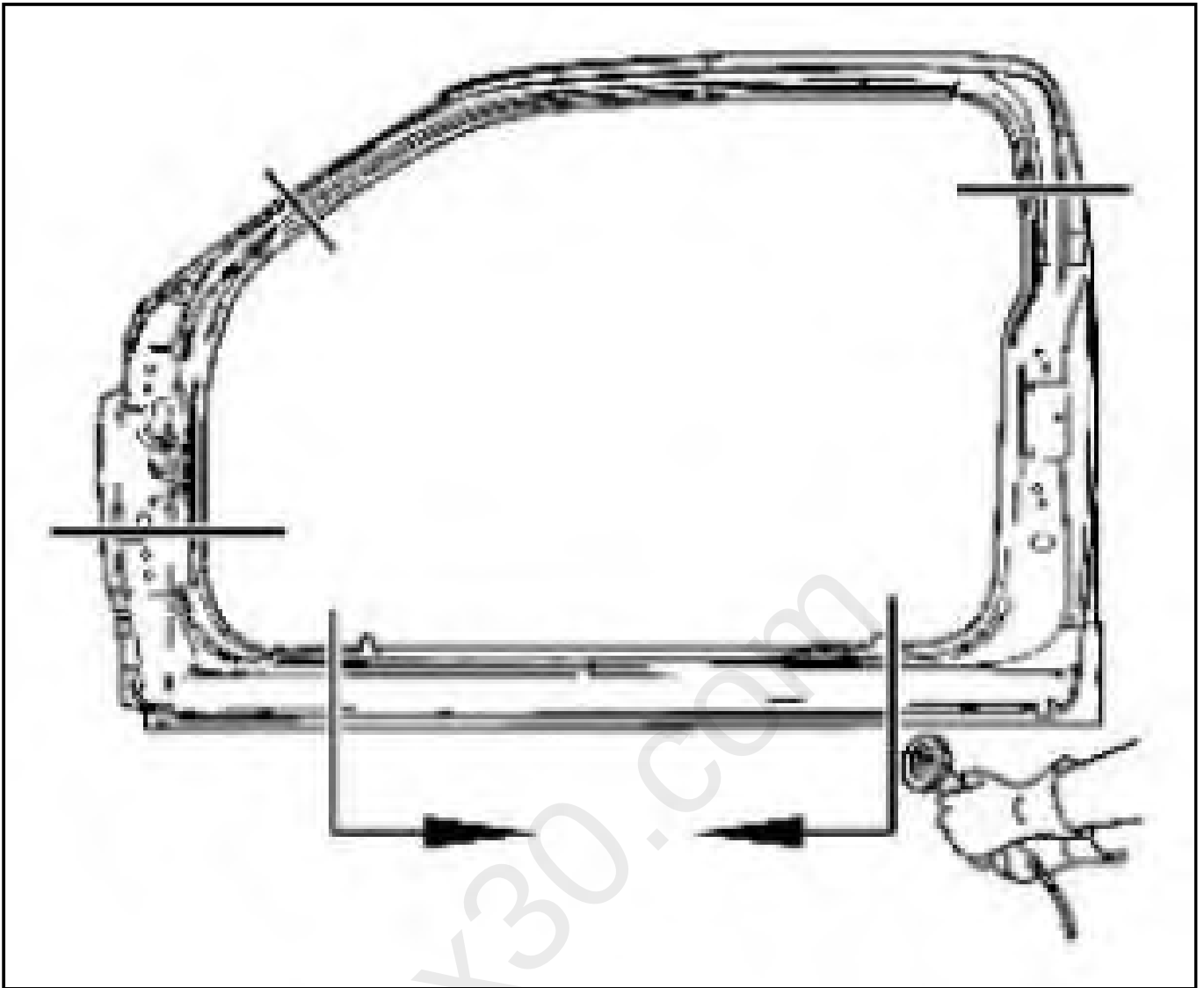
Fig. 24: Outer Door Frame Sectioning Component Location

Courtesy of GENERAL MOTORS COMPANY

IMPORTANT: Section in specified areas only. Sectioning outside of these areas may compromise the structural integrity of the vehicle.

- The crew cab pick-up has identical passenger and driver side door frames. Refer to the following procedures for specific instructions:
 - [Rocker Outer Panel Sectioning](#)
 - [Front Hinge Pillar Sectioning](#)
 - [Center Pillar Sectioning](#)
 - [Rear Pillar Sectioning \(Lower\)](#)[Rear Pillar Sectioning \(Complete\)](#)

- [Outer Windshield Frame Pillar Sectioning](#)



- The extended cab pick-up has identical passenger and driver side door frames. Refer to the following procedures for specific instructions:
 - [Rocker Outer Panel Sectioning](#)
 - [Front Hinge Pillar Sectioning](#)
 - [Rear Pillar Sectioning \(Lower\)](#)[Rear Pillar Sectioning \(Complete\)](#)
 - [Outer Windshield Frame Pillar Sectioning](#)

REAR END PANEL REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .

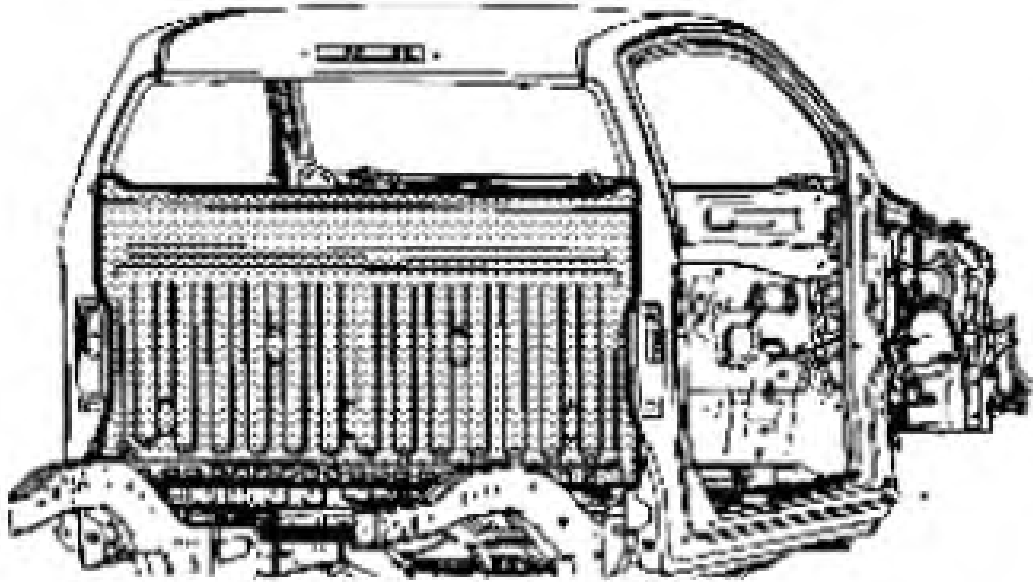
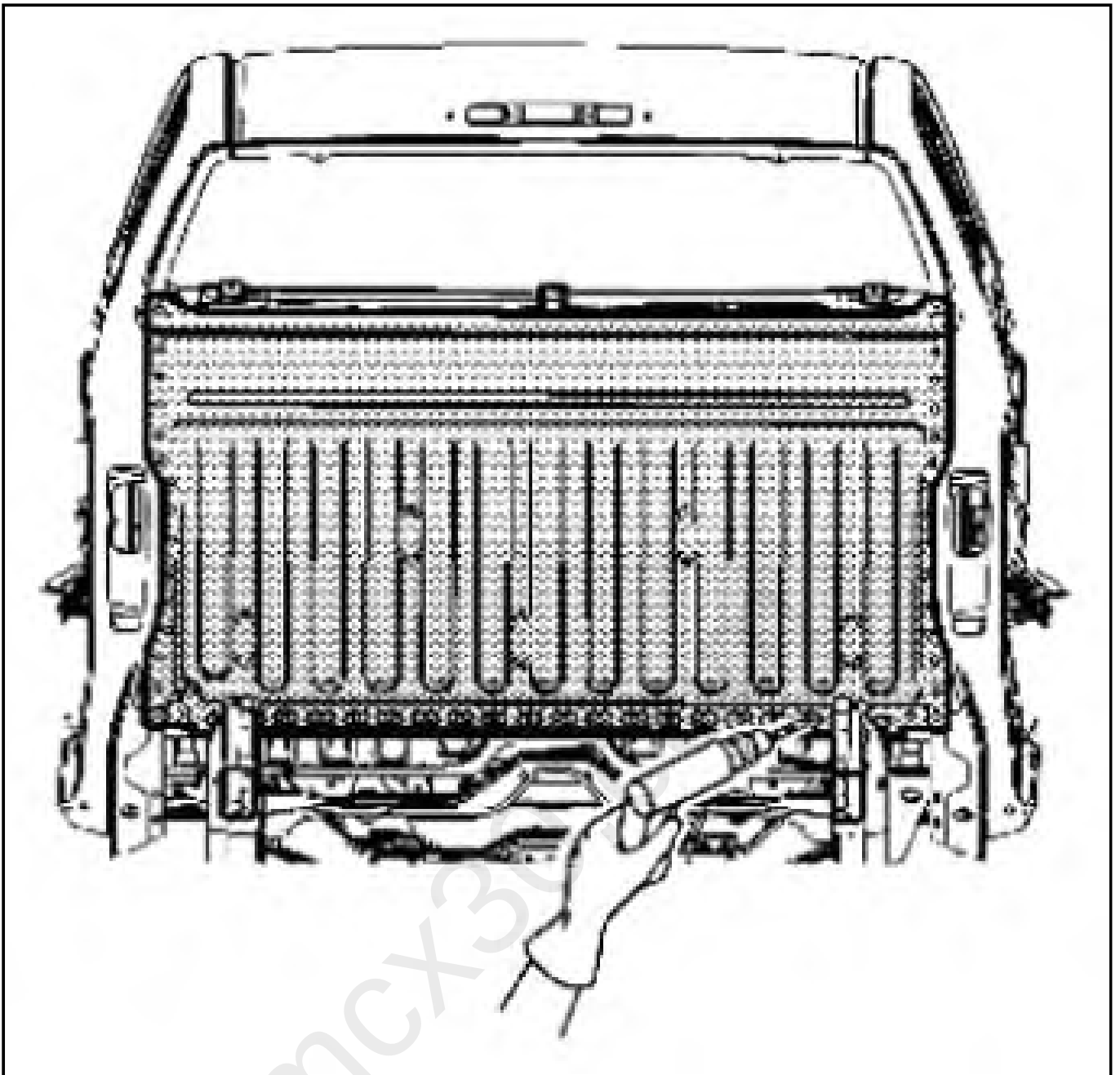
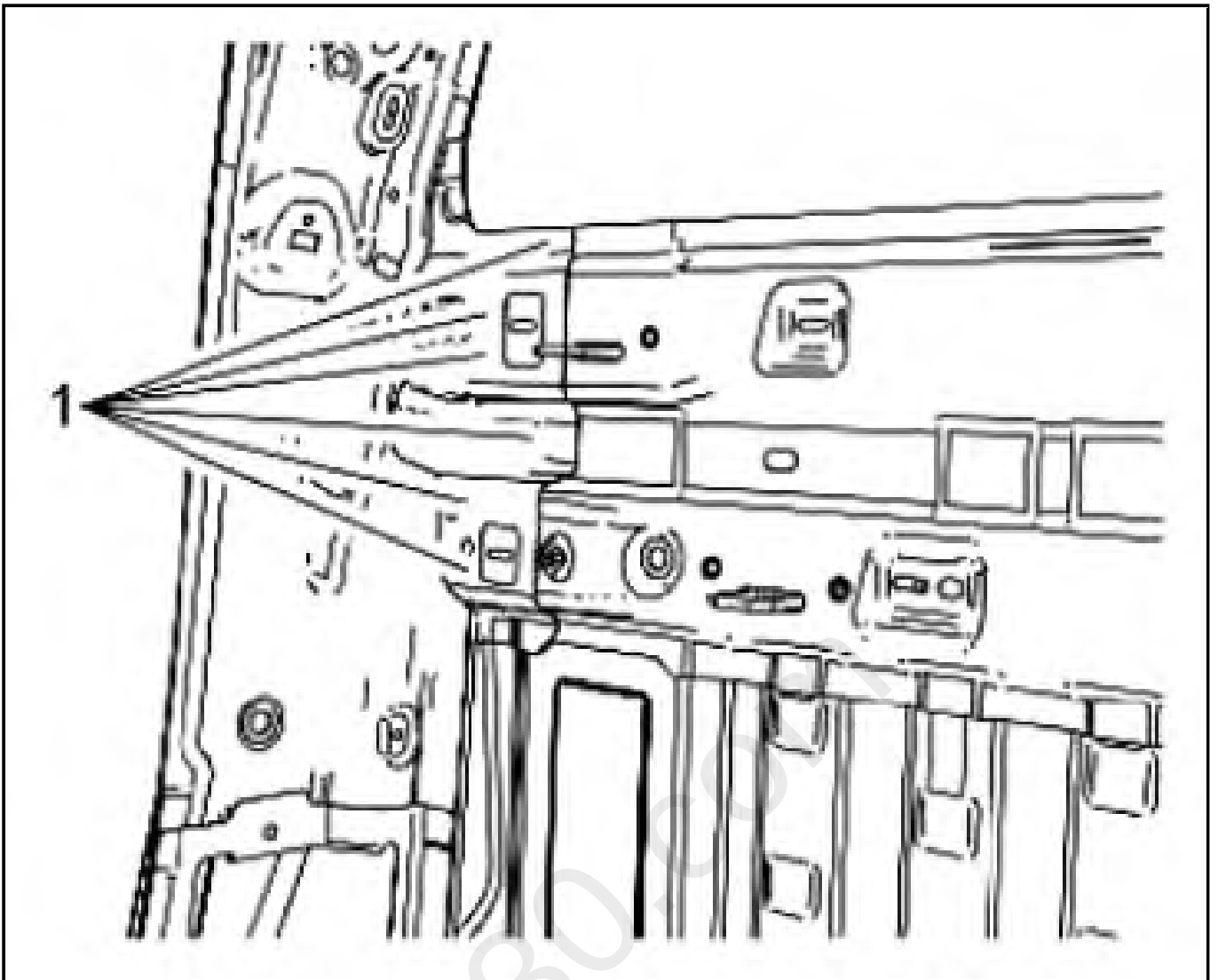


Fig. 25: Rear End Panel Component Location
Courtesy of GENERAL MOTORS COMPANY

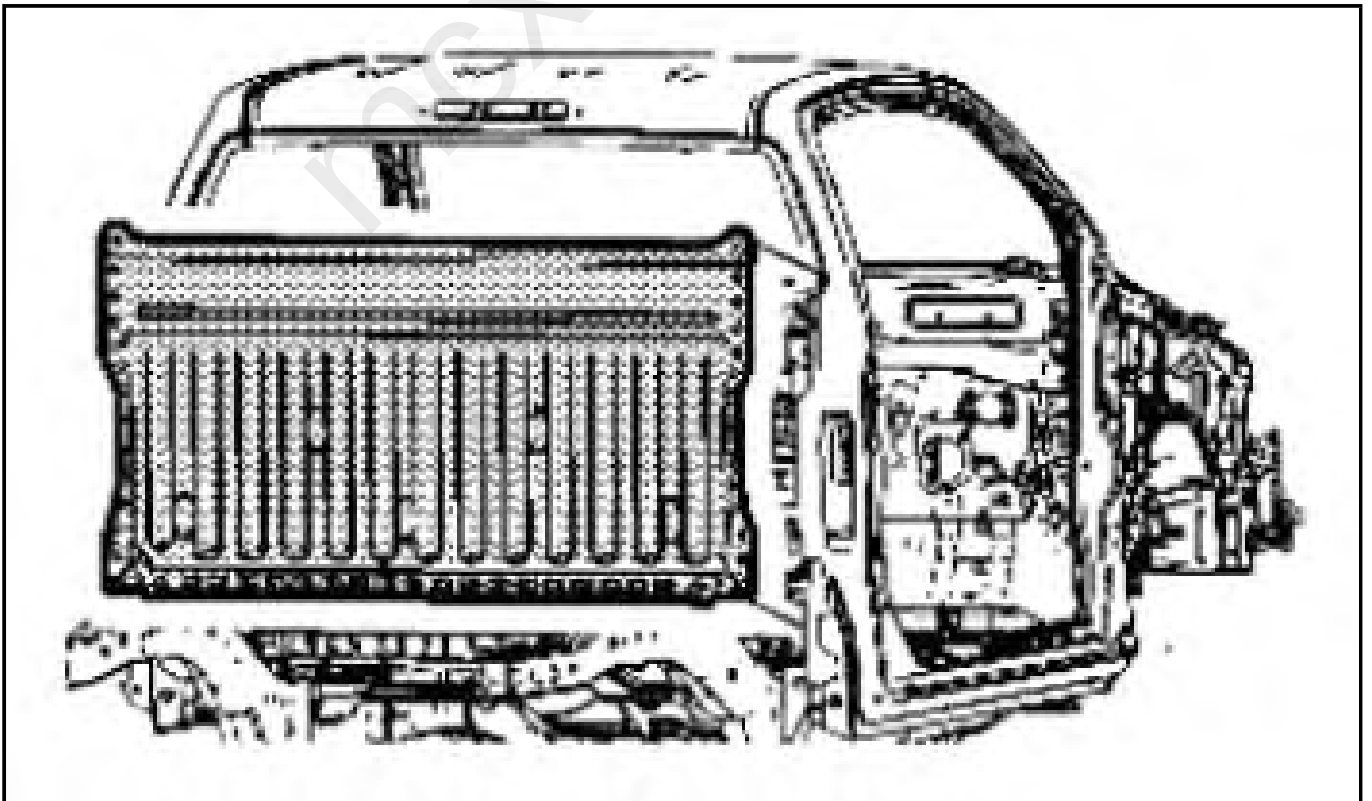
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications. Refer to **BODY DIMENSIONS** .
5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to **Anti-Corrosion Treatment And Repair** .



6. Locate and drill out all factory welds. Note the number and location of welds for installation of the service part.

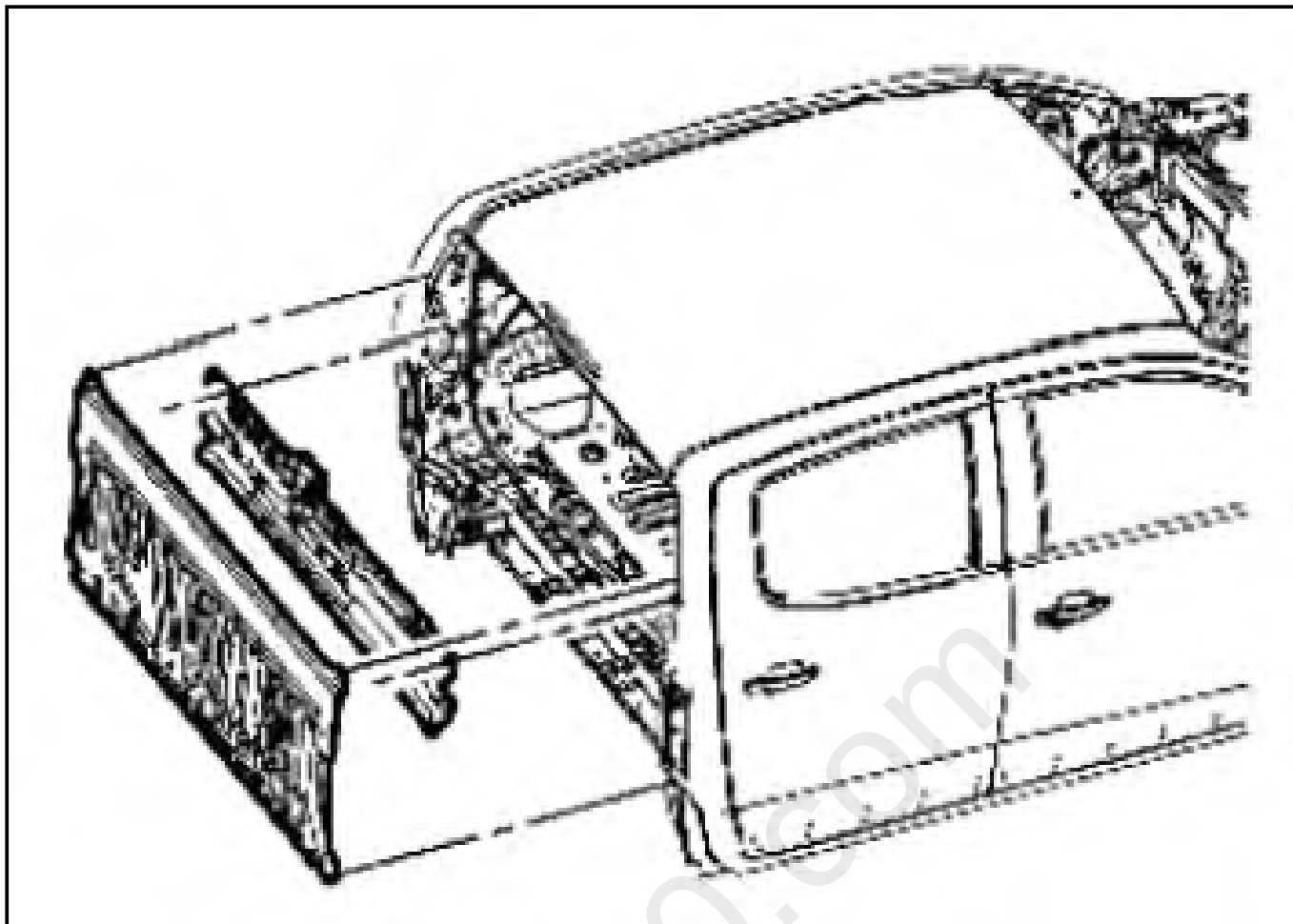


7. Locate and drill factory welds (1) in rear end panel reinforcement.

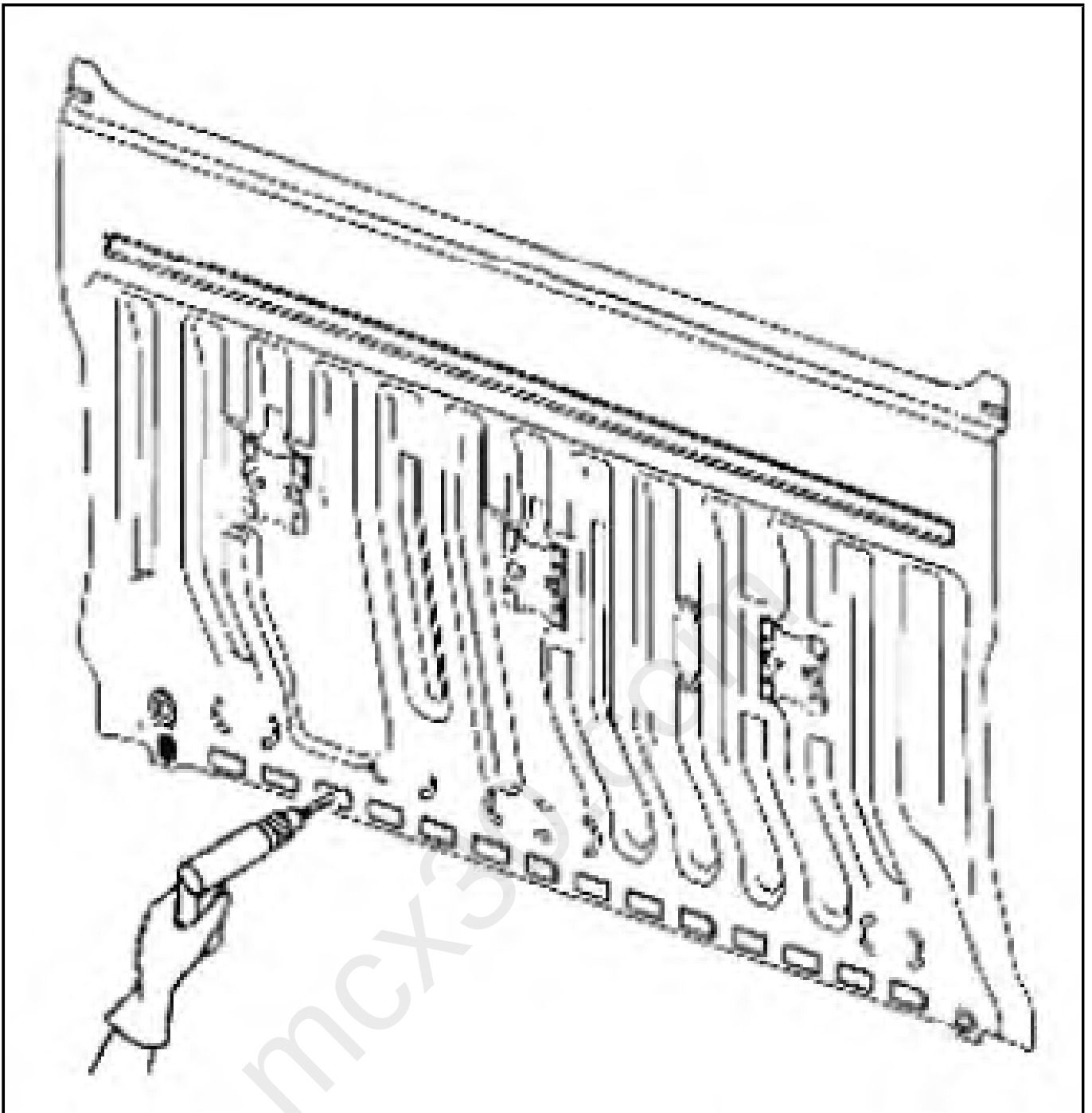


8. Remove the damaged rear end panel.

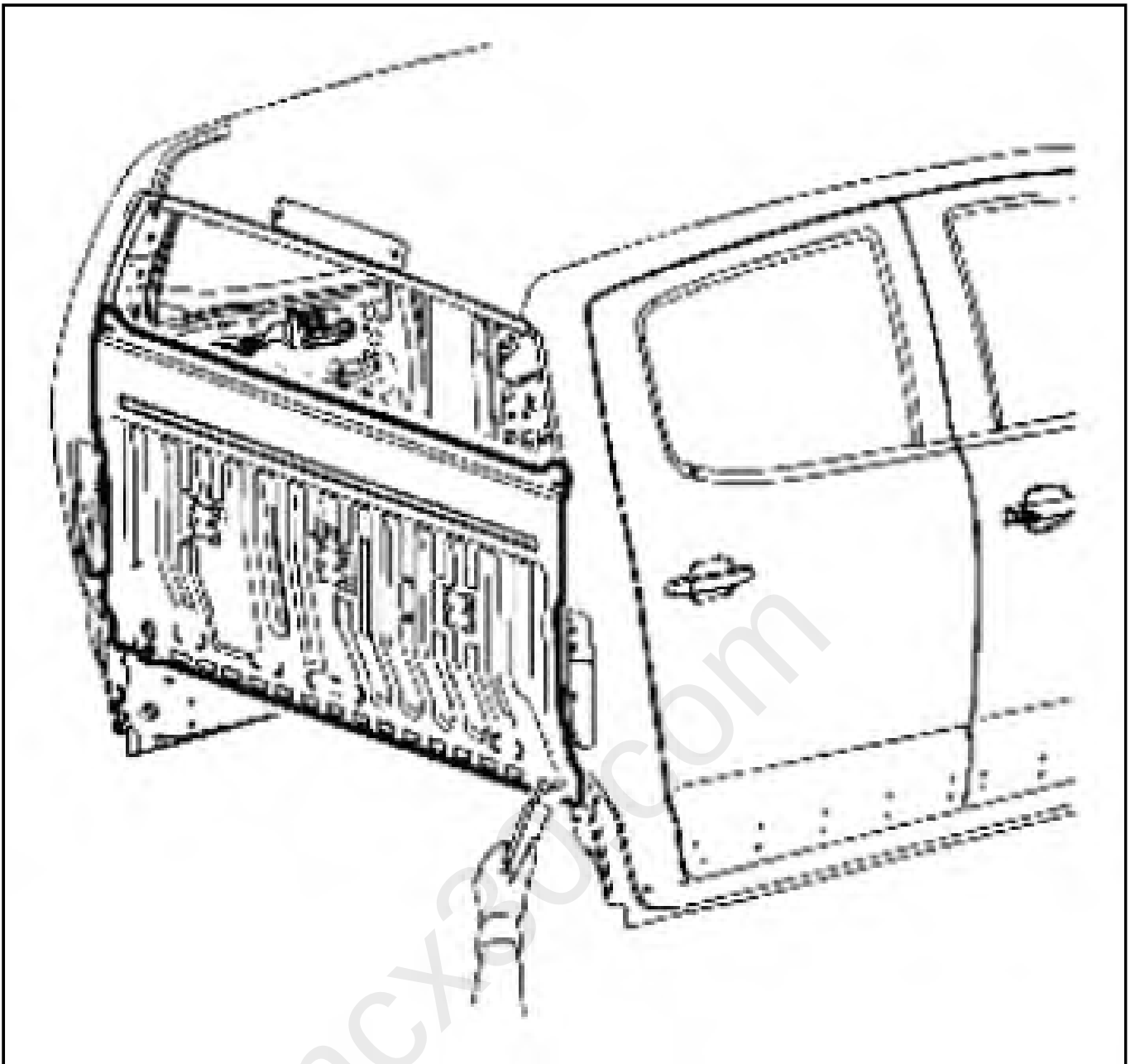
Installation Procedure



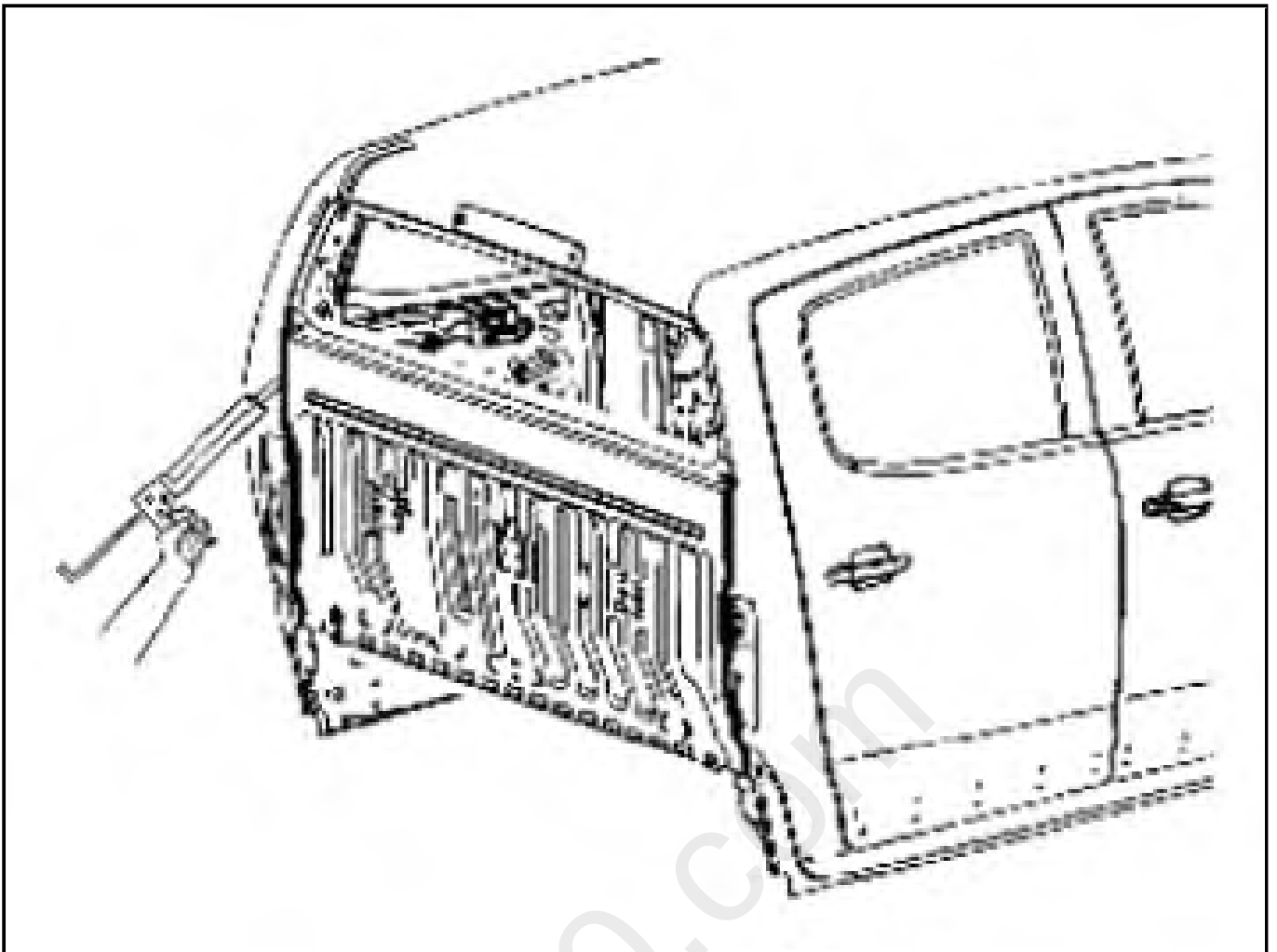
1. Prepare the mating surfaces as necessary. Inspect for proper fit of the service panel.



2. Drill 8 mm (5/16 in) plug weld holes as necessary in the locations noted from the original panel.
3. Position the service panel. Inspect with 3-dimensional measuring equipment.
4. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#)



5. Plug weld accordingly.
6. Clean and prepare all welded surfaces.



7. Apply the sealers and the anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
8. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
9. Install all related panels and components.
10. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
11. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

BATTERY TRAY REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .

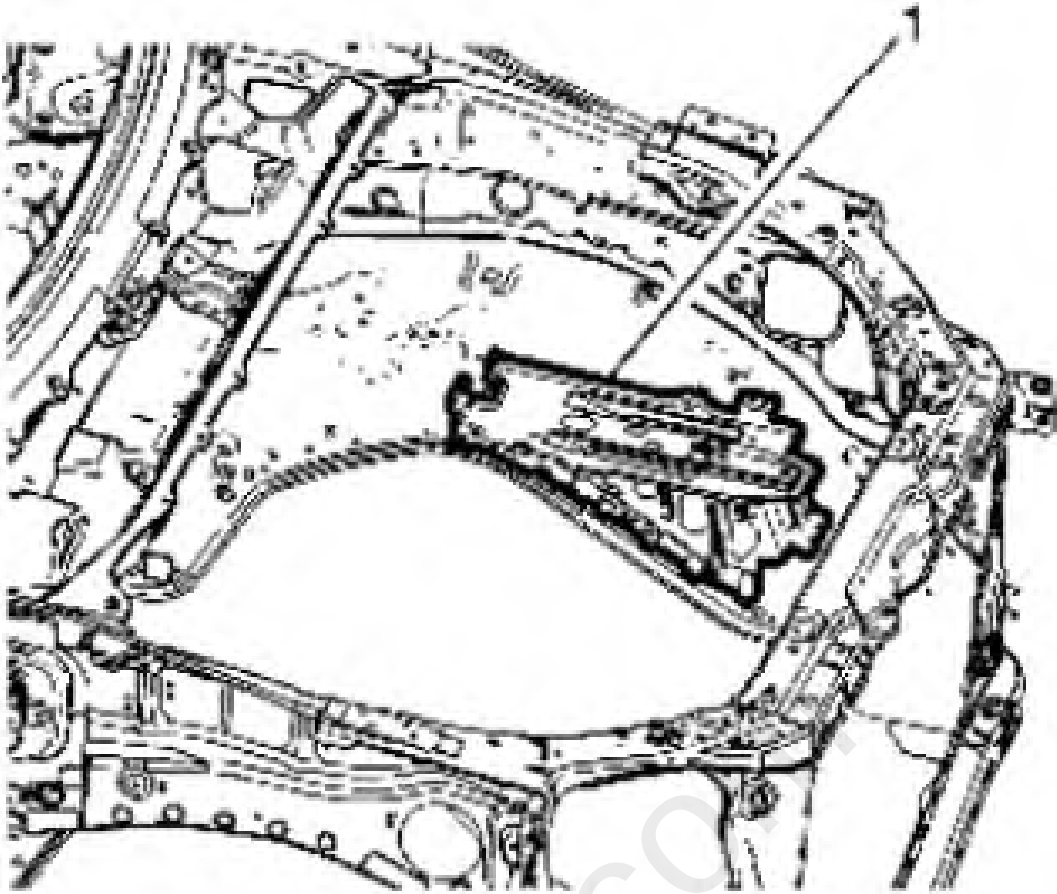
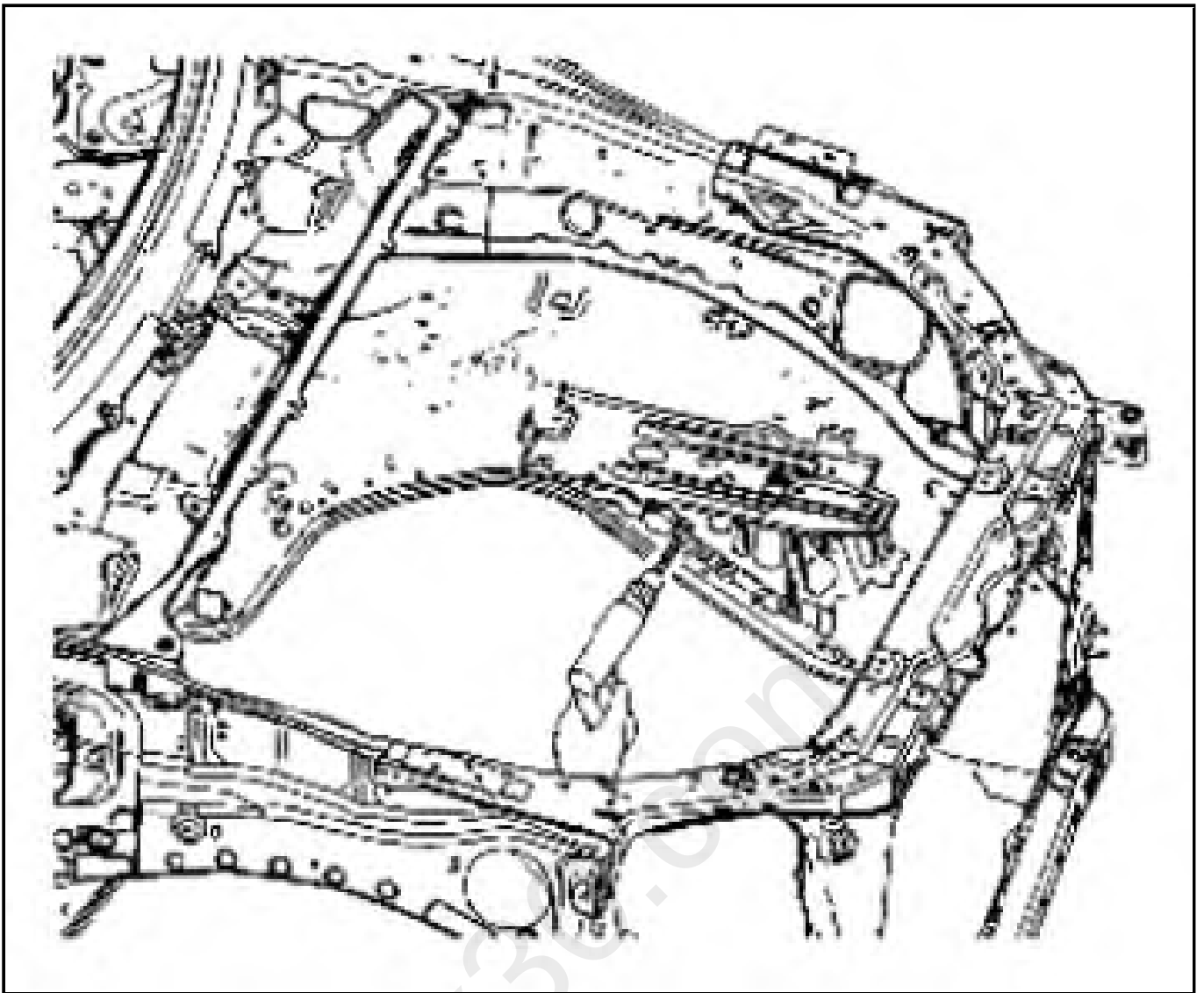


Fig. 26: Battery Tray Component Location

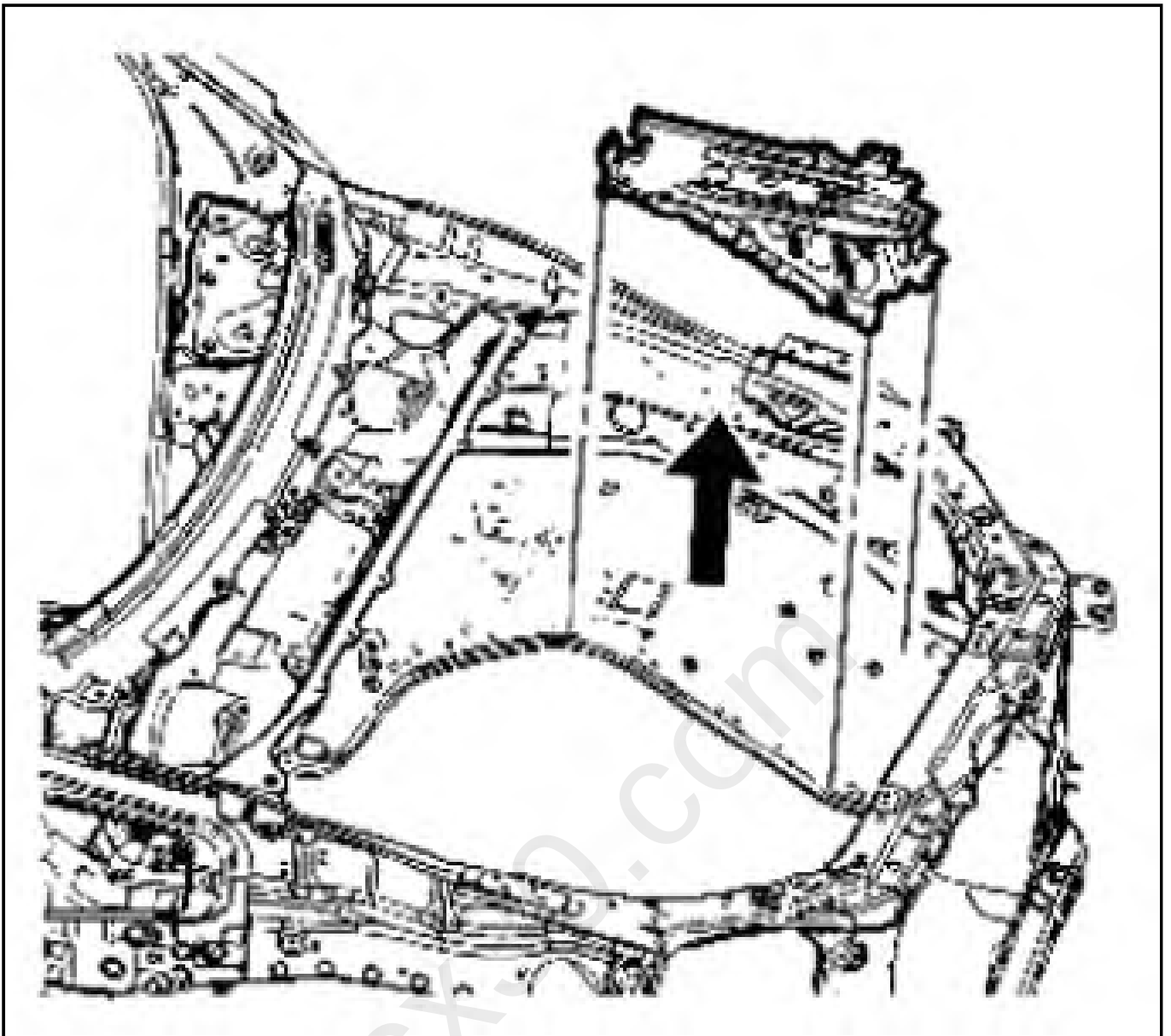
Courtesy of GENERAL MOTORS COMPANY

2. Remove all related panels (1) and components.
3. Repair as much of the damage as possible to factory specifications. Refer to **BODY DIMENSIONS** .
4. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to **Anti-Corrosion Treatment And Repair** .



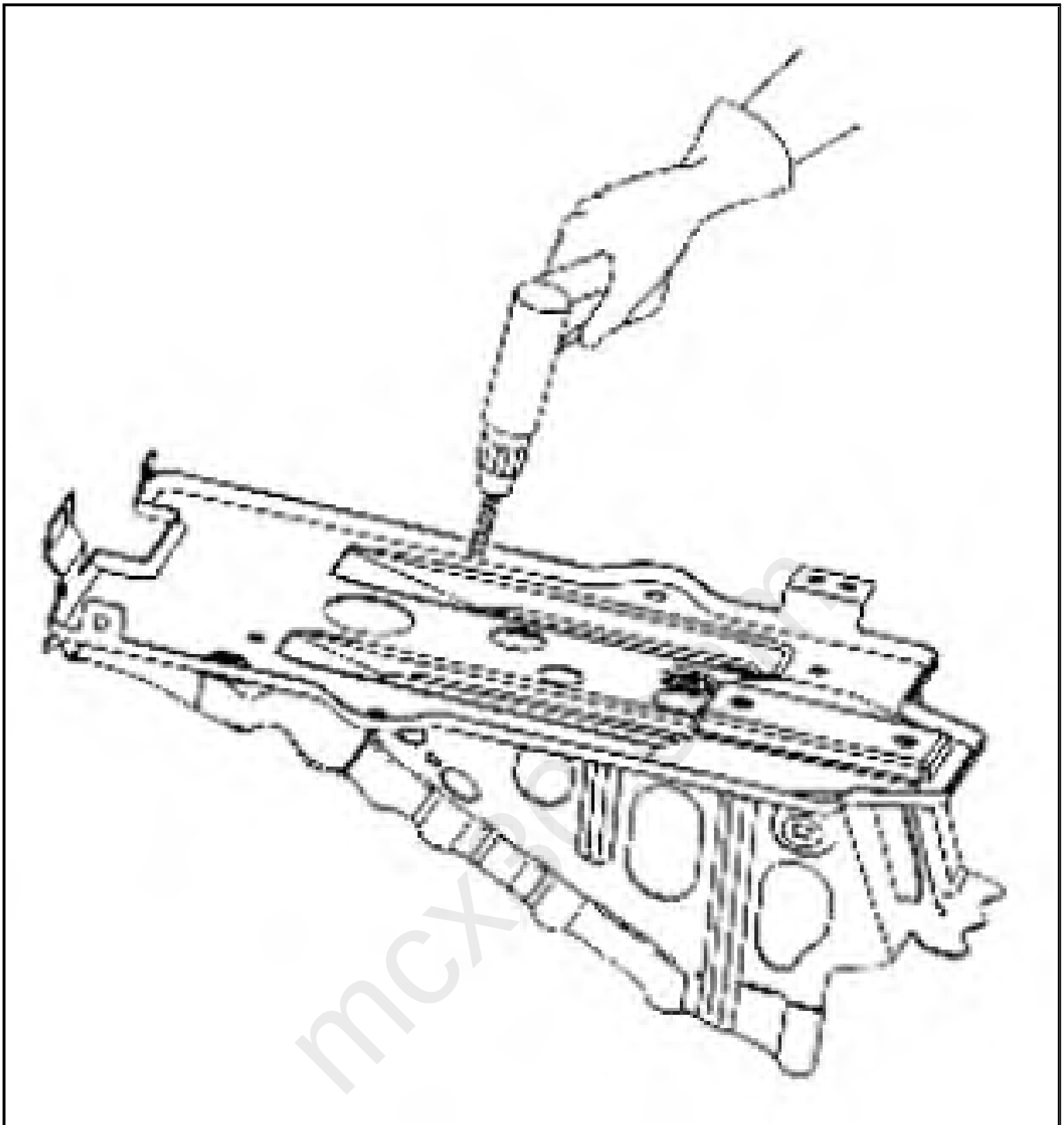
NOTE: Do not damage any inner panels or reinforcements.

5. Locate and drill out all factory welds. Note the number and location of welds for installation of the battery tray.



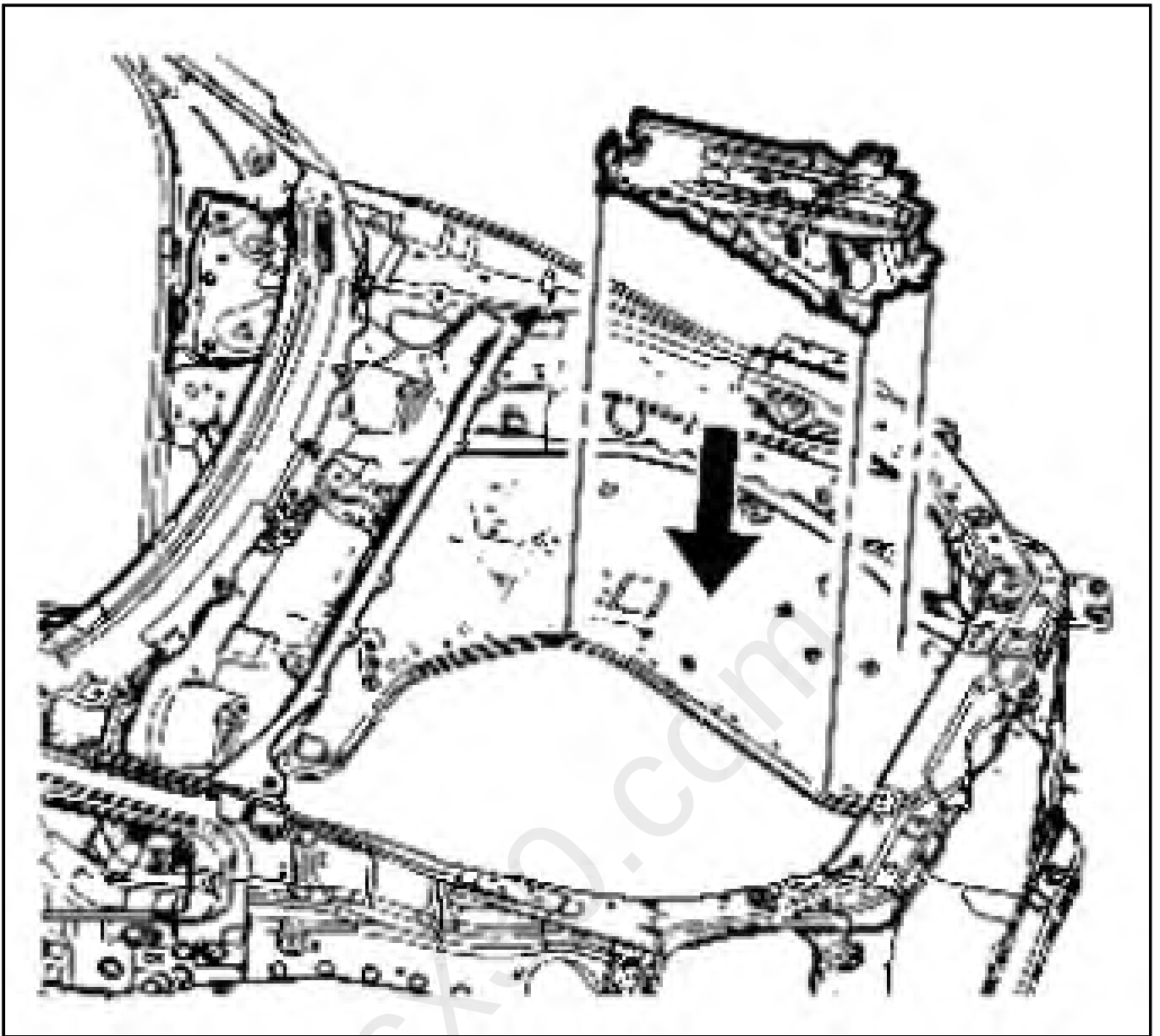
6. Remove the damaged battery tray.

Installation Procedure

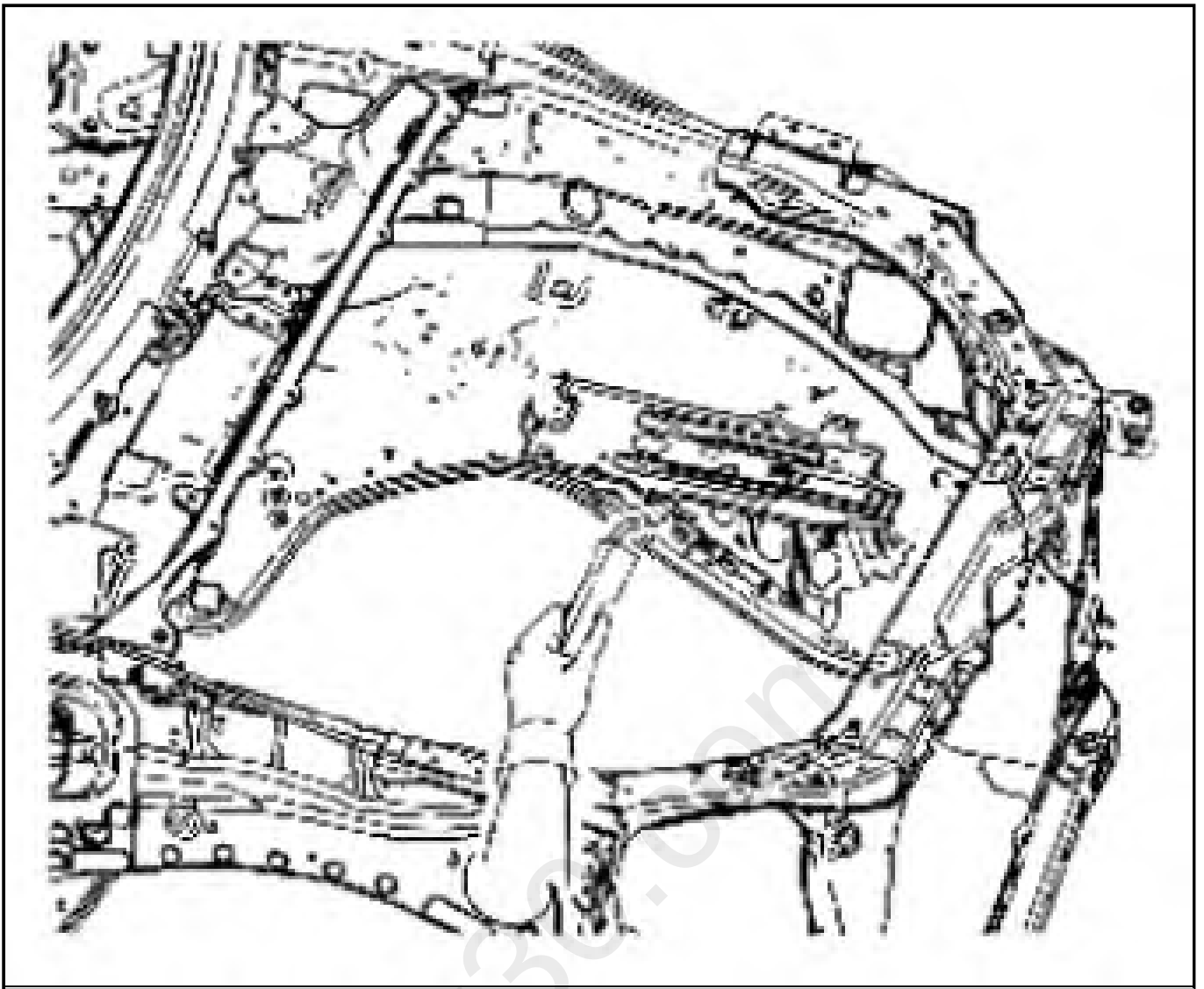


NOTE: If the location of the original plug weld holes can not be determined, or if structural weld-thru adhesive is present, space the plug weld holes every 40 mm (1 1/2 in) apart.

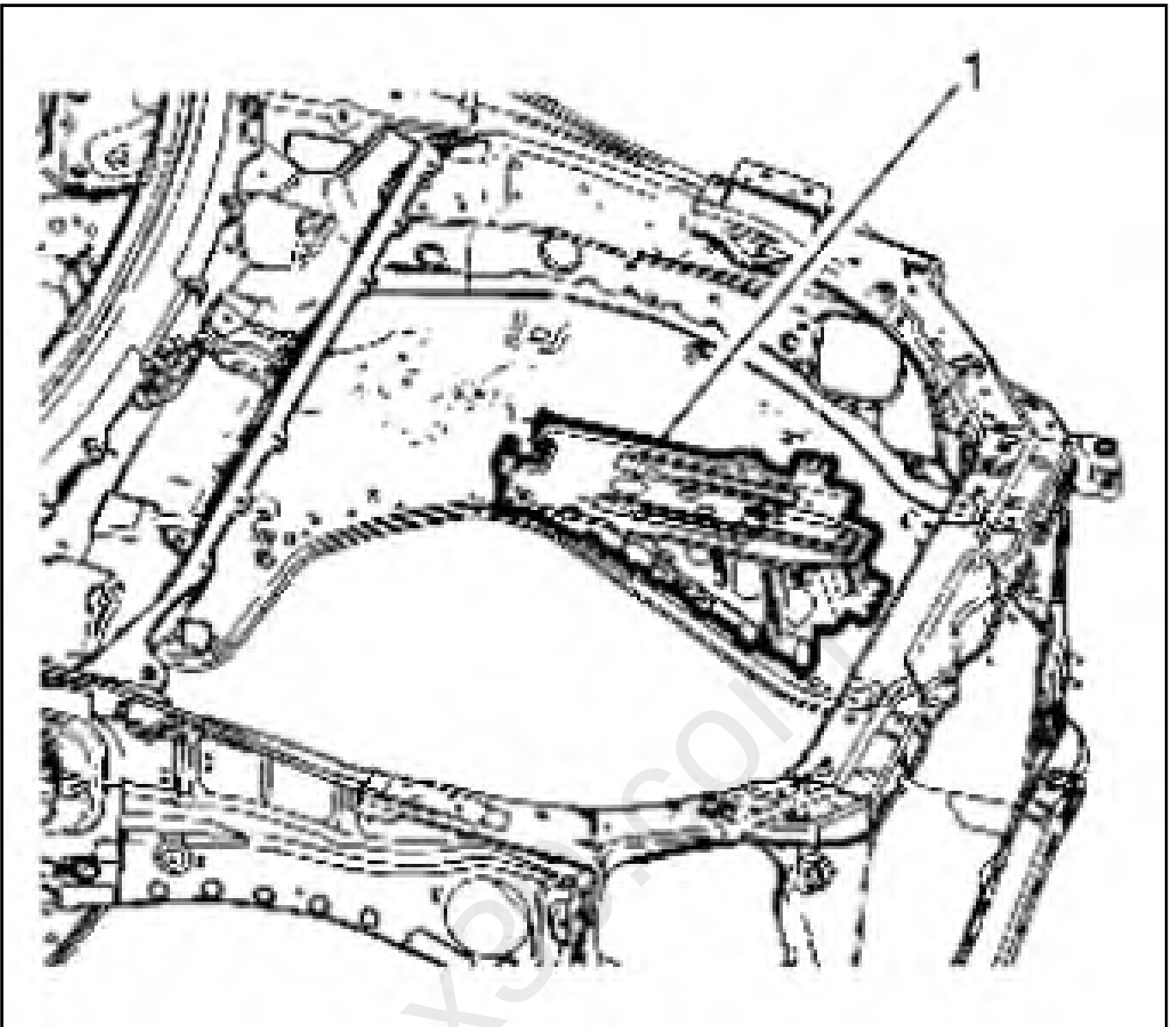
1. Drill 8 mm (5/16 in) plug weld holes as necessary in locations noted from the original battery tray.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#)



4. Position the battery tray.



5. Plug the weld accordingly.



6. Clean and prepare all welded surfaces (1).
7. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
8. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
9. Install all related panels and components.
10. Enable the SIR system. Refer to [SIR Disabling and Enabling](#)

PICKUP BOX FRONT END PANEL REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

1. Remove the pickup box assembly. Refer to [Pickup Box Replacement - Side](#).
2. Restore as much damage as possible.
3. Note the location and remove the sealers and anti-corrosion materials from the repair area as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

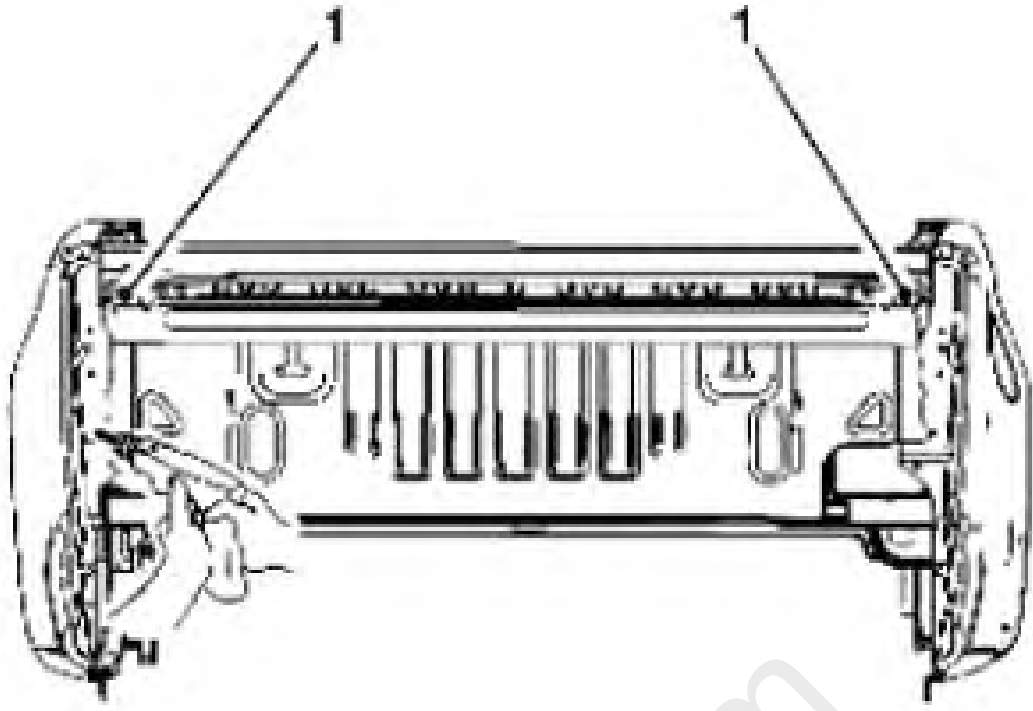
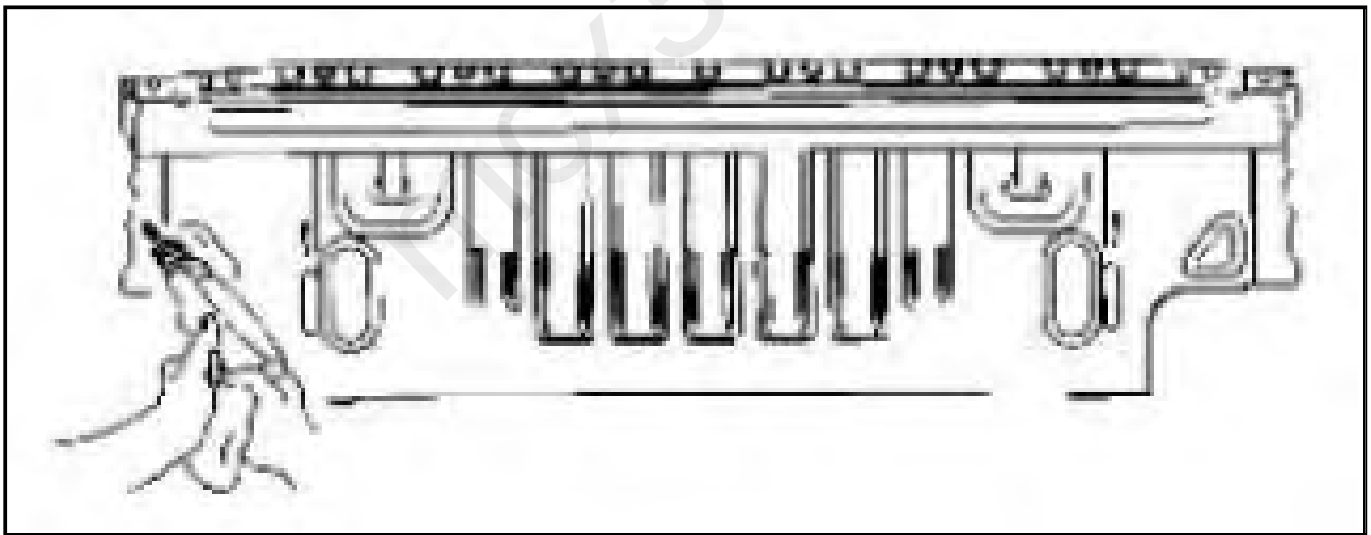


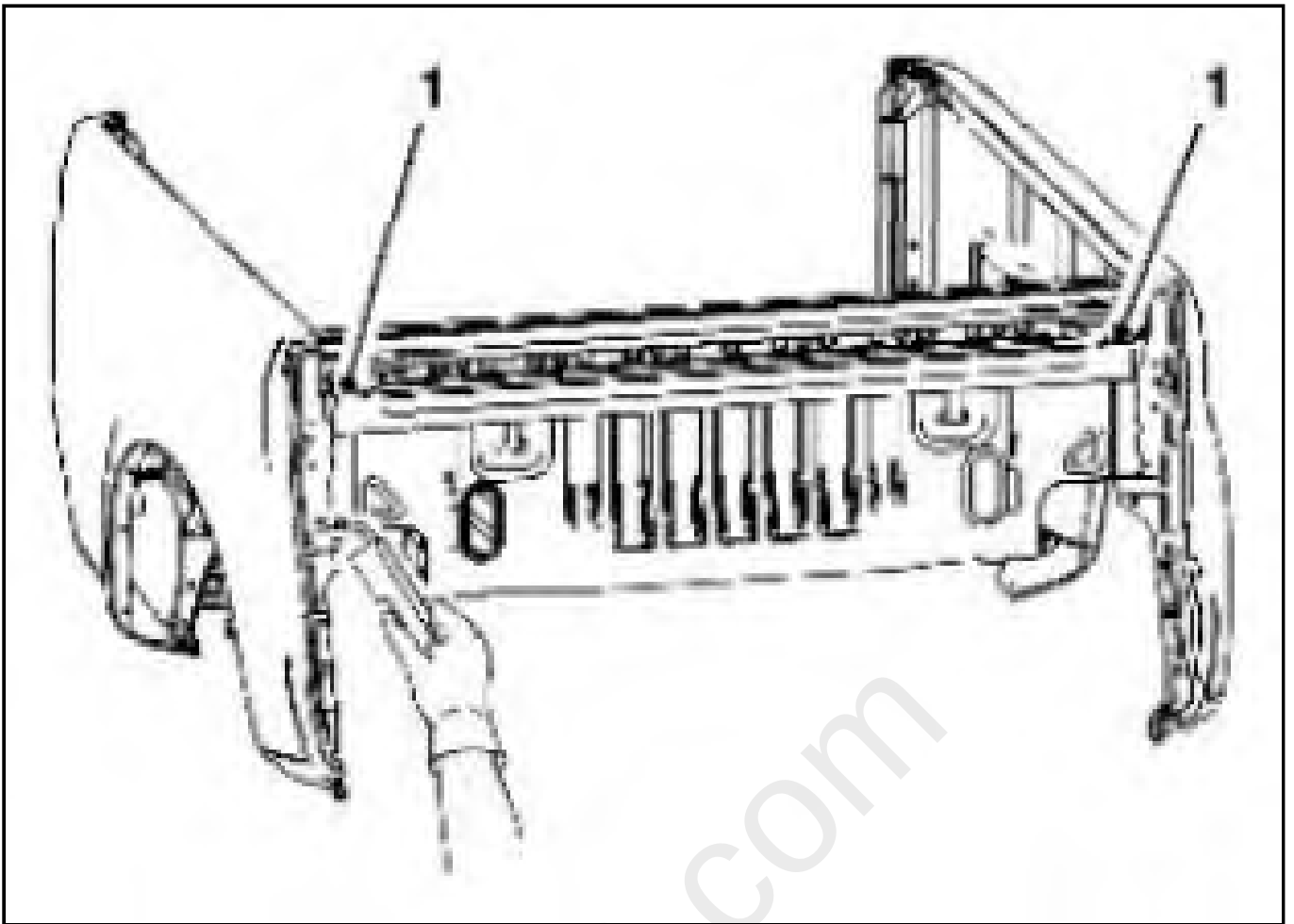
Fig. 27: Pickup Box Front End Panel Component Location
 Courtesy of GENERAL MOTORS COMPANY

4. Remove the bolts (1).
5. Locate and drill out all factory welds. Note the location of the welds for installation of the service part.
6. Remove the front panel.

Installation Procedure



1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original part. Prepare all mating surfaces as necessary.
2. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#).
3. Align the service part to the pickup box.



4. Install the bolts (1) and tighten to **13 N.m (9.6 lb ft)** .
5. Plug weld into position.
6. Clean and prepare all welded surfaces.
7. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
8. Paint and repair the area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
9. Install the pickup box assembly. Refer to [Pickup Box Replacement - Side](#).

PICKUP BOX LAMP POCKET REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

WARNING: Refer to [Glass and Sheet Metal Handling Warning](#) .

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .
2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components.
4. Visually inspect the damage. Repair as much of the damage as possible.
5. Remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

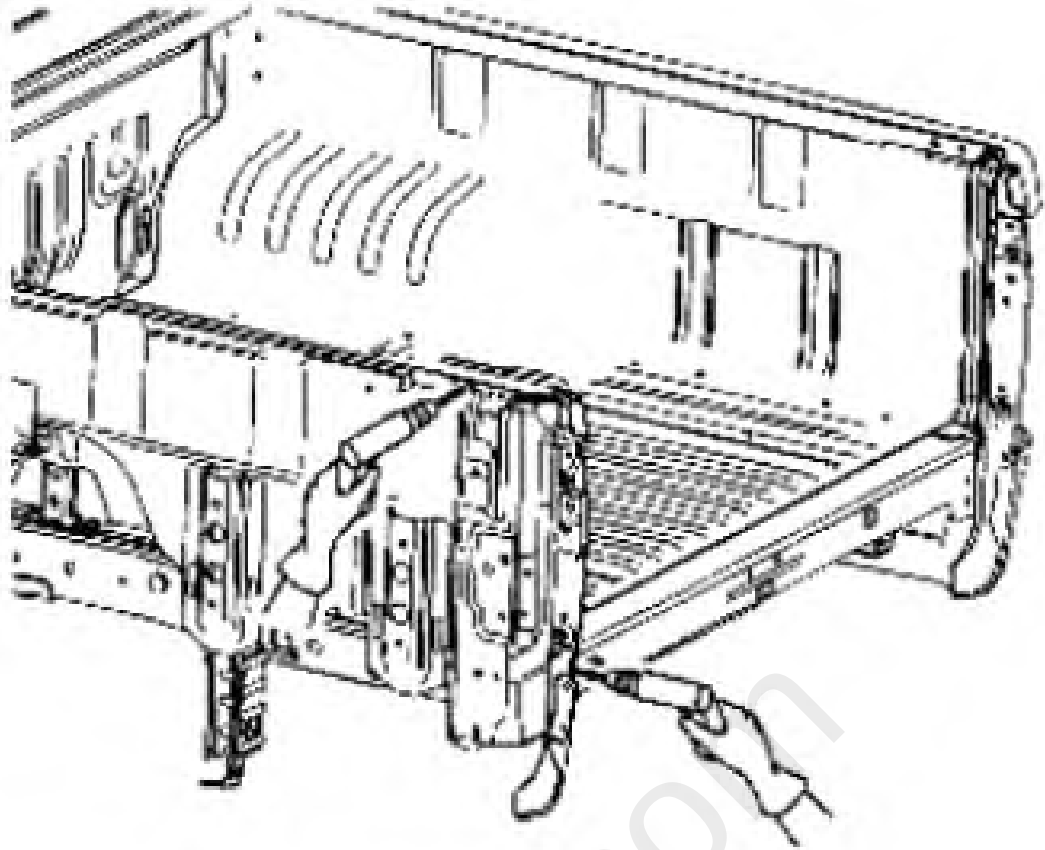
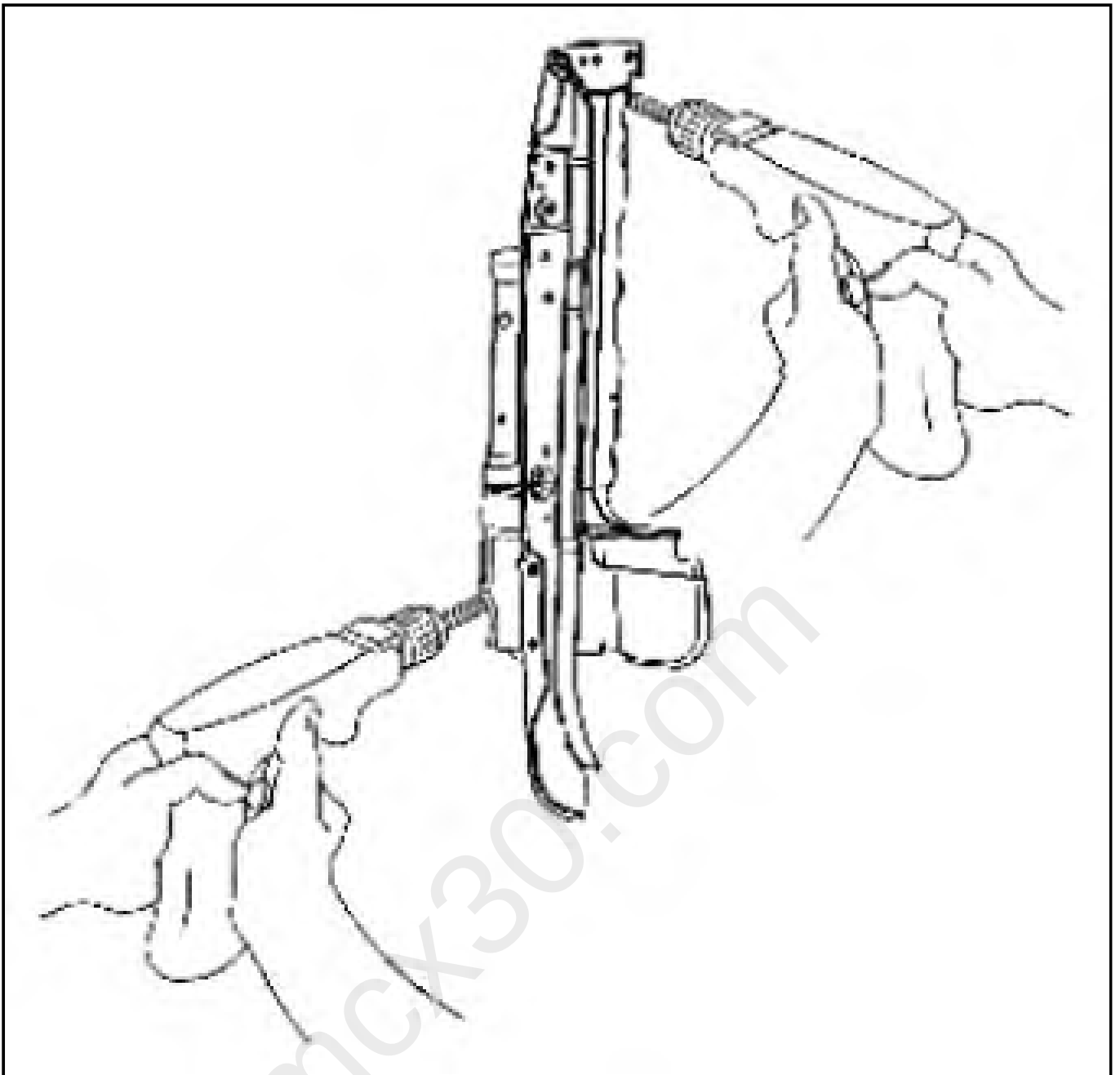
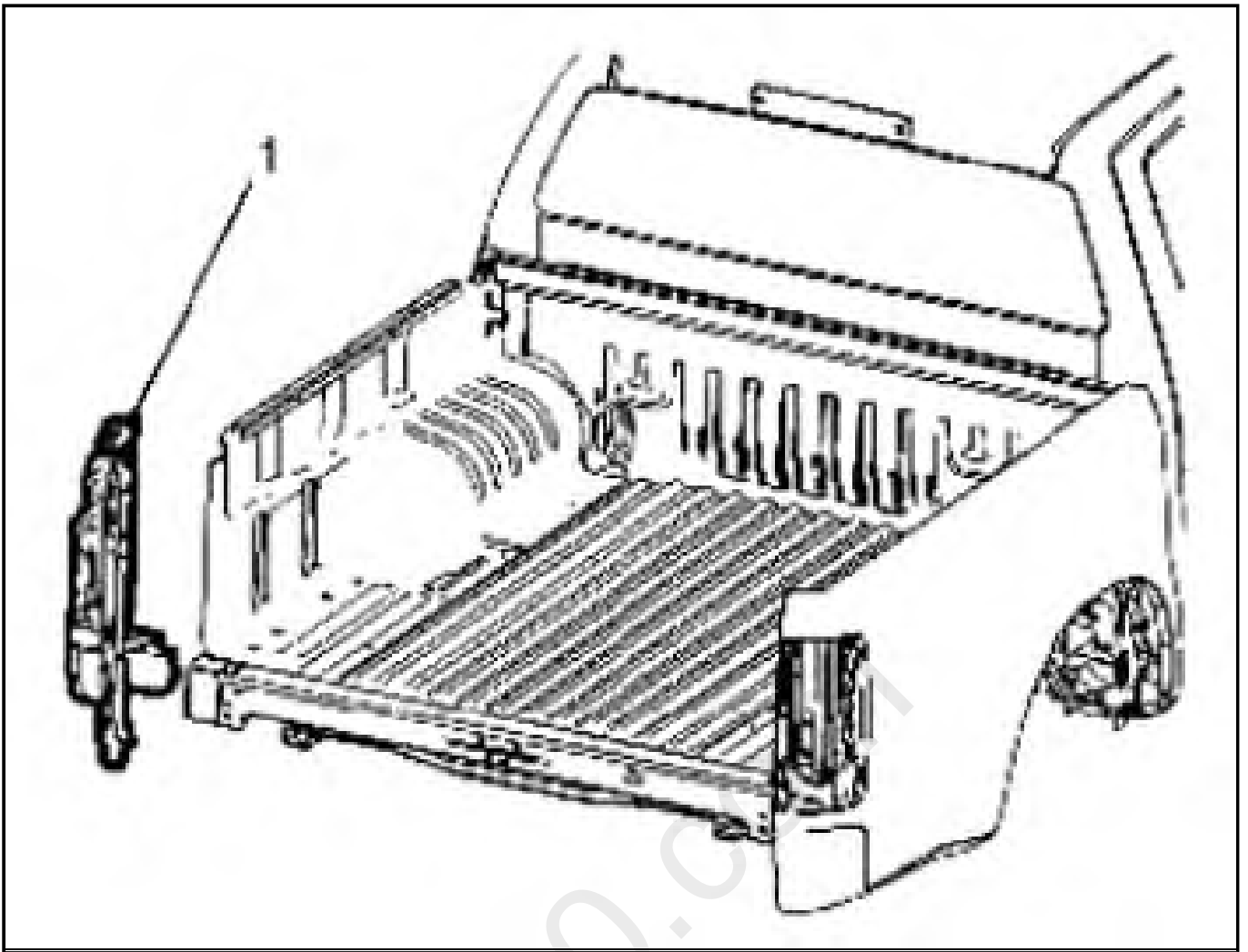


Fig. 28: Pickup Box Lamp Pocket Component Location
Courtesy of GENERAL MOTORS COMPANY

6. Locate and mark all the necessary factory welds of the body rear end panel.

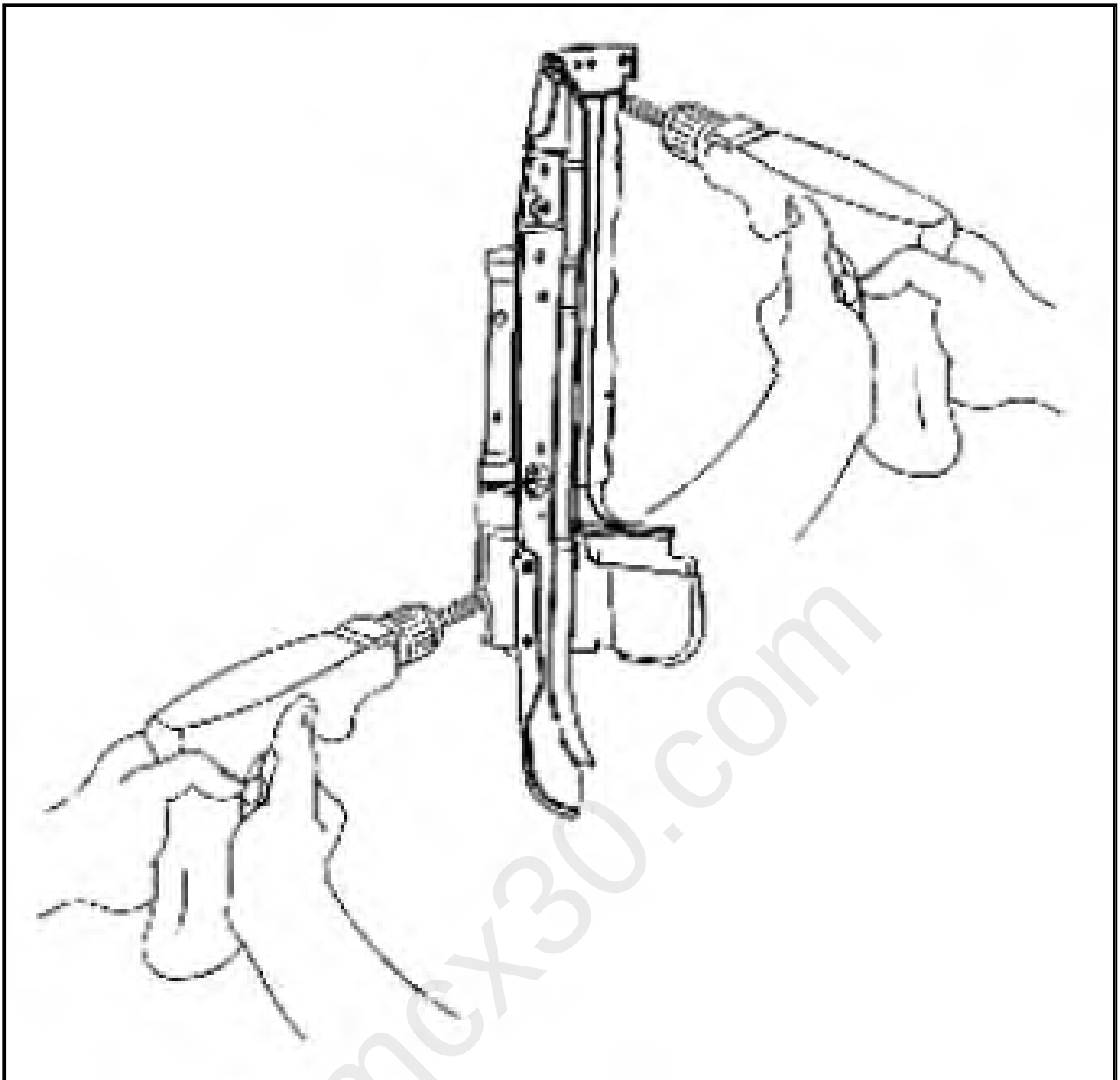


7. Drill all factory welds. Note the number and location of welds for installation of the service assembly.

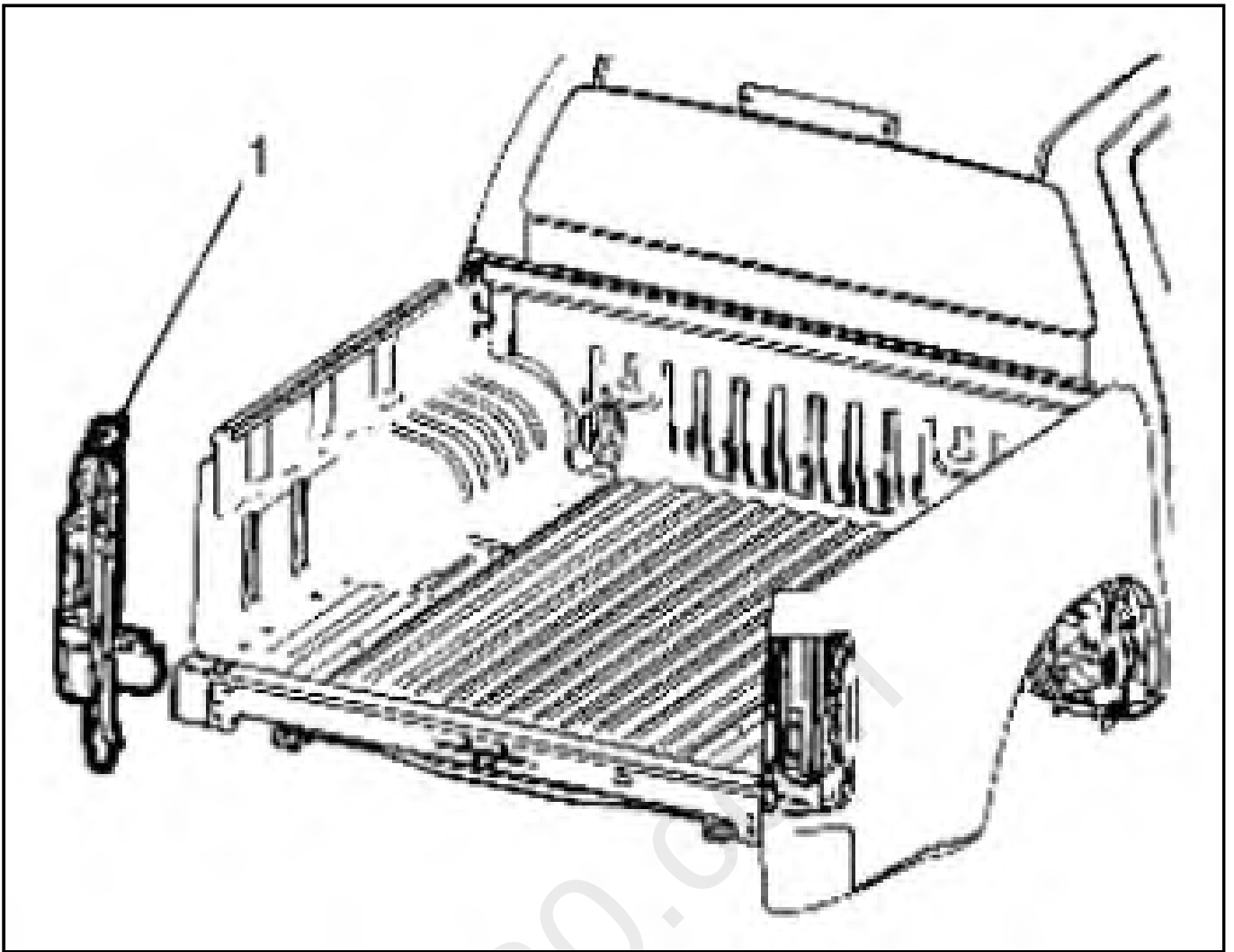


8. Remove the tail lamp pocket (1).

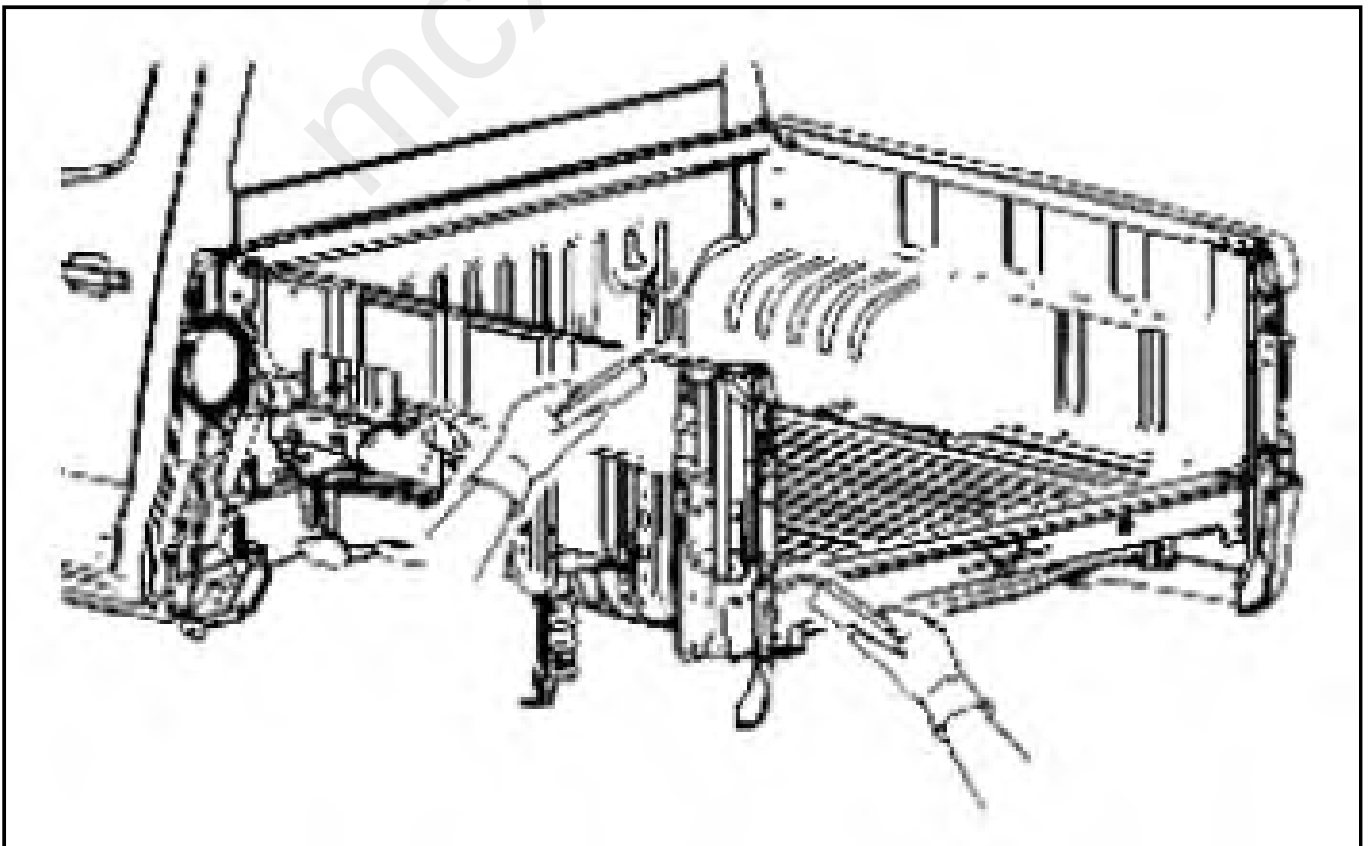
Installation Procedure



1. Drill **8 mm (5/16 in)** holes for plug welding along the edges of the tail lamp pocket as noted from the original panel.
2. Clean and prepare the attaching surfaces for welding.



3. Position the tail lamp pocket on the vehicle (1).
4. Verify the fit of the tail lamp pocket.
5. Clamp the tail lamp pocket into position.



6. Plug the weld accordingly.
7. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
8. Paint the repaired area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
9. Install all related panels and components.
10. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
11. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .

PICKUP BOX REPLACEMENT - SIDE

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

NOTE: This procedure shows illustrations for the crew cab pickup box. All pickup box sizes have similar procedures.

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

1. Remove the box assembly. Refer to Pickup Box Replacement.
2. Remove all related panels and components.
3. Repair as much of the damage as possible, according to factory specifications.
4. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

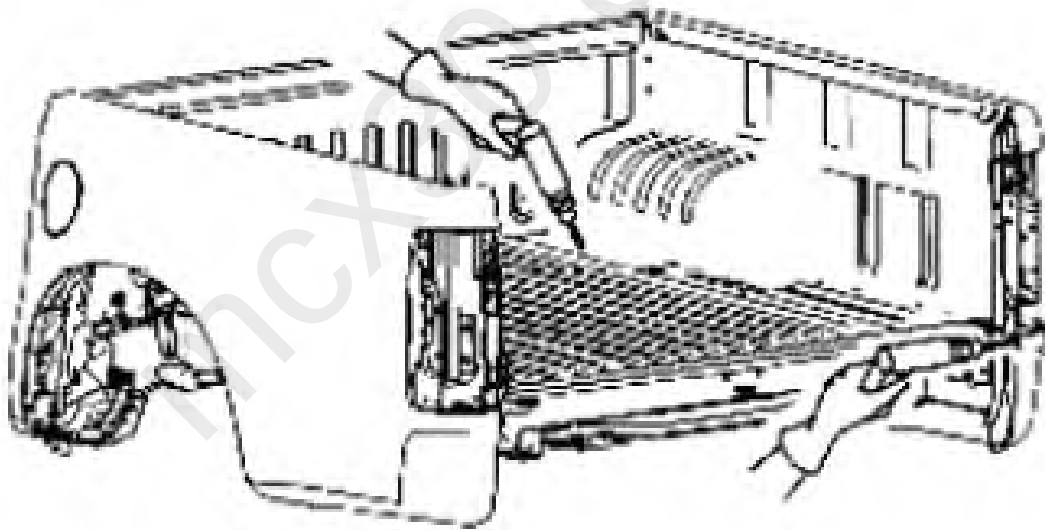
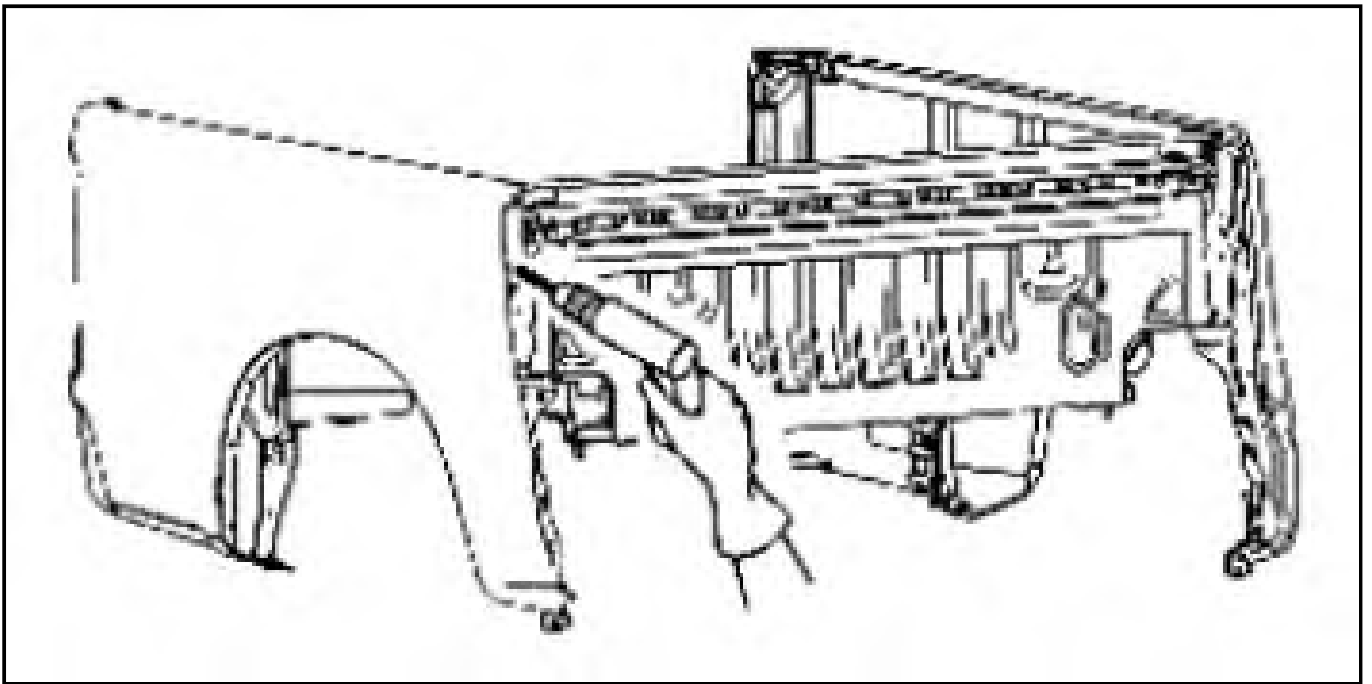
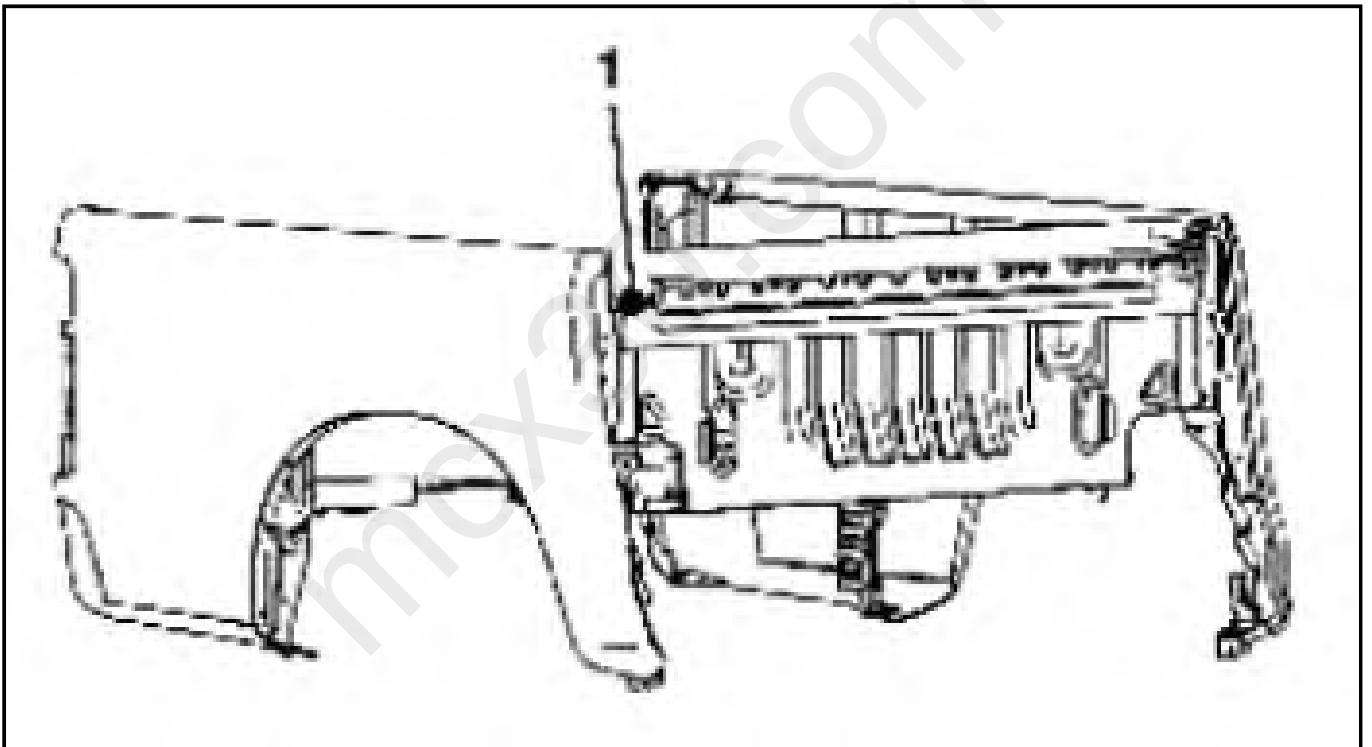


Fig. 29: Pickup Box Component Location (Side).
Courtesy of GENERAL MOTORS COMPANY

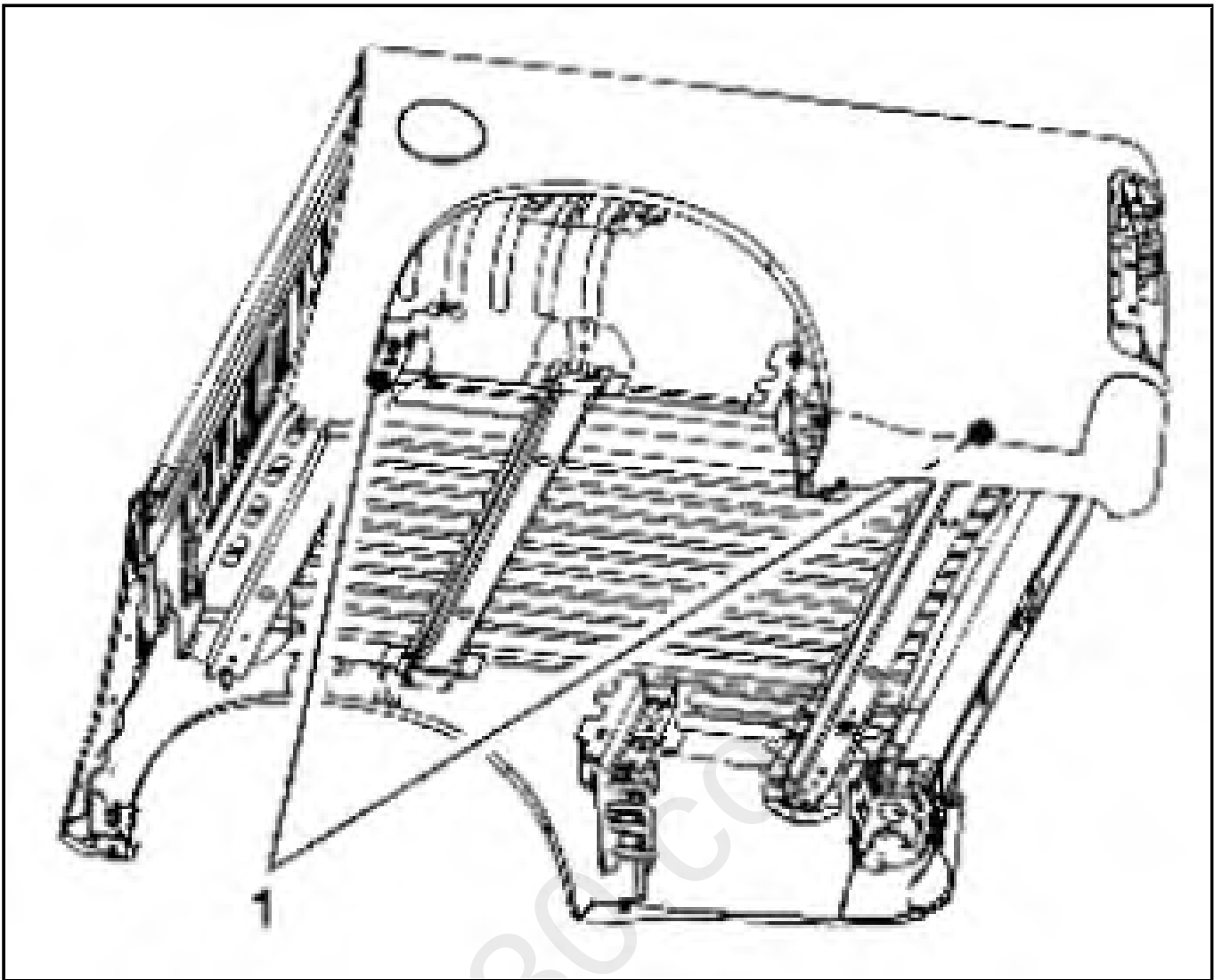
5. Locate and drill out spot welds on the inside of the panel.



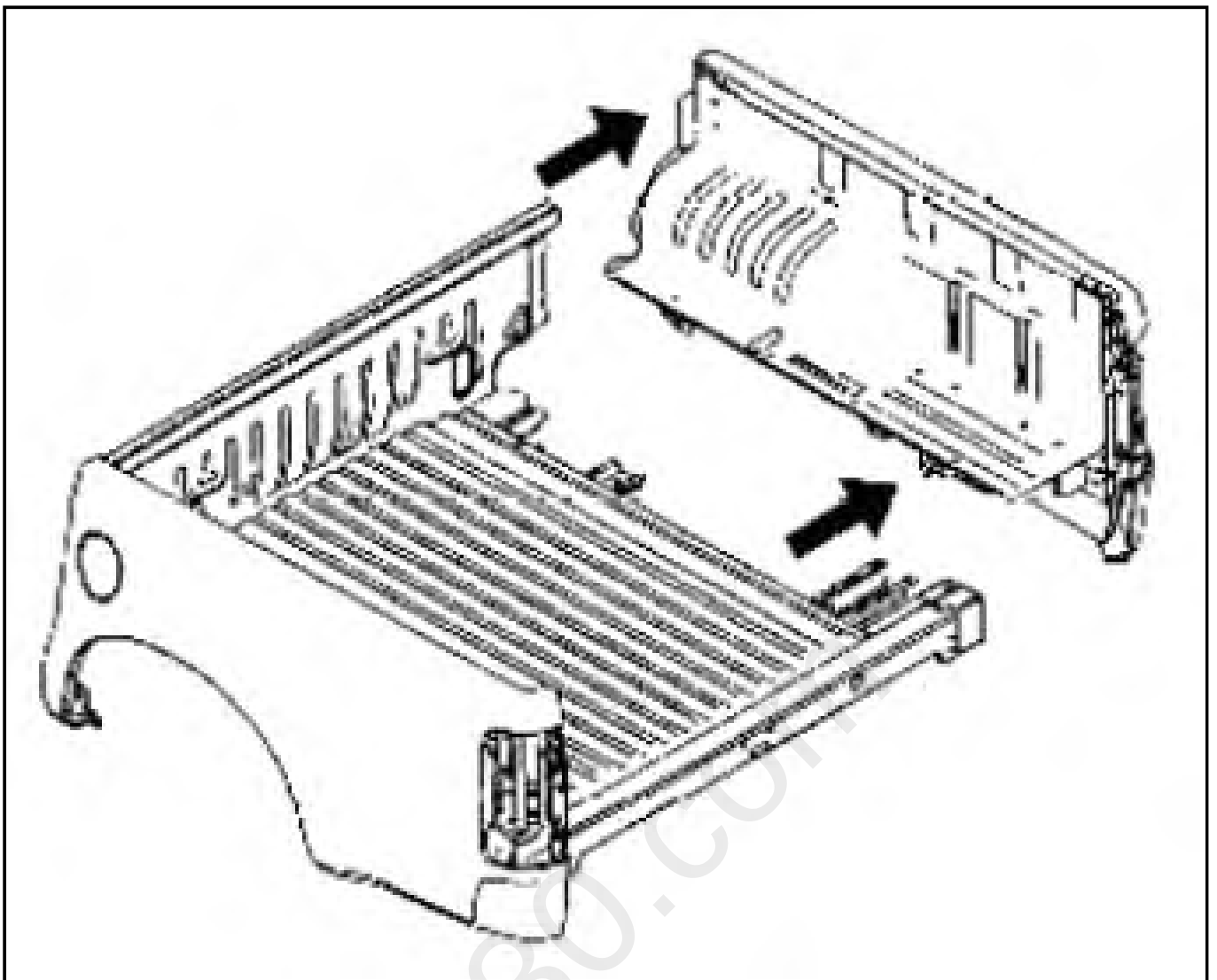
6. Locate and drill out the spot welds along the front bed panel.



7. Remove the bolt (1).

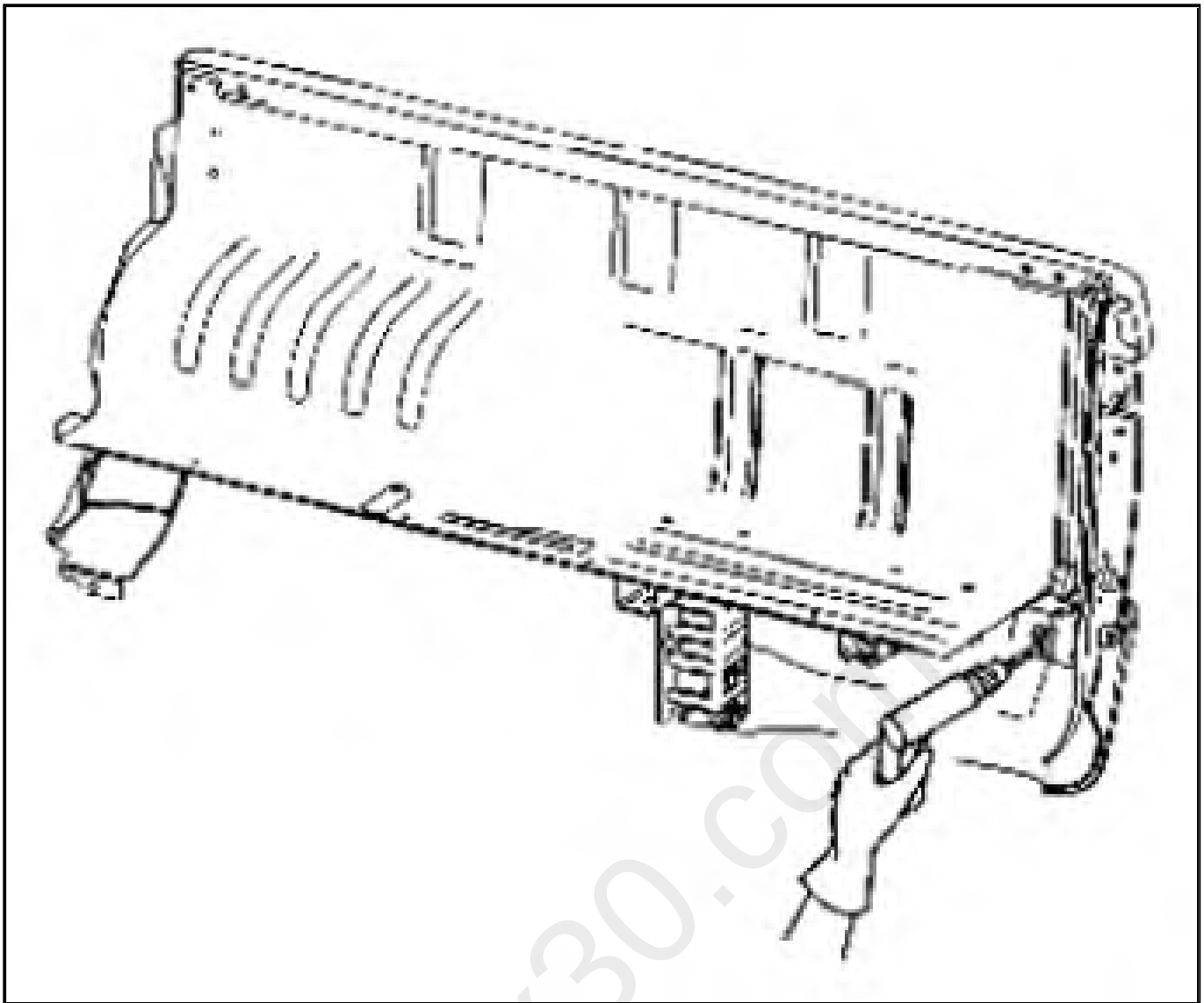


8. Remove the bolts (1).



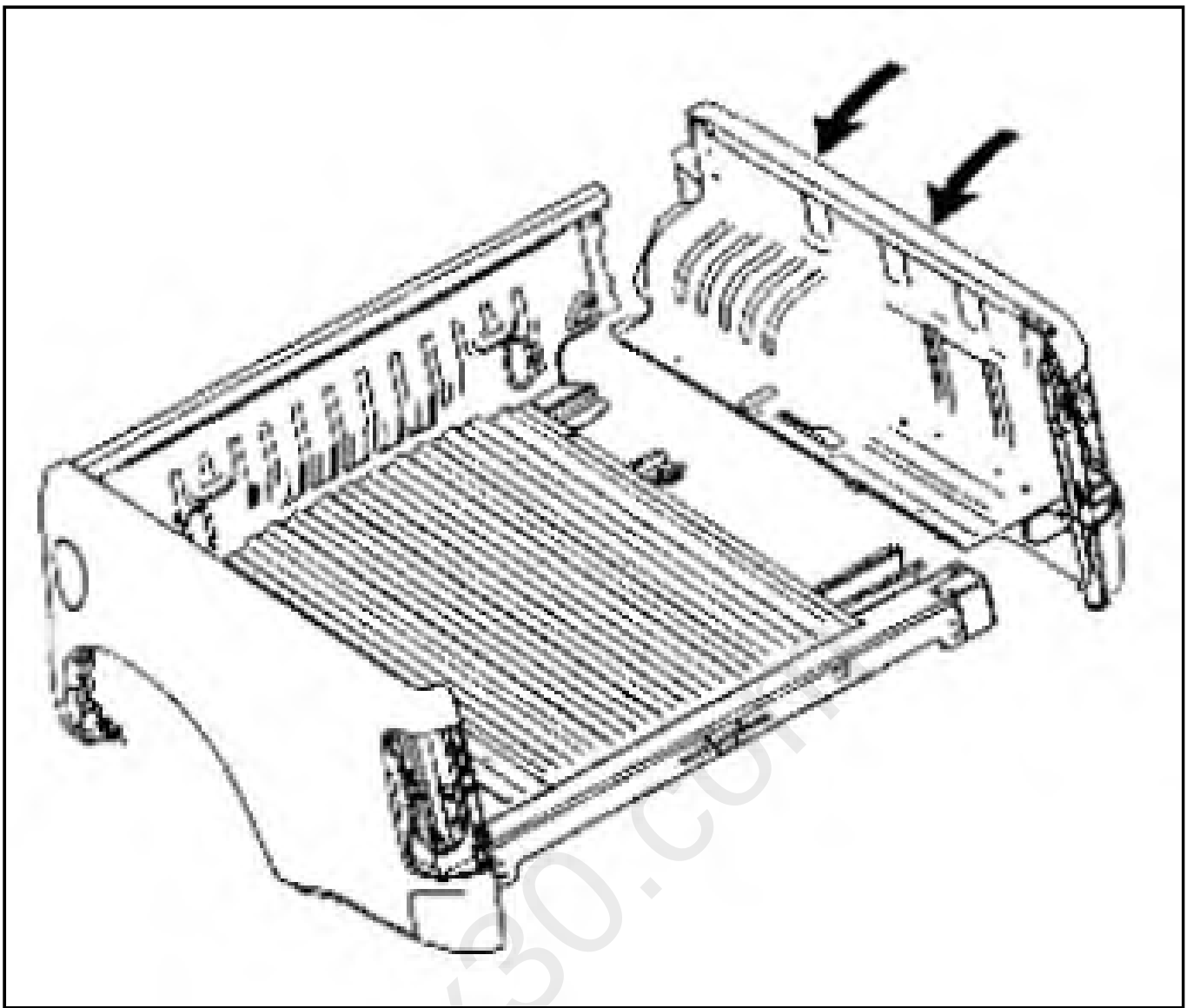
9. Remove the side panel.

Installation Procedure

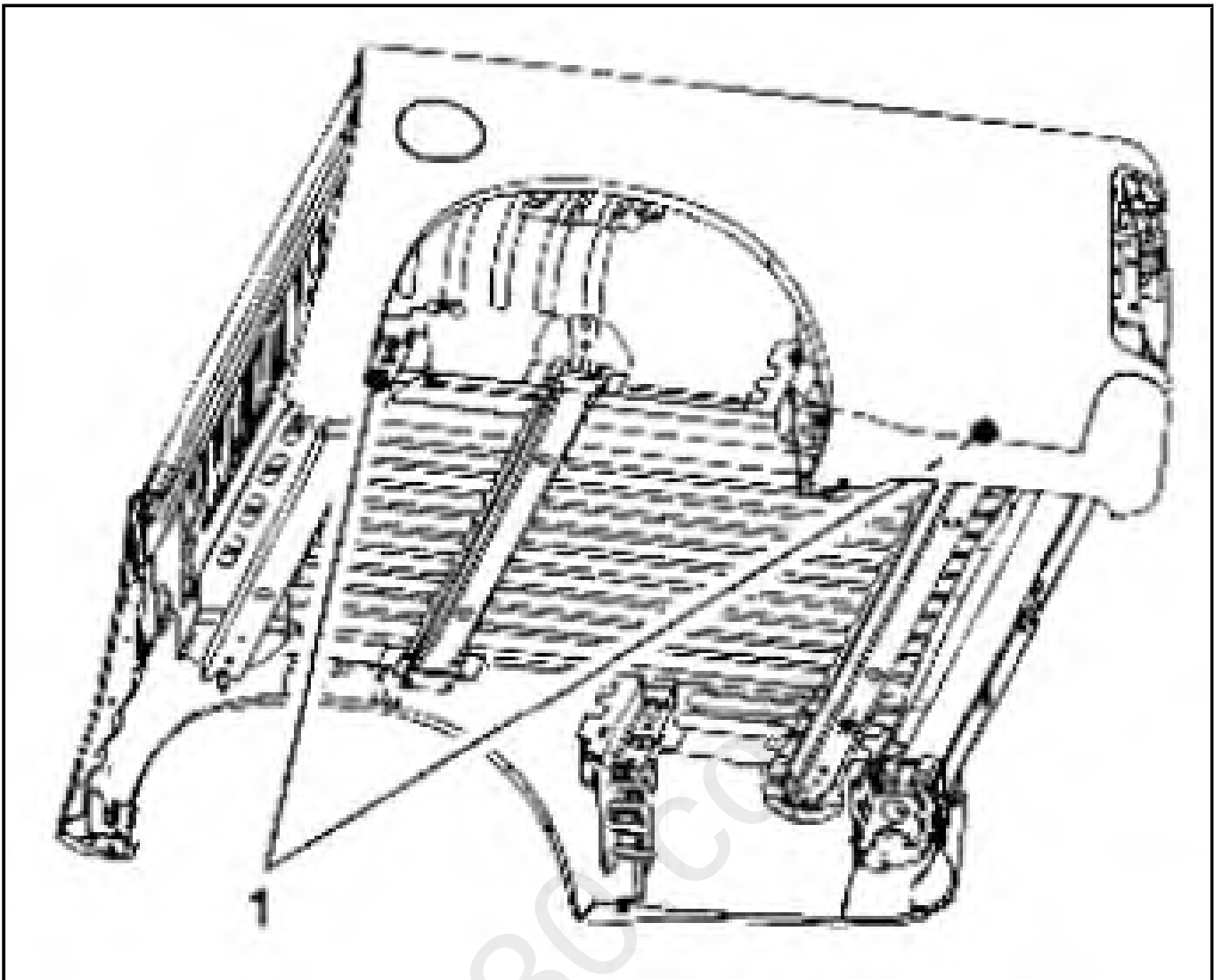


NOTE: If the location of the original plug weld holes can not be determined, or if the structural weld-thru adhesive was present, space the plug weld holes every 40 mm (1 1/2 in) apart.

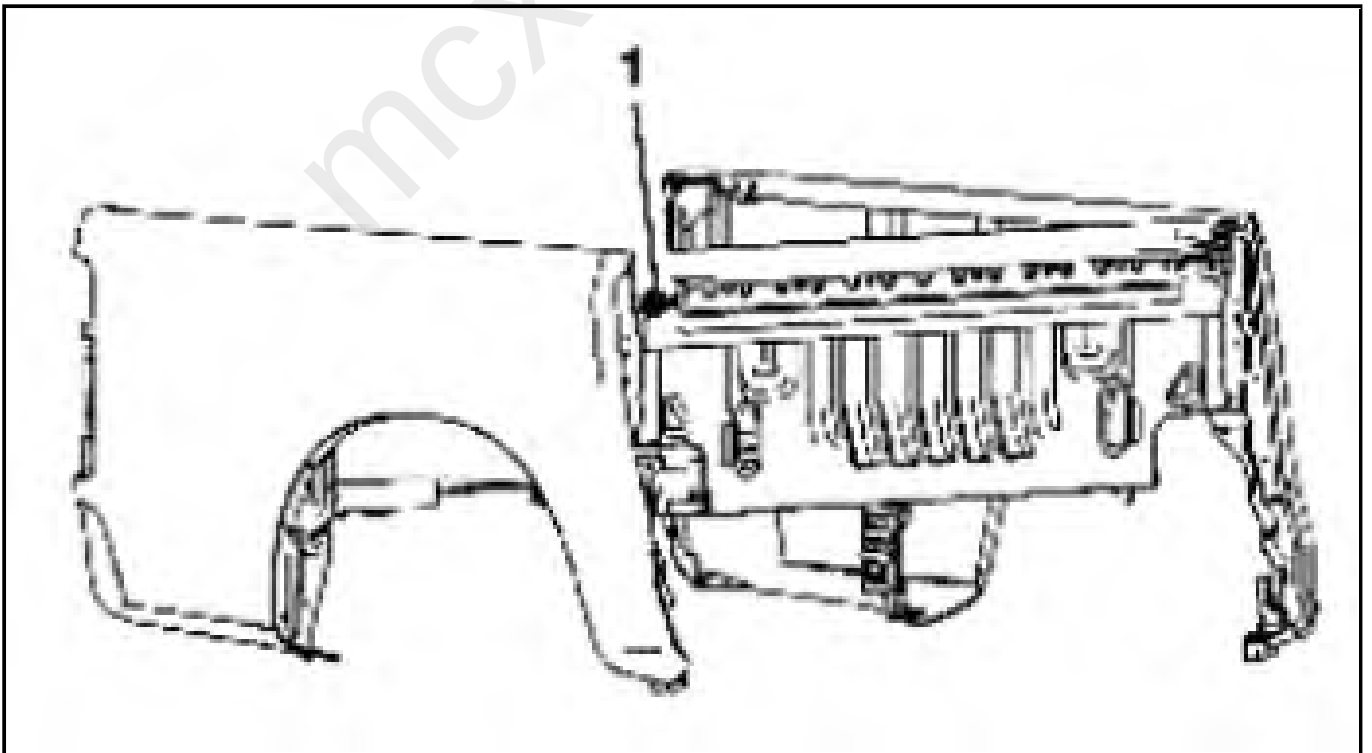
1. Drill 8 mm (5/16 in) plug weld holes in the service part as noted.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru Coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#)



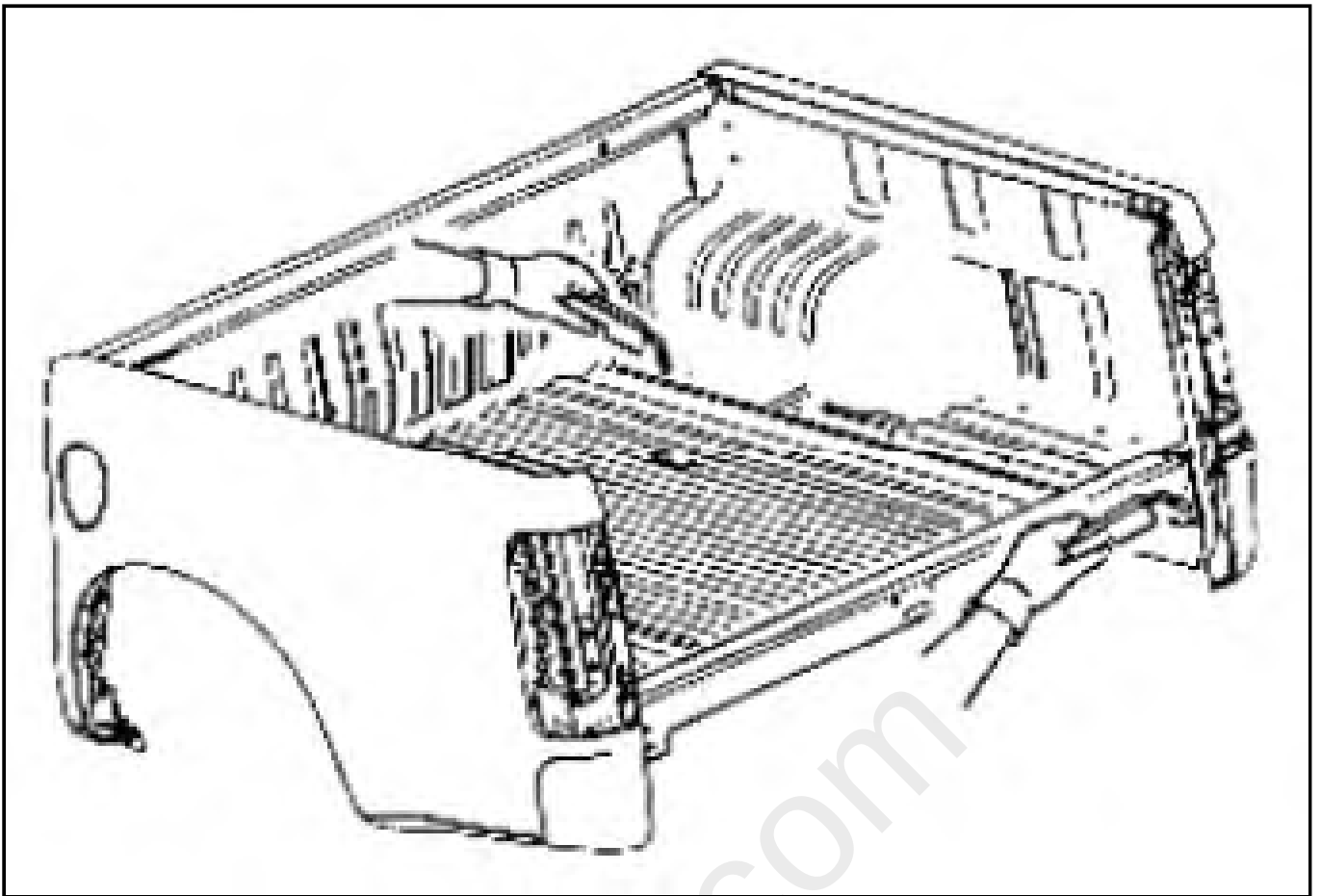
4. Position the service side panel to the bed assembly.



5. Install the bolts (1) and tighten **13 N.m (9.6 lb ft)** .



6. Install the bolt and tighten to **13 N.m (9.6 lb ft)** .



7. Plug weld as necessary
8. To create a solid weld with minimum heat distortion, make 25 mm (1 in) stitch welds along the seam with 25 mm (1 in) gaps between them. Then go back and complete the stitch weld.
9. Clean and prepare all welded surfaces.
10. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
11. Paint and repair the area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
12. Install all related panels and components.
13. Install the box assembly. Refer to [Pickup Box Replacement \(Short Pickup Box\)](#) [Pickup Box Replacement \(Long Pickup Box\)](#) .

PICKUP BOX OUTER SIDE PANEL REPLACEMENT (ADHESIVE BONDING PROCEDURE)

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

NOTE: This adhesive bonding procedure represents one manufacturer's installation application. Other manufacturers' procedures may vary, including MIG welding in some areas of the repair. Always follow the system manufacturer's instructions for application, handling, and curing.

NOTE: Before you begin the repair, refer to [METAL PANEL BONDING](#) for proper adhesive preparations and general information.

1. Remove the box assembly. Refer to [Pickup Box Replacement \(Short Pickup Box\)](#) [Pickup Box Replacement \(Long Pickup Box\)](#) .
2. Remove all related panels and components.
3. Repair as much or the damage as possible, according to factory specifications.

4. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .

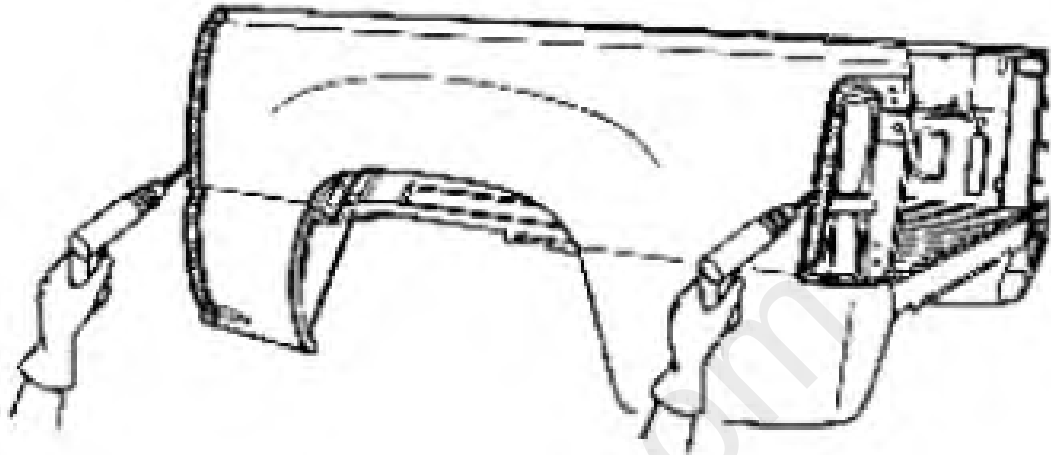
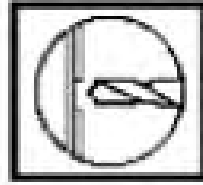
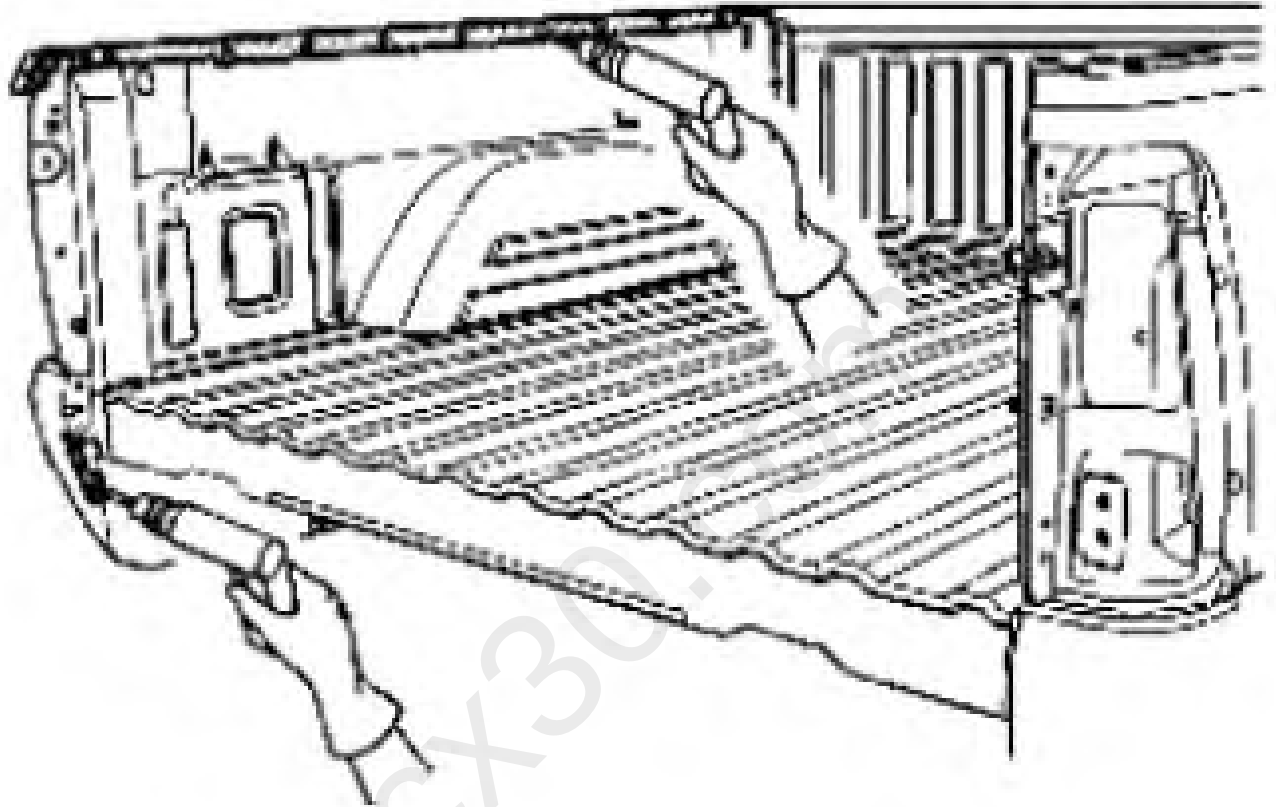
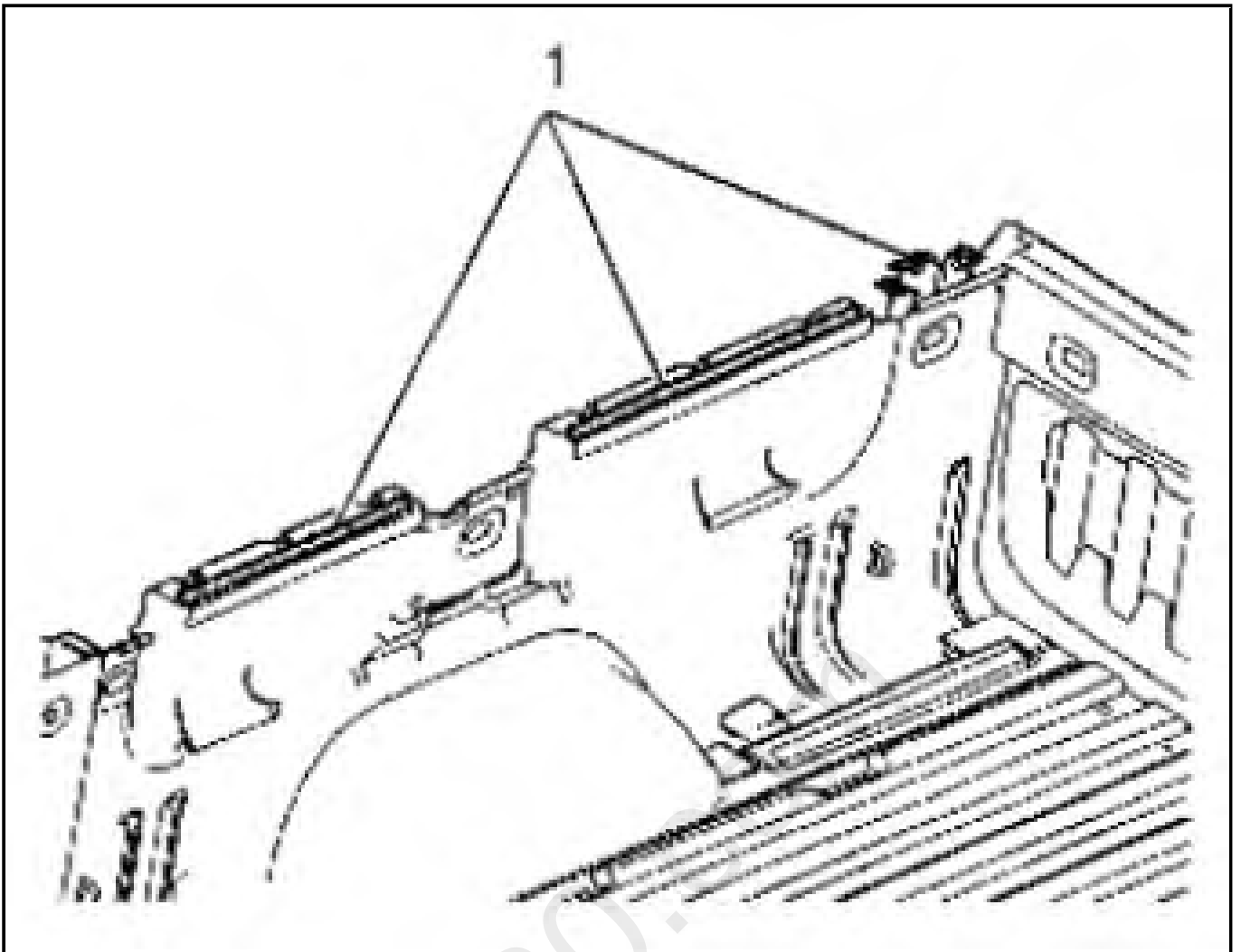


Fig. 30: Pickup Box Outer Side Panel Component Location (Adhesive Bonding Procedure)
Courtesy of GENERAL MOTORS COMPANY

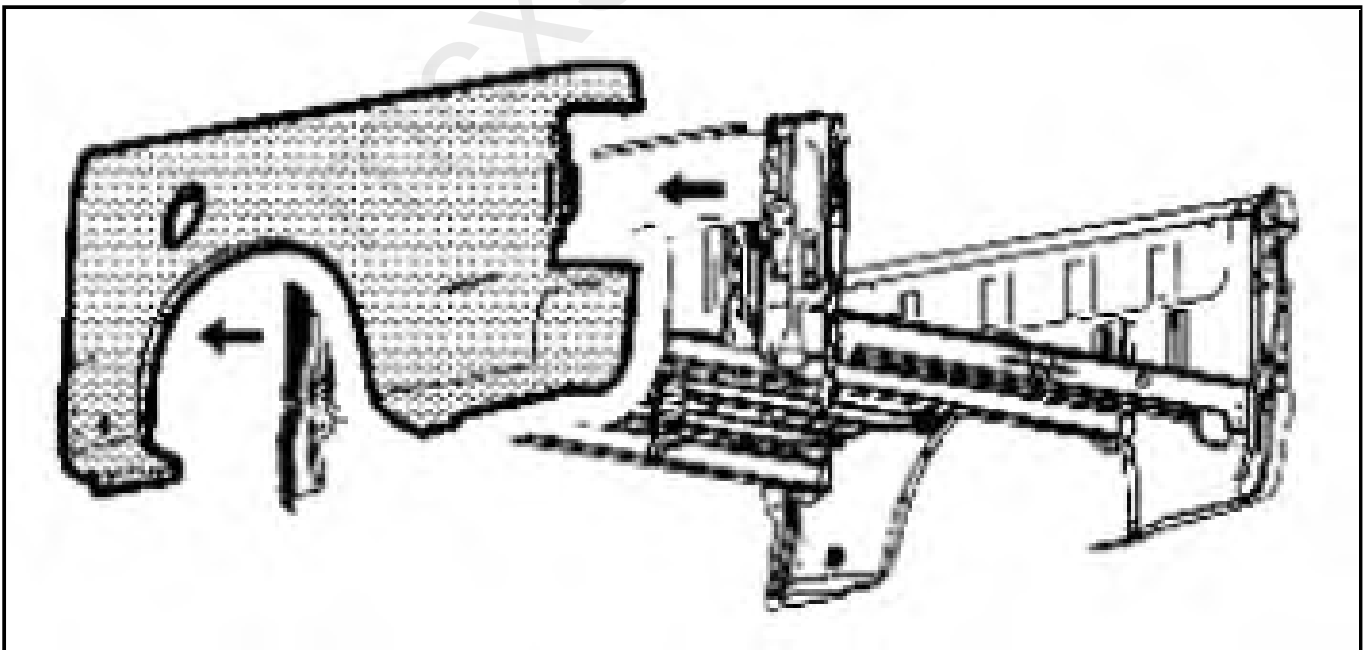
5. Locate and drill out the spot welds attaching the front panel, the wheelhouse, and the tail lamp pocket area.



6. Locate and drill out spot welds on the upper rail and the rear sill area.

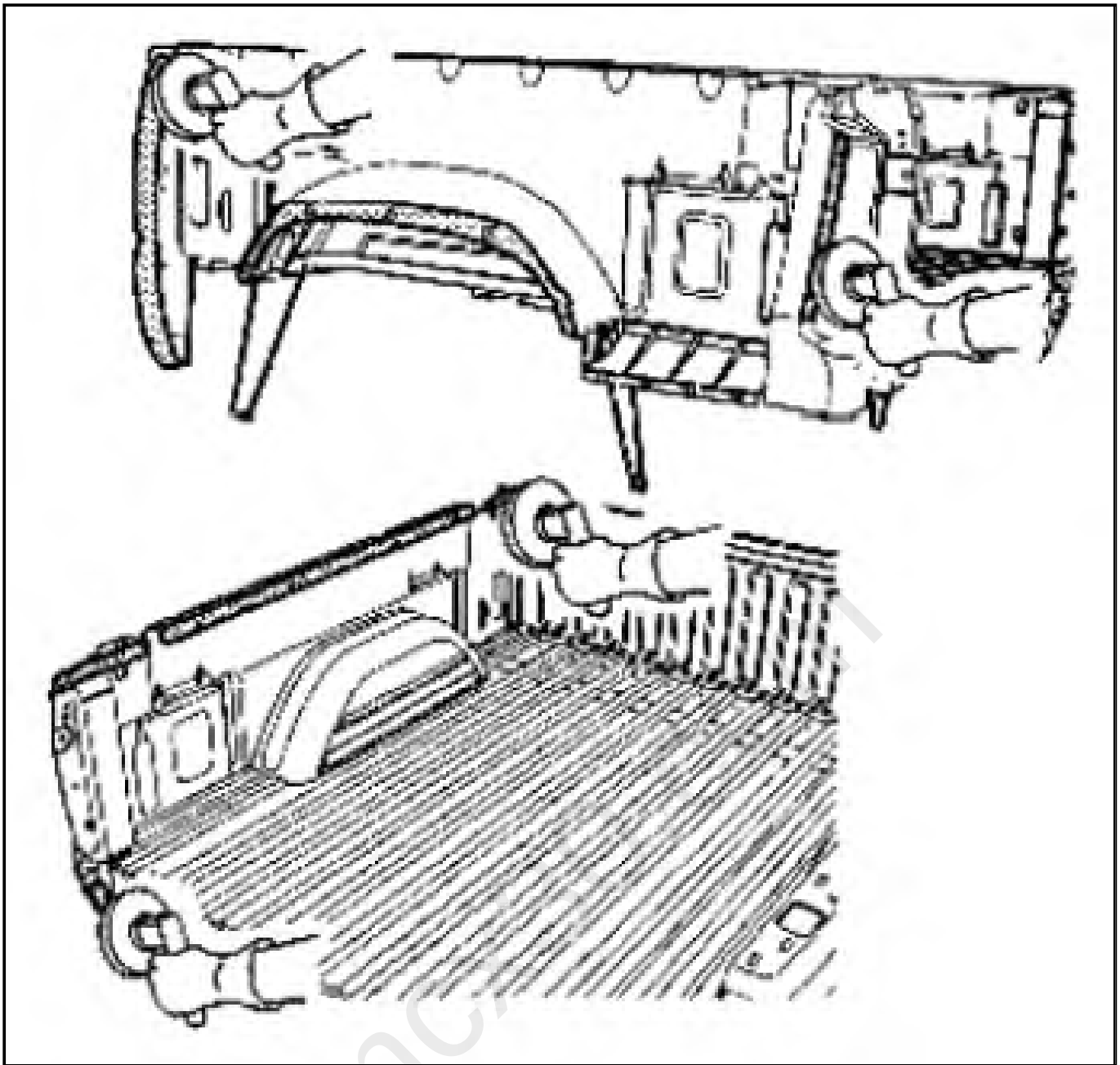


7. Structural adhesive is present between the upper inner panel (1) and the outer panel. If necessary, use a chisel to separate the outer panel from the inner panel.

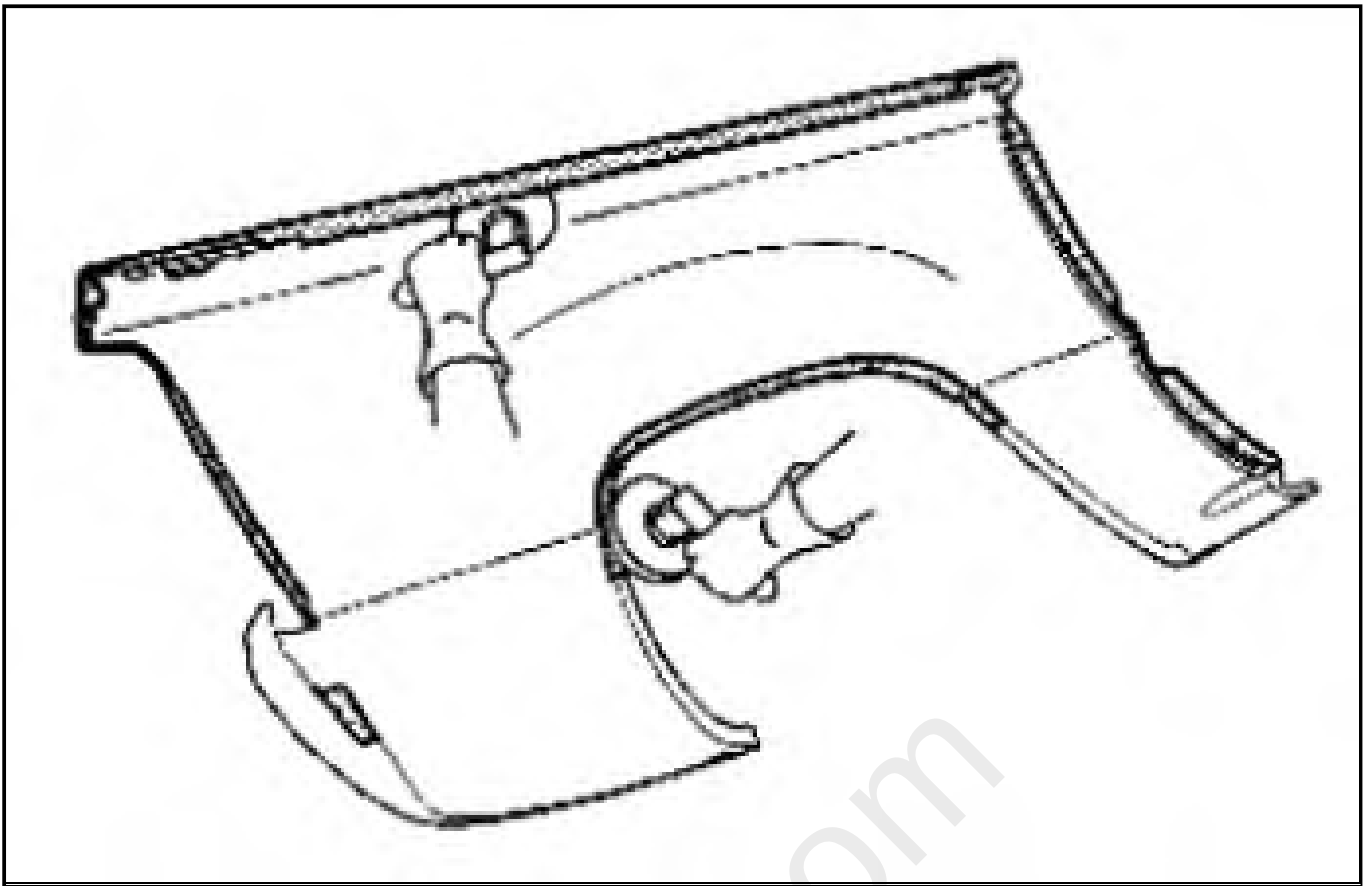


8. Remove the side panel.

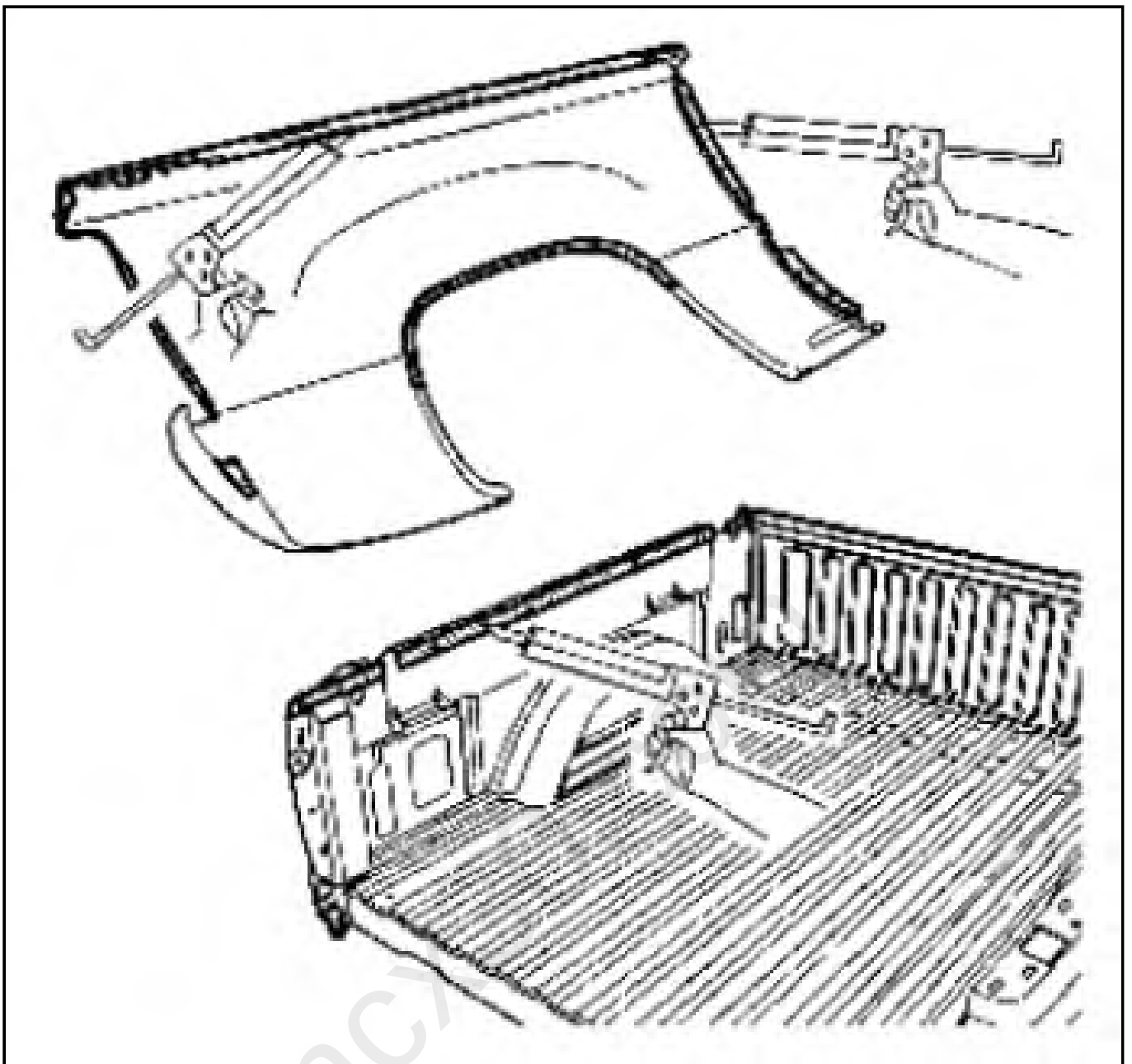
Installation Procedure



1. Grind the surface of the bed assembly mating flanges to bare steel. Do not damage the corners or thin the metal during the grinding process.

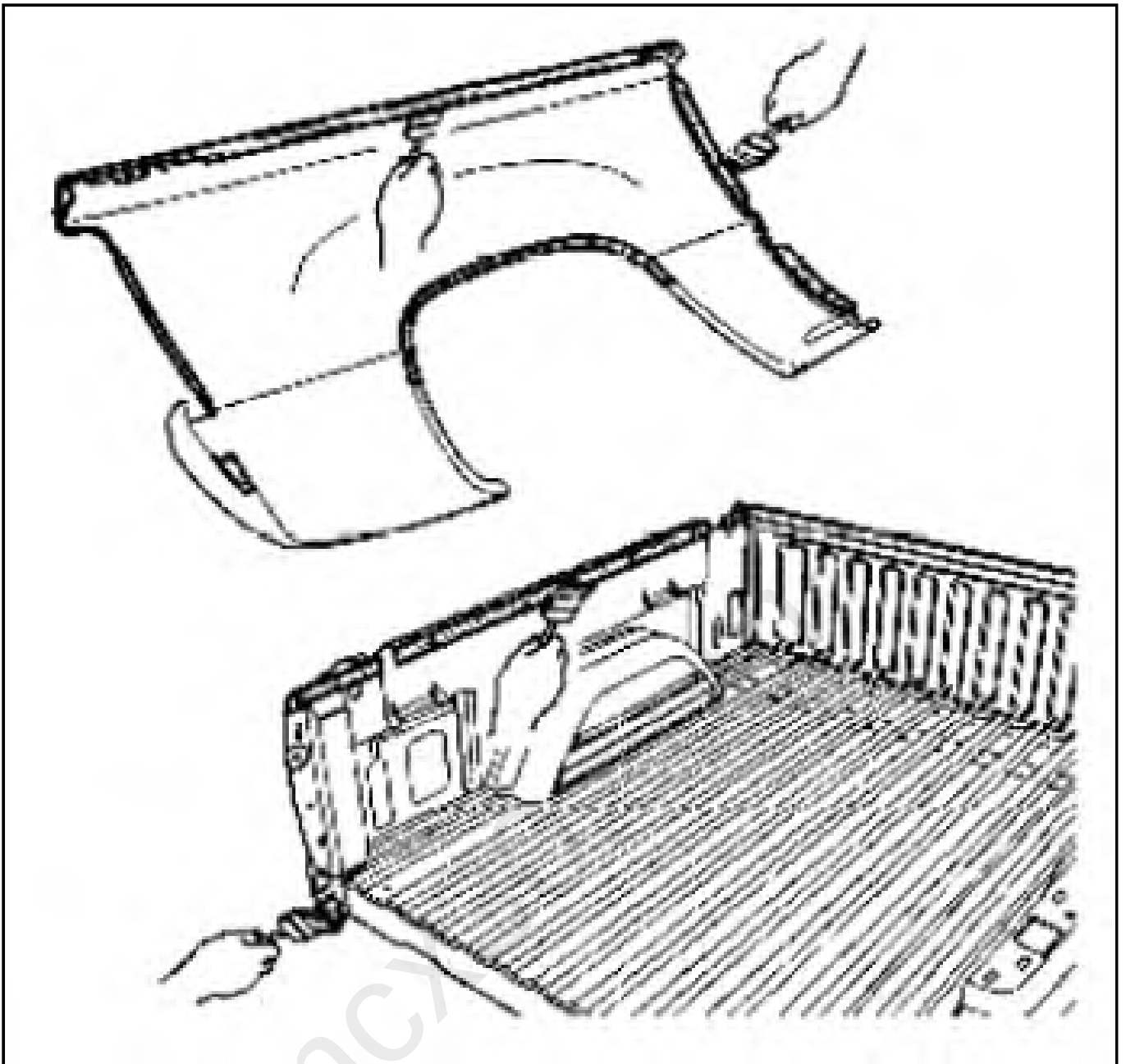


2. Grind the mating flanges of the service side panel to remove the E-coating. Do not damage the corners or thin the metal during the grinding operation.
3. Clean the mating surfaces.

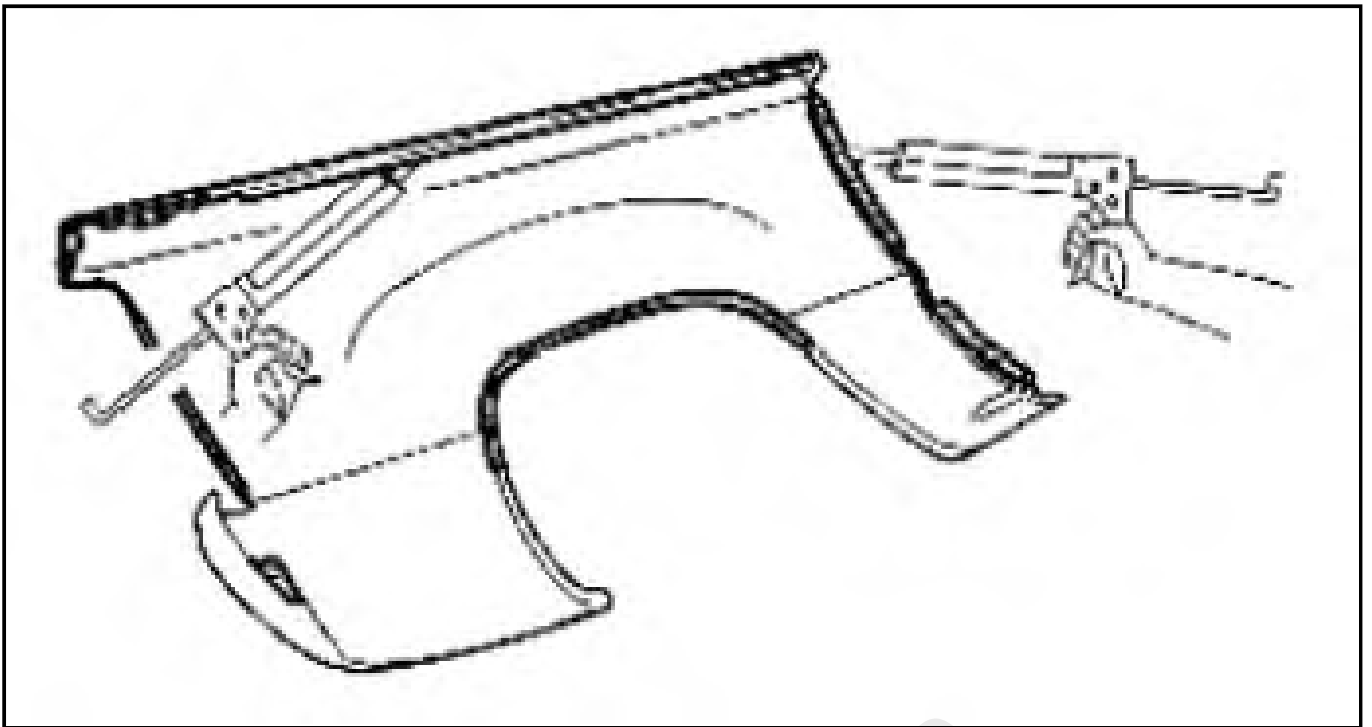


NOTE: Do not allow the adhesive to cure prior to installing the service side panel.

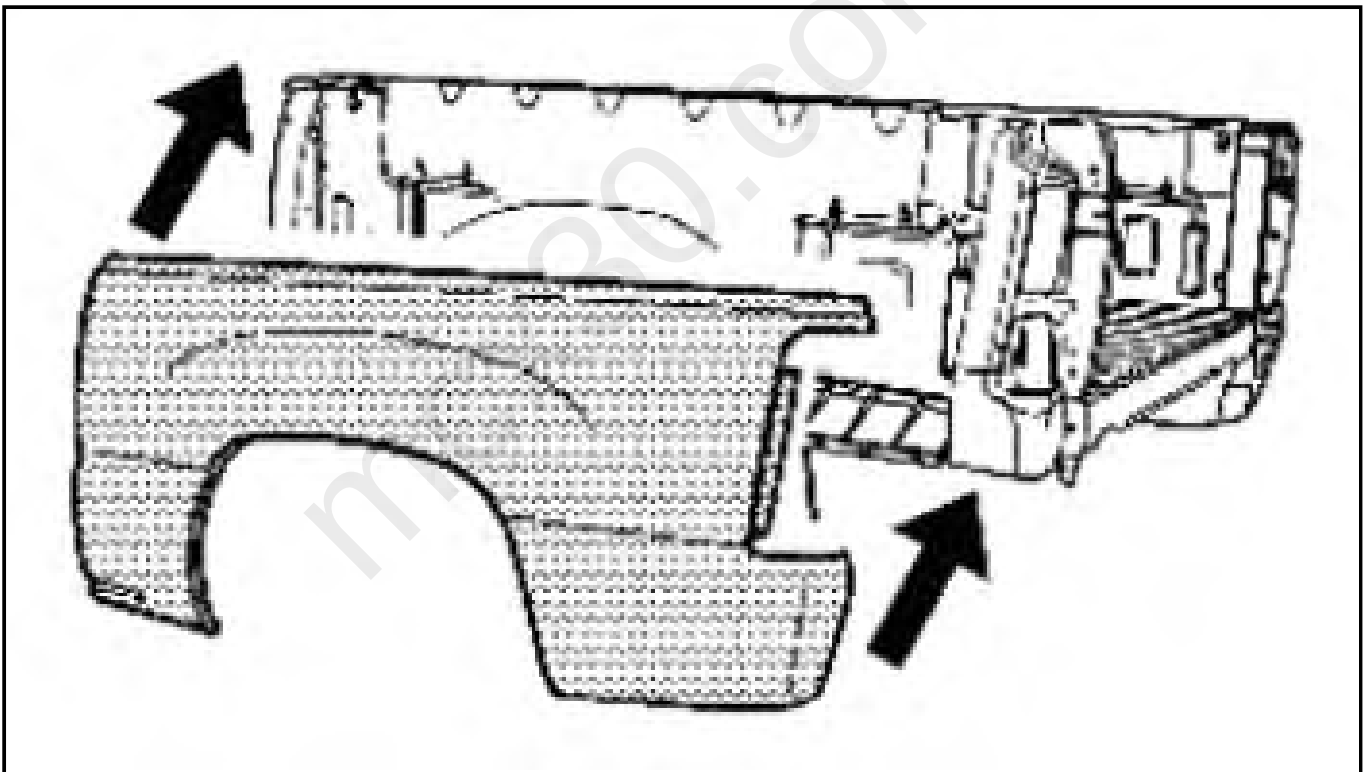
4. Apply a 3-6 mm (1/8-1/4 in) bead of metal panel bonding adhesive to both of the mating surfaces.



5. Using a small acid brush, spread a coat of adhesive to both of the mating surfaces. Cover all of the bare metal to ensure corrosion protection.

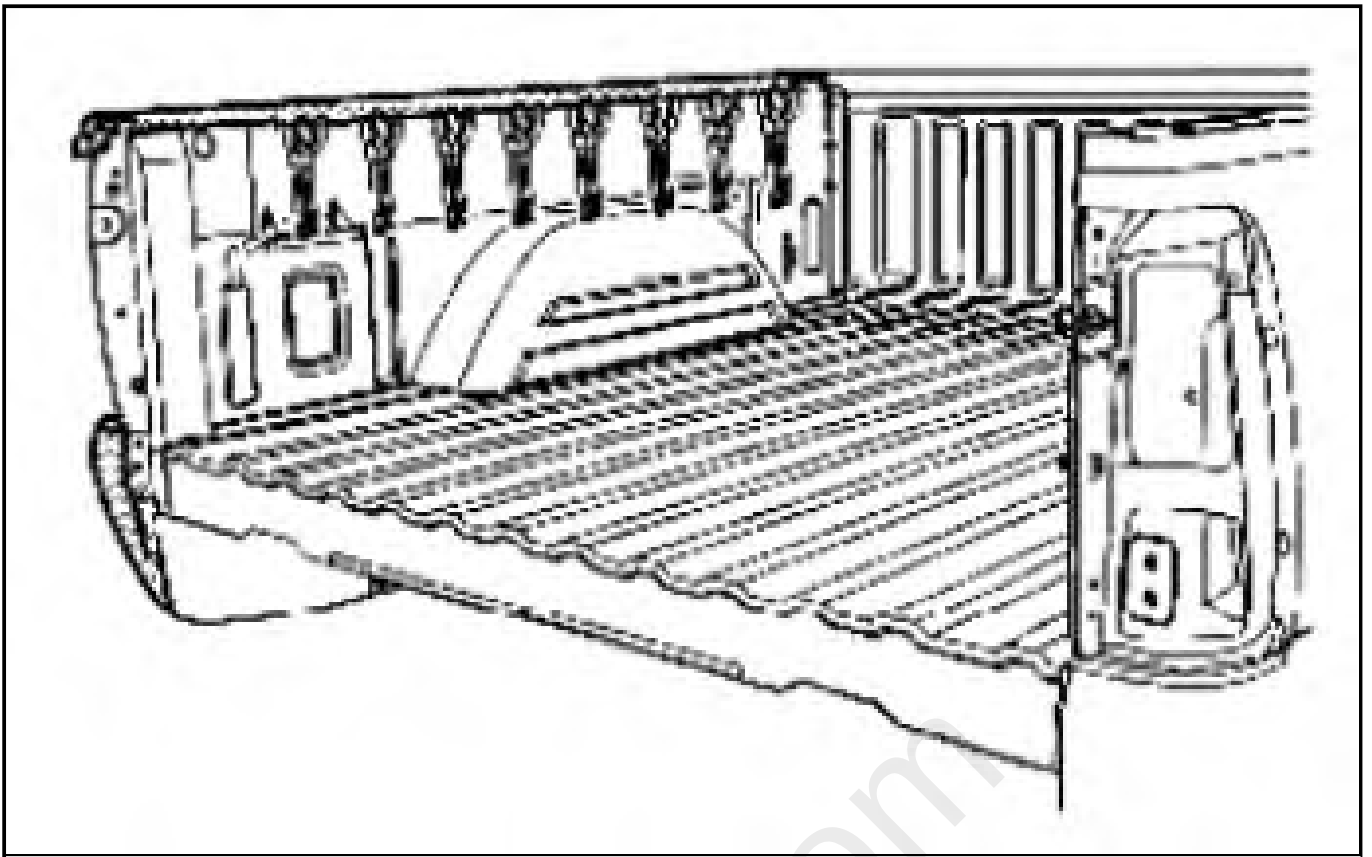


6. Apply a 9-13 mm (3/8-1/2 in) bead of metal panel bonding adhesive to the mating surface of the service side panel.



NOTE: Do NOT pull the panels apart after you have joined the panels together. Slide the panels against each other to realign the panels.

7. Position the service side panel to the bed assembly.



8. Clamp the service side panel into position.
9. Using lacquer thinner remove the excess adhesive from the bed side panel area.
10. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
11. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
12. Install all related panels and components.
13. Install the box assembly. Refer to Pickup Box Replacement.

PICKUP BOX OUTER SIDE PANEL REPLACEMENT (WELDING PROCEDURE)

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

NOTE: Before you begin the repair, refer to [METAL PANEL BONDING](#) for proper adhesive preparations and general information.

1. Remove the box assembly. Refer to [Pickup Box Replacement \(Short Pickup Box\)](#) [Pickup Box Replacement \(Long Pickup Box\)](#) .
2. Remove all related panels and components.
3. Repair as much of the damage as possible, according to factory specifications.
4. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
5. Note the number and location of all spot welds to be drilled out for installation of the service part.

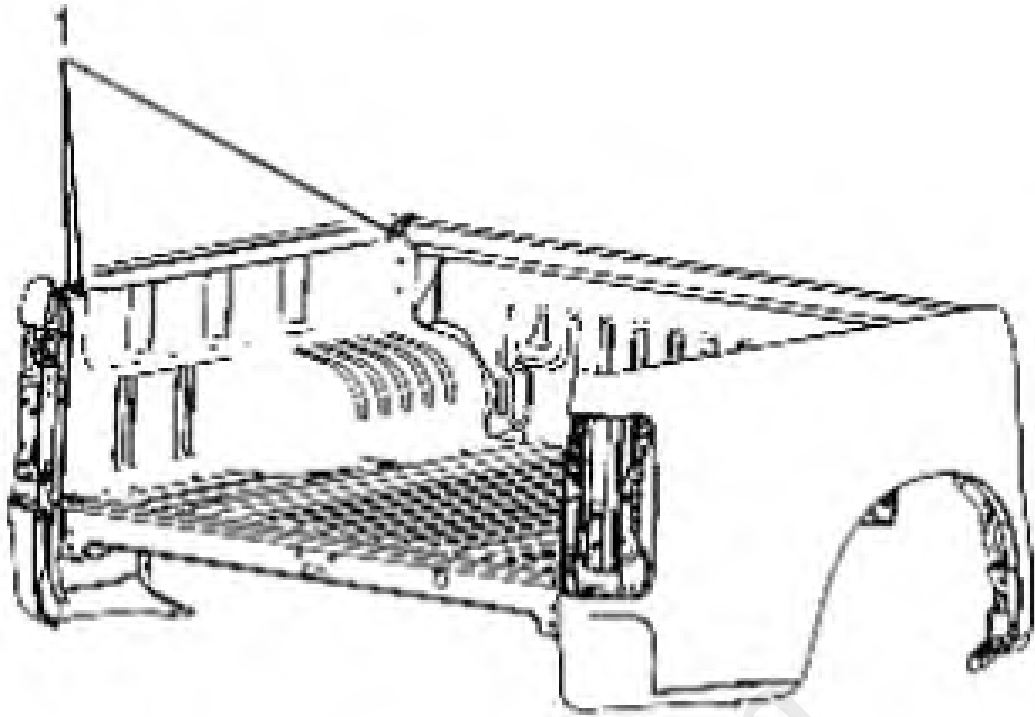
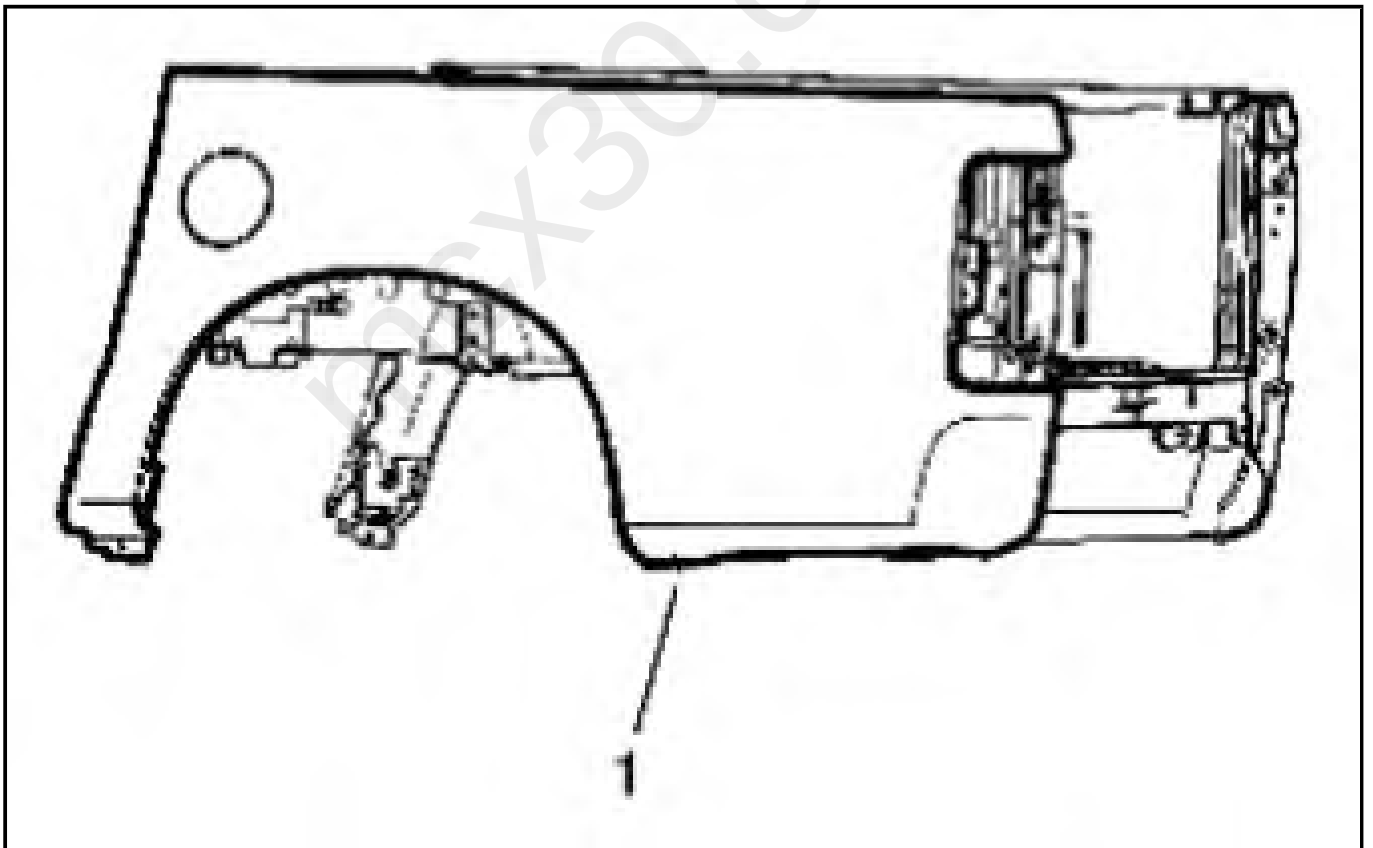
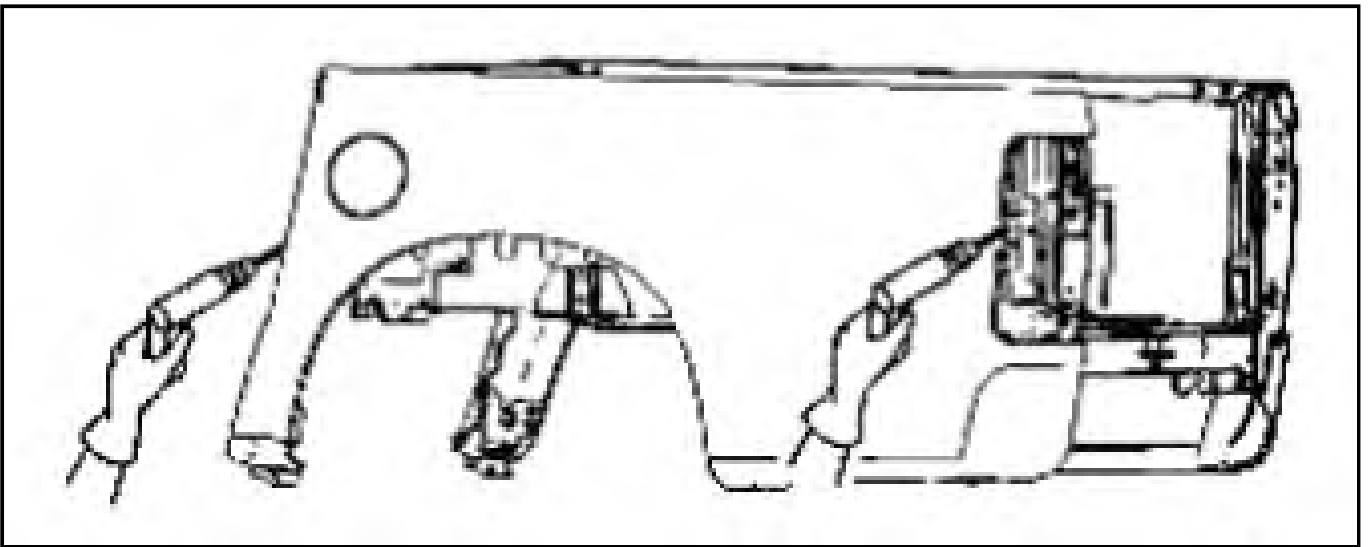


Fig. 31: Pickup Box Outer Side Panel Component Location (Welding Procedure).
Courtesy of GENERAL MOTORS COMPANY

6. Remove the bolts (1).

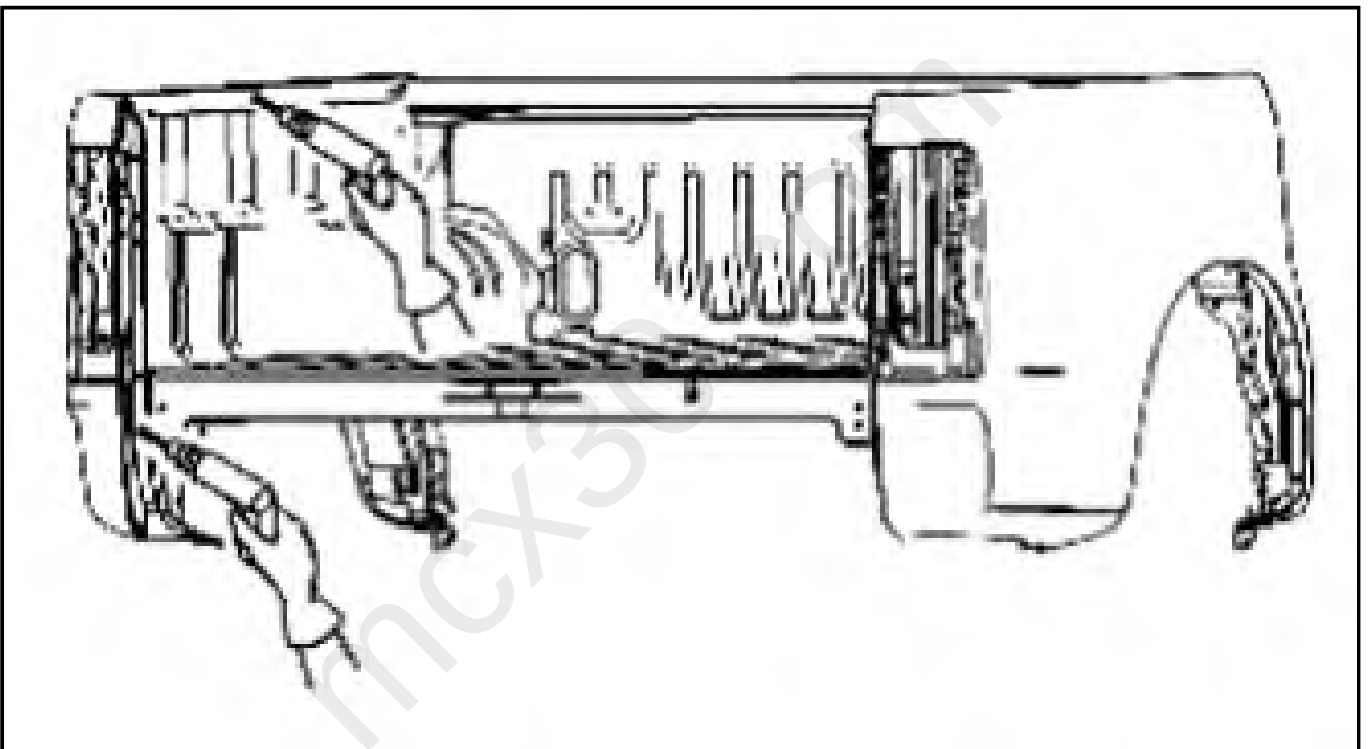


7. Remove the bolt (1).

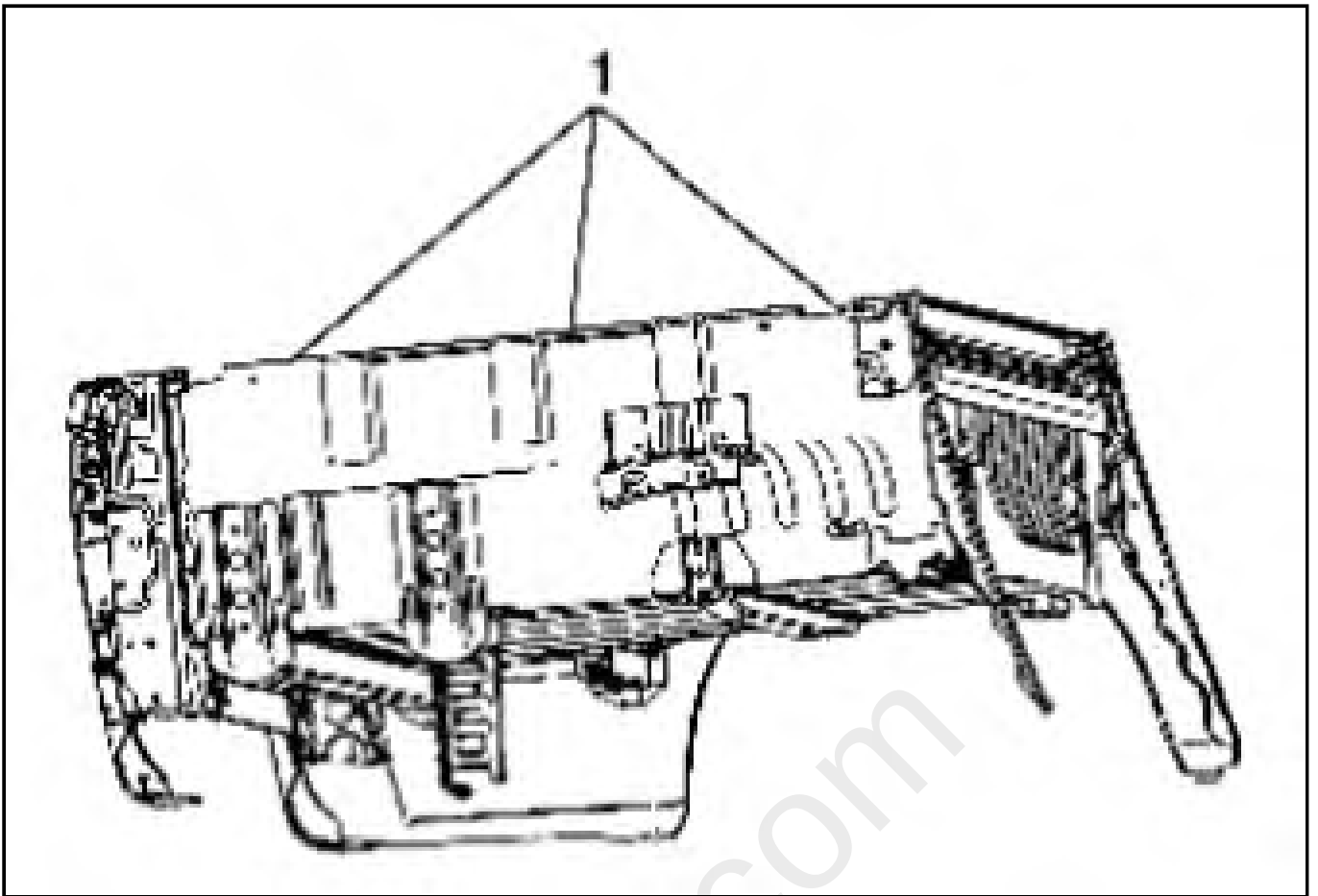


8. Locate and drill out the spot welds attaching the rear panel wheelhouse and the tail lamp pocket area.

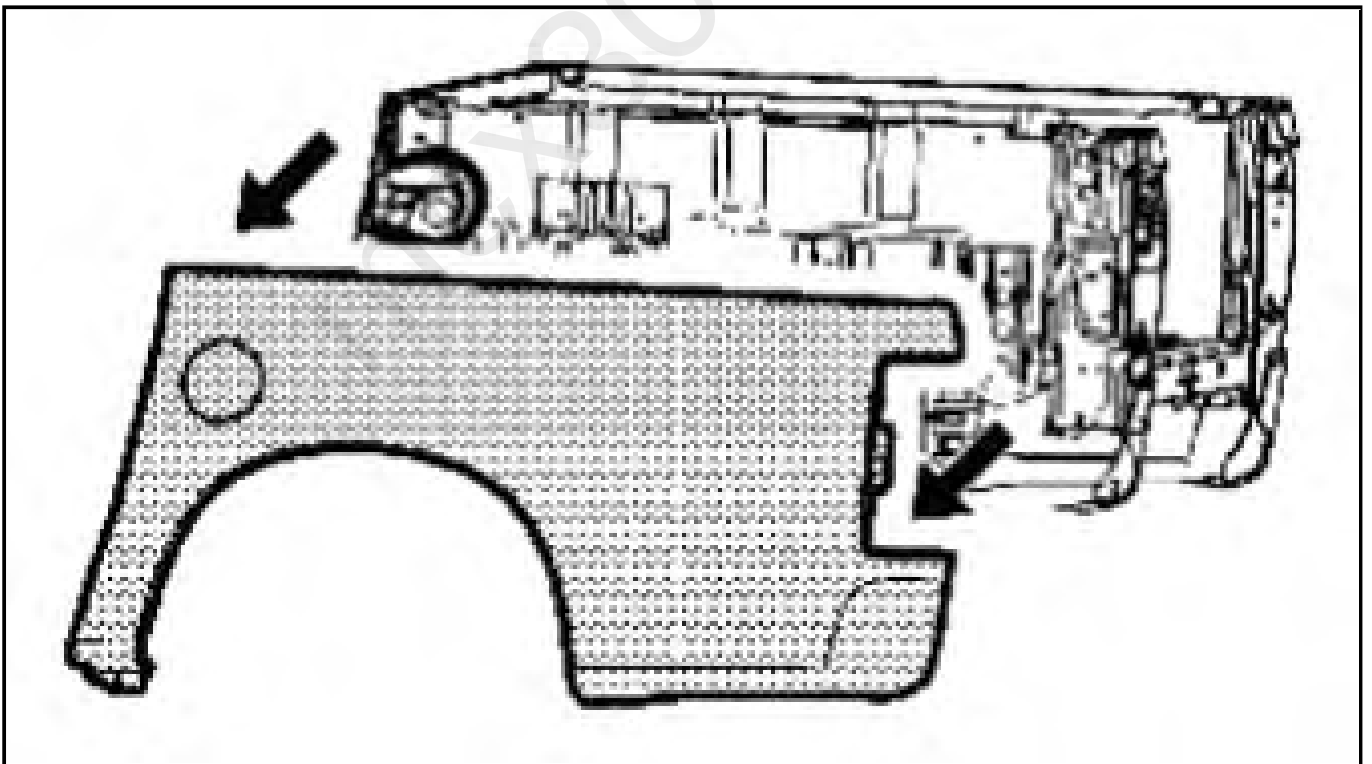
9. Locate and drill out the spot welds attaching the front panel, the wheelhouse and the tail lamp pocket area.



10. Locate and drill out the spot welds along the upper rail and the rear sill area.

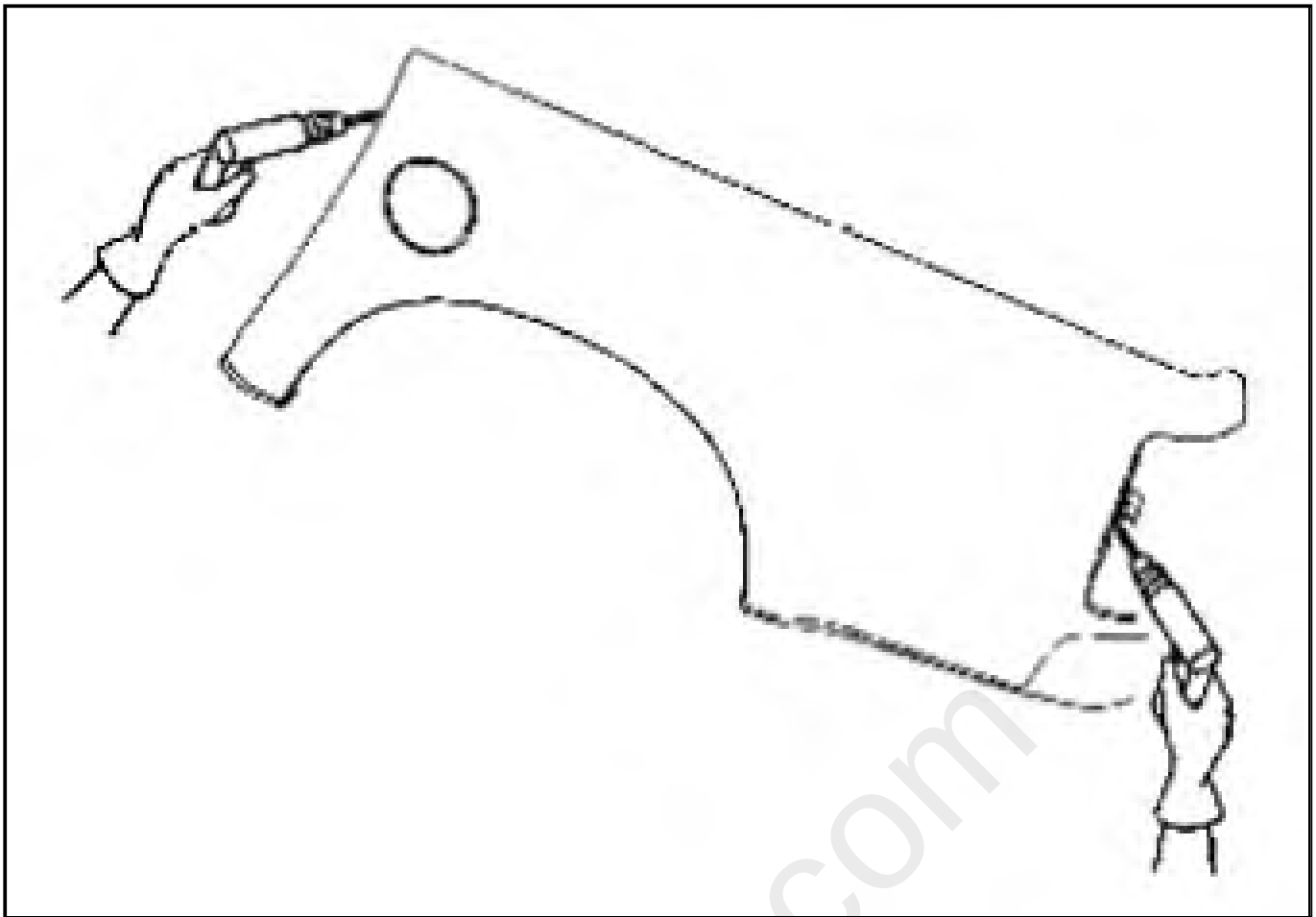


11. Structural adhesive may be present between the upper inner panel (1) and the outer panel, according to the pickup box model. If necessary, use a chisel to separate the outer panel from the inner panel.

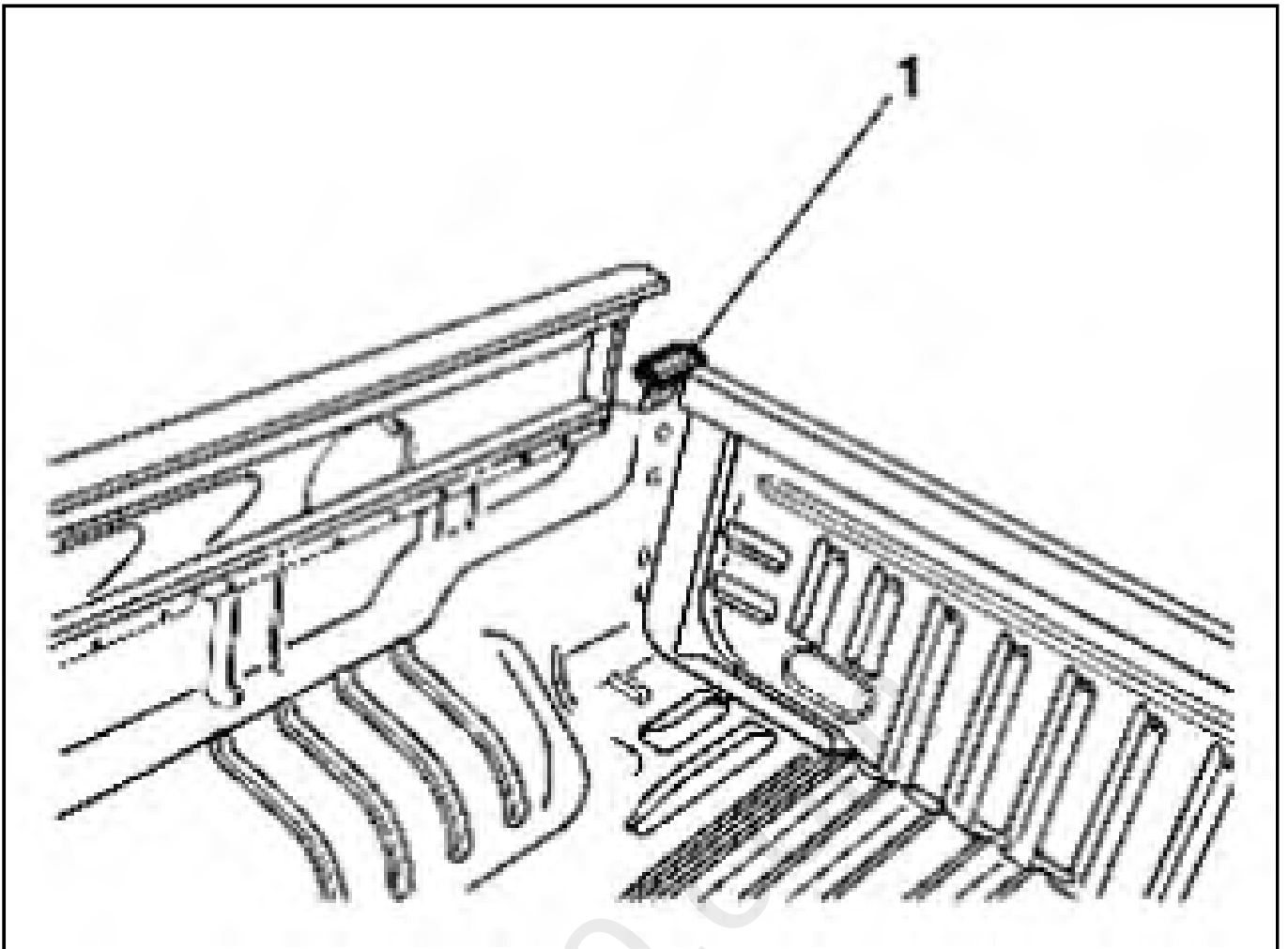


12. Remove the side panel.

Installation Procedure

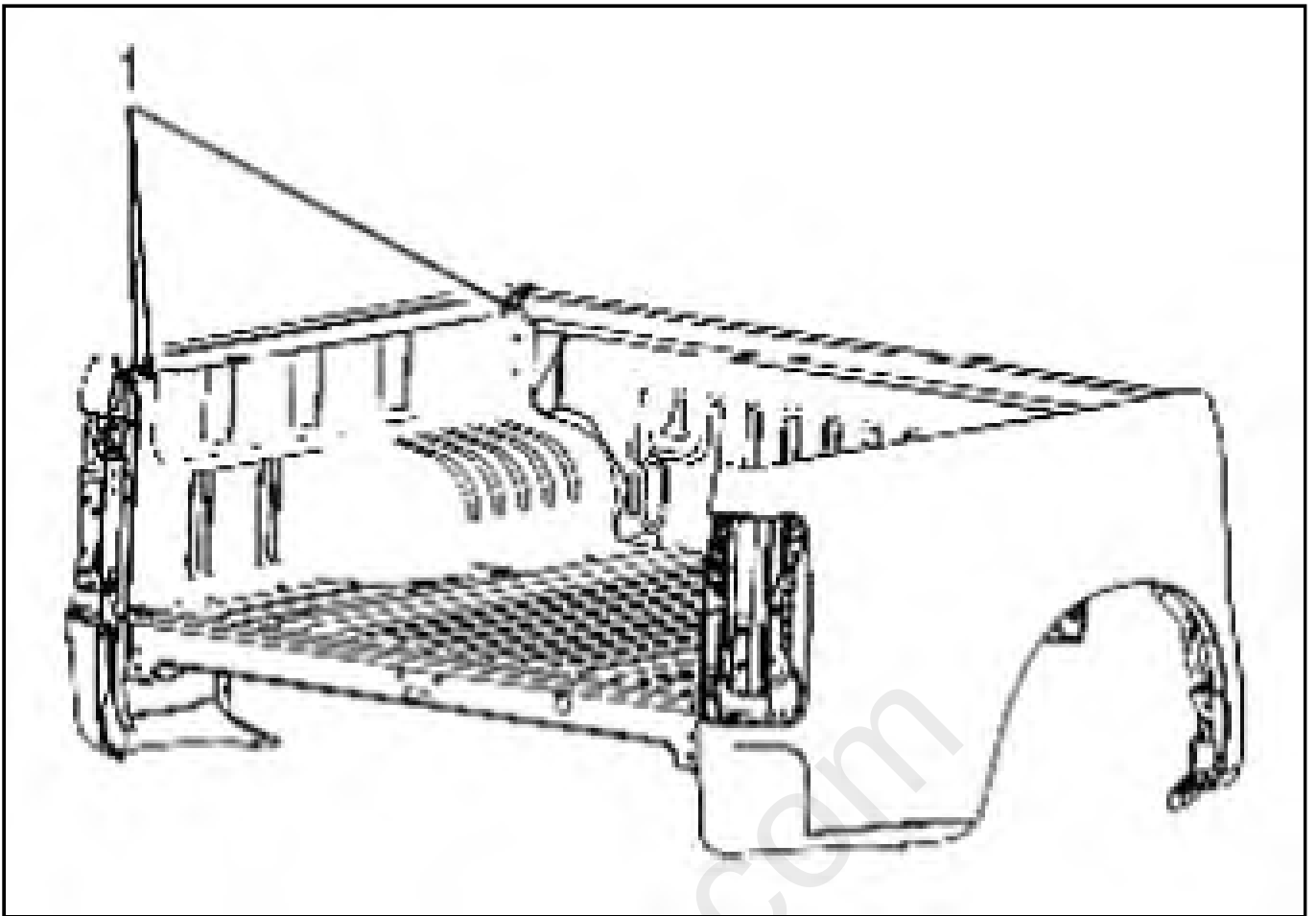


1. Drill 8 mm (5/16 in) plug weld holes in the service part as noted.
2. Prepare all mating surfaces as necessary.
3. Apply Weld-Thru Coating to all mating surfaces.
4. Apply a 9-13 mm (3/8-1/2 in) bead of metal panel bonding adhesive to the mating surface of the box inner panel.



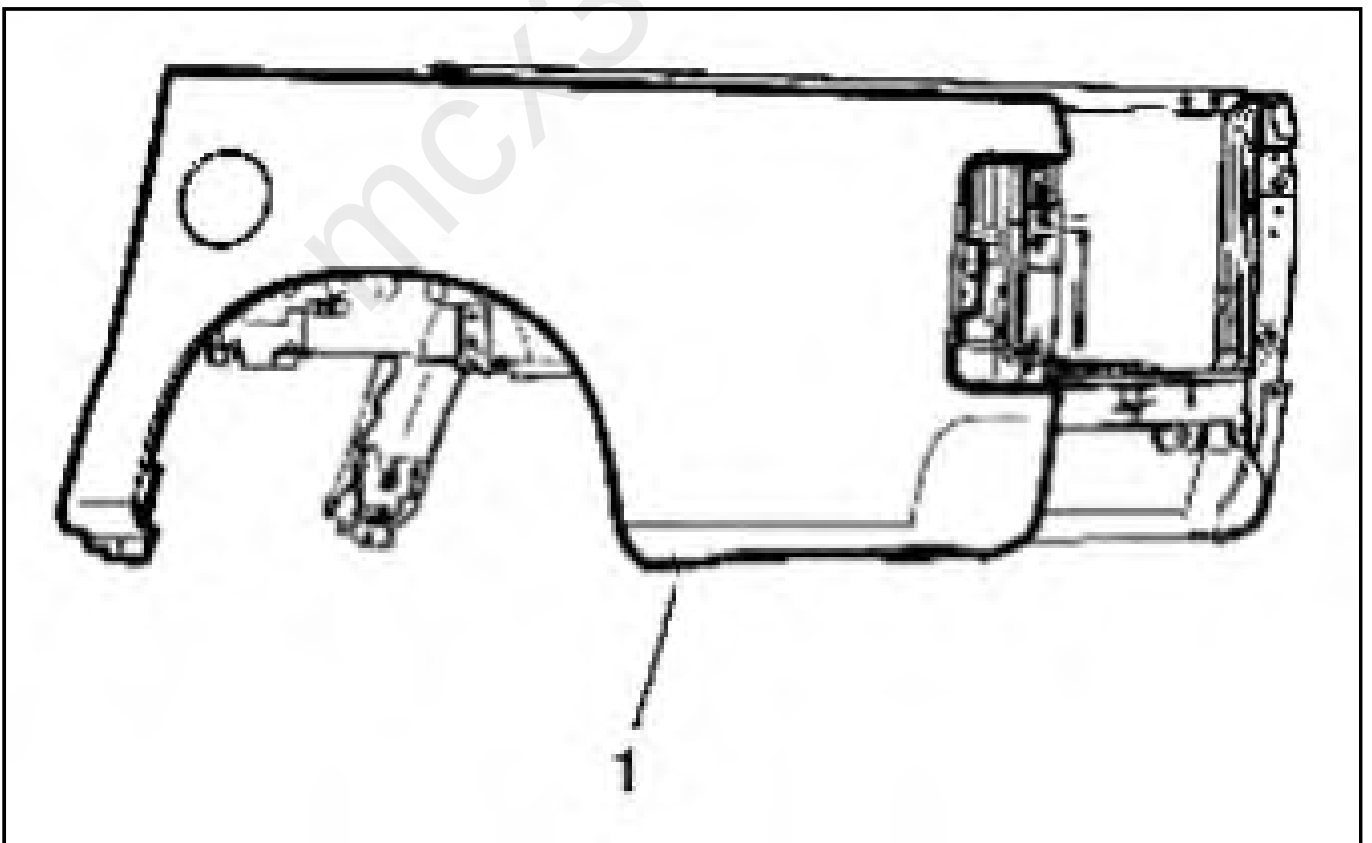
NOTE: Do not pull the panels apart after the panels have been joined together. Slide the panels against each other to align the panels.

5. If equipped with filler reinforcement (1), use Structural Metal Bonding Adhesive (Medium Set Panel Bonding Adhesive) or equivalent, if needed. Refer to [METAL PANEL BONDING](#).
6. Position the service part onto the bed assembly

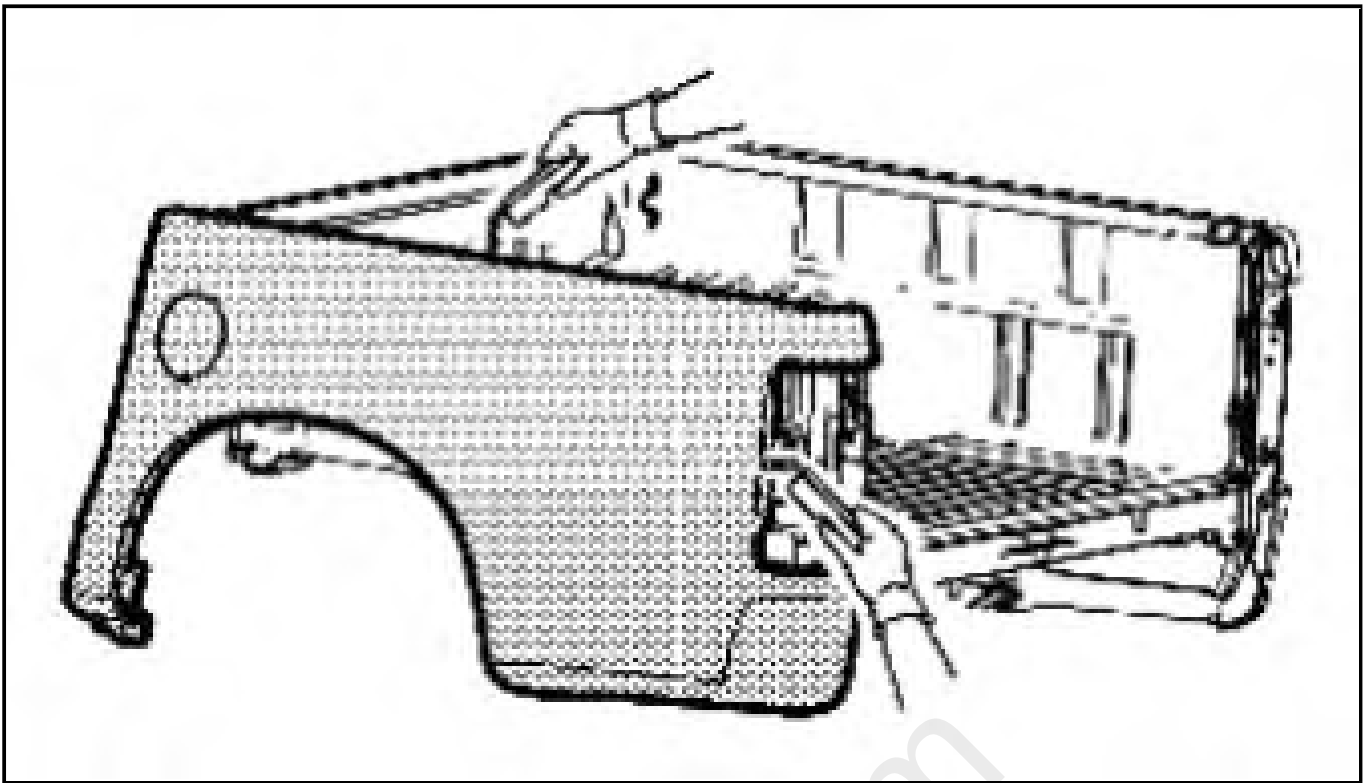


CAUTION: Refer to [Fastener Caution](#)

7. Install the bolts (1) and tighten to 13 N.m (9.6 lb ft) .



8. Install the bolt (1) and tighten to 13 N.m (9.6 lb ft) .



9. Plug weld as necessary
10. Clean and prepare all welded surfaces.
11. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
12. Paint and repair the area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
13. Install all related panels and components.
14. Install the box assembly. Refer to [Pickup Box Replacement - Side](#).

RESISTANCE SPOT WELDED FULL PANEL REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

NOTE: Use this procedure for all panels that are replaced at the factory seams, unless a specific procedure exists in the Collision Repair section of this vehicle's service information.

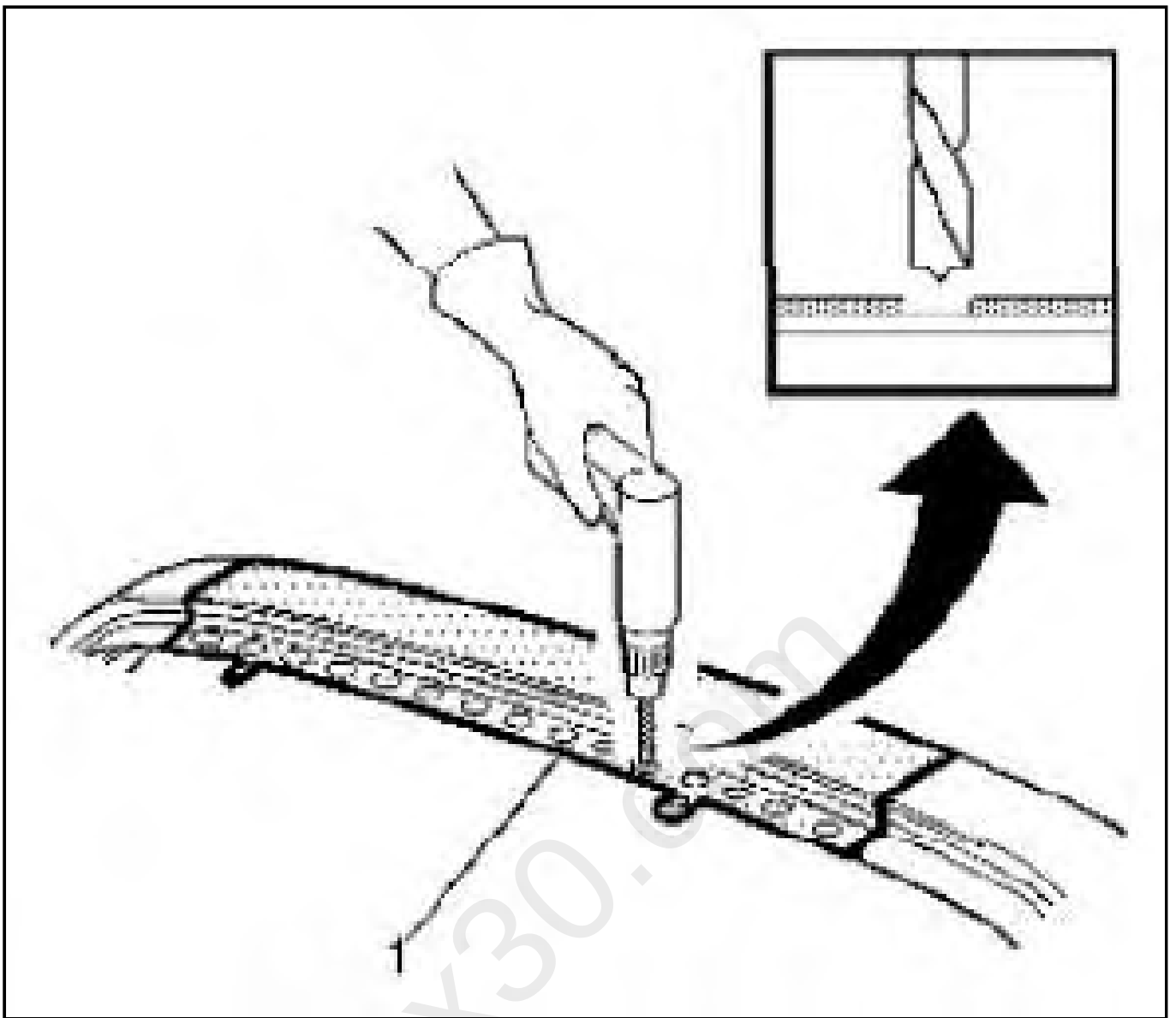
Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

1. Disable the SIR system. SIR Disabling and Enabling.
2. Disconnect the negative battery cable. Battery Negative Cable Disconnection and Connection.
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications.

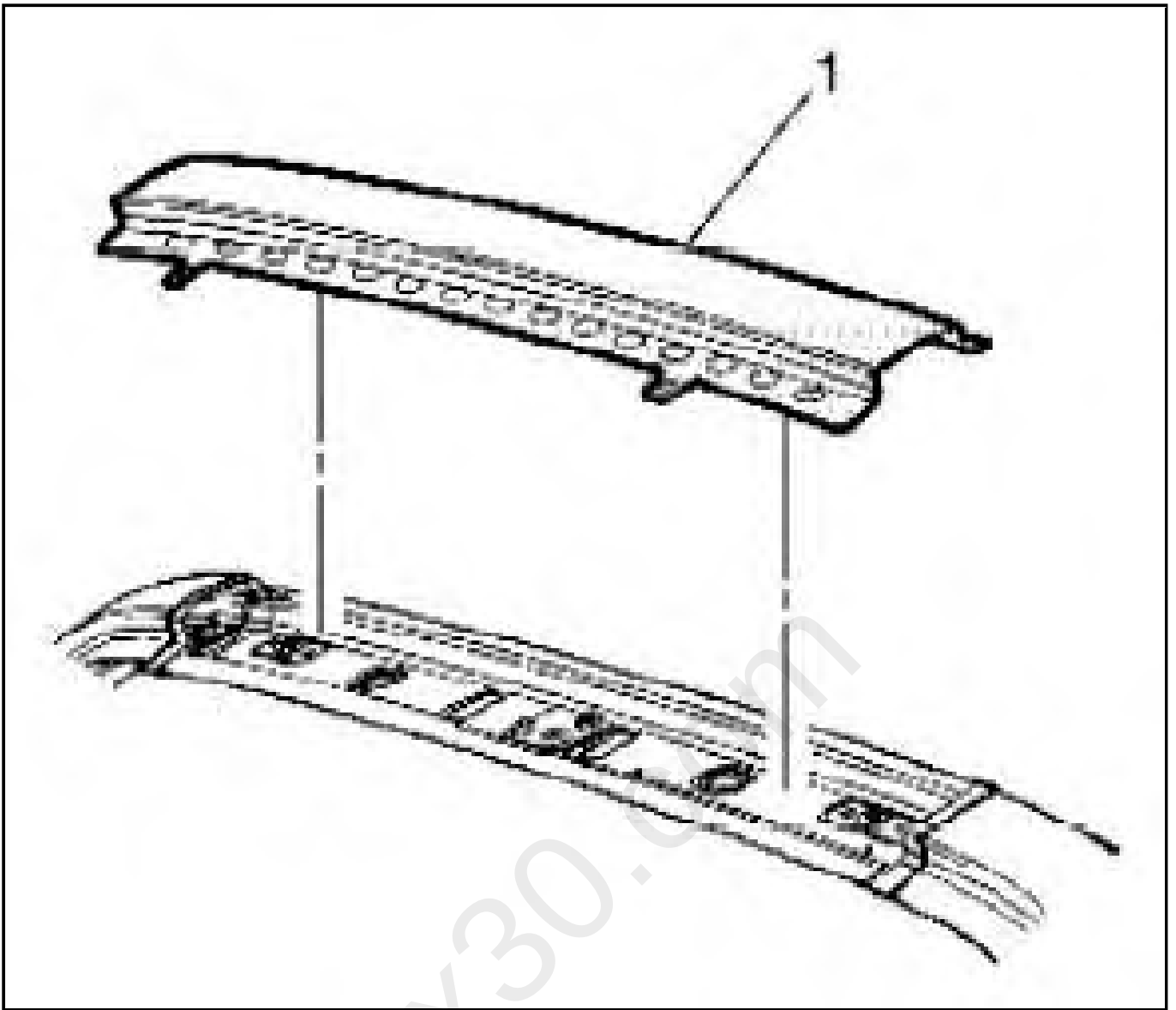
WARNING: Refer to [Foam Sound Deadeners Warning](#) .

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. [Anti-Corrosion Treatment And Repair](#) .



NOTE: Do not damage any inner panels or reinforcements.

6. Locate and drill out all factory welds (1). Note the number and location of the welds for installation of the service part.



7. Remove the damaged part (1).

NOTE: If impact resistant adhesive is present remove and replace as necessary.

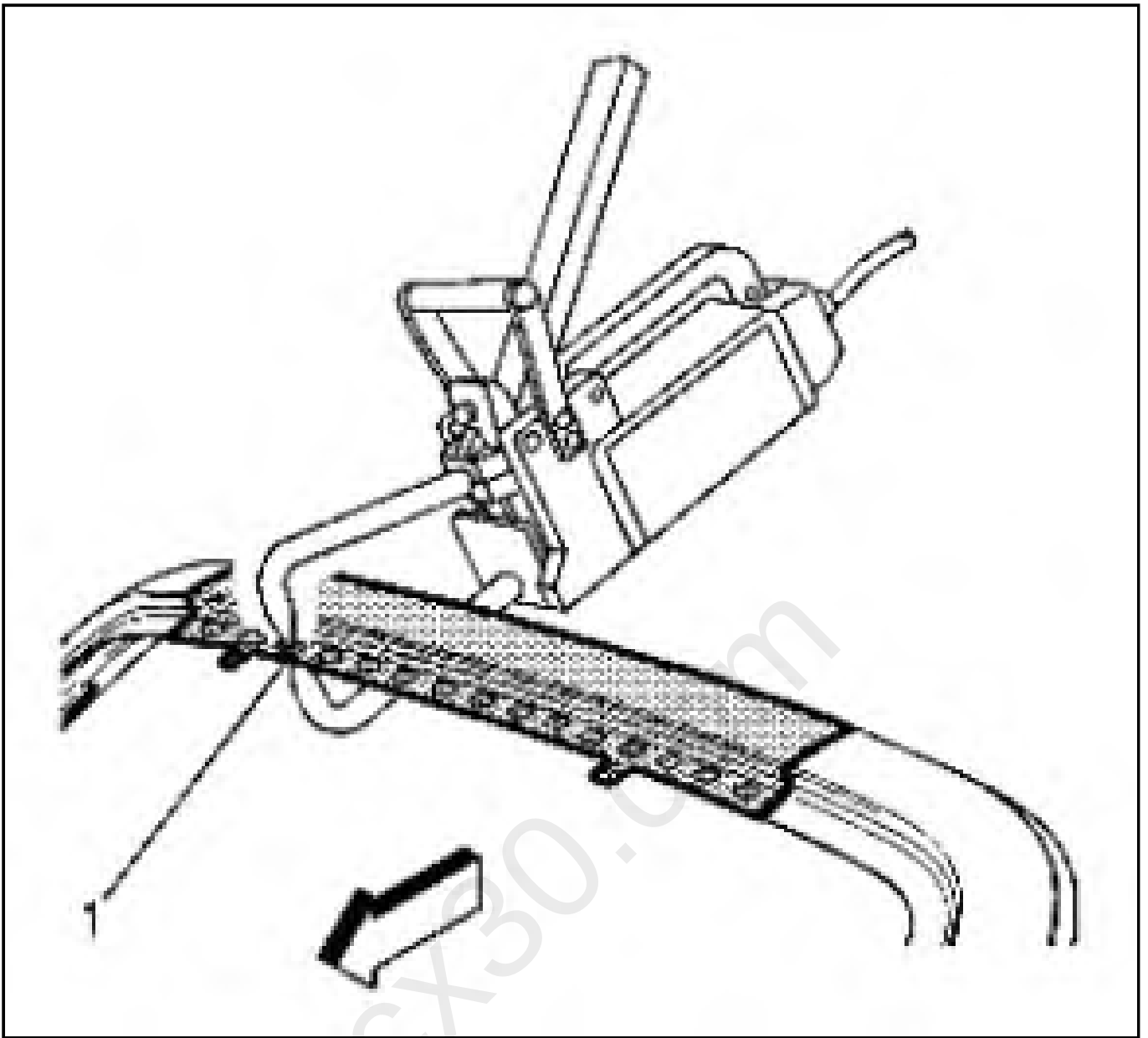
8. Remove the impact resistant adhesive from the repair area, as necessary. [METAL PANEL BONDING](#) .

Installation Procedure

NOTE: Squeeze Type Resistance Spot Welds equivalent to the factory spot welds are recommended. If access to use Squeeze Type Resistance Spot Welds is not possible, MIG/MAG 8 mm (5/16 in) plug welds may be used, to replace those specific welds

NOTE: If the location of the original plug weld holes cannot be determined, space the plug weld holes every 40 mm (1 1/2 in) apart.

1. Prepare all mating surfaces as necessary.
2. Apply GM-approved Weld-Thru Coating or equivalent to all mating surfaces. [Anti-Corrosion Treatment And Repair](#) .
3. Position the service part. Clamp in place.



4. Apply welds accordingly (1).
5. Clean and prepare all welded surfaces.
6. Apply the sealers and anti-corrosion materials to the repair area, as necessary. [Anti-Corrosion Treatment And Repair](#) .
7. Paint the repair area. [Basecoat/Clearcoat Paint Systems](#) .
8. Install all related panels and components.
9. Connect the negative battery cable. [Battery Negative Cable Disconnection and Connection](#) .
10. Enable the SIR system. [SIR Disabling and Enabling](#) .

MIG WELDED FULL PANEL REPLACEMENT

CAUTION: Please refer to [BODY REPAIR PRECAUTIONS AND WARNINGS](#) before starting.

Removal Procedure

WARNING: Refer to [Approved Equipment for Collision Repair Warning](#) .

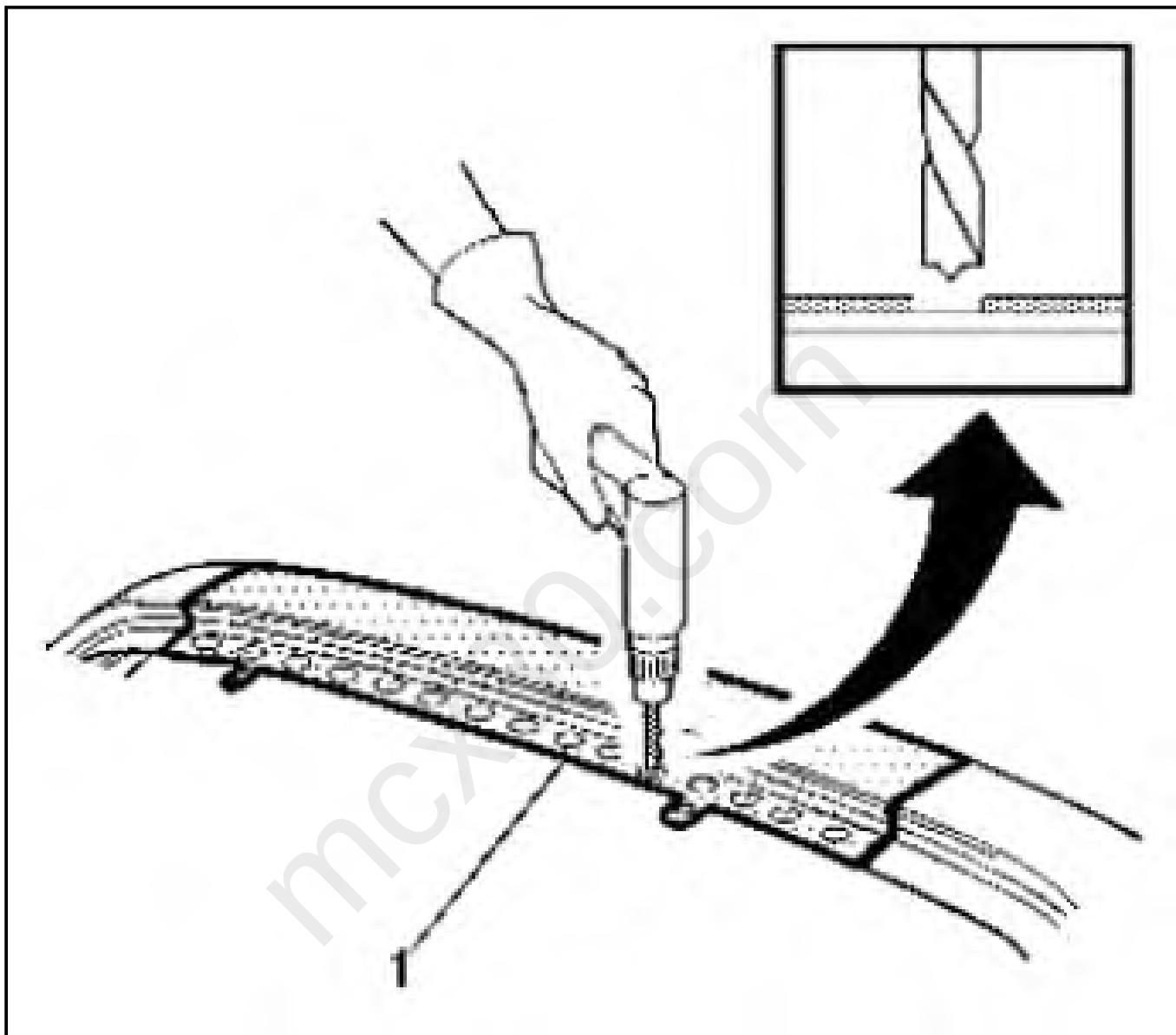
NOTE: Use this procedure for all panels that are replaced at the factory seams, unless a specific procedure exists in the Collision Repair section of this vehicle's service information.

1. Disable the SIR system. Refer to [SIR Disabling and Enabling](#) .

2. Disconnect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
3. Remove all related panels and components.
4. Repair as much of the damage as possible to factory specifications.

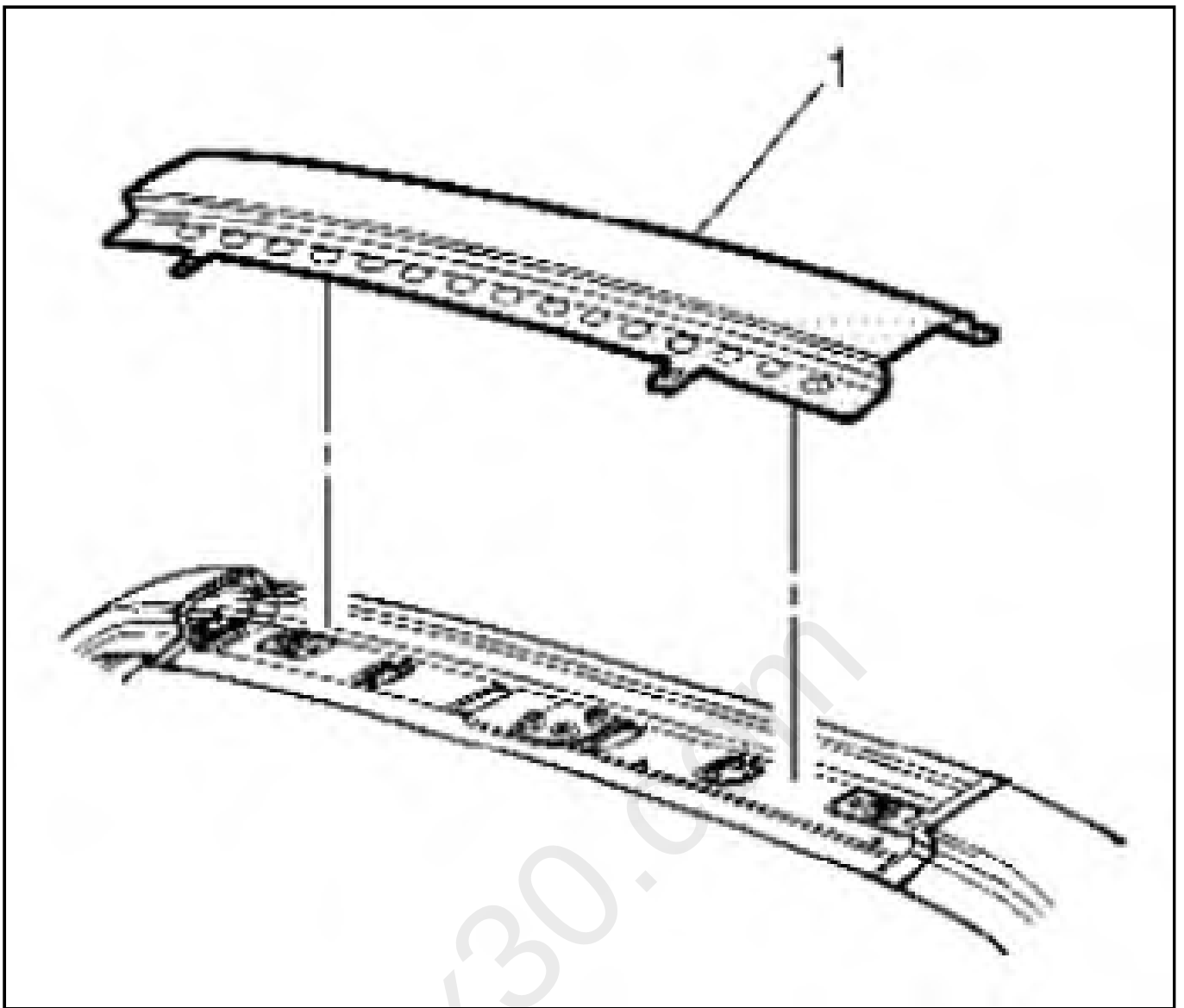
WARNING: Refer to [Foam Sound Deadeners Warning](#) .

5. Note the location and remove the sealers and anti-corrosion materials from the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .



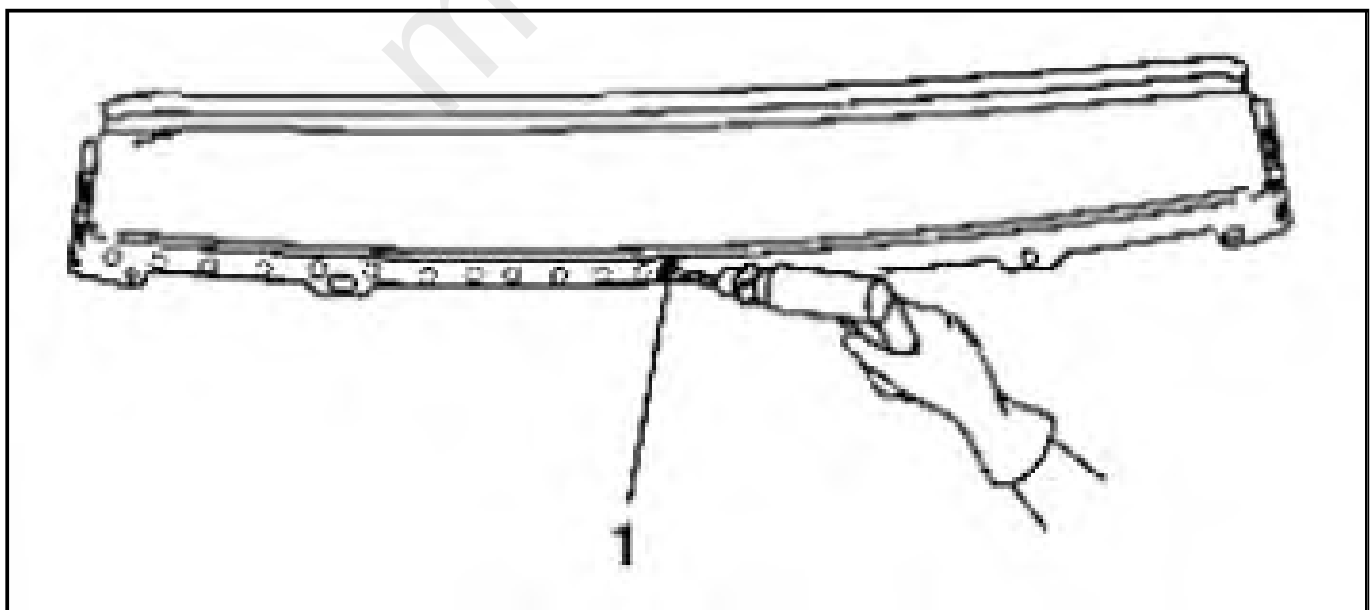
NOTE: Do not damage any inner panels or reinforcements.

6. Locate and drill out all factory welds (1). Note the number and location of the welds for installation of the service part.



7. Remove the damaged part (1).

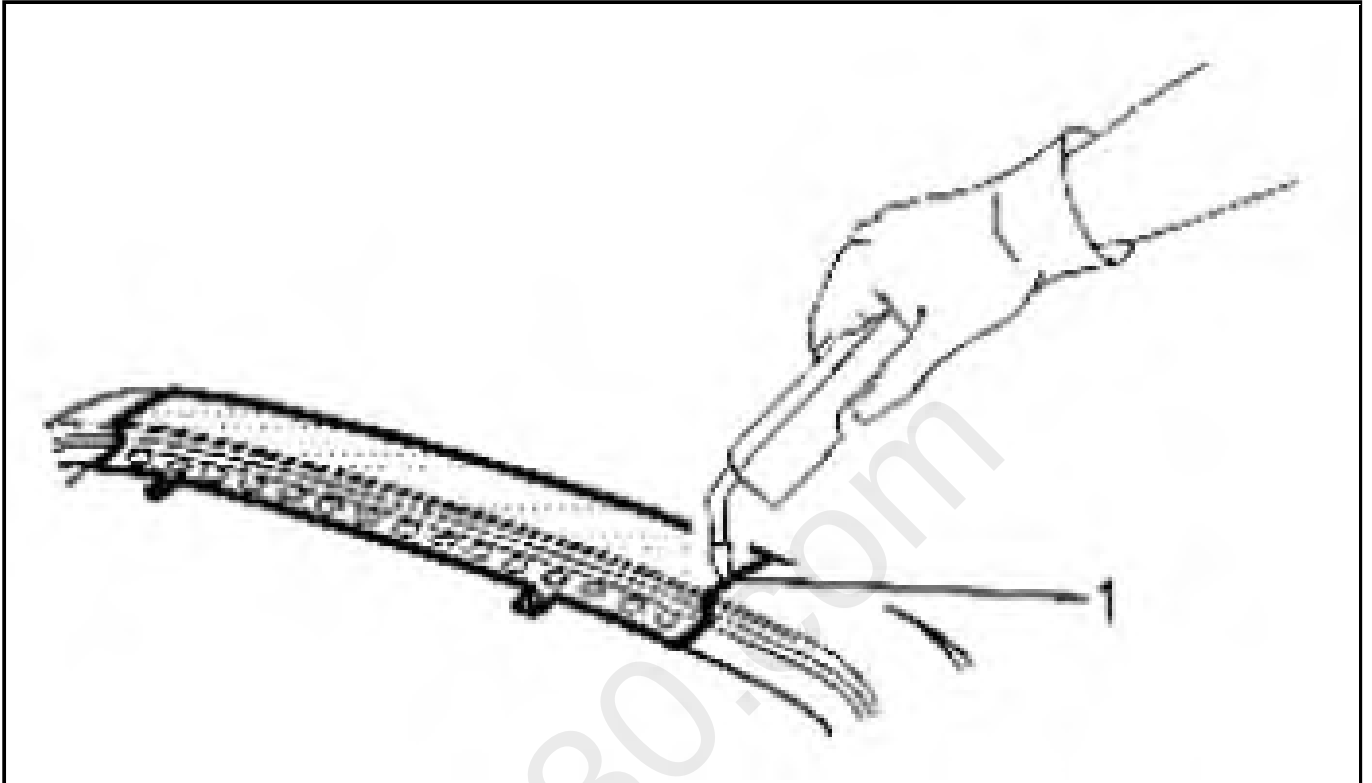
Installation Procedure



NOTE:

If the location of the original plug weld holes can not be determined, space the plug weld holes every 40 mm (1 1/2 in) apart. Where structural adhesive was present, space the plug weld holes every 20 mm (3/4 in) apart.

1. Drill 8 mm (5/16 in) plug weld holes in the service part as necessary in the locations noted from the original panel (1).
2. Prepare all attachment surfaces as necessary.
3. Prepare all mating surfaces as necessary.
4. Apply GM-approved Weld-Thru Coating or equivalent to all mating surfaces. Refer to [Anti-Corrosion Treatment And Repair](#) .
5. Position the service part. Clamp in place.



6. Plug weld accordingly (1).
 7. Clean and prepare all welded surfaces.
 8. Apply the sealers and anti-corrosion materials to the repair area, as necessary. Refer to [Anti-Corrosion Treatment And Repair](#) .
 9. Paint the repair area. Refer to [Basecoat/Clearcoat Paint Systems](#) .
 10. Install all related panels and components.
 11. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#) .
 12. Enable the SIR system. Refer to [SIR Disabling and Enabling](#) .
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