



2012 Chevrolet Cruze

Structural Analysis *(Rocker Panel)*



- Problem Statement
- Goals
- The Rocker Panel Assembly
- The NAAA Structural Damage Policy
- Recommended Solution
- References
- Contact Information

- On a NAAA Standards Committee call, a concern was raised about the proper interpretation of rocker damage on the new Chevy Cruze.
- Apparently the LT and LTZ versions have a metal rocker outer panel that sounds like an extension of the floor pan. There is no inner rocker panel, just the outer.
- Auctions out there are confused as to how to call damage to the rocker.

- Analyze the 2012 Chevy Cruze structure
- Identify any variances between NAAA recognized structural components vs. Chevy Cruze Structure
- Recommend balanced disclosure strategies for all stakeholders

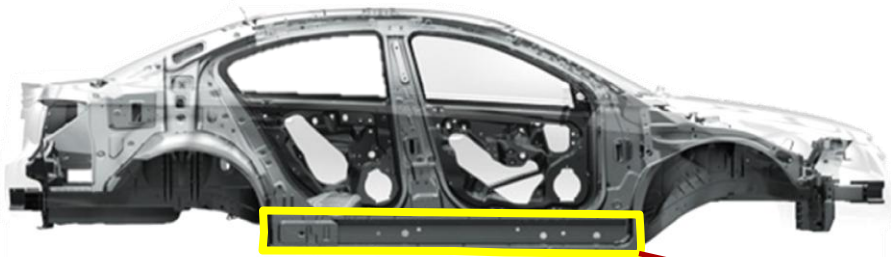


Rocker Assembly

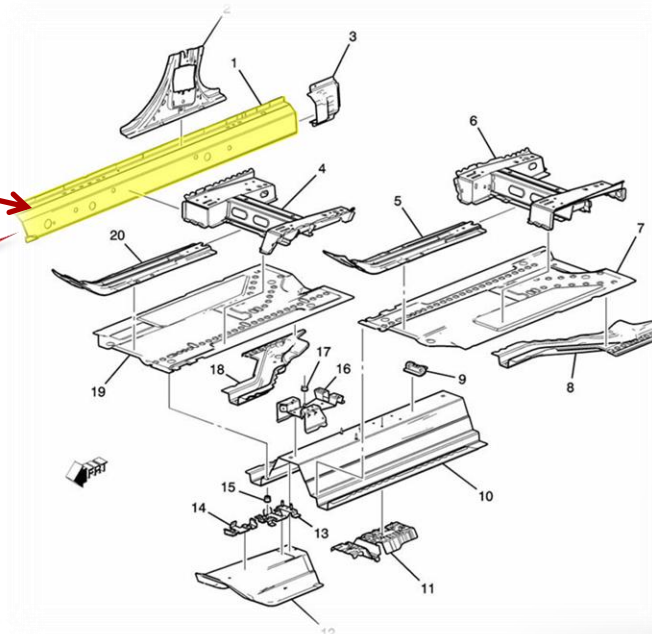


Vehicle Specifics

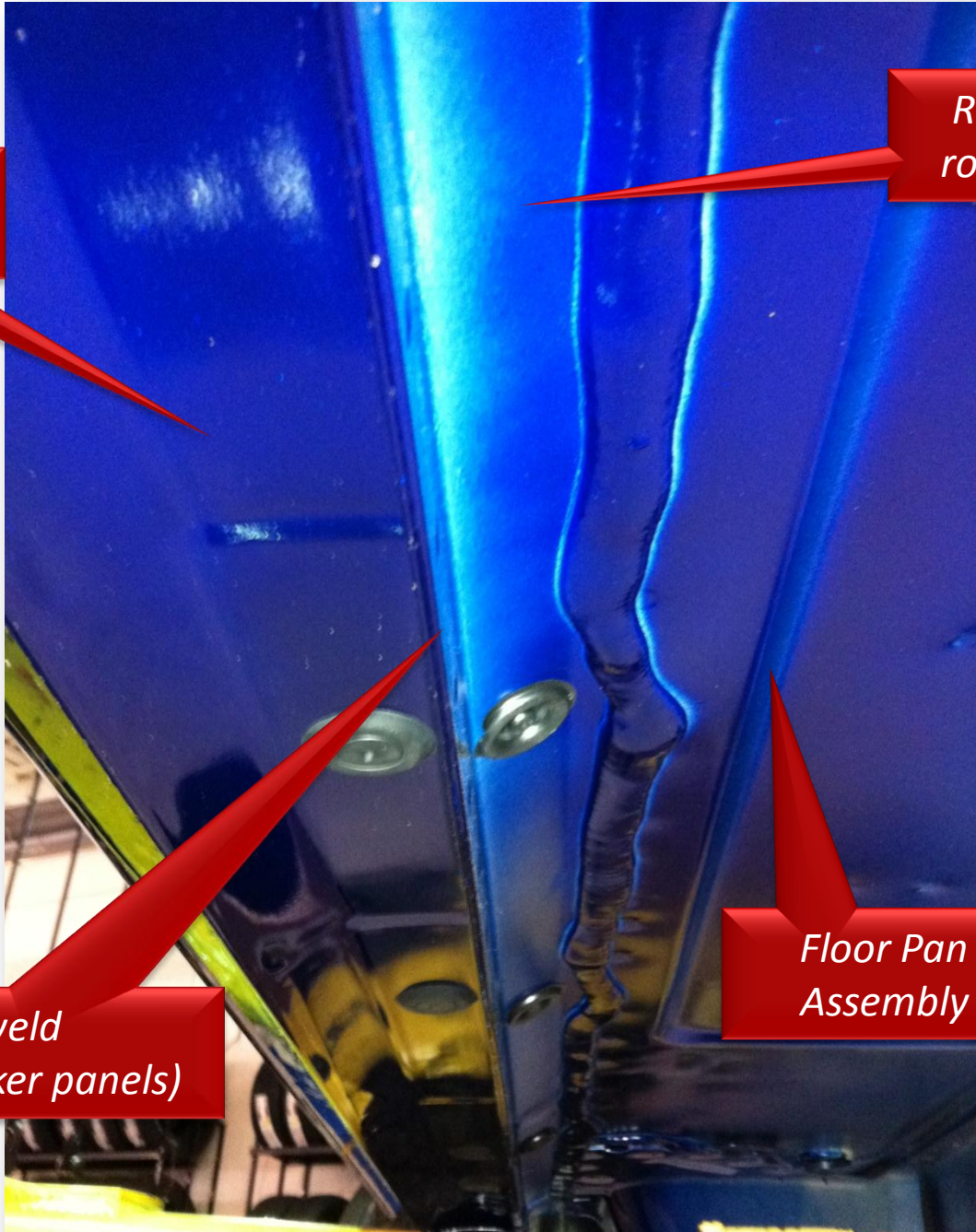
- Structure type is unitized (Unibody)
- Structural design does not differ across various trim packages.
- Area of concern no different than majority of unitized structures.
- Rocker panel assembly consists of both 'inner' and 'outer' sheet metal.



*Left inner
rocker panel*



Rocker Assembly



*Right Outer
rocker panel*

*Right Inner
rocker panel*

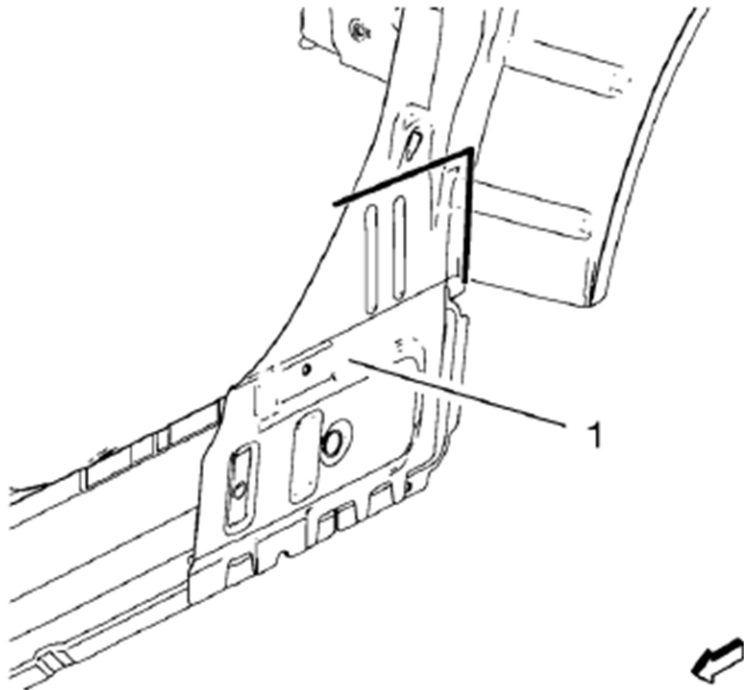
*Pinch weld
(connects rocker panels)*

*Floor Pan
Assembly*

LT model pictured (courtesy of Hendrick Chevrolet of Gwinnett)

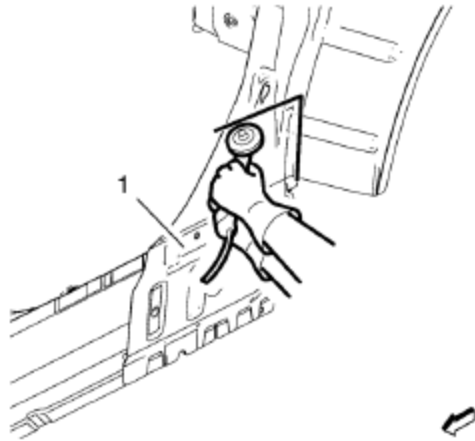
Inner Rocker Remove and Replace

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.



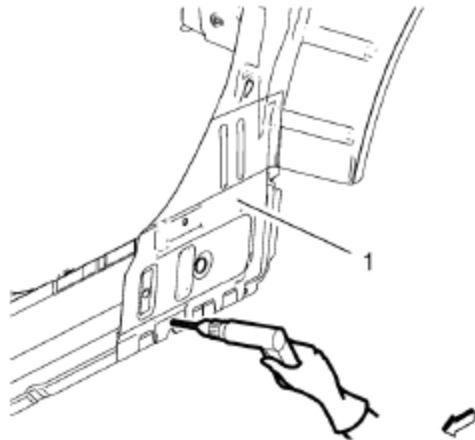
Inner Rocker Remove and Replace *(continued)*

6. Create cut lines on the body side inner panel (1).



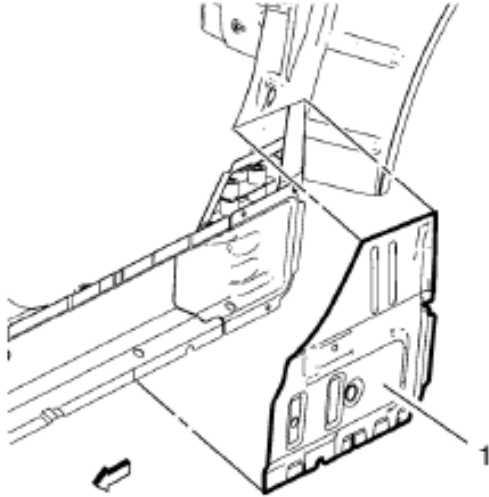
Note: Do not damage any inner panels or reinforcements.

7. Cut the body side inner panel (1) where sectioning is to be performed.

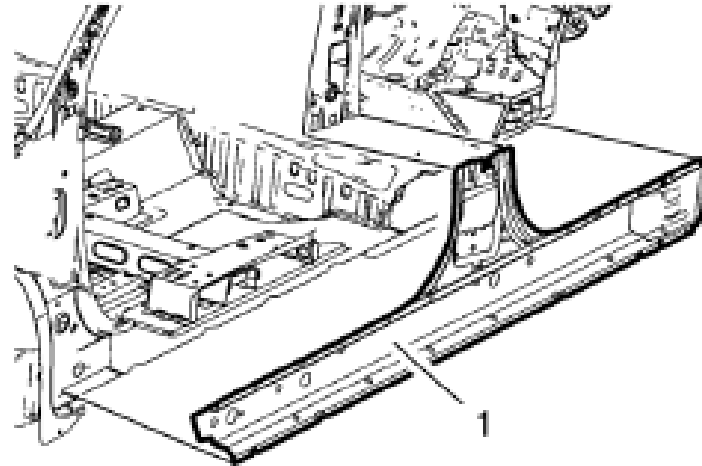


8. Locate and mark all the necessary factory welds of the body side inner panel (1).
9. Drill all factory welds. Note the number and location of welds for installation of the service assembly.

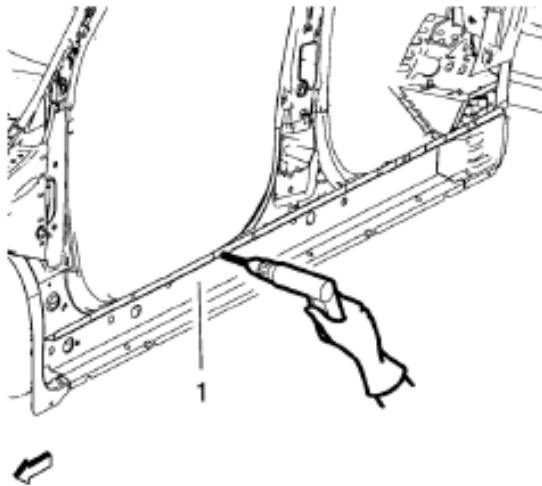
Inner Rocker Remove and Replace *(continued)*



10. Remove the body side inner panel (1).



13. Remove the damaged rocker inner panel (1).

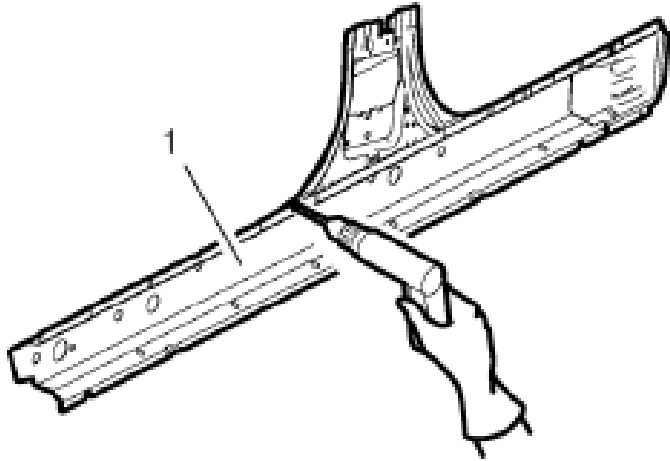


11. Locate and mark all the necessary factory welds of the rocker inner panel (1).

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

Inner Rocker Remove and Replace *(continued)*

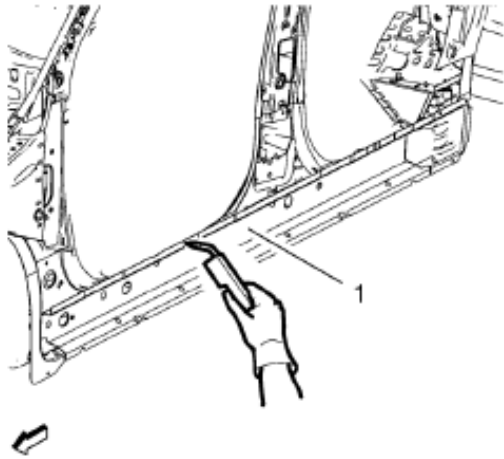
1. Align the rocker inner panel.



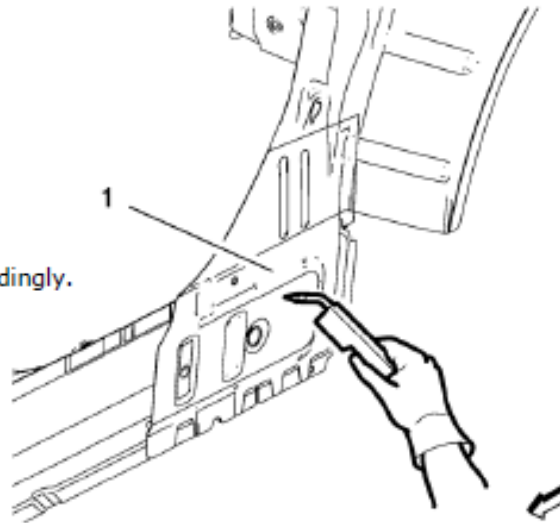
2. Drill 8 mm (5/16 in) for plug welding along the edges of the rocker inner panel (1) as noted from the original panel.
3. Clean and prepare the attaching surfaces for welding.
4. Position the rocker inner panel on the vehicle.
5. Verify the fit of the quarter outer panel.

Inner Rocker Remove and Replace (continued)

6. Clamp the rocker inner panel into position.



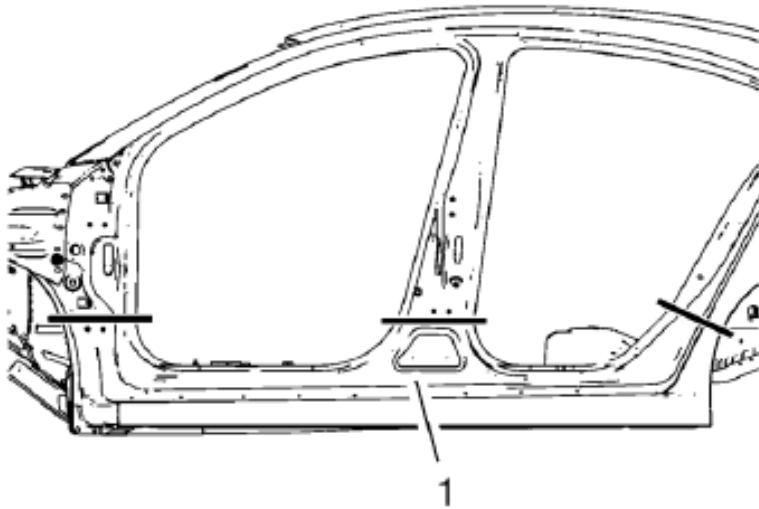
7. Plug weld the rocker inner panel (1) accordingly.



8. Plug weld the body side inner panel (1) accordingly.
9. 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.
10. Apply the sealers and anti-corrosion materials to the repair area, as necessary. After repair and/or replacement parts are installed, all accessible bare metal surfaces must be treated with metal conditioner and reprimed.
11. Paint the repaired area. Refer to [Basecoat/Clearcoat Paint Systems](#).
12. Install all related panels and components.
13. Connect the negative battery cable.
14. Enable the SIR system. Refer to [SIR Disabling and Enabling](#).

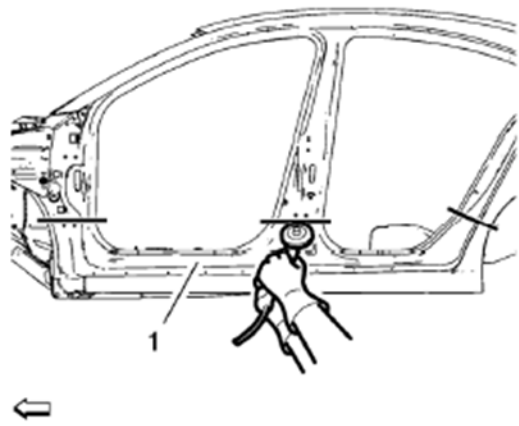
Outer Rocker Remove and Replace

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.



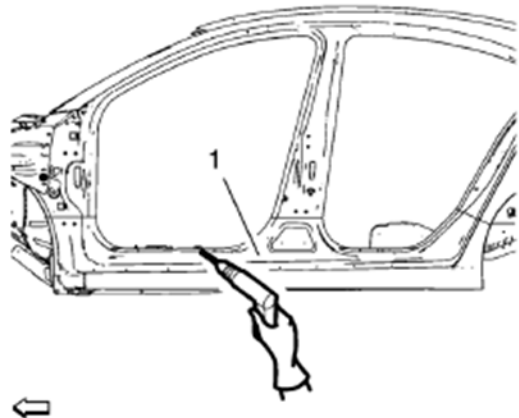
Outer Rocker Remove and Replace (continued)

6. Create cut lines on the rocker outer panel (1).



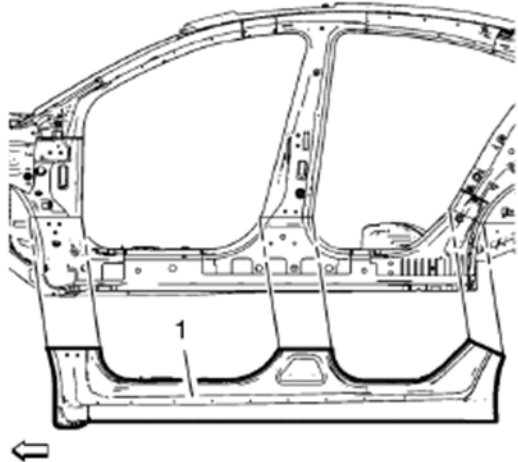
Note: Do not damage any inner panels or reinforcements.

7. Cut the rocker outer panel (1) where sectioning is to be performed.



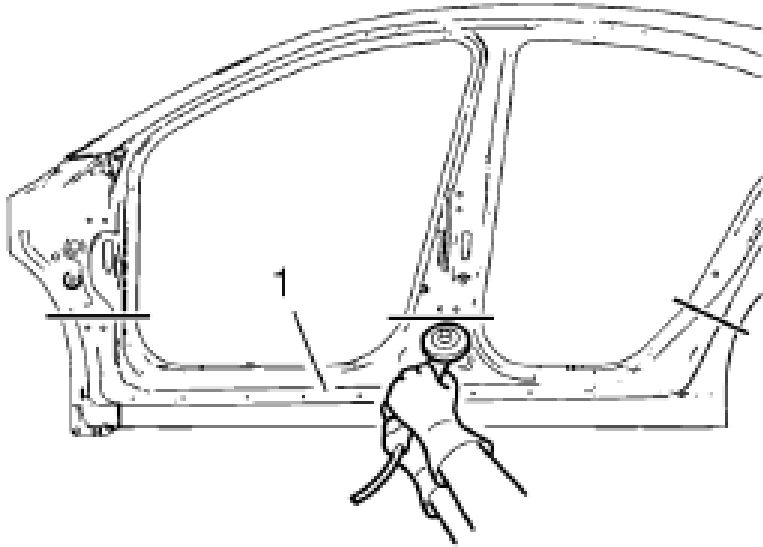
8. Locate and mark all the necessary factory welds of the rocker outer panel (1).

9. Drill all factory welds.



10. Remove the damaged rocker outer panel (1).

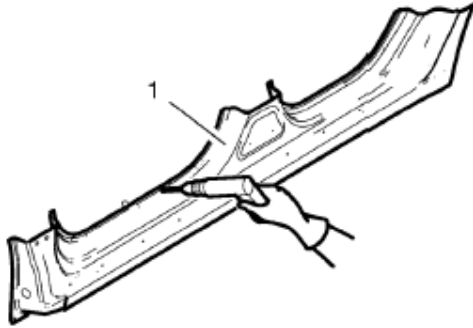
Outer Rocker Remove and Replace *(continued)*



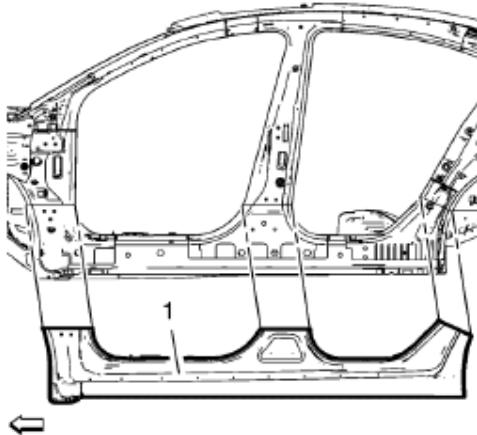
1. Cut the rocker outer panel (1) in corresponding locations to fit the remaining original panel. The sectioning joint should be trimmed to allow a gap of one-and-one-half-times the metal thickness at the sectioning joint.
2. Create 50 mm (2 in) backing plates from the unused portion of the service part.
3. Drill 8 mm (5/16 in) holes for plug welding along the sectioning cut on the remaining original part. Locate these holes 13 mm (1/2 in) from the edge of part and spaced 40 mm (1½ in) apart.

Outer Rocker Remove and Replace *(continued)*

4. Prepare all mating surfaces as necessary.
5. Fit the backing plates halfway into the sectioning joints, clamp in place and weld to the vehicle.
6. Align the rocker outer panel.



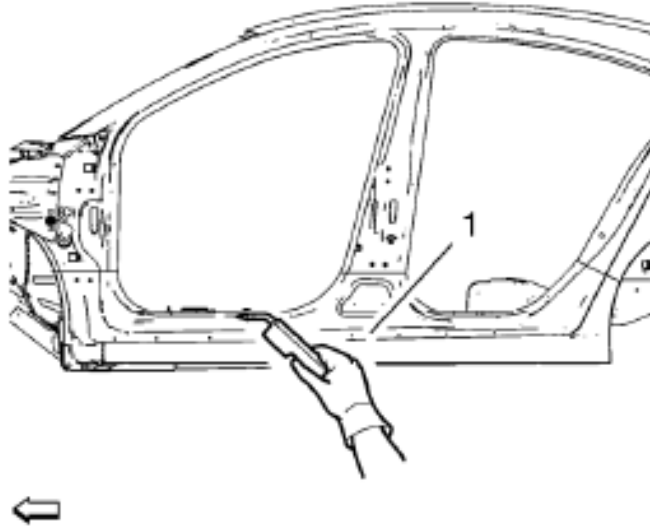
7. Drill 8 mm (5/16 in) for plug welding along the edges of the rocker outer panel (1) as noted from the original panel.
8. Clean and prepare the attaching surfaces for welding.



9. Position the rocker outer panel (1) on the vehicle.
10. Verify the fit of the rocker outer panel.

Outer Rocker Remove and Replace *(continued)*

11. Clamp the rocker outer panel into position.



12. Plug weld the rocker outer panel (1) accordingly.
13. 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.
14. Apply the sealers and anti-corrosion materials to the repair area, as necessary. After repair and/or replacement parts are installed, all accessible bare metal surfaces must be treated with metal conditioner and reprimed.
15. Paint the repaired area.
16. Install all related panels and components.
17. Connect the negative battery cable. Refer to [Battery Negative Cable Disconnection and Connection](#).
18. Enable the SIR system. Refer to [SIR Disabling and Enabling](#).

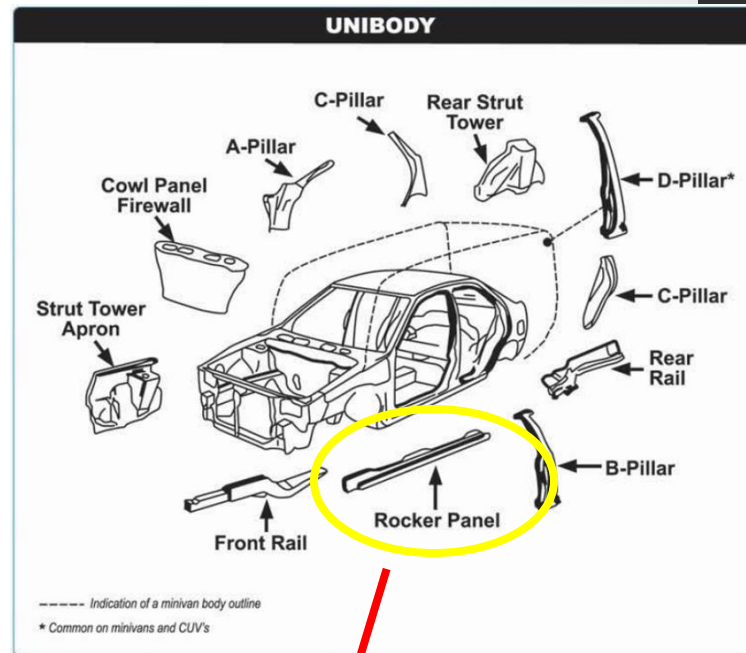


Arbitration Policy

Appendix II: NAAA Structural Damage Policy

Effective Date: January 1, 2011

Figure 1 Structural Component	Structural Damage Disclosure Requirement		
	Unibody	Unibody on Frame	Conventional Frame
1. Radiator Core Support – Including the upper and lower tie bars, center support or side baffles	None		
2. Frame Rails Extensions (Ears) – On frame vehicles that area at the end of the frame rail to which the bumper, reinforcement or isolators attach.	None		
3. Frame Rails – Including front, center and rear rails.	Existing or repaired damage, or replacement		
4. Spring Pod, and Torque Box or Stabilizer Mount	N/A	Existing or repaired damage, or replacement	
5. Cross members (Except Bolt-Ons)	N/A	Existing or repaired damage, or replacement	
6. Apron/Upper Reinforcement Rails	Existing or repaired damage, or replacement		None
7. Strut Tower	Existing or repaired damage, or replacement		None
8. Cowl Panel / Firewall – excluding cowl vent panel	Existing or repaired damage, or replacement		None
9. Support Pillars – "A", "B", "C" or "D" Pillars	Existing or repaired damage, or replacement		
11. Rocker Panel – Outer	Replacement		None
12. Rocker Panel – Inner	Existing or repaired damage, or replacement		None
13. Floor / Trunk Panels	Torn and/or perforated if 1" or more, dented if deflected more than 2" or replacement floor panel		None
14. Quarter or Cab Panel	Replacement		None
15. Rear Body Panel	None		




NAAA Structural Damage Policy



11. Rocker Panel – Outer	Replacement	None
12. Rocker Panel – Inner	Existing or repaired damage, or replacement	None

- Policy clearly outlines both rocker panel disclosure requirements
- Inner Rocker
 - *Disclose any existing or repaired damage including replacement.*
 - *Replacement may qualify for alternative (Certified Structural Repair) disclosure as per the policy.*
- Outer Rocker
 - *Disclose replaced outer rocker panels only.*
 - *No disclosure required for existing or repaired damage.*



Arbitration Policy
Appendix II: NAAA Structural Damage Policy
Effective Date: January 1, 2011

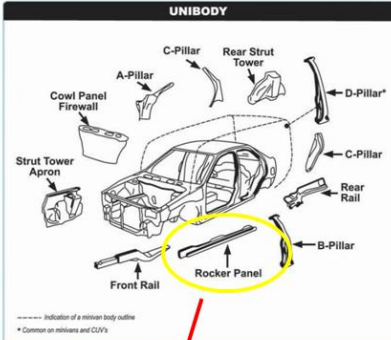


Figure 1 Structural Component	Structural Damage Disclosure Requirement		
	Unibody	Unibody on Frame	Conventional Frame
1. Radiator Core Support – Including the upper and lower tie bars, center support or side baffles		None	
2. Frame Rails Extensions (Ears) – On frame vehicles that area at the end of the frame rail to which the bumper, reinforcement or isolators attach.		None	
3. Frame Rails – Including front, center and rear rails.		Existing or repaired damage, or replacement	
4. Spring Post, and Torque Bar or Stabilizer Mount	N/A	Existing or repaired damage, or replacement	
5. Cross members (Except Bolt-Ons)	N/A	Existing or repaired damage, or replacement	
6. Apron/Upper Reinforcement Rails	Existing or repaired damage, or replacement	None	
7. Strut Tower	Existing or repaired damage, or replacement	None	
8. Cowl Panel / Firewall – excluding cowl vent panel	Existing or repaired damage, or replacement	None	
9. Support Pillars – "A," "B," "C" or "D" Pillars	Existing or repaired damage, or replacement	None	
11. Rocker Panel – Outer		Replacement	None
12. Rocker Panel – Inner		Existing or repaired damage, or replacement	None
13. Floor Panel	Existing or repaired damage, or replacement	Existing or repaired damage, or replacement	Existing or repaired damage, or replacement
14. Quarter or Cab Panel	Replacement	None	
15. Rear Body Panel		None	

11. Rocker Panel – Outer	Replacement	None
12. Rocker Panel – Inner	Existing or repaired damage, or replacement	None

Replacement	None
Existing or repaired damage, or replacement	None

- Inspect the Chevrolet Cruze as any other Unibody frame
- The NAAA Structural Damage policy is sufficient for the frame type.
- Use the Remove and Replace specifics as guidelines for the inspection
 - Inspect exterior for irregular gaps in panels and paint or body repair defects.
 - Inspect interior for turned bolts and paint or body repair defects.


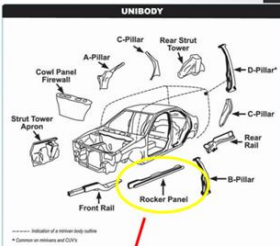

Arbitration Policy
 Appendix B: NAAA Structural Damage Policy
 Effective Date: January 1, 2011

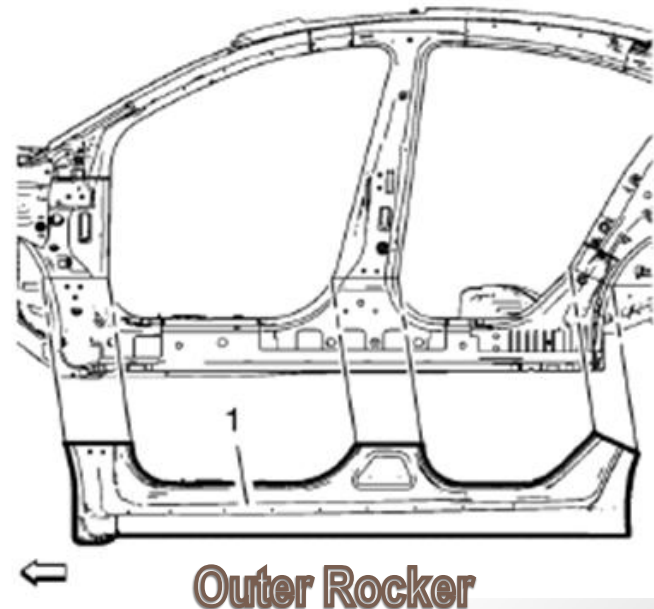
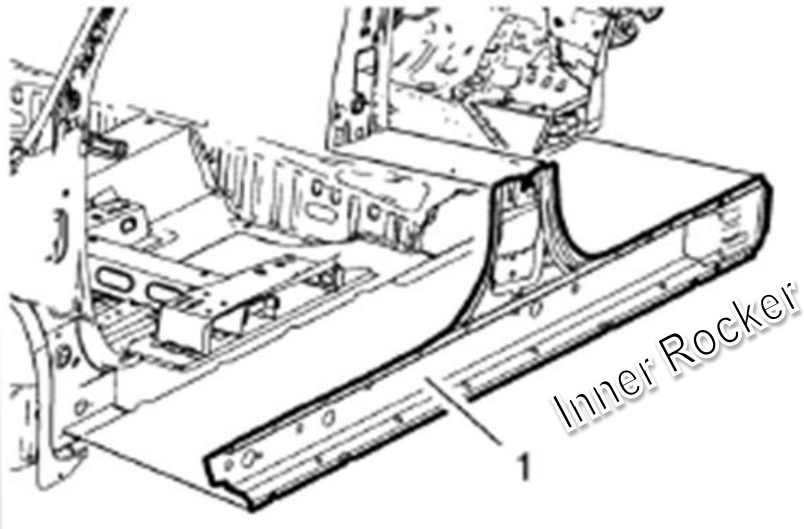
Figure 1

Structural Component	Structural Damage Disclosure Requirement		
	Unibody	Unibody on Frame	Conventional Frame
1. Rocker Core Support - Including the upper and lower tie bars, control support or side baffles	None	None	None
2. Frame Rails Extensions (S-arms) - On frame vehicles that are at the end of the frame rail to which the bumper, reinforcement or isolator attach	None	None	None
3. Frame Rails - Including front, center and rear rails	Existing or repaired damage, or replacement	None	None
4. Spring Pads and Torque Bars or Stabilizer Mounts	None	Existing or repaired damage, or replacement	None
5. Cross Members (3 except Bolt-Ons)	None	Existing or repaired damage, or replacement	None
6. Spring/Upper Reinforcement Tabs	Existing or repaired damage, or replacement	None	None
7. Shift Tower	Existing or repaired damage, or replacement	None	None
8. Cool Panel / Firewall - excluding steel vent panel	Existing or repaired damage, or replacement	None	None
9. Support Pillars - "A", "C", "X" or "W" Pillars	Existing or repaired damage, or replacement	None	None
11. Rocker Panel - Outer	Replacement	None	None
12. Rocker Panel - Inner	Existing or repaired damage, or replacement	None	None
13. A-pillar / B-pillar / C-pillar	Existing or repaired damage, or replacement	None	None
14. Quarter or C-Panel	Replacement	None	None
15. Rear Body Panel	Replacement	None	None

* Indication of a removed body panel
 * Damage or replacement only



11. Rocker Panel - Outer	Replacement	None
12. Rocker Panel - Inner	Existing or repaired damage, or replacement	None



- General Motors (2011). Chevrolet. *The 2012 Chevrolet Cruze*. Retrieved November 10, 2011, from http://www.chevrolet.com/cruze-compact-car/?seo=goo | 2008 Chevy Retention | IMG Chevy cruze | Chevy cruze | chevy cruze&utm_source=Google&utm_medium=cpc&utm_campaign=Retention-Chevy-Chevy_Cruze&utm_content=Search&utm_term=chevy_cruze
- General Motors (2010). Service Information. *Chevrolet Cruze US/Canada version Rocker Inner Panel Replacement*. Retrieved November 10, 2011, from <http://genuinegmparts.com/pdf/vehicles/Chevrolet/Cruze/2011/12%20Rocker%20Inner%20Panel%20Replacement.pdf>
- General Motors (2010). Service Information. *Chevrolet Cruze US/Canada version Rocker Outer Panel Replacement*. Retrieved November 10, 2011, from <http://genuinegmparts.com/pdf/vehicles/Chevrolet/Cruze/2011/13%20Rocker%20Outer%20Panel%20Replacement.pdf>
- National Auto Auction Association (2011). Arbitration Policy. *NAAA Structural Damage Policy*. Retrieved November 10, 2011, from http://www.naaa.com/pdfs/NAAAArbitrationPolicy_Jan2011.pdf
- Pictures courtesy of Hendrick Chevrolet of Gwinnett, Duluth, Georgia
- Matt Arias
 - Director, Operational Excellence (Manheim Arbitration)
 - (678) 645-2182 or matt.arias@manheim.com