



Service Bulletin

File in Section: 08 - Body and Accessories

Bulletin No.: 09-08-57-002D

Date: February, 2013

TECHNICAL

Subject: General Water Leak Diagnostic Guide

Models: 2007-2013 Chevrolet Silverado
2007-2013 GMC Sierra

Attention: The intent of this bulletin is to provide diagnostic tips for some common areas that may cause water leaks. Some customers may comment on a water leak from the headliner or wet carpet at the "B" and/or "C" pillars. The headliner may be water stained or the carpet may be wet in various locations depending on where the leak is coming from, how the vehicle is parked, or possibly a specific driving condition.

This bulletin is being revised to add the 2013 model year, an additional Correction to Condition #10 and Warranty Information. Please discard Corporate Bulletin Number 09-08-57-002C (Section 08 – Body and Accessories).

NOTE: Conditions 1-8 listed below are addressing water leaks specific to CREW CAB models equipped with a sunroof (RPO CF5) and remaining conditions 9-13 apply to all models. If working on a vehicle without a sunroof, skip Conditions # 1–8 and start diagnosis with Condition # 9.

Condition	Correction Listed in Condition #
Water leak past the sunroof glass seal	1
Water collecting upper end of rear sunroof drain tubes	2
Water trapped lower end of rear sunroof drain tube	3
Water not exiting rear pillar drain hole properly	4
Water found in lower rear pillar and floor area	5

Condition	Correction Listed in Condition #
Water leaking at sunroof module drain hose connections	6
Water collecting in rear of sunroof drain channel	7
Water leaking between sunroof module rail and end cap	8
Water found on rear floor or rear carpet wet.	9
Headliner wet or water collected at overhead console	10
After driving in rain, carpet wet or water found on driver side floor	11
Carpet wet or water found on driver side floor	12
After driving in rain. dampness at drivers carpet area	13

Condition 1

Note: The sunroof glass panel seal is not intended to be completely water tight, but the seal should slow any passing water to a drip.

Excessive water may leak past the sunroof glass seal at the corners of the glass panel.

Cause



2094563

The corners of the sunroof glass seal surface may have taken a set into an "hourglass" shape. This condition will be visually evident if the seal looks depressed or concave in the middle as shown above.

Correction

Important: DO NOT replace the sunroof window assembly.

If excessive water is leaking past the sunroof glass seal at the corners of the glass panel, inspect the condition of the seal at each corner. If the seal exhibits the depressed or concave appearance noted above, replace the sunroof glass panel seal. Refer to Corporate Bulletin Number 08-08-67-006 for additional repair information, if needed.

Condition 2

Water is backing up/collecting in the upper end of the rear sunroof drain tubes.

Cause

The rear drain tubes may not have adequate downward slope.

Correction

Important: After completing the repair below, review Condition 3. Make sure that after pushing the drain tube down, the end of the tube is not bottomed out against the foam in the bottom of the rear pillar cavity.



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Inspect that the rear drain tubes have adequate downslope. If not, a foam block can be used to push the drain tube down to provide additional downward slope as shown above.

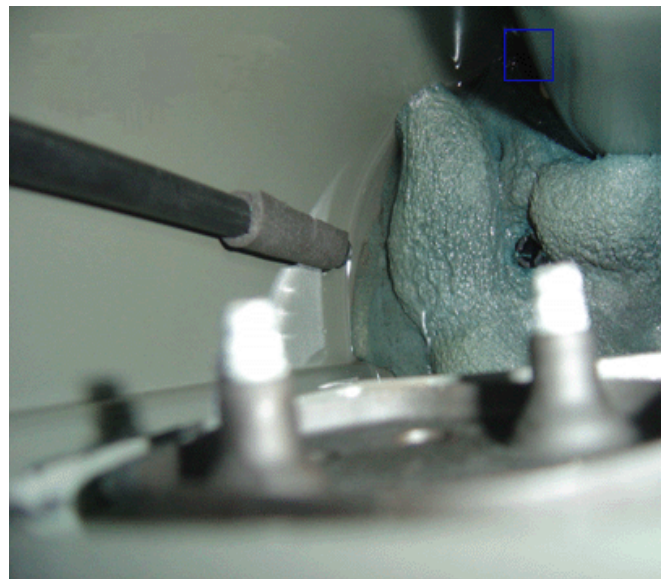
Condition 3

Water becomes trapped in the lower end of a rear sunroof drain tube and is not draining properly into the rear pillar cavity.

Cause

In some cases, the drain tube may be too long and the end of the tube bottoms out against the foam in the rear pillar.

Correction



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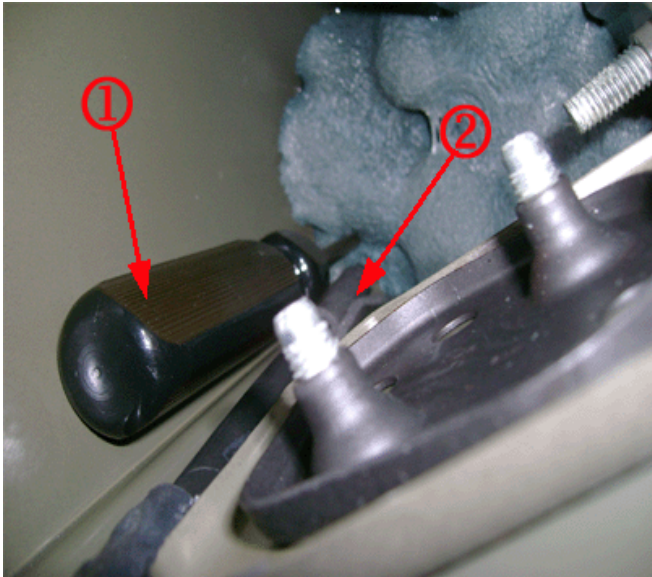
Shorten the drain tube by cutting the end of the drain tube off to provide additional clearance as shown above.

Condition 4

Note: During normal water management, the rear sunroof drain tubes empty into the rear pillar cavity and the water then exits the pillar cavity through a drain hole.

Water is not exiting the rear pillar cavity drain hole properly. If the water cannot drain from the pillar cavity, the water may leak onto the floor and dampen the carpet.

Cause



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The rear pillar cavity drain hole may be plugged/ blocked with foam as shown above. This may have been the result of the foam expanding too much during vehicle assembly.

Correction

Important: The reason for staying within one inch of the perimeter of the pillar is that there is a plastic block located under the foam and it is very difficult to pierce through it with a screwdriver.

Create a drain hole in the foam block using a long screwdriver (1). The hole can be made anywhere within a one inch perimeter of the pillar cavity (EXCEPT for the inboard side of the pillar), and would be more effective if made in a low spot where the drain tube (2) empties into the cavity as shown above.

Condition 5

Water may be found in the lower rear pillar and floor area. Water may be entering at the corner where the rear pillar and floor meet, and/or the two bottom holes in the pillar that align and secure the pillar trim panel.

Cause

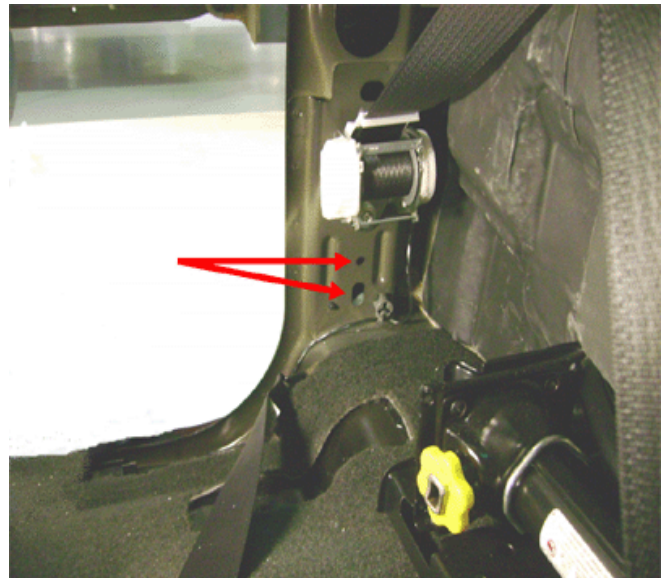
Insufficient body sealer may be the cause.

Correction



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1. Inspect the corner where the rear pillar and floor meet for any voids in the seam sealer as shown above. If a void is found, fill it with seam sealer Kent Automotive High-Tech Clear Sealer Part Number P10200 (5 oz. tube) or equivalent.



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2. Install a butyl patch (sound deadener pad) over the two bottom holes of the rear pillar as shown above. When reinstalling the pillar trim panel, the retainers will pierce through the butyl patch and provide an adequate seal. Kent Automotive is one of the known sources for this patch. Contact Kent Automotive at 1-888-YES-KENT to obtain Kent P/N KT13306 or equivalent.

Condition 6

Water may be leaking at the connections of the sunroof drain hoses to the sunroof module.

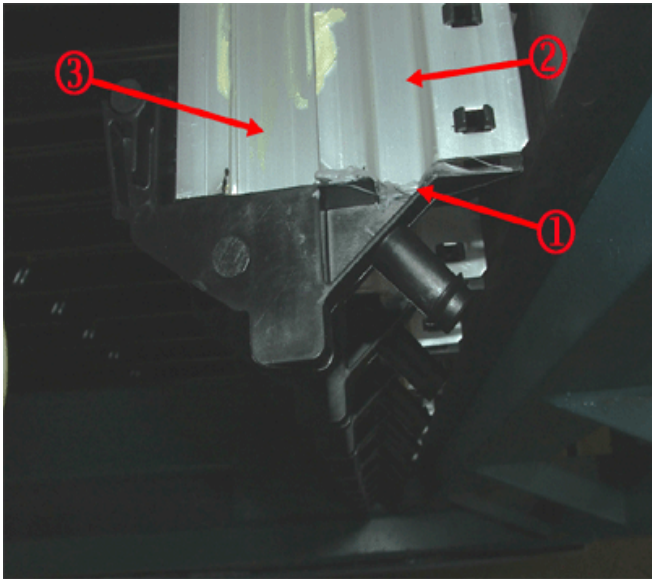
Cause

The connection may not be secure enough to prevent the passing water from leaking through the connection.

Correction

Inspect for water leaks around the drain hose to sunroof connections. If the connection between the drain hose and sunroof is leaking, remove the hose and apply a bead of Kent Automotive High-Tech Clear Sealer (Part Number P10200 5 oz. tube) or equivalent, around the sunroof nipple and reinstall the drain hose.

Condition 7

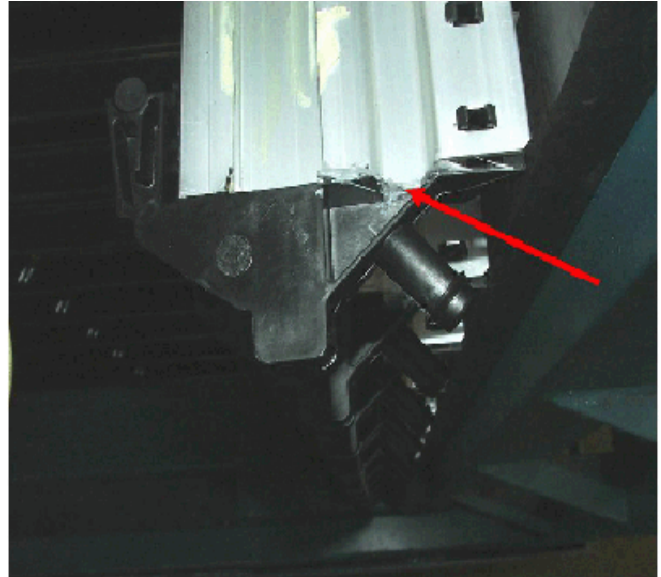


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Note: The area marked (2) in the above graphic is the sunroof drain channel. Any water that gets past the glass seal is routed through the drain tubes. The area marked (3) is the sunroof mechanism track and no water should be in this area. If there is water in area (3) it will leak out between the end cap and side rail because the end cap is not sealed in this area. If water is in area (3) this could be caused by one or more of the conditions previously listed in this document.

Water may be collecting in the rear of the sunroof drain channel (2).

Cause



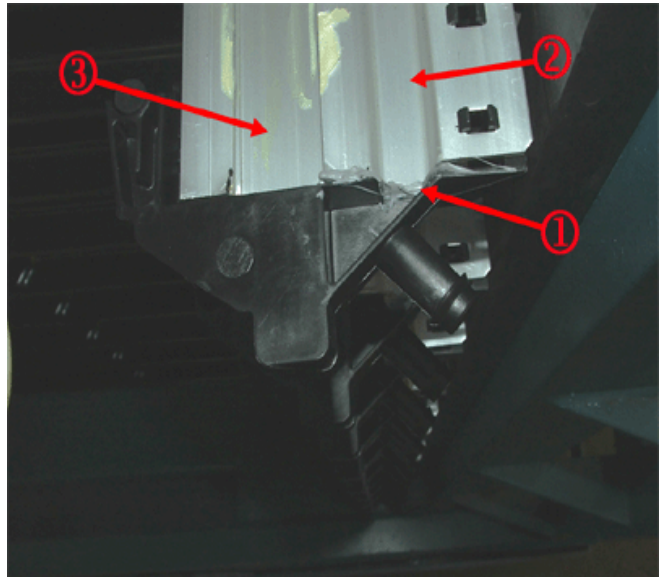
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During the manufacturing process, excess sealer may have squeezed out between the black plastic end cap (gutter) and the sunroof rail. Any excess sealer may create a dam, or block the nipple, and prevent the water from draining freely, as shown above.

Correction

To correct the concern, simply remove any excess sealer.

Condition 8



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Water may be leaking between the sunroof side rail and the black plastic rear end cap (gutter) where it attaches to the side rail as shown above (1).

Cause

Insufficient sealer or an improper sealant path may be the cause.

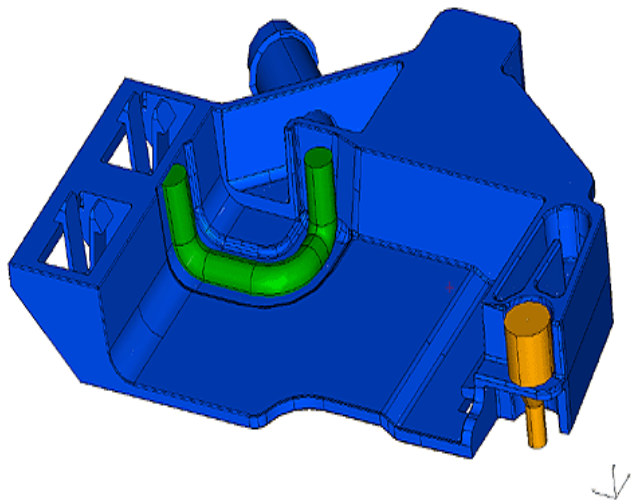
Correction

If water is NOT getting into area (3) noted above, but IS leaking between the rear end cap and side rails, then remove and re-install the end cap using the following steps.

1. Remove the sunroof frame from the vehicle. Refer to Sunroof Frame Replacement in SI.
2. Disengaging the retaining tabs on the outboard side, remove the end cap from the sunroof frame side rail.
3. Clean any old sealer from the end cap and rail using Kent Automotive Acrysol™, or equivalent.

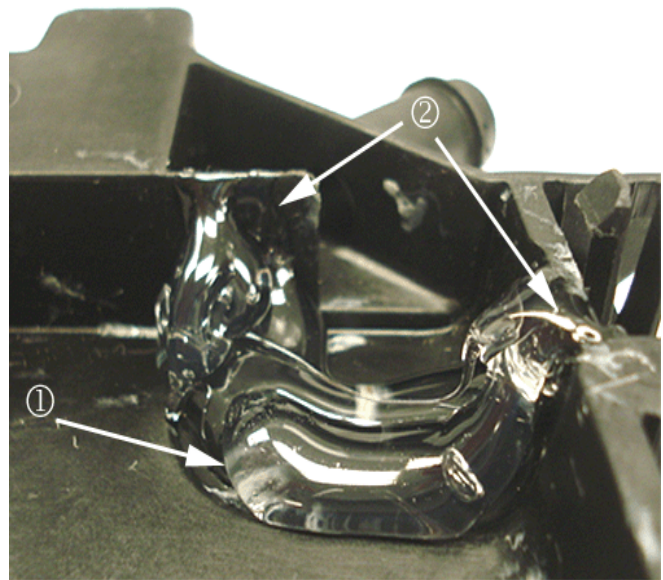
Important: If the end cap is damaged and cannot be reinstalled, replace the end cap (gutter) only. It is NOT necessary to replace the sunroof frame assembly.

4. Inspect the end cap. In most cases the end cap can be reinstalled, however if damaged, replace the end cap (gutter) only.



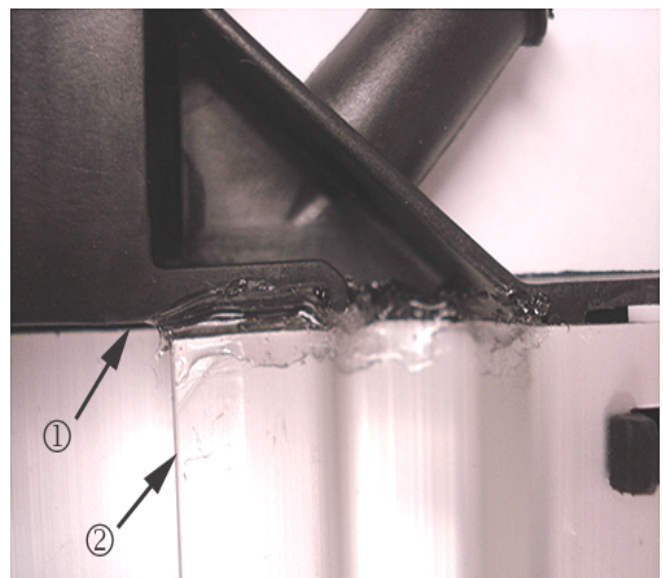
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Note: Prior to end cap installation, ensure that the new sealer is applied in the location/path noted by the green color shown above.



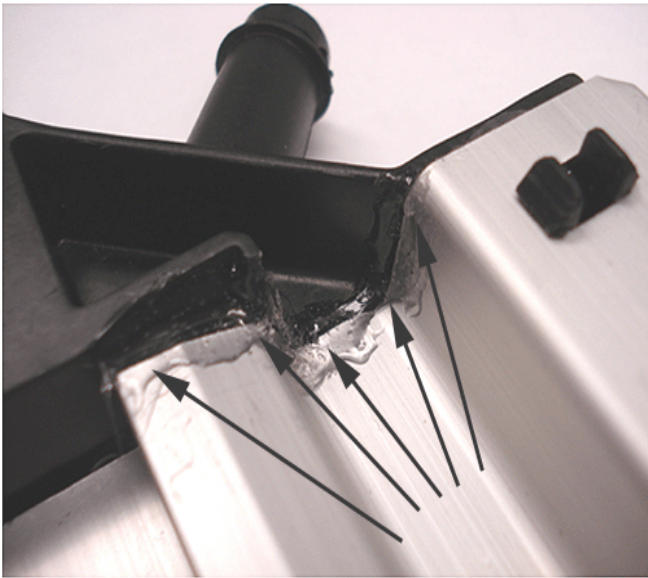
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5. Using Kent Automotive High-Tech Clear Sealer (Part Number P10200 5 oz. tube), or equivalent, apply a 6-8 mm (0.236-0.315 in) bead of new sealer (1) to the end cap in order to reseal the end cap to the side rail. Ensure sealant is applied to the upstanding walls (2). This will ensure no overflow of water seeps into the mechanism track.
6. Install the end cap to the side rail. Smooth out any sealer that may have squeezed out so there is a smooth transition between the end cap and rail, and that water will not dam up or block the nipple opening.



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7. After installation, apply a second smaller bead of sealer to the top side of the end cap, where the plastic (1) meets the metal (2).



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Tip: Apply sealant to all the interfacing areas noted above.

8. Reinstall the sunroof frame. Refer to Sunroof Frame Replacement in SI.
9. Water test to confirm that the water leak has been corrected.

The following non-sunroof related conditions are listed in order from most frequently found to least.

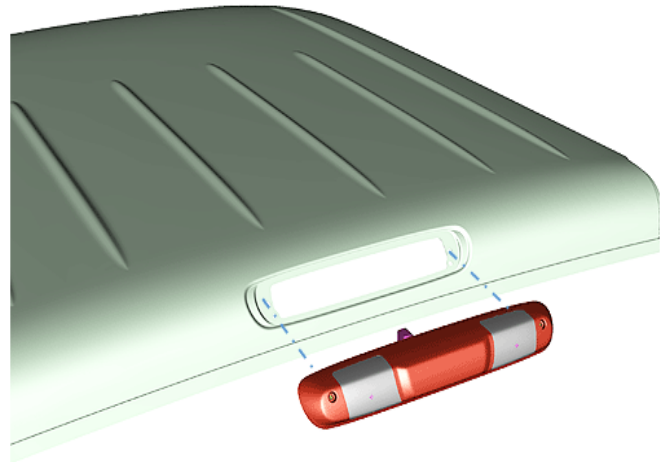
Condition 9

Water may be found on the rear floor of the vehicle and/or the rear carpet may be wet. In extreme circumstances, this condition may sometimes lead to a possible no start, due to remote control door lock receiver (RCDLR) connector corrosion.

Cause

Water may be entering the vehicle through the center high mounted stop lamp (CHSML) opening, and may leak down the B and/or C-pillars.

Correction



2407759

Lower the headliner and water test by running water onto the outer CHSML area while looking to verify any leak path down the B or C pillars. Seal by removing and cleaning the CHMSL, then applying a bead of Kent Automotive High-Tech Clear Sealer (Part Number P10200 5 oz. tube), or equivalent, along the outer edge of lamp surface so that it provides an adequate seal between the body and the lamp housing. Reinstall the CHMSL, remove any excess sealant and reinstall the headliner.

Condition 10

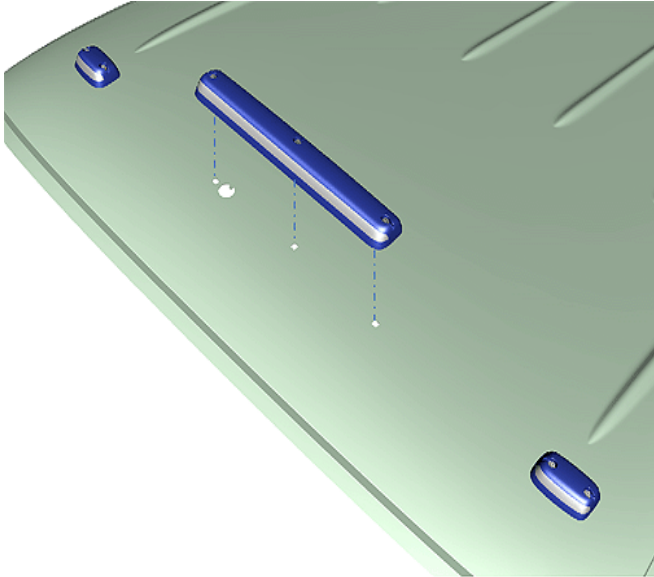
The headliner may be wet, or water may collect on the headliner at the overhead console. In some instances, water may possibly be seen dripping from the overhead map lights.

Cause 1

Note: This condition is specific to 2500/3500 HD models only, which come with optional roof clearance (roof marker) lamps.

Water may be entering the vehicle through the one of the roof marker lamp openings. A water leak at the larger center lamp is most prevalent.

Correction 1



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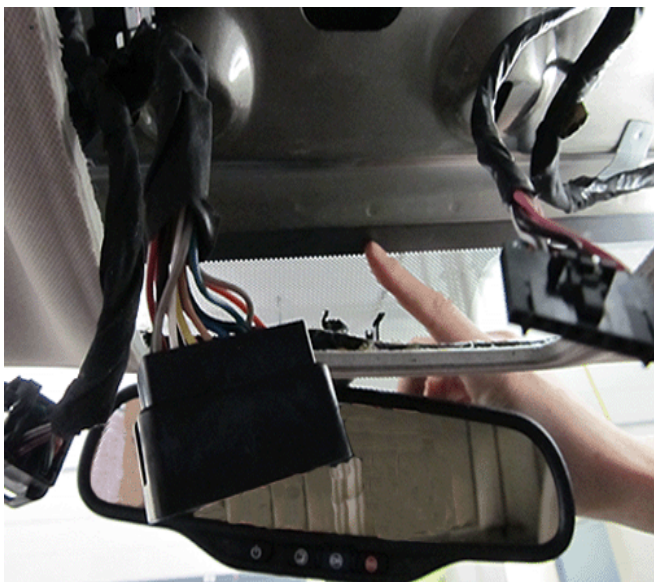
Lower the headliner and water test the roof lamps area to verify the leak path. Remove and clean the affected lamp, then apply a bead of Kent Automotive High-Tech Clear Sealer (Part Number P10200 5 oz. tube), or equivalent, along the outer edge of lamp surface so that it provides an adequate seal between the body and the lamp housing. Reinstall the lamp assembly, remove any excess sealant and reinstall the headliner.

Cause 2

Note: This condition is specific to 1500 models only.

Water may be entering the vehicle through a burn hole in the forward seam above the windshield, where the roof panels are welded together.

Correction 2



3273575

Lower the headliner and water test the roof/windshield area at the rearview mirror or the front right side. Once the leak path is verified, apply a bead of Kent Automotive High-Tech Clear Sealer (Part Number P10200 5 oz. tube), or equivalent, to the outside of the roof panel seam and reinstall the headliner.

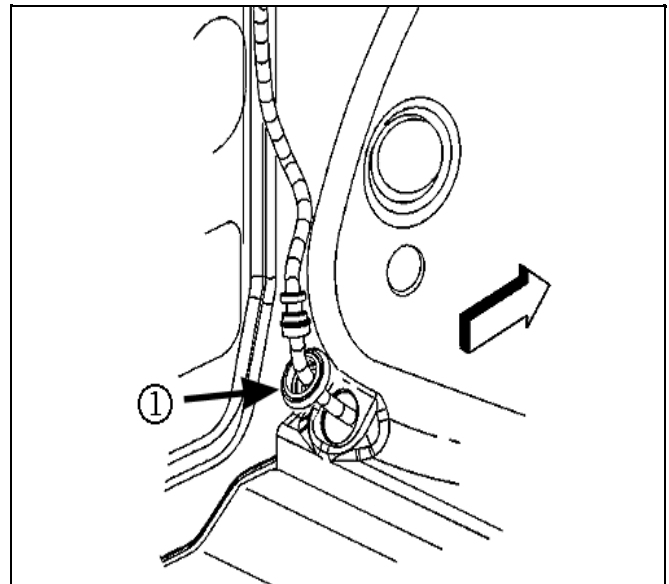
Condition 11

Carpet may be wet or water may be found on the driver side floor area, which only occurs after the vehicle is driven in the rain or in wet road conditions.

Cause

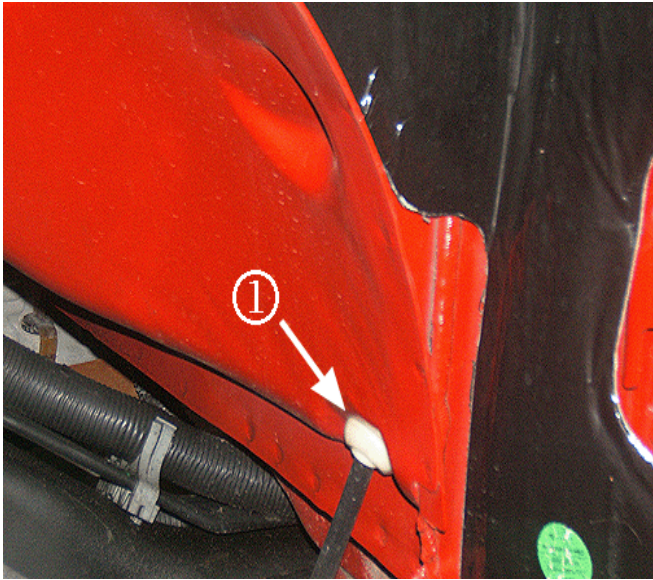
This condition may be the result of an improperly seated parking brake cable grommet.

Correction



2407753

Remove the left side hinge pillar trim panel and position the carpet to expose the park brake cable pass-through grommet (1).



2413847

Verify the leak concern by spraying water on the underside of the vehicle towards the parking brake cable grommet (1) on the front of dash (FOD). If a leak is evident, then properly install the brake cable grommet so it is fully seated to the front of dash (FOD). If no leak is evident at the brake cable grommet, continue on to Condition 12.

Condition 12

Carpet may be wet or water may be found on the driver side floor area.

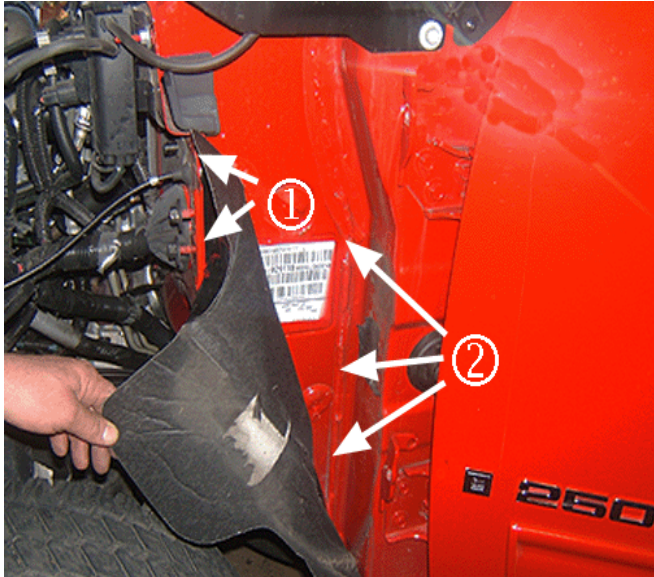
Cause



2413849

The water leak may be due to a lack of sealer (or voids in the sealer) at the seams of the front cowl area and front of dash (FOD), behind the left front fender. The above graphic shows two examples of seams missing sealer. (The position of seams 1 and 2, in relationship to each other, is shown clearer in the graphic below).

Correction



2413851

Remove the left front fender from the vehicle. Visually inspect and water test the cowl seams (1 and 2) noted in the above graphic, to verify the leak path. Seal the body seam by applying Kent Automotive High-Tech Clear Sealer (Part Number P10200 5 oz. tube), or equivalent, from outside the vehicle. Repeat water test to verify leak has been corrected, then reinstall the left fender.

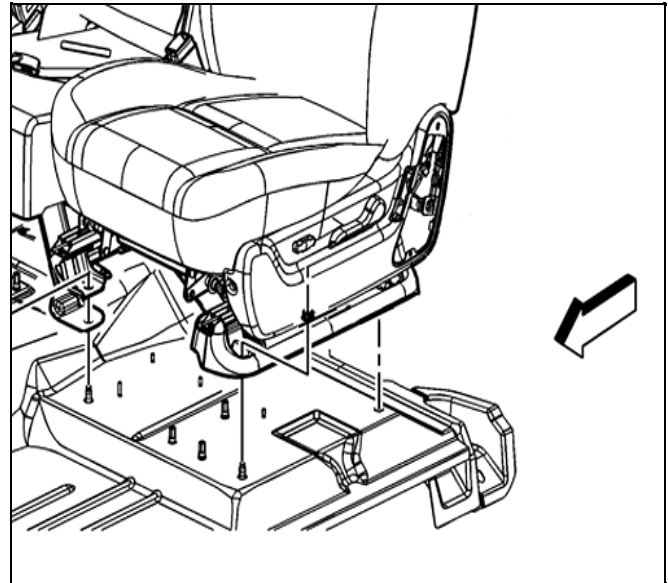
Condition 13

Water dampness noted on driver's carpet area, only occurring after the vehicle is driven in the rain or in wet road conditions.

Cause

Water may be traveling/wicking up the drivers front seat studs due to a poor seal at the stud locations.

Correction



2407756

Remove the seat assembly and water test by spraying the underside of vehicle at the seat studs and watching for water to wick up the studs. Seal the studs from inside vehicle by applying Kent Automotive High-Tech Clear Sealer (Part Number P10200 5 oz. tube), or equivalent, around the stud base/floor interface. Reposition the carpet/trim and reinstall the seat.

Parts Information

Contact Kent Automotive at 1-888-YES-KENT or online at www.kent-automotive.com.

Part Number	Description	Qty
P/N KT13306	Kent Automotive-Sound Deadener Pads	12 per box
P/N P10200	Kent Automotive High-Tech Clear Sealer	5 oz. tube

Warranty Information

For vehicles repaired under warranty, use the appropriate labor operation for the repair performed.

Labor Operation	Description	Labor Time
C1440	Sunroof Window Weatherstrip Replacement	Use Published Labor Operation Time
B2849	Sunroof Drain Inspection and Cleaning	
B5410	Body Joint Resealing	

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