



NUMBER: 23-033-11

GROUP: Body

DATE: August 25, 2011

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SUBJECT:

Waterleak Diagnosis Procedures

OVERVIEW:

This bulletin introduces methods that assist in diagnosing potential areas for a water leak and should be followed whenever a vehicle is brought in with a water leak concern.

MODELS:

2011 WK Grand Cherokee

SYMPTOM/CONDITION:

Customer complaint of damp carpet or a water leak.

DIAGNOSIS:

This bulletin is broken out by possible leak location and provides all the necessary information and latest methods to make effective repairs. The Labor Operations listed can be used based on repair methods recommended in this bulletin. If the customer describes the Symptom/Condition, perform the Repair Procedure.

PARTS REQUIRED:

Qty.	Part No.	Description
(AR)	NPN	P10200 Kent High-Tech Clear Seam Sealer or Equivalent

SPECIAL TOOLS/EQUIPMENT REQUIRED:

C-4755	Trim Stick
NPN	Shop Air/Blow Gun
NPN	Foamy Glass Cleaner or Soapy Water Solution
NPN	Flashlight
NPN	Shop Water Supply/Hose for Leak Testing

REPAIR PROCEDURE:

1. Check plugs and grommets in body side at door hinge area for proper installation by pushing down around perimeter of grommet to ensure they are fully seated (Fig. 1).

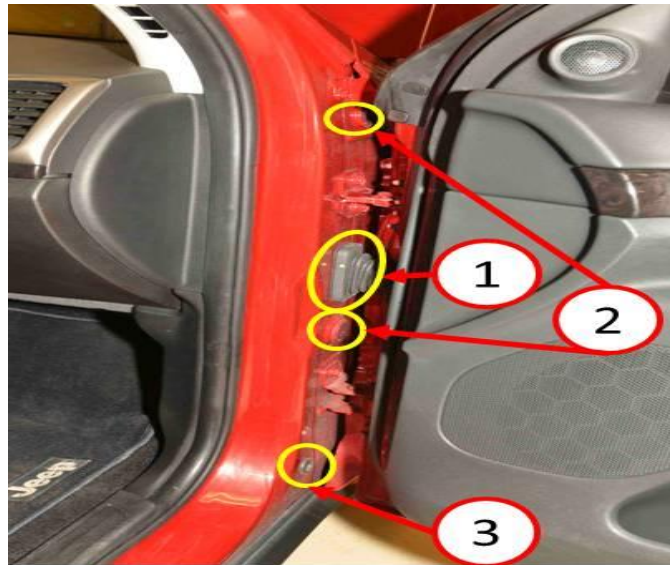


Fig. 1 Inspect A-Pillar Body Side Grommets

- 1 - Door Wire Harness Seal
 - 2 - Body Plugs
 - 3 - Body Grommet
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2. Open rear liftgate and verify liftgate wiring grommets to body are fully seated to body sheet metal by pushing down around perimeter of grommet (Fig. 2).

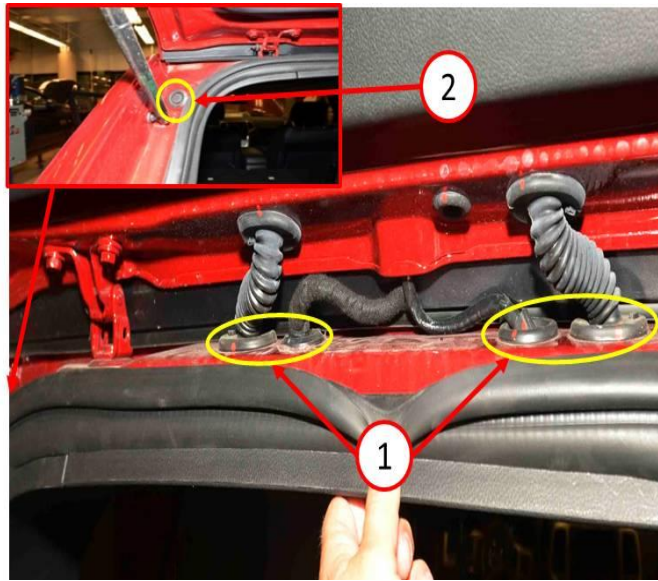


Fig. 2 Inspect Rear Liftgate Body Grommets

- 1 - Liftgate Body Side Grommets
- 2 - Body Grommet (Driver Side)

NOTE: Raise and lower liftgate to verify wiring is not pulling grommet out of hole in sheet metal.

3. Remove the cowl panel cover in order to check for leak points on exterior cowl area. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 23 - Body> Exterior> COVER, Cowl Panel> Removal.
4. Water leak test the entire vehicle primarily around the exterior cowl area for leaks.

NOTE: Hose test should be a minimum of 5 minutes or until water leak point is found.

5. Did water enter the vehicle interior down the front of the dash panel area or through the side cowl area?
 - a. Cowl Side Area Leak >>> Proceed to [Step #6](#).
 - b. Dash Panel Area Leak >>> Proceed to [Step #11](#).
6. Determine if the water leak is originating from the lower corners of the windshield.
7. Lift up rubber windshield molding with trim stick (3) and spray foamy glass cleaner or soapy water solution (1) against the windshield urethane surface ([Fig. 3](#)).
8. Apply shop air using blow gun (2) from the interior of the vehicle at the bottom corner of the windshield and inspect for air bubbles on exterior windshield urethane surface ([Fig. 3](#)).

NOTE: Lift up the rubber windshield molding with a trim stick (3) for a visual of possible bubbles ([Fig. 3](#)).



Fig. 3 Leak Check Lower Windshield Seal

- 1 - Soapy Water Solution
 - 2 - Blow Gun (Compressed Air)
 - 3 - Trim Stick
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- 9. Are air bubbles present on the exterior windshield urethane surface?
 - a. Yes >>> Proceed to [Step #10](#).
 - b. No >>> Proceed to [Step #11](#).
- 10. Remove and reseal the windshield.

NOTE: Use larger urethane bead at lower corner to ensure sealing around the sheet metal take-up beads (1) (Fig. 4).



Fig. 4 Windshield Resealing

1 - Take-Up Beads

11. Inspect the HVAC A/C condensate drain grommet to ensure that it is fully seated.
Refer to the detailed procedures available in DealerConnect>TechCONNECT> under:
Service Info> 23 - Body> Interior> BEZEL, Shifter> Removal .
12. Using a trim stick or equivalent, release the clip fasteners and separate the driver side console side cover (Fig. 5).



Fig. 5 Console Side Cover Removal

1 - Side Cover

NOTE: If HVAC Grommet Seal is not seated (1), A/C condensate can leak onto floor panel. Grommet must be fully seated (Fig. 6).

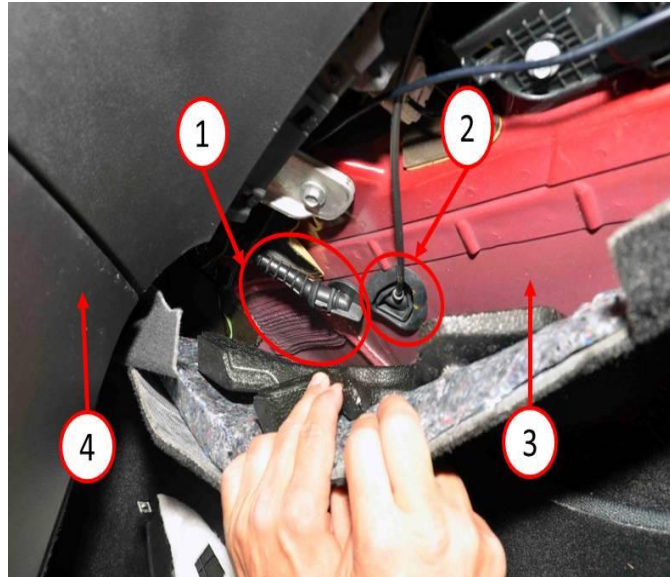


Fig. 6 Inspect HVAC Drain Tube

- 1 - HVAC Drain Tube Grommet
 - 2 - Shifter Cable Grommet
 - 3 - Driver's Side of Transmission Tunnel
 - 4 - Instrument Panel
-

13. Using a trim stick or equivalent, remove the right and left cowl drain troughs (1) to inspect the right and left sunroof drain tube grommets (Fig. 7).



Fig. 7 Cowl Drain Trough Removal

1 - Cowl Drain Trough

NOTE: Sunroof drain tube grommets must be fully seated to dash panel with drain tubes properly protruding out of dash panel or water may leak into the interior floor panels.

14. Water flow test the sunroof drain tubes using approximately 16 ounces (500mL) of water to verify possible obstructions and/or leaks (Fig. 8).

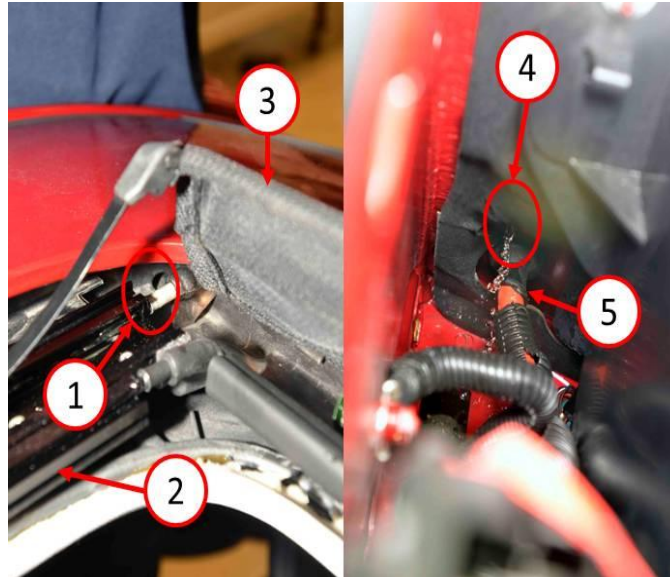


Fig. 8 Inspect Sunroof Drain Tubes

- 1 - Sunroof Drain Tube Port
- 2 - Sunroof Module
- 3 - Wind Stop
- 4 - Drain Tube Grommet (Under hood)
- 5 - Dash Panel Pass-Through Grommet

NOTE: Make sure the dash panel pass-through grommet (5) (located below passenger side drain tube grommet) is fully seated in the dash panel. Water from the sunroof drain tube (4) could leak into the vehicle interior unless grommet is fully seated.(Fig. 8).

15. Was the vehicle built prior to January 5, 2011?
 - a. Yes >>> Proceed to [Step #16](#).
 - b. No >>> Proceed to [Step #20](#).
16. Remove the front fenders. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 23 - Body> Exterior> FENDER, Front> Removal.
17. Access and reseal (2) the “knife edge joint” (3) between the body side Inner and body side reinforcement using Kent P10200 High-Tech Clear seam sealer or equivalent.

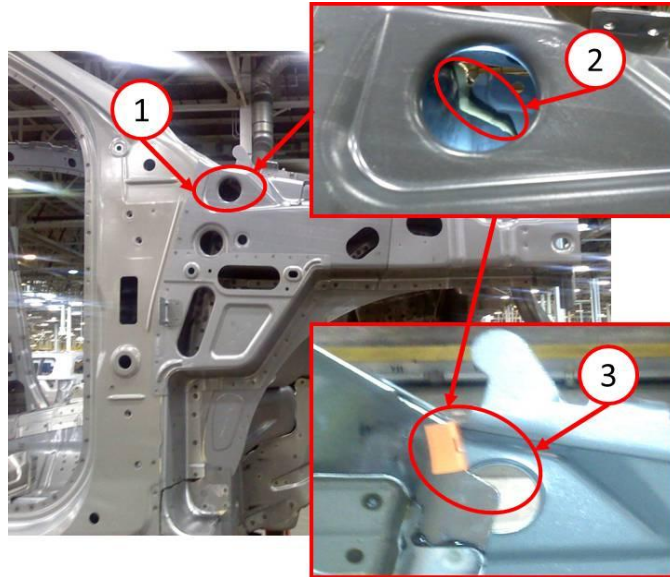


Fig. 9 Body Knife Edge Sealing

- 1 - Body Reinforcement Panel
 - 2 - Urethane “Knife Edge” Seam
 - 3 - Inside View of “Knife Edge” Seam Location
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- 18. Reinstall the front fenders. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 23 - Body> Exterior> FENDER, Front> Installation.
- 19. Reinstall the cowl cover. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 23 - Body> Exterior> COVER, Cowl Panel> Installation.
- 20. Water leak test the entire vehicle primarily around the exterior cowl area for leaks.

NOTE: Hose test should be a minimum of 5 minutes or until water leak point is found.

- 21. Was a water leak still present?
 - a. Yes >>> Further diagnosis required.
 - b. No >>> Return the vehicle to the customer.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Amount
23-50-01-92	Inspect and Leak Check Vehicle	0.8 Hrs.
23-30-50-97	Reseal Windshield	1.1 Hrs.
24-65-03-92	Inspect and Repair HVAC Drain Tube	0.2 Hrs.
23-30-63-99	Flow Test and Repair Sunroof Drain Tubes	0.4 Hrs.
23-50-01-95	Remove Front Fenders and seal Cowl Side to Body Reinforcement Knife Edge Joint	1.5 Hrs.