

**NUMBER:** 23-010-13

**GROUP:** Body

DATE: February 27, 2013

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# THIS BULLETIN SUPERSEDES SERVICE BULLETIN 23-001-12 REV. A, DATED MAY 30, 2012, WHICH SHOULD BE REMOVED FROM YOUR FILES. ALL REVISIONS ARE HIGHLIGHTED WITH \*\*ASTERISKS\*\* AND INCLUDE A CORRECTION TO THE APPLICABILITY STATEMENT.

### SUBJECT:

Water Dripping Across Door Sill And/Or Damp Front Floor

### **OVERVIEW:**

This bulletin involves diagnosing potential leak paths associated with water dripping across the door sill and/or damp front floor. If necessary, procedures for notching the passenger and/or driver side door seals, inspecting along the bottom edge of the door seal channel for possible sealer skips, antenna grommet inspection and passenger side weather strip stuffer repairs are covered.

### **MODELS:**

2011 - 2012	(JK)	Wrangler
2011 - 2012	(J3)	Wrangler (Export)

# NOTE: \*\*This bulletin applies to vehicles built prior to March 15, 2012 (MDH 0315XX).\*\*

#### PARTS REQUIRED:

Qty.	Part No.	Description
1 (AR)	55397484AB	A Pillar Foam, RH
1 (AR)	55397485AB	A Pillar Foam, LH
1 (AR)	68153263AA	Stuffer
1	68027813AA	Butyl Tape
1	04467709	Mopar Bond All Gel (.06oz)

NOTE: One .06oz. tube of Bond All will service 9 vehicles and One roll of Butyl Tape will service 6 vehicles.

SPECIAL TOOLS/EQUIPMENT REQUIRED:

NPN	Diagonal Cutters
NPN	Trim Clip Remover
NPN	Isopropyl Alcohol
NPN	3M 4298 Adhesion Promoter or Equivalent
NPN	Shop Water Supply/Hose for Leak Testing
NPN	P10200 Kent Hi-Tech Clear Seam Sealer (5oz)

### NOTE: One 5-once tube of seam sealer will service 4 doors.

## SYMPTOM/CONDITION:

The customer may experience water dripping across the door sill and/or a damp front floor.

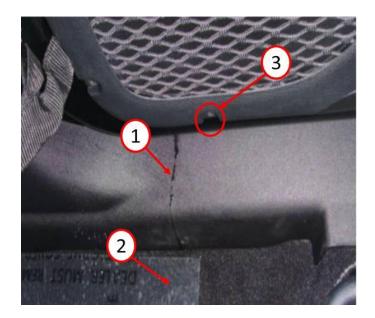


Fig. 1 Water Leak Path

- 1 Front Door Sill (Waterleak)
- 2 Front Floor
- 3 Door Panel Front Lower Fastener

## DIAGNOSIS:

- NOTE: When the door is open, if there is water run off from the roof, it can soak the carpet. Be sure to explain to the customer that this condition cannot be repaired. This is an unfortunate condition with this type of vehicle, similar to convertibles.
- 1. Water leak test the entire vehicle primarily along the top of the door seal and down the A-pillar area for leaks.
- NOTE: Hose test should be a minimum of 5 minutes or until the water leak point is found.

- 2. Did water enter the vehicle by dripping across the door sill?
  - a. Yes >>> Proceed to Step #1 of the Repair Procedure.
  - b. No >>> Proceed to the next step.
- 3. Was water and or dampness present on the front floor?
  - a. Yes >>> Proceed to Step #13 of the Repair Procedure.
  - b. No >>> Further diagnosis required, this bulletin does not apply.

#### **REPAIR PROCEDURE:**

- 1. Open the door on the side with leak present and mark the door seal (1) approximately below the lower door panel fastener (2) or the area where water is running across the sill(Fig. 2).
- 2. Remove the lower section of the door seal (1) from the door seal channel below the arrows indicated on either side of (1) in (Fig. 2).



Fig. 2 Door Seal Modification Location

- 1 Door Seal
- 2 Door Panel Lower Fastener (Notch Location)
- 3 Door Panel
- NOTE: Be careful when notching the door seal so that the inside wall of the bulb seal (3) is not cut when the notch (1) is cut into the outer "wet side" (2) of the door seal. (Fig. 3) shows the desired result of the door seal notch procedure outlined in Step #3 with relation to the structure of the seal and the layout of the notch on the seal relative to the door.

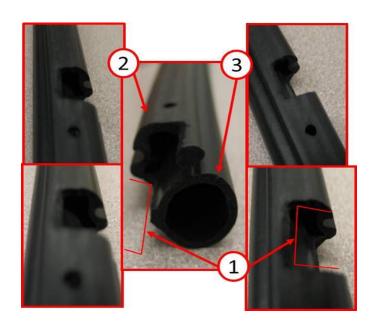


Fig. 3 Seal Modification Desired Result

- 1 Seal Notch (Area to be Removed)
- 2 Outer Door Side of Seal ("Wet Side")
- 3 Inner Door Side of Seal/Bulb ("Dry/Body Side")
- 3. Locate the mark (1) made in Step #1 on the door seal, below the lower door panel fastener, and designate it as the center of the notch (3) which should be approximately 5/8"/(16mm) wide (4) (Fig. 4).
- Using diagonal cutters, (2) cut approximately 1/4"(6mm) into the outer door/"wet side" of the seal on either side of the seal center mark (1) outlined in top pictures 1 & 2 of (Fig. 4).
- 5. Connect the two cuts from Step #4 by cutting along the bottom side/door bulb side of the seal as outlined in picture 3 of (Fig. 4)
- 6. Connect the two cuts from Step #4 by cutting along the top side/door channel "flat side" of the seal as outlined in picture 4 of (Fig. 4)

# NOTE: Use caution not to cut into the bulb seal portion of the seal while performing the notch procedure.

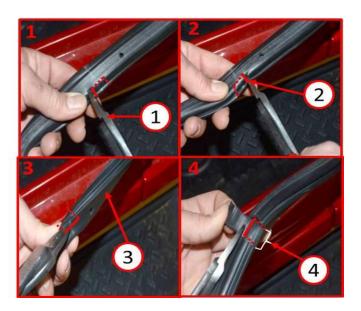


Fig. 4 Seal Modification

- 1 Door Seal Notch Mark (Center of Notch)
- 2 Diagonal Cutters
- 3 Door Seal Notch
- 4 Door Seal
- 5 Seal Notch Width (5/8"/16mm)
- Inspect the sealer (5) applied along the inboard lower edge of the door seal channel (3).
- 8. Were any sealer skips present?
  a. Yes >>> Proceed to Step #9.
  b. No >>> Proceed to Step #10.
- 9. Seal any skips (4) where there may be a void between the door seal channel (3) and the bottom of the door (1) with Kent Hi-Tech clear seam sealer.

# NOTE: Follow the manufacturer's recommendations for surface preparation and curing times.

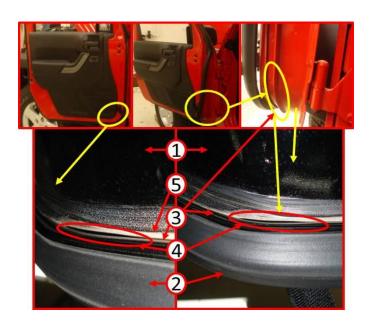


Fig. 5 Sealer Skip Inspection

- 1 Door (Bottom Side)
- 2 Door Seal (Bottom of Door)
- 3 Door Seal Channel
- 4 Seam Sealer Skip
- 5 Seam Sealer (Correctly Applied)
- 10. Reinstall the lower section of the door seal (1) back into the lower door seal channel so that the door seal notch (2) faces outward toward the "wet side" of the vehicle.

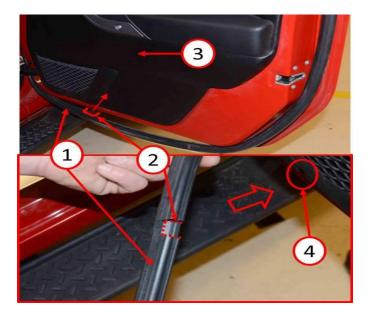


Fig. 6 Reinstall Door Seal

- 1 Door Seal
- 2 Door Seal Notch
- 3 Door Panel
- 4 Door Panel Lower Fastener (Notch Location)

Water leak test the entire vehicle primarily along the top of the door seal and down the A-pillar area for leaks.

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

- 11. Was water still entering the vehicle onto the front floor?
  - a. Yes >>> Proceed to the next step.
  - b. No >>> Return the vehicle to the customer.
- 12. Was water dripping down the cowl-side inner body panel under the Instrument panel or dripping down the front of the door seal from the A-pillar area?
  - a. Cowl-side inner body panel >>> Proceed to Step #13.
  - b. Door Seal from A-pillar area >>> Proceed to Step #16.
- Remove the passenger side front speaker. Refer to the detailed procedures available in DealerConnect>TechCONNECT> under: Service Info> 08-Electrical> SPEAKER> Removal> Instrument Panel - Passenger Side
- 14. Through the glove box opening (3) with the passenger side speaker and glove box removed verify that the antenna grommet (1) is properly seated to the inner body side (Fig. 7).

NOTE: The antenna grommet is a pull to seat type of grommet. If the grommet is not pulled through the cowl-side inner body panel enough to be properly seated, it must be pulled gently toward the vehicle interior in order to seat it. If the grommet has been over-pulled through the cowl-side inner panel, push it outboard and seat it properly. Make sure that the main wire harness (2) is not pushing on the antenna grommet causing it to be pushed out of the inner body side panel.

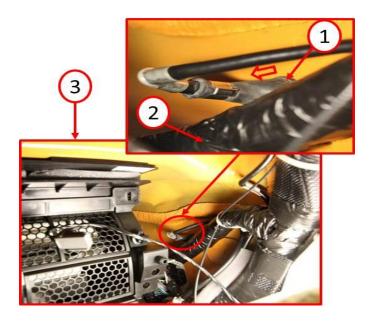


Fig. 7 Antenna Grommet Inspection

- 1 Antenna Grommet
- 2 Main Wire Harness
- 3 Glove Box Opening View (Glove Box removed)
- 15. Was water also dripping down the front of the door seal from the A-pillar area?a. Yes >>> Proceed to Step #16.
  - b. No >>> Proceed to Step #30.
- 16. Open the suspect front door and disconnect the door wiring harness (1) by pushing red lock and remove cloth check strap (2) from hook (3) (Fig. 8).

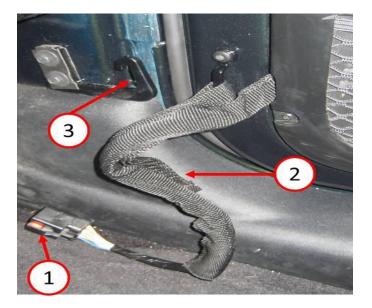


Fig. 8 Disconnect Door Harness and Check Strap

- 1 Check Strap Harness
- 2 Check Strap
- 3 Check Strap Hook
- NOTE: Use a foam block or equivalent to prevent the sideview mirror from hitting the vehicle when the door is full open (Fig. 9).

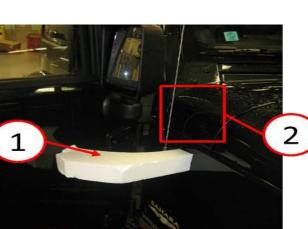


Fig. 9 Prevent Door Contact

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- 1 Foam
- 2 Potential Damage Area
- 3 Door
- 17. Remove the suspect door upper weatherstrip seal (1) at the A pillar upper corner, from metal channel (2) enough to gain access to stuffer access slot (Fig. 10).

#### NOTE: Inspect the side upper door seal channel (2) for possible sealer skips

- 18. Were any sealer skips present?
  - a. Yes >>> Proceed to Step #19.
  - b. No >>> Proceed to Step #20.
- 19. Seal any skips where there may be a void between the door seal channel and the top of the door with Kent Hi-Tech clear seam sealer.
- NOTE: Follow the manufacturer's recommendations for surface preparation and curing times.



Fig. 10 Door Weatherstrip Removal

- 1 Door Weatherstrip
- 2 Metal Weatherstrip Channel
- 20. Pull out half of the existing stuffer that goes down the front A-pillar side of the door weatherstrip through the access slot in the backside of the weatherstrip (Fig. 11).



Fig. 11 Door Stuffer Access

- 1 Door Stuffer
- 2 Door Weatherstrip

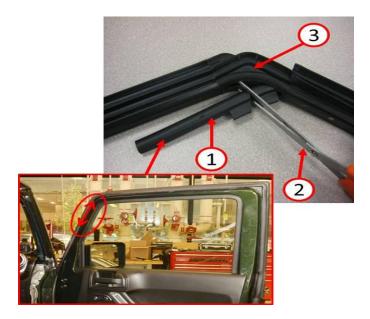


Fig. 12 Door Stuffer Removal

1 - Stuffer

2 - Scissors

3 - Door Weatherstrip

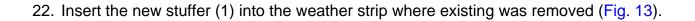




Fig. 13 Install New Door Stuffer

- 1 New Stuffer
- 2 Weatherstrip

## NOTE: For ease of installation lubricate the stuffer with soapy water.

- 23. Clean stuffer sections to be bonded with isopropyl alcohol and allow it to flash.
- 24. Bond both stuffers at the intersection (1) with Mopar Bond All Gel (2) and make sure there is no gap between stuffers as shown in (Fig. 14).

# NOTE: The glue is being used to keep the new a-pillar stuffer in position and to prevent it from moving down the weatherstrip over time.

-14-



Fig. 14 Door Stuffer Installation

- 1 Stuffers
- 2 Mopar Bond All Gel
- 3 Weatherstrip
- 25. Remove existing foam patch (1) and clean door surface with isopropyl alcohol (Fig. 15).

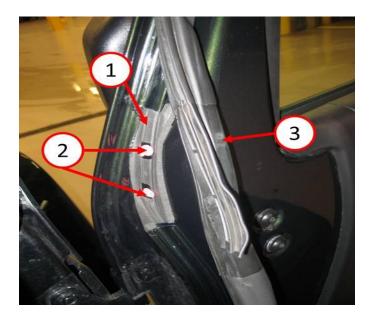


Fig. 15 Foam Removal

- 1 Foam Patch (right side shown)
- 2 Weatherstrip Retaining Clips
- 3 Weatherstrip
- 26. Wipe door surface with adhesion promoter and once flashed insert the new foam patch (Fig. 16).
- NOTE: Ensure foam patch is tight against upper door weatherstrip channel by beginning installation at the top of foam and finishing at the bottom. Make sure foam gasket is applied flat against the door with no creases or wrinkles.



Fig. 16 Foam Installation

- 1 Edge of Door Weatherstrip Channel
- 2 Foam (right side shown)
- 3 Upper Door Seal Channel
- 27. Install approximately 1 inch of butyl tape to upper door weatherstrip channel as shown (Fig. 17).
- NOTE: Press butyl down with fingers to seal against the sides and bottom of the channel and along edge of foam.

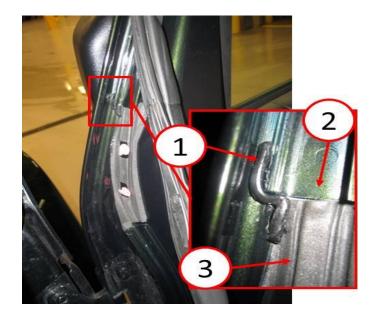


Fig. 17 Butyl Tape Installation

- 1 Butyl Tape
- 2 Door Seal Channel
- 3 Foam Patch (right side shown)

#### 28. Reinstall the door weatherstrip seal.

- 29. Reconnect the cloth check strap and door wiring harness as shown in (Fig. 8)
- 30. Water leak test the vehicle primarily along the top of the door seal and down the A-pillar area for leaks.

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

- 31. Did water continue to saturate the front floor?
  - 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
23-51-09-91	Front Door Weatherstrip, Repair and Apply Sealant to Skip - One Side (1 - Semi-Skilled)	0.2 Hrs.
23-51-09-92	Front Door Weatherstrip, Repair and Apply Sealant to Skip - Both Sides (1 - Semi-Skilled)	0.3 Hrs.
08-60-05-91	Antenna Grommet, Inspect and Seat (1 - Semi-Skilled)	0.2 Hrs.

23-51-10-92	Weatherstrip, Install Stuffer and Foam Patch - One Front Door - Right Front Door (1 - Semi-Skilled)	0.4 Hrs.
23-51-10-95	Weatherstrip, Install Stuffer and Foam Patch - Both Front Doors (1 - Semi-Skilled)	0.6 Hrs.

# FAILURE CODE:

ZZ Service Activ	1
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