



NUMBER: 23-025-08

GROUP: Body

DATE: August 26, 2008

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THIS BULLETIN SUPERSEDES TECHNICAL SERVICE BULLETIN 23-016-07, DATED MAY 24, 2007, WHICH SHOULD BE REMOVED FROM YOUR FILES. THIS IS A COMPLETE REVISION AND NO ASTERISKS HAVE BEEN USED TO HIGHLIGHT REVISIONS.

SUBJECT:

Freedom Top - Header Seal - Water Leak In Area Of Dash

OVERVIEW:

This bulletin involves the replacement of the header seal and its associated butyl adhesive.

MODELS:

2007 - 2008 (JK) Wrangler

NOTE: This bulletin applies to vehicles equipped with a Freedom Modular Hard Top (Sales code VK0). Vehicles equipped with Dual Tops (Soft Top and Freedom Top) should have this bulletin performed with the Freedom Top installed only (NOT THE SOFT TOP). The replacement header seal may initially cause a soft top wind noise.

SYMPTOM/CONDITION:

This bulletin will address water leaks due to the **FRONT HEADER SEAL** at the roof.

Water leaks associated with the header seal can cause the front floor and/or instrument panel to get wet. Water leaking into the vehicle at the B-Pillar or anywhere further back in the vehicle are not covered in this Service Bulletin. Water leaks in these areas are addressed in other Service Bulletins and eFiles. Refer to those Service Bulletins and eFiles as necessary.

NOTE: Refer to additional supporting material and pictures available in DealerCONNECT and TechCONNECT. Select eFiles > Service > Star Center > Misc Documents > JK A Pillar Water Leak Repair.

DIAGNOSIS:

1. Determine the vehicle build date. Vehicles equipped with a Freedom Modular Hard Top and built on or before **December 17, 2007** (MDH1217XX) will require the windshield header latch on each panel be replaced with the latest level latch.

2. Visually inspect door to windshield frame (A-Pillar) fit. Door should be parallel to A-Pillar and surface flush to slightly under-flush.

NOTE: Vehicles equipped with Freedom Top panels must have the panels CORRECTLY installed. This is very important to prevent a water leak from occurring. Make sure the technician and customer know and use the correct removal and installation procedure. Follow the removal and installation steps in the Owners Manual.

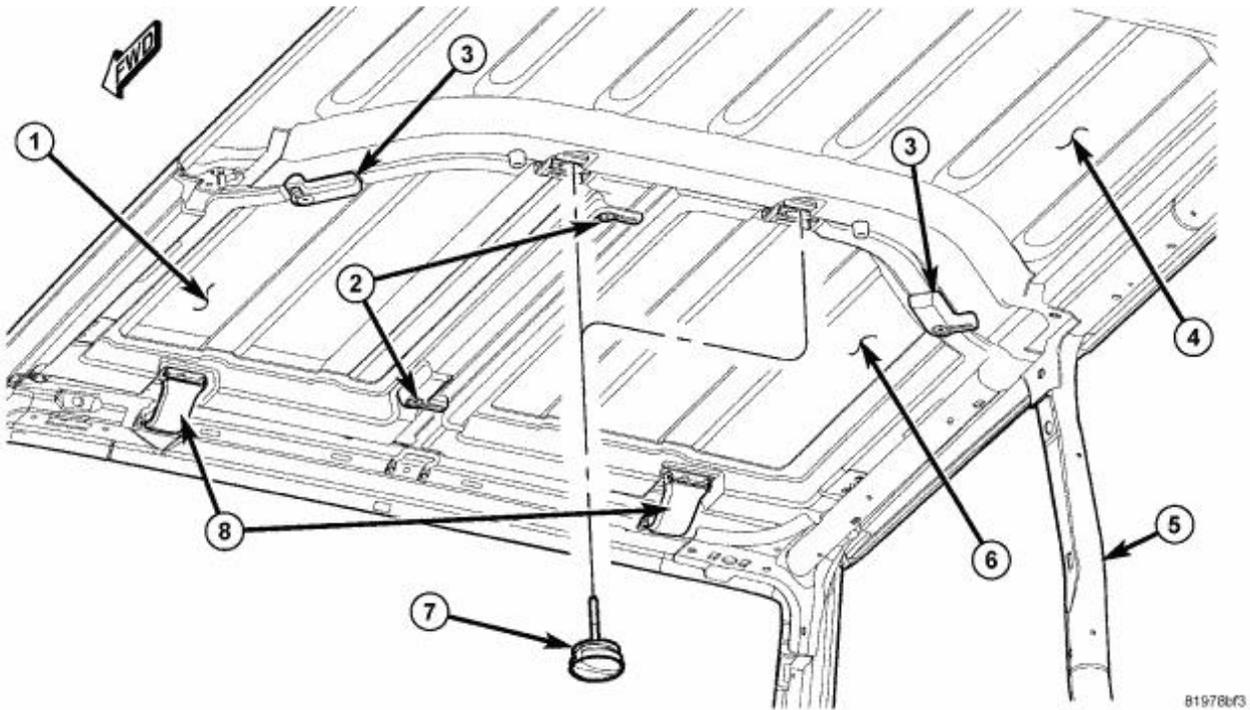


Fig. 1 HARD TOP INSIDE FULL VIEW

- 1 - Left Freedom Top Panel
- 2 - Center L-Shaped Locks - Left Freedom Top Panel
- 3 - Rear L-Shaped Lock at Seat Belt Anchorage - Left and Right Freedom Top Panel
- 4 - Hard Top
- 5 - B-Pillar
- 6 - Right Freedom Top Panel
- 7 - Rear Fastener (Dial) Knobs - Left and Right Freedom Top Panel
- 8 - Windshield Header Latch - Left and Right Freedom Top Panel

3. Inspect the Freedom Top panels to ensure that they are installed correctly (Fig. 1). If not, then note this condition so that the correct procedure for installing the Freedom Top panels to the hard top can be reviewed with the customer. To ensure that the panels are installed correctly perform the following steps in order. **When installing each Freedom Top panel, always close the windshield latch first .**
 - a. With both panels removed, carefully install the right side panel onto the hard top.
 - b. Make sure the sun visor is folded down and out of the way.
 - c. Latch the right header panel latch located at the top of the windshield.

- d. Turn the right side panel rear L-shaped lock (located above the shoulder belt anchorage) so that it fully engages the hard top.
 - e. Turn the right side panel rear fastener knob (located on the overhead speaker bar assembly) clockwise until it is tight.
 - f. Carefully install the left side panel onto the hard top.
 - g. Make sure the sun visor is folded down and out of the way.
 - h. Latch the left header panel latch located at the top of the windshield.
 - i. Turn the left side panel rear L-shaped lock (located above the shoulder belt anchorage) so that it full engages the hard top.
 - j. Turn the left side panel rear fastener knob (located on the overhead speaker bar assembly) clockwise until it is tight.
 - k. Turn both center L-shaped locks (2) so that they fully engage the right side panel.
4. Only after verifying Freedom Top is properly installed, Proceed to **Test For Water Leak(s)**.

Test For Water Leak(s)

- 1. Have an assistant apply a slow flow of water across the top header joint with a hose for approximately 3-5 minutes while inspecting the interior of the hard top for water leaks to determine general leak source location(s). Do not use a hard spray of water. Do not stop inspection when one leak source is located, there may be more than one water leak source.

NOTE: Dripping that occurs at the center of the windshield header may be the result of a Freedom Top seal leaking and running forward. The following step verifies leak origination point.

- 2. If leak occurs at the front of the top near the A-Pillar, remove the sun visors, upper and lower trim covers to gain visual access to the header seal. Water leaks originating from the header seal will generally run towards the outside ends of the header, (toward the A-Pillar) and drip in at the corner(s).
- 3. If a water leak is originating at the header seal, then perform the Repair Procedure in this Service Bulletin **and** refer to DealerCONNECT > eFiles > Service > Star Center > Misc. Documents > JK A Pillar Water Leaks, for additional information.

PARTS REQUIRED:

Qty.	Part No.	Description
AR (1)	55397454AD	Seal, Windshield Header (Freedom Top)
1 (AR)	82300508AB	Mopar Corrosion Inhibitor - 5 oz. Brush Top Tube (or equivalent)
AR (1)	08984 - 3M	General Purpose Adhesive Cleaner (or equivalent)
AR (1)	06396 - 3M	Adhesive Promoter 2.5 cc Packet (or Equivalent) Box of 25 (1 box will service 25 vehicles).
AR (6)	68027813AA	Butyl, Tape - 4 mm dia. x 152 mm (6 inch) length - strip

REPAIR PROCEDURE:

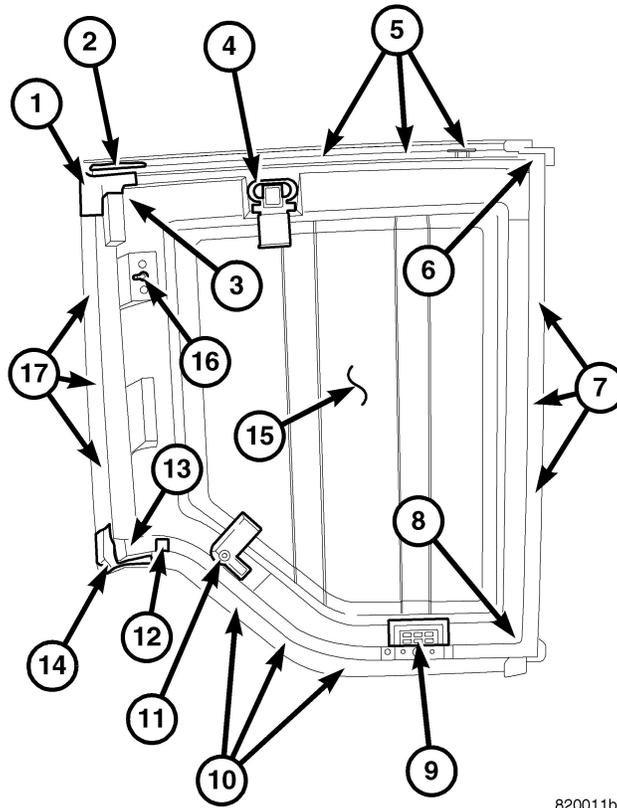
NOTE: Do not use RTV as a sealer. Over time RTV will not remain attached to the hard top material.

1. Remove both Freedom Top Panels from the hard top. Perform the following steps in order:
 - a. Fold both sun visors down and out of the way.
 - b. Turn both left panel center L-shaped locks (2) so that they disengage from the right side panel.
 - c. Turn the left panel rear L-shaped lock (located above the shoulder belt anchorage) so that it disengages from the hard top.
 - d. Turn the left panel rear fastener knob (located on the overhead speaker bar assembly) counter-clockwise until it can be removed.
 - e. Unlatch the left panel header panel latch located at the top of the windshield.
 - f. Carefully remove the left side panel from the hard top.
 - g. Turn the right panel rear L-shaped lock (located above the shoulder belt anchorage) so that it disengages from the hard top.
 - h. Turn the right panel rear fastener knob (located on the overhead speaker bar assembly) counter-clockwise until it can be removed.
 - i. Unlatch the right panel header panel latch located at the top of the windshield.
 - j. Carefully remove the right side panel from the hard top.
2. Set the Freedom Top panels on a well **PROTECTED WORK SURFACE**. Protect the Freedom Top panel edges & top surface from damage.

NOTE: THE PAINTED TOP SURFACE OF THE FREEDOM TOP CAN EASILY BE DAMAGED IF CARE IS NOT TAKEN TO PROTECT IT.

3. Verify Freedom Top has been updated with all of the proper foam and butyl parts as shown in SB # 23-020-08 Dated June 20, 2008. (Fig. 2) shows placement of these components.

If SB # 23-020-08 has not been completed and leaks are occurring at the windshield header, the Freedom Tops will require resealing in conjunction with the header seal replacement. Perform SB # 23-020-08 before proceeding with this bulletin.



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Fig. 2 RIGHT FREEDOM PANEL COMPONENTS

- 1 - Black Foam Corner Patch D-972-E and Black Foam Patch D-1010-A - 30mm x 95mm x 3mm thick
- 2 - Gray Foam Strip D-1012 - 9mm x 100mm x 6.35mm thick
- 3 - Front Outboard Corner
- 4 - Windshield Header Latch
- 5 - Front Side Surface - Right Freedom Top Panel to Windshield Header Panel and Header Seal
- 6 - Front Inboard Corner, Front Molded Detail Section of Center Seal, and Gray Foam Patch C-5166 - 30mm x 75mm x 2mm thick
- 7 - Inboard Side Surface - Right Freedom Top Panel with Center Seal
- 8 - Rear Inboard Corner, Rear Molded Detail Section of Center Seal, and Black Foam Patch D-1011-A - 30mm x 75mm x 3mm thick
- 9 - Spacer Blocker and Rear Thumb (Dial) Screw Attachment
- 10 - Rear Side Surface - Right Freedom Top Panel to Hard Top and Hard Top Seal
- 11 - Rear L-Shaped Lock at Shoulder Belt Anchorage
- 12 - Isolator Pad - Black Plastic
- 13 - Rear Outboard Corner
- 14 - Black Foam Corner Patch D-972-E and Black Foam Patch D-1009-A - 20mm x 95mm x 5mm thick
- 15 - Right Freedom Top Panel
- 16 - Locator Pin - Diameter Sizes of: 6.0 mm, 8.0 mm, or 9.5 mm
- 17 - Outboard Side Surface - Right Freedom Top Panel to Door Seal, A-Pillar Cup, and B-Pillar Cup and Mocket

NOTE: Vehicles equipped with Dual Tops (Soft and Freedom Top) should have this bulletin performed with the Freedom Top installed. The replacement header seal may initially cause a soft top wind noise.

Replace Windshield Header Seal:

NOTE: If seal requires replacement, then the old seal adhesive must be completely removed before a new seal is installed. Use a GOOD quality adhesive remover as recommended in Parts Required section of this Service Bulletin.

4. Drill out rivets at each end of the header seal with 1/8" drill bit.
5. Remove header weatherstrip from body sheet metal.
6. Remove all traces of old tape and butyl from painted sheet metal on header. Use p/n 08984 - 3M General Purpose Adhesive Cleaner (or equivalent) to remove.
7. Treat surface with 06396 - 3M Adhesive Promoter pad (or equivalent). Allow to completely dry.
8. Install butyl to fill gaps in sheet metal or wrinkles, holes and notches in thumb sealer in the area describe in (Fig. 3).
9. Carefully smooth butyl to form a smooth transition to the header sheet metal.
10. Treat rivet hole bare metal with p/n 82300508, Mopar Corrosion Inhibitor.

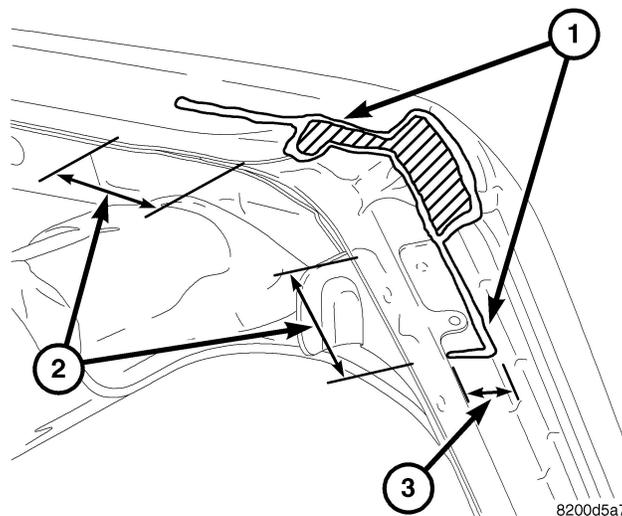


Fig. 3 BUTYL INSTALLATION DIMENSIONS

1 - Item_1

2 - Item_2

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11. Before removing tape backing, lay the new header weatherstrip, p/n 55397454AD in place on header to align.
 12. Remove tape backing and press weatherstrip firmly to header sheet metal and smooth out adhesive tape.

NOTE: A small roller or firm finger pressure should be used to smooth tape and butyl.

13. Ensure the butyl is feathered out smooth and adhesive tape is pressed to make full contact. Work back and forth, from side to side.

14. Install the Freedom Panels to the hard top. To ensure that the panels are installed correctly perform the following steps in order. **When installing each Freedom Panel always close the windshield latch first.**
 - a. Make sure the sun visors is folded down and out of the way.
 - b. Carefully install the right side panel onto the hard top.
 - c. Latch the right header panel latch located at the top of the windshield.
 - d. Turn the right side panel rear L-shaped lock (located above the shoulder belt anchorage) so that it fully engages the hard top.
 - e. Turn the right side panel rear fastener knob (located on the overhead speaker bar assembly) clockwise until it is tight.
 - f. Carefully install the left side panel onto the hard top.
 - g. Latch the left header panel latch located at the top of the windshield.
 - h. Turn the left side panel rear L-shaped lock (located above the shoulder belt anchorage) so that it full engages the hard top.
 - i. Turn the left side panel rear fastener knob (located on the overhead speaker bar assembly) clockwise until it is tight.
 - j. Turn both center L-shaped locks (2) so that they fully engage the right side panel.
15. Retest to verify that the leak was corrected.

POLICY:

Reimbursable within the provisions of the warranty.

TIME ALLOWANCE:

Labor Operation No:	Description	Amount
23-51-35-97	Seal - Modular Top to Header, Replace due to A-Pillar Water Leak - (B)	1.2 Hrs.

FAILURE CODE:

ZZ	Service Action
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