



**NUMBER:** 23-037-16

**GROUP:** Body

**DATE:** July 19, 2016

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**SUBJECT:**

Out Of Tolerance Door And Windshield Frame Gaps Causing Water Leaks

**OVERVIEW:**

This bulletin involves adjusting the windshield frame and A-pillar between the door to close gaps and prevent water leaks.

**MODELS:**

2007 - 2016 (JK) Jeep Wrangler

**NOTE: This bulletin applies to vehicles within the following markets/countries:  
NAFTA, LATAM, EMEA and APAC.**

**NOTE: This bulletin applies to vehicles built on or before July 06, 2015 (MDH  
0706XX) equipped with the Freedom Top 3-Piece Modular Hard Top (Sales  
Code VK0).**

**SYMPTOM/CONDITION:**

The customer may describe gaps between the windshield frame, door and top of cowl. There may also be a water leak.

**DIAGNOSIS:**

If the customer describes the symptom/condition listed above, perform the Diagnosis Procedure.

**NOTE: The windshield frame adjustment should only be performed if the vehicle exhibits one of the following conditions:**

- Gaps between the windshield frame and door exceeding 6.5 mm (.25 in.).
  - Gaps between the windshield frame and top of cowl exceeding 6 mm (.23 in.) or less than 4 mm (.15 in.).
  - Record measurements for reference.
1. Using a non-marring feeler gauge, measure the gap between the door and windshield frame and the gap between the windshield frame and top of cowl. Is the gap between the **windshield frame and door** larger than 6.5 mm (.25 in.)? Is the gap between the **windshield frame and top of cowl** larger than 6 mm (.23 in.) or less than 4 mm (.15 in.)?
    - a. YES >>> Continue to the Repair Procedure [Step #1](#).
    - b. NO >>> This bulletin does not apply. Normal diagnosis should be performed.

**SPECIAL TOOLS/EQUIPMENT REQUIRED:**

Ratchet Strap
Non-Marring Feeler Gauges
T40 Torx Bit

**REPAIR PROCEDURE:**

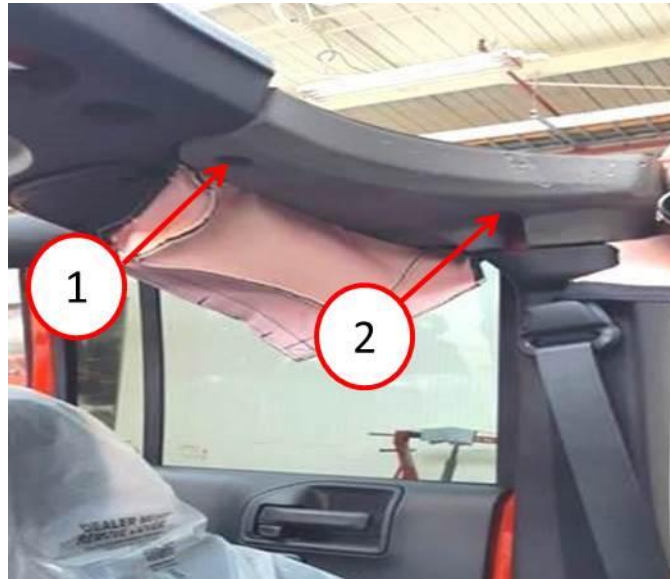
1. Remove the modular tops (Freedom Top) and hard top. Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info> 23 - Body/Removable Top, Hard/Removal.

**NOTE:**

- It is important that the adjustments are made on one side of the windshield frame at a time. If both sides need to be adjusted, complete the whole procedure on one side, then repeat the procedure on the other side.
- The gray foam has access holes and should not be removed.

2. Loosen the side bars by pulling the cross bar and side bar covers off to expose the end side bar bolts.

3. Loosen but do not remove the B-pillar (Fig. 1).
4. Loosen but do not remove the bolt underneath the cross bar (Fig. 1).



**Fig. 1 B-Pillar And Under Cross Bar Bolts**

- 1 - B-pillar Bolt
- 2 - Under Crossbar Bolt

- 
5. Loosen but do not remove the bolt on top of the side bar (Fig. 2).



**Fig. 2 Top Of The Side bar Bolt**

- 1 - Side Bar Bolt
-

**CAUTION: Do not remove the six gusset bolts. Loosening the bolts minimizes the risk of damaging the vehicles paint.**

6. Using a T40 Torx bit, loosen the six gusset bolts on one side of the windshield frame ([Fig. 3](#)).



***Fig. 3 Loosening Six Gusset Bolts***

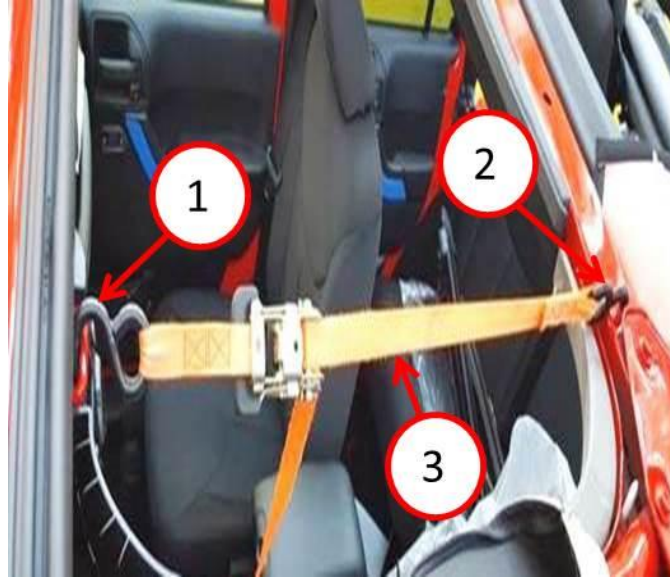
1 - Gusset Bolt

- 
7. Are the gaps between the door and windshield frame larger than 6.5 mm (.25 in.)?
    - a. YES >>> Proceed to [Step #8](#).
    - b. NO >>> The gaps between the windshield frame and cowl top are smaller than 4 mm (.15 in.). Proceed to [Step #22](#).

**CAUTION:** Do not wrap the ratchet strap around the speaker bar. Failure to do so may damage speaker bar.

**NOTE:** Perform the following steps if the gap between the door and windshield frame is larger than 6.5 mm (.25 in.).

8. Using a ratchet strap, secure it between the cross bar and the windshield footman loop (Fig. 4).



***Fig. 4 Ratchet Strap Secured***

- 1 - Footman Loop
  - 2 - Crossbar Hole
  - 3 - Ratchet Strap
-

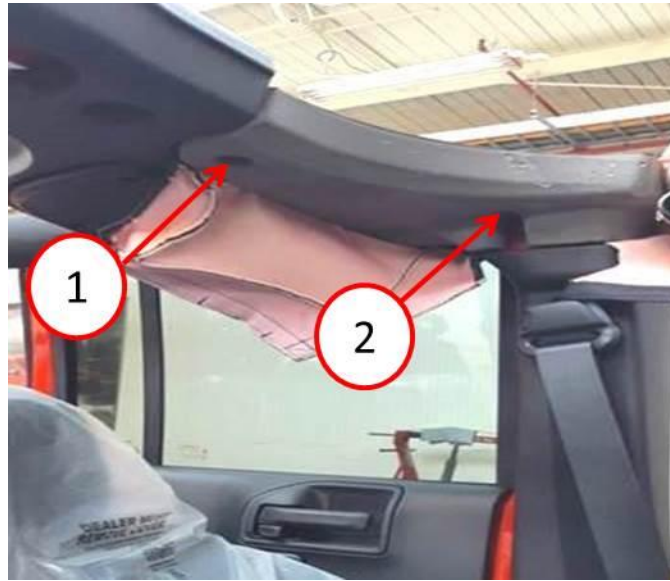
9. Using a non-marring feeler gauge, insert the 5 mm (.19 in.) gap gauge between the door and windshield frame. Tighten the ratchet strap pulling the windshield frame rearward until the gap is tight against the 5 mm (.19 in.) gauge ([Fig. 5](#)).



***Fig. 5 Feeler Gauge Between Door And Windshield Frame***

**CAUTION:** The B-pillar bolt is easy to strip out. Do not over tighten. Use a ratchet and socket to prevent stripping the bolt.

10. Tighten the B-pillar bolt (Fig. 6) to 19 N·m (14 ft. lbs.).
11. Tighten the bolt underneath the cross bar (Fig. 6) to 19 N·m (14 ft. lbs.).



**Fig. 6 B-Pillar And Under Cross Bar Bolts**

- 1 - B-pillar Bolt
- 2 - Under Crossbar Bolt

- 
12. Tighten the bolt on top of the side bar (Fig. 7) to 19 N·m (14 ft. lbs.).



**Fig. 7 Top Of The Side bar Bolt**

- 1 - Side Bar Bolt
-

13. Replace the sport bar and side bar covers.

**NOTE:**

- **Before tightening the gussets it is important to check the gap between the windshield frame and top of cowl.**
- **The correct measured gap for the windshield frame and top of cowl should be between 4 mm (.15 in.) and 6 mm (.24 in.) on both sides of the windshield frame.**

14. Using a non-marring feeler gauge, check the gap between the windshield frame and top of cowl. Place the feeler gauge in the location shown on the left and right side of the windshield frame and measure the gaps ([Fig. 8](#)).



***Fig. 8 Feeler Gauge Between Windshield And Cowl***

15. Are the gaps **within** 4 mm (.15 in.) and 6 mm (.24 in.) ([Fig. 8](#))?
- a. YES >>> Proceed to [Step #20](#).
  - b. NO >>> Proceed to the next step.
16. Is the gap **smaller** than 4 mm (.15 in.) ([Fig. 8](#))?
- a. YES >>> Proceed to [Step #22](#).
  - b. NO >>> The gap is **larger** than 6 mm (.24 in.) ([Fig. 8](#)). Proceed to [Step #17](#).



17. Using a ratchet strap, fasten strap around the side bar (Fig. 9).



***Fig. 9 Strap Around Side Bar***

**CAUTION: Place a piece of cardboard or foam between the ratchet strap and any point it contacts the body or side step. Failure to do so may cause damage to paint.**

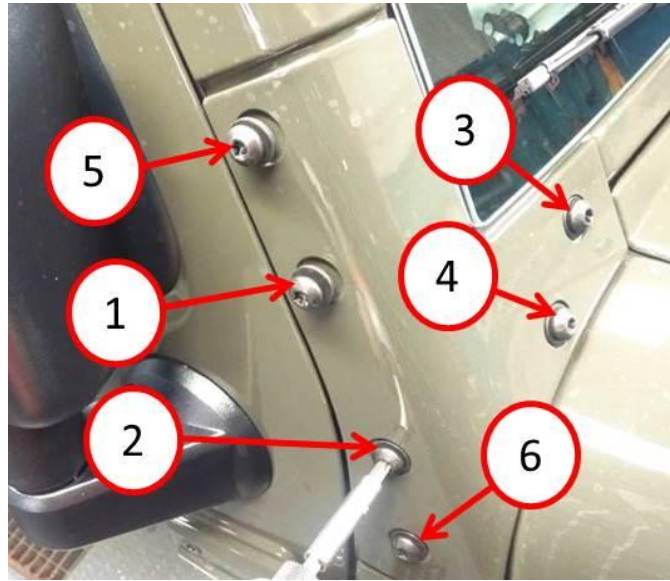
18. Hook the other end of the ratchet strap into the hole in the frame that is directly below front edge of the door (Fig. 10).



***Fig. 10 Strap Hooked In Frame Hole***

19. Tighten the ratchet strap pulling the windshield frame down until the gap is between 4 mm (.15 in.) and 6 mm (.24 in.).

20. Using a T40 Torx bit, tighten the six gusset bolts on each side of the windshield frame in the pattern shown (Fig. 11). Tighten bolts to 10 N·m (7.5 ft. lbs.).



**Fig. 11 Tightening Bolts In Pattern**

21. Repeat [Step #14](#) through [Step #19](#) for the opposite side of the windshield if needed.

**NOTE: Perform the following steps if the gap between the windshield frame and cowl top is smaller than 4 mm (.15 in.).**

22. Using a ratchet strap, fasten strap around the side bar **on the opposite side of the gap** (windshield frame) that's measuring smaller than 4 mm (.15 in.) ([Fig. 9](#)).

**CAUTION: Place a piece of cardboard or foam between the ratchet strap and any point it contacts the body or side step. Failure to do so may cause damage to paint.**

23. Hook the other end of the ratchet strap into the hole in the frame that is directly below front edge of the door ([Fig. 10](#)).
24. Tighten the ratchet strap pulling the windshield frame down until the gap is between 4 mm (.15 in.) and 6 mm (.24 in.).
25. Using a T40 Torx bit, tighten the six gusset bolts on each side of the windshield frame in the pattern shown. Tighten bolts to 10 N·m (7.5 ft. lbs.).
26. Repeat [Step #22](#) through [Step #25](#) for the opposite side of windshield if needed.

27. Using a non-marring feeler gauge, re-check the gap between the door and windshield frame (Fig. 12). Is the gap between 3.5 mm (.14 in.) and 6.5 mm (.25 in.)?
- a. YES >>> Proceed to the next step.
  - b. NO >>> Repeat [Step #8](#) through [Step #12](#).



**Fig. 12 Feeler Gauge Between Door And Windshield Frame**

28. Using a non-marring feeler gauge, re-check the left side and right side gaps between the windshield frame and top of cowl (Fig. 13). Are gaps between 4 mm (.15 in.) and 6 mm (.24 in.)?
- a. YES >>> Proceed to the next step.
  - b. NO >>> Repeat [Step #22](#) through [Step #25](#).



**Fig. 13 Feeler Gauge Between Windshield And Cowl**

29. Install the hard top and modular tops (Freedom Top). Refer to the detailed service procedures available in DealerCONNECT> TechCONNECT under: Service Info> 23 - Body/Removable Top, Hard/Installation.

**POLICY:**

Reimbursable within the provisions of the warranty.

**TIME ALLOWANCE:**

<b>Labor Operation No:</b>	<b>Description</b>	<b>Skill Category</b>	<b>Amount</b>
23-85-10-91	Adjust (1) Body Panel Gap, Windshield Frame to Door or Windshield Frame to Cowl - One Side (1 - Semi-Skilled)	6 - Electrical and Body Systems	0.8 Hrs.
23-85-10-92	Adjust (2) Body Panel Gaps, Windshield Frame to Door and Windshield Frame to Cowl - One Side (1 - Semi-Skilled)	6 - Electrical and Body Systems	0.9 Hrs.
23-85-10-93	Adjust (3) Body Panel Gaps, Windshield Frame to Door and Windshield Frame to Cowl - Both Sides (1 - Semi-Skilled)	6 - Electrical and Body Systems	1.1 Hrs.
23-85-10-94	Adjust (4) Body Panel Gaps, Windshield Frame to Door and Windshield Frame to Cowl - Both Sides (1 - Semi-Skilled)	6 - Electrical and Body Systems	1.2 Hrs.

**FAILURE CODE:**

ZZ	Service Action
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