Dealer Service Instructions for:

**Safety Recall S33 / NHTSA 16V-290**

**Airbag Clockspring**

**Models**

2007 - 2010 (JK) Jeep® Wrangler

*NOTE: This recall applies only to the above vehicles built from March 02, 2006 through August 13, 2010 (MDH 030312 through 081313).*

**IMPORTANT:** Some of the involved vehicles may be in dealer used vehicle inventory. Dealers should complete this recall service on these vehicles before retail delivery. Dealers should also perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

**Subject**

The airbag clockspring on about 393,900 of the above vehicles may have been built with a steering column clockspring that may ingest dust if the vehicle is subjected to extremely dusty environments. Dust inside the clockspring could compromise airbag circuit(s), cause illumination of the airbag warning light and/or a non-deployment of the driver airbag during a crash.

**Repair**

The steering column clockspring, steering wheel back cover, and steering column shrouds must be replaced.

**SPECIAL NOTE:** If the vehicle requires airbag module removal after Safety Recall S33 has been performed, there is a revised removal procedure. Refer to the revised airbag module removal procedure in DealerCONNECT.
Parts Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBAES404AA</td>
<td>Clockspring Assembly (all models)</td>
</tr>
</tbody>
</table>

Each dealer to whom vehicles in the recall were assigned will receive enough clockspring assemblies to service about 20% of those vehicles.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBXZS331AA</td>
<td>Shroud &amp; Cover Package (with Speed Control/Gray)</td>
</tr>
<tr>
<td>CBXZS332AA</td>
<td>Shroud &amp; Cover Package (without Speed Control/Gray)</td>
</tr>
<tr>
<td>CBXZS333AA</td>
<td>Shroud &amp; Cover Package (with Speed Control/Tan)</td>
</tr>
<tr>
<td>CBXZS334AA</td>
<td>Shroud &amp; Cover Package (without Speed Control/Tan)</td>
</tr>
</tbody>
</table>

Each package contains the following components:

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Shroud, Upper</td>
</tr>
<tr>
<td>1</td>
<td>Shroud, Lower</td>
</tr>
<tr>
<td>1</td>
<td>Cover, Steering Wheel Back</td>
</tr>
<tr>
<td>1</td>
<td>Plug Wheel Cover</td>
</tr>
<tr>
<td>1</td>
<td>Screw, Hex Flange (M10 x 1.5 x 35)</td>
</tr>
</tbody>
</table>

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<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBXZS339AA</td>
<td>Screws, Steering Wheel Back Cover</td>
</tr>
</tbody>
</table>

NOTE: The above screws are only required for Right Hand Drive (RHD) vehicles that had Safety Recall M31 previously performed.

Parts Return

No parts return required for this campaign.

Special Tools

The following special tools are required to perform this repair:

- NPN wiTECH micro pod II
- NPN Laptop Computer
- NPN wiTECH Software
- 10187 Driver Airbag Removal Tool
A. Replace Clockspring, Shrouds and Cover

WARNING: TO AVOID SERIOUS OR FATAL INJURY, DISABLE THE SUPPLEMENTAL RESTRAINT SYSTEM (SRS) BEFORE ATTEMPTING THIS SERVICE PROCEDURE. DISCONNECT AND ISOLATE THE BATTERY NEGATIVE (GROUND) CABLE, THEN WAIT TWO MINUTES FOR THE SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER SERVICE. THIS IS THE ONLY SURE WAY TO DISABLE THE SRS. FAILURE TO TAKE THE PROPER PRECAUTIONS COULD RESULT IN ACCIDENTAL AIRBAG DEPLOYMENT.

NOTE: A service replacement clockspring is shipped with the clockspring pre-centered and with a molded plastic locking pin installed. This locking pin should not be removed until the steering wheel has been installed on the steering column. If the locking pin is removed before the steering wheel is installed, the clockspring centering procedure must be performed.

NOTE: When a clockspring is installed into a vehicle without properly centering and locking the entire steering system, the Steering Angle Sensor (SAS) data does not agree with the true position of the steering system and causes the Electronic Stability Program (ESP) system to shut down. This may also damage the clockspring without any immediate malfunction. The SAS does not require calibration.

NOTE: Determining if the clockspring/SAS is centered is also possible electrically using the diagnostic scan tool. Steering wheel position is displayed as ANGLE with a range of up to 900 degrees. Refer to the appropriate menu item on the diagnostic scan tool.

NOTE: Before starting this procedure, be certain to turn the steering wheel until the front wheels are in the straight-ahead position and that the entire steering system is locked or inhibited from rotation.
1. Place the front wheels in the straight ahead position and keep the steering column shaft from rotation.

2. Disconnect and isolate the battery negative cable.

**WARNING:** WAIT TWO MINUTES FOR THE SYSTEM CAPACITOR TO DISCHARGE BEFORE PERFORMING FURTHER DIAGNOSIS OR SERVICE.

3. Use the following procedure to remove the airbag from the steering wheel:

   a. There are three airbag retainer access holes on the instrument panel side of the steering wheel hub trim cover located at the two o'clock, six o'clock and ten o'clock positions of the steering wheel. The steering wheel must be rotated to bring each of these access holes up to the twelve o'clock position of the steering column one at a time for removal.

   b. Insert the long blade (Tip B) of the Driver Airbag Removal Tool (Special Tool # 10187) or the blade of an equivalent prying tool into either of the upper (two o'clock or ten o'clock) access holes of the steering wheel hub rear trim cover, being certain to place the blade of the tool on the inboard (steering wheel hub) side of the airbag snap retainer wire loop (Figure 1).

   c. Push the handle of the tool downward for the blade to pry the snap retainer wire loop upward far enough to disengage the loop from the hook of the steering wheel armature. At the same time, gently pull the driver airbag away from the steering wheel to prevent the retainer from snapping back into place over the hook once it is disengaged.

   d. Repeat Step 3b. and Step 3c. at the other upper (two o'clock or ten o'clock) access hole to disengage the other upper snap retainer wire loop.

4. Separate the driver airbag module from the steering wheel and disconnect the two airbag electrical connectors (Figure 1) and the one horn electrical connector. Then set the driver airbag module aside.
5. Remove and discard the steering wheel retaining bolt from the steering shaft (Figure 2).

6. Remove and save the steering wheel assembly.

7. Move the steering column to the fully lowered position and leave the tilt release lever in the released (down) position.

8. Remove and save the lower steering column shroud retaining screw from the steering column.
9. Remove and discard the upper and lower steering column shrouds from the steering column (Figure 3).

10. Remove and save the three screws that secure the clockspring to the steering column lock housing.

11. Pull the clockspring away from the steering column lock housing far enough to access and disconnect the four instrument panel wire harness electrical connectors from the receptacles on the back of the clockspring (Figure 4).
Service Procedure (Continued)

12. Remove the clockspring, with both multi-function switches attached, from the steering column.

13. Remove and save the right multi-function switch retaining screws (Figure 5).

14. Remove and save the left multi-function switch retaining screws (Figure 6).

15. Remove both multi-function switches from the original clockspring as an assembly.

16. Place both multi-function switches onto the new clockspring as an assembly.

17. Install the left multi-function switch retaining screws (Figure 6). Tighten the screws to 10 in. lbs. (1 N·m).

18. Install the right multi-function switch retaining screws (Figure 5). Tighten the screws to 10 in. lbs. (1 N·m).

19. Carefully slide the clockspring down over the steering column upper shaft far enough to reconnect the four instrument panel wire harness connectors to the receptacles on the back of the clockspring case (Figure 4).
20. Position the clockspring onto the steering column lock housing.

21. Install and tighten the three screws that secure the clockspring to the steering column lock housing in the following sequence:
   - Lower Right
   - Upper Left
   - Upper Right

   Tighten the screws to 27 in. lbs. (3 N·m).

   **CAUTION:** Improper sequence when tightening the clockspring mounting screws may result in an audible ticking noise as the steering wheel is rotated.

22. Install the upper and lower steering column shrouds onto the steering column (Figure 3).

22. Install the lower steering column shroud retaining screw.

23. Move the steering column back to the fully raised position and move the tilt release lever back to the locked (up) position.

24. **Vehicles that are equipped with a dust plate**, remove and discard the original steering wheel back cover retaining screws and dust plate (Figure 7).

25. **Vehicles that are not equipped with a dust plate**, remove and save the original steering wheel back cover retaining screws.

26. **If equipped**, remove and save the speed control switch retaining screws.

![Figure 7 – Steering Wheel Back Cover](image)
27. **If equipped**, remove and save the speed control switch.

28. Remove and discard the original steering wheel back cover (Figure 7).

29. **If equipped**, install the speed control switch onto the new steering wheel back cover.

30. Install the new steering wheel back cover (with speed control switch in place) onto the steering wheel.

31. **If equipped**, install the speed control switch cover and retaining screws.

32. Install a steering wheel cover and retaining screws (Figure 7). Tighten the screws to 35 in. lbs. (4 N·m).

   **NOTE:** If the vehicle was equipped with a dust plate, new screws are required. Use screws from kit number CBXZ5339AA.

33. Install the steering wheel assembly onto the steering column.

34. Install a **NEW** steering wheel retaining bolt and tighten the bolt to 40 ft. lbs. (54 N·m) (Figure 2).

35. Remove the plastic locking pin that secures the clockspring rotor to the clockspring case.

36. Connect the two airbag electrical connectors and the one horn electrical connector to the driver airbag module.

37. Install the driver airbag module onto the steering wheel.

38. Continue with Section B. Supplemental Restraint System (SRS) Verification Test.
B. Supplemental Restraint System (SRS) Verification Test

NOTE: The wiTECH scan tool must be used to perform this recall. The wiTECH software is required to be at the latest release level before performing this procedure.

1. Connect the wiTECH scan tool to the vehicle.

2. Turn the ignition switch to the “ON” position, exit the vehicle and close the doors.

3. If equipped with an Intelligent Battery Sensor (IBS), connect the IBS connector.

4. Connect the negative battery cable.

5. Open the wiTECH Diagnostic application.

6. Starting at the “Select Tool” screen, select the row/tool for the wiPOD device you are using, then select “Next”.

7. Enter your “User id” and “Password”, then select “Finish”.

8. Turn the ignition switch to the “OFF” position for about 15 seconds, and then back to the “ON” position. Observe the airbag indicator in the instrument cluster.
   - The airbag indicator in the instrument cluster should illuminate for six to eight seconds, and then go out. This indicates that the SRS is functioning normally and that the repairs are complete.
   - If the airbag indicator fails to light or the light and stays ON, there is still an active SRS DTC or malfunction.

9. Check and record all DTC’s and then clear all DTC’s.

10. Remove the wiTECH scan tool from the vehicle.

11. Return the vehicle to the customer.
Claims for vehicles that have been serviced must be submitted on the DealerCONNECT Claim Entry Screen located on the Service tab. Claims submitted will be used by FCA to record recall service completions and provide dealer payments.

Use the following labor operation number and time allowance:

<table>
<thead>
<tr>
<th>Labor Operation Number</th>
<th>Time Allowance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Replace clockspring, steering wheel back cover, and steering column shrouds</td>
<td>19-S3-31-83</td>
</tr>
</tbody>
</table>

Add the cost of the recall parts package plus applicable dealer allowance to your claim.

NOTE: See the Warranty Administration Manual, Recall Claim Processing Section, for complete recall claim processing instructions.

To view this notification on DealerCONNECT, select “Global Recall System” on the Service tab, then click on the description of this notification.

All involved vehicle owners known to FCA are being notified of the service requirement by first class mail. They are requested to schedule appointments for this service with their dealers. A generic copy of the owner letter is attached.

Enclosed with each owner letter is an Owner Notification postcard to allow owners to update our records if applicable.
Vehicle Lists, Global Recall System, VIP and Dealer Follow Up

All involved vehicles have been entered into the DealerCONNECT Global Recall System (GRS) and Vehicle Information Plus (VIP) for dealer inquiry as needed.

GRS provides involved dealers with an updated VIN list of their incomplete vehicles. The owner’s name, address and phone number are listed if known. Completed vehicles are removed from GRS within several days of repair claim submission.

To use this system, click on the “Service” tab and then click on “Global Recall System.” Your dealer’s VIN list for each recall displayed can be sorted by: those vehicles that were unsold at recall launch, those with a phone number, city, zip code, or VIN sequence.

Dealers must perform this repair on all unsold vehicles before retail delivery. Dealers should also use the VIN list to follow up with all owners to schedule appointments for this repair.

Recall VIN lists may contain confidential, restricted owner name and address information that was obtained from the Department of Motor Vehicles of various states. Use of this information is permitted for this recall only and is strictly prohibited from all other use.

Additional Information

If you have any questions or need assistance in completing this action, please contact your Service and Parts District Manager.

Customer Services / Field Operations
FCA US LLC
IMPORTANT SAFETY RECALL
AIRBAG CLOCKSPRING

Dear [Name],

This notification is being sent to you in accordance with the National Traffic and Motor Vehicle Safety Act.

FCA has decided that a defect, which relates to motor vehicle safety, exists in certain [Model Year Make Model] vehicles.

It is extremely important to take steps now to repair your vehicle to ensure the safety of you and your passengers.

WHY DOES MY VEHICLE NEED REPAIRS?
The airbag clockspring on your vehicle[1] may have been built with a steering column clockspring that may ingest dust if the vehicle is subjected to extremely dusty environments. Dust inside the clockspring could compromise airbag circuit(s), cause illumination of the airbag warning light and/or a non-deployment of the driver airbag during a crash.

HOW DO I RESOLVE THIS IMPORTANT SAFETY ISSUE
FCA will repair your vehicle [2] free of charge (parts and labor). To do this, your dealer will replace the steering column clockspring, steering wheel back cover, and steering column shrouds. In addition, your dealer will require your vehicle for proper check-in, preparation, and check-out during your visit. Your time is important to us; please be aware that these steps may require more time. The estimated repair time is one hour. We recommend that you schedule a service appointment to minimize your inconvenience. Please bring this letter with you to your dealership.

TO SCHEDULE YOUR FREE REPAIR CALL 1-800-853-1403 OR YOUR CHRYSLER, DODGE, JEEP OR RAM DEALER TODAY

WHAT IF I ALREADY PAID TO HAVE THIS REPAIR COMPLETED?
If you have already experienced this specific condition and have paid to have it repaired, you may visit www.fcacallreimbursement.com to submit your reimbursement request online. [3] Once we receive and verify the required documents, reimbursement will be sent to you within 60 days. If you have had previous repairs performed and/or already received reimbursement, you may still need to have the recall repair performed.

We apologize for any inconvenience, but are sincerely concerned about your safety. Thank you for your attention to this important matter.

Customer Assistance/Field Operations
Fiat Chrysler Automobiles US LLC
Mr. Mrs. Customer
1234 Main Street
Hometown, MI 48371

[1] If you no longer own this vehicle, please help us update our records. Call the FCA Recall Assistance Center at 1-800-853-1403 to update your information.

[2] If your dealer fails or is unable to remedy this defect without charge and within a reasonable time, you may submit a written complaint to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Ave., S.E., Washington, DC 20590, or you can call the toll-free Vehicle Safety Hotline at 1-888-327-4236 (TTY 1-800-424-9153), or go to safercar.gov.

[3] You can also mail in your original receipts and proof of payment to the following address for reimbursement consideration: FCA Customer Assistance, P.O. Box 21-8004, Auburn Hills, MI 48321-8007, Attention: Recall Reimbursement.

Note to lessors receiving this recall notice: Federal regulation requires that you forward this recall notice to the lessee within 10 days.