



May 2014

Dealer Service Instructions for:

## **Safety Recall P14 / NHTSA 14V-154 Brake Booster**

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### **Models**

**2011 - 2014 (WD) Dodge Durango**

**(WK) Jeep® Grand Cherokee**

*NOTE: This recall applies only to the above vehicles built through September 08, 2013 (MDH 090804).*

**IMPORTANT:** Some of the involved vehicles may be in dealer new vehicle inventory. Federal law requires you to complete this recall service on these vehicles before retail delivery. Dealers should also consider this requirement to apply to used vehicle inventory and should perform this recall on vehicles in for service. Involved vehicles can be determined by using the VIP inquiry process.

### **Subject**

The brake booster on about 639,000 of the above vehicles may prematurely corrode. If perforation of the brake booster shell (due to corrosion) occurs, the brake booster may ingest water during vehicle operation in wet weather conditions.

A brake booster that has experienced water ingestion may have the brake function compromised if the water inside the brake booster freezes. The driver may be required to apply additional application force to apply the brakes during sub-freezing driving conditions. An unexpected additional brake pedal application force requirement could slow the driver's brake application reaction time and cause a crash without warning.

### **Repair**

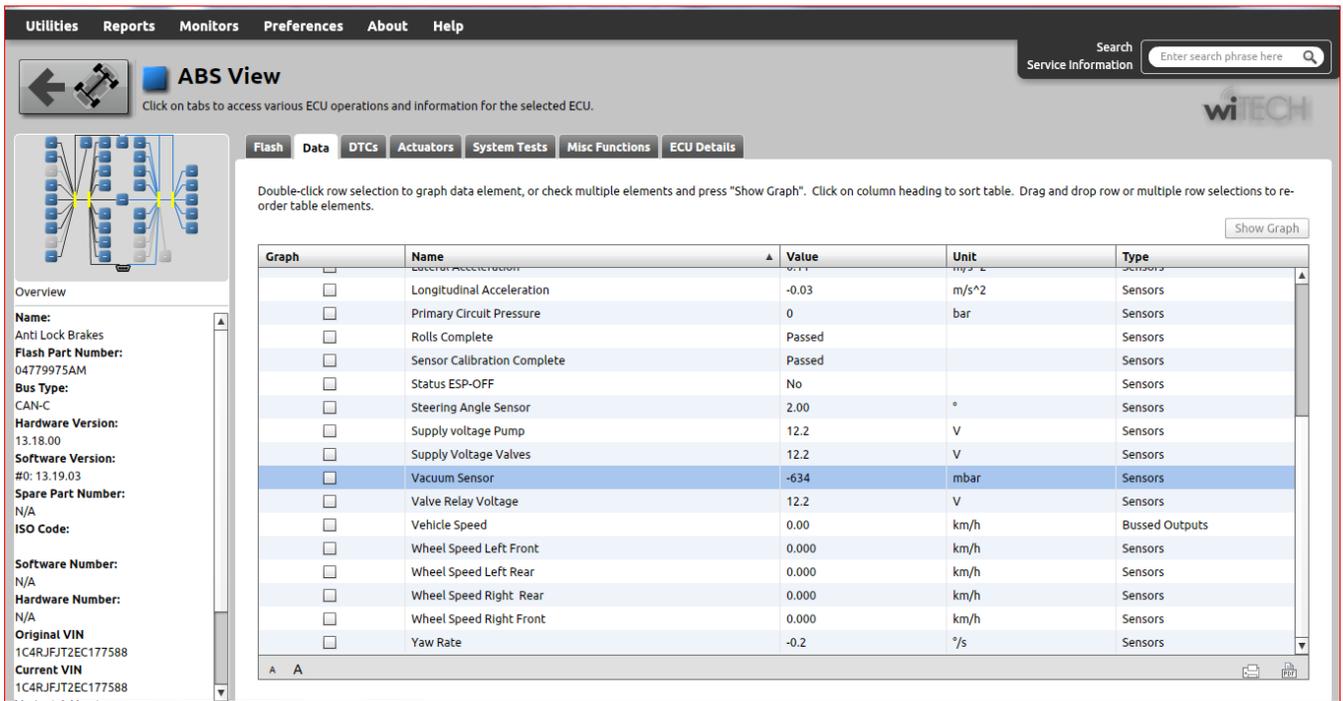
All involved vehicles must have the brake booster inspected for corrosion. Brake boosters found with excessive corrosion will be replaced. All boosters will be equipped with a shield to protect the brake booster crimp joints from water exposure.



**Service Procedure**

**A. Test Brake Booster**

1. Connect wiTECH to the vehicle.
2. Start a wiTECH session.
3. Select “**Preferences**” at the top of the “Vehicle View” screen.
4. Change “Units of Measurement” to “**Metric**” and then click the “**Apply**” button.
5. Restart the wiTECH session.
6. Select “**ABS**” icon from the vehicle view screen.
7. Select “**Data**” tab.
8. Monitor the “Vacuum Sensor” value on the wiTECH list (Figure 1).



**Figure 1 – wiTECH Data Screen**

**Service Procedure**

9. Start the engine and allow it to idle for two minutes.
  
10. Record the vacuum reading with the engine running.
  
11. Turn off the vehicle and place the vehicle in the accessory position within 5 seconds and record the vacuum reading.
  
12. Wait 55 seconds and record the vacuum reading:
  - If the vacuum reading has not changed by more than 40 millibars (mbars), the brake booster is good. Continue with **Section B. Install Brake Booster Foam Shield.**
  - If the vacuum reading changes by more than 40 millibars (mbars), the brake booster is defective. Continue with **Section C. Replace Brake Booster.**

**Service Procedure (Continued)****B. Install Brake Booster Foam Shield**

1. With the engine not running and the ignition OFF, pump the brake pedal until a firm pedal is achieved (4-5 strokes).

**CAUTION:** Vacuum in brake booster must be pumped down before removing the master cylinder from the brake booster. This is necessary to prevent the master cylinder primary piston from being pulled out of the master cylinder as the master cylinder is separated from the brake booster. This can be done by pumping brake pedal, with vehicle engine not running and the ignition OFF, until a firm feeling brake pedal is achieved.

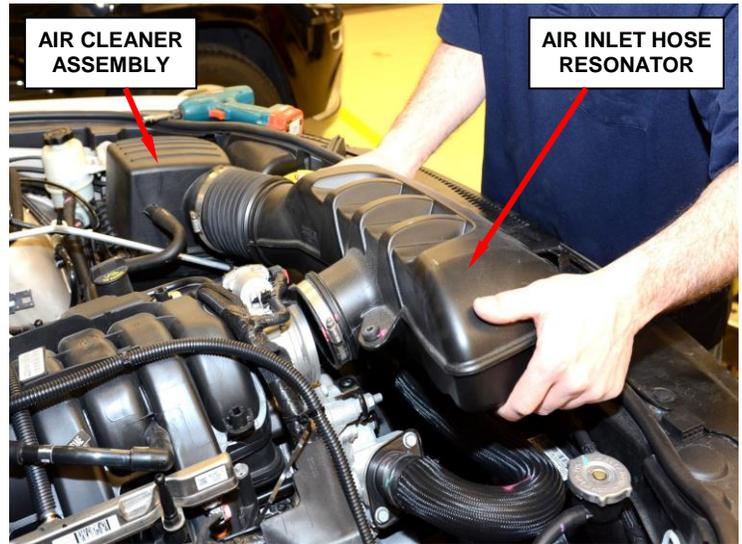


Figure 2 – Intake Air Resonator

2. Disconnect the negative battery cable at the battery.
3. **For vehicles with a 5.7L engine**, remove and save the engine cover.
4. **For vehicles with a 5.7L engine**, remove and save the air inlet hose resonator (Figure 2).

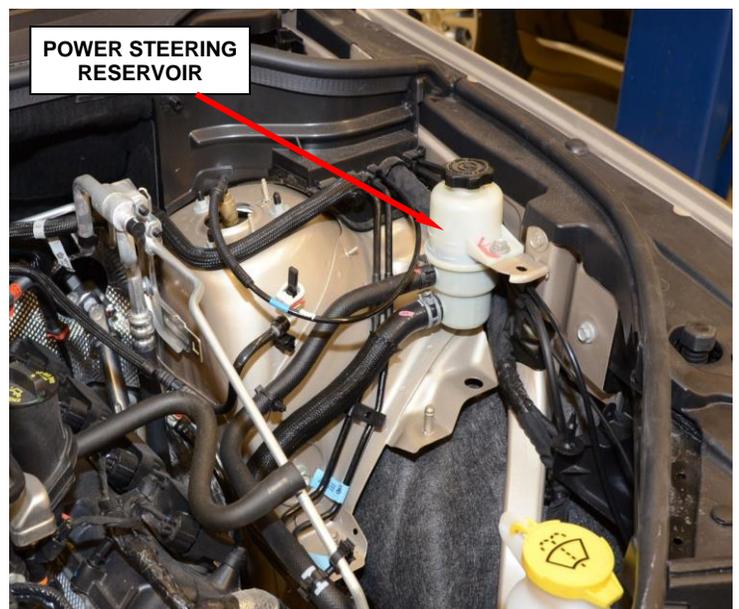


Figure 3 – Relocate Power Steering Reservoir

5. Remove and save the air cleaner assembly (Figure 2).
6. Relocate the power steering reservoir (Figure 3).

**Service Procedure (Continued)**

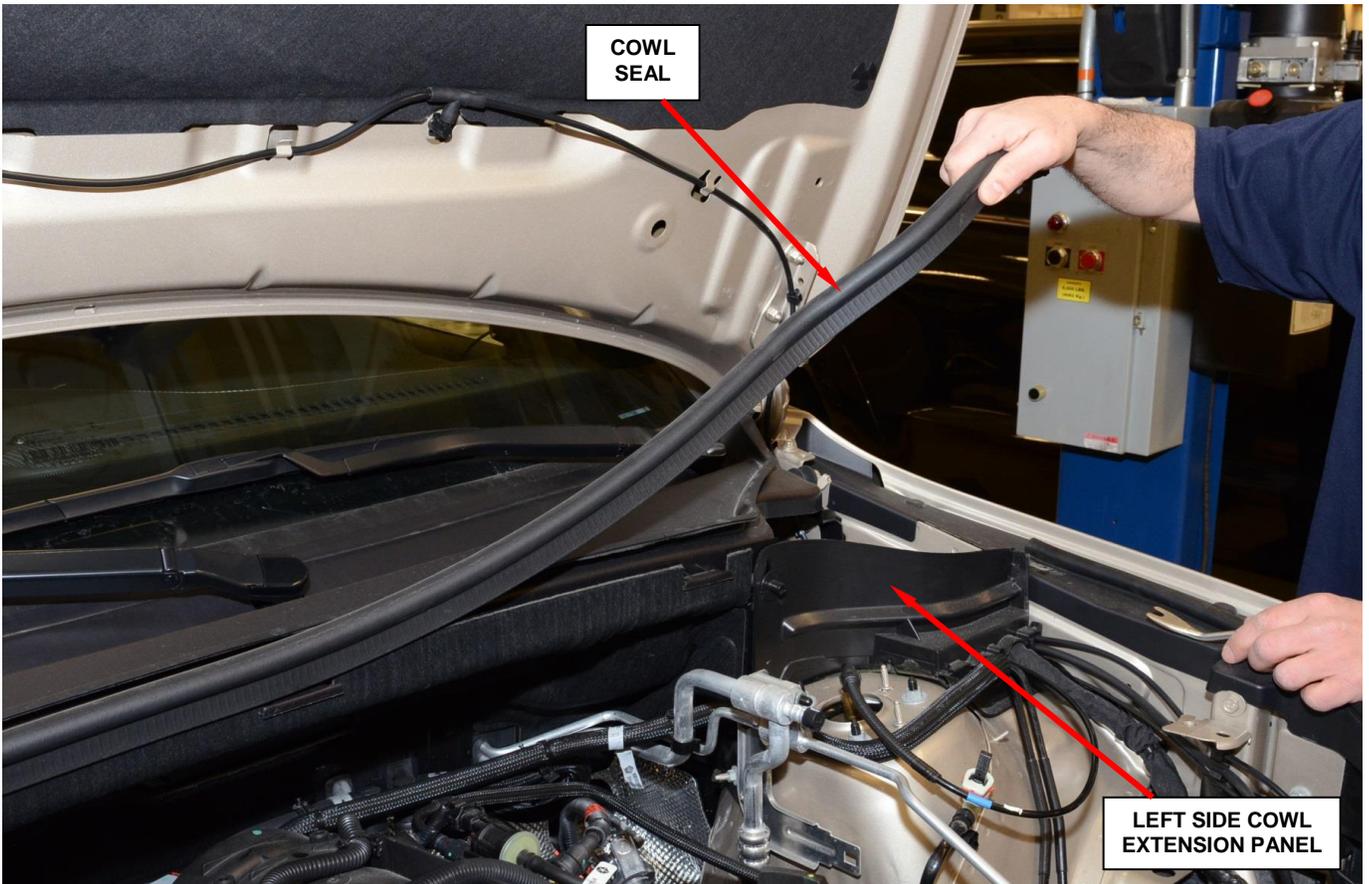


Figure 4 – Cowl Seal

7. Remove and save the cowl seal (Figure 4).
8. Remove and save the left side cowl extension panel (Figure 4).
9. Remove and save both windshield wiper arms.
10. Remove and save the plastic cowl cover (Figure 5).

**CAUTION:** There are three clips on each end of the cowl cover. Use care not to break them during removal (Figure 5).

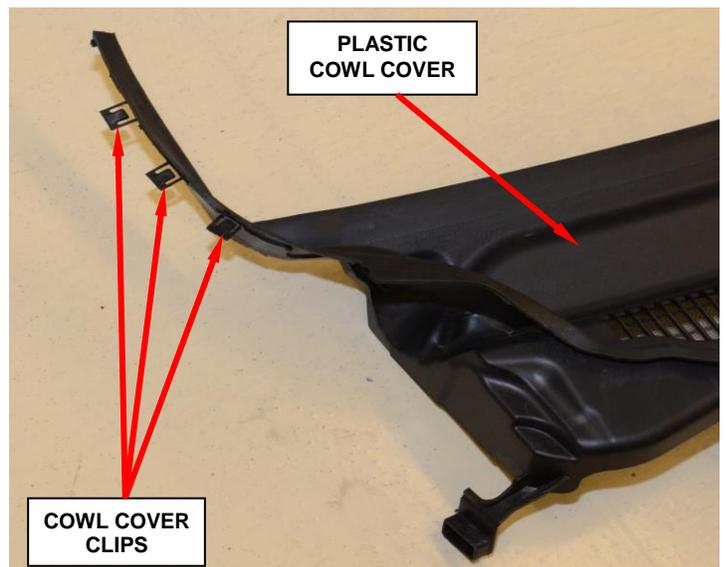
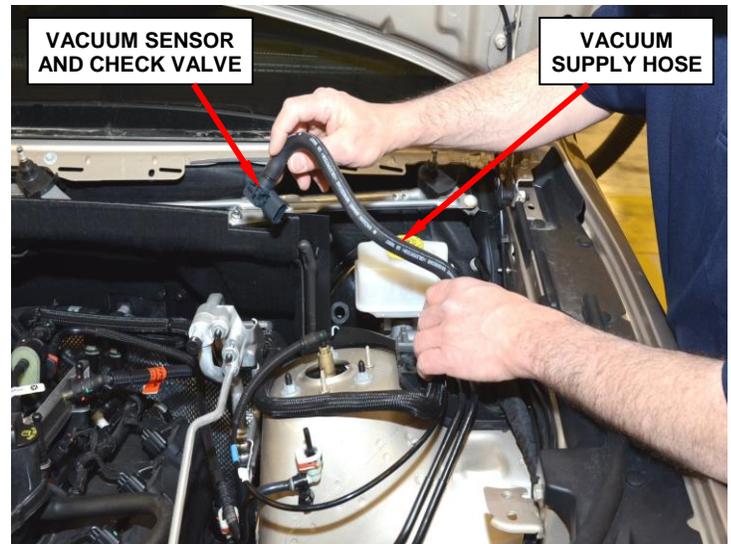


Figure 5 – Cowl Cover Clips

**Service Procedure (Continued)**

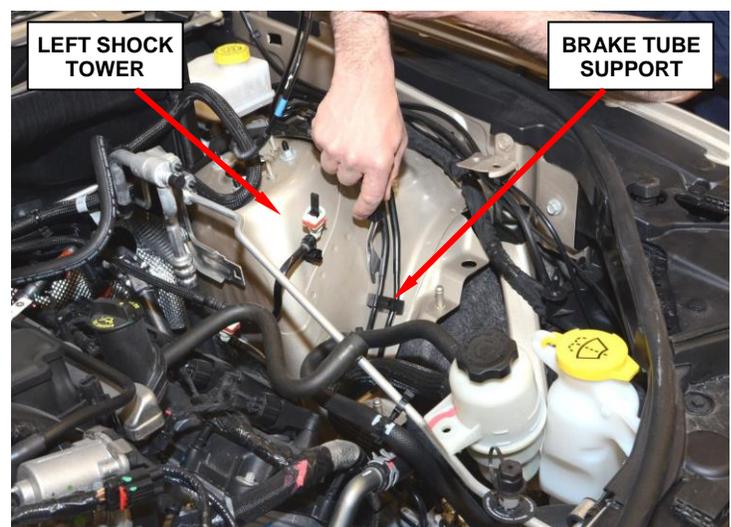
11. Disconnect the vacuum sensor electrical connector.
12. Disconnect the master cylinder brake fluid sensor electrical connector.
13. Disconnect the wiring harness retaining clip at the shock tower.



**Figure 6 - Brake Booster Check Valve**

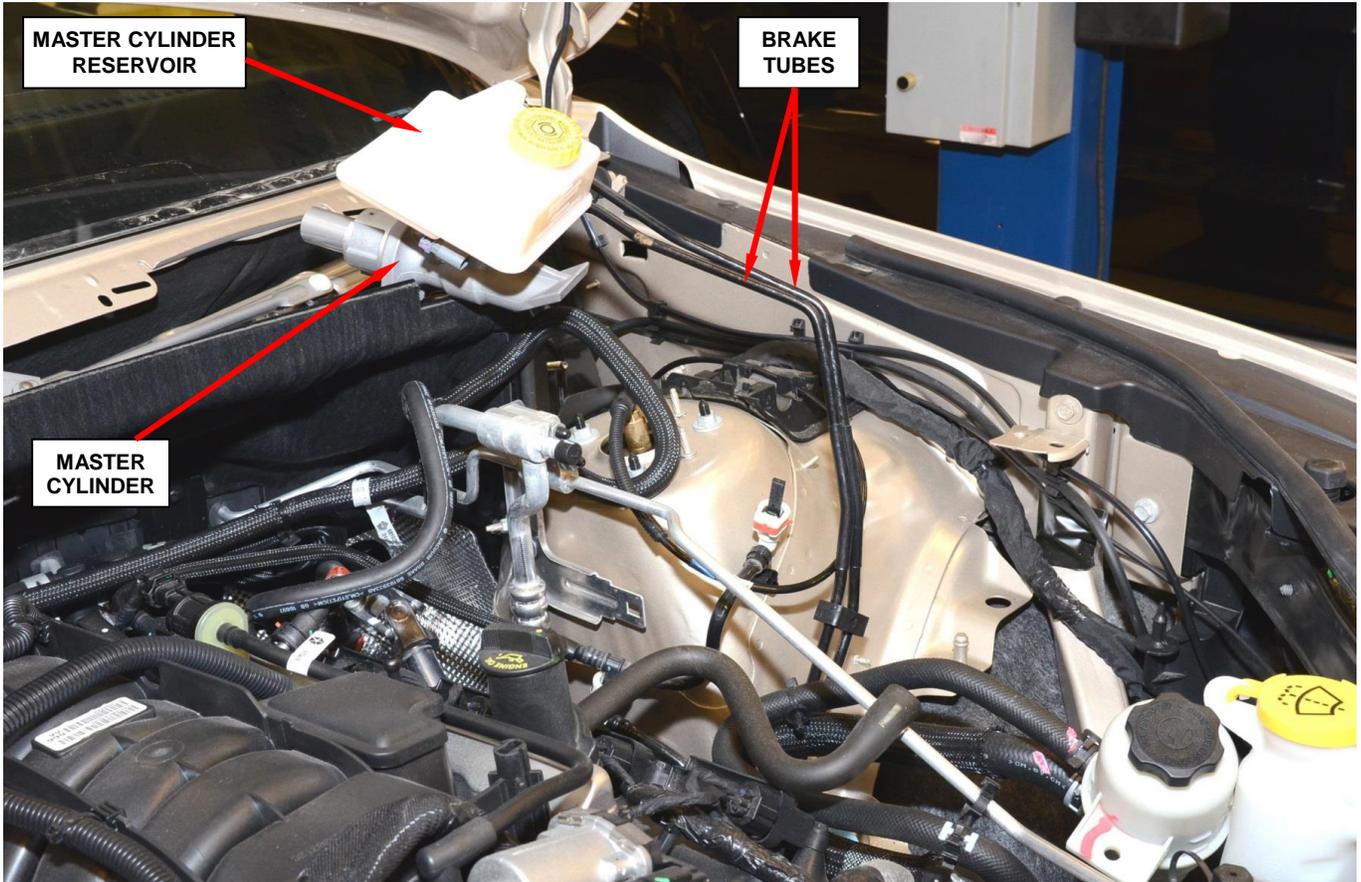
14. Disconnect the vacuum hose and check valve from the brake booster (Figure 6).

15. Remove and discard the master cylinder mounting nuts.
16. Unclip the brake tube support on the left shock tower (Figure 7).



**Figure 7 – Brake Tube Support**

**Service Procedure (Continued)**

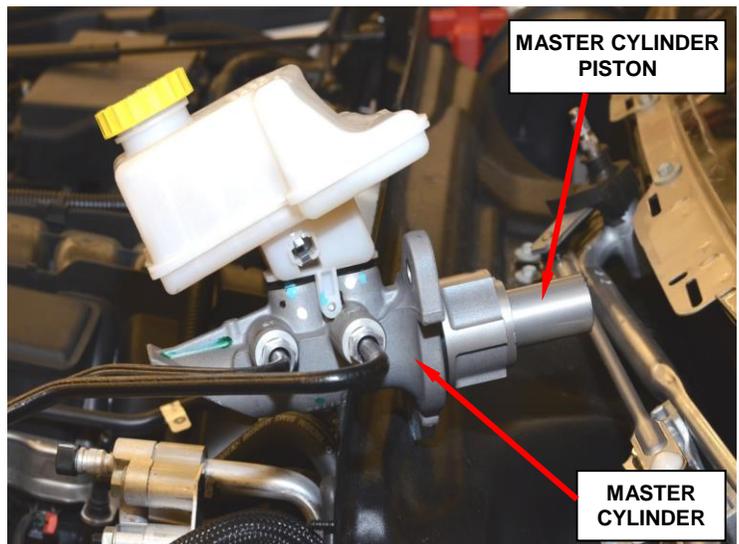


**Figure 8 – Relocate Master Cylinder**

- 17. Carefully relocate the master cylinder (Figure 8).

**CAUTION:** Use extreme care not to damage the brake tubes when relocating the master cylinder.

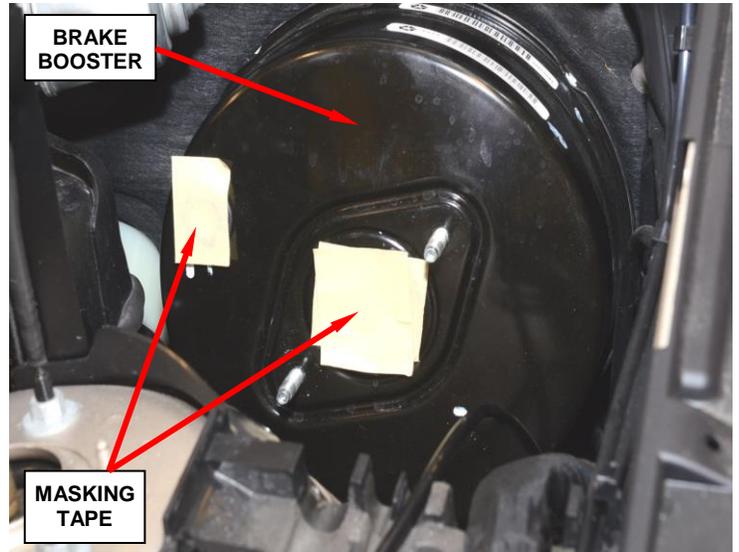
**CAUTION:** Use extreme care not to scratch or damage the master cylinder piston (Figure 9).



**Figure 9 – Master Cylinder Piston**

**Service Procedure (Continued)**

18. Cover the brake booster openings with masking tape to prevent debris from entering the brake booster (Figure 10).



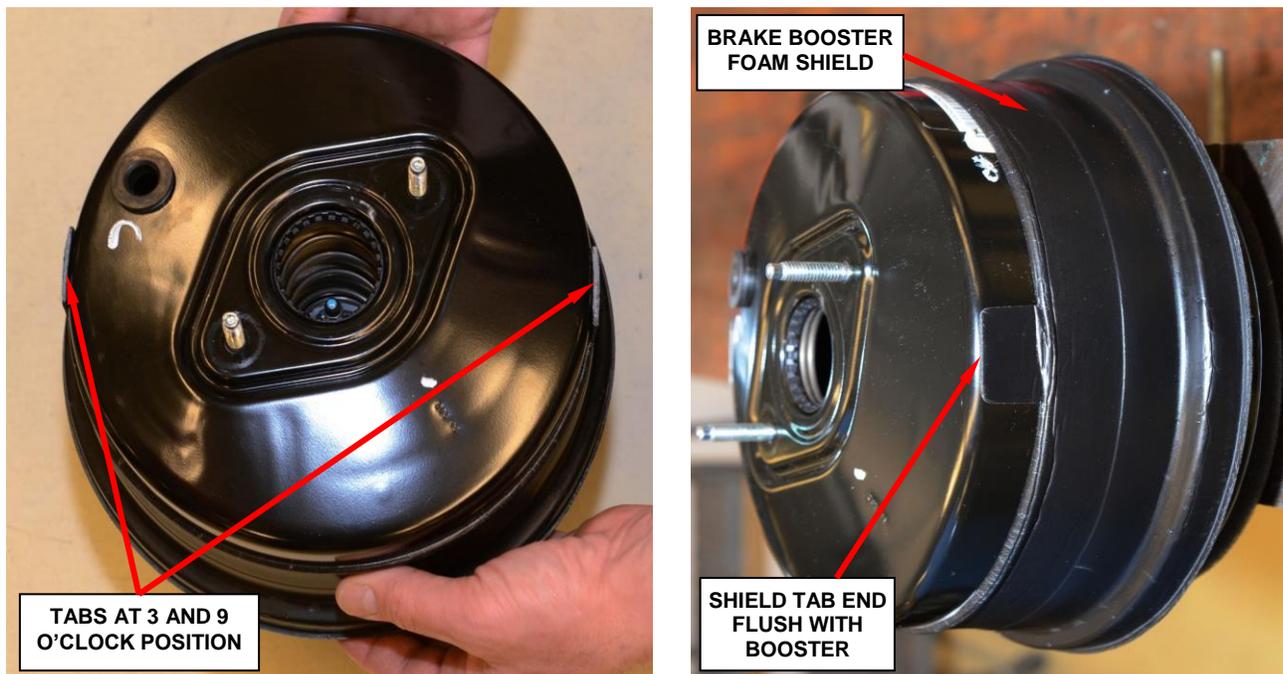
**Figure 10 – Cover Brake Booster Openings**

19. Using glass cleaner, clean the brake booster surface area where the foam seal contacts the brake booster.

20. Using glass cleaner, lubricate the inside surface of the brake booster foam shield (Figure 11).



**Figure 11 – Lubricate Brake Booster Foam Shield**

**Service Procedure (Continued)**

**Figure 12 – Correctly Installed Brake Booster Foam Shield**

21. Install the brake booster foam shield onto the booster with the locating tabs at the three and nine o'clock positions. The tabs ends should be flush with the edge of the booster (Figure 12).
22. Pull the brake booster foam shield tabs back slightly and remove the release paper and press the tab against the side of the brake booster.
23. Place the master cylinder into position and install new retaining nuts. Tighten the nuts to 18 ft. lbs. (25 N·m).
24. Install the wire harness retaining clip to the left shock tower.
25. Clip the brake tube support to the left shock tower (Figure 7).

**Service Procedure (Continued)**

26. Connect the brake booster check valve and vacuum hose (Figure 6).
27. Connect the vacuum sensor electrical connector.
28. Connect the master cylinder brake fluid level sensor electrical connector.
29. Install the plastic cowl cover (Figure 5).
30. Install both wiper arms. Tighten the wiper arm retaining nuts to 16 ft. lbs. (21 N·m).
31. Install the left side cowl extension panel (Figure 4).
32. Install the cowl seal (Figure 4).
33. Place power steering reservoir into position and install retaining bolt (Figure 3).
34. Install the air cleaner assembly.
35. **For vehicles with a 5.7L engine**, install the air inlet hose resonator (Figure 2).
36. **For vehicles with a 5.7L engine**, install the engine cover.
37. Connect the negative battery cable to the battery.

**Service Procedure (Continued)****C. Replace Brake Booster**

**NOTE:** The following procedure is required if the brake booster requires replacement per the test in Section “A.”

1. With the engine not running and the ignition OFF, pump the brake pedal until a firm pedal is achieved (4-5 strokes).

**CAUTION:** Vacuum in brake booster must be pumped down before removing the master cylinder from the brake booster. This is necessary to prevent the master cylinder primary piston from being pulled out of the master cylinder as the master cylinder is separated from the brake booster. This can be done by pumping brake pedal, with vehicle engine not running and the ignition OFF, until a firm feeling brake pedal is achieved.

2. Disconnect the negative battery cable at the battery.
3. **For vehicles with a 5.7L engine**, remove and save the engine cover.
4. **For vehicles with a 5.7L engine**, remove and save the air inlet hose resonator (Figure 2).
5. Remove and save the air cleaner assembly.
6. Relocate the power steering reservoir (Figure 3).
7. Remove and save the cowl seal (Figure 4).
8. Remove and save the left side cowl extension panel (Figure 4).
9. Remove and save both windshield wiper arms.
10. Remove and save the plastic cowl cover (Figure 5).
11. Disconnect the vacuum sensor electrical connector.
12. Disconnect the master cylinder brake fluid sensor electrical connector.
13. Disconnect the wiring harness retainer at the shock tower.
14. Disconnect the vacuum hose and check valve from the brake booster (Figure 6).

**Service Procedure (Continued)**

15. Remove and discard the master cylinder retaining nuts.
16. Unclip the brake tube support on the left shock tower (Figure 7).
17. Carefully relocate the master cylinder (Figure 8).

**CAUTION: Do not disconnect the brake tubes from the master cylinder and use extreme care not to damage the brake tubes when relocating the master cylinder.**

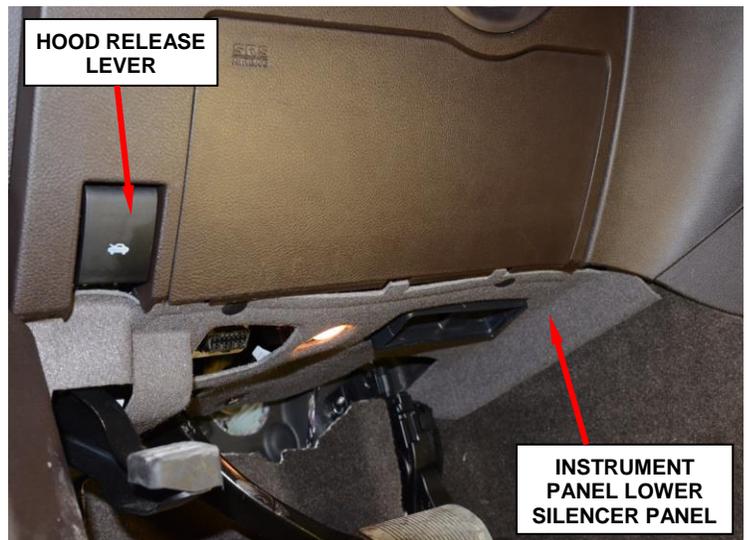


Figure 13 – Instrument Panel Lower Silencer

18. Remove and save the wiper motor and linkage as an assembly.
19. Remove and save the instrument panel lower silencer cover (Figure 13).

20. Remove and discard the brake pedal pivot pin-to-brake booster push rod retaining clip.
21. Separate the brake booster push rod from the brake pedal pivot pin.
22. Loosen the brake light switch bracket and relocate.

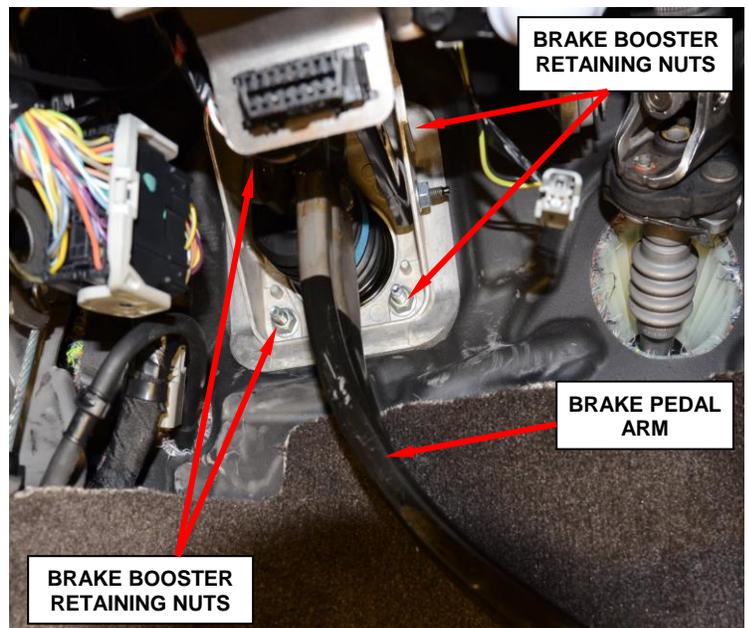
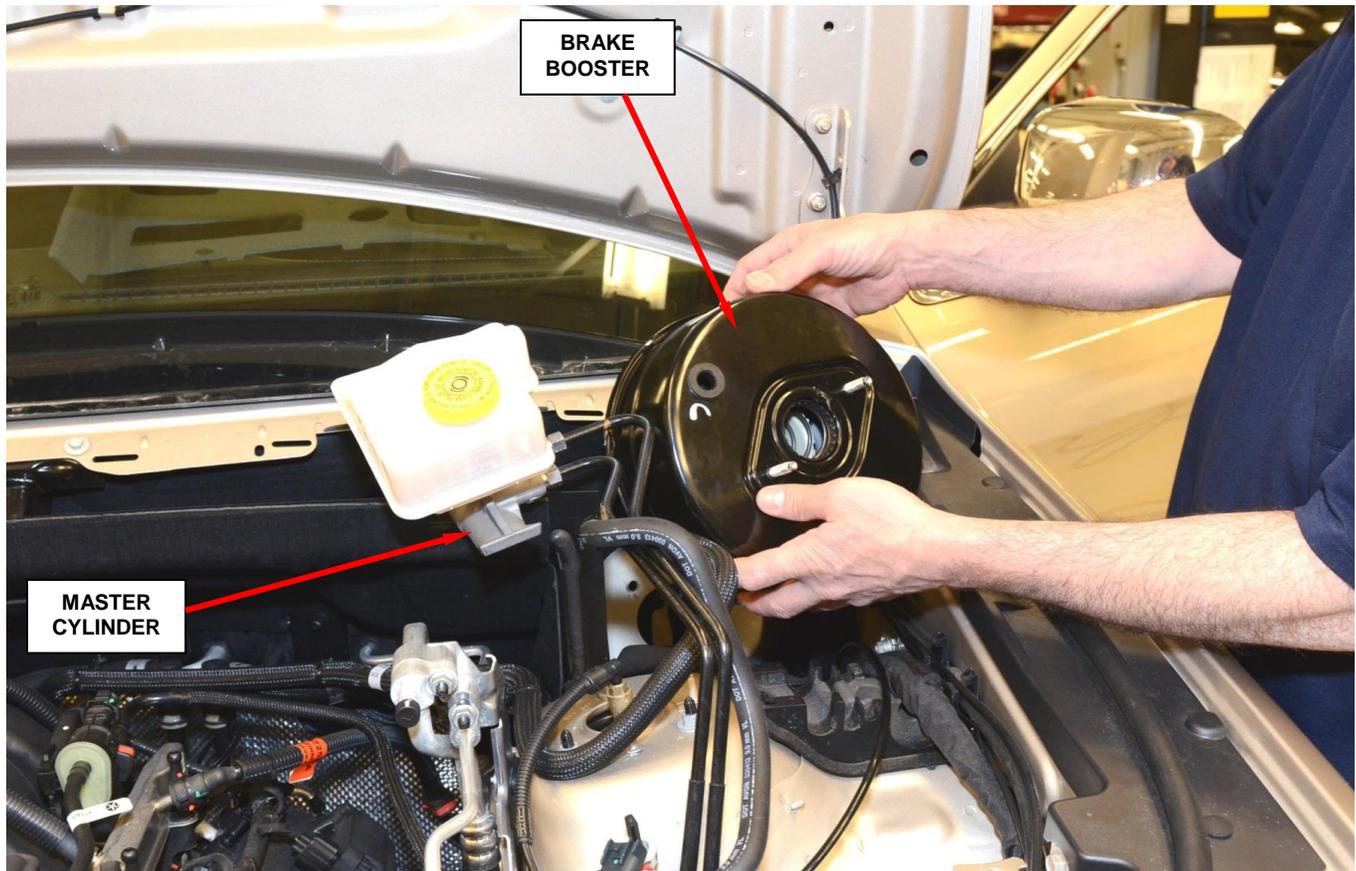


Figure 14 – Brake Booster Retaining Nuts

23. Remove and discard the four brake booster retaining nuts (Figure 14).

**Service Procedure (Continued)****Figure 15 – Remove Brake Booster**

24. Remove and discard the original brake booster.
25. **For new brake boosters without a foam shield**, install a foam shield (Figure 22).
26. Lubricate the brake pedal pivot pin with Mopar multi-mileage grease.
27. Install the new brake booster into position.
28. Install four new brake booster retaining nuts and tighten them to 15 ft. lbs. (20 N·m).
29. Place the brake booster push rod onto the brake pedal pivot.
30. Install a new brake pedal pivot pin-to-brake booster push rod retaining clip.

**Service Procedure (Continued)**

31. Install the instrument panel lower silencer cover (Figure 13).
32. Install the wiper motor and linkage assembly. Tighten the mounting bolts to 55 in. lbs. (6 N·m).
33. Place the master cylinder into position and install new retaining nuts. Tighten the nuts to 18 ft. lbs. (25 N·m).
34. Install the wire harness retaining clip to the left shock tower.
35. Connect the brake tube support to the left shock tower (Figure 7).
36. Connect the brake booster check valve and vacuum hose (Figure 6).
37. Connect the vacuum sensor electrical connector.
38. Connect the master cylinder brake fluid level sensor electrical connector.
39. Install the plastic cowl cover (Figure 5).
40. Install both wiper arms. Tighten the wiper arm retaining nuts to 16 ft. lbs. (21 N·m).
41. Install the left side cowl extension panel (Figure 4).

**CAUTION: Make sure the left side cowl extension panel tab is properly snapped into place.**

42. Install the cowl seal (Figure 4).
43. Place power steering reservoir into position and install retaining bolt (Figure 3).
44. Install the air cleaner assembly.
45. **For vehicles with a 5.7L engine**, install the air inlet hose resonator (Figure 2).
46. **For vehicles with a 5.7L engine**, install the engine cover.
47. Connect the negative battery cable to the battery.

**Completion Reporting and Reimbursement**

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 Chrysler to record recall service completions and provide dealer payments.

Use one of the following labor operation numbers and time allowances:

	<b>Labor Operation Number</b>	<b>Time Allowance</b>
Test brake booster and install brake booster foam shield	05-P1-41-82	0.9 hours
Test and replace brake booster and install brake booster foam shield	05-P1-41-83	1.2 hours

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.

**Dealer Notification**

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

**Owner Notification and Service Scheduling**

All involved vehicle owners known to Chrysler 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  
Chrysler Group LLC