

 <b>HYUNDAI</b>   NEW THINKING. NEW POSSIBILITIES.  <b>Technical Service Bulletin</b>	GROUP <b>CAMPAIGN</b>	NUMBER <b>12-01-026-1</b>
	DATE <b>SEPTEMBER 2012</b>	MODEL(S) <b>VI EQUUS</b>
<b>SUBJECT:</b> VI EQUUS BRAKE FLUID REPLACEMENT (SERVICE CAMPAIGN TL6)		

*This TSB supersedes 12-01-026 to update tightening torque specifications (page 3, step #5)*

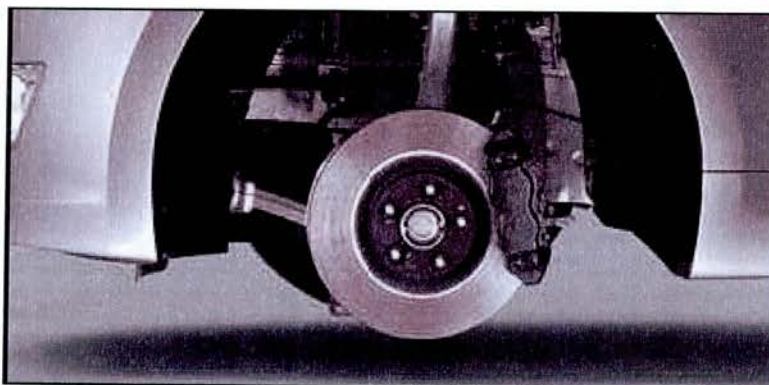
**★ IMPORTANT**

**\*\*\* Dealer Stock and Retail Vehicles \*\*\***

Dealers must perform this Service Campaign on all affected vehicles prior to customer retail delivery and whenever an affected vehicle is in the shop for any maintenance or repair.

When a vehicle arrives at the Service Department, access Hyundai Motor America's "Warranty Vehicle Information" screen via WEBDCS to identify open Campaigns.

**Description:** This bulletin describes the procedure to replace the brake fluid for some Equus (VI) vehicles.



**Applicable Vehicles:**

VI Equus produced from SOP to March 16, 2012

**Parts Information:**

PART NAME	FIGURE	BEFORE	AFTER	QTY
DOT4 Brake Fluid		00232-19033	00232-19053	About 1.8L is required per vehicle.  (Five 12 fl. oz. bottles per vehicle).

Circulate To: General Manager, Service Manager, Parts Manager, Warranty Manager, Service Advisors, Technicians, Body Shop Manager, Fleet Repair

**Warranty Information:**

OP CODE	OPERATION	OP TIME
20C022R0	Brake Fluid Replacement	0.7 M/H

NOTE: Submit Claim on Campaign Claim Entry Screen

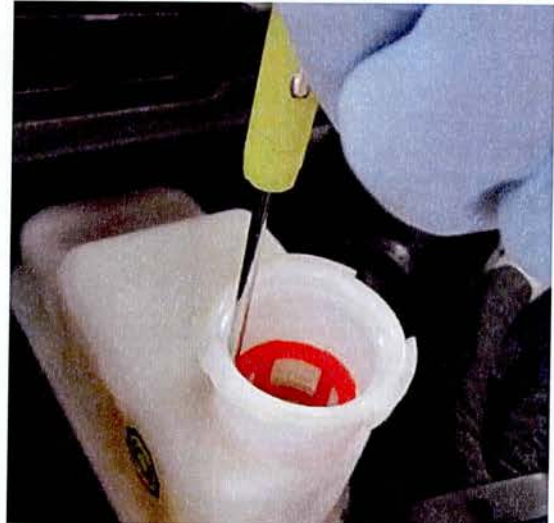
NOTE: \$16.70 will be automatically reimbursed via the sublet amount on the campaign claim for the brake fluid.

**Service Procedure: Replace Brake Fluid**

1. Remove the driver's side cover in the engine bay by unfastening the 3 retaining clips.



2. Locate the brake master cylinder, remove the cap, and remove the filter.



3. Remove as much of the brake fluid as possible using a vacuum pump or similar tool.

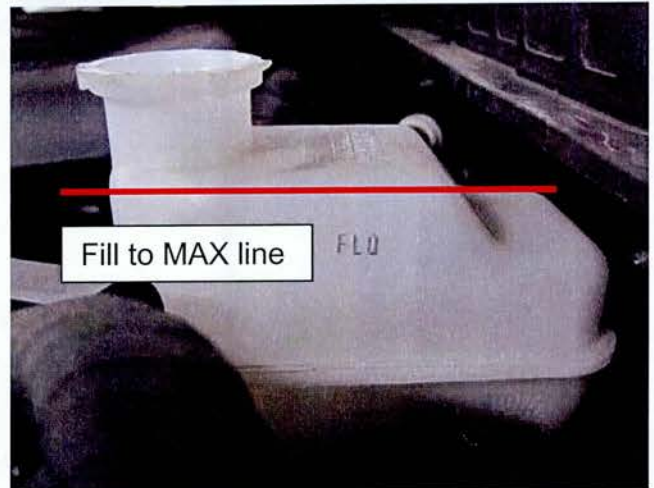


4. Fill the reservoir to the MAX line using DOT4 brake fluid.

Reinstall the filter and master cylinder cap.

**\* NOTE**

If any brake fluid is spilled, immediately clean the spill by generously flushing water over the area.



5. Lift the vehicle on a hoist and remove the hub covers from all four wheels. Remove all lug nuts and wheels.

**\* NOTE**

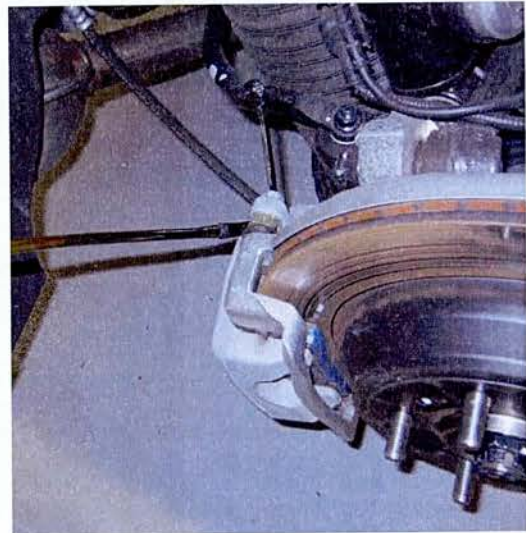
**Tightening torque:**  
 90~110 N.m (9~11 kgf.m, 65~80 lb-ft)



6. **Start at the RIGHT REAR brake assembly.**

Connect one end of a bleeding line to the bleeder screw nipple, and place the other end in a container to catch brake fluid as it is released.

Pump the brake pedal 3 times and hold the pedal down, to pressurize the system.



7. Pump the brake pedal 3 times and hold the pedal down, to pressurize the system.

While holding the brake pedal down, open the bleeder to release brake fluid. After fluid is released, close the bleeder, and release pressure from the brake pedal.

**\* IMPORTANT**

DO NOT release the brake pedal until after the bleeder screw is fully closed.

**\* NOTE**

**Bleeder screw tightening torque:  
6.9~12.7 Nm (0.7~1.3 kgf.m, 5.1~9.4 lb-ft)**

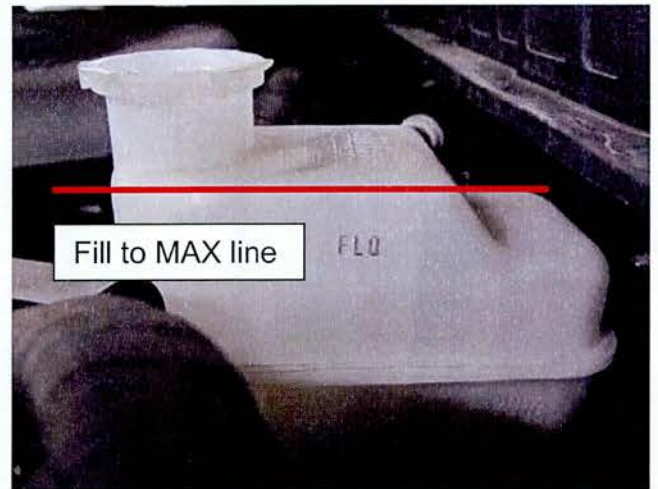


8. Repeat steps 6-7 until the level of brake fluid in the reservoir drops from MAX to MIN.

**\* NOTE**

DO NOT allow the fluid level to drop below the MIN line. If the level drops below MIN at any time during this procedure, it is required to start the bleeding process over, starting from the RIGHT REAR brake assembly.

9. Refill the reservoir to the MAX line using DOT 4 brake fluid.



10. *Move to the FRONT LEFT wheel.*

Repeat the process described in steps 6-9.

**\* NOTE**

Some models may have a fixed-type front caliper which has 2 bleeders (one inside, one outside). For these models, bleed the outside first (until the fluid level is halfway between MAX and MIN) then move to the inside bleeder (until the fluid is down to MIN).



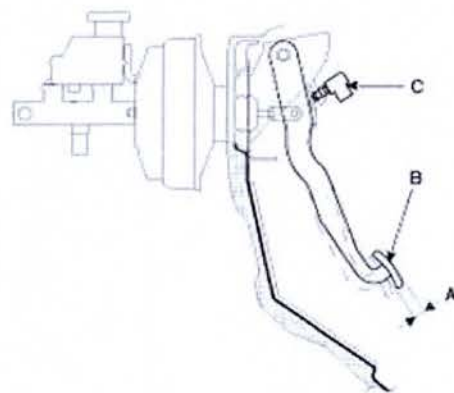
11. *Repeat steps 6-9 at the REAR LEFT wheel, then the FRONT RIGHT wheel.*

12. Check the brake pedal free play by depressing the pedal.

**Brake pedal free play specification:  
3~8mm.**

If the amount of play is over specification, bleeding should be performed again.

If the amount of play is within specification, continue to Service Procedure: HECU Valve Flush Using GDS.



**SUBJECT: VI EQUUS BRAKE FLUID REPLACEMENT (SERVICE CAMPAIGN TL6)**

**Service Procedure: HECU Valve Flush Using GDS**

1. Connect GDS VCI to DLC connector.  
Connect VCI to GDS using USB cable.

Start the engine and verify that all electrical systems turn off (no electrical load). Select model and ESC (Electronic Stability Control) system, then press "OK" button on the screen.

**\* NOTE**

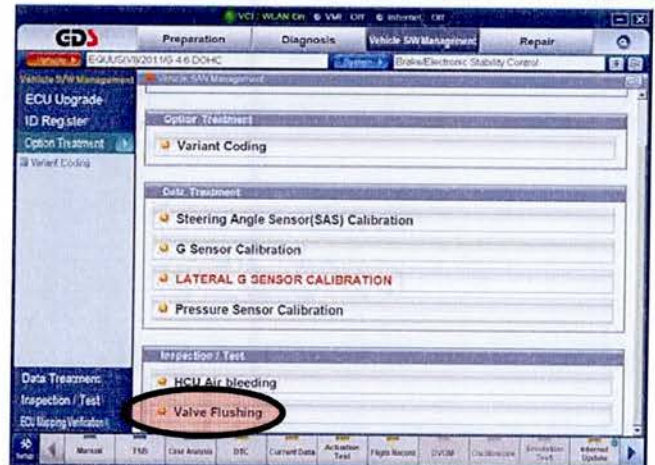
Keep engine idling during this procedure to aid in maintaining adequate brake pressure.



2. Select "Option Treatment" under the Vehicle S/W Management tab.

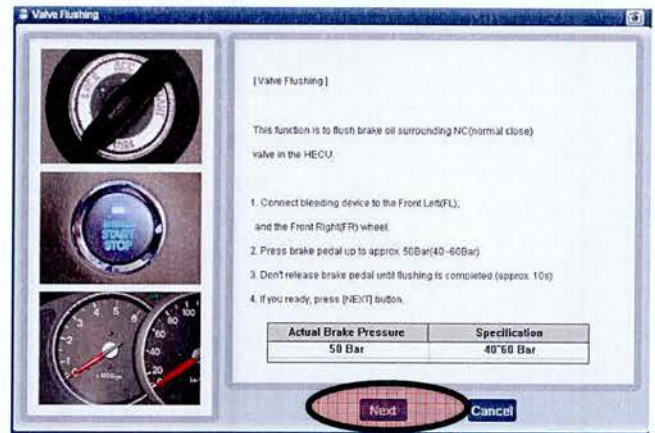


3. Select "Valve Flushing."

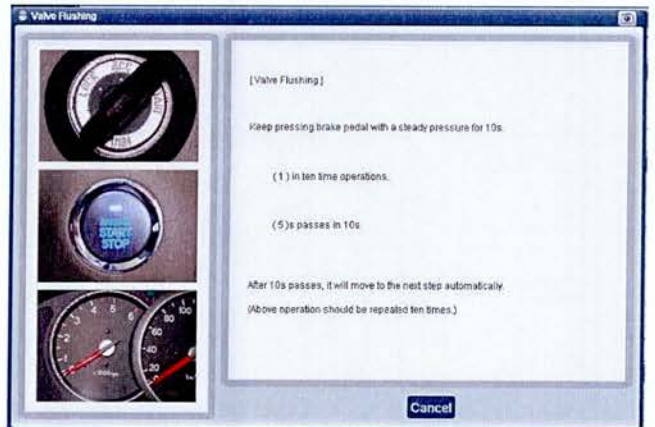


**SUBJECT:****VI EQUUS BRAKE FLUID REPLACEMENT (SERVICE CAMPAIGN TL6)**

4. As directed by the GDS, press and hold the brake pedal to maintain about 50 bar of brake pressure. Press "NEXT" while holding pressure.



5. The HECU motor will operate and the brake pedal will pulsate for 10 seconds. Maintain holding brake pressure during this time.

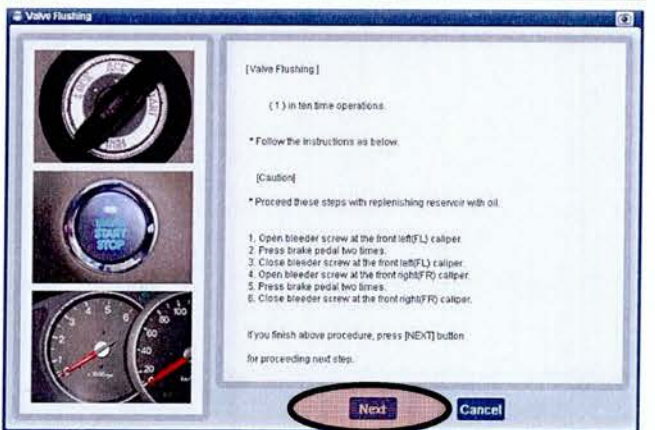


6. Bleed front brake assemblies:

Start with the front left brakes.

Press the brake pedal twice and hold. With a bleeding line attached, open the bleeder screw to bleed the line.

Repeat for the front right brakes, then press "NEXT."



7. Repeat steps 5 and 6 for a total of 10 HECU valve flushing operations. GDS menu screen will count number of iterations.

**★ NOTE**

Monitor the level of brake fluid in the master cylinder reservoir. If the fluid drops close to the MIN line, refill to MAX.

After the 10<sup>th</sup> flushing, the procedure is completed.



- 8. Refill the brake fluid in the master cylinder reservoir to the MAX line.

