



Flushing Your Brake System

Why?

Flushing your brake system regularly is an important part of ensuring that your brake system remains functioning at its peak.

Brake fluid is hygroscopic which means that it can absorb moisture. How fast this happens can depend on the fluid formulation and whether air is allowed to mix with the fluid. High quality brake fluids will advise how often they need to be changed.

You should always flush your brake system if the fluid becomes contaminated or you want to upgrade to a higher performing fluid (such as PBR's BF-600 Racing brake fluid).

By flushing your brake system when required you will maintain better pedal feel, extend the life of the brake system and reduce the potential for internal corrosion.

Preparation

This process requires two people. Make sure you have read the instructions through and have an assistant ready before you start work.

Check that you have the following items available.

- Spanner to fit the brake caliper bleed screw
- Length of clear plastic tube which will press fit over the bleed screw nipple
- Clear bottle to catch the old fluid
- Methylated spirits
- Clean rags

You will also need to ensure that you have sufficient new brake fluid on hand. Most modern vehicles will require you to have two 500ml bottles available.

Jack up the vehicle so that you can safely remove all four wheels and gain access to the brake caliper bleeder screws. Ensure that the workspace is clean and that you have the tools necessary to do the job.

Note: Any contamination of the brake fluid, with even the slightest traces of mineral oil, during this process will adversely affect the brake seals and could lead to eventual brake failure.



PBR Australia Pty Ltd
ABN 19 006 530 427
(A Pacifica Group Company)

264 East Boundary Road
East Bentleigh
VIC 3165 Australia

T: (613) 9575 2200
F: (613) 9575 2591

www.pbrperformance.com.au
Email: pbr_enquiries@pbr.com.au

Process

1. Clean the master cylinder's brake fluid reservoir (or top and sides of the master cylinder with the integral reservoir), using methylated spirits and a clean rag.

*Note: Do **NOT** remove the reservoir cover until the area is completely clean.*

2. Older style master cylinders (with the integral reservoir) have a rubber gasket fitted. Inspect the perimeter of the gasket for deterioration and replace if necessary.
3. On the right hand front brake caliper, loosen the bleeder screw with a correctly fitting spanner.
4. When the bleeder screw just breaks loose, stop and push the end of the clear hose onto the bleeder nipple. Immerse the other end of the hose into the clear bottle containing the fluid from the reservoir making sure that it remains immersed throughout the procedure.
5. Open the bleeder screw (approximately $\frac{1}{4}$ turn – do **NOT** remove it completely).
6. Have your assistant depress the brake pedal and hold down. Some of the old brake fluid will be transferred into the clear bottle.
7. Lock off the bleeder screw.
8. Release the brake pedal.

*Note: Do **NOT** release the brake pedal with the bleeder screw open as air may get sucked back into the system.*

9. Wait five seconds.



PBR Australia Pty Ltd
ABN 19 006 530 427
(A Pacifica Group Company)

264 East Boundary Road
East Bentleigh
VIC 3165 Australia

T: (613) 9575 2200
F: (613) 9575 2591

www.pbrperformance.com.au
Email: pbr_enquiries@pbr.com.au

10. Repeat steps 5 to 9 until almost all of the old brake fluid has been drained from the master cylinder reservoir.

*Warning: Do **NOT** allow all of the brake fluid to be drained from the master cylinder reservoir at this stage as it may cause problems in bleeding the rest of the brake system.*

11. Add new brake fluid up to the level mark on the master cylinder reservoir.
12. Bleed each of the remaining brake calipers in turn as per the instructions below.

Note: Each brake caliper must then be bled in the correct sequence. On front or rear wheel drive vehicles, where the hydraulic system is split left front/right rear and right front/left rear, the correct bleed sequence is.

- *Right rear, left front, left rear, right front.*

On rear wheel drive vehicles where the split is front/rear, the correct bleed sequence is.

- *Left rear, right rear, left front, right front*

The object is to begin at the wheel brake farthest away from the master cylinder and gradually work toward the closest.

13. Loosen the bleeder screw with a correctly fitting spanner.
14. When the bleeder screw just breaks loose, stop and push the end of the clear hose onto the bleeder nipple. Immerse the other end of the hose into the clear bottle containing the fluid from the reservoir making sure that it remains immersed throughout the procedure.



15. Open the bleeder screw (approximately $\frac{1}{4}$ turn – do **NOT** remove it completely).
16. Have your assistant depress the brake pedal and hold down. Some of the old brake fluid will be transferred into the clear bottle.
17. Lock off the bleeder screw.
18. Release the brake pedal.

*Note: Do **NOT** release the brake pedal with the bleeder screw open as air may get sucked back into the system.*

19. Wait five seconds.
20. Repeat steps 15 to 19 until the brake fluid coming through the tube changes to the colour of the new fluid. This should take about 100ml – 150ml of fluid.
21. Add fresh fluid to the master cylinder reservoir up to the level mark again then move to the next wheel and repeat steps 13 to 20 until all four wheels have been bled.
22. On completion of the fourth wheel, check that the fluid level in the master cylinder reservoir is up to the level mark.

*Note: Do **NOT** reuse the old brake fluid. This must be disposed of properly in accordance with your local council guidelines. Do **NOT** dispose of brake fluid in drains, water ways or in domestic rubbish.*

For further information:

PBR Performance Hotline

Phone: 1300 369 727

Email: performancebrakes@pbr.com.au

www.pbrperformance.com.au



PBR Australia Pty Ltd
ABN 19 006 530 427
(A Pacifica Group Company)

264 East Boundary Road
East Bentleigh
VIC 3165 Australia

T: (613) 9575 2200
F: (613) 9575 2591

www.pbrperformance.com.au
Email: pbr_enquiries@pbr.com.au