Brake System Bleeding

Material

Item	Specification
High Performance DOT 3 Motor Vehicle Brake Fluid PM-1-C (US); CPM-1-C (Canada)	WSS-M6C62-A or WSS-M6C65-A1

Manual Bleeding

WARNING: Do not use any fluid other than clean brake fluid meeting manufacturer's specification. Additionally, do not use brake fluid that has been previously drained. Following these instructions will help prevent system contamination, brake component damage and the risk of serious personal injury.

WARNING: Carefully read cautionary information on product label. For EMERGENCY MEDICAL INFORMATION seek medical advice. In the USA or Canada on Ford/Motorcraft products call: 1-800-959-3673. For additional information, consult the product Material Safety Data Sheet (MSDS) if available. Failure to follow these instructions may result in serious personal injury.

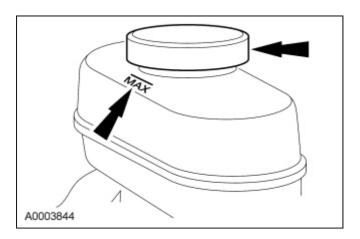
WARNING: Do not allow the brake master cylinder to run dry during the bleeding operation. Master cylinder may be damaged if operated without fluid, resulting in degraded braking performance. Failure to follow this instruction may result in serious personal injury.

NOTICE: Do not spill brake fluid on painted or plastic surfaces or damage to the surface may occur. If brake fluid is spilled onto a painted or plastic surface, immediately wash the surface with water.

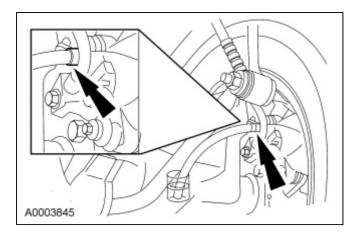
All vehicles

1. **NOTE:** Pressure bleeding the brake system is preferred to manual bleeding.

Clean all dirt from and remove the brake master cylinder filler cap and fill the brake master cylinder reservoir with clean, specified brake fluid.



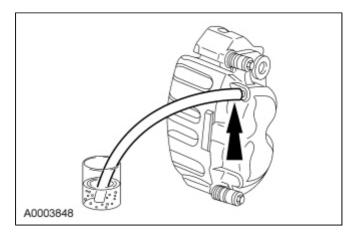
2. Remove the RH rear brake caliper bleeder screw cap and place a box-end wrench on the bleeder screw. Attach a rubber drain hose to the bleeder screw and submerge the free end of the hose in a container partially filled with clean, specified brake fluid.



- 3. Have an assistant pump the brake pedal and then hold firm pressure on the brake pedal.
- 4. Loosen the RH rear brake caliper bleeder screw until a stream of brake fluid comes out. While the assistant maintains pressure on the brake pedal, tighten the bleeder screw.
 - Repeat until clear, bubble-free fluid comes out.
 - Refill the brake master cylinder reservoir with clean, specified brake fluid as necessary.
- 5. Tighten the RH rear brake caliper bleeder screw to specifications. Refer to Specifications in this section. Remove the rubber hose and install the bleeder screw cap.
- 6. Repeat Steps 2 through 5 for the LH rear brake caliper bleeder screw.

Vehicles equipped with a 4.0L SOHC or 4.6L (3V) engine

7. Remove the RH front brake caliper bleeder screw cap and place a box-end wrench on the bleeder screw. Attach a rubber drain hose to the bleeder screw and submerge the free end of the hose in a container partially filled with clean, specified brake fluid.

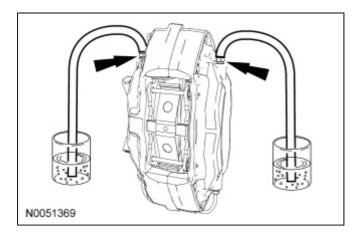


- 8. Have an assistant pump the brake pedal and then hold firm pressure on the brake pedal.
- 9. Loosen the RH front brake caliper bleeder screw until a stream of brake fluid comes out. While the assistant maintains pressure on the brake pedal, tighten the bleeder screw.
 - Repeat until clear, bubble-free fluid comes out.
 - Refill the brake master cylinder reservoir with clean, specified brake fluid as necessary.
- 10. Tighten the RH front brake caliper bleeder screw to specifications. Refer to Specifications in this section. Remove the rubber hose and install the bleeder screw cap.
- 11. Repeat Steps 7 through 10 for the LH front brake caliper bleeder screw.

Vehicles equipped with a 5.4L engine

12. Remove the RH front brake caliper inner bleeder screw cap and place a box-end wrench on the bleeder

screw. Attach a rubber drain hose to the bleeder screw and submerge the free end of the hose in a container partially filled with clean, specified brake fluid.



- 13. Have an assistant pump the brake pedal and then hold firm pressure on the brake pedal.
- 14. Loosen the RH front brake caliper inner bleeder screw until a stream of brake fluid comes out. While the assistant maintains pressure on the brake pedal, tighten the bleeder screw.
 - Repeat until clear, bubble-free fluid comes out.
 - Refill the brake master cylinder reservoir with clean, specified brake fluid as necessary.
- 15. Tighten the RH front brake caliper inner bleeder screw to specifications. Refer to Specifications in this section. Remove the rubber hose and install the bleeder screw cap.
- 16. Repeat Steps 12 through 15 for the RH front brake caliper outer bleeder screw.
- 17. Repeat Steps 12 through 15 for the RH front brake caliper inner bleeder screw.
- 18. Repeat Steps 12 through 15 for the LH front brake caliper inner bleeder screw.
- 19. Repeat Steps 12 through 15 for the LH front brake caliper outer bleeder screw.
- 20. Repeat Steps 12 through 15 for the LH front brake caliper inner bleeder screw.

Pressure Bleeding

WARNING: Do not use any fluid other than clean brake fluid meeting manufacturer's specification. Additionally, do not use brake fluid that has been previously drained. Following these instructions will help prevent system contamination, brake component damage and the risk of serious personal injury.

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WARNING: Do not allow the brake master cylinder to run dry during the bleeding operation. Master cylinder may be damaged if operated without fluid, resulting in degraded braking performance. Failure to follow this instruction may result in serious personal injury.

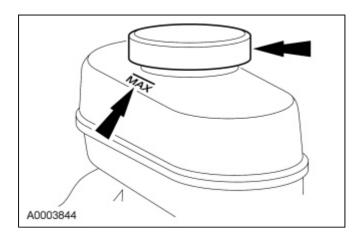
NOTICE: Do not spill brake fluid on painted or plastic surfaces or damage to the surface may occur. If brake fluid is spilled onto a painted or plastic surface, immediately wash the surface with water.

NOTE: When any part of the hydraulic system is disconnected for repair or installation of new components, air can get into the system and cause spongy brake pedal action. This requires bleeding of the hydraulic system

after it is correctly connected. The hydraulic system can be bled manually or with pressure bleeding equipment.

All vehicles

1. Clean all dirt from and remove the brake master cylinder filler cap and fill the brake master cylinder reservoir with clean, specified brake fluid.

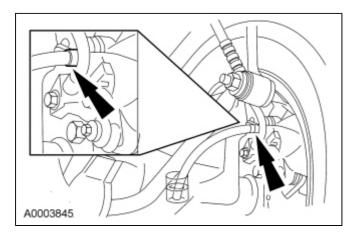


2. **NOTE:** Master cylinder pressure bleeder adapter tools are available from various manufacturers of pressure bleeding equipment. Follow the instructions of the manufacturer when installing the adapter.

Install the bleeder adapter to the brake master cylinder reservoir and attach the bleeder tank hose to the fitting on the adapter.

- Pressure bleed the brake system at 207-345 kPa (30-50 psi).
- 3. **NOTE:** Bleed the longest line first. Make sure the bleeder tank contains enough clean, specified brake fluid to complete the bleeding operation.

Remove the RH rear brake caliper bleeder screw cap and place a box-end wrench on the bleeder screw. Attach a rubber drain hose to the bleeder screw, and submerge the free end of the hose in a container partially filled with clean, specified brake fluid.



- 4. Open the valve on the bleeder tank.
- 5. Loosen the RH rear bleeder screw and leave open until clear, bubble-free brake fluid flows into the container. Wait 15 seconds after clear, bubble-free fluid flows through the rubber hose.
- 6. Tighten the RH rear bleeder screw to specifications. Refer to Specifications in this section. Remove the rubber hose and install the bleeder screw cap.

Vehicles equipped with a 4.0L SOHC or 4.6L (3V) engine

- 7. Continue bleeding the system in the following sequence:
 - 1. LH rear brake caliper bleeder screw

- Tighten to specifications. Refer to Specifications in this section.
- 2. RH front brake caliper bleeder screw
 - Tighten to specifications. Refer to Specifications in this section.
- 3. LH front brake caliper bleeder screw
 - Tighten to specifications. Refer to Specifications in this section.

Vehicles equipped with a 5.4L engine

- 8. Continue bleeding the system in the following sequence:
 - 1. LH rear brake caliper bleeder screw
 - Tighten to specifications. Refer to Specifications in this section.
 - 2. RH front brake caliper inner bleeder screw
 - Tighten to specifications. Refer to Specifications in this section.
 - 3. RH front brake caliper outer bleeder screw
 - Tighten to specifications. Refer to Specifications in this section.
 - 4. RH front brake caliper inner bleeder screw
 - Tighten to specifications. Refer to Specifications in this section.
 - 5. LH front brake caliper inner bleeder screw
 - Tighten to specifications. Refer to Specifications in this section.
 - 6. LH front brake caliper outer bleeder screw
 - Tighten to specifications. Refer to Specifications in this section.
 - 7. LH front brake caliper inner bleeder screw
 - Tighten to specifications. Refer to Specifications in this section.

All vehicles

9. Close the bleeder tank valve and release the pressure. Remove the tank hose from the adapter and remove the adapter. Fill the brake master cylinder reservoir with clean, specified brake fluid if necessary. Install the brake master cylinder filler cap.