

March Performance Remote Reservoir & Bleeding Instructions

Remote Power Steering Reservoir – 420, 425, 430, 435, 440, 445 & 450



△ IMPORTANT: Read all instructions completely before beginning. Failure to follow these procedures may void your warranty and cause serious damage to the power steering pump. **Do not start the engine until the full bleeding process has been completed.**

Section 1: Pre-Installation Inspection

Before beginning installation, thoroughly inspect all power steering system plumbing. Confirm that:

- All hoses are routed freely and not in contact with any other vehicle components (frame rails, gearbox, etc.)
- All fittings are properly mated and tightened securely
- The fittings on the bottom of the remote reservoir are positioned **above** the fittings on the power steering pump
- The return line ID and fitting couplings are **no smaller than 3/8"** – do not restrict the return side of the pump
- If your vehicle uses a hydro boost system, refer to the manufacturer's bleeding instructions instead

Section 2: Fluid & System Notes

- Use only **high-quality power steering fluid** – synthetic or race-formulated fluid is strongly recommended
- A new power steering system behaves differently than a replacement unit. Because the entire system is dry, **static bleeding before startup is critical**

- Any air remaining in the system when the engine starts will be extremely difficult to purge and will cause the fluid to foam, potentially overflowing the reservoir and overheating the pump
 - Any pre-running of the engine should be done **without the power steering belt attached** – remove the dedicated belt, or on serpentine systems, temporarily use an old pump as a stand-in until the final system is fully bled and ready
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Section 3: Initial Fill & Visual Inspection

1. Fill the reservoir with high-quality fluid and allow it to sit undisturbed for a few minutes. This gives larger air bubbles time to rise and escape naturally.
 2. Leave the reservoir cap **off** during this time.
 3. Use this opportunity to wipe down all components and perform a visual check of hose routing, belt alignment, and all attaching hardware.
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Section 4: Static Bleeding Procedure (Engine Off)

⚠ Do not start the engine until Steps 4 and 5 are fully complete with no air bubbles present.

1. Raise the front of the vehicle and secure it on jack stands so the front wheels are off the ground.
2. Turn the steering wheel all the way to the **left**.
3. Add power steering fluid to the **cold fill line** on the dipstick, or to **¼" below the thread line** on the remote reservoir. Leave the reservoir cap off.
4. With a second person assisting – one person monitors the fluid level in the reservoir while the other **very slowly** turns the steering wheel from full lock to full lock. Complete a **minimum of 20 full cycles**.
 - There is no shortcut here. Rushing this step will only require starting over.
 - If the fluid level drops, rises, or air bubbles are still visible, air remains in the system. Continue cycling until the fluid level holds steady and no

bubbles are present. This process may require **40–50 cycles** in some cases.

5. Once the fluid level is stable and bubble-free, **disable the ignition system** and crank the engine for **3–4 revolutions** (without it starting). Check the reservoir again – if the fluid level shifts or bubbles reappear, return to Step 4 and repeat.
 6. When there are no further changes in fluid level and no air bubbles are present, **install the reservoir cap**.
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Section 5: Engine Start & Final Bleed

1. Lower the vehicle to the ground and start the engine. Allow it to idle for **2–3 minutes** while gently cycling the steering wheel in both directions.
 - Note: Some vane-type pumps may require **1,000 RPM or more** before they fully take fluid down.
2. Continue to monitor and top off the fluid level as needed.
3. If the pump becomes noisy, **shut the engine off** and allow the system to rest for **15 minutes**. Air trapped in the system will cause a growling sound and may cause the fluid level to rise when the engine stops.
4. Some systems may require repeating the idle/cycling process several times depending on hose length, routing, and rack type. This is normal.

△ If air continues to be a problem after multiple rest periods, check for fluid leaks throughout the entire system. Even a very small leak can introduce significant amounts of air. Inspect every fitting and hose connection.

Section 6: Final Verification

At the conclusion of the bleeding process, confirm the following before considering the installation complete:

- Steering operation is smooth with no hesitation or binding
- The power steering pump is quiet with no growling or whining
- The fluid appears **clear** with no foam or bubbles

- The fluid level is **stable** and holding constant
 - Always perform a **test drive** and verify that steering feel and response are safe and normal
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INSTALLATION OF REMOTE POWER STEERING

