

Brake Maintenance Procedure

This playbook provides a detailed guide on how to replace brake pads and bleed the brake system. It is crucial for maintaining vehicle safety and brake performance.

Step 1: **Safety Precautions**

Before beginning, ensure the vehicle is parked on a flat surface, the parking brake is engaged, and wheel chocks are placed behind the wheels to prevent rolling.

Step 2: **Wheel Removal**

Loosen the lug nuts of the wheel slightly while the vehicle is on the ground, then lift the car using a jack and secure it on jack stands. Fully remove the lug nuts and take the wheel off.

Step 3: **Caliper Preparation**

Remove the caliper from the brake rotor. Support the caliper with a hanger to avoid tension on the brake hose.

Step 4: **Pad Removal**

Extract the old brake pads from the caliper, taking note of their positioning and any wear indicators.

Step 5: **New Pads Installation**

Install the new brake pads into the caliper, making sure they are properly seated and oriented as the previous pads were.

Step 6: **Caliper Reattachment**

Reattach the brake caliper over the rotor and secure it using the appropriate bolts or pins.

Step 7: **Bleed Brakes**

Bleed the brake system to remove any air pockets. Attach a hose to the bleeder valve of each brake, submerge the other end in a container filled with brake fluid, and have an assistant press the brake pedal while you open and close the valve. Repeat this process for each wheel until there are no air bubbles emerging in the fluid.

Step 8: **Brake Fluid Check**

Upon completion, verify the brake fluid level in the master cylinder and top it off if necessary.

Step 9: **Wheel Reattachment**

Replace the wheel onto the hub, screw on the lug nuts by hand, then lower the car from the jack stands and tighten the lug nuts in a crisscross pattern to the manufacturer's specifications.

Step 10: **Test Drive**

Finally, perform a careful test drive to ensure that the brake pads are correctly installed and the brake system is functioning properly. Listen for any unusual noises and pay attention to the brake pedal feel.

General Notes

Brake Fluid Type

Verify the correct type of brake fluid for your vehicle's brake system as specified by the manufacturer.

Wear Indicators

Check wear indicators on the old brake pads to diagnose potential issues in the braking system that may need attention.

Disposal

Properly dispose of old brake pads and any used brake fluid following your local regulations.