# Camshaft Upgrade Procedure

This playbook provides a step-by-step guide to selecting and installing a new camshaft to enhance the performance and power output of an engine.

### Step 1: Research

Investigate different models and brands of camshafts. Consider compatibility with your engine, desired power gains, driving conditions, and the required supporting modifications.

### Step 2: Selection

Choose a camshaft that complements your engine specifications and performance goals. Make sure it matches your vehicle's make, model, and year.

### Step 3: Purchase Tools

Acquire the necessary tools and equipment, including a torque wrench, camshaft puller, and valve spring compressor.

### Step 4: Engine Prep

Prepare the engine for the upgrade. Disconnect the battery, drain the engine oil, and remove any components blocking access to the camshaft.

### Step 5: Old Cam Removal

Carefully remove the existing camshaft from the engine. Ensure to follow the manufacturer's guidelines to prevent damage to the engine components.

### Step 6: New Cam Installation

Install the new camshaft, aligning it precisely with the timing marks. Apply assembly lube to reduce initial friction and prevent wear.

### Step 7: Reassembly

Reinstall any components that were removed during the camshaft removal process. Replace any worn parts such as gaskets or seals as needed.

### Step 8: Timing Adjustment

Adjust the engine timing according to the specifications of the new camshaft. This step is crucial to ensure optimal engine performance.

### Step 9: Lubrication

Add fresh engine oil and prime the system to ensure proper lubrication of the new camshaft.

### Step 10: Test

Start the engine and listen for any unusual noises. Perform a test drive to ensure the engine is running smoothly with the new camshaft installed.

## General Notes

### Professional Consultation

Consider consulting a professional or an experienced mechanic if you are unfamiliar with engine mechanics and procedures.

### Warranty

Check if the camshaft upgrade will affect your vehicle’s warranty, especially if the vehicle is new or has an extended warranty plan.

### Safety First

Always follow proper safety protocols when working on a vehicle. Utilize safety goggles, gloves, and other protective gear as required.