

Aftermarket LSD Installation

This playbook provides detailed steps to install an aftermarket limited-slip differential (LSD) in a vehicle. The goal is to enhance traction by ensuring both wheels on the driving axle can spin at different speeds while still providing power.

Step 1: Preparation

Gather all necessary tools and the aftermarket limited-slip differential kit. Ensure the vehicle is parked on a level surface and you have enough workspace. Use jack stands to safely lift the vehicle off the ground.

Step 2: Wheels Removal

Remove the rear wheels of the vehicle to access the differential. This is done by loosening the lug nuts with a lug wrench, lifting the car with a jack, and then fully removing the lug nuts and wheels.

Step 3: Drain Fluids

Place a drain pan under the differential and remove the drain plug. Allow all the gear oil to drain completely. This is crucial to avoid any spills when the differential is being removed.

Step 4: **Differential Removal**

Disconnect the driveshaft from the differential. Remove any mounting bolts or brackets holding the differential in place. Carefully slide out the old differential unit from the axle housing.

Step 5: **LSD Installation**

Align the aftermarket LSD with the axle housing. Make sure to follow any specific instructions from the LSD's manufacturer. Secure the LSD into place by torquently mounting bolts to the manufacturer's specifications.

Step 6: **Reassembly**

Reconnect the driveshaft to the newly installed LSD. Ensure all connections are tight and secure. Replace any components that were removed during the differential removal.

Step 7: **Refill Fluid**

Using an appropriate gear oil for your vehicle and the LSD, refill the differential. Ensure you fill it to the correct level as Specified by the LSD manufacturer and vehicle specifications.

Step 8: **Wheels Reinstallation**

Put the wheels back onto the vehicle. Tighten lug nuts in a star pattern to the vehicle manufacturer's recommended torque setting. Lower the vehicle from the jack stands and do a final tightening of the lug nuts.

Step 9: **Test Drive**

Take the vehicle for a test drive to ensure that the LSD is functioning correctly. Listen for any unusual noises and pay attention to the feel of the vehicle's traction and handling. After the test drive, recheck the torque of the wheel lug nuts and inspect for any leaks around the differential.

General Notes

Safety First

Always utilize proper safety equipment such as gloves and eye protection when working on a vehicle. Ensure the car is securely lifted and supported before working underneath it.

Manufacturer Specs

Refer to the LSD installation guide for any model-specific instructions. Adhere to torque specifications to avoid any mechanical failures.

Gear Oil Selection

Select the correct grade and type of gear oil recommended for your LSD and vehicle for optimal performance and longevity.