

Barnes 4WD B4WK12267

Axle Swap Kit Instruction Manual

Brand: Barnes 4WD

Model: B4WK12267

PRODUCT OVERVIEW

This instruction manual provides detailed information for the installation and maintenance of the Barnes 4WD Axle Swap Kit, designed for Jeep XJ/MJ models utilizing a Ford 8.8 axle. This kit facilitates a significant upgrade to the vehicle's rear axle, offering enhanced durability and performance compared to the stock axle.

The Ford 8.8 axle is a popular choice for upgrades due to its matching lug pattern, larger ring and pinion, stronger axle shafts, and robust housing. This kit is specifically engineered to work with Ford 8.8 axles featuring 3-1/4 inch axle tubes.

KIT COMPONENTS

The Barnes 4WD Axle Swap Kit includes the following essential components:

- 4 x U-bolts
- 2 x U-bolt Plates
- 2 x Spring Perches
- 2 x Shock Brackets
- 2 x Shock Mounting Studs and Hardware



Figure 1: Barnes 4WD Axle Swap Kit Components. This image displays all components included in the Barnes 4WD Axle Swap Kit. Visible parts include four U-bolts, two U-bolt plates, two spring perches, two shock brackets, and two shock mounting studs with associated hardware. These components are designed for installing a Ford 8.8 axle into a Jeep XJ/MJ.

SETUP AND INSTALLATION

Installation of the Barnes 4WD Axle Swap Kit requires advanced mechanical skills and specialized equipment, including welding. It is recommended that this installation be performed by a certified professional or an experienced fabricator.

General Installation Steps:

1. **Preparation:** Securely lift the vehicle and support it on jack stands. Remove the existing rear axle assembly.
2. **Axle Modification:** Prepare the Ford 8.8 axle for installation. This may involve removing existing brackets and cleaning the axle tubes.
3. **Component Placement:** Position the new spring perches, shock brackets, and U-bolt plates onto the Ford 8.8 axle according to the vehicle's suspension geometry and desired ride height.
4. **Welding:** Permanently weld the spring perches and shock brackets to the axle tubes. Ensure proper alignment and strong, clean welds. *This step is critical for safety and performance.*
5. **Axle Installation:** Carefully position the modified Ford 8.8 axle under the vehicle. Connect the leaf springs using the provided U-bolts and plates. Attach the shocks to the new shock brackets using the mounting studs and hardware.
6. **Final Checks:** Verify all connections are secure and torqued to specifications. Check for proper clearance of all components. Bleed brakes if necessary.

Note: Specific measurements and detailed welding procedures are beyond the scope of this general manual. Consult a professional or specialized fabrication guides for precise instructions.

OPERATING CONSIDERATIONS

Once installed, the Ford 8.8 axle, integrated with the Barnes 4WD kit, will provide enhanced structural integrity and improved performance for your Jeep XJ/MJ. Users should be aware of the following:

- **Break-in Period:** After any major drivetrain modification, a break-in period for new gears and bearings is recommended. Consult your differential manufacturer's guidelines.
- **Performance:** The larger ring and pinion, along with stronger axle shafts, contribute to a more robust drivetrain, suitable for demanding off-road conditions or increased vehicle loads.
- **Alignment:** After installation, it is crucial to have a professional alignment performed to ensure proper vehicle handling and tire wear.

MAINTENANCE

Regular maintenance is essential to ensure the longevity and safe operation of your vehicle after the axle swap. While the kit components themselves are largely maintenance-free once installed, the axle assembly requires attention:

- **Differential Fluid:** Regularly check and change the differential fluid according to the Ford 8.8 axle manufacturer's recommendations. This is crucial for gear and bearing health.
- **Fastener Torque:** Periodically inspect all bolts and nuts associated with the axle, suspension, and kit components for proper torque. Vibrations from off-road use can loosen fasteners.
- **Visual Inspection:** Routinely inspect the welds, U-bolts, and other kit components for any signs of damage, corrosion, or fatigue. Address any issues promptly.
- **Shock Condition:** Check the condition of your shocks and shock mounts. Replace worn shocks as needed.

TROUBLESHOOTING

Should you encounter issues after the installation of your axle swap kit, consider the following common troubleshooting points:

- **Vibrations:**
 - Check driveshaft angles. An axle swap can alter these, potentially requiring driveshaft modification or shims.
 - Inspect U-joint condition.
 - Verify wheel and tire balance.
- **Noise from Axle:**
 - Check differential fluid level and condition.
 - Listen for specific sounds (whining, clunking) to diagnose potential gear or bearing issues.
- **Uneven Ride Height:**
 - Ensure spring perches are welded evenly and at the correct height on both sides.
 - Verify leaf springs are seated correctly.
- **Brake Issues:**
 - Ensure brake lines are properly connected and bled.
 - Check for any leaks or damage to brake components.

For complex issues, it is always advisable to consult with a qualified automotive technician specializing in drivetrain modifications.

SPECIFICATIONS

Attribute	Detail
Product Name	Axle Swap Kit Compatible with JEEP XJ, MJ With a F 8.8
Brand	Barnes 4WD
Model Number	B4WK12267

Attribute	Detail
Compatible Axle	Ford 8.8 with 3-1/4" axle tubes
Compatible Vehicles	Jeep XJ, Jeep MJ
Item Weight	25.7 pounds
Product Dimensions	12 x 8 x 8 inches
Date First Available	May 12, 2018

WARRANTY AND SUPPORT

For specific warranty information regarding the Barnes 4WD Axle Swap Kit, please refer to the manufacturer's official website or contact their customer service directly. Warranty terms typically cover manufacturing defects.

For technical support, installation inquiries, or assistance with specific product issues, please reach out to Barnes 4WD customer support. Contact information can usually be found on their official website.

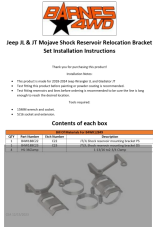
Disclaimer: Improper installation or modification of vehicle components can lead to serious injury or vehicle damage. Always follow best practices and consult with qualified professionals.



© 2023 Barnes 4WD. All rights reserved.
This manual is for informational purposes only.

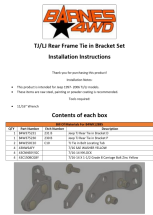
Related Documents - B4WK12267

	<p>Jeep JK Superduty 1 Ton Dana 60 Axle Swap Truss Kit Installation Instructions</p> <p>Comprehensive installation guide for the Barnes 4WD Jeep JK Superduty 1 Ton Dana 60 Axle Swap Truss Kit (1999-2022 models). This document details the necessary tools, preparation steps, and assembly procedures for modifying your Dana 60 axle for a Jeep JK application.</p>
	<p>Jeep TJ Rear Suspension Stretch Kit Installation Guide Barnes 4WD</p> <p>Detailed installation instructions for the Barnes 4WD Jeep TJ & LJ Rear Suspension Stretch Kit (B4WK12955). Learn how to modify your Jeep Wrangler's rear suspension for increased axle travel and stretch.</p>
	<p>Jeep TJ & LJ Steering Box Stretch Kit Installation Instructions Barnes 4WD</p> <p>Detailed installation instructions for the Barnes 4WD Jeep TJ & LJ Steering Box Stretch Kit. Learn how to modify your Jeep Wrangler for improved steering performance with this comprehensive guide.</p>



[Jeep JL & JT Mojave Shock Reservoir Relocation Bracket Set Installation Instructions | Barnes 4WD](#)

Comprehensive installation guide for the Barnes 4WD Jeep JL & JT Mojave Shock Reservoir Relocation Bracket Set (Part Number B4WK12849). This guide provides step-by-step instructions for fitting and securing shock reservoirs to your Jeep Wrangler JL or Gladiator JT.



[Jeep TJ/LJ Rear Frame Tie-In Bracket Set Installation Guide](#)

Comprehensive installation instructions for the Barnes 4WD Jeep TJ/LJ Rear Frame Tie-In Bracket Set (Model B4WK12885), detailing required tools, parts, and step-by-step assembly for Jeep models 1997-2006.



[Jeep Wrangler TJ, LJ & YJ Front Bumper Welders Kit Fabrication Notes | Barnes 4WD](#)

Comprehensive fabrication notes and a detailed bill of materials for the Barnes 4WD Front Bumper Welders Kit, designed for 1987-2006 Jeep Wrangler TJ, LJ, and YJ models. Includes essential tools and assembly guidance for a successful installation.