

TERAFLEX

INSTALLATION GUIDE

Installation Guide for the Disc Brake Kit Part #4354420 and Part #4354400 (Brake lines not included)



This kit includes-

- 2- Rear rotors
- 1- LH rear caliper
- 1- RH rear caliper
- 2- Brake pad kit (LH & RH)
- 2- Preload spacers
- 4- Bolt caliper
- 8- T Bolts
- 8- Nuts
- 1- Plate Assembly L
- 1- Plate Assembly R
- 1- Flexible brake line kit (NOT INCLUDED IN 4354400)



Note: If you are installing the DBK-J (Part #004354420) - **some factory rims will not clear the caliper.** If you have the style of rim pictured to the left, you will need to change to aftermarket wheels in order to run the disc brake kit and to clear the disc brake caliper.

This kit does not work with ABS sensors. You will not be able to install the ABS sensors into the disc brake mount backing plate.

NOTE: Some aftermarket wheels require a longer wheel stud to compensate for the thickness of the new disc brake rotor. These longer studs are available from any NAPA Auto Parts store using Balkamp Number 641-3204. **It is the responsibility of the installer to ensure that the studs are long enough for use with non-stock wheels or to change to the longer wheel studs.**

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Think safety first when installing your new disc brake kit. The TeraFlex disc brake kit you purchased is designed either as a Jeep rear disc brake upgrade kit or as a new disc brake kit for 'big Ford' housing ends.

A flexible brake line kit is available separately for the Ford housing ends (part #DBHK), an emergency brake solution is also required. For TJ Wranglers order part #TL869.

Disassembly

1. With the vehicle on the ground disconnect the emergency brake cables from the brake cable bracket attached to the underside of the body tub.
2. Raise the vehicle off the ground and support the vehicle on jack stands. Remove the tires from the vehicle.
3. Remove the brake drums from the brake assembly.
4. Unhook the hard brake line from the wheel cylinder attached to the backing plate.



5. C-clip axle removal- Remove the differential cover, unbolt the cross shaft and remove it from the carrier. Remove the c-clips. Pull the axle shafts from the vehicle.

Note: For additional information refer to the factory service manual.

6. Other semi-float applications. Remove the four nuts that hold each axle shaft into the axle and remove the axle shafts from the axle. Some leakage may be possible from the axle tubes.
7. Remove the backing plate from the axle housing.
8. Wipe the bearing pocket surface clean of grease and contaminants.
9. For semi-float applications- Press the old bearings and seals from



the axle shafts. C-clip applications do NOT need to remove the old bearings and seals.

Installation

10. Disc Brake Mounting Plate. Install the disc brake mounting plate onto the axle flange with new supplied retaining bolts (C-clip applications re-use the factory bolts) The mounting plates are identified as left and right side.



11. Properly adjust the internal drum parking brake shoes, to do this adjust the internal parking brake shoes with the adjuster until there is just enough room to slide the rotor over the shoes.
12. Retainer Plate and Preload Spacers. If your application uses a retaining plate to hold the axle shafts in place (non-clip applications), install the retaining plate and new preload spacer on axle shaft.



NOTE: There are two applications that use the DBK-JE kit, one for a Non-C-Clip Dana 35 and one for the 1986-1991 Cherokee Dana 44. The following illustration show correct installation of the preload spacer ring for either axle application.

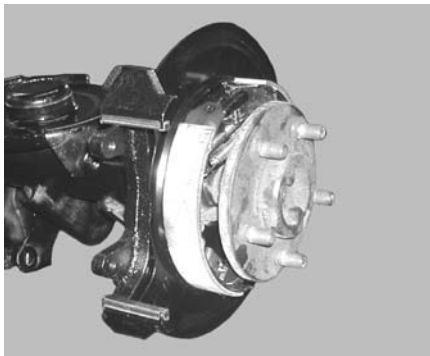


THIS SIDE (WITH CHAMFER)
MUST BE AGAINST THE AMERICAN 44 SHAFT



THIS SIDE (FLAT) CHAMFER
MUST BE AGAINST THE AMERICAN 44 SHAFT

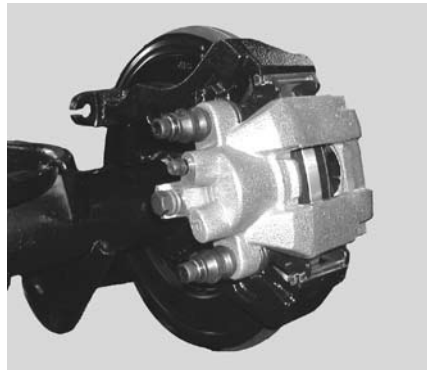
13. Grease the shaft where the axle shaft seal will be installed, then install the seal. Repeat for other side.
14. Press the new bearing and retaining collar onto the axle shaft.
15. On C-clip retained axles, slide the axles all the way into the axle housing using care to avoid damage to the splines or the bearing surface. Reinstall the C-clip and the cross shaft. Ensure that all old silicone is cleaned from the differential housing and the differential cover, and reinstall the differential cover using a new gasket or silicone. Fill the housing with new oil. C-clip applications go to step 20.



16. On applications using a retaining plate, slide the axle shafts 3/4 of the way into the axle housing.
17. Apply grease to the outside of the bearing seal assembly and slide the preload spacer onto the seal. The grease will help hold the spacer in place.
18. Slide the axle shaft the rest of the way into the axle housing. Be careful to line it up with the differential. Push the axle in by hand. Do not force it in. Damage to the splines or wheel bearing and seal may result if forced.
19. Install and tighten the nuts onto the retainer bolts through the access holes of the axle shafts.
20. Install the brake rotor.



21. Install the brake pads inside the brake caliper. Note: Install the inside pad first. Using the two supplied 8mm bolts install the caliper onto the mounting plate. Torque bolts to 11 ft. lbs.



22. Install the new flex brake hoses using new copper washers on the supplied banjo bolt. Install one copper washer onto the banjo bolt then slide the female end of the brake line end onto the banjo bolt.
23. Install the second copper washer onto the banjo bolt. Install the banjo bolt onto the caliper.
24. Weld the brake line mounting tab onto the axle tube. Then install the brake line through the tab and install the c-clip.
25. Connect the hard brake line to the soft brake lines, and bleed the brakes. Start with the passenger side first, then proceed to the driver's side. Note: You will need to purchase shorter metal brake lines from an automotive parts supplier.
26. Install the emergency brake cable onto the lever at the mounting plate. (97-current TJ Wranglers order Tera part #TL869 for proper cables.) Repeat for other side.
27. Replace tires on vehicle and

- tighten lug nuts to 110 ft. lbs. Remove vehicle from jack stands and set vehicle on ground.
28. Attach the emergency brake cable to the emergency brake cable bracket on the underside of the body.
29. Adjust the parking/emergency brake until the brake will hold the vehicle from moving when in gear.



MAINTENANCE INFORMATION:

It is the buyer's responsibility to have all suspension, drivetrain, steering, and other components checked for proper tightness and torque after the first 100 miles and every 3,000 miles after that.

NOTICE TO INSTALLER:

The enclosed "Warning to Driver" sticker must be installed in the vehicle in driver's view. This sticker is to act as a constant safety reminder when operating the vehicle. It is your responsibility as the equipment installer to install the provided sticker and to forward the product instructions to the vehicle's owner for review. If a "Warning to Driver" sticker or product installation guide were not included in the kit, FREE replacement stickers and instructions are available by request. It is the installer's duty to ensure a safe and controllable vehicle after the modifications have been performed.

WARNING:

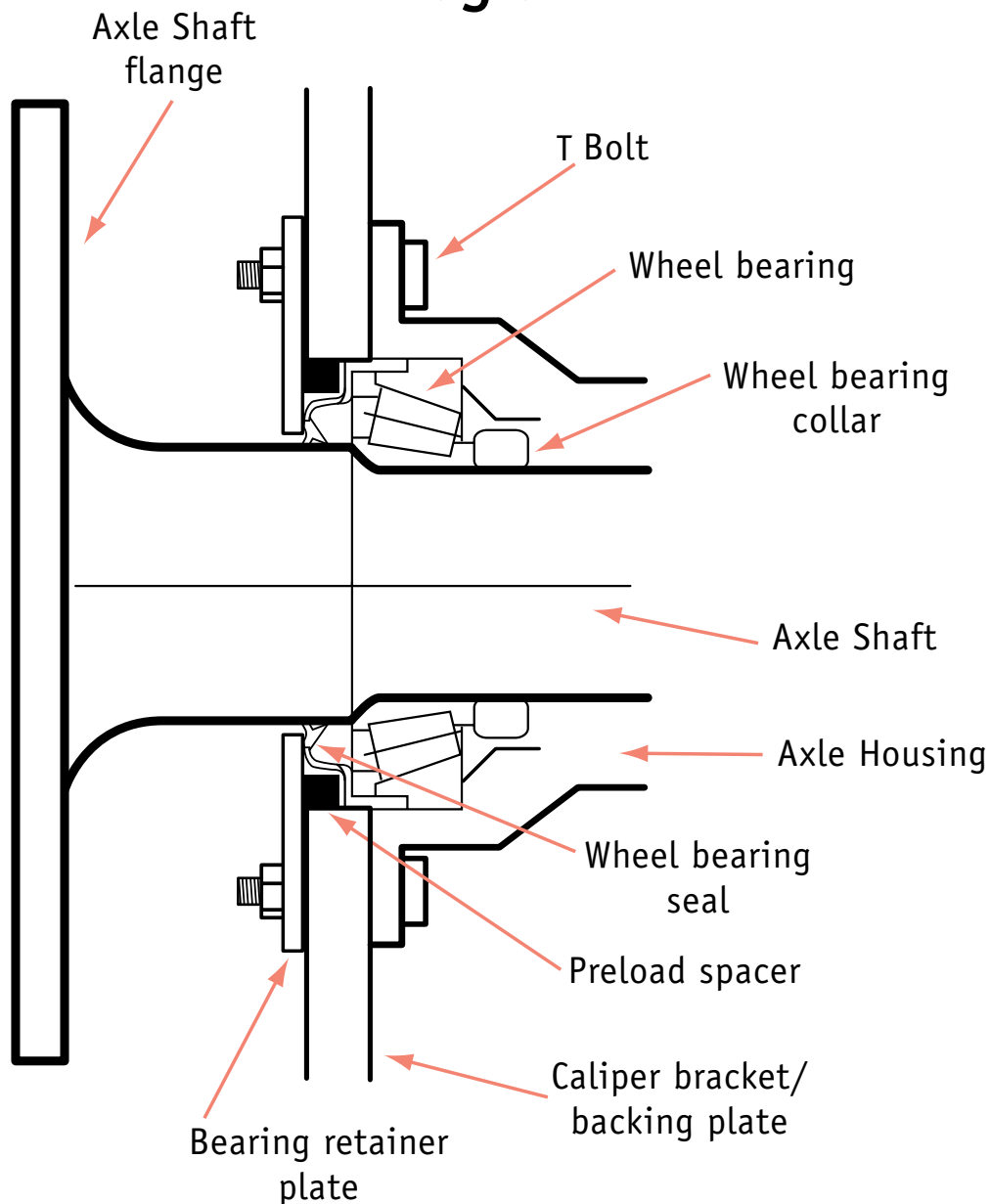
Neither the seller nor the manufacturer will be liable for any loss, damage, or injury directly or indirectly arising from the use of or inability to determine the use of these products. Before using, the user

shall determine the suitability of the products for its intended use, and the user shall assume all responsibility and risk in connection therewith.

WARNING TO DRIVER:

This vehicle has been modified to enhance off road performance and has unique handling characteristics. Because of the higher center of gravity and larger tires, this vehicle handles and reacts differently than many passenger cars, both on and off road. You must drive it safely! Extreme care should be taken to prevent vehicle rollover or loss of control, which can result in serious injury or death. Avoid sudden sharp turns or abrupt maneuvers. Generally, braking performance and capabilities are decreased when significantly larger/heavier tires are used, especially when used in combination with transfer case low-range reduction kits. Take this into consideration while driving. Do not add, alter or fabricate any factory or aftermarket parts to increase vehicle height over the intended height of the Tera Manufacturing product purchased. Mixing component brand is not recommended. Tera Manufacturing will not be responsible for any altered product or any improper installation or use of our products. We will be happy to answer any questions concerning the design, function, and correct use of our products. It is ultimately the buyer's responsibility to have all bolts/nuts checked for tightness after the first 100 miles and then every 3,000 miles. Wheel alignment, steering system, suspension and drive line systems must be inspected by a qualified professional mechanic at least every 3,000 miles.

Disc Brake Axle Flange Diagram



TERAFLEX **PRODUCT INFORMATION**

MAINTENANCE INFORMATION:

It is the buyer's responsibility to have all suspension, drivetrain, steering, and other components checked for proper tightness and torque after the first 100 miles and every 3000 miles after that.

NOTICE TO INSTALLER:

The enclosed "Warning to Driver" sticker must be installed in the vehicle in driver's view. This sticker is to act as a constant safety reminder when operating the vehicle. It is your responsibility as the equipment installer to install the provided sticker and to forward the product instructions to the vehicle's owner for review. If a "Warning to Driver" sticker or product installation guide were not included in the kit, FREE replacement stickers and instructions are available by request. It is the installer's duty to ensure a safe and controllable vehicle after the modifications have been performed.

WARNING:

Neither the seller nor the manufacturer will be liable for any loss, damage, or injury directly or indirectly arising from the use of or inability to determine the use of these products. Before using, the user shall determine the suitability of the products for its intended use, and the user shall assume all responsibility and risk in connection therewith.

WARNING TO DRIVER:

This vehicle has been modified to enhance off road performance and has unique handling characteristics. Use in harsh environments can cause extreme stress on the components. Vehicle should be inspected after being off road to make sure that all the components are in working order and safe to travel on the highway. All fasteners should be checked so that they are at the correct torque specifications as the vibration and stresses from off roading may cause critical fasteners to work loose. Extra care should be taken to inspect the critical components, steering, and brake systems. During each oil change components such as arms, tie rod ends, etc should be greased and checked for excessive wear. Any worn components should be replaced. When returning to the pavement always set or restore tire air pressure to the factory recommendation and connect or engage any disabled sway bar mechanisms. Because of the higher center of gravity and larger tires, this vehicle handles and reacts differently than many passenger cars, both on and off road. You must drive it safely! Extreme care should be taken to prevent vehicle rollover or loss of control, which can result in serious injury or death. Avoid sudden sharp turns or abrupt maneuvers. Generally, braking performance and capabilities are decreased when significantly larger/heavier tires are used, especially when used in combination with transfer case low-range reduction kits. Take this into consideration while driving. Do not add, alter or fabricate any factory or aftermarket parts to increase vehicle height over the intended height of the TeraFlex product purchased. Mixing component brand is not recommended. TeraFlex Inc. will not be responsible for any altered product or any improper installation or use of our products. We will be happy to answer any questions concerning the design, function, and correct use of our products. It is ultimately the buyer's responsibility to have all bolts/nuts checked for tightness after the first 100 miles and then every 3000 miles. Wheel alignment, steering system, suspension and drive line systems must be inspected by a qualified professional mechanic at least every 3000 miles.

TERAFLEX PRODUCT WARRANTY:

Tera Manufacturing warrants TeraFlex Suspension products to the original retail purchaser to be free of defects in material and workmanship for as long as the original purchaser owns the vehicle on which products were originally installed.

Failure to complete regular maintenance (grease every 3000 miles) on TeraFlex FlexArms will void this warranty. All other conditions of the standard TeraFlex product warranty apply.

All TeraLow products are covered by TeraFlex's two (2) year warranty to be free of defects in material and workmanship for two years from date purchased.

Tera axles are covered by a 12-month warranty to be free of defects in materials and workmanship.

This warranty does not cover or include product finish, improperly installed or applied products, improperly maintained products, products or components used for racing or competition or damage due to abuse or neglect, products that fail due to the use of larger tire and wheel combinations.

All returns must be accompanied by an original invoice. It is the customer's responsibility to remove the product from the vehicle. Shipping charges are the responsibility of the customer. Tera Manufacturing will pay the return freight if the product meets the terms of warranty.

This warranty is for the replacement or repair of defective TeraFlex products only and does not include freight charges, labor charges for removal of or installation of TeraFlex or related products or components, costs incurred due to down time of the vehicle, or lost profits due to vehicle down time.

A returned goods authorization number (RGA#) must accompany any returned products. For more information please contact a TeraFlex customer service representative.

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