

TERAFLEX

INSTALLATION GUIDE

4.0L Heavy Duty Engine Oil Pan Skid Plate

Fits all Models with 4.0L Engine

Part Number 4667100

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 this product. 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.



Component description:

1	Skid plate
1	Rear bell housing bracket
2	M10-1.50 x 25 mm bolts
2	5/16-18 x 1-1/4 bolts
4	5/16 flat washers
1	M12-1.25 x 20 mm bolt
1	7/16 flat washers
2	3/8-16 x 1 bolt
2	3/8-16 x 1 1/4 bolt
10	3/8 flat washers
6	3/8 split lock washers
2	3/8-16 flange nuts
2	M12-1.75 x 55 mm bolts

Note: The Rear bell housing bracket is not always used. Some of the photos in this installation guide show the optional mount for the HD transmission skid, sold separately.

The M12-1.25 bolt is used on the driver side of the block on some 4.0L engines 1991-1999. Newer engines use the 3/8-16 x 1 bolts on both sides of the block.

General Information

This HD Engine Oil Pan Skid kit fits a variety of applications. Depending on the year and transmission model you may have leftover parts. Read the entire installation guide before working on your vehicle.

Installation:

1. The front upper arms on the engine skid bolt into existing holes on the engine block. Hold the skid up in place to identify the holes and then clean the rust and mud out of the holes. Most TJs will be 3/8-16 threads on both

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sides but some engine blocks from 1991-1999 will have a metric thread M12-1.25 on the driver side of the block. If your engine has a knock sensor in the 12 mm bolt hole, remove the sensor and reinstall it through the arm on the HD skid plate. Be careful to select the correct bolt for your Jeep. If the bolt bottoms out before it is tight on the skid arm bracket, put an additional flat washer under the head of the bolt.

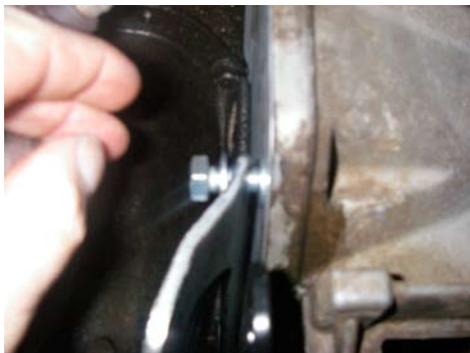
Note: The automatic transmission cooler lines will have to be temporarily moved to allow access to the engine block bolt on the left side. Just remove the clip or bolt from the hanger and then put them back in place once the engine skid is installed.



2. Install both engine side bolts first leaving them loose until the bell housing bolts are installed, then move the back of the skid up near the bell housing. Using the bolt holes on the skid, remove the corresponding factory bolts and move the skid up into place.

Note: Manual transmission models may have a small bolt in the bottom center of the bell housing holding on the inspection cover. Remove this bolt.

Older than 2003, Automatic



3. On Jeeps built prior to 2003, you will either have two 5/16 bolts or two 12 mm bolts and nuts that will be replaced with new hardware from the hardware bag included with the HD skid. Choose the correct size flat washer and put one or two flat washers between the bracket on the back of the engine skid and the bell housing inspection plate. Do not remove the inspection plate. The washers will keep the new engine skid from bending the inspection plate against the flywheels. Put in the 5/16-18 x 1-1/4 bolts for automatic transmissions or the M12-1.75 x 55 mm bolt with the original nut for manual transmissions.

2003-2006 with extra bracket



4. On 2003 and newer Jeeps the addition bell housing bracket is used. Hold the bell housing bracket up to the bell housing to see which bolts need to be removed. Remove the 2 factory M10 bolts, install the bracket to the bell housing just finger tight using the supplied M10-1.50 x 25 bolts with flat washers. Put one flat washer between the new bracket and the bell housing to space the bracket away from the thin inspection cover.

5. Lift the skid plate up into place and bolt it to the bell housing bracket using the 3/8-16 x 1 1/4 bolts with flat washers, split locks and nuts. Just finger tight at this time.

6. Tighten the side engine bolts to 35 ft. lbs, then tighten the M10 bell housing bolts to 25-30 ft. lbs, then finally tighten the skid plate to bell housing bolts to 35 ft. lbs.

Installation is complete.





On a TJ Wrangler the engine oil skid along with the HD transmission skid and Belly Up skid plate provide protection to all vital components when operating in rocky terrain.

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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