

# TERAFLEX

## INSTALLATION GUIDE

# Installation Guide for the TJ & YJ (Auto Trans Only) BellyUp Skidplate Kit (BUT-03)



### Warning:

This kit may not provide all of the hardware that is necessary to complete the installation. Please review the following information before you begin the installation process.

**Drive line Vibration:** This product does and will effect drive shaft angle and may cause drive shaft vibration. This kit may require the use of TeraFlex's HD Short Shaft Kit (#231SS) or equivalent.

**Fan Shroud:** Vehicles without a body lift may not have enough clearance between the radiator fan and the shroud. If you have a body lift, you may need to install the engine mount spacer kit (Part #ESK5/8) included in the kit. Check fan Clearance BEFORE starting your engine.

**Rubicon Owners:** This kit may not contain all of the parts necessary to complete the installation on your vehicle. Because of the larger transfer case in the Rubicon models, there will be a clearance issue between the transfer case and the floor of the vehicle. A 1" body lift (#BL1T) or a 1/2" transfer case lowering kit (#TCLKTY-1/2-03+) will provide the clearance needed without having to 'dimple' the floor pan.

**Note: The Rubicon air compressor system must be relocated. A compressor mounting bracket is available seperately from TeraFlex, part number (BLD211).**

**Frame variations:** We have seen a considerable variation in the frames that we have measured; Some adjustments may be needed to fit this skid plate to your vehicle.

This kit is not all inclusive. Some additional parts may be necessary as outlined above. Think safety first when installing this kit.

**YJ Owners-** Included in this kit is a plate to adapt to the YJ vehicle. If your kit did not come with this plate please contact Tera Manufacturing directly.

**Note: This kit is for YJ automatic trans only. Manual trans YJ should use TeraFlex part number BUY.**

**Tera Manufacturing, Inc.**  
5251 South Commerce Dr.  
Murray, Utah 84107  
Phone/801.288.2585  
Fax/801.713.2313  
www.teraflex.biz

## Installation

1. Make sure that you have all the pieces to your kit prior to beginning work on your vehicle. See the warning on the previous page to see a list of the items and additional steps that may be necessary for your specific application.
2. Block rear tires. Set brake. Use a floor jack to support the weight of the transmission.
3. For 2003 and newer TJs with an automatic transmission, you will need to remove the stock automatic transmission skid plate. This skid plate cannot be used with this kit or on a lifted vehicle.
4. Remove the four bolts that connect the transmission to the skid plate.
5. Loosen the six frame rail bolts. Use jack stands to support the factory skid plate, then remove the six bolts and the factory skid plate.
6. For 2002 and earlier TJ automatics, remove the existing transmission mounting plate and install it on the new Belly Up plate.
7. Attach your new Belly Up skid plate to the frame by aligning the transmission bolts with the holes in the skid plate and then bolting the skid plate to the frame using the original six factory bolts.
8. Bolt the transmission mount to the skid plate using the factory nuts and the mounting holes in the center of the plate.

## Recommended Products

### BL1T

One-inch body lift. May be required for use with this kit. Eliminates need for exhaust modification, and 'dimpling' the floor pan on Rubicon models.

### 231SS

Short shaft kit/slip-yoke eliminator. May be required for BellyUp skid plate to eliminate driveshaft vibration.

### RST

Rear lower shock mounts for TJs. Helps restore the TJs rear shocks to their original position when used on axles with high pinion angles.

### FARU/FAFU/FATJ

The adjustability of the upper and lower FlexArms can be used to properly correct pinion angles for use with the BellyUp skid plate.

### TBART

Adjustable rear track bar for TJs.

## Troubleshooting

### Drive shaft vibrations

If drive shaft vibrations occur:

- a) adjust axle pinion angle for proper drive shaft angles.
- b) Use a transfer case lowering kit to reduce the driveshaft angles.

97-02 TJs	1/2" drop= #TCLKTY-1/2
	1" drop= #TCLKTY
2003+ TJs	1/2" drop= #TCLKTY-1/2-03+
	1" drop= #TCLKTY-03+

### Exhaust alignment

The addition of a one-inch body lift will generally eliminate the need to adjust the exhaust.

### Shift Linkage Adjustment

1. Shift transfer case into 4L position.
2. Raise vehicle.
3. Loosen lock bolt on adjustment trunnion.
4. Be sure linkage rod slides freely in trunnion. Clean rod and apply spray lube if necessary.
5. Verify that the transfer case range lever is fully engaged in 4L position.
6. Tighten adjusting trunnion lock bolt.
7. Lower vehicle.

### Shift Linkage Binding

If binding occurs in the shift linkage:

- a) install a 1" body lift if you do not have a body lift.
- b) Install a modified bell crank for 97-02 TJs (#00583) or a shift linkage plate for 2003+ TJs (#SLK-03)