



Installation Guide for BellyUp Skid Plate for TJs (BUT)



Warning:

This product does and will effect drive shaft angle and may cause drive shaft vibration. Some time making adjustments may be needed to fit this skid plate to your vehicle.

It will be necessary to adjust the clearance of the exhaust. The addition of a one-inch body lift (#BL1T) or six half-inch spacers (#TFBUS) to lower the skid plate will be sufficient. The BL1T also helps maintain the geometry of shift levers inside the vehicle.

Think safety first when installing this kit. The installation of this kit will require use of the TeraFlex 231SS or equivalent.

Component list

Please check the components in your kit prior to beginning installation. Each kit should include:

- | | |
|----------------------------|--------------------------------|
| 1 Belly Up Skid Plate | 2 Motor Mount Spacers |
| 2 Engine Mount Nuts | 6 1/2" x 1/5" Buttonhead bolts |
| 8 1/2" lock washer | 2 3/8" washer |
| 1 Bellcrank (torque shaft) | 2 10mm x 40mm bolt |

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Getting Started

Preparation

1. Make sure that you have all the pieces to your kit prior to beginning work on your vehicle.
2. Lift the carpet on the driver's side of the TJ. You will need to remove the four bolts located just below and to the side of the shift levers. This step will make future steps easier.



3. Block rear tires. Set brake. Use a floor jack to raise the front of the vehicle.

Motor Mount Spacers

4. Starting on one side of the motor, remove the two bolts on the motor mount bracket.
5. Place a jack stand under the area where the bracket attaches to the motor. Then slightly lower the floor jack so the jack stands take the engine's weight and separates the upper and lower portions of the mounting bracket.

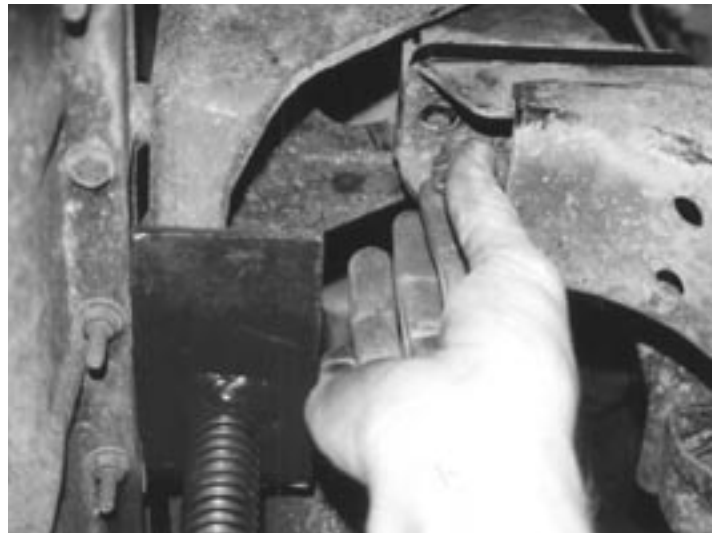


6. Place the rectangular motor mount spacers in the opening created in step 5. Place the spacer so the larger of the two holes is positioned to the center of the vehicle.



7. Install new bolts into position. Use the special nut included with this kit in combination with the stud (which is part of the motor mount). Apply Loctite to the stud and special nut.

Note: Some applications will require drilling the motor-side bolt location to 1/2". This does not apply to all installations.



8. Repeat this procedure for the opposite side.

Skid Plate Removal

9. Support the weight of the transmission with a floor jack prior to removing the stock skid plate/cross member.
10. Remove the bolts near the outside edge of the skid plate. Remove the bolts that connect the transmission to the skid plate.

Bellcrank Adjustment

11. Once the skid plate has been removed, it will be much easier to access the shifting adjustment. The mounting plate for the shift mechanism was disconnected in the preparation stages.
12. Remove the shift rods from the old bell crank.
13. Remove the rubber bushings from the old bell crank and install them on the new bell crank. The photo below shows the stock bellcrank and the new bellcrank.



14. Depending on the configuration of your vehicle, it may be necessary to notch out a portion of the mounting bracket in order to fit the modified bellcrank. It may also be necessary to trim the end of the torque shaft/bell crank.



15. Re-install the shifting components. Reattach the mounting bracket to the body of the vehicle. This process is easier with two people.

(Note: Should adjustment to the shift linkage be necessary, consult the portion of the troubleshooting notes dedicated to shift linkage adjustment located at the end of these instructions.)



16. Attach the skid plate to the frame using the six button head bolts and lock washers provided.
17. Connect the transmission mount to the skid plate using the mounting holes in the center.

Note: For automatics, remove existing bracket on the stock skid plate and attach it to the Belly Up skid plate.



Troubleshooting

Drive shaft vibrations

If drive shaft vibrations occur:

- a) adjust axle pinion angle for proper drive shaft angles.
- b) shim down the skid plate.

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.

Recommended Products

BL1T

One-inch bodylift. Required for use with this kit. Eliminates need for exhaust modification.

231SS

Short shaft kit/slip-yoke eliminator. Required for BellyUp skid plate.

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.