



## 05'-FORD F250/350 4x4 LEVELING KIT (FRONT) Installation Instructions



Vehicles that have been modified for performance enhancement by either raising, lowering, and or the addition of larger or smaller tires will have very different handling characteristics. These modifications may dramatically change the vehicle's driving and handling dynamics and may result in rollover or loss of control.

It is the operator's obligation to operate the vehicle in a safe and responsible manner. Operating the vehicle in an unsafe manner or in unsafe conditions could cause serious bodily injury and or loss of life.

If your state does not allow the legal modification of your vehicle's suspension, **STOP NOW**, and do not install the system.

Your vehicle's warranty may be affected by the modification of your suspension. Please check with your vehicle manufacturer prior to installation.

### PLEASE READ ALL INSTRUCTIONS FIRST!

In case of doubt please contact your local BILSTEIN dealer before installation.

When replacing other brands, BILSTEIN shock absorbers should always be installed as a set. Installation of shock absorbers, suspension springs, struts and cartridges require special tools and expert knowledge. Accordingly, installation of all BILSTEIN products must be performed by a qualified suspension specialist.

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Always use a chassis hoist for the installation of BILSTEIN products and make certain that the raised vehicle is hoist and/or supported to prevent the vehicle from slipping, falling, or moving during the installation process.

**If you choose to install any BILSTEIN product without the necessary special tools, expertise or chassis hoist, you may subject yourself to the risk of serious bodily injury or death.** If you elect not to use a chassis hoist, at least make sure the vehicle is on level ground, that all tires on the ground during installation are blocked to prevent movement, that at least two tires are on the ground at all times, and that adequately secured safety stands (jack stands) are used to support the chassis. **NEVER** get under the vehicle until you have checked to make sure all of these steps are performed.

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All BILSTEIN products must only be used for the vehicle application specified in the BILSTEIN application guide. **The use of BILSTEIN product other than its intended application may result in serious bodily injury or death.**

BILSTEIN suspension products incorporate a highly pressurized gas chamber. Do not fixture a BILSTEIN product in vice or similar clamping device. Never apply heat to a BILSTEIN product and do not attempt to open or repair any BILSTEIN product. Any attempt to misuse, misapply, modify, or tamper with BILSTEIN suspension product voids the warranty and **may result in serious bodily injury or death.**

All mounting fasteners for struts must be securely tightened before tension is placed on the suspension system. Make sure that the bump stop and dust cover are properly fastened.

Do not use impact tools for loosening or tightening fasteners. This may damage the fasteners and/or Bilstein product.

Self-locking nuts may only be used **once!**

Suspension springs are **PRELOADED!** The top mount must not be removed until the preload pressure is no longer present and the spring can be moved by hand or **serious bodily injury or death may result.**

Reuse original equipment components only if they are in good condition. Replace worn parts with new components.

Do not remove the film of oil from the piston rod and seal. The shafts are self lubricating to ensure the longevity of the wiper seal.

After installing any BILSTEIN product, the suspension caster and camber must be checked and/or adjusted to comply with the vehicle manufacturer's specifications. The (load dependent) brake compensator and the anti-lock brake system must be checked and/or reset to comply with the vehicle manufacturer's specifications. Headlight alignment must be checked and adjusted.

Be sure to properly dispose of all old parts.

## REMOVAL / INSTALLATION



**Note:** *Installation of this kit and alignment of the vehicle should be performed by a qualified technician. Use of proper tools and observance of all safety precautions is required.*

1. **Immediately inspect all parts and instructions prior to installation of this kit!**



### **CAUTION!**

**READ THIS BEFORE REMOVING THE COIL SPRING:** There will be a high pre-load force on the coil spring during installation.

2. Support vehicle on a chassis hoist or make sure the vehicle is on level ground and apply the emergency brake. Block the wheels for extra safety. **Do not lift the front wheels off the ground.** Raise vehicle at the frame allowing the wheels to stay in contact with the ground.
3. Remove the brake line bracket from the axle housing near the lower spring perch. **See figure 1.** This will allow the brake line to extend without failure.

**Fig. 1**



4. Remove sway bar links at lower attachment points. **See figure 2.** Pull links out of mount holes and secure sway bar to frame. *Failure to this will result in possible damage to sway bar attachment points.*

**Fig. 2**



5. Remove O.E. upper shock mount.
6. Raise vehicle until O.E. springs become loose in the seats and remove. **Take caution not to over extend brake lines!!!!**
7. Remove lower shock mount bolt and remove the shock absorber.
8. Install Bilstein BTS spring part # **E4-FD1-Y027B00**. Make sure factory **upper isolator is reinstalled** on Bilstein unit and the lower spring coil end is mated to the factory spring stop.
9. Install Bilstein shock Part # **F4-BE5-C335-H0** at lower attachment point; hand tighten only. Install lower portion of the upper mounting hardware on to the mounting stem.
10. Lower vehicle **slowly** checking for proper spring alignment periodically. Guide the shock absorber mounting stem into the frame mounting hole.
11. Install the remaining upper shock mounting hardware. Confirm the stem bushings are centered in the hole before tightening the lock nut.
12. Reinstall brake line brackets and sway bar links. Torque to manufacturer's specifications.
13. Lower the vehicle to static ride height and torque lower shock mount bolt to manufacturer's specifications.
14. Inspect all points of attachment and the brake/ABS lines for clearance. Adjust if necessary.
15. Align the vehicle to factory specifications before driving any more than 10 miles. Inspect and re-torque all hardware after the first 50 miles of driving and periodically thereafter.