# 2020 2500/3500HD 1.5"-2" TORSION ADJUSTERS

Thank you for choosing Rough Country for your suspension needs.

Rough Country recommends a certified technician install this system. In addition to these instructions, professional knowledge of disassemble/reassembly procedures as well as post installation checks must be known. Attempts to install this system without this knowledge and expertise may jeopardize the integrity and/or operating safety of the vehicle.

#### PRODUCT USE INFORMATION

As a general rule, the taller a vehicle is, the easier it will roll. Offset, as much as possible, what is lost in rollover resistance by increasing tire track width. In other words, go "wide" as you go "tall".

Do not add, alter, or fabricate any factory or after-market parts to increase vehicle height over the intended height of the Rough Country product purchased. Mixing component brands, lifts, and/or combining body lift with suspension lifts voids all warranties. Rough Country makes no claims regarding lifting devices and excludes any and all implied claims. We will not be responsible for any product that is altered.

Braking performance and capability are decreased when significantly larger/heavier tires and wheels are used. Take this into consideration while driving.

The required installation time for this system is approximately 2 hours. This suspension system was developed using 35 x12.50 R20 tire on a maximum +47mm offset (Factory Wheel) to a minimum of 20x9" wheel with 5.75" backspacing (+20mm offset). Before installing other combinations, please consult your local tire and wheel specialist.

A front-end alignment should ALWAYS be checked after installing ANY vehicle suspension lift. This kit typically requires a slight toe-in adjustment. Record the ride height measurement at the time of alignment. If, in the future the torsion bars settle excessively, alignment can be restored by adjusting-up the bars to their original ride height.

If questions exist on the design, function, and correct use of our products please contact us at 800-222-7023.

## NOTICE TO DEALER AND VEHICLE OWNER

Any vehicle equipped with any Rough Country product should have a "Warning to Driver" decal installed on the inside of the windshield or on the vehicle's dash. The decal should act as a constant reminder for whoever is operating the vehicle of its unique handling characteristics.



## FRONT INSTALLATION INSTRUCTIONS

- 1. Place the vehicle in neutral. Raise the front of the vehicle with a jack to slightly raise the tires of the ground and support the frame with jack stands beneath each frame rail behind the lower control arms. Installation is done one side at a time, starting with the driver side. The torsion bar adjusters are under the cab of the vehicle at the rearward end of the torsion bars.
- 2. Remove the shock from the upper mount using a 21mm wrench as shown in **Photo 1** using a 21mm wrench. Retain the factory hardware.
- 3. Install the new spacer sleeves as shown in **Photo 2** with the factory shock absorber
- 4. Reinstall the shock with the sleeves in the stock mount and tighten factory hardware using a 21mm wrench.
- 5. Measure and take note of how much thread is remaining on the torsion bar adjuster bolt. You will reset the bars at this





same location with the new adjusters.

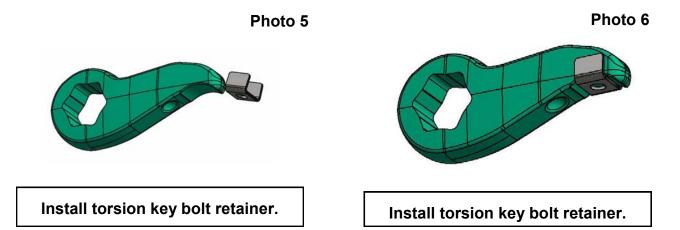
6. Use extreme caution when loading and unloading the torsion bars; there is a tremendous amount of energy stored in them. Keep your hands and body clear of the adjuster arm assembly and the puller tool in case anything slips or breaks. Note: Because of the extreme loads generated by the torsion bars on these vehicles, a standard tow-jaw puller may bend the "lips" of the cross member and may pop out of place. For best results use a torsion bar tool available from Rough Country or equivalent.

- 7. On the driver side remove the stock torsion bar adjuster bolt using a 21mm socket. See Photo 3.
- 8. Load the torsion bar using the tool and remove the stock threaded block. See Photo 4.
- 9. Slide the torsion bar forward allowing the OE torsion key to fall out.

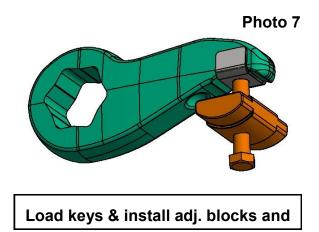




10. Install the supplied torsion key bolt retainer on the torsion key. See Photos 5 & 6.



- 11. Load the supplied torsion keys and install adjustment blocks and bolts. Set the bolts to the recorded measurement from step 5. **See Photo 7.**
- 12. Reinstall the wheels/tires.
- 13. Jack up the vehicle and remove the jack stands.
- 14. Lower the vehicle to the ground.





## POST INSTALLATION INSTRUCTIONS

After the torsion bar adjusters have been installed and tightened to the factory measurement taken in step #5. Additional adjustment may need to be performed to level the vehicle. This is done by either tightening or loosening the torsion bar adjuster bolts. Use a floor jack to support the side of the vehicle that is being adjusted, raising the tires slightly off the ground and only adjusting the bolt 1-2 turns at a time to ensure the leveling of the truck. After adjustment lower the vehicle to the ground and recheck for level. This may take several attempts. As with any lift installed, adjustment of the front headlights is required after installation. Note – the air dam on the front may need to be trimmed for additional clearance, depending on the tire size and if used the dimensions of aftermarket wheels.

By purchasing any item sold by Rough Country, LLC, the buyer expressly warrants that he/she is in compliance with all applicable, State, and Local laws and regulations regarding the purchase, ownership, and use of the item. It shall be the buyers responsibility to comply with all Federal, State and Local laws governing the sales of any items listed, illustrated or sold. The buyer expressly agrees to indemnify and hold harmless Rough Country, LLC for all claims resulting directly or indirectly from the purchase, ownership, or use of the items.

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Braking performance and capability are decreased when significantly larger/heavier tires and wheels are used. Take this into consideration while driving.

The required installation time for this system is approximately 2-3 hours. This suspension system was developed using 35 x12.50 R20 tire on a maximum +47mm offset (Factory Wheel) to a minimum of 20x9" wheel with 5.75" backspacing (+20mm offset). Before installing other combinations, please consult your local tire and wheel specialist.

A front-end alignment should ALWAYS be checked after installing ANY vehicle suspension lift. This kit typically requires a slight toe-in adjustment. Record the ride height measurement at the time of alignment. If, in the future the torsion bars settle excessively, alignment can be restored by adjusting-up the bars to their original ride height.

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#### FRONT INSTALLATION INSTRUCTIONS

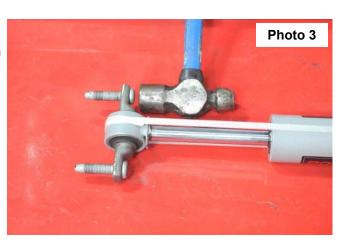
- 1. Place the vehicle in neutral. Raise the front of the vehicle with a jack to slightly raise the tires of the ground and support the frame with jack stands beneath each frame rail behind the lower control arms. Installation is done one side at a time, starting with the driver side. The torsion bar adjusters are under the cab of the vehicle at the rearward end of the torsion bars.
- 2. Remove the shock from the upper mount using a 21mm wrench as shown in **Photo 1** using a 21mm wrench. Retain the factory hardware.
- 3. Using a hammer, drive out the studs from the upper stock shock bar-pin. You may need to place the bar-pin in a vise. See Photo 2.
- 4. Drive the studs into the bar-pin on the supplied 660795 Rough Country shock. You may need to place the bar-pin





in a vise. See Photo 3.

- Install the supplied 660795 shock using the factory hardware.
- 6. Measure and take note of how much thread is remaining on the torsion bar adjuster bolt. You will reset the bars at this same location with the new adjusters.
- 7. Use extreme caution when loading and unloading the torsion bars; there is a tremendous amount of energy stored in them. Keep your hands and body clear of the adjuster arm assembly and the puller tool in case anything slips or breaks. Note: Because of the extreme loads generated by the torsion bars on these vehicles, a standard tow-jaw puller may bend the "lips" of the cross member and may pop out of place. For best results use a torsion bar tool available from Rough Country or equivalent.

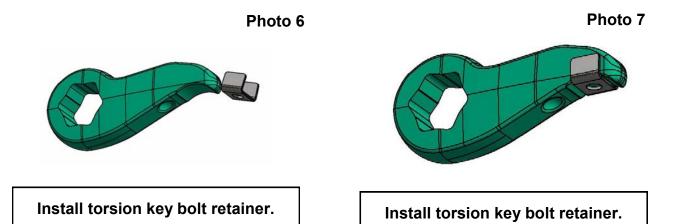


- 8. On the driver side remove the stock torsion bar adjuster bolt using a 21mm socket. See Photo 4.
- 9. Load the torsion bar using the tool and remove the stock threaded block. See Photo 5.
- 10. Slide the torsion bar forward allowing the OE torsion key to fall out.

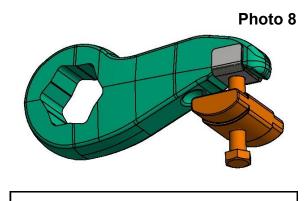




11. Install the supplied torsion key bolt retainer on the torsion key. See Photos 6 & 7.



- 12. Load the supplied torsion keys and install adjustment blocks and bolts. Set the bolts to the recorded measurement from step 5. **See Photo 8.**
- 13. Reinstall the wheels/tires.
- 14. Jack up the vehicle and remove the jack stands.
- 15. Lower the vehicle to the ground.



Load keys & install adj. blocks and



## POST INSTALLATION INSTRUCTIONS

After the torsion bar adjusters have been installed and tightened to the factory measurement taken in step #5. Additional adjustment may need to be performed to level the vehicle. This is done by either tightening or loosening the torsion bar adjuster bolts. Use a floor jack to support the side of the vehicle that is being adjusted, raising the tires slightly of the ground and only adjusting the bolt 1-2 turns at a time to ensure the leveling of the truck. After adjustment lower the vehicle to the ground and recheck for level. This may take several attempts. As with any lift installed, adjustment of the front headlights is required after installation. Note – the air dam on the front may need to be trimmed for additional clearance, depending on the tire size and if used the dimensions of aftermarket wheels.

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