

**TF169: TERRAFIRMA 4 STAGE ADJUSTABLE SHOCK ABSORBER – +5” LONGER – FRONT & REAR****DEFENDER 90 / 110 / 130, DISCOVERY 1 & RANGE ROVER CLASSIC****FITTING INSTRUCTIONS**

1. Put the car into gear and apply the hand brake, loosen front wheel nuts, raise vehicle on a jack and then support the front axle on axle stands.
2. Remove the front wheels.
3. Remove the plastic cover on the inner wheel arch and expose the top of the turret.
4. Undo the nut on the bottom of the shock absorber remove all bushes and washers.
5. Undo the 4 nuts securing the shock absorber turret to the chassis bracket then Pull the turret and shock absorber out through the hole in the inner wing.
6. Undo the nut on the top of the shock absorber and then pull out of the turret removing all bushes and washers.
7. Fit the new shock absorber in through the turret, with the new washers and bushes in the correct order, then tighten the top nut.
8. Drop the turret and shock absorber back through the hole in the inner wing, fit the washers and nuts and tighten down the turret onto the chassis bracket.
9. Fit the upper bottom washers and bush, before pulling the lower part of the shock down through the spring seat. Then fit the lower bottom washers and bush and the securing nut, Tighten the bottom securing nut.
10. Replace the inner wing cover.
11. When both sides are done refit wheels lower the car off of the axle stands and torque the wheel nuts correctly.
12. 4-stage adjustable shocks are designed with an adjustable knob at the lower end of the body that allows you to configure your ride depending on your needs and your desired comfort. No.1 is the softest comfort setting increasing to No. 4 for the firmest sport setting.



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13. Put the car into gear and apply the hand brake, loosen the rear wheel nuts, raise the vehicle on a jack and then support the rear axle on axle stands.
  14. Remove the rear wheels.
  15. Undo the nut on the bottom of the shock absorber remove all bushes and washers.
  16. Undo the nut on the top shock absorber chassis mount and then pull the shock absorber off of the mounting removing all bushes and washers.
  17. Fit the top of the new shock through the special Terrafirma extreme long travel rear top shock mounts TF519\*\* with the washers and bushes in the correct order, fit and tighten the securing nut.
  18. Fit the upper bottom washers and bush, before pulling the lower part of the shock absorber down through the axle mounting bracket \*. Then fit the lower bottom washers and bush and the securing nut, Tighten the bottom securing nut.
  19. When both sides are done refit wheels lower the car off of the axle stands and torque the wheel nuts correctly.
- a. **\*NOTE – For long travel (+2" and longer) shocks it is an advantage to remove the metal bush cups found on post 1994 Defenders and Discovery rear axles, this will allow unrestricted movement of the lower shock mount.**
  - b. **Allowing the shock bush washers to contact the metal bush cup can cause premature shock failure.**



- c. **\*\*NOTE – Terrafirma TF169 +5" shocks have pin top mounts instead of the conventional ring, this is to allow unrestricted articulation and movement of the mounting point. To allow these shocks to be fitted it is necessary to also fit TF519 extreme long travel rear top shock mounts that are simply bolted to the original mounting points. These are sold separately and not included with the shock absorbers.**

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