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› [Terra firma](#) /

› [Terra firma All Terrain Shock & Coil Spring Suspension Kit TF202 User Manual](#)

Terra firma TF202

Terra firma All Terrain Shock & Coil Spring Suspension Kit TF202 User Manual

Model: TF202 | Brand: Terra firma

1. INTRODUCTION

This manual provides essential information for the installation, operation, and maintenance of your Terra firma All Terrain Shock & Coil Spring Suspension Kit, Medium Load, model TF202. This kit is designed to enhance the off-road capability and load-carrying capacity of compatible vehicles, providing approximately 2 inches (50mm) of lift. The TF202 kit is suitable for Defender 90, Discovery 1, and Range Rover Classic models. It is specifically engineered for vehicles carrying up to 100kg of additional equipment at the front (e.g., winch and bumper) and up to 200kg of equipment or load at the rear.

2. PRODUCT OVERVIEW AND COMPONENTS

The Terra firma TF202 All Terrain Suspension Kit includes the following components:

- **TF018 Front Springs:** Designed for the front axle, providing lift and supporting medium loads.
- **TF116 Front Shocks:** All-terrain shock absorbers for the front axle, complementing the TF018 springs.
- **TF023V Rear Springs:** Designed for the rear axle, providing lift and supporting medium to heavy loads.
- **TF117 Rear Shocks:** All-terrain shock absorbers for the rear axle, complementing the TF023V springs.
- **Installation Hardware:** Necessary components for securing the shocks and springs.



Figure 1: Overview of the Terra firma TF202 All Terrain Shock & Coil Spring Suspension Kit, showing four coil springs and four shock absorbers.

3. SETUP AND INSTALLATION

Installation of a suspension kit requires specialized tools and expertise. It is highly recommended that this kit be installed by a qualified professional mechanic. Improper installation can lead to vehicle instability, component failure, and serious injury.

3.1 Safety Precautions

- Always use appropriate personal protective equipment (PPE), including safety glasses and gloves.
- Ensure the vehicle is securely supported on jack stands on a level surface before beginning any work. Never rely solely on a jack.
- Disconnect the battery before working on any electrical components, though not typically required for suspension.
- Refer to your vehicle's service manual for specific torque specifications and procedures.
- Exercise caution when handling springs, as they are under compression and can cause injury if released improperly.

3.2 General Installation Steps (Consult Professional)

1. **Prepare Vehicle:** Park the vehicle on a level surface, engage the parking brake, and block the wheels. Loosen lug nuts on all wheels.
2. **Lift Vehicle:** Safely lift the vehicle and support it with jack stands under the frame. Remove the wheels.
3. **Remove Old Components:** Carefully remove the original shock absorbers and coil springs. This often involves disconnecting sway bar links, brake lines (if necessary), and other suspension components to allow for sufficient axle droop. Use spring compressors if required for safe removal of coil springs.
4. **Install New Springs:** Install the new Terra firma coil springs (TF018 front, TF023V rear) into their respective positions. Ensure they are seated correctly in the spring perches.
5. **Install New Shocks:** Install the new Terra firma shock absorbers (TF116 front, TF117 rear). Secure them using the provided hardware and torque to vehicle manufacturer specifications.
6. **Reassemble:** Reconnect any disconnected suspension components, ensuring all bolts are tightened to specification.
7. **Lower Vehicle:** Carefully lower the vehicle to the ground.
8. **Final Checks:** Torque lug nuts to specification. Perform a visual inspection to ensure all components are correctly installed and clear of obstructions.
9. **Wheel Alignment:** After installing a lift kit, a professional wheel alignment is mandatory to ensure proper steering, tire wear, and vehicle handling.



Figure 2: Close-up view of the Terra firma TF202 suspension kit, highlighting the coil springs and shock absorbers, likely showing the front components.

4. OPERATING CONSIDERATIONS

After installing the Terra firma TF202 suspension kit, your vehicle's driving characteristics will change. It is important to be aware of these changes for safe operation.

- **Increased Ride Height:** The 2-inch lift will raise the vehicle's center of gravity. Exercise caution when cornering and braking, as handling may feel different.
- **Off-Road Performance:** The kit is designed for all-terrain use, improving ground clearance and articulation. However, always drive within the limits of your vehicle and conditions.
- **Load Capacity:** The "Medium Load" designation means the suspension is optimized for vehicles with up to 100kg extra weight at the front and 200kg at the rear. Exceeding these limits can compromise performance and safety.
- **Braking:** Increased ride height can sometimes affect braking dynamics. Ensure your brakes are in good working order and adjust your driving style accordingly.

5. MAINTENANCE

Regular inspection and maintenance are crucial for the longevity and safe operation of your Terra firma suspension kit.

- **Periodic Inspection:** Every 5,000 miles or 6 months, inspect all suspension components for wear, damage, or loose fasteners. Check shock absorbers for leaks and coil springs for cracks or deformation.
- **Torque Checks:** Re-check the torque on all suspension mounting bolts after the first 500 miles of operation and periodically thereafter.
- **Cleaning:** Keep suspension components clean, especially after off-road use, to prevent corrosion and premature wear.
- **Alignment:** Have your wheel alignment checked annually or after any significant impact or suspension work.

6. TROUBLESHOOTING

If you experience any issues with your Terra firma suspension kit, consider the following common troubleshooting steps. For complex issues, consult a professional mechanic.

- **Unusual Noises (Clunking/Squeaking):**

- Check all mounting bolts for proper torque.
- Inspect bushings for wear or damage.
- Ensure springs are seated correctly in their perches.

- **Uneven Ride Height:**

- Verify correct spring installation (front vs. rear, left vs. right if applicable).
- Check for damaged or fatigued springs.

- **Poor Handling/Excessive Body Roll:**

- Ensure shock absorbers are functioning correctly (no leaks, proper damping).
- Confirm correct spring rates for vehicle load.
- Check wheel alignment.

7. SPECIFICATIONS

Feature	Specification
Model Number	TF202
Brand	Terra firma (Proper Spec)
Kit Type	All Terrain Shock & Coil Spring Suspension Kit
Load Rating	Medium Load (up to 100kg front, 200kg rear additional equipment)
Lift Height	Approximately 2 inches (50mm)
Front Springs	TF018
Front Shocks	TF116
Rear Springs	TF023V
Rear Shocks	TF117

Compatible Vehicles	Defender 90, Discovery 1, Range Rover Classic
Included Components	4x Coil Springs, 4x Shock Absorbers, Installation Hardware

8. WARRANTY AND SUPPORT

The Terra firma TF202 All Terrain Shock & Coil Spring Suspension Kit comes with a **1-Year Warranty** from the date of purchase. This warranty covers manufacturing defects and material flaws under normal use and service.

For warranty claims, technical support, or further assistance, please contact your authorized Terra firma dealer or the point of purchase. Ensure you have your proof of purchase and product model number (TF202) available.

Please note that improper installation, misuse, neglect, or unauthorized modifications may void the product warranty.

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