



#### SPANNER RATING

In this catalogue we have accompanied any featured product with a 'Spanner' rating to serve as a guide to how complex or technically challenging the fitting of the products are estimated to be. Please note that this is only meant as a guide and it is recommended that any work be thoroughly researched and planned beforehand and carried out in a safe environment with correct tooling and sensible precautions. Fitting of any product is carried out at the fitters own risk.

Any DIY work on a vehicle may have safety implications. We recommend that fitters seek advice if unsure.



Novice – No previous experience required. Minimal tools required.



**Hobbyist** – Some drilling may be required. Standard tools should be required.



Competent home mechanic – Some drilling and cutting may be required. Occasional specialist tooling may be required.



Advanced home mechanic – Often drilling/cutting or calibration will be required. Specialist tooling often required. Occasional diagnostic aid may be necessary.



**Qualified technician** – Often safety critical. Diagnostic capability and specialist tooling required.



For further information, fitment advice, images, customer reviews please visit www.terrafirma4x4.com

Please note product information is correct at the time of publication (May 2024). Product images are for illustration purposes only and are not reflective of actual size. Terrafirma supplies products to fit vehicles either currently or historically manufactured by Jaguar Land Rover. Unless expressly stated these are not manufactured nor supplied by Land Rover or its agents.

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# **WELCOME**

Spring 2024 Terrafirma catalogue

Now with even more detail, information and advice, this edition of the Terrafirma catalogue will provide you with everything you need to choose the perfect products for the ultimate upgrade. Many product groups have been developed and enhanced with spare parts for easy service or repair. This edition is loaded with hundreds of new products taking the range to more than 1500 SKUs especially to enhance your 4x4 vehicle.

Terrafirma 1500+ Terrafirma 4x4 parts and accessories included!

Serious 4x4 Accessories





# CONTENTS

ABOUT TERRAFIRMA	7
CERTIFICATE OF CONFORMANCE	8
2020 DEFENDER	10
DEFENDER ACCESSORIES	11
SUSPENSION	26
SHOCK ABSORBERS	27
HYDRAULIC BUMP STOPS	42
COILOVERS	48
COIL SPRINGS	51
SPRING & SHOCK KITS	56
AIR TO COIL CONVERSION KITS	58
SUSPENSION HARDWARE	60
FULL SUSPENSION KITS	68
SUSPENSION BUSH KITS	72
ANTIROLL BARS	74
POLYURETHANE BUSHED SUSPENSION ARMS	75
STEERING	76
STEERING DAMPERS	77
STEERING RODS	79
PANHARD RODS	79
BRAKING	80
BRAKE DISCS	81
BRAKE PADS	83
STAINLESS STEEL BRAKE HOSES	85
BRAKE UPGRADE KITS	86
DEFENDER PERFORMANCE BRAKE UPGRADE KITS	87
DISC BRAKE HANDBRAKE KIT	88
PROTECTION	90
UNDERBODY GUARDS	92
ROLL CAGES	94
ROCK SLIDERS	96
REAR BUMPER CORNERS	101
REAR STEP TOW BARS	102
RECOVERY	104
BUMPERS	105
RAID WINCH BUMPERS	110
TOWING AND RECOVERY POINTS	112
RECEIVER HITCHES	113
ELECTRIC WINCHES	114
WINCHING AND RECOVERY ACCESSORIES	117
HI-LIFT JACKS	122

WHEELS	123
BLINDO WHEELS	124
COMPOMOTIVE WHEELS	124
WINRACE WHEELS	12
STEEL WHEELS	120
BEADLOCK	
& SIMULATED BEADLOCK WHEELS	128
SPACERS	130
SPARE WHEEL COVERS	13
PERFORMANCE	
PERFORMANCE	130
TERRAFIRMA E LOCKER	13
CROWN WHEEL & PINIONS	131
HD HALF SHAFTS AND CV JOINTS	139
PROPSHAFTS	140
DUAL MASS FLYWHEEL CONVERSION KITS	14
RED BOOSTER CLUTCH SERVOS	14
GEARBOX UPGRADES	143
CORDLESS AIR COMPRESSOR EGR REMOVAL KITS	14:
DRIVE FLANGES	14:
EXHAUST PIPES	14
INTERCOOLERS	14
SILICONE TURBO AND INTERCOOLER HOSES	14:
FOAM AIR FILTERS	140
GAP DIAGNOSTICS IID TOOLS	148
VEHICLE TRACKERS	150
TERRAFIRMA XL WHEEL CLAMP	15
SCANNER	15:
MAGNETIC FINGER	15:
EXPEDITION	153
ROOF RACKS, RACK ACCESSORIES AND LADDERS	15
ROOF TENT AND AWNINGS	15
RAISED AIR INTAKES	16:
SPARE WHEEL CARRIER	16
EXPEDITION ACCESSORIES	16
CAMPING ACCESSORIES	174
INTERIORS	-
INTERIORS	170
DASH & TRIM	179
SEATING ESSENTIALS	183
STORAGE  DET BAMP & CHARDS	180
PET RAMP & GUARDS	18
FLOOR MATS AND BOOT LINERS  DOOR CARDS AND WINDOW TRIMS	188
DEFENDER HEADLININGS	190
AIR CONDITIONING KITS	19:
ELECTRIC WINDOWS	19:
REVERSING CAMERA	193
THE PART OF THE PA	13.
EXTERIOR	194
EXTENDED WHEEL ARCHES	19
FLIP UP SIDE WINDOWS	190
MAMMOUTH CHEQUER PLATE	199



SIDE STORAGE LOCKERS	200
MUD DEFLECTORS	200
MUD FLAPS	201
WIND DEFLECTORS	202
GRILLES, VENTS AND HEADLIGHT PANELS	203
SIDE AND REAR STEPS	206
WINDSCREEN HINGES & WINDOW GUARDS	208
MUDFLAP BRACKETS	209
RAPTOR COATINGS	210
LIGHTING	212
LIGHTING	213
OSRAM LED DRIVING AND WORK LAMPS	218
HAZARD LIGHTS	220

TERRAFIRMA WARRANTY	242
PART INDEX	234
DRINKS, SIGNAGE, VINYLS AND MORE	232
HEAD GEAR & CLOTHING	230
MERCHANDISE	230
REPLACEMENT LIGHTS	229
REPLACEMENT & LED UPGRADE KITS	228
LIGHT MOUNTS	226
LIGHT GUARDS	225
WILDERNESS LIGHTING	224
MAGFLEX LIGHTING	222





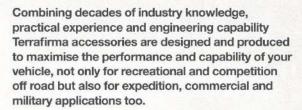
Established in 2007, Terrafirma has become one of the most recognised 4x4 and off-road accessory brands in the world.





## ABOUT TERRAFIRMA

Did you know the name Terrafiful in Latin translates as Solid Earth



Terrafirma offers choice, clear product identification and application, ensuring the correct products can be selected and combined from the extensive and increasing range of accessories.

Studying this catalogue will enable workshops, vehicle builders and enthusiasts to prepare and equip their Land Rover to have more fun, to safely carry more load, tackle greater obstacles over harsher terrain while protecting their pride and joy for many more adventures to come.

Terrafirma Serious 4x4 Accessories exaggerate and enhance the appearance and the performance of your 4x4. Whether you want to personalise your vehicle to stand out in the crowd, take the family on a vehicle dependent camping trip, get muddy with your mates or compete for trophies in the highest level off road championships, Terrafirma has everything you need.

Quality, performance and value is at the heart of what we do; We strive to ensure that the quality of the accessory you receive meets or exceeds that of the vehicle you are fitting it to, we want Terrafirma owners to be proud of their purchase. Each Terrafirma product is designed and specified to enhance the performance of your Land Rover without compromise. Good value is achieved when the quality and performance of a product exceeds the price paid.

Terrafirma accessories are primarily designed to fit using original or existing mounting points. Only minimal customising may be required with minor trimming or drilling needed to maximise the performance of the vehicle. Trends change and new vehicle models are introduced, as such new products are continually being evaluated and tested for introduction.







# TerrafirMa

### **Production Part and Approval Process**



The purpose of the Terrafirma Production Part and Approval Process (PPAP) is to ensure that products are manufactured and supplied to the correct quality, to the appropriate drawings, master sample and or specifications. Products that have been manufactured and supplied according to PPAP, and that pass Q6 inspection, qualify for a batch controlled Terrafirma Certificate of Conformance (CofC).

It is important that vehicle owners, workshops and vehicle testing stations have the confidence to fit Terrafirma products that could be different to those of the original manufacturer.

A Certificate of Conformance (CofC) can only be granted to a product that meets a minimum set of standards and is often required for a product to be sold or fitted in certain countries. The CofC is confirmation that a product has been 'manufactured to print' which means written instructions, specifications and drawings through the PPAP process.

PPAP the Production Part Approval Process is a detailed process that includes all the necessary documentation to ensure that the product has been produced to the correct quality and specification and that it is suitable for the intended application. This guarantees that only high-quality products will be supplied to the consumer.



#### The seven stages of the Production Part and Approval Process:

### 01

#### SUPPLIER AUDIT

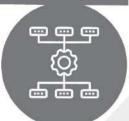
Manufacturers and Suppliers are audited to ensure they are capable of conforming to the PPAP process.



02

#### MANUFACTURING PROCESS FLOW

A detailed manufacturing process is produced to guarantee that consistent methods of production are followed.



03

#### SAMPLE APPROVAL

Drawings, material specifications and prototypes are inspected and tested to prove the product is fit for service.



04

#### PACKAGING SPECIFICATION

Packing material, kit contents and fitting instructions. Making sure the customer receives what they need in perfect condition.



05

#### PART SUBMISSION WARRANT

Final sign off that all parts of the PPAP process have been followed during manufacturing.



06

#### STOCK QUALITY CONTROL

A thorough and detailed quality check is carried out on every delivery to ensure the PPAP process has been followed on every batch. Critical information is recorded for traceability purposes.



07

#### CERTIFICATE OF CONFORMANCE

The ultimate statement of quality, a Certificate of Conformance guarantees every batch of products is manufactured to specification and satisfies international transport authorities.



TerrafirMa

Serious 4x4 Accessories

Terrafirma Certificates of Conformance are available to download using the web address that is printed on the CofC label applied to the product.

Terrafirma 4x4 Accessories are available through an extensive network of stockists and dealers around the world. Experts are available to give advice on product selection and to assist with any enquiries.



# 2020 DEFENDER



The New Defender has secured its place as the king of 4x4 vehicles and the desire to accessorise this amazing vehicle burns as strong as for its predecessor.



Terrafirma has carried out extensive engineering development & testing to produce the finest off-road and expedition accessories for the New Defender.

Close attention has been paid to maximise functionality and great appearance. Each product has been designed with the minimum impact on the base vehicle which means the least amount of dismantling, panel trimming and drilling.



### DEFENDER **ACCESSORIES**

Enhance the performance and capability of your 2020 Defender

### REAR DOOR FOLD DOWN SHELF



#### **FEATURES:**

Useful fold down work surface

Molle style for attaching accessories

Allows access to the original door pocket

Anti rattle catches and straps

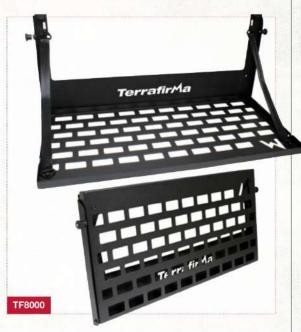
All fixings included

Whether it's a day at the races or an expedition to the desert the Terrafirma fold down shelf provides the perfect platform for making a brew or knocking up lunch.

Picking up on existing mounting points on the inside of the tailgate this easy to fit fold down shelf takes up very little space when stowed, the 'Molle' style perforated shelf also provides the perfect surface for attaching

equipment. Precision catches, anti-rattle buffers and webbing check straps ensure the shelf operates perfectly.

DEFENDER	Part number	
Rear door fold down shelf	TF8000	



### **REAR DOOR ORGANISER**

#### **FEATURES:**

Molle style for attaching

No drilling required

Allows access to the original door pocket

All fixings included

This handy 'Molle' style panel is the perfect place to attach equipment for quick access as soon as the tailgate is opened. No need to rummage around for your recovery equipment, folding shovel or first aid kit for example.





### **ALUMINIUM ROOF RACKS**

#### **FEATURES:**

Strong and lightweight

T slot system for mounting accessories

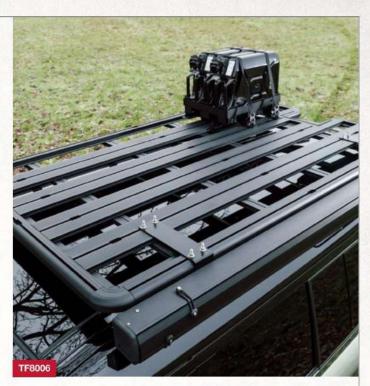
Low profile, low noise design

Does not interfere with antenna

Terrafirma's aluminium roof rack is the perfect platform for all your camping and expedition equipment.

Its sturdy black powder coated extruded slats and rails all include 10mm T slots to enable a wide range of equipment and accessories

to be securely attached. The 90 rack is 1.8m & the 110 rack is 2.0m long and both are 1.25m wide. The racks attach directly to the original factory fitted roof tracks with the lowest possible profile sufficient to allow the sunroofs to operate correctly and cause the minimum amount of wind noise.











TF8005			
DEFENDER		Part No.	
2020 DEF 90	Alloy expedition roof rack 1.8m x 1.25m	TF8005	
2020 DEF 110/130	Alloy expedition roof rack 2.0m x 1.25m	TF8006	

Roof rack 8mm T slot nut plate (pack of 10) TF80056NUT







### REAR ROOF RACK **ACCESS LADDER**

#### **FEATURES:**

Body shape styling

Minimal bumper trimming required

Allows clearance for factory rear spoiler

It is not always possible to get to your roof rack kit from ground level, the Terrafirma rear ladder enables you to climb step by step from the rear bumper all the way to the roof. Carefully designed to match the body shape, maintain rear light

visibility and allow comfortable access to the rear tailgate. Made from 25mm black powder coated steel tube with high grip treads.



DEFENDER

Rear roof rack access ladder

TF8017





### **ROOF RACK** SAND TRACK **MOUNTS**

#### **FEATURES:**

Can be bolted to any flat surface

Mounted flat or on edge

Adjustable mounting studs

Sand tracks definitely need to be stored on the outside of the vehicle, these Terrafirma sand track mounts allow you to fit them using the T slot system as a pair standing up or laying down depending on your preference.

#### DEFENDER

Roof rack sand track mounts









#### **FEATURES:**

4 spot light brackets

2 light bar brackets

Can be mounted to most racks

Lots of adjustability

Mounting spot lights, work lights or a light bar is very straightforward with this set of 4 brackets that simply attach to the roof rack T slots, no drilling is required.

#### DEFENDER

Roof rack mounted spotlight brackets

TF8012



### **ROOF RACK MOUNTED AWNING BRACKETS**

#### **FEATURES:**

Suitable for most awnings

Can be mounted to most racks

Lots of adjustability

The Terrafirma awning mounting brackets simply attach to the T slots in the front and rear of the roof rack. The multiple slotted holes allow a wide variety of awnings to be fitted especially Terrafirma Expedition and Hard Case awnings.







Roof rack mounted awning brackets







### **ROOF RACK** MOUNTED STORAGE BOX **MOUNTS**

#### FEATURES:

Perfect for securing luggage and boxes

Suitable for most racks & flat surfaces

2 ratchet straps & 4 tie down eyes included

Prevent your luggage and storage boxes from moving around with this set of 4 corner brackets and straps. Adjustable using the T slots in the roof rack to reliably position and secure Terrafirma storage boxes and others and hold them down.



#### DEFENDER

Roof rack mounted storage box mounts

TF8014



### **ROOF RACK** MOUNTED HI LIFT JACK AND SPADE **MOUNTS**

#### **FEATURES:**

Perfect for mounting Hi-Lift jacks and shovels

Plenty of adjustability

Lockable jack mounts

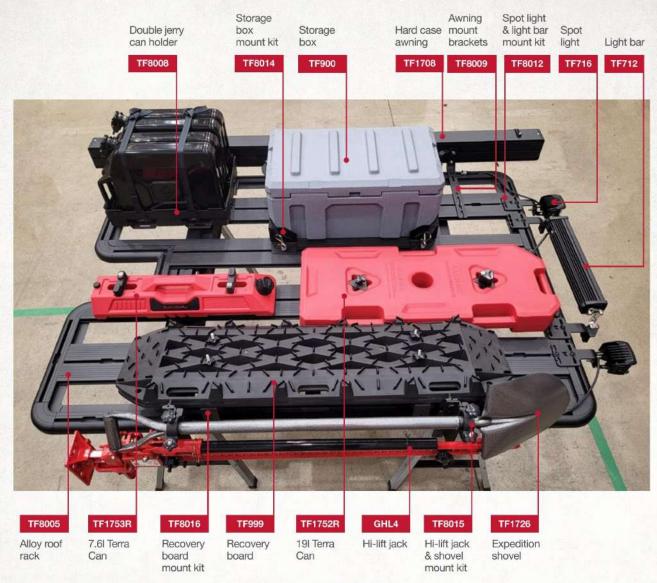
Mounts to most roof racks

The roof rack is the perfect place to carry items that save you having to unload the vehicle to access them, equipment such as a spade and Hi-Lift jack that can also get muddy from use. This Terrafirma kits combines both these essential off roading tools together and can be positioned on the roof rack using the T slots.



Roof rack mounted hi-lift jack and spade mounts | TF8015











### **ROOF RACK MOUNTED JERRY CAN HOLDERS**

#### **FEATURES:**

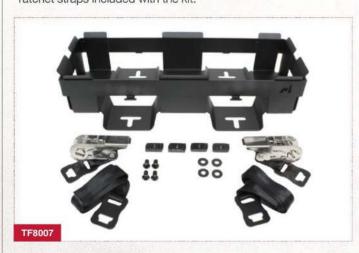
Secure mounting for 20l jerry cans

Ratchet straps included

Mounts to most roof racks & flat surfaces

For those extended journeys where filling stations are sparce or where additional water is essential the Terrafirma single and double jerry can holders are ideal for securely attaching cans to the roof rack.

The black powder coated steel cradles bolt directly to the T slots in the roof rack, no drilling is required, and the cans are secured using the quick release ratchet straps included with the kit.



DEFEND	JEIN
DEFEND	ED

TF8007 Single Jerry can holder TF8008 Double Jerry can holder









### **ROCK SLIDERS** WITH TREE BARS

#### **FEATURES:**

Underbody, sill & door protection

Fits directly to existing mounting points

Retains original mudflaps

No bodywork mods required

Grip tape included

Full fitting kit provided

Protecting the sills and bodywork on such a big vehicle is so important when driving in the rough stuff, the New Defender's 'unibody design means that ground clearance is not as great as the classic Defender.

Terrafirma's clever design neatly follows the door line and picks up on all the structural mounting points on each side of the car, with minimal trimming of the underbody sound proofing

panels, spreading the load from any impact. The Terrafirma rock sliders retain the factory mudflaps and do not require any trim panels to be removed or discarded.



Scan the code or click the link to view the guide to fitting Terrafirma Rock Sliders.



FITTING GUIDE





ROCK SLIDERS WITH TREE BARS		
90	TF8020	
110	TF8021	









### **ALUMINIUM** STEERING GUARD

#### FEATURES:

OE fit 6mm alloy plate

Includes recovery point surround

No alterations required to fit

The sturdy 6mm aluminium steering guard in either grey or black powder coated finish protects the front end of the Defender against damage from obstacles while still allowing access to the fixed front recovery point.





#### DEFENDER

Aluminium steering guard silver Aluminium steering guard black TF0436 TF0436B

### RAISED AIR INTAKE

#### FEATURES:

Super stylish moulded LDPE plastic

**UV** resistant

Low noise

Built-in one-way drain valve

Attaches to factory locations

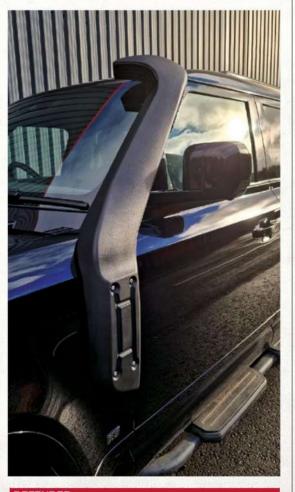
A raised air intake is a Defender owner's must have accessory, increasing the vehicle's go anywhere appearance and ability.

Terrafirma's raised air intake is both stylish and functional, drawing clean air from as high on the vehicle as possible through the low noise forward facing intake grille. At the lowest point of the moulding is a discrete one-way valve to allow dust or moisture out that may have got trapped inside.

It is securely attached to the vehicle with a 3-point zero vibration mounting setup and manufactured from extremely durable LLDPE (Linear low-density polyethylene) plastic which will not fade or discolour, is UV and temperature stable and virtually indestructible.







DEFENDER Raised Air Intake





### WINCH MOUNTING KIT

#### FEATURES:

Discrete mount behind original bumper

Minimal modifications required to fit

Comprehensive fitting kit

Number plate plinth included

Electrical installation kit included

Terrafirma's winch mount kit is supplied with everything you need to fully install the popular A12000 (TF3301) winch.

The comprehensive fitting kit includes the super strong winch mount tray, all fixings and fasteners, electrical components, bracketry, detailed instructions and cutting templates. The

winch electrical controls are relocated to the engine compartment and depending on the vehicle spec and personal preference the number plate can be mounted on the supplied plinth or relocated to a different position on the bumper if you prefer to see and have unrestricted access to the winch hook and fairlead.





Scan the code or click to view the guide to fitting a discreet winch.



FITTING GUIDE







DEFENDER

Winch mounting kit



### LIFT LINK RODS

#### FEATURES:

Direct replacement of original equipment

Instant 1.5" lift

Operates within manufacturer's tolerances

Improving ground clearance on any 4x4 starts with a suspension lift, the amount of lift that can achieved on a vehicle with independent suspension is limited by the open and closed length of the shock absorber struts and the driveshaft angles on full drop out.

Terrafirma has determined the optimum lift is 1.5". This allows for

larger tyres to be fitted and ensures sufficient up and down travel on the suspension. It also improves the approach and departure angles and increases the under-body clearance over obstacles. For vehicles fitted with air suspension the solution is to replace the electronic height sensor link rods with ones of a different length. (4 wheel alignment is recommended)







DEFENDER

Lift link rods TF8040



### **REAR RECOVERY POINTS**

#### **FEATURES:**

Strong cast steel

Attaches to existing mounting points

Perfect for towing or recovery

The ultra-strong red painted cast steel recovery points are attached directly the unibody main structure and protrude through the rear bumper to provide the perfect anchor point for a recovery strap.



DEFENDER

Rear recovery points



### **ALUMINIUM ENGINE AND** TRANSMISSION GUARDS

#### **FEATURES:**

Super strong pressed 5mm alloy

Replaces the original lightweight guard

Retains all the original underbody soundproofing

Uses all existing mounting points

Easy removal for servicing

Terrafirma's 5mm aluminium engine and transmission guards are a massive upgrade over the lightweight originals. Strategically positioned pressings and fixing points significantly increase strength and rigidity with no need to remove any of the original sound proofing panels when installing them.





#### DEFENDER

Aluminium engine and transmission guards

TF8025

### WHEEL **SPACERS**

#### **FEATURES:**

Machined billet aluminium

Black or silver option

Increases track width

Allows for more wheel options

Terrafirma's popular 30mm wheel spacers are the correct PCD and Centre Bore for the New Defender and can be used when fitting alternative wheels. Available in natural alloy silver or black anodised.

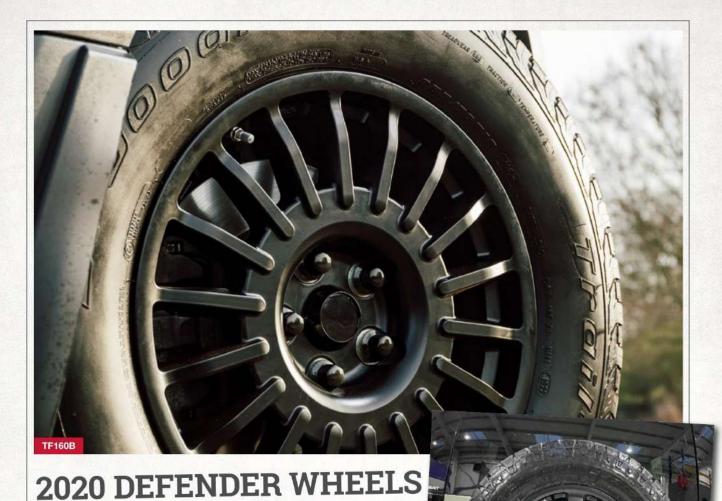
DEFENDER	
Wheel spacers silver	TF303
Wheel spacers black	TF303B











#### **FEATURES:**

Personalised styling

Off road or winter options

Alternative tyre size range

The Terrafirma 20" steel modular wheel is the perfect fitment for New Defenders fitted with the largest 380mm front brake discs. For vehicles fitted with 349 or 363mm brake discs the 18" steel wheels are ideal and allow a wider choice of off road tyres. Both wheels are TPMS compatible.

Both the Compomotive and Winrace 18" alloy wheels will also fit Defenders fitted with 349 or 363mm brake discs.

TF303/B wheel spacers are required to fit 18" wheels.

TF1520 will require TF303/B on 363mm and 380mm brakes with painted calipers







LR130610

PD1881BLACK



DEFENDER	Black	Grey
Compornotive 8x18 ET45*	PD1881BLACK	PD1881GREY
Winrace 8x18 ET42*	TF160B	TF160G
Modular steel 8x18 ET45*	TF152	
Modular steel 8x20 ET45**	TF1520	
Centre cap for Modular wheels	LR130610	
Centre cap specific wheel nuts	LR129123G	10

\*18" wheels fit Defenders with 349/363mm brake discs with TF303/303B 30mm spacers. \*\*20" wheels fit all

More info in the Wheels chapter page 123









As good as any 4x4 vehicle is supplied from the factory, they are not without compromise as manufacturers must produce 4x4s to suit all applications. Terrafirma allows you to customise your vehicle's suspension to suit more specific requirements, whether that's improving the load carrying, accommodating additional equipment, increasing the wheel travel, or enhancing the road handling.



Terrafirma shock absorbers, coil springs and suspension products are fitted for recreational, expedition and competitive off-road use, commercial, utility, towing and military applications as well as upgrading tired and worn original components.

The range of choice and combinations is so extensive that by fitting a Terrafirma suspension upgrade it is possible to eliminate the compromises associated with standard suspension almost entirely, tuning your suspension system to perform exactly as you want it to.



Terrafirma offers the widest range of shock absorbers specifically for Land Rovers including the All-Terrain, Pro Sport, 4 Stage Adjustable, Monotube, Big Bore Expedition, Commercial HD and 8 Stage Adjustable Remote Reservoir as well as the universal fit Mega Sport and the incredible 2.5" Smooth Body Competition Shocks which require special Terrafirma or custommade mounting kits. The selection of the most suitable shocks for your application is simplified using the following descriptions and data.

Critical in maintaining or improving

vour vehicle's suspension.

It's worth remembering a shock absorber, even when charged with Nitrogen gas does not help support the vehicle. However, Terrafirma shocks significantly improve stability and handling especially with the high spring rates required for heavily loaded vehicles. It is a myth that a shock designed in a certain way will be better off road than on road, not entirely so. Typically, a better shock is a better shock. The attributes required for a shock to perform well carrying heavy loads on corrugated roads or to withstand continual high impacts and still allow extreme articulation will all contribute to safer and better road manners.

Correct selection of replacement shock absorbers is critical in maintaining or improving your Land Rover's suspension. Shocks provide stability when cornering and braking, they maintain safe handling characteristics when driven hard, while towing and when heavily loaded. They also eliminate bounce and vibration improving driver and passenger comfort. Extended travel shocks allow for greater axle movement making sure the tyres stay in contact with the ground for maximum traction and control.

From heavy load carrying and towing to extreme rock crawling, from fast trail and winding roads to long distance endurance rallies, Terrafirma has a shock to suit all applications ranging from standard length to as much as 5" (125mm) longer.

Terrafirma shock absorbers are designed to increase the performance of your Land Rover in all conditions by improving damping ratios, dimensions, and specifications as well as shock travel. Terrafirma shocks are guaranteed to be stronger and better performing, keeping wheels on the ground even in extreme terrain.

Terrafirma shocks are proven in extremes, with temperatures from -30 in Iceland to +40 in Africa, from occasional off road to punishing hard core competitions, fast tar roads to suspension battering dirt roads and from un-laden to over laden. Terrafirma has the shock for any use in any conditions.



### ALL TERRAIN SHOCKS



A great all-rounder, the Terrafirma All Terrain shock is a favourite in all conditions and any environment. From the construction site to the motorway, running light or fully loaded, simply replacing tired old shocks or heading off-road, you can't go wrong. The All Terrain shock offers great value without compromising performance and reliability.

#### **FEATURES:**

35mm diameter sintered and Teflon coated piston

16mm diameter induction hardened, hard chromed steel shaft

54mm diameter twin tube body for increased oil capacity

Low pressure Nitrogen eliminates cavitation and fade

Dual oil and dust shaft seals

Fully welded pins and eyes

High quality paint with new extensive 240 hr salt spray testing

Unique silver and black colour combination with rigid plastic dust shield

OE style bushes and mountings for ease of servicing



The All Terrain shock offers great value without compromising performance and reliability



The All Terrain shocks are a tough twin tube design which allows for a large volume of oil for cooler internals and improved protection of working parts. Low pressure nitrogen keeps the oil under pressure which prevents it from foaming and creating cavitation which eventually results in heat build-up and shock fade.

Terrafirma All Terrain shocks are built with the largest possible fully welded mounting pins and rubber bushes for maximum strength and durability. Tough enough to handle the punishment of recreational off-roading yet refined to provide a comfortable, well balanced and controlled ride on road. Finished with a high-quality deep silver paint to resist corrosion and including the smart Terrafirma All Terrain shock absorber logo, a black semi rigid plastic dust shield with embossed Terrafirma logo protects the hard-chromed steel shaft.

All Terrain Shocks	90/110/130/ D1/RRC	D2	P38	
Front	TF116	TF118	TF125	
Rear	TF117	TF119	TF126	

Terrafirma All Terrain shocks are the perfect replacement for existing shocks and in many cases can also accommodate up to 2" (50mm) of lift using Terrafirma coil springs.

BIR AND AND AND ASSESSMENT OF THE SECOND	Front top	Front bottom TFSBK01	Rear top	Rear bottom			
	TFSBK01						
TF117			TFSBK02	TFSBK01	(early without cups)	TFSBK03	(late with cups)
TF118	ROA100050	ROA10040	0110				•••••••••••••••••••••••••
TF119			ROA100050	ROA10005	:0		



### PRO SPORT SHOCKS

The most popular shock for serious off-roading, the Terrafirma Pro Sport goes to the next level by optimising all the key features of 4x4 shock design, maximising performance, handling, strength and reliability yet still remaining great value for money and is regarded by many as the benchmark 4x4 shock.

#### FEATURES:

40mm diameter sintered and Teflon coated piston

20mm diameter induction hardened, hard chromed steel shaft

57mm diameter twin tube body for increased oil capacity

Low pressure Nitrogen eliminates cavitation and fade

Dual oil and dust shaft seals

Fully welded pins and eyes

High quality paint with new extensive 240 hr salt spray testing

Unique silver and blue colour combination with rigid plastic dust shield

OE style bushes and mountings for ease of servicing



The Pro Sport shocks provide superior ride quality, strength and performance



The advantages when driving off-road are remarkable as these shocks are built with hard core use in mind. Fitted with velocity sensitive valving means the shock will automatically adjust its internal damping to suit driving conditions, the harder you punish them the better they work. When it comes to the drive home, you'll really notice the superior ride quality and handling.

Available in standard travel and +2" (50mm) the Pro Sport shocks are a super tough twin tube design with a massive 20mm shaft and 40mm piston. Low pressure nitrogen keeps the oil under pressure which prevents it from cavitating which causes shock fade, something the Pro Sport is never troubled with. Common with all Terrafirma shocks, Pro Sports are built with the largest possible fully welded mounting pins and rubber bushes for maximum strength and durability.

Visually these shocks are striking and stylish, finished with a high quality deep silver paint to resist corrosion and including the smart Terrafirma Pro Sport shock absorber logo, a bright blue semi rigid plastic dust shield with embossed Terrafirma logo protects the double chromed shaft from stone damage.

Pro Sport Shocks	90/110/130/D1/RRC	D2	P38
Front	TF131		
Rear	TF132		
Front +2"	TF120	TF146	TF144
Rear +2"	TF121	TF147	TF145

Terrafirma Pro Sport shocks are a big step up in performance and quality and are perfect when combined with Terrafirma coil springs to give a 2" (50mm) lift with a corresponding increase in wheel travel.

Replacement Bush Kits Front		Front top	Front bottom	Rear top	Rear bottom			
TF131	TF120	TFSBK01	TFSBK01					
TF132	TF121			TFSBK02	TFSBK01	(early without cups)	TFSBK03	(late with cups)
TF146		ROA100050	ROA10040					
TF147				ROA100050	ROA10005	0		



# TerrafirMa

### **4 STAGE ADJUSTABLE SHOCKS**



Sharing all the features of the Pro Sport shock the 4 Stage Adjustable includes 4 stages of damping adjustment; Comfort, Standard, Firm and Sport giving the driver the opportunity to match the damping performance with the coil spring rate, gross vehicle weight and desired handling characteristics to optimise performance and handling with the already acknowledged strength and reliability of the Pro Sport.

#### FEATURES:

4 stages of adjustment; Comfort-Standard-Firm-Sport

35mm diameter sintered and Teflon coated piston

18mm diameter induction hardened, hard chromed steel shaft

57mm diameter twin tube body for increased oil capacity

Low pressure Nitrogen eliminates cavitation and fade

Dual oil and dust shaft seals

Fully welded pins and eyes

High quality paint with new extensive 240 hr salt spray testing

Unique silver and red colour combination with rigid plastic dust shield

OE style bushes and mountings for ease of servicing





### The 4 Stage Adjustable shocks offer 4 ride styles from comfort to sport

The advantages when driving off-road are remarkable as these shocks are built with hard core use in mind. Simply turn the easy to rotate knob on the body of the shock to adjust the shock to you preferred setting, Standard offers the same damping ratio as the Pro Sport, Comfort offers a softer ride and Firm and Sport really stiffen things up. For vehicle owners who want one shock to handle additional load at the weekend and another to cruise to work with then this the shock for you. Available from standard travel up to +5" (125mm) longer travel, the 4 Stage shocks are a super tough twin tube design with a large 18mm shaft and 35mm piston. Low pressure nitrogen keeps the oil under pressure which prevents it from cavitating which causes shock fade, something the 4 Stage is never troubled with.

In keeping with all Terrafirma shocks these shocks are striking and stylish, finished with a high quality deep silver paint to resist corrosion and including the smart Terrafirma 4 Stage Adjustable shock absorber logo, a bright red semi rigid plastic dust shield with embossed Terrafirma logo protects the double chromed shaft from stone damage. Terrafirma 4 Stage Adjustable shocks are perfect when combined with Terrafirma coil springs to give a 2" (50mm) lift with a corresponding increase in wheel travel.

Replacement Bush Kits				Front Rear top bottom	Rear bottom		
TF172	TF174	TFSBK01	TFSBK01				
TF172	TF175			TFSBK02	TFSBK01 (early without cups)	TFSBK03 (late with cups)	
TF178	TF190	ROA100050	ROA10040				
TF179	TF191			ROA100050	ROA100050		



#### FEATURES:

4 stages of adjustment; Comfort-Standard-Firm-Sport

35mm diameter sintered and Teflon coated piston

18mm diameter induction hardened, hard chromed steel shaft

57mm diameter twin tube body for increased oil capacity

Low pressure Nitrogen eliminates cavitation and fade

**Dual oil and dust** shaft seals

Fully welded pins and eyes

High quality paint with new extensive 240 hr salt spray testing

Unique silver and red colour combination with rigid plastic dust shield

OE style bushes and mountings for ease of servicing



4 STAGE ADJUSTABLE +3 & 5" LONG TRAVEL SHOCKS

The challenge to conquer the largest rocks and deepest ruts is hugely appealing to hard-core off-road drivers.

Whether you're in competition or just driving for fun, keeping the tyres in contact with the ground and the vehicle stable is crucial to successfully mastering the roughest terrain. Long travel suspension is not new, however achieving great performance, control and reliability is more than just fitting any old long travel shocks. To maximise performance across the range of spring rates and vehicle loads the 4 Stage Adjustable shocks are used in all our long travel applications up to +5" (125mm) longer than standard.

The Terrafirma 4 Stage Adjustable +5" long travel shock for Defenders, Discovery 1 and Range Rover Classics is made with pin mountings top and bottom which directly replaces the original front shock. The traditional rear top eye mount on the All Terrain and Pro Sport shocks however will not accommodate the extreme articulation achieved with the Extreme shocks. To enable a rear pin top mount shock to be fitted requires a special mounting kit TF519. The kit comprises a pair of brackets and all necessary nuts and bolts.

4 Stage Adjustable and Long Travel Shocks	90/110/130/D1/RRC	D2
Front +3"		TF178
Rear +3"		TF179
Front and rear +5" (pin pin mount)	TF169	

For the Discovery 2 the +3" longer travel 4 Stage Adjustable shock is ideal, the standard suspension system is 'tight' and will not allow enough flex to use a longer shock. When combined with +2" coil springs the +3" shocks ad significant axle travel keeping the wheels of your D2 on the ground.

TF169 requires TF519 mounts to enable fitment on the Rear. Also recommended is TF522 +2" Turret on the Front.

Replacement Bush Kits	Front top	Front bottom	Rear top	p Rear bottom	
TF169 (pin pin)	TFSBK01	TFSBK01	TFSBK02	TFSBK01 (early without cups)	TFSBK03 (late with cups)
TF178	ROA100050	ROA10040			
TF179		A	ROA100050	ROA100050	







The Terrafirma Pro Sport is a true performer and the Big Bore expedition shock is unquestionably tough so combining the best specifications of both should give us the perfect shock, well this is true, so how to improve on what are already awesome shocks and who could possibly want more from a shock absorber? The Military of course!

> For military, fleet and utility.

Military grey paint scheme

46mm internal bore and piston

20mm double chromed shaft

2.5mm outer shock tube wall thickness

14mm mounting pins

Velocity sensitive valving

Low pressure Nitrogen eliminates cavitation and fade

High temperature fluid

OE style bushes and mountings for ease of servicing

Everything about the Commercial HD (Heavy Duty) is tough, thicker steel, bigger piston, stronger internals and more oil & Nitrogen capacity all combined to make this the toughest shock in the range.

Incorporating the ride and handling characteristics of the Pro Sport with the brute strength of the Big Bore Expedition shock result in a standard travel shock perfectly fit for military service. Painted in a deep coat of grey with stealthy black Terrafirma logo this shock goes against the striking colour trend of the rest of the range to best suit its heavy-duty military and commercial applications.

The Commercial HD shock is a super tough thick wall steel, twin tube design with our massive 20mm shaft and new 46mm piston. Low pressure nitrogen keeps the oil under pressure which prevents it from cavitation which causes shock fade, something the Commercial HD shock is never troubled with.

It goes without saying and as with all Terrafirma shocks, the largest possible fully welded mounting pins and rubber bushes are used for maximum strength and durability.

Commercial HD Shocks	90/110/130/D1/RRC
Front	TF142
Rear	TF143



Heavy trucks need heavy suspension, Terrafirma has developed the Big Bore Expedition shock specifically for fully laden overland and utility vehicles. The Big Bore Expedition shocks are designed to handle the battering experienced when travelling over rough terrain while providing stability and control with top heavy vehicles at both low and high speed.

#### Big loads require big shock

Standard length and 2" (50mm) longer than standard

76mm body, twin tube design

50mm internal bore and piston

20mm double chromed shaft

2.5mm outer shock tube wall thickness

14mm mounting pins

High temperature fluid

OE style bushes and mountings for ease of servicing

The Big Bore Expedition shocks are designed to handle the battering experienced when travelling over rough terrain while providing stability and control with top heavy vehicles at both low and high speed.

The Big Bore Expedition shock is built for strength and reliability; it is true what they say that 'size does matter!' Everything about The Big Bore Expedition shock is massive with its 76mm diameter body, 50mm piston and of course Terrafirma's super strong 20mm double chromed shaft. The fully welded mounting points and the natural rubber bushes are the largest possible to fit the vehicle's original mounting points. To ensure the largest diameter shock body could be used the front shock absorber is built without a dust shield and they are available in standard travel and +2" (50mm) to suit the widest range of applications for this shock.

The massive 76mm shock body provides ample capacity for the high-performance oil necessary to keep the internal

Big Bore Expedition Shocks	90/110/130/ D1/RRC
Front	TF129
Rear	TF130
Front +2"	TF123
Rear + 2"	TF124

workings cool while maintaining high damping performance even when combined with the high spring rates required to carry very heavy loads.

Replac	ement E	Bush Kits	Front top	Front bottom	Rear top	Rear bottom	
TF142	TF129	TF123	TFSBK01	TFSBK01			
TF143	TF130	TF124			TFSBK02	TFSBK01 (early without cups)	TFSBK03 (late with cups)

# TerrafirM

### TYPICAL SHOCK SPECIFICATIONS

#### SHAFT

With shaft sizes of 16, 18 and 20mm diameter, Terrafirma shocks are designed for maximum strength and durability in both standard and long travel applications way beyond OE standards. The shaft material is induction hardened ground alloy steel bar, which has a deep hard outer skin and a tough resilient core which reduces bending in even the toughest conditions. The shaft is also hard chromed to provide a smooth, wear resistant outer coating to reduce friction and seal wear for maximum operating life.

#### **SHAFT GUIDE & SEALS**

The end of the shock houses the shaft guide which used a Teflon coated bronze bush for reduced friction between the shaft and the guide. The Teflon bush has excellent endurance properties for minimizing friction temperatures and preventing the contact surfaces from scratching when shock is working at high speeds. High quality hydraulic seals are used to provide maintenance free long life. The outer seal is a triple lip check valve seal which helps protect against the build up of dirt on the shaft. The main seal provides a high pressure boundary for the oil, allowing the valving to control all the shock forces.

#### **INNER SHOCK TUBE**

The shock bore tube is made from cold drawn high tensile tubing, to provide a smooth precise main section for the shock absorber.

#### **SHOCK PISTON & TEFLON WEAR BAND**

The hardened main piston is combined with a wide Teflon wear band to reduce the friction between the piston and main shock tube. This reduction in friction reduces heat build up in high frequency operation like corrugated roads and rough off-road conditions. Another main purpose of the wide wear band is to eliminate contact between the piston and the main shock tube under side loading during full shock extension. Many OE and aftermarket shocks do not have a wear band on the main piston and rely solely on the lubrication of a soft piston and metal to metal contact. Terrafirma shock pistons are up to 46mm diameter providing maximum performance and shock life.



#### **MULTI STAGE VALVING**

Large, high flow, multi stage valving, controls the rebound and compression forces which automatically tune and compensate for differing conditions. High quality valving components are endurance tested for more than 3,000,000 cycles to ensure long and durable shock life.

#### SHOCK ABSORBER HYDRAULIC OIL

Large, high flow, multi stage valving, controls the rebound and compression forces which automatically tune and compensate for differing conditions. High quality valving components are endurance tested for more than 3,000,000 cycles to ensure long and durable shock life.

#### SHOCK OUTER BODY

Large diameter outer tubes allow for increased oil volume and heat dissipation, keeping the shock operating cooler for longer and increasing life. The outer tube also helps increase overall strength and provides a durable outer skin, protecting the main internal shock components.

#### **SHOCK MOUNTINGS**

All mountings are 360 degree fully welded for maximum strength and performance.

#### **RUBBER BUSHES**

Mounting bushes are made from high quality rubber providing durability, long life, increased flexibility and impact strength.





### TWIN TUBE VS MONOTUBE SHOCK ABSORBERS



The objective of a shock absorber is to control the shocks and vibrations transmitted through the suspension from bumps and uneven terrain and to provide safe and predicable handling, with a smooth and comfortable ride. Shock absorbers are without doubt one of the most important components of your vehicle.

#### TWIN TUBE SHOCKS

The popular twin tube shock absorber has been around for decades, this great value design incorporates and inner and outer chamber with fluid flowing from the inner piston chamber to the outer reservoir chamber through several valves which provide the damping. The outer reservoir tube has the benefit of being able to tolerate a certain amount of damage, ideal for an off-road vehicle, without effecting the inner piston tube operation, however when worked hard and fast the oil has a tendency to overheat and foam (aerate) which has a detrimental effect on performance. Most Terrafirma twin tube shocks also include Nitrogen mixed with the oil which goes a long way to reduce aeration and maintain performance in most applications.

For a shock absorber to perform at its best it must respond quickly to bumps and variations in terrain, not just once or twice but continually for hours on end. Twin tube shocks have a series of valves that work independently to cover the range of action and movement.



#### MONOTUBE SHOCKS

Monotube shocks feature a single chamber, the top section containing the fluid and the bottom section filled with Nitrogen, the gas and fluid are separated by an independent piston that eliminates aeration all together. Monotube shocks also have a single valve assembly that evenly distributes the movement of fluid over a greater surface area allowing for a more responsive damper.

Although Monotubes are typically more expensive, the more sophisticated design, larger surface areas and volumes within the shock body allows for more refined valving giving a higher performance shock absorber. In extreme conditions Monotube off-road shocks will perform better than Twin Tubes.



- + Lower nitrogen pressure results in a more comfortable ride
- + Nitrogen gas charge reduces aeration and eliminates cavitation
- + Large bodies allow for a wide range of valving for different applications
- + Ideal for all round use
- + Longer travel than the equivalent monotube
- + Damage to the shock body does not affect piston operation
- + Less expensive to manufacture than monotube
- -- Must be mounted close to vertical
- -- Twin tube shock pistons are usually smaller than monotube
- -- Reduced heat dissipation

- + Larger piston diameter
- + More precise valving for competition use
- + Separate nitrogen and oil chambers eliminate aeration
- + Greater heat dissipation
- + Can be installed at any angle
- -- More expensive to manufacture than twin tube
- -- High pressure nitrogen results in a stiffer ride
- -- Travel is limited because the oil and gas chambers are in line (the remote reservoir corrects this)
- -- Damage to the shock body can affect piston performance

#### THE TERRAFIRMA CONCLUSION

Most vehicles are designed for quite specific uses; sports cars are not intended to be used off road! Land Rovers are expected to perform in a wide range of environments and applications, they might also be fully loaded one day & empty the next. Terrafirma's twin tube shock absorbers are produced with specifications designed to maximise 'all round' performance and ride quality in any conditions which includes large diameter shafts and pistons, high-capacity shock bodies and velocity sensitive valving. Monotube design takes shocks to the next level and for those looking for something extra go for the Monotube High Performance, 8 Stage Remote Reservoir or Mega Sport.



# TerrafirMa

### MONOTUBE HIGH PERFORMANCE SHOCKS

Taking shock damping performance to the next level, the Terrafirma Monotube High Performance Shock Absorbers combine the latest design trends and manufacturing processes to give you a range of the most refined and responsive shocks yet.



#### FEATURES:

46mm sintered and Teflon coated piston

16mm induction hardened hard chrome steel shaft

52mm thick wall monotube body

High pressure nitrogen eliminates cavitation and fade

Premium high-performance oil & dust shaft seals

Black HDPE dust shield

Bronze anodised aluminium top eye and shaft seal housing

High quality bronze paint with 240hr salt spray test

Fully welded pins

OE style bushes and mountings for ease of servicing

Competition inspired with ride settings to suit every application.



Monotube shocks perform at a higher level utilising a floating piston to completely separate the high-pressure nitrogen from premium grade suspension fluid that eliminates aeration. The high gas pressure allows for more responsive valving which increases performance when its needed most, resulting

in more control and greater sensitivity over smaller bumps and a faster, firmer reaction to big bumps. A large internal bore allows for increased capacity and the larger piston creates a wider area under pressure allows for more precise damping. High pressure monotube shocks provide a firm, precise and high-quality ride in all conditions.

Monotube High Performance Shocks	90/110/130/ D1/RRC	D2	
Front	TF2131	TF2118	
Rear	TF2132	TF2119	
Front +2"	TF2120	TF2146	
Rear +2"	TF2121	TF2147	
Front and rear +5" (pin pin mount)	TF2122		

Available in standard travel and +2" (50mm) longer than standard as well as the super long travel +5" (125mm) option for extreme off-road use.

Replace	ment Bu	sh Kits	Front top	Front bottom	Rear top	Rear bottom	
TF2131 TF2120 TF2122 TFSBH		TFSBK01	BK01 TFSBK01	1			
TF2132	TF2121	TF2122 (pin pin)			TFSBK02	TFSBK01 (early without cups)	TFSBK03 (late with cups)
TF2118	TF2146		ROA100050	ROA10040			
TF2119	TF2147				ROA100050	ROA100050	





### **8 STAGE ADJUSTABLE REMOTE** RESERVOIR MONOTUBE SHOCK **ABSORBERS**

As with the Terrafirma 4 Stage Adjustable shock the +5" (125mm) longer 8 Stage Adjustable Remote Reservoir shock is constructed with pin mountings top and bottom which directly replaces the original front shock.

#### **FEATURES:**

52mm diameter polished zinc plated monotube shock and reservoir body

20mm diameter double chromed shaft

46mm diameter piston

Fully welded pin and eye mountings

High pressure nitrogen charged

Multi stage valving

Hi temperature fluid

Blue and gold anodised alloy fittings complete the good looks

OE style bushes and mountings for ease of servicing

The traditional rear top eye mount on conventional shocks will not accommodate the extreme articulation achieved with the +5" (125mm) longer shocks. To enable a rear pin top mount shock to be fitted requires a special mounting kit TF519. The kit comprises a pair of brackets and all necessary nuts and bolts.

The 8 Stage Adjustable +5" Remote Reservoir shocks for the Discovery 2 have been specifically designed for fitment on the front with the hose neatly passing between the TF534 turret sides allowing the reservoir to be mounted under the footwells. The rear shocks are a piggy back reservoir design to ensure the reservoir is correctly positioned when mounted and are LH and RH specific.

The Terrafirma Remote Reservoir shocks are ideal for vehicles whose owners always drive on 'full attack' mode. Adjustable for rock crawling, cross country and fast road simply by adjusting the 8 STAGE damping

This is a super high-performance shock designed to fit directly to Defender, Discovery 1 and Range Rover Classic suspension mounts.



8 Stage Adjustable Remote Reservoir Monotube Shocks	90/110/130/ D1/RRC	D2
Front and rear +5" (pin pin mount)	TF483	
Front +2"	TF481	
Rear +2"	TF482	
Front +5"		TF484
Rear +5" RH and LH fitment		TF485RH TF485LH

Requires TF519 mounts to enable fitment on the rear. Also recommended is TF522 +2" Turrets on the front to prevent the need for modification of front suspension turrets.

Replaceme	ent Bush Kits	Front top	Front bottom	Rear top	Rear bottom	
TF481	TF483	TFSBK01	TFSBK01			
TF482	TF483 (pin pin)			TFSBK02	TFSBK01 (early without cups)	TFSBK03 (late with cups)
TF484		ROA100050	ROA10040	T		
TF485RH	TF485LH			ROA100050	ROA100050	



# TERRAFIRMA MEGA SPORT MONOTUBE SHOCKS

The ultimate 4x4 shock absorber, previously only associated with custom built off-road competition vehicles.

#### FEATURES:

11" travel

Suitable for front and rear application

Zinc plated for bright long-lasting finish with striking blue anodised machined alloy fittings.

5/8 (16mm) diameter 1.5" (38mm) wide spherical bearing mounting eyes

Multi-stage valving

High pressure Nitrogen charged

High temperature fluid

Adjustable between 100 and 200psi, factory set at 150psi for immediate fitment

Factory set oil quantity: 11" travel 790ml

3mm wall thickness

Long travel, nitrogen adjustable off-road race thoroughbreds.

The Terrafirma Mega Sport shock combines the finest quality machining, specialist components and design features and is built to stand up to the punishment encountered in the harshest off-road conditions. Multi-stage damping provides outstanding control and the high volume of oil contained within the huge remote reservoir dissipates heat ensuring consistent performance for long periods regardless of the terrain. Constructed from bright zinc plated 52mm diameter steel tube machined to extremely high tolerances with a 46mm piston in a monotube design with Terrafirma's customary super strong 20mm hard chromed shaft. Blue anodised machined alloy fittings complete the impressive looks.

Terrafirma Mega Sport shocks can be adjusted by varying the nitrogen pressure using a gassing kit such as TFGASKIT. The shocks are factory set at 150psi for immediate fitment and can be adjusted between 100 and 200psi to suit conditions and driving style. Higher nitrogen pressure will result in increased damping giving a firmer more controlled ride. Terrafirma Mega Sport shocks can be fitted to using dedicated Terrafirma mounting systems and can be adjusted to suit different terrain and activities.

The Mega Sport shock is not vehicle specific and as such will suit custom vehicle builders, However a Terrafirma mounting system has been produced to enable these amazing shocks to be fitted to Defenders, Discovery 1s and Range Rover Classics with some modifications possibly required depending on the

installation. The adjustable shock mounting kits are designed to allow the 11" shocks to be fitted to provide several options on wheel travel from standard to extreme! These mounting kits are available as part of a comprehensive kit or separately.

Mega Sport Monotube Shocks	90/110/130/D1/RRC/Universal
11" travel front and rear	TF137
Front fitting kit	TF540
Rear fitting kit	TF541
Rock Oil 5w suspension fluid 500ml	TF156
Replacement seal Kit	TF137SEALS
Replacement shaft	TF137SHAFT
Replacement ball joint	TFSBJ







See mounting kits on page 43





Adonis Michaelides, Cyprus

#### **TERRAFIRMA EQUIPPED**

Defender 110 Double Cab Spectre replica fitted with **TF236** 5" Extreme 4-Stage Adjustable Dislocation kit, **TF018** and **TF019** coil springs, **TF644GD** stainless steel brake hoses, **TF250** heavy duty steering rods, **TF254** adjustable panhard rod, **TF571** rear bumper corners, **TF843** track rod guard, **TF841L** steering guard and **TF1120** wheel arches





# TERRAFIRMA 2.5" SMOOTH **BODY COMPETITION SHOCKS**

The Terrafirma 2.5" Smooth Body Competition Shock incorporates all the high-performance features of its coilover sister including the 8 stage compression adjuster on the bright blue finned reservoir.

#### **FEATURES:**

Suitable for front and rear application

Massive 2.5" shock body

Huge 12" of travel

Zinc plated for a bright long lasting finish with striking blue anodised machined alloy fittings.

5/8" (16mm) diameter, 1.5" (38mm) spherical bearing mounting eyes top and bottom

Huge oil capacity with remote reservoir

High pressure Nitrogen (adjustable)

8 stage compression damping

Finned tube reservoir for increased heat dissipation with 600mm hose



bespoke fitting kit and standard or uprated coil springs give the absolute best of both worlds with zero compromise on performance. So, if you are off road circuit racing, competing seriously in the production classes, hammering mountain trails or simply want the ultimate set up, then this is the package for you.

These rebuildable shocks are super strong with a massive 22mm hard chrome shaft and 60mm piston, the huge shock body and bright blue anodised finned alloy reservoir contain 1.21 litres of high-grade suspension fluid as well as high pressure Nitrogen which is factory set at 150psi and with an operating range of 100-250psi.

The bespoke fitting kits are designed to work in conjunction with Terrafirma hydraulic bump stop fitting kits to create a maximum performance suspension package.





Application	90/110/130/Universa
12" travel front and rear	TF488
Front and Rear mounting kit (picture on page 41)	TF545
Rock Oil 5w suspension fluid 500ml	TF156
Replacement seal kit	TFSEALKIT25
Replacement shaft	TF488SHAFT
Replacement ball joint	TFSBJ







# **TERRAFIRMA 2.5" COMPETITION** SHOCK MOUNTING KIT



# The ultimate suspension set

Arguably the highest performance 'bolt on' suspension package available for your classic Defender.

#### **FEATURES:**

The ulitmate bolt on suspension set up

Highest peformance race shocks

Unrivalled specification

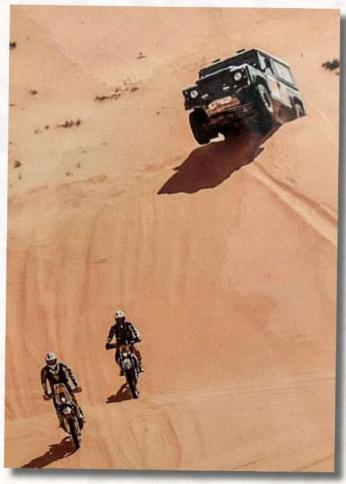
This perfectly engineered mounting system enables the amazing race bred, giant 12" travel 2.5" diameter shocks (TF488) to be

fitted. Finished in a tough black powder coat, the kit includes

limit straps to optimise axle travel and brackets to correctly mount the huge 8 stage adjustable remote reservoirs as well as all the hardware required. Fitting this suspension set up will guarantee unrivalled on and off road performance.

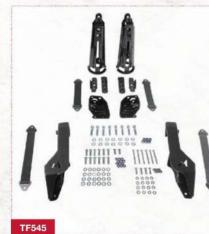
For Defenders built after 2007 it is recommended to fit our high clearance air filter box lid which allows the RH shock turret to clear the air filter pipework.

This incredible kit can be combined with Terrafirma hydraulic bump stops and mounting systems.



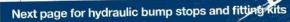






Application	Part number
Front and rear fitting kit DEF 90/110 2 door	TF545
Front and rear fitting kit DEF 110 4 door SW/CC	TF546
High clearance alloy air filter lid (2007 on)	TF396









# HYDRAULIC BUMP STOPS



#### **FEATURES:**

#### 4" (100mm) travel

Zinc plated for bright long-lasting finish with striking blue anodised machined alloy fittings.

High pressure Nitrogen charged

High temperature 5W premium quality shock fluid

Adjustable between 100 and 400psi, factory set at 150psi for immediate fitment

3mm wall thickness

# TERRAFIRMA 4" HYDRAULIC BUMP STOPS

Precision engineered from 2" (52mm) diameter steel tube with a super tough hard chrome 32mm diameter piston rod.

Classic Terrafirma blue and silver styling is retained with machined anodised fittings and a nylon contact pad keeps noise during operation to a minimum.

Mounting Terrafirma hydraulic bumps stops is made possible with specific Terrafirma mounting kits. They can be mounted with any shock absorber option and are adjustable to limit compression movement as required. Take a look at the suspension hardware section on page 60 for full details.

Weld on mounting tubes are also available for custom vehicle builders who wish to incorporate Terrafirma hydraulic bumps stops into their chassis

The bump stops are adjustable between 150 and 400psi and come factory set at 150psi. The length of travel and specification of the Terrafirma bump stops is ideally suited to popular 4x4 applications.

Application	90/D1/RRC/110/130
4" travel	TF140
Universal weld on mounting can long	TF139
Universal weld on mounting can short	TF139A
Hydraulic bump stop spacer	TF139B
2" internal bump stop spacer	TF140SPA
Hydraulic bump stop nylon pad	TF140PAD
Hydraulic bump stop valve	TF140VALVE
Seal kit	TF140SEALS



















# MEGA SPORT MONOTUBE SHOCK MOUNTING KIT

The Mega Sport shock absorber uses race bred 'rose' joint mountings top and bottom and as such requires a specific mounting kit. These fantastically well engineered front and rear mounting systems are custom designed for the 11" travel shock option. Both front and rear kits are fully adjustable. Fit the 11" travel option in either the upper or lower positions for extreme axle articulation and wheel movement. Adjustability of the mounting system and tunability of the shock performance makes this kit one of the most versatile shock mounting kits available.

Designed as a bolt on kit to mount directly to the chassis and axles of D1 and RRC, modifications may be required to complete the installation on some vehicles.

Application	90/110/130/D1/RRC
Front fitting kit	TF540
Rear fitting kit	TF541

Modifications may be required to fit this kit to 2011 on Defenders









TF542



HYDRAULIC BUMP STOP MOUNTING KITS

Designed to fit with any spring and shock combination.

Terrafirma Hydraulic bump stops require a serious mounting kit. To withstand the punishment associated with hammering over bumps and jumps considerable work has been involved in the production of these mounting kits. Designed as a bolt on kit to fit 90/110/130/D1 and RRCs with few modifications. Included in the bump stop mounting kits are spacers to allow the compression movement to be restricted to avoid the shock bottoming out or for the bump stop to contact sooner depending on your chosen set up.

The front kit operates in front of the front shock tower and utilises mostly original fixings with some drilling required. The rear kit mounts within the rear coil spring and also acts as a relocation device for the spring and the lower contact pad incorporates a spring retainer.

Hydraulic bump stop mounting kits are also available for the front and rear of the Discovery 2, again designed to be a bolt on kit with minimal modification, the D2 kits use 2" travel adjustable threaded bump stops and allow for a much more aggressive high speed approach to off-roading.

For those custom vehicle builders out there, that like to make their own hardware we offer bump stop tubes designed to take the Terrafirma 4" travel hydraulic bump stop that can be welded directly into chassis fabrication or to any suitable bracketry.

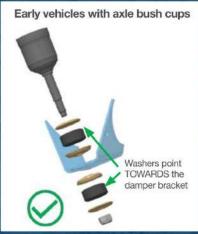
Application	90/D1/RRC	110/130	D2
Front fitting kit	TF542	TF542	TF494
Rear fitting kit	TF543	TF544	TF495

TF494 and TF495 include Hydraulic Bump Stops

# SHOCK ABSORBER FITTING ADVICE AND INFORMATION

Terrafirma shocks are fitted with OE specification bushes to enable them to be fitted directly to the vehicle and for ease of maintenance later on. In most cases rear shocks are supplied with 2 sets of bushes to accommodate early and late rear axle designs.







Check that bush mounting washers are fitted as per the diagram. In particular the dished top washers found on Defenders, Discovery 1 and Range Rover Classic rear top shock brackets must be fitted with the curved face towards the bush.

For long travel (+2" and longer) shocks it may be necessary 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 and eliminate any potential binding caused by metal to metal contact. Allowing the shock bush washers to contact the bush cup can cause premature shock failure and invalidate warranty. When long travel shock absorbers are fitted make sure that the axle will contact the bump stop before the shock is fully compressed (bottomed out), failure to do this will damage the shock. Also make sure that brake hoses are long enough to allow full shock absorber extension.

Make sure all fixings are checked for tightness within 100 miles of installation.

#### GASSING INSTRUCTIONS

The correct gassing system is required to set up Terrafirma Hydraulic bump stops, Air shocks, Remote Reservoir and Mega Sport shocks.

The only gas to use in all shock absorbers and bump stops is Nitrogen. Under no circumstances must any other gas be used. Do not use compressed air.

When setting the Nitrogen pressure ensure that the shock is fully extended, if regassing is to be carried out while shocks are fitted ensure the vehicle is jacked up.

Prior to gassing make sure the valve on the reservoir/shock is tight and that there are no leaks.

The nitrogen pressure on Mega Sport shocks is factory set at 100-150psi for recreational use. The pressure can be adjusted between 60 and 200psi. High gas pressures will result in a firm ride; low pressures give a softer ride.

Hydraulic bumps stops are factory set at 150psi and can be adjusted between 100 and 400psi to suit ride characteristics and application.

Hold gas pressure for 30 seconds to ensure correct pressure is achieved.

Rapidly remove the filler valve from the reservoir or shock after gassing to ensure no gas is lost.

Gas pressure can vary between front and

rear shocks and bump stops but should be the same side to side.

Ensure the reservoir valve cap is refitted to protect from dust and dirt.

For optimum performance check Nitrogen pressure every 10,000 miles.



#### Application

Terrafirma remote reservoir and bump stop gassing kit (requires bottle and gauge)

**TFGASKITPRO** 

Important notice: Only Nitrogen gas must be used with Terrafirma Shock Absorbers and bump stops





# TERRAFIRMA SHOCK DATA

Part No.	Туре	Travel	Application	Open	Closed	Construction	Shaft dia.	Piston dia.	Body dia.
TF116	All Terrain	STD	90/110/130/D1/RRC	585mm	345mm	Twin tube low pressure nitrogen/oil	16mm	35mm	54mm
TF117	All Terrain	STD	90/110/130/D1/RRC	585mm	360mm	Twin tube low pressure nitrogen/oil	16mm	35mm	54mm
ΓF118	All Terrain	STD	D2	590mm	365mm	Twin tube low pressure nitrogen/oil	16mm	35mm	54mm
ΓF119	All Terrain	STD	D2	595mm	370mm	Twin tube low pressure nitrogen/oil	16mm	35mm	54mm
ΓF125	All Terrain	STD	P38	535mm	330mm	Twin tube low pressure nitrogen/oil	16mm	35mm	54mm
ΓF126	All Terrain	STD	P38	485mm	305mm	Twin tube low pressure nitrogen/oil	16mm	35mm	54mm
ΓF120	Pro Sport	PLUS 2"	90/110/130/D1/RRC	605mm	360mm	Twin tube low pressure nitrogen/oil	20mm	40mm	57mm
ΓF121	Pro Sport	PLUS 2"	90/110/130/D1/RRC	613mm	383mm	Twin tube low pressure nitrogen/oil	20mm	40mm	57mm
ΓF131	Pro Sport	STD	90/110/130/D1/RRC	555mm	340mm	Twin tube low pressure nitrogen/oil	20mm	40mm	57mm
ΓF132	Pro Sport	STD	90/110/130/D1/RRC	565mm	360mm	Twin tube low pressure nitrogen/oil	20mm	40mm	57mm
ΓF144	Pro Sport	PLUS 2"	P38	585mm	360mm	Twin tube low pressure nitrogen/oil	20mm	40mm	57mm
ΓF145	Pro Sport	PLUS 2"	P38	535mm	335mm	Twin tube low pressure nitrogen/oil	20mm	40mm	57mm
ΓF146	Pro Sport	PLUS 2"	D2	645mm	400mm	Twin tube low pressure nitrogen/oil	20mm	40mm	57mm
ΓF147	Pro Sport	PLUS 2"	D2	645mm	400mm	Twin tube low pressure nitrogen/oil	20mm	40mm	57mm
Γ <b>F</b> 169	4 Stage Adjustable	PLUS 5"	90/110/130/D1/RRC	673mm	393mm	Twin tube low pressure nitrogen/oil	18mm	35mm	57mm
ΓF172	4 Stage Adjustable	STD	90/110/130/D1/RRC	555mm	340mm	Twin tube low pressure nitrogen/oil	18mm	35mm	57mm
ΓF173	4 Stage Adjustable	STD	90/110/130/D1/RRC	565mm	360mm	Twin tube low pressure nitrogen/oil	18mm	35mm	57mm
ΓF174	4 Stage Adjustable	PLUS 2"	90/110/130/D1/RRC	605mm	360mm	Twin tube low pressure nitrogen/oil	18mm	35mm	57mm
Γ <b>F</b> 175	4 Stage Adjustable	PLUS 2"	90/110/130/D1/RRC	613mm	383mm	Twin tube low pressure nitrogen/oil	18mm	35mm	57mm
ΓF176	4 Stage Adjustable	PLUS 2"	P38	585mm	360mm	Twin tube low pressure nitrogen/oil	18mm	35mm	57mm
F177	4 Stage Adjustable	PLUS 2"	P38	535mm	335mm	Twin tube low pressure nitrogen/oil	18mm	35mm	57mm
F178	4 Stage Adjustable	PLUS 3"	D2	665mm	410mm	Twin tube low pressure nitrogen/oil	18mm	35mm	57mm
F179	4 Stage Adjustable	PLUS 3"	D2	665mm	410mm	Twin tube low pressure nitrogen/oil	18mm	35mm	57mm
F190	4 Stage Adjustable	STD	D2	590mm	365mm	Twin tube low pressure nitrogen/oil	18mm	35mm	57mm
F191	4 Stage Adjustable	STD	D2	595mm	370mm	Twin tube low pressure nitrogen/oil	18mm	35mm	57mm
F123	Big Bore Expedition	PLUS 2"	90/110/130/D1/RRC	610mm	370mm	Twin tube oil	20mm	50mm	76mm
ΓF124	Big Bore Expedition	PLUS 2"	90/110/130/D1/RRC	610mm	395mm	Twin tube oil	20mm	50mm	76mm
ΓF129	Big Bore Expedition	STD	90/110/130/D1/RRC	550mm	340mm	Twin tube oil	20mm	50mm	76mm
ΓF130	Big Bore Expedition	STD	90/110/130/D1/RRC	560mm	370mm	Twin tube oil	20mm	50mm	76mm
ΓF142	Commercial HD	STD	90/110/130/D1/RRC	555mm	335mm	Twin tube low pressure nitrogen/oil	20mm	46mm	60mm
ΓF143	Commercial HD	STD	90/110/130/D1/RRC	565mm	350mm	Twin tube low pressure nitrogen/oil	20mm	46mm	60mm
Γ <b>F</b> 2118	Monotube High Performance	STD	D2	590mm	390mm	Mono tube high pressure nitrogen/oil	16mm	46mm	52mm
Γ <b>F</b> 2119	Monotube High Performance	STD	D2	590mm	390mm	Mono tube high pressure nitrogen/oil	16mm	46mm	52mm
F2131	Monotube High Performance	STD	90/110/130/D1/RRC	555mm	341mm	Mono tube high pressure nitrogen/oil	16mm	46mm	52mm
ΓF2132	Monotube High Performance	STD	90/110/130/D1/RRC	565mm	364mm	Mono tube high pressure nitrogen/oil	16mm	46mm	52mm
ΓF2120	Monotube High Performance	PLUS 2"	90/110/130/D1/RRC	605mm	366mm	Mono tube high pressure nitrogen/oil	16mm	46mm	52mm
F2121	Monotube High Performance	PLUS 2"	90/110/130/D1/RRC	615mm	390mm	Mono tube high pressure nitrogen/oil	16mm	46mm	52mm
F2122	Monotube High Performance	PLUS 5"	90/110/130/D1/RRC	673mm	399mm	Mono tube high pressure nitrogen/oil	16mm	46mm	52mm
Γ <b>F</b> 2146	Monotube High Performance	PLUS 2"	D2	645mm	400mm	Mono tube high pressure nitrogen/oil	16mm	46mm	52mm
F2147	Monotube High Performance	PLUS 2"	D2	645mm	400mm	Mono tube high pressure nitrogen/oil	16mm	46mm	52mm
F481	8 Stage Remote Reservoir	PLUS 2"	90/110/130/D1/RRC	605mm	368mm	Mono tube high pressure nitrogen/oil	20mm	46mm	52mm
ΓF482	8 Stage Remote Reservoir	PLUS 2"	90/110/130/D1/RRC	610mm	380mm	Mono tube high pressure nitrogen/oil	20mm	46mm	52mm
F483	8 Stage Remote Reservoir	PLUS 5"	90/110/130/D1/RRC	675mm	400mm	Mono tube high pressure nitrogen/oil	20mm	46mm	52mm
F484	8 Stage Remote Reservoir	PLUS 5"	D2	705mm	430mm	Mono tube high pressure nitrogen/oil	20mm	46mm	52mm
F485LH	8 Stage Remote Reservoir	PLUS 5"	D2	705mm	430mm	Mono tube high pressure nitrogen/oil	20mm	46mm	52mm
ΓF137	Mega Sport	11"	Universal	810mm	530mm	Mono tube high pressure nitrogen/oil	20mm	46mm	52mm
TF488	Smooth Body Competition	12"	Universal	860mm	555mm	Mono tube high pressure nitrogen/oil	22mm	60mm	66mm



# OFF ROAD RACING SHOCKS

Terrafirma are well known for upgrading the suspension on Land Rovers, which still outnumber most other brands of production-based competition 4x4s, however there are an increasing number of unique vehicle and chassis builders developing their own frames, which push the boundaries of off-road performance.

Influence from American events such as the now legendary "King of Hammers", has encouraged new

designs of both beam axle and independent suspension race trucks. This has bought along demand for increased suspension travel, with multiple tube dampers and the capability to fine tune both bump and rebound damping throughout the entire range of shock travel.

These shocks are for the serious off-road competitor and vehicle builder, they are fully adjustable and rebuildable and require extensive knowledge of suspension set up and can only be fitted to custom built racing chassis.

Product selection, set up advice and technical support must be provided by the vehicle builder.

## AIR SHOCKS

Developed originally for competitive rock crawling buggies where extreme axle articulation means everything.

#### **FEATURES:**

Zinc plated for bright long lasting finish with striking blue anodised machined alloy fittings

5/8 (16mm) diameter 1.5" (38mm) wide spherical bearing mounting eyes

Multi stage valving

High pressure Nitrogen charged

High temperature 5W premium quality shock fluid

Adjustable between 100 and 400psi, factory set at 150psi for immediate fitment

Factory set oil level at 650

Terrafirma's 2.5" Air shock supports the weight of the vehicle, provide infinite ride height adjustability and allow massive articulation for custom vehicle builders.

No more problems with coil springs dislocating or becoming coil bound restricting wheel movement.

With up to 16" of travel the Terrafirma Air shock provides ample axle movement even for the most extreme off-road competitors. The ride quality experienced with air shocks is exceptional, combined with Terrafirma hydraulic bump stops obstacles and extreme terrain can be attacked like never before.

The Terrafirma Air shock is super strong 2.5" (66mm) diameter and uses a massive 1.625" (40mm) hard chromed highly polished piston shaft with the latest technology valving and seals. Air shocks are charged with high pressure Nitrogen, factory set at 150psi and adjustable between 100 and 400psi depending on the weight of the vehicle and preferred ride height.

Adjustable between 100 and 400psi and factory set ready to fit 150psi. Terrafirma Air shocks are designed to be mounted vertically with the shaft at the bottom for optimum performance. It is possible to fine tune the air shocks performance to very precisely suit a given application by adjusting the oil volume and the Nitrogen pressure. For the Terrafirma air shock we have assumed an average setting based on vehicles ranging between 2000 and 3000kg.

Description	Part number
16" travel	TF141
14" travel	TF154
12" travel	TF153
Seal Kit for all air shocks	TF141SEALS
Misalignment Spacers 1/2" (PAIR)	TFRSPACER



For chassis designed to accept 1.5" (38mm) ball joints Terrafirma Misalignment Spacers can be used to adapt the larger Terrafirma shock spherical bearing to give extreme articulation and also to convert to the smaller ½" (12.5) diameter bolt common with some shock brands.





# **BYPASS** SHOCKS

Another unique high performance product from Terrafirma is the 2.5" Bypass shock; this super smooth damper uses 3 external bypass tubes to give the ultimate in adjustability and custom tuning.



#### **FEATURES:**

High quality shim valve

Fully rebuildable

2 compression damping adjuster tubes

1 rebound damping adjuster tube

16mm mounting eyes

Two of the external bypass tubes are used to adjust the compression damping of the bypass shock, the third external bypass tube is used to adjust the rebound damping. The 2.5" Bypass shocks also come with a massive remote reservoir to help them run cooler, fitted in the remote reservoir is a Shrader valve to allow the custom adjustment of the shocks nitrogen pressure to give even more tuneability.

Description	Part No.		
12" travel left	TF151L12		
12" travel right	TF151R12		
14" travel left	TF151L14		
14" travel right	TF151R14		
16" travel left	TF151L16		
16" travel right	TF151R16		
Rock Oil 5w suspension fluid 500ml	TF156		
Replacement seal kit	TFSEALKIT25		
Misalignment spacers	TFRSPACER		
Replacement ball joint	TFSBJ		
Extended shock eye 35mm	TFR35MMEYE		

Replacement shaft TFSHAFT12 TFSHAFT14 **TFSHAFT16** 

> The 2.5" Bypass shock should be used either alongside a coilover unit being used to carry the spring or with more conventional coil spring set up.



For chassis designed to accept 1.5" (38mm) ball joints Terrafirma Misalignment Spacers can be used to adapt the larger Terrafirma shock spherical bearing to give extreme articulation and also to convert to the smaller 1/2" (12.5) diameter bolt common with some shock brands.

#### FEATURES:

Piston 46mm

Shaft 32mm

Outer body 52mm

Adjustable Pressure

Min 100 Psi; Max 400 psi

Extended length 10; collapsed length 8"

2" travel

Mounting can included

# HYDRAULIC THREADED 2" BUMP STOPS

The Terrafirma 2" travel threaded hydraulic bump stops share all the amazing features of the 4" travel smooth body hydraulic bump stops just with a shorter amount of travel meaning the whole unit is more compact making them great to mount in applications where space is at a premium. The threaded body allows masses of fine tuning adjustment and they are supplied complete with a threaded weld-on mounting can and two locking rings.

Description	Part number
2" travel bump stop	TF149
Replacement weld-on threaded mounting can	TF149A





# COILOVERS

The ultimate spring and shock combination in one.

Coilovers offer more adjustability in ride height, ride quality, spring rates, and shock valving than other suspension set ups. Coilovers offer an efficient all in one package combining shock and coil springs to work as a single element.

#### **FEATURES:**

3 coilover options and dozens of spring combinations enables you to tailor the suspension to your own vehicle & performance requirements.

5/8" (16mm) diameter, 1.5" (38mm) wide spherical bearing mounting eyes top & bottom

Hard wearing anodized finish

High quality shim valve

Fin tube reservoir aids heat dissipation



Regardless of whether you are flying high over fast-track whoops or

running a flexible winch challenge/
rock crawler setup our coil-overs
will give you the comfortable and
predictable damping performance
you need to get the job done. They
come in several rock-solid
configurations that will fit your
application perfectly. Our race
proven coilovers are now on many
of the top race and winch challenge
cars here in the UK and across
Europe. All our Coilovers benefit
from large 16mm Upper and Lower
mounting bearings and there are
2.0" and 2.5" diameter shock
bodies

2.0" remote reservoir Coilovers represent great performance to value ratio in a compact package, supplied with a fin tube remote reservoir to increase oil volume.

2.5" Coilovers not only have more oil volume for better heat dissipation but also include "click adjusters". There is a single 8 stage compression adjuster on the remote reservoir, which, depending on the setting, will allow simple easy quick adjustment in order to firm up the compression travel

2.5" Internal Bypass Coilovers: For the Racer that wants it all, these have all the benefits of the normal 2.5" coilover but there is also a second 8-stage click adjuster on the bottom end of the shock shaft which controls the rebound travel.



Description	Part number	Replacement shaft
2.0" Remote Reserv	oir Coilover	
12" travel	TFR2012	TFR2012SHAFT
14" travel	TFR2014	TFR2014SHAFT
16" travel	TFR2016	TFR2016SHAFT
2.0" Replacement seal kit	TFSEALKIT20	
2.5" Remote Reserv	oir 8-Stage Adjusta	ble Coilover
12" travel	TFR2512	TFSHAFT12
14" travel	TFR2514	TFSHAFT14
16" travel	TFR2516	TFSHAFT2516
2.5" Remote Reserv	oir 2-WAY 8-Stage	Adjustable Coilover
12" travel	TFR2512DUAL	TFR2512DSHAFT
14" travel	TFR2514DUAL	TFR2514DSHAFT
16" travel	TFR2516DUAL	TFR2516DSHAFT

Description	Part number
Rock Oil 5w suspension fluid 500ml	TF156
2.5" Replacement seal kit	TFSEALKIT25
Misalignment spacers	TFRSPACER
Replacement ball joint	TFSBJ
Extended shock eye 35mm	TFR35MMEYE

For chassis designed to accept 1.5" (38mm) ball joints Terrafirma Misalignment Spacers can be used to adapt the larger Terrafirma shock spherical bearing to give extreme articulation and also to convert to the smaller ½" (12.5) diameter bolt common with some shock brands.

\*Careful selection of the coil springs for coilover shocks is necessary, see the coil spring application chart on page 49. Coilover spring selection will depend on the corner weights of the vehicle, the angle of the shocks on the race car and the desired handling characteristics. The range of spring options are considerable, we stock the most popular options which suit the majority of vehicle builds.



See Coilovers and Coil Spring Data on page



# COILOVERS AND COIL SPRING DATA

	Į.		2.0" c	oilovers			2.5" coilovers					
Coil springs	TFF	TFR2012 TFR2014				R2016	TFR25	12DUAL	TFR25	14DUAL	TFR25	16DUAL
Coil springs	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lowe
TFR-12-64-100												
TFR-12-64-150	1											
TFR-12-64-200	-					1				1		
TFR-12-64-250	J									1		
TFR-12-64-300				-						4		
TFR-12-64-350	1	-		+		+		-	-	ļ	-	+
TFR-14-64-150	1	~	1	4		1		-	-		-	ļ
TFR-14-64-200		,	1	-		-		-		-		
TFR-14-64-250		Ž	1	1				<b> </b>	-		-	-
TFR-14-64-300		1	1									
TFR-14-64-350		Ż	1				A AND STREET, SEC. STREET, SEC.					
TFR-14-64-400		Ž	1		-			-		-	-	
TFR-14-64-100	+	- Y	1							1	-	-
TFR-14-64-600			1	1					-	-	-	-
TFR-16-64-150				7	1	4		1		-	_	+
TFR-16-64-200				Ž	1			-	-	12-		-
TFR-16-64-250			-	ž	Ž	-		-			-	-
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TFR-12-78-100						4	4					
TFR-12-78-150				-			- 1	1		mg-o		
TFR-12-78-200							1	1	-		-	
TFR-12-78-250						4	<b>V</b>	1 4				
TFR-12-78-300				-		-	<b>V</b>	1				
TFR-12-78-350							4	<b>Y</b>	a Carron de la car			
TFR-12-78-400							-/	<b>/</b>				
TFR-12-78-600						-						
TFR-14-78-100				-					1	1		-
TFR-14-78-150					-			1	1	1		-
TFR-14-78-200						-		<b>/</b>	7	<b>'</b>		-
TFR-14-78-250			-	1		1		<b>V</b>	·	<b>'</b>		ļ.,
TFR-14-78-300						1-2		1	1	· .		
TFR-14-78-350						1		<b>Y</b>	<b>'</b>	7		
TFR-14-78-400						1		<b>/</b>	1	<b>V</b>		
TFR-14-78-600						1		1	1	<b>V</b>		
TFR-16-78-100								-		<b>V</b>	1	
TFR-16-78-150										<b>V</b>	1	1
TFR-16-78-200										1	1	1
TFR-16-78-250						1		1		<b>V</b>	1	<b>1</b>
TFR-16-78-300										<b>V</b>	1	1
TFR-16-78-350										1	1	1
TFR-16-78-400										<b>V</b>		1
TFR-16-78-600										<b>V</b>		
TFR-18-78-250											1	1

**Black Part Number:** Available from stock and commonly used

Grey Part Number: Available only by special order



# TERRAFIRMA ARE PROUD SPONSORS OF DIRT NATIONALS



# COIL SPRINGS

Fantastic off-road travel while keeping smooth on road ride and handling.

The purpose of a vehicle's suspension is to support the weight of the vehicle and absorb impacts, maximising the tyre's contact with the ground while maintaining stability and control.

When using a Land Rover off road the limits of the standard suspension are quickly realised when the lack of wheel travel affects traction and ultimately the vehicle's ability to maintain forward motion.

The added benefits of long travel suspension are exponential. Taller suspension allows larger tyres to be fitted as well as allowing greater suspension movement. Raising the suspension will also increase approach, departure and ramp over angles allowing your Land Rover to overcome larger obstacles.

The majority of Terrafirma Coil Springs are designed to lift the vehicle by approximately 2" (50mm). This is the optimum increase in ride height before the mechanical limitations of the suspension design become an issue requiring further modifications. Safety must be a consideration, raising the centre of gravity too high increases the risk of a roll over.

A vehicle lifted by 2" (50mm) using correctly matched Terrafirma Coil Springs and shocks will also improve on road handling, comfort and stability from the original set up.

To cover the widest range of applications Terrafirma provides a selection of high quality standard replacement as well as heavy load standard ride height springs specifically for Land Rover Defenders and also to cater for the latest trend of fast road styling a range of standard rate lowered coil springs are also available. These combined with any of the standard travel Terrafirma shocks give a 'squat' appearance and remarkable road manners with suitable road biased tyres.

Terrafirma's coil springs are produced by a hi-tech, ISO approved manufacturer using the highest quality steel. The springs are made to a strictly controlled design, manufacturing and testing process to exact tolerances that guarantees consistent sag free performance.

High quality coil spring manufacturing requires stringent key procedures to be followed and every single Terrafirma spring (not batch) has been through the following processes:

See specification guide on page 53

#### PRECISE HEAT TREATMENT AND HOT FORMING



The precise heating of the correct length and diameter superior quality steel rods. followed by hot forming on computer controlled precision mandrels, to ensure consistency.

#### **OIL QUENCHING**

Quenching in oil controls the cooling process to ensure the correct hardness and strength.

#### **FURNACE TEMPERING**

Heat treating eliminates hot spots and brittleness and improves elasticity which could otherwise cause failures in lesser quality springs.

#### SHOT PEENING

Shot peening with hardened steel shot stress relieves the surface of the steel wire making it more durable and less susceptible to fatigue. An added benefit is a textured surface that acts as the perfect key for the powder coating.

#### **SCRAGGING**

Compressing every spring to the coil bound state to ensure it returns to its specified free length to prevent sagging and height loss (Scragging).

#### LOAD AND RATE TESTING

All Terrafirma coil springs are 100% load tested to ensure the spring conforms to the correct height with the specified load for that particular application.

#### POWDER COATING AND PACKAGING

Terrafirma coil springs are powder coated in a durable and protective quality grey finish then packed in sturdy anti rattle branded boxes for distribution and display.

# CORRECT COIL SPRING SELECTION

It is important to understand that the Terrafirma Coil Springs that are intended to lift the vehicle provide approximately 2" (50mm) of lift while carrying light, medium or heavy loads.



Minimal mechanical changes are required when lifting by this amount, however the Terrafirma Suspension Hardware range of accessories does allow for greater lift and significantly increased wheel travel, further enhancing off-road ability.

Selecting the most suitable springs may be with some compromise. A heavy load spring needed when fully loaded may ride too high and too hard when unloaded. Likewise, a light load spring that is comfortable and flexible will not achieve the desired lift or carry the heavy loads associated with expedition vehicles.

Load carrying coil springs are often progressive or variable (V) this provides a combination of comfort and load carrying in one spring.

It is worth noting that Terrafirma coil springs are sold in pairs, in many cases one spring is 10mm longer than the other, the longer spring should always be fitted to the driver's side.

By considering the three Defender images below and combining the Terrafirma Coil Spring application guide and specifications (on page 53) it should be possible to select suitable coil springs or a suspension kit for your vehicle. Use the detailed spring descriptions by part number to help accurately fine tune the spring requirements for your specific application.

#### LIGHT LOAD



Vehicles with no additional equipment fitted.

#### **MEDIUM LOAD**



Vehicles fitted with some additional weight such as a roof rack and winch and bumper.

#### **HEAVY LOAD**



Vehicles fitted with significant off-road equipment such as a heavy winch and bumper, loaded roof rack, storage equipment and spare wheel carrier.

# COIL SPRING SPECIFICATIONS

Please see below all the coil spring specifications available. More details about each of the springs can be found on the following pages.



#### **COIL SPRING SPECIFICATIONS**

Description	Defend	er 90	Defend 110/130		Discove RRC	ery 1/	Discove	ery 2	Discove air to c	ery 3 & 4 oil	P38 air	to coil
	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear	Front	Rear
1" Lowered	TF032	TF033	TF032	TF034								
2" Lowered				TF035								
Standard Height standard load	TF020	TF021	TF024	TF025			TF028	TF029			TF030	TF031
Standard height heavy load	TF036	TF037	TF036	TF038								
1" Lifted											TF031	TF018
2" Lifted	See app	lication gu	ide below					- december - university				
Light load	TF014	TF015	TF014	TF010	TF014	TF015						
Medium load	TF018	TF023V	TF018	TF019	TF018	TF023V	TF042	TF023V	TF040	TF041		
Heavy load	TF015	TF027V	TF015	TF011	TF015	TF027V	TF052	TF027V				

#### 2" LIFT COIL SPRING SPECIFICATIONS

Spring rate	Wire Diameter	Number of	Length (DS/PS)	Load kg	Part No.	
lbf/in	mm	Coils	mm	Front	Rear	— Part No
270	18	8	435/435 mm		150	TF010
440	21	9	435/435 mm		500	TF011
200	16	9	400/390 mm	0-50		TF014
240	16	7.75	405/395 mm	150	100	TF015
240	16	7.5	410/400 mm	50-100		TF018
315	19	8	435/435 mm		300	TF019
300-340	18	9	420/410 mm		200	TF023V
300-360	18	9	430/420 mm		300	TF027V
200	15	7.75	385/375 mm	0-50		TF042
250	16	7.75	385/375 mm	75-150		TF052







# **COIL SPRING APPLICATIONS**

#### 90/110/130/D1/RRC LIGHT LOAD FRONT SPRINGS

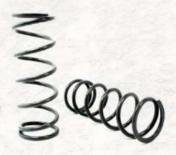
#### **TF014**

Light load front coil springs will give around 2" of lift on standard vehicles with less than 50kg of additional equipment fitted such as a heavy duty non winch bumper. TF014 springs should only be used when there are no plans to fit heavy equipment to the front of the vehicle in the future. Light load front springs are typically combined with light or medium load rear springs.

# 90/110/130/D1/RRC MEDIUM LOAD FRONT SPRINGS

#### TF018

Medium load front coil springs will provide 2" of lift when fitted to vehicles with up to 100kg of additional equipment, such as a winch and bumper. TF018 is a hugely popular spring for all front medium load applications. More than 2" of lift may be achieved when less than 50kg of additional equipment is fitted. No additional equipment fitted will lead to a much greater lift possibly



requiring attention to driveshaft angles and steering geometry.

#### 90/110/130/D1/RRC HEAVY LOAD FRONT SPRINGS

#### TF015

Heavy load front coil springs are designed to provide 2" of lift on vehicles with around 100kg of additional equipment such as a heavy-duty winch & bumper and other equipment. For example use TF015 springs on Defenders fitted with a Heavy duty winch, bumper and bull bar. More than 2" of lift will be achieved when less than 100kg of additional equipment is fitted. No additional equipment fitted will lead to a much greater lift possibly requiring attention to driveshaft angles and steering geometry.

# 90/D1/RRC LIGHT LOAD REAR SPRINGS

#### TF015

Light load rear coil springs. This spring is also suitable for the rear of a standard Defender 90 with little or no additional equipment fitted, certainly no more than 100kg and will give approx 2" lift. It should only be used on the rear of Discovery 1 and Range Rover Classic where no additional equipment is fitted and where less than a 2" lift is acceptable. In most cases the TF018 is more suitable for a Discovery 1 and Range Rover Classic. This spring would most likely be combined with TF014.

# 90/D1/D2/RRC MEDIUM LOAD REAR SPRINGS

#### TF023V

Medium load rear coil springs. This spring is suitable for the rear of a Defender 90, Discovery 1 and Range Rover Classic carrying up to 200kg of additional equipment and will provide around 2" of lift. This equates to a well equipped off-road or expedition vehicle, and those used to carry a constant medium to heavy load in the rear. It can also

be used on the rear of a Discovery 2 but will not carry the same load and may not achieve 2" of lift. This is also one of the most popular springs when combined with TF014 light load and TF018 medium load front springs.

# 90/D1/D2/RRC HEAVY LOAD REAR SPRINGS

#### **TF027V**

Heavy load rear coil springs will provide 2" of lift on heavily laden vehicles for commercial and expedition use. The TF027 fits the rear of Discovery 1, Discovery 2, Range Rover Classic, and Defender 90s carrying a constant load or additional equipment weighing more than 300kg. The TF023V is usually suitable for most Defender 90s however the TF027V is particularly good for people who want more constant heavy load-carrying ability.



#### 110/130 LIGHT LOAD REAR SPRINGS

#### TF010

Light load rear coil springs are designed to provide 2" of lift on a standard 110 Defender with no additional equipment fitted, they will carry light to moderate loads but may not maintain a 2" lift. These springs could be fitted to a 130 and would carry more load than standard but only if no lift was required. They can be fitted in conjunction with TF014 to give a comfortable ride and a 2" lift to an unladen 110.

# 110/130 MEDIUM LOAD REAR SPRINGS

#### TF019

Medium load rear coil springs. These springs are suitable for the rear of a Defender 110/130 with around 300kg of additional equipment fitted and will provide around 2" of lift. This equates to a moderately equipped off-road or expedition vehicle, and vehicles used to carry a constant medium to heavy load in the rear. The most popular 110/130 rear springs when combined with TF018



medium load front springs. Avoid fitting these springs if you are not carrying the load as the lift may be too great and could cause over extension of the rear shocks.

#### 110/130 HEAVY LOAD REAR SPRINGS

#### TF01

Heavy load rear coil springs will give 2" of lift on heavily laden 110s and 130s for commercial and expedition use. The TF011 is suitable for the rear of 110/130s carrying a constant load and additional equipment weighing more than 500kg. The TF019 is fine for most Defender 110/130 however the TF011 is particularly good for people who want more constant heavy load-carrying ability. Do not fit this spring if you are not carrying the load as the lift may be too great and could cause over extension of the rear shocks.



#### D2/P38

#### MEDIUM LOAD FRONT SPRINGS

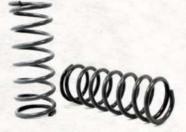
Medium load front coil springs are designed to provide 2" of lift on a Discovery 2 with a light to medium load up to around 50kg of additional equipment fitted, such as a discrete winch mount and winch. The TF042 only fits the front of Discovery 2. They are also ideally suited to the front of the P38 Range Rover and are included in the TF222HD Terrafirma air to coil conversion kit and provide approximately 1" of lift.

#### D2

#### HEAVY LOAD FRONT SPRINGS

Heavy load front coil springs will provide 2" of lift on a heavily loaded Discovery 2 for commercial and expedition use. The TF052 only fits the front of Discovery 2 and should only be used when carrying a constant load or additional equipment weighing up to 100kg. More than 2" of lift will be achieved when less than 100kg of additional equipment

which may lead to too much lift possibly causing drive shaft vibration and steering geometry problems. These springs are also ideally suited to the rear of the P38 Range Rover and are included in the TF222HD Terrafirma air to coil conversion kit and provide approximately 1" of lift.



#### P38

#### STANDARD RIDE HEIGHT AIR TO COIL FRONT CONVERSION SPRINGS

#### TF030

Light load front springs, standard right height coil springs, specifically designed to replace the air spring (air suspension bag) on a P38 Range Rover and are included in the TF222 conversion kit. This spring has moderate load carrying capability and is intended to maintain the normal running height of the original air suspension.

#### P38

#### STANDARD RIDE HEIGHT AIR TO COIL REAR CONVERSION SPRINGS

Light load front springs, standard right height coil springs, specifically designed to replace the air spring (air suspension bag) on a P38 Range Rover and are included in the TF222 conversion kit. This spring has moderate load carrying capability and is intended to maintain the normal running height of the original air suspension.

#### 90/110

#### LOWERED FRONT SPRINGS

Standard rate lowered coil springs are designed to reduce the ride height of the front of a Defender by 1". These springs are not designed to carry additional load and closely match the original spring specification and rate giving a squat sporty appearance and reduced body roll when cornering.

#### 90

#### LOWERED REAR SPRINGS

Standard rate lowered coil springs are designed to reduce the ride height of the rear a Defender 90 by 1". These springs are not designed to carry additional load and closely match the original spring specification and rate giving a squat sporty appearance and reduced body roll when cornering.



#### 110

#### LOWERED REAR SPRINGS

#### **TF034**

Standard rate lowered coil springs are designed to reduce the ride height of the rear of a Defender 110 by 1" and TF035 will reduce the ride height by 2". TF035 springs are not designed to carry additional load, TF034 can carry additional load such as luggage and passenger and achieve the appearance and characteristics of TF035. Both closely match the original spring specification and rate giving a squat sporty appearance and reduced body roll when cornering.

#### 90/110/130

## STANDARD RIDE HEIGHT STANDARD

LOAD SPRINGS

#### TF020 TF021 TF024 TF025 TF028 TF029

Standard height and standard load, high grade coil springs are the perfect replacement for tired and sagging originals. These coils are the ideal choice for vehicle restorers and rebuilders who want the trusted quality and performance of Terrafirma springs but without any alteration to the ride height and load carrying capabilities of their vehicle.



#### 90/110/130

#### **HEAVY LOAD STANDARD RIDE** HEIGHT SPRINGS



#### TF036 TF037 TF038

Standard height heavy load coil springs are designed to maintain the original ride height, i.e. no lift when additional load is constantly applied such as a winch and bumper or permanently mounted equipment in the rear. Manufactured using the same stringent quality-controlled manufacturing processes as our lifted coil springs. Some increase in ride height will be achieved if no additional load is applied to the vehicle.





# SPRING & SHOCK KITS

These kits are created for convenience and ease of ordering.

Terrafirma offers a huge selection of shock absorbers, coil springs and suspension hardware which allows for an infinite range of combinations to enhance the performance of your vehicle.





The Discovery 2 has often been overlooked for recreational off-road in favour of a Defender but a new league of suspension upgrade kits

will enable you to take on the most extreme terrain as well as enjoy the motorway drive on the way home. As usual Terrafirma springs, shocks and suspension components are available individually for owners to customise their D2s just how they want to, for convenience we have put together a range of kits for the serious off-roader ensuring everything is fully compatible.

Terrafirma coil springs and shock absorbers can be bought individually to enable total customisation of the suspension system allowing you to upgrade and tune the suspension ride height, load carrying and wheel travel to meet your exact requirements.

Popular combinations of Terrafirma springs and shocks are available in standard and +2" travel kits which include 4 All

Terrain or Pro Sport shock absorbers and 4 coil springs in light, medium and heavy load options. Additional equipment maybe required to complete your suspension upgrade to the required specification.

It is important when selecting a spring and shock kit that it suits the weight of the vehicle and the load that is to be carried. If you require different load springs front and rear the individual components must be selected from their respective ranges.

Terrafirma spring and shock kits have been created for convenience, ensuring correct parts are matched and making ordering easier. Depending on the final specification of the vehicle additional products may be required such as extended bump stops and brake hoses to prepare your vehicle to a certain specification.







A U 45		90/D1/RR	С		200		
Application	Light	Medium	Heavy	Light	Medium	Heavy	D2
All Terrain std travel shocks & 2" lift springs	TF201	TF202	TF204	TF206	TF203	TF205	
Pro Sport 2" longer travel shocks & 2" lift springs	TF207	TF208	TF210	TF212	TF209	TF211	
Pro Sport std travel shocks & 2" lift springs	TF213	TF214	TF216	TF218	TF215	TF217	
All Terrain std travel shocks & std height heavy load springs		TF197			TF199		
Pro Sport std travel shocks & std height heavy load spring		TF198			TF200		Ī
Monotube std travel shocks & std height std load springs		TF185		- we saw it book in	TF186		TF187
All Terrain std travel shocks & std height std load springs		TF188			TF189		





# TerrafirMa

# AIR TO COIL CONVERSION KITS

The EAS or Electronic Air Suspension systems fitted to Discovery 3 & 4, P38 Range Rovers and the rear of the Discovery 2 can be expensive to repair and not especially reliable when heavily laden.



Eliminating the potentially costly electronic components, air

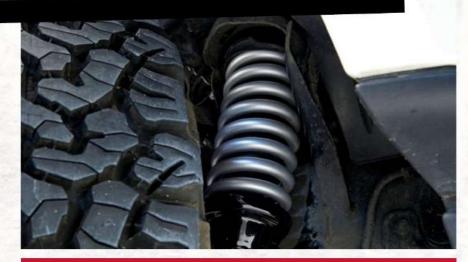
springs and compressor replacement, coil spring conversions offer a reliable and economical repair or upgrade. When fitted with the relevant coil springs, significantly increased load carrying can be achieved.

#### **RR P38**

All P38 Range Rovers manufactured between 1995 and 2002 were fitted with air suspension, at the time this system was regarded as state of the art and offered high levels of comfort and the ability to self-level when loaded or when towing. The P38 has generally stood the test of time and has a loyal band of supporters keeping them roadworthy and in good shape.

The cost of repairing sophisticated systems can sometimes become unviable but with the Terrafirma Air to Coil conversion kit all the potential expense is dealt with in one go. The coil springs have been developed to match the standard ride height and load carrying characteristics of the air suspension in standard mode, also available is an HD package giving a 1" lift and a greater capacity for increased load. The kit includes fitting instructions, everything necessary to isolate the electronics, eliminate unwanted dash lights and all the hardware required to convert from air springs to coil springs.

It is recommended that new Terrafirma shocks are also fitted for best results so for your convenience additional part numbers have been produced that include shock absorbers.



#### **D2**

The Discovery 2 only has air suspension fitted to the rear, primarily to provide self-levelling for carrying additional load and for towing. Its limitations are easily reached when heavily loaded hitting bumps and potholes. Air bags can burst leaving the vehicle sitting on its bump stops miles from home. It is standard practice to remove the air suspension and fit heavy load coil springs when preparing Discovery 2s for expedition purposes.

The Terrafirma Discovery 2 Air to Coil conversion kits are simpler than the P38 and several load carrying options are available to suit different applications.

#### D3 & D4

Terrafirma's latest evolution of the air to coil conversion kits for Discovery 3 and Discovery 4 now utilise a common EAS override module that suits both models. Converting from air suspension to coils reduces the likelihood of expensive air suspension repairs and eliminates the potential for suspension failure in remote operating conditions.

Comprising 4 pre-assembled strut assemblies and a sophisticated EAS override module that retains all the original functions such as terrain response, headlight levelling and information screen functions.

Available in both standard ride height (TF265) with good load carrying characteristics as well as lifted (TF266) versions giving 2" (50mm) of increased ride height with the ability to carry a healthy payload. An expedition grade kit (TF267HD) which includes unique heavy duty damper struts combined with lifted coil springs tops the range.



Standard height vehicle vs vehicle fitted with conversion kit TF266



## AIR TO COIL CONVERSION KITS









Range Rover Sport 2005-2010

RRS 05-2010 without DSC/ASC

05-2010 without DSC/ASC

2" lift front coil springs (pair)

2" lift rear coil springs (pair)

an additional lift (each)



TF221

TF265

**TF266** 

TF040

TF041

TF267EXP

RNG500060



Application	Part number
Range Rover P38	
Air to coil conversion kit standard ride height	TF222
Air to coil conversion kit medium load 1" lift	TF222HD
Front spring perch conversion kit	TF222KD
Air to coil conversion kit standard ride height including std travel All Terrain shocks	TF223
Air to coil conversion kit medium load 1" lift including standard travel All Terrain shocks	TF223HD
Discovery 2	
Air to coil conversion kit standard ride height (with rear springs)	TF225
Air to coil conversion kit 2" lift includes front springs	TF226
Air to coil conversion kit 2" lift inc front & rear medium load springs & std travel All Terrain shocks	TF227
Air to coil conversion kit 2" lift inc front & rear heavy load springs & std travel All Terrain shocks	TF228
Air to coil conversion kit 2" lift inc front & rear medium load springs & +2" travel Pro-Sport shocks	TF229
Air to coil conversion kit 2" lift inc front & rear heavy load springs & +2" travel Pro-Sport shocks	TF230
Air to coil conversion kit 2" lift inc front & rear medium load springs & +3" 4 Stage Adjustable shocks	TF259
Air to coil conversion kit 2" lift inc front & rear heavy load springs & +3" 4 Stage Adjustable shocks	TF260
Discovery 3 2004-2009/Discovery 4/Range Rover Sport 2005-2010	
Air suspension +2" lift rod kit Discovery 3 2004-2009/Discovery 4/	TF221

Terrafirma air to coil conversion kit standard ride height Discovery 3 & 4/

Terrafirma air to coil conversion kit +2" ride height Discovery 3 & 4/RRS

Terrafirma heavy duty expedition grade air to coil conversion kit +2" ride

height Discovery 3 & 4/RRS 05-2010 without DSC/ASC

13.5mm rear strut spacer allows for trimming/levelling or









# SUSPENSION HARDWARE



There is one thing that is paramount to safe and successful off-road driving..... Traction! Keeping the tyres in contact with the ground is essential to maintain forward motion.

Often despite class leading off-road suspension straight from the factory even keen amateur off-roaders quickly reach the limits of wheel travel on standard 4x4s, losing momentum with wheels in the air fighting for grip.

Terrafirma Suspension Hardware is a range of chassis and suspension accessories designed to considerably improve your off-road driving experience. Increasing wheel travel or axle articulation with stability and balance is the key moving forward in really rough terrain.

Momentum can carry you through in some instances but when the rocks get bigger and ruts get deeper you simply can't always go faster to keep going forward.

The logical first step to increasing wheel travel is fit longer springs and shock absorbers but there are implications

that can affect safety, performance and reliability. Within the Terrafirma Suspension hardware range there are accessories specifically designed to tackle problems such as tyre to body clearance, shocks topping and

bottoming out, dislocating coil springs, steering geometry and driveline angles etc to ensure your vehicle performs beyond expectation.

Terrafirma Suspension Hardware allows you to customise the performance of your suspension. Constant development, testing and customer feedback ensures every product is 'fit for purpose' allowing you to drive further in all conditions on all types of terrain, from recreational off-road to hard core competitions.

All items are supplied in pairs or as a kit with nuts, bolts and washers as required and can be fitted by a workshop technician or competent DIY mechanic.

NB. Bushes are not generally supplied to allow for personal preferences

Care must be taken when customising your suspension to make sure the suspension works freely throughout full articulation, check that brake lines are long enough, and that steering geometry and driveline angles are not adversely affected.



#### FRONT COIL SPRING DISLOCATION CONES

#### TF501 TF490

When longer than standard front shocks are fitted the coil spring can move around becoming dislodged on full suspension drop out, sometimes failing to relocate

correctly when the suspension compresses again. Fitting dislocation cones in conjunction with spring retaining plates will ensure the spring re-seats correctly every time. Due to extreme movement of the front shock on a Discovery 2 the TF490 dislocation cones have a unique scalloped design to allow the shock to move without fouling the cone.





#### FRONT SHOCK TURRET SECURING RINGS

#### TF502

The original front shock turret securing rings are somewhat frail and the threaded studs are often not long enough to adequately secure heavy duty or tubular front shock turrets such as TF503 & TF504. Terrafirma front shock turret securing rings are much stronger and use longer high tensile studs to reliably attach replacement turrets including Terrafirma front twin shock turrets TF514.



#### TUBULAR FRONT SHOCK TURRETS

#### TF503 TF504

Tubular front shock turrets are stylish, much stronger and less liable to rusting through than the original pressed steel cone type and they also allow you to show off your Terrafirma shocks! Available in standard height TF504 or lowered height -2" (-50mm) TF503 which allow more suspension drop out with standard length shocks. Lowering your shocks can reduce the amount of upward or compression movement and may require the fitment of bump stop spacers TF515 and/or extended bump stops. Terrafirma tubular shock turrets also allow sufficient clearance for the hose and reservoir to pass through when fitting the 8 Stage Adjustable Remote Reservoir shocks.



#### +2" EXTREME LONG TRAVEL SKELETON FRONT SHOCK TURRETS

#### TF522

These strong and stylish fabricated front shock turrets are ideal when fitting the + 5" (125mm) Terrafirma TF169 and TF483 +5" long travel shocks and are necessary to prevent the shock from bottoming out on full compression and making the most of these amazing adjustable long travel shocks. They also allow sufficient clearance for the hose and reservoir to pass through when fitting the 8 Stage Adjustable Remote Reservoir shocks.



#### SKELETON FRONT SHOCK TURRETS

#### TF534 TF535 (+30mm)



A great way to show off your Terrafirma shock absorbers, Terrafirma skeleton front shock turrets are stronger than original and not prone to rusting, specifically made for the Discovery 2. TF535 is +30mm.



#### **COIL SPRING RETAINING PLATES**

#### TF505 TF506 TF507 TF524

Coil springs can part company and become dislodged from their mounts when long travel shocks are at full extension. Heavy duty spring retaining

plates are used to hold the coil spring in place on the axle and when combined with dislocation cones TF501, TF510, TF511 and relocation cones TF520 ensure they relocate properly when the suspension compresses again.







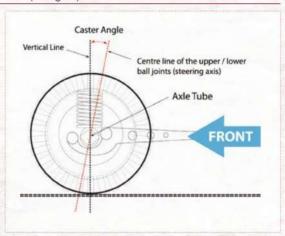
#### CASTER CORRECTED FRONT RADIUS ARMS

TF508 (3 degree) TF528 (6 degree) TF529 (3 degree)



When coil sprung, live axle vehicles are lifted the caster angle is changed (see diagram).

This can lead to vagueness and a lack of self-centering of the steering. Fitting 3-degree caster corrected radius arms re introduces positive caster angle to return the steering to the correct geometry on vehicles lifted 2-3" (50-75mm), for vehicles lifted more than 2-3" 6 degree caster corrected radius arms should be used. The TF508 and TF528 radius arms are designed to accept the 44mm wide bushes that have been fitted to 90/110/130/D1 and RRC from around 1992 and the TF529 radius arms are designed to fit Discovery 2.







#### CRANKED REAR RADIUS ARMS

#### TF509



When Land Rovers are lifted the rear radius arm to chassis bushes become strained, further suspension drop out can be restricted by the lack of movement in the bush. To relieve the strain and to improve suspension flex fit cranked rear radius arms. Terrafirma rear radius arms are made from super tough thick wall CDS tubing.



#### CREEPER JOINT REAR RADIUS ARMS



These heavy-duty spherical rod ends are ideal for today's flexible suspension systems. Super strong, Creeper Joints will stand up to years of punishment. The outer shell is a single forged piece. The inner ball is made from 8620 tool steel and rides on high quality polyurethane

bushings. Heavy-duty, hardened steel washers and circlips hold the joint together. Creeper Joints are super flexible and allow for up to 40 degrees of articulation. A grease nipple is provided for lubrication and the ball is drilled for cross lubrication flow from the outer shell to the mounting bolt. These rear radius arms are designed to allow massive unrestricted, stress free rear axle movement. Made from super strong 1 1/2" diameter x 5/16" wall thickness CDS tubing with offset axle end mounts to provide maximum clearance.



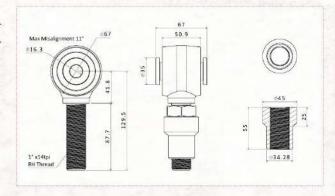
#### **CREEPER JOINT**

#### TF532RJ



Available as a replacement joint for TF532 Radius Arms but

also perfect for custom space frame vehicle builders looking for a superb high articulation greaseable rose joint for suspension arms. Each joint is supplied with a weld in bung to suit 35mm ID tube with a locking nut.





#### REAR COIL SPRING DISLOCATION CONES

When longer than standard rear shocks are fitted the coil spring can part company with the chassis becoming dislodged on full suspension drop out, sometimes failing to relocate correctly when the suspension compresses again. Fitting dislocation cones in conjunction with coil spring retaining plates TF506 or TF507 will ensure the spring re-seats correctly every time.





#### REAR AXLE INVERSE RELOCATION CONES

#### TF521 TF5210

An alternative to the dislocation cones, these relocation cones are the ideal method of relocating coil springs on extreme long travel suspension. It is possible with massive drop out rear suspension that even conventional cones fail to relocate coil springs, especially when working at speed. Restraining the coil at the top as opposed to the bottom allows for a shorter cone to be used providing reliable relocation regardless of shock travel.





#### LOWERED REAR TOP SHOCK MOUNTS

#### TF512

It is possible to gain and additional 2" (50mm) of rear suspension drop out with replacement lowered rear top shock mounts. Attaching the shock lower on the chassis allows greater axle articulation. Lowering your shocks can reduce the amount of upward or compression movement and may require the fitment of bump stop spacers TF515 and/or extended bump stops



#### REAR TWIN SHOCK MOUNT KIT

#### TF513

Heavily laden expedition vehicles and fast off-road vehicles benefit from fitting twin shocks as it reduces stress and heat build-up within the shock absorbers allowing them to perform better for longer. The Terrafirma rear twin shock mount kit allows 2 shocks to run parallel using existing mounting points. Suitable for all Terrafirma shocks except Big Bore Expedition shocks and +5" longer shocks. Care must be taken to make sure the lower shock mounting bracket does not interfere with the inner edge of the rear wheels. TF301 wheel spacers may be required.



#### FRONT TWIN SHOCK MOUNT KIT

#### TF514

As with TF513 heavy expedition vehicles and fast off-road vehicles will benefit from fitting twin shocks as it reduces stress and heat build-up within the shock absorbers allowing them to perform better for longer. The Terrafirma front twin shock mount kit allows 4 shocks to be fitted to handle the punishment driving at speed over rough terrain. Suitable for all Terrafirma shocks except Big Bore Expedition shocks. Some trimming is required to fit this kit to Discovery 1 and Range Rover Classics.



#### BUMP STOP SPACERS

#### **TF515**

Increasing the size of the original bump stops by 1" (25mm) will help prevent larger tyres from touching the bodywork on full suspension compression. They are commonly used in conjunction with lowered turrets & rear top shock mounts, they may also be required with longer than standard shocks to help prevent damage if the shocks bottom out.



#### POLYURETHANE EXTENDED BUMP STOPS

#### TF1020 TF1023

Protect your long travel shock absorbers from damage by restricting the compression movement of the suspension, fitting extended bump stops also allows larger diameter tyres to be fitted without them hitting the wheel arches and bodywork on full compression. Bright red polyurethane bonded to vehicle specific mounting plates make this a simple fitment.







#### SPRING SPACERS

#### TF516 TF517

Increase the body clearance to allow the fitment of really big tyres as well as provide an additional 2" (50mm) of lift to your suspension. These simple spacers bolt between the coil spring and the axle and can be the perfect way to lift the vehicle to the desired ride height when the load or equipment carried exceeds even the heaviest rated coil springs. It must be noted that bump stop spacers TF515 or extended bump stops may be required to prevent the coil spring



#### D2 FRONT COIL SPRING AND REAR AIR SPRING SPACERS

from becoming coil bound (fully compressed) on full compression.

#### TF525 TF526

For Discovery 2s with rear air suspension this simple lift kit will increase ground clearance and tyre to body clearance. If the rear air springs are to be retained to maintain the self-levelling facility these spacer kits are the perfect solution for achieving a 2" lift. The front kit compliments the rear perfectly and both kits come complete and ready to fit and require no resetting of the air suspension.





For D2s with rear coil suspension combine TF525 with TF517 for the same effect.

#### 5MM COIL SPRING TRIM SPACERS

#### **TF537**

These simple but effective coil spring trim spacers allow you to adjust the trim of your Defender, D1, D2 and RRC by simply stacking 5mm spacers between the lower spring mount plate and the axle. Correct lean or lift the front or rear to fine tune the suspension to your liking. Sold as a set of 4 plates with nuts and bolts.



#### D2 EXTENDED ANTI ROLL **BAR LINKS**

#### TF220

For Discovery 2s lifted 2 or more inches (>50mm) these extended anti roll bare links maintain stability and the correct operation on the front and rear anti roll bars, ideal for expedition equipped D2s or for owners wanting to retain good road manners on lifted vehicles.





#### REAR TOP SHOCK MOUNT RELOCATORS

#### TF518

This is an alternative kit to TF512 allowing the original rear top shock mount to be bolted 2"(50mm) lower on the chassis. Attaching the shock mount lower on the chassis allows greater axle articulation. Lowering your shocks can reduce the amount of upward or compression movement and may require the fitment of bump stop spacers TF515 and/or extended bump stops.



#### EXTREME LONG TRAVEL REAR TOP SHOCK MOUNTS

#### **TF519**

Terrafirma TF169 and TF483 +5" (125mm) longer shocks have pin top mounts instead of the conventional ring, this is to allow unrestricted articulation and movement of the mounting point on extreme travel shocks. To allow these shocks to be fitted these unique rear top shock mounts that can be bolted to the original mounting points are required. It is possible that bump stop spacers TF515 and/or extended bump stops will be required to prevent the shocks from bottoming out on full compression.





#### LONG TRAVEL REAR COIL SPRING RE-LOCATOR

#### TF520

When fitting TF169 and TF483 +5" (125mm) longer shocks the suspension drop out is so great it is possible for the rear coil springs to drop below conventional dislocation cones, to then miss the cone when the suspension compresses causing the spring to be forced up the outside of the cone. To prevent this from happening use TF520 spring re-locator which is designed to catch the last coil of the spring before it leaves the end of the cone ensuring it locates properly every time.

Please note that TF520 only fits 90/D1/RRC. There is no 110/130 equivalent.



#### STEERING DAMPER RELOCATION KIT

#### **TF527**

The steering damper is very liable to get damaged on a Discovery 1 or Range Rover Classic when used off-road due to its track rod mounted location. It is possible to discard this set up and convert to the far less vulnerable Defender drag link location and fit any Defender steering damper using this kit. Terrafirma offers 2 unique steering dampers; the Return to Centre steering damper and the Adjustable steering damper are specifically designed for Defenders. However, with this kit it is possible to fit these amazing steering dampers to your D1 or RRC. Suits both left and right-hand drive.



#### FUEL FILTER RELOCATION KIT

#### **TFFRK**

When fitting TF519 Extreme long travel rear top shock brackets it is sometimes necessary to relocate the fuel filter. To make this straightforward Terrafirma has produced a simple fuel filter relocation bracket which eases the fuel pipe routing and filter position on 1998 on Td5 and Td4 Defenders.



#### RETURN TO CENTRE STEERING DAMPER MOUNTING KIT

#### **TF498**



TF498 has been developed to enable Discovery 2 owners to fit the brilliant RTC steering damper. The kit is designed to be used in conjunction with TF255 heavy duty steering rods or by modifying the original steering rod.



#### HEIGHT SENSOR LIFT RODS

#### TF221

Discovery 3 & 4 as well as Range Rover Sports with air suspension can easily be lifted by overriding the ride height sensors on each corner of the vehicle. This clever link rod set simply replaces the fixed length height sensor rods with ones that can be set at standard ride height or 2" increase in ride height. (4-wheel alignment is recommended if the +2" ride height is permanently selected).



#### 2020 DEFENDER TF8040

Lifting the new Defender with air suspension couldn't be simpler, 1.5" of increased ride height is achieved by simply replacing the height sensor lift rods. Improved appearance, ground clearance, approach and departure angles are all benefits of lifting your Defender. (4 wheel alignment is recommended to restore the suspension and steering geometry to factory settings)



#### LONG TRAVEL WATTS LINK RODS

#### **TF497**



Lateral stability on the rear axle of a Discovery 2 is controlled by a WATTS linkage, a pair of panhard rods connected to a pivot link attached to the centre of the rear axle. The WATTS linkage has its limitations when suspension travel is increased which results in damage to the linkage. The TF497 link rods are extended and curved to work within the confines of the back end of the D2 allowing much great axle drop out without restriction and binding.

Std replacement bush kit RGX100960K, PU bush kit TF1035, Watts centre pivot GA1199.





#### D2 FRONT CROSS MEMBER SPACER KIT



Fitting long travel shocks to a Discovery 2 can cause the front propshaft to foul on the bolt-on chassis cross member, this alloy spacer kit allows for up to +5" longer travel shocks to be fitted.

#### WATTS LINKAGE REPLACEMENT BUSH KIT

Discovery 2 Watts linkage replacement bush kit, contains the centre and top and bottom link bushes as well as the axle end link bushes.

#### WATTS LINKAGE POLYURETHANE BUSH KIT

Discovery 2 Watts linkage Polyurethane bush kit as an easy to fit alternative to the Replacement bush kit, contains the centre and top and bottom link bushes as well as the axle end link bushes.



#### WATTS LINKAGE PIVOT

#### **GA1199**

Discovery 2 Watts linkage replacement pivot with pre fitted bushes for easy servicing.





#### A FRAME BALL JOINTS

#### TF1129 / TF1129ULTRA

#### **FEATURES:**

Time saving pre-assembled wearing part

Much simpler to replace

Wide angle, adjustable and greaseable option

These A frame ball joints are assembled complete with their A frame mounting bracket, now making it a much simpler job to replace the ball joint.

The ball joints are quality replacement parts equivalent to LR Part No. ANR1799 and RHF500110 fitted into a new A frame or fulcrum bracket. Increasing axle articulation and suspension movement can strain or even break the standard A frame ball joint as its movement was only

designed to accommodate the standard wheel travel.

TF1129ULTRA allows 45 degrees of movement which will not restrict even the most radical suspension set up. To prolong service life the TF1129ULTRA joint is fully adjustable and greaseable for maintenance. Suitable for Defender, Discovery 1 and Range Rover Classic.



Application		90		110/130	D1/RRC	
	Front	Rear	Front	Rear	Front	Rear
A Frame ball joint and bracket		TF1129				
A Frame ball joint and bracket hi articulation			TF	1129ULTRA		



For further information, fitment advice, images, customer reviews please visit www.terrafirma4x4.com



# SUSPENSION HARDWARE

Application		90		110/130		D1/RRC		D2		D3/D4	2020
Application	Front	Rear	Front	Rear	Front	Rear	Front	Coil rear	Air rear		DEF
Dislocation cones	TF501	TF510	TF501	TF511	TF501	TF510	TF490				
Front shock turret securing rings	TF502		TF502		TF502						
Tubular 2" lowered height front shock turrets	TF503		TF503		TF503						
Tubular standard height	TF504		TF504		TF504						
Skeleton shock turrets							TF534				
+30mm)			- Committee	American Company			TF535		ļ		
Skeleton 2" taller front shock turrets	TF522		TF522		TF522		(+30mm)				
Coil spring retaining plates	TF505	TF506	TF505	TF507	TF505	TF506	TF524	TF506			
Caster corrected front radius arms 3 degree	TF508		TF508		TF508		TF529				
Caster corrected front radius arms 6 degree	TF528		TF528		TF528						
Steering damper relocation kit					TF527						
RTC steering damper mounting kit (TF255 required)							TF498				
Cranked rear radius arms		TF509		TF509		TF509					
Creeper joint rear radius	100000000000000000000000000000000000000	TF532		TF532		TF532					
Creeper joint		TF532RJ		TF532RJ		TF532RJ					
Weld in threaded Creeper joint bung		TF532BUNG		TF532BUNG		TF532BUNG					
Rear axle mounted		TF521		TF5210		TF521		TF521			
Lowered rear top shock		TF512		TF512		TF512					
Twin shock mount kits	TF514	TF513	TF414	TF513	TF514	TF513				-	
Cross member spacer kit								TF491			
Bump stop spacers	TF515	TF515	TF515	TF515	TF515	TF515					
Extended polyurethane oump stops		TF1020 (PAIR)		TF1020 (PAIR)		TF1020 (PAIR)		<b>TF1023</b> (SET)	7		
Coil spring trim spacers		TF537		TF537		TF537		TF537			
Spring spacers 2"	TF516	TF517	TF516	TF517	TF516	TF517	TF525	TF517	TF526		
Rear top shock mount e-locators		TF518		TF518		TF518					
Extreme long travel rear op shock mounts		TF519		TF519		TF519					
Fuel filter relocator when		TFF	RK	A							
ong travel rear coil		TF520				TF520				ursell in the second	
A Frame ball joint and pracket		TF1129		TF1129		TF1129					
A Frame ball joint and pracket hi articulation		TF1129ULTRA		TF1129ULTRA		TF1129ULTRA					
Extended antiroll bar inks				<u> </u>				TF220	damenta.		
Air suspension height sensor lift rod kit										TF221	TF804
Cranked long travel WATTS link rods								TF4	197		



# **FULL SUSPENSION KITS**



Terrafirma Suspension Kits have been created for convenience, ensuring correct parts are matched and making ordering easier.

All Terrafirma suspension products can be bought individually enabling total customisation of the suspension system, allowing you to upgrade and tune the suspension ride height, load carrying and wheel travel to meet your exact requirements. However, the considerable range of products with all its options and variations can make it seem complicated to select the complete package to suit your vehicle and activity.

For your convenience and ease of ordering we have combined selected products to make a range of upgrade packages.

To cover the widest range of vehicle models and where there hoses, propshafts, bushes and coil springs, these should be selected based on vehicle specification, model year and

These kits are not intended as a fully engineered solution for your entire requirement but will take care of the major element of common parts needed. Depending on the final specification



of the vehicle additional products may be required such as extended bump stops and brake hoses to prepare your vehicle to a certain specification. The more comprehensive suspension kits do not include coil springs as it is envisaged that a greater degree of tuning will require specific springs to be selected from our range.

Terrafirma offers a huge selection of shock absorbers, coil springs and suspension hardware which allows for an infinite range of combinations to enhance the performance of your vehicle. This catalogue along with your Terrafirma Distributor will advise you on the correct selection for your



# 2" PRO SPORT MINI **DISLOCATION KIT**

#### TF231 / TF232



A 11 41	90/D1/	RRC	110/130		
Application	Front	Rear	Front	Rear	
Kit part number	TF	231	TF232		
2" longer Pro Sport shock absorbers x2	TF120	TF121	TF120	TF121	
Dislocation cones	TF501	TF510	TF501	TF511	
Front shock turret securing rings	TF502		TF502		
Coil spring retaining plates	TF505	TF506	TF505	TF507	

# 2" PRO SPORT MAXI **DISLOCATION KIT**

#### TF233 / TF234

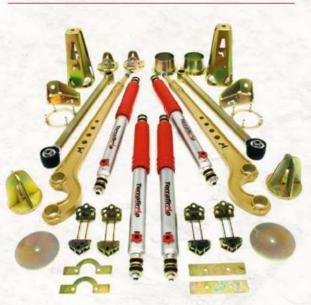


Annlineking	90/D1/	RRC	110/130		
Application	Front	Rear	Front	Rear	
Kit part number	TF	233	TF	234	
2" longer Pro Sport shock absorbers x2	TF120	TF121	TF120	TF121	
Dislocation cones	TF501	TF510	TF501	TF511	
Front shock turret securing rings	TF502		TF502		
Tubular shock turrets	TF504		TF504		
Coil spring retaining plates	TF505	TF506	TF505	TF507	
Caster corrected front radius arms 3 degree	TF508		TF508		
Cranked rear radius arms		TF509		TF509	



## 5" EXTREME 4 STAGE ADJUSTABLE **DISLOCATION KIT**

TF235 / TF236



Accident	90/D1/	RRC	110/130		
Application	Front	Rear	Front	Rear	
Kit part number	TF	235	TF236		
5" longer 4 Stage Adjustable shock absorbers x4	TF169		TF	169	
Dislocation cones	TF501	1	TF501	TF511	
Front shock turret securing rings	TF502		TF502		
Skeleton 2" taller front shock turrets	TF522		TF522		
Coil spring retaining plates	TF505		TF505	TF507	
Caster corrected front radius arms 3 degree	TF508		TF508		
Rose jointed rear radius arms		TF532		TF532	
Rear axle mounted inverse relocation cones		TF521			
Bump stop spacers	TF515	TF515	TF515	TF515	
Extreme long travel rear top shock mounts		TF519		TF519	



## **MEGA SPORT 11"** TRAVEL SHOCKS AND **MOUNTING KIT**

#### **TF238**



Application	90/D1/RRC		110/130	
	Front	Rear	Front	Rear
Kit part number		Τ	F238	
Mega Sport 11" travel shock x4		T	F137	
Mega Sport shock mounting kit	TF540			TF54

## **MEGA SPORT 11"** TRAVEL SHOCK **COMPETITION KIT**

TF247 / TF248



Application	90/D1/RRC		110/130	
	Front	Rear	Front	Rear
Kit part number	II	247	TF	248
Mega Sport 11" travel shock x4	TF137			
Mega Sport shock mounting kit	TF540	TF541	TF540	TF541
Hydraulic bump stop x4	TF140			
Hydraulic bump stop mounting kit	TF542	TF543	TF542	TF544
Dislocation cones	TF501		TF501	
Caster corrected front radius arms 3 degree	TF508		TF508	
Rose jointed rear radius arms		TF532		TF532

## HYDRAULIC BUMP STOP AND MOUNTING KIT

#### TF241 / TF242

Terrafirma Hydraulic bump stops require a serious mounting kit. To withstand the punishment associated with hammering over bumps and jumps considerable work has been involved in the production of these mounting kits. Designed as a bolt on kit to fit 90/110/130/D1/D2 and RRCs with few modifications.

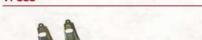
NB. TF494 & TF495 include 2" threaded hydraulic bump stops.



Application	90/D1/RRC		110/130		D2	
	Front	Rear	Front	Rear	Front	Rear
Kit part number		TF241		TF242		
Hydraulic bump stop x4	TF140		TF140		TF494	TF495
Hydraulic bump stop mounting kit	TF542	TF543	TF542	TF544		



# +5" TRAVEL EXTREME DISLOCATION KIT FOR DISCOVERY 2





Application	D2
Kit part number	TF585
Front +5" 8 Stage Remote Resevoir shocks	TF484
Rear RH +5" 8 Stage Remote Reservoir shock	TF485RH
Rear LH +5" 8 Stage Remote Reservoir shock	TF485LH
Front hydraulic bump stops and mounting kit	TF494
Rear hydraulic bump stops and mounting kit	TF495
Front dislocation cones	TF490
Front shock turret securing rings	TF502
Front spring retaining plates	TF524
Skeleton front shock turrets	TF535
3 degree caster corrected front radius arms	TF529
Front cross member spacer kit	TF491
Stainless steel +5" XL extended brake hoses	TF650GDXL
Long travel rear axle watts links	TF497

## +3" TRAVEL MINI DISLOCATION KIT FOR **DISCOVERY 2**

#### TF580



Application	D2
Kit part number	TF580
Front +3" 4 Stage Adjustable shocks (set of 2)	TF178
Rear +3" 4 Stage Adjustable shocks (set of 2)	TF179
Rear axle inverse spring relocators	TF521
Front dislocation cones	TF490
Front shock turret securing rings	TF502
Front spring retaining plates	TF524
Caster correction bushes	TF1009CC
Stainless steel +2" extended brake hoses	TF650GD

## +3" TRAVEL MAXI DISLOCATION KIT FOR **DISCOVERY 2**

TF581



Application	D2
Kit part number	TF581
Front +3" 4 Stage Adjustable shocks (set of 2)	TF178
Rear +3" 4 Stage Adjustable shocks (set of 2)	TF179
Rear axle inverse spring relocators	TF521
Front dislocation cones	TF490
Front shock turret securing rings	TF502
Front spring retaining plates	TF524
Skeleton front shock turrets	TF534
3 degree caster corrected front radius arms	TF529
Extended bump stops set of 4	TF1023
Stainless steel +2" extended brake hoses	TF650GD
Long travel rear axle watts links	TF497



# SUSPENSION BUSH KITS

Improve steering control, tyre grip and stability with Terrafirma bushings.

Suspension bushes are the link between your vehicle and its springs, struts, shock absorbers and they provide the flexibility that allows the suspension to operate and maintain alignment.

#### FEATURES:

Outstanding abrasion resistance

High load bearing capacity

Flexibility

Increased tensile strength

Chemical resistance to oil, grease, ozone and weathering

Enhanced road holding, steering and performance

Less changes in suspension geometry under load, braking and through corners

Longer suspension life and less repair time

Longer tyre life

These components can influence the ride and quality, steering feel, as well as the grip of the tyres, performance of the brakes and vehicle stability. Wear or failure of suspension bushes can cause an unpredictable or ultimately unsafe vehicle.

Unlike rubber, Terrafirma polyurethane suspension bushes are not bonded by compression. Terrafirma bushes are mechanically fitted with minimal crush of the urethane material and the centre pin is lubricated so the component freely pivots without restriction. Combined with the Terrafirma bushes ability to maintain its shape, this free pivoting provides sharper handling response and greatly increased suspension control.

A specialist grade of polyurethane is used to ensure maximum resistance to wear and fatigue with optimum flexibility and long life.

Terrafirma suspension bushes are produced in bright red and come with high quality zinc plated steel hardware and assembly grease.



Available as kits but also as individual bushings, our range offers solutions for all bush upgrade requirements.



### SUSPENSION BUSH KITS

Suspension Bush Kit	Kit number	Kit parts	
Defender 95–2001, Defender 2002–2016, Classic R/R 86–95, Discovery 1 89–98			
Rear upper A-frame suspension link bush chassis end (NTC1773) set of 2	u an	TF1000	
Rear radius arm bush kit axle end (NTC1772) set of 2		TF1001	
Front radius arm bush kit axle end (NTC6781) set of 4		TF1002	
Front radius arm bush kit chassis end (NRC4514) set of 4	TF940	TF1003	
Rear radius arm bush kit chassis end (STC618) set of 2		TF1004	
Front panhard rod bush late type (RBX101340) 16mm bolt, set of 2		TF1005	
Front panhard rod bush kit early type (ANR3410) 14mm bolt, set of 2		TF1006	
Optional extras		11 1000	
Extended bump stops (ANR4188 & ANR4189) set of 2	TF1020		
Bump stops (ANR4188 & ANR4189) set of 2	TF1021		
Anti-roll bar bush kit (NTC6828) set of 2	TF1024		
Anti-roll bar bush kit (NTC7394) set of 2	TF1025		
Anti-roll bar link bush kit (552819) set of 4	TF1032		
	IF1032		
Defender up to 94			
Rear upper A-frame suspension link bush chassis end (NTC1773) set of 2	Magracows (A. Harris VI. Landers (B. L. L. L. Magracows)	TF1000	
Rear radius arm bush kit axle end (NTC1772) set of 2		TF1001	
Front radius arm bush kit chassis end (NRC4514) set of 4		TF1003	
Rear radius arm bush kit chassis end (STC618) set of 2	TF942	TF1004	
Front panhard rod bush kit early type (ANR3410) 14mm bolt, set of 2		TF1006	
Front radius arm bush kit axle end (NTC7307) set of 4		TF1007	
Optional extras		11 1007	
Extended bump stops (ANR4188 & ANR4189) set of 2	TF1020		
	The same of the sa	Access to the control of the control	
Bump stops (ANR4188 & ANR4189) set of 2	<u> </u>	TF1021	
Anti roll bar bush kit (NTC6828) set of 2		TF1024	
Anti roll bar bush kit (NTC7394) set of 2	TF1025		
Anti-roll bar link bush kit (552819) set of 4	TF1032		
Discovery 2		O ATMATUM TO THE PARTY OF THE P	
Front panhard rod bush late type (RBX101340) set of 2		TF1005	
Rear radius arm bush kit axle end (ANR6947) set of 4		TF1008	
Front radius arm bush kit axle end (RBX101680) set of 4		TF1009	
Rear anti-roll bar bush coil suspension (RBX101710) set of 2	TF945	TF1010	
Front & rear radius arm bush kit (RBX101730) 2 sets of 2		TF1011	
Rear anti-roll bar air suspension (RBX101700) set of 2		TF1019	
Front anti-roll bar bush with ACE (RBX101181) set of 2		TF1037	
Optional extras			
Front radius arm caster correction bushes (RBX101680)	TF1009CC		
Bump stops (RNV100060) set of 4	TF1022		
Extended bump stops (RNV100060) set of 4	TF1023		
Watts linkage complete bush kit	TF1035		
Front anti-roll bar bush no ACE (RBX101690) set of 2	TF1036		
Lower front shock bush (ROA100040) set of 2	TF1042		
Rear shock top and bottom bush & front shock top bush (ROA100050) set of 2	TF1043		
Discovery 3 2005–2009, Discovery 4 2010–2016, Range Rover Sport 2005–2013			
Front lower suspension arm - rear bush (LR073366) set of 2		TF1012	
Front upper suspension arm bushes (LR056964) set of 4		TF1013	
Front lower suspension arm - front bush (LR051585) set of 2		TF1014	
Rear lower suspension arm - rear bush (LR054831) set of 2	TF946	TF1015	
Rear upper suspension arm - rear bush (LR51616) set of 2		TF1016	
Rear lower suspension arm - front bush (LR051611) set of 2		TF1017	
Rear upper suspension arm - front bush (LR51621) set of 2		TF1018	
Optional extras			
Front anti-roll bar bush (RVU500011) set of 2	TF1026		
Front anti-roll bar bush (LR015339) set of 2	TF1027		
Rear anti-roll bar bush (LR015336) set of 2	TF1028		
Rear anti-roll bar bush (RVU000022) set of 2	TF1029		
Front anti-roll bar bush (LR018347) set of 2	TF1030		
Rear anti-roll bar bush - no ACE (LR018354) set of 2	TF1031		

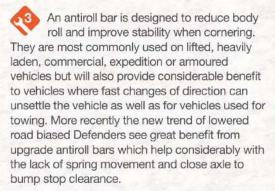


## TerrafirMa

## ANTIROLL BARS

An antiroll bar helps reduce body roll and increase stability.

Terrafirma produce a range of uprated antiroll bars that can be fitted as a replacement for an existing standard antiroll bar or as a kit where the vehicle was not fitted with them from the factory.



Antiroll bars are made of spring steel and constructed in a U shape fixed at the left and right hand side of the chassis and at the left and right of the axle, connected with links to allow articulation. The stiffness is created by the length of the arms from the fixed point to the axle and of course the thickness and strength/spring rate of the antiroll bar.

To provide better control Terrafirma rear anti roll bars are not just thicker but also wider than standard designed to fit outside the original fixings, this is done by simply reversing the links in their mounts. The front is a stronger version to the original shape and design.

To ensure correct fitment and reliable operation of the Terrafirma antiroll bars, link kits, spacer kits and spare bushes are available. The link kits should be used when there is no other antiroll bar fitted and the spacer kits are intended for use on lifted vehicles to make sure the links do not rotate over centre on suspension drop out. Typically 1" of spacer will be sufficient for 2" of suspension lift.

\*Terrafirma antiroll bars are suitable for vehicles fitted with chassis brackets as standard.















DEF/D1/RRC	Diameter	Part number
Front heavy duty anti roll bar	25.4mm	TF289
Rear heavy duty anti roll bar	25.4mm	TF288
Rear super duty anti roll bar	28mm	TF290
Front anti roll bar fitting kit		TFARBKF
Rear anti roll bar fitting kit		TFARBKR
Polyurethane bushes front (pair)	25.4mm	TF291
Polyurethane bushes rear (pair) 110/130	25.4mm	TF292
Polyurethane bushes rear (pair) 90	25.4mm	TF294
Polyurethane bushes rear (pair) 110/130	28mm	TF295
2 hole anti roll bar spacer kit (25mm)		TFARSK2
4 hole anti roll bar spacer kit (25mm)		TFARSK4
Discovery II set of 4 longer anti roll bar links fitting with lifted springs	suitable for	TF220





## POLYURETHANE BUSHED SUSPENSION ARMS

Easier servicing with suspension arms pre-fitte with polyurethane bushe

Improved feel and responsiveness, polyurethane bushes provide an excellent balance between stiffness and pliability which results in a more precise feel whilst maintaining ride comfort.

Our pre-assembled replacement polyurethane bushed suspension arms provide an easy to fit solution which will transform the ride quality of your Discovery 3, 4 and Range Rover Sport. It is not uncommon for the original bolts to be corroded and seized, as such bolt kits are available for each suspension arm.













Application	Description	Available part r	numbers				Bolt kit
D3/D4 RRS 05-13	Front Lower LH Arm	LR029306TF	LR075995TF	LR073369TF	LR029305TF	LR029302TF	TF7205
D3/D4 RRS 05-13	Front Lower RH Arm	LR029304TF	LR075993TF	LR073367TF	LR029303TF	LR029301TF	17/205
D3/D4	Front Upper LH Arm	RBJ500232TF	LR051615TF				TE7000
D3/D4	Front Upper RH Arm	RBJ500222TF	LR051614TF		Name and Association (Association)		TF7208
RRS 05-13	Front Upper LH Arm	LR074838TF	LR063688TF				TE7000
RRS 05-13	Front Upper RH Arm	LR051617TF	LR063711TF				TF7208
D3/D4 RRS 05-13	Rear Lower LH Arm	LR019978TF	LR051594TF		••••		TE7000
D3/D4 RRS 05-13	Rear Lower RH Arm	LR019977TF	LR051592TF				TF7206
D3/D4 RRS 05-13	Rear Upper LH Arm	LR063718TF	LR051623TF				
D3/D4 RRS 05-13	Rear Upper RH Arm	LR063719TF	LR051622TF				TF7207



If you've upgraded or tuned your suspension to suit your off-road activity the chances are you will want to uprate your steering too. Keeping your steering in tip top condition is paramount for safe driving both off and on road, preventing damage while off-road, reducing feedback and vibration from uneven terrain and keeping control with larger tyres is possible with a combination of Terrafirma's steering upgrades.





## STEERING DAMPERS

Steering dampers improve driver comfort and reduce fatigue.

#### **FEATURES:**

35mm internal bore and piston

54mm big bore twin tube design

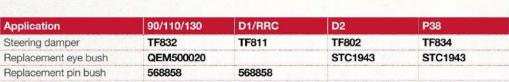
16mm double chromed shaft

50/50 damping

Terrafirma Steering Dampers are considerably larger with almost twice the fluid capacity than the original units and significantly reduce shimmy on rough surfaces as well as the likelihood of the steering wheel being jerked out your handsoff-road. Terrafirma steering dampers also smooth out the steering action from lock to lock without restricting steering return.

All Terrafirma steering dampers have multi-stage damping and use the latest cellular foam technology for superior performance. They are painted in the traditional Terrafirma silver metallic finish with a blue







## **4 STAGE ADJUSTABLE** STEERING DAMPER

#### **FEATURES:**

35mm internal bore and piston

54mm big bore twin tube design

18mm double chromed shaft

Multistage damping adjustment

Handling characteristics are a personal choice; the amount of feedback you can feel or the speed of steering lock to lock is no longer a compromise. The Terrafirma Adjustable steering damper provides multiple options of damping force allowing the driver to select the setting that feels best. Terrain conditions, larger or smaller tyres, different tread types and pressures, driving styles and vehicle load will all influence how the vehicle handles and

reacts. An easy to rotate 4 position adjuster knob is built into the shock to alter the internal valving. Painted in the traditional Terrafirma silver metallic finish with a distinctive red dust shield.

Application	90/110/130	D1/RRC	D2
4 Stage Adjustable steering damper	TF833	TF833	TF837
Fitting kit for TF833 (required)		TF527	
Replacement eye bush	QEM500020		STC1943
Replacement pin bush	568858	568858	







### RETURN TO CENTRE (RTC) STEERING DAMPER

#### FEATURES:

30mm internal bore

Mono tube design

12.5mm double chromed shaft

50/50 damping

Coil-over design

The RTC steering damper is more effective than a standard steering damper as the damping ratio has been increased and the addition of a coil-over spring assists movement from lock to lock. This amazing steering damper is a revelation, quite simply the Terrafirma RTC steering damper out-performs all conventional steering dampers hands

When very large tyres are fitted or when you run consistently low tyre pressures even the best steering dampers struggle

to cope, feedback through the steering wheel increases and returning the steering wheel to centre becomes hard work. Not to mention the effort required to make quick direction changes.

Fit a Terrafirma RTC steering damper and feel the difference instantly, the coil-over spring compresses and stretches from lock to lock dramatically reducing the return to centre effort, the spring also works in harmony with the damper eliminating shimmy and vibration.

Finished in silver metallic with stylish Terrafirma RTC logo and bright blue coil-over spring this steering looks as good as it works.

For vehicles fitted with more standard size tyres drivers will experience the benefit of quick and effortless steering.





Application	90/110/130	D1/RRC	D2
Return to Centre steering damper	TF835	TF835	
Fitting kit for TF835 (required)		TF527	TF498
Replacement eye bush	QEM500020		STC1943
Replacement pin bush	568858	568858	



## STEERING RODS



### **HEAVY DUTY** STEERING RODS

Ground clearance is an important factor for successful off-road driving. The lowest points of the vehicle will inevitably make contact with the ground at some stage while driving in ruts or negotiating rocks and tree stumps.

The steering rods on live axle vehicles are particularly vulnerable and can easily get bent seriously affecting front wheel alignment and steering ability. Even slightly bent steering rods can cause excessive tyre wear and poor handling.

When very large tyres are fitted the forces acting on the steering gear are far greater especially when attacking obstacles off-road, hard impacts on the wheels can also bend or kink the steering rods causing serious steering problems.

The problem is not just for recreational and competitive off-roaders, for example contractors and farmers driving in ruts can easily bend the track rod adversely affecting safe steering.

Terrafirma Steering Rods are made from solid 30mm diameter steel and are supplied with precisely machined left hand and right-hand threads, locking nuts and quality greaseable track rod ends. For Discoverys a steering damper bracket is also included.

The original steering rods fitted to Discovery 2s include a non-serviceable crimped track rod end. For ease of servicing all Terrafirma steering rods use the same track rod ends, see application guide.



Vehicle	Description	Part No.
90/110/130	Steering Rods	TF250
D1/RRC	Steering Rod (Early) with 3 track rod ends	TF251
D1	Steering Rod (Late) with 4 track rod ends	TF252
D2	Steering Rod with 4 track rod ends	TF255
DEF/D1/D2	LH thread lock nut	TFSRNUTLH
DEF/D1/D2	RH thread lock nut	TFSRNUTRH
DEF/D1/ RRC/D2	Replacement track rod end (RH thread)	RTC5869
DEF/D1/ RRC/D2	Replacement track rod end (LH thread)	RTC5870

## PANHARD RODS



### **ADJUSTABLE** PANHARD RODS

Lateral stability on the front end of coil sprung vehicles fitted with live axles is controlled by a tie rod called a Panhard Rod which is fitted between the front axle and the chassis, typically mounted in parallel with the drag link connecting the steering box to the axle.

When live axle vehicles such as these are lifted the axle is pulled off centre due to the fixed length of the Panhard rod. Terrafirma Adjustable Panhard Rods allow the axle to be adjusted back to centre restoring the steering geometry.

Terrafirma Adjustable Panhard rods are made from 30mm diameter 5mm wall thickness high tensile steel tube with a 20mm precision machined threaded adjuster with lock nut part way along its length. Terrafirma Panhard Rods are supplied complete with polyurethane bushes ready to fit. There are 4 options available for 90/110/130/ D1/D2/RRC suiting both left and right hand drive vehicles.



Description	Part No
90/110/130 up to 2002 to VIN 2A626645 & D1/RRC up to 1998 14mm bolts	TF253
90/110/130 2002 on from VIN 2A626646 16mm bolts	TF254
D2 up to VIN number 2A999999 - Longer version	TF254
D2 VIN number 3A000001 on – Shorter version	TF256
Replacement bush kit for black panhard rods 14 & 16mm bolt options	TF1034







Fitting a brake upgrade can bring a variety of benefits, Terrafirma has teamed up with some leading manufacturers to give you more than just reduced stopping distance. We can even upgrade the hand brake on your Defender! The Terrafirma brake upgrade ranges that follow prioritise the practical benefits as well as the aesthetic features.



Higher quality brake parts can also last longer and perform better under extreme conditions, which of course improves safety. Not only that but you can now follow the trend of some of the most fashionable vehicles with cool looking brake discs and bright coloured pads.

Whether you expect more from your brakes from cold, want improved pedal feel, suffer from brake fade when towing or fully laden or simply want to balance that performance upgrade by being able to stop quicker...



## TerrafirMa

### **WAVY CROSS DRILLED** AND GROOVED **BRAKE DISCS**







It's not just the Audi R8 that has these awesome looking front brake discs! You can have them on your Defender too.

Exclusively from Terrafirma are these wavy edge cross drilled and grooved vented front brake discs suitable for all Defenders (with vented front discs) and Discovery 2s. They can also be fitted to non-vented braked Defenders with a simple caliper change if required.

Terrafirma wavy cross drilled and grooved brake discs are made to the same high standards as the CDG brake discs. Wavy edges clear mud and debris from within the caliper and they look awesome too! Cross drilling and grooves offer increased bite from cold and help force gasses and dust out from between the pad and disc. The Terrafirma WCDG discs are painted black on all non-friction surfaces for corrosion resistance when fitted to the vehicle.

Vehicle	Туре	Part number
DEF, D1 & RRC-FRONT	Vented	LR017952WCDG
DEF, D1 & RRC-REAR	Solid	LR017953WCDG
DEF 110/130-REAR	Solid	LR018026WCDG
D2 FRONT	Vented	SDB000380WCDG
D2 REAR	Solid	SDB000470WCDG

#### **FEATURES:**

Run cooler and minimise fade

Eject gasses and water to stop pads from hydroplaning

Make sure they are fitted with Terrafirma performance brake pads or other quality brake pads.

See performance brake pads on page 83





### **CROSS DRILLED** AND GROOVED **BRAKE DISCS**

Terrafirma brakes discs offer increased bite from cold and excellent fade resistance in most 4WD braking applications.



#### **FEATURES:**

Run cooler and minimise fade

Eject gasses and water to stop pads from hydroplaning

Whether it's a steep rocky descent, ploughing through mud and water or just daily driving these brake discs will give excellent stopping performance in all conditions. Grooves are machined into the brake disc to force away the dust and gasses that build up between the pad and disc, keeping the brakes cooler and reducing fade. The cross drillings contribute to cooling and heat dissipation and also allow the gasses to escape. Of course, they can fill with mud when off-road, cleaning them out afterwards when washing the vehicle will help prolong performance and pad life, with the angled grooves it is found that they selfclean in most cases. Quality machining to high tolerances using the correct materials ensure Terrafirma brake discs will stand any test.

With overweight four-wheel drive vehicles with oversize tyres it's important to find a set of brake pads that really do perform. A heavily laden expedition vehicle will quickly overheat brakes, very large tyres fitted to off-road vehicles also require extra brake pedal pressure to stop them turning. Many so-called performance pads are better suited to sports type driving styles where heat needs to be generated for the pads to really work. Even some well-known brands require the temperature to build up before they start to work effectively.

Vehicle front	Type	Part number
DEF 90/110/130, D1, RRC	Solid	LR017951CDG
DEF 90/110/130, D1, RRC	Vented	LR017952CDG
FL1 96-06 TO YA999999	Solid	SDB100830CDG
FL1 96-06 FROM 1A000001	Vented	SDB101070CDG
FL2 & EVOQUE 2.2D	Vented	LR007055CDG
FL2 PETROL	Vented	LR027107CDG
EVOQUE 2012>, DISCO SPORT 2015>	Vented	LR059122CDG
D2 98-04	Vented	SDB000380CDG
D3, D4, RRS 05-09 TDV6	Vented	SDB000604CDG
D3 05-09, RRS 05-09 4.4 FROM 6A953689	Vented	SDB000614CDG
RR P38	Vented	NTC8780CDG
RR L322 02-09 TO 5A999999	Vented	SDB000201CDG
RR L322 02-09 TO 5A999999, RR L105 10-12 FROM AA0000001	Vented	LR031843CDG
RR L322 02-09 FROM 6A000001 TO 9A999999	Vented	SDB500182CDG
D4, RRS 05-09 FROM 6A953689, RRS 10-13 FROM AA000001	Vented	SDB000624CDG
RRS 10-13 5.0P, RRS 2014>, RR L405 2013>, RR L405	Vented	LR016176CDG
RR L322	Vented	LR031845CDG
RRS 2014>, RR L405	Vented	LR038934CDG
RR L322 2010-2012	Vented	LR011591CDG

Vehicle rear	Туре	Part number
DEF 90/110/130, D1, RRC	Solid	LR017953CDG
DEF 110 & 130 2002>	Solid	LR018026CDG
FL2 2.2D	Solid	LR001018CDG
FL2 2.2D	Solid	LR039935CDG
FL2 PETROL	Vented	LR001019CDG
EVOQUE	Solid	LR027123CDG
DISCO SPORT 2015>	Solid	LR061388CDG
D2 98-04, RR P38	Solid	SDB000470CDG
D3 4.4P TO 9A999999, D4 FROM AA000001 TO CA999999, RRS 05-09 TO 9A999999, RRS 2010-2013	Vented	SDB000646CDG
RR L322 2002-2009	Solid	SDB000211CDG
RR L322 2010-2012	Vented	LR031844CDG
RRS 05-09 FROM 9A999999, D3 2.7D & 4.0 P FROM 5A341770 TO 9A999999, D4 2.7 FROM AA000001 & 4.0P DA000001 TO CA999999	Vented	SDB000636CDG
RRS 2104>, RR L405 2013>	Vented	LR033303CDG
RRS 2010-2013	Vented	LR016192CDG
RRS 2014>, RR L405, D5	Vented	LR033302CDG
RR L322 2010-2012	Vented	LR031846CDG

For Terrafirma brake discs part numbers it is possible to simply apply CDG suffix to the original part numbers.

To get the best from Terrafirma cross drilled and grooved brake discs we recommend the use of Terrafirma Performance or Premium Ceramic Brake Pads.

## BRAKE PADS

## TerrafirMa

### **PERFORMANCE BRAKE PADS**

For overweight 4-wheel drive vehicles with oversize tyres it's important to find a set of brake pads that really do perform.



#### FEATURES:

Increased stopping power Reduced pedal pressure Improved braking hot and cold

A heavily laden expedition vehicle will quickly overheat brakes, very large tyres fitted to off-road vehicles also require extra brake pedal pressure to stop them turning. Many so called performance pads are better suited to sports type driving styles where heat is required and can be maintained to enable the pads to work within their optimum performance window. This is not always possible on a 4-wheel drive vehicle.

To get the best from Terrafirma Cross Drilled and Grooved (CDG) brake discs we recommend the use of our Terrafirma Ceramic brake pads. These pads give good bite from cold, work well off-road especially in low range with high torque engines and transmissions driving against the brakes. They have high wear resistance, low noise and above all when combined with Terrafirma CDG brake discs give a much-improved braking Performance. Terrafirma Performance Brake Pads in unmistakeable

bright yellow are ideal for applications where stopping power is everything.

A high coefficient of friction semi metallic friction material has been specially developed to improve braking in all circumstances and that does not suffer from the consequences of longer service life, low dust and low noise that compromise the braking performance of standard brake pads. Terrafirma Performance Brake Pads give increased bite and pedal feel from cold and are ideal in both on and off-road conditions and especially when towing. Braking in low range with large tyres, high power engines and automatic transmissions requires less pedal pressure and Terrafirma Performance Brake Pads also restore braking confidence with heavily laden vehicles.



Vehicle Front	Part number
DEF 87-06 & DEF07- (vented discs)	SFP000260P
DEF 83-06 & D1 (Solid discs, no sensors)	SFP500160P
DISCO SPORT, EVOQUE 15-	LR072681P
EVOQUE 12-15	LR027309P
D1 & RRC	SFP500220P
D2	SFP500150P
D3, D4 & RRS 2.7 & 4.0, D4 with coils, RR 02-09 & RRS 4.4 with 17" wheels	LR019618P
D4, RRS 10-13 3.6 3.0 & 5.0, RR 10- & RRS 2014-, RR 13-	LR051626P
RR 10-12 5.0 NA & 3.6 RRS 10-13	LR026221P
RR 02-09 4.2 & 3.6 RRS 05-09	SFP500070P
RRS 10-13, RR 10-12, RR 13-	LR064181P
RR 02-09	SFC500080P

Vehicle Rear	Part number
DEF 83-06 & DEF 07-	SFP000250P
DEF 90	SFP000280P
DISCO SPORT, EVOQUE 15-	LR061385P
EVOQUE 12-15	LR134695P
D1 & RRC	SFP500190P
D3, D4 with coils & RR 02-09	LR055454P
D4	LR055455P
D4, RR L322 & RRS 10-13	LR139969P
RR 95-02 & D2	SFP500130P
RR 02-09	SFP500210P
D3, D4 & RRS 05-09	LR134696P
RRS 10-13, RR 10-12	LR025739P
RRS 2014-, RR 13-	LR108260P

For best results combine with Terrafirma Crossed Drilled and Grooved Brake Discs.



## TerrafirMa

PREMIUM CERAMIC **BRAKE PADS** 

#### FEATURES:

Quieter than semi-metallic pads – emit noises that are above the range of human hearing

Produce finer, lightercoloured brake dust which does not stick to wheels

Longer lifespan than organic or semi-metallic

Stable under a wide range of temperatures for consistent performance Premium Ceramic friction material. No squeal, high friction, anti-fade formulation. Long lasting with no black dust. Increased high temperature and water resistant.



Perfect fitting bright red

shim

back plate

Terrafirma Premium Ceramic Brake Pads in unmistakeable bright red are composed of a friction material that includes ceramic and Kevlar fibres. Ceramic pads have been designed to significantly reduce brake dust and noise and extend brake disc life. Terrafirma Premium Ceramic friction material is also kinder on your alloys, producing no corrosive black dust and generally lasting longer than semi metallic pads with no squeal.

Vehicle Front	Part number
DEF 87-06 & DEF07- (vented discs)	SFP000260TF
DEF 83-06 & D1 (Solid discs, no sensors)	SFP500160TF
DISCO SPORT, EVOQUE 15-	LR072681TF
EVOQUE 12-15	LR027309TF
D1 & RRC	SFP500220TF
D2	SFP500150TF
D3, D4 & RRS 2.7 & 4.0, D4 with coils, RR 02-09 & RRS 4.4 with 17" wheels	LR019618TF
D4, RRS 10-13 3.6 3.0 & 5.0, RR 10- & RRS 2014-, RR 13-	LR051626TF
RR 10-12 5.0 NA & 3.6 RRS 10-13	SFP500070TF
RR 02-09 4.2 & 3.6 RRS 05-09	LR026221TF
RRS 10-13, RR 10-12, RR 13-	LR064181TF
RR 02-09	SFC500080TF

Vehicle Rear	Part number
DEF 83-06 & DEF 07-	SFP000250TF
DEF 90	SFP000280TF
DISCO SPORT, EVOQUE 15-	LR061385TF
EVOQUE 12-15	LR134695TF
D1 & RRC	SFP500190TF
D3, D4 with coils & RR 02-09	LR055454TF
D4	LR055455TF
D4, RR L322 & RRS 10-13	LR015519TF
RR 95-02 & D2	SFP500130TF
RR 02-09	SFP500210TF
D3, D4 & RRS 05-09	LR134696TF
RRS 10-13, RR 10-12	LR025739TF
RRS 2014-, RR 13-	LR108260TF





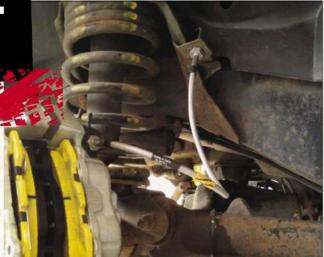
Terrafirma Premium Ceramic Brake Pads are suitable for all types of brake discs including Terrafirma Crossed Drilled and Grooved brake discs.



## STAINLESS STEEL BRAKE HOSES

Stainless steel hoses significantly increase braking efficiency.

Replacing the standard original rubber brake hoses with stainless steel braided hoses will significantly improve brake pedal feel, reduce sponginess and increase braking efficiency.



#### FEATURES:

Each hose has a PVC protective covering.

**OEM Specification fitting plating with** 968-hour salt spray protection.

UK manufactured and assembled product.

Eliminates spongey feel

Greater braking efficiency

Superior resistance to abrasion and corrosion

100% TUV, DOT, ADR and ISO approved

Every brake line is 100% pressure tested to 2000 PSI once fully assembled

Stainless steel brake hoses can also be entirely corrosion resistant especially with stainless steel fittings. Developed for motorsport applications where braking performance must be maintained in harsh conditions and at extreme temperatures, stainless steel braided hoses are more durable and considerably stronger. For on road or off-road, the benefits will be instant with more precise and confident braking, reliability and longer life.

Terrafirma has partnered with Goodridge who set the standard in professional motorsport brake hoses to provide you the finest stainless steel brake hose kits on the market. Featuring top quality stainless steel braided hose with a PTFE liner and hose end fittings are also stainless steel as standard, with a clear PVC cover to maintain appearance. All Terrafirma Goodridge brake hoses



are 2 inches longer than standard which are suitable to replace the rubber brake hoses on standard vehicles as well as accommodate most suspension lifts of around 2".





Vehicle	Туре	Length	Part number
DEF 90 to 1999	3 LINE KIT	plus 2"	TF640GD
DEF 1999 2004	4 LINE KIT	plus 2"	TF641GD
DEF 110/130 to 1999	3 LINE KIT	plus 2"	TF642GD
DEF ABS 1999 to 2004	4 LINE KIT	plus 2"	TF643GD
DEF ABS 2004 on	4 LINE KIT	plus 2"	TF644GD
DEF less ABS 2004	3 LINE KIT	plus 2"	TF645GD
D1 1989 to 1992	5 LINE KIT	plus 2"	TF646GD
D1 1992 - 1994	5 LINE KIT	plus 2"	TF647GD
D1 ABS 1994 to 1998	4 LINE KIT	plus 2"	TF648GD
D1 no ABS 1994 to 1998	3 LINE KIT	plus 2"	TF649GD
D2 1998 to 2004	4 LINE KIT	plus 5"	TF650GDXL
D2 1998 to 2004 +5" Extreme	4 LINE KIT	plus 2"	TF650GD
D3	6 LINE KIT	plus 2"	TF651GD
D4	6 LINE KIT	plus 2"	TF652GD
RRC ABS 1990 to 1992	6 LINE KIT	plus 2"	TF653GD
RR P38 94-02	6 LINE KIT	plus 2"	TF654GD
RR L322 02-2012 std length	4 LINE KIT	plus 2"	TF655GD
RR Sport L320 std length	6 LINE KIT	plus 2"	TF639GD
FL1 1997-2006	4 LINE KIT	plus 2"	TF657GD
FL2 2006-2014	4 LINE KIT	STD	TF658GD
EVOQUE	4 LINE KIT	STD	TF659GD



## errafirMa

## **BRAKE UPGRADE KITS** FOR D3, D4 AND RRS 05-09

Increase your stopping power with these big brake upgrades!



#### FEATURES:

More stopping power

Easy to fit

Choice of kit to suit budget/ brand preference

These great value upgrades provide a significant increase in braking performance simply by fitting new caliper brackets, brake pads and 340mm diameter discs. The original brake caliper is retained and no brake bleeding is required. Choose your pad type and upgrade the old 320mm brake discs with one of the following options. NB. Suitable for vehicles with 320mm brake discs which is most 2.7tdv6 and 4.0P D3 and RRS 05-09

It is also possible to upgrade to the even bigger 360mm brake discs, this kit is more comprehensive as it requires, discs, pads, calipers and caliper mounting brackets. It is essential that this kit is only fitted to vehicles with 19" diameter wheels.





TF629



TF631







TF634



TF635





Larger images available at https://terrafirma4x4.com

Brake upgrades kits for D3, D4 and RRS 05-09	New diameter	Part number
Allmakes Brake Upgrade using Uni-Brakes pads and Allmakes discs	360mm upgrade	TF629
Allmakes Brake Upgrade using Uni-Brakes pads and Allmakes discs	340mm upgrade	TF630
Allmakes Brake Upgrade using Ferodo pads and Delphi discs	360mm upgrade	TF631
Allmakes Brake Upgrade using Ferodo pads and Delphi discs	340mm upgrade	TF632
Terrafirma Brake Upgrade using Ferodo pads and Terrafirma cross drilled and grooved discs	360mm upgrade	TF633
Terrafirma Brake Upgrade using Ferodo pads and Terrafirma cross drilled and grooved discs	340mm upgrade	TF634
Terrafirma Brake Upgrade using Terrafirma Premium Ceramic brake pads and Terrafirma cross drilled and grooved discs	360mm upgrade	TF635
Terrafirma Brake Upgrade using Terrafirma Premium Ceramic brake pads and Terrafirma cross drilled and grooved discs	340mm upgrade	TF636
Terrafirma Brake Upgrade using Terrafirma Performance brake pads and Terrafirma cross drilled and grooved discs	360mm upgrade	TF637
Terrafirma Brake Upgrade using Terrafirma Performance brake pads and Terrafirma cross drilled and grooved discs	340mm upgrade	TF638



## TerrafirMa

## DEFENDER PERFORMANCE BRAKE UPGRADE KITS



The Ultimate Braking Upgrade for your Defender

#### FEATURES:

Fits all models of Defender 1983-2016 with 16" or larger wheels

Terrafirma branded, hard anodised and ceramic coated for appearance and durability

Produced from aerospace grade aluminium for strength

Stainless Steel pistons and pins

Highest grade seals and O rings

Superior Holokrome 12.9 grade hi-tensile bolts

EBC Redstuff brake pads for ease of servicing

Large Diameter vented and grooved front brake discs included

Full traceability of all manufactured parts

Extensive laboratory and track testing to prove safety and performance



Terrafirma performance brake upgrade kits include huge 6 piston front calipers, EBC Redstuff brake pads with increased surface area and extra-large 330x 32mm vented and grooved brake discs, larger 4 piston rear calipers again with EBC Redstuff brake pads.

The brake kits fit under steel & alloy 16" wheels and improves braking performance and reduces stopping distances considerably whilst adding a touch of style to your Defender.

The rear brake discs are the same as standard LR018026 or LR017951 which are 298mm diameter. If your vehicle is fitted with very early 290mm rear brake discs you will require 298mm discs.

Vehicle	Part number
Defender 90	TF685
Defender 110	TF686





## DISC BRAKE HANDBRAKE KIT

#### **FEATURES:**

Virtually maintenance free More reliable

**Better holding** power

The original transmission brake on a Land Rover Defender is not the most efficient handbrake system. On vehicles used in wet and muddy conditions the brake can rapidly run out of adjustment or



become partially or even completely seized. A seized brake is almost as likely to seize on as it is off which can then lead to vibration, overheating and accelerated wear. All these issues ultimately result in a handbrake that does not work.

This disc brake handbrake kit uses a precision machined brake disc, combined with a unique fully floating brake caliper that retains its brake pads that are gently sprung loaded to prevent rattling. The high clamping force of the caliper, even when combined with a smaller diameter disc than the original brake drum makes for a more effective system than a well serviced original set up. An added bonus of a smaller diameter brake disc is the reduced chance of the brake getting hung up on obstacles.

This disc brake handbrake kit comes with a sturdy mounting plate incorporating a disc protector as well as a new handbrake cable to ensure perfect operation. GA5513 is suitable for all Defenders up to 2016. Vehicles from 1993 requires NRC5088 handbrake cable. For 2007 on Defenders chassis cross member alteration may be required.







Description	Application	Part number
Disc brake handbrake kit	90/110/130	GA5513
Disc brake handbrake kit (LT230 only)	D1/D2/RRC	GA5526
Handbrake cable DEF 1993-		NRC5088
Replacement brake disc		XDISC
Replacement brake pads		XPAD
Replacement brake pads for TFDBHBK		TFDBHBK PADS







Regardless of your chosen off-road activity work or play and despite 4x4s being built for off-road use there is more to be done in terms of protecting the underside and bodywork of your vehicle against damage against rocks and ruts etc. The more serious your chosen off-road adventures the more protection is necessary.

All Terrafirma under bodyguards perform important roles and have been designed to protect any part of the under carriage that if damaged could affect the rest of your journey or day's work. Prevention rather than cure is the message here allowing you to drive safely and with confidence.

Terrafirma guards protect the steering gear, front and rear differentials. transmission system and fuel tanks as well as vulnerable areas of bodywork such as the sills and rear corners. Typically, guards are made from 5-6mm steel and 6-8mm aluminium.

Aluminium guards are in keeping with modern design and are lighter weight. Steel guards are tougher, less

expensive but heavier than the more stylish aluminium.

All steel parts are zinc passivated or powder coated for good looks and rust resistance. Terrafirma guards often mount onto existing pre-drilled holes requiring minimal drilling and all necessary fixings are supplied.





## **UNDERBODY GUARDS**



#### STEERING GUARDS

Terrafirma steering guards are tapered for maximum protection and good looks with row of laser cut holes for additional styling and to provide air flow to the cooling system. An additional feature on most variants is the incorporation of recovery points built into the strong side brackets, designed to accept a common shackle.

The Terrafirma Skeleton lightweight steering guard is designed to complement the Skeleton Range of Bumpers and Rock Sliders. Stylish and effective this 6mm slotted alloy guard with 6mm steel side plates also has bolt on red recovery points and really stands out from the crowd. Defender steering guards are available in black or natural alloy.



### TRANSMISSION GUARDS

The bottom of the gearbox, transfer box and handbrake assembly hang slightly below the chassis rails on Defenders and Discoverys leaving them vulnerable when crossing obstacles. Terrafirma transmission guards not only protect the transmission and handbrake but also act as a skid plate to slide over the ground or rocks reducing the chance of getting stuck.



### DIFFERENTIAL GUARDS

The vertical bulge in the front and rear axle cases allows the crown wheel to rotate inside. The crown wheel is a large gear that transfers the input drive into the differential and along the axle shafts. The bulge is pressed steel and when rammed into immovable objects such as rocks can easily be holed losing valuable lubricating oil. Terrafirma differential guards are easy to fit and offer protection against even the most aggressive attacks on obstacles.



#### **FUEL TANK GUARDS**

Losing fuel due to a punctured fuel tank can have disastrous consequences leaving you stranded miles from home with an unnecessary expense and a major repair task on your hands.

Fuel tanks are typically under the side or under the rear overhang, both vulnerable when the going gets tough. Terrafirma steel and alloy fuel tank guards provide complete protection against rocks etc off-road and allow you to drive worry free across difficult terrain. Terrafirma fuel tank guards allow fitment of factory towing kits and rear steps however some trimming may be required if nonstandard equipment has been fitted.



### DEFENDER FUEL COOLER GUARD

All 2007 on 2.4 and some 2.2 Defenders have a fuel cooler located inside the chassis rail behind the front axle. Damage to the cooler or pipework in this area could spell disaster. This simple and easy to fit guard provides just the right amount of protection.

#### PROTECTION

### **UNDERBODY GUARDS**



Differential guard



Alloy steering guard tapered with recovery points



Skeleton alloy steering guard with recovery brackets



Alloy steering guard



Track rod guard



Differential guard



Clamp on differential guard



Salisbury axle differential guard





TF868 Steel transmission guard



Steering and sump guard



Alloy transmission guard



Alloy fuel tank guard



Alloy fuel tank guard



Fuel cooler guard



Defender steering guards available in black or silver

Application	1	Defend	der 90		Defende	r 110/1	30	New Def	D1/RRC	D2	P38	D3	D4
NB Dates are approximate as a guide	83-94 94-9	98-0	2 02-07	07-16	83-94 94-98 98-0	02 02-07	07-16	2020 on	89-98	98-04	94-02	04-09	09-16
Alloy steering guard (BLACK) 5mm								TF0436 (TF0436B)					
Steel steering guard (WB suitable for winch bumper) 6mm								United the Control of	TF858				
Alloy steering guard tapered with recovery points (BLACK) 8mm	LHD:	= TF84	1L (TF	841LB)	RHD = TF841R	(TF841)	RB)						
Skeleton alloy steering guard with recovery brackets (BLACK) 6mm				TF0016 (	(TF0017)								
Alloy steering guard (WB suitable for winch bumper) 8mm									TF890	TF895 (TF895WB)			
Track rod guards 5mm		TF843										D	
ront differential guards 5mm		TF844							TF844	TF838	TF898		
Rear differential guards 5mm		TF8	346			T	F847		TF846	TF839			
Clamp on diff guard (not Wolf rear axle) 5mm				TF8	049				TF8049				
Rear Salisbury axle differential guard Grim					TF853								
Rear Salisbury skeleton diff guard Gmm					TF891								
Steel transmission guards (TF868V8 D2 V8 without CATS) 5mm	TI	F856		TF881	TF856		TF881			TF868 TF868V8			
Steering and sump Guard 8mm												TF828	TF829
Alloy transmission guards 6mm	T	F857		TF882	TF857		TF882					TF830	8mm
Steel fuel tank guards 5mm										TF864			
Alloy fuel tank guards 6mm	TF848		TF8	350	TF855	TF84	5		TF863	TF865			
Fuel Cooler guards 2mm				TF880			TF880						
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Essential for serious off-roaders to prote driver and occupants in the event of a foll o

#### **FEATURES:**

Complete retrofit roll over protection systems.

Flat packed in kit form in gunmetal grey ready for installation.

CAD designed and manufactured with strict material quality control.

No welding required.

Pictorial fitting instructions.

Terrafirma has teamed up with respected roll cage manufacturer Performance and Protection to bring you a range

of Roll Over Protection Systems for popular Defender applications. For over 20 years Performance

and Protection have provided roll over protection for fleet, military, commercial, charity, expedition, recreational off road and motorsport applications.

All our roll cages are designed with safety, functionality, and aesthetics in mind, we want to provide protection, be fit for purpose, and

look great with the least amount of impact on internal space, in most cases our roll cages mount to the exterior of the vehicle.

Each roll cage is designed and built without compromise using the highest-grade materials and quality-controlled manufacturing processes, unless otherwise stated they are made from 44.45mm diameter CDS (cold drawn seamless) tube and finished in a superb gunmetal grey highly rust resistant powder coat. Terrafirma Performance and Protection roll cages are supplied in kit form, ready to fit by workshop technicians or competent home mechanics.



















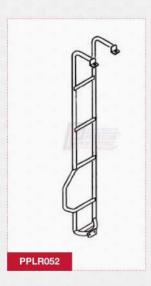








Vehicle	Description	Part No.
110 Station Wagon 83- 2016 smooth roof	6 point full external roll cage (similar to PPLR172 but with no internal components)	PPLR242
90 Soft Top with bulkhead	6 point heavy duty internal soft top hoop set replacement roll cage, back stays to waist rail, front and rear seat belt mounts, no diagonal	PPLR301
0/110 HT & SW fitted Rear ladder (suits PPLR242, 108 & 172)		
90/110/130 SW & HT	4 point external style bar with under body and internal reinforcement plates. 45mm tube, 50th Anniversary style.	PPLR138
110 DC smooth roof	6 point full external roll cage	PPLR243
90/110/130 SW & HT	4 point external style bar with under body and internal reinforcement plates. 2.5" screen tube, 2" roof bars, 60th Anniversary style	PPLR230
110 SW smooth roof	8 point full external and internal roll cage, internal B post hoop, chassis mounted at 6 points	PPLR172
90 without bulkhead	8 point internal external soft top roll cage and hoop replacement cage, NAS style.	PPLR299
110 with bulkhead	Heavy duty internal soft top hoop set replacement roll cage, back stays to waist rail, front and rear seat belt mounts, no diagonal	PPLR244
90 HT & SW smooth roof, without bulkhead	6 point full external roll cage	PPLR108









For recreational and competition off roaders Terrafirma offers rock sliders made from sturdy steel box section with or without the optional steel tube outrigger 'tree bars' that keep the bodywork away from immovable objects just waiting to damage your doors. Tree bars can also serve as a useful step for both entering the vehicle and accessing the roof rack.

For Discovery 3 and 4 Terrafirma rock sliders are carefully folded to match the shape of the sill, again with optional tubular tree bars which also double as effective side steps for easier access, available in both heavy duty 3mm and extra heavy duty 4mm steel options.

All Rock sliders follow the profile of the original side sill, in the case of Defenders the alloy lower sill below the doors is replaced with the rock slider. The plastic trim sill is removed on all Discoverys and P38 Range Rovers.

Terrafirma Rock sliders are designed strong enough to protect the side of your vehicle, this means you can jack up the vehicle on them if required.

Terrafirma Skeleton rock sliders for Defenders are made from 3mm folded steel with punched and swaged, elongated holes for a unique lightweight 'race style' design, finished in satin black powder coat these rock sliders are chassis mounted and fully adjustable for the perfect fit.

TRED rock sliders are the latest evolution from Terrafirma, the ultimate in styling and side protection. Combining cleverly folded black powder coated steel and punched and serrated alloy TRED inserts, these rock sliders are the absolute best for the latest generation of Classic Defender builders.

The 2020 Defender is a big and heavy vehicle, it is also a unibody construction with an extremely complex body and subframe arrangement. Terrafirma has employed extensive engineering resources to design the perfect side protection system that protects not only the entire sill area but also the doors with the addition of 42.5mm tubular tree bars.

Terrafirma offers a roll of non-slip 'grip tape' that can be cut to length and applied to tree bars to help when accessing the vehicle when wet and muddy.





## TRED ROCK SLIDERS

TRED rock sliders from Terrafirma are the ultimate in styling and side protection.

#### **FEATURES:**

Unique styling

Clean lines with integrated tree protection

Punched and serrated TRED inserts

Can be colour coded

Cleverly folded triangulated steel eliminates the need for tree bars. Punched and swaged holes ad to the appearance and reduces unnecessary weight. The TRED name is derived from the punched and serrated alloy tread inserts, which are attached using countersunk stainless steel fixings. The inserts can be colour coded to the vehicle making these rock sliders the absolute best for your Classic Defender.

Application	90	110	130
TRED Rock Sliders	TF0022	TF0023	TF0024









## DEFENDER SKELETON ROCK SLIDERS







Terrafirma Skeleton rock sliders for Defenders are made from 3mm mild steel with punched and swaged slotted holes for weight reduction and unique styling, finished in satin black powder coat these rock sliders are chassis mounted and fully adjustable to ensure the perfect fit.

Application	90	110	130	
Skeleton Rock Sliders	TF0012	TF0013	TF0019	



### **BAJA RAID ROCK SLIDERS**



These tube construction Raid Style rock sliders have a swollen tree bar beneath the second row doors with a cool perforated infill panel designed to kick obstacles away from the rear body and wheel arch.

Application	D2
Baja Raid Rock Slider	TF493
Grip Tape roll 50mm x 5m	TF819





### D3 & D4 ROCK SLIDERS

#### **FEATURES:**

Underside and door protection in one

Std and HD options

Easy to install

Discovery 3 and 4 Terrafirma rock sliders are carefully folded to match the shape of the sill with tubular tree bars which also double as effective side steps for easier access. TF818 is manufactured from strong 3mm steel and TF818HD is made using extra heavy duty 4mm steel with 4mm wall thickness rock sliders as well as 4 outriggers for extra strength.



Part number

Discovery 3 and 4 rock sliders

TF818 TF818HD



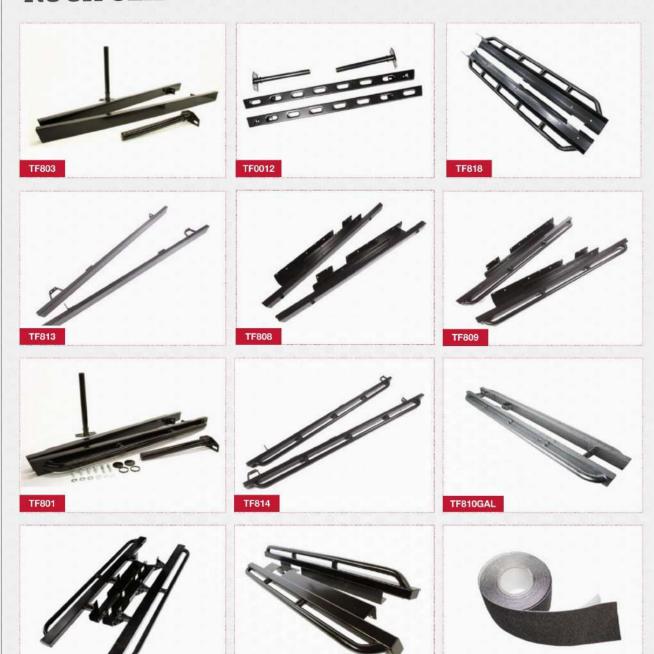


More rock sliders on page 100 -





### **ROCK SLIDERS**



All fixing hardware is supplied with each pair of Rock sliders.

TF807WA

Application	90	110	130	90 2020-	110/130 2020+	D1 3DR	D1 5DR	D2	D3/D4	P38
TRED Rock Sliders	TF0022	TF0023	TF0024							
Skeleton Rock Sliders	TF0012	TF0013	TF0019							
Baja Raid Rock Sliders								TF493		
Rock sliders without tree bars	TF803	TF813	TF815					TF808		
Rock sliders with tree bars	TF801	TF810	TF814	TF8020	TF8021	TF805	TF807	TF809	TF818 TF818HD	TF816
Rock sliders with tree bars (	shorter versio	n when fitting	wheel arc	h kits)			TF807WA			
Galvanised with tree bars	TF801GAL	TF810GAL								
Grip tape roll 50mm x 5m					TF819	9				

TF819





#### **FEATURES:**

Mounts to existing holes in new cross member

Protects the bottom of the rear wings

Also works as a handy rear step

Departure angle is an off-roaders biggest concern, dropping off a ledge or attacking a steep climb the fragile alloy rear corners of your Defender can easily hit the ground and get damaged, especially on a 110. Terrafirma rear bumper corners not only protect the rear corners but also keep the rear lights from harm as well as acting as a step with the useful grip tape or chequer plate applied. Two options are available for both 90 and 110. Version one bolts directly onto the rear cross member and requires no modifications, for vehicles fitted with a spare wheel carrier the WC option is compatible. Version two is the Extreme rear bumper corner and body corner combination, installation requires the lower edge of the body to be removed (ideal if it has already been damaged), the replacement body corner (TF574/TF575) fitted which allows the improved departure angle tubular rear bumper corner to be fitted (no spare wheel carrier option).





TF572







Application	90	110
Rear bumper corners without spare wheel carrier	TF570	TF571
Rear bumper corners with spare wheel carrier	TF570WC	TF571WC
Extreme Rear Bumper Corners	TF572	TF573
Terrafirma extreme rear body corners	TF574	TF575
Skeleton rear step corner bumpers		TF0018





certificated for towing.

#### **FEATURES:**

US 2" receiver and 50mm ball options

Options available for all Defender models

Easier access to the rear of a Defender

Built in jacking points

Choice of tow bar height

TRED step option

This classic accessory was first manufactured in the mid-90s for the Land Rover Defenders exported to the US. The NAS or 'North American Spec' rear step is also a tow bar and is securely bolted to the rear cross member of all Defender models. It is made from black powder coated steel tube and very stylishly fabricated and includes an alloy tread plate step, jacking points and trailer lighting socket mount plate.

The rear step nicely breaks up the traditional flat rear end of a Defender. The position of the towing bracket also allows easier hitching of a caravan or trailer as it is less obscured by the door mounted spare wheel.













Application	Part number
Defender 90 1998 on	TF883KIT90
Defender 90 up to 1998	TF883KIT90TD
Defender 110	TF883KIT110
Defender 90 Receiver Hitch	TF883NAS90
Defender 110 Receiver Hitch	TF883NAS110
Defender 90/110 winch bumper tow bar	TF883WB
4" 6 Hole drop plate	RCT744
Pair of tow ball nuts and bolts	RCT765
Jacking point plastic bung	STC50269AAB
TRED alloy punched and serrated tread plate for TF883	TF0032
Replacement pin for TF883NAS rear steps	TF883NASPIN



## TerrafirMa

### **AXLE REINFORCING KIT**

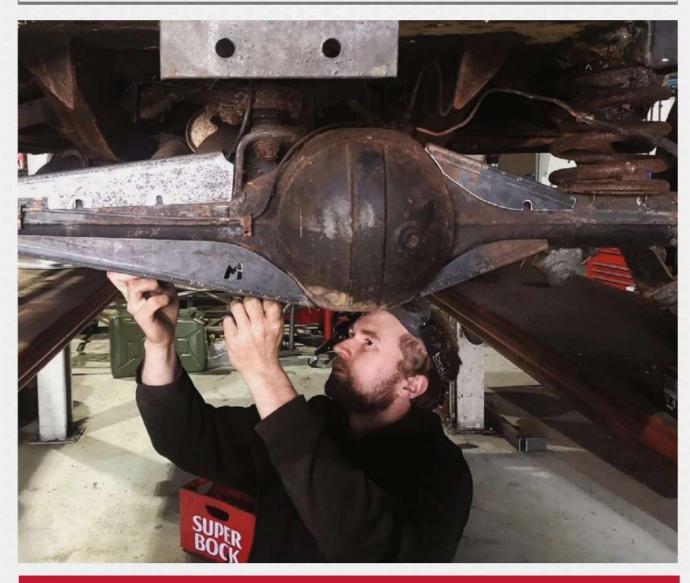
Constant heavy impacts, jumping and extreme loads can in fact bend a
Defender axle case, even a slight bend can cause wheel alignment problems,
irregular tyre wear, poor handling and premature internal component failure! If you think you use
your vehicle beyond its realistic capabilities, then maybe these weld on reinforcing kits are for you.

#### **FEATURES:**

Pre cut weld on reinforcing sections

Ideal for extreme load conditions

Vehicle	Description	Part number
90/110/130/D1/RRC	Axle reinforcing kit long nose front axle (2 piece)	TF775
90/D1/RRC	Axle reinforcing kit long nose rear axle (4 piece)	TF770
D2	Axle reinforcing kit front axle (1 piece)	TF776
D2	Axle reinforcing kit rear axle (4 piece)	TF771





For further information, fitment advice, images, customer reviews please visit www.terrafirma4x4.com



In this section we look at accessories that are associated with the recovery or self-recovery of your Land Rover, whether they are fixed to the vehicle like a bumper or part of the equipment required to perform a safe recovery.

The Terrafirma range of bumpers and winch mounts has been designed to meet the broad range of winching and offroad activities carried out by Land Rover owners and operators. A combination of performance, practicality and style has been employed in the development of these bumpers, from recreational & serious off road to commercial & military use. The entire range has been created to accommodate the most popular winches such as our amazing Terrafirma A12000 and M12.5 winches as well as popular models from other winch manufacturers. Of course, with most makes of winch sharing common physical dimensions and traditional 10" x 4.5" bolt patterns the majority will fit quite happily into a Terrafirma winch bumper or mount.

All Terrafirma bumpers are made from steel which are then sand blasted, zinc phosphate washed, and powder coated semi-gloss black for a factory quality finish.



Bumpers include jacking and recovery points where appropriate and are built tough and able to take on the rigours of serious off road and commercial use. Space is built into the chassis mounting brackets on all Defender bumpers to allow for steering guard brackets to fit between and spacers are included in the fitting kits to take up the clearance if no guard is to be fitted.

## **BUMPERS**

Built tough and able to take on the rigours of serious off-road use.



### **TUBULAR BUMPERS**

#### FEATURES:

Available with or without A bar

A bar spotlight and light bar mounts

Improved approach angle \*

Available for both AC and Non-AC equipped vehicles

Non AC NO CUT option available

Tubular winch bumpers are very popular with both recreational and competitive off roaders.

The A bar is often seen as an important structural part of tubular bumper design and also includes mounting points for spotlights and light bars. The all in one construction of the Terrafirma tubular bumper ensures a considerable strength advantage over others, with the integral perforated front plate not only

providing the style but also allowing cooling air to the radiators. Tubular winch bumpers are available with or without the A bar to suit your personal preference.

The tubular winch bumper specifically for Defender's without air conditioning is designed primarily for serious off-road use. TF001NC is a NO CUT version of the non AC tubular bumper that will allow the installation of a winch without the need to cut the bodywork on your Defender.

Also available for Defender owners looking for the tubular look but that have no need for a winch can choose the Terrafirma Tubular non-winch bumper option in both air con and non-air con versions.













Application	90/110	)/130	
Application	Without AC	C With AC	
Tubular winch bumper with A bar (Terrafirma and most popular winches)	TF001	TF001AC	
NO CUT Tubular winch bumper with A bar (no body work cutting) (Terrafirma and most popular winches)	TF001NC		
Tubular winch bumper without A bar (Terrafirma and most popular winches)	TF003	TF003AC	
Tubular non winch bumper	TF005	TF005AC	
Number plate mounting plinth	TF155		



TF001 / TF003: To provide the extreme approach angle required the bumper is set well back and the grill and lower front panel will need to be cut to facilitate a winch fitment. These items are not structural and do not affect the vehicle's integrity and the improvement in off road ability is always considered to be the priority. The bumper suitable for air-conditioned Defenders which has reduced approach angle in order to accommodate the extended front panel simply requires the louvered plastic grill to be modified slightly.



## TerrafirMa SKELETON BUMPERS

#### **FEATURES:**

Modern design

AC and Non-AC winch bumpers

Stylish and lightweight

Accepts DPT100070 end caps

Skeleton bumpers combine striking rally raid race styling, lightweight construction and unique manufacturing processes to give Defender owners the 'Best of all Worlds'.

Made from a combination of 3 and 5mm mild steel with punched and swaged holes for weight reduction and styling, finished

in lustrous satin black powder coat. These bumpers are designed to accept TFSRP swivel recovery points, enable fitment of DPT100070 moulded end caps, accommodate steering guards and accept all popular winch models using the traditional 10" x 4.5" bolt pattern. They do not require any body modifications and as you would expect they are available for both AC and Non-AC equipped Defenders.

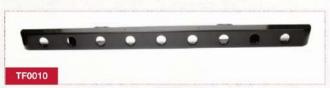
Also available in the Skeleton range are a couple of non-winch bumpers carrying the same theme, a straight front bumper made from 3mm mild steel with 9 punched and swaged holes for weight reduction and styling and a cranked version with 18 holes, the cranked ends allow for significantly increased approach angle, showing more of the tyre and giving that rally raid appearance to your Defender, both are finished in the same black powder coat and also accept DPT100070 moulded rubber end caps.

For Defender owners looking to illuminate the way one further option is our Skeleton front bumper that incorporates 4x 70mm round, 4W, 7000K, IP67 LED lights, each neatly mounted in neat bezels. Fabricated in steel with 4 elongated punched and swaged holes. Supplied with a wiring kit and as usual drilled to accept DPT100070 moulded end caps.





TF0014 TF0015









Andtour	90/110/130	
Application	Without AC	With AC
Skeleton cranked winch bumper (Terrafirma and most popular winches)	TF0014	TF0015
Skeleton cranked non winch bumper	TF0011	
Skeleton straight non winch bumper		TF0010
Skeleton LED front bumper including 4 lights (Replacement lights TF056L PAIR)	TF056	
Number plate mounting plinth (Pic on page 105)		TF155



### TRED BUMPERS

TRED winch bumpers are the latest evolution from Terrafirma, the ultimate in styling, winch mounting and protection.

#### **FEATURES:**

Clean lines & unique styling

Alloy TRED inserts

AC and non-AC versions TRED winch bumpers are the latest evolution from Terrafirma, the ultimate in styling, winch mounting and protection. The TRED range provides the perfect combination of strength, clean lines and approach angle with the profile neatly working in conjunction with TF0016 or TF0017 Terrafirma steering guards.

The name TRED refers to the unique punched and serrated aluminium tread plates that are inserted into the black powder coated steel bumpers and secured with stainless countersunk bolts. These can of course be colour coded to the vehicle. Optional extras include a matching light bar, contrasting red recovery mounts or adjustable spotlight mounts.











Application	90/110/130	
Application	Without AC	With AC
TRED winch bumper without winch protection (Terrafirma and most popular winches)	TF0020	TF0021
TRED winch bumper with winch protection (Terrafirma and most popular winches)	TF0025	TF0026
TRED bumper red recovery points OPTIONAL (Pair)	TF0020RP	
TRED stainless steel spot light brackets OPTIONAL for TF0020/25	TF0020LB	
Number plate mounting plinth (Pic on page 105)	TF155	



# PRO TAPER BUMPERS

#### **FEATURES:**

Improved approach angle

Available for both AC and Non-AC equipped vehicle

Available for both standard and large frame winches When strength, functionality and good looks are the ultimate goal the Terrafirma Pro Taper bumper range for both air conditioned and non-air-conditioned Defenders will be your choice.



With these bumpers the winch is raised above the chassis rails and with tapered and swept back wings approach angle and styling are optimised even with the air-conditioned Defender versions. The Terrafirma Pro Taper bumpers are available to suit both the conventional 'small chassis' winches with pulling capacities up to 12000lbs as well as the 'Bigger is Better' super

strong option for 'large chassis' winches from 12,000-18000lbs pulling capacity. With large, high capacity winches becoming ever more popular for commercial and recreational use these bumpers for big and powerful winches are unmatched in the marketplace. Air cooling slots plus built-in recovery and jacking points complete these superb winch bumpers.





Amenda and the second s	90/110/130		
Application	Without AC	With AC	
Pro Taper winch bumper suits small chassis winches (Terrafirma and most popular winches)	TF006	TF006AC	
Number plate mounting plinth (Pic on page 105)	TF155		

# COMMERCIAL BUMPERS



#### **FEATURES:**

Available for both AC and Non-AC equipped vehicles

New tapered design

Integrated recovery points

Terrafirma Defender commercial winch bumpers are designed to accommodate the most popular mid-range winches, especially the Terrafirma A12000 winch as well as those from other popular brands. The winch mount bolt pattern dimensions of 10" x 4.5" are common for almost every brand of winch constructed with inline motor-drum-gearbox configuration. The Commercial winch bumper could be regarded as a standard winch bumper and is perfect for the



user looking for a winch mount with additional protection, ideal for builders, tree surgeons and farmers etc. Commercial bumpers are made from 5mm steel and are very strong in their construction. Each bumper incorporates 2 jacking points that will accept the standard jack or a Hi-lift jack adaptor as well as 2 recovery points and have tapered ends for a touch of style.

NAME OF THE OWNER OWNER OF THE OWNER OWNE	90/110/130	
Application	Without AC	With AC
Commercial winch bumper (Terrafirma, Superwinch and most popular winches)	TF002ST	TF002ACST
Commercial winch bumper (Terrafirma and most WARN winches)	TF002W	TF002ACW
Number plate mounting plinth (Pic on page 105)	TF155	



## **HEAVY DUTY** TAPERED BUMPERS

### **FEATURES:**

Available with or without centre recovery point

Far Stronger than standard

Tapered ends for good looks and improved off-road characteristics

Terrafirma heavy duty tapered bumpers are the perfect replacement for the standard Defender bumper if the original is not up to the job or if additional towing or recovery points are required.

Made from heavy duty 5mm steel and tapered at each end for improved looks there are 2 options available; a no-frills heavy-duty tapered replacement and a superior version including 2 chassis mounted recovery eyes as well as a centre towing pin.



Ameliandian	90/110/130	
Application	Without AC	With AC
Heavy duty tapered bumper	TF055	
Heavy duty tapered bumper with centre towing pin and recovery points	TF055WRP	

## DISCREET WINCH **MOUNTS**



**FEATURES:** Discreet appearance

Winch mount solution with original bumper

**Economical** 

For owners who require a winch and wish to retain the original vehicle looks and do not require the additional protection provided by a replacement bumper a Terrafirma discreet winch mount is the perfect option. For all Discovery models there is enough space behind the original bumper to allow a winch to be fitted into a chassis mounted bracket. The only evidence that a winch is fitted is the fairlead protruding through the front bumper which can be hidden by the licence plate when not in use.

The kit for Discovery 2 offers a straightforward solution to mounting a winch behind the original bumper, whereas the significantly more sophisticated Discovery 3, 4 and Range Rover sport all require a much more elaborate kit to take into consideration the relocation of certain parts to create the space to be occupied by the winch. All components necessary are included in the kit as well as comprehensive instructions and templates that are required to correctly cut and remove plastic trim parts and accurately locate the fairlead into the front bumper. For the 2020- Defender the Terrafirma discrete winch mount is an extremely comprehensive kit including all the mounting hardware, cutting templates and fixings, due to the truly hidden nature of the winch a complete wiring kit is included to enable the superb Terrafirma A12000 winch to be fully installed.









Scan the code or click to view the guide to fitting a discreet winch.



FITTING GUIDE

Application	D2	D3/D4/RRS- '10	2020- DEF
Discrete winch mount (Terrafirma and most popular winches with removable solenoid pack)	TF078	TF097	TF8030 (Diesel vehicles)



Bumpers inspired by the space frame designs used in Rally Raid competitions

A huge amount of work has gone into developing the 'Raid' style winch bumper with improved approach angle, good protection and light weight.

The tubular construction and infill panels with swaged holes are inspired by the Baja and rally raid space frame designs that have evolved to be lightweight and super strong. No exterior painted bodywork needs to be cut or trimmed, however some trimming of noncritical behind the bumper material is required to make space for the winch installation. The bumper is 6 point mounted to the chassis for maximum strength and the winch mounting area is designed to take Terrafirma and most other popular winch models. There is provision for a pair of TFSRP swivel recovery eyes and the original fog lights can be replaced with TF713 spot lights neatly located within the curves of the front bumper.

The matching 'Raid' style rear bumper is pre drilled for TFSRP swivel recovery points, will accept the original tail lights and can incorporate standard towing equipment as well as Terrafirma receiver hitches. There is also provision for a swing away spare wheel carrier on one side and a swing away jerry can/shovel and hi lift jack carrier on the other.

Application	Part number
Discovery 2 Raid Style winch bumper	TF492
Discovery 2 Raid Style rear bumper	TF486
Number plate mounting plinth for DEF/ D1/RRC (pic on page 105)	TF155







## TerrafirMa

## FRONT AND REAR BUMPERS

Discovery 1, 2 and P38 Range Rover

### **FEATURES:**

No cutting to painted bodywork

Designed to complement original body design

Jacking points and swivel recovery eyes

This range of bumpers has been designed to replicate the original bumper profiles as closely as possible while allowing for winch fitment and increased protection.

Angles, radiuses, corners and contours are carefully engineered to compliment the original shape and lines of

TF095A

the vehicle so as not to stand out or appear miss matched. Sufficient chassis fixing points have been incorporated to ensure the stresses of winching & recovery or off-road impacts do not shift the bumper on its mountings for guaranteed long lasting strength and reliability.

These Terrafirma bumpers are designed so that no exterior painted bodywork needs to be cut or trimmed. However, some trimming of non-critical 'behind the bumper' material may be required to make space for the winch installation. Front bumpers incorporate jacking points and optional TFSRP swivel recovery eyes.

Rear bumpers are made to allow the fitment of standard towing equipment, receiver hitches, fuel tank guards and detachable hitch kits and incorporate jacking points and optional TFSRP swivel recovery eyes.

As Terrafirma front and rear bumpers are designed primarily for off-road use priority has been given to winch location, jacking and recovery points over bumper mounted lights, headlamp washer jets and parking sensors. It is however possible in many cases for competent technicians to reinstall these items if specifically required.











Application	D1	D2	P38
Winch bumper without swivel recovery points (Terrafirma and most popular winches)	TF095A	TF009A	TF007A
Washer bottle guard		TF009WBG	
Rear bumper without swivel recovery points		TF090A	TF070A



Essential places to attach a shackle, rope or winch hook.

### **FEATURES:**

Both front and rear recovery points available

Bolt on and weld on available

Chassis mounted

Swivel recovery points can turn as the angle of the pull changes Terrafirma provides a range of fixed and swivel towing and recovery points. The Defender specific ones are designed to bolt to original chassis locations front and rear for maximum strength. Also available are swivel recovery points suitable for a range of Terrafirma bumpers as well as a universal weld on recovery point and a bumper mounted swivel recovery point for Defenders with air conditioning.

Jate rings are designed to replace the original chassis lashing down eyes and

are intended to be used as recovery points and used extensively by the MOD. Depending on equipment already fitted it is possible they will fit in conjunction with steering guards and winch bumpers but don't normally fit the rear with original towing equipment.











Vehicle
90/110/130
90/110/130
90/110/130/D2 1998 on
Defender 2020 on
ALI

Application	
Defender rear cross member centre recovery point	
Defender front bumper swivel recovery point	
Jate rings	
Cast steel bolt on recovery points (PAIR)	
Swivel recovery point	

	Part number
	TF750
	TFBRP
	TF870
	TF0437
œmi	TFSRP



# RECEIVER HITCHES

Versatile removable hitch options.



Helps to maintain rear departure angle

Quick and easy to fit and remove attachments

Tow bars are often one of the lowest points of a 4x4, significantly reducing the departure and frequently getting hung up while driving off-road. Due to the dual-purpose nature of most people's vehicles, removing the tow bar altogether is not an option. Terrafirma Receiver Hitches help to maintain 100% versatility by providing a 'female' box

section mounting point known as a 'receiver' fitted high up, close to the chassis out of harm's way.

The Receiver Hitch allows a variety of 'male' attachments to be connected to the vehicle including drop plates, recovery points and demountable winch cradles in fact the options are almost limitless.

The Terrafirma Receiver hitch has a 2" internal bore with enough tolerance to allow a snug fitting 2" external square section to be inserted and retained by a heavy pin and security clip.

Terrafirma Receiver hitches are available for a range of models and include the necessary fitting kit and retaining pin. The drop plate provides three levels of height adjustment and the recovery point is machined to accept a common bow shackle.

Application	Part number
Defender 90/110 up to 1998	TF873
Defender 90 1998 on	TF876
Defender 110 1998 on	TF877
Discovery 1 & RRC	TF874
Discovery 2	TF875
Drop plate up to 1998	TF879
Drop plate 1998 on	TF879A
Recovery point	TF878
Spare retaining pin	TFHPIN















# **ELECTRIC WINCHES**

Terrafirma winches are spec'd to the max!



# A12000 ELECTRIC WINCH

### TF3301

The A12000 incorporates all the features requested by commercial users, as well as recreational & competition off-roaders. The new Terrafirma winch combines 12000lb of pulling performance and modern styling with high quality synthetic rope and a wireless remote control as well as the standard cable remote.

A powerful 6hp 12v motor and low noise 3 stage planetary gearbox produces 12000lbs of power pulled through a silver-grey synthetic rope and rated safety hook, of course with the synthetic rope comes a cool black alloy hawse fairlead. The winch is designed with a modern look and finished in stealthy matt black with matching compact solenoid pack with 2 green LEDs to indicate 'winch live' and ready for work. The solenoid pack has the added benefit of being able to be mounted in multiple mounting positions.



12000lbs (5443kg) rated line pull

6hp series wound motor for high performance and fast line speed

80' (25m) synthetic rope with rock guard and safety hook

Alloy hawse fairlead

Wireless remote control (cable remote control included)

Automatic in the drum brake

Multiple mounting options for solenoid pack

Easy to operate free spool control

High efficiency low noise 3 stage planetary gearbox

Modern 'stealthy' design

Heavy duty stylish textured black coating for corrosion resistance

Double green LED 'winch live' illumination feature

IP67 Rated

The Terrafirma A12000 winch is built on the standard frame size of 10x4.5" to allow fitment to most popular mounts and bumpers. Also available for the A12000 winch is a full range of spares and winching accessories.



A12000 winch specifications				
Rated line pull:	12000lbs (5443kgs) single line			
Motor:	Series wound 6.0hp/4.4kw,12V DC			
Gear train:	3 stage planetary			
Gear ratio:	265:1			
Clutch:	Sliding ring gear			
Braking action:	Automatic in the drum			
Fairlead:	Alloy fairlead			
Synthetic rope:	7/16"×79 (11mm×24m)			
Drum size:	2.5"×8.9" (63mm×226mm)			
Dimensions:	21.5"×6.3"×7.6" (545mm×160mm×194mm)			
Mounting hole pattern:	10"×4.5" (254mm×114.3mm)			
Battery:	650CCA minimum for winching. Cables 25sqmm @72" (1.83m)			
N.W:	62lbs (28kgs)			

# TerrafirMa

# M12.5S ELECTRIC WINCH

### TF3320

The M12.5S 12v electric self-recovery winch, yet again combining fantastic looks with the latest trends and packed with NOW standard features this winch stands perfectly alongside the ever popular and reliable Terrafirma A12000.



Powerful 6.6hp motor, fast line speed on & off load and lightweight at 37.5kg, this amazing winch includes not only a cable remote control but 2 wireless remote controls, so both the driver and co-driver have complete control. Also, as standard the bright red 25m synthetic rope is fitted with a black tactical hook as standard. The drum is illuminated with 3 LEDs during operation for safe winching during low light. Super long 3m battery leads ensure that there are no risky connections from the power supply, long enough to reach the batteries under the seat of a Defender!

### **FEATURES:**

M12.5S 12v Electric Winch

Compact 'futuristic' design

Heavy duty gunmetal grey powder coating for corrosion resistance

Easy to operate free spool control

High efficiency low noise 3 stage planetary gearbox

Integrated solenoid pack with triple LED cable drum illumination

12500lbs (5670kg) rated line pull Off-road – Utility winch

6.6hp series wound motor for high performance and fast line speed

80' (25m) Dyneema synthetic rope with rock guard

Black tactical hook

Alloy hawse fairlead

TWO wireless remote controls (cable remote control included)

Extra-long (Defender length) power cables

Automatic in the drum brake

LED 'winch live' illumination feature

IP67 Rated



Rated line pull:	12500lbs (5670kgs) single line
Motor:	Series wound 6.6hp/4.9kw,12V DC
Gear train:	3 stage planetary
Gear ratio:	216:1
Clutch:	Sliding ring gear
Braking action:	Automatic in the drum
Fairlead:	Alloy fairlead
Synthetic rope:	13/32"×89' (10mm×27m)
Drum size:	2.5"×8.9" (63mm×226mm)
Dimensions:	22.17"×6.38"×7.62" (563mm×162mm×196mm)
Mounting hole pattern:	10"×4.5" (254mm×114.3mm)
Battery:	650CCA minimum for winching. Cables 25sqmm @130" (3.3m)
N.W:	74lbs (33.3kgs)



## TerrafirMa

## X4000 ELECTRIC WINCH

### **TF3340**

The X4000 12v electric winch is perfect for mounting in the load space of pick-ups, trailer beds, utility vehicles as well as side by sides and quad bikes etc.



It is compact and powerful, pulling 4000lbs through 10m of synthetic rope. A fully automatic in drum

brake prevents 'roll back'. Supplied with an alloy fairlead and both wireless and cable remote controls just like its bigger brothers the A12000 and M12.5S.

### **FEATURES:**

High efficiency 1.6hp motor draws low current for minimal battery drain

O ring seals reduce water ingress

Matched drum and gear set ensures quiet operation

All metal gearbox for long life

Large and easy to operate free spool control

String, efficient and reliable 3 stage gearbox

10m of 6mm synthetic rope

Aluminium hawse fairlead

Mounting plate included

Handlebar switch and wireless remote controls

16'/min no load line speed



Rated line pull:	4000lbs (1814kgs) single line
Motor:	Permanent magnetic motor DC14V
Gear train:	3 stage planetary
Gear ratio:	198:1
Clutch:	Sliding ring gear
Braking action:	Automatic in the drum, independent mechanical brake
Fairlead:	Alloy fairlead
Synthetic rope:	33' (10.5m)
Mounting hole pattern:	3" × 4.875" (125mm×76mm)
Battery:	650CCA minimum for winching. Cables 25sqmm @130" (3.3m)
N.W:	19lbs (8.6kgs)



# WINCHING AND RECOVERY ACCESSORIES

Recovery equipment is essential to any off-road kit!

Recovery equipment is essential off-road kit. All 4x4 vehicles should have at least a tow rope, a shackle and a pair of gloves on board. Winch equipped vehicles should carry more to make the best use of the winch and of course recreational and competitive 'winchers' will have selected a whole range of useful items such as different length straps, various shackles and snatch (pulley) blocks.

For safety and performance sake only the best performing recovery equipment is considered suitable as part of the Terrafirma accessory range and everything is tested and rated and is fit for both commercial and recreational use.



### **TF3335**

### **FEATURES:**

Lifts or pulls up to 1000lbs

Brushless motor for continual working

Variable and max speed operation

24v 2.0AH lithium battery

LCD screen shows operation status

Mechanical brake

4.5m of 6mm cable

Swivelling anchor hook

Automatic upper limit off switch

The T1000 is perfect for pulling and lifting loads up to 1000lbs at home, in the yard, in the workshop, on the farm, in the truck, hunting, in the woods or in the warehouse, literally anywhere!

Simply attach the T1000 to a secure mounting point and operate the winch using the trigger control within the handle to raise and lower, pull or release the load. The 2.0AH battery provides extended running time even at full load. Totally portable cordless pulling power, the T1000 includes wireless and cable remote controls.

Part No.
TF3335
TF3337
TF3335 <b>TF3338</b>

Rated line pull:	1000 Lbs (454kgs) single line
The power supply:	25.2V DC
Gear ratio:	1254.7:1
Braking action:	Mechanical brake
Guide roller:	4 rollers
Wire rope:	1/4" x 15' (6mm x 4.5m)
Drum size:	2.2"×3"(56mm×76mm)
Battery:	Lithium battery
Battery capacity	2.0AH
Dimensions:	24"×10"×10.5" (610mmX256mmX267mm)



### TERRAFIRMA EXTENDED WINCH CABLES

#### TF3309

The location of your winch and battery may not be ideal or the cabling route uses all the cable provided with the winch. Terrafirma TF3309 is the solution. 4m of red and black cables with swaged ring terminal ends, an isolator switch with removable key and a short length of cable to connect the switch to the battery. These high-quality leads are ideal for all 4x4 vehicle winches.



### TERRAFIRMA KINETIC RECOVERY ROPE

#### TF3311

This super flexible easy to handle 9m long, 22mm diameter double braided nylon rope is the most advanced snatch recovery rope on the 4x4 market. Bright red UV, water and abrasion resistant with black nylon reinforced eyes this new rope comes in a mesh storage bag for easy cleaning and has whopping 13,000kg load rating. 30% stretch with quick recovery makes this one of the most effective kinetic or snatch recovery ropes for off-road 4x4 vehicle recovery.



### TERRAFIRMA RECOVERY GLOVES

### TF3312M TF3312L TF3312XL

Terrafirma recovery gloves are manufactured tough to handle the rigours of handling 4x4 winching and recovery equipment but also supple enough to be used for general tasks to protect and keep your hands clean. The palms and finger reinforcements are made from tough, hard wearing, shrink resistant synthetic leather and the backs are breathable spandex for snug fitting flexibility with an elasticated cuff to keep debris out. These super comfortable bright red and black gloves are ideal for technical jobs in harsh conditions.

Available in sizes Medium TF3312M, Large TF3312L and Extra Large TF3312XL.



TF3312

### TERRAFIRMA UTILITY/MECHANIC GLOVES

### TF4412XL TF4412XXL

Terrafirma impact resistant touch screen utility or mechanics gloves are the next level in protection for your hands. They can be worn for all activities while off road and in the workshop and have synthetic leather & PVC reinforced and padded palms and fingers, stretch fabric panels for superior comfort, reinforced knuckle and back of the hand protectors. They have an adjustable open cuff and a terry cloth section on the thumb for wiping your glasses. The touch screen feature means you can operate your phone while wearing these gloves. Available in sizes Large TF4412XL and TF4412XXL Extra Large



### TERRAFIRMA SNATCH RING

### TF3314 TF3345

Terrafirma Snatch Rings offer a strong, lightweight, easy to use and safe alternative to the traditional metal swing away snatch block especially when using synthetic ropes, they have really become standard recovery equipment. The snatch ring fits easily into a recovery kit back or glove box and is the ideal accessory to have in your truck for any off road situation or competition when the co-driver has to carry his winching equipment for prolonged periods in tough environments.







### TERRAFIRMA SOFT SHACKLE

### TF3310 TF3310XL

Soft shackles are safer, lighter-weight and more manageable than metal alternatives when towing or winching and are fast becoming the preferred choice in recreational and competition off-roading. These shackles are made of super strong synthetic rope in 2 sizes and rated as follows:

**TF3310** is 550mm long (275mm when joined) 10mm diameter and rated to 3.5t with a breaking strain of 17.5 tonnes.

**TF3310XL** is 1100mm long (550mm when joined 11mm diameter and rated to 4.5t with a breaking strain of 19 tonnes.







### TACTICAL WINCH HOOK

### TF3339

14,000lb black winch hook suitable for Terrafirma and most popular steel and synthetic winch ropes.

# TF3339

### **EXTREME SHACKLE**

### TF3330

This cool looking extreme duty bow shackle is similar in size to the traditional 4.75t bow shackle but almost twice as strong at an incredible 8t load rating.



### COMPETITION STRAPS

### TF3350 TF3351

When competing at the highest level, speed of use, strength and dependability are paramount. These 2 bright red Terrafirma straps are essential kit for winching and recovery, rated at 5000kg and a handy 2m long, one with steel triangular eyelets on each end, the other is a codriver's best friend with a safety hook on one end and a large ring on the other.

2m double eye strap TF3350; 2m hook and eye strap TF3351





### WINCH CABLE DAMPER

#### TF3336

Designed to reduce the whiplash that can occur when a winch cable snaps when under load causing the rope to fall to the ground instead of whipping back towards the vehicle or onlookers. It also serves as a visual barrier to alert people in the vicinity that winching is in progress.







### **WINCHING AND RECOVERY** SPARES AND ACCESSORIES

























Description	Part No
12v, 1000amp key operated battery isolator switch	GE001
Synthetic winch rope 11mm x 24m (silver/grey)	TF3302
Synthetic winch rope 10mm x 27m (blue)	TF3323
Synthetic winch rope 10mm x 27m (red)	TF3324
Terrafirma alloy hawse fairlead (black)	TF3303
Bow shackle (4.75t 22mm pin)	TF3304
Extreme shackle (8t 22mm pin)	TF3330
Greaseable snatch block 10T	TF3305
Replacement solenoid pack for TF3301	TF3306
Replacement solenoid pack for TF3320	TF3326
Replacement wireless remote control for TF3301/ TF3320	TF3307
Replacement cable remote control for TF3301	TF3308
Replacement cable remote control for TF3320	TF3322
Replacement 12v motor for TF3320	TF3327

Synthetic winch rope 11mm x 24m (silver/grey)	TF3302
Synthetic winch rope 10mm x 27m (blue)	TF3323
Synthetic winch rope 10mm x 27m (red)	TF3324
Terrafirma alloy hawse fairlead (black)	TF3303
Bow shackle (4.75t 22mm pin)	TF3304
Extreme shackle (8t 22mm pin)	TF3330
Greaseable snatch block 10T	TF3305
Replacement solenoid pack for TF3301	TF3306
Replacement solenoid pack for TF3320	TF3326
Replacement wireless remote control for TF3301/ TF3320	TF3307
Replacement cable remote control for TF3301	TF3308
Replacement cable remote control for TF3320	TF3322
Replacement 12v motor for TF3320	TF3327
Replacement cross brace for TF3320	TF3334
Extended winch power cable kit (4m includes isolator)	TF3309
Synthetic rope soft recovery shackle 10mm 275mm 17T	TF3310
Synthetic rope soft recovery shackle 11mm 550mm 19T	TF3310XL
Kinetic recovery rope (22mm x 9m)	TF3311
Recovery/winching gloves (LARGE)	TF3312L
Recovery/winching gloves (MEDIUM)	TF3312M
Alloy RED snatch ring for synthetic ropes	TF3314
Replacement winch rope hook	TF3319
Winch rope safety thimble	TF3325
Cargo net	TF3329







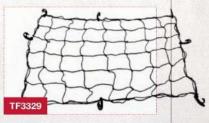












### RECOVERY

## **RECOVERY STRAPS**

Recovery straps of varying lengths are a vital part of any offroader's kit. Terrafirma recovery straps will suit all recovery situations involving light to heavy 4x4 vehicles. Each strap is rated and comes with reinforced eyes and are sleeved to protect the stitching.





### WINCH EXTENSION STRAP

11000kgs 20m x 80mm

Terrafirma extension straps can be used for towing but as they do not stretch they give a hard connection between the two vehicles, the most suitable and common use is to extend the length of the winch cable in situations when the recovery vehicle or the only tree in sight is out of reach. Terrafirma extension straps are made in bright purple to clearly distinguish them from other straps in your kit bag.

TFES11000



### SNATCH STRAP

11000kgs 9m x 80mm

Constructed from a complex bright orange material designed to stretch up to 20%, which when used to recover a stuck vehicle uses the kinetic energy stored in the strap under tension to help extract the vehicle from its bogged situation. A snatch strap should be used in all vehicle to vehicle recovery and towing situations as the stretch provides a much more forgiving and less jarring connection between the vehicles.

TFSS11000



### TREE STRAP

12000kgs 5m x 80mm

Terrafirma tree straps are wider than other recovery straps, this is important to prevent ring barking or damage to trees when using them as a suitable anchor point when winching. Tree straps are produced in a bright green colour to clearly identify them from other recovery straps.

TFTS5M



## WINCHING AND RECOVERY KITS

Terrafirma offer only the best recovery equipment so for your convenience we have put together the following kits.



### KIT BAG

Made from tough 1000 denier Cordura nylon with built in pockets for all your kit, strong handles and a zip closure.

TF3315



### WINCH KIT

Tree strap, snatch block, 2 bow shackles and gloves all packed into a Terrafirma kit bag.

TF3316





### WINCH KIT PRO

Tree strap, synthetic winch rope snatch ring, 2 synthetic soft shackles and gloves all packed into a Terrafirma kit bag.

TF3317



### **RECOVERY KIT**

Tree strap, synthetic 13000kg recovery rope, 2 bow shackles and gloves all packed into a Terrafirma kit bag.

TF3318



# HI-LIFT JACKS

Multipurpose recovery tool designed to do more than just lift. GHL4

### **FEATURES:**

All-Cast Construction

7000lb (3175.14kg) Tested Capacity

Lifts, Winches, Clamps, & More With over 100 years of quality, the Hi-Lift Jack is a rugged, highly versatile jack that puts you in command of situations requiring lifting, pushing, pulling, winching, and clamping. Although light in weight and easy to manoeuvre, the Hi-Lift Jack offers a rated capacity of 4,660 lbs (2114 kg) and a tested capacity of 7,000 lbs (3175 kg).

Only Hi-Lift Jacks are made with a two-piece handle and socket design that is built for extended life. Cheaper imitations use a one-piece design that bends easily if lateral pressure is applied while lifting a load. Hi-Lift jacks are designed to help you survive in the most demanding situations - whether you are on the farm, in the woods, off-road or in the yard, with its range of accessories, the Hi-Lift jack is just about the most versatile piece of off-roading/farm/auto recovery equipment you can buy.





GHL3











Application	Part number
4ft Hi-Lift jack	GHL4
5ft Hi-Lift jack	GHL5
4ft XTREME Hi-Lift jack	GHL4XT
Flat surface mounting kit for all Hi-Lift jacks	GHL2
Lockable truck bed of flat surface mounting kit for all Hi-Lift jacks	GHL3
Hi-Lift jack adaptor for Defenders & others with a suitable jacking point	GHL4/5A
Jack storage bag	GHL4/5BAG
Black jack handle keeper	GHL7
Red jack handle keeper	GHL6
Terrafirma off-road jack base	TF3328





Whether you want your wheels for full on off-road racing, recreational use or just to enhance the look of your Defender Terrafirma has a wheel for you. We have some of the toughest wheels exclusive to Terrafirma available in both alloy and steel as well as spacers, adaptors and wheel nuts.



If you have a Discovery 3, 4 or 5, Range Rover Sport or L322 and are looking for 18" alloy wheels to fit over the 365mm brake discs to give you a wider range of off-road tyres, we now have some options with The Compomotive and WINRACE 8x18 in black or grey.

Large diameter semi rigid spare wheel covers with a choice of infill stickers to stylise your rear end!

See page 131 >>



# **BLINDO WHEELS**

Rock crawling, desert racing or just to enhance the look of your vehicle!

### **FEATURES:**

Available in Black and Anthricite

Load rated to 1550kg

Super strong and super stylish



Used in rally raid and military applications the super strong Blindo wheel looks amazing in either satin black or anthricite with a massive 1550kg load rating.

Available in 7x16" and with 5x165 15mm offset and using original Land Rover alloy wheel nuts. The Dakar wheel is a 15 spoke wheel with built in valve protection against rocks and ruts and is suitable for the heaviest off-road use when fitted to Land Rover Defender, Discovery 1 and Range Rover Classic. Unquestionably one of the toughest best-looking wheels for a Land Rover on the market.









Application	90/110/1	
Anthricite	GA2488 7x16 ET15	
Satin Black	GA2489 7x16 ET15	
Silver alloy wheel nuts	RRD500560	
Black alloy wheel nuts	RRD500560B	
Silver locking wheel nut set	STC8843AA	
Black locking wheel nut set	GA3548	

# COMPOMOTIVE WHEELS

### **FEATURES:**

Rally raid inspired design

Suits vehicles with 365mm brake discs

Direct fit for D4 and RRS (not Brembo)

The ultimate 18"aluminium rally raid wheel. Heat treated material and reinforced rim edges give you stage winning capability for your Discovery 3 & 4 and most Range Rovers. Available in satin black and metallic grey.



# Application Compomotive BLACK 8x18 ET45 multi spoke alloy wheel (requires TF303/303B) for vehicles with 360mm brake discs Compomotive GREY 8x18 ET45

Componetive GREY 8x18 ET45 multi spoke alloy wheel (requires TF303/303B) for vehicles with 360mm brake discs

### D3/D4/RRS/L322/2020 DEF

PD1881BLACK

PD1881GREY





## WINRACE WHEELS

Super stylish wheels with outstanding motorsports pedigree.



Serious crosscountry design

1200kg load rating

Anthracite or satin black

Centre cap available for 18"

The Winrace T alloy wheels are meticulously designed and manufactured using high quality aluminium alloy to withstand the most demanding terrain.

Heat treated for maximum rigidity, with reinforced inner and outer edges and super-reinforced inner rim. These wheels are designed for Baja, Dakar and serious cross-country driving.

Winrace wheels from Terrafirma are available in 16" for Classic Defender applications and 18" for Discovery 3 & 4 and 2020- Defender and all use standard alloy wheel nuts.















Application	D3/D4/RRS/L322/2020 DEF	
Winrace BLACK 8x18 ET42 multi spoke alloy wheel (requires TF303/303B for vehicles with 365mm brake discs) Will fit vehicles with grey Brembo calipers but WILL NOT fit vehicles with red Brembo calipers.	TF160B	
Winrace GREY 8x18 ET42 multi spoke alloy wheel (requires TF303/303B for vehicles with 365mm brake discs) Will fit vehicles with grey Brembo calipers but WILL NOT fit vehicles with red Brembo calipers.	TF160G	
Silver alloy wheel nuts	LR068126	
Black alloy wheel nuts	LR068126B	
Silver locking wheel nut set	LR078545	
Black locking wheel nut set	GA2548	









Application	DEF/D1/RRC
Winrace BLACK 8x16 ET15 5x165PCD multi spoke alloy wheel	TF161B
Winrace GREY 8x16 ET15 5x165PCD multi spoke alloy wheel	TF161G
Silver alloy wheel nuts	RRD500560
Black alloy wheel nuts	RRD500560B
Silver locking wheel nut set	STC8843AA



# STEEL WHEELS

No wheel range would be complete without the good old favourites, the steel 8 spoke and modular wheels are as popular as ever for upgrading from the standard wheels or as a good value alternative for off road or winter use leaving your expensive style wheels and low profiles in the garage.

### **FEATURES:**

**Civilian and Military Specifications** 

Load ratings up to 1500kg

Strong, tough no nonsense wheels



Ever popular is the military 'Wolf' wheel, this military

specification wheel has proven itself over and over and is supplied as Land Rover's heavy-duty tubeless option for the Defender. It is used by

armed forces and utility companies all around the World and is the strongest steel wheel on the market at 1500kg load rating, supplied black or silver ready to fit in 6.5x16" and 5x165 bolt pattern.









**GRW001** 















**GRW006** 



Description		90/110/130/D1/RR	<b>G</b>	D2/P38
Wolf wheel 1500kg rating	Black	ANR4583PM	6.5x16 ET21	
Wolf wrieer 1500kg rating	Silver	ANR4583SILVER	6.5x16 ET21	
	White	GRW001	7x16 ET00	
8 Spoke	Silver	GRW002	7x16 ET00	
	Black	GRW003	7x16 ET00	
	White	GRW004	7x16 ET08	
Modular	Silver	GRW005	7x16 ET08	
	Black	GRW006	7x16 ET08	GRW012 8x16
Wheel nuts		RRI	D500010	TF152NUTBLACK
Locking wheel nuts		R1	rC9535	
Land Rover centre cap	4 required			LR130610
Centre cap wheel nuts	20 required			LR129123G
Centre cap locking wheel nut kit				LR146316





### MODULAR STEEL WHEELS

For D3, D4, RRS and Defenders

**FEATURES:** 

Rugged and tough

Easy to repair

Good value

For Discovery 3 & 4 and Range Rover Sport our TF152 18x8" steel modular wheel gives plenty of off-road tyre choice and will fit straight onto vehicles with 320 & 340mm brake discs for vehicles with

TF303/TF303B wheel spacers for brake caliper clearance. TF152 will fit vehicles fitted with grey Brembo brake calipers but will not fit vehicles with red Brembo calipers.

360mm brake discs you will need to fit

The TF152 18x8" will also fit Discovery 5 and 2020 Defender with the 349mm brake discs, for vehicles fitted with 363 and 380mm brake discs the 20 x8" TF1520 is required.

These wheels are supplied with wheel nuts and are both factory TPMS compatible & are satin black from stock but can be painted if required.

To complete the package LR130610 Land Rover centre caps can be fitted in conjunction with LR129123G wheel nuts.

TF152 18x8" will also fit Discovery 5 and 2020 Defender with 349mm brake discs, for vehicles fitted with 363 and 380mm brake discs the 20" TF1520 is required, vehicles fitted with painted calipers will require TF303/B spacers.







Description		D3/D4/D5/RRS/L322/L405/2020 DEF
18x8 ET45 modular steel wheel	Black	TF152
20x8 ET45 modular steel wheel	Black	TF1520
Replacement wheel nuts		TF152NUTBLACK
30mm spacers (BLACK)		TF303 TF303B
Land Rover centre cap	4 required	LR130610
Centre cap wheel nuts	20 required	LR129123G
Locking wheel nut kit		LR146316







**BEADLOCK** & SIMULATED BEADLOCK WHEELS

Seriously tough off road wheels keep the tyre on the rim even at very low pressures

### **FEATURES:**

Reduce tyre roll off at very low pressures

Perfect for extreme off-road use

Ready to go for **DIY** options

Simulated beadlock option available

For competition or recreational off

road, these super strong 16" steel beadlock wheels are available in 8 and 10 inch widths to accept all the most popular off-road tyres. When offroading with low tyre pressures or hard cornering at speed it is possible to roll the tyre off the rim, beadlock

wheels clamp the tyre to the wheel with a bolt on outer ring. Produced based on the popular black modular steel wheel they are ready for action.

If it's just the beadlock styling you are looking for then the simulated beadlock is right for you, again based on the popular 8x16 black powder coated steel modular wheel.

Both these wheels are 1200kg rated and are painted in semi-gloss black with gold zinc passivated beadlock ring fasteners.

The Terrafirma weld on bead lock kit is supplied with full instructions for self-build and can be welded on to most 16" steel wheels.



LR130610 LR129123G











	DI/HHC	
8x16 ET10 Black modular beadlock wheel	TF157	
8x16 ET25 Black modular beadlock wheel		TF158
10x16 ET32 Black modular beadlock wheel	TF165	
8x16 ET0 Black modular simulated beadlock wheel	TF162	
8x16 ET25 Black modular simulated beadlock wheel		TF163
Wheel nuts	RRD500010	TF152NUTBLACK
Locking wheel nuts	RTC9535	
Land Rover centre cap 4 required		LR130610
Centre cap wheel nuts 20 required		LR129123G
Centre cap locking wheel nut kit		LR146316













For further information, fitment advice, images, customer reviews please visit www.terrafirma4x4.com





### **FEATURES:**

Improved stability, cornering and handling

Increased track improves steering lock

Machined from billet aluminium Terrafirma 30mm alloy wheel spacers give an additional 60mm track width. The benefits are improved handling, cornering and stability as well as increased steering lock.



The opportunity to fit larger tyres due to the increased steering lock is a bonus not to mention the improved 'stocky or more planted' look to the vehicle.

These spacers are made from billet aluminium to the highest standards with high tensile studs and include a complete set of wheel nuts to ensure they are secured correctly.







Description	90/110/130/D1/RRC	D2/P38	D3/D4/D5/RRS/L322/L405
30mm alloy wheel spacers (SILVER)	TF301 (5x165)	TF302 (5x120)	TF303 (5x120)
30mm alloy wheel spacers (BLACK)	TF301B (5x165)	TF302B (5x120)	TF303B (5x120)

Wheel nuts and spacer nuts should be tightened to the factory torque settings.



# TerrafirMa

# SPARE WHEEL **COVERS**

### **FEATURES:**

Ads a touch of style to the rear of your vehicle

Keeps the spare wheel clean

Optional sticker choice for additional style

Serious 4x4 Accessories

Ever popular and great value the Terrafirma branded vinyl spare wheel covers ad a touch of style and keep the spare wheel clean on **Defenders and Discovery 1** and 2.

This new semi rigid spare wheel cover is specifically

designed for the 2020 Defender but will also fit other 32-33" diameter spare wheels. Available in a choice of colours and a selection of stickers to further personalise your rear end.

TFSWC01/02





STICKER-TERR















Description	Part number
Black vinyl Terrafirma spare wheel cover to suit 235 85 R16 tyres (Defender)	TFSWC01
Black vinyl Terrafirma spare wheel cover to suit 235 70 R16 tyres (Discovery)	TFSWC02
Gloss black moulded Union Jack spare wheel cover 2020 Defender and 32" tyres	TF8032
Gloss black and silver semi rigid spare wheel cover 2020 Defender	GA3891
Matt black and silver semi rigid spare wheel cover 2020 Defender	GA2892
Gloss black semi rigid spare wheel cover 2020 Defender	GA2893
Terrafirma sticker for spare wheel cover for 2020 Defender	STICKER-TERR
Monochrome Union Jack sticker for spare wheel cover for 2020 Defender	STICKER-UNION-FG
Colour Union Jack sticker for spare wheel cover for 2020 Defender	STICKER-UNION-F
Tyre track sticker for spare wheel cover for 2020 Defender	STICKER-TRACK
Compass sticker for spare wheel cover for 2020 Defender	STICKER-COMPASS



### FEATURES: Free TMPS app Monitors tyre pressure remotely Keeps you driving safely Battery life: >5 years Working voltage: 2.1V-3.6V Storage temperature: -45°C-125°C Working temperature: -40°C-120°C Temperature accuracy: ±2°C (25)°C Working pressure: 0-99Psi Pressure accuracy: ±1.5Psi IP: IP67 Transmit power: <10dBm Transmit frequency: 433.92 MHz Weight: ≤30g (weight exclude valve 16g) Part number Description Bluetooth remote tyre **TF308** pressure monitoring kit

# BLUETOOTH REMOTE TYRE PRESSURE MONITOR KIT





A universal, easy to fit Tyre Pressure Monitoring System (TPMS) that displays all your tyre information on your smart phone.

Simply download the app, screw the TPMS valve caps onto all 4-wheel valve stems and follow the step by step instructions to pair the TPMS valve caps to your phone via Bluetooth. Multiple screens show everything you need to know about your tyre performance to keep you driving safely including fast leaks, slow leaks, high pressure or low pressure.

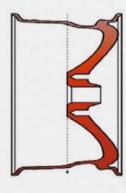


### OFF SET EXPLAINED

The offset of a wheel is the distance between the centreline of the wheel and the hub-mounting surface.

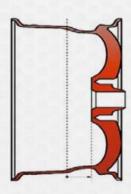
It can be either positive or negative and is typically measured in millimetres. Offset affects suspension geometry, clearance between the tire and suspension or bodywork, the steering system and of course visually with regards to the position of the wheel in relation to the outside of the vehicle.

The offset measurement is often referred to as ET which means Einpresstiefe or translated means literally Press Depth e.g. ET45 is a 45mm offset. So 7x16" wheels fitted to a Defender with an ET10 offset will have a wider track width than wheels with an ET25 offset.



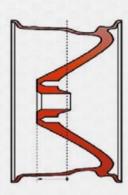
### **ZERO OFFSET**

The centreline of the wheel is in line with the hub mounting surface.



### **POSITIVE OFFSET**

The centreline of the wheel is inside the hub mounting surface. A wheel with increased offset or more positive offset reduces the track width.



### **NEGATIVE OFFSET**

The centreline of the wheel is outside the hub mounting surface. A wheel with reduced offset or more negative offset increases the track width.









# PERFORMANCE

Over the years Terrafirma's continued product development and high engineering standards have produced a range of specific performance enhancing components that make your vehicle better than it has ever been. We have strived to improve the original and create performance enhancements that will greatly improve both on road and off-road performance.



The Terrafirma E locker provides 100% drive at the flick of a switch, easy installation, no compressor required.

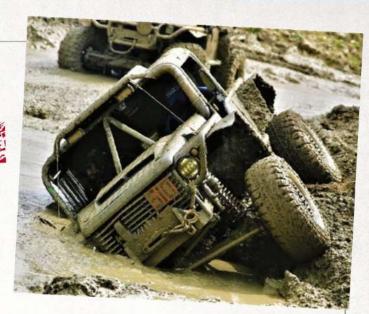
Diagnostic tools for the Amateur and **Professional** See page 148 >>



# TERRAFIRMA E LOCKER

### 100% drive at the flick of a switch!

Fitting a Terrafirma electronic locking differential or 'E Locker' can make the difference between success and failure when tackling off-road obstacles or negotiating very low grip conditions. When the switch is activated, power is supplied to an electromagnet that acts on a locking mechanism within the differential. Deactivating the switch causes a series of return springs to force the mechanism to disengage and the E Locker again operates as an open differential.



### **FEATURES:**

Silent operation

Super strong 4 pinion design

Precision manufactured from high grade materials

Fast and straightforward installation, no special tools or fluids required

Complete wiring harness and illuminated dash mounted switch

CE and UKCA approved

The Terrafirma E Locker provides instant traction by transferring drive equally to each wheel. With E Lockers fitted front and rear your 4x4 can be driven in a much slower, more controlled manner reducing the likelihood of damage to the vehicle and the environment.

The Terrafirma E Locker has the simplest operating system of any switchable diff lock, no compressor, complicated wiring loom or air lines. 2 wires and an illuminated dash mounted switch is all that is required.





The uncomplicated switch arrangement also means the E Locker is the fastest switchable diff lock to install, no cutting or welding is required. A simple drilled

hole for the electrical cable gland is the only machining operation that is required. A competent mechanic should take no more than a few hours to completely install a Terrafirma E Locker from start to finish.

NB. The Terrafirma E Locker can be fitted into 1983-1994 Defender 90s, 1989-1994 Discovery 1s & 1971-1994 Range Rover Classics and will require the half shafts to be changed to 24 splines.

Application	Part number
Defender 90, Discovery 1 & Range Rover Classic 24 spline front & rear, Defender 110/130 front and Discovery 2 front & rear	TF450
Defender 110 2002 on (Wolf/short nose) rear, Range Rover P38 F&R	TF460
Diff lock single switch mount bracket	TF4501
Diff lock double switch mount bracket	TF4502

### **BENEFITS**

- Selectable operation provides 100% drive when needed without affecting on road driving
- Vastly improved traction with less need for momentum, reducing the potential of vehicle damage and environmental impact.
- Less strain on the vehicle's driveline, reducing wear and tear.
- Incredibly simple yet effective design with minimal moving parts, resulting in maximum reliability.
- Suitable for both front and rear axles





# CROWN WHEEL & PINIONS

Terrafirma offers a range of alternative ratio crown wheel and pinion gear sets originally developed by renowned engineering company, KAM Differentials.

### **FEATURES:**

4.1 & 4.75 available

Reverse cut front option

Up to 70% stronger

43% thicker crown wheel

40% larger tooth profile

REAR)

The optimum final drive ratio can be selected to accommodate increased tyre diameter, up rated engine performance and vehicle application. The increase in strength is measured by using the standard 3.54:1 ratio as a baseline, calculating input torque, produced by the engine power and output torque produced by the feedback into the differential from traction obtained.

Up to 25% gearing reduction coupled with up to 70% increase in strength is possible with Terrafirma lower ratio crown wheels and pinions.

3.54:1 is the standard ratio on all Defenders, Discoverys and Range Rover Classics. Lower ratios of 4.1:1 and 4.75:1 are available. The effect of these lower ratios can be seen in the chart.

For convenience the same ratio differential assembly was fitted to the front and rear axles. As a result, the front differential rotates in the opposite direction to the rear with the driving

Ratio	Teeth number	Original	Strength inc %
4.75:1	38/8	-25.47%	50%
4.1:1	41/10	-13.65%	25%
3.8:1	38/10	-7%	70%
2.83:1	51/18	25.08%	28%

Application	Part number
Long nose differential	
KAM 3.8 Crown wheel and pinion standard cut (FRONT & REAR)	KAM539
KAM 4.75 Crown wheel and pinion reverse cut (FRONT)	KAM546
KAM 4.75 Crown wheel and pinion standard cut (REAR)	KAM547
KAM 4.1 Crown wheel and pinion reverse cut (FRONT)	KAM541
KAM 4.1 Crown wheel and pinion standard cut (REAR)	KAM542
Short Nose (P38/WOLF) Differential	****
KAM 4.1 Crown wheel and pinion standard cut (FRONT & REAR)	KAM549
KAM 4.75 Crown wheel and pinion standard cut (FRONT &	KAM548

force being applied to the back of the gear teeth significantly weakening the meshing of the gear teeth. Terrafirma produce ring and pinion sets for the front differential assembly that are 'reverse cut' which ensure the force is applied to the stronger/correct side of the gear teeth.



## **HD HALF SHAFTS** AND CV JOINTS



Aggressive tyre patterns, more horsepower and axle diff locks, not to mention a good dose of 'one upmanship' can result is standard driveline breakages. These days, heavy duty shafts and CV joints are as standard as a raised air intake. Space is limited within standard axles to increase the size of half shafts and CV joints so the only option is to increase the material specification and heat treatment processes.

Both front and rear half shafts are made from an alloy steel with a high percentage of nickel-chromoly-molybdenum, SAE4340. To be both heavy duty and give a high degree of elasticity shafts and CVs passed through a 3-stage heat treatment process. These properties mean the half shafts are far stronger and kinder to the rest of the drive line particularly the differentials and transfer box.

CV Joints have always been the most critical component of all the drive train, also machined from the SAE4340 chromoly material, they are tougher and more resistant to shock load. Raptor CV joints have been developed to incorporate a 30mm centre with 23 splines and must be combined with the equivalent heavy-duty shafts.

Terrafirma heavy duty half shafts and CV joints are a direct replacement to the original parts enabling the driver to upgrade some or all of the driveline components. They are available as a set or as HD replacements. All heavy-duty shafts are suitable for 24 spline differentials. CV joints include grease.

HD half shafts and CV joints are covered by a 5yr limited warranty, subject to authorisation and maximum tyre diameter is 35".













Application		Terrafirma		
Front	Set	Set	Left	Right
90/110/130/D1/RRC 1994 on 24 spline Heavy Duty Front half shafts (PAIR) 448/835mm	TF2008			
90/110/130/D1/RRC 1994 on Heavy Duty non ABS CV Joints (PAIR)	TF2005			
90/110/130/D1/RRC 1994 on Heavy Duty ABS CV Joints (PAIR)	TF2006		T	
Rear				
90/D1/RRC up to 1994 24 spline Heavy Duty rear half shafts (PAIR) 698/964.5mm	TF2001			
90/D1/RRC 1994 on & 110/130 2002 on 24 spline Heavy Duty rear half shafts (PAIR) 681.5/949mm	TF2002	TF3859	TOB500030HD	TOB500020HD
110/130 1994-2002 Salisbury disc brake axle 24 spline Heavy Duty rear half shafts (PAIR) 636/956mm	TF2003	TF3858	FTC1725HD	FTC1724HD

Drive flanges on page 143 ->





## TerrafirMa

## **PROPSHAFTS**

When a 4x4 is produced the angle of the propshaft in relation to the two end flanges is carefully calculated in order that the vibration inherent with universal joints\* is undetectable. The universal joints at each end of a propshaft are also set out of line, out of synchronisation to control this vibration, this is known as phasing.

TFWA680

### FEATURES:

20% stronger than standard propshafts

Double seal arrangement on slip coupling

RILSAN coated 100mm spline slip coupling for smoother operation

Metal shield greaseable universal joints.

32 degree wide angle yoke and joints

Unique gun metal grey paint Lifting the vehicle by raising the suspension alters the propshaft angles which often causes severe vibration. Aggressive mud tyres, noisy engine and transmission and the slower speeds associated with hardcore off-road vehicles usually masks the vibration and drivers often tolerate the additional drone or rattle from the shafts on overrun. A more road biased lifted vehicle will most likely find the noise and vibration too obtrusive and will be keen to rectify it. The most effective way to eliminate vibration is to fit a propshaft with a double cardan joint\*\* at the gearbox end. This was found to be essential on the Discovery 2.

Double cardan propshafts are a successful vibration cure on vehicles lifted around 2". Beyond 2" even the double cardan joint cannot always accommodate the angle without vibrating. It is a common misconception that fitting a wide angle propshaft will cure vibrations caused by raised suspension. The cause of the vibration is the angle of the shaft in relation to its end flanges, fitting a wide-angle shaft does not change the angles. The vibration may seem reduced, but this will be

coincidental with a new heavier shaft in perfect condition.

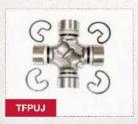
Wide angle propshafts are necessary for vehicles fitted with very long travel suspension where on full Year 7 Kew Gardens trip axle drop out the original propshaft yoke will bind up straining the joints and ultimately locking the shaft solid which in extreme cases can literally tear the shaft in half. A 32-degree yoke and joint will accommodate typical long travel suspension set ups on chassis using around 11" travel shocks.



- \* Universal joints working at an angle speed up and slow down during rotation.
- \*\* Double cardan joints have two universal joints joined by and intermediate shaft, the joints are phased or synchronised with each other which overcomes the speeding up and slowing down of a single joint thus reducing vibration.

Application Front	90		110		Discovery 1		Discovery 2	
	Front	Rear	Front	Rear	Front	Rear*	Front	Rear*
Terrafirma wide angle	propshafts						V-1.W-1.11 W1. W. 1-W-1	
200TDI	TFWA650		TFWA650		TFWA650			
300TDI 1994 to 1998	TFWA610	TFWA680	TFWA610	TFWA1050	TFWA610	TFWA850		
V8 1994 to 1998	TFWA610		TFWA610	TFWA1050	TFWA610			Transaction of the Control
TD5 1998 to 2002	TFWA610	TFWA680	TFWA610	TFWA1050				TFWA850
TD5 2002 to 2007				TFWA1140				
TDCI 2007 on	TFWA680	TFWA630	TFWA680	TFWA1070				0.00
Terrafirma double car	rdan propsha	fts (direct repla	acement and c	lo not require a	transfer box	flange adapt	or)	
300TDI 1994 to 1998					TFDC610			
TD5 1998 to 2002	TEDCGIO		TEDC610					
TD5 2002 to 2007	TFDC610		TFDC610				TFDCWA000110	
TDCI 2007 on	TFDC680		TFDC680					10-10-10-10-10-10-10-10-10-10-10-10-10-1

<sup>\*</sup>Terrafirma double cardan propshafts are a direct replacement and do not require a transfer box flange adaptor.





Propshaft Accessories	Part number
Diff Flange Kit (4 bolt)*	STC4858
3/8 UNF propshaft nuts	NZ606041L
3/8 UNF propshaft bolts	LR045409
WA Replacement Universal Joint	HS163

\*STC4858 differential input flange is required to fit D1 & D2 rear





## DUAL MASS FLYWHEEL **CONVERSION KITS**

### **FEATURES:**

Note prone to failure

Cheaper to replace

More reliable for aggressive driving **Defenders and Discoverys** fitted with Td5 engines and manual transmissions have a dual mass flywheel, intended to dampen engine vibrations and soften take up when engaging the clutch.

A dual mass flywheel is basically a 2-piece flywheel with a degree of flex between the section bolted to the crankshaft and the section that the clutch bites on. Replacement is often required at the same time as the clutch needs changing, however aggressive off-road driving with larger tyres or tuned engines can cause premature dual mass flywheel and clutch failure.

Symptoms of failure are excessive vibration and heavy rattling noise and clutch slipping. Replacing the dual mass flywheel with a solid flywheel is a more economical swap and a much more reliable alternative for off-road use and towing. It is recommended that a heavy-duty clutch is also fitted to cope with the increase in shock load when engaging the clutch.



Application	Part number
Defender Td5 with Borg and Beck clutch kit	TF2357HD
Defender Td5 with AP Driveline clutch kit	TF2357HDG

## **RED BOOSTER CLUTCH SERVOS**

The next best thing to an automatic!



### FEATURES:

Comprehensive well engineered kit

Considerably lighter clutch operation

Reduced driver fatigue

The clutch pedal has always been heavy to depress on Defenders, various alterations seem to have made some models easier than others but even the best versions are tiresome in traffic leaving drivers fatigued and frustrated.

The Red Booster servo clutch kit makes the clutch on your Defenders much easier to depress making your driving a more pleasurable experience and reducing the effort required particularly when manoeuvring or stop starting in traffic.

Working in a similar way to the braking system with a servo-assisted system, it is mounted between the pedal and master cylinder and uses a vacuum from the inlet manifold to reduce the amount of pressure needed on the pedal to operate the clutch.



Application	Part number
Defender 2007 on RHD	TF1683
Defender Td5 RHD	TF1684
Defender 2007 on LHD	TF1687
Defender Td5 LHD	TF1688



## GEARBOX UPGRADES

The MT82 6 speed gearbox fitted to all 2007-2016 Defenders has a dry main shaft to transfer box spline which is prone to wear prematurely. This repair kit provides the components to carry out an economical repair.

The kit includes: Coupling flange, input shaft, retaining ring, special bolt, oil seals, seal retaining clip and anti-seize grease.

Application

Part number

Defender 2007 on MT85 6 speed gearbox repair kit TF2720



### **ALLOY HEAVY DUTY HIGH** CAPACITY LT230 TRANSFER **BOX SUMP**



This LT230 transfer box sump is significantly stronger than the original and adds about 1/2 litre of oil capacity. Extensive finning keeps the oil cooler and ground clearance is not compromised.

The sump is supplied with a new gasket, the existing bolts are used for installation.

Application

Part number

LT230 heavy-duty high-capacity sump

GA9018

### **DISCOVERY 2 CENTRE** DIFF LOCK LEVER KIT

Early Discovery 2s were not fitted with a centre diff lock function although the transfer boxes were fitted with the diff lock. This simple to install replacement control lever connects to the transfer box making the hi low and diff lock fully functional. (only suitable for vehicles with 41D and 42D transfer boxes).

Application

Part number

Discovery 2 centre diff lock lever kit GA1178

## CORDLESS AIR COMPRESSOR

### **FEATURES:**

20v rechargeable li-ion battery and 12v socket

### **LED** light

LCD digital pressure gauge

Up to 150psi



This 20v cordless air compressor can pump up to 40L/min and reach 150psi.

The LCD screen displays all the information you need for accurate tyre inflation as well as battery condition. A fully charged battery can inflate a 265x75R16 tyre from 15 to 30 psi in just 4 minutes and when the compressor reaches the pre-set target pressure it cuts off automatically.

A rechargeable and detachable 20v high performance battery is included along with an extra base which is powered by the 12v onboard power outlet with a 3m power cable.





## EGR REMOVAL KITS

### **FEATURES:**

Ensures a smoother, unrestricted, clean and cool airflow into the engine

Improved engine torque, giving a smoother, more flexible engine The EGR system fitted to most modern diesel engines re-circulates part of the exhaust gases back into the air intake on overrun with the intention of improving emissions.

The Terrafirma EGR valve removal kit for Td5
Defender and Discovery 2 allows
the EGR valve to be completely
removed from the inlet manifold which
eliminates the restriction increasing air flow and
performance.

The kit comes complete with a new intercooler hose fitting, gasket, bolts and EGR blanking plate and bolts. EGR removal kits are also available for 300 Tdi Defender and Discovery 1 as well as Discovery 3 Tdv6 pre-Euro 4 emission engines up to and including 6A chassis number 2007.

Application	Part number
DEF & D2 TD5	TFEGR01
D3, RRS TDV6 PRE 2007	TFEGRV6
DEF, RRC, D1 300TDI	TFEGR300

<sup>\*\*</sup> Check local regulations before installing







## DRIVE FLANGES



Terrafirma heavy duty drive flanges are made from superior quality steel compared to the originals with increased spline contact area for additional strength and wear resistance.

The flanges fit using the original gasket and bolts and are either black powder coated or gold zinc plated for lasting good looks with a removable dust cap and O ring seal. For those looking for a little extra 'something' for their axles we also offer a super duty 10 bolt drive flange, originally developed by KAM differentials as a super strong flange suitable to replace both early wide and later narrow flanges with slightly their different bolt centres. By drilling and tapping your hubs an extra 5 bolts can be fitted for a super strong military appearance.











Application	LR Ref.		Part No	Black	Replacement nut	O ring
90/110/130/D1 up to 1994 (THICK TYPE) BLACK	FRC5806	3	TF5806	TF5806B	TF5806N	TF8590-
90/110/130/D1/RRC 1994 on (THIN TYPE) BLACK	FTC859	RUC105200	TF859	TF859B	TF859N	RING
90/110/130/D1/RRC 94 on SUPER DUTY 10 bolt flange (THIN TYPE)	FTC859	RUC105200	KAM101			

NB TF859 and TF5809 will allow the fitment of alloy wheels and wheel spacers, KAM101 will not allow the fitment of wheel spacers and some alloy wheels.



## **EXHAUST PIPES**

The Terrafirma range of 'de-cat' down pipes and silencer replacement pipes are intended to improve the performance and economy of diesel engines.



### **FEATURES:**

Increased torque at the bottom end

Engine picks up faster and runs more freely

Save a fortune when your catalytic converter fails by fitting a Terrafirma 'de-cat' down pipe and enhance the performance and economy by de restricting the exhaust system. These pipes fit directly to the original system and require no modification.

Remove the power restricting and vulnerable centre silencer and fit a Terrafirma free flowing silencer replacement pipe and enjoy the new

throaty exhaust sound.

Made from 1.5mm 409 stainless steel these pipes will considerably outlast the life of the original system. 409 is easier to bend and weld and is not prone to cracking due to vibration like other grades of stainless steel.

Material specification: Grade 409 is a ferritic stainless steel. Although regarded as a general-purpose chromium stainless steel the primary application for Grade 409 is automotive exhaust systems. Its applications are where appearance is a secondary to bendability and corrosion resistance and where welding is required. 409 resists atmospheric and exhaust gas corrosion. A light surface rust will form in most atmospheres; this rust retards further corrosion but makes the surface undesirable for decorative applications.

Application	Part number
Terrafirma 'de cat' down pipes	
Defender/Discovery 1/RRC 300tdi 1994 to 1998	TF560
Defender Td4 2007 on (not for vehicles with a DPF)	TF561
Defender Td5 1998 to 2007/Discovery 2 1998 to 2004	TF562
Discovery 3 & RRS 2.7 Tdv6	TF564
Terrafirma silencer replacement pipes	
Defender 90 200tdi 1990 to 1994	TF550
Defender 110 200tdi 1990-1994	TF563
Defender 90 300tdi 1994 to 1997	TF551
Defender 90 300tdi 1997 to 1998	TF552
Defender 110 300tdi 1994 to 1998	TF553
Defender 90 Td5 1998 to 2007 and Td4 2007 on	TF554
Defender 110 Td5 1998 to 2007 and Td4 2007 on	TF555
Discovery 1 3.9Efi 3bolt flange type 1991 to 1998	TF556
Discovery 1 300tdi 1994 to 1998	TF558
Discovery 2 Td5 and V8 1998 to 2004	TF559
Big Bore 3" tailpipe	
Defender 90 Td5 1998 to 2007 and Td4 2007 on	GA568
Defender 110 Td5 1998 to 2007 and Td4 2007 on stainless steel	GA569













# SILICONE TURBO AND INTERCOOLER HOSES

#### **FEATURES:**

Perform over a much wider temperature range

Far less susceptible to heat ageing than organic rubber

More stylish

Terrafirma Silicone turbo and intercooler hoses are hand wrapped and designed to survive the high pressures and extreme temperatures found on high performance engines, as such they will perform better and last longer especially if your diesel engine has been given enhanced performance.

Terrafirma hoses are manufactured from high grade silicone polymer,

thicker in construction than standard and reinforced with a high strength 4 ply polyester fabric giving an operating temperature range of between -40°C to +180°C.

Styling is all important; enhancing the look of your engine bay is possible by choosing our design of Blue with a striking red lining. All hoses are embossed with the Terrafirma logo and part numbers.

4		a	
-			A
	Total or	(No. 18th	

A CONTROL AND CO.	Part numbe		
Application	Blue	Black	
DEF 90/110/130 TD5	TF722	TF737	
DEF 90/110/130 TD4 LATE 2.2	TF742LATE	TF746	
DEF 90/110/130 TD4 2.2	TF742	TF745	
DEF 90/110/130 & TD4 2.4	TF724	TF738	
DEF 90/110/130 200TDI	TF720	TF735	
DEF 90/110/130, D1 & RRC 300TDI	TF721	TF736	
D2 TD5	TF723	TF739	
D3 TDV6	TF740		

# INTERCOOLERS

#### **FEATURES:**

Custom fit for offroad or fast on road

Specifically designed custom end cans

Easy fit

Direct replacement

Intercooler performance is crucial when generating high air temperatures from turbochargers especially following engine management upgrades.

Our intercoolers have specific core choices and fin density options developed to optimise the cooling effect for both fast road and off-road applications. End tanks are also specifically designed, laser cut and carefully welded using flared tubes for maximum efficiency of air flow across the full width of the core.

Available for Td4 Defender and Td5 Defender & Discovery 2, the Terrafirma intercoolers are an easy to fit replacement intercooler manufactured to the highest standards and designed to enhance air flow and temperature dissipation. Off-road cores use coarse fins for easy cleaning and efficient low speed performance.

Description	Vehicle	Part number
Off-road intercooler coarse fins	DEF 90/110/130 Td4 & Td5	TF181
Fast road intercooler fine fins	DEF 90/110/130 Td4 & Td5	TF182
Performance intercooler	D2 Td5 manual	TF183
Performance intercooler	D2 Td5 automatic	TF184





# **TerrafirMa**

# FOAM AIR FILTERS

Foam air filters and fully serviceable

Pipercross

Performance Air Elliers

**MEDIUM FOAM** 

COARSE FOAM

FINE FOAM

As used by some of the world's top engine builders, Terrafirma foam air filters are produced by Pipercross, leaders in foam filter technology.

and provide maximum airflow.

#### FEATURES:

Maximum airflow and engine protection

Increased airflow: 30% more air flow than a paper filter

More power: noticeable increase in both power & torque

Flows more air for longer: no air restriction due to dirt load

**Easy to fit:** drops straight into your air box

Reduced service costs - easy to clean and refit

Motorsport pedigree

The filters are a direct replacement for the original paper element giving 30% more air flow and a lifetime washable air filter without an increase in induction sound. When airborne dirt particles are trapped by a

standard paper or cotton filter, there is a reduction in air flow and power. With the high-performance deep foam construction of the Terrafirma foam filter air is able to bypass the trapped dirt. Independent testing at MIRA has proven that Pipercross foam has the ability to hold more than twice the dust particles than that held by other types of filters without effecting air flow. When the Terrafirma foam filter finally reaches its full dust capacity, it can easily be cleaned using the cleaning solution and re-oiled as required. Servicing could not be easier.

The high-performance foam is a specially developed polyurethane foam which acts as the filtration medium, having both a higher performance and life expectancy than paper. The triple layers filter through course to fine trapping dirt particles in the outer layers as they enter the filter, the inner layer provides an exceptionally high level of filtration and engine protection.

For vehicles with exceptional engine performance requiring super high flow air intakes the **Pipercross PLUS Panel** is for you. The radical new foam and stainless steel frame design flows 22.1% more air over the Standard Panel. Using a 2-layer construction which consists of a 5mm 60PPI (Pores Per Inch) layer & a 20mm 20PPI Layer it also has better dirt retention qualities & is the premium offering.





Vehicle	Equivalent part number	Part number	Power Plus
All	Cleaner and additive		TF380
Def 300TDi	ESR2623	TF381	
Defender & D2 TD5	ESR4238	TF382	TF382PLUS
Defender TD4 07	PHE500060	TF383	TF383PLUS
2020- Defender	LR129322	TF397	TF397PLUS
Disco/RRC 300TDi	ESR1445	TF384	
FL1	ESR4103	TF390	
D3, D4, RR & RRS	PHE000112	TF391	TF391PLUS
Discovery 5 (2 required)	LR161843	TF395	
Evoque 2012 & FL2 06-14 2.0l petrol 2.2L diesel	LR029078	TF392	
FL2 TD4	LR007478	TF393	
RR TD6/TdV6	PHE00004	TF394	







# TerrafirMa

# GAP DIAGNOSTICS IID TOOLS

The perfect diagnostic tool for workshop and professional use.

Probably the most capable and advanced diagnostic systems for Land Rover and Range Rover in the aftermarket. The G3, G4 and PRO diagnostic tools connect your tablet or phone via the vehicle's OBD Port.



#### FEATURES:

Faults read / Clear of all vehicle systems

Service routines (including service reminder reset)

Live Data

Manual Components Activation (Output Control)

Calibrations (except suspension)

**(3)** 

These really are exceptional

diagnostic tools for the modern 4x4 owner/ workshop. Simply plug it in, connect via Bluetooth to your tablet or phone and get full access to your vehicle's brain, diagnose and clear faults, reset functions and personalise settings.

For the **TFIIDPRO**, updates are free for a period of one year after the date of purchase. Afterwards,

firmware updates will be available for an annual fee of 500 GBP. The IIDPRO firmware will be continually improved through the addition of new service routines, vehicle enhancements options (modified ECU firmware's etc), convenience features, new vehicle coverage and many more items. The annual fee will be adjusted once the product has matured, and updates become less frequent. This annual fee is not mandatory; if you decide not to partake in this offer the tool will continue to function normally even without the latest firmware additions.

	Gran	Mutterial	
Current Hei 51 mm		Exhaust valve 0 =	
		Front left corner valv	e
		Front right corner val	ve
		Rear left corner valv	e
		Rear right corner val 100 =	146
-15 mm	-31 mm	Gallery pressure 1055.0 📾	

Capability	TFIIDBT / TFIIDBTG4	TFIIDPRO
Full Diagnostic Capability	Yes	Yes
Advanced Programming Functions	Vin Locked	Yes
Multi-Vehicle Support	Yes	Yes
Integrated Interface	Yes	Yes
iOS/Android App	Yes	Yes
Engine Tuning, EGR Patching and more (Purchased separately)	Yes	Yes
Updates	Free	£500/yr

#### ADVANCED PROGRAMMING FUNCTIONS:

Vehicle control modules software updates (ECU Re-Flashing\*)

Engine tuning, EGR Patching, Speed limiter raising and more (purchased separately)

Key programming (except Range Rover L322 2002-2009 and Defender)

Car Configuration / Personalisation (CCF editing)

Height adjustment (front, rear or all)

Suspension individual sensor calibration (needed after a repair)

Backup of original height and CCF values

3 personalised height profiles

#### **ECU's Supported**

Flashing of new ECU's and ECU re-flashing is supported. For a list of supported ECU re-flashes, consult the functionality list and user manual. More ECU files will be added and available by purchasing an additional module except for the TFIIDPRO (included in the yearly subscription).





## INTRODUCING THE G4 VERSION

With the introduction of the G4 version **TFIIDBTG4**, GAP Diagnostic's has adapted its tried and tested G3 TFIIDBT to the latest on-board-diagnostic (OBD) hardware introduced by Land Rover: diagnostics over IP (DoIP). While this hardware change in the G4 will allow the IIDTool to communicate fully with all ECUs in the lates vehicles, it also means that the G4's OBD connector no longer has the capacity to support earlier vehicles.

The G4 IIDTool will support all vehicles from MY 2005 on\* while the IIDTool G3 will support all vehicles from 2002 to 2016\*\*. The IIDPRO will encompass both a G3 unit and a G4 unit.

Upgrades from a G3 to a G4 or for Pro systems are available - please see <a href="https://www.gap-diagnostic.com">www.gap-diagnostic.com</a> for details. A functionality table by vehicle type and model year is available at <a href="https://www.gap-diagnostic.com/products/">www.gap-diagnostic.com/products/</a> iidtool

\*The Range Rover L322 2002-09 and Defender L316 2007-16 are not supported by the G4. Some vehicles may require an adapter connector Part No **TFIIDADPT** - please see 'Vehicle Coverage' at <a href="https://www.gap-diagnostic.com/products/iidtool">www.gap-diagnostic.com/products/iidtool</a> for details.

\*\*Discovery 2 & Defender TD5 and Freelander 1 introduced prior to 2002 are not covered.

Vehicle	Code	Model years	G3 TFIIDBT	G4 TFIIDBTG4
Defender Puma 2.4 L	L316	2007-2011	Yes	No
Defender Puma 2.2 L	L316	2012-2016	Yes	No
Defender	L663	2020 on	No	Yes
Discovery 3	L319	2004-2009	Yes	Yes
Discovery 4	L319	2010–2016	Yes	Yes*
Discovery 5	L462	2017 on	up to 2019**	Yes
Discovery Sport	L550	2015-2017	Yes	Yes*
Discovery Sport	L550	2018 on	up to 2019**	Yes
Freelander 2/LR2	L359	2008–2015	Yes	Yes
Range Rover	L322	2002-2005	Yes	No
Range Rover	L322	2006-2009	Yes	No
Range Rover	L322	2010-2012	Yes	Yes*
Range Rover	L405	2013-2016	Yes	Yes*
Range Rover	L405	2017-2022	Up to 2019**	Yes
Range Rover	L460	2022 on	No	Yes
Range Rover Evoque	L538	2011-2016	Yes	Yes*
Range Rover Evoque	L538	2017-2019	Up to 2019**	Yes*
Range Rover Evoque	L551	2019 on	No	Yes
Range Rover Sport	L320	2005-2009	Yes	Yes
Range Rover Sport	L320	2010-2013	Yes	Yes*
Range Rover Sport	L494	2014-2016	Yes	Yes*
Range Rover Sport	L494	2017-2022	Up to 2019**	Yes
Range Rover Sport	L461	2023 on	No	Yes
Range Rover Velar	L560	2018 on	No	Yes

\*With optional adapter TFIIDADPT, cable or OBD modification which consist of removing wires from position 12 and 13 of the OBD connector.

<sup>\*\*</sup>Limited coverage, ECU flashing is not possible on some ECUs.

Description	Part number
IID TOOL Bluetooth DIY diagnostic tool	TFIIDBT
IID TOOL Professional diagnostic tool	TFIIDPRO
IID TOOL Professional diagnostic tool G4 version	TFIIDBTG4

#### **IOS/ANDROID APP FEATURES:**

Easy access to all Diagnostic and Programming functions

Email exportation of faults, live data and ECU info

Real time logging of live data

Up to 8 live values displayed simultaneously on graph and numerical views





# **VEHICLE TRACKERS**

Take control of your vehicle's security

# TERRAFIRMA PROACTIVE TRACKER

The Terrafirma PRO ACTIVE TRACKER is a hard wired, all-inclusive security system designed to stop criminals at source and guard your vehicle from theft. Through use of a mobile app, you can monitor the location of your Defender 24/7. A combination of inbuilt motion sensors and GPS technology result in immediate alerts (SMS/Phone Call/App notifications) directly to your mobile phone.

#### **FEATURES:**

24/7 monitoring

Tamper alerts

Remote cut off

IP65 Waterproof

65 Alerts

Config Tracking and Journey Playback The moment any unlawful activity is detected. Trigger points include internal vibration, vehicle movement, keyless ignition, or battery disconnection. Rest assured, if all these alerts go unheard, the Terrafirma TRACKER has a remote-control isolator switch and all the tracking capabilities that you have come to expect from a product of this nature.



## TERRAFIRMA BATTERY TRACKER

For older vehicles, or any vehicle without electronics including machinery, trailers and caravans the Terrafirma BATTERY TRACKER is ideal as it has the majority of the features of the PRO ACTIVE TRACKER. This 4G model has fantastic 3 year battery life and there is virtually no installation involved, simply use the strong magnetic base to attach the unit discreetly to your vehicle, trailer, lorry or machinery and start protecting your assets immediately.

A vibration sensor will alert the user the moment any thieves begin their work and the geo-fence will inform the user if their assets have left their set zone. Live feed tracking straight to your mobile phone then allows you to recover those assets.

Functions PRO ACTIVE TRACKER		BATTERY TRACKER
Part Number	TFPROT01	TFBATT01
Simple installation	YES	YES
smart phone app	YES	YES
Unlimited user access	YES	YES
Real time tracking	YES	YES
Recorded play back	YES	YES
Geo-fence technology	YES	YES
Motion sensor alert	YES	YES
Battery disconnect alert	YES	YES
Internal battery	YES	YES
Email alerts	YES	YES
Vehicle movement alert	YES	No
Over speed alert	YES	No
Remote control isolator	YES	No
4G signal	YES	No
Monthly fee	£10.00 per month	£9.00 per month







# TERRAFIRMA XL WHEEL CLAMP

#### **FEATURES**

Simple to assemble & operate

Fits most popular wheel sizes

Effective security device

High grade materials

Protect your vehicle from being stolen with the Terrafirma XL security wheel clamp, this super strong easy to assemble device fits all popular 4x4 wheel sizes between 28 and 35" diameter and up to 12" wide. Made from hi grade heat treated steel with a top-quality lock with 3 keys.

De				

Part No.

Terrafirma XL Wheel Clamp

TF758







# **SCANNER**



#### **FEATURES**

The fastest full colour, 2,8" FT 320'240 pixels

USB 2.0 High speed upgrade

Support multi language

Read & clear DTC's

Read Date Stream

Silicone keys with great customer experience

Diagnose single brand of all models (OBDII-16 DLC)

terrafirma4x4.com/tfscanner
Scan the code or click to see more!

The perfect glove box fault code scanning tool.

TF930 is the perfect ODB II scanner for LR owners who want to be in control. Suitable for Freelander, Freelander 2, Defender, Discovery II, Discovery III, Discovery III, Discovery Range Rover Sport, Range Rover, Range Rover Evoque plus also Jaguar vehicles. Test modes include CANBUS, ISO9141, KWP2000 and J1850 and includes free updates.

**TF950** is version 3 of the popular iCarsoft scanner range. It now has a 4" screen and performs all the code reading and diagnostic functions, with new advance functions including; Auto VIN self-identification,

actuator test, suspension adjustments, steering angle sensor calibration, ABS purge and gearbox adaptation and more.



Description	Part No.	
LR Scanner/code reader LRV1.0	TF930	
LR Scanner/code reader Version 3	TF950	





# MAGNETIC FINGER

#### **FEATURES**

Pick up small objects

Ideal for hard to reach places

Anytime you need a grip on things, you need the Magnetic Finger.

The powerful magnet on your fingertip allows you to hold or retrieve any small ferrous metal object with precise control. Ideal for use in tight spots and hard to reach places - and when you can't afford to drop it..



Watch the Terrafirma Magic Finger in action! https://www.youtube.com/watch?v=HkOqGX9a-z0



Description	Part number
Terrafirma magnetic finger	TF400
Terrafirma magnetic finger - 24 piece box set	TF4001
Terrafirma magnetic finger - strip of 12	TF4002









For further information, fitment advice, images, customer reviews or to find your nearest Terrafirma stockist, please visit **www.terrafirma4x4.com** 



# **EXPEDITION**

Whether your idea of an expedition is an afternoon driving some local trails, a weekend off-road and wild camping or a full-on trip across Africa, Terrafirma has all the accessories you will need. From roof racks and ladders to Spare wheel carriers and snorkels, from Jerry cans and sand tracks to fridges we have it covered with this extensive range of expedition accessories.



A wild weekend camping or an overseas adventure you can equip your vehicle with Terrafirma Expedition equipment.

Take a look at the Terrafirma inflatable roof tent, spacious yet light weight and compact when packed away, fast to

for expedition use. See page 157 >>

erect and built tough





# TerrafirMa

# ROOF RACKS, RACK ACCESSORIES AND LADDERS

# ALLOY EXPEDITION ROOF RACKS

Terrafirma offers a selection of fully welded, black powder coated, alloy expedition roof racks.

#### **FEATURES:**

Low noise

Lightweight extruded aluminium construction

Adjustable T slot mounting system

Wide range of accessories

Alloy roof racks are made of heat-treated aluminium extrusion to ensure the correct degree of flexibility and rigidity. The low profile and longitudinal slats result in a sturdy low noise roof rack. For the 2020 Defender the alloy expedition roof rack is supplied as a straightforward self-assembly system. The T slot system within the alloy extrusions allow for most

accessories including rood tents and awnings to be fitted with ease.



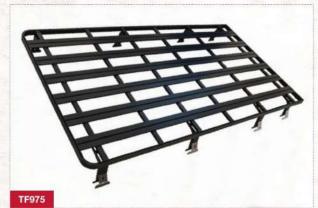
TerrafirMa











Alloy Expedition Roof Racks		Part No
DEF 110 Alloy expedition roof rack 2.8m x 1.5m		TF975
DEF 90	Alloy expedition roof rack 1.8m x 1.5m	TF976
D1 & D2	Alloy expedition roof rack 2.05m x 1.5m	TF977
2020 DEF 90	Alloy expedition roof rack 1.8m x 1.25m	TF8005
2020 DEF 110/130	Alloy expedition roof rack 2.0m x 1.25m	TF8006



Scan the code or click to view the guide to fitting a Terrafirma Roof Rack and Ladder.

FITTING GUIDE



Roof rack accessories and ladders on page 156





## TUBULAR ROOF RACK AND ACCESSORIES

**FEATURES:** 

Stylish & low noise

Light mounting points included

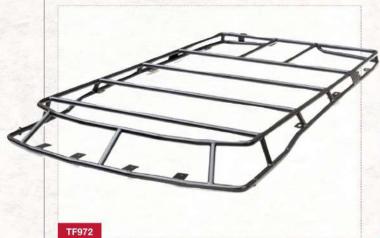
Fits all D3/4 models

Tubular racks are functional and stylish, contoured to match the roof profile of your Discovery 3 or 4 and provide ample carrying capacity, excellent build quality and practicality. Phosphate washed and lustrous black

powder coated for maximum rust resistance. This unique design also incorporates 4 forward facing spotlight mounts, 2 side 'scene' work light mounts (TF719) as well as a rear antenna or work light mount. This rack is supplied with fitting kits to enable it to be attached to vehicles with or without factory alloy roof tracks.

To complete the unique styling a moulded plastic spoiler is available to be fitted either with or without spotlights.









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TF963	18/1				

D3 & D4 Tubular Roof Racks	Part No.
Steel tubular rood rack 1.95m x 1.15m	TF972
Front spoiler with light recesses for TF972/TF974	TF972SP
Front spoiler without light recesses for TF972/TF974	TF972NLSP
Awning mount brackets for TF972	TF963
Front light bar, accepts TF972SP	TF974

Roof rack accessories and ladders on page 156 -



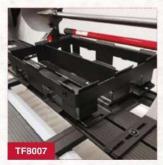


## ROOF RACK ACCESSORIES

TF1726

Accessories are designed to secure equipment that is ideally carried outside of the vehicle. They can be fitted almost anywhere on the alloy expedition roof rack utilising the T slot system. Terrafirma rack accessories are anti rattle, functional & stylish and easy to use.













	CORPORATION CO.
Roof Rack Accessories	
Single Jerry can holder	TF8007
Double Jerry can holder	TF8008
Awning mounting brackets	TF8009
Spotlight and light bar	TF8012
mounting brackets	11-0012
Storage box mounting brackets	TF8014
Hi Lift jack and spade	TF8015
mounting brackets	110013
Expedition off road shovel	TF1726

More Defender roof rack accessories on page 10

## ROOF RACK LADDERS

A ladder is required to gain safe access to your roof rack, made from steel hollow box section or tube, Terrafirma ladders perfectly compliment the range of roof racks available.

Rear Ladders		
DEF	Rear access ladder	TF980
2020 DEF	Rear access ladder	TF8017
D1 & D2	Rear door access ladder	TF981
D3 & D4	Rear door access ladder	TF973













## INFLATABLE ROOF TENT

FEATURES:

Lightweight

Easy to erect and pack away

Smallest roof space

Terrafirma's innovative 2.2m x 1.45m inflatable roof tent occupies the smallest roof space as the base folds into 3 sections (folded size is 150cm x 80cm x 26cm). It is also lightweight at only 62kg.

The tent is expedition ready with 420D PU coated Oxford fabric in grey with black trim with mesh and clear PVC windows. Erected with a high-performance pump in under 2 minutes, the 90mm inflatable tubes giving a sturdy wind resistant framework. Inside the mattress is also inflatable up to 3.5cm for additional comfort. Access is from a 2.3m extendible ladder, just right for lifted 4x4s.

Interior storage pockets and an exterior shoe storage pocket are useful features. The tent is supplied with a roof rail/rack mounting kit and when folded is protected by a heavy-duty vinyl cover.

Description	Part number
Inflatable expedition roof tent	TF1710
Replacement tent cover	TF1710COVER
Replacement tent tube	TF1710TUBE











# TF1705





Description	Part number
2.5m expedition awning (universal fit)	TF1700
2.0m expedition awning (universal fit)	TF1701
1.4m expedition awning (universal fit)	TF1702
1.2m expedition awning (universal fit)	TF1703
2.5m awning sides/room	TF1700ROOM
2.0m awning sides/room	TF1701ROOM
2.5m awning front extension	TF1700FEXT
2.0m awning front extension	TF1701FEXT
1.4m awning front extension	TF1702FEXT
1.2m awning front extension	TF1703FEXT
2.0m awning side extension (all awnings)	TF1705
Replacement awning pole TF1700 TF1701 TF1702	TF1728

## **EXPEDITION AWNINGS**

#### FEATURES:

Easy to erect and pack away

Simple to attach to the vehicle

Excellent weather resistance

Terrafirma Expedition Awnings are available in a variety of widths from 1.2m to 2.5m and designed to be easily mounted to the side or rear of a roof rack or other solid structure, either directly via the integral T slot extrusion back panel or using the mounting brackets provided. Set up takes just a few minutes, ideally with 2 people for the wider awnings. The grey 400D water resistant ripstop fabric extends 2.1m

away from the vehicle and is tensioned using extendable alloy beams and supported by 2 alloy twist & lock poles. Strong guy ropes keep the awning in place once set up. When stowed away the awning and poles all fit perfectly into its own built-in heavy-duty PVC coated nylon cover.

To provide shade and shelter for all weather conditions 'rooms' are available for the 2m and 2.5m awnings. The awning 'room' which is made up of a roof and 4 sides with a zip-in floor, hangs from the awning frame once opened using slots in the front rail & back panel, plastic hooks & Velcro loops and can be pegged out to secure it to the ground. The room is made from similar weatherproof 200D grey ripstop fabric. Front door and side windows zip open and closed and include mosquito nets. It is possible to unzip most of the back wall to allow access to the vehicle.

A simple front extension completes the range, made from grey 200D ripstop fabric, this rain/windbreak or sunshade attaches to the extruded aluminium front rail and is tightened at an angle down to the ground & held in place with a series of pegs and is available for all awnings from 1.2 to 2.5m wide.

The Terrafirma Expedition Awning range all extend from the car by 2.1m which makes the awning side extension a useful really addition, like the front extension it attaches to either side rail and is tightened at an angle down to the ground to provide quick and easy extra shade or shelter.







## TERRAFIRMA TERRADACTYL 270 DEGREE AWNING

#### **FEATURES:**

Easy to erect and pack away

Huge shade and shelter area

Simple to attach to the vehicle

Excellent weather resistance

Awning sides also available The Terrafirma Terradactyl Awning mounts to the left side of your vehicle and when open provides a huge area of shade or shelter around the side and rear. The Terradactyl is self-supporting in moderate weather conditions. All 4 of the sturdy triangulated 2.5m aluminium arms includes an integrated drop down twist and lock leg and sturdy guy rope to secure it to the ground. The canvas is our popular grey 400D ripstop fabric and each wing has a tie down loop to allow water to run off

to prevent puddling.

The awning is mounted to the vehicle via the integral T slot extruded aluminium back plate. When stowed away the awning and poles all fit perfectly into its own built-in heavy-duty PVC coated nylon cover.

The **Terradactyl 'room'** attaches to the awning with a full-length Velcro strip providing all round shelter with each section including a large roll up external canvas window and a mosquito net, one of which doubles as the full-size entrance door. Additional internal zip open panels allow access to side and rear of the vehicle.

Description	Part Number
2.5m 270deg Terradactyl awning	TF1704
2.5m 270deg Terradactyl awning sides/room	TF1704ROOM
Replacement awning pole	TF1729
Replacement Terradactyl canvas	TF1704CANVAS











## HARD CASE LED AWNINGS

Taking our standard Terrafirma awnings to the next level are these stylish aluminium hard case awnings.

#### FEATURES:

Simple to erect and pack away

Hard case for improved protection and styling

Unique built in LED illumination

Easy to attach to the vehicle

The grey 400D ripstop fabric extends 2.5m from the vehicle and is tensioned by 2 stage twist and lock poles and includes a full width LED lighting strip to illuminate your camping area. When open, 2.5m long 3 stage twist and lock poles support the awning with strong guy ropes and pegs to secure it to the ground.

The awning is secured to any flat surface, mounting points or roof rack using the traditional T slot extrusion which forms the back of the

black powder coated aluminium hard case. The awning rolls and unrolls incorporating all the poles and guy ropes into the case.



Description	Part No	
2.5m wide x 2.5m hard case LED awning	TF1707	
2.0m wide x 2.5m hard case LED awning	TF1708	











# RAISED AIR INTAKES

# Fresh air for your engine

Terrafirma raised air intakes incorporate modern styling & aerodynamic features and fit the body contours perfectly, designed not to obscure the driver's view and the low noise 'clean air' intake draws air from as high on the vehicle as possible through stainless steel vents, without restricting engine performance. Manufactured from extremely durable, rotational moulded, impact resistant MDPE (medium density polyethylene) and LLDPE (linear low-density polyethylene) plastics which are ideal for this application as they will not discolour and are UV & temperature stable.





**TF1038** is for Defenders with right hand wing vents, typically 1994-2016 fitted with 300tdi, td5, 2.4 and 2.2 Puma engines.







TE4000



**TF1039** is specifically for the Discovery 2 V8 petrol and Td5 and is supplied as a 3 piece high grade moulded plastic unit mounted to the LH wing and A post.



engines.

# XD VENT FRESH AIR INTAKE

The Terrafirma XD Vent is inspired by the pre-filter fitted to the air intake on XD, WOLF and WIMK Defenders. Carefully sculpted to match the look of the original the XD vent is supplied in smooth paintable plastic and is mounted on a pressed steel subframe that requires no drilling and can be fitted in minutes.

TF1041



## 2020 DEFENDER RAISED AIR INTAKE

More style, greater air flow, easy fitment suitable for all models.

TF1050

TF1039



# RAISED AIR INTAKES AND TRANSMISSION BREATHER KITS

Possibly one of the most important but least considered upgrades you could give your off-roader.

#### FEATURES:

Raises all breathers to a safe height

Reduces the risk of water ingress

If fitting a snorkel is high up on your list of 'must haves' then a raised transmission breather kit should be higher. The real likelihood of the flood or river crossing being deep enough to

require a snorkel is far less than the 18" of water that could potentially cause lots of your 'hard earned' to have to be spent rebuilding differentials. Almost all gearbox casings and fluid containers on a vehicle that heat up and cool down in operation will require a breather to accommodate the fluid expansion and contraction. Dunking a hot axle into cold water causes it to quench and suddenly contract and like taking a breath the axle casing sucks in air, if the axle is submerged it will almost certainly suck water passed the seals (designed to keep oil in not water out) which will mix with the oil, dirty water of course will quickly wear seals, bearings and gears and in no time cause failures.

The more of your vehicle that is likely to be submerged the more items will benefit from the breathers being extended. Terrafirma offers a range of kits to cover all the common casings such as, front and rear axle, gearbox & transfer box and timing case. Breathers are raised to the highest point of the vehicle commonly the raised air intake.

Fitting raised transmission breathers does not guarantee that water will not enter the axles and transmission, especially on vehicles persistently used in deep water. However, it has been proven to significantly reduce the possibility and should rank as one of the most important off-road accessories to be fitted.













Vehicle	Description	Part number
Defender 1994-2016	XD vent fresh air intake RH fitment	TF1041
Defender 1994-2016	Plastic raised air intake RH fitment	TF1038
Defender 1994-2016	Traditional steel raised air intake RH fitment	STC50265
D3/D4 Diesel and V6 Petrol	Plastic raised air intake RH fitment	TF1040
D3/D4 Diesel and V6 Petrol	Plastic raised air intake replacement top	TF1040TOP
P38	P38 plastic raised air intake LH fitment	TF159
D2	Plastic raised air intake LH fitment	TF1039
Defender Tdci 2007-2016	Multi hose breather kit	TF166
Defender V8	Multi hose breather kit	TF167
Defender and D2 Td5	4 into 1 breather kit	TF164
2020 Defender	Raised air intake	TF1050
Safari snorkel	Stainless steel intake grill	TF111
Safari snorkel	Early tapered ram air intake foam sock	TF385
Safari snorkel	Later rounded ram air intake foam sock	TF387



NB. A raised air intake does not turn your vehicle into a submarine! considerable additional work is required to fully waterproof your vehicle for extended wading.



# SPARE WHEEL **CARRIER**

Originally Land Rover mounted the spare wheel on the bonnet of early vehicles.



#### FEATURES:

Reduce the load on the rear door

Eliminates body/ door damage

Easy access to the spare wheel

Allows for larger tyres to fitted/carried

Easy to operate





This was fine on a Series III with skinny tyres but as wheel and tyre

options began to increase the logical choice was to put it on the back door. Ever since then Land Rover owners have suffered with rattling, cracked and broken rear doors, the larger the wheel & tyre and the rougher the conditions the worse the situation. Terrafirma Defender swing away spare wheel carrier suitable for 90 and 110 Station Wagons and Hard Tops. Suits all models from 1985 - 2016.

The TF051 Defender spare wheel carrier is attached primarily to the body capping and to the rear crossmember for improved load bearing as well as the rear door via an anti-vibration sliding

piston assembly that allows the carrier to move automatically when the door is opened and closed. The hinges incorporate tough nylon bushes for long life and a rust-free joint.

The TF059 spare wheel carrier is purely chassis mounted and is ideal for all Classic Defender models including pickups and station wagons where opening the spare wheel carrier independently of the rear door or tailgate is preferred. The single arm carrier is beautifully engineered and is held closed with a clever over centre lockable

lever arrangement and is assisted open with a gas strut which is essential on a side slope and to prevent to carrier closing under its own weight and for comfortable access to pickups.

Contrary to Land Rover's early trend with the Discovery of mounting the spare wheel on the rear door, the Discovery 3 & 4 was built with its spare wheel underneath the rear of the car. This caused uproar with Land Rover and Discovery fans as externally mounted spare wheels on Land Rovers have been a recognisable feature for decades. The prospect of having to wrestle the heavy spare wheel out from underneath a stuck Land Rover with a flat tyre filled buyers with dread, it also limited the size of the tyres that could be fitted due to the specific size space.

The Discovery 3 & 4 has a drop-down tailgate and as such requires a swing away wheel carrier if the wheel is to be fitted on the rear of the vehicle, especially if the tyre size has been increased over standard. The Terrafirma spare wheel carrier attaches to the heavy rear chassis member close behind the plastic rear bumper. It is held closed with a clever over centre lockable lever arrangement and is held and assisted open with a gas strut, essential on a side slope and to prevent the carrier from trying to close under its own weight. This easy to operate spare wheel carrier also makes the space under the vehicle ideal for an extra fuel tank.

Both spare wheel carriers are finished in a heavy satin black powder coating and are supplied with fitting kits and comprehensive instructions.







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Vehicle	Description	Part No
Defender	Swing away spare wheel carrier suits hard tops and station wagons	TF051
Defender	Chassis mounted single arm spare wheel carrier	TF059
Discovery 3 & 4	Swing away spare wheel carrier	TF053
Discovery 2	Extreme spare wheel mounting bracket to allow 35" tyres to be mounted on the rear door	TF499

The spare wheel mounting bracket on the rear door of a Discovery 2 will only accommodate a modest increase in tyre diameter, as more Discovery 2s are being used off road fitting larger tyres is a must, TF499 Extreme spare wheel mounting bracket allows tyres up to 35" diameter without fouling on the rear bumper.





# **ODYSSEY BATTERY**

#### **FEATURES:**

1500 cranking amps

68Ah capacity

Standard automotive terminals and additional side terminals

W275.6 x 171.7H x 198.6mm

22.4Kg

Whether for everyday or emergency use, today's vehicles are loaded with more electronics than would have been imaginable just a few years ago.

ODYSSEY batteries have been designed to keep up with the changes. Because their plates are made of pure virgin lead (unlike the lead alloy in most batteries), we can pack in more plates. And more plates

mean more plate surface area, and much more power, twice the overall power and three times the life of conventional batteries, up to 400 cycles at 80% depth of discharge!

Application	Part No
Odyssey battery PC1500DT	PC1500DT
12V-1000AMP Key operated battery cut off switch	GE001



# PORTABLE AIR COMPRESSOR

#### FEATURES:

Heavy duty air compressor

40mm cylinder

Voltage 12V DC

Max pressure: 150PSI

Rated current:3A

Air flow: 150L/min

This Double Pump Portable Air Compressor is ideal for rapid tyre inflation after a puncture or reinflation after off roading with reduced tyre pressures. The twin piston compressor offers great value and includes a 7.5m flexible inflation hose with a pressure gauge which is long enough to reach all round your 4x4. Positive and Negative heavy-duty crocodile clips on a 1.8m cable power the compressor when connected

directly to the vehicle or other 12v battery and clean air is drawn into the twin cylinders through serviceable filters, always useful if it's used in dusty conditions. For ease of carrying and storage the compressor and hose are neatly packed in a compact and tough cordura carry case.

Description

Part number

Double pump portable air compressor

GE2392



# TerrafirMa

# **TERRA CANS**

Terrafirma's Terra Cans are the next generation of fuel and water containers.



High grade LLDPE plastic

Super tough

Includes pouring spout & breather

Fuel and water options

Stackable

Easy to handle

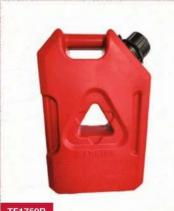
Made from super tough LLDPE plastic, they are easy to carry & store and are suitable for petrol, diesel & water and are ideal for all off road & outdoor activities.

New!

Terra Cans include a ratchet lock cap to prevent the cap from opening accidentally, a clever integral pouring spout and a breather vent to reduce pressure and make pouring quick and easy.

They are available in a variety of useful sizes and capacities, each Terra Can is supplied with lockable and screw type mounts, the flat Terra Cans can be stacked and don't squeak or rattle. A range of vehicle mounting kits are available to help attach Terra Cans to your car or 4x4.









TF1750B







TF1751R



TF1751B



TF1752R



TF1752B

Description	Dimensions	Mounting type	Red	Black
3.8L Flat single mount Terra Can	100x217x342	Single triangular lock type	TF1750R	TF1750B
7.6L Flat single mount Terra Can	90x343x436	Single triangular lock type	TF1751R	TF1751B
19L Flat double mount Terra Can	100x343x876	One triangular lock type & one triangular screw type	TF1752R	TF1752B
6.5L Long double mount Terra Can	165x635x128	One bar lock type & on bar screw type	TF1753R	TF1753B



### **TERRA CAN ACCESSORIES**











Description	Part No.
Replacement bar lock type mount	TF1757
Replacement triangular lock type mount	TF1758
Replacement pouring spout, cap and vent	TF1759
Double triangular lock type mount for flat Terra Cans	TF1760

# **TERRA CAN**













Description	Part number
Terra Can single point mounting kit for Classic DEF, 2020 DEF, D2 and D3/4 spare wheel carriers, suits TF1750 & TF1751	TF1781
Terra Can twin point mounting plate for TF1752/TF1753, fits to TF1781, tubular roof racks and others	TF1782



# PORTABLE FRIDGE FREEZER

FEATURES:

45 Litre Capacity

Stainless steel liner

Tough impact resistant plastic casing

The Terrafirma fridge freezer is specially designed to operate in tough 4x4 and off-road environments.

Vibration resistant this fridge freezer is suitable for everything from weekend

camping trips right through to full blown expeditions. Fisherman and medical organisations alike will also find the Terrafirma fridge freezer invaluable, able to perform even at +50deg. ambient temper outside freezing down to -18deg.

The capacity is a popular 45 litres with dual compartments providing ample storage space for fresh and frozen produce and of course a few cold tins of drink. The unique full surround static coil evaporator and easy to clean stainless steel liner ensures optimum cooling performance with a low average current draw of 1.65amps with the freezer set to -10deg, at +32deg, ambient.

The Terrafirma fridge freezer works in 12V and 24V applications and a 240v adaptor is available for use at home. The sturdy fully insulated cabinet incorporates a removable and reversible lid for ease of access and cleaning and to protect and ad additional insulation a snug fitting protection jacket is available as an optional extra.

Description	Part number
45 litre 12/24/240v portable fridge freezer	TFFR01
Power adaptor	TFFR02
Protective jacket	TFFR03





# SAND TRACKS AND RECOVERY BOARDS

Perfect for your overland adventure or desert crossing.

Sand tracks are a basic requirement if your adventure includes crossing soft or lose ground.



Lightweight

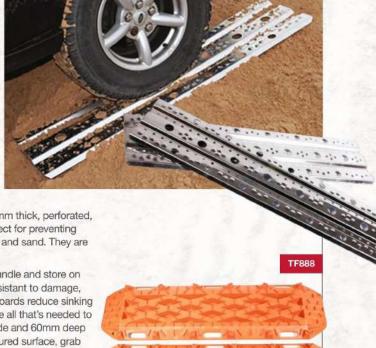
Easy to handle

Reduce sinking on soft ground

Provides additional traction These alloy sand tracks are 1.5mm long and 4mm thick, perforated, high-grade, lightweight aluminium and are perfect for preventing your vehicle sinking when crossing soft ground and sand. They are ridged for strength and perforated for traction.

Semi rigid nylon recovery boards are easy to handle and store on or in your 4x4, they are extremely tough and resistant to damage, also known as traction ladders these treaded boards reduce sinking and provide the increased grip that can often be all that's needed to recover a stuck 4x4. 1210mm long, 325mm wide and 60mm deep with deep moulded slots and ridges with a textured surface, grab handle recesses on each side also allow the boards to be used to shovel away loose material such as sand and snow.

Description	Part number
Alloy sand tracks 1.5m x 0.37m x 4mm thick (PAIR)	TF888
Nylon recovery boards 1.21m x 0.32m x 60mm thick (PAIR)	TF999







### **CARGO STRAPS**

FEATURES:

Pulls up to 1.5T

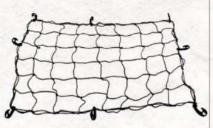
4.5M length

25MM width

Cargo or ratchet straps are essential kit for off-road and expedition drivers, securing equipment inside and outside the

vehicle, strapping down firewood or even holding together repairs on the trail. These straps are the ideal size.

Description	Part No
4.5m ratchet cargo strap	TF3313



### **CARGO NET**

1m x 1m (unstretched) 8 hook elastic cargo net is ideal for securing loads on the roof rack, load space or trailer.

Description	Part No	
1m x 1m (unstretched) 8	TF3329	
hook elastic cargo net	11-3329	





# TRAVEL MUG & WATER BOTTLE

Hot or cold these are your perfect travel companions

Description	Part number
600ml stainless steel travel mug	TF1212
660ml stainless steel water bottle	TF1211

# EXPEDITION SHOVEL



FEATURES:

All steel construction

Super long handle

Rigid digging blade

A handy long handled (1.3m) all steel shovel which is ideal for off road and expedition driving.

Description	Part No
Long handled expedition shovel	TF1726

## LANDMETER INCLINOMETER

FEATURES:

Angle of climb

Angle of descent

Angle of side Slope You can set your indicators to show the maximum angle the vehicle has achieve or more likely the point at which your nerves got the better of you!

This inclinometer is mounted with double sided tape, so no screws are required and includes wiring for back lighting.

Description	Part number
Landmeter inclinometer	GE2001
Editariotal main artista	





#### COOLER BAG

#### FEATURES:

Waterproof liner

Comfortable shoulder strap

Large capacity

Plenty of pockets

Bottle opener

Made from waterproof 900D Oxford fabric with a highdensity insulation foam and waterproof liner these cooler bags can keep food cool and fresh for up to 16hrs with ice packs. The cooler bag shares all the same credentials of the ruck sack and has a comfortable shoulder strap and plenty of pockets for additional storage and again a bottle opener. Ideal for work, picnics, road trips, fishing, camping and much more.

#### Description

Part No

Cooler Bag 420mm x 260mm x 280mm TF797





#### **RUCK SACK**

#### FEATURES:

Keeps food and drink cool and fresh for hours

25I capacity

Plenty of storage pockets

Bottle opener

Made from waterproof 900D Oxford fabric, this ruck sack is lightweight with a huge 25litre capacity and has 2 side mesh pockets, a front pocket, a pocket in the lid and even a bottle opener attached. Ideal for work, picnics, road trips, fishing, camping and much more.

#### Description

Part No

Ruck Sack 330mm x 190mm x 450mm TF796

#### TOOL ROLL

#### FEATURES:

Huge tool capacity

23 pockets and pouches

Compact design

Heavy duty fabric construction

Typically, people who use their 4x4s as they are intended have a comprehensive tool kit! Now you can store your tools altogether in this Tardis like tool roll. The Terrafirma tool roll has an incredible 23 pockets and pouches to keep all your essentials organised. Made from heavy duty 20oz black canvas with Velcro flaps and zipped pockets to keep everything secure, it can then be rolled up, clipped together than carried with sturdy handles.

#### Description

Part No

Tool Roll

TF1202



## MARSHAL SHELTER

#### FEATURES:

Quick and easy protection from the weather

Free standing or attached to a vehicle

Whether you are marshalling at your favourite motorsport event, fishing by a lake or need a shelter for a quick brew from the back of your 4x4 the Terrafirma Marshal Shelter is just the job, with dozens of applications this simple to erect 2.4 x 2m weatherproof polyester flysheet is tensioned and supported by fiberglass tent poles. The shelter is supplied with enough pegs and guy ropes to secure it in all weathers and when you are ready to go it packs up small to stow away until next time.

### MARSHAL STOOL

#### FEATURES:

Strong and lightweight

Folds flat for storage

Adult size and load rating

42cm high, 42x28cm seat

This fit for purpose folding Terrafirma Marshal Stool is perfect for watching motorsport, fishing, camping and chilling in the garden, strong and large enough for grown-ups, light and manageable for youngsters.



Description	Part No
Marshal shelter	TF1706
Marshal stool	TF1721











# PORTABLE POWER STATION AND SOLAR POWER PANEL

The Terrafirma Power Station and Solar Power panel provide portable energy and solar power wherever you go. With 500w AC output, a built in 'headlight', 60w USB output and 240v AC and cigar lighter you have all your portable electrical requirements covered from one power source.

FEATURES:

500w AC output

Built in 'headlight'

60w USB output

240v AC and cigar lighter charging cables included.

The Terrafirma Power Station is a rechargeable battery-power source equipped with AC outlet, 12v cigar socket, DC and USB ports to keep all your gear charged including cameras, phones, torches, laptops, as well as provide power to operate mini coolers, lighting, CPAP and other appliances. It has a 481 watt-hour battery pack and pure sine wave power inverter. It features, control buttons, an LED information screen, 3 USB ports, 3 12v DC ports, cigar lighter socket and power input ports and all charging cables are included.

Designed for portability the power station is built into a rugged metal case with a sturdy carry handle. The power station can be charged from the mains or via 12v of from the optional Terrafirma Power Panel. The Terrafirma Power Panel is a foldable 2 section, self-supporting, 100w solar panel that folds into its own carry case for protection when not in use and comes with power leads suitable to connect to the Terrafirma Power Station.

Description	Part No
Terrafirma Portable Power Station	TF1740
Terrafirma Power Panel	TF1741









# **LIFESYSTEMS**

Terrafirma has teamed up with World renowned travel and medical experts to bring you a range of first aid kits and survival products that are British designed and developed using cutting edge materials and techniques. Every design has been deeply considered to help you get the best out of life's adventures, no matter how big of small.

British brand, Lifesystems, has protected adventurers and explorers for over 25 years against whatever the elements and fate have thrown at them. Today they work with leading expedition and emergency medical experts travelling in the world's harshest regions.

#### **OUTDOOR SURVIVAL KIT**

When it comes to adventurous trips, emergency situations usually arise in the worst conditions and that is when having equipment for outdoor survival is important. Being prepared for all situations and ensuring you have the right kit is the first step for any person who loves the outdoors. This range can be used to make up your perfect survival pack.





#### **INTENSITY 155 LED HEAD TORCH**

This 155 lumen LED head torch is lightweight, operating off a single AA battery and boasts an adjustable beam angle that can operate over a long distance to suit the needs of all active outdoor users.

- 155 lumens brightness
- 17-62 metres adjustable beam
- CREE XPG3 S2 white LED and 5mm Red LEDs (x2)
- 7 lighting modes including SOS flashing
- IPX6 water resistant body with adjustable head strap
- 1 x AA Alkaline battery (included)
- Up to 35 hours battery life



#### **INTENSITY 280 LED HEAD TORCH**

The Intensity 280 LED head torch offers up to 280 lumens of brightness with adjustable beam angle, 7 lighting modes (including SOS) and the rechargeable lithium-ion battery has up to 110 hours of battery life.

- Up to 280 lumens brightness
- 15-85 metres adjustable beam
- CREE XPG3 S2 white LED & 5mm Red LEDs (x2)
- 7 lighting modes including SOS flashing
- IPX6 water resistant body with adjustable head strap
- Rechargeable Lithium-ion battery (included)
- USB charger lead included
- Power and charging indicators
- Up to 110 hours battery life







#### DUAL ACTION FIRE STARTER

A compact dual-rod fire starter with folding design that offers a complete fire starting solution, especially when natural tinder is limited. Featuring a magnesium rod for tinder and a ferrocerium rod for the spark and an integrated striker. The ferrocerium spark rod produces extremely high temperature sparks at 2,980°C making it easy for to ignite dry tinder

in any weather or altitude.

The magnesium rod can be used to create highly flammable tinder shavings which will light with ease. Ideal for use on dry fibrous tinder, gas stoves and more.

- · Ferrocerium spark rod
- Integrated stainless steel striker
- 8,000 strikes
- Magnesium tinder rod
- Suitable for use in all weather conditions and altitudes
- Produces 2,980°C degree spark
- · Fold-away design
- · Tough ABS plastic body
- Attachment loop



## STORM PROOF MATCHES

These stormproof matches light quickly and perform in all weather conditions

- Robust watertight container
- 25 windproof/waterproof matches
- 3 strike panels
- Match burn time = 20 seconds
- Extended match length

#### GA42130

#### **THERMAL BAG**

The thermal bag provides total body coverage for maximum personal protection. When inside the bag, it will reflect and retain over 90% of radiated body heat.

- Strong, metallised polyester materials
- Windproof, waterproof and radar reflective
- Thermally welded & taped seams





#### LIFESYSTEMS FIRST AID KITS

The iconic red cases are synonymous with Lifesystems first aid kits. Each pack incorporates the use of hard wearing ripstop fabrics and waterproof zips which provide that extra level of durability and protection. The smaller packs feature belt loop attachments and the larger versions have grab handles and outer pockets with reflective strips.





#### TREK FIRST AID KIT

#### General:

- 1 x Primary Care Leaflet
- 1 x Tweezers
- 1 x Scissors 5.5cm Blade
- · 6 x Safety Pins

#### Medication:

 16 x Paracetamol Tablets (not included in EU kit)

#### Bandages:

- 1 x White Open Woven bandage 7.5cm x 5m
- 1 x Crepe Bandage 5cm x 4.5m

#### Preparations, Disposables & Tapes:

- 5 x 4-Ply Gauze Swabs 5 x 5cm
- 1 x Micropore Tape 1.25cm x 5m
- · 4 x Hygienic Cleansing Wipes
- 2 Pairs Vinyl Gloves
- 1 x Burn Gel Sachet

#### Dressings:

- 1 x Low Adherent Dressing 5 x 5cm
- 1 x Low Adherent Dressing 10 x 10cm
- 1 x Sterile Adherent Dressing
- 1 x Pack of Assorted Plasters
- 2 x Blister Plasters
- 1 x Small Eye pad Wound Dressing (only included in EU kit)

#### GA1030

#### ADVENTURER FIRST AID KIT

#### General:

- 1 x Primary Care Leaflet
- 1 x Tweezers
- 6 x Safety Pins
- 1 x Scissors 5.5cm Blade
- 2 Pairs Vinyl Gloves

#### Medication:

 16 x Paracetamol Tablets (not included in EU kit)

#### Bandages:

- 1 x White Open Woven Bandage 7.5cmx5m
- 1 x Crepe Bandage 5cmx4.5m
- 1 x Triangular Calico Bandage 90x127cm

#### Preparations, Disposables & Tapes:

- 6 x Hygienic Cleansing Wipes
- 1 x Micropore Tape 1.25cm x 5m
- 5 x 4-Ply Gauze Swabs 5 x 5cm
- 1 x Burn Gel Sachet 3.5g

#### Dressings:

- 1 x Pack of Assorted Plasters
- 1 x Medium Wound Dressing 12x12cm
- 2 x Low Adherent Dressing 5x5cm
- 2 x Blister Plasters
- 3 x Wound Closure Strips (only included in EU kit)



#### **CAMPING FIRST AID KIT**

#### General:

- 1 x Primary Care Leaflet
- 1 x Tweezers
- · 6 x Safety Pins
- 1 x Scissors 5.5cm Blade
- 2 Pairs Vinyl Gloves
- 1 x Spot Check Thermometer

#### Medication:

 16 x Paracetamol Tablets (not included in EU kit)

#### Bandages:

- 1 x White Open Woven Bandage 7.5cmx5m
- 1 x Crepe Bandage 5cmx4.5m
- 1 x Triangular Calico Bandage 90x127cm

#### Preparations, Disposables & Tapes:

- 6 x Hygienic Cleansing Wipes
- 1 x Zinc Oxide Tape 1.25cmx5m
- 1 x Micropore Tape 1.25cmx5m
- 5 x 4-Ply Gauze Swabs 5x5cm
- 3 x Burn Gel Sachets 3.5g
- 1 x Duct Tape 5cmx2m
- 2 x Sterile Eye Wash 20ml each

#### Dressings:

- 1 x Pack of Assorted Plasters
- 1 x Medium Wound Dressing 12x12cm
- 2 x Low Adherent Dressing 5x5cm
- 1 x Low Adherent Dressing 10x10cm
- 1 x Small Plaster Fabric Strip 4cmx1m
- 3 x Wound Closure Strips
- 1 x Small Eye pad Wound Dressing (2 x in EU kit)

#### GA1050

#### MOUNTAIN LEADER FIRST AID KIT

This kit provides the equipment needed to care for a large group of between 1 and 14 persons and is used by survival training schools in the UK.

#### General:

- · Primary Care Leaflet
- 1 x Tweezers
- 6 x Safety Pins
- 1 x Scissors 5.5cm Blade
- 4 Pairs Vinyl Gloves
- 1 x Shears 6cm Blade
- 1 x Glo Stick
- 1 x Resuscitation Face shield
- 1 x Spot Check Thermometer

#### Medication:

- 16 x Paracetamol Tablets (not included in EU kit)
- 16 x Ibuprofen Tablets (not included in EU kit)

#### Bandages:

- 2 x Open Woven Bandages 7.5cm x 5m
- 1 x Crepe Bandage 5cm x 4.5m
- 1 x Crepe Bandage 7.5cm x 4.5m
- 2 x Triangular Calico Bandage 90 x 127cm

#### Preparations, Disposables & Tapes:

- 10 x Hygienic Cleansing Wipes (11 x in EU kit)
- 1 x Micropore Tape 2.5cm x 5m
- 1 x Zinc Oxide Tape 2.5cm x 2m
- 1 x Duct Tape 2m Roll
- 10 x 4-Ply Gauze Swabs 5 x 5cm
- 3 x Burn Gel Sachets 3.5g

#### Dressings:

- 1 x Pack of Assorted Plasters
- 2 x Medium Wound Dressing 12 x 12cm
- 2 x Low Adherent Dressings 5 x 5cm
- 2 x Low Adherent Dressings 10 x 10cm
  1 x Small Plaster Fabric Strip 4cm x 1m
- 1 x Large Plaster Fabric Strip 7.5cm x 1m
- 6 x Wound Closure Strips (9 x in EU kit)
  1 x Small Eye pad Wound Dressing
- 2 x Blister Plasters







# CAMPING ACCESSORIES

The perfect combination of comfort and practicality.





## PORTABLE BBQ/ FIRE PIT

#### **FEATURES:**

Rust free stainless steel

Flat packs for storage

Sturdy carry bag



The 3mm stainless steel sides provide a 2-stage adjustable cooking area up to 35x40cm and includes a galvanised steel ash tray and stainless-steel cooking grill which all flat packs into a useful carry bag.

Description	Part number
Stainless steel BBQ/Fire pit	TF1730



## **CUTLERY SET**

This environmentally friendly Bamboo knife, fork, spoon and straw are wrapped neatly in a branded cotton canvas tool roll, perfect for camping, backpacking and expeditions.

Description	Part No
Bamboo cutlery set	TF1725



### **CAMPING CHAIR**

#### FEATURES:

Heavy duty, designed for regular use

Stows in a compact branded carry bag

Heavy duty, sturdy aluminium frame, Terrafirma branded director's style folding camping chair with padded arms and cup holder.

# Description Part number Expedition

folding chair

## **DRY BAGS**

Terrafirma dry bags are available in 2 sizes and 2 colours. Black or red and 10 litre (50cm x 30cm flat) & 80 litre (90cm x 50cm) capacity. Both bags are fully waterproof when the tops are tightly rolled and clipped together. The handy smaller 10 litre bag has a single shoulder strap and the giant cavernous 80 litre bag has a carry handle and a pair of ruck sack straps. Both bags are made from heavy duty 500d flexible PVC and can be used to keep contents dry in the wettest conditions and can even be used as flotation devices if necessary.

Description	Part number
10L black dry bag	TF794B
10L red dry bag	TF794R
80L black dry bag	TF795B
80L red dry bag	TF795R





## **QUICK STRAPS**

Easily secure your luggage and equipment. These handy polyester and Velcro quick straps enable you to secure all sorts of luggage and equipment into or onto your vehicle. Each strap has a loaf capacity of around 40kg.



Description	Part number
300x25mm	TF3331
600x25mm	TF3332
1000x25mm	TF3333





### CAMPING LIGHTS

This 1.3m long, flexible, 72 LED strip light is ideal for camping, vehicle repairs, illuminating the interior of a vehicle or your tent. It can be connected straight to a battery or powered from a cigar lighter socket and is controlled with a one touch dimmer switch. The light strip rolls up neatly into a small storage bag for storage.

Also in our camping light range is this set of 4, 50cm aluminium mini light bars each with 30 LED lights, again dimmable with a one touch switch with 3x 1.5m plug together extension leads all packed safely away in a sturdy storage bag.

Description	Part No
Flexible 1.3m LED camping light strips	TF7012
4 x 50cm alloy LED camping strip lights	TF7013



### STORAGE BOXES

Terrafirma storage boxes were originally designed to store ammo. They are conveniently sized, stackable and the perfect storage solution for your 4x4.

Made from super tough black high density polyethylene plastic, they are vertical sided to save packing space with integrated grab handles for easy carrying and are available in low and high lid options. The lids are secured with simple to operate catches and are ribbed for strength as well as to provide the location for the box above it.

External dimensions; L510mm x W400mm x H230mm (low lid) & 295mm (high lid) Internal dimensions; L450mm x W340mm x H205mm (low lid) & 293.5mm (high lid)

Description	Part No
Low lid storage box	TF892
High lid storage box	TF893
Storage box lid replacement clip	TF8923
Low lid storage box replacement lid	TF892LID
High lid storage box replacement lid	TF893LID





## TACTICAL SEAT COVER

The Terrafirma tactical seat cover provides the perfect storage solution for any 4x4, van or car.

#### FEATURES:

Keep your car organized

Maximize storage space Made from superior quality 600d lightweight ballistic polyester and fully adjustable this military inspired webbing pouch system is expandable to accommodate all sorts of kit and equipment to keep your car organized.

Included in the kit is the seat cover with front, side and extensive rear webbing positions that allow the all the 7 varied pouches to be attached in positions to suit your preference.

Description	Part number	
Tactical seat cover with 7 pouches (UNIVERSAL FIT)	TF1200	











## **TERRAFIRMA EXPEDITION STORAGE BOXES**

FEATURES:

Super strong

Sealed against dust and water

Strong and lockable catches

Effective storage is important to maximise space and keep things organised. Knowing where specific kit is and keeping equipment & vehicle occupants safe is paramount for a successful expedition, weekend camping trip or offroad excursion.

These Terrafirma storage boxes are on another level, made from super strong HDPE plastic they are stackable and will fit one inside the other for compact storage when not in use. The sturdy hinges and lockable catches make these boxes almost indestructible and ideal for use both

inside and outside the vehicle. The lid incorporates a rubber seal to keep dust and water out and the boxes are fitted with steel folding lifting handles and lashing points for ratchet straps. The boxes are ideal for both interior and exterior use.

As if these boxes aren't useful enough! We've created additional storage features... 'Molle' style webbing tool holders with removable pouches and canvas dual storage pocket panels are designed to be riveted inside the lids of the small and medium boxes, in fact these panels can provide useful storage attached to any surface.











Desc		
SMAL		
		-

TF903

Description	Part No
SMALL HD storage box 670x379x314mm (inside 626x338x236) 50 litre capacity (box weight 8kg)	TF900
MEDIUM HD storage box 799x479x380mm (inside 755x438x295) 97 litre capacity (box weight 11.5kg)	TF901
LARGE HD storage box 960x580x451mm (inside 916x533x356) 160 litre capacity (box weight 16.3kg)	TF902
Webbing tool holder panel for small storage box lid	TF903
Dual storage pocket panel for small storage box lid	TF904
Webbing tool holder panel for medium storage box lid	TF905
Dual storage pocket panel for medium storage box lid	TF906
Storage bag for webbing tool holders 220x125x86mm	TF910



The Terrafirma Interior Accessories is a range of products essential to enhance the practicality and usability of your vehicle. Accessories that are created by demand and designed to improve the vehicle's functionality in areas such as storage as well as improving the interior styling and personality of your vehicle.

Keeping your belongings tidy, secure and yet easily accessible particularly when being shaken around off-road means making the most of cabin storage spaces.

>> See page 186

Protect the interior of your 4x4 from mud and snow with our tailored floor mats and boot liners.

>> See page 188





# DASH & TRIM

Enhanced the comfort and functionality.

# ROOF CONSOLE AND PARCEL SHELVES



TFDPS2P

Storage in the cabin area of a Defender is minimal with very few places to put things, any additional space that can be created is a real bonus especially if it doesn't cramp the driving space.

#### FEATURES:

Provides convenient additional storage

Space for Radio or CB, additional power sockets or an interior light The Terrafirma roof console is the perfect solution for tucking away maps, pens and cigarettes, even small binoculars and a folding saw can be stashed away in the reversible trap door storage tray.

The console has provision for an additional or repositioned original interior light, space for power sockets and a single DIN radio aperture with removable panel which can either be used for additional storage, to house a CB or CD

player or even for extra gauges. The console is cleverly made to fit snugly to the headlining in all hard top and station wagon Defenders (not with sunroofs) and comes with a full fitting kit.

Maximising storage space in the cab of any Defender will increase comfort and convenience. The Terrafirma parcel shelves are ideal for stowing away maps, notebooks, pens and odds and ends.

The parcel shelf is available in two options: A full width version which secures into the door openings and spans the width of all Defenders which includes provision to add another or relocate the original interior light. The sun visors fit neatly and tidily into recesses moulded into the parcel shelf. The second option is a two-piece parcel shelf designed to be incorporated with the Terrafirma roof console. Two sections attached either side of the roof console maximising even more roof space, again with the recesses to accept the sun visors.

The full width parcel shelf is designed to fit all Defenders with or without sunroofs or even a headlining, the two-piece shelf relies on the console so is suitable for all Defenders without sunroofs.

Each parcel shelf is supplied with step by step instructions and fitting kits. To add an interior light, order AMR3155 (for post-1998 Defenders).







Vehicle	Description	Part number
DEF all models	Front parcel shelf (one piece)	TFDPS
DEF all models to be fitted with a roof console	Front parcel shelf (two piece)	TFDPS2P
DEF hard top without sunroof	Roof console	TFDRC
DEF single cab pick up	Truck can roof console	TFDRCTC
DEF 1998 on roof console interior light		AMR3155





# DASH STORE

FEATURES:

Adds valuable storage space

Utilises otherwise wasted space This really handy storage pocket makes better use of the empty space within the passenger

side of the 2007 on Defenders. The Terrafirma dash store suits both left- and right-hand drive models and fills the void below the top dash panel above the grab rail without compromising any other storage space. Utilising the original top section of dashboard as part of the lid this is probably one of the most sensible upgrades possible on a late model Defender.

Vehicle	Description	Part No
DEF 07 on	DASH	TF907
DEF U7 on	STORE	11907



# CENTRE DASH CONSOLE

**FEATURES:** 

Strong aluminium sub frame

Original factory appearance

Multiple application switches

The Terrafirma centre dash console is suitable for all Defenders up to 2007, providing an effective location for a CD player, radio or CB as well as additional gauges and switches. The Terrafirma centre dash console has been designed around the popular Carling switches which share common dimensions with many other brands. Located centrally the centre console suits both left hand and right-hand drive vehicles and is constructed using a 1.5mm aluminium sub frame and black vacuum formed textured fascia for an original factory appearance. The alloy

sub frame is essential to provide vibration free mounting for your CD radio and the whole kit is simple to fit and comes with full instructions. Switches and gauges are not included. A full switch kit is available separately.

Carling switch kit: Carling switches are well known for their cutting edge, high quality and reliable products, they are the 'go to' switch for marine and commercial industries for their waterproof, vibration proof and corrosion resistant properties. In this kit we have included 6 switches and a sheet of self-adhesive legends for you to apply that will relate to the switch operation as well as a pack of terminals.



Vehicle	Description	Part No
Defender up to 2007	Centre dash console	TF908
For TF908	Terrafirma switch kit	TF909

## **CUBBY BOXES**

FEATURES:

Optimum storage Built in arm rest

Matches standard trim Ensure your vehicle stays clutter free with a Terrafirma Cubby box in your Defender. These high-quality Cubby boxes are suitable for Series 3 and Defenders and are crafted with precision tools using hard wearing faux leather material, with a padded lid and double cup holder as standard. No more spilt drinks! Complete with fixings and is available in Black or Grey. Approximate dimensions – H:26cm x W:27cm x D:49cm

**Security cubby box:** Designed to keep your valuables locked up and safe but still accessible. This steel cubby box comes complete with elbow pad, drinks holder, pen tray and rear accessory net.

Vehicle	Part number
Black cubby box	TF2662B
Grey cubby box	TF2662G
Security steel deluxe cubby box	TFDCB
Security steel standard cubby box	TF2662SEC





TF2662B





# **STEERING** WHEELS

#### FEATURES:

Improved driver comfort

Semi dished black anodised alloy

3 spoke design

wheels and adaptor bosses are the Defender off-roaders choice. Semi dished in black vinyl with black anodised alloy centre. They are smaller in diameter, comfortable, easy to clean and super strong. Available in 14" and

Mountney 3 spoke steering

It is necessary to identify the number

of splines on your steering column to confirm the boss part number before ordering.

15" diameter.





Vehicle	Description	Part
DEF, D1 & RRC	Steering wheel boss with 36 splines	GI002
DEF	Steering wheel boss with 48 splines	GI003
DEF, D1 & RRC	Mountney 14" 3 spoke vinyl replacement steering wheel (without boss)	GI004
DEF, D1 & RRC	Mountney 15" 3 spoke vinyl replacement steering wheel (without boss)	GI005



# **ALLOY GEAR** LEVER KNOBS

#### **FEATURES:**

All gearbox options

**Durable silver** coated

Polished alloy

Leather and alloy

Smarten up your Defender with these upgrade gear lever knobs. Stylish and super cool silver coated for 5 speed LT77 and R380 gearboxes from 1983 to 2007 or polished alloy and smart leather & alloy gear levers suitable for Defenders from 2007 to 2016.









Vehicle	Description	Part
DEF 83-94	LT77 Silver finish alloy gearbox and transfer box level knobs	TF928
DEF 94-07	R380 Silver finish alloy gearbox and transfer box lever knobs	TF929
DEF 2007 on	Silver finish gearbox and transfer box levers	TF5051
DEF 2007 on	Leather covered gearbox and transfer box levers	TF1472

# **BOMBPROOF** HINGE GUARDS

https://youtu.be/bEn7yUcc6CM





#### FEATURES:

2mm thick Stainless Steel

Fits around the padding without compromising the security

Lower and rear hinges profiles to fit across all variants

Measured to allow it to close without tearing the door seal

Terrafirma Bombproof Hinge Guards are designed to be fitted in under 30 minutes per door and prevent the door being removed by undoing the bulkhead bolts. In recent years the Defender has increased in popularity. Along with it, so too has the demand for black market parts. Consequently, thefts of Defender doors are increasingly common. Even the police have been targeted. Don't be another victim - protect your Defender.

Vehicle	Description	Part number
Def	Terrafirma bombproof 2 door hinge guard kit	G1398
Def	Terrafirma bombproof 4 door hinge guard kit	G1399





# TerrafirMa

# **SEATING ESSENTIALS**

Make your Defender that bit more comfortable!



# **SEAT COVERS**

**FEATURES:** 

Waterproof

Easy to fit

Protect your Defender seats with Terrafirma waterproof covers. Available in two sizes, Defender specific

and a larger universal cover to fit other vehicle models. Made from black and grey polyester and EVA with a bold Terrafirma logo, they are easy to fit and remove.



Vehicle	Part No
Waterproof seat covers, universal fit (PAIR)	GI219
Waterproof seat covers, Defender 83-2007 (PAIR)	GI220



### BULKHEAD REMOVAL KITS

#### FEATURES:

Increases front passenger area space and increases driver comfort

Improve access to the rear stowage area

No compromise in body strength

A way of increasing comfort for taller drivers and passengers of Defenders is to remove the bulkhead behind the seats allowing them to move further back and recline even more. Removing the bulkhead also provides easier access to the rear of your vehicle. The bulkhead is cut away to a convenient structural point and the cut edges are hidden and full strength restored by fitting this kit with its perfectly formed,

black powder-coated steel sections,

leaving a factory finish. Defender station wagons built after 2007 do not benefit from this kit.



alternative is to install a bulkhead removal bar, in this case the bulkhead is removed to the floor completely.

a nicely sculpted tube sweeps from side to side from the door latch points to the floor restoring structural rigidity to the body tub and giving full access to the rear and maximum seat movement.

Description	Part number
Defender bulkhead removal kit	TF871
Defender bulkhead removal bar	TF1810

# SEAT BOX PROTECTORS



Restores or seat box cover The front corners of your Defender seat box are prone to damage. This pair of clever corner pieces provide protection from wear and scuffing or restore an already damaged seat box cover. Made from 3mm plastic and fitted in minutes with the self-drill screws provided.

Vehicle	Part number
Defender seat box protectors (PAIR)	GA1435







# **SEATBELTS**

#### **FEATURES:**

Manufactured to British Standard

Direct fit

Fixed and inertia reel option

Securon is an industry leading seat belt manufacturer that has served the 4x4 market for years.



For decades Defender owners have been

converting, refitting and

replacing seat belts in their vehicles, damaged and worn seat belts are a strict MOT failure. Securon seat belts are made to British Standard from thousands of polyester strands woven into 50mm wide webbing designed to absorb energy by stretching up to 15% in the event of an accident. Belts are available in fixed lap belts and inertia reel lad and diagonal designs and are supplied with the associated British Standard stalks, buckles and fastenings.





Vehicle	Description	Part number
DEF	Seat belt extension 500mm	7102-009-004
DEF 83-06, D1, RRC & S3	SECURON BS approved seat mounted static lap belt front and rear	GSB210
DEF, D1, RRC & S3	SECURON BS approved seat mounted automatic lap belt front and rear	GSB2220
DEF & S3	SECURON BS approved static lap and diagonal front seat belt	GSB300/30
DEF & S3	SECURON BS approved inertia lap and diagonal front seat belt	GSB500/30



### SEAT BELT SHOULDER PROTECTORS

#### TF2000

Terrafirma padded carbon fibre effect seat belt shoulder protectors, supplied as a pair, simple to install, these great value stylish shoulder protectors add a bit of much needed additional comfort for long journeys. Suitable for all 4x4 vehicles.



### RED SEAT BELTS







Vehicle	Part number
Defender truck cab RHS (BTR6561)	GA5055
Defender truck cab RHS (BTR6562)	GA5056
Defender station wagon (BTR6563) front	GA5057
Defender station wagon TD5 on RHS front	GA5079
Defender station wagon TD5 on LHS front	GA5080
Defender station wagon (EVL501580) rear	GA5058
Defender 110 crew cab pick up 2007 on (EVL501600PMAG) RHS rear	GA5059RH
Defender 110 crew cab pick up 2007 on (EVL501610PMAG) LHS rear	GA5059LH
Defender 110 crew cab pick up from YA183533-2007 (EVL000080PMAG) RHS rear	GA5060RH
Defender 110 crew cab pick up from YA183533-2007 (EVL000090PMAG) LHS rear	GA5060LH





# **REAR DOOR GAS STRUTS**



#### FEATURES:

Assisted rear door opening

Greater stability when open

Less risk of injury



The Defender rear door check strap is far from perfect, and the door is prone to closing on you unexpectedly, especially with a larger spare tyre fitted. These easily installed gas strut upgrades not only help the door to open but hold it open. Each kit includes a gas strut and stainless-steel mounting kit.

Vehicle	Part No
Defender up to 2002	GA1204
Defender 2002 on	GA1203



## **SEAT RISERS**

#### **FEATURES:**

Provides much needed extra space for taller drivers

Both raises and moves the seat back For the taller Defender owner these are an absolute must!

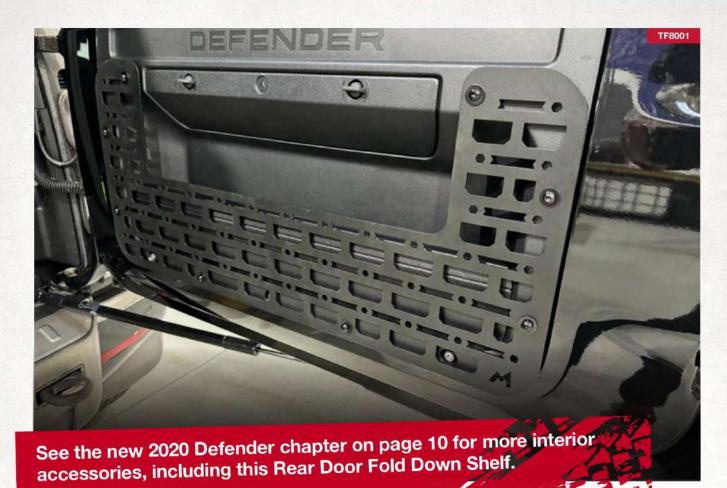
The driving position in a Defender is cramped at best but some additional comfort can be had by

fitting these seat risers. Lifting the seat around 1.25" (30mm) and allowing the seat to move back a further 2" (50mm) gives more leg room and straighter arms without effecting head room unnecessarily. The seat risers are tapered to further ease

comfort by very slightly tipping the seat forward. The kit bolts into all the original mounting points and includes all nuts and bolts.

Description	Part number
Defender seat rises (PAIR one seat)	TF872











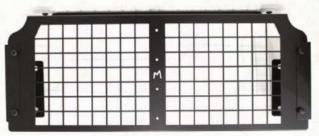
system

## D3 & D4 LOAD SPACE PARCEL SHELF STORAGE



Discovery 3s and 4s have huge carrying capacity but its not easy to make the most of the height of the load space in the rear.

Our parcel shelf storage basket allows you to store items in the roof space of the D3 and 4 without compromising the floor storage area. Simple to install, no drilling is required, simply secure the 2 mounting brackets behind the rear passenger grab rails and attach the basket with 6 thumb screws for easy removal.



**Vehicle** Part No Discovery 3 & 4 load space parcel shelf storage

TF2020

### **DRAWERS**

FEATURES:

Extendible to almost the full length of the load bed

80kg capacity

Lockable

The rear load space of a Defender is virtually impossible to reach all the way into. There is never an easy way to get to the items stored far into the vehicle and it's almost always necessary to completely unload the car to get at what you need.

The solution is a drawer! Load all the items that are needed more frequently into the drawer then load the vehicle as required. Simply pull the drawer open to gain access to all your necessary equipment.

The drawer is lockable and secure, easy to open even loaded with 80kgs of gear. The top deck is carpeted in a high grade automotive/ marine carpet and the inside is lined with an anti-slip mat.

Load space drawers are standard kit for expedition vehicles providing quick access to essentials while leaving the vehicle fully loaded. They are also Ideal for shooters, fishermen, cameramen, vets, mobile mechanics and farmers etc.



Vehicle	Part No	
Defender 90 950mm x 700mm x 170mm	TF1470	
Defender 110 1010mm x 700mm x 170mm	TF1471	



# PET RAMP & GUARDS

Keep your pets safe and secure with fitted dog guard.

#### **FEATURES:**

Easy to fit using existing mounting points

Designed to fit neatly to the interior contours

RRS 05-13

Velar

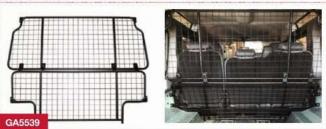
Universal

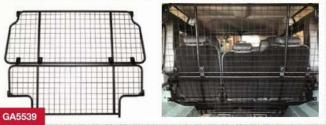
RRS 2014 on

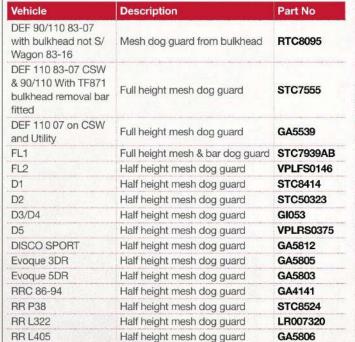
Typically these guards use existing mounting points within the rear of the vehicle, so no drilling or specialist tools are required to fit them. Depending on your vehicle they can be quickly removed by unscrewing a couple of thumb screws. Dog guards or load space guards are also a great option for keeping tools, equipment and luggage in the rear of your vehicle where it belongs when on expedition or off-roading.











Half height mesh dog guard

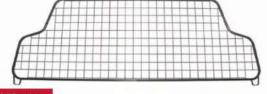
Half height mesh dog guard

Half height mesh dog guard

Pet Ramp







STC50323





GI055 GA5810

GA5813

**GA1631** 

# FLOOR MATS AND BOOT LINERS Protect

Protects your carpets from mud and snow!

GA4823



Most 4x4s these days are carpeted and are impossible to remove, keep them clean with tailored floor mats and boot liners. Contoured to fit neatly into their respective positions in the vehicle they are quickly removable for washing.

# FLOOR MATS

There's no doubting the strength of these hard-wearing Rubber Mats and their proven capability to significantly reduce wear and tear in your car. They're lightweight, very flexible and they're custom-made. With a raised outer lip to retain any spills, they'll do a fantastic job of keeping the interior of your vehicle in the best possible condition, while covering up any existing damage.

Vehicle	Description	Part No
DEF from XA159807	RHD front (PAIR)	STC50172
DEF 110 87-2006	2nd row	STC50173
DEF up to BA999999	RHD front (PAIR)	LR005039
DEF 110 2007 on	2nd row	LR005041
DEF from CA000001	RHD front (PAIR)	VPLDS0147
D1	RHD front (PAIR)	GA4426
D1	2nd row	GA4427
D2	RHD front (PAIR)	GA4424
D2	2nd row	GA4425
D3 & D4	RHD front & rear (SET)	GA4802
D3 & D4	LHD front & rear (SET)	GA4803
D3 & D4	3rd row contour mat	GA4819
D5	RHD front & rear (SET)	GA4858
D5	LHD front & rear (SET)	GA4859
DISCO SPORT	RHD front & rear (SET)	GA4827
DISCO SPORT	LHD front & rear (SET)	GA4828
DISCO SPORT	3rd row contour mat	GA4832
FL2	RHD front & rear (SET)	GA4800
FL2	LHD front & rear (SET)	GA4801
Evoque	RHD front & rear (SET)	GA4812
Evoque	LHD front & rear (SET)	GA4813
P38	RHD front (PAIR)	GA4430
P38	2nd row	GA4431
L322 up to 6A999999	RHD front & rear (SET)	GA4806
L322 up to 6A999999	LHD front & rear (SET)	GA4807
L322 up to 7A000001	RHD front & rear (SET)	GA4808
L322 up to 7A000001	LHD front & rear (SET)	GA4809
L405	RHD front & rear (SET)	GA4820
L405	LHD front & rear (SET)	GA4821
RRS 2005-2013	RHD front & rear (SET)	GA4804
RRS 2005-2013	LHD front & rear (SET)	GA4805
RRS 2014 on	RHD front & rear (SET)	GA4823
RRS 2014 on	LHD front & rear (SET)	GA4824
Velar	RHD front & rear (SET)	GA4860
Velar	LHD front & rear (SET)	GA4861





## **RUBBER MATS**

Vehicle	Description	Part No
S3	Rubber mats front - pair	GI050
ALL DEF 83-06	Contoured rubber mats front	GI051
D2	Contoured rubber mats front	GI054
DEF	Contoured rubber mats rear	GI058
D3	Front and rear winter mat set rubber rhd	GI064
RRS 2013>	Floor mats (rhd) 4 piece - rubber version of vplgs0149	GI200
D4 2015>	Floor mats (rhd) 4 piece - rubber version of lr026384	GI201
DISCO SPORT 2015>	Floor mats (rhd) 4 piece - rubber version of vplws0189	GI202
EVOQUE 2011>	Floor mats (rhd) 4 piece	LR045096
FL2 06-14	Floor mats (rhd) 4 piece	VPLFS0233



# **BOOT LINERS**

Vehicle	Part No
D3 & D4 2004-2016	LR006401
DISCO SPORT (7 SEAT) 2015>	VPLCS0279
EVOQUE 2011>	VPLVS0089
FL2 06-14	LR002516
RR 2002-2012	LR003894
RR 2013>	VPLGS0260
RRS 2005-2013	VPLSS0043
RRS 2013>	VPLWS0225







# LOAD SPACE LINERS

Vehicle	Description	Part No
DEF 90	Rubber moulded mat	LR005615
	Rubber floor mat 4 seat version	EAH500530
DEF 90 2007 on	Rubber floor mat 5 seat version	EAH500540
	Rubber floor mat 7 seat version	EAH500520
DEF 110 Hard top	Foam backed rubber mat	GA4503
	Rubber moulded floor mat 5 seat version	LR005613
DEF 110 2007 on	Rubber moulded floor mat 7 seat version	LR005040
	Ribbed rubber floor mat 5 seat version	EAH500520
	Ribbed rubber floor mat 7 seat version	EAH500540
D2	Rubber mat half length	STC50052AA
D2	Rubber mat full length	STC50053AA
D3 & D4	Rubber mat	LR006401
FL2	Rubber mat	LR002516
Evoque	Rubber mat	VPLVS0091
L322	Rubber mat	LR003894
L405	Rubber mat	VPLGS0151
RRS 2005-2013	Rubber mat	VPLSS0043
RRS 2014 on	Rubber mat	VPLWS0225







# DOOR CARDS AND WINDOW TRIMS

# For Defenders

Scruffy or damaged Defender door cards?

#### FEATURES:

Original appearance

Wipe down cleaning

Uses standard fixings

There is no need to go to the expense of Genuine Land Rover door cards when these excellent replica plastic versions are a great alternative, easy to keep clean, not susceptible to the damp (useful in a Defender) and simple to install. Suitable for all Defenders with push button doors and electric or manual windows for all model years. They are available in black, dark grey and light grey to match the original interior and use standard Land Rover fixings.

The original rear window trims are also susceptible to damp and wear and tear, once again these fantastic value replicas will restore your Defender's interior to as good as new. Available for vehicles with and without windows these trims are perfect for hiding soundproofing materials too.















TF2735









# **DEFENDER DOOR CARDS**

Defender Door Cards	Right side				Left side		
Defender Door Cards	Black	Dark grey	Light grey	Black	Dark grey	Light grey	
Front doors up to 2007							
Push button manual windows	TF2440	TF2442	TF2490	TF2441	TF2443	TF2491	
Push button electric windows	TF2444	TF2446		TF2445	TF2447		
Front doors 2007 to 2016							
Push button manual windows	TF3262	TF3263		TF3264	TF3265		
Push button electric windows	TF3266	TF3268		TF3267	TF3269		
Fasteners required x1 (pack of 20) per door card			MW	C1474			
Rear side doors up to 2016							
Push button manual windows	TF2480	TF2482	TF2492	TF2481	TF2483	TF2493	
Push button electric windows	TF2484	TF2486		TF2485	TF2487		
Fasteners required x1 (pack of 20) per door card			MW	C1474			
Back doors							
Defenders up to 2002	TF2740	TF2741	TF2742				
2002 on	TF2743						
Fasteners required x1 (pack of 20) per door card			MW	C1474	1		









# **DEFENDER WINDOW TRIMS**

Defender Window Trims	Right side			Left side		
Detender Window Trims	Black	Dark grey	Light grey	Black	Dark grey	Light grey
90 rear trim kit with windows	TF2730	TF2732				
90 rear trim kit without windows	TF2733	TF2735	TF2734			
110SW rear trim kit with windows	TF2750	TF2751	TF2752			
110 Commercial rear trim kit without windows	TF2753	TF2754	TF2755			
Fasteners required		BTR6682 ×4	MWC5763L0	DY x2 EZM	V1100340LOY x2	





# DEFENDER HEADLININGS

FEATURES:

Simple to fit, OE appearance

Easy to clean

Can be trimmed & painted

Extremely long lasting

The original headlining in a Defender is prone to deterioration and sagging, the solution is one of these amazing new composite headlining kits.

These multi piece kits accurately replace the old headlining with a really smart, long

lasting, easy to clean, fabric textured, pre-coloured pale grey, moulded headlining.

Each section is predrilled and cut for all the original fixings, rear view mirror and sun visors.











and the second		Part number		
Vehicle	Description	White	Black	
Defender 90 station wagon	Hard top 4 piece headlining kit, with alpine lights	TF3694	TF3694B	
Defender 110 station wagon	Hard top 6 piece headlining kit, with alpine lights	TF3745	TF3745B	

# AIR CONDITIONING KITS



#### FEATURES:

No drilling required

Indistinguishable from factory fitted units

Plugs straight into the existing wiring loom and fuse board

Easy to install as components are pre-assembled

Parts interchangeable with original parts



Air conditioning has become

standard spec in modern vehicles and so being able to retro fit it into a Defender makes complete sense. These fully comprehensive kits are identical to the original fitment, they require no drilling, everything plugs or connects to the existing vehicle controls.



Vehicle	Right hand drive	Left hand drive	
300 tdi	TF2343R TF2343L		
Td5	TF2342R	TF2342L	
Tdci	TF	2344	



#### **FEATURES:**

4.3" colour TFT monitor

1/4" Colour CMOS image sensor

Digital wireless video

Suction cup mounting bracket

Camera bracket

12/24V cigarette plug power cable (8-30V DC)

Parking guidelines

Optional second camera (sold separately)

6 x Infra-red LED night vision

Camera power is taken from reverse lights on vehicle

Great rear view camera kit for any application where rear view is limited. With a 4.3" monitor it is easy to see what is going on behind you.

The camera and monitor have a wireless digital connection that makes installation easy and no cables cluttering up your vehicle. The camera just needs a 12V power source from your reversing lights. This means the camera is only activated when reverse is selected. The screen is powered from a 12/24V power socket.

Description	Part No.
RING Wireless digital reversing camera	TF935

# **ELECTRIC WINDOWS**

#### **FEATURES:**

Straightforward

Safer, easier driving

With the Defender seating position best described as 'snug' one of the hardest things to do while driving is in fact wind the window up and down! Whilst the manufacturer eventually fitted electric windows to many Defenders there are still plenty with manual windows, so give yourself a bit of driving luxury with this comprehensive electric widow kit for both front doors.

Description	Part number
Electric front window kit 2002 on (PAIR)	TF4664
Electric rear window kit 2002 on (PAIR)	GA4874





Accessories to personalise and enhance the performance and functionality of your vehicle, to protect the bodywork and lighting from damage both on and off-road simply improve the rugged appearance.



Also included here are accessories to improve the accessibility and usability of your 4x4 and add a bit of style and personality, whether its your family vehicle, used for work or just for fun.





EXTENDED
WHEEL ARCHES

Made from almost indestructible vacuum formed or moulded plastic the fantastic looking Terrafirma Defender and Discovery wide wheel arches are a full 2" (50mm) wider than the original keeping your vehicle legal when fitted with bigger tyres, not to mention helping to keep the mud off the bodywork.



Tough vacuum formed or OE spec plastic

Contoured for great fit

Essential when fitting wider wheels and tyres They are extremely straight forward to fit, simply line up the new wheel arches against the bodywork above where the originals used to be, mark the screw holes then

drill and fix. The kit comes complete with all screws, plastic screw caps and edging strips.

To facilitate the fitment of larger diameter tyres to Discovery 1 and Range Rover Classics wide wheel arch kits are available for both 3 and 5 door models that enable the body work to be trimmed behind to open up the original arches providing the clearance needed. These arches are a full 2" (50mm) wide covering wider tyres.

Cutting the bodywork on a Discovery 2 is far less likely hence Terrafirma offers a 2" (50mm) wide wheel arch protector kit that follows the original bodywork and like the Defender requires no body trimming.

For Defender owners who want a wider wheel arch to improve looks and to cover those bigger tyres but do not want to drill the bodywork or change the side profile of the vehicle these 1 1/4" (30mm) wider wheel arches are the perfect choice. Fitted exactly as the originals with the same rivets and made from a similar semi flexible material these arches are perfect for the majority of wheel and tyre upgrade and will keep you legal. (These require a section of the original inner wheel arch to fully enclose the inner wing)

The James Bond film 'Spectre' sparked a whole new trend in Defender styling with huge tyres on beadlock wheels which needed extra wide wheel arches to cover them. These arches have become a key element in preparing lookalikes or stylized Defenders. These arches are semi rigid and require drilling to fit and when accompanied with giant wheels and tyres really make a statement.













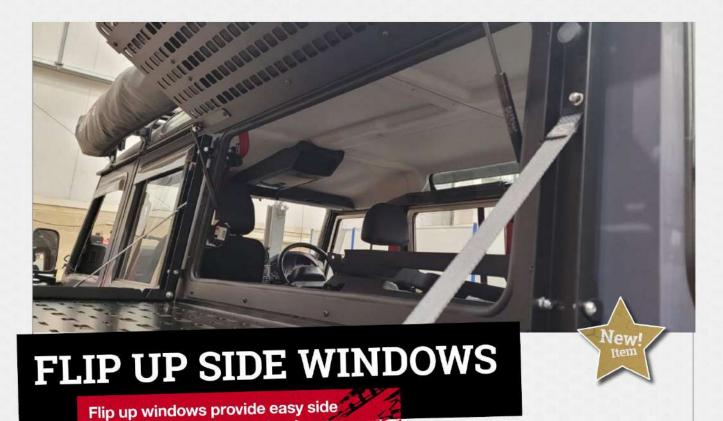








Vehicle	Description	Part number
DEF 90/110	2" (50mm) extra wide wheel arch kit	TF110
DEF 90/110	30mm wider than std rear wheel arch kit	TF1978
DEF 90/110	30mm wider than std front wheel arch kit	TF1979
DEF 90/110	6" Super wide Spectre style wheel arch kit	TF1120
D1 3 DR & RRC	2" (50mm) extra wide wheel arch kit	TF113
D1 5 DR & RRC	2" (50mm) extra wide wheel arch kit	TF114
D2 98-04	2" (50mm) extra wide wheel arch kit	TF115
DEF 90/110	Standard wheel arch kit (gloss black)	TF280
DEF 90/110	Standard wheel arch kit (matt black)	TF281
DEF 90/110/130	Left front wheel arch (gloss black)	MRC9377GF
DEF 90/110/130	Right front wheel arch (gloss black)	MRC9378GF
DEF 90/110	Rear wheel arch (gloss black)	ALO710010GF



access to your vehicle's load space.

Trying to reach essential equipment deep in the load space of your vehicle can be difficult, especially when its riding on lifted suspension and larger tyres.

#### **FEATURES:**

Maximises access to the rear of your vehicle

Effective use of storage space

Integral Molle style panel

Made from high grade aluminium and finished in classy satin black powder coat and using premium quality hinges and lockable catches for a beautiful flush fit. The rigid internal structure which incorporates a 'molle' panel for addition stowage ensures they are leak and draught free.



Step by step guide to fitting the Terrafirma TF979 Flip Up Side Window



Click here to watch the video!

Scan the code or click the link to see more.



Vehicle	Description	Part number
DEF 83-2016	Flip up window either side	TF979
D3 & D4	Flip up window left side	TF984
D3 & D4	Flip up window right side	TF985

D3/D4: Some in car entertainment functions may be affected and require attention for optimum performance. D3/D4 Experience and the necessary equipment to fit bonded windows is required.







### FOLD DOWN SHELF

#### **FEATURES:**

Maximises access to the rear of your vehicle

Additional luggage and equipment stowage

Increased security

Terrafirma exterior fold down shelf is made from a combination of black powder coated steel and aluminium, this fold down shelf provides an effective working area outside the vehicle as well as usable storage for attaching sand tracks and recovery equipment etc. Anti rattle buffers and quality plunger catches secure the shelf in the stowed position while fully adjustable webbing straps control the level of the shelf when open and in use.





Description

Part No.

Defender with or without windows fold down shelf

TF978





Made from high grade aluminium and finished in classy satin black powder coat and using premium quality seals, hinges and lockable catches for a beautiful watertight flush fit. The rigid internal structure incorporates a 'molle' panel for additional stowage. Terrafirma storage bins provide easy access to equipment ensuring items are close at hand when the flip up windows are opened. Additional 'molle' panels provide organisation and the facility to strap items in place.

Vehicle	Description	Part No
DEF 83-2016	Storage bin either side for TF979	TF979BIN
D3 & D4	Left side storage bin for TF984	TF984BIN
D3 & D4	Right side storage bin for TF985	TF985BIN





# MAMMOUTH CHEQUER PLATE

Nothing else compares in quality.

Get ready to enhance your Defender!

Mammouth is the name synonymous with the finest quality and most comprehensive range of Defender chequer plate on the market. The philosophy is 100% quality and the entire range is ready to enhance your Defender.

#### **FEATURES:**

3mm thick, fully chamfered edges and countersunk mounting holes

Supplied with full fitting kits

Available in black powder coat or silver anodised All Mammouth chequer plate products are manufactured from high quality 3mm 5 bar material, perfectly formed with fully chamfered edges, countersunk and de-burred holes which line up perfectly with the body contours. Supplied silver anodised or black powder coated, all products come supplied as a kit including stainless steel countersunk bolts & nuts.

The range includes wing tops with or without gaskets, bonnet plates, sill covers, rear corners, CSW quadrant panels, bumper tread plates and rear cross

member covers. All Defender models are catered for from 1983 to 2016. In 2007 the introduction of a new shaped bonnet and repositioned radio aerial prompted the range branded

Pumatec.

Unique to Mammouth is the innovative and stylish 1-piece bonnet protector with wing tops and rear corners receiving subtle changes in design.











		Silver anodised		Black powder coated	
Vehicle	Description	90	110	90	110
Defender 1983-2007	3mm Premium wing top protectors (left hand aerial hole)	TF8	225	TF8	226
Defender 1983-2007	3mm Premium wing top protectors (right hand aerial hole)	TF8	3227	TF8	228
Defender 1983-2007	3mm Premium wing top protectors (no aerial hole)	TF8	3229	TF8	230
Defender 2007 on	3mm Purnatec wing top protectors	TF8231 TF82		232	
Defender 1983-2007	Foam gaskets for 3mm Premium wing top protectors	WT-GAS			
Defender 2007 on	Foam gaskets for 3mm Pumatec wing top protectors	WT-GAS07			
Defender 1983-2007	3mm Premium bonnet protection plate	TF8200 TF8201		201	
Defender 2007 on	3mm Pumatec bonnet protection plate	TF8210 TF8211		211	
Defender 1983 on	3mm Premium side sill protectors	TF8219 TF8220			
Defender 1983 on CSW and UTILITY	3mm Premium side sill protectors		TF8221		TF8222
Defender 1983 on HARD TOP	3mm Premium side sill protectors		TF8223		TF8224
Defender 1983-2007	3mm Premium rear body corner protectors	TF8206	TF8204	TF8207	TF8205
Defender 2007 on	3mm Pumatec rear body corner protectors		TF8208		TF8209
Defender 1998 on	3mm Premium fuel filler surround plate	TF8212 TF8213		213	
Defender 1983-1998	3mm Premium fuel filler surround plate	TF8214 TF8215		215	
Defender 1983 on	3mm Premium front bumper tread plates	TF8202 TF8203		203	
Defender 1983 on	3mm Premium rear chassis cross member plate	TF8	3216	TF8	217
Defender 1983 on	3mm Premium Quadrant plate				TF8218
Defender 2020 on	Black plastic moulded chequer plate wheel arch protectors			VPLEP0383	LR163409

TF8206

TF8232

# TerrafirMa

# **SNOW COWL**

#### FEATURES:

Prevents heater duct blockage

Reduces water intake The Terrafirma Snow
Cowl is based on
the military Snow Cowl
Application. This all-weather
accessory helps to prevent
snow, mud, leaves, water and
sand entering the heater intake
and hindering performance.

The Snow Cowl is the ultimate accessory for your Defender, easy to fit and made to last giving that military look as well as having practical benefits.



Description	Left side	Right side
Snow cowl	TF150LH	TF150RH
XD Vent		TF1041



# SIDE STORAGE LOCKERS

#### **FEATURES:**

Utilises otherwise wasted space

Stainless steel construction

Sealed door

Flush fit lock and handle Defender 110 hard tops and pickups have lots of unused space under the bodywork. The perfect way to make the best use of this space and of the wheel arch cavities is to install one of these beautifully engineered, rust resistant stainless-steel storage lockers.

Perfect for side access to tools, spares and equipment especially on expedition and utility vehicles. Each locker has a slightly raised door allowing for a rubber seal to effectively keep out dust and water to be incorporated. A flush fit lock and handle keep the doors tightly closed.



Vehicle	Description	Part number
DEF 110 1983 - 2016	Stainless steel LH rear wheel arch side locker (375 X 330 X 300)	TF886
DEF 110 HT/PU 83-2016	Stainless steel side locker (510 X 330 X 300)	TF887

# **MUD DEFLECTORS**

#### FEATURES:

Prevents heater duct blockage

Reduces water intake



Description90110Set of 4 gloss paintable mud deflectorsTF1130TF1131



Any Defender owner will know that mud splashes up between the wheel arch and the mud flap and typically covers the front doors and the rear quarter panels. These clever mud deflectors block this space and keep your body sides clean. Supplied as a set of four, for the front and rear of your 90 or 110.



# MUD FLAPS



#### **FEATURES:**

Keep bodywork clean from mud and splashes

Mount to existing fixtures

Mudflaps are designed to keep the body clean from mud and splashes thrown up by large tyres. Traditional flat rubber flaps are available for Defenders while other models require moulded and contoured semi

flexible mud flaps that attach to existing fixings to avoid the need to drill the bodywork.



CAS500060PMA









CAS500070PCL







Vehicle	Description	Part number
DEF 90/110/130	Front mudflaps with brackets (PAIR)	RTC9479
DEF 90/110/130	Front mudflaps without brackets (PAIR)	RTC4685
DEF 90/110/130	Right hand front mudflap and bracket	LR055323
DEF 90/110/130	Left hand front mudflap and bracket	LR055333
DEF 90/110/130 DEF 90	Right hand rear mudflap with bracket  Left hand rear mudflap and bracket with exhaust cut out	LR055332 LR055340
DEF 90	Left hand rear mudflap and bracket without exhaust cut out	CAT500450PMAG
DEF 110/130	Right hand rear mudflap with bracket	LR055330
DEF 110/130	Left hand rear mudflap with bracket	LR055334
D1	Front mudflaps (PAIR)	RTC6820
D1	Rear mudflaps (PAIR)	RTC6821
D2	Front mudflaps (PAIR)	CAS100900LR
D2	Rear mudflaps (PAIR)	CAS100910LR
D3 & D4	Front mudflaps (PAIR)	CAS500010PCL
D3 & D4	Rear mudflaps (PAIR) unpainted bumper	CAT500010PCL
	Rear mudflaps (PAIR) partially painted	
D3 & D4	bumper	VPLAP0017
D5	Front mudflaps (PAIR)	VPLRP0283LR
D5	Rear mudflaps (PAIR)	VPLRP0357LR
DISCO SPORT	Front mudflaps (PAIR)	VPLCP0203
DISCO SPORT	Rear mudflaps (PAIR) 5 seat, 7 seat without spare wheel	VPLCP0204
DISCO SPORT	Rear mudflaps (PAIR) 7 seat with spare wheel	VPLCP0277LR
FL2	Front mudflaps (PAIR)	LR003324
FL2	Rear mudflaps (PAIR)	LR003322
EVOQUE Pure and Prestige	Front mudflaps (PAIR)	VPLVP0065
EVOQUE Dynamic	Front mudflaps (PAIR)	VPLVP0066
EVOQUE Pure and Prestige	Rear mudflaps (PAIR)	VPLVP0069
EVOQUE Dynamic	Rear mudflaps (PAIR) excluding parallel parking sensors	VPLVP0070
RRC 86-94	Front mudflaps with brackets (PAIR)	RTC9562
RRC 86-94	Front and rear mudflaps only	MXC5587
P38	Front mudflaps (PAIR)	STC8535
P38	Rear mudflaps (PAIR) single exhaust	STC8536
P38	Rear mudflaps (PAIR) twin exhaust	STC7703
P38	Rear mudflaps (PAIR) from XA428522	CAT101160
P38	Rear mudflaps (PAIR) from XA428522	CAT101170
L322 2002-2009	Front mudflaps (PAIR) up to 5A999999	CAS000150PMALF
L322 2002-2009	Right hand front mudflap up to 5A999999	VUB001320LR
L322 2002-2009	Left hand front mudflap up to 5A999999	VUB001330LR
L322 2002-2009	Front mudflaps (PAIR) from 6A198416	CAS500060PMA
L322 2002-2009	Front mudflaps (PAIR) from 6A198416 with side steps	VUB503940
L322 2002-2009	Rear mudflaps (PAIR) up to 5A999999	CAT000180PMA
L322 2002-2009	Rear mudflaps (PAIR) from 6A198416	CAT500070PMA
L322 2010-2012	Front mudflaps (PAIR) from AA000001	CAS500060PMA
L322 2010-2012	Rear mudflaps (PAIR) from AA000001	CAS500070PMA
L405	Front mudflaps (PAIR) with deployable side steps	VPLGP0111LR
L405	Front mudflaps (PAIR) without deployable side steps	VPLGP0109
L405	Rear mudflaps (PAIR)	VPLGP0110
RRS 2005-2009	Front mudflaps (PAIR)	CAS500070PCL
RRS 2005-2009	Rear mudfiaps (PAIR)	CAT500120PCL
RRS 2010-2013	Front mudflaps (PAIR)	CAS500070PCL
RRS 2010-2013	Rear mudflaps (PAIR)	VPLSP0016LR
PPS 2014 on	Front mudflaps (PAIR) with deployable side	VDI WD0167
RRS 2014 on	steps Front mudflaps (PAIR) without deployable	VPLWP0167
RRS 2014 on	side steps	VPLWP0165
RRS 2014 on	Rear mudflaps (PAIR)	VPLWP0166



Terrafirma wind deflectors are useful in several ways:

#### FEATURES:

Allows fresh air circulation with no water ingress and reduced air noise

Smoke tinted

Easy to fit

They enable the windows to be open slightly allowing fresh air to circulate and provide ventilation, even when it is raining, without the water coming in. For vehicles fitted with tinted windows they reduce glare when the windows

are partially open and significantly reduce wind noise while driving with the windows down.

Terrafirma wind deflectors are smoke tinted and easy to fit. In most cases no tools or adhesive is required, as they are supplied with self-adhesive strips pre-fitted for easy application to the door frame.



Vehicle	Part number
DEF 1984 on FRONT set of 2	TF666
DEF 1984 on REAR set of 2	TF667
D1 set of 4	TF660
D2 set of 4	TF661
D3 & D4 set of 4	TF662
D5 set of 4	TF678
Discovery Sport set of 4	TF679
FL1 2 door set of 2	TF670
FL1 4 door set of 4	TF671
FL2 set of 4	TF664
Evoque 2 door set of 2	TF672
Evoque 4 door set of 4	TF675
RRC 4 door set of 4	TF669
P38 set of 4	TF673
_322 2002-2012 set of 4	TF665
_322 2012-2014 set of 4	TF677
_405 set of 4	TF6108
RRS 2005-2013 set of 4	TF663
RRS 2014 on set of 4	TF676
Velar set of 4	TF668
2020-DEF 90 set of 2	TF6675
2020-DEF110/130 set of 4	TF6676

























Upgrade your Defender with a retrofit air con front end, new grille and matching headlamp panels!

#### **FEATURES:**

Tough vacuum formed or OE spec plastic

Contoured for great fit

Essential when fitting wider wheels and tyres

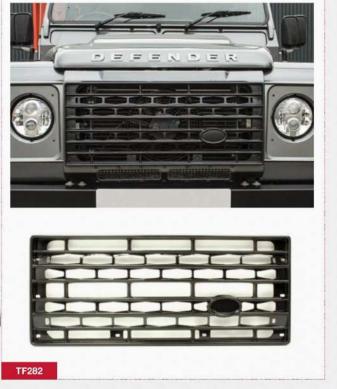
The Sport and Honeycomb front grilles are a great styling upgrade for your Defender, made from semi rigid, paintable plastic, they are available in either gloss or matt finishes and fit to the standard mounting points so are easy to install.

The Honeycomb grille replaces the original grille and retains the original headlamp surrounds whereas the Sport grille is supplied as a kit with

matching headlamp surrounds for a full frontend makeover.

To compliment the Sport grilles, a pair of wing top heater intake vents as well as side air intake vents which are available individually depending on which side your air intake grill is, are also available, all of these grilles and vents are a direct replacement so are easy to fit.









TF278



#### TF277

DEFENDER	Part number
SPORT front grille and headlight surrounds gloss (badge DAH100680LR)	TF270
SPORT left side wing vent grille satin black	TF271LH
SPORT left side wing vent grille gloss black	TF271LHGF
SPORT right side wing vent grille satin black	TF271RH
SPORT right side wing vent grille gloss black	TF271RHGF
SPORT wing top vent grilles satin black (PAIR)	TF272
SPORT wing top vent grilles gloss black (PAIR)	TF272GF
HONEYCOMB front grille gloss (badge DAS100150)	TF282
HONEYCOMB front grille matt (badge DAS100150)	TF283
TVX front grill and headlight surrounds GLOSS (badge DAS100150)	TF277
TVX front grill and headlight surrounds MATT (badge DAS100150)	TF278
Ram air left side wing vent	GS177
Ram air right side wing vent	GS178







### AIR CON PANEL KIT



**FEATURES:** 

Direct fit

Supplied as a kit

Gloss or matt finish

Accepts all Defender grilles Terrafirma air con conversion front end kits allow you to make your Defender look like the latest versions with a complete replacement front panel which includes all the required mounting parts. The front panel is also a direct replacement for the original in

the event of crash damage.

To complete the transformation a lower vent grille TF6551 (stainless steel) or TF279 (black stainless steel) can be attached for a total factory look.

Defender 1983-2016	Part number
Air con front panel kit matt	TF275
Air con front panel kit gloss	TF276
Air con front panel lower vent grille stainless steel	TF6551
Air con front panel lower vent grille black	TF279





**RETRO HEADLAMP BEZELS** 

FEATURES:

Cool retro styling

**Paintable** 

Easy to fit



Give your Defender a retro front end look with these classic

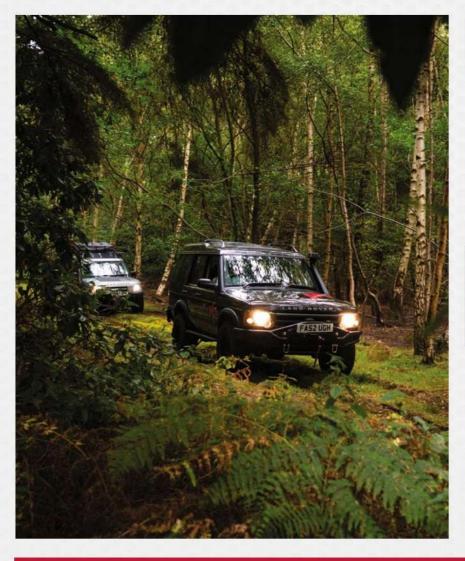
styled headlamp bezels and trims. Available as vented and non vented options. Supplied as a vehicle set in black primer ready for painting.







Defender 1983-2016	Part number
Headlamp trims and non vented bezels (set)	TF273
Headlamp trims and vented bezels (set)	TF274





### **RAM AIR WING VENTS**

**FEATURES:** 

Improves heater performance

Forces cool air into the engine bay

These stylish plastic moulded ram air intake vents with mesh grilles helps to force air to the heater system and engine bay from the vent panels on the top of Defender front wings.

Part number
GS177
GS178



For further information, fitment advice, images, customer reviews please visit www.terrafirma4x4.com





VPLVP0225

VPLGP0040











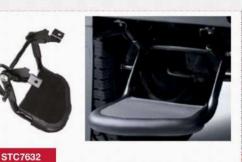




STC7631









# WINDSCREEN HINGES & WINDOW GUARDS

### **ALUMINIUM HINGES**

#### **FEATURES:**

Stainless bolts included

Supplied as kits

Direct fit



Replace your corroded

windscreen hinges or the later hinge blocks with these smart billet alloy CNC machined hinge blocks in either silver or black anodised. If you are replacing hinges, you will require LR016671 reinforcing plate to fit on the inside of the vehicle.

Silver or black powder coated alloy hinges are precision engineered and





GA1142B

attached using stainless steel bolts adding modern refinement and longer life. Available for the bonnet and front and rear side doors.

Description	Silver	Black
Alloy windscreen hinge blocks	GA1142	GA1142B





Defender 1983-2016	Silver	Black
Aluminium front door hinge kit with ss fixings	GA1131	GA1305
Aluminium rear door hinge kit with ss fixings	GA1309	GA1306
Replacement stainless steel hinge bolt kit	GA1131KIT	
Aluminium bonnet hinge kit	GA1152	GA1152B
Alloy windscreen hinge blocks	GA1142	GA1142B

### WINDOW GUARDS

Protect the contents in the rear of your Defender by fitting a set of window guards. These punched steel plate guards are available in 2 options, a pair of external side window guards and a set of 3 for the rear. The side window guards allow the sliding window to still be opened providing ventilation for your dogs while preventing escape and theft. The rear set includes an internal rear door quard that does not interfere with the wiper operation and a

pair of external guards to

prevent access through

the rear quarter lights.





Description	Part No.
Rear side window guards (pair)	TF5501
Back and rear door window guards (pair)	TF5502

### REMOVABLE TOW HITCH ANTI THEFT KIT

(2)

The removeable swan neck tow hitch for the Discovery 3, 4 and

Range Rover Sport is prone to being stolen despite the factory locking mechanism, they are expensive to replace so keep you hitch securely attached to your vehicle with this stainless steel security plate.



TF755



Removable Tow Hitch Anti Theft Kit Part No Discovery 3 & 4 and Range Rover Sport TF755



#### **FEATURES:**

Zero rust stainless steel

Natural or black powder coat finish

Discrete laser cut M logo

Stainless steel fixings included



One of the more likely parts to rust due to being subjected to a constant blast of wet and muck are the mudflap brackets on your Defender.

These nicely made stainless steel mudflap brackets are a great long-term solution, available in either natural stainless steel or black powder coated. If your existing rubber mudflaps are in good condition but the brackets are rusty you can simply swap the brackets using the new stainless steel fixings provided. Alternatively new rubber mudflaps are available separately.







TF3010B

Stainless steel mudflap brackets black (pair)







**BTR277** 

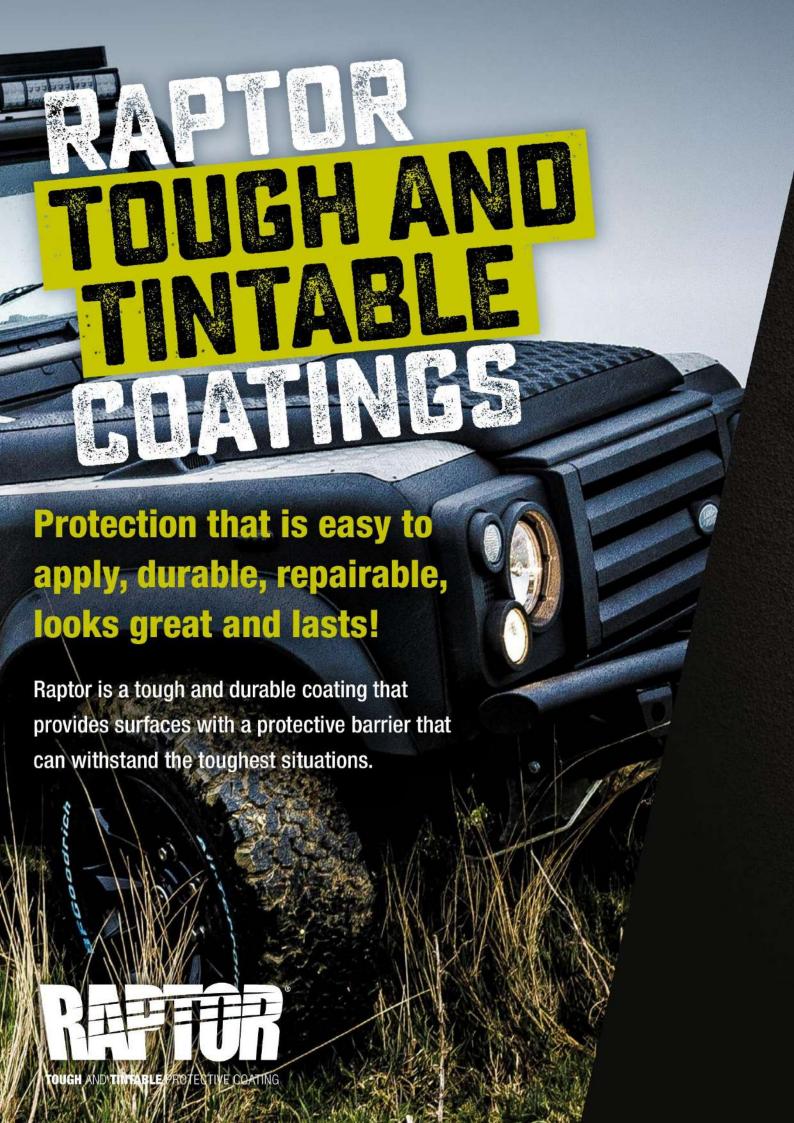


110/130

Vehicle	Description		Bracket Part No.	Mud flap Part No.	
	Description		bracket Fart No.	Right	Left
90/110/130	Stainless steel mudflap brackets (pair)	Front	TF3010	RTC4685	
90/110/130	Stainless steel mudflap brackets black (pair)	Front	TF3010B		
90	Stainless steel mudflap brackets (pair)	Rear	TF3011	MXC6412 MXC6	MVCC440
90	Stainless steel mudflap brackets black (pair)	Rear	TF3011B		IVIAC6413
110/130	Stainless steel mudflap brackets (pair)	Rear	TF3012	BTP077	

Rear

TF3012B





#### **GA6615**

#### **RAPTOR Epoxy Primer**

Contains a blend of anti-corrosive additives to help inhibit rust and corrosion and has excellent salt spray resistance.



#### GA6382

#### **RAPTOR R4 Bottle Kit Black**

The 4 Bottle RAPTOR Kit is the industry standard in bed liner coating. Each kit contains 4 bottles of RAPTOR paint and 1 tin of hardener.



#### **RAPTOR Vari-Nozzle Gun**

Specially constructed with European threading and longer dip tube to fit RAPTOR and GRAVITEX PLUS bottles.



#### RAPTOR Traction

Slip resistant additive. It can be added directly into RAPTOR Tough and Tintable Protective Coating bottles prior to spraying.



#### RAPTOR 1 Bottle Kit Tintable

The 1 Bottle RAPTOR kit is ideal for smaller applications and touch-ups. Compatible with RAPTOR standard and professonal application guns.



#### GA6370

#### RAPTOR **5L Black**

The 5 Litre RAPTOR tins are ideal for large areas such as trailers, floors, heavy equipment and full oversprays.



#### GA6642

#### RAPTOR 2K Aerosol Black

The convenient RAPTOR 2K System Aerosol offers a fast, easy way to apply RAPTOR without compromising performance, no spray equipment necessary.



#### **RAPTOR 2K Epoxy** Primer Aerosol Beige

RAPTOR Anti-Corrosive Epoxy Primer is a 2K high performance primer aerosol specifically designed to be used under RAPTOR Protective Coating.



#### **RAPTOR Adhesion Promoter Aerosol**

Promotes paint adhesion to most automotive surfaces, like plastics, aluminium, galvanized metal, zinc, painted surfaces, fibreglass and even bodyfillers.



#### GA6393

#### **RAPTOR Acid Etch Primer Aerosol**

Phosphoric acid etch formula promotes paint adhesion to difficult substrates, like galvanized steel and aluminium.

#### Other products available...

Product	Part no.
RAPTOR 2K Aerosol White	GA6665
4 Bottle Kit White	GA6649
4 Bottle Kit Tintable	GA6382
5L Hardener	GA6371
5L Tintable	GA6436
1 Bottle Kit Black	GA6497
RAPTOR Anti-Corrosive Epoxy Primer 5L	GA616
RAPTOR Spray Gun	GA6386
Abrasive Pads - 10 pack	GA6395
HVLP Spray Gun 1.7 Nozzle	GA6447
Panel Wipes - 350 Sheets	GA6396
RAPTOR Roller and Tray Kit	GA6653
S2002 Solvent Based Degreaser 1L	GA6390
UPOL Tiger Seal Black	GA6388BLK
Tiger Seal Grey	GA6388GG
Tiger Seal White	GA6388BW
UPOL S2002 Solvent	GA6391



Additional lights for work and play, replacement or upgrade, Terrafirma has a lighting solution for you. From standard and LED upgrade lights made as a kit for your convenience through to super bright spotlights, light bars and work lights.



Terrafirma has teamed with the world's leading manufacturers to bring you the latest in LED technology. Take a look at the new range of OSRAM LED 4x4 lights on page 218 >>







# LIGHTING

## **MULTI-FUNCTION 8-WAY** SWITCH PANEL SYSTEM

If you looking to fit LED lights to your vehicle but are put off with all the wiring?



Touch Screen Panel (115mm x 66mm x 15mm)

Circuit Control Box (162mm x 110mm x 34mm)

**Switch Panel Brackets** 

Voltage Protection Breaker

**Circuit Box Brackets** 

Sheet of 50 Standard Labels

**Battery Cables & Wire harness** 

**Screws & Mounting Hardware** 



This 8-way switch panel allows you to wire up eight different lights or accessories while only having

one switch panel mounted in the cab of the vehicle. No more drilling lots of holes with separate switches and relays.

Simply connect your lights to the main fused control board and run one control wire through to the cab area. This then allows you to control all eight devices separately. A sheet of 50 labels is also included so you can customise your touch screen panel to match your lights.







Maximum Power - 600w -1200w; Maximum Current - 60A; Input 12v to 24v; Outlets - 2 x 30amp, 2 x 20amp, 2 x 10amp and 2 x 5amp; IP67 rated

UNIVERSAL	Part number
Multi function (8 way) switch panel system	TF7010
2m extension from fuse box to switch panel	TF7010LOOM



### ROUND 7" HIGH INTENSITY SPOTLIGHTS

FEATURES:

7" (175mm) diameter

10-32 volts

1Lux @ 682M

6478 Lumens

Colour temperature 6500K

IP68 waterproof rating

21 x 5w high intensity OSRAM P8 chips

Diecast black aluminium alloy housings

Interchangeable blue, red and amber bezels

Wiring harness and switch is included This pair of spot lights are amongst the brightest in the industry for their size at 7" (180mm) diameter.



The brightness and light penetration is incredible. The aluminium mounting brackets are vibration resistant and allow for a large range of adjustment. A comprehensive wiring harness & switch and 3 sets of bezels in red, blue and amber are included with each set.

UNIVERSAL	Part No	
Round 7" high intensity spotlights	TF707	





### 7" LED HEADLIGHTS

Although more expensive than other technologies, LED lights offer a host of benefits that make them a perfect choice for any 4x4.

#### FEATURES:

2800LM @ 30W low beam

4450LM @48W high beam

9-36v DC

E marked and DOT approved Ready to fit (3)

Advantages to LED lighting include incredible light output, low draw, solid-state electronics, and

no bulbs to burn out. These headlights are a massive upgrade from the original sealed beam and halogen lights.

DEFENDER	Part No	
7" LED E marked, DOT approved headlights RHD (PAIR)	TF710	
7" LED E marked, DOT		

approved headlights LHD (PAIR)

Replacement lights on page 229



# LED MIRROR INDICATOR REPEATER CHASER LIGHTS

These easy to fit replacement, plug and play LED chaser lights replace the centre section of the mirror cover and provide a stylish upgrade.

Suitable for Discovery 4 2014-16, Discovery 5, Range Rover Sport 2014-18, Range Rover Evoque 2012-13 and Range Rover L405 2013-2018.

UNIVERSAL	Part No	
LED mirror	TE701E	
indicator kit	TF7015	





# LED WING MIRRORS

FEATURES:

Direct replacement

Uses std 95mm light & mirror lens Terrafirma LED wing mirrors, supplied as a pair they are a direct replacement for the original mirror heads,

retained with a single Allen key. Designed to illuminate the roadside & hedge rows with bright 21w,

95mm LED lights and adjustable using finger grip styled moulded housings.



UNIVERSAL Part No LED wing mirrors (PAIR) **TF700** 





### DISCOVERY 4 LED GRILLE LIGHTING KITS

#### FEATURES:

Grille fitting kit and wiring loom

8" Double row Driving light

36w fitted with 3w OSRAM LEDs

3240 Lumens

1350 LUX at 10m

2.26amps @ 12v

Combination Beam Pattern – both flood and spot beam

ECE R112 Certified and approved for road use

IP68 water and dust ingress rated

Fitted with waterproof Deutsch connectors



Each kit includes a pair of 8"
36w double row E marked LED
Terrafirma driving lights that produce a
super bright 3240 Lumen combination
flood and spotlight pattern. The lights
are IP68 rated and come complete with
an OE quality mounting kit that perfectly
complements the front grille on your
Discovery 4 for a 'Factory' appearance.
The kit includes a comprehensive wiring
kit with waterproof Deutsch connectors
and is suitable for competent DIY and
workshop fitment using the detailed
cutting guides and fitting instructions
provided.



LED Grille lighting kit 2009 to 2014
LED Grille lighting kit 2014 to 2016

Part No TF7006 TF7008 TF7006



FEATURES:

Amber clip on filters

1800 Lumens

IP67 rated

Alloy housing & PC lens

125x120x150

Supplied as a pair complete with wiring loom and switch these great spotlights are ideal for a multitude of applications for the front of your vehicle, perfect on a light bar

winch bumper or roof rack, even bumper or bulkhead mounted.



Vehicle Description
UNIVERSAL 5" 125mm rd

5" 125mm round spotlights 25w LED 1800LM (PAIR)

TF705









### FEATURES:

Pair of light bars and wiring loom

36w fitted with 3w OSRAM LEDs

3240 Lumens

1350 LUX at 10m

2.26amps @ 12v

Combination Beam Pattern – both flood and spot beam

ECE R112 Certified and approved for road use

IP68 water and dust ingress rated

## 8" DOUBLE ROW LED LIGHT BAR



Pair of 8" 36w double row E marked LED Terrafirma driving light bars that produce a super bright 3240 Lumen combination flood and spotlight pattern.

The lights provide incredible illumination and can be fitted anywhere on the front of a vehicle or roof rack.

#### UNIVERSAL

Part No

8" double row LED light bar 3240LM (PAIR)

TF7005

#### FEATURES:

12W output (4 x 3W LED)

1000 Lumen brightness - equivalent of 80 candles.

3.7V Lithium battery

Up to 5hrs working life

8hr max charge time

Magnetic Base

Hand-held or free-standing

Folds into a cube for easy and convenient storage

Includes USB charging lead and car adaptor

Tough, durable outer casing

## **TerrafirMa**

## EMERGENCY RECHARGEABLE WORK LIGHT

Lightweight fully adjustable rechargeable work light with magnetic base.

Three light modes:

- Bright
- Medium
- Flashing



UNIVERSAL Part No
Emergency rechargeable work light 1000LM
TF715



#### FEATURES:

### 16 x 10W CREE LEDs

600k colour temperature

Operating voltage 10-30v

Wiring loom and switch

Stainless steel mounting brackets

IP68 water and dust ingress rated

## 18" SINGLE ROW

This great value high performance light bar will

illuminate the trail, black die cast alloy housing with stainless steel mounting brackets and polycarbonate lens, this lightbar has flood beam pattern giving a broad long distance spread of light.

#### UNIVERSAL

Part No

18" single row LED light bar

TF712



#### FEATURES:

Supplied as a pair

Unbreakable Lexan lens

IP67 rated

Low current draw

## COMPACT 1 LED SPOTLIGHTS

These perfect little 2" spotlights have a single 10watt LED chip producing 800 Lumens of light with a 10-degree spot beam pattern ideal for projecting long distance. Built into a black alloy housing with stainless steel mountings.





Vehicle	Description	Part No
UNIVERSAL	2" 50mm round spotlights 10w 800LM LED (PAIR)	TF713

## DAYLIGHT RUNNING LIGHTS (DRL) WIRING KIT



This handy, simple to install wiring loom and relay allows you to connect a pair of LED lights and correctly operate them as Daylight running lights.

UNIVERSAL Part No
DRL wiring kit TF2090





Terrafirma has teamed up with legendary lighting manufacturer Osram to bring you this incredible range of 4x4 specific LED lights.

The variety of performances, styles and beam patterns bring intense white LED light to the darkest corners of the World, at work or at play. Osram lights offer the most sophisticated LED light and electrical designs on the market.

Osram have combined rugged strength & durability with the latest innovation in indirect illumination and LED technology to provide the greatest optical performance, reducing glare and improving visibility.

The unique MX Range all include a position light for daytime running as well as beam patterns that reach over 400m and spread to over 50m wide.

Osram's incredible FX Range of light bars in Combo and Spot beam patterns for the ultimate in near and far

illumination. The stunning FX1000 1m light bar gives light at over 600m distance and 150m wide... what more could you need?

Sleek and stylish or where space is at a premium the Slim SX range offers the perfect combination of size and performance, fit them individually or in pairs to produce unrivalled light patterns to suit every application.

The VX Range includes light bars, reverse and work lights perfect for any working vehicle or off-roader in wide, spot and combo beam patterns.

Osram lets you customize your light profile with multiple beam options from its hard working & hard wearing, robust & compact light specifically developed with the 4 wheel driver in mind.





























Terrafirma LED amber Hazard warning lights are ideal for recovery and rescue, highway and motorway maintenance, haulage, plant and agriculture, security, private ambulance, coast guards and more.

This range of hazard warning lights are compact yet powerful and provide multiple flash patterns determined by the user. The LED Multi light comes in a choice of 5 colours and can be used as hazard warning of general illumination, the choices are endless.

#### TF7026



### HAZARD 3 (AMBER)

The HAZARD 3 is an ultra slim surface mounted amber LED warning light which has a housing of 9mm wide. This makes them ideal when space is a premium or a covert look is preferred. These lights come with 18 different flash patterns which can be changed by the user. The HAZARD 3 is fitted with 3 x 3w LED's which produce an intense light.

- 3 LED surface mount light head
- ECE R65 Single flash, ECE R10
- SAE J595 CLASS1 Double Flash
- ECE R10
- IP 67
- 3W each LED (amber)
- Five cables,18 flash patterns
- Memory function
- DC 12V~24V
- Size: L82xW30xH9mm

#### TF7027



#### **HAZARD 6 (AMBER)**

The HAZARD 6 is an ultra slim surface mounted LED warning light which has a housing of 7mm wide. This makes them ideal when space is a premium or a covert look is preferred. These lights come with 18 different flash patterns which can be changed by the user. The HAZARD 6 is fitted with 6 x 3w LEDs which produce an intense light.

- 6 LED surface mount light head
- ECE R65 Single flash, ECE R10
- SAE J595 CLASS1 Double Flash, ECE R10
- IP 67
- 3W each LED (red/amber/blue)
- · Five cables,18 flash patterns
- With memory function
- DC 12V~24V
- Size: L130xW30xH7mm

#### TF7028



#### TF7029



### HAZARD 12 AND HAZARD 24 (AMBER)

The HAZARD 12 and HAZARD 24 both have an ultra slim surface mounted amber LED warning light which has a housing of 9mm wide. This makes them ideal when space is a premium or a covert look is preferred. These lights come with 18 different flash patterns which can be changed by the user. The HAZARD 12 is fitted with 12x3w LEDs and the HAZARD 24 is fitted with 24x3w LEDs which produce an intense light.

- 12 or 24 LED surface mount light head
- ECE R65 Single flash, ECE R10
- SAE J595 CLASS1 Double Flash
- ECE R10
- IP 67
- 3W each LED (red/amber/blue)
- Five cables,18 flash patterns
- With memory function
- DC 12V~24V
- Size: L130xW30xH7mm



### TF7031



### HAZARD 180 (AMBER)

The Hazard 180 is a high intensity dashboard warning light fitted with 12 LEDs to give an unmissable flash. It comes with an adjustable mounting bracket & 3 suction cups for fixing to the windscreen together with a flashback shield. Powered via a 12v cigarette/auxiliary power source with a choice of 17 flash patterns which can be chosen by the operator.

- 12 high intensity LEDs 36 watts
- 17 user selectable flash patterns
- Auxiliary/cigarette power feed with 3m of cable
- Adjustable mounting bracket & 3 suction cups
- Flashback shield
- ECE R10
- DC 12-24V
- Size: 260mm (L) x 81mm (W) x 53mm (H)





#### **HAZARD 360 (AMBER)**

The Hazard 360 is a high intensity mini Light Bar fitted with 80 LEDs to give an unmissable flash. It comes with both roof top magnetic mounts and bolt fixings while powered via a 12v cigarette/auxiliary power source. A choice of 18 flash patterns can be chosen by the operator.

- 80 high intensity LEDs 50 watts
- ECE R10
- · ECE R65 Single flash
- SAE J845 CLASS1 Double Flash
- DC 12-24V
- IP56 water and dust ingress rating
- · Auxiliary/cigarette power feed
- Magnetic & bolt fixing Magnetic mounts for speeds up to 70mph (112km/h)
- -30°C to + 50°C temperature range













Description	Part Number
White LEDs	TF7021
Amber LEDs	TF7022
Green LEDs	TF7023
Blue LEDs	TF7024
Red LEDs	TF7025
Multi-light Kit with controller	TF7032

#### **MULTI LIGHT**

Our MULTI light is a small yet powerful unit which produces a wide 120-degree light pattern. The tough alloy housing and rubber mounting base is only slightly larger than a match box so this means the light can be fitted almost anywhere on a vehicle. The light contains 3 x 3w CREE LEDs and comes in a choice of 5 LED colours including white, amber, blue, green & red. Illuminate the underside of your vehicle with white LEDs or install ambers LEDs on a flasher unit for a discreet hazard warning, the options are endless.

- Number of LEDs 3
- Wattage / Power 9w
- LED Type Cree White
- Lumens & Amp Draw\* 495LM @ 0.35A
- Voltage Range 9 24V
- Beam Pattern & Distance 120° Spread

TF7032





## **MAGFLEX LIGHTING**

High quality work lights for home and professional use



The award winning MAGflex range from RING provides a light for every job, aimed at workshop technicians we have selected the standout rechargeable models from the range and made them available to you. With impact ratings or IK7 and IK8 as well as dust and waterproof ratings of IP54 and IP65 these lights are made to last.

#### GA4200



### **PRO FAST CHARGE**

The MAGflex Pro Fast Charge is a professional LED inspection lamp with a difference. Whilst standard inspection lighting could take up to three hours to charge, the fast charge feature on the RIL4200 takes the lamp from 0-100% battery in just one hour with the same long operating life. Designed with the mechanic in mind, this 500 lumen lamp (100 lumen torch function), 5700K colour temperature lamp is rated IK08, to survive the toughest garage environments. The inspection lamp included two magnets and a rotating hook allow for hands-free working, perfect for mechanics and working under the bonnet of a car.

## GA6100

#### **MINI 250**

The MAGflex Mini 250 is a compact but powerful lamp, with a lumen output of 250lm, and complete flexibility



including a 180-degree flex base ratchet mechanism to position the light where you need it. Plus, there is a hook and magnets for hands-free working. A torch on top of the unit provides a focused directional light for detailed work. This multi-angled inspection lamp is tested to IP65 & IK07 and operates for up to 6 hours from a single charge. Ideal tool for any tradesmen needing additional light to work with.

### **GA4300**



#### SLIM FAST CHARGE

The MAGflex Slim Fast Charge is a slim LED inspection lamp with a difference fast technology charges the lamp from 0 to 100% in just one hour. The same long life with 3 times quicker charging, get back to work in a flash. Designed with the mechanic in mind, this 500 lumen, 5700K colour temperature lamp is rated IK08, to survive the toughest garage environments. Features such as a multiangle lamp head, magnets and hooks allow for hands-free working, ideal for mechanics and working under the hood of a car.



The MAGflex Slim 500 provides technicians with a versatile lamp, enabling them to shine a light in the darkest of places thanks to its enhanced adjustability with its slim, foldable design and 270-degree twist. When folded down and twisted the torch can act as a compact search light. Like the other two lamps it comes with magnets and hook for hands free working. This 500 lumen multi-angled slim inspection lamp is tested to IP54 & IK07 and operates for up to 6 hours from a single charge. Ideal tool for any tradesmen needing additional light to work with.

### **GA6200**



#### **MAX 500**

The MAGflex Max 500 has a bright white light output of 500lm lumen for complete illumination of the engine bay. As well has having a 180-degree flex mechanism, the head of the lamp twists 360 degrees for shining light where it is needed, without constantly repositioning. The torch on top is a UV torch to help with leak detection. Again, magnets and a hook allow for hands free working. This 500 lumen multi-angled inspection lamp is tested to IP65 & IK08 and operates for up to 7.5 hours from a single charge. Ideal tool for any tradesmen needing additional light to work with.

#### **GA6400**



#### **HEAD TORCH 250**

the MAGflex Headtorch 250 offers the technician a hands-free option, as the rechargeable headtorch with an integrated motion sensor can simply be strapped to the user's head, providing a direct light source wherever needed. This 250 lumen headtorch, equipped with a motion sensor, is tested to IP54 & IK07 and operates for up to 6 hours from a single charge. Perfect for all tradesmen, when needing to work hands free.





## WILDERNESS LIGHTING

Whatever the application, these lights will not let you down!



Wilderness Lighting supply what are believed to be some of the highest quality & brightest LED lights on the market today using class leading technology.





The unbeatable toughness & durability of Wilderness lights means they are ideally suited for the most of extreme conditions including Agriculture, Mining, Forestry, Marine & Extreme off-road motorsport.



## COMPACT 8 LED LIGHTS

Our Compact 8 LED Spotlights are small yet very powerful. Supplied as a pair these lights produce a massive 3000 Lumens of light. The Compact 8 features 8 x 5W LED's, 4 LED's facing forward with smooth round reflectors to produce a 10-degree spot beam pattern and an additional 2 LED's on either side of the light to give a much wider spread of light. The low energy consumption technology means they only consume 2.8 amps of power.



## 20" SOLO SINGLE ROW COMBINATION BEAM LED LIGHT BAR

SOLO - 20" Light belongs to our range of single row light bars, these small yet very powerful lights produce a massive 10780 Lumens of light from 20 x 5W OSLON white LED chips giving visible beam distance of 1210m. The low energy consumption technology means they only consume 6.7 amps of power.



## 50" SOLO SINGLE ROW COMBINATION BEAM LED LIGHT BAR

SOLO - 50" Light belongs to our range of single row light bars, these small yet very powerful lights produce a massive 27060 Lumens of light from 50 x 5W OSLON white LED chips giving visible beam distance of 2180m. The low energy consumption technology means they only consume 17.3 amps of power.





## DOWN LIGHTER 'SCENE' LIGHTS

Down Lighter Scene lights produce a 65-degree spread of light to give you extra illumination when needed. The tough alloy housing can be mounted to virtually any surface to allow the light to be projected towards the target area. The 5" has 6 x 3w LEDs which pack a real punch when it comes to lumen output, producing 600 lumens while consuming less than 0.75amp. The 10" has 27 x 1w LEDs producing an impressive 2400 lumens.

The housings of these lights are made of weather-resistant and waterproof aluminium and coated with a black UV-resistant paint to prevent chipping and fading for a lasting finish. The diffused lenses used are equally hardwearing as its aluminium housing to ensure a water and dust ingress rating of IP68.



Description	Part No
Compact 8 side shooter spot and spread beam 3000LM (PAIR)	TF716
20" Solo single row combination beam light bar 10780LM	TF717
50" Solo single row combination beam light bar 27060LM	TF718
Pair of bottom mounting brackets for Wilderness light bars	TF718A
5" Downlighter 'scene' light camping/work light 660LM	TF719
10" Downlighter 'scene' light camping/work light 2400LM	TF7020





## TerrafirMa LIGHT GUARDS

### **FEATURES:**

High grade plastic Suitable for 73 and 95mm lamps Terrafirma Defender front and rear light guards are made from high grade plastic and are suitable for both standard 73mm lights as well as the larger 95mm diameter





DEFENDER	Part number
73mm standard light diameter light guard	TF170
95mm NAS light diameter light guard	TF171

## OTHER LIGHT GUARDS

NAS style lights.

### **FEATURES:**

Minimal drilling to fit

Easy to install

Offers protection and styling



Light guards are designed to protect the lights and enhance the appearance and emphasise the shape of your head lights and tail lights giving a more purposeful look.

Vehicle	Description	Part number
S3	Mesh light guard (SINGLE)	345985
DEF	Front light guards	STC53161
DEF	Rear light guards (square left L shape right)	STC53157
DEF	Rear light guards (square left & square right)	STC53158
D2 up to 3A	Front light guards	STC50026
D2 3A on	Front light guards	STC53193
D2	Rear light guards	STC53194
D3	Front light guards	VUB501200
D3	Rear light guards	VUB501380
D4	Front light guards	VPLAP0008
D4	Rear light guards	VPLAP0009
RRS 2010-2013	Front light guards	VPLSP0010
RRS 2010-2013	Rear light guards	VPLTP0064

















No drilling

or fixings required

## LIGHT MOUNTS

Sometimes it's not straightforward to mount spotlights to a vehicle, drilling the bumpers or bodywork is not a great option, this range of light mounts provides a solution.



Terrafirma bulkhead spotlight mounting brackets for Defenders. Supplied as a pair these clever black powder coated fabricated steel brackets allow small to medium sized spot lights to be mounted on the bulkhead providing long range visibility whilst still allowing the bonnet to be opened or removed, for the bulkhead vent panels to be opened and without obscuring the view from

DEFENDER	Part No
Bulkhead spotlight mounting brackets (PAIR)	TF7220



#### FEATURES:

Suitable for many bumper options

Fits multiple lights and light bars

DEFENDER BUMPER SPOTLIGHT BARS

These relatively shallow but chunky bars are designed to fit 2, 3 or 4 spotlights, depending on their size, even smaller light bars.

There is a winch bumper version that is slightly taller than the standard version to clear winches with overhead solenoid packs which is suitable for both Air Con and Non Air Con vehicles and a shallower options for standard and non-winch heavy duty bumpers. Made from 2.5" diameter tube and black powder coated; they really look the part on any Defender.

DEFENDER	Part No	
Spotlight mounting bar to suit Terrafirma commercial winch bumpers	TF008	
Spotlight mounting bar to suit Defender standard bumpers	TF008SH	



## TUBE BUMPER MOUNTED LIGHT BAR

#### **FEATURES:**

Simple to fit

Stylish mounting bar for 2 spotlights

Perfect for mounting small to medium sized lights directly to the top of a bumper. Also suitable for plastic bumpers such as Discovery 1 and 2.

UNIVERSAL	Part No	
Shallow bumper		
mounted tubular	TF7003	
light bar		

## HEADLIGHT ANTI THEFT BRACKETS

the drivers and passengers seat.



Stop your expensive headlights from being stolen with these simple to fit anti-theft guards which prevent the securing tag from being prized up meaning the lights cannot be removed without opening the bonnet. They are simple to fit using existing mounting, no drilling required.

Vehicle	Description	Part No
D3 & D4	Headlight anti theft brackets (PAIR)	TF756



## BEHIND THE WINCH **FAIRLEAD LIGHT** MOUNTING BRACKET

Sandwiched between a hawse or roller fairlead and winch bumper through the standard fixings this light mounting bracket is ideal for mounting a pair of lights or light bar.

UNIVERSAL	Part No
Behind the winch fairlead light	TF7004
mounting bracket	117004



## BEHIND NUMBER PLATE LIGHT BAR MOUNT

By using more substantial fixings this clever light mounting bracket is sandwiched behind the number plate which saves drilling fresh holes, particularly in vehicles that have plastic bumpers. Suitable for small LED lights and light bars.

UNIVERSAL	Part No
Behind the number plate light bar mounting bracket	TF4107



## ROOF LIGHT BARS



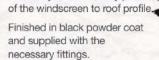
### **FEATURES:**

Follows the shape of the roof line

Perfect form mounting lights up high without a roof rack Mounting spotlights above the windscreen not only looks great but also projects good light to illuminate a wider path and to show up potholes ahead.

These roof bars attach to the rain gutter and allow for 4 small to medium driving or spotlights to be fitted. The Defender version is obviously straight to follow the roof line above the windscreen whilst the

Discovery version is very precisely curved to follow the shape





Vehicle	Description	Part No
DEF	Gutter mounted across the windscreen light bar	TF7001
D1 & D2	Gutter mounted across the windscreen light bar	TF7002
D2	Gutter mounted rear light bar	TF7016
DEF	Gutter mounted rear light bar	TF7017
Universal	Pair of aerial mounts for TF7016 & 7017	TF7018



## DISCOVERY 3 & 4 LIGHT BAR

### **FEATURES:**

Easy to fit with or without roof tracks

Mounting for 4 spotlights

Matching spoiler available

Like the popular TF972 roof rack this black powder coated steel tubular light bar is ideal for mount 4 spotlights to your Discovery 3 or 4. To complete the unique styling a moulded plastic spoiler is available TF972SP.



VehiclePart numberDiscovery 3 and 4 light barTF974

## ROOF RACK SPOTLIGHT AND LIGHT BAR MOUNTING KIT

#### **FEATURES:**

Will fit most flat roof racks

Plenty of adjustment

Multiple mounting options



This universal mounting kit allows the fitment of 4 spotlights, a light bar or combination of both if required. Ideal for aluminium roof racks with a T slot system or any flat surface.

UNIVERSAL	Part number
Spotlight and light bar mounting kit	TF8012



# REPLACEMENT & LED UPGRADE KITS

For Defenders...



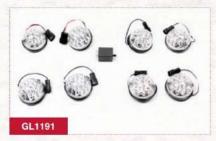
Wipac design and manufacture exterior lighting products for the world's premium car makers. They are technology readers in this

market and the majority of the products utilise high powered LEDs in both front and rear applications. Extensive design development and the test facilities combined with state of the art, clean-room manufacturing delivers products to the quality levels required by the most discerning customers.



















Kits	Clear	Coloured	Smoked
73mm standard light kit inc. relay		GL1077G	
73mm standard light kit		GL1080G	
95mm LED light kit	GL1143CL	GL1143	GL1143SM
73mm LED light kit	GL1191	GL1192	GL1190
95mm LED front kit	GL1274CL	GL1274	GL1274SM
73mm kit with 95mm fog and reverse	GL1291	GL1292	GL1577SM
Replacement lights			
73mm LED front indicator	LR047798LEDCL	LR048188LED	LR048188SM
73mm LED rear indicator	LR048187LEDCL	LR048187LED	LR048187SM
73mm LED Front side light	LR048189LEDCL		LR048189LEDSM
73mm LED stop tail light	LR048200LEDCL	LR048200LED	LR048200SM
95mm LED stop tail light	AMR6526LEDCL	AMR6526LED	AMR6526LEDSM
95mm LED indicator	AMR6527LEDCL	AMR6527LEDG	AMR6527LEDSM
95mm Front side light	GL1273		GL1273SM
95mm LED fog light	LR048201LEDCL	LR048201LED	LR048201LEDSM
95mm LED reverse light	LR048202LEDCL		LR048202LEDSM
LED number plate light		XFC100550LED	
LED high level brake light unit	LR044451LEDW	LR044451LEDR	LR044451LEDB
Side repeaters late type	GL8530	GL8532	GL8531
Flasher relay for LED indicators		GL051	
95mm light plinth	AMR3850		
Pack of 10 screws		SE105161L	
2 wire link harness ind, side, fog & rev		STC1188	
3 wire link harness stop tail		STC4637	









## REPLACEMENT LIGHTS

Over the years lighting equipment has improved considerably. Some vehicle model lights have not always been the best, so better replacements and upgrades are often high on owners wish lists.

Upgrade your Defender sealed beam units to halogen, replace the vulnerable fog lights on your Range Rover Classic or simply add some spotlights or a work light.

























Vehicle	Description	Part number
DEF/UNIVERSAL	Replacement lights (PAIR) for TF056 bumper	TF056L
UNIVERSAL	EU approved spare bulb and fuse kit containing the 5 most popular bulbs - C047	GL1001
UNIVERSAL	H4 XENON MAX bulbs giving up to 90% more light (PAIR)	GL1004
UNIVERSAL	H7 XENON MAX bulbs giving up to 90% more light (PAIR)	GL1006
UNIVERSAL	RING round rear work lamp with grab handle and switch	GL2001
UNIVERSAL	H3 12V 55w bulb also suits GL2001	GL2003
RRC & UNIVERSAL	Rectangular 55w rectangular (PAIR)	GL002
DEF	7" RING Halogen headlamp conversion kit RHD	GL003
DEF	7" WIPAC Halogen headlamp conversion kit RHD	GL003G
DEF	7" WIPAC Halogen headlamp conversion kit LHD	GL006
UNIVERSAL	5.5" RING ROADRUNNER driving lights (PAIR)	GL014
UNIVERSAL	RING Pre wired fitting kit for a pair of spotlights including 30amp relay	GL010
UNIVERSAL	LED indicator lamp load device	GL017
DEF, S2 & S3	Allmakes LED front flasher lamp	RTC5013LED
DEF, S2 & S3	Allmakes LED stop & tail lamp	RTC5523LED



To compliment this extensive range of accessories, Terrafirma offers a range of merchandise to help you show off your investment personally.

The motor industry is packed full of powerful and exciting brands, many of which have become household names with masses of product, clothing and accessories bearing internationally recognised logos.

Terrafirma is one of the most desired and recognised brands in the 4x4 industry. To help 4x4 owners demonstrate their confidence and pride having invested in Terrafirma, we have had a selection of Shirts, T Shirts, Polo Shirts, hoodies, Baseball Caps and beanie bearing the stylish Terrafirma 'serious 4x4 accessories' logo created to allow you to really feel part of the brand.

## **HEAD GEAR & CLOTHING**

Stylish black with red accents and Terrafirma logo for this baseball cap, machine washable beanie and LED beanie.

The buff is made from 92% polyester & 8% Spandex, this buff is a multi-functional tubular accessory ideal for many activities. Designed to keep you warm in the cold and wick moisture away from your skin to keep you cool when it is hot. Great as a face covering or dust mask.

Description	Part number
Competition cap - black and red	TF788
Beanie hat - black and red	TF789
LED Beanie hat, USB chargeable	TF790
Buff-face covering	TF787

















## **JACKET**

The Terrafirma jacket is warm-backed stretch ripstop fabric, hardwearing, polyamide overlays and reflective trim. Machine washable.

Terrafirma Jacket	Part number
Size large	TF786L
Size XL	TF786XL
Size XXL	TF786XXL

## HOODY

Kangaroo pouch pocket with hidden opening for earphone cord feed. Hidden earphone loops. Double-fabric hood with contrast inner. Machine washable.

Terrafirma Hoody	Part number
Size large	TF784L
Size XL	TF784XL
Size XXI	TF784XXI

## SAFARI SHIRT

Semi-cutaway, relaxed collar with square edged adjustable cuff. Sleeve can be rolled up and tabbed. Machine washable.

Terrafirma Safari Shirt	Part number
Size medium	TF782M
Size large	TF782L
Size XL	TF782XL
Size XXL	TF782XXL



## **POLO SHIRT**

100% cotton. Machine washable.

Terrafirma Polo Shirt	Part number
Size medium	TF780M
Size large	TF780L
Size XL	TF780XL
Size XXL	TF780XXL



# UTILITY/MECHANICAL GLOVES

Terrafirma impact resistant touch screen utility or mechanics gloves are the next level in protection for your hands. They can be worn for all activities while off road and in the workshop and have synthetic leather & PVC reinforced and padded palms and fingers, stretch fabric panels for superior comfort, reinforced knuckle and back of the hand protectors.

Description	Part number
Size XL	TF4412XL
Size XXL	TF4412XXL





## DRINKS, SIGNAGE, VINYLS AND MORE



## METAL EMBOSSED BADGE

Alloy embossed self adhesive badge for true fans of the brand.



Description Part No.
Self adhesive metal embossed badge 120x35mm



TRAVEL MUG AND WATER BOTTLE

Hot or cold these are your perfect travel companions

Description	Part number
600ml stainless steel travel mug	TF1212
660ml stainless steel water bottle	TF1211



## **VINYL BANNER**

Display the Terrafirma brand with a high quality 3m x 1m vinyl banner, ideal for your showroom, exhibition stand, forecourt, off road course or pit area. Printed on one side with reinforced borders and eyelets.

Description	Part number
3mx1m Vinyl Banner	TF793



## **DECALS STICKERS**

Terrafirma decal stickers on a white background in 3 sizes.

Description	Part number
300x100mm sticker	TFDECAL1
500x200mm sticker	TFDECAL2
650x250mm sticker	TFDECAL3





TF7910

Foam keyring





## **FEATHER FLAG**

Decorate your showroom, exhibition stand, forecourt, off road course or pit area with a high quality Terrafirma feather flag. Printed on both sides these 3m high feather flags are sure to attract attention. Supplied complete with flag, pole and ground spike.

Description	Part number	
3m high Feather Flag	TF792	

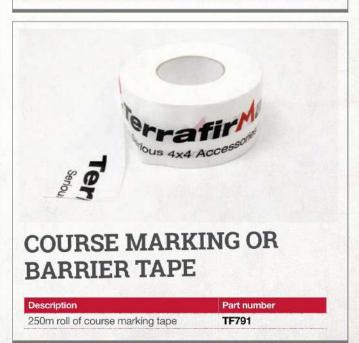




## **VEHICLE GRAPHICS**

Emblazon your vehicle with these striking Terrafirma logos available either in black or grey with a red M and including the big red M for the bonnet.

Description	Part number
1700 x 253mm Black with red M	TF2040
1700 x 253mm Grey with red M	TF2045



# PART INDEX

				GA4032	100	GA0033	211
				GA4858	188	GA6665	211
345985	225	GA1203	184	GA4859	188	GA8534	207
568858	77,78	GA1204	184	GA4860	188	GA9018	142
7102-009-00A	183	GA1305	208	GA4861	188	GE001	120,165
AL0710010GF	195	GA1306	208	GA4874	193	GE2001	169
AMR3155	179	GA1309	208	GA5055	183	GE2392	165
AMR3850	228	GA1435	182	GA5056	183	GHL2	122
AMR6526LED	228	GA1512	207	GA5057	183	GHL3	122
AMR6526LEDCL	228	GA1631	187	GA5058	183	GHL4	122
AMR6526LEDSM	228	GA20210	173	GA5059LH	183	GHL4/5A	122
AMR6527LEDCL	228	GA2488	124	GA5059RH	183	GHL4/5BAG	122
AMR6527LEDG	228	GA2489	124	GA5060LH	183	GHL4XT	122
AMR6527LEDSM	228	GA2548	125	GA5060RH	183	GHL5	122
ANR4583PM	126	GA2892	131	GA5079	183	GHL6	122
ANR4583SILVER	126	GA2893	131	GA5080	183	GHL7	122
BTR277	209	GA3548	124	GA5513	88	GI002	181
BTR6682	191	GA3891	131	GA5526	88	GI003	181
CAS000150PMALR	201	GA4141	187	GA5539	187	GI004	181
CAS100900LR	201	GA4200	222	GA568	144	GI005	181
CAS100910LR	201	GA42015	172	GA569	144	GI050	189
CAS500010PCL	201	GA42025	172	GA5803	187	GI051	189
CAS500060PMA	201	GA42130	172	GA5805	187	GI053	187
CAS500070PCL	201	GA42214	172	GA5806	187	GI054	189
CAS500070PMA	201	GA42230	172	GA5810	187	GI055	187
CAT000180PMA	201	GA4300	222	GA5812	187	GI058	189
CAT101160	201	GA4424	188	GA5813	187	GI064	189
CAT101170	201	GA4425	188	GA6100	222	GI200	189
CAT500010PCL	201	GA4426	188	GA616	211	GI201	189
CAT500070PMA	201	GA4427	188	GA6200	222	GI202	189
CAT500120PCL	201	GA4430	188	GA6300	222	GI219	182
CAT500450PMAG	201	GA4431	188	GA6370	211	GI220	182
EAH500520	189	GA4503	189	GA6371	211	GL002	229
EAH500530	189	GA4800	188	GA6382	211	GL003	229
EAH500540	189	GA4801	188	GA6386	211	GL003G	229
EZM100340LOY	191	GA4802	188	GA6388BLK		GL006	229
FRC5806	143	GA4803	188	GA6388BW	211	GL010	229
FTC1724HD	139	GA4804	188	GA6388GG	211	GL016	229
FTC1725HD	139	GA4805	188	GA6390	211	GL017	229
FTC859	143	GA4806	188	GA6391	211	GL051	228
G1398	181	GA4807	188	GA6393	211	GL1001	229
G1399	181	GA4808	188	GA6394	211	GL1004	229
GA1025	173	GA4809	188	GA6395	211	GL1004	229
GA1030	173	GA4812	188	GA6396	211	GL1077G	228
GA1050	173	GA4813	188	GA6400	222	GL1080G	228
GA1131	208	GA4814	207	GA6436			228
GA1131KIT	208	GA4818	207	Sold Schoolson.	211	GL1143	- 10000000
	208	GA4819	188	GA6447	211	GL1143CL	228
GA1142	208	GA4820	188	GA6497	211	GL1143SM	228
GA1142B		GA4821	188	GA6498	211	GL1190	228
GA1152	208	GA4823	188	GA6615	211	GL1191	228
GA1152B	208	The state of the s	- 11000000	GA6617	211	GL1192	228
GA1178	142	GA4824	188	GA6642	211	GL1273	228
GA1199	66	GA4827	188	GA6647	211	GL1273SM	228

GA4828

GA4832

188

188

GA6649

GA6653

211

211



GL1274	228	LR016176CDG	82	LR048202LEDCI		MWC1474	191
GL1274CL	228	LR016192CDG	82	LR048202LEDSN	VI 228	MWC5763LOY	191
GL1274SM	228	LR017951CDG	82	LR051592TF	75	MXC5587	201
GL1291	228	LR017952CDG	82	LR051594TF	75	MXC6412	209
GL1292	228	LR017952WCDG	81	LR051614TF	75	MXC6413	209
GL1577SM	228	LR017953CDG	82	LR051615TF	75	NRC5088	88
GL2001	229	LR017953WCDG	81	LR051617TF	75	NTC8780CDG	82
GL2003	229	LR018026CDG	82	LR051622TF	75	NZ606041L	140
GL8530	228	LR018026WCDG	81	LR051623TF	75	PC1500DT	165
GL8531	228	LR019618P	83	LR051626P	83	PD1881BLACK	23,124
GL8532	228	LR019618TF	84	LR051626TF	84	PD1881GREY	124
GRW001	126	LR019977TF	75	LR055323	201	PD1881GREY	23
GRW002	126	LR019978TF	75	LR055330	201	PPLR052	95
GRW003	126	LR025739P	83	LR055332	201	PPLR108	95
GRW004	126	LR025739TF	84	LR055333	201	PPLR138	95
GRW005	126	LR026221P	83	LR055334	201	PPLR172	95
GRW006	126	LR026221TF	84	LR055340	201	PPLR230	95
GRW012	126	LR027107CDG	82	LR055454P	83	PPLR242	95
GS177	204,205	LR027123CDG	82	LR055454TF	84	PPLR243	95
GS178	204,205	LR027309P	83	LR055455P	83	PPLR244	95
GSB210	183	LR027309TF	84	LR055455TF	84	PPLR299	95
GSB2220	183	LR029301TF	75	LR059122CDG	82	PPLR301	95
GSB300/30	183	LR029302TF	75	LR061385P	83	QEM500020	77,78
GSB500/30	183	LR029303TF	75	LR061385TF	84	RBJ500222TF	75
HS163	140	LR029304TF	75	LR061388CDG	82	RBJ500232TF	75
KAM101	143	LR029305TF	75	LR063688TF	75	RCT744	102
KAM539	138	LR029306TF	75	LR063711TF	75	RCT765	102
KAM541	138	LR031843CDG	82	LR063718TF	75	RGX100960K	66
KAM542	138	LR031844CDG	82	LR063719TF	75	RNG500060	59
KAM546	138	LR031845CDG	82	LR064181P	83	ROA100050 28,29,3	193
KAM547	138	LR031846CDG	82	LR064181TF	84		30,31,36,37
KAM548	138	LR033302CDG	82	LR068126	125	RRD500010	126,129
KAM549	138	LR033303CDG	82	LR068126B	125	RRD500560	124,125
LR001018CDG	82	LR038934CDG	82	LR072681P	83	RRD500560B	124,125
LR001019CDG	82	LR039935CDG		LR072681TF	84	RTC4685	201,209
				TO THE RESERVE THE PERSON NAMED IN COLUMN TO		Service Control of the Control of th	
LR002516	189	LR044451LEDB	228	LR073367TF	75	RTC5013LED	229
LR002773	207	LR044451LEDR	228	LR073369TF	75	RTC5523LED	229
LR003322	201	LR044451LEDW	228	LR074838TF	75	RTC5869	79
LR003324	201	LR045096	189	LR075993TF	75	RTC5870	79
LR003894	189	LR045409	140	LR075995TF	75	RTC6820	201
LR005039	188	LR047798LEDCL	228	LR078545	125	RTC6821	201
LR005040	189	LR048187LED	228	LR108260P	83	RTC8095	187
LR005041	188	LR048187LEDCL	228	LR108260TF	84	RTC9479	201
LR005613	189	LR048187SM	228	LR129123G	23,126,127,129	RTC9535	126,129
LR005615	189	LR048188LED	228	LR130610	23,126,127,129	RTC9562	201
LR006401	189	LR048188SM	228	LR134695P	83	RUC105200	143
LR007055CDG	82	LR048189LEDCL	228	LR134695TF	84	SDB000201CDG	82
LR007320	187	LR048189LEDSM	228	LR134696P	83	SDB000211CDG	82
LR008375	207	LR048200LED	228	LR134696TF	84	SDB000380CDG	82
LR008375B	207	LR048200LEDCL	228	LR139969P	83	SDB000380WCDG	81
LR008379	207	LR048200SM	228	LR146316	126,127,129	SDB000470CDG	82
LR008379B	207	LR048201LED	228	LR163409	199	SDB000470WCDG	81
LR011591CDG	82	LR048201LEDCL	228	MRC9377GF	195	SDB000604CDG	82
LR015519TF	84	LR048201LEDSM	228	MRC9378GF	195	SDB000614CDG	82



Spendorsecond   Streemark	SDB000624CDG	82	STC8130AB	207	TF015	53,54	TF1013	73
SDESIGNOSCOCIG   82   STC8824   187   TP020   S3,55   TP1016   73   SDESIGNOSCOCIG   82   STC8836   201   TP021   S3,55   TP1017   73   SDESIGNOSCOCIG   82   STC8838   201   TP022   S3,55   TP1018   73   SELGISIBL   228   STC8843A   124,125   TP024   S3,55   TP1018   73   SPC5000800F   84   STCKER-CMPASS   131   TP025   S3,55   TP102   S3,67   TP	SDB000636CDG	82	STC8414	187	TF018	53,54	TF1014	73
SDB500152CDG	SDB000646CDG	82	STC8505AA	207	TF019	53,54	TF1015	73
Selectific   228   STC6843AA   124,125   TF024   S3,55   TF1019   73   TF026000000P   33   STCKER-COMPASS   131   TF025   S3,55   TF1020   G3,67,73   SF05000000T   84   STCKER-TERR   131   TF028   S3,55   TF1020   G3,67,73   SF05000200F   83   STCKER-LINION-   131   TF036   S3,55   TF1022   G3,67,71   SF0500250TF   84   STCKER-LINION-   131   TF031   S3,55   TF1022   G3,67,71   SF0500200P   83   TF001   105   TF031   S3,55   TF1025   73   SF0500200P   83   TF001   106   TF033   S3,55   TF1027   73   SF05000200P   83   TF001   106   TF033   S3,55   TF1027   73   SF05000000P   83   TF001   106   TF033   S3,55   TF1027   73   SF05000000P   83   TF001   106   TF033   S3,55   TF1027   73   SF05000000P   83   TF0013   98,100   TF035   S3,55   TF1029   73   SF0500000P   83   TF0013   98,100   TF035   S3,55   TF1029   73   SF0500000P   83   TF0013   98,100   TF035   S3,55   TF1029   73   SF0500130TF   84   TF0016   93   TF0016   93   TF0016   93   TF0016   93   TF0017   73   TF0018   S1,000   TF035   S3,55   TF1030   73   SF0500150TF   84   TF0017   93   TF0018   S1,000   TF035   S3,55   TF1034   73   SF0500150TF   84   TF0017   93   TF0018   S1,000   TF035   S3,55   TF1030   73   TF0018   S1,000   TF035   S3,55   TF1034   73   TF0018   S1,000   TF035   S3,55   TF1034   73   TF0018   S1,000   TF035   S3,55   TF1030   T73   TF0018   S1,000   TF035   S3,55   TF1034   T73   TF0018   S1,000   TF035   S1,000   TF111   S1,000   TF111   S1,000   TF111   S1,000   TF111   TF111   S1,000   TF111   TF111   S1,000   TF111	SDB100830CDG	82	STC8524	187	TF020	53,55	TF1016	73
Self-Side   228   STC-Side   348   STC-KER-COMPASS   311   TF-025   53,55   TF-1020   63,6773   SF-5000050FF   84   STC-KER-TERR   131   TF-027   53,54   TF-1021   53,55   TF-1023   63,6773   SF-5000050FF   84   STC-KER-LINION-   131   TF-028   53,55   TF-1023   63,6773   SF-5000050FF   84   TF-0010   105   TF-032   53,55   TF-1028   73   SF-5000050FF   84   TF-0010   105   TF-032   53,55   TF-1028   73   SF-5000050FF   84   TF-0010   106   TF-033   53,55   TF-1028   73   SF-5000050FF   84   TF-0010   106   TF-033   53,55   TF-1028   73   SF-5000050FF   84   TF-0012   98,100   TF-033   53,55   TF-1028   73   SF-5000050FF   84   TF-0013   98,100   TF-033   53,55   TF-1028   73   TF-033   SF-5000050FF   84   TF-0014   106   TF-033   53,55   TF-1028   73   TF-033   SF-5000050FF   84   TF-0016   106   TF-033   53,55   TF-1028   73   TF-035   TF-035	SDB101070CDG	82	STC8535	201	TF021	53,55	TF1017	73
SPC5000080F         83         STICKER-COMPASS         131         TF025         53,55         TF1020         63,67/3           SPC500080F         83         STICKER-TERACK         131         TF028         53,55         TF1021         73           SPF000250F         84         STICKER-LINION-F         131         TF029         53,55         TF1024         73           SPF000260F         83         STICKER-LINION-F         131         TF039         53,55         TF1026         73           SPF000280F         84         FG         TF001         105         TF032         53,55         TF1027         73           SPF000070F         83         TF0010         106         TF032         53,55         TF1027         73           SPF000727F         84         TF0010         106         TF032         53,55         TF1027         73           SPF000730P         83         TF0013         98,100         TF034         53,55         TF1027         73           SPF950130P         83         TF0018         106         TF03         53,55         TF1032         73           SPF950130P         83         TF0018         101         TF038         53,55         TF	SDB500182CDG	82	STC8536	201	TF023V	53,54	TF1018	73
SPENDOUGNORM   STICKER-TRACK   131   The Color   The	SE105161L	228	STC8843AA	124,125	TF024	53,55	TF1019	73
SFP000250P         83         STICKER-TRACK         131         FF0028         53,55         TF1023         63,67,71           SFP000250FP         84         STICKER-UNION-F         131         TF029         53,55         TF1024         73           SFP000280FP         84         FG010         105         FG3         TF1021         105         73           SFP000280FP         83         TF0010         105         FG3         TF0011         105         FF032         53,55         TF1026         73           SFP500070P         83         TF0011         106         FF032         53,55         TF1026         73           SFP500130P         83         TF0011         106         FF032         53,55         TF1028         73           SFP500130P         83         TF0013         98,100         FF034         53,55         TF1029         73           SFP50150FF         84         TF0016         93         TF0036         53,55         TF1032         73           SFP500160FF         84         TF0018         101         FF037         53,55         TF1031         73           SFP500160FF         84         TF0018         101         FF036         <	SFC500080P	83	STICKER-COMPASS	131	TF025	53,55	TF1020	63,67,73
SFP000250TF         84         STICKER-UNION-F         131         FF0029         \$3.55         TF1025         73           SFP000280TF         84         FG         131         TF003         \$3.55         TF1025         73           SFP000280TF         84         TF001         105         TF032         \$3.55         TF1027         73           SFP500070TP         84         TF0011         106         TF032         \$3.55         TF1028         73           SFP500130P         83         TF0011         106         TF033         \$3,55         TF1028         73           SFP500130P         83         TF0014         106         TF033         \$3,55         TF1029         73           SFP500150P         83         TF0014         106         F7036         \$3,55         TF1030         73           SFP500150P         83         TF0015         106         F7038         \$3,55         TF1032         73           SFP500160P         83         TF0018         99,100         F7044         \$3,59         TF1032         73           SFP500190P         83         TF0018         99,100         F7043         \$3,59         TF1032         73	SFC500080TF	84	STICKER-TERR	131	TF027V	53,54	TF1021	73
SFP000260P         83         STICKER-UNION- 131         14 CG         14 CG         15 CG         16 CG         17 CG         73 CG </td <td>SFP000250P</td> <td>83</td> <td>STICKER-TRACK</td> <td>131</td> <td>TF028</td> <td>53,55</td> <td>TF1023</td> <td>63,67,71</td>	SFP000250P	83	STICKER-TRACK	131	TF028	53,55	TF1023	63,67,71
FF0002600F	SFP000250TF	84	STICKER-UNION-F	131	TF029	53,55	TF1024	73
SFP000260TF         84 PG         TF001         105 TF002         59,55 TF1027         73           SFP000280TF         84 SFP500070P         83 TF0010         106 TF0033         53,55 TF1028         73           SFP500070P         83 TF0011         106 TF0034         53,55 TF1028         73           SFP500130P         84 TF0013         98,100 TF036         53,55 TF1030         73           SFP500130TF         84 TF0015         106 TF033         53,55 TF1030         73           SFP500150TF         84 TF0016         193 TF004         53,55 TF1034         73           SFP500150TF         84 TF0016         93 TF004         53,55 TF1034         73           SFP500150TF         84 TF0016         93 TF004         53,55 TF1034         73           SFP500150TF         84 TF0016         93 TF004         53,55 TF1034         73           SFP500160TP         83 TF0017         93 TF044         53,55 TF1034         73           SFP500190P         83 TF0010C         105 TF0436         93 TF1037         73           SFP500210TP         84 TF0020         107 TF0436         19 TF1040         163           SFP500220TP         84 TF0020LB         107 TF05436         19 TF044         17040         170438	SFP000260P	83	STICKER-UNION-	131	TF030	53,55	TF1025	73
SFP600280TF         84         FF0010         106         FF033         53,55         FF1028         73           SFP500070TF         81         FF0011         106         FF033         53,55         FF1028         73           SFP500070TF         84         FF0012         98,100         FF035         53,55         FF1039         73           SFP500130TF         84         FF0014         106         FF037         53,55         FF1031         73           SFP500150TF         84         FF0014         106         FF037         53,55         FF1034         79           SFP500150TF         84         FF0016         93         FF041         53,55         FF1034         79           SFP500150TF         84         FF0017         93         FF041         53,55         FF1034         79           SFP500190P         83         FF0017         93         FF041         53,55         FF1038         163           SFP500190P         84         FF0018         101         FF042         53,55         FF1038         163           SFP500210TF         84         FF0018         101         FF042         53,55         FF1038         163	SFP000260TF	84	FG	1,10,000	TF031	53,55	TF1026	73
Figure   F	SFP000280P	83	TF001	105	TF032	53,55	TF1027	73
Figure   F	SFP000280TF	84	TF0010	106	TF033	53,55	TF1028	73
SFP500130P         83         TF0013         98,100         TF036         53,55         TF1031         73           SFP500150F         84         TF0015         106         F93         TF037         53,55         TF1034         73           SFP500150F         84         TF0016         93         TF040         53,59         TF1035         66           SFP500160F         84         TF0018         101         17         F040         53,59         TF1037         73           SFP500160F         84         TF0018         101         17         F040         53,59         TF1037         73           SFP500160F         84         TF0018         101         17         F040         53,59         TF1037         73           SFP500160F         84         TF0010         105         F040         53,59         TF1037         73           SFP500190F         84         TF0010         105         F0436         93         TF1039         163           SFP500210F         84         TF0010C         105         F0436         19         171007         163           SFP500220F         83         TF0010C         107         FF0437         21,112	SFP500070P	83	-		TF034	53,55	TF1029	73
TF0014	SFP500070TF	84	TF0012	98,100	TF035	53	TF1030	73
SFP500150P         83         TF0015         106         TF038         53,55         TF1034         79           SFP500160F         84         TF0016         93         TF040         53,59         TF1037         73           SFP500160F         84         TF0018         101         TF042         53,55         TF1038         163           SFP500190F         83         TF0019         98,100         TF0436         93         TF1039         163           SFP500190F         84         TF001AC         105         TF0436         19         TF1040         163           SFP500210F         84         TF001AC         105         TF0436         19         TF1040TOP         163           SFP500210F         84         TF0020         107         TF0436         19         TF1040TOP         163           SFP500220F         83         TF0020         107         TF0436         19         TF1040TOP         163           SFP500220F         83         TF0020         107         TF0437         29,112         TF1041         163,29         17404         163         17404         163         17404         163         17404         17404         17404         17404 <td>SFP500130P</td> <td>83</td> <td>The second second</td> <td></td> <td>TF036</td> <td>53,55</td> <td>TF1031</td> <td>73</td>	SFP500130P	83	The second second		TF036	53,55	TF1031	73
SFP500150TF         84         TF0016         93         TF040         \$55,59         TF1035         66           SFP500160TF         84         TF0017         93         TF041         \$53,59         TF1037         73           SFP500160TF         84         TF0019         98,100         TF0426         93         TF1039         163           SFP500190TF         84         TF001AC         105         TF0436         19         TF1040         163           SFP500210TF         84         TF001AC         105         TF0436         19         TF1040         163           SFP500210TF         84         TF001C         105         TF0436         19         TF1040TOP         163           SFP500220TF         84         TF0020         107         TF051         164         TF1041         163,20           SFP500220TF         84         TF0020LB         107         TF051         164         TF1043         73           SFP50022DF         83         TF002LB         107         TF053         164         TF1043         73           STC1888         140         TF0022         97,100         TF055         109         TF111         163	SFP500130TF	84	TF0014	106	TF037	53,55	TF1032	73
SFP500160P         33         TF0017         93         TF041         53,59         TF1037         73           SFP500160TF         84         TF0018         101         176018         101         176018         101         176018         101         176019         98,100         176019         98,100         176019         98,100         176019         98,100         176019         98,100         176019         98,100         176019         176019         176019         176019         176019         176019         176019         176019         176019         176019         176019         176019         176019         176019         176019         176019         176019         176039         163         176039         163         176039         163         176039         163         176039         163         176039         163         176039         163         176039         163         1760436         193         17604070         163         1760436         193         17604070         163         1760437         21,112         17604070         163         1760437         21,112         17604070         163         1760437         21,112         1760437         21,112         1760437         1760437         1760437 <td>SFP500150P</td> <td>83</td> <td>TF0015</td> <td>106</td> <td>TF038</td> <td>53,55</td> <td>TF1034</td> <td>79</td>	SFP500150P	83	TF0015	106	TF038	53,55	TF1034	79
SFP500160TF         84         IT0018         101         TF042         53,55         TF1038         163           SFP500190TF         84         TF001AC         105         TF0436         93         TF1039         163           SFP500210TF         84         TF001NC         105         TF0436B         19,93         TF1040         163           SFP500210TF         84         TF0020         107         TF0436B         19,93         TF1040TOP         163           SFP500220TF         84         TF0020LB         107         TF0437         21,112         TF1040TOP         163           SFP500220TF         84         TF0020LB         107         TF0437         21,112         TF1040TOP         163           SFP500220TF         84         TF0020LB         107         TF053         164         TF1043         73           SFP500220TF         84         TF0021         107         TF055         53,55         TF1050         19,163           STC1843         77,78         TF0021         107         TF055         109         TF1100         195           STC4637         228         TF0023         97,100         TF055         109         TF1110         195 </td <td>SFP500150TF</td> <td>84</td> <td>TF0016</td> <td>93</td> <td>TF040</td> <td>53,59</td> <td>TF1035</td> <td>66</td>	SFP500150TF	84	TF0016	93	TF040	53,59	TF1035	66
SFFS00190P         83         TF0019         98,100         TF0436         93         TF1039         163           SFPS00190TF         84         TF001AC         105         TF04368         19         TF1040TO         163           SFPS00210TF         84         TF0020         107         TF0436B         19,93         TF1040TOP         163           SFPS00220TF         84         TF0020LB         107         TF051         164         TF1043         73           SFP500220TF         84         TF0020LB         107         TF052         53,55         TF1059         163           STC188         228         TF0021         107         TF053         164         TF1043         73           STC4637         228         TF0022         97,100         TF0553         164         TF1059         207           STC580026         225         TF0023         97,100         TF055WRP         109         TF111         163           STC50032         207         TF0026         107         TF056L         229         TF1129         66,67           STC50172         188         TF002ACVI         108         TF070A         111         TF113         195	SFP500160P	83	TF0017	93	TF041	53,59	TF1037	73
SFP500190TF         84         TF001AC         105         TF00436         19         TF1040         163           SFP500210TF         84         TF001NC         105         TF0436B         19,83         TF1040TOP         163           SFP500210TF         84         TF002DLB         107         TF0437         21,112         TF1041         163,200           SFP500220TF         84         TF002DLB         107         TF051         164         TF1043         73           SFP500220TF         84         TF002DLB         107         TF051         164         TF1043         73           SFP500220TF         84         TF002DLB         107         TF055         164         TF1043         73           STC48687         228         TF0021         107         TF055         169         TF110         195           STC4858         140         TF0024         97,100         TF055         109         TF1110         195           STC50032         207         TF0025         107         TF056         106         TF111         163           STC50052AA         189         TF002AC         108         TF077A         111         TF113         195 <t< td=""><td>SFP500160TF</td><td>84</td><td>TF0018</td><td>101</td><td>TF042</td><td>53,55</td><td>TF1038</td><td>163</td></t<>	SFP500160TF	84	TF0018	101	TF042	53,55	TF1038	163
SFPS00210P         33         TF001NC         105         TF0436B         19,93         TF1040TOP         163           SFPS00210TF         84         TF0020         107         TF0437B         19,93         TF1040TOP         163           SFPS00220F         84         TF0020LB         107         TF051         164         TF1043         73           SFPS00220F         84         TF0020RP         107         TF052         53,55         TF1059         19,163           STC1188         228         TF0021         107         TF052         53,55         TF1059         19,163           STC4837         228         TF0022         97,100         TF055         109         TF1110         195           STC4858         140         TF0024         97,100         TF055         109         TF111         163           STC50026         225         TF0025         107         TF056         106         TF1110         195           STC50032         207         TF0026         107         TF056         106         116         TF1129         66,67           STC50052AA         189         TF0028CT         108         TF0778         109         TF1130	SFP500190P	83	TF0019	98,100	TF0436	93	TF1039	163
SFPS00210TF         84         TF0020         107         TF0437         21,112         TF1041         163,200           SFPS00220F         83         TF0020LB         107         TF0551         164         TF1043         73           SFPS00220FF         84         TF0020LP         107         TF0551         164         TF1043         73           STC188         228         TF0021         107         TF055         159         TF1059         207           STC19437         77,78         TF0022         97,100         TF055         109         TF110         195           STC4858         140         TF0024         97,100         TF055WRP         109         TF111         163           STC50026         225         TF0025         107         TF055WRP         109         TF111         163           STC50032         207         TF0026         107         TF059         164         TF1120         195           STC50052AA         189         TF002ACW         108         TF0778         109         TF1130         200           STC50172         188         TF002X         108         TF097A         111         TF1130         200	SFP500190TF	84	TF001AC	105	TF0436	19	TF1040	163
SFPS00220P         83         TF0020LB         107         TF0551         164         TF1043         73           SFP500220TF         84         TF0020RP         107         TF052         53,55         TF1050         19,163           STC1188         228         TF0021         107         TF053         164         TF1059         207           STC1943         77,78         TF0022         97,100         TF055         109         TF110         195           STC4858         140         TF0024         97,100         TF055WPP         109         TF111         163           STC50026         225         TF0025         107         TF055WPP         109         TF1110         195           STC50032         207         TF0026         107         TF056L         229         TF1129         66,67           STC50052AA         189         TF002ACW         108         TF070A         111         TF113         195           STC50172         188         TF002W         108         TF095A         111         TF1131         200           STC50173         188         TF002W         108         TF095A         111         TF1131         20	SFP500210P	83	TF001NC	105	TF0436B	19,93	TF1040TOP	163
SFPS00220TF         84         TF0020RP         107         TF052         53,55         TF1050         19,163           STC1188         228         TF0021         107         TF052         53,55         TF1059         207           STC1943         77,78         TF0022         97,100         TF055         109         TF110         195           STC4637         228         TF0023         97,100         TF055WRP         109         TF111         163           STC50026         225         TF0024         97,100         TF056         106         TF1120         195           STC50032         207         TF0026         107         TF056         106         TF1120         195           STC50052AA         189         TF002ACST         108         TF0059         164         TF1129ULTRA         66,67           STC50172         188         TF002ACW         108         TF007A         111         TF113         200           STC50172         188         TF002W         108         TF097         111         TF113         200           STC50172         188         TF002W         108         TF097         111         TF114         195	SFP500210TF	84	TF0020	107	TF0437	21,112	TF1041	163,200
STC1188         228         TF0021         107         TF053         164         TF1059         207           STC1943         77,78         TF0022         97,100         TF055         109         TF110         195           STC4858         140         TF0024         97,100         TF055WRP         109         TF111         163           STC50026         225         TF0025         107         TF056         106         TF1120         195           STC50032         207         TF0026         107         TF056         106         TF1120         195           STC50032AA         189         TF002ACST         108         TF002ACW         108         TF070A         111         TF113         195           STC50172         188         TF002W         108         TF090A         111         TF113         200           STC50173         188         TF002W         108         TF090A         111         TF113         200           STC50269         163         TF003         105         TF095         101         TF101         73         TF114         195           STC503157         225         TF003         105         TF1000         73	SFP500220P	83	TF0020LB	107	TF051	164	TF1043	73
STC1943         77,78         TF0022         97,100         TF055         109         TF110         195           STC4637         228         TF0023         97,100         TF055WRP         109         TF111         163           STC4858         140         TF0024         97,100         TF056         106         TF1120         195           STC50026         225         TF0025         107         TF056         106         TF1120         195           STC500322         207         TF0026         107         TF056L         229         TF1129 ULTRA         66,67           STC50052AA         189         TF002ACST         108         TF070A         111         TF113         195           STC50172         188         TF002ACW         108         TF070A         111         TF113         200           STC50173         188         TF002ST         108         TF098A         101         TF113         200           STC50173         188         TF002W         108         TF095A         111         TF114         195           STC50269AB         102         TF0032         102         TF097         109         TF115         195	SFP500220TF	84	TF0020RP	107	TF052	53,55	TF1050	19,163
STC4637         228         TF0023         97,100         TF055WRP         109         TF111         163           STC4858         140         TF0024         97,100         TF056L         229         TF111         163           STC50026         225         TF0025         107         TF056L         229         TF1129         66,67           STC50052AA         189         TF002ACST         108         TF059         164         TF1129ULTRA         66,67           STC50053AA         189         TF002ACW         108         TF070A         111         TF113         195           STC50172         188         TF002ST         108         TF098A         109         TF1130         200           STC50173         188         TF002ST         108         TF098A         111         TF1130         200           STC50172         188         TF002ST         108         TF098A         111         TF1130         200           STC50173         188         TF002ST         108         TF095A         111         TF114         195           STC50172         188         TF003A         105         TF097         109         TF115         195	STC1188	228	TF0021	107	TF053	164	TF1059	207
STC4858         140         TF0024         97,100         TF056         106         TF1120         195           STC50026         225         TF0025         107         TF056         106         TF1129         66,67           STC50032         207         TF0026         107         TF059         164         TF1129 ULTRA         66,67           STC50052AA         189         TF002ACW         108         TF070A         111         TF1130         200           STC50172         188         TF002ST         108         TF09A         111         TF1130         200           STC50173         188         TF002W         108         TF095A         111         TF1131         200           STC50265         163         TF003         105         TF095A         111         TF114         195           STC50269AAB         102         TF0032         102         TF1000         73         TF116         28,45           STC53157         225         TF005AC         105         TF1001         73         TF117         28,45           STC53161         225         TF006         108         TF1002         73         TF118         28,45 <td< td=""><td>STC1943</td><td>77,78</td><td>TF0022</td><td>97,100</td><td>TF055</td><td>109</td><td>TF110</td><td>195</td></td<>	STC1943	77,78	TF0022	97,100	TF055	109	TF110	195
STC50026         225         TF0025         107         TF056L         229         TF1129         66,67           STC50032         207         TF0026         107         TF059         164         TF1129ULTRA         66,67           STC50052AA         189         TF002ACST         108         TF070A         111         TF113         195           STC50172         188         TF002ST         108         TF078         109         TF1130         200           STC50173         188         TF002W         108         TF090A         111         TF1131         200           STC50173         188         TF003         105         TF095A         111         TF114         195           STC50265         163         TF003         105         TF097         109         TF115         195           STC50269AAB         102         TF0032         102         TF1000         73         TF116         28,45           STC53157         225         TF005         105         TF1001         73         TF117         28,45           STC53161         225         TF005AC         105         TF1003         73         TF119         29,45,69	STC4637	228	TF0023	The state of the s	TF055WRP	109	TF111	163
STC50032         207         TF0026         107         TF059         164         TF1129ULTRA         66,67           STC50052AA         189         TF002ACST         108         TF070A         111         TF113         195           STC50053AA         189         TF002ACW         108         TF078         109         TF1130         200           STC50172         188         TF002ST         108         TF090A         111         TF1131         200           STC50173         188         TF002W         108         TF095A         111         TF114         195           STC50265         163         TF003         105         TF097         109         TF115         195           STC50323         187         TF0032         102         TF1000         73         TF116         28,45           STC53157         225         TF005         105         TF1001         73         TF117         28,45           STC53158         225         TF005AC         105         TF1002         73         TF118         28,45           STC53193         225         TF006A         108         TF1003         73         TF120         29,45,69	STC4858	140	TF0024	97,100	TF056	106	TF1120	195
STC50052AA         189         TF002ACST         108         TF070A         111         TF1130         200           STC50053AA         189         TF002ACW         108         TF070A         111         TF1130         200           STC50053AA         189         TF002ACW         108         TF090A         111         TF1130         200           STC50172         188         TF002W         108         TF095A         111         TF1131         200           STC50173         188         TF003W         108         TF095A         111         TF114         195           STC50265         163         TF003         105         TF097         109         TF115         195           STC50269AAB         102         TF0032         102         TF1000         73         TF116         28,45           STC50323         187         TF005AC         105         TF1001         73         TF117         28,45           STC53158         225         TF005AC         105         TF1002         73         TF118         28,45           STC53161         225         TF006AC         108         TF1004         73         TF120         29,45,69	STC50026	225	TF0025	107	TF056L	229	TF1129	66,67
STC50053AA         189         TF002ACW         108         TF078         109         TF1130         200           STC50172         188         TF002ST         108         TF090A         111         TF1131         200           STC50173         188         TF002W         108         TF095A         111         TF1131         200           STC50265         163         TF003         105         TF097         109         TF115         195           STC50269AAB         102         TF0032         102         TF1000         73         TF116         28,45           STC50323         187         TF003AC         105         TF1001         73         TF116         28,45           STC53157         225         TF005         105         TF1002         73         TF118         28,45           STC53158         225         TF005AC         105         TF1002         73         TF118         28,45           STC53161         225         TF006AC         108         TF1003         73         TF119         28,45           STC53193         225         TF006AC         108         TF1004         73         TF120         176           STC53194	STC50032	207	TF0026	107	TF059	164	TF1129ULTRA	66,67
STC50172         188         TF002ST         108         TF090A         111         TF1131         200           STC50173         188         TF002W         108         TF095A         111         TF1131         200           STC50265         163         TF003         105         TF097         109         TF115         195           STC50269AAB         102         TF0032         102         TF1000         73         TF116         28,45           STC50323         187         TF003AC         105         TF1001         73         TF117         28,45           STC53157         225         TF005         105         TF1002         73         TF118         28,45           STC53158         225         TF005AC         105         TF1003         73         TF118         28,45           STC53161         225         TF006A         108         TF1003         73         TF119         28,45           STC53193         225         TF006A         108         TF1004         73         TF120         29,45,69           STC53194         225         TF007A         111         TF1006         73         TF120         170           STC7631 <td>STC50052AA</td> <td>189</td> <td></td> <td>108</td> <td>TF070A</td> <td>111</td> <td>TF113</td> <td>195</td>	STC50052AA	189		108	TF070A	111	TF113	195
STC50173         188         TF002W         108         TF095A         111         TF114         195           STC50265         163         TF003         105         TF097         109         TF115         195           STC50269AAB         102         TF0032         102         TF1000         73         TF116         28,45           STC50323         187         TF003AC         105         TF1001         73         TF117         28,45           STC53157         225         TF005         105         TF1002         73         TF118         28,45           STC53158         225         TF005AC         105         TF1003         73         TF119         28,45           STC53161         225         TF006         108         TF1004         73         TF120         29,45,69           STC53193         225         TF006AC         108         TF1005         73         TF1200         176           STC53194         225         TF007A         111         TF1006         73         TF1202         170           STC7631         207         TF008H         226         TF1007         73         TF121         29,45,69           STC7632 <td>STC50053AA</td> <td>189</td> <td>TF002ACW</td> <td>108</td> <td>TF078</td> <td>109</td> <td>TF1130</td> <td>200</td>	STC50053AA	189	TF002ACW	108	TF078	109	TF1130	200
STC50265         163         TF003         105         TF097         109         TF115         195           STC50269AAB         102         TF0032         102         TF1000         73         TF116         28,45           STC50323         187         TF003AC         105         TF1001         73         TF117         28,45           STC53157         225         TF005         105         TF1002         73         TF118         28,45           STC53158         225         TF005AC         105         TF1003         73         TF119         28,45           STC53161         225         TF006         108         TF1004         73         TF120         29,45,69           STC53193         225         TF006AC         108         TF1005         73         TF120         176           STC753194         225         TF007A         111         TF1006         73         TF120         170           STC7631         207         TF008SH         226         TF1007         73         TF121         29,45,69           STC7632         207         TF009A         111         TF1009         73         TF1211         169,232           STC7632	STC50172	188	TF002ST	108	TF090A	111	TF1131	200
STC50269AAB         102         TF0032         102         TF1000         73         TF116         28,45           STC50323         187         TF003AC         105         TF1001         73         TF117         28,45           STC53157         225         TF005         105         TF1002         73         TF118         28,45           STC53158         225         TF005AC         105         TF1003         73         TF119         28,45           STC53161         225         TF006         108         TF1004         73         TF120         29,45,69           STC53193         225         TF006AC         108         TF1005         73         TF1200         176           STC53194         225         TF007A         111         TF1006         73         TF1202         170           STC7631         207         TF008SH         226         TF1007         73         TF121         29,45,69           STC7632         207         TF009A         111         TF1009         73         TF1211         169,232           STC7632MT         207         TF010         53,54         TF1010         73         TF124         32,45           S	STC50173	188	TF002W	108	TF095A	111	TF114	195
STC50323         187         TF003AC         105         TF1001         73         TF117         28,45           STC53157         225         TF005         105         TF1002         73         TF118         28,45           STC53158         225         TF005AC         105         TF1003         73         TF119         28,45           STC53161         225         TF006         108         TF1004         73         TF120         29,45,69           STC53193         225         TF006AC         108         TF1005         73         TF1200         176           STC53194         225         TF007A         111         TF1006         73         TF1202         170           STC7555         187         TF008         226         TF1007         73         TF121         29,45,69           STC7631         207         TF008SH         226         TF1008         73         TF121         169,232           STC7632         207         TF009A         111         TF1009         73         TF1212         169,232           STC7632MT         207         TF010         53,54         TF1010         73         TF124         32,45           STC7	STC50265	163	TF003	105	TF097	109	TF115	195
STC503157         225         TF005         105         TF1002         73         TF118         28,45           STC53158         225         TF005AC         105         TF1003         73         TF119         28,45           STC53161         225         TF006         108         TF1004         73         TF120         29,45,69           STC53193         225         TF006AC         108         TF1005         73         TF120         29,45,69           STC53194         225         TF007A         111         TF1006         73         TF1202         170           STC75555         187         TF008         226         TF1007         73         TF121         29,45,69           STC7631         207         TF008SH         226         TF1008         73         TF121         169,232           STC7632MT         207         TF009A         111         TF1009         73         TF1212         169,232           STC7632MT         207         TF010         53,54         TF1010         73         TF124         32,45           STC7703         201         TF011         53,54         TF1011         73         TF125         28,45	STC50269AAB	102	TF0032	102	TF1000	73	TF116	28,45
STC53158         225         TF005AC         105         TF1003         73         TF119         28,45           STC53161         225         TF006         108         TF1004         73         TF120         29,45,69           STC53193         225         TF006AC         108         TF1005         73         TF1200         176           STC53194         225         TF007A         111         TF1006         73         TF1202         170           STC7555         187         TF008         226         TF1007         73         TF121         29,45,69           STC7631         207         TF008SH         226         TF1008         73         TF121         169,232           STC7631MT         207         TF009A         111         TF1009         73         TF1212         169,232           STC7632         207         TF010         53,54         TF1010         73         TF124         32,45           STC7703         201         TF011         53,54         TF1011         73         TF125         28,45	STC50323	187	G		TF1001	73	TF117	28,45
STC53161         225         TF006         108         TF1004         73         TF120         29,45,69           STC53193         225         TF006AC         108         TF1005         73         TF1200         176           STC53194         225         TF007A         111         TF1006         73         TF1202         170           STC7555         187         TF008         226         TF1007         73         TF121         29,45,69           STC7631         207         TF008SH         226         TF1008         73         TF1211         169,232           STC7631MT         207         TF009A         111         TF1009         73         TF1212         169,232           STC7632         207         TF009WBG         111         TF1009CC         71         TF123         32,45           STC7632MT         207         TF010         53,54         TF1010         73         TF124         32,45           STC7703         201         TF011         53,54         TF1011         73         TF125         28,45	STC53157	225	The same of the sa	105	TF1002	73	TF118	28,45
STC53193         225         TF006AC         108         TF1005         73         TF1200         176           STC53194         225         TF007A         111         TF1006         73         TF1202         170           STC7555         187         TF008         226         TF1007         73         TF121         29,45,69           STC7631         207         TF008SH         226         TF1008         73         TF1211         169,232           STC7631MT         207         TF009A         111         TF1009         73         TF1212         169,232           STC7632         207         TF009WBG         111         TF1009CC         71         TF123         32,45           STC7632MT         207         TF010         53,54         TF1010         73         TF124         32,45           STC7703         201         TF011         53,54         TF1011         73         TF125         28,45	STC53158	225	TF005AC		TF1003	73	TF119	28,45
STC53194         225         TF007A         111         TF1006         73         TF1202         170           STC7555         187         TF008         226         TF1007         73         TF121         29,45,69           STC7631         207         TF008SH         226         TF1008         73         TF1211         169,232           STC7631MT         207         TF009A         111         TF1009         73         TF1212         169,232           STC7632         207         TF009WBG         111         TF1009CC         71         TF123         32,45           STC7632MT         207         TF010         53,54         TF1010         73         TF124         32,45           STC7703         201         TF011         53,54         TF1011         73         TF125         28,45	STC53161	225	-	108	TF1004	73	TF120	29,45,69
STC7555         187         TF008         226         TF1007         73         TF121         29,45,69           STC7631         207         TF008SH         226         TF1008         73         TF1211         169,232           STC7631MT         207         TF009A         111         TF1009         73         TF1212         169,232           STC7632         207         TF009WBG         111         TF1009CC         71         TF123         32,45           STC7632MT         207         TF010         53,54         TF1010         73         TF124         32,45           STC7703         201         TF011         53,54         TF1011         73         TF125         28,45	STC53193	225	TF006AC		TF1005	73	TF1200	176
STC7631         207         TF008SH         226         TF1008         73         TF1211         169,232           STC7631MT         207         TF009A         111         TF1009         73         TF1212         169,232           STC7632         207         TF009WBG         111         TF1009CC         71         TF123         32,45           STC7632MT         207         TF010         53,54         TF1010         73         TF124         32,45           STC7703         201         TF011         53,54         TF1011         73         TF125         28,45	STC53194	225	TF007A	111	TF1006	73	TF1202	170
STC7631MT         207         TF009A         111         TF1009         73         TF1212         169,232           STC7632         207         TF009WBG         111         TF1009CC         71         TF123         32,45           STC7632MT         207         TF010         53,54         TF1010         73         TF124         32,45           STC7703         201         TF011         53,54         TF1011         73         TF125         28,45	STC7555	187	TF008	226	TF1007	73	TF121	29,45,69
STC7632         207         TF009WBG         111         TF1009CC         71         TF123         32,45           STC7632MT         207         TF010         53,54         TF1010         73         TF124         32,45           STC7703         201         TF011         53,54         TF1011         73         TF125         28,45	STC7631	207	+		TF1008	73	TF1211	169,232
STC7632MT         207         TF010         53,54         TF1010         73         TF124         32,45           STC7703         201         TF011         53,54         TF1011         73         TF125         28,45	STC7631MT	207	TF009A	111	TF1009	73	TF1212	169,232
STC7703 201 TF011 53,54 TF1011 73 TF125 28,45	STC7632	207	TF009WBG		TF1009CC	71	TF123	32,45
STC7703 <b>201</b> TF011 53,54 TF1011 73 TF125 28,45	STC7632MT	207	TF010		TF1010	73	TF124	32,45
STC7939AB 187 TF014 53,54 TF1012 73 TF126 28,45	STC7703	201	-	-	TF1011	73	TF125	28,45
	STC7939AB	187	TF014	53,54	TF1012	73	TF126	28,45



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TF129	32,45	TF164	163	TF1758	167	TF2120	36,45
TF130	32,45	TF165	129	TF1759	167	TF2121	36,45
TF131	29,45	TF166	163	TF176	30,45	TF2122	36,45
TF131	29	TF167	163	TF1760	167	TF213	56
TF132	29,45	TF1683	141	TF177	30,45	TF2131	36,45
TF137	38,45,70	TF1684	141	TF178	31,45,71	TF2132	36,45
TF137SEALS	38	TF1687	141	TF178	30,31	TF214	56
TF137SHAFT	38	TF1688	141	TF1781	167	TF2146	36,45
TF139	42	TF169	31,45,69	TF1782	167	TF2147	36,45
TF139A	42	TF170	225	TF179	31,45,71	TF215	56
TF139B	42	TF1700	158	TF179	30,31	TF216	56
TF140	42,70	TF1700FEXT	158	TF181	145	TF217	56
TF140PAD	42	TF1700ROOM	158	TF1810	182	TF218	56
TF140SEALS	42	TF1701	158	TF182	145	TF220	64,67,74
TF140SPA	42	TF1701FEXT	158	TF183	145	TF221	59,65,67
TF140VALVE	42	TF1701ROOM	158	TF184	145	TF222	59
TF141	46	TF1702	158	TF185	56	TF222HD	59
TF141SEALS	46	TF1702FEXT	158	TF186	56	TF222KD	59
TF142	32,45	TF1703	158	TF187	56	TF223	59
TF143	32,45	TF1703FEXT	158	TF188	56	TF223HD	59
TF143	32	TF1704	159	TF189	56	TF225	59
TF144	29,45	TF1704CANVAS	159	TF190	30,45	TF226	59
TF145	29,45	TF1704ROOM	159	TF191	30,45	TF227	59
TF146	29,45	TF1705	158	TF197	56	TF228	59
TF147	29,45	TF1706	170	TF1978	195	TF229	59
TF1470	186	TF1707	160	TF1979	195	TF230	59
TF1471	186	TF1708	160	TF198	56	TF231	69
TF1472	181	TF171	225	TF199	56	TF232	69
TF149	47	TF1710	157	TF200	56	TF233	69
TF149A	47	TF1710COVER	157	TF2000	183	TF234	69
TF150LH	200	TF1710TUBE	157	TF2001	139	TF2342L	193
TF150RH	200	TF172	30,45	TF2002	139	TF2342R	193
TF151L12	47	TF172	30	TF2003	139	TF2343L	193
TF151L14	47	TF1720	174	TF2005	139	TF2343R	193
TF151L16	47	TF1721	170	TF2006	139	TF2344	193
TF151R12	47	TF1725	174	TF2008	139	TF235	69
TF151R14	47	TF1726	156,169	TF201	56	TF2357HD	141
TF151R16	47	TF1728	158	TF202	56	TF2357HDG	141
TF152	23,127	TF1729	159	TF2020	186	TF236	69
TF1520	23,127	TF173	30,45	TF203	56	TF238	70
TF152NUTBLACK		TF1730	174	TF204	56	TF241	70
TF153	46	TF174	30,45	TF2040	233	TF242	70
TF154	46	TF1740	171	TF2045	233	TF2440	191
	6,107,108,110	TF1741	171	TF205	56	TF2441	191
TF156	38,40,47,48	TF175	30,45	TF206	56	TF2442	191
TF157	129	TF1750B	166	TF207	56	TF2443	191
TF158	129	TF1750R	166	TF208	56	TF2444	191
TF159	163	TF1751B	166	TF209	56	TF2445	191
TF160B	23,125	TF1751R	166	TF2090	217	TF2446	191
TF160G	23,125	TF1752B	166	TF210	56	TF2447	191
TF161B	125	TF1752R	166	TF211	56	TF247	70
TF161G	125	TF1753B	166	TF2118	36,45	TF248	70
TF162	129	TF1753R	166	TF2119	36,45	TF2480	191
11 102	129	TF1757	167	TF212	56	TF2481	191



TF2482	191	TF281	195	TF3316	121	TF4001	152
TF2483	191	TF282	204	TF3317	121	TF4002	152
TF2484	191	TF283	204	TF3318	121	TF4107	226
TF2485	191	TF288	74	TF3319	120	TF414	67
TF2486	191	TF289	74	TF3320	115	TF4412XL	231
TF2487	191	TF290	74	TF3322	120	TF4412XL	118
TF2490	191	TF2908	142	TF3323	120	TF4412XXL	118,231
TF2491	191	TF291	74	TF3324	120	TF450	137
TF2492	191	TF292	74	TF3325	120	TF4501	137
TF2493	191	TF294	74	TF3326	120	TF4502	137
TF250	79	TF295	74	TF3327	120	TF460	137
TF251	79	TF301	130	TF3328	122	TF4664	193
TF252	79	TF3010	209	TF3329	120,169	TF481	37,45
TF253	79	TF3010B	209	TF3330	119,120	TF482	37,45
TF254	79	TF3011	209	TF3331	174	TF483	37,45
TF255	79	TF3011B	209	TF3332	174	TF484	37,45,71
TF256	79	TF3012	209	TF3333	174	TF485LH	37,45,71
TF259	59	TF3012B	209	TF3334	120	TF485RH	37,45,71
TF260	59	TF301B	130	TF3335	117	TF486	110
TF265	59	TF302	130	TF3336	119	TF488	40,45
TF266	59	TF302B	130	TF3337	117	TF488SHAFT	40
TF2662B	180	TF303	127,130	TF3338	117	TF490	61,67,71
TF2662G	180	TF303	22	TF3339	119	TF491	66,67,71
TF2662SEC	180	TF303B	22,127,130	TF3340	116	TF492	110
TF267EXP	59	TF308	132	TF3345	118	TF493	98,100
TF270	204	TF3262	191	TF3350	119	TF494	43,70,71
TF271LH	204	TF3263	191	TF3351	119	TF495	43,70,71
TF271LHGF	204	TF3264	191	TF360	232	TF497	65,67,71
TF271RH	204	TF3265	191	TF3694	192	TF498	65,67,78
TF271RHGF	204	TF3266	191	TF3694B	192	TF499	164
TF272	204	TF3267	191	TF3745	192	TF501	61,67,69,70
TF2720	142	TF3268	191	TF3745B	192	TF502	61,67,69,71
TF272GF	204	TF3269	191	TF380	146	TF503	61,67
TF273	205	TF3301	114	TF381	146	TF504	61,67,69
TF2730	191	TF3302	120	TF382		TF505	61,67,69
TF2732	191	TF3303	120	TF382PLUS	146	TF5051	181
TF2733	191	TF3304	120	TF383	146	TF506	61,67,69
TF2734	191	TF3305	120	TF383PLUS	146	TF507	61,67,69
TF2735	191	TF3306	120	TF384	146	TF508	62,67,69,70
TF274	205	TF3307	120	TF385	163	TF509	62,67,69
TF2740	191	TF3308	120	TF3858	139	TF510	67,69
TF2741	191	TF3309	118,120	TF3859	139	TF510	62
TF2742	191	TF3310	120	TF387	163	TF511	62,67,69
TF2743	191	TF3310	118	TF390	146	TF512	63,67
TF275	204	TF3310XL	118,120	TF391	146	TF513	63,67
TF2750	191	TF3311	118,120	TF391PLUS	146	TF514	63,67
TF2751	191	TF3312L	118,120	TF392	146	TF515	63,67,69
TF2753	191	TF3312M	120	TF393	146	TF516	64,67
TF2754	191	TF3312M	118	TF394	146	TF517	64,67
TF276	204	TF3312XL	118	TF395	146	TF518	64,67
TF277	204	TF3313	169	TF395	41	TF519	64,67,69
TF278	204	TF3314	120	TF397	146	TF519	65,67
TF279	204	TF3314	118	TF397PLUS	36.363	TF520	0.00000
-		COMMISSION OF THE PARTY OF THE			146		63,67,69,71
TF280	195	TF3315	121	TF400	152	TF5210	63,67



TF522	61,67,69	TF632	86	TF7002	227	TF740	145
TF524	61,67,71	TF633	86	TF7003	226	TF742	145
TF525	64,67	TF634	86	TF7004	226	TF742LATE	145
TF526	64,67	TF635	86	TF7005	217	TF745	145
TF527	65,67,77,78	TF636	86	TF7006	216	TF746	145
TF528	62,67	TF637	86	TF7008	216	TF750	112
TF529	62,67,71	TF638	86	TF7010	213	TF755	208
TF532	62,67,69,70	TF639GD	85	TF7010LOOM	213	TF756	226
TF532BUNG	67	TF640GD	85	TF7012	176	TF758	151
TF532RJ	62,67	TF641GD	85	TF7013	176	TF770	103
TF534	61,67,71	TF642GD	85	TF7015	214	TF771	103
TF535	61,67,71	TF643GD	85	TF7016	227	TF775	103
TF537	64,67	TF644GD	85	TF7017	227	TF776	103
TF540	38,43,70	TF645GD	85	TF7018	227	TF780L	231
TF541	38,43,70	TF646GD	85	TF7020	224	TF780M	231
TF542	43,70	TF647GD	85	TF7021	221	TF780XL	231
TF543	43,70	TF648GD	85	TF7022	221	TF780XXL	231
TF544	43,70	TF649GD	85	TF7023	221	TF782L	231
TF545	40,41	TF650GD	71,85	TF7024	221	TF782M	231
TF546	41	TF650GDXL	71,85	TF7025	221	TF782XL	231
TF550	144	TF651GD	85	TF7026	220	TF782XXL	231
TF5501	208	TF652GD	85	TF7027	220	TF784L	231
TF5502	208	TF653GD	85	TF7028	220	TF784XL	231
TF551	144	TF654GD	85	TF7029	220	TF784XXL	231
TF552	144	TF6551	204	TF7030	221	TF786L	231
TF553	144	TF655GD	85	TF7031	221	TF786XL	231
TF554	144	TF657GD	85	TF7032	221	TF786XXL	231
TF555	144	TF658GD	85	TF705	216	TF787	230
TF556	144	TF659GD	85	TF707	214	TF788	230
TF558	144	TF660	202	TF710	214	TF789	230
TF559	144	TF661	202	TF711	214	TF790	230
TF560	144	TF662	202	TF712	217	TF791	233
TF561	144	TF663	202	TF713	217	TF7910	232
TF562	144	TF664	202	TF715	217	TF792	233
TF563	144	TF665	202	TF716	224	TF793	232
TF564	144	TF666	202	TF717	224	TF794B	174
TF570	101	TF667	202	TF718	224	TF794R	174
TF570WC	101	TF6675	202	TF718A	224	TF795B	174
TF571	101	TF6676	202	TF719	224	TF795R	174
TF571WC	101	TF668	202	TF720	145	TF796	170
TF572	101	TF669	202	TF7205	75	TF797	170
TF573	101	TF670	202	TF7206	75	TF8000	11
TF574	101	TF671	202	TF7207	75	TF8001	11
TF575	101	TF672	202	TF7208	75	TF8005	12,154
TF580	71	TF673		A STATE OF THE PARTY OF THE PAR		TF80056NUT	12,134
The state of the s		-	202	TF721	145	Section of the sectio	
TF5806	143	TF675	202	TF722	145	TF8006	12,154
TF5806B	143	TF676	202	TF7220	226	TF8007	17,156
TF5806N	143	TF677	202	TF723	145	TF8008	17,156
TF581	71	TF678	202	TF724	145	TF8009	14,156
TF585	71	TF679	202	TF735	145	TF801	100
TF6108	202	TF685	87	TF736	145	TF8012	14,156,227
TF629	86	TF686	87	TF737	145	TF8014	15,156
TF630	86	TF700	214	TF738	145	TF8015	15,156
TF631	86	TF7001	227	TF739	145	TF8016	13



TF0017 10.4FC TF000C 100 TF000	
TF8017 <b>13,156</b> TF8226 <b>199</b> TF882	<b>93</b> TF984BIN <b>197</b>
TF801GAL 100 TF8227 199 TF883KIT110 1	<b>196</b> TF985
TF802 77 TF8228 199 TF883KIT90 1	<b>197 198</b> 5BIN
TF8020 18,100 TF8229 199 TF883KIT90TDI 1	<b>D2</b> TF999 <b>168</b>
TF8021 18,100 TF8230 199 TF883NAS110 1	02 TFARBKF 74
TF8025 <b>22</b> TF8231 <b>199</b> TF883NAS90 <b>1</b>	02 TFARBKR 74
TF803 100 TF8232 199 TF883NASPIN 1	D2 TFARSK2 74
TF8030 <b>20</b> TF828 <b>93</b> TF883WB <b>1</b>	D2 TFARSK4 74
TF8030 109 TF829 93 TF886 2	00 TFBATT01 150
TF8032 131 TF830 93 TF887 2	00 TFBRP 112
TF8040 <b>21,65,67</b> TF832 <b>77</b> TF888 <b>1</b>	58 TFDBHBK PADS 88
TF8049 93 TF833 77 TF890	93 TFDC610 140
TF805 <b>100</b> TF834 <b>77</b> TF891	93 TFDC680 140
TF8050 232 TF835 78 TF892 1	76 TFDCB 180
TF807 100 TF837 77 TF8923 1	76 TFDCWA000110 140
TF807WA 100 TF838 93 TF892LID 1	76 TFDECAL1 232
	76 TFDECAL2 232
	76 TFDECAL3 232
	93 TFDPS 179
	93 TFDPS2P 179
	77 TFDRC 179
200 A CONTROL OF THE	77 TFDRCTC 179
The second secon	77 TFEGR01 143
	77 TFEGR300 143
	77 TFEGRV6 143
	77 TFES11000 121
	77 TFFR01 168
	30 TFFR02 168
	30 TFFR03 168
	30 TFFRK 65,67
Mark Mark Control of the Control of	77 TFGASKITPRO 44
A STATE OF THE STA	B1 TFHPIN 113
	B1 TFIIDBT 148,149
	52 TFIIDBTG4 148,149
	752 TRIDBIG4 148,149
production of the second secon	73 TFPROT01 150 TFR-12-64-100 49
The state of the s	
	73 TFR-12-64-150 49
	52 TFR-12-64-200 49
	55 TFR-12-64-250 49
	TFR-12-64-300 49
	TFR-12-64-350 49
	TFR-12-78-100 49
	56 TFR-12-78-150 49
TF8216 199 TF873 113 TF974 155,2	
	54 TFR-12-78-250 49
personal designation of the second se	54 TFR-12-78-300 49
	54 TFR-12-78-350 49
	77 TFR-12-78-400 49
TF8221 199 TF878 113 TF979 1	96 TFR-12-78-600 49
	97 TFR-14-64-100 49
TF8222 199 TF879 113 TF979BIN 1	
TF8222         199         TF879         113         TF979BIN         1           TF8223         199         TF879A         113         TF980         1	<b>56</b> TFR-14-64-150 <b>49</b>
TF8222         199         TF879         113         TF979BIN         1           TF8223         199         TF879A         113         TF980         1	_



TFR-14-64-300	49	TFSBK03 28,29,3	
TFR-14-64-350	49	TFSEALKIT20	48
TFR-14-64-400	49	TFSEALKIT25	40,47,48
TFR-14-64-600	49	TFSHAFT12	47,48
TFR-14-78-100	49	TFSHAFT14	47,48
TFR-14-78-150	49	TFSHAFT16	47
TFR-14-78-200	49	TFSHAFT2516	48
TFR-14-78-250	49	TFSRNUTLH	79
TFR-14-78-300	49	TFSRNUTRH	79
TFR-14-78-350	49	TFSRP	112
TFR-14-78-400	49	TFSRRVSS	207
TFR-14-78-600	49	TFSS11000	121
TFR-16-64-150	49	TFSWC01	131
TFR-16-64-200	49	TFSWC02	131
TFR-16-64-250	49	TFWA1050	140
TFR-16-64-300	49	TFWA1070	140
TFR-16-64-350	49	TFWA1140	140
TFR-16-64-400	49	TFWA610	140
TFR-16-64-600	49	TFWA630	140
TFR-16-78-100	49	TFWA650	140
TFR-16-78-150	49	TFWA680	140
TFR-16-78-200	49	TFWA850	140
TFR-16-78-250	49	TOB500020HD	139
TFR-16-78-300	49	TOB500030HD	139
TFR-16-78-350	49	VPLAP0008	225
TFR-16-78-400	49	VPLAP0009	225
TFR-16-78-600	49	VPLAP0017	201
TFR-18-64-150	49	VPLAP0035	207
TFR-18-64-200	49	VPLCP0203	201
TFR-18-64-250	49	VPLCP0204	201
TFR-18-64-300	49	VPLCP0210	207
TFR-18-64-350	49	VPLCP0277LR	201
TFR-18-64-400	49	VPLCS0279	189
TFR-18-78-250	49	VPLDP0067	207
TFR2012	100000000	VPLDP0067	
TFR2012SHAFT	48,49	VPLDS0147	207 188
	48	VPLEP0383	
TFR2014	48,49	Annual Company of the	199
TFR2014SHAFT	48	VPLFS0146	187
TFR2016	48,49	VPLFS0233	189
TFR2016SHAFT	48	VPLGP0109	201
TFR2512	48	VPLGP0110	201
TFR2512DSHAFT	48	VPLGP0111LR	201
TFR2512DUAL	48,49	VPLGP0226	207
TFR2514	48	VPLGS0151	189
TFR2514DSHAFT	48	VPLGS0260	189
TFR2514DUAL	48,49	VPLRP0283LR	201
TFR2516	48	VPLRP0347	207
TFR2516DSHAFT	48	VPLRP0357LR	201
TFR2516DUAL	48,49	VPLRS0375	187
TFR35MMEYE	47,48	VPLSP0010	225
TFRSPACER	46,47,48	VPLSP0016LR	201
TFSBJ 38	,40,47,48	VPLSP0040	207
TFSBK01 28,29,30,31	,32,36,37	VPLSS0043	189
TFSBK02 28,29,30,31	,32,36,37	VPLTP0064	225

VPLVP0065	201
VPLVP0066	201
VPLVP0069	201
VPLVP0070	201
VPLVP0184	207
VPLVP0208	207
VPLVP0225	207
VPLVS0089	189
VPLVS0091	189
VPLWP0165	201
VPLWP0166	201
VPLWP0167	201
VPLWS0225	189
VUB001230	207
VUB001320LR	201
VUB001330LR	201
VUB501200	225
VUB501380	225
VUB503660	207
VUB503940	201
WT-GAS	199
WT-GAS07	199
XDISC	88
XFC100550LED	228
XPAD	88



## TERRAFIRMA WARRANTY

Terrafirma products are warranted free from defects in materials and workmanship for a period of 12-months from the date of retail invoice, unless otherwise stated.

Terrafirma does not warrant that the products manufactured or marketed by it comply with the laws of the country where those goods are purchased or used. It is the sole responsibility of the purchaser to ascertain whether products being purchased, or the fitting of those products to any other object, comply with local laws.

This warranty covers structural defect and workmanship but does not cover finishes, labour charges for removal or refitting, freight costs, accident damage, misuse or abuse, damage due to incorrect or improper fitment or application, modified product, faulty design or consequential damage of any kind.

Damage or defects caused by collision, alteration, improper installation, road hazards, adverse conditions or usage for any other purpose other than normal private usage are not covered by this warranty.

Terrafirma shall not be liable for any other claim relating to the use of the product and any indirect special or consequential damage or injury to any person, company or other entity.

All claims must be accompanied by the original retail invoice. This warranty covers only the replacement of the product or part concerned. The decision remains solely at the discretion of Allmakes 4x4 PR2 Ltd.

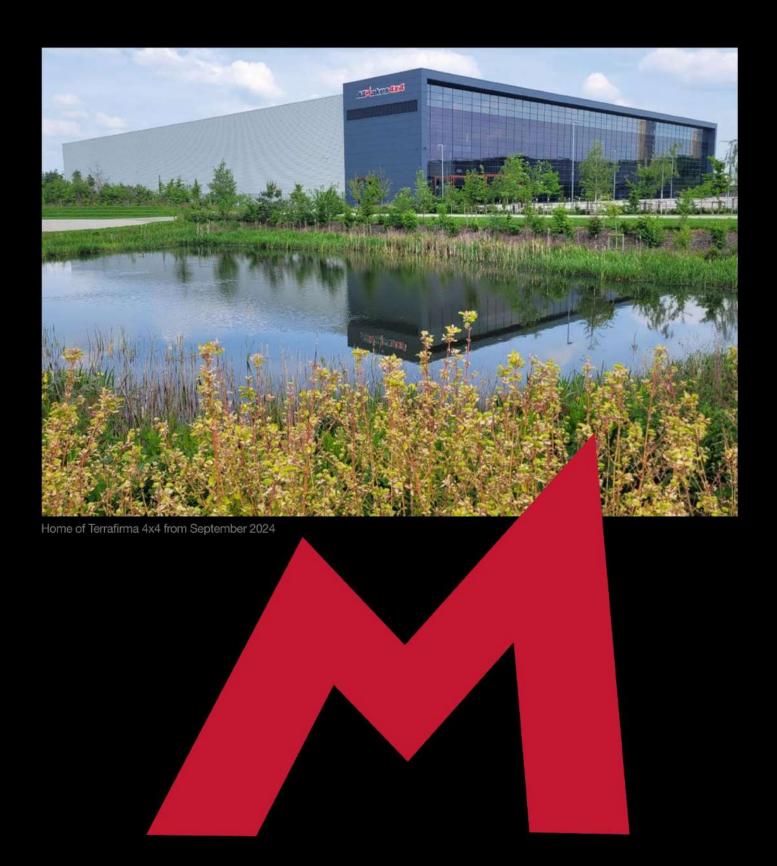
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The Terrafirma range of products is constantly being evaluated for enhancement and improvement to make sure the level of quality and performance is as expected. Pictures and descriptions in this catalogue should be used for reference and are intended as a guide to the style, type and colour of product you have selected.













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