

Superior

ENGINEERING.COM.AU
PREMIUM 4X4 ACCESSORIES



Fourth Edition

Our Background



From modest beginnings in 2002, Superior Engineering has grown to become one of the largest and most well respected 4wd component manufacturers and distributors in Australia.

100% Australian owned and operated, Superior Engineering's main distribution and manufacturing headquarters is located in Burpengary, 35mins to the north of the Brisbane CBD.

Boasting a 1200sq Factory, Superior Engineering's modern workshop can Design, Manufacture, Supply and Fit a huge range of 4wd vehicle suspension and accessories.

In 2014 Superior Engineering opened our New 436sq Showroom at Deception Bay on Brisbanes north side. It features all of our great products and fully appointed fitting bays, improving the shopping experience for our customers and making us a one stop shop for all your offroad and touring needs.

The in-house Engineering, Design and R&D team continually develop new and exciting products suited to the local market and tested specifically for Australian conditions. Cutting edge designs, award winning products and patented innovations keep Superior Engineering at the forefront of performance offroad componentry in Australia.

A team of dedicated sales professionals are on hand to help and guide the customer through our massive range of high quality suspension components and accessories. The sales team can piece together a kit or product to best suit your needs and requirements from any of our hundreds of suppliers, and share with you honest advice and technical knowledge.

With major sales and distribution networks in all Australian states and exclusive distribution in many overseas countries, Superior Engineering can supply all your vehicle component needs.



About the cover image.

Over the years Superior Engineering has been involved with many Offroad racing vehicles, recreational trucks and even the occasional show truck. So unlike some of the other new comers to the industry Superior has either been there done that or we have seen it done.

With this kind of experience, we can help you with anything you need for getting offroad. whether it be touring, racing or just playing around on the weekend.

Table of Contents

Super Flex Radius Arms	3-4
Nissan Patrol Drop Boxes	5
Hybrid Radius Arms	6
Shock Absorbers	7-10
Springs	11-12
Rear Control Arms	14
IFS Upper Control Arms	15
Steering Arms	16
Drop Out Cones	17
Shackles	18
Air Bags	20
Ironman 4x4	21-22
Under Body Protection	23-24
Bushes/Coil Spacers	25
Sway Bars & Accessories	26
Coil Tower Braces	27
Suspension Kits	29
Bull Bars & Rear Bars	30
Electrical	31-32
Engine Performance	33
Recovery Gear	34
Driveline	35-37
Water/Diesel Tanks	39
Competition Vehicle Parts	40
Towing	42
Merchandise	44
Fitting	45
Contact Us	46

Featured Brands



Page 12



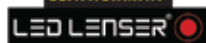
Page 19



Page 28



Page 38



Page 41



Page 43



Super Flex Radius Arms

Since the worldwide release of the Superior Engineering Superflex Radius Arms in 2008, the revolutionary suspension design has now become the benchmark in Radius Arm suspension. Flex, Handling and improved Offroad performance are the major factors to this success. Designed primarily for large 4x4 vehicles such as Nissan Patrol, Toyota Landcruiser, Range Rover and Discovery that can be optimised with a premium shock and spring combination to provide up to 10" / 250mm more travel than a standard OE setup. The key to the success of the award winning and competition proven Superior SuperFlex Arms is the patented attachment system, that modifies and compliments the factory suspension dynamics, to allow the vehicle to perform to its maximum ability without compromising ride or handling.

With an eye on performance and quality, Superior Engineering manufacture, all of its Radius Arms only from premium - 350 grade 32mm thick steel and 20MNV6 high tensile steel used for the bush eyes. The arms are CNC cut and machined to exacting tolerances, for precise castor location, fit and performance. Even the Superior Engineering logo is CNC machined in to all our arms to give you peace of mind you are getting genuine Super Flex Arms. Factory OE style bushes are used exclusively throughout our range of Super Flex and regular Radius Arms, to ensure the longest possible maintenance free service life of your Superior Radius Arms.

Superior Engineering Super Flex Arms are available in two configurations.

The Performance Series Radius Arms are for vehicle that require the flex and performance of the Super Flex Arms, whilst retaining factory swaybars, ABS (model specific) and also include the required paper work to aid in engineer approval.

The Offroad Series is more suited to vehicles that generally do not require engineering approval for modifications but require the added performance that the Superior Engineering Radius Arms can provide in a competition or offroad racing style vehicle.



PATENT NO: 2008202797
PATENT NO: 2010100451
PATENT NO: 2011904187

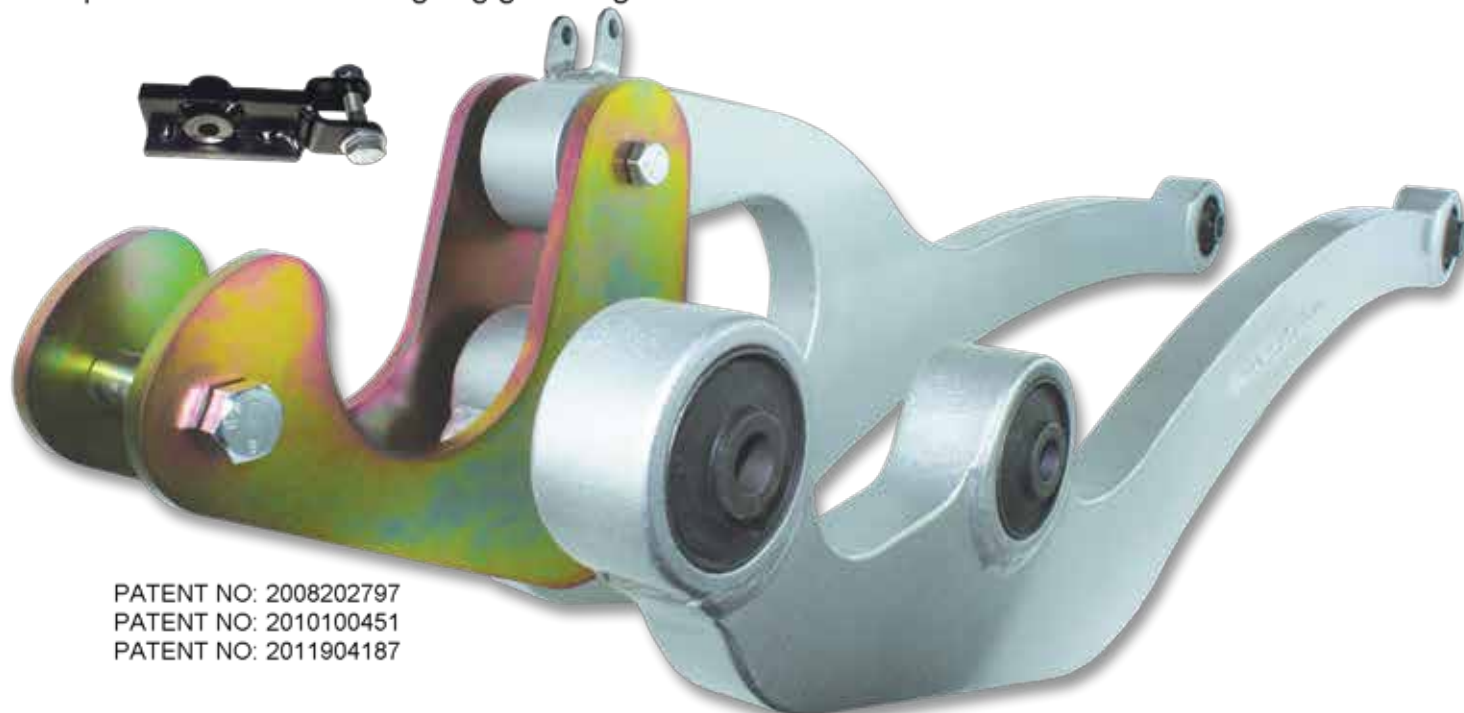


Super Flex Radius Arms

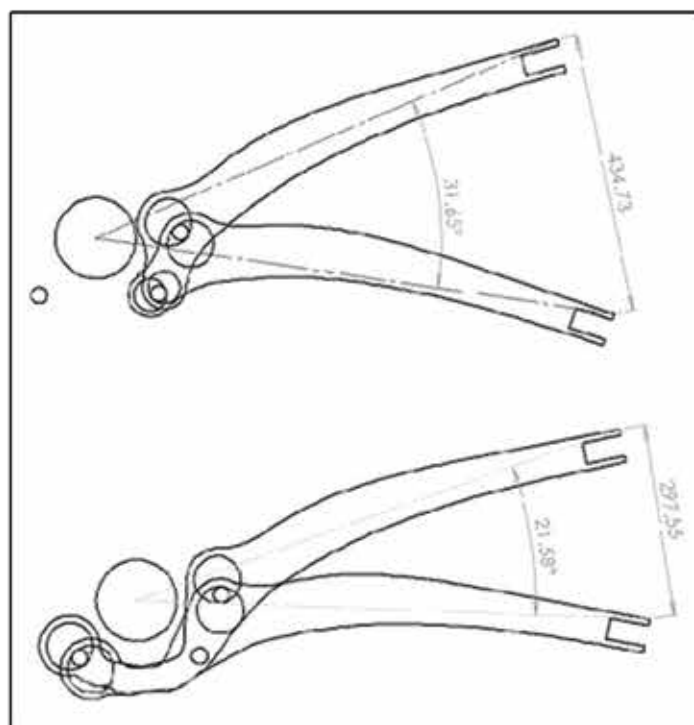
With a pedigree in racing and a history of pure performance the Patented design of the Super Flex Radius Arms allow owners to achieve the best wheel travel possible whilst still correcting castor and restoring factory steering geometry and ride quality.

A comprehensive range of both Radius and Super Flex Arms in most popular lift sizing are available to suit Nissan Patrol GQ and GU, Toyota Landcruiser 80, 105, 76, 78 and 79 Series, Landrover and Range Rover models. All Radius Arm sizes are uniquely designed to complement lift kit and tyre upgrades, and are aimed at giving the customer the best possible performance solution.

The patented Super Flex design are available with the appropriate castor correction needed to use in a specific lift., This means your vehicle will handle safely and ride correctly as well as provide the best possible Offroad performance when the going gets tough!



PATENT NO: 2008202797
PATENT NO: 2010100451
PATENT NO: 2011904187



The images on the left are a comparison showing the limitations of both the standard OE Radius Arm and the patented Superior Super Flex style Radius Arms.

The modified mounting and changes in bush sizing and configuration provide the benefits of reducing binding in the suspension and also allowing the arms to absorb more of the bumps.

The "Super Flex Arms" (TOP image) shows the ability to move approximately 10 degrees more than a conventional Radius Arm. This maximum deflection angle is in part a large factor in the Super Flex Arms ability to provide in many circumstances up to 10" (250mm) more flex or front end wheel travel.

To compliment the available wheel travel of your new "Super Flex Arms" it is recommended to match all associated suspension parts. Particularly a set of premium long travel shock absorbers, quality raised coil springs, bump stop upgrade, heavy duty tie-rod and draglink are also highly recommended to complete the ultimate front suspension package.

Nissan Patrol Drop Boxes

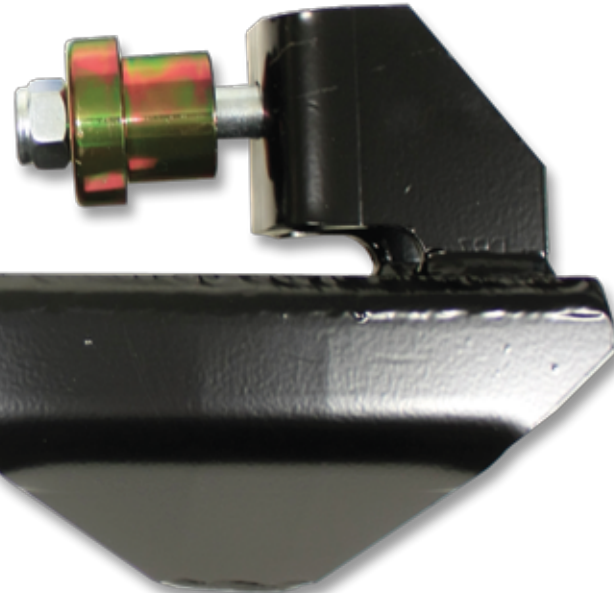


For castor correction in lifted radius arm style vehicles, Drop Boxes can be used to correct the driveline angle by dropping the rear of the radius arms down to match the 'lifted' vehicle height, instead of rotating the front differential mounting point as achieved by castor bush's. Drop Boxes greatly improve the driveability of the GQ and GU Nissan Patrol after a lift has been performed, by returning the vehicle suspension specification closer to that

of original. Superior Engineering's new low profile Drop Box systems are proving to be the slimmest and strongest currently available, providing maximum ground clearance, bush and arm protection. Designed to hug as close to the chassis as possible and still give clearance for the full range of travel and featuring asymmetrical tapered sides, Superior Engineering Drop Boxes are the least likely to get caught up on obstacles when offroad.



The image above shows the clearance difference between other style drop boxes in red and the new High Clearance Drop Box on top.



All High Clearance Drop Boxes are a full bolt in design, no cutting or modification to the chassis required. Available to suit Nissan GQ and GU Patrols in a range of lift sizes.



Hybrid Radius Arms

Superior Engineering's new Hybrid Radius Arm Drop Box combo utilizes a 'Toyota style' pivot bush mount instead of the factory pin and mushroom bush, to provide the best possible ride quality for Radius Arm style suspensions.



The ultra-compact integrated Drop-Box style mounting is designed as straight bolt in fitment with no modifications required and all mounting hardware is included in the kit. To further improve the ride dynamics of this setup, the arm length is substantially increased and matched to the drop box to allow the best possible ride and handling available. The new longer arms soak up the bumps and provide great wheel travel and flex.



Available to suit Nissan GQ / GU Patrol with lifts of 3" to 6" in both standard Radius Arm and Super Flex combinations, the Superior Engineering Hybrid Radius arms are the ultimate in suspension upgrades.



Shock Absorbers

Superior Shocks

REMOTE RESERVOIR

8-Stage Compression Adjuster reservoir gives you the ability to precisely adjust compression from soft to firm with the simple twist of a knob. Allowing you to soften the ride when just cruising or firm up the compression when tackling rough terrain or carrying a load.

Features race inspired port configurations and variable rate shim stack technology to provide vehicle specific damping performance and optimum ride quality. A composite Teflon wear band offers low internal resistance and high compressive strength enhancing shock performance.

Remote Reservoir Canister for increased oil volume, and greater cooling capacity. Internal Floating Piston separates the shock Oil and Nitrogen eliminating Foaming or mixing of the oil and gas that produces shock fade.

These Superior Remote Reservoir Shocks are fully Rebuildable, Serviceable and Upgradeable. All parts are carried in stock and allow the user to finely-tune, adjust and service their shocks, ensuring you get the longest life possible from your suspension.

Features

- 8 stage compression adjustment with a simple turn of the knob mounted on the remote reservoir
- 46mm Piston with Teflon
- 20mm super polished shaft
- 53mm outer body
- floating piston inside reservoir
- Cr+3 Surface finish
- Unique Valving and Piston Design
- Longest travel remote reservoir for any given size lift



NITRO GAS

Twin tube design with a 40mm piston and a 20mm shaft that provides excellent performance, and is designed to give a more comfortable and improved ride.

Low pressure Nitrogen Gas prevents cavitation of oil inside the shock when it heats up during use over rough roads; this allows the shocks to work more consistently.

The piston has a Teflon coating allowing it to slide more smoothly and last longer.

Highly polished Chrome shaft ensures long shaft life.

The shock absorber's velocity sensing valve, can accurately and automatically apply the required damping force for different road conditions.

High quality seals are designed to protect against oil leaks and perform very well even in dusty and dirty conditions.



Shock Absorbers

Profender 4x4

Superior Engineering is the Australian distributor for the Profender 4x4 product range.

Because of Superior Engineering's involvement in the offroad racing scene we can recommend the correct Profender 4x4 Shock to suit your application.

The Profender 4x4 Shock range covers most requirements for offroad racing, from Coil Overs to Bumpstops and even Shocks to suit your daily driven vehicle.



Coil Overs in 2.0 and 2.5 in 10"-16" travel and we also have a large range of coils to suit most applications.
Now Available with 9 stage Adjustability



A combination of the 2.5 Remote Reservoir Triple Bypass Shocks and the Profender 4x4 Air Shocks, giving the best of both worlds



2.5 Remote Reservoir Triple Bypass Shocks available in 9"-16" travel.



Hydraulic Bumpstops in 2.5 & 2.0 with 3" or 4" travel.



Adjustable Bumpstops in 2.0 with 2" & 3" travel.
Up to 170mm in height adjustment.



2.5 Air Shocks available in 12"-18" travel.



OEM Series Coil Over Struts and Shocks in 2.0 and 2.5 for most Australian 4x4's including 05 on Hilux, Prado FJ Cruiser Ranger/BT50 & 2013 on Dmax.



40mm Nitro Gas Shocks and Struts to suit Isuzu Dmax, Toyota Hilux, Nissan Navara and many more.



Mono Tube Shocks to suit most model 4x4 utes and some wagons in non reservoir and remote reservoir.

Shock Absorbers

AmadaXtreme

AmadaXtreme Shocks are available in the hugely popular Explorer II Remote Reservoir Shocks and the Adventure Series Shock.

The Explorer II Remote Reservoir Shock is perfectly suited to harsh Australian roads with the extra cooling efficiency of the mono tube body and consistent valving provided by having the gas in the remote reservoir. This combined with our linear piston design and many other outstanding design features add up to an amazing performing Shock Absorber.

The Adventure Series Shocks are premium quality emulsion shock built tough to handle Australian conditions. Featuring a massive 40mm bore this will give you exceptional ride and handling characteristics.



Explorer II Shocks are available to suit many applications such as:
Nissan Patrol GQ/GU 2-6+” lift
Toyota Hilux 2005 on 2-4” Lift
Toyota Landcruiser 80,105,76,78,79# 2-6+” Lift
Holden Colorado/Rodeo, Isuzu Dmax 2-5” Lift
and many more.



Tough Dog

Tough Dog Suspension has a range of shocks to suit a vast number of 4wd vehicles.



45mm Adjustable

This is the mainstay shock of the Tough Dog range, Available in sizes up to 8” over standard height for Patrols and Landcruiser with the added feature of an adjustable ride



53mm Ralph

This shock is aimed at the heavier vehicles, with a 53mm bore it will keep cooler than most other shocks over rough ground.



36mm Nitro Gas

These shocks are used when you require a low cost solution utilizing nitrogen gas to control aeration of the shock oil.



40mm Adjustable

The little brother to the 45mm adjustable is used in applications that don't allow enough clearance around the shock for a bigger bore, whilst still featuring an adjustable ride.



41mm Foam cell

Utilizing Foam cell instead of nitro gas to reduce aeration of the shock oil, which decreases the effectiveness of the shock valving.

Shock Absorbers

EFS

EFS have a shock to suit nearly every 4wd vehicle sold in Australia, and with a 3yr/100,000km warranty, they are hard to go past.



The EFS X-Treme shock absorber has taken over three years to develop and test, During this period its had countless trips along unsealed roads, highly strenuous technical offroad situations and has seen many laps of 4wd race tracks in competition vehicles. In all this the X-Treme has exceeded all expectations and has been pushed beyond the boundaries that a normal 4wd shock absorber can endure.



The EFS Elite shock absorber range is developed for the 4wd owner who only pursues the best for his/her 4wd.

- 51-60mm External Tube
- Low pressure nitrogen gas charged
- 35mm piston with a twin tube construction
- 16mm quality hardened chrome piston rod
- Dynamic Motion Control Valve
- 1.5mm outer and inner wall thickness



The XTR shock absorber range was developed specifically for the outback Offroad tourers, with heavily laden 4wds. Improved with increased oil capacities to reduce operating temperatures and incorporating a highly robust construction to take the worst Australian outback roads.

- 64mm external tube
- 40mm piston
- 2mm outer and inner wall thickness



EFS Enforcer is designed for the price conscious 4wd enthusiasts, who needs a shock absorber that gets the job done.

- 51mm external tube
- 32mm piston
- twin tube construction
- 1.2mm outer and inner wall thickness
- Dynamic Motion Control Valve
- Low pressure nitrogen gas charged

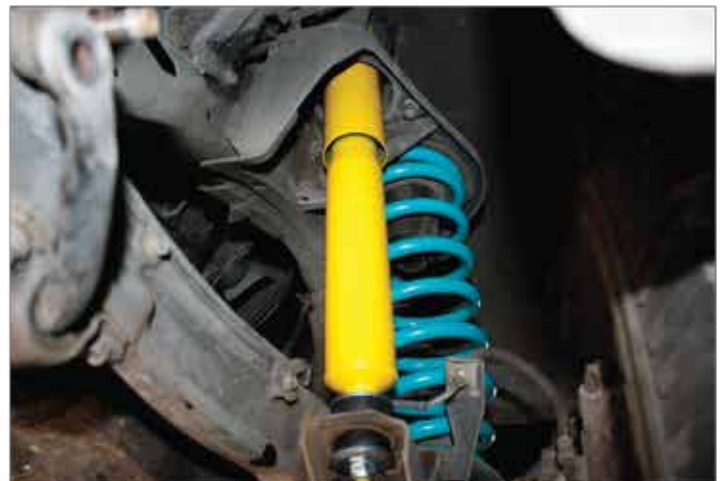
Dobinson

Dobinson shocks are a twin tube design to increase oil capacity and to help with shock cooling over rough terrain. Dobinson offer a Nitro Gas shock that they size specifically for each vehicle they manufacture suspension lifts for.



Features

- Twin Tube Design
- Powder Coated Finish
- Induction Hardened Rod
- Teflon Piston Seal
- Low Pressure Gas Charged



Springs

Coil Springs

Superior Engineering offer coil springs from leading suppliers such as: Tough Dog, Dobinson, EFS as well as our own Premium brand of coils. With access to such a large range of coil springs you can be assured that we can select the best coils to suit your particular needs.

Superior Coils



Rather than just producing a thicker or stiffer spring to provide a lift, the design of the Superior Engineering coils are based on using the highest grade of spring material offered in Australia, to match actual on-vehicle measurements, of the longest aftermarket shock for a given vehicle lift. The result is a longer, slightly softer, more linear spring, that is captive even when used with the longest recommended shock. By having a linear rate spring that is captive but at full extension, you gain the benefits of good ground pressure and traction - even when at near full flex, which dramatically adds to vehicle stability when offroad. The other major benefit of this design is a far superior ride quality and reduced vehicle noise and harshness (NVH). The Superior Springs are designed using the same principles as coilover race springs, which when combined with a premium shock absorber will provide unparalleled performance and ride.

Tough Dog Coils



Tough Dog 4WD coil springs are designed and manufactured in Australia. Tough Dog coils are available in linear and dual rate. Dual rate coils are used to ensure that the coil remains captive when a longer travel shock is used. Also, because several coils are wound closer together, the spring rate jumps up when a load is carried thus serving a dual purpose.

As most Tough Dog shocks are longer than OE, this coil is perfect for long travel and load carrying purposes.

EFS Coils



EFS coil springs are manufactured under a strict quality control system with the use of quality spring steel in accordance with ISO-9002. This ensures you are purchasing a high quality product that is backed by a 3 year/100,000km warranty. EFS coil springs are produced in a variety of raised heights, from standard to 125mm and also a variety of spring rates to suit different applications - Towing, Load bearing accessories, Increased ride height & Competition use.

Dobinson Coils



Original Equipped Coil Springs are prone to sagging (especially the rear) and therefore cannot satisfactorily carry increased loads. Dobinsons Spring & Suspensions manufacture aftermarket Coil Springs to restore the ride height with their improved Design Coils. In most cases, the coil is 20% - 40% stronger than the original OEM Spring. This gives better Load Carrying capacity for Heavy Loads and enhances Road Handling while also improving towing capacities.



Leaf Springs

As with coil spring we offer a great range of Leaf Springs to complement your needs from suppliers including EFS, Dobinson Tough Dog and our own custom springs to suit Drop Shackles



EFS

EFS Multi-Leaf Springs are made from high quality Japanese grade SUP9 & SUP9A Alloyed Carbon spring steel. Designed as a comfort Leaf Spring that incorporates special features, to give the driver a comfortable ride on road & increased control off road, with increased articulation & clearance. Available in 30mm to 80mm (depending on application) raised heights with a slight increase in spring rates over the original equipment springs.

Tough Dog

Tough Dog Premium Pack 4WD Leaf Springs are designed and made in Australia using quality BHP spring steel to ensure a consistently tough, high-quality leaf spring. Tried, tested and proven in the harsh Australian outback, these springs are proven tough in all conditions. Tough Dog Premium Pack Leaf Springs are a truly progressive rate Leaf Spring. Each leaf is set slightly higher than the leaf above, so there is contact along the whole length of the leaf. There are single stage and two stage springs available for different applications. Each leaf is formed to a template, oil quenched, hardened and tempered before being assembled. The spring is then scragged and load tested (turned inside out) to ensure that the spring retains its height. Some springs have anti-friction pads inserted before assembly and are graphite coated to protect against corrosion.

Dobinson

Dobinson's stringent quality control procedures for Heat Treatment (Tempering), at all phases of the manufacturing process, ensures Dobinsons Springs are made the same exceptional way every time. All leaf lengths are designed and calculated to achieve a High Performance spring. Where possible, a Military Wrapper is used as a safety mechanism to aid the vehicle's steering in the case of the main leaf breaking. Inter Leaf Anti-Friction Liners reduce friction at the tip of the leaves where the load is greatest in the spring.



Superior Engineering

Superior Engineering has a selected range of custom spring available to suit bigger lifts in some Landcruisers and Patrols, as well as custom leaf packs designed to allow the maximum travel from our Drop Shackles.



LEGENDEX

GRUNT & RUMBLE



LEGENDEX EXHAUSTS

Legendex exhausts are Spartan tough, made from 409 grade stainless steel. They're Australian made performance products designed for the demands of Australian 4WD touring, towing and off-road through the toughest out-back conditions. With guaranteed power gains of at least 10% (exhaust only) and up to 35% (with exhaust and PCM chip) you'll be rumbling down tracks and towing up hills with more strength and muscle than other road warriors



LEGENDEX PCM

Legendex Power Command Modules have nine custom tunes created especially for your Legendex exhaust - that makes a big difference. Most other chips are tuned only for stock exhausts. To get performance gains, these other chips put a higher fuel pressure into the engine because the stock exhaust is so restrictive. This raises engine operating temperatures and reduces engine life.

LEGENDEX THRUST MONKEY

We hate accelerator lag - so does the Thrust Monkey. This little guy is smart & agile with fiendishly fast reactions. With 21 custom throttle maps, you get instant throttle response, power when you need it for safe, towing and overtaking, making driving enjoyable again. Plus the off-road mode gives you even greater throttle sensitivity for better traction control.



easy-fit
GUARANTEE



Superior
ENGINEERING.COM.AU
PREMIUM 4X4 ACCESSORIES

AVAILABLE IN-STORE AND ONLINE AT
SUPERIORENGINEERING.COM.AU

Rear Control Arms



Avoid costly failures when using
Factory Control Arms

Factory Control Arms are normally made to a budget and may not be quite up to the task when it comes to offroad use.

In response to the need for Heavy Duty Upper and Lower Control Arms, Superior Engineering have produced a range of Control Arms for most popular applications.

In our series of Heavy Duty Control Arms there are both Fixed and Adjustable options depending on the vehicle requirements.



For Toyota, we offer Upper and Lower Control Arms for Landcruiser 80/100 series, we also have Adjustable Upper Arms available for the coil rear Surf and Lower Control Arms to suit Prado 120/150 series.



For Nissan Patrols We offer Upper and Lower Control Arms in both Fixed and Adjustable. We even manufacture a Bent Upper Control Arm to suit vehicles fitted with a long range tank.



All Superior Engineering Control Arms come with high quality bushes pressed into the arms ready for fitment.

IFS Upper Control Arms

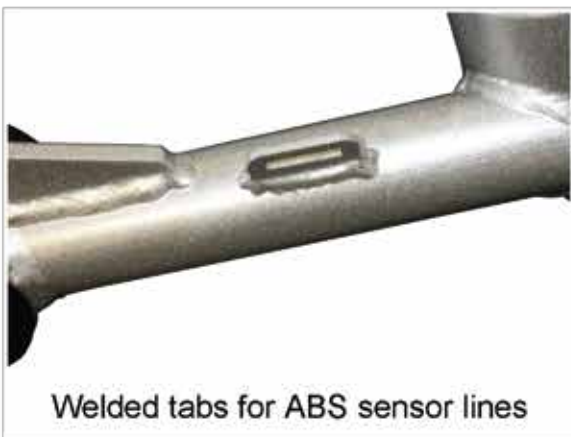
When it comes to all-round performance, Superior Engineering Upper Control Arms(UCA's) for IFS vehicles, are the perfect solution to correct front suspension angles after a lift has been installed. The newly designed UCA's allow greater clearance for the thicker or heavier aftermarket coils, generally required to lift the vehicle. Our UCA's are constructed from 4130 chromoly tube, they incorporate an Aircraft grade spherical bearing, fitted in a CNC machined housing. Combined with a greaseable top cap system this joints allows for long service life and maximum performance. The use of High Angle Spherical Ball Joints also allows full travel of the suspension without binding or reduction in strength, at extreme working angles. Mounting tabs allow for easy and secure attachment of the ABS sensor lines. The billet greaseable top cap includes an o-ring to seal out the dirt and water. UCA's are supplied with premium polyurethane bushes, combined with a greasing system or a high quality Heim Joint end on selected models.



Greaseable bearing joints



Spherical ball joints



Welded tabs for ABS sensor lines



Greaseable top cap



Heim Joints used on Selected Vehicles

Superior Engineering manufacture IFS Upper Control Arms to suit Toyota 200 Series, 05+ Hilux, Prado 120/150, FJ Cruiser, Nissan D40/D22 Navara and many other models



Standard Arm

Superior Engineering Arm



Steering Arms

Superior Engineering manufactures an extensive range of Heavy Duty Steering Rods to suit most popular Australian 4wd vehicles.

If you are after the ultimate in performance, we have the answer! Superior Engineering is the only company in Australia to offer Steering Rods made exclusively from High Tensile Solid Bar Steel. This material is milled for us and is the ultimate in strength and performance, the oversized diameter is optimised to allow clearance with suspension parts, whilst being dramatically larger than the standard OE component.



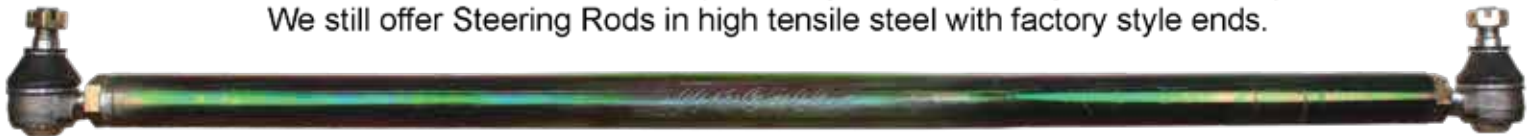
The Solid Bar Draglink and Tie Rods are currently available for GQ & GU Nissan Patrols.



All Nissan GQ and GU Patrol Steering Rods are supplied with Heavy Duty female style rod ends. All other arms include premium quality OE style rod ends, to suit each specific vehicle.



For all other vehicles that still require a high level of strength and reliability, We still offer Steering Rods in high tensile steel with factory style ends.



These Solid Bar Steering Rods are still widely considered as the industry standard when it comes to performance! The Solid Bar range of Draglinks and Tie Rods are available for Toyota 80/105/76/78/79 Series, Hilux in standard style, as well as Crossover and High Steer and for Suzuki Sierra.

As a budget alternative to our competition spec rods, we also offer an OE style upgrade in quality Mecaval Hollow Bar. This Heavy Duty Hollow Bar is still far stronger than the OE standard rod and is a great alternative for touring or a basic performance upgrade.



Drop Out Cones

Do you have a problem with the rear coils falling out of your Patrol when flexed up?

Superior Engineering Drop Out Cones, when used in conjunction with Coil Retainers, will help with re-seating your coils after full flex.

They work by effectively extending the coil seat down 4", giving the coils a guide back into the correct position, while allowing additional wheel travel

Available as both bolt in and weld in options, To suit GQ and GU Patrol.



All bolt in Drop Out Cones come in a gloss black powdercoat finish to prevent rusting.



Weld in style Drop Out Cones will fit both GQ and GU Patrol, and are supplied with a raw finish ready for welding.



Bolt in Drop out cones and Coil Retainers are now available for the Nissan Navara NP300.



Drop Out Cones work best when used in conjunction with Our Coil Retainers.



Shackles



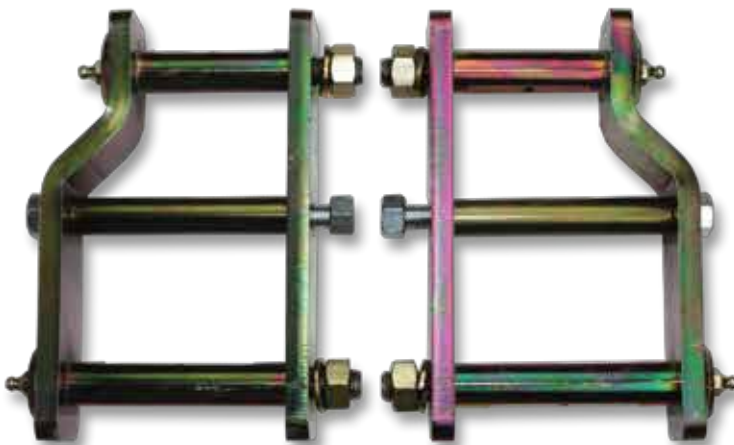
Superior Engineering are the leaders when it comes to leaf spring suspension! In 2002 we designed a patented and award winning Drop Shackle. These greatly enhance the wheel travel in leaf spring suspension setups, by utilizing 3 pivot points in the shackle. These 3 pivot points help relieve the stress that normally binds up the suspension and stops articulation, in most leaf spring setups. Superior Engineering 3 way Drop Shackles are available for most leaf sprung 4wd's.



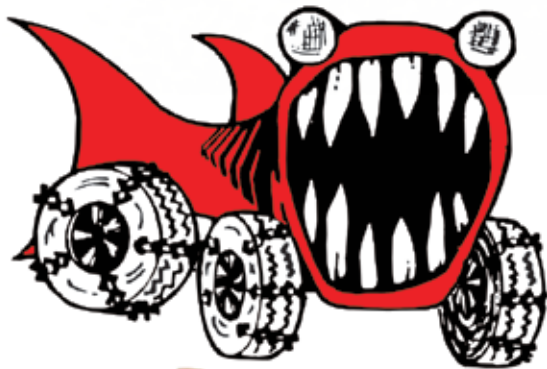
All Superior Shackles are a Greaseable design to allow for easier maintenance and longer life from bushes.

Other than our Drop Shackles (which are powdercoated) all Shackles come in a SA5 Anti-Corrosion Zinc finish.

Where applicable our Extended Shackles are made in an anti-inversion style to eliminate possible damage to your springs due to shackle inversion

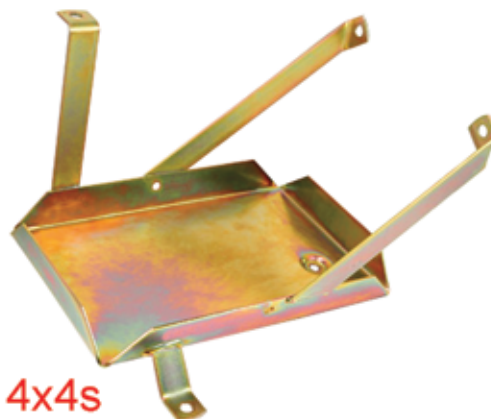


Available for:
Toyota Hilux, Landcruiser, Surf
Nissan Patrol, Navara
Suzuki Sierra
Holden Colorado, Rodeo, Jackaroo
Isuzu Dmax
Ford Courier, Ranger
Mazda Bravo, BT50
Mitsubishi Triton, Pajero



piranha

OFF ROAD PRODUCTS



Battery Trays to suit Most 4x4s



Dual Battery Monitors



Battery Management systems



Power Shower Also Available

SUPERIOR ENGINEERING NOW CARRY THE FULL RANGE OF PIRANHA DUAL BATTERY GEAR

- Dual Battery Trays
- Battery Management Systems, including solar ready applications
- Battery Monitors
- Australian Made
- 5 Year Warranty

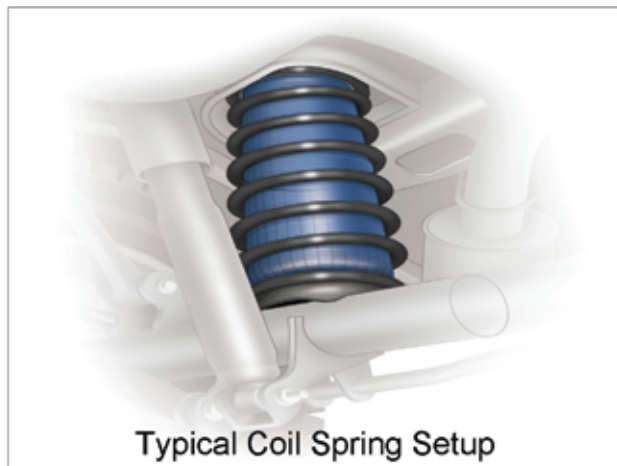
Superior
ENGINEERING.COM.AU
PREMIUM 4X4 ACCESSORIES

Air Bags



Typical Leaf Spring Setup

Superior Engineering recommends the use of Airbag Man Air Bags to help control suspension height and ride when carrying heavier than normal loads.



Typical Coil Spring Setup

Air Bags can be fitted to most vehicles whether they are coil or leaf sprung. Some coil sprung vehicles can even be converted to full Air Bag only, allowing even better control of loads.



Complete Air Bag Replacement Setup

All kits come with complete fitting instructions and everything needed to fit them to your vehicle.



Ironman 4x4

On road or off the beaten track, Australia's first choice for 4x4 Suspension and Accessories is Ironman 4x4. Whether you use your 4x4 as a family vehicle or as an off road explorer, Ironman 4x4 has the products that will deliver the comfort and safety you demand. Ironman 4x4 products have been developed in the harshest proving ground in the world, Australia. Sold in more than 120 countries. For over 50 years customers have put their trust in Ironman 4x4 because Ironman 4x4 delivers quality and value for money.



4x4 Accessories

Ironman 4x4 has you covered for all your 4x4 and camping needs with their range of 4x4 Accessories.

The Ironman 4x4 accessory catalogue has listings from rooftop tents to under body protection and everything in between. All manufactured to the same quality and value for money Ironman 4x4 has become known for.



Available Accessories

RECOVERY EQUIPMENT
DUAL BATTERY SYSTEMS
DRIVING LIGHTS
LED LIGHT BARS
CAMPING FRIDGES
STORAGE
TENTS AND SWAGS
CAMPING ACCESSORIES
DRAW SYSTEMS
OILSKIN JACKETS & VESTS
WINCH BARS
SIDE STEPS
ROOF RACKS
SNORKELS
EXHAUST SYSTEMS
UNDER BODY PROTECTION
CANOPIES
LONG RANGE FUEL TANKS



Rooftop Tents & Awnings



Snorkels



Toolboxes & Storage Cases



Side Steps



Fridge/Freezers



Driving Lights



Winch Bars



Winches & Recovery Gear



Canopies



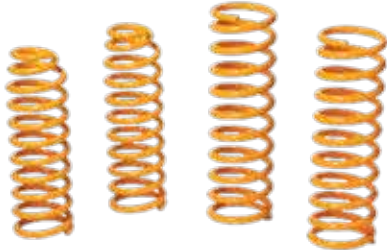
Under Body Guards



Suspension

Ironman 4x4's History: Originally established in 1958, as a Melbourne based suspension parts manufacturer, named JWS(Jacob Spring Works), In 1988 JSW Parts launched the Ironman 4x4 brand of springs and suspension parts in response to the increasing popularity of 4x4 vehicles, recognizing that standard suspension systems alone were not designed to cope with additional loads of bull bars, winches and extra fuel tanks

COIL SPRINGS



- High quality spring steel for long life.
- Cold Wound & Cylindrically Ground Material.
- Pre set and load tested for consistent ride height and quality control.
- Shot peened for reduced stress and improved durability.
- Ironman 2 year / 40,000km Iron Clad Warranty.

LEAF SPRINGS



- High quality steel that meets Australian standard AS1447.
- Increased leaf thickness & durability for improved handling.
- Extra leaves for increased load carrying.
- Shot peened for reduced stress and improved durability
- Plastic clip liners for smooth quiet operation
- Ironman 2 year / 40,000km Iron Clad Warranty.

TORSION BARS



- Thicker bar diameter than original to improve ride & handling.
- Improving grain structure of steel to increase strength & durability.
- Cold rolled splines to increase strength & durability.
- Ironman 2 year / 40,000km Iron Clad Warranty.

SHOCKS



Ironman 35mm bore Nitro Gas Shocks are the rugged all round 4x4 performance shock absorber. Ironman Nitro Gas Shocks provide exceptional performance for both standard and raised height 4x4's whilst delivering superior ride control and comfort both on and off road. Improve stability when towing or carrying a load.



Ironman Foam Cell provides the ultimate in 4x4 shock absorber design and features with 50% more oil for cooler running. Exceptional performance for both standard and raised height 4x4's & superior ride control and comfort both on and off road is what you can expect from these shock absorbers.



Ironman 4x4 Foam Cell Pro shock absorbers use thicker materials, stronger welds, and state of the art fabrication, resulting in unsurpassed structural integrity. No other comparable shock absorber comes close. Foam Cell Pro design enables up to 3 times more oil volume. Combined with the largest body size possible, Ironman 4x4 Foam Cell Pro shock absorbers will sustain longer periods of rigorous driving by resisting heat build up.

STEERING DAMPERS



- Exceptional performance for both standard and raised height 4x4's
- Superior ride control and comfort both on and off road
- Improve stability when towing or carrying a load
- Ironman 2 year / 40,000km Iron Clad Warranty.

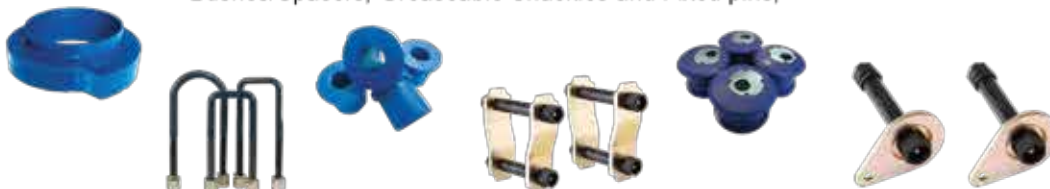
COMPETITION SUSPENSION



Ironman 4x4 Competition Suspension Kits for Nissan Patrol GQ/GU & Toyota Landcruiser 80/105 Series in 4" & 6" lifts

OTHER SUSPENSION PARTS

Ironman also offer all the other parts need to complete the installation of your new suspension kit, like Ubolts, Polyurethane Bushes/Spacers, Greaseable Shackles and Fixed pins,



Kits contain:

- Coil Springs
- Foam Cell Shock Absorbers
- Adjustable Panhard Rods
- 5° Caster Plates
- Extended Sway Bar Links
- Extended Brake Hoses

Under Body Protection

The under body area of your 4x4 contains a lot of valuable parts that can be easily damaged from rocks and logs whilst offroad, Superior Engineering manufacture and sell the strongest body and driveline protection on the market.

Diff Guards and Bracing

The front and rear diff housings are in a very vulnerable spot on most vehicles, and as such tend to absorb a lot of impacts when off road. Inside the housing is the ring and pinion gears, and axles, which if damaged can leave a vehicle stranded.

Superior Engineering's solution to this is our Heavy Duty Diff Guards and Bracing Kits, which are designed and manufactured here in Australia and tested under the harshest conditions of offroad racing. With these high quality items, You can rest assured that your differentials are well protected.

We have Diff Guards and Bracing Kits for most popular 4wds sold in Australia.



Bolt on Diff Guards



Superior Engineering Stealth Diff Guards are to suit both GQ and GU Nissan Patrols, Toyota Landcruiser & Hilux.

These are 100% bolt on protection made from 250 Grade 6mm steel plate for the ultimate protection of your ring gear.

These guards simply bolt onto your diff housing utilizing the supplied hardware.

To add further to the protection the Diff Guard hugs the profile of the diff housing snugly to help share the impact load.

Manufactured to sit as close to the original housing as possible allowing sufficient clearance for aftermarket panhard rods.

There is no other Bolt on Guard on the market that has complete protection like the Superior Engineering Stealth Diff Guards.

By using Stealth Diff Guards you know your diff can handle anything it impacts.

Finished in a hard wearing Powder coat and 100% made in Australia.

Bolt on Pinion Guards

Designed to be fitted up on its own or in combination with the Superior Engineering Bolt on Stealth Diff Guard to offer the ultimate protection for your pinion and diff.

Made from the same 250 Grade 6mm steel plate as the Bolt on Diff guard.

Designed for strength and protection with cutouts that allow easy cleaning and mud and dust to clear out when off road

Finished in a hard wearing powder coat and 100% made in Australia.



Under Body Protection

Under Guards



The rugged world of offroad four wheel driving can punish the chassis, drive-train and under-car components on even the toughest offroad vehicles.

Our range of Underguards are super strong and will protect the underside your off road machine.

Those who have felt the full wrath of the outback and suffered a punctured sump going over rocks, or had a thick branch mercilessly fling up and jam between drive shafts, will be the first to appreciate the benefit of such protection.



Constructed from 3-5mm steel plate, and finished in black powdercoat, each Underguard is build to withstand the rigors of a life off road. Furthermore, all bolt hole recesses are reinforced with 3mm laser cut steel rings to prevent them being torn out, or damaged when making contact with terrain or objects.

Patrol Gearbox/Transfer Protector

From the factory, the GQ/GU Patrol gearbox and transfer case are not sufficiently protected from the rigors of offroad driving. With a Superior Engineering Heavy Duty Protector Plate, your driveline is fully protected by 6mm thick laser cut steel and supplied with all mounting brackets and bolts.



Toyota Transfer Guards



Superior Engineering Transfer Case Guard to suit Toyota Landcruisers. Manufactured from laser cut 4mm plate steel and fully welded by certified welders, for the ultimate in protection for your transfer case.



Simply bolts in place of the flimsy factory transfer brush guard with the supplied bolt kit.

Finished in hard wearing black powdercoating.

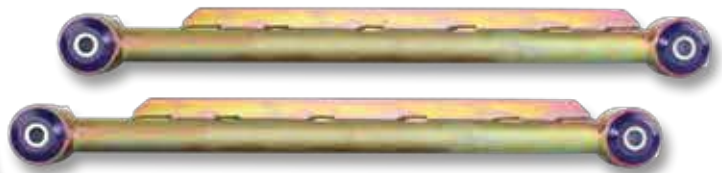
Bushes/Coil Spacers



Superior Engineering stocks a wide range of genuine and High Quality aftermarket rubber Suspension Bushes



On top of that we also supply Polyurethane Bushes for most 4wd applications.



Superior Engineering stocks 2 and 3 degree Castor Bushes to suit your Patrol or Landcruiser.



Superior Engineering Coil Spacers are made from a durable and tough polyurethane . Designed to fit on top of the coil spring between the body and the spring they will give additional lift to your truck at a very affordable cost.

Manufactured in many different sizes from 10mm to 50mm.



Sway Bars & Accessories

Sway Bars are necessary equipment for safe handling in your 4x4. Superior Engineering has the items you need to retain your factory Sway Bars after a lift.

Superflex Sway Bar Kit



The patented design and superior materials of this kit, will give your Patrol unbelievable levels of flex and still retain great on road handling. With the Super Flex Sway Bars fitted, sway bar disconnects are almost a thing of the past.

Combined with the correct suspension components, these Super Flex Sway Bars will have you out flexing your friends and still have excellent on road handling



While your friends are under their cars connecting and disconnecting their Sway Bars, you can be ready with full flex, with no need to crawl in the dirt. And when it's time to drive home, your vehicle will still have the full effect of having a Sway Bar fitted, So no more "NO SWAY BAR" scary moments. Patent Application number: 2014100156 Design Application number: 10785/2014

Nissan

When running Sway Bars in your lifted patrol Superior Engineering has two extended linkage options available to suit your lift. Our most popular option is the dis-connectable Sway Bar type. By simply removing a clip from the rod when going offroad, your vehicle can now achieve full flex, without hindrance from the Sway Bar. Then before heading back on road, just reinstall the R clip and regain safe handling and onroad stability that Sway Bars provide.

For lifted vehicles that prefer the firmer more stable performance that a Sway Bar provides, Our Sway Bar extensions may be better suited. Made from the same Heavy Duty - High Quality components, only with fixed OE style mountings to ensure a long, safe, service free life. Sway Bar extensions are more preferable for people who have a lift fitted but are not after every last bit of flex available from their suspension.



Toyota

Toyota 70, 80 & 105 series that are running a Sway Bar should be fitted with Sway Bar extensions to correct the Sway Bar angle after a lift has been fitted.



Superior Engineering has designed a Sway Bar Drop Down Plate to fix sway bar angles on the current shape Hilux, 120/150 Prado and FJ Cruiser, This plate drops the front mounting position of the of the Sway Bar down to a suitable level for a 3-4" lift.

Coil Tower Braces

Superior Engineering now have a solution to prevent the bending and cracking of the rear coil towers in Nissan GQ/GU Patrols. It's not just Utes carrying big loads that suffer from tearing and cracking in the rear chassis section. The family wagons and tourers are equally susceptible to stress in this area. Protect your investment by doing a quick visual check! Look into the rear wheel arches, the tops of the both spring towers should be horizontal and in a line, if however one, (or both), has started to bend up slightly, it may be time to look further?



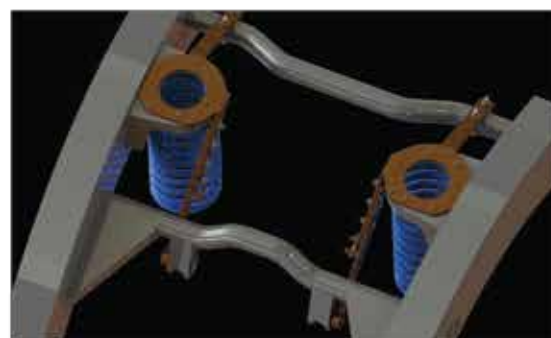
Nissan tower cracked, this can also cause damage to brake lines(dangerous) and fuel lines(expensive)



Patent Pending No: 2011904187



CAD(computer aided design) used to ensure a perfect fit within the minimal space available.



Supplied in SA5 Zinc finish with all required fitting hardware and instructions.

Superior Engineering offer two solutions for reinforcing the rear coil tower in Nissan Patrols. For the utes, there is a compact pressed-section Brace that allows the both towers to share force and transmit loading equally across the rear chassis section. For the wagons, where the confined body space make fitment more difficult, a revolutionary Patented Coil Tower Brace was developed to allow easy fitment and adjustability to suit most models. CAD(computer aided design) designed to ensure a perfect fit within the minimal space available and FEA load tested to guarantee optimal loaded durability, the Superior Engineering Coil Tower Brace is almost a must in any outback tourer that carries any load over corrugated roads.



Supplied with a polyurethane brake line protector



THE
WORLD'S BEST
SELLING DROP SLIDES
LIGHTER. STRONGER. SAFER. SMARTER.



Fridge Drop Slides

Lighter. Stronger. Safer. Smarter. The Drop Slide slides out from its stowed position and lowers a full 30cm in one smooth, safe and easy motion, enabling the platform to remain in a perfectly horizontal position the whole time. It allows for unrestricted access to your fridge at a safe level with ease, before raising the slide in one very light and easy motion back into its stowed position.



Premium Canvas Seat Covers

MSA 4X4 have created a 12oz Canvas Seat Cover that is durable enough to withstand the day to day rigors of life's adventures, but not too stiff that its uncomfortable for the occupants, whilst delivering 100% water, dirt, mud, kid and pet proof seat covers.



Seat Organisers

Keep all your accessories close at hand and easily accessible with an MSA 4X4 Seat Organiser! Offering multiple pockets for endless storage possibilities including larger pockets for street directories, maps, magazines, iPads and colouring books.

Designed to be easily attached and removed in seconds, it can also be attached to the front of the passenger seat for easy access when you're on the road alone. Manufactured from heavy duty 12oz canvas, with an aluminum internal frame that prevents sagging even when full.



4wd Gear Bags

Canvas 4WD Gear Bags. Time to get organised and rid yourself of those tangled jumper cables and recovery straps! Manufactured from heavy duty Teflon impregnated canvas with molded rubber carry handles, MSA 4X4's Canvas 4WD Gear Bags are great heavy duty universal bags designed to hold all your jumper cables, snatch straps, recovery gear and more! Available in 2 sizes.



Small: 26cm x 24cm x 7cm

Large: 26cm x 24cm x 14cm

Suspension Kits

Superior Engineering has become the industry leader in Quality customised Suspension Kits. With great buying power and the ability to source premium products from throughout the world, we can tailor a kit to suit your exact needs. Give our sale team a call and let them guide you through choosing the correct suspension components and accessories for your vehicle. Our extensive range of top quality suspension components allow us to customise a package that can feature a wide variety of brands that work in harmony to provide a perfect solution to your 4wding requirements. Superior Engineering can also supply and fit, any of our own range of award winning products to your vehicle at our Brisbane facility or Australia wide from any of hundreds of authorised dealers. We can supply Suspension Kits and components to suit vehicles with lifts from 2"-6" plus, and our custom Suspension Kits will easily flex, handle and perform better than any other suspension kit available on the market.



Basic coil/shock combination kits allow for a simple 2" lift for coil sprung 4x4s.



We have the full range of Tough Dog suspension kits available on our online store.



2" to 4" lift kits to suit Prado 120/150 and FJ Cruiser with Profender 4x4 Remote Reservoir Smoothie shocks.

Over 1000 kits available Online



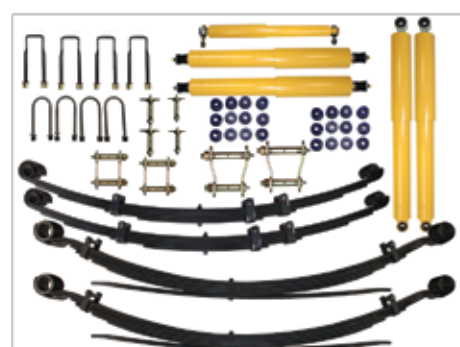
German designed Bilstein kits to suit 2005 on Toyota Hilux in 2", 3" & 4" lift.



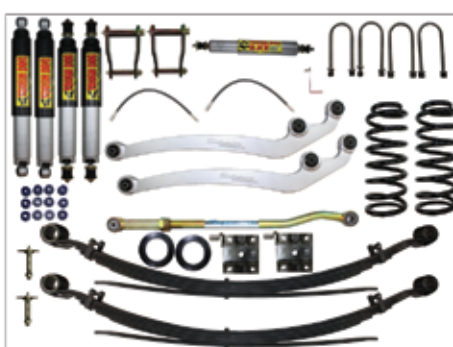
AmadaXtreme Superflex kits GQ/GU Patrol & 80/105 Landcruiser 2"-6" lift



Profender low pressure Nitro Gas kits for most popular IFS vehicles



Even if you have a 30 year old hilux or patrol we can still provide you with a choice in suspension products.



We offer most of our kits in stages to allow you to get the parts you need with room to upgrade later on.



With having so many brands available we can even cater for some of the less popular 4wds sold here in Australia.

Bull Bars & Rear Bars

Bull Bars

Superior Engineering has a full range of Bull Bars from a range of suppliers including Ironman 4x4, ECB and MCC 4x4.

Ironman 4x4 Bars are designed, engineered and tested in Australia.

Every Ironman 4x4 Bull Bar is carefully crafted from premium grade materials and components to deliver the most comprehensive frontal protection and styling available. All Ironman 4x4 bars are winch and airbag and ADR compatible to ensure you and your family's safety isn't compromised.

ECB's mission throughout 40 years in the industry, has been to use their expertise and wealth of knowledge to design and manufacture quality products, and provide you with a service that is second to none.

ECB offers a frontal protection solution to suit many situations, from full Bull Bars to minimalist Nudge Bars.

MCC 4x4 have an extensive selection of Bull Bars that compliment their range of Rear Bars and Wheel Carriers

Rear Wheel Carrier

MCC4x4 Rear Wheel Carriers allow you the versatility to carry either two spare wheels, a spare wheel and a jerry can or a spare wheel and two jerry cans, the choice is yours.

Rear Wheel Carriers are perfect for moving your spare wheel up from under the car to on the back for better access.

The swing away arms allow the rear doors to open fully, giving easy access to the rear of the vehicle for loading and unloading. MCC4x4 have used LED crystal parker/indicator and reverse lights for longer lasting, easily visible lighting.

MCC4x4 has also incorporated Hi-Lift jacking points in to all of their rear bars. The bars come powder coated black with an aluminum checker plate top step to reduce wear damage to the top of the bar.



Rear Bars

MCC4x4 Rear Bars are available in two distinctly different styles, The "Jack Bar" which is a tube style bar with a plate step covering the center section of the bar. The "Rocker Bar" is a full plate style bar that will complement most front bull bars. Both Rear Bar styles include a heavy duty tow point and a Hi-lift jack points. The Rocker bar also includes recovery points built in to the bar for strength. Like all MCC4x4 Bars these bars, come in high quality black powder coated, but other colours may be available on request.



Electrical

Lighting is a very important aspect of modifying your 4x4. The factory lighting system may do a adequate job on road, but once offroad OE lights can leave a lot to be desired.

Korr Lighting

Korr Lighting offers a range of lighting solutions from camping lights to Halogen and LED Spot Lights and LED Light Bars. They have a light to suit most of the needs of 4x4ers and campers.



Ironman 4x4 Lights

Ironman 4x4 have a light to cover all needs from LED Light Bars to HID Spot Lights to hand held Work Lights.



16W LED Spot Light



GAMMA Halogen Spot/-Work Light
flood Lights



Hand held



VEGA HID
Spot/Flood Lights



LED
Lantern

Lightforce

With more than 20 years experience in the field of precision manufacturing, Lightforce has forged an international reputation as the world's leading manufacturer of innovative 12 volt professional lighting



140 Lance
Halogen/HID



170 Venom
HID



215 LED



210 Genesis
Halogen or
35/50/70W HID



180 LED



240 XGT
Halogen or
35/50/70W HID

Whether you are after a Dual Battery set up, Camping Lights or Switches to turn them all on, Superior Engineering can help.

Camp lighting

LED technology has allowed us to have bright white light wherever we are, and with everything from individual Light Bars to flexible strip lights and full portable lighting kits, We have what you need to get illuminated.



Switches

Superior has over 200 different Switches spread over 4 colours. Switches are available in Red, Blue, Green and Amber in both LED and ARB style printed lens illumination. these are top quality Rocker Switches with a positive "CLICK" as well as the illumination of the Switch when turned on

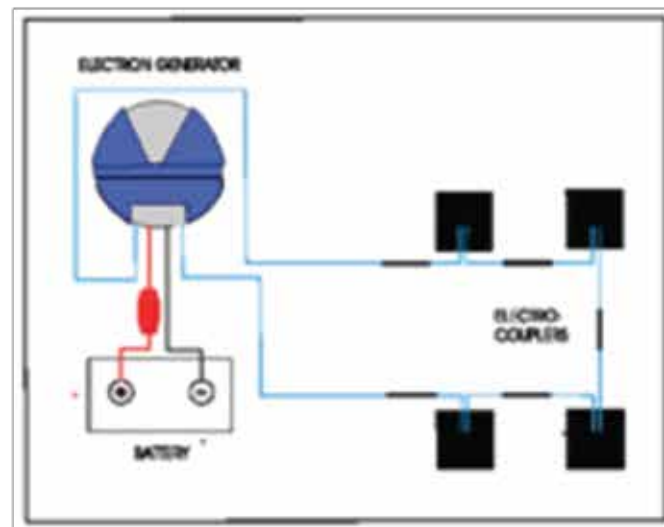
With this many Switch combinations we are likely to have the Switch you are after in the colour you want. If we don't, have a chat to one of our friendly sales staff about custom covers for the Switches.



Electronic Rust Protection

ERPS uses a revolutionary yet proven method of electrostatic charge to stop rust before it starts. By slowing down the chemical reaction between the steel in your vehicle and the oxygen, chemicals, salt and humidity that cause rust, ERPS prevents rust even in the most harsh environments.

ERPS is designed to protect not only the outside of vehicles but also all the inner, hidden areas that traditional sprays can't reach and can never fully cover.



Engine Performance

Lets face it, every one would like a bit more performance from their diesel 4x4, and with a few simple upgrades you can get up to 35% more power and better fuel economy from your diesel powered 4x4.

Exhaust Systems

Most factory exhaust systems are very restrictive when new, let alone after 10 years or more of filtering emissions. A new free flowing Mandrel Bent Exhaust System will unleash the potential of your motor. All our Exhausts are designed and made in Australia from ACMS(Aluminum Coated Mild Steel) which handles heat and vibration better then stainless steel which tends to crack under 4x4 conditions. Parts supplied with each kit will vary depending on the factory components, some vehicles will need a full turbo/ header back system others may only require a cat converter back system. All kits are supplied with a high flow muffler and all gaskets,rubber mounts and bolts



Snorkels

all motors HATE water!

The best way to get your air intake up out of the water and dust is with a well designed Snorkel System. Snorkels are an extension for the air intake, which moves it up out of the engine bay higher up on the vehicle into the cleaner and drier air. The other main advantage is the air outside the engine bay is generally a lot cooler and denser, and therefore allow your motor to operate more efficiently, and produce more power. As the air being taken in is up higher, has less road dust in it than the air filter does, so it doesn't fill with dust as quickly when following others on dusty roads.



Torqit Performance Modules

Torqit Performance Modules unleash the power,torque and efficiency that are lost through factory programming of your vehicles on-board computer.

Dependent upon the module you choose, torqit Performance Modules will increase your engines power, torque and fuel efficiency by adjusting the fueling of your engine, through changes to either the fuel pressure, or the injection pulse length. These improvements are especially noticeable when towing heavy loads.

Every Torqit Performance Module is specifically programmed for your model, make and engine type. Installation is seamless and fast as the module is simply plugged into existing factory componentry.

Bundling the Torqit Performance Module with other Torqit products such as the Torqit Performance Exhaust and Pedal torq, is an excellent way to maximise the power, torque and fuel efficiency improvements the modules provide.



Recovery Gear

Recovery gear is very important if you intend to go offroad with your 4x4. You can't always rely on someone else to have the equipment to get you out a bad situation.

Winches



The Ultimate for self recovery is a vehicle mounted winch. Superior Engineering Stocks Warn, Ironman 4x4 and VRS winches, they are available in a range of capacities to suit, from the lightest buggy, through to the heaviest touring wagon.

There are a lot of cheap winches available on the market today with people thinking "a winch is not something i will use that often, why spend the extra money on a better winch?".

Superior Engineering sell only high quality, robust products that have stood the test of time.

Manufactured from the best quality materials, using only the best designs, Superior has the expertise to get you fitted with the winch to suit your usage.

So do yourself a favor and think seriously about what that cheap winch will cost you in the long run.

MAXTRAX/TREDS

MAXTRAX is the innovative, lightweight vehicle recovery device that's Australian designed & engineered, and rigorously tested and proven in the world's toughest offroad events and expeditions as the SAFE, SIMPLE, QUICK and EASY method of 4WD vehicle recovery.

TRED(Total Recovery & Extraction Device) is the ultimate all-in-one off road recovery device, specially designed to get your four-wheel drive, ATV and equipment out of trouble when traction is lost in sand, mud, sludge, slime or snow.

Heavy Duty Recovery Points

Superior Engineering manufactures Heavy Duty Recovery Plates for a range of vehicles including Patrol, Landcruiser and Prado as well as many more.

Heavy Duty Recovery Plates replace the factory tie down mount giving a solid towing point for safer recovery of a vehicle.

All plates are laser cut to ensure a simple bolt up fitment and are supplied with fitting hardware.

Our Recovery Plates are finished in either a high visibility red powdercoat or corrosion resistant zinc finish depending on the application.

Other Recovery Items

Superior Engineering also stocks a large range of all the other parts you need when doing a recovery, Straps, Shackles, Drag Chains, Jacks and everything else you could need.

Check out our website or call and talk to our helpful staff to find out more.

Driveline

Whether you need a locker for better traction, wheel spacers to fit bigger tyres or more articulation and everything in between, Superior Engineering has all the parts needed to get you in front of your competition

Lokka

Think of a LOKKA as an alternative set of planetary gears. When factory gears operate or move, so will the LOKKA gears. The difference is, the LOKKA gears start from a locked position, where as normal gears are free spinning.

The LOKKA mechanism allows a wheel to turn faster than the speed the differential is driving it - (differential action), but never allows a wheel to turn slower than the rotational speed the differential and engine is turning it - (traction). Thus a wheel cannot ever stop turning if the engine is driving it, but in a corner it can be forced to actually turn faster. Unlike a normal differential the engine can never drive one wheel faster than the other.



E-Locker

The E-Locker's electromagnetic locking mechanism is the next generation of aftermarket differential technology. It performs as an open differential until you decide that you need more traction. The Eaton E-Locker is your push button solution to almost any traction problem.

Designed expressly for 4-wheel drive systems to give you the ability to lock or unlock the differentials when necessary. When locked the Eaton E-Locker performs as a full locker, capturing 100% of available torque and sending it equally to both ends of the axle.

The E-Locker is built with precision-forged gears that are designed to mesh perfectly, providing improved strength and durability over a standard cut gear. Its ease of installation, reliability and push-button activation make E-Locker an absolute must for all traction and off-road performance applications.



Eaton E-Locker as used in the Superior Engineering GU Patrol



CV's and Axles

Running bigger tyres, lockers or hard offroad driving can put a lot of strain on your factory CV's and Axles. The use of chromoly CV's and Axles decreases the chances of breakage, allowing you the peace of mind that you will be able to get back from wherever you are.



Ring and Pinion Gears

Final drive in the diff gears is what determines the engine revolutions and torque transmitted to the tyres, this can be altered by changing the differential gear ratios either higher or lower depending on the outcome that is desired.

Superior Engineering can offer many top name brands and many different ratios for most vehicles. Talk to one of our friendly sales staff about the best requirements for your 4wd.



Diff Breathers

While driving your 4wd the diff develops quite a bit of heat through friction, this causes the air inside the diff to expand, when you drive your vehicle through water, the sudden cooling causes a negative pressure as the air is cooled, causing air to rush into the diff housing.

To correct this problem the factory places a diff breather on the top of the diff. Sometimes these have a small diameter hose running up to the chassis, others simply have a cap to try and keep dirt out. Either way it is easy for the breather to become blocked forcing water to be pulled in past the axle seals and into the diff oil.

Superior Engineering has a Diff Breather Kit that gets the outlet high up in the engine bay, with air stone filters to prevent blockage. Also, the kits use a 6mm tube to flow plenty of air for expansion and contraction whilst driving. The kits are sold with 9 meters of hose, 2 right angle fittings for the diff and filter block for mounting.



Superior Engineering also has Hoseless Diff Breathers that simply clamp onto the factory fitting. Through the concertina they design absorb pressure difference.



Driveline

Wheel Spacers

If you want more clearance for wider tyres or just to stop your tyres from fouling on the chassis and reducing flex, then you need a set of Superior Engineering Wheel Spacers.

Superior Engineering is making the change from alloy to steel spacers. Alloy spacers are lighter than steel spacers reducing unsprung weight, but steel spacers are better able to cope with the increased loads of modern 4WD vehicles.

Wheel spacers are highly recommended on the V8 70 series Landcruiser to correct the difference between the front and rear wheel track.

Available in 1.5, 2 & 3 inch sizings to suit 6 stud Nissan and Toyota and 5 stud Landcruiser and Suzuki patterns.
And now also 1.5 inch to suit Nissan Navara D40.



Tailshaft Spacers

When lifting your 4x4 the tail shaft is extended further out than the original design. This can cause issues with the tail shaft splines wearing prematurely, causing unwanted vibrations and in some cases it can even come apart during articulation. The solution to this is to fit a Tail Shaft Spacer between the pinion flange and the tail shaft, this fills the space created by the lift and closes the tail shaft back up closer to the factory specifications.

Available in 25mm and 40mm sizes to suit most popular 4x4s sold in Australia.
Supplied with longer high tensile bolts and nuts.



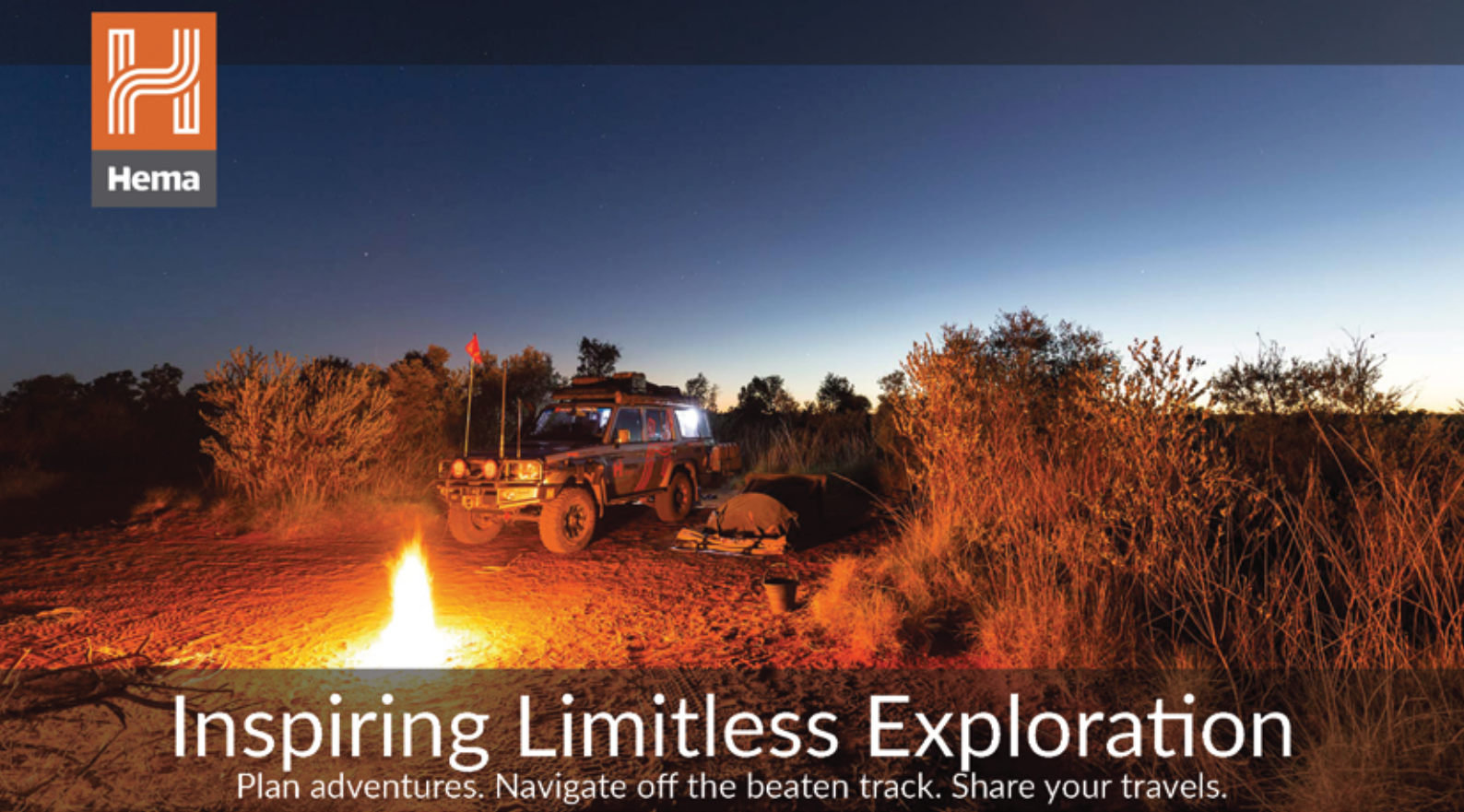
Patrol Wheel Carrier Spacer

If you want to fit bigger than standard wheels on your GQ or GU Patrol you will need to fit a suitable Rear Wheel Carrier.

The Superior Engineering Rear Wheel Carrier Spacer allows you to fit up to a 34" tyre without any fouling. It also has extended bars for fitment of reverse lights, camping lights or aerials with multiple mounting points on each post.

Supplied in black powder coat with a full fitting kit.





Inspiring Limitless Exploration

Plan adventures. Navigate off the beaten track. Share your travels.



Hema HX-1 Navigator

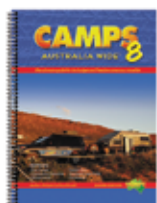
EXPLORE A NEW FRONTIER

The Hema HX-1 Navigator is the ultimate on and off-road GPS navigation system, combining dedicated street and 4WD navigation to guide you anywhere in Australia.



Atlases

We have a massive range of 4WD atlases and other travel books for exploring coastal and outback Australia. Navigate 4WD tracks and find what to see and do in places like Cape York, the Kimberley and the Red Centre.



Guides

It doesn't matter if you need to know where to camp or if you need to know which caravan parks are Dog friendly, Hema has a range of guides with the information you need.



Maps

Our range includes maps of Australia, Australian city maps and regional Australian maps. These include 4WD, topographic and outback maps, road maps of Australia, city maps and state and territory maps.

Be prepared to Explore with Hema maps, navigation, & apps

Water/Diesel Tanks

Carrying extra diesel or water is a must if you are traveling into some of the remote regions of our country. Even if you plan on staying in some of the less remote places, it is always handy to have that little bit extra on board.

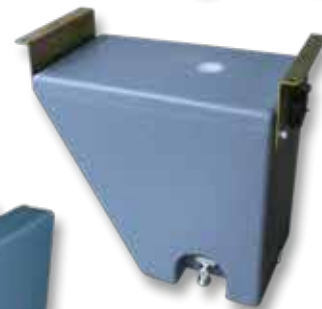
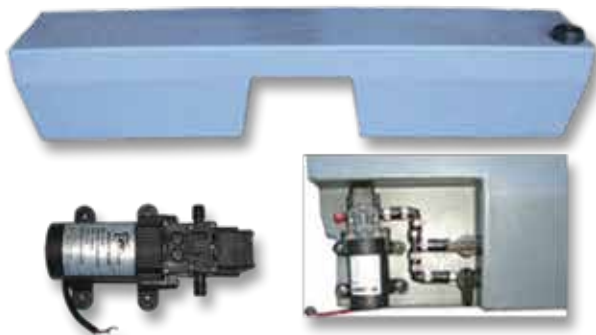
Water Tanks

Carrying extra water could be a matter of life and death, but with the number of different tanks we have, finding somewhere to fit a tank for additional water isn't anywhere near as drastic.

All tanks are roto molded polyethylene and are extremely durable, with a nominal wall thickness of about 3mm.

We have a large selection of sizes ranging from 29L to 130L, and in different shapes, with under vehicle tanks, mudguard tanks, behind seat tanks and many more. Most tanks are available as either a bare tank or with a mounting kit.

We also have pump kits and water level gauges.



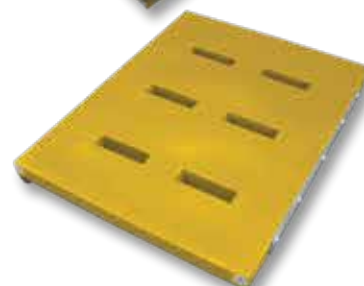
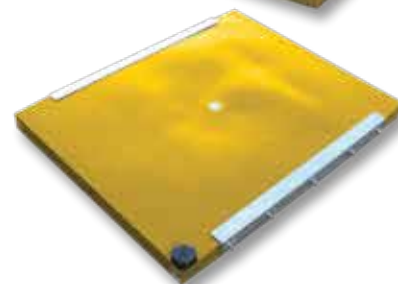
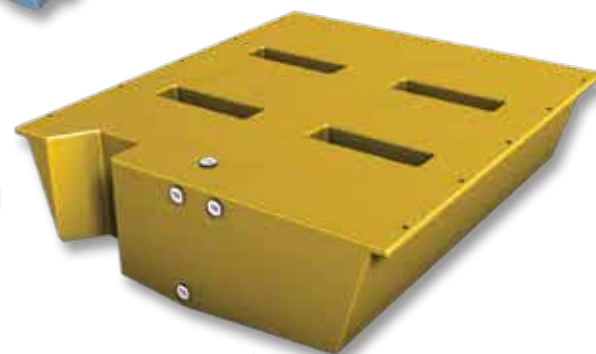
Diesel Tanks

Carrying extra diesel can sometime be a real pain. Jerry cans take up valuable space in your tray or trailer, and long range tanks are great but they can be quite expensive and may reduce your ground clearance.

Superior Engineering has a different solution, roto molded diesel grade polyurethane tanks in a range of sizes and shapes.

Imagine being able to store 130 extra liters of diesel under your trailer out of the way, for only a few hundred dollars. Or by using the empty space in front and behind the rear wheels on a Ute you could fit a few mud guard tanks and carry an extra 120 liters in what is normally wasted space.

All diesel tanks are made to the same high standard as the water tanks here in Australia. These are not cheap imported tanks that may crack over time.



Competition Vehicle Parts



Superior Engineering has been involved with the 4wd racing scene since we started in 2002, and we still are.

We now supply a wide range of products for your competition vehicle whether its a basic entry level Suzuki or a full blown Ultra 4 race truck, We have the parts to keep you competitive.



Fuel Cells, Pumps, Filters for both carby and EFI motors

Oil Catch Cans and Coolers



The full range of autometer gauges



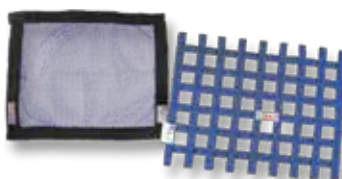
GoatBuilt Ibox buggy chassis kits



Rugged Radios range of intercoms and accessories



Hoses and Fittings



Window Safety Nets



Seats, Harnesses and Rollcage Padding



Air Filters



Safety Clothing and Helmets

Be Prepared

Never leave home without your Leatherman.



Heavy Duty Multi-tools

Full sized tools like the MUT EOD and the Crunch make short work of heavy work loads.



Full Size Multi-tools

Like a full tool box in the palm of your Hands.



Wearable Multi-tools

Makes carrying your multi-tool everywhere a breeze.



Basic Multi-tools

Light weight and simple, only what you need



Pocket Multi-tools

Similar to the full sized tools just smaller.



Knife-less Multi-tools

No blades, air travel friendly.



Survival

Fire, shelter & water. This tool helps with all of the above.



LEDLENSER.

Over 20 Years of development has lead LED Lenser to be a world leader in LED torch technology



P7.2



P17.2



X21.2R



LED Lenser torches and headlamps feature some of the most advanced LED and lens technology on the market today.



H14.2



H7.2



SEO5

If you tow anything behind your 4x4 for work or play, Superior Engineering has the accessories to make towing easier and safer.

Clearview Towing Mirrors

Clearview Towing Mirrors, Australia's first full replacement towing mirror, are especially designed for towing caravans, boats, horse floats and large trailers.

They are a larger set of side mirrors on a sturdy extension slide, which can be extended out for towing and pushed back in when not required.

Electrically operated, they bolt onto your car in exactly the same position as your existing mirrors using existing bolt holes and electrical plugs.

Life's easier with no straps, no brackets and no extra mirrors to store away.

For looks, comfort and confidence when towing, think Clearview!



Safeguard Cargo Nets

Perfect for utes, trucks, 4WD roof cages, trailers, boats and much more. Fits everything from box trailers to medium rigid trucks. Eight sizes available, all load rated. Complete with straps and carry bag.



Features

- Multiple eyelet anchor points
- Anti-tangle design
- Triple layered reinforced edge
- Heavy-duty mesh rip-stop fabric
- Safely secures small items
- Heavy-duty UV stabilised webbing

Towing Accessories

Superior Engineering also stocks an extensive range of Hayman Reese towing accessories. Since its inception in 1951, Hayman Reese has been the leader in aftermarket towing and true pioneers in the industry. Hayman Reese designs, manufactures, tests and distributes a wide range of accessories.



EVOLVED RADIO

GET CONNECTED. GET XRS™



Bluetooth

Download on the App Store

GET IT ON Google Play

XRS CONNECT

Get Connected, Get XRS - Bluetooth enabled UHF CB radio

The XRS family is a new Australian Made radio platform designed to be smart, adaptable and rugged.

Enabled by Bluetooth® Smart technology, XRSTM is the first of a new generation of connected UHF radios with unique features never before seen.

It is the first ever UHF CB radio with app control and introduces new features such as creating and sharing scan lists and instant access to the entire Australian and New Zealand registered analogue frequency database.

Much like a smart device, the XRS family are software upgradeable via the app, keeping customers up to date with the latest fea-

The new XRS Connect professional grade speaker microphone features a powerful 2 watt speaker, customisable buttons and a high contrast OLED screen guaranteeing crystal clear, anti-glare display.

Genuine GME 5 year warranty, plus download and register the new XRS Connect App and receive one year additional warranty.



XRS-370C XRS™ Connect Compact Hideaway UHF CB

- Bluetooth Smart Connectivity - BT Classic 2.1 and BT Low Energy 4.0
- End user software upgradeable via the app
- Download the XRS Connect App on Google Play or the App Store
- App compatible with iOS9.0, Android 5.0 and above
- Windows app compatible with 7.0 and above available January 2017
- Easy to configure and customise radio via the app
- Create and share personalised scan lists - up to 400 frequencies
- Instant access to over 20,000 receive frequencies
- XRS Connect speaker microphone with OLED display
- Customisable buttons
- 25% faster scan speed at 50 channels per second
- 5 year warranty + 1 additional year for downloading and registering app

TX4600 Waterproof UHF Radio

- Compact size
- Ingress protection to IP67
- User Selectable Priority Channel
- User Selectable Open and Group Scan
- User Adjustable Squelch
- 5 Digit Selcall with Quiet Mode
- 50 In-Built CTCSS Codes
- 10 Selcall Memories
- Tricolour Backlighting
- ANI (Automatic Number Identification) and Alpha Labeling for Selcall.
- 19 Extra User Programmable Receive Channels (403-520 MHz).
- Australian Made
- 5 Year Warranty



TX3100



TX685



TX3520S

Merchandise

Don't Forget to show your support for your favorite brand, with some Superior Engineering Gear. Maybe grab some Ironman 4x4 Oilskin Coats or vests for when the weather turns bad. We also have Profender 4x4 & AmadaXtreme gear.

Superior Supporters Gear



Peak and Flat Caps



T-Shirts many styles and sizes



Stubby Coolers

Ironman 4x4 Oilskins

For generations the oilskin coat has been part of the Australian tradition for stockmen and farmers alike. The Ironman 4x4 range is Australian made and Australian owned, our garments are designed to withstand the harshest climatic conditions our country can offer. All Ironman 4x4 Oilskin jackets and vests have extra comfort features, to keep you comfortable, warm and dry.

Finished with the highest quality trimmings available, you can rest assured your garment will last the distance. Ironman oilskin fabric is Australian made, 100% natural cotton coated with a special blend of oils and natural waxes, ensuring it is repellent to wind and rain.

- Australian Made
- Superior Dri-Tec™ Oilskin Fabric
- Traditional Australian Design



Other Stuff

We also get a range of branded items from other suppliers from time to time.



Coffee Cups



Thermos



Umbrellas



Stickers

Fitting

All The products we sell, we can also fit.

Superior Engineering has a fully equipped work shop at our Deception Bay store, staffed by qualified and experienced fitters.

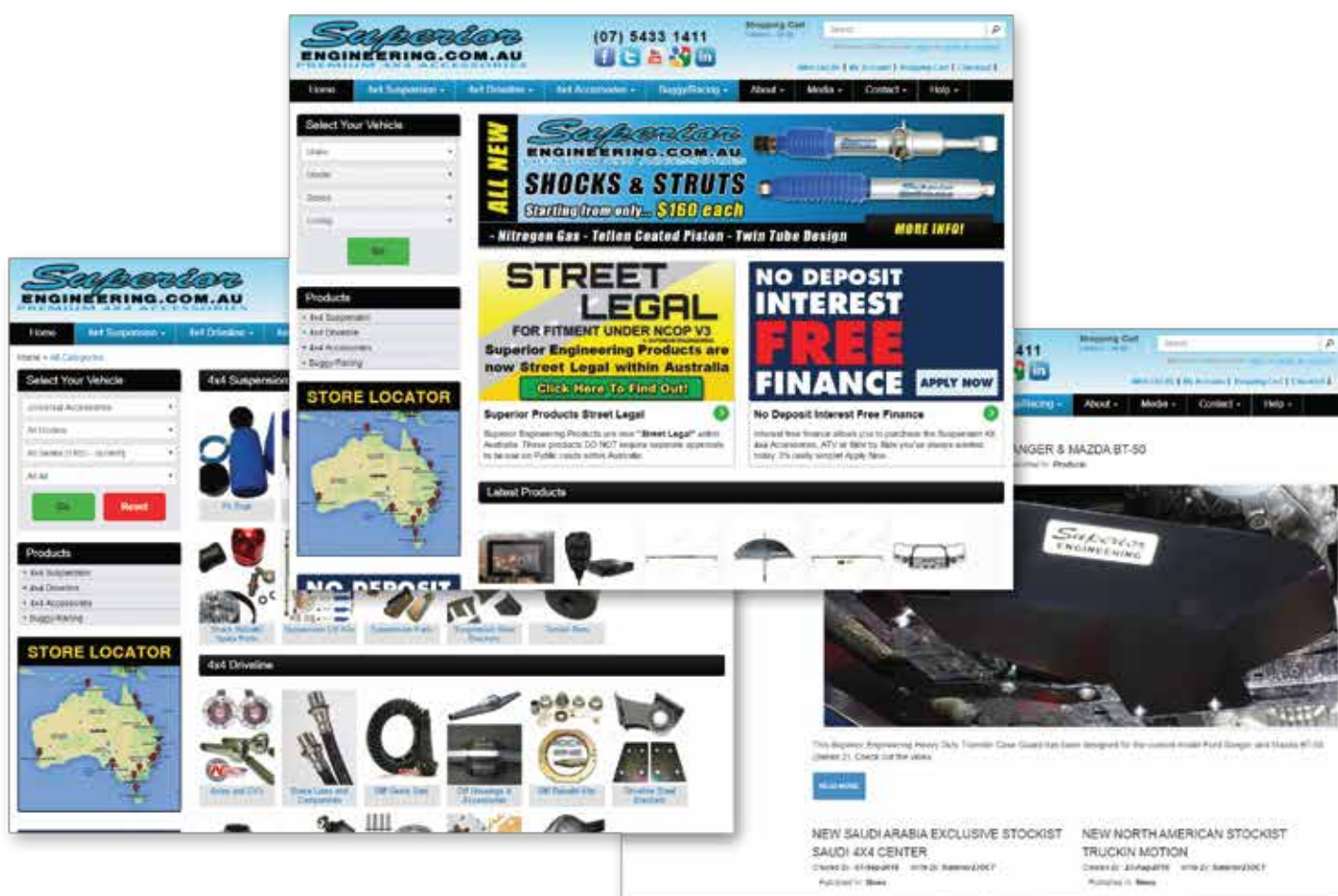
We can also have your vehicle wheel aligned and new tyres fitted at the time of fitting your new suspension lift fitted.

Superior Engineering is your complete drive in drive out solution for offroad equipment.



Contact Us

For the latest in products visit us Online at
superiorengineering.com.au



Or to discuss your individual needs contact one
of our dedicated sales professionals on

Sales: 07 5433 1411

Fax: 07 5428 6142

Follow us on social media to keep up with the latest
products and news, as well as special
deals only for our Online followers.





Proudly Supplied By

Superior
ENGINEERING.COM.AU
PREMIUM 4X4 ACCESSORIES

Head Office: 499 Uhlmann Rd Burpengary QLD 4505 Australia
Retail Store: 1/116 Lipscombe Rd Deception Bay QLD 4508 Australia