

**3**TJM
Philosophy

# FROM A CAMPSITE IN THE KIMBERLEY TO A BEACH IN BINALONG BAY, TJM HAS THE COUNTRY COVERED FOR GETTING 4WD EQUIPPED.

For nearly four decades, TJM has designed, tested and developed the most comprehensive and innovative range of 4WD equipment available in Australia today.

And our work goes on, in the toughest testing ground we know, our own backyard.

Whether you're camping or fishing, drilling or fencing or just picking up the kids from school, get yourself TJM equipped...

...For anything.

TJM bull bars, nudge bars, side bars and steps. Alloy and steel, engineered and tested to stringent Australian Safety Standards.

Roof rack and trade rack solutions for all makes of vehicle - heavy duty or lightweight. There's TJM Airtec snorkels, TJM XGS suspension, TJM recovery gear, TJM winches, TJM Pro Lockers, TJM roof top tents and awnings, TJM dual battery systems and a hell of a lot more.

The list keeps growing like a good bush yarn, because at TJM we're always striving for new ideas that'll help and protect our customers while they enjoy their 4WD experience.





to include; steel and alloy bull bars, nudge

steps, trade racks, roof racks, TJM recovery

bars, side and rear protection bars, side

growing number of fans. As the demand

continued to grow, they decided it was

time to get serious.

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and breathtaking country, Australia.

Suspension

developed



**7** Research & Developmen

## TJM: TESTED. TRIED. PROVEN.

This section offers a rare insight into the workings of TJM's world leading R&D department.

Yes, there's everything you'd expect to find in a world leading R&D department - engineers in blue overalls, crawling over vehicles of every make and size, probing, planning and scanning with the very latest digital technology.

There are the gleaming next generation prototypes, lined up in our expansive workshop among the sparks and screens, while other innovative designs are being fine tuned and put through their paces.

Then there's something you can't actually see in TJM's R&D workshop: a pathological determination to create, build and test the best 4WD equipment on the planet. Much of which, although painstakingly researched, is subject to torturous trial and testing, resulting sometimes in a challenge, but ultimately, success.

Our R&D guys are just as nutty about 4WDriving as they are about 4WDrive accessories and have covered just about every piece of scary dirt imaginable.

It's this constant striving to evolve, test and improve the 4WDrive accessory product that lies at the heart of the TJM R&D team.

The commitment and success of our R&D department is fundamental to our business and has been built on for nearly 40 years.

We plan for it to keep building, but then again what would you expect from a team of fanatical 4WDrivers.

#### TJM = Cutting edge

Located at Geebung, north of Brisbane, TJM's manufacturing facility is the heartbeat for its research and development. Encompassing 5000 square metres of floor space, more than 90 staff and several million dollars worth of equipment, TJM has all the resources it needs to produce award-winning equipment.

Not surprisingly with its diverse terrain, the Aussie 4WD industry as a whole has grown in recent years to become one of the strongest in the world. And when it comes to researching and developing the latest and greatest, TJM refuses to rest on its laurels, which is why TJM is a global trendsetter. The world is watching TJM's next move.

#### Square pegs don't fit in round holes

At TJM, we understand there's no such thing as "one-fits-all" for 4WD accessories. After all, that's why TJM exists. The whole point of modifying your 4WD is so you can get exactly what you want, or at least ensure your vehicle's better than your mate's. At TJM, our R&D department is already hard at work designing and creating your next year's wish list well before you've even had the chance to think about writing your letter to Santa. But how do we do it?

#### TJM's process

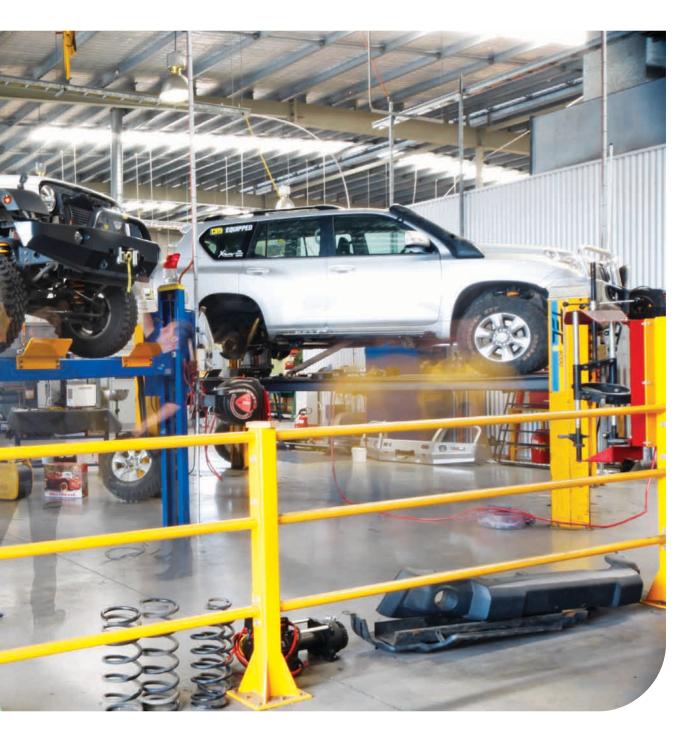
The best ideas aren't always the ones you have sitting at a desk wearing a suit and tie. All TJM engineers are 4WD enthusiasts; so our ideas come from a mixture of real-life experience, inspiration from our natural environment, market demand and high-tech design software. While many of our ideas are spontaneous and born from our own 4WDing experience, at TJM we have a formal process to ensure we're always at the top of our game.











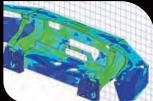
#### Here's a summary of TJM's procedure

- 1 Whenever a motor company launches a new vehicle model, TJM's sales and marketing team works out what accessories will be required. While new vehicle releases are a major focus, the team also continuously reviews accessories for existing 4WDs and focuses on areas that can be improved.
- 2 Following new vehicle launches, TJM begins analysing and scanning the vehicle. To ensure it stays ahead of demand, it's not usual for the R&D team to travel to the first country in which the new 4WD is released. For instance, when Toyota launched its latest 150 Prado, TJM's R&D team were there to digitally scan the vehicle and begin designing a new range of accessories.
- **3** From these 3D-scanned images, the R&D team presents three concept proposals to the sales and marketing teams. After this brainstorming session, designs are revised and finalised.



**4** TJM conducts computer-based Finite Element Analysis (FEA) before making prototypes. This process ensures the final product meets new vehicle safety specifications such as air bag deployment.





- **5** At this point, TJM builds a prototype and trial-fits it to the vehicle. This enables TJM's engineers to check that all critical dimensions are within specification. Depending on how this goes, final adjustments may be made to improve the fit or the aesthetics of the accessory.
- **6** TJM conducts external independent safety tests on any accessories that need to be compliant. This confirms the accuracy of the FEA testing conducted earlier. The team works together to write the fitment instructions, along with product descriptions. The sales and marketing team arranges photo shoots of the new products for their sales brochures.
- **7** TJM fabricates an initial run of about 20 items to check for any fabrication issues. As many small components make the whole, care is taken to ensure that all parts are made as per TJM's engineering brief. This ensures the final product is high quality.
- **8** Before mass-production commences, the initial run items are test-fitted to ensure they are absolutely flawless.





#### Computer technology

There's no doubt that computer technology has revolutionized 4WD accessory industry. TJM has embraced this revolution. Computer Aided Design (CAD) is now an essential tool for designing bull bars, snorkels, roof-racks, and even suspension. It provides an accurate preview of how the components will work with each vehicle. While CAD guards against expensive mistakes when mass-producing accessories, it's a program that can be also used for custom-made one-offs. In fact, it's the ideal experimentation ground for TJM's R&D team. CAD allows accessories to be made into workable prototypes that can be test-fitted to the vehicle. Another benefit this technology provides is the ability to generate a manufacturing parts list or "Bill of Materials" (BOM) directly from the virtual accessory designed on the computer.

#### Component scanning

"Component scanning" is one of the greatest tools new technology has provided. This technology allows TJM designers to generate accurate images of both its accessories and the vehicles for which they are designed. The scanning process allows designers to build a virtual model of the vehicle focusing on the main mounting points utilised by the

accessories. It can take up to two to three days to scan a vehicle, just working on the areas for external body protection. The main areas that are scanned depend on what the expected range of accessories will be. In most cases the chassis rails, A-pillars and front, side and rear panels are scanned, along with differentials and suspension components.

#### Component scanning is a two-stage process involving probing and profile scanning.

- 1 Probing: As it implies, probing is the "information gathering" stage, where the probe measures and records key points, arches and surfaces. From a series of dots, a whole picture emerges, but these original probing points are used as reference locations to determine clearance measurements and suitable areas for posistioning mounting holes.
- 2 Profile scanning: Following the probing stage, profile scanning begins. During this process, components are lightly sprayed with a powder-like coating that provides the laser scanner with a consistent surface from which to read. TJM's engineer then uses a laser scan gun to scan the entire object. At this point, the object is transformed in real time into a 3D image, which appears on a laptop screen.











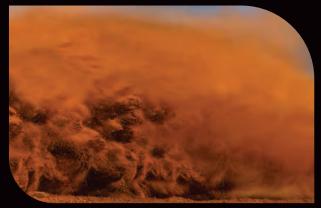














#### **Proof is in the testing**

Given TJM's renowned reliability, it's not surprising that its testing processes are among the world's most stringent when it comes to 4WD accessories. TJM's R&D team test each accessory item across three environments; virtual, workshop and in-situ. Through this three-fold process TJM identifies possible limitations that may never occur during the accessories lifespan. The end result is reliable equipment that lasts. Virtual testing uses 3D graphics and mathematical equations to conduct peak-load tests to identify critical points of strength or weakness. It's a much more environmentally friendly and cost-effective mode of testing than real-life testing as equipment is not destroyed.

Once virtual models are approved, TJM then begins the fabrication process. After that the equipment is trial-fitted to the vehicle and further tested in the workshop and in the real-world environment for which it has been designed. Aussie terrain is among the world's toughest, so it provides the ideal testing ground for TJM accessories.

Comprehensive in-situ testing can expose potential weaknesses in the mounting location of the actual accessory. In these cases, TJM redesigns mounting kits to improve strength and durability. For example, a bull bar mounting kit may be altered to accept more of the chassis rail to more evenly distribute the load.



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TJM in the
Community

# AT TJM WE'RE ON ROAD, OFF ROAD AND BEHIND THE COMMUNITY.

Community giving and support have been a part of the TJM culture from our beginnings in the 1970s.

We embrace the world of the 4WD with obvious enthusiasm, but also recognise our responsibility to the natural and social environments in which we live, work or play.

In one instance, TJM helped a family equip their Landcruiser for a life enriching, round Australia 4WD adventure with their two sons, who both suffer a rare medical condition with the sole purpose of improving quality of life.

Through sponsoring and participating in the Just4Kids Children's Charity - our annual tag-a-long motor trail, the Beach to Bay event - we are supporting the Queensland flood and cyclone victims.

These are simply two examples - there are and will continue to be many more. At a grass roots level many of the TJM outlets are involved in their local communities sponsoring and supporting people in need.

At TJM we uphold the great Aussie tradition of chipping in and helping our 'mates', big and small, to help them achieve a lasting impact in their lives and communities.



### An adventure holiday with a difference!

#### The Knowledge

We have taken them all over Oueensland. From Mt Isa through the wonderful gorges at Lawn Hill. We searched for the min min lights at Boulia and travelled the Diamantina into Birdsville, crossing the desert to Innamincka before meandering through the lush country known as the "Salad Bowl" in the Culgoa National Park, finishing with a street parade through St. George.

The winding waterways of Cobbold Gorge, the sunset at Karumba, and the beautiful Blencoe Falls took our breath away, all the while traversing some of Queensland's best country along winding dirt roads that most tourists would never experience.

We often dine and even overnight at cattle stations such as Trafalgar, Lammermoor, Millungera and Iffley. These amazing outback families always make you feel so welcome and the children love meeting their new guests, particularly the families.

#### The Event

From the beautiful coastal town of Cardwell in Queensland's north, we travel through Qld's largest Banana plantations, an area known for 8 metres of annual rain fall, on our way to Cairns, the stepping stone before Cooktown and the Gulf town of Weipa. There is no more spectacular drive than the Daintree. Diverse flora and fauna await you and a cold beer at the end of the road at the Lions Den is a must before heading into Endeavour Falls for a corroborree with the local dance troupe.





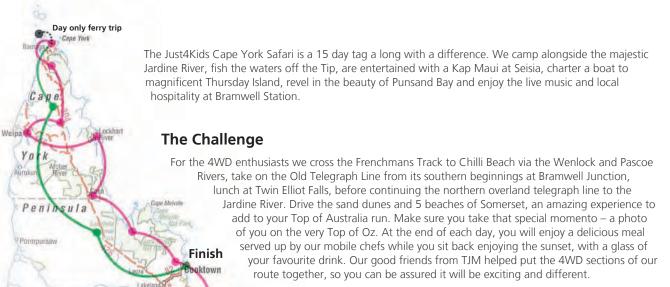












#### The Difference

Apart from all the fun, laughter, music and dirt track driving, there is a very serious side to the Just4Kids Motor Trail. We are a children's charity and our motor trail is the major fundraising event of the Just4Kids Children's charity. Our entrants and supporters raise as much money as they can, and when we stop at our overnight locations, we hold functions that support a child, children or family who need assistance. Many local communities have benefited from our visits and it is a wonderful feeling sharing Townsville the joy and gratitude in their faces. We are always welcomed back with open arms.

#### 2011 saw TJM and the Just4Kids Children's Charity support the Queensland flood and cyclone victims with our annual tag a long motor trail - the Beach to Bay event.

1st leg

Stops

Return trip

Cairns

Start

August 2011, starting in Rainbow Beach we cross by barge for 2 adventure filled days on Fraser Island. We then head off from Hervey Bay across the range to Kingaroy, a function in Jandowae, a "Melbourne Cup" night at the Victoria Hotel in Goondiwindi before heading into a layday at Stanthorpe. We will sample the vintage and be entertained at Ballandean Estate Winery. Our 9 day event will conclude with 2 fun nights at Byron Bay.

#### Reserve your spot

The Just4Kids Motor Trail is already planning its events for 2012 - another Cape York safari and a tag a long to central Australia visiting, Uluru, Olga's and MacDonnell Ranges with many attractions along the way. You are invited to join us and become part of the wonderful family that is the Just4Kids Motor Trail.



We have come together to raise funds for the Cartwright boys for a couple of reasons. They are both suffering from impaired vision which started for both of them from the age of 7 years. Consequently they both had to stop playing footy for their beloved "Sharkies" a couple of years ago.



Their parents Karen and Glenn are going to need help in all areas of the boy's lives - not only for their impaired vision, but in every aspect of their day to day living due to Dane and Matt suffering from "Batten Disease", which is the second challenge these

boys have in their young lives. They will need home care and this Carer will be able to teach and help Karen and Glenn in the day to day living process of kids who suffer with this rare and shocking disease. The boys will eventually need wheel chairs, their home will need to be modified in order to cope with the family's changing life style and of course the endless medical bills plus all other ongoing expenses and much more.

Just over two years ago our sons, Dane and Matt, were diagnosed with Battens Disease'. It is as rare as rocking horse poo and unfortunately is likely to take their lives before they reach twenty. To add to our woes, a Sydney developer ripped us off for just over \$2 million. As a result we were homeless and my wife and I decided after a lot of discussion, that right now was the time to grab a caravan, hook it up to our Toyota 100 Series Landcruiser and head off around Australia.





To do this trip we would need a little help. Our cruiser had done about 120,000kms and the van we were to tow had a tare weight of over 2,400kgs so a heavy duty suspension upgrade was in order. Already having a TJM bull bar fitted to our four wheel drive, we were familiar and confident with the TJM product so naturally this was our first choice for other accessories.





We approached TJM and the response was overwhelming. TJM supplied and fitted their XGS Gold suspension kit with additional PolyAir bags, as well as their 9,500/b winch, air compressor and recovery kit for that extra security when heading into the outback.

For 'The Carty Boys Tour' this made a great difference to what we were able to achieve. Rather than stick to the black top we felt confident enough to take on the harsh Aussie off road environment. From the rugged interior, to the soft sands of Fraser Island the TJM equipment was the difference of making the choice will we or wont we?'.

We have just completed 17,000kms & of that, around 3500kms was full on off road. The caravan was towed superbly and we have so many fantastic memories, particularly of those in the remote little pockets that we were able to get to.





We all know, or rather often hear how important our suspension & steering is; but I never realized that having equipment such as TJM XGS Gold would make such a dramatic change; it's not just 10% - 15% improvement it is massive;..... chalk & cheese.

Thanks TJM; you came to our aid, provided a top-notch product & allowed our boys to really experience that trip of a lifetime.

Glenn Cartwright - Father.

#### Information which might help understand what these two amazing children are going through.

Batten disease (Neuronal Ceroid Lipofuscinoses or NCL) is an inherited disorder of the nervous system that usually manifests itself in childhood. Batten disease is named after the British paediatrician who first described it in 1903. It is one of a group of disorders called neuronal ceroid lipofuscinoses. Although Batten disease is the juvenile form of NCL, most doctors use the same term to describe all forms of NCL.

Early symptoms of Batten disease usually appear in childhood when parents or doctors may notice a child begin to develop vision problems or seizures. In some cases the early signs are subtle, taking the form of personality and behaviour changes, slow learning, clumsiness or stumbling.

Over time, affected children suffer mental impairment, worsening seizures, and progressive loss of sight and motor skills. Children become totally disabled and eventually die.

Batten disease is not contagious nor, at this time, preventable. To date it has always been fatal.

Juvenile NCL begins between the ages of 5 to 10. The most frequent beginning symptom is visual failure, less common are seizures. Motor disturbances occur late in the disease. After a slowly progressive course patients usually live to late teens, early 20s or more rarely, into their 30s.

Batten disease and other forms of NCL are relatively rare, occurring in an estimated 4 of every 100,000 births in the United States. These disorders appear to be more common in Finland, Sweden, other parts of northern Europe, and Newfoundland, Canada. The incidence in Australia is not known precisely. Although NCLs are relatively rare, they can often strike more than one person in families that carry the defective gene. A family can be affected by one type of NCL only.

The cause of Batten disease lies in the chromosomes, which carry the hereditary characteristics and are found in the nuclei of somatic cells. The nucleus of every cell in the body contains twenty-three pairs of chromosomes. Each gene represents the 'code' for a particular characteristic. In the case of Batten disease, there is an aberration in one of the genes in one pair of chromosomes.

#### Recessive mode of inheritance

	Parents B b B b	
	Siblings	
ВВ	Bb Bb	b b
Normal	Carriers	Affected

Childhood NCLs are autosomal recessive disorders; that is, they occur when a child inherits two copies of the defective gene, one from each parent. When this occurs, each of their children has a one in four chance of developing NCL or a one in two chance of inheriting just one copy of the defective gene. Individuals who have only one defective gene are known as carriers, meaning they do not develop the disease, but they can pass the gene onto their own children. Although there is no conclusive test yet available to identify carriers of the affected gene, recent breakthroughs in identification of the infantile and juvenile types have brought this one step closer.

The defective gene causes malfunction at a cellular level. This is manifested in a number of different ways which affect the cell chemistry and leads to a variety of clinical observations and symptoms. The exact procedure in the different types of NCLs is still not understood. One theory holds that the disease reflects a disorder of the normal degradation of membranes within neurons, leading to an abnormal disposal and accumulation of insoluble lipid-protein complexes. Another theory claims that the disease may be characterised by a disorder in lipid metabolism in the cells; i.e. lipids or fats, and their associated proteins are not processed correctly.

Research suggests that there is an abnormal production of lipid peroxides and an enzyme deficiency, probably among specific enzymes that digest membrane proteins. This combination of problems leads to the accumulation of a yellow fluorescent pigment, ceroid lipofuscin, in the brain cells. At this time, the pigment is considered to be the end result of a combination of metabolic derangements and marks the progressive deterioration in brain function. The ceroid pigment is similar biochemically to materials accumulated more slowly during the normal ageing process. In Batten disease however, the accumulation is quite rapid and destructive. The specific reasons for the loss in brain function are not known. Thus, while there are some promising leads, and some very recent breakthroughs in gene research, we still have little understanding of the specific cause or biochemical mechanism involved in Batten disease.



19 Vehicle Protection

# IF YOU'RE TALKING SERIOUS BULL BARS, YOU'RE TALKING TJM BULL BARS: THE BEST LOOKING THING YOU'LL SEE IN A BAR, UNLESS YOU'RE STANDING IN ONE.

Not only are TJM bars great looking, they'll protect you in a sudden encounter with a roo, prevent you becoming immobilised and give secure mounting points for winches, lights and aerials.

Designed and tested by the TJM engineers to ensure greater safety and strength and a perfect fit for your vehicle, in steel or alloy.

A TJM light weight alloy bull bar may suit the town dweller or tradie, while heavy-duty steel will suit the serious off-roaders or a bloke on the land.

All our designs are tested by independent authorities to qualify under the stringent Australian Safety Standards and SRS air bag compatibility.

The use of laser scanning equipment and 3D design software keeps TJM at the forefront of prototype development, helping to also make a range of side bars, rear bars and nudge bars with equal care and attention to detail.





TJM Outback bars employ either a four or five-fold channel/wing design. Folds are deliberately spaced across the channel for maximum strength and stylish looks. The upswept tapered wing provides excellent approach angle for accessibility.



Recessed fog lights come standard along with recessed polycarbonate indicator & park lights.



TJM's bull bar uprights feature a single piece of steel, which extends from the upright down through the bumper channel to the chassis mount, maximising strength. 40mm cato straps soften the edges of and add to the aesthetics.



TJM bull bars provide secure, strong and stable mounting points to fit a large array of driving lights. The strength of the TJM product ensures against excessive movement which can result in a vibrating beam pattern, bulb failure or light body fatigue.



TJM manufacturing facilities employ

laser cutters for fraction of a

millimetre precision.

design features that require speed and precision.



Flat pieces of steel profiles are folded using CNC brake presses which ensure accuracy and consistency. These folded profiles make up sections of a TJM bull bar.



Plasma cutters are used for repetitive



CNC mandrel benders are used to bend tubes to ensure smooth curves and even wall thickness.



TJM's channel designs allow maximum airflow to the vehicle's radiator. This vent, as well as the viewing hole on the top of the channel, also allows easy access to the vehicle's winch controls.



Vehicle mounted aerials are often essential when travelling in remote locations. TJM bull bars feature two heavy duty aerial tabs located behind the top cross tube.



TJM's mounting system is specifically engineered for each vehicle. The design spreads impact and winching loads evenly across the vehicle's chassis. Which ensures the bull bar is strong for extreme conditions and functions properly in the event of an impact.



The engineered winch frame mount accommodates a variety of winches and does not interfere with the vehicle's air bag triggering system. The bar is designed and tested to endure the heavy stresses of winching.



Each TJM bull bar is assembled then welded and undergoes rigorous quality testing.



TJM steel bull bars are shot blasted, powder coated and oven baked creating a durable finish. The powder coat is an excellent base for colour coding if required.



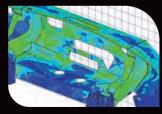
TJM pioneered the universally supported, reinforced T-slot design which allows a recovery jack to be mounted directly onto the bull bar.



Many TJM bull bars come as standard with an integrated underbody quard, for additional underbody protection. Front, sump & transmission guards are also available separately.



Cutting your original bumper to fit a bar is no longer always the case. TJM headlight trims allow seamless bull bar integration with a finish un-matched by any other manufacturer.



There are countless hours of engineering and testing to ensure that a TJM bar does not effect the vehicle's air bag triggering system.



TJM take extra care in the packaging and handling of our products to ensure they arrive to our consumers exactly as desired.



Finished goods are stored at the TJM warehouse in Brisbane, Australia, where they are distributed out to multiple locations throughout the world.

## The most popular design of our frontal protection range is undoubtedly the TJM T13 Outback bar.



Our engineers spend countless hours perfecting the design of these bars to ensure our customers are equipped with one of the finest products in the market. In a recent issue of 4WD Action, our T13 Outback bar for the Hilux was stringently tested among competitor products, with our bar taking the coveted title 'Best Bull Bar'. Packed full of features and benefits, if you're after a stylish bar with optimum performance - you can't go past the TJM T13 Outback bar.

- > Designed for improved approach angles
- > Full cato straps, uniquely styled to the vehicle for incredible strength and damage deflection
- > 50mm<sup>ø</sup> pipework
- > Integrated fog lights (fog lights, wiring harness & switches included)
- > Flush mounted polycarbonate indicator lenses
- > Reinforced T-slot recovery jack points (suits a wide range of recovery jacks including the TJM recovery jack)
- > Low profile winch mount
- > Winch frame holds a wide range of recovery winches (Up to 12,000lb)
- Accommodates large driving lights (Up to Britax Xray Vision 220 & 220c)
- > Provision for fitment of dual aerials
- > Air bag compatible and ADR compliant
- > Does not void your new vehicle warranty

Certain TJM T13 Outback bull bars may not incorporate all of the above features.









#### The TJM T15 steel deluxe bull bar is one of our premium products available in our frontal protection range.



The T15 shape is signified by a strong centre loop, accompanied by two refined side loops protecting the headlights. The steel deluxe variant equips the bar with integrated fog and indicator lights, winch compatibility and allows for significant improvements in approach angles. The thick steel tubing provides first-class protection whilst the comprehensive engineering features enable the bar to be air bag compatible and ADR compliant.

- > Designed for improved approach angles
- > 76mm<sup>Ø</sup> centre tube 50-63mm<sup>Ø</sup> outer tubes
- > Integrated fog lights (fog lights, wiring harness & switches included)
- > Flush mounted polycarbonate indicator lenses
- > Reinforced T-slot recovery jack points (suits a wide range of recovery jacks including the TJM recovery jack)
- > Low profile winch mount
- > Winch frame holds a wide range of recovery winches (Up to 12,000lb)
- Accommodates large driving lights (Up to Britax Xray Vision 220 & 220c)
- > Provision for fitment of dual aerials
- > Air bag compatible and ADR compliant
- > Does not void your new vehicle warranty

Certain TJM T15 steel deluxe bull bars may not incorporate all of the above features.











### If you're after a tough bar that is strong, safe and durable, but at great value, a TJM fleet bar is the answer.



Built with the same precision engineering technology as its deluxe or outback variant, the steel fleet bar provides uncompromised protection, without the extra channel folds and built in fog lights which can be deemed unnecessary in the working environment. Equipped with dual heavy duty aerial mounts, reinforced recovery points, winch provision and air bag compatibility the TJM fleet bar is clearly tough enough for any job.

- Designed for improved approach angles
- > Combination of T13 & T15 designs available
- > Flush mounted polycarbonate indicator lenses
- > Reinforced T-slot recovery jack points (suits a wide range of recovery jacks including the TJM recovery jack)
- > Low profile winch mount
- > Winch frame holds a wide range of recovery winches (Up to 12,000lb)
- > Accommodates large driving lights (Up to Britax Xray Vision 220 & 220c)
- > Provision for fitment of dual aerials
- > Air bag compatible and ADR compliant
- > Does not void your new vehicle warranty

Certain TJM fleet bull bars may not incorporate all of the above features.





TJM alloy deluxe bars employ either a four or five-fold channel/ wing design. Folds are deliberately spaced across the channel for maximum strength and stylish looks. The upswept tapered wing provides excellent approach angle for accessibility.



Recessed fog lights come standard along with recessed polycarbonate indicator & park lights.



TJM alloy deluxe bars are signified by a strong centre loop, accompanied by two refined side loops protecting the headlights.



TJM bull bars provide secure, strong and stable mounting points to fit a large array of driving lights. The strength of the TJM product ensures against excessive movement which can result in a vibrating beam pattern, bulb failure or light body fatigue.



TJM's channel designs allow maximum airflow to the vehicle's radiator. This vent, as well as the viewing hole on the top of the channel, also allows easy access to the vehicle's winch controls.



Vehicle mounted aerials are often essential when travelling in remote locations. TJM alloy bull bars feature heavy duty aerial tabs located adjacent to the centre loop.



TJM's mounting system is specifically engineered for each vehicle. The design spreads impact and winching loads evenly across the vehicle's chassis. Which ensures the bull bar is strong for extreme conditions and functions properly in the event of an impact.



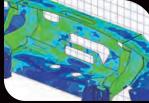
The engineered winch frame mount accommodates a variety of winches and does not interfere with the vehicle's air bag triggering system. The bar is designed and tested to endure the heavy stresses of winching.



Many TJM bull bars come as standard with an integrated underbody guard, for additional underbody protection. Front, sump & transmission guards are also available separately.



Cutting your original bumper to fit a bar is no longer always the case. TJM headlight trims allow seamless bull bar integration with a finish un-matched by any other manufacturer.



There are countless hours of engineering and testing to ensure that a TJM bar does not affect the vehicle's air bag triggering system.



#### Why TJM Alloy?

TJM realise a steel bull bar might not be for everyone, which is why we have spent countless hours designing a top performing and good looking alternative - the TJM alloy deluxe bull bar. Not only will it protect you from an animal strike, you'll instantly feel a million dollars with one of these in your possession, let alone after it has been fitted to the front of your 4WD!

Alloy bars are a lightweight alternative to steel variants, contrary to popular belief the modern alloy bar is very strong. TJM alloy deluxe bull bars are all carefully engineered in Australia using the latest 3D modelling and design technology. This ensures the bar is engineered to suit the shape of the vehicle. All TJM alloy bars are seam welded providing maximum strength and durability.

Every TJM alloy bull bar complies with Australian design rules and are air bag compatible, ensuring optimum safety standards are met.

From rugged terrains of the outback, to coastal adventures and alpine treks the TJM alloy deluxe bar will get you there and back again and again. Its aluminium properties, which are naturally corrosive resistant, gives it the ability to withstand our harsh climate. With the TJM alloy deluxe bull bar you can enjoy the best of both worlds.

An investment in the TJM alloy deluxe bull bar will be one of great value and satisfaction.

Whatever your reason may be, you can't go past a TJM alloy deluxe bull bar.

# The TJM T15 alloy deluxe bull bar is the premium product available in our aluminium frontal protection range.



The T15 alloy deluxe bull bar shape is signified by a strong centre loop, accompanied by two refined side loops protecting the headlights. This bar is light weight, strong and looks the part too. Adding guaranteed class to your four wheel drive, the T15 alloy deluxe is sure to make others green with envy.

- Designed for improved approach angles
- > 76mmø centre tube 50-63mmø outer tubes
- > Integrated fog lights (fog lights, wiring harness & switches included)
- > Flush mounted polycarbonate indicator lenses
- > Low profile winch mount
- > Winch frame holds a wide range of recovery winches (Up to 12,000lb)
- > Accommodates large driving lights (Up to Britax Xray Vision 220 & 220c)
- > Provision for fitment of dual aerials
- > Air bag compatible and ADR compliant
- > Does not void your new vehicle warranty









Certain TJM T15 alloy deluxe bull bars may not incorporate all of the above features.



#### One of the best looking bars on the market is without a doubt the TJM T3 bull bar.



Fitted with a strong steel channel and a single polished alloy or steel loop over the grille, these bars convey multiple benefits. Where the steel channel enables strong frontal protection, the single loop provides upper grille protection. This style ads a smart finish to any vehicle as well as ensuring peace of mind for the safety of the vehicle and its occupants in the event of an animal strike.

- > Designed for improved approach angles
- > Polished alloy or steel centre tube
- 'Swept' styled centre tube to match contours of the grille
- > Integrated fog lights (fog lights, wiring harness & switches included)
- > Flush mounted/integrated polycarbonate indicator lenses
- Reinforced T-slot recovery jack points (suits a wide range of recovery jacks including the TJM recovery jack)
- > Low profile winch mount
- Winch frame holds a wide range of recovery winches (Up to 12,000lb)
- Accommodates large driving lights (Up to Britax Xray Vision 220 & 220c)
- > Air bag compatible and ADR compliant
- > Does not void your new vehicle warranty



Certain TJM T3 bull bars may not incorporate all of the above features.



# TJM manufactures a variety of high and low loop polished alloy nudge bars for a range of makes and models



At TJM we realise that bull bars aren't for everyone, which is why we provide our customers the opportunity to select from our quality range of nudge bars. They are a great solution for protection from minor bumps and scrapes as well as adding value to your vehicle. As with all our frontal protection, they are individually designed to suit the shape of the corresponding vehicle. Our T16 nudge bars are available in either high loop or low loop variants. Each style is made from high grade polished aluminium with driving light provisions as standard.

- > High grade aluminium
- > 63.5mm<sup>ø</sup> highly polished tube
- > Driving light mounts (Up to Britax Xray Vision 220 & 220c)
- Unique protective plate designed to enhance the vehicle's natural styling
- Air bag compatible and ADR compliant
- > Does not void your new vehicle warranty
- > Adds value to the vehicle



Certain TJM high & low loop nudge bars may not incorporate all of the above features.

### In the strongest way possible TJM modular side bars & steps protect your vehicle's wheel arches, sills and lower panels from rocks and road debris.

TJM modular side bars & steps offer excellent wheel arch, flare, sill and panel protection but the unique feature of these modular side bars and steps is if you choose, you can install just the side steps and then fit the side bar kit at a later date. This unique design is only available through TJM.

- > Large 50-73mm<sup>ø</sup> tubing
- > Engineered heavy duty mounting system, newer vehicles feature 4 mounting points rather than the traditional three, making them the strongest in the market
- > Provides unrivalled wheel arch, flare, sill & panel protection
- > Durable, light weight checker plate steps provide easy access to and from the cab, as well as added side protection



Above shows the unique knock-out plate and tubing section which can be upgraded easily to the complete side bars & steps package.



The TJM modular side steps without the side bar kit.





The complete TJM modular side bars & steps package



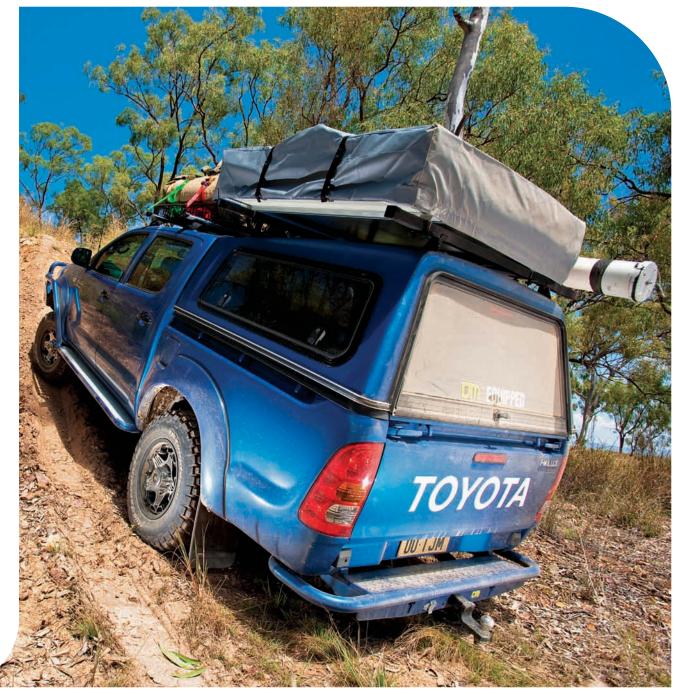


#### TJM's RB6 rear step bar provides solid protection for the rear of your vehicle.

It's when approaching and departing rises in the terrain that the rear of your vehicle is susceptible to heavy bumps and damage. To offer the best possible protection to counter this, TJM's RB6 rear step bar is manufactured from strong 50-63mm<sup>ø</sup> steel tube and chassis mounted for strength, providing your vehicle's rear panels with solid protection.

- > 50-63mm<sup>ø</sup> pipework
- > Excellent rear protection
- > Durable and light weight checker plate steps provide easy access to the rear of the vehicle
- > Reinforced T-slot recovery jack points (Suits a wide range of recovery jacks including the TJM recovery jack)
- > ADR62 certified, class 4 heavy duty towbar
- > Rated to vehicle towing capacity
- > Does not void your new vehicle warranty





# TJM offer the most durable underbody protection on the market that's carefully engineered and press folded for absolute maximum strength.

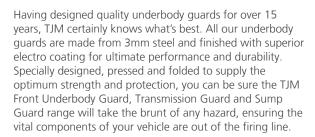
To protect the most vulnerable components underneath the vehicle TJM underbody guards are constructed from 3mm thick steel sheet and incorporates strategic folds for incredible strength. They are electro coated black for corrosion resistance of up to 500 hours. The advantages of electro coating is that it gets into all the nooks and crannies and is much more resilient to chipping when knocked around, unlike powder-coated varieties.

- > 3mm thick steel
- > Provides excellent underbody protection
- > Electro coated black for up to 500 hours of corrosion resistance
- > Press folded in strategic areas for absolute maximum strength
- > Front underbody, sump and transmission guards available
- > Drain access holes for sump and transmission where necessary



# TJM underbody guards

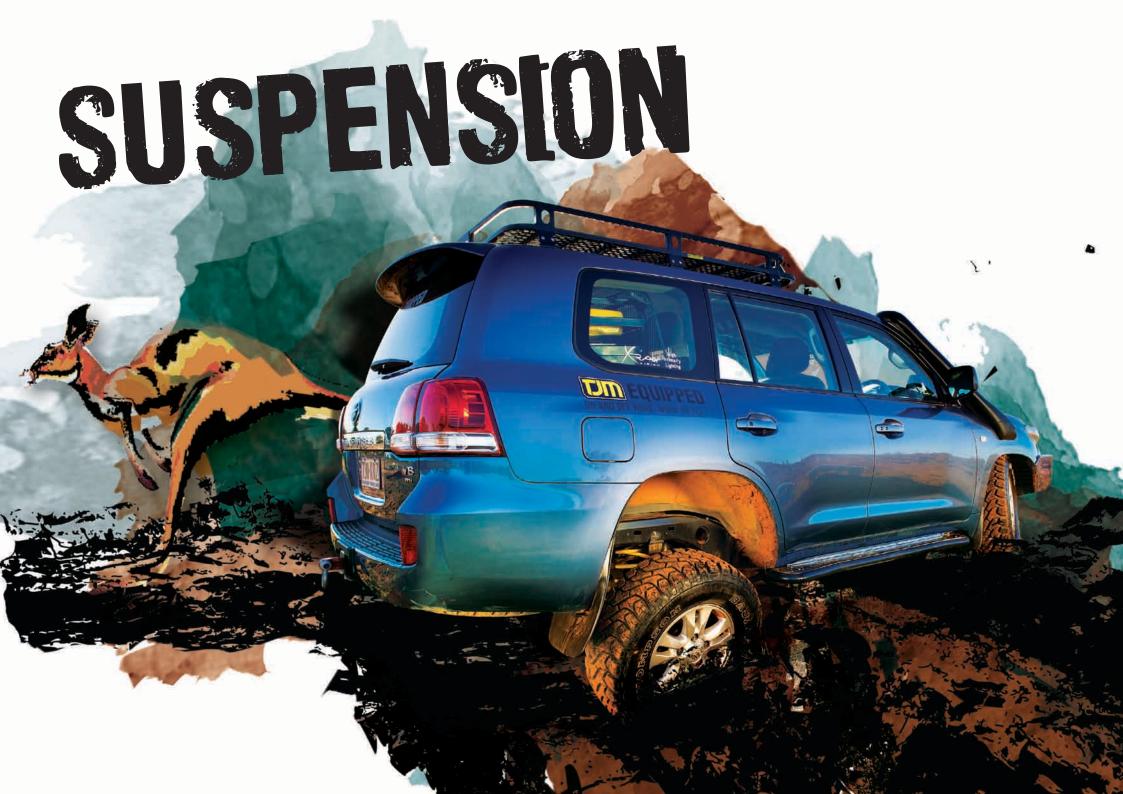
Although the underbody components of your vehicle may be classed as 'out of sight, out of mind', they certainly cannot be overlooked when heading off road. A simple collision with a tree stump or rock could cause significant (and expensive) damage to the steering, engine sump or transmission. Investing in a TJM underbody guard may be the difference between getting your vehicle home undamaged, or lying busted out on the track.











37 Suspension

# IF YOU'RE GOING BUSH, BOUNDING OVER A BUMPY BUILDING SITE OR HAULING A CARAVAN ACROSS THE COUNTRY, TJM HAS A SUSPENSION SYSTEM TO SUIT YOUR 4WD.

If wheels were your car's feet, then suspension would be the legs. Just as the strength, length and flexibility of your legs impact on the way in which you move and the way you connect to the ground, different types of suspension determine the functionality, safety and comfort of your vehicle on different terrain. Made up of several parts that work together like joints and bones, suspension affects absolutely every aspect of driving.

Given the importance of suspension, it's surprising how frequently people place priority on installing bull bars, roof racks and other 4WD accessories without even considering their suspension needs. Whether you're tackling corrugated roads, rough terrain, or you need to tow a caravan, the right TJM suspension will contribute to the car's road handling, braking ability, cushion the ride from bumps, noise and vibration for occupants and protect the vehicle and its contents from wear and tear.

4WD's have factory-engineered suspension, but it's usually only enough to accommodate a boot load of gear and general road driving or limited off-road driving. Installing a set of shock absorbers, a pair of springs or a full TJM XGS suspension kit will immediately transform your vehicle's ride, handling, load carrying and towing capabilities. So don't forget to talk with your local TJM distributor about your individual suspension needs.

# Does your vehicle have any of the following undesirable characteristics?

The TJM **XGS GOLD** solution

Lack of ground clearance?



Uncontrolled bounce?



Nose dives under brakes?



Excessive body roll?



Steering wheel wobble?





Tail drag under load?





Unstable when towing?



Rough, harsh ride?



Limited wheel travel off road?









# WHILE DEVELOPING THE MOST ADVANCED 4WD SHOCK ABSORBER, WE CREATED THE SIMPLEST & MOST EFFECTIVE HEIGHT LEVELLING STRUT EVER.

The TJM XGS Gold strut utilizes a unique multi-adjustable spring seat which can be adjusted for different vehicle springs/heights to effectively level the front end of the vehicle.



# TJM XGS Gold avoids problems found in spacer kits.

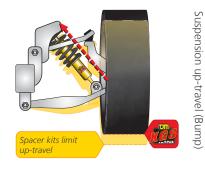
When strut spacer kits are fitted above the top mount assembly the shock assembly can bottom out before the lower control arm reaches the bump stop. This can possibly lead to major structural damage and/or complete shock failure.

TJM XGS Gold maintains complete up-travel (bump) to the original factory design.

When strut spacer kits are fitted above the top mount assembly it can create over-extended down-travel (droop) this over-extension can cause ball joint, CV joint and/or component damage.

TJM XGS Gold prevents over-extension whilst still providing an increase in overall wheel travel.

Struts available For: Toyota Prado 90, 120 & 150 Series, Toyota Hilux 2005+, Toyota Landcruiser 200 Series, Toyota FJ Cruiser, Nissan D40 Navara & R51 Pathfinder, Mitsubishi Challenger, Mitsubishi NM-NP & NS-NT Pajero, Mitsubishi ML-MN Triton.





Suspension down-travel (Droop)









# N2 charged

Nitrogen is an inert gas and therefore not affected by the elements such as heat.



# 2.5mm outer tube wall

The strongest on the market.



### Twin tube design

Reduces aeration, active damping tube is protected from external elements such as rocks.



# Seamless welds & stitch welded construction

Incredibly strong & less likely to break.



# High durability bushes

Smoother action & increased longevity from improved bonding processes.



High grade damper oil Less impurities & more resistant to aeration this increases performance & longevity.



# 36mm big bore hi-flow piston

Designed for the vehicle, designed for your needs.



# Internal hydraulic stop

Reduces the shock on 'Top Out'.



# Cold drawn seamless cartridge

Perfectly round & definitely stronger, making it more resistant to cracking & piston wear.



# German quality teflon bushes & seals

Smooth action & longevity from an improved bonding process.



# 18mm hard chromed shaft

Strong, hard to bend & tougher against Australian conditions.







# Seamless billet mounts

The strongest possible construction available.



# 18mm hard chromed shaft

Strong, hard to bend & tougher against Australian conditions.



# Massive 40mm piston

The large internal bore assists performance.



# 9 stage external adjustment

With a simple adjustment it gives you the flexibility to suit varying terrains.



# High performance viton seal

Smooth action and long lasting durability against leakage.



# Next generation high density foam cell

Increased comfort and performance that is built to last.



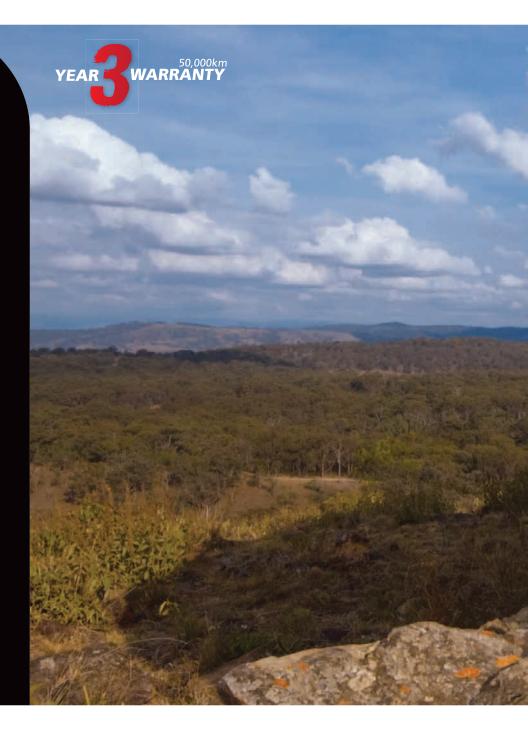
# Big bore 60mm external reservoir tube

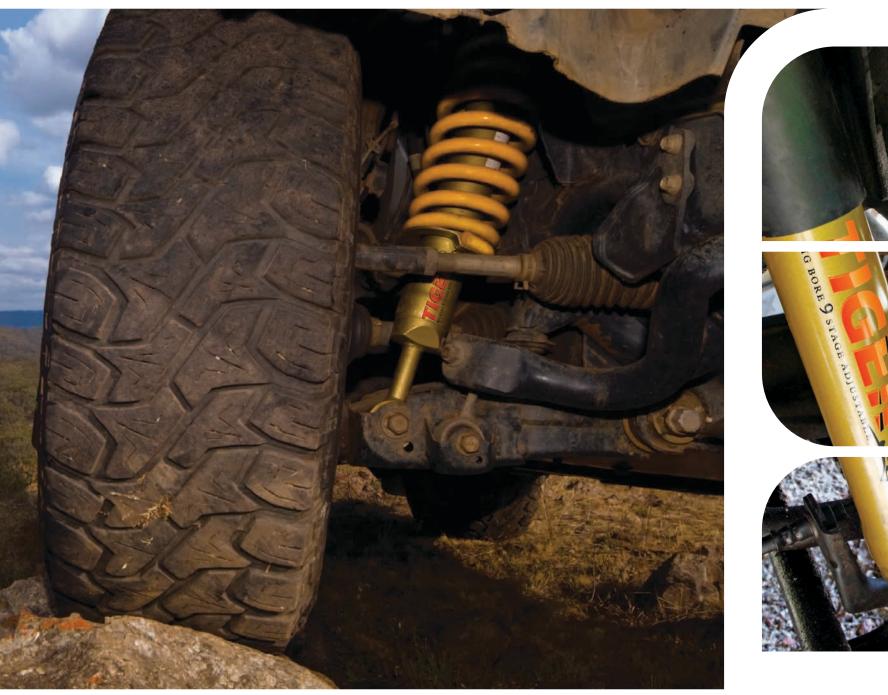
For increased oil capacity, it improves heat dissipation and reduces shock fade.

**TJM Tiger struts** feature an adjustable spring seat for fine tuning ride height.

From the consistency of bitumen roads, to the rugged terrain encountered in the outback - TJM Tiger adjustable shock absorbers will provide unwavering performance for every situation, providing you with the ultimate control. Simply adjust for optimum performance to seize the track ahead.

Engineered and tested in Australia, you can share the confidence, control and raw attitude invested in each big bore, 9 stage adjustable TJM Tiger shock. For the complete terrain solution - TJM Tigers will tackle every situation with mastered precision.











# TJM XGS leaf springs

TJM XGS leaf springs provide a significant improvement to your vehicle's load carrying ability, towing safety, ride comfort and directional stability.

TJM XGS quality leaf springs use high grade spring steel and are available for today's four wheel drive and tradesman vehicles. Off road, the improved flexibility of TJM XGS leaf springs result in better traction from increased wheel travel and ground clearance. Cutting edge design and manufacturing techniques produce a smooth riding spring. For most vehicles, the TJM XGS leaf springs are available in either medium or heavy duty load carrying capacities and for certain applications, TJM XGS suspension also provides a commercial range of leaf springs.

# Precision moulded & die-formed: Ensures consistency to the design specifications.

# Accurately heat treated:

To ensure product performance meets our requirements.

# > Load rate tested:

To ensure product meets our specifications.

# > Prestressed:

To eliminate the possibility of sagging.

# › Quality assured:

A strict quality program is adhered to throughout all stages of manufacturing.







# TJM XGS coil springs

Springs are one of the hardest working suspension components in any vehicle, supporting the vehicle's weight, 24 hours a day. Often the original springs will fatigue and perform less than adequately with additional load or when used in extreme environments. TJM XGS suspension offers one of Australia's largest range of coil springs. Each spring is made to our exact specifications designed by local engineers and incorporate many unique design features to suit today's four wheel drives.

TJM XGS coil springs are available in linear and progressive designs. They come in various heights and load carrying capacities enabling the optimum suspension system to be achieved. TJM XGS coil springs are manufactured on computer controlled coiling machines, scragged before and after shot peening, load tested and supplied in a durable powder coat finish.

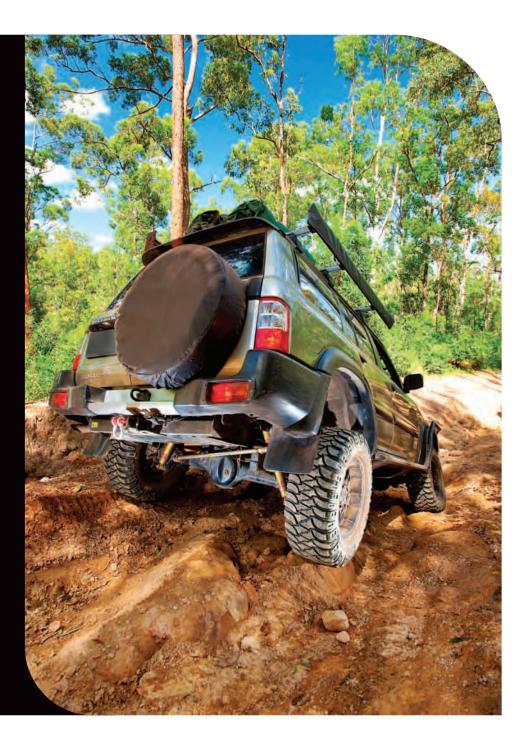
# **Linear coil springs**

Linear or constant rate coils offer consistent spring rate in all situations. This coil spring design is suited to most 4WD vehicles to increase ride height and improve stability. They are ideally suited for installation to vehicles equipped with accessories such as steel bull bars and winch combinations.

# **Progressive coil springs**

Progressive rate coils provide a smooth and comfortable ride when the vehicle is unlade, and improved stability and load carrying ability when the vehicle is loaded. Designed to increase the spring rate as the load increases, the vehicle displays less tendency to bottom out, thus improving ride comfort. It's an ideal solution for vehicles that carry weight periodically.







# **Shock absorber**

- > Longer suspension travel Increased wheel articulation
- > Up to 40% larger tube body Increased strength
- > Up to 50% thicker tube To resist stone damage
- > Increased oil volume Longer life
- › Double welded mounts Increased strength
- > Stronger tube welding Increased strength
- › One piece mounts Increase strength



# **Steering damper**

- > Foam cell technology To resist shock fade & works at every angle
- > Up to 50% larger tube body Increased strength
- > Up to 50% thicker tube To resist stone damage
- > Increased oil volume Longer life
- > Stronger tube welding Increased strength



# **TJM XGS torsion bars**

TJM XGS torsion bars have been designed to carefully match the complete XGS suspension range.

Torsion bars are designed to be used on the front of many two and four wheel drive vehicles. While providing excellent ride quality, some vehicles fitted with torsion bars may suffer in their ability to carry loads and nose-dive under braking which results in loss of ground clearance. TJM XGS torsion bars are available as an upgrade to improve a vehicle's load carrying ability and stability, both on and off road. TJM XGS torsion bars are often larger in diameter to the original unit, increasing spring rate which ensures ride height is maintained and vehicle handling both on and off the road is improved. To significantly improve your vehicle's suspension performance TJM XGS torsion bars work best when TJM coil or leaf springs are fitted to the rear of your vehicle.



- > Premium grade spring steel with an unobtrusive powder coat to avoid unnecessary attention and to protect against corrosion.
- > Hardened and tempered to exact specifications for improved ride and performance.
- > Drop forged ends are precision drawn for excellent strength and integrity.
- > Pressure rolled splines increases spline durability and allow precise fitment.
- > Preset and hardened which increase life cycle and prevent sagging.



### TJM XGS panhard rods

The purpose of suspension is to allow the wheels to move vertically with respect to the body, when raised height suspension is applied to some coil-sprung 4WD vehicles, the fixed length of the original front or rear panhard rod can cause the axle to shift. allowing it to move forward and backwards. or from side to side.

TJM adjustable panhard rods are designed to eliminate this problem by enabling you to set the rod to the most appropriate position for whatever suspension type or lift height your 4WD has.

# TJM XGS castor correction kits & bushes

Raising the suspension height on certain vehicles can result in a reduced amount of positive castor. Reducing the castor angle

# TJM XGS greasable shackles

TJM XGS greasable shackles make the relatively messy and time consuming task of bush lubrication incredibly easy. A greased shackle pin greatly reduces friction and operating temperatures and prolongs the life of the bush. However, grease will dissipate over time and is therefore necessary to regrease. Standard shackles make this an arduous task but TJM XGS greasable shackles and pins allow the greasing of bushes without the need to remove the springs.

Available for most leaf spring vehicles, TJM XGS greasable shackles are heavy duty replacement components made to exacting tolerances and nickel plated for long service life.

# TJM XGS u-bolts

When springs are installed on a vehicle, guite often the existing u-bolts are re-used, which could create a potentially dangerous situation. If the original u-bolt is re-used the pitch of the thread may be stretched and the u-bolt nut may loosen allowing the spring pack to become loose.

It is advisable to replace U-bolts when new springs are installed. TJM XGS u-bolts are matched in length to the TJM XGS leaf spring range to accommodate the increased stack height of the TJM XGS spring.

is when the top of the steering axis pivot is tilted towards the front of the vehicle or the lower steering axis pivot is tilted towards the rear of the vehicle.

Undesirable driving characteristics such as vague steering, understeer and straight line instability are common side effects of low castor. To permanently correct this TJM have developed a range of castor correction kits and bushes to suit many vehicles.

### TJM XGS sway bar link pins

A sway bar in general terms is a torsion bar mounted laterally on a vehicle's suspension and chassis and is designed to reduce body roll. The sway bar transfers movement from one side of the suspension to the other. This is done through the connection of a torsion bar to each side of an axle by sway bar links.

Extending the sway bar links is a common practice as this corrects the sway bar angle in raised vehicles. TJM have an extensive range of extended sway bar links to suit most popular model four wheel drives.

### TJM XGS polyurethane bushes

The TJM XGS polyurethane suspension bushes offer longer life when compared to rubber bushes in their specific applications. They ensure positive location of suspension components leading to direct responsive steering, low maintenance and improved stability. TJM offers a wide range of bush kits including leaf spring, panhard rod and control arm bushes.

# TJM XGS brake line extension kit

TJM XGS brake line extension may be essential when lifting your 4WD

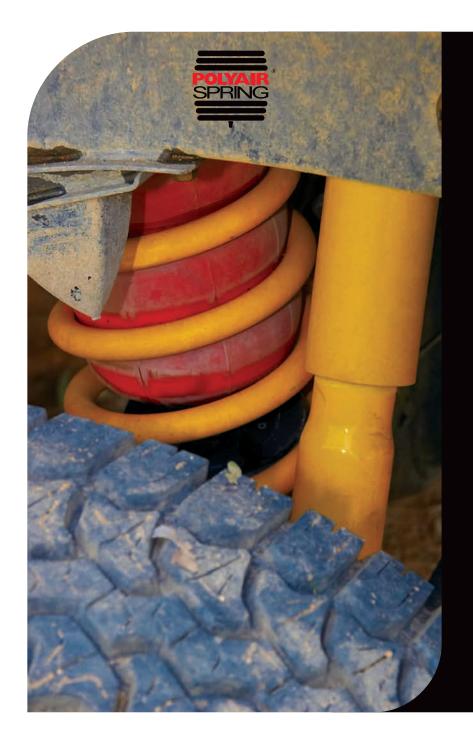














# Air adjustability is the difference

Stiff steel factory suspensions must compromise between ride comfort and load hauling capacity. Smooth ride suspensions can't carry heavy loads; heavy springs ride rough, especially when the vehicle is unloaded.

Polyair adjustable air springs solve these problems by allowing you to tune your suspension under all load and road conditions. Just add air when towing or hauling and then remove air for a softer ride when unloaded.



# Coil spring fitment

With coil springs, the Polyair unit is fitted into the coils. Hoses are attached with one end connected to each air spring and the other attached to a valve mounted on the vehicle to allow air pressure to be altered. A pressure increase of between 5 to 25 psi will give a load increase between 10 to 60%.



# **Leaf spring fitment**

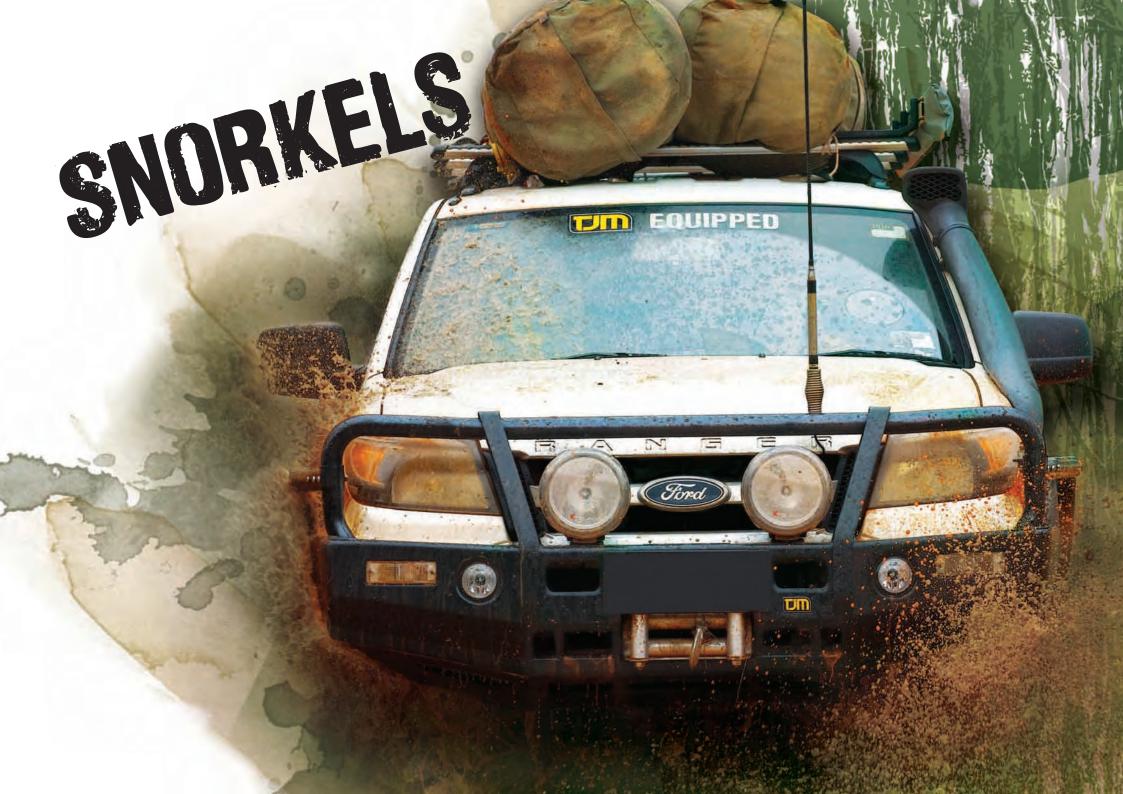
For leaf spring suspension, the air springs are supplied with their own auxiliary coil spring. One end of the air lift coil is attached to the leaf spring by the brackets provided, the other is bolted to the vehicle's frame. Hoses are then attached in the same way as on coil spring vehicles. Kits come complete with all necessary hardware, air lines, and valves. A pressure increase of between 5 to 25 psi will give a load increase between 10 to 60%.



# **Bellows fitment**

For heavy duty applications on leaf spring suspension, the bellow air system is supplied with their own vehicle specific brackets and unique flex member bag designed to carry up to the GVM of the vehicle, while maintaining normal ride characteristics when unladen. A pressure increase of between 5 to 100 psi will give a load increase between 10 to 60%. All kits come complete with all necessary hardware and allows for individual adjustments.

Optional pressure gauge 'in cab' adjustment kits and pressure gauges are available.



# FLOODS, DUST STORMS AND THE DEEP WATER CROSSING THAT'S NOT ON THE MAP: YOU'LL NEED A SNORKEL THAT CAN SUCK IN CLEAN AIR AND LOOK GOOD DOING IT.

Part of the fun and adventure of 4WDriving is the great diversity of climate and terrain our great wide land offers.

Unfortunately, your engine doesn't quite see it as fun and adventure.

To run efficiently in these sort of conditions an engine needs to breathe clean, dust and moisture free air.

Enter the TJM Airtec snorkel: designed and tested by TJM engineers to give your engine cooler, cleaner air to work on.

A TJM snorkel is made from the strongest, colour fast UV polymer and is specifically engineered and designed to fit the natural shape of your vehicle.

We're confident that your local TJM distributor can offer you great value of our TJM Airtec snorkels, so you and your engine can drive away happy.



Snorkels are commonly the first accessory ever fitted to a four wheel drive. And why wouldn't they be with all these benefits?

Not only do they allow for deep water crossings and hassle free air induction when immersed in dust; they also have other key features.

The air quality at roof level is cleaner and cooler than air travelling via the bonnet, so this means greater fuel efficiency and less clogging of air filters. These are very important factors, particularly when 4WDing on dry, dusty roads.



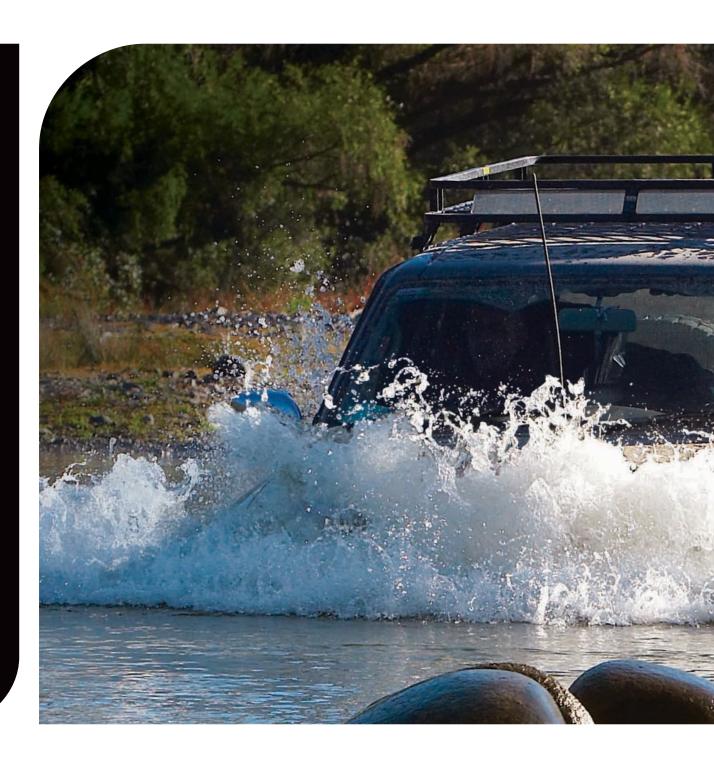


Even when it rains the TJM Airtec design captures and disperses rain drops through drain holes at the base of the air ram. This feature removes excess rain from mixing with the air stream and preventing water intake during heavy rain.

When it comes to materials, TJM sources only the finest quality to be used in the Airtec range. All products are made with leading Australian polymer materials that exceed the Australian Standard for UV stabilisation of UV8, with ratings at UV20-UV24. The colour pigmentation process doesn't cut any corners giving you an even, dense and bleed-free product.

Unlike other manufacturers, TJM individually engineer and design the snorkel to suit the natural shape of the vehicle. Although functionality is important, we want you to look good too!

Proudly Australian made and quality assured, you can have the confidence that a TJM Airtec snorkel will achieve peak performance each and every time.





# Every 4WD should enjoy the Airtec advantage

- > Fitting a TJM Airtec snorkel allows air to be drawn from roof level
- > Provides a continuous supply of cooler and cleaner air to the engine
- > Because the air supply is drawn from roof level, dust is not as thick and plentiful in the engine bay or inner guard. This will help extend the life of the air cleaner element, reducing the wear of vital components
- A TJM Airtec snorkel will significantly reduce the hazards of engine damage during water crossings





# **Features & benefits**

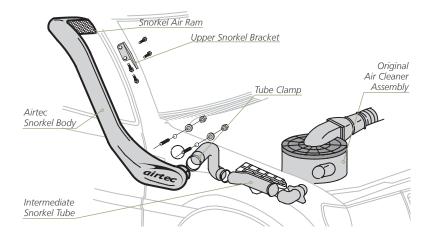
- > The TJM Airtec intake design separates rain or moisture from the air stream before it enters the engine
- The snorkel body is manufactured with a smooth inner wall, harsh corners are avoided in all designs which reduces air turbulence and allows a constant uninterrupted air flow to the engine. All TJM Airtec snorkels are perfectly engineered to supply the correct volume of air or better to the engine which may improve your engines efficiency
- > Designed, engineered and moulded in Australia from high quality UV-resistant polyethylene for maximum strength and rigidity. All TJM Airtec snorkels incorporate stainless steel hardware
- > TJM Airtec snorkels are not only well engineered but are carefully designed to be aesthetically pleasing. Each Airtec snorkel is designed to flow with the vehicles natural styling, they are easily the best looking snorkels on the market
- > Easy installation minimising modifications to vehicle's original components
- > TJM Airtec snorkels offer a wide range to fit most popular 4WD makes and models
- > Designed exclusively for TJM and supplied through the TJM Australia wide and international sales and service network

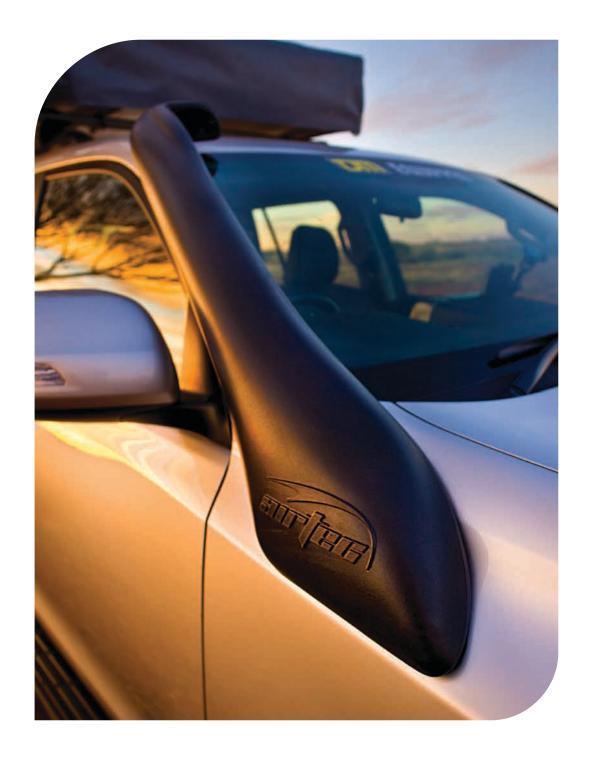
# How a TJM Airtec snorkel disperses rain water



- 1 Rain water entering the air ram of a TJM Airtec snorkel is captured at the back of the inside curved surface.
- 2 Water is then pooled around the base of the air ram and dispersed through the drain holes.
- **3** Finally, the last line of defence is the original water drain in the vehicle's air cleaner assembly.

# **Typical Airtec snorkel fitment**





# **UV** stable Exposure of polyethylene to UV radiation leads to degradation of the material, which over time results in surface defects and ultimately cracking or failure of the product. To prevent this, most grades contain UV stabilisers. The efficiency of this stabilisation depends on the type of stabiliser used as well as the stabiliser content in the material. A measure for how well a material is stabilised is the UV rating which are based on the results of accelerated weathering tests and directly relates to how many hours samples have been exposed to artificial sunlight before a defined loss in mechanical properties occurs. The higher the UV rating, the better the stabilisation of the material and the longer its life expectancy outdoors. Although the Australian Standard for base resins accepts a rating of UV8, this level of quality simply does not meet our ERTIF

# A TJM Airtec snorkel is manufactured to last

Significant research and development has been undertaken to ensure every TJM Airtec snorkel is built to last. We take pride in developing top quality product knowing that you can have peace of mind when our products are put to the test.

# Impact resistant

TJM Airtec snorkels are designed and manufactured in Australia from Australian plastic materials containing a combination of special additives and strong bonding processes. The result is a product with strong physical properties and tough impact resistance.

In colder temperatures the true strength of the TJM Airtec snorkel becomes apparent. Some competitors snorkels are invariably weaker in the cold because of the manner in which they are manufactured. A simple knock from an overhanging branch can crack the snorkel body rendering it useless.



# Designed for extreme temperatures

Snorkel components out of sight, underneath the bonnet are an integral part of the complete snorkel system and are relied upon to transfer air from the snorkel body to the vehicle's air box. These components are exposed to extreme temperatures often exceeding 100°C. TJM understands the importance of using materials that can withstand extreme temperatures as well as being tough enough to endure harsh vibrations.



# **Colour fast**

When it comes to incorporating colour into the snorkel, TJM undertakes a process called 'colour compounding'. Basically the pigment is mixed into the molten base resin before the product is even moulded. This procedure ensures that the colour pigment is evenly saturated throughout the polymer, preventing it from rubbing off or

bleeding. In addition, this process does not inhibit the particles of the polymer from fusing together, enabling the formation of a strong and dense product.

Some competitors snorkels are subjected to a cheaper and easier pigment solution called 'dry blending'. This process not only results in a blotchy appearance, it also reduces the strength of the product. In dry moulding, the pigment coats the polymer particles - effectively forming a barrier that prevents the particles from properly fusing together.





# **Ensuring optimum snorkel performance**

Most modern vehicles have a one-way valve (duck bill) fitted to the air box allowing any water ingress to drain out, whilst blocking any water entering from underneath the vehicle.

Please be aware that many vehicles do not have this valve, instead are fitted with a simple drain hole in the air box. TJM suggests that you plan ahead before a trip. If you plan to enter water deeper than air filter level, the drain hole should be sealed tight to prevent any water entering the air box. Keep in mind that any rain droplets caught in the snorkel cannot be drained. If you desire to do more low key river crossings, then we suggest that the drain hole be left open as the threat of water ingress from below is less likely. It is also recommended to undertake regular checks of the air filter to ensure it is not blocked and can operate at peak performance.

Please discuss your situation with your local TJM expert to determine which alternative suits you best.

# TJM Airtec snorkels are Australian made

TJM Airtec snorkels are designed and manufactured in Australia from Australian plastic materials and supplied through the TJM Australia wide and international sales and service network.

# And awards to show for it

4x4 Australia Magazine Best Aftermarket Product Award under \$700 Category

It takes a stand-out product to win awards especially when there is a lot of competition out there, as you can see we still came away with the gold.



**59** Winches

# STUCK FAST? GET UNSTUCK FAST.

A TJM winch is the essential risk management tool when venturing to remote locations and upping the stakes of your 4WD adventure. TJM's range of new generation winches now have even more power for increased line speed and faster recovery.

And there's a TJM winch that'll fit most 4WD vehicles.

There are 9,000lb, 9,500lb and 12,000lb sizes, all with new and improved functionality and strength. The larger two models now have tough synthetic rope as standard for easier handling and improved performance.

Tested to meet Australian and our own high standards, a TJM winch will provide the right amount of 'grunt' in any situation, thanks to the carefully engineered balance of power and speed. For those who enjoy a challenge, owning a TJM winch provides you with the freedom to visit more places. When you're off the beaten track, stuck and lacking traction, it's not always as simple as relying on a mate with traction to bale you out. Steep inclines and muddy conditions are problematic and adding a second vehicle to the dilemma doesn't help anybody. Using a TJM winch, with a wireless remote for added safety, is a much better way to successfully recover your vehicle.

Engineered and manufactured by TJM in our 100% owned factory, the TJM winch range is 100% supported by TJM.

You'll get unstuck faster and safer without ever having to rely on a mate.

# Winch features

- Integrated solenoid control pack
- > High output series wound motor
- > Sealing of motor & gearbox to limit water & dust ingress
- > Planetary gear system
- Automatic load holding brake
- > IP65 water proof rated winch remote
- > Illuminated winch remote controls
- > FRP sheath protecting all power cables
- > Increased power cable length
- > Anti-corrosive aluminium tie bars
- > 90° ergonomic clutch handle
- > 4 position clocking on motor
- > 10 position clocking on gearbox
- Free spooling
- > Power in & power out
- > Low electric current draw
- CE certified
- > UV resistant plastic parts
- > Optional TJM wireless remote available separately

# **Optional wireless remote features**

- > Safely use your TJM winch up to 45 metres away
- > Extends the range of the traditional, wired remote switches by over 12 times
- > Built in safety features that immobilise the unit until you're ready to begin winching
- > Robust, shock resistant and highly visible remote controller
- > LED illumination shows when winch is in use
- > Easy to install and even easier to use
- Backed by a 1 year TJM warranty





# 12000lb electric winch



Line load LBS/KGS	Line speed MPM	Line speed FPM	Motor Amps
0/0	6.0	19.7	70.0
2000 / 907	3.5	11.4	125.0
4000 / 1814	2.2	7.3	190.0
6000 / 2722	1.7	5.7	230.0
8000 / 3629	1.2	4.1	279.0
10000 / 4536	1.0	3.1	334.0
12000 / 5443	0.8	2.6	362.0
Single line rated pull	12000lb	s (5443kg)	
Motor	5.5hp/4.	.0kw, series wo	ound
Control	Remote	switch, 12ft (3	.7m) lead
Gear train	3 stage	planetary	
Gear reduction ratio	221:1		
Clutch	Sliding r	ing gear	
Braking action	Automa	tic in-the-drum	
Drum size	65mm <sup>ø</sup> ,	224mm	
Synthetic rope	30m, 9.	5mm <sup>ø</sup>	
Fairlead	Hawse f	airlead	
Remote control	Included		
Battery recommended	650CCA	minimum for	winching
Battery leads	2 gauge	, 1.9m	
Finish	Black on	ıyx	
Weight	77.2lbs	(35kg)	
Overall dimensions	556 x 16	50 x 202mm (L	xWxH)
Mounting bolt pattern	n 254 x 11	14.3mm	

# 9500lb electric winch



Line load LBS/KGS	Line speed MPM	Line speed FPM	Motor Amps
0/0	7.5	24.8	71.0
2000 / 907	4.7	15.5	135.0
4000 / 1814	3.5	11.5	190.0
6000 / 2722	2.8	9.3	234.0
8000 / 3629	2.1	7.1	290.0
9500 / 4309	0.9	3.0	298.0
12000 / 5443	-	-	-
Single line rated pull	9500lbs	(4309kg)	
Motor	5.5hp/4	.0kw, series wo	ound
Control	Remote	switch, 12ft (3	.7m) lead
Gear train	3 stage	planetary	
Gear reduction Ratio	218:1		
Clutch	Sliding r	ing gear	
Braking action	Automa	tic in-the-drum	ı
Drum size	65mm <sup>ø</sup> ,	224mm	
Synthetic rope	30m, 9.	5mm <sup>ø</sup>	
Fairlead	Hawse f	airlead	
Remote control	Included		
Battery recommende	d 650CCA	a minimum for	winching
Battery leads	2 gauge	, 1.9m	
Finish	Black or	іух	
Weight	77.2lbs	(35kg)	
Overall dimensions	556 x 16	50 x 202mm (L	xWxH)
Mounting bolt patter	n 254 x 1	14.3mm	

# 9000lb electric winch



Line load LBS/KGS	Line speed MPM	Line speed FPM	Motor Amps
0/0	8.0	26.3	78.0
2000 / 907	4.5	15.0	141.0
4000 / 1814	3.4	11.0	196.0
6000 / 2722	2.8	9.3	256.0
9000 / 3629	2.6	8.5	312.0
10000 / 4536	-	-	-
12000 / 5443	-	-	-
Single line rated pull	9000lbs	(4082kg)	
Motor	5.5hp/4.	0kw, series wo	ound
Control	Remote	switch, 12ft (3	.7m) lead
Gear train	3 stage	planetary	
Gear reduction ratio	212:1		
Clutch	Sliding r	ing gear	
Braking action	Automa	tic in-the-drum	ı
Drum size	65mm <sup>ø</sup> ,	224mm	
Cable	28m, 8.2	2mmø (Steel)	
Fairlead	4-Way re	oller fairlead	
Remote control	Included		
Battery recommended	650CCA	minimum for	winching
Battery leads	2 gauge	, 1.9m	
Finish	Black on	yx	
Weight	80.5lbs	(36.5kg)	
Overall dimensions	556 x 16	50 x 202mm (L	xWxH)
Mounting bolt pattern	254 x 11	14.3mm	

# 4500lb electric ATV winch



# 3500lb electric ATV winch



# 2500lb electric ATV winch



Single line rated pull	4500lbs (2041kg)
Motor	2.0hp/1.5kw permanent magnet 12V DC
Control 1	Remote switch, 12ft (3.7m) lead
Control 2	Remote switch, handle bar mounted
Gear train	3 stage planetary
Braking action	Dynamic brake system
Drum size	38.1mm <sup>Ø</sup> x 80mm
Rope	Synthetic Rope
Fairlead	4 way nylon roller fairlead
Remote control	Included
Weight	22lbs (10.3kg)
Overall dimensions	330 x 105 x 108mm (L x W x H)
Mounting bolt pattern	124 x 76.2mm

Single line rated pull	3500lbs (1587kg)
Motor	2.0hp/1.5kw permanent magnet 12V DC
Control 1	Remote switch, 12ft (3.7m) lead
Control 2	Remote switch, handle bar mounted
Gear train	3 stage planetary
Braking action	Dynamic brake system
Drum size	38.1mm <sup>ø</sup> x 80mm
Rope	15.2m, 5.45mm <sup>Ø</sup>
Fairlead	4 way roller fairlead
Remote control	Included
Weight	25lbs (11.3kg)
Overall dimensions	330 x 105 x 108mm (L x W x H)
Mounting bolt pattern	124 x 76.2mm

Single line rated pull	2500lbs (1133kg)
Motor	2.0hp/1.5kw permanent magnet 12V DC
Control 1	Remote switch, 12ft (3.7m) lead
Control 2	Remote switch, handle bar mounted
Gear train	3 stage planetary
Braking action	Dynamic brake system
Drum size	50.8mm <sup>ø</sup> x 80mm
Rope	15.2m, 4.8mm <sup>ø</sup>
Fairlead	4 way roller fairlead
Remote control	Included
Weight	24.2lbs (11kg)
Overall dimensions	330 x 105 x 108mm (L x W x H)
Mounting bolt pattern	124 x 76.2mm

# **Features**

- > Planetary gear system for fast line speed
- Illuminated joystick control
- > Low voltage power down
- > 300 amp rated solenoid
- Centre focused drum
- Redesigned braking system
- > Free spooling
- > Power in & power out
- > Fully serviceable, spare parts are available





# Before you begin winching

- > Study the winch owners manual to familiarise yourself with its features and operating procedures
- > Do not use winches as hoists or to transport people, unless endorsed by the manufacturer and approved by government legislation
- > Inspect wire ropes and equipment regularly and replace at the first sign of deterioration
- All winch rated capacities are based on one layer of rope on the drum. With a full drum of rope the capacity will decrease by up to 35%
- > Always use protective gloves when handling wire ropes
- > Always use a tree trunk protector when anchoring to a tree
- > Use "rated" bow shackles or "D" shackles for all rope and strap connections

- > Leave shackle pins half a turn loose, this will prevent over tightening under load
- > Set up shackles with the body on the anchor side
- Never hook the winch rope back on itself. This will cause distortion of the rope leading to possible rope failure
- > Ensure appropriate winching/recovery points are used
- > Ensure a straight line pull is maintained. Use of a snatch block for redirection will enable this to be achieved and maintained
- > Use a snatch block for all heavy recovery situations. This doubles the winch capacity but halves the winching speed
- > Ensure there are at least 5 coils of rope on the winch drum before any winching operation is attempted. The rope fastener to the drum is not designed to hold the vehicle load







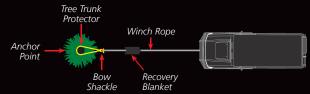


# Now that you're winching

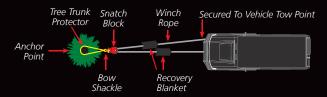
- One person should be responsible for winch control and protection
- > Keep winching area clear of observers (1.5 times the length of the deployed cable is the recommended clear distance)
- > Keep hands clear of the wire ropes and fairlead during any spooling operation
- > Do not step over taught winch ropes
- > Maintain constant loads on the winch rope during vehicle recovery

- > Assisting the winch by driving the vehicle can cause "Shock loads" which can overload the rope and winch, leading to failures
- > Ensure rope is evenly spooled onto winch drum
- > Electric winches must be used intermittently when the going gets tough. This is to allow for winch motor cooling and vehicle battery recovery
- > When winching with electric winches, it is recommended that the engine is run at 2000rpm
- > Do not maintain power to the winch if the winch is stalled

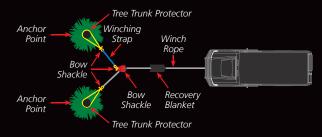
# **Direct line recovery**



# **Double line recovery**



# **Indirect line recovery**



# After a successful recovery

- > Ensure vehicle is in a safe and secure position
- Inspect equipment for any signs of wear or damage
- > Neatly re-pack all winch and recovery equipment used
- > Store your recovery equipment in a recovery bag
- > Never store straps wet or damp, be sure straps are thoroughly dry before storing

WINCH SAFET



65
Recovery
Equipment

# STUCK ON A SLOPE OR STUCK IN THE MUD, TJM CAN PROVIDE A LOT MORE THAN SYMPATHY.

Every situation is unique, and the right equipment and a well thought out plan are the key ingredients to successful vehicle recoveries. Designed by engineers and manufactured to the highest standards, TJM recovery equipment gets you out of trouble. Should you become bogged, stuck or immobile, TJM recovery gear is your backup plan to ensure you can continue your journey.

Purchasing a recovery kit is a good place to start, but ask your local TJM expert in store about additional accessories to cater for different recreational or work requirements. All TJM recovery gear is tested to the highest standards, making it dependable in emergencies.

# TJM snatch straps

The TJM snatch strap is a vital part of any 4WD recovery kit. The combination of vehicle pull and the tension in the strap creates a 'snatching' effect that can pull a stranded vehicle free from being bogged or unable to move under its own power.

TJM snatch straps are made solely in Australia, using only the highest quality manufacturing processes and materials. TJM snatch straps are independently tested to assure proper function and breaking strengths are met.

During a snatch strap recovery, extreme kinetic energy is generated. To ensure the highest level of personal safety, TJM snatch straps are designed to break before reaching excessive and dangerous loads above and beyond the strap rating. Many straps in the industry do not break under extreme force, resulting in significant chassis damage or the potential for bow shackles to shoot off as deadly projectiles.

As a result of these potential dangers, it is important to choose a strap that is right for your needs. The 8000kg strap is recommended for most 4WD vehicles, the 6000kg strap for lighter SUVs, and the 11000kg and 15000kg straps better suited to heavier applications. Bigger is not better when it comes to snatch straps. Match the size of the strap to the lightest of the two vehicles being used in the recovery.

# **Features**

- > Made in Australia
- > Available in 4 rated strengths
- > Dual neoprene protective sleeves
- > Reinforced eyelets on both ends
- > High visibility colours
- > Clearly identifiable breaking strengths on each strap
- > Each strap serial numbered for quality control

# **Specifications**

> Length: 8-9m

> Width: 50, 60, 75 & 100mm

Material: 100% nylon Genuine 20% Stretch:



# **Clear warnings** & operator instructions

TJM was the first to adopt the revised Australian Standards for snatch straps.

All TJM straps are labelled clearly for easier recognition and serial numbered for batch testing and quality control.



# Clearly labelled

TJM has gone one step further to making sure that each TJM strap is clearly identifiable. On the back of each protective sleeve is the strap's breaking strength.



# TJM 15000kg snatch strap

This is the big fella, 100mm wide and rated to 15000kg it's recommended for larger vehicles usually loaded up to the hilt.

# TJM 11000kg snatch strap

75mm wide and rated to 11000kg it's recommended for heavy vehicle snatching.

# Choosing the correct rated strap for your vehicle is important

Each TJM snatch strap has a clearly labelled breaking strength. Breaking strengths are important otherwise a strap rated too strong for your vehicle, is likely to result in vehicle or chassis damage.



# **Reinforced eyelets**

All four TJM snatch straps feature reinforced eyes on both ends as this is normally the area that would take the most abuse.



# Neoprene protective sleeves

These protective sleeves provide clear labelling and protection for the tough strap stitching and the vehicle during recovery.

# TJM snatch strap in action

The energy from the moving recovery vehicle is transferred through the TJM snatch strap and effectively launches the incapacitated vehicle from its bogged position.









# Clearly identifiable colours

With the clearly distinguishable TJM colour system you'll always choose the right strap for the job when it's wet, dirty or dark. Red for the heavy stuff through to green for the light vehicles. The colours are also highly visual for safety precautions.



# TJM 8000kg snatch strap

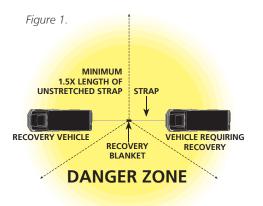
Just right for just about everything, this is the strap of choice and recommended for most 4WDs. 60mm wide and rated to 8000kg.

# TJM 6000kg snatch strap

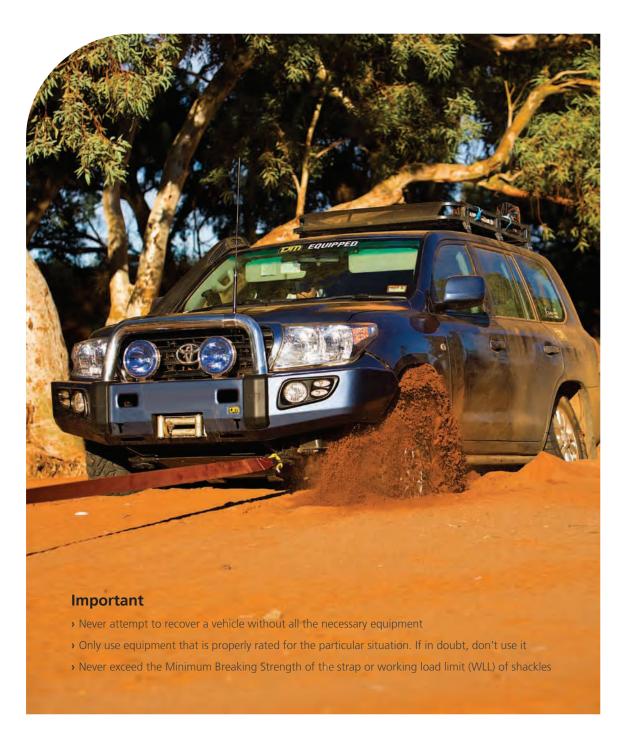
For all the lighter SUVs out there you'll rarely need more than the TJM 6000kg snatch strap.

# **General information**

- Check strap and packaging for minimum breaking strength of the Strap
- > It is recommended that the minimum breaking strength of the strap should be between 2 and 3 times the vehicle's gross vehicle mass (GVM)
- > Strap must be suited to the GVM rating of the lighter of the two vehicles used in the recovery process
- Consider completing a nationally recognised four wheel drive training course or contact a reputable four wheel drive club or four wheel drive accessory retailer for more comprehensive advice on the proper selection and use of your recovery equipment
- The snatch strap must not be used for lifting or conventional towing
- > Ensure the strap is not damaged and is in usable condition
- > Keep in mind, the strap's strength and stretch are reduced when the strap is saturated with water
- A TJM recovery blanket must be draped over the strap during use to reduce any unintentional rebound of the strap
- > While the strap is being used, any people outside the vehicles involved in the recovery must be kept at a safe distance (recommended at least 1.5 times the length of the unstretched strap) from the point of recovery in any direction and NEVER in the line of recovery (See Figure 1)
- > WARNING Always follow product instructions. It is important to correctly attach the strap to a vehicle. A standard tow ball or vehicle tie-down point is not designed for this purpose and may result in the strap or a vehicle component detaching from a vehicle and striking and seriously injuring or killing a person. Only attach the strap to a vehicle recovery point or device that is suitably rated for use with the motor vehicle recovery strap. Incorrect use has previously resulted in serious injury and death



**PEOPLE OUTSIDE** THE VEHICLES **INVOLVED IN THE RECOVERY MUST REMAIN OUTSIDE** THIS ILLUSTRATED **DANGER ZONE DURING THE COURSE** OF THE RECOVERY



# JM RECOVERY STRAPS

# TJM winch extension straps

The TJM winch extension strap is designed to be used when extra length is required for winching or suitable anchor point is out of reach. The TJM winch extension strap is more convenient to store than extra lengths of winch cable.



- > Dual neoprene protective sleeves
- > Reinforced eyelets on both ends
- High visibility colours
- > Clearly identifiable breaking strengths on each strap
- > Each strap serial numbered for quality control

# **Specifications**

> Length: 10 & 20m > Width: 60mm

Material: 100% polyester

• Min. breaking strength: 4000 (10 & 20m) & 6000kg (20m)

# TJM tree trunk protector straps

A TJM tree trunk protector strap is vital in protecting the tree from ring barking whilst anchoring to a tree.



# **Features**

- Available in 2 breaking strengths
- > Dual neoprene protective sleeves
- > Reinforced eyelets on both ends
- > High visibility colours
- > Clearly identifiable breaking strengths on each strap
- > Each strap serial numbered for quality control

# **Specifications**

> Length: 3 & 5m > Width: 75mm

100% polyester Material:

• Min. breaking strength: 8000 (3m) & 10000kg (5m)

# TJM equaliser strap

When recovering a vehicle with two recovery points, it is best to spread the weight evenly between the two points. The TJM equaliser strap is an important addition to your recovery kit.



- > Dual neoprene protective sleeves
- > Reinforced eyelets on both ends
- > Clearly identifiable breaking strength on strap
- > Each strap serial numbered for quality control

# **Specifications**

> Length: 3m

> Width: 75mm

100% polyester Material:

> Min. breaking strength: 8000kg





# TJM recovery hitch and bow shackle

The latest addition to the TJM accessory range is our very own recovery hitch fitted with a 4.75 tonne quality bow shackle. Perfect for those vehicles who have trouble mounting rear recovery points, it's specifically designed to fit into leading manufacturer tow hitches and TJM rear bars.

The hitch itself is manufactured from high strength mild steel, finished with a zinc coating to keep it durable as well as ensuring a clean finish.

The hitch can be turned both directions with the shackle hole horizontal or vertical to avoid shackle binding.

Appropriate recovery points are essential to conduct the safe recovery of vehicles. It is recommended that all vehicles planning to go off road should have at least one recovery point at the rear.

Do not confuse factory tie-down points with recovery points. Factory lashing points are for transport of vehicles only and are not designed to recover a stuck vehicle. You should never ever use a tow ball for recovery purposes, they are not rated for the loads applied when performing vehicle recovery.





# TJM bow shackles

TJM bow shackles are forged steel, galvanised, then powder coated bright high visability yellow for very clear visibility in all situations. TJM bow shackles are an important link in joining equipment in recovery situations.

# TJM recovery blanket

TJM recovery blanket should be draped over the centre of the recovery strap or winch cable/rope being used for a recovery. The recovery blanket aids in preventing a broken strap or winch cable from behaving uncontrollably if it breaks. The blanket's material and weight has been engineered to survive service in wet and dirty environments.

- > PVC material weighted to effectively dampen a broken snatch strap, winch cable or rope
- > High visibility reflective strips on both sides of the recovery blanket
- > Heavy duty high quality velcro to secure the recovery blanket into position
- > Built in internal pocket for carrying winch blocks
- Weight 1.2kg







#### TJM snatch block & snatch block HD

TJM snatch blocks effectively double the capacity of the winch by reducing the load on the winch by half. They are also useful in recovery situations where the winch anchor point is not in a direct line of the vehicle. TJM snatch blocks are manufactured from high quality components to ensure safe operation and long life.

The TJM snatch block HD has a greasable nipple for smooth, trouble free operation.

#### TJM snatch block 8000kg

> Working load limit 8000kg

> Side plate material Hot rolled steel

> Pulley material Carbon steel

> Pulley diameter

98mm

Cable size

Maximum 9.5mm

Weight

3.21kg

#### TJM snatch block HD 10000kg

Working load limit 10000kg

Side plate material

Cold rolled steel

> Pulley material

Steel

> Pulley diameter

98mm

Cable size

Maximum 9.5mm

Greasable

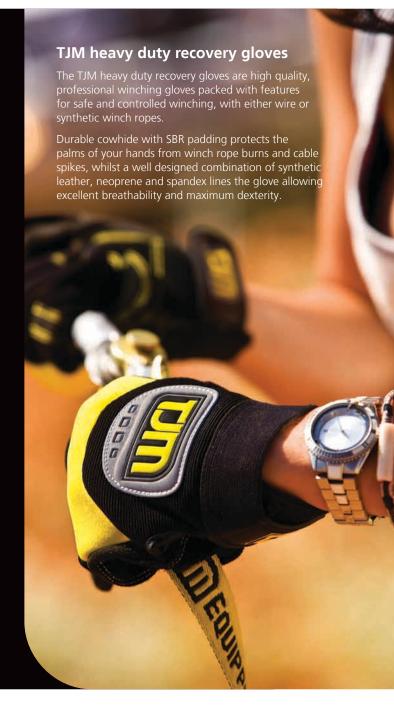
Yes

3.23kg

Weight

#### TJM drag chain 8000kg

TJM drag chains are cadmium plated which gives it its distinctive gold colour. More importantly the cadmium plating makes it more rust/corrosion resistant than its zinc plated competitors. The TJM drag chain is available in five metre lengths and comes with its own TJM heavy duty canvas carry bag.



#### TJM heavy duty recovery kit

Tested to withstand the harsh conditions of the Australian outback, this heavy duty kit exceeds even our high standards.

- > 11000kg snatch strap 75mm x 9m
- > 6000kg winch extension strap 60mm x 20m
- > 10000kg tree trunk protector 75mm x 5m
- > 8000kg snatch block
- > 19mm bow shackles x2
- > 16mm bow shackles x2
- Heavy duty recovery gloves
- Recovery blanket















#### TJM large recovery kit

The perfect recovery kit for 4WD adventure, everything you need to tackle most situations.

- > 8000kg snatch strap 60mm x 9m
- > 4000kg winch extension strap 60mm x 20m
- > 8000kg tree trunk protector 75mm x 3m
- > 8000kg snatch block
- > 19mm bow shackles x2
- Heavy duty recovery gloves
- Recovery blanket















#### TJM snatch strap kit

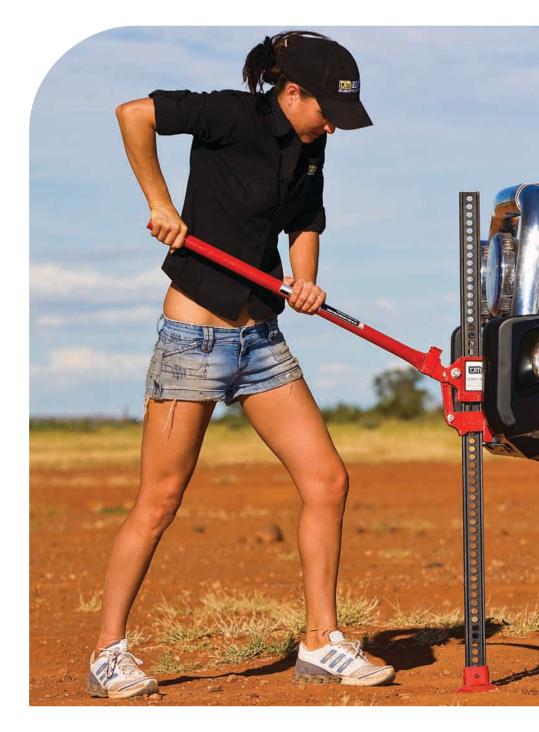
The ideal kit for those getting away for adventure without a winch.

- > 8000kg snatch strap 60mm x 9m
- > 16mm bow shackles x2
- Heavy duty recovery gloves











#### TJM recovery jack

The TJM recovery jack is one of the most versatile items of recovery equipment, with a load capacity of 1000kg and maximum lifting height of 1170mm, it will provide a means of lifting the vehicle to aid recovery.

So before you head out on your next adventure, make sure you're equipped with a TJM recovery jack. It'll get you out of trouble and ensure you can continue on your journey. Don't leave town without it.

The TJM recovery jack comes with bag and jack keeper.

> Working load limit: 2200lb (1000kg) > Maximum height raised: 46 inches (1170mm) > Minimum height raised: 4 inches (110mm)

#### Jack details

Overall height: 50 inches (1300mm)

Weight: 28.5lb (13kg)



#### TJM recovery jack base

For additional jack efficiency, especially on soft surfaces, why not invest in the moulded TJM recovery jack base? Simply attach it to the base of the jack before use to prevent undesired movement or sinkage.



#### TJM hand winch

The TJM hand winch is a great accessory for any adventurer allowing you to extricate your vehicle from almost any angle. Its design enables the wire rope to be fed through a set of wear resistant locking jaws by a single operating lever.

> Pulling capacity: 5512lb (2500kg) > Rated lifting capacity: 3528lb (1600kg)

> Cable length: 20m



# WHEN A TOP EXTREME 4WD TEAM ADDED THE TJM PRO LOCKER TO THEIR ARSENAL, WE KNEW IT WOULD GET TESTED. AND THEN SOME.

To be tested anywhere in the Australian outback is challenging, but to be tested under 'extreme' competition conditions would leave most 4WDrivers shaking in their boots.

Luckily the TJM Pro Locker had been there before; 20 years before, again and again, as we researched and continued to improve its capability.

Today the TJM Pro Locker stands alone.

With an innovative air operated differential locker that, at the flick of a cabin switch, allows you to send equal drive to both wheels and the unique piston style actuator eliminates the risk of oil entering the airline.

With a unique one piece cross shaft (instead of the usual three) adding to its strength, as does the hardened thrust washers, 3/8 bolts holding the hemisphere together and larger pinion gears.

And with a separate pneumatic system that has no internal 'o' rings or oil seals adding to its operational simplicity and low maintenance, whether you're a hard core competitor or a weekend wheeler.



#### How a standard differential works

When a vehicle with four wheel drive engaged is driven in a straight line, the standard differentials in most vehicles allow equal transfer of engine torque to all four wheels. When the vehicle turns a corner, torque is delivered to the wheels that experience the least resistance. This principle ensures that the inside wheels will rotate freely and power is delivered to the outside wheel to prevent tyres from scuffing and wearing out prematurely.

Because the standard differentials transfer the torque to the wheels that encounter the least resistance, you will lose drive on loose/ slippery ground or if one wheel is suspended in mid air. This becomes a problem as the wheel will spin and won't allow the wheel on firmer ground to drive the vehicle out of a situation.



straight line





4WD cornering

slippery surface



In 2005, TJM combined a renowned patented design with extensive testing and further engineering. Combining this with TJM's established production facilities resulted in the birth of the TJM Pro Locker.

TJM released the Pro Locker into the market for a select few models and three and a half years on the TJM Pro Locker has endured intensive testing which has taken the already proven Pro Locker design and made it even tougher. Based on comparative advantages, there is no doubt the TJM Pro Locker is superior to any other locker available today.

Be assured, the TJM Pro Lockers combination of simplistic design with components of exceptional strength and quality will leave you satisfied with your choice for years to come.



#### How a TJM Pro Locker works

The operation of the Pro Locker differential is simple and straightforward. Utilising compressed air, the internal selector ring will engage the lock ring. Once the TJM Pro Locker is engaged it forms a solid link between the carrier and the side gears. The differential is now locked and will deliver equal drive to both axles. The vehicle that was once suspended in mid air can now have equal power delivered to the wheel on firmer ground and can be driven out of the situation.

Unlocking the differential involves the pressurised air being redirected through an exhaust port on the solenoid valve. The spring and the actuator pushes the selector ring back, which in turn pulls the locking ring back out of engagement with the side gear. The differential is now unlocked and the gears are free to differentiate as before.



4WD cornering





#### **Advantages of a TJM Pro Locker**

- > Unique air operated piston style actuator eliminates the possibility of oil being pumped up the airline
- > Hardened thrust washers and the size of the locking ring make Pro Locker extremely strong in operation
- > Contains stronger materials and a thicker carrier compared to most standard differentials
- > Larger pinion gears are used in comparison to most standard differentials
- > No carrier modification needed other than the drilling and tapping of a bulkhead fitting port
- > Large pre-tensioned 3/8" bolts hold the Pro Locker hemisphere together
- > Robust design equals less maintenance
- > Reinforced rubber external hose extension is supplied as standard to minimize the risk of the airline being damaged by debris while driving
- > Recessed coloured L.E.D. cabin switches show clearly when TJM Pro Locker is on or off
- > Patented design that has been used and proven in the field for over 20 years





#### 1. Differential casing

High strength SG iron - these pieces hold the solid one piece cross shaft & 4 pinion gears together by 8 high grade bolts, making the TJM Pro Locker one of the strongest locking differentials on the market.



#### 2. Flange cap assembly TJM's extra thick

flange cap features longer crown wheel bolts for extra strength. (where applicable).



#### 3. Side locking gear

With extra large teeth & featuring a leading edge the TJM Pro Locker is one of the easiest to engage.



#### 4. Pinion gears

Thicker than standard case hardened thrust washers that are perfectly shaped to the internal spider gears.



#### 5. Lock ring

When activated the case hardened lock ring has a full 10mm of engagement over the side locking gear



#### 6. Hardened one piece cross shaft

This hardened one piece cross shaft is the heart & one of the key strengths of the TJM Pro Locker.



#### 7. Hardened selector ring

The all metal, hardened selector ring connects to the lock ring via 4 metal posts.







#### Actuator

The uniquely designed actuator works like a motor piston. The fork sits on top of the selector ring guiding it across when engaging or disengaging.



#### Heavy duty airline

This comes standard with the TJM Pro Locker. It will not pull out if hooked on rock or logs.



#### Solenoid valve

Designed especially for TJM. Sealed against dust & moisture to IP65 standards. Machined & anodised from billet aluminium.



#### **Pro Locker switches** clearly lit L.E.D.

switches are recessed into the switch block for protection against accidental engaging or disengaging of the TJM Pro Locker.

#### **Head configuration** Pressure only Stroke .560 inches Flow @12v Pressure CFM @ PSI LPM @ bar CFM LPM PSI bar 01 .57 16.1 ECIFIC 10 .5 .51 14.9 20 1.0 .45 13.7 30 1.5 .40 12.5 40 2.0 .35 11.5 9.6 50 3.0 .32 5.0 29 7 2 60 70 7.0 .26 5.2 80 .24 90 .21 100 .19 OMPRES 110 .16 120 .14 Max continuous pressure N/A Max Intermittent pressure 120 PSI 8.3 bar Max duty cycle 10% (Minutes on/off at 23°C) (3 on / 30% off) Max ambient air temperature. 149°F 65°C Min ambient start temperature. -22°F -30°C Max restart pressure 120 PSI 8.3 bar Motor voltage/frequency 12v DC Motor type Permanent magnet Current at rated load (Amps) 9.0 Starting current 28.0 (Locked rotor, Amps) Capacitor value N/A 3700 Min full load speed (RPM) N/A Thermal protector





Side view Front view

180° of rotation

## The TJM Pro Locker compressor is an ultra compact, vehicle-mounted air compressor, designed specifically to meet the needs of the next generation TJM Pro Locker.



Complete traction kit.

TJM Pro Locker, Pro Locker compressor, Pro Locker wiring harness

- > Oil-less, non-lube piston & cylinder
- > Stainless steel & silicone valves
- > Light weight plastic components
- > Built-in check valve
- > Balanced, for smooth, low vibration operation
- > Long-life, high performance PTFE compound piston ring
- > External air intake filter
- > Dust & moisture resistant
- > Permanently lubricated motor shaft & connecting rod bearings
- > 180° of rotation adjustment allowing fitment in confined spaces

#### WOB-L™



The WOB-L principle has a unitary piston rod that 'wobbles' inside the cylinder as the crankshaft rotates. Taking its name from its principle of operation, the WOB-L trademark was patented by engineers working at Thomas forty years ago. They provided a piston compressor radically different from any other design on the market at that time and remains a significant innovation in the field of compressor technology today.

Unlike the more conventional articulated piston pump, the WOB-L has no gudgeon pin (wrist pin) connecting the piston rod to the piston. Instead the piston and piston rod are a single item, usually a single casting. The piston rod is mounted to an eccentric bearing assembly, which in turn is mounted to the motor shaft to convert rotary energy from the motor into linear motion of the piston within the cylinder.

The piston is sealed to the cylinder by a flanged disk cup, that forms both a seal and mechanical guide for the piston. It runs without lubrication in contact with a low friction, surface coated cylinder of high heat conductivity. As the piston is driven up and down, air resistance on the upward stroke expands the disk's seal on the piston against the cylinder wall to increase its efficiency, while compensating for the 'wobble' action.

The oil-free operation makes the WOB-L piston extremely popular in the medical, automotive and beverage industries. The pressure vs. flow and vacuum vs. flow characteristics are generally superior to those of diaphragm pumps. In use, WOB-L provides far greater flows at any given pressure or vacuum, to ensure a more consistent operation, to provide longer life operation by allowing a physically smaller pump to be used to perform any given task.

As a piston pump, an inherent characteristic of the design is the failure mode is a gradual fatigue, rather than a catastrophic failure mode which is a characteristic of many other designs.

We have run the TJM Pro Locker for the last 6 years on Barbie' until one bad call on a track at Tuff Truck ended with three broken axles, one broken CV and two busted Pro Lockers. Having no spares we had no choice but to get help from other competitors with the "other brand" to keep competing.

With huge thanks to the team at TJM we were able to go back to where & what we started with way back in the beginning; two awesome lockers that have pretty much been to hell and back with us. Having competed not only at Tuff Truck for two years and with more than two years of Tough Tracks comprising of three rounds, two years of Superior All Terrain Challenge, again another three series round and at least three years of Xtreme Winch Challenge Series and two XI Extreme International I believe that these lockers have proven to be not just reliable but tough...

It was great to know that while we were at the 2010 Cliffhanger, when I threw those switch's on (sometimes even under pressure while moving) we knew that there would be no drama in the centre not locking, being that these are one of the simplest diff's to fit with far less moving parts to become an issue. Which I believe is a major benefit when having to rebuild or repair the diff out in the field ... even if it is just to get home!

For any serious competition truck I would recommend nothing but the TJM Pro Locker. And knowing the strength and reliability that we have experienced over the years with the Pro Locker I would have no hesitation in recommending to any Weekend Wheeler.

Team Barbie. Aaron & Lynda Ward









83
Dual Battery
Systems

# IT'S NIGHTFALL, YOU'RE SOMEPLACE THAT'S NOT ON THE MAP, SINKING A COLDIE FROM THE CAR FRIDGE, READING LAST WEEK'S PAPER AND PLAYING YOUR FAVOURITE CD. AND TOMORROW NIGHT YOU CAN DO IT ALL AGAIN.

Thanks to TJM's and the Red Centa battery management systems you don't have to worry about getting stuck out back.

You can confidently run winches, fridges, auxiliary driving lights and communication equipment, without compromising your starter battery, no matter where you stop.

At TJM we analyse your electrical requirements and recommend either the Intelligent Battery System (IBS), the Dual Battery System (DBS) or Red Centa battery system.

They're easy to connect, will withstand any climatic condition and are durable enough to even handle the rigors of military use.

Hooking up with a TJM battery management system is like taking an insurance policy with you when you're on an outback adventure.

#### **IBS & DBS story**

Years ago, I was travelling in Australia's Great Victorian Desert with my 60 Series LandCruiser. But because of two flat batteries it was impossible to start my car. This drastic experience led to the development of the IBS dual battery system and finally the establishment of the company "Intelligent Battery Systems". With over 15 years of battery and micro-electronics experience, we use our know-how and the latest technology to produce products of the highest award winning quality and reliability.

Beat Wyss - IBS Director

TJM's newest range of IBS and DBS battery management systems feature the next generation Micro Controller Technology (MCT) offering a variety of new features to help avoid the inconvenience and danger that can be associated with running your battery down.

#### What dual battery system is right for me?

The first step in choosing a suitable battery management system is to clearly identify the electrical equipment you intend to fit to your vehicle. Electric winches, fridges, auxiliary driving lights, communication equipment all have different requirements and can flatten a battery very quickly without the appropriate dual battery management system installed.

The next step is to choose which of the TJM IBS or TJM DBS management systems will best satisfy your needs. Both of these user-and-fitter-friendly battery management systems offer many features and are the benchmark Dual Battery Management Systems.





#### What do I need?

To safely operate all your additional appliances all you will need is a quality battery management system like TJM's IBS or DBS dual battery management system, a TJM battery mounting frame, an appropriate battery and a power outlet.















#### **Features**

- > Full diagnostic capabilities
- > Full bidirectional capability ability to start from auxiliary battery
- > Designed to withstand extreme conditions -40°C to +80°C
- > Used by military services around the world including NATO
- > Winner of "Best Aftermarket 4WD Equipment" award 2008 Off Road Magazine, Munich
- > Winner of "SEMA Global Media" award 2009
- Automatic system that links batteries for charging & isolates batteries for discharging
- The ability to use "start" & "deep cycle" batteries together
- > Monitoring voltage of both "start" & "auxiliary" batteries
- > Priority charging to the "start" battery
- > Link start support from auxiliary battery if starter battery fails
- > Spike protection for EFI & automotive computer systems
- > Simple installation no alterations to vehicle wiring necessary
- > Link failure & low battery alarm on both batteries (sounds & flashing LEDs)
- > IBS hi-performance relay offering 200amp continuous and 500amp short time
- > 30 & 120 minute manual link function for link start and winching
- De-link function if auxiliary battery fails (to safeguard alternator)
- New link at 13.1v and de-link at 13.0v suitable for modern 4WDs
- > LED dimmer function for night driving
- New rugged mounting system (RMS)





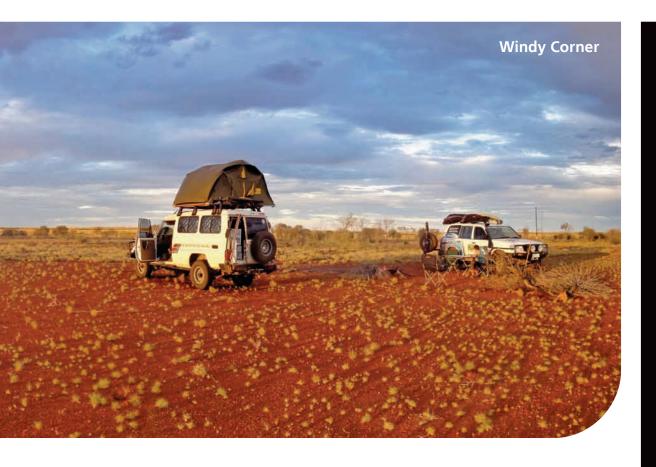
#### Alarm functions:

Low battery alarm: If the battery voltage for one or both batteries drops below 12V for a period of time, the 'low battery alarm' will alert you to the issue by an audio warning and LED indicators for the corresponding battery (either main or auxiliary).

Link failure alarm: Both the IBS and DBS units monitor the charge on each battery fitted to the vehicle. Should the power from one battery not reach the second battery to enable charging, the 'link failure alarm' will alert you to a failure, prompting a wire and installation check.

#### Bidirectional automatic battery link

While the engine is running, main and auxiliary batteries are linked together for parallel charging from the alternator. If the engine is stopped, the two batteries are disconnected automatically and appliances such as fridges, lights, compressors and inverters are now safely fed from the auxiliary battery. Solar equipment, battery chargers or generators that are connected to the auxiliary battery providing additional charge will also automatically supply the starter battery.



#### Manual battery link

In an emergency situations (defective or empty main battery) or in the case of higher power consumption the two batteries (main & auxiliary) may be connected together by activating the link button. After a lapse in time of 30 minutes (or immediately after activating the auto button), the system will return to the full automatic mode. When using an electric winch, the battery connection can be activated for up to 120 minutes. The load sharing function reduces the load on the alternator, wiring and the batteries when using a winch.

#### Deactivation of automatic & manual battery dual link function:

In an emergency if there's a problem with the auxiliary battery, such as a short circuit or defective battery housing which could cause damage to the alternator, the IBS or DBS units can deactivate automatic and manual linking and return the vehicle to it's basic operation (alternator, starter battery without additional charge to auxiliary battery). When operating in this mode, no manual and automatic battery connection is possible. Once the problem has been resolved the IBS & DBS units can return to normal operation.

#### **Features**

- > Full bidirectional capability ability to start from auxiliary battery
- > Designed to withstand extreme conditions -40°C to +80°C
- > Used by military services around the world including NATO
- > Winner of "Best Aftermarket 4WD Equipment" award 2008 Off Road Magazine, Munich
- Automatic system that links batteries for charging & isolates batteries for discharging
- The ability to use "start" & "deep cycle" batteries together
- Monitoring voltage of both "start" & "auxiliary" batteries
- Priority charging to the "start" battery
- > Spike protection for EFI & automotive computer systems
- > Simple installation no alterations to vehicle wiring necessary
- > Link failure & low battery alarm on both batteries (flashing LEDs)
- > IBS hi-performance relay offering 200amp continuous and 500amp short time
- > 30 & 120 minute manual link function for link start and winching
- > De-link function if auxiliary battery fails (to safeguard alternator)
- New link at 13.1v and de-link at 12.8v suitable for modern four wheel drives
- > Water proof polyurethane resin
- New rugged mounting system (RMS)



No-one likes to deal with a flat battery. The Red Centa battery management System is the simplest way to avoid running your battery down.

When driving, the Red Centa unit automatically links both batteries for charging. When the engine is turned off, the batteries are separated and power for your accessories is supplied from the auxiliary battery without the risk of discharging the starter battery.

#### **Features**

- > Can be fitted to any vehicle or boat with a 12V DC system regardless of engine type or alternator size
- > Simple to install. Only three wires to connect. No need to find power from ignition switch or to interfere with existing electrical wiring
- > Automatic priority circuitry ensures charging of main battery first
- Accidental reversal of polarity of either battery may cause damage to connected equipment, but will not harm the controller. The controller will not operate until correct polarity is restored
- > Electronic current sensing eliminates the need for external fuses or circuit breakers for protection
- > Voltage spike protection circuitry included
- > Auxiliary battery automatically disconnects if main battery drops below 12.7V





#### 3 year limited warranty

The warranty covers product failure in all applications. The warranty does not cover controllers that have been subjected to physical abuse or where they have been used in applications or situations, which fall outside the parameters outlined in the user guide. To claim warranty, the controller must be returned to the manufacturer for evaluation.

#### **TJM battery trays**

While TJM offer a range of dual battery management systems, TJM also offer the most secure battery trays on the market. These trays are carefully engineered to ensure you get the optimum size battery, mounted in the most appropriate location under the bonnet.

Where necessary, TJM battery trays include sturdy mounting hardware to relocate under bonnet components that may interfere with the positioning of a second battery.

TJM battery trays are constructed from 2mm thick steel sheet and all TJM battery trays incorporate strategic folds and MIG welds which make them incredibly strong and able to withstand the toughest conditions. In addition to excellent structural strength, the TJM battery tray is electro coated black with corrosion resistances of up to 500 hours. The advantages of electro coating over powder coating is that it gets into all nooks and crannies and is harder to chip unlike powder coated varieties when knocked around.



If you want a good quality battery frame that lasts the distance, you can't go past a TJM battery tray.







**91**Camping Gear

# ENJOY A HASSLE-FREE NIGHT'S SLEEP IN YULARA OR BOULIA. YOU CHOOSE THE VIEW.

A Yulara or Boulia TJM roof top tent is always there - where you are.

And they're ready for a comfy night's sleep in just minutes.

You'll be nestled snugly on the 65mm built in high density foam mattress with a great view of the surroundings.

Your roof top accommodation will not only get you off the ground, it will also get you away from those annoying leaves, sticks, sand and nocturnal creepy crawlies that can ruin a good night's repose.

You'll also be sleeping secure as all TJM roof top tents and awnings are made from durable lightweight, waterproof poly cotton material, which with fully screened doors and windows, allow you to get the fresh open air you've come all the way to enjoy.

There's a built in sturdy aluminium ladder that takes you to ground level in a jiffy, where you can relax over a damper and billy of tea in the shade of an optional TJM awning.

#### **Roof top tents**

The TJM roof top tents and awning are ready within minutes, so you can relax and enjoy the outdoors.

There are certainly benefits to be enjoyed from highset camping, TJM style. The views are better, less sand gets transported into your tent and there's extra security, which let's face it, with Australia's abundant wildlife, this can make for a more restful night's sleep. Manufactured from durable high quality poly/cotton breathable fabric, your mould and waterproof TJM roof top tent fits neatly onto the roof of your 4WD. A sturdy aluminium retractable ladder allows for easy access. You don't even need to worry about inflating air mattresses as it comes with a 65mm high-density foam mattress with a removable cover. With fully screened windows and doors, it incorporates a pull-out veranda and optional zip-on annexe.

#### **Ready in minutes**

Setting up camp has never been so easy and after a long day travelling, why should it be hard?













Open size: 240 x 140 x 130cm Folded size: 120 x 140 x 28cm

- > Fly: 420D polyester pu2000mm, 100% water proof canvas (Ripstop)
- > Inner: Polyester/cotton 280g/m2 100% water proof canvas (Ripstop)
- > Pole: Aluminium pole 19mm/16mm/1.2mm
- > Base: Light weight, high strength aluminium base
- > Ladder: Extendable aluminium ladder (optional TJM ladder extension also available)
- > Mattress: 65mm high density foam mattress, 240 x 120cm size; polyester 50%, cotton 50%
- > Cover: 1000D water proof and rot proof polyester with PVC coating
- > Mosquito net fabric: Nylon, fire-resistant



Open size: 320 x 140 x 130cm Folded size: 120 x 140 x 28cm

The TJM Yulara is the larger of the two tents and features a large sheltered canopy over the tent entrance.

- > Fly: 420D polyester pu2000mm, 100% water proof canvas (Ripstop)
- > Inner: Polyester/cotton 280g/m2 100% water proof canvas (Ripstop)
- > Pole: Aluminium pole 19mm/16mm/1.2mm
- > Base: Light weight, high strength aluminium base
- > Ladder: Extendable aluminium ladder (optional TJM ladder extension also available)
- > Mattress: 65mm high density foam mattress, 240 x 120cm size; polyester 50%, cotton 50%
- > Cover: 1000D water proof and rot proof polyester with PVC coating
- > Mosquito net fabric: Nylon, fire-resistant







Raised climate cover sheet, controls temperatures and reduces condensation.



Dual pop-up window awnings.



Nylon mosquito net screens with YKK zips.



High quality, breathable poly/cotton fabric.



Sturdy and lightweight aluminium base.



Strong, retractable aluminium ladder. (Ladder extension also available for vehicles where the tent sits above 1.9M).



High density, 65mm foam mattress with removable cover.



The UV stabilized, water proof and rot proof PVC cover with YKK zippers keeps your tent well protected from the elements whilst not in use.

Made from the same durable material as the roof top tent, the TJM annexe makes a welcome addition to any camping adventure and is available for both varieties of TJM roof top tents.

The optional Yulara annexe to suit the Yulara roof top tent provides additional privacy, space and comfort with enough room to fit two stretcher beds without obstructing access to the roof top sleeping area.

The optional Boulia annexe (without flooring) to suit the Boulia roof top tent is also available.

#### Yulara annexe

- Durable flooring
- > Multiple breezeway options for maximum airflow
- > Each flyscreen has zip up protection or can be rolled up where necessary
- > 2x windows
- > 1x vehicle access door
- > 1x entry door

#### **Boulia annexe**

- > Multiple breezeway options for maximum airflow
- > Each flyscreen has zip up protection or can be rolled up where necessary
- > 2x windows
- > 1x vehicle access door
- > 1x entry door







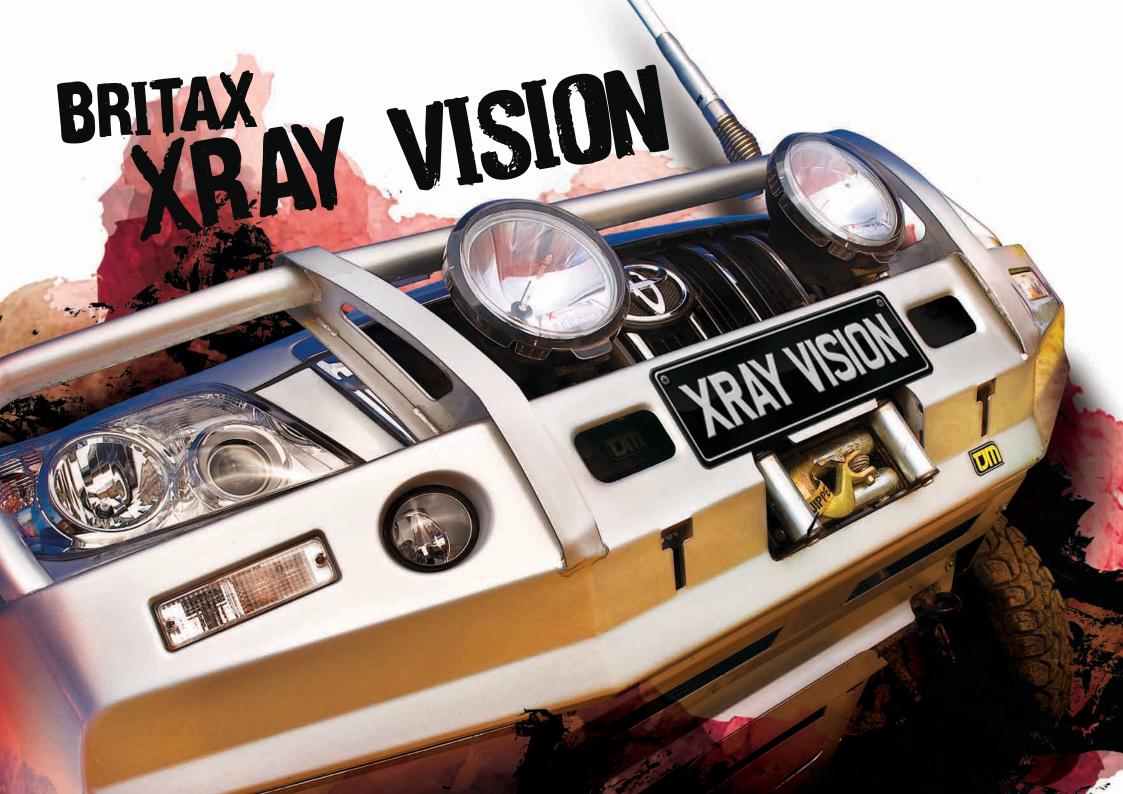




The awning is so easy to set up that you don't have to wait to go camping. It provides the ideal UV shade for sport spectating, BBQs or day trips. Available in two sizes, the shade is self-standing, height adjustable and easy to setup. Completely waterproof, the PVC coated polyester shade provides the perfect weather protection.



- Available in 2000mm or 2500mm sizes.
- > Self-standing, height adjustable & very easy to deploy.
- > PVC coated polyester shade cover provides UV protection & is completely water resistant.
- Guy ropes & pegs supplied for windier conditions.
- > Awning secured in a durable nylon reinforced PVC bag.



99 Lighting

## SEE YOUR OFF-ROAD ADVENTURING IN A WHOLE NEW LIGHT.

No amount of vehicle protection will save you if you can't see where you are going! This is why TJM stocks and recommends the superb range of Xray Vision driving lights, Xray Vision HID conversion kits, Xray Vision performance quartz halogen upgrade globes, plus a variety of Britax and Code3® emergency lighting systems to suit any application and any type of vehicle.

The Xray Vision driving light range is based around precision computer-aided manufacturing to maximize build quality, light output and beam pattern accuracy. Available in sizes of 160mm, 200mm and right up to 220mm in diameter, there's an Xray Vision driving light to suit any vehicle size and shape. Complementing the range of driving lights are the range of Xray Vision HID conversion kits and quartz halogen upgrade globes - both of which will boost the performance of your vehicle's existing quartz halogen lights in a way that has to be seen to be believed! The emergency lighting systems range from simple rotating beacons to state-of-the-art LED lightbars - all from the Britax and Code3 brands that supply products to around 85% of Australia's Emergency Services vehicles.

So whether you want to see or be seen, TJM has the premium quality lighting equipment you need for your 4WD adventures!



#### Precision built driving lights for maximum performance.

Built tough to suit Australian conditions, Xray Vision lights are formed from die-cast alloy and stainless steel for maximum strength and durability. Xray Vision lights also utilise state-of-the-art manufacturing processes to produce die-cast alloy free-form reflectors that are then vacuum aluminised to give a flawless mirror finish. The free-form reflectors in true spread and pencil beam patterns combine with optics-free hardened quartz glass lenses and a calibrated focal point to produce driving lights without compromise.

Xray Vision lights are available in both High Intensity Discharge (HID) and high output quartz halogen (QH) globes. HID systems are 12 and 24 Volt compatible and feature an internal ballast and a 50W Xenon HID globe. Xray Vision HID lights produce over five times the light output of a standard quartz halogen while consuming slightly less power. Xray Vision QH lights use premium quality quartz halogen H1 100W 12V European globes.

The hardened quartz glass in Xray Vision lights are available in clear lens for maximum light output, and blue lens that produces a whiter light (higher Kelvin rating) and creates sensational aesthetics for your vehicle. Xray Vision lights come standard with a hardened polycarbonate 360 degree clip-on cover—giving you seriously tough light protection.

#### Features of the Xray Vision driving light range:

- > Die-cast alloy body (160, 200, 200-C & 220)
- > Stainless steel body (160-S)
- > Stainless steel hardware
- > Die-cast alloy vacuum aluminised free-form reflector
- > Free-form spread or pencil beam options available
- > Optics-free hardened quartz glass lens
- > Lens available in clear or blue
- > Pivoting ball joint mounting
- > HID: 50W Xenon globe with internal 12/24 Volt ballast
- > QH: European guartz halogen H1 100W 12 Volt globe
- > Clear polycarbonate protective cover included

#### Applications of the Xray Vision driving light range:

> Pencil Beam

For long distance: open highway, high speed driving

> Spread Beam

For width and height: turning, hilly roads, off-road, beach driving

> Clear Lens

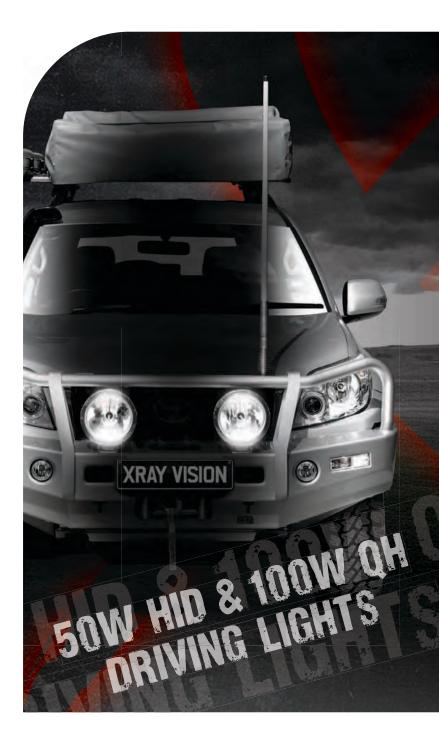
For maximum distance: open highway, high speed driving

> Blue Lens

For better penetration: rain, mist, fog, poor visibility

Xray Vision lights are often fitted as a pair (one pencil and one spread beam) to give you the advantages of both beam types.





#### Body & Rim

#### Die-Cast Alloy:

- > Strong design, high resistance to vibration and corrosion
- Sleek black finish
- > Chrome body on 200-C Series
- > Various sizes available: 160mm, 200mm and 220mm
- > Bottom breather hole

#### **Polished Stainless Steel:**

- > Robust design, high resistance to vibration and corrosion
- > Available in 160mm as 160-S Series

- > Die-cast alloy free-form reflector
- > Vacuum aluminised flawless mirror finish
- > True pencil and spread beam patterns: no lens optics or clip-on spread beam covers that reduce light output
- > High quality finish and design for maximum light projection, very stable against heat, vibration and corrosion
- > Full surround die-cast alloy globe holder
- Maximum strength and protection against dust and dirt reaching reflector

- > Optics-free hardened quartz glass lens
- > Reduces light distortion
- > High heat and UV resistance
- > LED position ring standard on 200 and 200-C Series
- > LED position plate standard on 220 Series
- > Blue lens provides high quality colour filtering with minimum output loss



#### See beyond the surface and discover that these lights are not just ordinary lights!

From the high quality materials, to the exceptional level of manufacturing craftsmanship, Xray Vision lights are built tough from the inside out! And with 100W standard across the guartz halogen range, and 50W standard across the entire HID range, you really will be able to see the difference, and see beyond.







- > Pivoting ball joint mounting system
- > Stainless steel fittings
- > Easy single point adjustment
- > High security
- > No screws to shake out, high resistance to vibration
- > Security lock nuts available

#### High Intensity Discharge (HID)

- > Standard HID 4200K 50W globe
- > Internal 12/24 multivolt ballast
- > Improved clarity in all conditions
- > Gasket sealed installation
- > Stainless steel fittings
- Internal wiring protected by body

#### Quartz Halogen (QH)

- > European H1 12V 100W QH globe
- High output
- > Readily available

- > Clear hardened polycarbonate cover
- > High resistance to UV, scratching and shattering
- Minimal light distortion
- > 360° water and dirt protection
- > Cover well supported against impact



#### 1. 220 Series (50W HID & 100W QH)

- > Exclusive LED position plate creates a unique appearance
- > Available in 50W high intensity discharge or 100W quartz halogen
- > Coloured rims available
- Dimensions: W 218mm X H 237mm X D 132mm

#### 2. 200 Series & 200-C Series (50W HID & 100W QH)

- Distinctive LED position ring for safety and looks
- > Available in 50W high intensity discharge or 100W quartz halogen
- › Available in black and chrome body
- Dimensions: W 205mm X H 221mm X D 138mm

#### 3. 160 Series (50W HID & 100W QH)

- Compact yet extremely powerful
- > Available in 50W high intensity discharge or 100W quartz halogen
- Die-cast alloy body tough and corrosion resistant
- Dimensions: W 166.4mm X H 191.2mm x D 134mm

#### 4. 160-S Series (100W QH)

- > Ultra compact and great value 100W quartz halogen
- > Polished stainless steel body
- Dimensions: W 160mm X H 183mm x D 102mm







#### **Xray Vision Quickfit Wiring Harness**

- > Wiring harness is easy to install and includes an illuminated switch, fused relay, and universal headlight adaptor
- > Internal electronics suits ALL Australian, European and Japanese positive or negative switching systems
- > No test equipment required for correct connection and operation
- > No polarity checking or switching required

#### **Xray Vision Security Locknut Set**

- > Includes two stainless steel lock nuts to secure one set of 160, 200, 200-C or 220 Series Xray Vision driving lights (doesn't suit 160-S Series)
- > Specially shaped socket adaptor to suit lock nuts included
- > Helps to deter theft without detracting from the look of the setup
- > Simply bolts on to the driving light mounting through-bolt in place of the standard nut



### High calibre quality controlled HID conversion kits for maximum performance.

Unlike almost all HID kits that can be bought over the Internet, Xray Vision HID conversion kits are custom manufactured to exacting standards - standards that exceed even the OEM requirements for HID stipulated by the likes of BMW or Mercedes. It is this exceptional level of quality control that makes the Xray Vision HID conversion kits the best and brightest currently available on the Australian market.

Available in 35 Watt and 50 Watt versions, Xray Vision HID conversion kits come standard with 6000K globes, but also have the option for OEM standard 4200K globes in a massive range of base types. See the charts on the opposite page to find the kit that best suits your application.

#### Features of the Xray Vision HID conversion kit range:

- Kits include 2x ballasts, 2x HID globes, 2x starters and wiring
- Can be used to replace any existing quartz halogen globe in most original base types - including H4 high/low beam technology
- 35 Watt kits feature micro ballasts that can fit into small spaces
- 35 Watt kits output around three times the light output of a standard 55 Watt quartz halogen headlight globe
- 50 Watt kits output around five times the light output of a standard 55 Watt guartz halogen headlight globe
- Kits come standard with either 6000K globes (close to daylight) or 4200K globes (equivalent light colour to OEM headlights)
- > Kits not ADR approved for on-road use



#### **35W High Intensity Discharge Conversion Kits**



Each 35W HID kit contains 2 x micro ballasts, 2 x igniters, 2 x HID globes and wiring harness Other conversions available. Not ADR approved for road use.

- These HID kits are suitable for most compact and internal fitments, including Hella Rallye 4000, Lightforce XGT and others
- New Soft Start technology means increased switching speed whilst reducing flickering with low EMI ballast units
- Sealed electrical connections with improved protection from moisture, dust and insulation break down
- HID burners with improved focal point accuracy and lumen output
- 6000K and 4200K OEM colour options for a large range of base types
- Spare parts available for all kit types including replacement HID bulbs, ballasts and accessories

- H4 kits feature improved compatibility for ALL vehicle types in 12V and 24V with higher speed switching and improved lighting pattern
- The H4 kits also feature accurate low beam cutoff for improved oncoming driver protection
- H4 kit lighting system load sensing (DLLOAD) and high beam indicator fault load cancellers (HID-CWC) are available
- 35W Ballast Dimensions:H 13mm x D 85mm x W 63mm
- Slimline Starter and HID burner
- Current draw: run 3A@12V, start-up 6A@12V

#### **50W High Intensity Discharge Conversion Kits**



Each 50W HID kit contains 2 x slimline ballasts, 2 x igniters, 2 x HID globes and wiring harness Other conversions available. Not ADR approved for road use.

- These HID kits are suitable for external fitment and not recommended for plastic reflectors or lights under 120mm diameter
- New Soft Start technology means increased switching speed whilst reducing flickering with low EMI ballast units
- Sealed electrical connections with improved protection from moisture, dust and insulation break down
- HID burners with improved focal point accuracy and lumen output
- 6000K and 4200K OEM colour options for a large range of base types
- Spare parts available for all kit types including replacement HID bulbs, ballasts and accessories

- H4 kits feature improved compatibility for ALL vehicle types in 12V and 24V with higher speed switching and improved lighting pattern
- The H4 kits also feature accurate low beam cutoff for improved oncoming driver protection
- H4 kit lighting system load sensing (DLLOAD) and high beam indicator fault load cancellers (HID50-CWC) are available
- 50W Ballast Dimensions:H 18mm x D 110mm x W 65mm
- Current draw: run 4.2A@12V, start-up 8.4A@12V





#### Superior quality upgrade globes for maximum performance.

The Xray Vision range of performance upgrade quartz halogen globes are designed to provide superior light output and light colour over standard quartz halogen globes without using any additional power and remaining legal for use on Australian roads.

These performance globes use a heavier duty filament that is thicker, stronger and has additional turns. They also have a superior mix of gases including Xenon, argon and crypton (all at much higher pressure) that are contained in a higher quality silica glass that is stronger and thicker to cope with the increase in temperature and pressure.

The performance upgrade globes range from quality OEM replacement globes, the amazing output of the Plus50% Outback globes, to the crisp white output of the Xray Vision Extremes. Features of the Xray Vision performance quartz halogen range:

- > Improved light output and colour
- > High performance without additional power usage
- > UV cut and safe for use in polycarbonate headlights
- > Clear glass on some models provide maximum output
- > Blue tinted glass on some models provides whiter output
- OEM and Outback globes feature clear glass and a grey cap
- > Crossover globes feature split colour tinting and a chrome cap
- > Escape globes feature light blue tinting and a chrome cap
- > Extreme globes feature dark blue tinting and a blue cap

Applications of the Xray Vision performance quartz halogen range:

- > Xray Vision OEM Standard OEM quality fitment for general purpose use
- > Xray Vision Outback Long distance and high output for country and highway driving
- > Xray Vision Crossover Sharp white performance vision for country and coastal driving
- > Xray Vision Escape Ultra white all-rounder for city and coastal driving
- > Xray Vision Extreme Extreme white for city and poor visibility all-weather driving





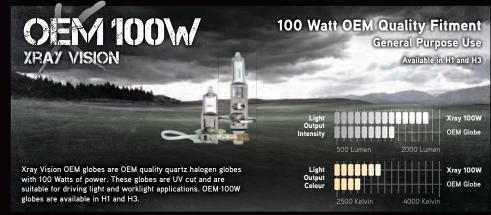






An overview of the Xray Vision performance quartz halogen globe range is on the opposite page.















#### State-of-the-art emergency systems for maximum performance.

TJM has the same range of Britax and Code3® emergency lighting systems that is used by over 85% of Australia's Police, Fire and Ambulance services—so you can be sure that you are buying the best quality with the best design features and latest technology.

Whether you use your 4WD for work, or visit places such as open-cut mines or construction sites (or any other other application where you need warning or visibility signals), TJM has the equipment to keep you covered! TJM's range of emergency products includes quartz halogen rotating beacons, LED beacons, minibars, surface mount LEDs, plus a range of customisable lightbars that can include options such as quartz halogen rotators or state-of-the-art high output LED systems.

With a range of mounting options and configurations available, talk to your local TJM representative about the right solutions for your vehicle and application.



The Britax and Code3 range of products is vast and comprehensive, so here's just an overview of some of the main product groups featuring some key products (shown on the opposite page) that are most commonly fitted to 4WD vehicles:

#### 1. LED Beacons

The LED range of beacons are solid state making them highly resistant to vibration, shock, dust and moisture. LED beacons use a very small amount of power, and have a long service life with no globes to replace. These beacons have a variety of flash patterns built-in, with some featuring a unique simulated rotate flash function.

#### 2. LED Minibars

The LED range of minibars feature all the same benefits as the LED beacon range with the added advantage and visibility of multiple LED modules around the perimeter.

#### 3. Quartz Halogen Rotator Beacons

The quartz halogen range of rotating beacons are classic in design and function providing excellent visibility and long lasting construction. Beacon lenses are all made from impact resistant polycarbonate that also provide remarkable colour intensity.

#### 4. Twin Quartz Halogen Rotator Minibars

The quartz halogen minibars feature all the benefits of the rotator beacons with the added visibility of dual rotators and a flat mirror that creates a 'wig-wag' effect.

#### 5. Surface Mount Perimeter LEDs

Surface mount LEDs are ideal when additional marking is required, or where there is not enough space to mount larger beacons or lightbars. Britax and Code3 surface mount LEDs are high quality, low current draw and extremely bright when lit.

#### 6. Dual Deck and Low Profile LED Lightbars

Available in pre-configured or fully customised variations, these lightbars can feature halogen rotators, LEDs or a combination of both. The low profile versions feature a sleek design, high powered LEDs, and slim aerodynamic styling. With aluminium chassis and polycarbonate UV resistant lenses, these lightbars are extremely robust.

#### 7. LED, HID and Quartz Halogen Worklights

The worklight range is high quality and very comprehensive, ranging from cost effective quartz halogen floodlights to state-of-the-art LED and HID technologies. The range has products to suit any application in terms of size, output levels, current draw and beam pattern. All are available in flood, with some also available in spot or combination beams.







**LED Beacons:** CL199 and LSS222 ranges of beacons are available in a selection of colours and mounting types such as flange mount or suction magnetic base.







3

**Quartz Halogen Rotator Beacons:** massive range including the 320-00.



**Quartz Halogen Rotator Minibars:** lots of models including the 420-00-12V.

7



**Surface Mount LEDs:** many types available including the XT Series.



**Lightbars:** models such as the X314 080 40606 include QH rotators, high output LEDs, various colours, and an illuminated centre with the option for custom signage.



**LED, HID and QH Worklights:** including the WL515F-LED, WL618F-LED and WL730F-LED are robust, powerful and versatile, with models to suit any application.



**111**General
Accessories

# EVERYTHING UNDER THE SUN, ALL UNDER ONE ROOF.

At TJM we think your 4WD shopping experience should be as much a part of your adventure as discovering what the Kimberley has to offer.

That's why we stock practically everything 4WD under the sun.

If we haven't got one, you probably don't need it.

Everything from a Jerry can to a GPS system can be found at one of our TJM outlets.

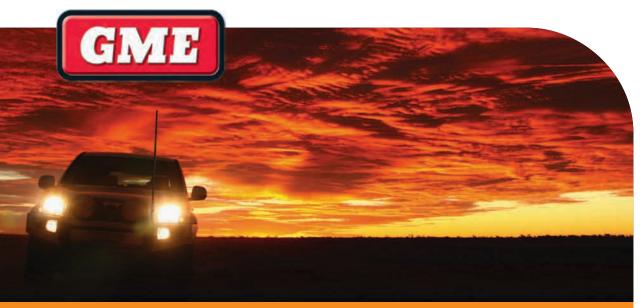
Looking for a radio or aerial? We've got 'em.

Seat covers, floor mats, air compressor, flares from TJM, plus the top brands in roof rack systems, fridge/freezers, water tanks, disc brakes, DVD players, reverse cameras, TV screens and electronic rust protection.

Stone the crows! You better allow plenty of time on your next visit to a TJM store. With this many accessories to choose from, you could be spending plenty of quality time with one of our savvy customer service team.

They like to spend as much time enjoying 4WDriving as you do, know all our accessories backwards, frontwards and sideways and will set you up with the correct gear.

We aim to make your shopping experience at a TJM store as rewarding as your next 4WD adventure. Only you won't have to drive as far to find what you need.



### TRUST AUSTRALIAN MADE





### Introducing the TX3500 series & TX4500

With the introduction of the narrow band 80 Channel UHF CB service in 2011, the GME TX3500/TX4500 series represent the first Australian radios specifically designed to the new ACMA standard.

Fully engineered and manufactured in Australia with a host of evolutionary features newly developed by GME's highly experienced two-way radio R & D team. Industry firsts that not only differentiate the GME brand from the competition, but take advantage of the latest digital technology to ensure ease of operation and optimum performance across all 80 channels.

Unique and practical benefits include GME's Full Spectrum Backlighting, the amazing interference suppressing Advanced Signal Management System, the highly effective Dynamic Volume Control and

#### Full spectrum backlighting



voice inversion scrambling options. GME also retains all the key attributes that have long been associated with our robust and tough locally manufactured radios like Open/Group scan, Sellcal, CTCSS and a full 3 year parts and labour warranty available through GME's nationwide service network.

The TX3500 series and its DIN sized companion the TX4500 provide an 80 channel solution to suit every application and installation requirement; built specifically for the harsh Australian conditions where durability and reliable communications are paramount, the TX3500/TX4500 series epitomises GME's long standing reputation for innovation, quality and value for money.

#### TX3500

#### Compact 5 watt UHF CB radio

The latest in Digital Signal Processing Technology ensures the TX3500 offers superior performance and features compared to radios which use conventional analogue technology.

Simple, practical and affordable the compact, rugged TX3500 is ideally suited to harsh operating environments. The unique slide in mounting cradle makes installation simple and the solid die cast chassis is built to last.



#### **Features**

- User adjustable full spectrum LCD backlight
- Advanced signal management
- > Dynamic volume control
- Rotary squelch, channel and volume controls
- Open and group scan

- Rear mic option
- > CTCSS and DCS
- Duplex
- > Graphic signal strength meter
- 19 dealer programmable extra receive channels
- 3 year warranty



#### Full spectrum backlighting

User adjustable, totally customisable backlight settings provides smooth blending of brightness, colour and

saturation to match the vehicle's dashboard lighting or to suit the driver's preference.



#### Pure sound

DSP measures, filters and compresses standard analogue radio signals and converts them to a digital format. GME

DSP has eliminated much of the conventional processing and time consuming manual alignment, resulting in enhanced audio quality and a constant performance over the full 80 channels.

#### TX3510

#### Compact and fully featured 5 watt UHF CB radio

The compact fully featured TX3510 has an impressive list of both advanced and standard features, many of which have never been seen before in a UHF CB Radio. With the latest in DSP technology providing a comprehensive feature set coupled with rugged construction, ease of installation and renowned GME reliability, the TX3510 has rewritten the standard for UHF CB radios



#### **Features**

- > User adjustable full spectrum LCD backlight
- Advanced signal management
- > Dynamic volume control
- Voice inversion scrambler
- > Rotary squelch, channel and volume controls
- Open and group scan
- > Rear mic option

- > Memory channel guick select
- > CTCSS and DCS
- Duplex
- > 5 digit selcall with guiet mode
- > Digital signal strength meter
- > 95 user programmable extra receive channels
- 3 year warranty

#### TX3520

#### Compact & fully featured remote mount 5 watt UHF CB radio

The TX3520 displays the same rugged construction, comprehensive feature set and renowned GME reliability as the TX3510. The remote head allows for an aesthetically pleasing, easy installation. especially when space is limited, which is often the case in today's modern vehicles.



#### **Features**

- > User adjustable full spectrum LCD backlight
- Advanced signal management
- > Dynamic volume control
- Voice inversion scrambler
- > Rotary squelch, channel and volume controls
- Open and group scan
- > Rear mic option

- > Memory channel guick select
- > CTCSS and DCS
- > Duplex
- > 5 digit selcall with quiet mode
- > Digital signal strength meter
- > 95 user programmable extra receive channels
- 3 year warranty

#### TX3540

#### Compact & fully featured remote mic 5 watt UHF CB radio

The TX3540 is the flagship of the TX3500 family, its feature set is similar to the TX3510 and TX3520. The full function LCD remote microphone provides the ability to control all the radio's features in the palm of your hand, and is the ultimate 'space saver'.



#### **Features**

- > User adjustable full spectrum LCD backlight
- Advanced signal management
- > Dynamic volume control
- Voice inversion scrambler
- Adjustable squelch
- Open and group scan
- > Rear mic option

- Memory channel guick select
- CTCSS and DCS
- Duplex
- > 5 digit selcall with guiet mode
- > Digital signal strength meter
- > 95 user programmable extra receive channels
- 3 year warranty



#### Advanced signal management

Intelligently recognises and suppresses interference caused by unwanted signals on adjacent channels to avoid

triggering the squelch control. ASM also minimises on reception distortion by matching the receiver frequency to the incoming signal.

A unique GME feature that is critical to the optimum performance of 80 channel radios. Ensuring that incoming signals remain interference free, clear and undistorted even if they are slightly off-frequency.



#### Dynamic volume control

Signal modulation levels of signals can vary considerably resulting in noticeable differences in received volume between

channels. With the introduction of 80 channel narrowband transmissions, the disparity in audio volume will increase further.

GME's DVC automatically compensates for variations in received audio level. When activated, this feature provides a constant audio output level greatly enhancing the quality of reception and simplicity of use.



#### Voice inversion scrambler

User selectable voice inversion scrambler will make your voice intelligible to other users not using the

same scrambler technology, providing a new level of privacy.



#### Front & rear mic input

To facilitate ease of installation and operation across a broad range of private and commercial vehicles. GME

has conveniently provided a microphone input socket on both front and rear panels.



#### Warrantv

Built in Australia for Australasian conditions. However, should there ever be a problem with any GME fixed

mount UHF CB Radio, GME offers a no fuss, no guibble warranty. With service centres throughout the country, assistance is always available.

#### TX4500 DIN size fully featured 5 watt UHF CB radio

The TX4500 is DIN sized and ideal for installations that require this international size standard. The DIN mounting kit is supplied and its compact depth design allows for easy installation in confined spaces. The combination of front facing speaker, large LCD screen, rotary volume, channel and squelch controls, and the advanced features provided by the use of the latest in DSP technology, make the TX4500 the radio of choice for many traditional CB markets.

#### **Features**

- > User adjustable full spectrum LCD backlight
- Advanced signal management
- > Dynamic volume control
- Voice inversion scrambler
- > Large high contrast wide angle LCD display
- > Front facing speaker
- > Rotary squelch, channel and volume controls
- Open and group scan

- > Rear mic option
- > Memory channel quick select
- CTCSS and DCS
- Duplex
- > 5 digit selcall with guiet mode
- > Digital signal strength meter
- > 95 user programmable extra receive channels
- 3 year warranty





















Full spectrum backlighting

**Pure sound** 

Advanced signal management

Voice inversion scrambler

Front & rear mic input

Warranty

MODELS	TX3500	TX3510	TX3520	TX3540	TX4500
RF output (watt)	5	5	5	5	5
No. of channels	80	80	80	80	80
Full spectrum backlighting	•	•	•	•	•
Digital signal processing	•	•	•	•	•
Advanced signal management	•	•	•	•	•
Dynamic volume control	•	•	•	•	•
Voice inversion scrambler		•	•	•	•
Open and group scan mode	•	•	•	•	•
User selectable wide/narrowband receive filters	•	•	•	•	•
Selectable priority channel	•	•	•	•	•
Memory channel quick select		•	•	•	•
Active channel transmit in scan	•	•	•	•	•
Selectable duplex channel	•	•	•	•	•
Selcall (5 Tone)		•	•	•	•
Auto number ID (ANI)		•	•	•	•
Alpha labelling (selcall)		•	•	•	•
Quiet mode		•	•	•	•
CTCSS/DCS	•	•	•	•	•
Digital signal strength meter		•	•	•	•
Graphic signal strength meter	•				
Rotary channel selector	•	•	•		•
Push button channel selection				•	
Rotary volume control	•	•	•		•
Adjustable squelch control	•	•	•	•	•
Front mounted speaker					•
Dealer programmable extra receive channels	•				
User programmable receivable frequencies		•	•	•	•
No. of receive only channels/banks	19/1	95/5	95/5	95/5	95/5
Dealer adjustable front/rear microphone sensitivity	•	•	•	•	•
External speaker socket	•	•	•	•	•
Memory channel quick select		•	•	•	•
Remote mounting			•	•	
Die-cast chassis	•	•	•	•	•
Slide-in mounting cradle	•	•	•	•	
Front and rear microphone input	•	•	•	•	•
Dimensions (HxWxD mm)	29x128x117	29x128x117	29x128x117	29x128x117	52x172x105
Warranty period (yrs)	3	3	3	3	3

#### TX3100 5 Watt 40 channel UHF CB radio



The latest addition to the GME range, its super compact size and innovative 'flip' feature make for easy installation. Incorporating the latest Digital Signal Processing technology the introduction of the TX3100 marks the dawn of a new era in UHF communications.

#### **Features**

- > Unique 'flip' feature for flexible mounting
- > Powered by 'Pure Sound' DSP engine
- Advanced signal management
- > Dynamic volume control
- > User adjustable squelch
- > User selectable duplex channels
- > Programmable scan function
- > 50 in-built CTCSS codes, 104 in-built DCS codes
- > High contrast LCD display







Advanced signal management



3 uear



TX3340

5 Watt 40 channel remote mic UHF CB radio



The TX3340 is a feature packed super compact radio with the same Digital Signal Processing technology found in the TX3100. The remote LCD controller microphone allows it be unobtrusively mounted in modern vehicles. The extremely small radio case allows it be mounted in almost any location.

#### **Features**

- > Full function LCD microphone
- > Powered by 'Pure Sound' DSP engine
- Advanced signal management
- > Dynamic volume control
- User adjustable squelch
- > User selectable duplex channels
- > User selectable open and group scan
- > 50 in-built CTCSS codes, 104 in-built DCS codes
- > 5 digit selcall with quiet mode
- User selectable priority channel



Pure sound



signal

management







Dynamic control

477 MHZ SUPER COMPACT UHF RADIOS



#### Oricom UHF CB Radios.

#### 77 channel ready. Choose more channels now.

UHF communications across our wide brown land are opening up, so whether you drive the cities or the outback, choose Oricom UHF CB. 77 channel ready with clarity, long range and reliability. Designed to perform right here in Australia. Real value communication you can rely on wherever you go, day after day.

Oricom's range of In-vehicle and Hand-held UHF CB radios carry a 3 year warranty for added peace of mind.

Oricom. Connecting you now.



#### UHF180/UHF280 5watt Remote mount/Mic. CB Radios

- Ultra compact remote head and transceiver (UHF180)
   Heavy Duty controller speaker microphone (UHF280)
- > 77 Channels
- > Wide band scanner (400-512MHz)
- > 8500+ receive frequencies
- > 200 programmable receive only channels
- > 5 digit Selcall ID with alpha display
- Tri colour backlit LCD display (amber/red/green)



#### UHF088 5watt Din sized UHF CB Radio

- > 77 Channels
- 60 user programmable receive channels
- Duple
- Multi-colour backlit LCD display (amber/green)
- > Heavy duty microphone plug
- > Open/Group/Priority scanning
- Microphone with backlit keys





Choose an Oricom handheld UHF CB radio that best suits your needs and activity. If you are a serious outdoor enthusiast, tradesperson or are planning a road trip, you are sure to find what you need in the Oricom range.



#### **UHF2180 2watt UHF CB Radio**

- > 77 Channels
- > Range up to 10km
- > 38CTCSS and 83 DCS codes
- Duplex



#### **UHF1280 UHF CB Radio**

- > 77 Channels
- > Range up to 7km
- > 83 DCS codes
- Duplex



#### **UHF780 UHF CB Radios**

- > 77 Channels
- > Range up to 3km
- > Compact & light weight
- > Duplex

- → 3 Year Warranty
- → 100% Australian Owned company



### Super Adaptable... The Whispbar roof racks are super adaptable. The innovative Smartfoot system adapts and transfers simply to virtually any vehicle, making it easy and inexpensive to fit to a different car. Smart-foot™ technology The innovative Smartfoot system adapts and transfers simply to virtually any vehicle, making it easy and inexpensive to fit to a different car. Oh, and did we mention locks are standard so your bars are secure? Whispbar roof racks give maximum peace of mind, safely locked onto your vehicle so they're always there when you come to drive home. **Features** > 50KG per bar Load rating. Refer to your vehicle manual/ manufacturer for your vehicles recommended capacity > Accepts Whispbar HD & most Rhino commercial accessories > Fitments for most vehicles **Factory point mount** Track mount Rail mount **Gutter mount Clamp mount**

know it's there.

Whispbar roof bars - the quiet choice

Being forced to listen to the whistle of your roof racks on a long road trip is not a pleasant experience. Relax, we've solved the problem with Whispbar. The amazing Whispbar is the world's first truly quiet

removable roof rack, making your journey much more enjoyable. Whispbar is so quiet you won't even

#### THE WORLD'S ONLY QUIET PROFESSIONAL ROOFRACK

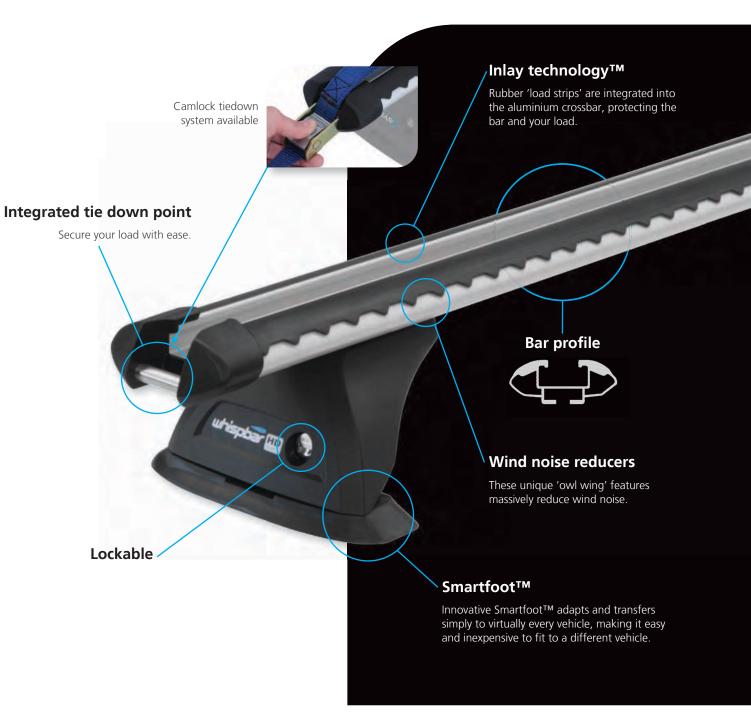




Whispbar HD (Heavy Duty) roof racks are built for maximum performance and minimum fuss. The roof rack crossbars are a tough aluminium profile with a universal channel to accept many heavy duty roof rack accessories. Inlay Technology protects the bar and the load to give these heavy duty roof racks maximum performance day in day out!

#### Whispbar HD accessories









#### **OA7MCS**

#### 2 Way Reverse Camera System

This 2 way system includes one CCD camera for the rear of your caravan or motorhome, providing you with the confidence of knowing your surroundings while driving or reversing. Take advantage of the dual AV input by adding another camera of your choice to complete the system.

_		
Screen		

- > 7" Screen
- Dual AV Input (Including Dual Camera Capability)
- › Auto Remote on
- > Dash Mount

#### Camera

- > Infrared Night Vision
- > Adjustable Gimble
- > Heavy Duty Housing
- Microphone

#### OA7C

#### 2 Way Reverse Camera System (Industrial/Commercial)

This two way system boasts a heavy duty, 7" Screen and one CCD camera, with the option of adding another camera of your choice. Ideal for commercial or industrial applications such as trucks, trailers and mining equipment.

#### Screen

- > 7" Screen
- Dual AV Input (Including Dual Camera Capability)
- › Auto Remote On
- Dash Mount

#### Camera

- > Infrared Night Vision
- › Adjustable Gimble
- Heavy Duty Housing
- Microphone

#### **OA485CS**

#### 4 Way Reverse Camera System

The OA485CS is the most versatile and cost effective solution to make your next road trip enjoyable and safe. The perfect accessory for your truck, motorhome, caravan, car and trailer, the OA485CS comes with a large 9" screen, two side mountable cameras and the choice of a square mount or dome mount camera. Plus all the accessories necessary for your perfect rear vision solution.

#### Screen

- 9 "Screen Displays Multiple Views
- > Four AV Input
- Auto Remote On
- > Dash Mount

#### Camera

- Infrared Night Vision
- › Adjustable Gimble
- > Heavy Duty Housing
- Microphone



#### **OA9SV**

#### 9" Replacement LCD Monitor Sun Visor

The latest craze in LCD screens is the OA9SV. The 9" LCD screen is built into a sun visor mould replacing the vehicles original visor mirrors. The sun visor can be neatly tucked away when not in use and gives the driver and passenger the opportunity to watch a movie or to be used for reverse camera operation.



#### OA70HR

#### 7" LCD Monitor

The OA70HR is one of Option Audios most versatile products. Adaptable for many applications such as reverse cameras, in car headrest displays plus mobile homes and caravans.

- > Dual AV inputs
- > Integrated IR transmitter
- › Auto remote on







#### **OA439GPS**

#### 4.3" LCD Rear View Mirror with Bluetooth & GPS

Looking in your rear view mirror is part of everyday driving, so why not use it for reversing, mobile phone use and even GPS? The integrated features include on board GPS system, Hands free Bluetooth, Reverse Camera input, parking sensor input and multimedia storage. The OA439GPS now also comes with free CMOS Butterfly Mount Camera (OABCAM).

- > Touch Screen
- > Built-in GPS
- Bluetooth

- > Reverse Camera Input
- Multimedia Storage
- > Parking Sensor Input



#### **OA43RMPK**

#### 4.3" Rear View Mirror Pack with Bluetooth & Camera

The OA43RMPK displays your camera image conveniently in your rear view mirror. Avoid the clutter of screens on your dash, by simply clipping the OA43RMPK rear view mirror over your original mirror and connecting to power. This pack also comes with free CMOS Butterfly Mount Camera (OABCAM).

> Dual AV Input

- › Auto remote on
- Mirror entirely reflective until screen switched on
- Bluetooth





#### **VMS Touring 500S**

In 2006, VMS pioneered the first REAL 4x4 GPS by combining street maps with off road maps. We have continuously improved on our products ever since. Now in 2010, the all new Touring 500S will set the benchmark again.

#### The Touring 500S is the first portable GPS to:

- > Include 580+ off road maps from iTOPO and Gregory's
- > New easy to use off road software from Mud Map
- > Latest maps guaranteed
- Outback tested reliability with 2 year warranty



#### **VMS Touring 600**

The Touring 600 features the largest screen of any 4x4 GPS on the market, at a whopping 6" inches, yet it's 25% slimmer compared to the Touring 500S. Not only is the screen larger, it is also much more visible in sunlight thanks to an improved anti reflective coating.

- > 6" (152.4mm) anti glare display
- Street navigation
- > Easy to use 4x4 software
- Touchscreen display
- > Reversing camera
- > Lithium polymer rechargeable battery
- > 2GB on board memory (pre loaded with Street Nav)
- > 4GB SD card (pre loaded with off road maps)
- > 64 channel high sensitivity GPS receiver







#### VMS Touring 7500

The Touring 7500 series has been designed to have a similar appearance to the original vehicles system but with many more features. It integrates seamlessly with all the original factory electrics such as wheel controls, without the need for added modules. The unit has also been designed with the original dash aesthetics and retains the factory look and feel of the vehicle. With a massive 8 inch HD touchscreen, the system features excellent street navigation with the latest Where IS maps together with powerful Off Road GPS, and a comprehensive collection of the best 4x4 maps from Gregory's and iTOPO.

- > Street Navigation
- > HD display 800x480
- > Touchscreen Display
- > Easy to use 4x4 software
- Total iPod connectivity
- > Caller ID bluetooth handsfree
- Reversing Camera

- > Bluetooth Phone Connectivity
- > RDS AM / FM Radio
- > DVD / CD Player
- Rear Seat Monitor support (Dual zone ready)
- > MP3 Player / USB support
- > Plug n Play wiring



**Ford Ranger** 



Mitsubishi Pajero



Disc Brakes Australia is an Australian-owned manufacturer of high performance disc rotors internationally recognized for its innovation and expertise in the brake industry. The company manufactures its range of rotors to industry-leading standards and certification (ISO 9001and TUV). DBA's attention to detail, commitment to braking technology, innovation, and customer focus makes the role of the retailer and technician easier, and ensures ultimate performance, quality and security to every road user.

DBA is the consumer's best choice for high performance disc brake rotors. The company's technical expertise provides solutions that deliver superior performance for severe duty and high energy applications.

DBA introduces the all new DBA 4x4 Survival Brake Series TM range of enhanced performance rotors, addressing one of the most overlooked road safety issues: the stopping performance of four-wheel drives. DBA has successfully applied their award-winning braking technology to improve the braking performance of hardcore 4WDs, SUVs, and the so-called soft-roaders under all situations. Braking performance is defined by DBA as more than just reducing braking distance, but also includes: quicker stopping and improved pedal feel, even pad wear, reduced fade and cooler running for better durability.







#### **Improved Braking Performance**

DBA's Survival 4x4 Brake Series TM features directional slotting on both faces of each disc, providing a great deal more pad bite to pull the vehicle up more swiftly. The slots also rapidly clear dirt and water, which is especially important in off-road situations, and pump out gas that can otherwise build up between the pad and rotor. Additionally, the slots minimize pad glazing.

## Further strengthening the package is the patented Kangaroo Paw ventilation system

'Kangaroo Paw' is a patented hi-tech disc rotor ventilation system designed and manufactured in Australia by Disc Brakes Australia. The 'Kangaroo Paw' design features a series of 144 diamond and teardrop shaped pillars and columns, individually spaced between the rotor faces. The pillars provide greater strength and surface area.

This increases heat dissipation allowing the rotor to return to operating temperatures for the next braking application.

With this combination of slotting and improved ventilation, the DBA 4x4 Survival Brake Series delivers in the most extreme situations. Furthermore, the DBA 4x4 Survival Brake Series TM is available in slotted or cross-drilled and slotted designs, providing a great deal of style and visual appeal.



#### DBA 4x4 Survival Brake Series<sup>TM</sup> **Benefits Features**

Patented "Kangaroo Paw" Ventilation Design	<ul> <li>Improves cooling</li> <li>Increases pad and rotor life</li> <li>Greater strength across the disc rotor</li> </ul>
Directional Slot Design (left-hand and right-hand disc rotors)	<ul><li>Rapidly expels friction gases</li><li>Provides even pad wear</li><li>Minimizes pad glazing</li></ul>
Gun-Metal Gray Paint	<ul> <li>Provides increased corrosion resistance on non-friction surfaces</li> </ul>





#### **FridgeMate Fridge\*Freezers**

EvaKool's FridgeMate offers an affordable combination of portable refrigeration technology and robust durability. FridgeMate boasts a strong and robust polyethylene cabinet powered by the world leading Danfoss refrigeration compressor.

The unique design of the FridgeMate Fridge\*Freezer offers you the flexibility to adjust the capacity of both the fridge and freezer compartments. Your EvaKool can function as a fridge, as a freezer or as a fridge\*freezer combination.

#### Why FridgeMate?

- Australian built
- 3 popular sizes
- > Unique adjustable fridge and freezer system
- > Robust polyethylene cabinet
- Superior insulation
- > 5 year national "no fuss" warranty



EvaKool has a model and size to suit your lifestyle and needs, whether you need a low profile fridge/ freezer to fit in the back of your Ute, or if it is for your family camping holidays, with enough space in the fridge\*freezer to keep the drinks cold and the ice-cream frozen



#### **EvaKool Fridge\*Freezers**

Unlike imported units Evakool are specifically designed for our harsh climate and extreme temperatures. This not only includes the exceptionally well insulated cabinet and lid but also the external positioning of the compressor and design of the ventilated motor cowling.

The combination of a fully insulated cabinet with an externally mounted compressor ensures that the Evakool will continue to freeze in temperatures of 50°C.

The unique design of the EvaKool Fridge\*Freezer offers you the flexibility to adjust the capacity of both the fridge and freezer compartments. Your EvaKool can function as a fridge, as a freezer or as a fridge\*freezer combination.

#### Why EvaKool?

- > Australian hand made
- > Heat resistant white fibreglass cabinet
- > Legendary EvaKool insulation
- > Unique adjustable fridge and freezer system
- > Danfoss compressor reliability
- > Large range of models
- > 5 year national "no fuss" warranty



#### **TravelMate Fridge\*Freezers**

Evakool has the pleasure introducing the new TravelMate fridge freezer to its range of 12 volt portable fridges. TravelMate is "the affordable alternative" in portable fridges are available in 3 popular sizes: 30, 45 and 60 litre with a model to suit everyone's needs. TravelMate boosts a fully insulated cabinet and lid and its modern design incorporates functionality with style. Features include 3 stage battery protection, soft touch controls, sturdy transit bag and importantly a 2 year warranty from Evakool.

#### Why TravelMate?

- › An EvaKool product
- Affordable
- Reliable
- > User friendly
- 3 popular sizes
- > 2 year national "no fuss" warranty



#### **Solar Panel Kit**

Evakool offers the latest in solar panel technology with the introduction of 100 watt solar panel system.

The Evakool solar panel system offers total flexibility for ease of use whether camping, boating or travelling offroad.



#### **LED Torpedo Light**

The new LED Torpedo Light by EvaKool has been designed to provide the end user with an extremely tough, long lasting, waterproof and high performance product. The Torpedo Light is a 12 volt/ 24 volt light which has an extremely strong nylon moulded base with high impact polycarbonate cover.





#### FREEDOM TO DO THE THINGS YOU WANT TO DO

### Electronic Rust Prevention Systems - helping you win the expensive war on vehicle rust!

- > Affordably protects your vehicle from rust, even in places traditional chemicals and sprays can't reach
- > Saves you thousands of dollars on vehicle maintenance
- > Protects the trade-in value of your car, truck or 4x4
- > Keeps new vehicles looking new
- > Works on new or used vehicles

#### Stop rust before it starts with ERPS

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.

#### Is ERPS the right rust prevention solution for you?

ERPS can save money by preventing rust on almost any steel structure from cars, 4x4's and boat trailers through to earthmoving and mining equipment, buildings and towers. ERPS is the right rust prevention solution for:

- > Commercial fisherman
- > Park rangers
- Surf clubs
- > Councils
- Mining companies
- > Tradesman
- > Private vehicle owners

### ERPS is the most technologically advanced rust protection system available today. It's also:

- Affordable
- Safe
- Simple
- > Environmentally friendly
- > Will complement any other anti-rusting method already applied







#### **Electronic Rust Prevention Systems (Aust) Pty Ltd, have** been manufacturing their unique patented electronic rust prevention system in Australia for the past 15 years.

It is fair to say that with experience comes knowledge. With many years of testing around the world, from mine sites in PNG to the snow covered roads of Finland, ERPS has continued with a dedicated R&D program.

Much of ERPS's development and testing was achieved with the assistance of Australia's top Professional Beach Fishermen. These guys are on the beach and up to the top of their wheels in salt water every day. Not often do conditions come harsher than this!

#### Their testimonials say it all.

"I have no idea how or why it works and I couldn't care less. I just know it saves me a fortune in maintenance"

#### Paul Gibson, Professional Beach Fisherman NSW

"We used to get 3 years out of a Land Cruiser tops. We work them on the beach, drive them in the ocean, all day, every day. After 3 years there is nothing left of them. This truck with the ERPS system is nearly 7.5 years old and it's just amazing. There is no rust in the cab whatsoever and the thing lives in the ocean - they are just amazing things"

Pete Ragno, Professional Beach Fisherman NSW

#### **ERPS**

- > Tried, Tested & Proven Performance
- > Unmatched 15 years of Manufacturing in Australia
- > With Experience comes Knowledge
- > Innovative Technology driven by R&D
- Quality and Performance Guaranteed
- Unique Patented operating system
- > Certified to Australian and European Compliance Standards
- > Low power draw will not flatten your battery
- > Does not interfere with on board electronics
- > Closed loop electrical circuit, for better system monitoring
- > Individual multi coupler kits suited to your specific vehicle and environment



Whether your vehicle is new or already well used, it will benefit from the protection the ERPS system provides. Giving you the FREEDOM and peace of mind, "to do the things, you want to do".









### Pro Quip is the brand name on a growing range of quality automotive & hardware products that have gained national & international recognition

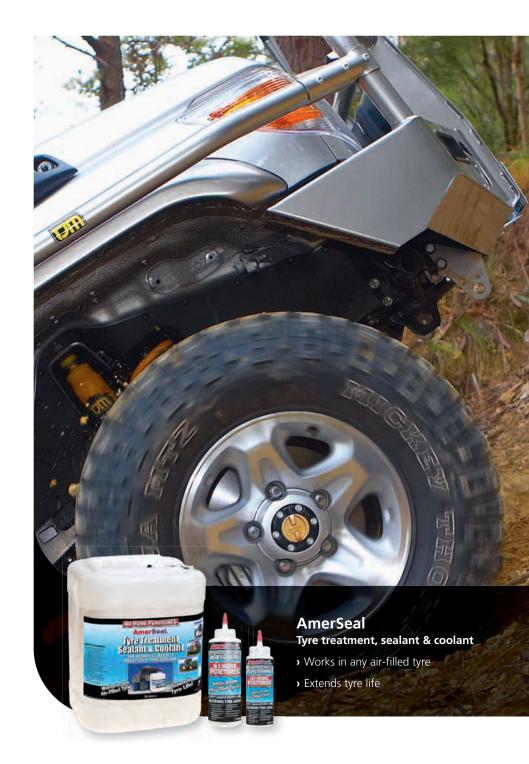
Operating for over 25 years, PQI Pty Ltd (trading as Pro Quip International) is a 100% Australian owned and operated company who supplies an extensive range of the highest quality, value added products in the automotive and hardware Industries. We also supply selected items to original equipment and industrial markets in Australia and New Zealand.

Pro Quip International prides itself on quality and customer service, we are ISO 9001 quality accredited as well as an EDI approved national supplier. Pro Quip International represents leading USA and European manufacturers, as well as Australian manufacturers, and carries an extensive range of their products.

Pro Quip International prides itself on delivering a diverse and comprehensive range of value added products to its customers, to complement our best selling quality product: Metal Jerry Cans.









Poly RV Accessories have a range of water, diesel and product storage options that are Australian made with Australian materials by an Australian owned company. Poly RV Accessories are manufactured from the highest quality materials resulting in products that are strong, lightweight, UV resistant and exceptionally durable to withstand the harsh nature of Australia's outback conditions.

Enmach Industries has a research and development team that understands what you, the customer wants and is constantly designing new innovative products that will serve you for a longtime making everyday life easier.







#### 1. PRV30WB Water Tank

30 Litre Wide Body Mudguard Tank, Roto Moulded Polyethylene, 3/4" and 1/2" Brass Fittings. Size: L x 450mm, W x 270mm, H x 410mm.

#### 2. PRV80S MK Water Tank

80 Litre Slimline Tank, 3/4" Brass Fittings, Delavan Pump (Optional), 3/8" Plastic Thread Breather, Roto Moulded Polyethylene. Size: L x 1080mm, W x 810mm, H x 115mm.

#### 3. PRV85L MK Water Tank

85 Litre Long Tank, Delavan Pump (Optional), 3/4" Brass Fittings, 2" Inlet, Roto Moulded Polyethylene. Size: L x 1200mm, W x 200mm, H x 400mm.

#### 4. DPRV75 Diesel Tank

75 Litre Upright Tank, 2" Inlet Cap, Roto Moulded Diesel Grade Yellow Polyethylene, 3/4" Brass Outlets, Mount Kit (Optional). Size: L x 600mm, W x 320mm, H x 480mm.

#### 5. PRVSC Storage Containers

Heavy Duty Storage Container, dust and water resistant storage, Lockable, Parallel opening lid. Available in a range of sizes.

#### 6. PRV30WBRS Storage Box

30 Litre Wide Body Storage Box, Roto Moulded Polyethylene, Lockable. Size: L x 600mm, W x 250mm, H x 400mm.

#### 7. PRVDBB Draw Bar Box

Roto Moulded Polyethylene, Lockable. Size: L x 1200mm, W x 600mm, H x 500mm.

#### 8. RT100 Roof Topper

Aerodynamic Design with minimal fuel efficiency loss, Polyetheylene Tuff Construction - Indestructible, Moulded Colour won't scratch, UV Stabilised Poly won't fade or go brittle.

Available in a range of sizes.



#### TJM air compressor

The TJM air compressor is the ideal compressor - for any person, with any vehicle.

It doesn't matter if you are on a quiet weekend away or a full expedition, there are always times when you could do with a quality TJM air compressor.

Designed with every application in mind, a TJM air compressor is a valuable piece of equipment that will help you to enjoy your time away.

- > 72 LPM Maximum Air Flow capacity allows tyres to be quickly inflated no matter where you are
- > Includes 7.2m "Ouick Connect" rubber hose with brass air valve connector. (Hose can be easily removed)
- > Heavy Duty Sand Tray is included to keep the air compressor away from grit & other foreign objects
- > Rugged, Easy-store Carry Bag that can be packed into your luggage space without damaging upholstery.
- > Can be permanently mounted and hard wired
- > 5 year Australia wide warranty

Pressure (PSI)	Air Flow (LPM)
0	78
20	43
35	36
40	35
Max air flow	72 litres per minute
Max current draw	30 amp
Max voltage	13.8V
Max working pressure	120psi
Max restart pressure	150psi
Max ambient temperature	60°C
Min ambient temperature	-55°C
Cycle time	40 minutes @ 40psi @ 24°C
Thermal protection	Automatic thermal cut off
Weight	5.5kg including bag & hose
Warranty	5 years



#### TJM overhead console

Here's the ideal spot for storing those loose items such as maps or sunglasses and for mounting CB radios, audio head decks or auxiliary switches. The TJM overhead console is manufactured from strong reinforced fibreglass with a white leather grain finish.



#### TJM classique steps

TJM classique steps are made using a custom designed alloy extrusion and one of the most durable mounting systems on the market. They will provide easy access to your vehicle as well as provide panel protection from mud, stone chips and road debris.



#### TJM floor mats

TJM have a range of floor mats suitable for the offroad enthusiast. The floor mats are designed with anti-slip backing and universal fitment, they're ideal for capturing snow, mud and sand.

#### **TJM flares**

The combination of wheels, tyres and flares can greatly enhance the style and appearance of any vehicle. Flares are essential when fitting wide wheels and tyres, to help protect paint-work from road grime, stones, sand and mud thrown up by the tyres. The TJM range of flares are available for most 4WD and commercial vehicles.



#### TJM deluxe flares

Manufactured from tough resin reinforced fibreglass and finished in high quality black or white gel coat, the TJM deluxe wheel arch flares are distinctive combining style and protection. Detailed instructions and hardware for easy installation are supplied.



#### TJM standard flares

Manufactured from tough resin reinforced fibreglass these flares are moulded with a unique rolled edge for added strength and safety. Finished in high quality white gel coat, the TJM standard wheel arch flares provide protection to vehicle paint work. Packaged with instructions and hardware for easy installation.

Paint (optional) is recommended to enhance styling and to keep the wheel arches looking great.



### TJM under tray water tanks & tool boxes

TJM water tanks & tool boxes will fit under the tray of most drop side tray vehicles and are a great idea for carrying extra water or extra tools. Made from durable polyethylene and available for right or left sides it's ideal for the tradesman, camper of offroad traveller.



#### TJM jerry can holder

TJM jerry can holders are designed to bolt or weld into a suitable flat place on your vehicle or trailer. Manufactured from steel and powder coated in a black finish, the TJM jerry can holders with an optional tie-down strap are suitable for off-road or touring use.



#### TJM Wetseat covers

The Wetseat is a universal waterproof cover made from Neoprene, used in the production of wet suits. Designed to protect your seat from dirt, water and rubbing when getting in and out of the vehicle.

