

ARMORMAX
DEFENCE

TAC-6

6X6 LAND CRUISER



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INTRODUCTION TO ARMORMAX

Armormax was formed as a partnership with a leading American luxury vehicle armoured almost 20 years ago. It is now wholly South African owned and has used the lessons learned in international best practice to provide the highest quality, bespoke armoured solution in the country.

We blend the art of bespoke vehicle manufacturing and conversion with the science of the highest-tech ballistic materials. Our luxury bulletproof vehicles protect families, business professionals and high-profile individuals.

Our use of lightweight synthetic armour, in combination with the most advanced ballistic steel results in an added weight up to a third that of our competitors. This means longer service intervals than are normally needed for an armoured vehicle, longer vehicle life, and a superior driving experience. Our attention to cosmetic detail is another defining aspect of our conversions.

We are the ONLY armoured company to be approved as OEM partners to most of the luxury brands represented in South Africa such as Bentley, Porsche, BMW, Audi, Jaguar, Land Rover, Mercedes Benz and Nissan. To date we have armoured more than 1500 luxury vehicles from these brands and others, and have not had a single penetration or injury on any of our vehicles. Our facility is based in Northriding, Johannesburg, South Africa.



ABOUT OUR ARMOURING

On our BR6 conversions, our commitment is always to achieve three main objectives:

- It has to offer the best protection that is possible. Good enough is not the same standard as the best, we only offer the best.
- Vehicle appearance, dynamic characteristics and functionality should be unaffected.
- The quality of material and workmanship must be unsurpassed. We have vehicles on the road that were built 15 years ago, that are still in the same condition as when they were built.

We achieve this both through ISO 9001 certified production processes, and the selection of the highest quality of lightweight material available, regardless of cost. These materials include:

- Ballistic Glass from Optima
- Opaque lightweight armour which is constructed with an ultralight strike face with a hardness rating of 9 on the MOH hardness scale (Diamond has a 10 rating) in conjunction with our UHMWPE armour.
- Ballistic steel sections and overlaps using Armox ADV.
- Armorcote protection for fuel tank and other areas.
- Run flat bands and in-house PTT intercom system.



INTRODUCING THE TAC6

We are thrilled to present our 6x6 concept– a modular, versatile and capable vehicle that has applications in non-permissible and challenging environments. The vehicle and its many configuration possibilities is suitable for the military, agriculture, mining, security, forestry and leisure applications.

The cab can be configured as standard soft-skin, Lightweight Armoured to BR6, or open roll-bar caged. In the roll-bar configuration, a modular easy-on/easy-off armour kit can be included along with fold-down, segmented frontal ballistic screens allowing the use of pintle-mounted LMG's.

This vehicle has been over-engineered and rigorously tested to ensure it offers unrivalled capabilities while remaining as easy to use as the standard Land Cruiser. The 6x6 runs in either 6x2 or 6x6 format, thanks to a second transfer case that drives the third axle alone. Safety measures have been built in as standard. Importantly, a forged drive coupler between the standard transfer case and 6x6 transfer case has been employed.

To ensure longevity and easy field servicing, the custom 3-piece drive shafts are built using heavy duty, off the shelf DANA components. The side shafts are interchangeable on each rear axle and can be easily removed from the wheel hub.



Note that no cutting or shortening of the original chassis has been done. New form-bent 5mm high strength steel is used to extend the chassis that overlaps the standard chassis. This spreads the load stress throughout the entire chassis.

The suspension is designed to use standard length leaf springs, as well as military grade original equipment. The setup can be adapted to a specific operational requirement, and can use lift systems to gain up to 4 inches of lift. The design also allows for 6 snow tracks to be fitted if required. With the added weight, the brakes have received attention too. Discs are upgraded to 350 mm rotors with 6 pot callipers all round. The handbrake is mounted to the transfer case and locks the driveshafts.

The components that receive the most attention though are the axles. The standard rear axle is replaced with a unit that runs true with the front axle which gives a track correction the standard Land Cruiser doesn't have. No wheel spacers or other bolt on devices are thus needed to correct the track. The same custom axle is used for the third axle so that all 6 wheels run in the same track. They use the factory differential centre unit to lower maintenance costs.



The spindle shafts that support the wheel hubs have been designed and manufactured from a stronger material. The side shafts can easily be removed from the hub and interchanged. The two rear axles remain completely independent of each other so in the unlikely event of two side shafts failing, the vehicle remains operational. The axle changes have given the 6x6 unmatched sand floatability and result in a 50% increase in traction.

Factory fuel tanks are replaced by two purpose built tanks with a combined capacity of 310 litres, which allows for a 2100 km operational range.

Not only is payload capacity increased, but towing capacity is greatly increased over any other light vehicle. To aid in this, bead lock wheels are used that are rated to 1 655 kg per rim.

The cab can be armoured to a B6 level with a combination of lightweight armour. The best ballistic glass that is available is fitted to all windows, with zero record of penetration at Armormax. The fuel tank is protected with self-sealing Armorcote, the battery and ECU are protected with lightweight armour, as is the floor and firewall of the vehicle. The armour is designed to withstand rounds from assault rifles including a 7.62x39, 5.56 (223), SS109 and 7.62x51 ball rounds.



The modular setup of the vehicle has numerous applications, including but not limited to:

- Personnel Carriers.
- Tactical vehicles, with variety of weapons platforms e.g.: 60mm and 81mm recoilless mortar or remote turrets up to 30x113mm
- Ammunition Carriers.
- Mechanical Field Workshop.
- 3500 L Fuel or Water Tanker.
- Food/Cold Haulage.
- General Cargo.
- Off-Road Adventure setups.
- Generator Units.
- Small vehicle transport.

The 6x6 has already undergone rigorous testing in Africa and France in both military and civilian applications. Over 20 000 kms was covered in each test vehicle without any mechanical failures.

[Click here for a short video intro](#)



SPECIFICATIONS

	S/CAB	D/CAB		
DIMENSIONS			TRANSMISSION	
Length (mm)	5995	5995	Make	Toyota
Width (mm)	1870	1870	Type	5 Speed Manual & Low Range 8 Speed Auto Optional
Height (mm)	2015	2015		
Wheelbase (mm)	3180/4150	3180/4150	TRANSFER CASE	
Ground Clearance (mm)	265	265 (under diff)	Quantity	2
	350	350 (to chassis)	Make	Toyota TC
Approach Angle (deg)	40	40	Type	1 Speed Gear Drive
Departure (deg)	38	38	Make	Commander TC
Breakover (deg)	15	15	Type	1 Speed Gear Drive
Turning circle (mm)	15 610	15 610		
			STEERING SYSTEM	Hydraulic
MASS				
GVM (kg)	7 000	7 000	AXLES	
Tare (kg)	2 600	2 800	Front	Toyota Axle
Payload (kg)	4 400	4 200	Centre	CDS HD TC41A200
			Rear	CDS HD TC41A300
SEATING				
Quantity (in cab)	2	5	SUSPENSION	
			Front	Coil Spring Longitudinal Arms Panhard Road with Castor Correction Leaf Springs, semi-elliptic. Bottom mount
PERFORMANCE				
Max speed (km/h)	160	160	Rear	
Low Range Gradeability	70%/35%	70%/35%	BRAKES	
			Service Brake	Dual Circuit Hydraulic 4 Circuit ABS, 6 Pot all round Transfer Case mounted Driveshaft Disc Park Brake
PROTECTION LEVEL	B6 Armormax		Park Brake	
ENGINE				
Toyota	4.5D V8 (IVD-FTV) Turbo Diesel		WHEELS AND TYRES	
Max Power (kW @ RPM)	151 @ 3400		Rim Type	17" X 8.5J Bead Lock Rim 1 655 kg rated 285/70/R17 (32") to 35"
Max Torque (Nm @ RPM)	430 @ 1200-3200			
Engine is unmodified and left as standard			Tyre Size	

MORE INFO:

Water tanks:

These can be fitted with ease to required specification.

Personnel capacity:

The double cab version can seat 5 passengers. Up to 8 additional rear jump seats can be fitted to the single cab, protected by BR6 rated ballistic steel bolt-on armour.

Transmission:

An 8 speed automatic gearbox can be fitted to an existing unit.

Maintenance and support:

The TAC6 is built with components that are available off the shelf, and can be serviced by any Toyota dealer nationwide.

Weapon Mount:

Can be configured with multiple mount options. Demo model available to be viewed with a configuration of a 30x113 mm dual-axis gyro-stabilised remote controlled weapon station.

Fire suppression system:

Can be installed to specific requirements.

Spare wheels:

Two can be fitted at the rear.

Towing capability:

3500 kg braked trailer

The Hull:

Ladder type chassis with 6x6 chassis extension. Blast protection to cab and fuel tanks fitted.

Transport:

Vehicle is easily transported by land, air or sea. Wheels or chassis mounts can be used to affix vehicle.

Service intervals:

1 year/10 000 kms

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GALLERY

