TMSI Tactical Mobility Solutions International

TAC-4 PRODUCT LINEUP

Tactical Mobility Solutions transforms the Toyota Land Cruiser 79 Series 4x4 into a high-capacity, mission-ready platform. Our integrated upgrade systems, rooted in field durability and structural integrity, enhance GVM, stability, and off-road capability for military applications. Featuring a reinforced chassis, heavy-duty axles, and advanced suspension options, the TAC4 lineup offers unparalleled performance under extreme loads and diverse terrain. This modular approach allows for bespoke configurations, from logistics to specialised combat roles, all while maintaining Toyota's renowned reliability and serviceability. The TAC4 lineup redefines tactical mobility, tailored to exceed demanding operational requirements.

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LAND CRUISER 70 SERIES BASE CHASSIS AND DRIVE TRAIN SOLUTIONS

Tactical Mobility Solutions offers a full suite of integrated systems for the Toyota Land Cruiser 70 Series 4x4 models, designed to transform the platform into a high-capacity, mission-ready vehicle capable of operating under extreme load and terrain conditions. These chassis and drive train solutions are engineered for military application, with field durability, serviceability, and structural integrity at the core.

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TAC-4 PRODUCT LINEUP

Our chassis and drivetrain enhancements provide a robust foundation for the integration of advanced, mission-specific body systems such as the

- **FAV (Fast Attack Vehicle),**
- **LRPV (Long Range Patrol Vehicle),**
- **Armoured Carriers,**
- **Weapon Platforms,**
- **Logistical**

and many more. These purpose-built body solutions, when combined with our chassis and drivetrain enhancement systems, enable extensive platform customisation across a wide range of operational roles, from rapid assault and long-range patrol to armoured tactical mobility.

TAC-4 PRODUCT LINEUP

Critically, all configurations are built upon the **Toyota Land Cruiser 79 Series ecosystem**, ensuring

- **Parts Commonality**
- **Serviceability** and
- **Logistical Simplicity**.

This allows operators to benefit from enhanced performance and role versatility without compromising the reliability or maintainability associated with Toyota's proven drivetrain and support footprint.

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BASE CHASSIS AND DRIVE TRAIN CONFIGERATIONS:

DESCRIPTION				GENERAL SPECIFICATION OPTIONS			SUSPENSION CONFIGERATION OPTIONS								TRANSPORT	
BASE CHASSIS		DRIVE	MODEL COMPATIBILITY	GVM		STRETCH / MM	TCHD AXLE	COIL FRONT	LEAF REAR	REAR COIL	IFS	IRS	COIL OVER IFS	COIL OVER IRS	AIR LIFTABLE	CH47
TAC4	STANDARD	4X4	LC76 / LC78 / LC79	3300 Kg		-	STD	STD	STD	OPT	OPT	OPT	-	-	OPT	OPT
TAC4S	STANDARD STRETCH	4X4	LC79	3300 Kg		120 / 300 / 500 / 710	STD	STD	STD	OPT	OPT	OPT	-	-	OPT	OPT
TAC4-HL	HIGH PAYLOAD	4X4	LC76 / LC78 / LC79	4600 Kg	5200 Kg	-	STD	STD	STD	OPT	OPT	OPT	-	-	OPT	OPT
TAC4S-HL	HIGH PAYLOAD	4X4	LC79	4600 Kg	5200 Kg	120 / 300 / 500 / 710	STD	STD	STD	OPT	OPT	OPT	-	-	OPT	OPT
TAC4-LRPV	LONG RANG PATROL	4X4	LC79	3300 Kg	4600 Kg	120 / 300	STD	STD	STD	OPT	-	-	-	-	OPT	OPT
TAC4-FAV	FAST ATTACK VEHICLE	4X4	LC79	4600 Kg		-	-	-	-	-	-	-	STD	STD	OPT	OPT
TAC6	STANDARD	6X6	LC79	7000 Kg		-	STD	STD	STD	OPT	OPT	OPT	-	-	OPT	OPT
TAC6S	STANDARD STRETCH	6X6	LC79	7000 Kg		120 / 300 / 500 / 710	STD	STD	STD	OPT	OPT	OPT	-	-	OPT	OPT
TAC6-LRPV	LONG RANG PATROL	6X6	LC79	4600 Kg	5800 Kg	120 / 300	STD	STD	STD	OPT	-	-	-	-	OPT	OPT
TAC6-FAV	FAST ATTACK VEHICLE	6X6	LC79	5800 Kg		-	-	-	-	-	-	-	STD	STD	OPT	OPT

TAC-4 PRODUCT LINEUP

BASIC CHASSIS AND DRIVE TRAIN PRODUCTS

STRUCTURAL CHASSIS AUGMENTATION (SCA) SYSTEM:

At the foundation of all GVM upgrade packages, the SCA system is a precision-welded exoskeletal reinforcement structure applied to the existing chassis. It significantly enhances torsional rigidity, load distribution, and platform stability under increased Gross Vehicle Mass conditions, enabling safe operational use of the chassis up to 5,200 kg GVM and beyond, as required in high load role deployments.

TRACK-CORRECTED HEAVY-DUTY REAR REPLACEMENT AXLE (TCHD):

Our proprietary rear axle is engineered to match the front axle track width, improving lateral stability and load handling. With a rating of 4,500 kg, this axle is standard in all configurations and includes an integrated diff bash plate for protection during off-road impacts. It is the same axle used in our 6x6 platform builds that run at 7000 Kg GVMs, ensuring proven performance in operational environments.

TAC-4 PRODUCT LINEUP

FRONT AXLE BRACE AND SHOCK MOUNT REINFORCEMENT:

A reinforced bracing system is installed to strengthen the front axle under extreme load and reduce flex. Shock mount reinforcements are also added to improve durability in rough terrain and prevent fatigue failures.

GVM-COMPATIBLE BRAKE UPGRADE SYSTEM:

To safely manage increased weight and tow loads, we offer a high-performance braking system that enhances stopping power and thermal management for vehicles operating at high GVM. This system ensures full braking efficiency under extended use and steep gradient conditions.

TAC-4 PRODUCT LINEUP

FULL SUSPENSION CONVERSION SYSTEMS:

We provide complete suspension systems, including rear coil conversions, front IFS conversions, and fully independent systems. All configurations are available for both standard and extreme GVM requirements and can be integrated with other structural and drivetrain upgrades for a total solution.

REAR COIL SPRING SUSPENSION CONFIGURATION:

For improved off-road handling and ride comfort, the rear suspension can be converted from leaf to coil spring configuration. This system is available in both OEM-spec GVM and enhanced GVM (4x4 @ 5,200 kg and 6x6 @ 7,000 kg) options, allowing flexibility based on operational requirements.

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INDEPENDENT FRONT SUSPENSION (IFS) CONFIGURATION:

The front suspension can be converted from solid axle leaf spring to independent front suspension (IFS), improving wheel articulation, handling, and driver comfort over varied terrain at higher speeds.

FULL INDEPENDENT SUSPENSION CONFIGURATION (FRONT & REAR):

When maximum mobility and terrain adaptability are required, we offer a complete independent suspension system - front and rear. This configuration is designed for both OEM GVM and heavy-duty GVM conversions, maintaining structural integrity and dynamic performance under full combat load at increased speeds.

TAC-4 PRODUCT LINEUP

RANGE-EXTENDED FUEL TANKS:

We offer a direct-replacement extended fuel tank that increases capacity on the TAC4 on the rear factory 90L fuel tank to 185L usable volume, increasing capacity to 275L, ensuring extended operational range in remote or unsupported deployments. The TAC6 provides for 340L, and full fuel management systems are available for all models.

HEAVY-DUTY FRONT AND REAR BUMPER SYSTEM:

Our military-grade bumpers are engineered to withstand high-GVM use. The front and rear bumpers include integrated winch capability, high-load recovery, lashing points, and jacking slots. The rear bumper also accommodates heavy-duty towage and includes integrated support for tire carriers.

TAC-4 PRODUCT LINEUP

MODULAR SINGLE AND DUAL SPARE TIRE CARRIERS:

These tire carriers are seamlessly integrated into the rear bumper system, supporting both single and dual spare wheel configurations. They are lockable, rugged, and designed to sustain vibration and extra loads on long-distance tactical deployments.

DRIVELINE PARK BRAKE SYSTEM:

Replacing the factory system, our driveline-mounted mechanical park brake provides robust and reliable holding force, critical when operating under load on uneven or sloped terrain. It remains reliable and free of grit under all conditions.

TAC-4 PRODUCT LINEUP

CASTER CORRECTION BRACKETS:

Included in several of our configurations, these brackets correct steering geometry distorted by suspension modifications or increased ride height. They enhance handling stability and reduce driver fatigue under load.

HIGH-CLEARANCE LEAF SPRING AND SHOCK MOUNT SYSTEMS:

Our high clearance mounting solution provides increased ground clearance beneath the leaf springs and shocks, minimising snag points and improving off-road capability. These are compatible with all heavy-duty suspension upgrades on the TCHD Axles.

TAC-4 PRODUCT LINEUP

INTEGRATED GVM UPGRADE CONFIGURATIONS OVERVIEW:

All our elevated GVM configurations include a baseline of the SCA system, heavy-duty driveshafts, upgraded axles, and suspension components. These chassis and drivetrain solutions are configured to client requirements and can be tailored for multiple body on chassis formats.

Modular Configuration for Mission-Specific Solutions

All components, systems, and assemblies described above are designed to be modular and fully interoperable, allowing Tactical Mobility Solutions to configure the Land Cruiser 70 Series platforms to meet a wide range of mission-specific and operational requirements.

Whether operating in a logistics, tactical, or armoured role, our systems can be selectively applied to build highly capable and purpose-fit vehicles. Each configuration is engineered for structural integrity, durability, and performance in the field.

TAC-4 PRODUCT LINEUP

INTEGRATED GVM UPGRADE CONFIGURATIONS OVERVIEW:

A few basic examples of configurable platforms include, but not limited to:

- **High-GVM OEM-Configured Single Cab (LC79 4x4):**
  Fully upgraded to 5,200 kg GVM while retaining OEM suspension geometry and characteristics, ideal for utility and logistics applications. This platform also serves as a base for integration with our armoured hull solution for protected personnel or equipment transport

- **Comfort-Optimised Standard-GVM Variants (LC70 Series):**
  Fitted with a rear coil spring conversion, this setup enhances comfort and ride quality without altering the original vehicle GVW, well-suited for reconnaissance or command roles requiring extended time on mission.

TAC-4 PRODUCT LINEUP

INTEGRATED GVM UPGRADE CONFIGURATIONS OVERVIEW:

A few basic examples of configurable platforms include, but not limited to:

- **Heavy-Duty Coiled Rear Axle with extended chassis for Medical Response:**
  A coil-sprung high-GVM rear axle configuration provides increased load capability with smoother ride dynamics, ideal for use in ambulance conversions as an example, reducing patient vibration and fatigue in rough terrain.

- **Fully Independent Suspension Configuration:**
  For high-mobility roles such as rapid response or special operations, a full independent front and rear suspension system enables superior handling, agility, and terrain adaptability at higher speeds.

TAC-4 PRODUCT LINEUP

INTEGRATED GVM UPGRADE CONFIGURATIONS OVERVIEW:

A few basic examples of configurable platforms include, but not limited to:

- **Specialist Body Integration:**
  Our chassis, drivetrain and suspension enhancements provide a robust foundation for the integration of advanced, mission-specific body systems such as the FAV (Fast Attack Vehicle), and LRPV (Long Range Patrol Vehicle). These purpose-built body solutions, when combined with our modular upgrade systems, enable extensive platform customisation across a wide range of operational roles, from rapid assault and long-range patrol to armoured tactical mobility.

Critically, all configurations are built upon the Toyota Land Cruiser 70 Series ecosystem, ensuring parts commonality, serviceability, and logistical simplicity. This allows operators to benefit from enhanced performance and role versatility without compromising the reliability or maintainability associated with Toyota's proven drivetrain and support footprint.

TAC-4 PRODUCT LINEUP

TRANSPORTATION:

All vehicle variants can be configured to meet helicopter underslung transport requirements if so specified, including structural hardpoints and mass distribution adjustments. Additionally, all platforms are designed to allow for integration and dimensional compliance with internal transport in CH-47 Chinook helicopters.

TAC-4 PRODUCT LINEUP

TRANSMISSION:

Tactical Mobility Solutions offers the exclusive TMS ZF 8HP90 8-speed automatic transmission with hybrid drive option, purpose-built for heavy-duty operational demands. Engineered in direct collaboration with ZF Friedrichshafen AG, and exclusively available through TMS, this advanced transmission system, exclusively available through TMS, is specifically rated for platforms operating at up to 7,000 kg GVM and 11,000 kg Gross Combined Weight Rating (GCWR).

The 8HP90 has been fully integrated into the Toyota Land Cruiser 79 Series architecture, ensuring seamless performance, mechanical harmony, and system reliability. Critically, the transmission has undergone full OEM-level validation by ZF, including testing, certification, and approval as a compliant drivetrain solution for the Land Cruiser 70 Series platform.

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TAC-4 PRODUCT LINEUP

HYBRID ELECTRIC DRIVE:

Tactical Mobility Solutions offers advanced Full Hybrid Drive solutions, integrating ZF's cutting-edge technology for superior performance and efficient and reliable integration. This system effectively combines a combustion engine with an electric drive, featuring a separating clutch that enables complete decoupling of the engine from the driveline for significant fuel consumption reduction compared to standard transmissions. Our Full Hybrid Drive allows for all-electric operation when moving off or for short distances in last mile covert approach scenarios, providing silent and emission-free mobility. The compact design ensures the electric motor, clutch, torsional dampers, and hydraulics are efficiently integrated into the ZF 8HP90 8-speed automatic transmission, replacing the traditional torque converter.

This product offers all the functionalities of TMS ZF 8HP90 8-speed automatic transmission alongside the benefits of electric drive, fitting seamlessly into available installation spaces and maintaining all-wheel drive compatibility. With an electric motor producing up to 40 kilowatts and 230 newton meters of torque, and a full electric silent range inline with client demand, our Full Hybrid Drive provides a versatile and sustainable solution for diverse operational needs.

TAC-4 PRODUCT LINEUP

TAILORED TO YOUR REQUIREMENTS:

Tactical Mobility Solutions delivers a fully flexible, mission-ready configurable ecosystem based on the Toyota Land Cruiser 79 Series, engineered specifically to meet the demanding operational profiles of military clients. Every component, from chassis augmentation to full independent suspension systems, is purpose-built to support increased payload, superior mobility, and long-term durability across diverse mission sets.

Our platform architecture allows configurations to be precisely tailored, whether for high-GVM logistical transport, rapid response mobility, specialist body integration, or armoured personnel solutions. Through a mix-and-match system of drivetrain, suspension, and structural upgrades, we offer scalable solutions that can be fine-tuned to the exact needs of the operator, terrain, and deployment environment.

Most critically, every configuration retains core compatibility with the Toyota LC79 ecosystem, preserving serviceability, fleet uniformity, and support infrastructure. Whether for immediate operational deployment or long-term fleet standardisation, Tactical Mobility Solutions ensures that every vehicle is built to purpose, built to last, and built to integrate seamlessly into your existing logistical and maintenance networks.

This flexibility ensures that no matter the mission profile, combat, command, logistics, patrol, medical response, or rapid assault, your platform will be tailored to your requirements, without compromise.