

Behind the Scenes with the 2015 Toyota TRD Pro Family



Toyota has a rich off-road heritage, with racing success that dates back nearly three decades and includes numerous titles at the legendary Baja 500 and 1000. Toyota's off-road racing programs have inspired the development of numerous TRD off-road focused products and packages over the years, including the Tacoma PreRunner and TRD Off-Road packages for both Tacoma and Tundra. It also inspired the limited edition Trail Team Edition for the beloved Toyota FJ Cruiser, and laid the groundwork for the pinnacle of TRD Packages for Tacoma, the **Tacoma TRD T|X Baja Series**.

[Tacoma TRD T|X Baja Series: Limited Edition TRD off-road enhancement package, available on 2012 through 2014 model year Tacoma]

The fact is, TRD packages now make up about 40% of the overall mix on the number-one-in-segment Toyota Tacoma. Based on a solid history of market success, **Toyota's New Brand Filter** has been leveraged and incorporated into the life cycle planning for Toyota's truck lineup by a group of off-road enthusiasts, inspiring the TRD Pro family.

[Toyota's New Brand Filter: Inspiring, Innovative, Exciting, A New Toyota]

TRD Pro is not just a wheel and sticker package. TRD Pro adds exciting **Waku-Doki** enhancements to the 2015 model year 4Runner, Tacoma, and Tundra platforms. Thanks to TRD's major role during planning, development, and testing, each component works together as a thorough and well-thought out package that can improve overall off-road capability. Similar equipment means that packages are harmonized under the "TRD Pro" family brand to avoid oversaturating the TRD brand itself.

[Waku-Doki: the Japanese expression for "heart pumping, adrenaline racing"]

This innovative approach to product life cycle management not only allows Toyota to offer customers low-production "special edition" trucks, it also allows us to offer individual TRD Pro components separately a-la-carte through your local Toyota dealership's parts department.

TRD PRO

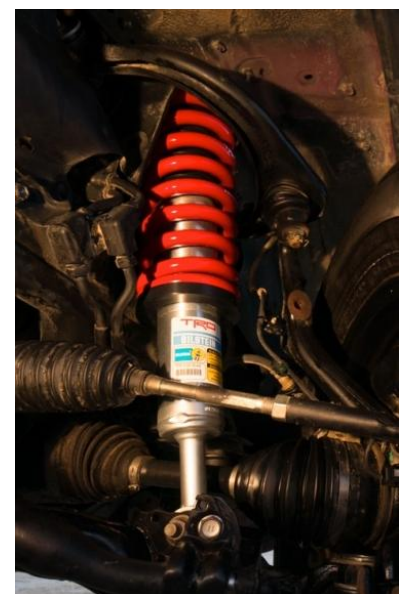
Toyota vehicles are designed, engineered, tested and tuned by teams of specialists dedicated to developing designs that meet or exceed Toyota's legendary hallmark of capability, quality, durability, reliability, and safety. Systems and sub-systems are designed as cohesive packages that work together within specific operating parameters for optimal, repeatable performance.

Customers that customize their off-road vehicles often use non-factory products to make their vehicle their own. For example, common suspension changes range from leveling the vehicle's ride height front to rear, to replacing entire suspension systems outboard of the frame rails for a "mid-" or "long-travel" setup. While any of these changes may increase ground clearance, they can also affect suspension geometry, ride quality, and possibly even overall system performance.

The TRD Pro family was developed by TRD engineers working alongside Toyota engineers to get the most out of the original factory design. This isn't a "parts-bin" lift kit, either. On Tacoma, for example, the brake line mounts were modified for extra droop and upstroke, and the suspension was built around the steering gear and drive axles. By maximizing travel within the stock packaging and geometry, customers can now buy a factory off-road package on Tundra, 4Runner, and Tacoma that has been thoroughly engineered and tested to work as a complimentary system, all backed by a comprehensive three-year/36,000 mile warranty.

Torture-tested in expeditions through California's high desert, each vehicle's suspension system was enhanced as a package to take each vehicle's capabilities and improve them as a holistic package. By adding suspension system robustness, purposeful off-road tuning, and an enhanced dampening capacity, TRD has truly made the most of each vehicles geometry for off-road use while ensuring quality, durability, and reliability are all retained.

TRD Pro is more than just a new model for each vehicle in the Toyota line-up. Toyota is effectively re-launching the TRD brand around the TRD Pro family. With these exciting new products, Toyota will not only sustain interest in an awesome lineup of trucks and SUVs, but also help to continue to push the Toyota brand to build "always better" and more exciting vehicles for the US market.



2015 Tundra TRD Pro

Tundra TRD Pro is available in either Double Cab 4x4 or CrewMax 4x4 cab types. Tundra TRD Pro takes off-road prowess to a new level, including stand-out features like:

- Exterior/Interior Changes
- TRD Front Skid Plate
- 18" Black Alloy Wheels with P275/65/R18 Michelin LTX AT2 Off-Road Package Tires
- TRD Bilstein® High Performance Off-Road Shocks (2.5-inch Front Shocks with Eibach® Red Coil Springs and Remote Reservoirs, and 2.5-inch Rear Shocks with Remote Reservoirs)
- TRD Dual Cat-Back Exhaust



Tundra TRD Pro has several unique exterior and interior TRD Pro-themed elements¹

Exterior/Interior Changes:

There are a number of different clues that this isn't your average Tundra; a unique "TOYOTA" front grille that harkens back to Toyota trucks of the past, an aluminum front skid plate, black "TUNDRA"



Tundra TRD Pro has a unique TRD Pro bed stamping¹

door badging, 18-inch black 5-spoke alloy wheels with the TRD logo, all topped off with "TRD Pro" quarter bed panel stamping. Inside, you'll find TRD Floor Mats, a unique seat color with red stitching, TRD Shift Knob, and a unique instrument panel ornament insert. Available in Black, Super White, and Inferno (all-new exclusive color), the Tundra TRD Pro will be as loud or as quiet as you want it to be.

Skid Plates:

An aluminum TRD Front Skid Plate covers the area under the engine bay. The original equipment fuel tank skid plate is also retained. Tundra TRD Pro's new front skid plate doesn't just look cool; it is also durable and functional. Constructed from ¼-inch aluminum, it is lightweight, strong, and helps protect and mitigate impacts to the underside of the vehicle under certain conditions. Designed with serviceability in mind, an integrated oil pan access panel makes oil changes a snap.

Wheels and Tires:

Tundra TRD Pro includes 18-inch diameter black 5-spoke alloy wheels with TRD logo wrapped in a Michelin LTX AT2 P275/65/R18 Off-Road Package tire. The Michelin LTX AT2 features unique tread and sidewall patterns designed specifically for Tundra's TRD Off-Road Package. The 32-inch tall tires have a strong-block center ribs that are tuned to prevent excessive road noise, and aggressive siping and side lugs help maximize available traction when driving off-highway in the dirt.

High Performance TRD Suspension System

Professionally-tuned by TRD suspension engineers for high performance to Toyota's exacting standards for ride quality and durability, both front and rear suspensions feature 2.5-inch Bilstein® monotube shocks with remote reservoirs, as well as larger digressive Bilstein® 60mm pistons (versus 46mm original equipment). The original equipment bump stops, front sway bar, and end links are retained.

High Performance TRD Suspension System, cont.

Front suspension details: TRD-tuned 2.5-inch Bilstein® suspension with remote reservoirs, TRD-tuned Eibach® springs, and original equipment stabilizer bar, end links, and bump stops.

- TRD-tuned Eibach® springs were carefully selected with a softer, decreased spring rate to optimize ride quality over harsh terrain. This results in a front suspension with a 2-inch higher ride height, for a level front to back appearance that gives better clearance when out on the trail.
- Larger 2.5-inch Bilstein® coil-over shocks are utilized (similar in size to those used on heavy-duty industrial vehicles, like on dump trucks). Front shocks *feature an advanced valve design with both speed and 3-stage position-sensitive valving* on larger 60 mm pistons (original equipment are 46 mm), tuned to accompany the softer-than-stock spring rate for optimized dampening characteristics for off-highway action over rough sections of dirt.
- Engineered with a longer suspension stroke, the Bilstein® coil-over style shocks allow for an additional 2-inches of extended wheel travel, enhancing articulation capabilities off-highway.
- Larger 2.5-inch shocks with remote reservoirs house a greater oil capacity than original equipment shocks; the increased oil capacity helps the shocks dissipate heat more efficiently, which can help avoid cavitation created from working shocks hard off-road. The results are a consistent, predictable suspension that works as designed in extreme environments.

Rear suspension details: TRD-tuned 2.5-inch Bilstein® shocks with remote reservoirs with original equipment rear leaf springs and bump stops.

- Larger 2.5-inch shocks are utilized for the rear suspension (similar in size to those used on heavy-duty industrial vehicles, like on dump trucks). They use larger 60 mm pistons (original equipment are 46 mm) tuned to match the original equipment rear leaf spring.
- The larger 2.5-inch shocks and remote reservoirs house a greater oil capacity than original equipment; the increased amount of oil means the shock can better dissipate heat to help avoid cavitation created by working the shocks hard off-road. This results in consistent, predictable suspension that works as designed in some of the most extreme situations and environments.
- The upgraded Bilstein® rear shocks have also been engineered to provide an additional 1.25-inches of extended wheel travel for enhanced articulation capabilities when off-roading.

TRD Performance Dual Exhaust System:

The TRD Performance Dual Exhaust System reduces exhaust back pressure for a deep, throaty exhaust note, all without exceeding the legal 95-decibel noise limit (as required by law). But this system does more than just sound great; low- to mid-range torque is improved along with overall power output (between 5-to 8-wheel horsepower, depending upon application). Constructed from durable 304 stainless steel tubing for enhanced corrosion resistance, the exhaust uses precise mandrel bends to maintain a constant tubing diameter in tubing bends (versus crush bends that may restrict exhaust flow).

The TRD Performance Dual Exhaust System benefits from an efficient design up the exhaust stream. From each potent bank of the Tundra's powerful 5.7L (3UR-FE) V8 engine, exhaust gasses travel through an original equipment tubular-style stainless steel header and catalytic converters, where the TRD Performance Dual Exhaust System begins. Spent exhaust gasses are then routed through two independent free-flowing stainless steel perforated-core mufflers, routed over the rear axle, exiting just behind either rear tire via polished dual wall tips etched with the TRD-logo.



Tundra TRD Pro includes the TRD Performance Dual Exhaust System, expanding audio options beyond just what the stereo can play¹

2015 4Runner TRD Pro

4Runner TRD Pro comes equipped very similar to the Trail 4x4, and boasts many of the same great off-roading features. The sole remaining mid-sized body-on-frame SUV, 4Runner TRD Pro is a rugged platform that includes innovative traction system features like Multi-Terrain Select, CRAWL Control, and a standard locking rear differential. But 4Runner TRD Pro takes it to the next level, with:

- Exterior and Interior Changes
- Front TRD Skid Plate
- 17" Black TRD Alloy Wheels with P265/70R17 Nitto Terra Grappler Tires
- TRD Bilstein® High Performance Off-Road Shocks (2.5-inch Front Shocks with Eibach® Red Coil Springs and 2.0-inch Rear Shocks with Remote Reservoirs)

Exterior/Interior Changes:

4Runner has many exterior and interior design elements unique to the TRD Pro series; a unique "TOYOTA" front grille that harkens back to the first-generation Toyota 4Runner, an aluminum front skid plate, black "TRD PRO" external hard badges, and new 17" black TRD alloy wheels wrapped with aggressive all-terrain Nitto Terra Grappler tires. Inside, you'll find TRD Floor Mats, black seating with red stitching, and TRD Shift Knob. The 4Runner TRD Pro is available in Black, Super White, and Inferno (all-new exclusive color) paint colors.



4Runner TRD Pro includes a thick front aluminum skid plate¹

Skid Plates:

A light weight aluminum TRD Front Skid Plate covers the area under the engine bay. But the 4Runner TRD Pro's front skid plate does more than just look cool, it is also durable. Constructed from 1/4" thick aluminum, it helps protect and mitigate impacts to the underside of the vehicle under certain conditions. Functional vents route fresh air to the front differential. The original equipment fuel tank and transfer case skid plates are also retained.

Wheels and Tires:

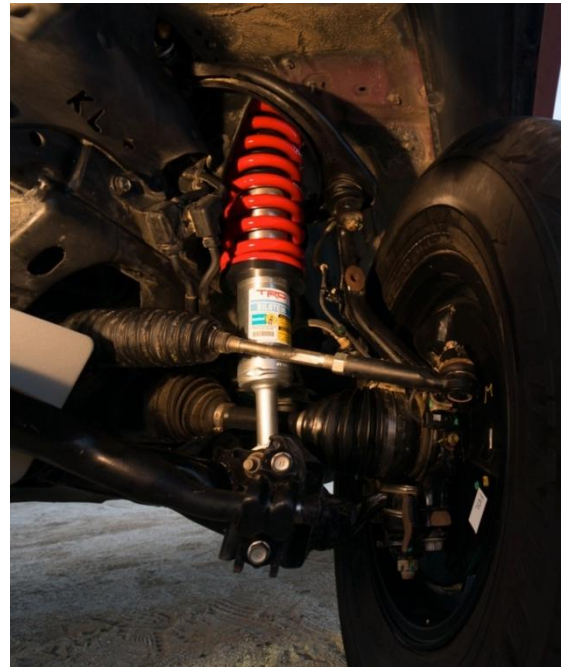
4Runner TRD Pro features lightweight 17-inch diameter black TRD alloy wheels. The angular, black split 6-spoke TRD alloy wheels are a sharp contrast to the original equipment wheels, making 4Runner TRD Pro a stand-out. They come wrapped in an aggressive 31.5-inch tall all-terrain Nitto Terra Grappler in a P265/70/R17 tire size. This provides for a balance of all-terrain performance in all weather conditions, over various terrains. They were designed to enhance traction off-road without sacrificing on-road comfort. Strong-block center ribs, tuned to prevent excessive road noise, combine with aggressive siping and staggered shoulder lugs to help increase traction off the trail in sandy and rocky terrain, and can help make systems like Multi-Terrain Select (MTS) and CRAWL Control more effective in challenging conditions.

High Performance TRD Suspension System

Professionally-tuned by TRD suspension engineers for high performance to Toyota's exacting standards for ride quality and durability, both front and rear suspensions feature larger Bilstein® monotube shocks that hold additional shock fluid, as well as larger digressive Bilstein® pistons (60 mm front/46 mm rear, versus 32 mm original equipment front/rear) that gave engineers greater surface area for tuning valving profiles. The front and rear original equipment sway bars, end links, and bump stops are retained.

Front suspension details: TRD-tuned 2.5-inch Bilstein® 5100-series independent coil-over-shock type suspension, TRD-tuned Eibach® springs, and factory stabilizer bar, end links and bump stops.

- TRD-tuned Eibach® springs with decreased spring rates (softer-than-stock) improve ride quality over harsh terrain and gives a 1-inch higher ride height, for a level front to back appearance that gives better front ground clearance when out on the trail off-highway.
- Larger 2.5-inch shocks (similar in size to those used on heavy-duty industrial vehicles) with digressive valving are matched to the softer spring rate for enhanced overall characteristics operating off-highway in the dirt. Larger, more rigid 18mm shock shafts add component strength (original equipment shafts are 12mm).
- The new shocks have also been engineered with a longer-stroke, to give an additional 1-inch of extended, or "down", wheel travel for enhanced articulation capabilities when off-roading.
- The larger 2.5-inch shocks houses a greater oil capacity than stock equipment; the increased amount of oil means the shocks can better dissipate heat and avoid cavitation created from working the shocks hard off-road. This results in a predictable suspension that consistently works over longer periods of time in some of the most extreme situations and environments.



4Runner TRD Pro uses softer front Eibach® springs for an optimal balance of spring preload and ride height, paired with a larger front diameter coil-over-shock¹

Rear suspension details: TRD-tuned 2.0-inch Bilstein® 5100-series shocks with remote reservoirs, and factory rear coil springs, stabilizer bar, end links, and bump stops.

- The enhanced rear suspension features larger-than-stock 2.0-inch shocks with remote-mounted external reservoirs that also house a greater-than-stock shock oil capacity, equivalent to that of a larger 2.5-inch shock, but inside of a more compact package. The increased amount of oil means that the shocks can better dissipate heat to help avoid cavitation created from working the shocks hard off-road. This results in consistent, predictable suspension operation that keeps on working as designed in the most extreme situations and environments.
- The upgraded Bilstein® rear shocks use larger 46 mm pistons with more valving surface area, an improvement over the 32 mm original equipment pistons.
- The shocks have also been engineered to provide an additional 1-inch of extended or "down" wheel travel for enhanced articulation capabilities when off-roading.

Exhaust System Details: The original equipment stainless steel exhaust system is retained.

2015 Tacoma TRD Pro

Based off of the 2012-14 model year Tacoma TRD T|X Baja Series Package, the Tacoma TRD Pro is offered in both Access Cab (C-Cab) and Double Cab (D-Cab) with a 4.0L V6 mated to either an automatic or manual transmission. In addition to great features included in the TRD Off-Road Package, like an electronically controlled locking rear differential, the TRD Pro adds:

- Exterior and Interior Changes
- 16" TRD Bead-Lock Style Wheels with LT265/70R16 BF Goodrich All Terrain T/A KO Tires
- TRD Bilstein® High Performance Off-Road Shocks (2.5-inch Front Shocks with Eibach® Red Coil Springs and 2.0-inch Rear Shocks with Remote Reservoirs)
- TRD Cat-Back Exhaust



Exterior/Interior Changes:

The Tacoma TRD Pro includes many exterior and interior design elements unique to the TRD Pro series, including a unique "TOYOTA" front grille that harkens back to early

Toyota trucks, black "TACOMA" door badging, black "TRD PRO" hard badge on the tailgate, and 16" black beadlock-style TRD alloy wheels wrapped with aggressive BFGoodrich All-Terrain KO tires. Inside, you'll find TRD Floor Mats and a TRD Shift Knob. The Tacoma TRD Pro is available in Black, Super White, and Inferno (all-new exclusive color) paint colors.

Tacoma TRD Pro features popular equipment included with the TRD Off-Road Package. Optional accessory/equipment shown¹

Wheels and Tires:

Tacoma TRD Pro includes 16-inch black bead-lock-style TRD alloy wheels wrapped in LT265/70/R16 BFGoodrich All-Terrain T/A® KO tires. The 16-inch black bead-lock-style TRD alloy wheels are constructed of a high-rpressure alloy, which allows for an optimal balance of performance and durability. An aggressive +10 mm offset gives the truck a wider overall look without causing fender clearance issues. 16-inch diameter TRD wheels were selected for their light weight (23.5 pounds, each) and smaller diameter, making room for BFGoodrich All-Terrain T/A® KO tires with a taller sidewall. This helps to optimize small bump compliance on rough roads when driving off-highway. The BFGoodrich All-Terrain T/A® KO also offers a strong balance of both on- and off-road performance. Providing more than just an aggressive look, its high-void all-terrain tread was designed to help provide increased traction and control in aired-down driving situations off-highway in the dirt, helping to make Tacoma's traction systems even more capable in some off-highway situations.



Classic BFGoodrich® all-terrain off-road tires wrapped in bead-lock-style wheels hint at true off-road capability¹

High Performance TRD Suspension System

Professionally-tuned by TRD suspension engineers for high performance operation to Toyota's exacting standards for ride quality and durability, both front and rear suspensions feature larger Bilstein® monotube shocks with that hold additional shock fluid and larger pistons with digressive valving matched to optimize off-road performance. The front and rear original equipment sway bars, end links, and bump stops are retained.

Front suspension details: TRD-tuned 2.5-inch Bilstein® 5100-series independent coil-over-shock type suspension, TRD-tuned Eibach® springs, with factory stabilizer bar, end links and bump stops.

- A 2-inch higher ride height provides a nearly level front to back appearance and better front ground clearance, while softer spring rates improve ride quality over harsh terrain.
- Larger 2.5-inch shocks are utilized with larger, more rigid 18mm shock shafts that add component strength (original equipment shafts are 12 mm). Engineered with a longer-stroke, an additional 1-inch of extended wheel travel is available for enhanced articulation capabilities.
- The larger 2.5-inch shocks house a greater oil capacity than stock equipment for optimal heat dissipation which can help to avoid cavitation created from working the shocks hard off-road. This results in predictable suspension operation that can consistently work over longer periods of time in some of the most extreme environments.
- Larger, 60 mm digressive Bilstein® pistons are nearly twice this size of the 32 mm original equipment pistons. (TRD Off-Road rear shocks are 36 mm).



Larger diameter shocks can maintain consistent dampening longer due to better heat management¹

Rear suspension details: TRD-tuned 2.0-inch Bilstein® 5100-series shocks with remote reservoirs, and factory rear leaf springs, stabilizer bar, end links, and bump stops.

- Larger-than-stock 2.0-inch shocks with remote-mounted external reservoirs house a greater shock oil capacity, equivalent to that of a larger 2.5-inch shock, but inside a compact package.
- The upgraded TRD Pro Bilstein® rear shocks use larger 46 mm pistons with digressive valving (an improvement over the 30 mm original equipment and 36 mm TRD Off-Road pistons).
- The rear shocks have been engineered to provide an additional 1.5-inch of extended or “down” wheel travel for enhanced articulation capabilities when off-roading.
- Larger amounts of shock oil can help dissipate heat more efficiently, which can help to avoid cavitation created from working the shocks hard off-road. This results in consistent suspension operation that keeps on working as designed in the most extreme situations and environments.

TRD Performance Exhaust System:

Tacoma TRD Pro comes with a high-quality cat-back TRD performance exhaust system that adds an aggressive sound to Toyota's venerable 4.0L (1GR-FE) V6 engine. From each engine bank, where exhaust gasses travel through a factory tubular-style stainless steel header, to the exhaust exit, just behind the passenger-side rear tire via a polished stainless steel dual wall tip etched with the TRD-logo, this exhaust system is all about performance. The cat-back TRD performance exhaust is constructed from mandrel-bent 304 stainless steel piping and a free-flowing muffler to reduce back pressure for a deep, throaty exhaust note without exhaust drone (or exceeding the legal 95-decibel noise limit, as required by law). Low- to mid-range torque is improved, along with overall power output (between 5-to 8-wheel horsepower, depending upon application).

¹Prototype models shown with optional accessories. Actual production versions may vary.