

XRAY T3

The Legend Reborn

XRAY has long been viewed as the highest-quality touring car available since it entered the RC car scene in 2000. Now with a long and distinguished history of racing achievements and groundbreaking, award-winning innovations, XRAY is proud to offer the T3 ... A top-quality “no-compromise” engineering marvel designed to put you in the winners circle.

Revolution, evolution, optimization... those are the key terms that describe the T1 and T2 platforms brought in the last decade to the racing world and the new T3 carries forward all the heritage and racing pedigree to again raise the standard ever higher. XRAY Research & Development along with the Factory Team devoted themselves to extensive testing, all in the effort to bring the consumer the latest evolution: The new T3 platform.

With fast-paced rule changes in the electric touring car class, the main focus of the T3 was to design the car for brushless motors and especially for LiPo technology... to take on what the world can offer and outperform all others under any racing conditions or rules. Take your pick — asphalt, carpet, rubber or foam tires, NiMH or high-performance LiPo batteries, cutting-edge brushed or brushless motors — the T3 can handle them all and still dominate the competition in the process. No extras needed... just a desire to win.

Pure design. Pure racing. Pure adrenaline.

Dipl. Eng. Juraj Hudy
Chief Engineer, XRAY

T3 Features:

- LiPo & NiMh multi purpose-designed platform
- Unique XRAY Alternative Driveline Configuration™ for perfect weight balance with either LiPo or NiMH batteries and electronics layout
- Front & rear diffs and transmission belts can be quickly & easily oriented to either the left or right side to balance the car for either LiPo or NiMH use.
- All-new suspension holder system allows suspension arms to be mounted independently from the diff bulkheads
- All-new direct independent suspension alu holders mounted directly to the chassis allow for prolonged chassis flex thus generating more traction.
- Independent suspension holders allow for more precise and fine set-up adjustments with the use of different-thickness shims
- New motor mount has been purpose-designed for brushless motors, placing the motor 3mm more towards the centerline
- New aluminum rear suspension holders positioned towards the centerline results in narrower rear track-width and more rear traction
- Rear aluminum rear suspension holders feature integrated toe-in
- All-new 1-piece top deck features unique layshaft composite holders to allow the top deck to be mounted to the rear bulkheads independently from the central layshaft bulkheads
- New 1-piece top deck provides new and improved XRAY Multi-Flex™ adjustment possibilities to eliminate chassis flex adjustment; all flex adjustment is performed via the top deck Multi-Flex™ adjustments
- Optimized top deck Multi-Flex™ adjustment possibilities allow for super-fast and easy adjustment of car handling for all different racing conditions
- The design of the top deck moves the flex point from the front and rear of the top deck to the center, providing more steering and increasing responsiveness
- New 2.5mm chassis moves the battery position further back for more steering. The battery slots are 4mm-wider allowing the; battery position/balance to be changed depending on the number and type of batteries used
- New motor holder connects the motor mount bulkhead to the center of the chassis, this transfers the flex effect of the motor mount into the absolute centerline of the chassis
- Layshaft bulkheads are independently mounted from the top deck for better flex adjustment
- Layshaft bearings are secured to the bulkheads with new plastic holders
- Rear alu stands for increased steering optimized for both EU and US Editions
- New higher bulkheads raise the top deck for perfect LiPo fitment
- New servo saver eccentric position for improved steering response
- New 38/20T (1.9) internal gearing for improved drivetrain efficiency and performance

- New more eccentric front and rear roll center holders with more inner camber link positions for better balance and handling
- New updated front steering blocks provide increased steering angle for more steering and higher cornering speeds
- New modified rear arms with extra roll bar positions for better roll balance on high-traction tracks and more precise anti-roll bar adjustment
- Two different battery plastic holders specially for LiPo and specially for NiMH batteries
- New thinner antenna holder with new placement position to allow for a more centrally-located receiver
- New front and rear shock towers with optimized roll center positions
- New lighter, black-anodized Swiss 7075 T6 aluminum turnbuckles
- Majority of spare parts & option parts compatible with T2 platform

T3 Main Features:

- Super lightweight Swiss 7075 T6 aluminum rear drive shafts, hard anodized, color-coated and laser-engraved, 38% lighter than standard drive shafts
- Super-light drive axles with 35% less rotating mass
- Drivetrain featuring 38T/20T (1.9) pulleys on both EU and US versions
- Orange-anodized aluminum parts for stylish and distinctive look
- Dozens of ultra-fine improvements particularly on tolerances, clearances, and material structures
- Available in two versions to meet specific ROAR, EFRA, and FEMCA regulations:
 - US Foam-spec – ROAR
 - EU Rubber-spec – ROAR, EFRA, FEMCA
- EU Edition available with 6-cell chassis which allows fitting of both 5- and 6-cell NiMH battery configurations as well as LiPo batteries
- EU Edition features narrow, ultra-thin 2.0mm top deck for higher grip
- Reduced sensitivity to changing track conditions, giving super-consistent performance during runs
- Super-smooth adjustable Swiss 7075 T6 aluminum front and rear ball-differentials with XRAY Labyrinth Dust Covers™
- Centered lay shaft and split bulkheads provide optimum balance thanks to perfect weight distribution of the motor towards centerline, giving quicker left-right transitions
- Ultra-light bulkheads CNC-machined from premium Swiss 7075 T6 aluminum
- Motor mount bulkhead features the lowest possible motor position, compatible with stock, modified, and brushless motors
- Super-light composite front Solid Axle with XRAY's own smart quick-change outdrive system for easy outdrive exchange (EU Edition only); no servicing or replacement of drive shaft blades needed, translates into reduced servicing costs
- Specially-optimized drive shaft lengths for specific foam- and rubber-tire racing conditions:
 - US Edition: standard 50mm CVD drive shafts for use with foam tires (generally higher traction than rubber tires); optimum transfer of traction to the wheels
 - EU Edition: longer 52mm front/rear CVD drive shafts positioned more towards centerline in diff/solid axle outdrives to generate more overall traction and make the car easier to drive on low-traction tracks
- Servo saver positioned in absolute centerline of the chassis
- Aluminum center top deck mount specially designed for rubber and foam tires on carpet – decreases front suspension traction and eliminates front tire overheating to ensure consistent handling throughout runs
- Independent front and rear diff height adjustment
- Long front & rear suspension arms for improved traction and easier handling feature optimized shock mounting positions
- Suspension arms feature integrated anti-roll bar mounts; rear arms feature three different anti-roll bar mounts for super-fine adjustment of the rear anti-roll bar
- EU Edition includes both front and rear anti-roll bars (front 1.4mm & rear 1.2mm)
- C-hubs with large openings for quick and easy assembly/disassembly of the CVDs; prevents collision of CVD with C-hub in serious crashes (compatible for the ECS drive shafts)
- C-hubs available in standard caster angles (2°, 4° and 6°); available in two hardness's (EU – medium, US – hard)
- Rear uprights with integrated 0° toe-in to prevent suspension geometry change in serious crashes; available in two hardness's (EU – medium, US – hard)
- Steering blocks available in two hardness (EU – medium, US - hard)
- Both front & rear shock towers machined from premium 3.0mm graphite material featuring Quick Roll Center™ positions and optimized shock absorber positions
- Front shock tower specially machined for ultra-low weight without compromising strength

T3 Foam-spec Edition — Extra Features :

- US Foam-Spec Edition specially designed for foam-tire racing
- 3mm thick 6-cell chassis for NiMH batteries or LiPo packs
- Wide top deck mounted to chassis via aluminum standoffs provides wide, ultra-stable, solid platform. Top deck features Multi-Flex Technology™ flex points for adjustment of flex and torsion settings from stiff to ultra-stiff.
- Extra-Hard foam-spec front and rear suspension arms – marked with “XH”
- Hard foam-spec steering blocks, C-hubs, and rear uprights
- Super-smooth adjustable Swiss 7075 T6 aluminum front and rear ball-differentials with XRAY Labyrinth Dust Covers™
- Standard-length 50mm HUDY Spring Steel™ CVD drive shafts in front, 50mm Swiss 7075 T6 aluminum drive shafts in rear
- 38T front and rear diff pulleys, 20T center layshaft pulleys
- Light purple and white springs
- 104T 64P spur gear – extra-hard material, wobble-free design
- 1.4mm front anti-roll bar included
- ROAR spec compliant for modified and stock racing

T3 EU Rubber-spec Edition — Extra Features:

- EU Rubber-Spec Edition specially designed for rubber-tire racing
- 2.5mm flexible chassis for NiMH or LiPo batteries
- Narrow top deck machined from ultra-thin 2.0mm graphite for improved traction
- Hard rubber-spec front and rear suspension arms – marked with “H”
- Medium rubber-spec steering blocks, C-hubs, and rear uprights
- XRAY Composite Front Solid Axle
- Super-smooth adjustable Swiss 7075 T6 rear ball-differential with XRAY Labyrinth Dust Covers™
- Longer 52mm HUDY Spring Steel™ CVD drive shafts in front, 52mm Swiss 7075 T6 aluminum drive shafts in rear
- 38T front and rear pulleys, 20T center layshaft pulleys
- C2.6 and C3.0 racing springs
- 84T 48P spur gear – extra-hard material, wobble-free design
- 1.4mm and 1.2mm front and rear anti-roll bars
- EFRA, ROAR, FEMCA spec compliant for modified and stock racing

| T3 US vs. EU Edition — Quick Reference | | |
|---|------------------------------|------------------------------|
| | T3 US Foam-spec | T3 EU Rubber-spec |
| Chassis: | 3mm Chassis – Stiff | 2.5mm Chassis – Flexible |
| Top Deck: | Wide Top Deck | Narrow, Ultra-thin Top Deck |
| Arms: | Extra-Hard Foam-spec (XH) | Hard - Rubber-spec (H) |
| C-hubs: | Hard Foam-spec (H) | Medium Rubber-spec (M) |
| Steering Blocks: | Hard Foam-spec (H) | Medium Rubber-spec (M) |
| Rear Upright: | Hard Foam-spec (H) | Medium Rubber-spec (M) |
| Drive Shafts: | Standard 50mm | Longer 52mm |
| Front Axle: | Aluminum Ball-Differential | Composite Solid Axle |
| Rear Axle: | Aluminum Ball-Differential | Aluminum Ball-Differential |
| Pulleys: | 38T front + rear, 20T center | 38T front + rear, 20T center |
| Shock Springs: | Light-Purple / White | C2.6/C3 |
| Spur Gear: | 104T 64P | 84T 48P |

Detailed Specifications:

- All parts fully interchangeable between US Foam-spec and EU Rubber-spec Editions
- XRAY Quick Roll-Centers™ – 4 quick roll center adjustments in front and rear
- Rebuildable front CVD drive shafts made from special world-renowned, top-secret, self-developed HUDY Spring Steel™; world's tiniest yet most durable drive shafts are hand ground for maximum precision. Recommended for use in front for increased durability
- Rebuildable rear CVD drive shafts made from super-strong, super-light Swiss 7075 T6 aluminum, hardcoated and additionally black coated for stylish look. Recommended for use in rear.
- New super-lightweight wheel axles manufactured from premium HUDY Spring Steel™
- Ultra-lightweight front and rear split bulkheads are CNC-machined from premium Swiss 7075 T6 aluminum, allowing quick and easy access to diff and layshaft
- Centerline drivetrain concept with ultra-narrow chassis positions batteries and electronics near car centerline
- Long top deck design minimizes tweak and increases stability
- Premium-quality, Kevlar® reinforced drive belts
- Lightweight middle layshaft CNC-machined from aircraft aluminum
- Front upper and lower composite bumper made from special composite material to withstand hard impacts
- Compact front foam bumper made from lightweight, high-resilience foam
- Thick 6mm body posts withstand serious crashes
- Lower suspension holders with three different roll center positions offer additional ultra-fine roll center adjustment via different-thickness shims
- Small, robust rear uprights with built-in 0° toe-in feature two upper roll center positions which are easily adjusted using shims
- Easily adjustable inboard toe-in using included shims
- Easily adjustable wheel offset using optional shims or optional offset wheel hubs (-0.75mm, +0.75mm, +1.5mm)
- 7075 T6 aluminum wheel hubs
- Short XRAY 4-step externally-adjustable shocks
- Shock shafts are specially hardened for maximum strength
- Shock absorber foam inserts for perfect shock rebound
- XRAY self-developed and manufactured ultimate racing springs are manually selected for maximum precision, equal length, and equal damping characteristics. Special set of black racing springs for EU Edition car available optionally.
- Small 4° caster C-blocks from special composite material, optional 2° and 6° caster blocks available
- New small, robust steering blocks made from special composite material, featuring two Ackermann positions
- New front and rear shock towers CNC-machined from 3mm graphite material with optimized shock positions for rubber and foam tires, include optimized Quick Roll-Center™ positions
- Super easy to build, set up, maintain, and drive
- Unique XRAY Quick-Saver™ with 5 easily-set Ackermann positions
- Aluminum self-locking wheel nuts

Other Specifications:

- Fully independent, fully-adjustable suspension
- Highly-efficient 2-belt, 4WD system
- High-performance Kevlar®-reinforced drive belts
- Centrally-positioned servo saver
- Adjustable Ackermann settings achieved by repositioning the bell crank post forward or backward + 5 additional positions available through XRAY Quick-Saver™
- Inline battery pack positioned along one side
- Composite battery backstops prevent battery movement on chassis (for either NiMH or LiPo batteries)
- Adjustable, ultra-smooth lightweight aluminum ball differential with carbide balls and carbide axial thrust bearing with protective Labyrinth Dust Covers
- Belt tension adjustment in both front and rear bulkheads
- Strong aluminum servo stands
- Adjustable HUDY Spring Steel™ servo turnbuckle and Swiss 7075 T6 turnbuckles for steering and front/rear upper camber links
- Complete set of high-speed, blue-sealed ball-bearings, degreased, lightly oiled for maximum efficiency, individually controlled, selected, and inspected

Adjustment Possibilities:

- Fully-adjustable front and rear suspension geometry: caster, camber, toe, anti-dive, anti-squat, ride height, droop, track-width, roll center, wheelbase
- XRAY Alternative Transmission Configuration™
- XRAY Quick-Saver™ offers 5 different Ackermann positions for steering adjustment
- Adjustable ball differentials
- XRAY Quick Roll-Centers™
- Adjustable bulkheads for belt-tension control
- Front and rear diff height adjustment
- Adjustable HUDY aluminum turnbuckles (steering, front & rear upper links)
- Multiple upper and lower shock mounting locations at front and rear
- Externally-adjustable racing shocks (4-step)
- Pre-drilled chassis locations for optional chassis weights
- Adjustable front and rear anti-roll bars (optional for US Edition only)

T3 Details:

XRAY T3 Platform

Since the release of the first T1 in 2000, XRAY has become synonymous with quality, workmanship, performance, and luxury in the RC world. With countless victories and titles from all around the world — including 25x US National Champion, International Indoor Champion '05-'06-'07-'08-'09, US Snowbird Champion '04-'05-'06-'07-'08-'09, 3x European Junior Champion and over 200+ national titles around the world — XRAY touring cars have become the world's most favorite touring car as voted in the Reader's Choice Awards and more than 12x Car of the Year Awards. Over the years, XRAY's Engineering Department has continued its ongoing development, bringing with it a fresh new version of its touring car platform, always superseding and improving upon its predecessors.

New XRAY T3

The new T3 platform is the next evolution of XRAY's highly-successful touring car platform which had its roots in the T1 (introduced in 2000) and the T2 platform (introduced in 2005). With the latest advancements in electronics, motors and especially batteries (bringing the new standard of LiPo batteries), the T3 has been purposely designed as a new modern platform optimized to incorporate and accommodate these new developing standards.

The T3 packs in all of the latest parts and products supporting the car's high-performance nature to gain a distinct edge in the highly-competitive spectrum of foam- and rubber-tire racing.

T3 EU Rubber-spec vs. US Foam-spec Editions

Whether you are racing with foam or rubber tires on carpet or asphalt... there is a T3 for you. You can choose between the EU and US Editions and have a car that is finely tuned for each specific racing environment. Despite both cars being built from the same platform, each edition of the car has very small details that enable you to gain an edge in competitive performance.

| T3 US vs. EU Edition — Quick Reference | | |
|---|------------------------------|------------------------------|
| | T3 US Foam-spec | T3 EU Rubber-spec |
| Chassis: | 3mm Chassis – Stiff | 2.5mm Chassis – Flexible |
| Top Deck: | Wide Top Deck | Narrow, Ultra-thin Top Deck |
| Arms: | Extra-Hard Foam-spec (XH) | Hard - Rubber-spec (H) |
| C-hubs: | Hard Foam-spec (H) | Medium Rubber-spec (M) |
| Steering Blocks: | Hard Foam-spec (H) | Medium Rubber-spec (M) |
| Rear Upright: | Hard Foam-spec (H) | Medium Rubber-spec (M) |
| Drive Shafts: | Standard 50mm | Longer 52mm |
| Front Axle: | Aluminum Ball-Differential | Composite Solid Axle |
| Rear Axle: | Aluminum Ball-Differential | Aluminum Ball-Differential |
| Pulleys: | 38T front + rear, 20T center | 38T front + rear, 20T center |
| Shock Springs: | Light-Purple / White | C2.6/C3 |
| Spur Gear: | 104T 64P | 84T 48P |

LiPo Ready

The new T3 was designed to work seamlessly with new technology and therefore is designed for high-performance LiPo batteries. However, NiMH batteries users need not despair as the T3 may be used with NiMH batteries as well.

XRAY Alternative Driveline Configuration™

The XRAY Alternative Driveline Configuration™ is unique design that allows you to quickly & easily flip over the front and rear differentials and transmission belt positions. This allows you to move the electronics and batteries more to the centerline or outside of the car as necessary for the different alternative configurations of electronics weight balance.

NiMH batteries are heavier than LiPo batteries and therefore should be placed more toward the car centerline with electronics placed more outward. In this case the front belt should be placed on the left side and the rear belt on the right side to allow the batteries to be placed more towards the car centerline.

LiPo batteries are lighter and therefore should be placed more toward the outside of the car with the electronics placed toward the car centerline. In this case the front belt should be placed on the right side and the rear belt on the left side, to allow the electronics to be placed more towards the car centerline.

With this smart methodology, only 30g of additional weight (depending on electronics used) is required to balance the left and right sides equally.

Drive train

With the current trend of high development in the electric motor and battery industries, the drivetrain has been optimized to work efficiently with all most popular motors — stock, modified, and brushless — with all types of batteries used for racing. As such the T3 comes with 38T diff pulleys and large 20T center layshaft pulleys.

The drivetrain features optimized diffs specifically used for foam and rubber spec racing. For rubber-tire racing the Front Solid Axle is used, while for foam-tire racing an adjustable ball differential is used at both front and rear.

T2 compatibility

The T3 platform is based on highly-popular T2 platform, and so the majority of spare parts and option parts are fully compatible. As such, in most cases XRAY drivers can use most of their T2 spare parts on the new T3 platform.

Drive Shaft Lengths

When it comes to high-competition design, the transfer of power to the wheels is extremely important and as such the T3 uses optimum drive shaft lengths specifically for rubber and foam racing conditions.

For rubber-tire racing using larger-diameter rubber tires, longer 52mm drive shafts are used to allow the drive shafts to be positioned more towards the car centerline in the front diff/solid axle outdrives. This generates more overall traction and makes the car easier to drive on low-traction tracks.

For foam-tire racing using smaller-diameter foam tires, standard 50mm drive shafts are used as the foam tires have generally higher traction than rubber tires and as such the shorter drive shafts give optimum torque transfer to the wheels.

Drive shafts can be exchanged; meaning that 52mm shafts can be used for foam-tire racing or 50mm shafts can be used for rubber-tires racing. The drive shafts can be combined as well, so 52mm shafts can be used in front while 50mm shafts can be used in the rear (and vice-versa) depending on track conditions.

Super-Lightweight Drive Axles

To reduce rotating weight, the T3 features super-lightweight wheel axles which have the outer diameter specially ground to remove the material while keeping the same strength thanks to the use of HUDY Spring Steel™ material. The lightweight drive axles reduce rotating mass up to 35% compared to regular drive axles.

Rear Drive Shafts

With high-competition performance in mind, the rotating mass of the drivetrain was reduced. The T3 features lightweight aluminum drive shafts machined from premium Swiss 7075 T6, hard-anodized and additionally black coated for stylish looks. The aluminum drive shafts are designed for use in the rear, and come in both lengths specifically for EU and US Editions

To maximize durability and safety during runs (and to better withstand hard crashes), super-strong HUDY Spring Steel™ drive shafts are used at the front of the car.

Lightweight Composite XRAY Solid Axle

Rotating mass is one of the most significant influences on the performance of an RC racecar. The T3 features a unique lightweight composite XRAY Front Solid Axle. The Front Solid Axle has a very stiff structure and ultra-light weight that was achieved by molding the entire solid axle from XRAY's own self-formulated composite material.

Outdrives are fully exchangeable which allows very easy and comfortable servicing, while the unique drive shaft connection — eliminating the former drive shaft blades — enables direct power transfer to the axle and eliminates play between the drive shaft and outdrives, improving steering precision and increasing overall steering.

The XRAY Front Solid Axle is included only in the EU Edition, but is available as an option for the US Edition.

Aluminum XRAY Ball Differential

The T3 features a high-competition, super-smooth Aluminum Ball Differential. Manufactured from the premium Swiss 7075 T6 and additionally hard anodized to increase the lifespan of the outdrives. The differential is externally adjustable and comes factory pre-assembled.

XRAY's innovative and smart Labyrinth Dust Cover™ diff protection system has been carried over from previous T1/T2 platforms where it has been very successfully used for many years. The special internal labyrinth design of the diff covers prevents dirt, debris, and carpet fibers from getting into the differential, thus reducing servicing and ensuring long life.

The XRAY Aluminum Ball Differential features carbide balls and a high-quality carbide thrust-bearing for ultra-smooth running.

The EU Edition features the XRAY Aluminum Ball Differential in rear, while the US Edition features the diff at both front and rear.

Ultra-lightweight Aluminum Bulkheads

The aluminum bulkheads are all new on the T3 platform. Ultra-lightweight bulkheads were designed to get better traction, steering, and balance. Bulkheads are 2mm higher to allow LiPo batteries to fit perfectly into the car. All bulkhead parts are CNC-machined from premium Swiss 7075 T6 aluminum and are strategically machined to provide the lightest possible support framework for the car. Thanks to the ultra-low platform it was possible to create the smallest, and lightest bulkheads ever. The bulkheads are anodized in a distinctive orange color. (Note: Color may vary slightly between products.) XRAY's legendary attention to detail is noticeable in all the precisely chamfered edges.

XRAY's attention to detail and perfection is evident with their TQM (Total Quality Management) approach. Not only are all bulkheads inspected during the production process, but they are also mounted to the chassis to verify that the car's "backbone" has been perfectly manufactured. So when you open the box, you will see and appreciate the beauty.

Independent Suspension Mounting

The T3 features a new system for mounting the lower suspension holders independently from the bulkheads and mounted directly to the chassis. Arms are connected to the chassis by separate a bulkhead that gives increased chassis flex and thus increases traction and makes the car easier to drive. Rear aluminum lower suspension holders are moved 0.75mm

more toward the center in order to make rear track-width narrower to provide more traction. The holders are pre-angled to give integrated toe-in.

Motor Mount Bulkhead

The motor mount was redesigned to move the motor 3mm toward the car centerline for better balance, and is connected to the chassis on the centerline for better balance and tweak.

Split Design of the Bulkheads

The rear bulkheads feature a split design, allowing the rear suspension to be mounted to separate bulkheads while the center layshaft sits on its own, super-narrow bulkheads which are positioned closer to the center of the chassis. The split design of the bulkheads also enables super-easy access to front and rear differentials and the middle layshaft. Exchanging diffs and spur gear has never been quicker or easier.

Integrated Belt Tension Adjustment

As with previous XRAY cars, both front and rear bulkheads feature integrated belt-tension adjustment through the use of adjustable bearing eccentric holders, eliminating the need for a separate belt tensioner. All ball-bearings turn in composite hubs to reduce friction and improve drivetrain efficiency.

Different Chassis Types

There are 2 different chassis available for the T3, each specially designed and optimized for the particular type of racing conditions where the car will be used. The EU Edition was designed for rubber tire racing, features a 2.5mm thick chassis CNC-machined from premium grade graphite material, along with slots for 6-cell batteries and LiPo. Standard 5-or 6-cell battery packs can be used as well. The US Edition was designed for 6-cell or LiPo foam-tire racing, and features a thick 3mm CNC-machined chassis of premium-grade graphite material. Both EU and US chassis will accommodate regular RC car LiPo batteries.

US Edition Chassis

The thick US Edition chassis is super-stiff and offers torsion and flex setting required for high-competition foam-tire racing. XRAY knows that even the smallest details have an impact on the handling and performance of the car, so every chassis is CNC-machined in-house by XRAY using the most modern German milling machines; these machines are fully robotically controlled to ensure that every chassis meets the tightest manufacturing tolerances.

US Edition Top Deck

The US Edition top deck is wider in the front, allowing it to be connected to the chassis with aluminum stands, creating a solid platform for high-traction foam-tire racing. The aluminum stands can also be used at the rear of the car.

EU Edition Top Deck

The EU Edition top deck was specially designed for rubber-tire racing, and is machined from thinner graphite material to provide higher grip. The new T3 top deck is purposely wider in front and in rear for proper torsion and flex, reducing

unwanted tweak in crashes. The top deck includes 3 mounting positions for aluminum stands to connect the top deck to the chassis.

Elongated Multi-Flex Top Deck

The new elongated 1-piece top deck mount is a unique design in itself, using new composite middle shaft bearing holders to allow the top deck mount to be mounted independently from the central bulkheads. This helps to separate and elongate the flex points between the front and rear bulkheads, thus resulting in increased traction.

XRAY Multi-Flex Technology™

One of the more legendary and certainly one of the most innovative set-up features in touring car designs in the last few years is without a doubt the invention and introduction of XRAY Multi-Flex Technology™ which was brought forward into the new T3 platform. This smart system allows the setting of different flex characteristics for different track conditions. This extremely effective set-up feature has been updated for the T3 platform to allow for easier flex adjustments by using the multiple positions on the top deck only. No matter whether you drive on asphalt or carpet, using rubber or foam tires, thanks to Multi-Flex Technology™ you can set the flex – soft, medium, stiff – or anywhere in between to best suit your track conditions.

Aluminum Turnbuckles

Aluminum adjustable turnbuckles used in the T3 are CNC-machined from 7075 T6 material with a stylish black coating. These turnbuckles are used for front and rear upright linkages as well as for the servo saver. The aluminum turnbuckles are lighter than steel to help decrease the overall weight of the car.

High-tech Chassis

The T3 chassis was developed to perfectly fit either NiMH or LiPo batteries. Batteries slots are 4mm wider for optimal battery placement. Chassis cuts below the differential are wider to allow position changes of the differentials for weight-balance purposes. The chassis includes holes for weight to be mounted directly by screw without necessity to tape them. The holes are situated in front and behind batteries slots. Batteries slots were repositioned for more steering and cornering speed.

Suspension Holders

The T3 uses the same smart suspension holders as the T2 platform. The aluminum inserts in the composite holders guarantee that geometry and setup will not change and will be retained even after hard crashes.

There are 3 different suspension composite holders that enable easy roll center setup. The standard suspension holder gives a 0mm roll center, while two eccentric suspension holders raise or lower the roll center by 0.75mm.

The independent suspension holders of the T3 allow for even more precise roll center adjustment. The suspension holders — which are mounted on separate bulkheads — may be shimmed outward from the bulkheads (using 0.1–0.5mm shims) for precise roll center positioning.

The smart XRAY geometry uses variable-thickness shims between the bulkheads and suspension holders to enable easy rear toe-in adjustment. However, you can easily remove the shims which will narrow the suspension, and then add wheel offset shims to reclaim track-width.

Top Deck Mount

The front center aluminum top deck mount is used for rubber-tire carpet racing which permits decreased front suspension traction and helps front tires from overheating, ensuring consistent handling throughout an entire run. The aluminum center top deck mount can be easily mounted or removed depending on the particular racing conditions. The rear aluminum top deck stands are used to stiffen the rear suspension and provide more steering and stability for the car. This is recommended for the basic set-up.

Diff Height Adjustment

Both front and rear bulkheads feature independent diff height adjustment. By rotating the diff eccentric holders, the height of the diff can be adjusted by 1mm. Optional eccentric holders with 2mm offset are available which allows diff height adjustment of 2mm.

Kevlar® Drive Belts

The 2-belt 4WD drivetrain concept provides maximum efficiency and highest performance using Kevlar®-reinforced drive belts for ultra-high durability. Narrow (3mm) front and rear drive belts have been specially ground for minimum thickness and flexibility.

Centrally-positioned Layshaft

The middle layshaft is strategically positioned towards the center of the chassis on separate, super-narrow middle layshaft bulkheads positioned along the chassis centerline. The middle drive pulleys are positioned along side of the main spur gear and as such the drivetrain energy is transmitted from the motor through the centrally-positioned spur gear to both middle layshaft pulleys... ensuring maximum balance of the car.

Alu Middle Layshaft

The aluminum layshaft is strategically CNC-machined to minimize rotating weight without compromising strength or integrity. The hollow layshaft is perfectly round with zero run out, eliminating drivetrain vibration and producing a positive balance. Composite pulleys key solidly to the layshaft.

Proven Suspension Geometry

From the narrow arms, through the tiny front and rear suspension blocks, to the small and robust steering blocks, every suspension part has been specially designed to provide responsive racing characteristics in all racing conditions. Over the years XRAY has successfully gained and utilized extensive suspension geometry knowledge and self-developed suspension stiffness technology, which have been utilized when designing suspension parts. The ultra-lightweight suspension parts are molded from a special composite material that makes the parts very light yet very durable to withstand the rigors of high-performance racing.

The T3 features optimized suspension parts carried over from the T2 platform. The arms feature a single optimized shock mounting position and integrated anti-roll bar mounts. The rear arms feature three anti-roll bar mounts for super-fine adjustment of the anti-roll bar.

The EU Rubber-spec Edition features standard hard composite mixture arms (marked "H"). The US Foam-spec Edition includes well-proven, extra-hard arms (marked "XH") manufactured from specially-formulated composite compounds which makes the arms extra stiff.

The front suspension arms allow 3mm adjustment of front arm position.

C-hubs

The C-hubs in the T3 are also carried over from the T2 platform and feature large openings for quicker & easier assembly/disassembly of the CVDs. The entire CVD assembly can be easily inserted/removed through the C-hub without the need for disassembly. The large openings prevent collision of CVD with C-hub in serious crashes and are optimized for use with optional ECS drive shafts.

The C-hubs are available in all standard caster angles (2°, 4° and 6°) and are also available in two different hardness's that are optimized for particular racing conditions. The EU Edition includes medium hardness (M) C-hubs specially optimized for rubber-tire racing, while the US Edition includes hard hardness (H) C-hubs that are well proven to provide a solid and stiff suspension for foam-tire racing.

Rear Uprights

The rear uprights feature 0° toe to ensure stability and prevent suspension geometry changes in hard crashes. There are two different roll center positions on the rear uprights, and more roll center positions can be easily adjusted by adding shims between the upright and the turnbuckle ball joint.

The rear uprights feature small but robust 5x10x4 ball-bearings to minimize unsprung weight.

The rear uprights are available in two different hardness's that were optimized for particular racing conditions. The EU Edition includes medium hardness (M) uprights specially designed for rubber-tire racing, while the US Edition includes hard hardness (H) uprights that are well proven to provide a solid and stiff suspension for foam-tire racing.

New 1-hole uprights were developed as an optional fine-tuning part over the standard 2-hole uprights for high-traction tracks where more roll of the car is desired. For use over the standard 2-hole upright when the inner hole does not allow enough roll, and the outer hole creates too much roll. Available in both "M" and "H" hardness's.

Steering Blocks

The new modified steering blocks allow for more angling which increases steering and cornering speed. The small and tough steering blocks each feature two Ackermann positions. The front steering blocks also feature small but robust 5x10 ball-bearings to minimize unsprung weight.

The steering blocks are available in two different hardness's, which are optimized for particular racing conditions. The EU Edition includes medium hardness (M) steering blocks specially optimized for rubber-tire racing, while the US Edition includes hard hardness (H) steering blocks that are well proven to provide a solid and stiff suspension for foam-tire racing.

Anti-Roll Bars

The T3 EU Edition includes standard 1.4mm front and 1.2mm rear anti-roll bars. The US Edition features 1.4m front anti-roll bar. The anti-roll bars are mounted with the included composite holders to the front and rear bulkheads, and are easily mounted to the integrated anti-roll bar mounts on the suspension arms.

For easy recognition the anti-roll bar has two laser-engraved stripes (representing each thickness) for easy and instant recognition. Optional anti-roll bars are available for super-fine and precise anti-roll bar adjustment.

XRAY Quick Roll-Centers™

XRAY's self-developed Quick Roll-Centers™ make setup quick & easy. The front and rear shock towers feature pre-set optimized roll center positions. Using the eccentric aluminum roll center holders you can easily choose one of 4 quick roll-center positions on the front and rear shock towers. Easy, smart, quick.

The EU Edition features new longer XRAY Quick Roll Center™ mounts which allow for mounting longer upper camber links, resulting in higher stability and more precise handling.

Graphite Shock Towers

The super-low front and rear shock towers are CNC-machined from premium 3mm thick graphite material to guarantee maximum strength and long life, and the lower height allows the shocks to be mounted lower thus making the CG lower. The front shock tower was specially machined for ultra-low weight without compromising strength.

The shock towers feature revised shock mounting positions for short shock absorbers, and the feature different positions for Quick Roll Center™ settings. The all-in-one shock towers are perfect for use with either rubber or foam tires.

Short XRAY Racing Shocks

The T3 features the short, race-proven, externally adjustable XRAY racing shocks carried over from the T2 platform. The short shock bodies and shock rods were designed for improved suspension lift and lower CG.

The XRAY externally-adjustable racing shocks allow quick & easy damping adjustment to up to 4 different damping settings without disassembly. The threaded shock bodies enable easy and fine ride height adjustment. The shocks also feature foam membrane inserts for smoother shock operation. Shock rods are specially hardened to guarantee long life and maximum strength.

XRAY Quick-Saver™

The hugely successful and super-effective XRAY Quick-Saver™ has been carried from the T2 platform, it being another innovation from the design boards of XRAY's Engineering Department. Thanks to the fully-adjustable Quick-Saver™, in a matter of seconds you can change the steering characteristics by adjusting the servo saver to one of 5 preset Ackermann positions. The servo saver comes factory pre-built, guaranteeing exceptionally smooth, responsive, and precise steering. The alloy central shaft features a pre-installed strong preload spring.

Adjustable Steering Bell-crank

An adjustable position steering bell-crank is also used to change steering Ackermann settings. By turning a pair of composite eccentric bushings in the chassis and top deck, you can move the complete assembly forward or backward. This is in addition to the five Quick-Saver™ Ackermann positions. The bell-crank is supported by two ball-bearings.

The T3 bell-crank was moved more to the rear compared to the T2 platform so as to optimize the Ackermann position.

Precision Spur Gears

Precision-molded spur gears are made from XRAY's exclusive secret blend of composite material, allowing the gear to run true and super quiet and be robust enough to handle low-wind modified motors or brushless motors. The spur gears are strategically designed to have the lowest possible weight while staying strong and light. Each gear is stamped with the tooth number for easy identification.

The EU Rubber-spec Edition features an 84T 48-pitch spur gear, while the US Foam-spec Edition features a 104T 64-pitch spur gear.

Premium Ball-Bearings

- Fully ball-bearing equipped; 22 bearings in the kit
- High-speed, blue-sealed ball-bearings throughout the drivetrain for maximum efficiency

- Highest tolerance, maximum performance bearings
 - Small-size ball-bearings used in steering blocks and uprights reduce unsprung weight
 - Ball-bearings are degreased and lightly oiled with Aero Shell® Fluid 12 for maximum smoothness and long life
 - High-quality carbide thrust bearings for adjustable Aluminum Ball Differentials
-

HUDY Spring Steel™ CVDs

T3 constant velocity drives (CVDs) are exclusively manufactured from special world-renowned, top-secret, self-developed HUDY Spring Steel™. The T3 drive shafts are the world's tiniest yet most durable drive shafts used in electric touring cars.

The drive shafts lengths have been optimized for both rubber- and foam-tire racing, and as such the EU Edition features longer 52mm drive shafts while the US Edition features standard length 50mm drive shafts. Spring steel drive shafts are recommended to use in the front only.

The drive shafts are strategically lightened – see the hollow end of the dog bone – to guarantee the lowest possible weight without compromising strength or durability. These specially-lightened drive shafts can only be manufactured from special HUDY Spring Steel™ which was developed for extreme racing conditions. The drive shafts have been additionally hand-ground for maximum precision and to provide true rotation and unbinding drivetrain operation.

Alu Hex Hubs

Ultra-lightweight wheel hex drive hubs are CNC-machined from 7075 T6 black-coated aluminum. These ultra-true hex hubs are specially machined to reduce rotating weight while guaranteeing wobble-free wheel mounting. Optional offsets are available (-0.75, +0.75, +1.5mm).

HUDY Spring Steel™ Servo Linkage Turnbuckle

The adjustable turnbuckle used in the T3 servo linkage is manufactured from world-renowned, ultra-durable HUDY Spring Steel™ to give incredible long life and maximum strength.

Shock Pistons

XRAY keyed shock pistons can be used to make adjustable or non-adjustable shocks. Along with the 2-piece adjustable shock pistons, 3 different non-adjustable pistons are included.

XRAY Racing Springs

Both EU Rubber-spec and US Foam-spec Editions feature shock springs which have been carefully selected for different racing conditions. The EU Edition features proven C2.6/C3 springs, while the US Edition features light-purple and white springs.

As with all other XRAY springs, these springs were manually measured and selected to guarantee precisely equal length and damping characteristics.

XRAY Selected Springs

For additional tuning, XRAY offers complete sets of ultimate shock springs. XRAY self-developed and manufactured ultimate racing springs are manually selected for maximum precision, equal length, and equal damping characteristics. Available separately or as an ultimate set #308390 and #308380, along with the new line of black-coated, laser-engraved springs.

Body Posts

Beefy 6mm thick body posts are made from special composite material that provides maximum strength but sufficient flex to reduce body post breakage in hard crashes or if you flip the car over. The body supports are rounded to have a better fit and provide better support to the car body.

For ultimate tuning and adjustment, XRAY offers optional body height adjustable body posts which allow the independent front & rear body height adjustment by +1mm or +2mm.

Front Bumper

The compact front foam bumper is manufactured from high-resilience lightweight foam. The front lower composite bumper and upper bumper holder are molded from rigid composite material to withstand heavy crashes.

An optional stiffer foam bumper is available (#301223) as well as an impact-absorbing lower bumper (#301203).

Adjustment Possibilities

The extensive and impressive range of adjustment possibilities includes: caster, camber, toe, anti-dive, anti-squat, ride height, downstops, track-width, lower roll center, Quick Roll Center™, steering roll center, wheelbase, Ackermann, belt-tension adjustment, Multi-Flex Technology™ (top deck flex), 4-step adjustable shocks, adjustable diffs (US and EU Editions), and adjustable front XRAY Multi-Diff™ (EU Edition only), car balance depends on batteries used

Chassis Balance

The chassis design focuses on balanced weight distribution and weight transfer. The chassis features pre-drilled holes for additional weights for optimum car balancing. Centerline holes are pre-drilled for easy balancing with the HUDY Chassis Balancing Tool #107880.

Premium HUDY Greases

The T3 includes premium HUDY Graphite and Diff greases.

HUDY Graphite Grease is a high-performance, advanced-technology semi-fluid lubricant which incorporates both extreme pressure additives and finely-dispersed graphite for load carrying. It is intended primarily for the lubrication of rotating parts and loaded gears. In addition to providing outstanding load carrying, it is formulated to have excellent adhesion and resistance to "fling-off" under extreme conditions. The grease reduces wear and increase the parts life.

HUDY Diff Grease is a high-performance, model racing car general-purpose silicone based grease, formulated to provide extra protection against wear, corrosion, and water. HUDY Diff Grease is recommended for most types of rotating and moving parts in any RC car. This silicone grease is especially well-suited for use in ball differentials, axial (thrust) bearings, and in any other ball-bearings that require grease. Suggested for use in any heavy-duty application where high pressures or loads are present. This grease provides excellent protection against rust and corrosion while resisting water wash-out, making it particularly suitable for racing in wet conditions. The silicone grease operates within a large temperature spectrum and will work in all extreme conditions up to and over 100°C.

Optional Battery Holder

Being a high-competition racing car, the T3 uses tape to hold the batteries to the chassis to reduce unnecessary weight. HUDY Fibre-Reinforced Tape #107870 is recommended by the Team XRAY factory racing team for high-competition racing.

The chassis also features holes for an optional graphite battery strap for 6-cell battery pack (#306163) which features the XRAY Smart Battery Holder System™. A captured aluminum wheel enables you to easily secure the battery strap without clips. Easy, smart, quick.

The race-oriented XRAY battery holder was designed to ensure that it won't affect chassis stiffness even if you tighten the capture wheel excessively.

XRAY Set-up Book

The new T3 retains the title of the most adjustable electric touring car in the world. Whether you are a hardcore racing fanatic or a club-level sportsman, you can very easily adjust the T3 to suit your racing style, race track type, and all track conditions. The T3 features the best-selling XRAY Set-up Book with more than 50 pages loaded with high-quality pictures and easy-to-read and understand RC car set-up explanations. Whether you are a novice driver or an experienced racer, you can easily learn many set-up tips & tricks and improve your set-up skills, ultimately translating into improved racing performance with your T3.

XRAY Instruction Manual

XRAY Instruction Manuals have become the industry standard, being simply the best manuals you will ever get with an RC model car. Whether you are a first-time builder or an experienced racer, all the instructions are straight-forward and easy to understand. The full-colour instruction manual contains large 3D illustrations that show all assembly details in the clearest possible way.

XRAY VIP Customer Treatment

Owning an XRAY model racing car is an experience on its own. Not only will you own the most premium luxury model racing car in the world, but you will also become a member of the prestigious family of XRAY owners with direct support and service from the XRAY factory. XRAY brings you the most up-to-date RC Web site on the Internet, with daily racing news and latest product developments. If you have any questions, problems or comments, you can ask the XRAY Support Team or any XRAY Factory Team Driver on the XRAY Support Forum. You can even upload your own set-up sheets or download from the thousands of different set-up sheets available from all around the world at the exclusive XRAY Virtual Set-up Sheet Database, the world's largest set-up sheet database. And that is only the start of the VIP treatment you get by joining Team XRAY.