SPEC: 4WD CARBON FIBRE CHASSIS **CLASS:** ON-ROAD COMPETITION **COST:** £399.99

AGENT ORANGE

Two thousand and ten is a big year for touring car racing with the IFMAR World Championships being held in Germany in July. With this in mind, the leading manufacturers are bringing out the cars they hope will allow them to capture this coveted title. This year's release from Xray is in title at least a big one, with the car moving from the T2 to the T3 platform

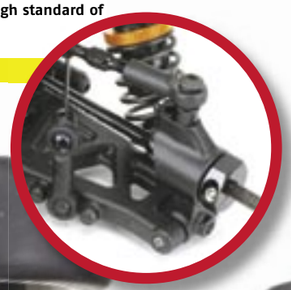
SPEC: *4WD CARBON FIBRE CHASSIS* ***CLASS:*** *ON-ROAD COMPETITION* ***COST:*** *£399.99*

VERDICT

⊕ **LiPo compatibility / larger diffs / high standard of parts and build quality**

⊖ **standard screws / price**

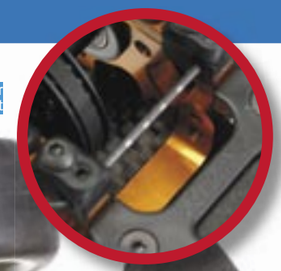
Racer Rating: ★★★★★



Design uses a grub screw to secure the hinge pin

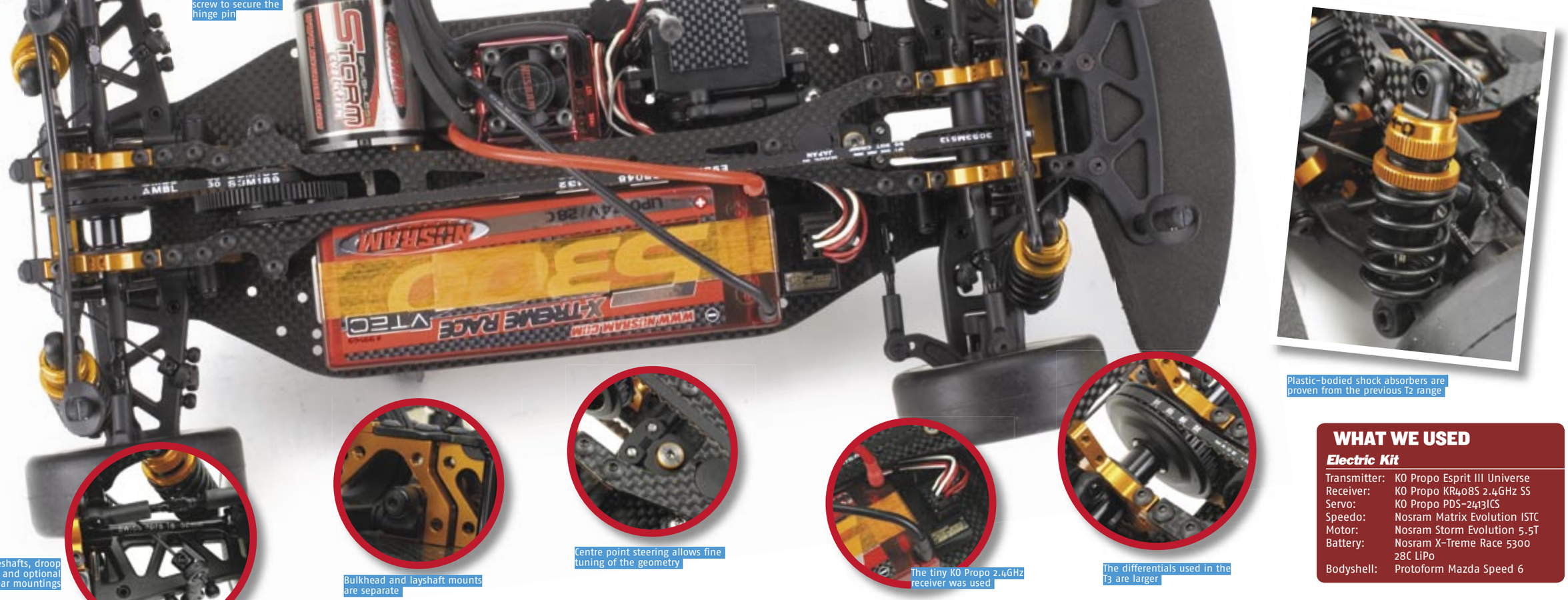
A trusty Nosram Matrix Evolution ISTC speed controller was fitted

Minimalist driveshafts are made of alloy at the rear



A 1.4mm anti-roll bar is fitted up front

Orange alloy brace at the rear connects the two suspension mounts



Plastic-bodied shock absorbers are proven from the previous T2 range

Alloy driveshafts, droop screws and optional anti-roll bar mountings

Bulkhead and layshaft mounts are separate

Centre point steering allows fine tuning of the geometry

The tiny KO Propo 2.4GHz receiver was used

The differentials used in the T3 are larger

WHAT WE USED

Electric Kit

Transmitter:	KO Propo Esprit III Universe
Receiver:	KO Propo KR408S 2.4GHz SS
Servo:	KO Propo PDS-2413ICS
Speedo:	Nosram Matrix Evolution ISTC
Motor:	Nosram Storm Evolution 5.5T
Battery:	Nosram X-Treme Race 5300 28C LiPo
Bodyshell:	Protoform Mazda Speed 6

The Xray T3 was first unveiled to the public in late 2009 and was used by the team for the ETS races in the winter. Teemu Leino has already proved that the car is fast by claiming fourth place in a truly world-class field at the DHI Cup in Denmark. This year will be the first season where manufacturers can design cars specifically for the new LiPo-based rules, with in the UK at least, the weight of the cars being reduced from 1500 to 1350 grams. This change in technology has led to many of the changes on the T3 and these include the front belt being moved to the right of the car to allow the electrics to be moved in and the cells being moved out to balance the car. The larger differentials from the T2'008 return with a larger centre pulley to reduce rolling resistance. The wishbones have been moved from mounting on the bulkheads to hangers mounted on the chassis and this it is hoped will change the way the car flexes. The top deck is a new one-piece design and is mounted slightly higher to accommodate LiPo cells, and the camber links are longer on the suspension. All these changes are fairly subtle when looking at the car but amount to a considerable change in the way the car is balanced and generates grip.

BOXING CLEVER

As always the car comes in the impressive box with the colour picture of the kit and also contains a very clear set of instructions and a set-up book. The chassis and bulkheads are already screwed together, but need to be disassembled to allow the chassis and other carbon parts to be sanded and sealed with superglue. Through experience, we have found the easiest way to do this is in the garden with a Dremel on slow and a bucket of water to dip each component in to stop the dust from going everywhere. Once the carbon parts are rounded simply put some superglue on a cotton bud and run this round the outer surfaces of each part. The end result is a smooth and shiny chassis!

All the metal parts are still in the high-visibility orange from the T2'009 and the build starts by bolting these to the chassis. The diffs and belts then drop into place. The main parts of the drivetrain are as the T2'009 with the front spool and rear diff simply featuring the larger pulleys for the belts. It is worth making sure that you build the drivetrain with the front belt on the right and the rear on the left if you are running LiPo as the parts will go in either way round. The rear differential comes ready assembled and from our experience works great from the packet.

SUSPENSION

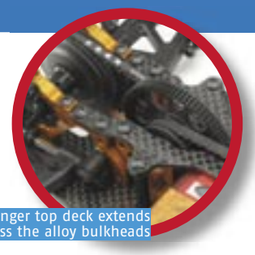
Once the drive system is in place the wishbones are mounted onto the new hangers. These are now separate to the main bulkheads, with the wishbones hung on the sides as per the older models. As previously it is worth pushing against the plastic mounts when tightening the screws to stop the plastic crushing the wishbone and binding the movement of the arm. Both ends of the car have a one-piece alloy mount at the outer edge of the car and on the inner edge two separate mounts for the wishbones. Having released the car Xray received some feedback from customers that the front wishbones could push back in very hard accidents and pull the rear screws through the chassis so they have provided two solutions. The first is to run a little superglue around the rear holes via a cotton bud prior to mounting the two hangers as this will increase the strength of the carbon fibre. Xray have also released a free upgrade to a stronger one-piece front hanger to stop the wishbones having the chance to pivot backwards after a heavy front impact. The new hanger takes a little flex out of the

SPEC: 4WD CARBON FIBRE CHASSIS **CLASS:** ON-ROAD COMPETITION **COST:** £399.99

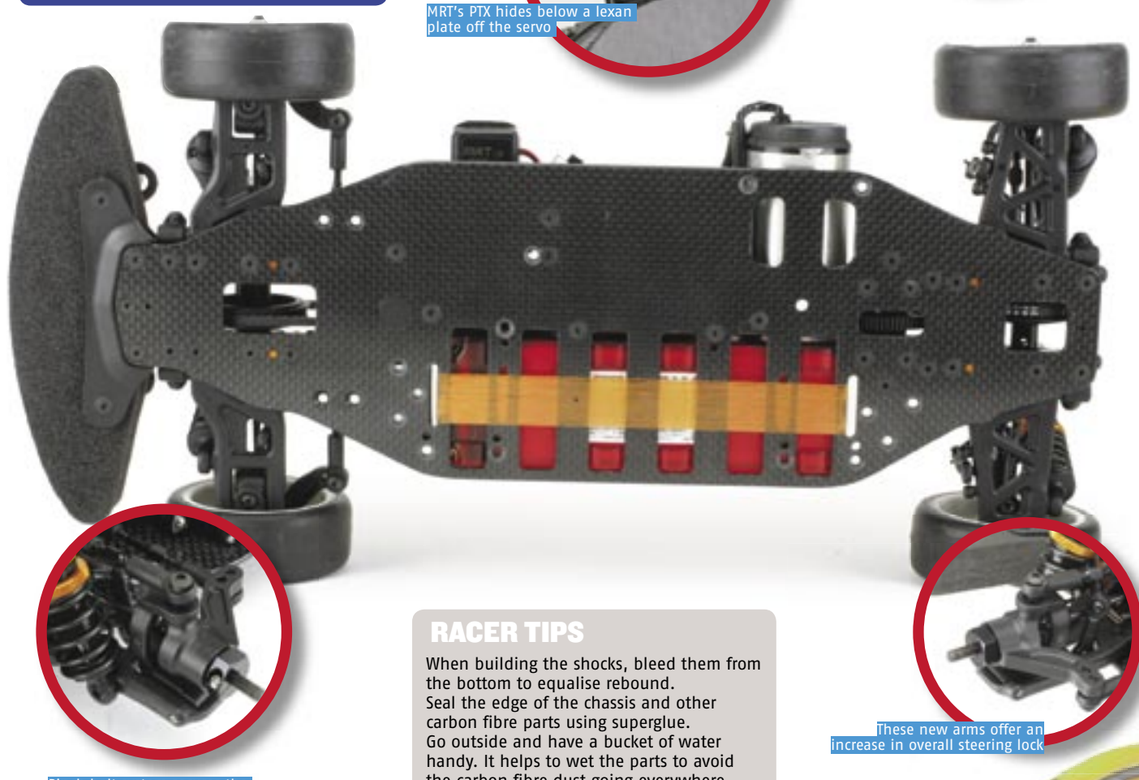
OPTION PARTS

- shock absorber springs
- anti-roll bars
- caster blocks
- rear hubs
- 3mm carbon fibre chassis
- Multi Diff

MRT's PTX hides below a lexan plate off the servo



New longer top deck extends across the alloy bulkheads



Pinch bolt system secures the wheel hex to the axle

These new arms offer an increase in overall steering lock

RACER TIPS

When building the shocks, bleed them from the bottom to equalise rebound.
Seal the edge of the chassis and other carbon fibre parts using superglue.
Go outside and have a bucket of water handy. It helps to wet the parts to avoid the carbon fibre dust going everywhere.

car so may remove steering on lower grip tracks. New for the T3 is a longer one-piece top deck. This is designed to move the point at which the car flexes and again aid grip and ultimately lap time.

ALLOY AND STEEL!

The steering system is carried over from the previous models and is highly adjustable. This is also the point at which the turnbuckles for the camber links and steering are installed. For the first time Xray have moved away from the previous steel turnbuckles to black anodised aluminium pieces, which look great and are slightly lighter than the previous versions.

The driveshafts are the new lighter weight drive axles as used on the T2'009, once again with the front shafts being Hudy Spring Steel and the rears being lightweight aluminium items. The front driveshafts are attached to the slightly revised front knuckle arms that allow a little more steering lock. The camber links now fit to the shock mounts via longer roll centre adjusters. These allow for a longer top link, which should increase stability and reduce roll.

The car comes with anti-roll bars front and rear with the front being 1.4mm and the rear being 1.2mm. These are 0.2mm softer front and rear compared to the kit items on the T2'009, which should be perfect for the slightly lighter breed of LiPo-powered touring cars.

SHOCKING!

The final part of the build are the shocks and are the same items that were used on the T2'08/009 and feature plastic bodies and the option of both adjustable and fixed pistons. We built our kit with the standard three-hole fixed pistons. One tip that we find helpful in getting an air free action is to fill the shocks, screw the tops on and then release the bottom cap of the shock and gently push the shock in until a small amount of oil comes out, then re-tighten the cap. This allows the excess oil to bleed out. By doing this slowly all four shocks can be built with equal rebound.

We kept our electrical set-up the same as our previous T2'009 with the servo, speed controller and motor on one side and the battery and receiver on the other. With the new LiPo cells and unlimited motors in modified racing the reliance on clever electronics is reduced as the power is readily available, thus we stuck with our tried and tested Nosram Matrix Evolution ISTC speed controller and Storm Evolution motor.

We chose to finish the car with the now default Protoform Mazda Speed 6 shell, our example was sprayed by Graham Smith at Custom Blitz in the same high-vis orange as the car so should be unmissable on the track!

ON TEST

We took our T3 to the Newbury indoor track for its initial test. The Newbury club run a well-attended winter series on carpet. The track is laid out on a five-a-side football pitch and is a great size for an indoor facility. The carpet is a mixture GT type and Duo but offers good grip once a few cars have run round and also provides plenty of carpet fluff as well!

Having not done much running indoors with a touring car we chose to start on the standard kit set-up, other than building the car with the same oils that we ran on the T2'009, 450wt front and 400wt rear. This was also the first time that we had tried LiPo and unlimited motors so lots to learn. We stuck with our trusty Nosram Matrix Evolution ISTC speed controller and matching Nosram 5.5T modified motor.

What was immediately evident was just how fast and light the new breed of touring cars are. The new ratio of the drive system feels incredibly smooth on the track and as a result feels a little more balanced in the corner. The new lighter weight and better weight distribution allows the car to feel very alive and precise even on the more technical indoor tracks. So the first run confirmed that the car is still fantastic from the box. On the previous cars we found that the standard kit springs produced a slightly more aggressive feel compared to HPI springs, so for the second run we left the settings as kit but moved across to HPI silvers all round. This provided a little more body roll and made the car more forgiving, which indoors helped our nerves a little!

Due to limited running with touring cars indoors previously it is difficult to give a direct comparison between the T2 and T3, but having spoken to a number of drivers over the winter more experienced indoors with both cars the general feedback seems to be that the T3 generates slightly more grip and as a result steers slightly better. What this seems to have created is a car that is quicker over a lap, but potentially a little more on edge.

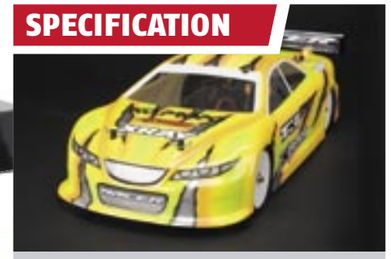
We ended the day very pleased with the feel of the car and as always with Xray impressed with the quality and fit of all the parts. All that was needed from the T2'009 was a little more steering on old tyres in our opinion, and from first impressions the T3 seems to have made real progress in this area.

"the T3 generates slightly more grip and as a result steers slightly better."

SUMMARY

As always, Xray have produced a beautifully engineered evolution of their previous design. There is no great revolution in the car, rather a careful development of the previous car into what should be a step forward in performance. All the strong points of the T2 remain, and truthfully the platform is probably more T2'010 rather than T3, but this is no criticism as why change something that wasn't ever broken?

SPECIFICATION



MODEL:	XRAY T3
SCALE:	1:10
CLASS:	ON-ROAD
APPLICATION:	COMPETITION
FORMAT:	KIT
POWER:	ELECTRIC
CHASSIS:	CARBON FIBRE
DRIVETRAIN:	4WD
TRANSMISSION:	BELT
DIFFERENTIALS:	BALL/SPOOL
SHOCKS:	OIL-FILLED
BEARINGS/BUSHES:	BEARINGS

TECHNICAL DATA

LENGTH	372MM
WIDTH	189MM
WHEELBASE	256-261MM
WEIGHT	1385G

CONTACT:

RC Disco
Tournament Way
Ashby de la Zouch
Leicestershire
LE65 2UU

E-mail: sales@rcdisco.com
Website: www.rcdisco.com
www.teamxray.com