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XRAY T2 UNVEILED
AS WORLD TITLE
CHALLENGER

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New look HPI Savage is a real attention grabber!



THRASH TEST

A New Generation

The original T1 series of Xray touring cars has now been super seeded by the first of the T2 models. Our own Xray specialist Scott Smart investigates...





It has been a long time coming but finally the Xray touring car range gets a name change, but having had several generations of T1 does the new car deserve a new title? And why is there a new car barely nine months after the release of the '05 car?

Well to answer the first question, frankly yes. Upon first glance the car is clearly an Xray, the same look to the suspension components, the same quality of parts and machining. However upon closer inspection there are virtually no parts carried over from

the previous range (see box). The most obvious features of the new car are the flex options and that the wheels are now retained by nuts!

ALL-NEW MODEL

So why did Xray feel the need to produce a totally new car so soon? Well the T1 FK05 was a good car but in reality a slightly rushed attempt to replicate the chassis layout of the other top belt driven touring cars in the market. The suspension was carried over from the earlier cars and in reality whilst slightly easier to drive producing better runs for poorer drivers was no faster than the earlier cars in the hands of the experienced. The car also didn't generate enough grip in slippery conditions but was very good in high grip situations. I think Xray had felt pressured into releasing that car and it was the car they had wanted to build. Chief designer Juraj Hudy has had his own way this time...

QUICK CHANGE SETTINGS

The changes to the car are extensive, some parts are completely redesigned others have just been improved slightly. The car has 'MFT' or multi flex technology, which allows you to quickly change how flexible the main chassis is. This is achieved by adding or removing bolts in the top deck and into the bulkheads through the chassis. The car is used on many different surfaces and on many different levels of grip. Hopefully MFT will allow the car to be very quickly changed to suit the grip levels without resorting to different thickness chassis' and various top decks. You can't please all the people

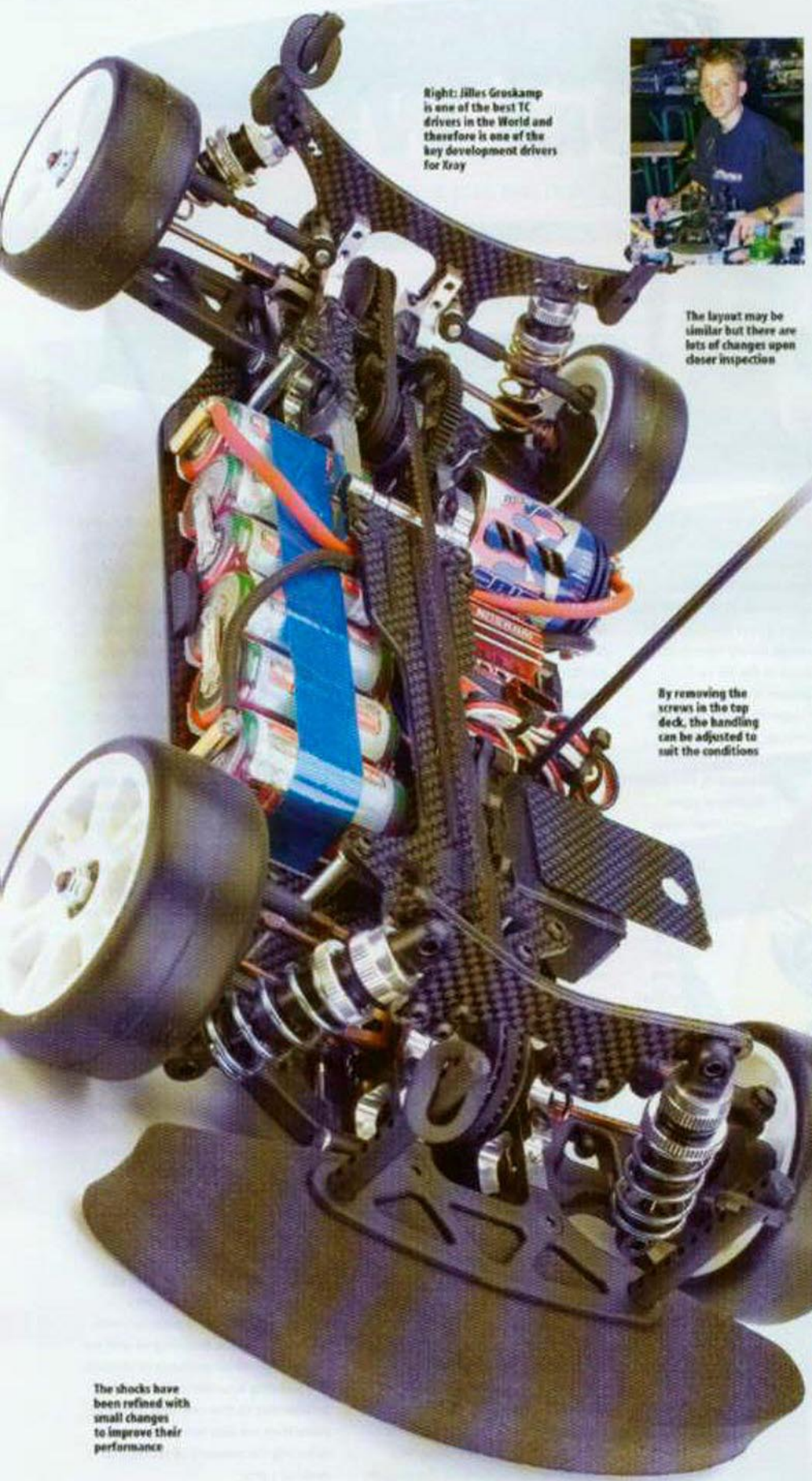
all the time they say but hopefully this will get close. In our test (see separate panel) the MFT makes a noticeable difference to the car.

The wishbones are now different and much neater, they allow more clearance for wide wheels (although still not quite enough in some cases), hard arms are supplied as standard and the wishbone mounts now bolt to the sides of the bulkheads. The bulkhead no longer has the options for roll centre position, different offset plastic mounts are supplied to adjust that and provide kick up and anti dive options. This is the same front and rear, spacers between these mounts and the bulkheads adjust inboard toe in. Most of Xray's competitors cars bolt the suspension mounts down to the chassis, that means easy roll centre changes but requires different mounts for toe in, it also means that you can't adjust the flex so easily which is one of the key features of the Xray. At the rear, the other end of the arms see the use of much smaller rear hubs. Smaller bearings are now used along with a conventional style axle (hence wheel nuts now), the uprights have one degree of toe in each, as standard the rest of the toe in is inboard. At the front the 'C' hub has been made lower and the front top link now fits onto a ball stud that forms the kingpin (the pivot for the steering knuckle), this has changed the geometry significantly. The car is supplied with four-degree hubs, two-degree and six-degree should be available as options. The steering knuckle is now much smaller due to the new bearings and axles, they are also symmetrical thus reducing the amount of spares you need to carry.





THRASH TEST



Right: Jilles Groskamp is one of the best TC drivers in the World and therefore is one of the key development drivers for Xray



The layout may be similar but there are lots of changes upon closer inspection

By removing the screws in the top deck, the handling can be adjusted to suit the conditions

CHASSIS CHANGES

WE RUN THE MAJOR REVISIONS OF THE T1 AS THE CAR DEVELOPED FROM T1 THROUGH TO T1 FK 05

T1 - ball pivot suspension, saddle pack layout, serpent shocks

T1 Evo II - chassis allowed cells to be placed along one side of the car for American rules that stipulated cells together, rear bulkheads relieved to allow this and the cells were on average further back than the original car (not a great improvement), Xray's own shocks, flexible top deck, more Ackermann positions (later removed), narrow front belt, ciled bearings, inboard toe in adjustment, very adjustable shock towers.



'C' Hub suspension kit released (long arms)

T1R (Racer) - A plastic chassis version of the T1 that was cheaper, notably it came with the 'C' Hub parts as standard and the wishbones were already upgraded versions of the separate 'C' hub kit. Shock towers also moulded plastic, silver bulkheads, fixed layshaft.

T1 Evo II FOC - The Evo II but with the 'C' hub parts included in the kit along with the pivot ball set. Pivot ball front end was updated, narrow rear belt, plastic upper front bumper for new style anti roll bars.

T1M - 1/12 scale four-cell car featuring short wishbones

T1FK - Smaller silver bulkheads as no need for pivot ball fittings and with more roll centre positions, short suspension arms, lightweight drive shafts, lightweight fixed layshaft, lightened outdrives, different shock towers.

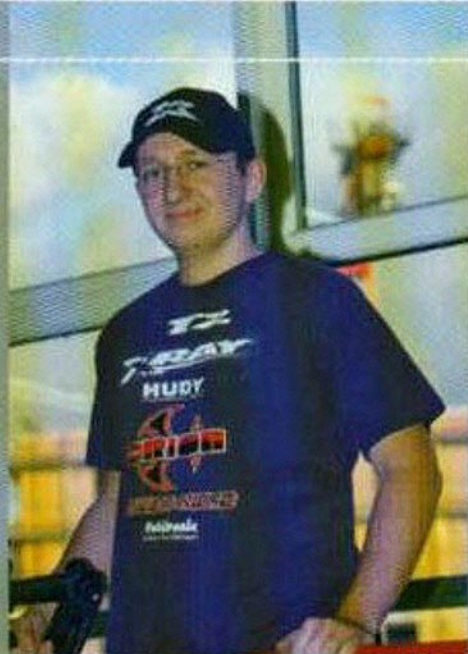
T1 FK - Proto unreleased car that went to the worlds, lower layshaft and cells forward, narrower, angled kingpins (allegedly!), a lot of the work in this car is what went into the T2

T1 FK'05 - Massive revision to the chassis layout and a reversal of the drive belts. Suspension same as previous car, adjustable rear diff height, low level layshaft

The kit features a front Multi-Diff that can be made into a one-way, one-time solid or full-time solid (spool) with no extra parts

The shocks have been refined with small changes to improve their performance

Tarmac/Asphalt - We took our T2 to one of West London's winter series rounds to get a benchmark on its performance out of the box. Being January the weather was, as expected, cold and a little damp. The West London track is well known to racers in the UK and contains an entertaining mix of fast and technical sections that test any chassis to the maximum. We started the day on the Hudy basic rubber tyre setup, and ran the car with a fitted 1600 B&K modified motor. What was immediately apparent was that even in the damp conditions that greeted us in protest the car had great traction from the bigger turns on the track. On the Shamini graded tyres the car rocketed out of hairpins. The car was also very stable and easy to drive with the bit set-up. As we moved through the day the track gradually dried, allowing us to move onto slick CS22 tyres. What was obvious as the grip came up was that the T2 carries an immense amount of speed into corners and steers very precisely. With the new Orion SP2 cable the car was also exceptionally quick down the straight. With the level of steering that the chassis generated it was possible to post quick lap times, but it was difficult to be consistent. We went to the medium flex settings and slightly harder rear springs to claim the car down a little and gained a little grip by doing this, but ran out of time for any further changes. The result of the day was a pleasing A final very, even with only a fraction of the cars potential unlocked. So after our first outing what did we learn, the car is quick and far more agile than the F4GB, we need to earn the rear of the car a little to smooth out the car, and finally, that the car was a pleasure to work on and maintain through out the day.



Rubber on Carpet - We have also used the T2 on carpet, which is how many drivers will use the car. The car was put on the track completely standard with Take On CS22's fitted (an okay carpet choice) and a Protoform Mazda 6. As standard the car was very smooth to drive and easily drifted, it turned in well and was fast. We tested several shells and concluded the Mazda was the most accurate on the track. To gain a little more grip we removed screws and posts to set the car to medium flex, immediately more grip was being found by the chassis. However we ended up putting all the screws back in only the top deck as the car seemed more responsive without losing the new found grip. The rear end



The T2 enjoyed a great outing at the GP Carpet World Cup



Martin Hudy's T2 in action on the Swiss Carpet at CRF Power

was still loose corner entry off power so we tried front end dive to stop the back unloading this cured the problem but caused a lot of understeer, we went back to standard and reduced rear droop, this helped but the car still needed a little respect on corner entry. We tried the various one way setting and the full one way was the fastest and not much more difficult to drive, a front stiff was tried which lapped almost as fast but allowed the use of brakes. In conclusion this is just about the best towing car I have driven and was fast even with the standard set-up. We have a lot more to try yet, changes were really felt and the balance is great even at standard.

THRASH TEST



Underside of the chassis shows the slots in the lower deck and the fixing points around them



The high-quality mouldings on an Xray are second-to-none



A winning combination of Hossam speedo and receiver with Marc Rheindard motor from Orion



Lots of adjustability on the T2. Note the use of Rudy Spring Steel where possible



With the rear tower removed, access is made easy to the transmission

"The number of parts carried over from the previous model amounts to virtually none."


against them at the front. This should stop the bulkhead being damaged in a large crash and also allows the MFT to work properly.

EASY PERSONIFIED

Construction of the car is typical Xray, the instructions are exemplary and the quality of both moulded and machined parts is outstanding. This all results in a car that just drops together, even the bearings are lightly oiled as standard, which means no washing out of grease... The only problem so far seems to be unequal rear toe in, this can be corrected by changing the inboard toe in with shims. The supplied setup manual shows clearly how to do this, and hopefully Xray will soon be

addressing the problem. This manual is indispensable as it covers all the possible adjustments to the car and their effects. There is also a quick check setup guide for quick set up help and a list of all the gear ratios for both 48dp and 64dp gears. There is no point in me giving a step-by-step construction

guide, the manual already does that even telling you to prep and glue the chassis!

Very few option parts are available just yet, and looking at the results so far they are not that essential, the car has been winning at major events on different surfaces using just the parts supplied in the box. 

WHAT WE USED

Electric Kit

Transmitter: KD Progo Vantage Type R
Receiver: Hossam Gemini 40MHz
 servo: KD Progo PS-2173 FET
Speedo: Hossam Gemini Evolution
Motor: Orion Orion 7x1 Max Rheindard Edition
Battery: Orion Orion GP3300 NIMH (used)
Spac V-Max
Body: Prochemi Model B

CONTACT:

Alvin RC Enterprises Ltd
Queens Drive Industrial Estate
Swaathicote, Derbyshire, DE11 0EG

Tel: 01283 226573
Fax: 01283 226401

Website: www.alvinrc.com
www.alvinracing.co.uk

SPECIFICATION

Model: Xray T2
Scale: 1:10
Class: On road
Application: Competition
Format: Kit
Power: Electric
Chassis: Carbon Fibre
Drivetrain: 4WD
Transmission: Belt
Differentials: Ball
Shocks: Oil Filled
Bearings/Bushes: Bearings

TECHNICAL DATA

| | |
|-------------|-------|
| LENGTH | 373MM |
| WIDTH | 190MM |
| HEIGHT | 115MM |
| WHEELBASE | 255MM |
| FRONT TRACK | 185MM |
| REAR TRACK | 187MM |
| WEIGHT | 1280G |

SUMMARY

OVERALL THIS IS A STUNNING NEW CAR FROM XRAY AND THOROUGHLY DESERVING THE NEW NAME! IT HAS ALREADY PROVEN TO BE FAST AT THE HIGHEST LEVEL AND IT IS ALSO FASTER IN THE HANDS OF LESS EXPERIENCED DRIVERS. WILL THIS ONE FINALLY WIN THEM A WORLD CHAMPIONSHIP?

VERDICT

 EASY TO WORK ON / GOOD OUT OF THE BOX
 LIMITED SPACE FOR ELECTRICS

RACER RATING ★★★★★