

On TEST

Whilst it would be true to say that I am not a gambling man, I have to admit that I don't mind making the odd prediction or two every now and then. So it was with the September issue's report on the Kyosho 'Ultima' in which I stated that "I for one am not going to bet against the possibility that Kyosho's new 'Ultima' can carry off the honours."

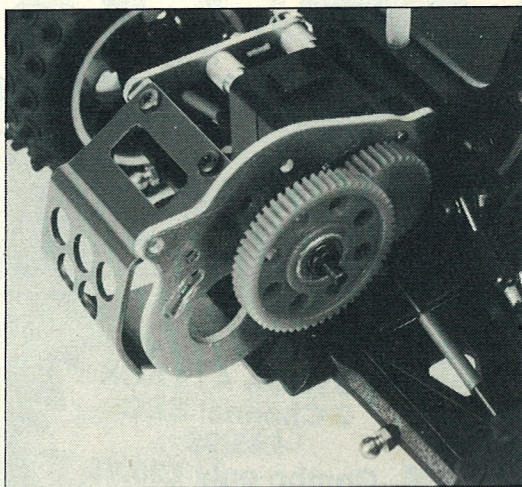
Well the World Champs report printed elsewhere describes in detail Joel Johnson's win at the recent World Champs (two wheel drive class) with this car. Its nice to be able to say I told you so, but in all honesty the writing was on the wall for the likes of Associated and Co.

So far however most competitive racing has taken place on grassed circuits. Also since the original review changes have taken place with regard to several of the major components. As I mentioned previously one whole page of the instruction booklet is given over to the list of 'Option House' extras available for the 'Ultima.' Once the Japanese/English descriptions had been translated it became clear that some of these items would be worth further investigation.

Having said that however it should be pointed out that the 'Ultima' goes extremely well without having to remortgage for the cost of the 'Option House' extras.

Ballraces

A full complement of ballraces is the most sensible tune-up addition for any car. Plain or oilite bearings are all very well at first but they will wear in time as a natural result of friction allied to oil and dirt. My set was supplied by Otley Model Shop for the princely sum of £23.95 for every ballrace you will need for the car. I made a big mistake with the main differential output races which had me on the phone to Otley at the earliest opportunity. "They



look at the instruction manual had been undertaken. Now I have a beautifully smooth, free and hopefully efficient gearbox.

Chassis

I wasn't too sure about this particular 'Option House' item, and I have to confess I am still not.

When I first built the 'Ultima' I was impressed with the quality and rigidity of the chassis.

Now I have the 'Option House' article which is of a strengthened material, thicker and subsequently stronger. Beside

the thicker material (2mm) the changes on the new chassis are as follows. All the holes through the bottom are countersunk and new screws are provided to locate the gearbox and suspension systems. The advantage of this is that the chassis now has a totally flush bottom unlikely to catch on anything and attract dirt.

Strengthwise the new chassis must have the edge but whether or not this is significantly greater than the standard item is a different fact to test. I for one couldn't tell you the difference between the two on the track so the choice is yours. The other change necessary when fitting the new chassis to the servo saver. Again the new pieces are supplied with the chassis, these include new pivots and spacers to locate between the servo-savers and the top deck. Finally apart from the cost, an extra price has to be paid in ounces when changing.

to the new chassis. Obviously thicker means heavier and this may be a good thing.

So far the new chassis has stayed on the car (mainly because it is supplied anodised in gold) and despite some fairly left shunts has remained true and intact.

Option House shocks and mounts

These are quite simply a must to replace the shocks supplied in the kit. Whilst the standard items obviously work they

cannot compete with the 'Option House' type in terms of better damping and longer throw. The shocks use a pressure compensating diagram plus double O-ring seals and stainless steel piston shafts. At £22.95 a pair they are pricey but well worth it for the improvement given. The shocks are also supplied with three grades of spring to allow fine tuning for a variety of tracks.

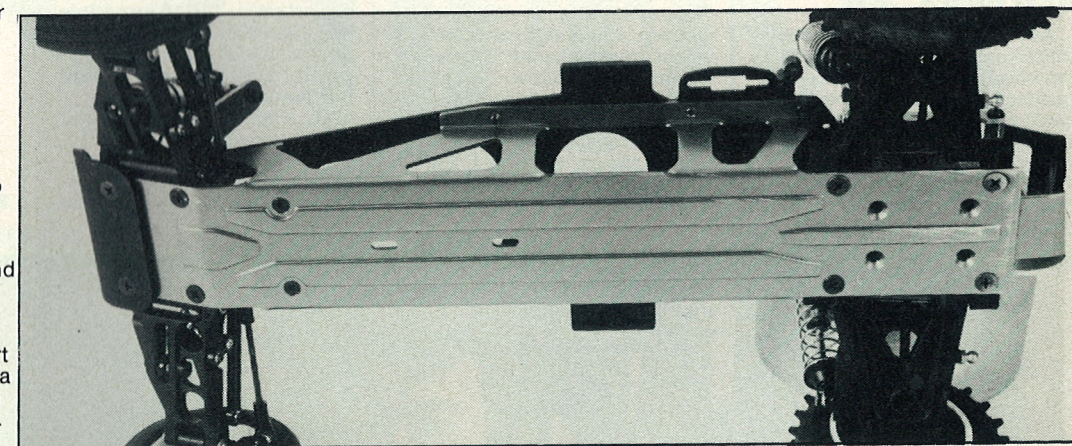
The unfortunate part of all this is that new shock mounts must also be acquired to accommodate the larger, longer throw dampers. Way back when the 'Optima' first appeared several enterprising racers fitted Associated shocks by making up new GRP damper mounts. Well Kyosho have now taken the burden off you making your own for the

Main picture: The 'Ultima' has a new stiffness and purposeful feel when fitted with the new chassis and shocks.

Opposite page: The new 40DP gears moulded in blue need a more accurate setting but give greater efficiency.
Bottom: The new chassis is gold in colour and is much tougher.

All this shows the fact that the 'Ultima' is an excellent car combining the best elements of speed and handling in one package. Above all else the 'Ultima' has proven to be both demanding and enjoyable to drive on all manner of surfaces in all types of competition.

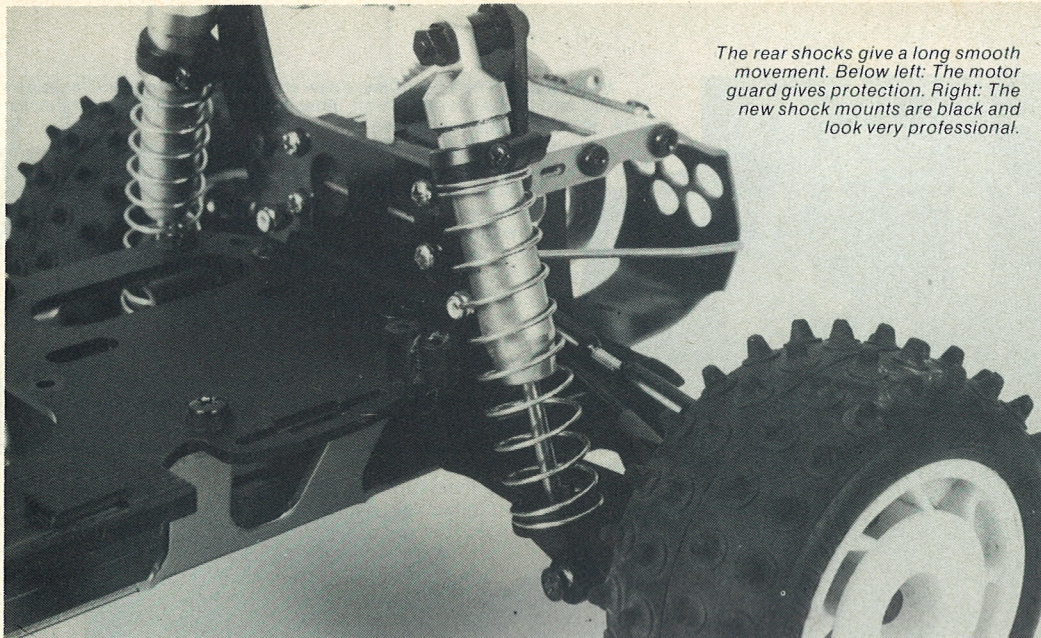
don't fit!" I cried. "Have you taken off the adaptors fitted to the differential housing so that it fits the kit bearings?" "Errr, what adaptors?" "Yes, a big mistake and one easily rectified once a good



OPTION HOUSE

ULTIMA

Lewis Eckett explains the advantages of the 'Option House' accessories available for the Ultima



The rear shocks give a long smooth movement. Below left: The motor guard gives protection. Right: The new shock mounts are black and look very professional.

'Ultima' by producing their own. The new longer stroke shocks aid the 'Ultima's' handling greatly over bumpy surfaces, in particular tracks where jumps are incorporated.

Rear motor guard

This part also fits into the 'necessary' bracket by virtue of its rearward protection of the motor and gearbox.

The plastic cage which forms part of the bodyshell is not really man enough when faced with a heavy shunt from behind. In such an event the worst that can happen is that the motor can be shifted forward, jamming the gearbox and damaging both the gears and the motor.

The motor guard, once again is gold anodised alloy, and mounts to the gearbox casing and gear plate and provides a robust defence against attacks from the rear.

New gears

As mentioned in September there has been a problem with the internal idler gear in the gearbox. This has now been dealt with to stop the gear stripping when placed under heavy stress.

Kyosho have also manufactured new 40DP

(Diametrical Pitch) gears for both the 'Optima' and 'Ultima.' Unfortunately these are not yet a production item unless the situation has changed by the time of publication. Two types of gear are being tested. The first are all metal in a strong, lightweight alloy, the second are a composite of plastic and metal.

The finer tooth pitch should ensure better overall efficiency of the gearbox although extra care has to be taken in meshing the pinion with the idler gear. Also I noted that the idler gear was meshing too tightly with the gearbox gear. The tolerances were just slightly out which necessitated slotting the idler gear shaft so that it could be moved ever so slightly sideways to improve the mesh.

Track time

First outings on a high grip grass surface proved one thing. The 'Ultima' is indecently quick! The combination of efficient gearbox, low weight and two-wheel drive make the 'Ultima' a difficult car to follow — let alone catch! The only real problem was high speed cornering when sudden transfers of weight caused the car to tip over. Part of this problem was due to having both the receiver and

speed controller mounted on top of the chassis shaker plate. However several adjustments to the suspension could be made to alleviate the problem.

The first remedy was to fit adjustable upper arm links supplied in the kit. This allows some negative camber to be dialled in to keep the car upright during cornering (reminds me of the old days racing 'Rough Riders').

Secondly a proper front anti-roll bar, also an 'Option House' part, gives less steering bite. I also tried the rear anti-roll bar but discarded this as it tended to make the rear end lose grip — not good on a 2WD car.

Now that a modicum of handling had been achieved the 'Ultima' was really going places. The only barrier to further success was my driving which just couldn't catch up with what was happening on the track.

This was made worse by a choice of motor that caused the car to wheelie at every available opportunity. The 16 turn triple was substituted for a 20 turn double, which gave 'pull' all the way through the range without the 'punch.'

My main problem was traffic — most of which was four-wheel drive. Invariably when racing 2WD against 4WD the former tends to come off worse

when contact is made. The ideal situation would be to run separate heats for 2WD. However this may not be practical — particularly if yours is the only 2WD car racing! The alternative is to stay out of trouble in the corners and then zonk past them on the straight. If nothing else, racing the 'Ultima' will teach you how to stay out of trouble and bide your time. All too often what passes for skilful off-road driving is nothing more than a stockcar race.

Hopefully the BRCA AGM in November will approve the formation of a separate racing class for two-wheel drive cars complete with its own National Championship race series. I stand by my comments that 2WD racing is more exciting and demands more skill, you only had to watch the final of the 2WD World Championships at Ramsey to see that.

With the 'Ultima' and the 'RC10' there are two excellent cars which are a joy to race without the hassles of stripping belts, and bent drive shafts.

However, in the meantime the 'Ultima' will just have to compete against four-wheel drive opposition.

And finally ...

I have just heard that Don Ison of *Nodis Racing Developments* is planning on making 48DP gears out of Tufnol for the 'Ultima.'

Also Penn Models will have the *D&D Graphite* carbon fibre 'Ultima' chassis as used by Joel Johnson, available soon. Unfortunately the exact retail price is not yet known but expect it to be around the £50.00 mark.

'Option House' accessories are available through *Ripmax* stockists.

Prices: Chassis £17.95.

Shocks front £22.95.

Shocks rear £22.95.

Damper mounts £8.95.

Anti roll bars front and rear £7.95.

Rear motor guard £6.25.

Reviewed by Lewis Eckett

