

Kyosho Optima



- track test -

Radio Race Car track test the Kyosho Optima four wheel drive kit

Our previous issue reviewed the Kyosho Optima kit, and showed pictorially the simple basic lines of the latest inclusion to their range. We have since had the opportunity of trying out the car in competitions and have found it easy and sympathetic to handle.

At first we considered that the front damping would be troublesome for the car's handling, being somewhat softer than the rear. This has proved not to be the case, with the weight distribution about 60/40% biased towards the rear. The car thus having handleable qualities, initially adjust from oversteer to understeer by adjusting spring tensions on the shock absorbers. Further handling adjustments can be very quickly made by adjusting the upper suspension arms to dial in positive or negative camber for more or less grip in corners.

One obvious feature the car showed from the outset, was its straight line controllability. Fast deviations at speed did not throw

the car off line, but were able to be held easily, and then followed by being able to be got back onto line just as easily.

One of the major faults shown by most novices when they come to race in competitions, is that the car does not drive in a straight line. Without the car having that ability, then the entire handling is in jeopardy, and so are the rest of the drivers in the same race, due to the unpredictability of such cars.

Perhaps we may make the point here, and ask the experienced drivers in clubs to offer more help to the novices, in setting up their cars and then hopefully produce closer, bet-

Left, front damping is softer than the rear, but the car's weight makes up for this.

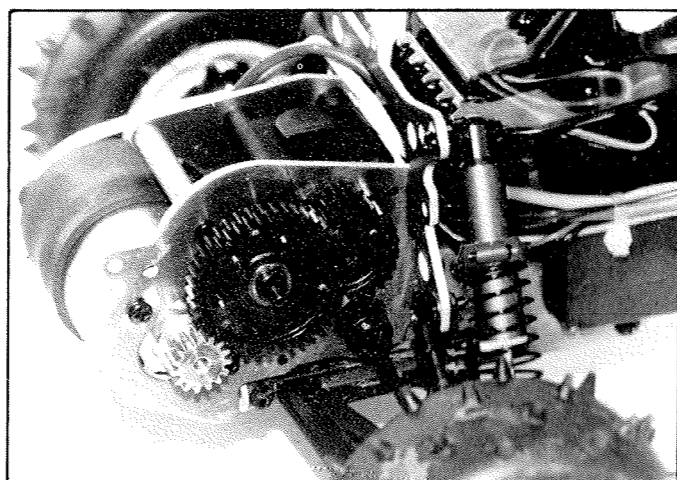
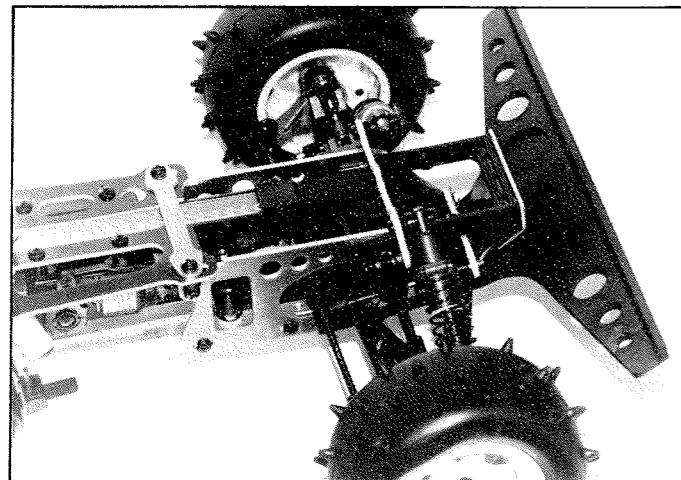
Right, easy access makes gear changes simple.

ter quality racing in 1/10th.

Back to the Optima, and we note that about 2-3° of toe-in is inbuilt into the rear of the car, and we found that little more than that was necessary at the front in order for our straight line control. The rear mounted motor allows easy access and simple gear changing. The gear train runs freely, but would benefit from being ball raced, the differentials run very freely, but be sure to lock in with suitable Loctite, the socket screws that hold in place the drive cups on each side of the differential.

The chain drive between front and rear is obviously noisier than a belt driven car, but once installed in its fully sealed track, it offers an efficient drive with little drag and is best left alone.

The shock absorbers appear to be identical with other Kyosho kits and offer substantial damping, this being dependent on what oil you use. A small complaint here in that from new, even assembled with



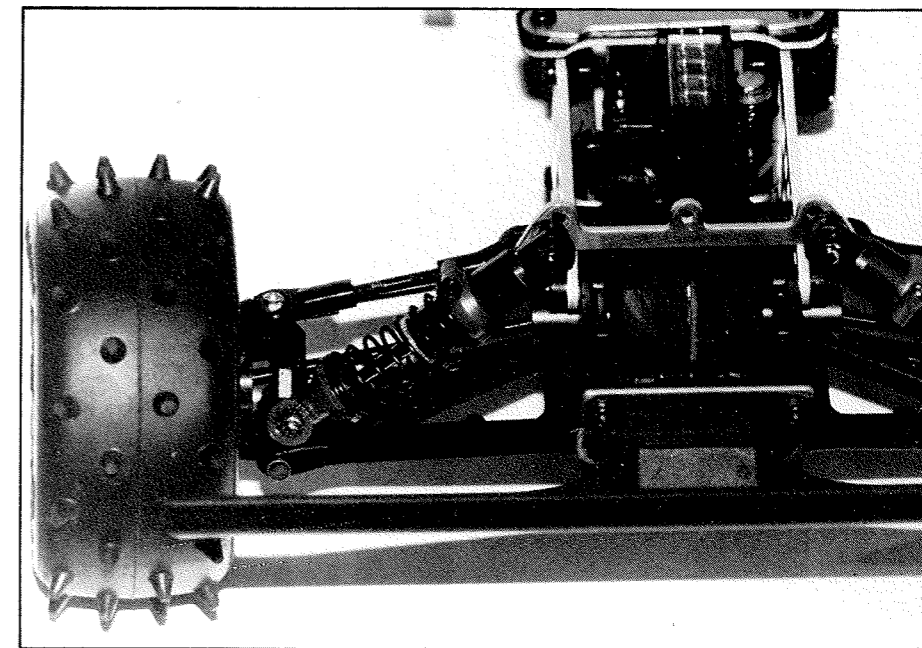
great care, they leaked a little once they were put into hard racing use. This may be caused by the seals used, in that their manufacturing tolerances are not close enough to guarantee complete sealing in every application. Keep an eye on those dampers, and ensure they are topped up for them to be at their most efficient.

Battery placement is fixed, thereby retaining this weight bias in favour of the rear wheels, but in practice it seemed to be reasonably well sited, giving minimum roll under hard cornering.

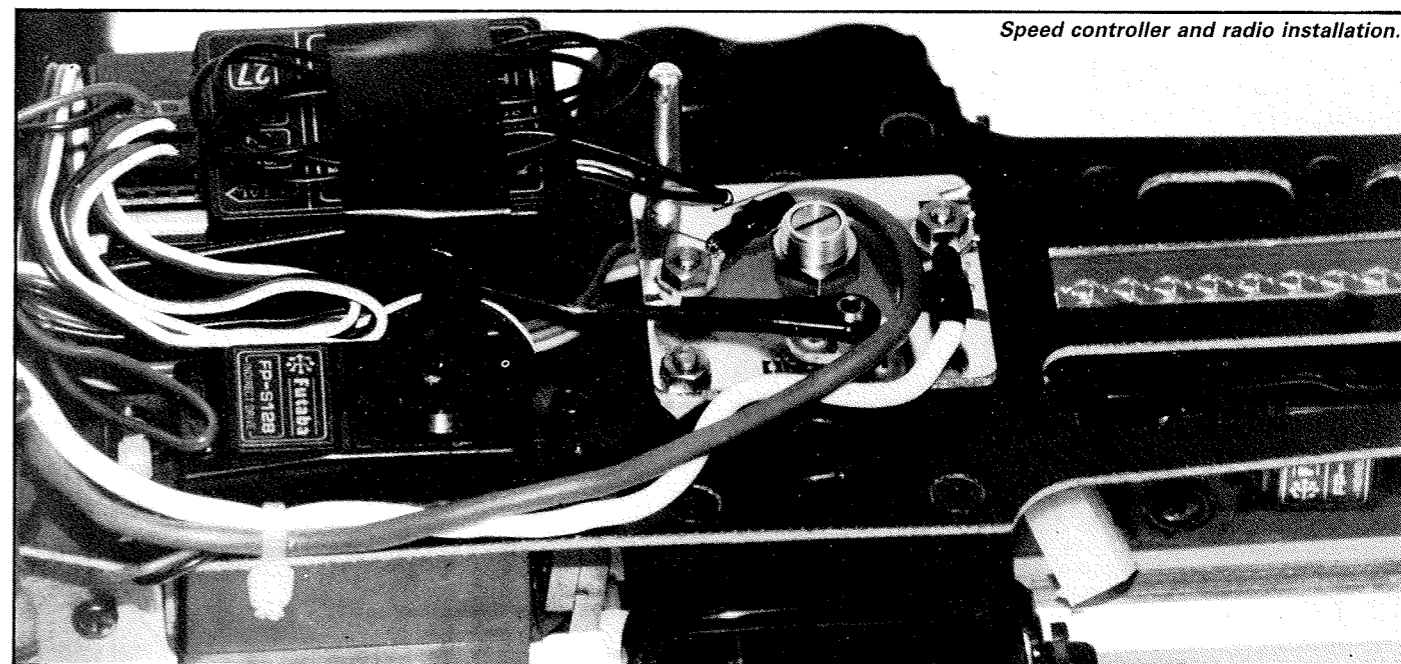
Very severe cornering indoors would induce the lifting of the inside rear wheel, a style easily overcome by the installation of a front anti-roll bar assembly.

If we had found the Achilles heel of this car it could be with the ball joint track rods. Although designed with a neat flush joint in mind, they have had the inclination of popping off when catching indoor track markers, during full throw of the steering. The servo saver spring does not appear to be overly strong, and therefore it must be down to the geometry of the steering that allows the joint to part company with the ball.

This does not happen all of the time, but

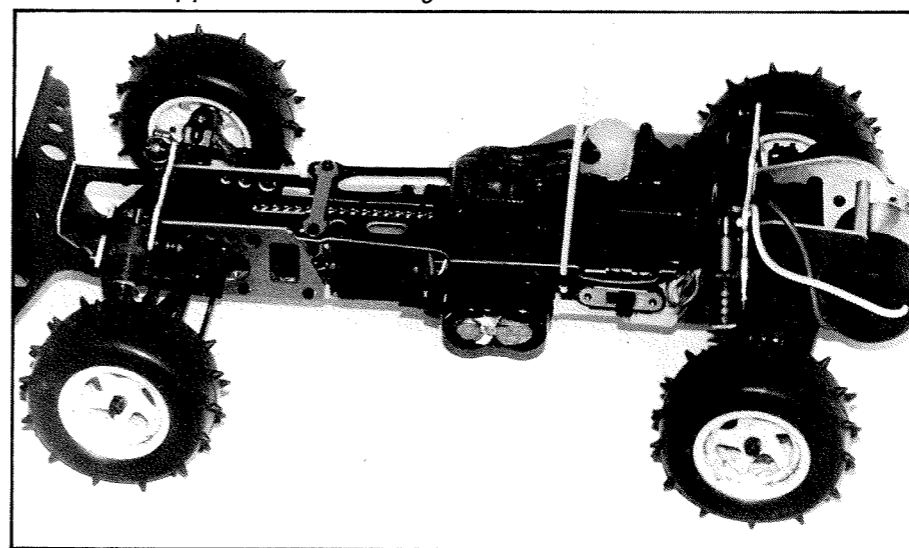


There is substantial damping from the shockers though they do tend to leak a little after hard racing.



Speed controller and radio installation.

The fixed battery placement retains weight bias in favour of rear wheels.



proves irritating when it does. The simple answer to this could be improve your driving and it may never happen to you.

In conclusion the car has a soft, easy feel to it when raced hard. It is sympathetic to hard direction changes and allows hard acceleration from early in the corners. High ground clearance and a good roll centre gives safe handling on rough terrain.

At this time of the year it is useful to state that the car takes to indoor racing like a duck to water. Those tyres, however, will wear quickly indoors, so be advised to buy a spare set with the kit. Because of its narrow chassis design, the car when clad in its lexan body, appears to have a longer wheelbase to its closest competitors, but measuring this shows that it matches up with these very closely. So far we at Radio Race Car have found little to be critical about on the Optima, and we are convinced it will sell well through word of mouth of satisfied, winning customers.