

## Kit Review

**T**he Yokomo YR-4 is a 1/10th scale, electric powered, four wheel drive circuit racer designed around the successful Yokomo off road buggy. The car is similar in proportions to the TAMIYA range of scale saloon cars (such as the BMW M3 or ESCORT COSWORTH) but is designed more as an out and out racer rather than a recreational vehicle. It is virtually fully ballraced and is designed for use with an electronic speed controller.

### Construction

The kit comes in a small but colourful box whose proportions reminded me more of an oversized computer game rather than a high tech radio control model kit. The reason for this tiny package becomes evidently clear as soon as you open it as there is no bodyshell included in the kit. Unfortunately, being this is a scale saloon racer there isn't many bodysells available to fit it. I assume that the TAMIYA bodykits from their saloon cars will fit although the popular after market body manufacturers such as PARMA and FREDERICK tend to concentrate on the 1/10th scale buggy saloon bodysells which are a lot wider and therefore won't fit the YR-4. Actually, the UK Parma sales agents (Helger Racing) have just received the first samples of the new Parma BMW 325i scale saloon bodysell which will fit the YR-4. Yokomo also do two bodies (according to their leaflet) but no part numbers are given but it is worth checking what is available beforehand.

The rest of the kit is packaged so that you only have to open one bag at a time. All the relevant screws for that assembly are contained within that one bag. This really is a good idea which more and more manufacturers are adopting because it makes the worktop less cluttered and makes the assembly quicker and easier. The only problem I had with the instructions was that they were in

Japanese. Jason Varley of CML Distribution who import the kit informed me that they are currently awaiting the English instructions and that they would be here before this review went to press. Having said that, the diagrams were easy to follow and I managed to assemble something that looked and felt about right.

Construction begins with a nicad compartment which fits across the lower chassis plate. Two belt tensioners in the form of phosphor bronze bushes are assembled which allows the front belt, when all is completed, to run above and clear the nicad compartment. The bushes can be replaced with ball races if required.

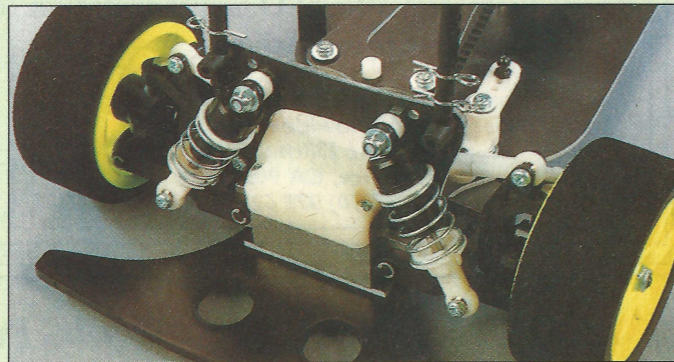
The gearbox housings are next and should be familiar to anybody who has built a Yokomo buggy in the past three years. These are cast from an aluminium/magnesium alloy which makes them very light yet strong. In the past, I have seen front gearbox housings break on the Yokomo buggies but this is more probably due to the lack of a proportionally

sized front bumper than anything else. No such problems in this kit however as a large skid plate style front bumper is included which covers almost everything except the outer edges of the wheels.

The steering assembly is also taken from the off road

buggy and is a double bellcrank transverse linkage with an in-built servo saver which is adjustable. The track rods are very simple to build as they are little more than long grub screws. They have a hexagonal recess in one end for an allen key and they easily tap into the plastic ball joints. The instructions do have full sized diagrams for all the track rod lengths and these are an accurate guide to

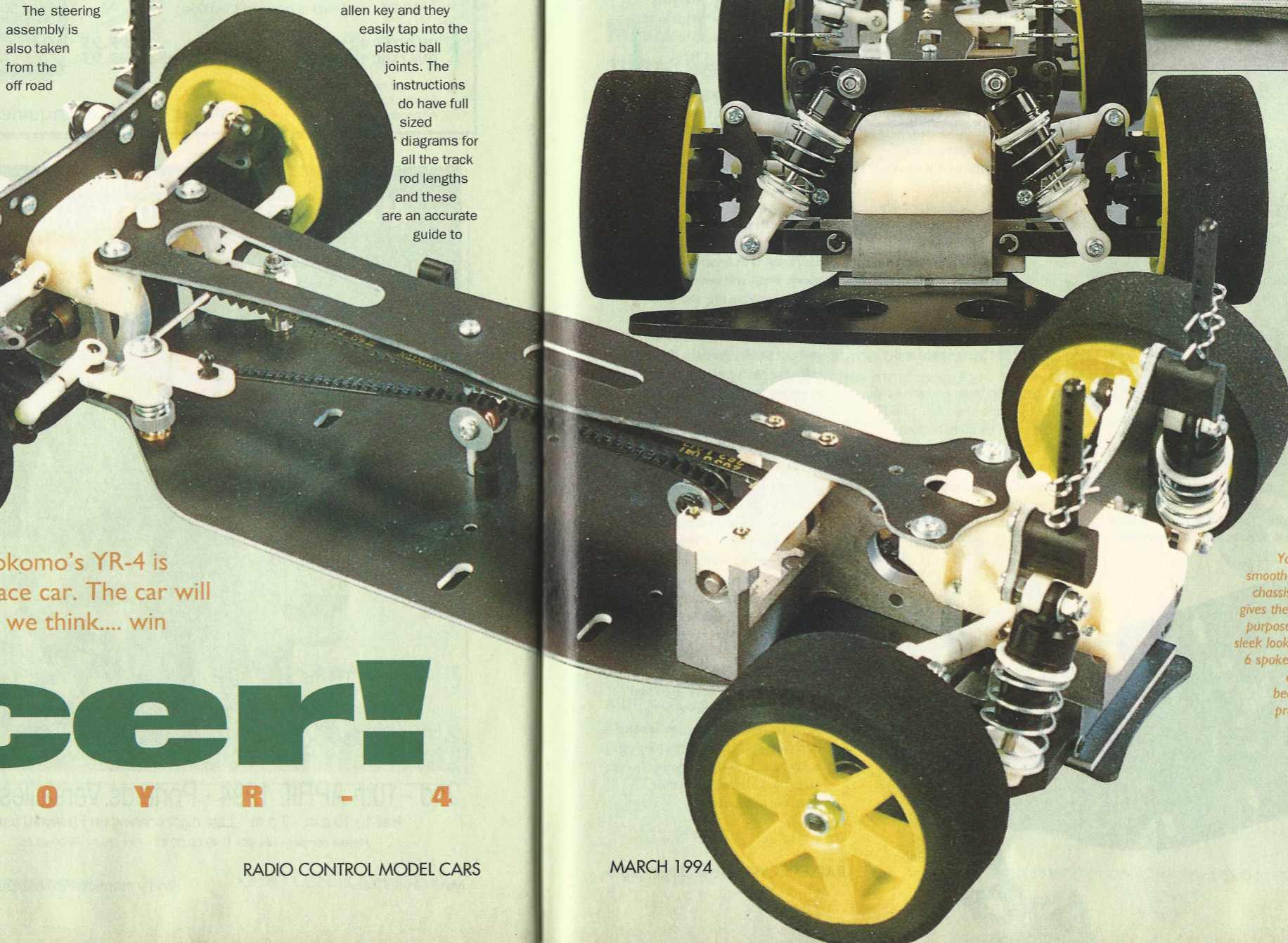
Most of the YR-4 comes from the World Championship winning off road car.



Yokomo's YR-4 is designed to be a real race car. The car will take on all comers and we think.... win

# Racer!

Y O K O M O Y R - 4



Tiny dampers give the YR-4 just the right amount of suspension movement.

Yokomo's smooth flowing chassis design gives the YR-4 a purposeful and sleek look. Smart 6 spoke wheels are also beautifully produced.

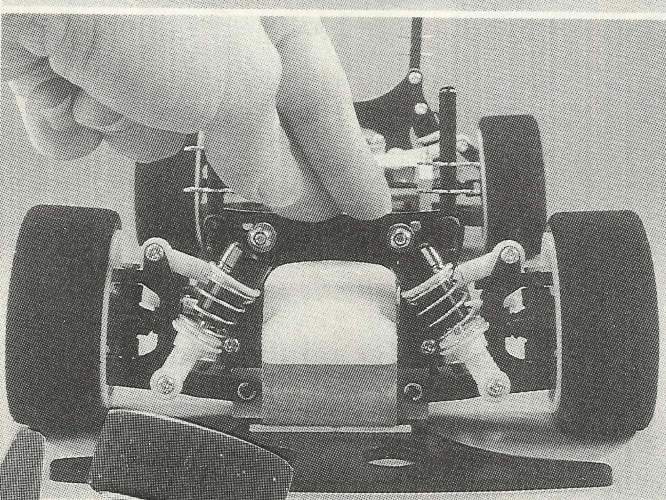
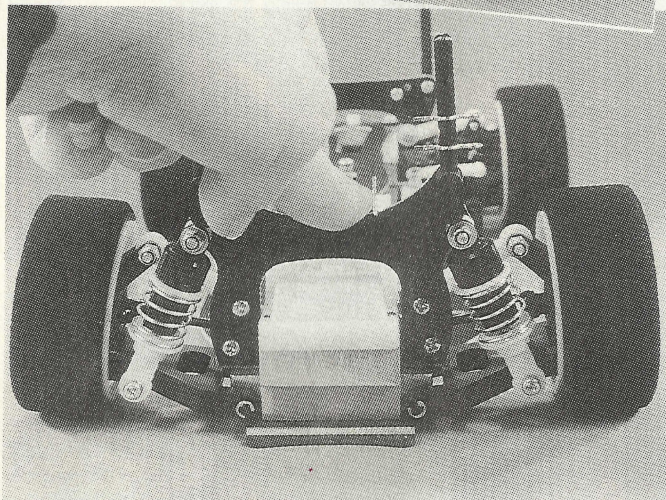
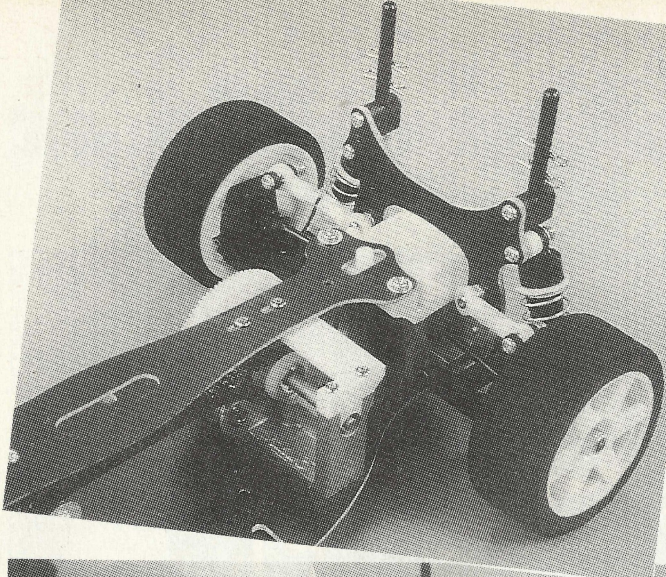
be followed.

Next up is the drive system. This comprises of a layshaft with the spur gear and integral front drive pulley and two ball diffs which are identical. I must admit that I thought it was strange that the excellent Yokomo slipper clutch/one way pulley layshaft was omitted in favour of the old direct drive layshaft. I would assume that this was done purely to keep costs to a minimum as it is an accessory which can be directly fitted.

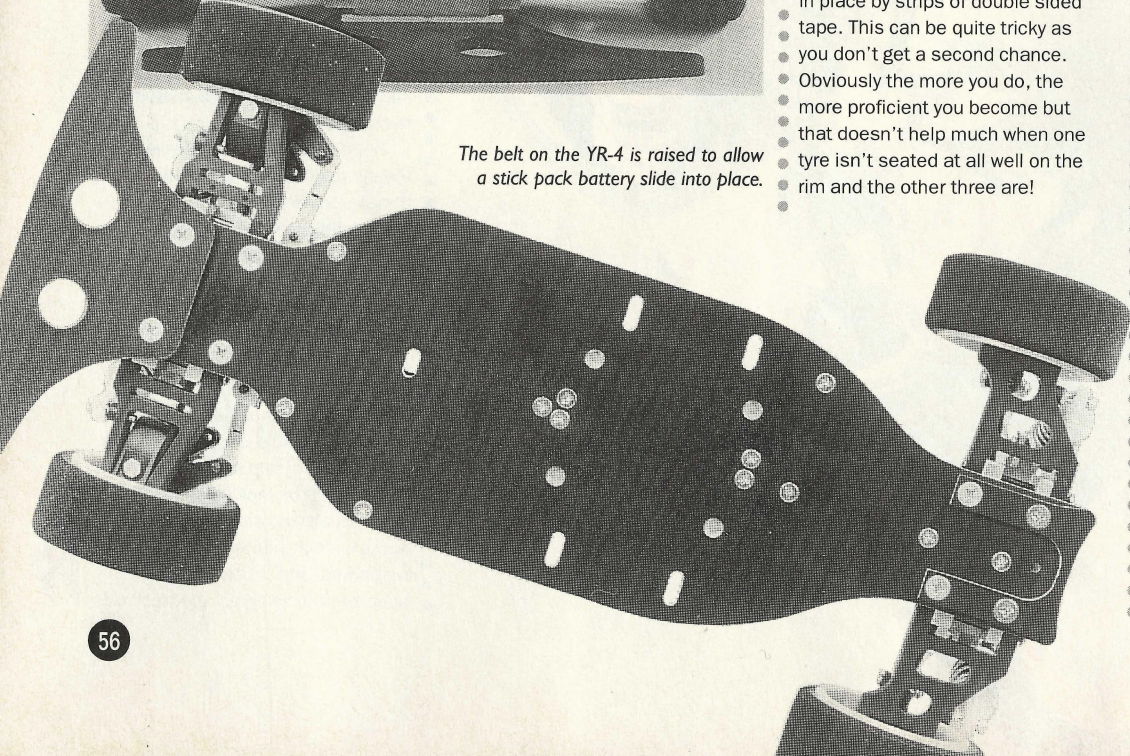
The differential units are nothing new and have been lifted straight from the buggy kits. The only difference is that you only fit six balls into each diff and not the customary twelve balls.

The diffs are 'top loading' which means that they are dropped into the gearbox housings and a top plate is fitted to keep them in situ. This has always been a Yokomo strong point as it enables maintenance time to be kept to a minimum as the diffs are easily accessible. By this stage, the car is beginning to take shape and the addition of the chassis top deck makes the central section complete.

The suspension setup is the next assembly to be tackled and this is also virtually the same as the buggy setup - albeit with very short wishbones and shock absorbers. Once again, the trackrods



The belt on the YR-4 is raised to allow a stick pack battery slide into place.



are purely long grub screws and are easily assembled. Drive is transmitted through four short universal joints which are all ballraced. The knuckle arms and uprights are, like most things in this kit, lifted straight from the buggy derivative but the wishbones are new. This was the only area for concern when assembling the kit because there was a wishbone shaft missing. This is more frustrating than anything else because it prevents further assembly. What's more is that the kit is factory sealed so the omission was at that end. Fortunately, a Kyosho shaft fitted (with the help of a scalpel blade) and assembly continued.

The shock absorbers are short throw, oil filled units and all four are identical. The seals are all pre-installed and all that has to be done is to fit the piston and the top seal and fill with the supplied oil. Take care to oil the shaft before installing it so that the bottom seals are not damaged when you pass the threaded part of the shaft through them. The coil springs are also identical and spacers are included so that the stiffness and ride height can be altered.

The shock mounts also provide the base for the body mounts which look very similar to the Tamiya variants found on their saloon kits. The shock mounts themselves are thick Fibreglass which should prove to be very resilient. Once the shocks are screwed on, all that remains is to fit the wheels and tyres.

The tyres are foam and are held in place by strips of double sided tape. This can be quite tricky as you don't get a second chance. Obviously the more you do, the more proficient you become but that doesn't help much when one tyre isn't seated at all well on the rim and the other three are!

## Conclusions

All in all, as an assembly exercise, the YR-4 is good. Minor points such as the missing suspension shaft are frustrating but can be overcome. Everything fits well without being sloppy. As most of the kit seems to have been lifted straight from the Yokomo buggy, there is an existing extensive spares base which is always a bonus point when considering purchasing a new car. Having said that, there is nothing innovative in this car (except for its concept) and the short wishbones seem to have done strange things to the camber change and suspension geometry.

The one slightly worrying aspect of this type of kit is that there doesn't appear to be a ready made market for it - certainly not at this time. It will appeal to the racing fraternity who want to race on road scale saloons - much like the Tamiya class, but I very much doubt whether it will be allowed to run with the Tamiya cars in the national saloon series. If it can, then I believe that it will be very competitive but somehow, I can't see that happening right away. What will encourage more people to buy this is if there is a class of racing for it, after all, it is designed as an out and out racer. Perhaps CML will take the lead and run some form of series for it? Perhaps other manufacturers such as Kyosho and Schumacher could quickly produce a set of short wishbones and minor other changes to provide other scale saloon cars and then a normal series with many manufacturers could take place. If that were to happen, then I would certainly entertain running a YR-4 because of its overall simplicity and design but, until that happens, my verdict has got to be; Good Car but where's the market?

If you want to have a go and feel that the Yokomo YR-4 is what you want, then give Jason Varley at CML Distribution a quick call to find out more about the kit and any other Yokomo products.