









## Yokomo fight back

An unending number of different classes are currenlly being run, each seeming to have its own series or championship. Tamiya still remain strong within Scale Touring Cars, but other manufacturers are jumping on the band wagon. Yokomo have followed Tamiya's lead with a front wheel drive car called the YR-F2. Tamiya had the Mini and the Fiat Abarth, plastic chassis based kits so Yokomo took it a step further with a very Pro Ten looking machine with plenty of thought involved to provide a car that's cheap and easy to build, while still providing a great deal of enjoyment. CML provided RCMC with a kit to review, and for us to put across our thoughts and views upon the

#### **Ground upwards**

Based around a large amount of fibreglass, is the chassis and suspension mountings. The edges were tidied up with a black marker, just to finish off the overall look of the car. The rear suspension arms fit to one piece of the aforementioned fibreglass, to provide a support for the arms as well as allowing a little flex for the limited suspension.

The rear hubs come straight out of the Yokomo YZ-10 kit,

so there is no need to

question their strength or

durability. Adjustments are incredibly limited on the model, with the rear only having adjustable camber. The hubs do have a low and high pivot point, but the instructions were adheeded to at this particular point.

The camber angle is dependant upon the length of the tie rod at the back. Threaded rods have been put in the kit instead of the more expensive track rods. This is one way that Yokomo have kept the costs to a minimum as are the bronze bushes which are a much cheaper alternative to ball bearings.

The use of a bush over a bearing will only tend to cause problems in the long term as they will tend to wear out the part that is spinning within it, as well as the bush itself. Bearings can be purchased as a hop-up option; the majority of the bearings being common to the YZ10. Completion of this part virtually finishes the rear of the car off, except for the pivoting rear end.

#### Fibreglass flex

The rear suspension unit is not fixed solidly to the main chassis, but through a pair of springs and 0 rings whose job it is to dampen and sfiffen the rear suspension action. This is a very crude method, but effective way of absorbing rough surfaces, yet it is up to the requirements of the kit. A little adjustment can be made by tightening up the two screws above the springs but this is not really necessary.

#### YRF not YZ-10

With this finished, the battery boxes are installed with just four screws and the steering assembly is constructed and fixed to the chassis. Again, anyone familiar with the Yokomo range of products will instantly recognise the set up. A point worthy of note with the steering, is to bend the wire draglink up a bit in the middle. this has the effect of reducing the friction in the plastic steering arms. The complete assembly ends up very free and

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smooth, a credit to the original design from Yokomo.

The front end of the car, contains all the action, including the steering, motor and drive system. Incorporating a similar suspension set up to the rear, makes the front half of the car exteremely complicated, although Yokomo have made a good job on making this part of the car very neat and tidy, while remaining easy to work on.

#### Front wheel drive

The construction of the gearbox begins with the differential, again a basic copy of the off road version. It is important to ensure that the gear on the diff is round the correct way, otherwise the outside of gear will rub on the motor mount. Bushes are again adopted inside the diff, instead of bearings and steel balls are used in the gear and the thrust race rather than the much more expensive tungsten versions.

The housing of the gearbox is

split into two plastic halves, with a metal mount for the motor positioned further forward. The drive is direct, with no slipper clutch or one way bearing. The accountants definately kept their eves peeled in the development of this model. Unfortunately, with the box constructed, it did not feel as good as it could have been. The bushes are probably one reason for this, although it is possible to make a few tweaks to help. Soaking the belt in WD40 will soften the material, helping the belt to mould around the pullies. Ensuring at this point, that the two gearboxes are straight and square will also help the efficiency of the transmission, while eliminating any possibility of tight spots.

## Simple suspension

The front suspension is made up of some very small wishbones and driveshafts. The front hubs and steering arms have been carried over from the YZ-10, as has the design of the driveshafts. At this point, it was nice to see universal joints used at the front, rather than the cheap and cheerful dogbone principle. Two small plastic mounts provide a place for the arms to pivot from, the resulting action being smooth and with no slop.

It is refreshing to see that with a kit at this price, no filing or cutting was necessary in order to make free the suspension. This is a sign of the quality of the overall kit, which in turn, shows that nowadays, the public can purchase first rate models, at very reasonable money.

# Two chassis for the price of one

Incredibly small track rods are made up to connect the inner part of the steering to the arm, and from the top of the hub/caster block to the fixed top suspension plate. An upper deck for the chassis has been designed to work with this kit which now resembles the World Championship winning Yokomo Pro Ten car. This firmly fixes the rear suspension to the front, eliminating any unnecessary lateral and longitudual flex.

The front suspension is a reflection of the layout of the rear, except for the fact that a single spring is adopted instead of a pair like the rear. Where the

shocks normally fit to the wishbone, a link is fixed at either side to another piece of the fibreglass. A certain amount of flex is built in to the material to provide the essential movement and give.

t with Ride height is easily adjusted by tightening or loosening the der to nut. Again, this is probably a little unnecessary, but a worthwhile option if you wished to fine tune the car this much.

#### Vitual completetion

The car is now virtually complete, with only a few more parts to fit. The wheels are a very neat spoke design, while the soft rubber tyres come complete with foam inserts which is a nice touch. At this point, it was found out that Yokomo recommend the fitting of the wider wheel and tyre combination at the front, which to start with looks weird. At the end of the day though, they have had much more experience of the car so once more, the instructions were followed.

The all important wide bumper does a good job of protecting the mass at the front end of the car. Adjustable body mounts allow the fitment of a very wide range of bodyshells, especially as one is not supplied in the kit.

## Summary

Evaluating this car is quite simple. A lot of thought has gone into it and Yokomo have produced a car that trully justifies the price tag. The first job that we would recommend would be to change the bushes for bearings, improving the car tremendously in terms of both wear rates and efficiency/run time.

It's nice to see another manufacturer introducing another car into the scale market. Models like this, can only help our sport to develop as a whole, bringing more people into the hobby that is so addictive.



