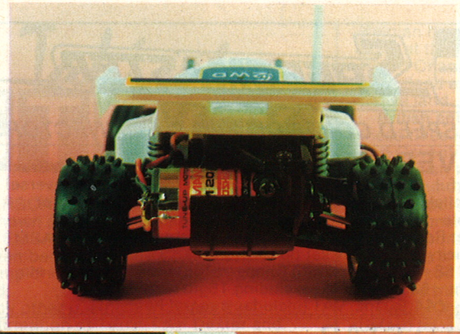
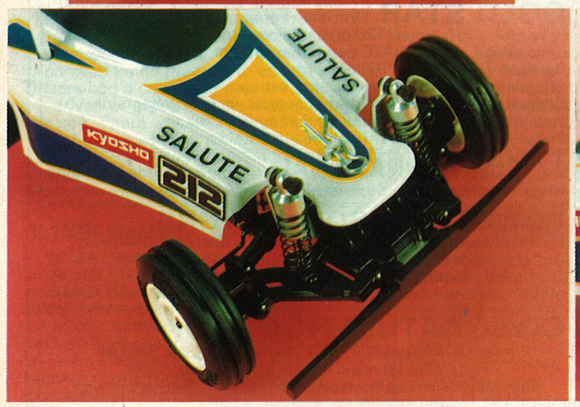
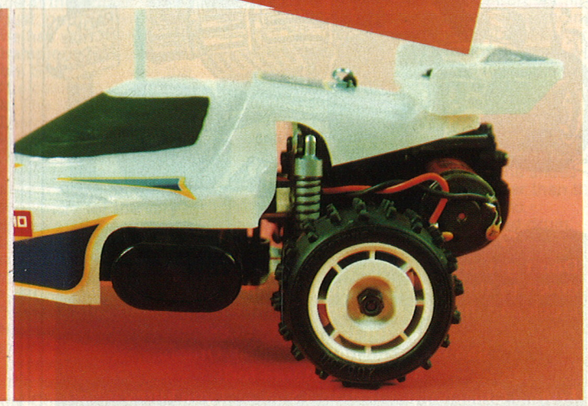






Lewis Eckett takes a look at the rebodied Baja Bug from Kyosho – the 2WD Salute

MINI SALUTE

Miniaturisation has been a pre-occupation with the Japanese right from the beginning of the electronics revolution. Cameras, Hi-Fi, video equipment and televisions amongst others have all been the focus of an urgent desire to make everything small.

I can remember when the first *Sony* 'Walkman' appeared – bulky by todays standards but at the time a real gob smacker and a clear indication of what was to come. Now of course we have personal CD players, cameras that James Bond would be proud of and televisions that require you to wear bi-focals to see what is going on.

Kyosho have taken the "Small is Beautiful" motto to heart as have quite a number of Japanese R/C car manufacturers. The cars we race with are already miniatures but for some reason the sizes they are produced to have polarised around three common scales; 1/10th, 1/12th and 1/8th. I would think that these scales were decided upon originally because of the size of the radio equipment available to go into them.

Radio control equipment just like everything else has got smaller over the years so now there is no reason why the cars cannot get smaller to match. The question is are the cars getting smaller just for the sake of it or is there a good reason why we should start racing 1/20th scale cars? Indoor racing in small spaces is an obvious reason but will it generate the same amount of excitement as racing outdoors with 1/10th scale buggies? On that score it can only be a matter of time before enough of the cars have been sold to push clubs into racing smaller scale cars.

Tamiya really set the ball rolling with their 'Tamtech' series (although *Parma* produced the first cars with their 1/18th 'Cheetah' and 1/12th 'Bobcat' cars) and others have followed. Whereas *Tamiya* produced road going cars *Kyosho* saw the opportunity for miniature Off-Road buggies and produced the 'Mini Optima' which was first seen at the 1987 World Championships (not racing – fool!).

Kyosho's cars are produced to 1/20th scale so they are slightly bigger than *Tamiya's* 1/24th scale alternatives.

There are now three cars in the 1/20th scale Off-Road series, the 'Turbo Mid', 'Ultima' and 'Salute' along with two On-Road versions, the 'BMW M3' and the 'Mercedes 190E'.

So what's new

The Salute is the new car of the Off-Road series and in most respects is the same mechanically as the others. Even the 'BMW' and the 'Merc' have the same basic chassis but with revised suspension and different tyres. The chassis and suspension of the Salute has all the characteristics of a conventional car – except smaller of course. The chassis is a flat alloy plate running the length of the car onto which the front and rear suspension bolt.

The suspension is just like a 1/10th scale car with mini wishbones, stub axle blocks, upper arm links and dampers. The suspension front and rear both have fixed geometry, ie. it cannot be adjusted to change camber or castor. it wouldn't be impossible to produce adjustable arm links – just really fiddly. The shock absorbers are not oil-filled so the amount of damping effect is negligible. Small coil springs govern the suspension and again these are non-adjustable. At the rear however there is a choice of mounting on the shock bracket to change the suspension for smooth or bumpy surfaces. All the suspension components are produced from nylon and although small, look quite strong and well protected from knocks.

The gearbox assembly should be approached with care because some of the parts involved are extremely small. Putting the differential together is the most fiddly part and should be undertaken on a clean surface so you can see any parts that may have been dropped. I used an upturned box top so nothing could roll off the table into the carpet. The differential is a conventional bevel geared type and should be treated with a small amount of grease before being closed up. All the bearings in the car are the oilite type although I would expect a ball race set to be available as an option. To be honest it isn't really necessary in this scale so long as you keep the bearings well oiled.

Horsepower

The motor is the same as the one used in the *Kyosho* motorbike so it should be quite powerful. The pinion is a push fit onto the motor shaft and you must be careful when fitting it on. Don't wack it with a hammer, you might damage the motor so just push it on slowly so that it runs true when the motor turns.

Dinky little ball and pin type drive shafts take the drive out to the rear wheels and these fit into equivalent scale drive cups. The wheels are one-piece

Left underside of the 'Salute' is formed from thin aluminium – this gives strength with lightness. Centre bolt is the battery holder device which is simple and effective.

Left: Top of the page, last years bug was bodied with an 'Optima' shape – now the Salute 2WD is available with a smoother shape and separate wing moulding.

plastic mouldings and the tyres are a push fit on. It is probably a good idea to secure them with a dab of superglue around the rims to stop them coming off.

Once the wheels are on we have a rolling chassis ready to accept the radio gear.

Miniaturisation has made this part of the assembly very easy because the radio receiver and speed controller have been combined into one, very small unit. *Kyosho* produce a special radio set called the 'RS-System' which is used in their 1/20th scale range of cars and their motorbike kit. Once you have got the system you can fit it to any of the other cars in the *Kyosho* range or from other manufacturers. In fact you can fit the equivalent 'Tamtech' radio set into the *Kyosho* cars with no problems whatsoever because the motor and battery connections are identical.

The steering servo sits at the front with a direct linkage to the front steering blocks. Behind that is the receiver/speed control unit and then just in front of the rear wheels the battery pack sits across the chassis. All these components are held in place with double sided servo tape so you must make sure the surfaces are grease free to allow the tape to stick properly. Finally the chassis top deck is screwed in place and that is the car finished except for one last job.

The bodyshell is a scaled down polycarbonate version of the original 1/10th scale 'Salute'. A neat little set of decals are provided in blue and yellow so you only need to paint the body white to get a nice effect. Once you have cut it out and fitted it on the 'Salute' is ready for action. The kit includes the *Ni-Cad* pack and fast charger so you can get racing straight away. It is best to put the battery on charge whilst you are building the car so that it is ready when you have finished.

In a small space the 'Mini Salute' is quite nippy particularly when you are negotiating chair legs, lamp stands and other household obstacles. Outside or in wide open space the car appears really slow and becomes quite boring to drive.

For racing the track space used must be related to the size of the cars otherwise they look out of place. You can make your own track layout quite easily from strips of wood or garden hose according to the size of your space. Remember to make it big enough for several cars to race together and overtake without having to smash other cars out of the way.

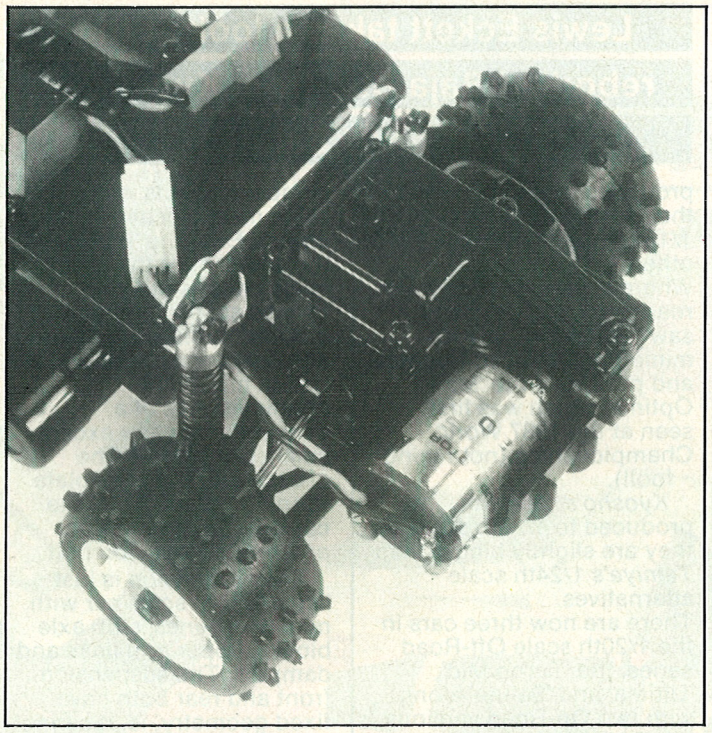
Kyosho do produce a track set for these cars which can be tailored to fit into any size space. The markers are 2 inch high walls of three different lengths that clip together to form lanes. The maximum length lane available is 36 metres and the maximum oval track size is 5 × 8 metres so you can build your track to any shape within those measurements. Along with the markers the track set also includes two ramps, flags and various size sponsor stickers to decorate the walls.

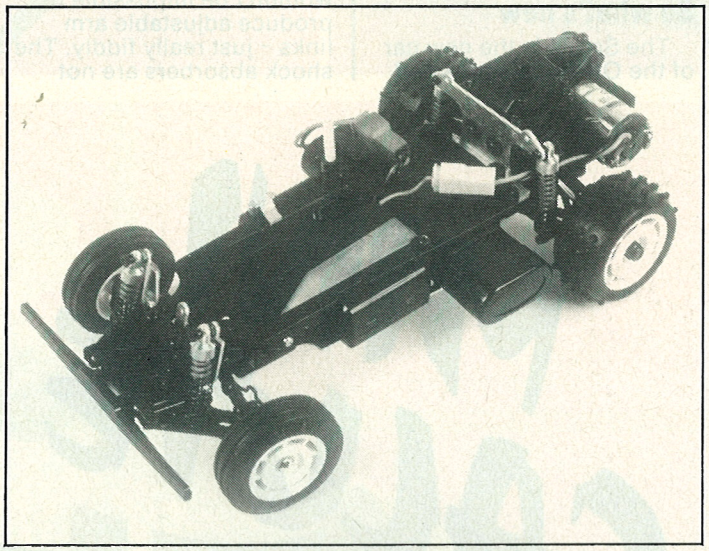
An extra feature is a set of stop and start lights costing around £50.00 but this is only for the very serious racers or clubs. The track set along costs approximately £200.00 so perhaps it is worthwhile investigating how to make your own.

The *Kyosho* 'Mini' range of cars are available all over the country so if you local model shop is selling them try and get together with the other drivers in your area who have bought them and then get a race meeting organised. You don't need much space that's for sure!

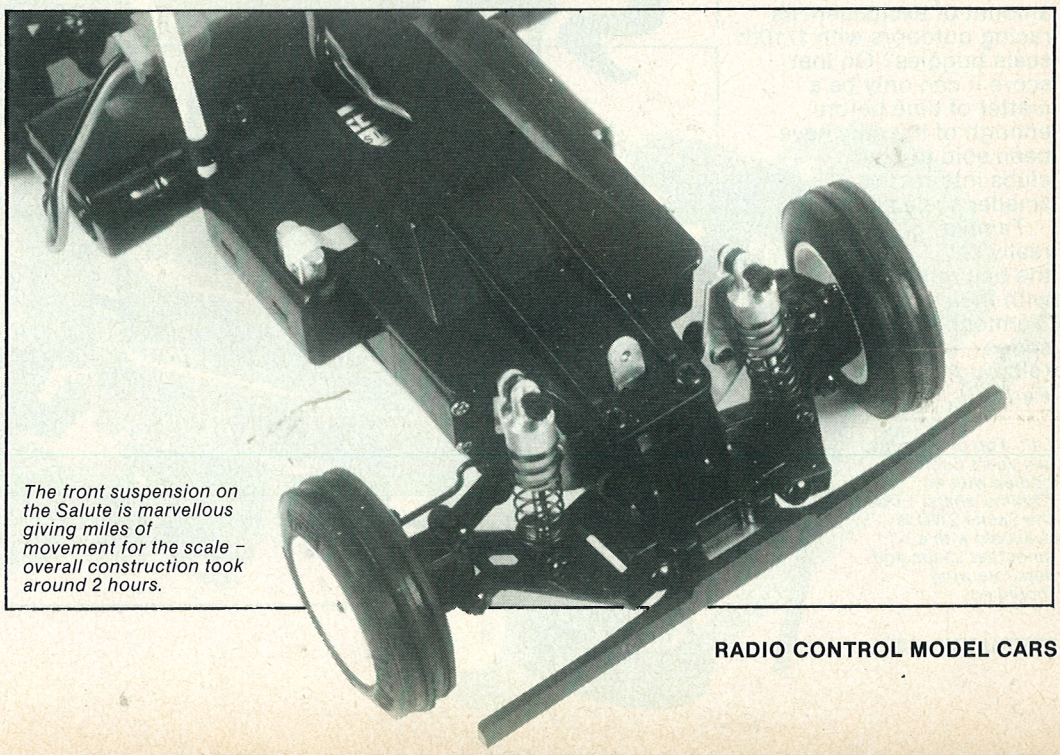
Available from all Ripmax stockists.

Price £79.95 including *Ni-Cad* and fast charger.





Above; motor installation is at the rear – the motor is not ballraced although an optional motor that is, is available. Below; ready for the off – only the bodyshell needs fitting.



The front suspension on the Salute is marvellous giving miles of movement for the scale – overall construction took around 2 hours.