

# 'BOMBS AWAY!'

I have always felt that the biggest single barrier to getting started in radio control car racing for the beginner is actually having to build the car in the first place.

I mean it's not as if that is the only thing you have to worry about. Building the car is just the beginning; then there is fitting the radio gear, painting the bodyshell and charging the batteries to think about. By the time the wheels are ready for motion you could be pretty darn sick of the thing.

Dads usually get the hassle. Either building it in the first place or putting it right when Junior has made a complete mess of the job. All too often however Dad doesn't have a clue either. It's the same when it comes to little Johnny's algebra homework.

This must be the reason why so many of those ready-built runabout cars from toy shops and 'Tandy' get sold every Christmas. I can imagine the look of horror when the model shop owner takes the lid off a real kit to reveal all the bits and pieces. "You mean I have to actually put it together myself! Stuff that, give us one of those ready made jobs."

It's not even as if it is very difficult to build a modern car kit. The Japanese have spent a lot of time and money making sure the assembly of a kit is as painless as possible.

Nevertheless there are still some people who blanch at the prospect of having to do it themselves. For these poor unfortunates a slightly different approach is needed, one which steers them away from the horrors of cheap 'n' nasty toys to the fun and excitement of real radio control car racing.

The solution to the problem is simple. Produce a car, ready-built and put it in a box. Now at

least the major building work has been done already. Only the radio gear must be fitted afterward and then the Ni-Cad power pack must be charged and you're off when under normal circumstances you'd still be bolting part 'A' to the workbench.

## A new answer

Eager to educate the masses to the joys of our hobby, Japanese manufacturers have been travelling the ready-built path to R/C car heaven. Tamiya with their 'Quick Drive' series have bridged the gap between proper cars and the runabouts with impressive results.

Kyosho on the other hand have decided to produce ready-built versions of conventional kits. This means they are the usual scale, 1/10th and have all the standard features we expect on a modern day machine.

The latest addition to Kyosho's range is the 'Super Bomber' which is

by and large a 'Raider' with a new body on. The 'Raider' was introduced a couple of Christmases ago as Kyosho's low budget, two-wheel drive buggy. It was simple to build, easy to maintain and went extremely well. Now you can have a ready-built version to make it even easier to get racing.

Obviously it makes sense to Kyosho to bolt together one of the simpler cars in their range. After all, putting the cars together must take time and the more complicated the car the longer it takes. Presumably there is a production line somewhere in the Kyosho factory where the cars are built, just like anything you can see at Dagenham.

## All present and correct

One of the benefits for Kyosho in building the cars is the knowledge that nothing is missing, not that there is ever

anything anyway. How they test the cars when they have finished putting them together is another thing entirely. Somehow I don't think each car does a quick couple of laps around the Kyosho test track.

The 'Super Bomber' seems pretty well put together though, all the screws are in tight, the suspension moves up and down smoothly and there's even grease in the gearbox.

Both the motor and the speed controller are installed and wired up just waiting for the radio gear. The bodyshell is already cut out, including the body mount holes and just requires the stickers to be applied to it before fitting. So there is very little to do to the car to get it running.

The 'Super Bomber's' construction is quite simple and therefore easy to maintain. Three main parts make up the car - the chassis, front suspension and gearbox and rear suspension. When all three are bolted together the assembly is strong and rigid.

The chassis is a shallow, injection moulded trough into which all the electronics

Model Cars goes racing -

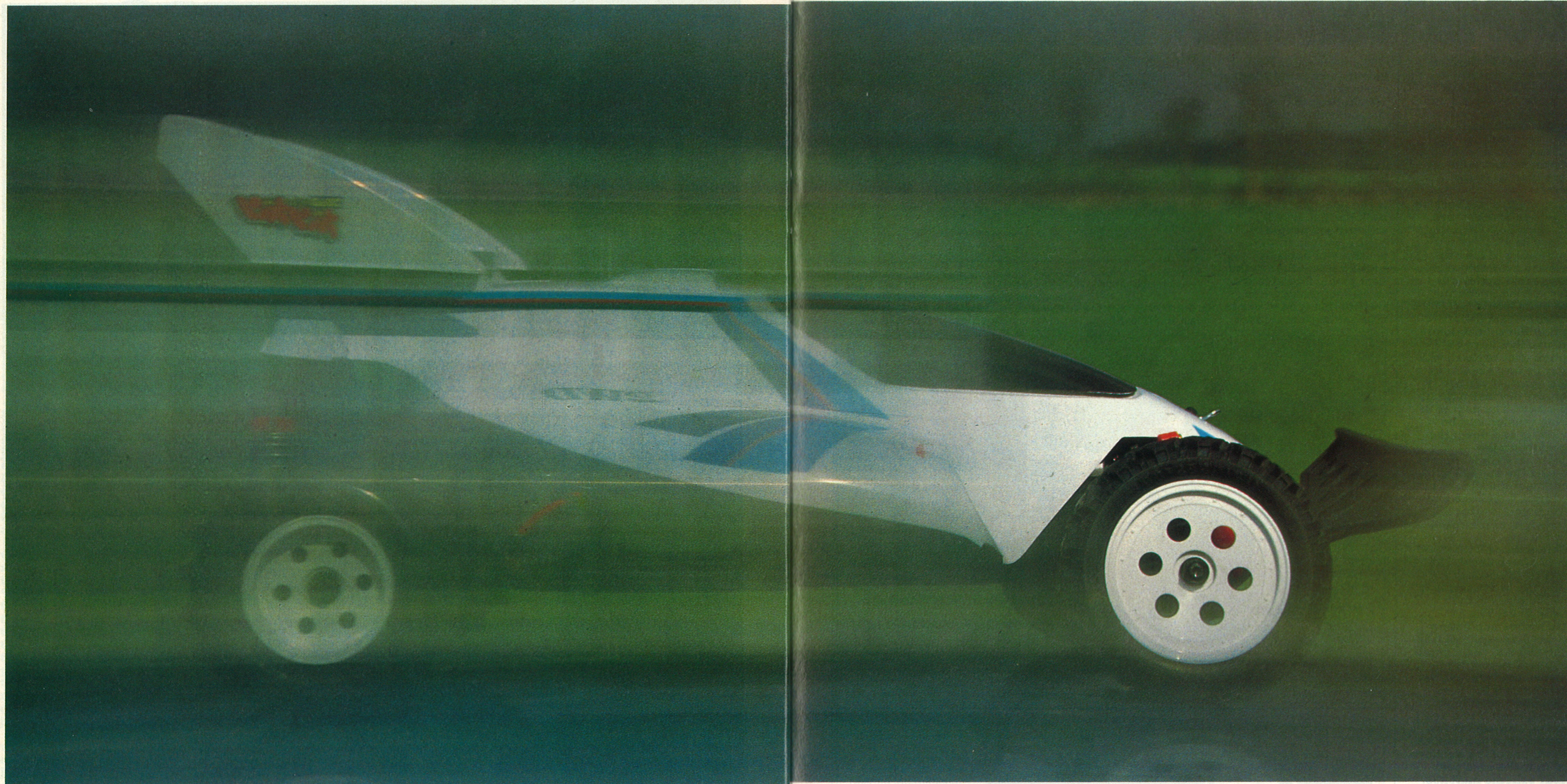
Ready to Run Style



Above and right: as it comes! Only radio need be installed and stickers applied to body.



RADIO CONTROL MODEL CARS



are fitted. The instruction booklet is extremely clear about how to fit the radio equipment. Most modern two channel radios will be suitable but the one recommended by UK *Kyosho* importers, *Ripmax*, was a system called 'Bionic Gold.' To make life easier make sure you get a system which incorporates a battery eliminator circuit (BEC) because this means you can use the main rechargeable drive battery to power the radio equipment in the car.

Inside the kit box there are some parts which need to be fitted when the radio is installed. For the steering servo this means the servo saver and the steering links. The servo saver is universal and will fit any type or make. The steering track rods are ready to be fitted except for the ball joints on one end which clip onto the steering blocks. The rods are unequal lengths so make sure you check the instructions before final fitting.

The throttle servo is

even easier to fit because it just sits in the plastic cradle next to the speed controller, secured with two screws. The link arm between the servo output and the speed controller is the right length which makes things very easy.

Once the servo has been plugged into the receiver and the receiver and the on/off switch have been installed the difficult bit is over - already.

Both the front and rear suspension systems use single lower wishbones

with an upper, non-adjustable link. This is the standard set-up for a two-wheel drive car. The rear wishbones even appear to have a degree of "anti-squat" built into the pivot point to stop the car sitting down at the rear under acceleration. Both sets of wishbones are quite chunky and look strong.

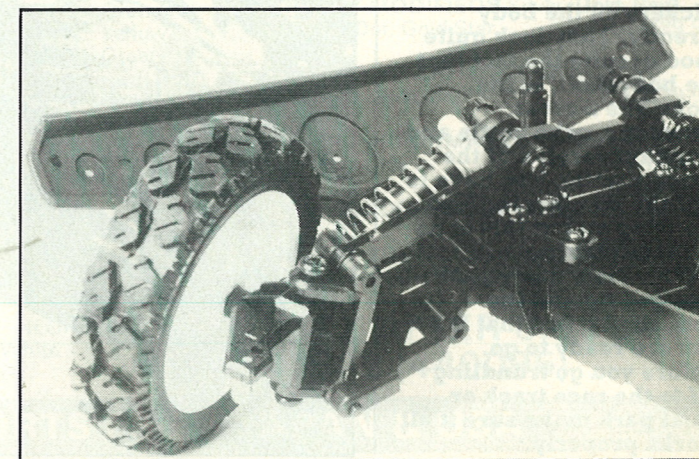
#### Easy maintenance

By removing eight screws the front suspension can be removed from the car

entirely. But at the rear the wishbone pivot mounts are part of the gearbox. Inside the box is a differential of *Kyosho's* usual bevel geared type. The actual geared part of the diff is fully enclosed so that the small planet gears are protected. The instructions recommend that grease should be applied to the gears and there is even a small tube of the stuff in the box. You can keep this for later though because the gears have already been treated.

As is usual the gears and the differential are a little notchy at first but this will loosen up after a few runs have got everything bedded in nicely. The motor has a pinion fitted already and the mesh between this and the main gear is quite good. I would like to know whether a machine or person does this job and how long it takes to set up each one.

From the gearbox drive outputs metal and plastic drive shafts transmit the power to the rear wheels.



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I don't know if these are solid metal shafts sheathed in plastic or if the metal ends are a push fit into a plastic sleeve. If it is the latter then I don't much care for the idea because after a while I'm sure the ends would begin to twist in the sleeve.

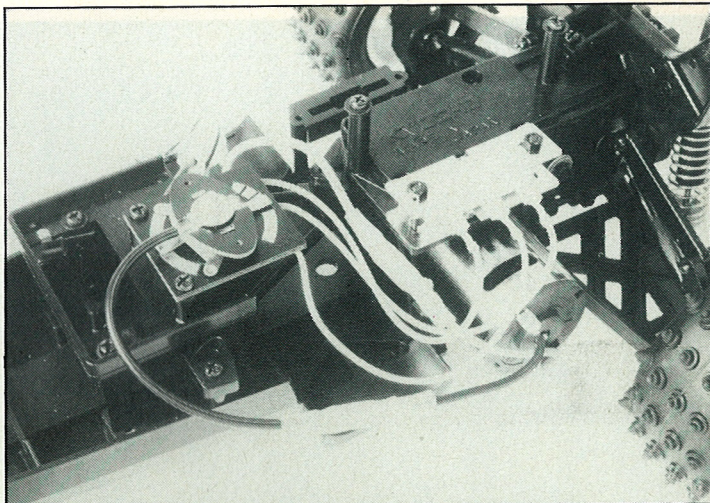
The shock absorbers on the 'Super Bomber' are simple coil-over friction types. The kit box says that a range of tune up parts are available and I assume that better oil-filled, constant volume type units would be available from the 'Option House' catalogue. Because these are only friction shocks there will never be any need to take them apart. If you did however the instructions show how. The degree of spring tension can be varied up and down the barrel using the adjustable collets. Also at the rear the mounting position of the shocks on the lower wishbone can be changed to alter the ride height of the rear suspension.

Remember all this has already been done. The last little job before fitting the bodyshell is to glue the tyres to the plastic hubs. The instructions don't show this but I always feel it is a good idea to run a small amount of superglue between the tyre and the rim to keep it in place.

You don't need to paint the bodyshell if you don't want to, although if you do make sure you look at the colours of the stickers first to make sure your colour scheme matches. It's just as easy to put the stickers on the body directly. They look quite good despite the fact that the bodyshell, to me, looks like a cross between a coke bottle and a mutant version of the space shuttle. You have to bolt the windscreen and the wing on but this is no great hardship.

With the battery pack charged up and the bodyshell fitted that is it - you are ready to go. Before you go trundling off to the race track or local park make sure it all works properly.

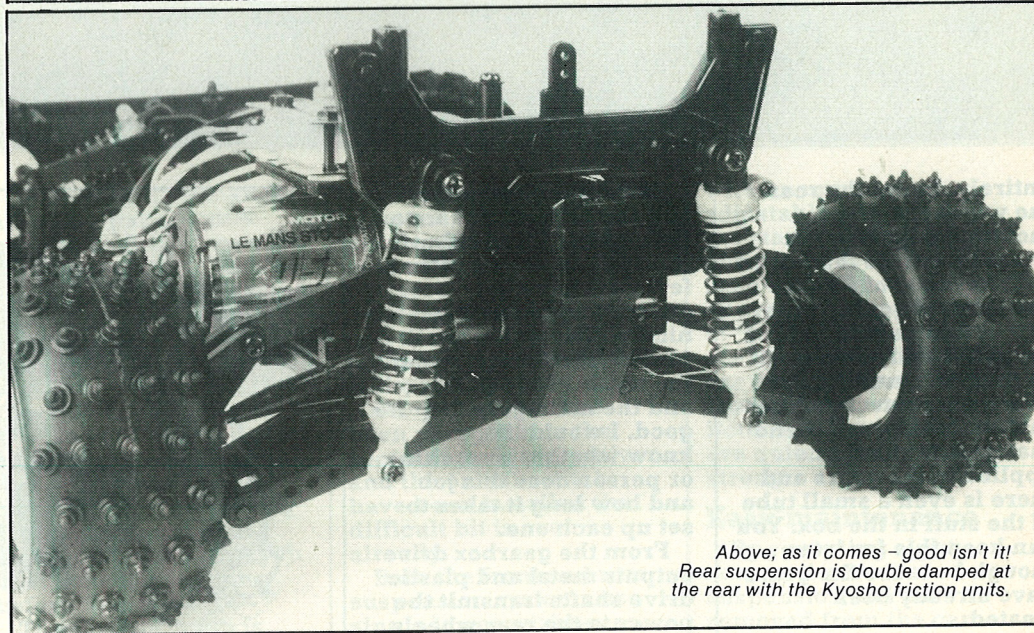
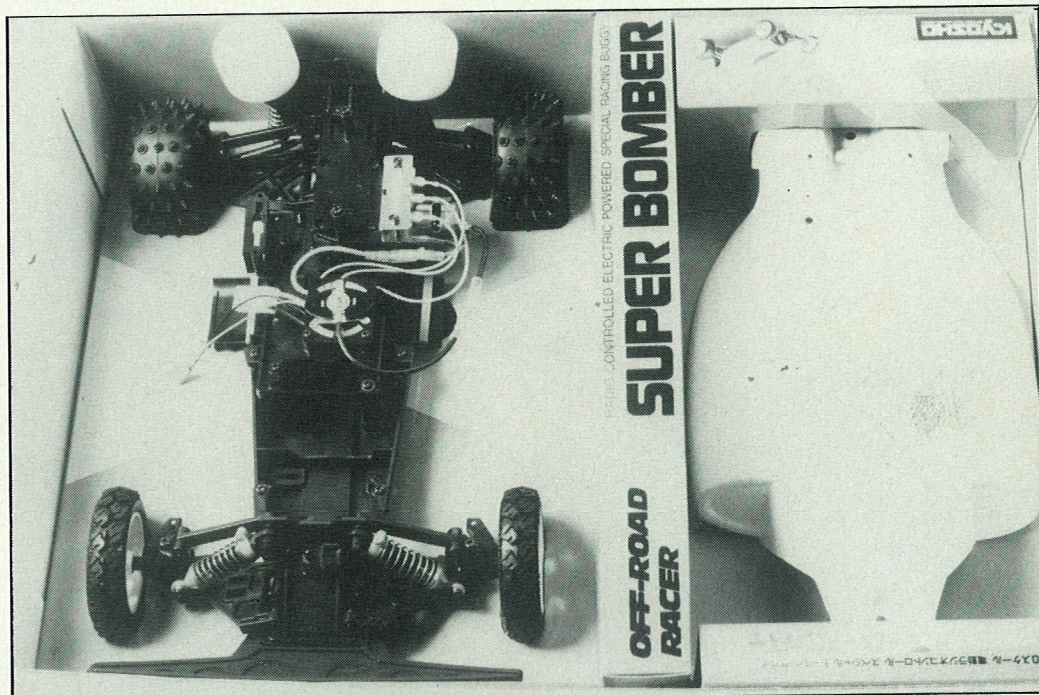
The instructions show how the car is built but starts with the dismantling of the front suspension because it is already built. It would soon become obvious to a beginner how easy kit cars are to build if they bought one of these and worked on it a little. This is the beauty of the ready-built car because it encourages people to have a go free from the pressure of actually putting it together in the first place. Added to that is the fact that anyone buying this type of car is still getting a real radio



Neat speed controller and le mans stock 05 motor are all ready built into the lightweight 'tub' chassis.

control racer and not just an imitation toy.

Available from Ripmax stockists. Price £79.95.



Above; as it comes - good isn't it! Rear suspension is double damped at the rear with the Kyosho friction units.