

BIG TIME (FUN) SCALE SALOONS?



Simply Stunning FG/TOPSA/Porsche 911 Carrera Cup R.S.R. (What a mouthful)

constructed in "house". With most design work done by Franz and recent "works" driver signing Flavio Bunto. The first F.G. cars to hit our fair shores were the VW Beetle and Marder Race cars not true 1/5th scale, but actually 1/6th scale, these cars were slow to find favour in the UK. But then came the Rawtenstall connection, nee King Cobra Models.

Bob Stiles the owner of King Cobra saw a niche market in 1/5th and with a great deal of effort, plus a loyal band of self confessed racing loonies, away we went. Top Scale racing evolved in to a serious racing formula, with at first German Touring car based models. Over the ensuing years the cars have developed leaps and bounds into the cars we now see today.

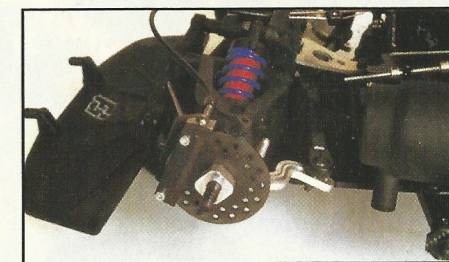
Open the Box

The first thing that hits you is (I know it's been said many times before), the sheer size of everything. The first thing that came out of the box, is an unconditionally stunning shell, "In the automotive world, there are only a few cars which never come out of fashion. The Porsche 911 belongs to these classics". That was an extract from the F.G. catalogue, I think it says it all.

As with all F.G.s the Porsche comes fully assembled, only requiring radio gear and shell assembly, also that all important paint job. These cars cry out for a "class" paint job, if you don't

fancy tackling it, painted shells are available from King Cobra. Personally I think the separate front spoiler/bumper moulding is a great idea. Would you want to replace the shell after a minor shunt, or are you that good a driver??

Although the Porsche shares the F.G. family resemblance, a much shorter wheel base means a re-designed radio plate which is now mounted by four "legs" instead of the previous three. The radio plate allow for either one "brick" type servo or as the review kit, two "high" powered servos (Futaba S9303's in our case). Also now as there is less space, the receiver battery is now mounted on a plate slung off the body supports. Included in the revised radio layout are mounting blocks which "raise" the servos, to allow more rigid wire control linkages, without fouling the centrally



FG front disc brakes, note the alloy front upright

TOP SCALE TWIN TEST

On-road racing is at present going from strength to strength particularly in the scale-saloon classes. However, when most racers talk about scale saloons, they doubtless picture 1/10th electric or IC powered cars.

Well I think they're wrong, like the "book" says "big is beautiful", and it's no more true than in the case of 1/5th cars. Until a few weeks ago I had never seen a 1/5th car. It was a real culture shock seeing these big, blazing, so incredibly scale like racing cars. Evidently the bigger the bodyshell the easier it is to scale down from full size. I expected large slab-like creatures, but no! Curves are "in" for 1/5th. Both cars which are in this review, prove this without doubt.

Just for the uninitiated, 1/5th scale cars are two-wheel drive, purpose built racing cars, **not toys** I must stress. Powered by 22cc two-stroke petrol

engines. This is what makes them quite so very different from any other "fuel" burning cars. Although of a relatively low state of tune, the high torque - not the outright power - of these engines is what makes them so much fun. Imagine if you can a 1/10th IC or 1/8th IC car with the instant torque of a 12 double electric motor. Then multiply it by say 100 times. Get the picture? Also all engines have pull start systems, and have built in magneto type (self generating) ignition systems. So no external starting equipment is required, not even the humble 12v battery, unless you have tyre warmers, but that's another story. Moreover as the engines run on normal pump petrol (4 star if you please), fuel costs are much lower. As a gallon of "two-stroke" mix (oil/petrol) will keep you running for hours. One other very significant difference of this scale

is, they run on "real" rubber racing slicks. Again can you get more realism than this, even down to the tyre warmer blankets as seen in Formula One. Damn! you do need that 12 volt after all, anyway less of the waffle let's look at the cars.

A Little German History Lesson

F.G. Modelsport is the company started by long time model car enthusiast Franz Groschl. Franz having I believe sold other makes of 1/5th scale cars, decided he could do a better job and so F.G. was born.

In a very short time period, six to seven years F.G. have developed a very high-tech production facility, other than the Zenoah and now, Solo engines all other components are designed and

Specification

Chassis: One piece flat alloy with folded edges. Countersunk pre-drilled mounting point holes.

Front suspension: Double wishbone. Coil over, oil filled shock absorbers. Clip-in spring spacers. Anti-roll bar. Fixed caster wedge. Adjustable top wishbone caster spacers. Ride height adjusters in bottom wishbone.

Rear suspension: Double wishbone. Coil over, oil filled shock absorbers. Clip-in spring spacers. Adjustable camber. Adjustable tracking (toe in/out). Ride height adjusters in bottom wishbone.

Drive Train: Primary gear train (plastic). Secondary gear train. Sun and planet gear differential.

Power plant: Zenoah-ZG22 air cooled two stroke. Incline mounted. Pull start. Two shoe sprung clutch. Custom tuned pipe.

Brakes: Twin, layshaft mounted rear Ferodo discs. Triple steel pads.

Wheels: Front one piece "BBS" moulded 65mm wide.

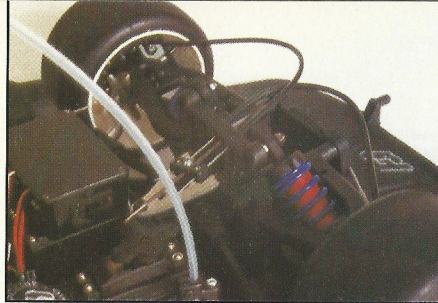
Rear one piece "BBS" moulded 77mm wide.

Tyres: Front "H" compound. Rear braced "M1" compound.

Dimensions: Length 850mm. Width 403mm.

Height 245mm. Weight (R.T.R.) 11.5kg (depending on radio gear).





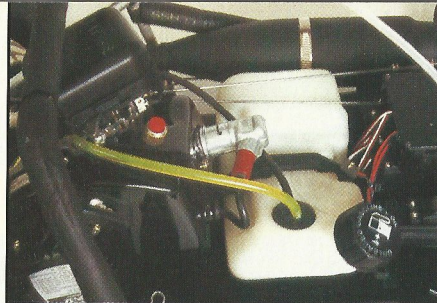
Porsche front end. Note the balance bar for the front brakes

mounted fuel tank. These appear to be the only major differences between the Porsche and the previous F.G Touring cars.

The Main Course

Now for the meat of the review! Our Porsche was built to TOPSA's Carrera Cup regulations. Which allow some quite delectable FG option parts to be fitted.

The single most important 'tasty morsel' is undoubtedly the front disc brake conversion: Fully floating drilled steel discs; run in cable operated callipers with Ferodo type pads; levers operate onto cams which apply pressure to the pads - instant stopping power! The twin control

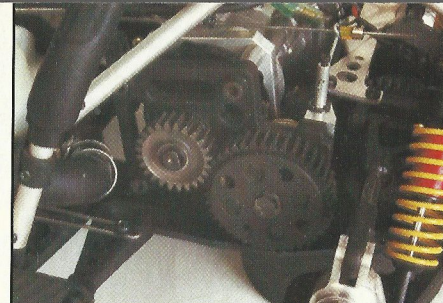


Note the "Lay-down" mounting of the Zenoh engine. Also the Metal plug cap

cables have small "return" springs fitted between the inner cable ends and control levers, so sticking brakes should not be a problem. Then they run to a balance bar with built-in adjusters, then to a single link wire to the servo. A single throttle/rear brake servo can be used to operate the front brakes as well. However, for extra stopping power, a separate servo can be used, as was the case with the review car.

Radio control can be set up with a 'Y' lead joining two servos and using the same receiver channel. Another option would be to use a computer radio with channel mixing and a four channel receiver.

Also fitted at the front of the car are aluminium uprights, a bulkhead stiffening plate and



The "beefed up" gear train

turnbuckle track rods. In my opinion the alloy uprights are not really a necessity (as the standard engineering composite uprights are more than up to the job), however they do look good.

The transmission is where the next optional parts are found. Both plastic primary gears are replaced: the pinion with steel, and the spur with an alloy gear. Obviously, this results in increased durability and reliability.

Different ratio gears are also available so you can "tune" for individual tracks. Surprisingly I feel, very few people (well actually none) run the two speed gearbox which is available, apparently the massive torque these engines develop at all revs removes the need.

Finally we come to the rear suspension. As turnbuckles are now included as standard, the only upgrades fitted are, like the front end, aluminium uprights. Again the same comments I made for the front uprights apply. This completes the rolling chassis. However, two other important accessories have not been mentioned. On the engine side you have a metal plug cap. This is a must. The metal cap contains a resistor, it's job is to remove radio interference and is a requirement for the B.R.C.A. series.

The other accessory, are carbon-fibre side guards. These mount from the body mounting points on the roll cage. In a side-on impact these will protect the repositioned receiver battery pack from damage or maybe worse.

Lastly we come to the magnificent bodyshell which, in my opinion must be the best quality lexan moulding I have ever seen.

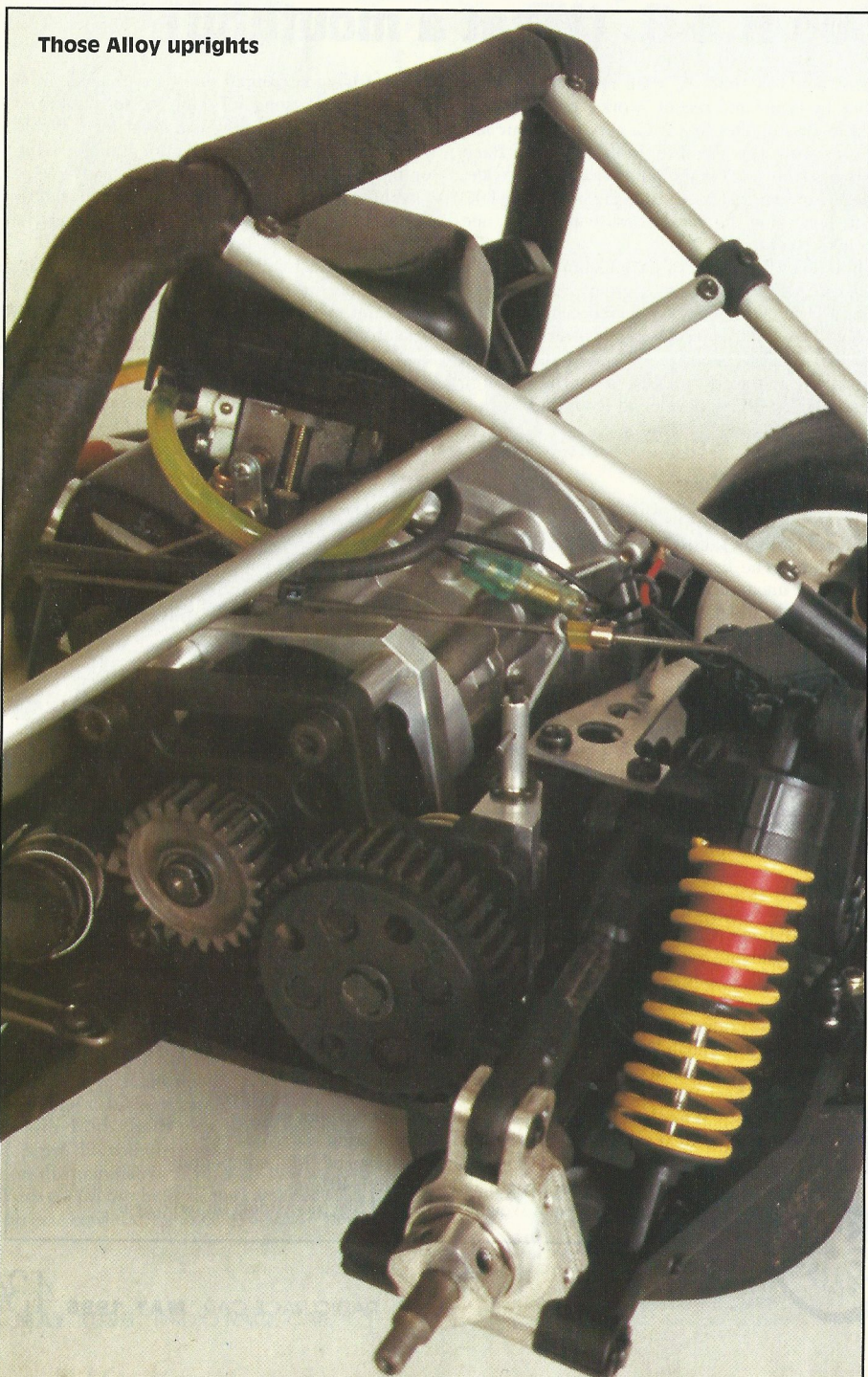
Yes there is an add on for it to, even if you don't fit any other "tasty morsels" you gotta have this. The whale-tail wing. This makes the 911. Also besides the visual effect, you're gonna get loads of down force to keep those rear tyres gripping.

Coffee..?

The F.G. Porsche is a pure-bred racing machine, evolved pretty much in the same style as the car it mirrors. In this spec the car can be raced in all three national series, T.O.P.S.A., B.R.C.A. and of course the Race Car Series, competitively. The options fitted to the review car are only a fraction of what is available from the F.G. catalogue, but all (all right I know what I said about the uprights) improve the performance you will get from your car.

With the reduction of the retail cost, this has become a very affordable racer. Smitten? Well read on for the track test.

It's a Zenoh!!!!



Those Alloy uprights

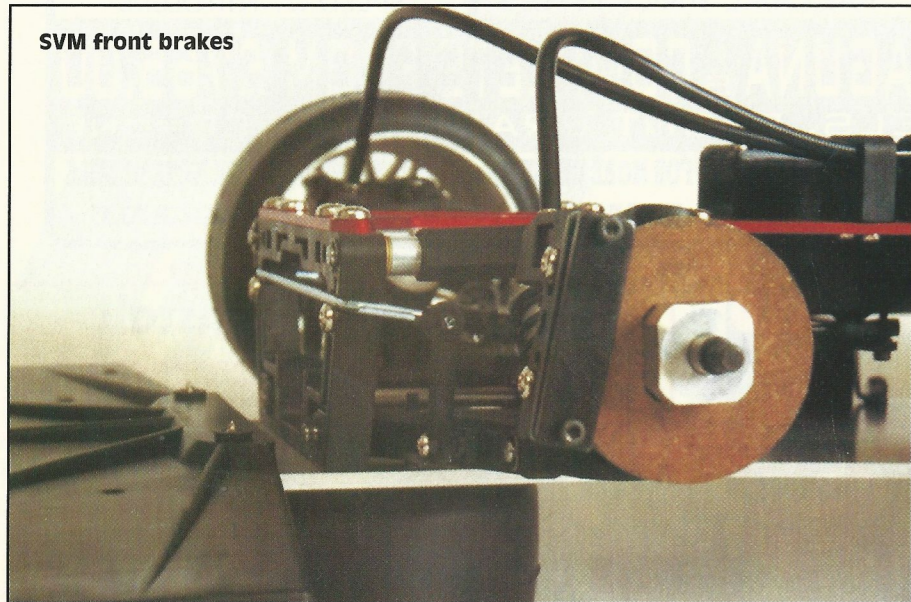


And Now for Something Completely Different

Keke's car

S.V.M. Team Rosberg Calibra, Columbia Mk 5 (another mouthful)

SVM front brakes



A Little Italian History

S.V.M. are part of the Radiosistemi group. As a distributor to the Italian model trade (very much like our own Ripmax) their product ranges includes cars, planes, engines, radios etc. Within the product range are the S.V.M. manufactured cars, Crono and Columbia.

Inside the S.V.M. organisation resides a very well known designer, Franco Sabbattini. Franco (the S of S.G.) has been responsible for many very successful on-road racing cars. Mainly 1/8th scale two and four wheel drive circuit cars. I must admit my own all time favourite car was one of Mr Sabbattini's other Columbia's, the S.G. 1/8th (you'd agree JBV). When looking at the completed car, I got a very strong feeling of "Deja Vu". But I'm jumping the gun a little.

S.V.M. Columbia Mk5

The Columbia is marketed a little differently to all the "other" 1/5th scale cars I have seen so far. Firstly you can buy it with or without an engine, which means if you're a first time buyer you could use a second hand engine. Secondly it's

Specification

Chassis: One piece 4 mm anodised aerospace alloy. All mounting holes countersunk. Three quarter length top chassis plate (alloy).

Front suspension: Double wishbone. Coil over, oil filled shock absorbers. Adjustable anti roll bar. Adjustable caster shims. Adjustable track width. Adjustable camber. Ride height adjusters in bottom wishbones.

Rear Suspension: Double wishbone. Coil over, oil filled shock absorbers. Adjustable anti roll bar. Adjustable track width. Adjustable camber. Adjustable tracking (toe in/out) Ride height adjusters in bottom wishbones.

Drive Train: Primary gear train (plastic/steel). Secondary chain drive. Sun and planet gear differential.

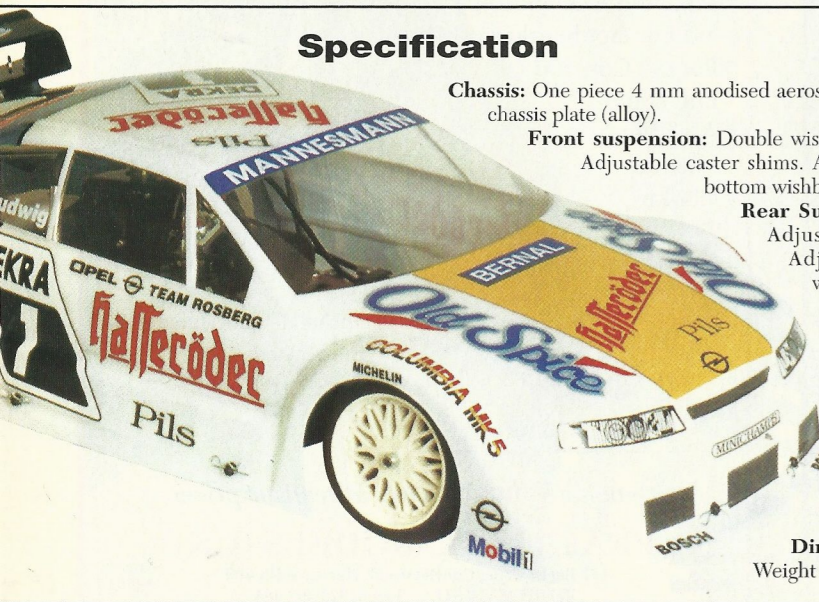
Power plant: (if supplied) Zenoah-ZG22 air cooled two stroke. Pull start. Adjustable two shoe sprung clutch. Vertically mounted. Custom tuned pipe.

Brakes: Twin Ferodo type discs. Mounted on the differential output shafts. Steel pads.

Wheels: Front one piece "BBS" moulded 65mm wide. Rear one piece "BBS" moulded 65mm wide.

Tyres: S.V.M. soft with kit foam inserts.

Dimensions: Length 880mm. Width 380mm. Height 235mm. Weight (R.T.R.) 8.400 gms (depending on radio gear).



available in kit form at a slightly reduced cost.

Another plus point for first timers is, when looking through the British parts catalogue (made-up by importers Puma Racing) other than the front brake conversion, there are very few option parts. So this is very much a "straight from the box" racer. Aimed at the "stock" class within the B.R.C.A. national series.

It Really is a Kit..!

When opening the massive box you are greeted by a one piece Calibra shell, with four foam circles taped to it. These are not protection for the shell, they are the foam inserts for the standard tyres. So don't throw them away, like I did (now you know why I was foraging through Traplets wheelie bin, Bob). Below you find three large, white, cardboard boxes and a 4 mm aircraft alloy chassis taped to the side. Is this really a complete car? Of course there's no engine - phew!!

Let's Open All The Boxes

All the sub assemblies are bagged individually. However, most of the fastening, screws, C-clips etc appeared to be bagged together. But I was tricked. Any specific screws or nuts for an assembly are located within that sub assemblies parts bag. But you do still have to take care when locating the correct "general" fixing. As we are talking problems let's have a moan.

The Columbia appears to me to be targeted at the "first" time 1/5th scale racer. However no instruction sheet, assembly or setting up information is included within the kit. All you get is a series of exploded views. Without Puma's booklet a great deal of time would have been wasted tracking down which part, was which. I have mentioned this to Paul Dudley of Puma and he is going to produce a British kit supplement, enough said.

Let's Build It

As I had no build guide, the front suspension seemed a good place to start. After identifying all the parts, assembly (for all my previous moans) was very straightforward, just like a big 1/8th car. A couple of recommendations I will make though: 1/All the wishbone pins require the circlip groove deburring, to allow a sliding fit. 2/ The tumbuckle for the camber adjustment requires a lot of care when "tapping" into the wishbone and top joint. Having a full toolbox in my garage, permitted me the luxury of having the correct R/H and L/H Metric taps which allowed me to cut a "lead" to the thread. The only other thing that struck me was how stiff the oil was in the pre-assembled shock absorbers.

Italian tracks must be a lot more grippy than ours.

Front suspension components



Take a Brake

At this point I fitted the S.V.M. option front disc brake conversion. Unlike the F.G; S.V.M. use Ferodo material for the brake disc and metal pads. Again operation is by levers and cams, with cables running to the control servo. Some work is required on the levers as they are a little too long, and are too straight (bending and cutting solves all). The return springs work directly on the brake pads, which I think is a better system than the F.G.

To the Rear

Although the exploded diagrams suggest the radio plate is to be assembled next, I went to the rear end. Again, with Puma's booklet all the parts were identified and laid out. My recommendations for the front suspension also carry over to the rear. De-burr the wishbone pins and take care when tapping the wishbone ends with the pivot balls. Also I found the holes in the brake pads were not quite drilled or pressed as pairs. Selection of the pads and a little filing allowed a "loose" fit on the support pins. Just like the front shock absorbers, the oil is very thick in the rears. My recommendation would be to change to a softer oil before you run. The only other thing to be aware of is:

In the exploded diagram the chain, used for the secondary drive is not shown. However, you do need to fit the chain to the differential before the two rear mounting blocks are joined to the top moulding/brake support plate.

I Need An Engine

After a quick visit to Puma Models, where a Zenoah engine was procured, assembly continued. The adjustable clutch and pinion gear were all fitted in minutes. No clutch adjustment is required as the factory pre-sets it.

S.V.M. mount the engine vertically, so no additional engine brackets are required, as there are mounting lugs cast into the Zenoah's crankcase. The Engine is then bolted to a very substantial moulding, which also supports the layshaft. So now I had three main sub-assemblies, front and rear suspensions, engine and layshaft. With a little help from my trusty vernier (I

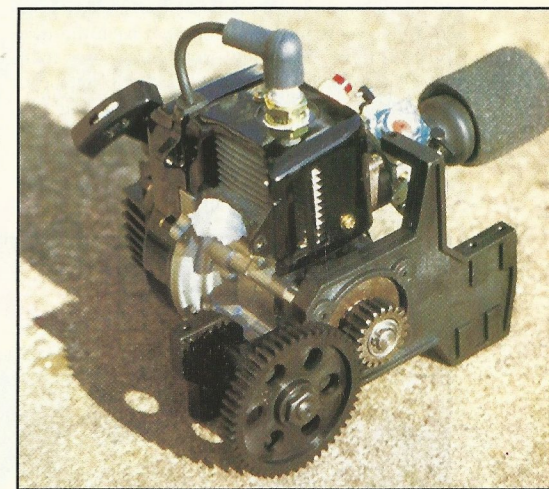
checked the depth of all mounting point holes) screws were selected and all three assemblies fixed to the chassis. All very painless really.

Radio Plate

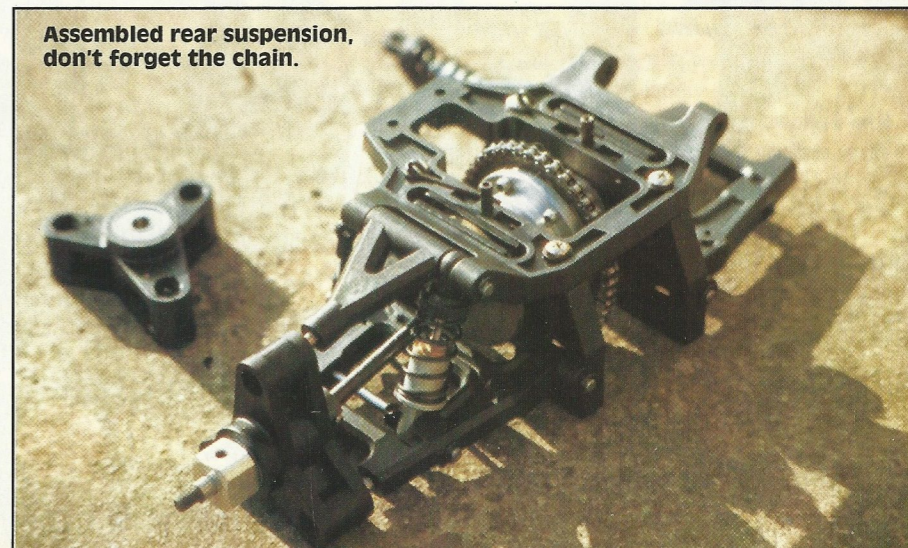
S.V.M. have designed the radio plate to accommodate two different steering servo layouts. I chose the simple route and fitted a single Futaba S3303 "brick" servo. The other choice would be two smaller high torque servos, say, Futaba S9303's or KO's PS1006. For the throttle/brakes you can, at present, only fit one servo. If you are using the front brake conversion, linkages are provided to the single servo. In my opinion this is too much for one servo to cope with, and I suspect a "front brake" servo conversion is the only fix.

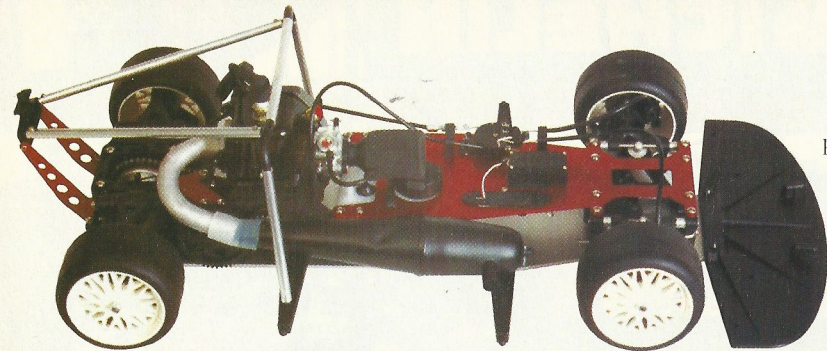
The one thing that caught me out was, before fitting the fuel tank to the radio plate. A support block for the rear brake cable must be screwed to the radio plate with two countersunk screws. This is because the centrally mounted fuel tank covers both screw holes. All that was left to do was mount the radio plate to the chassis and make-up the control cables.

The Zenoah engine for the Columbia. Complete with front mounting plate. Note the custom air filter



Assembled rear suspension, don't forget the chain.





A real Greyhound, the finished rolling chassis.

Paint Your Wagon

Normally one of the quickest jobs on completed model (for me anyway) is to paint and decal the bodyshell. After five hours, three cans of paint, two rolls of masking tape and several scalpel blades, I had a completed shell. S.V.M. supply a superb set of Team Opel Rosberg stickers. So with a single coat of white paint, a realistic looking car can be had. Final moan, although a separate two piece rear wing is supplied, no hardware is in the kit to mount this to the shell.

Finishing Off

The multi-tube roll hoop and body mount fitted together quite well. Although not shown, it requires the tubes to be located with small self tapping screws into the plastic joining mouldings. I drilled the plastic with a 1.5mm drill first, for ease of assembly. A large moulded front bumper, which also doubles as the front body mount, screws to the front of the chassis. S.V.M. supply a custom air filter to be fitted to the Zenoah engine. In our review kit, it faced forward, straight over the fuel tank cap, making fuel tank filling difficult. This can be solved by acquiring a 90° adapter, turning the filter to one side or the other. A very smart tuned pipe and manifold was then fitted.

All that's left is to mount and glue the tyres to the wheels. I must admit, after seeing various articles on 1/5th tyre fitting, dread had filled me. Wrong! It couldn't have been simpler. Glue one tyre bead into the recess in the wheel, peel back the tyre, push in those bodyshell protectors (sorry foam inserts) fold back the tyres, glue the other bead, job done.

Coffee... and Cake

When looking at the completed car, I was struck

how "lean" it looks. A real greyhound and this is born out by its weight. On the whole the car is a real racer. One or two small details (i.e. instructions) do let it down.

Nevertheless the quality of all the components is very high. All mouldings use composite plastic material and require no finishing. Setting up of the car couldn't be easier, as you don't need to remove the wheels to make any adjustments.

Also options are not really needed, as the car can race straight from the box. Obviously the S.V.M. can't qualify for the T.O.P.S.A. series, so it can only race in the B.R.C.A. or Radio Race Car Series.

Track Test

A very sunny day in February was the given time for the test, the track Mendip. I really couldn't believe the weather, had I been that lucky?

It didn't last.

As the Columbia I had built, was to be used for display by the owners, Blackburn Models (thanks Keith), Mike Manning of Yeovil Models stepped into the brink and allowed me to drive his car.

Unfortunately "radio" problems set in with both cars.

Firstly a lack of a suitable receiver battery meant I was unable to run the glorious looking Porsche -Strike One.

After a few practice laps by Mike, an unpredictable "glitch" set in the Columbia's gear. With the weather clock running, Mike tried all he knew to give me a couple of laps at least. Using the field-radio charger Mike gave the receiver pack a top-up and I did go for a run.

Unfortunately the "glitch" returned

very quickly. Also as no real tyre temperature had been generated,

I couldn't really

"lean" on it.

However I can

say, these

cars are

BIG FUN.

With lots

MORE DETAILS ON FG CARS ARE AVAILABLE FROM:

King Cobra Racing Models, 1 Bank Street, Rawtenstall, Rossendale, Lancs BB4 6QS, Tel no (01706) 220780 or your local dealer (check through the ads in Race Car)

FOR MORE DETAILS ON THE SVM COLUMBIA CONTACT:

Puma Racing Models, The Barn, Moat House Works, Kings Coughton, Alcester, B49 5QF, Tel no (01789) 765496 Or there approved dealers, Blackburn Models or Yeovil Model Cars (check ads in Race Car)

of "bottom" end, it's very easy to unstick the rear tyres, but in a controlled way. Straight line speed was also very impressive. A further more in-depth track test on both cars will be reported on in a later issue of Race Car.

Your Choice

Both cars in this Test are pure Scale racers. Although built for the same type of racing they are very different. The FG is very much the Gerhard Berger of 1/5th, a solid, guaranteed top finisher, with a known track record. The Columbia the Jacques Villeneuve a real lightweight, with loads of speed, and all to prove, but you know it's going to win. When built and painted they both look magnificent. Price wise they are both in the ball-park, so it's your choice.

