

Performance Out of The Box

When asked to review this kit I jumped at the chance. Last season I raced my RS103 chassis with Tyrrell body shell at BRCA and Radio Race Car meetings, and made the A finals with ease, to the amazement of the many onlookers! Many did not view the car as competitive but with the right set up the car is as good as the rest.

I must admit I spent a lot on hop ups, as others had convinced me that these were essential to compete. In hindsight not all were essential, and with this new kit to review the challenge was on how could I get it to go without any hop ups?

Easy To Build

I do know my way around the car because this kit is the same as the RS103 chassis, but only has two ball races included to mount the rear axle, but it does come with a very nice Williams body and sticker set. Bushes are provided for the front wheels and the diff, and are fine, but a ball race kit will be essential as these will soon wear.

The kit comes with a standard motor, which is the sort you must use in Euro Cup racing. I am entering the car in the Radio Race Car series, that lets you use any motor or parts on the market.

The instructions, as always with Tamiya, are excellent

Tamiya FW18 Review

and because the car is relatively simple compared to most, there is little that can go wrong.

It took about 2 hours to build the chassis, but then a further 3-4 hours by the time electrics and the body were complete. If this was your first kit, a day should see the car complete (with experience you get quicker).

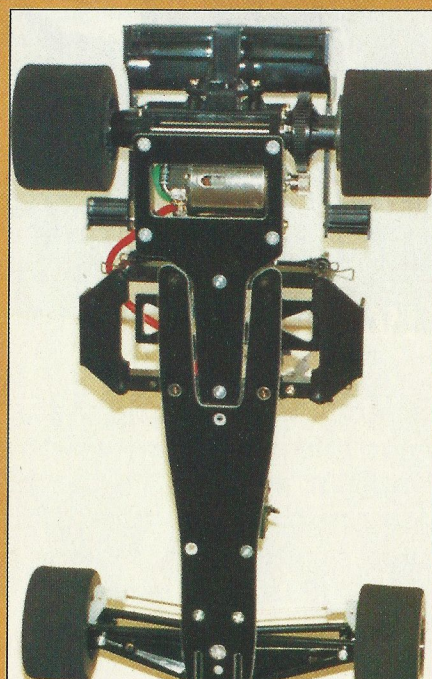
Front End

This comprises of a two piece upper and lower wishbone assembly. The wheel hubs mount on a single pin between the two (this will wear the wishbones but should last for most of a racing season, replace when the pin becomes too sloppy). The pin protrudes down below the lower wishbone and this is where the front springs are mounted, retained by an E clip.

A tip for car handling - if all seems well with your car but it persists in wandering down the straight one of the springs could have gone soft. These are cheap to replace and the optional spring tuning set gives you all three types (gold, silver and black being the hardest).

Chassis

This is two piece, with the rear end giving the rear end roll which is adjusted by two screws from the



Two piece chassis.

underside. I have these screws tightened up which is different to the instructions. Tighten them until you feel some resistance then back the front off half a turn and the rear screw off about one and a half turns. Do not do up too tight because you will crush the rubber "o" rings that space the rear end from the front allowing the chassis to roll.

Rear End

The rear end is constructed from two side plates and one front and rear plate. One side is spaced to give the correct width for mounting the rear wheel, the other is flush but this space is taken up with the differential. The motor mounts on this side, with a small metal brace designed to stiffen up the mounting, which can flex if using hot motors when under stress and affect the gear meshing. The rear ball races mount in these side plates and the axle goes through. The rear gives strength and provides the mounting for the rear wing. The front completes the rear housing and provides the mounting for the friction damper centre plate. The whole assembly then screws to the rear chassis T-bar.

Friction Damper

This is an aluminium post fixed to the top deck with a threaded sleeve over it. A sandwich is then formed with an upper and lower spring, friction plates and a central plate, which are held together with a knurled nut which tightens down on it. The tighter you do this up the more the friction plates rub on the fixed centre plate to reduce sideways chassis roll and lengthways chassis flex. I run this tight

Completed chassis.

so when you twist the chassis from side to side the round friction plates should overlap the fixed plate by 2mm-3mm. A bit of thread lock also comes in handy here as this nut can work loose. Do not use the grease that is included for these plates; I find this attracts dirt and makes the performance very erratic.

The shock which is not oil filled then mounts from the central plate to the mounting bracket on the centre housing.

Differential

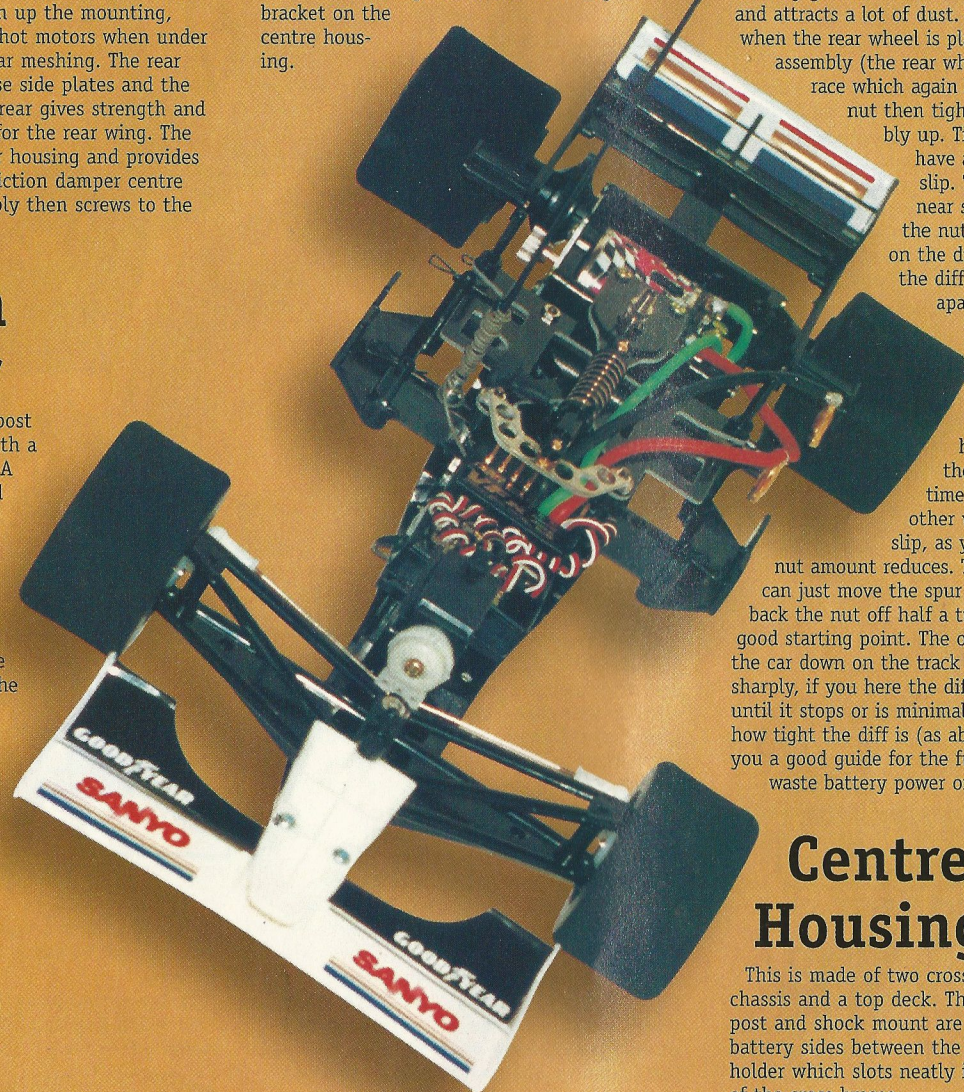
This mounts on the rear alloy drive which is fixed to the rear drive shaft with a grub screw. The two diff halves and rings sandwich the central spur gear. These parts have bushes which should be replaced by ball races ASAP. I do not run any grease in the diff because it is exposed and attracts a lot of dust. The diff is adjusted when the rear wheel is placed over the whole assembly (the rear wheel houses the thrust race which again I run dry). The wheel

nut then tightens the whole assembly up. Tighten so that you have a small amount of slip. To do this hold the near side wheel and tighten the nut down on the wheel on the diff side. Turn in until the diff parts do not move apart when you pull the wheel. Then turn in about half a turn at a time until the diff tightens. Check this by turning and holding the diff and the wheel at the same time when holding the other wheel, the diff will slip, as you tighten the wheel

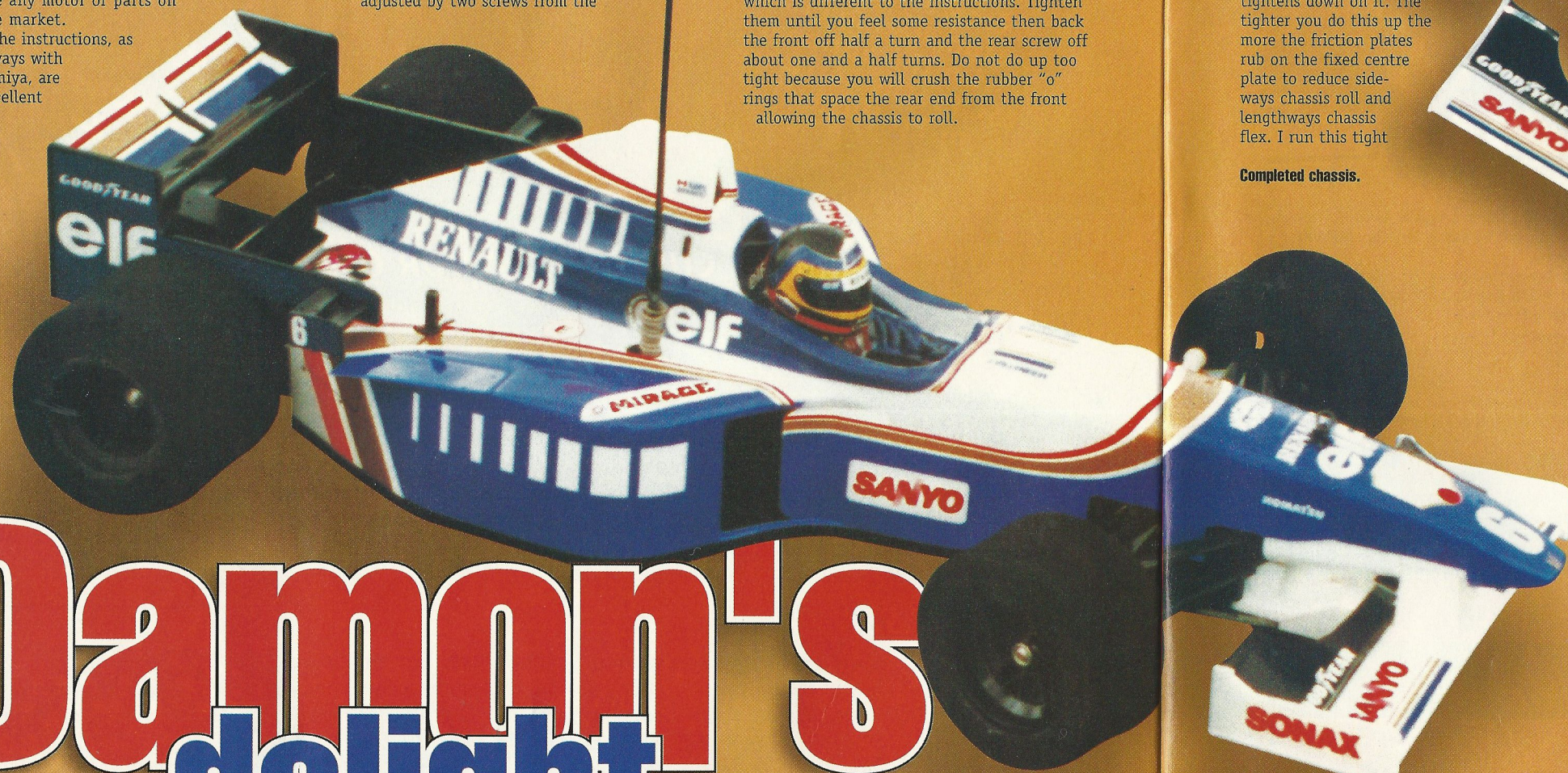
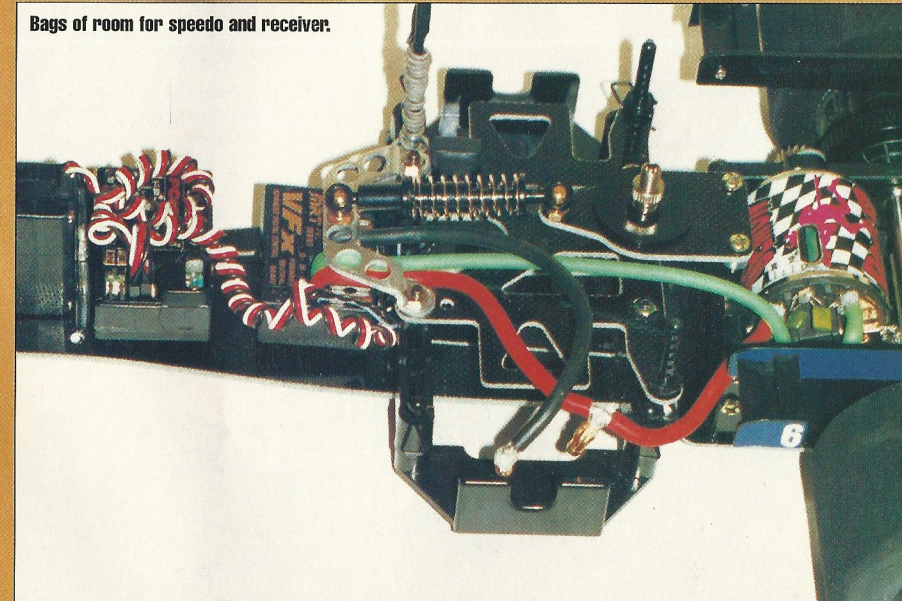
nut amount reduces. Tighten up until you can just move the spur gear as above, and back the nut off half a turn. This should be a good starting point. The other check is to put the car down on the track and put the power on sharply, if you here the diff slip tighten it up until it stops or is minimal. If you then feel how tight the diff is (as above), then it will give you a good guide for the future, so you do not waste battery power on the line.

Centre Housing

This is made of two cross braces bolted to the chassis and a top deck. The friction damper post and shock mount are fixed to this. The battery sides between the two retained by a holder which slots neatly into the end of each of the cross braces.



Bags of room for speedo and receiver.



Damon's delight

Steering

A servo bracket is mounted upright on the chassis and the servo is taped to it. The screw fixing lugs to the servo have to be cut off to allow it to sit flush. The servo saver has adapters for most models, or you can use your own. Remember though, that if you intend to run in Tamiya Euro Cup you must only use Tamiya parts - only servo, speed control and receiver are left open to choice. The steering rods hook into the servo saver and ball ends are screwed onto the ends which in turn snap onto the balls on the hubs. This arrangement can be a little sloppy. If you do not like this you can buy an uprated servo saver and steering arms which reduce any unwanted movement, but this is not essential.

Body

The rear wing is in four pieces that go together well and screws to the rear end. The wing can break when you crash at high speed, because when you land sometimes the rear wing takes all the force. It is worth buying a spare because if it breaks there is no way the car will handle. The front wing is very strong and I have never broken one, although they do get a bit battered after a while so may need replacing for appearance value.

The body shell is very well moulded. I must confess to not having much artistic flare for painting so Ken Huxtable stepped in to paint the body. Ken can do scale or custom designs to your liking.

A tip for your body shells is to paint Fender Mender which is a clear lexan repair and general adhesive to the underside of your body. This stops paint chipping and being rubbed off by wires etc. This is also very good for repairing tyres that have chunked as it is quick drying and flexible.

With the car complete and looking good, the track was now beckoning!

To The Track

The first run was at Bedworth the day before the Radio Race Car round, which I had entered. The challenge would be to make the A Final with the standard kit and no Hop Ups!

The car was set as I described with additive on the rear tyres and a quarter additive on the inside fronts.

The car was fitted with a Demon 17 double, MRT VFX speed control Futaba FPS132h servo and 40 mhz receiver.

The car shot off down the track but was very twitchy on the front end. I loosened the two chassis screws, the front about 1/2 a turn, the rear about 1 turn which gives more rear end grip the looser they are (Do not undo too far because the car will snake in a straight line.).

This being said, the car would not go in a straight line or through corners to my liking. A 17 double does put the standard kit under a bit of stress, but I had run my RS103 with one so I was determined to make it go.

After a couple of minutes I succumbed and put on some black front springs, the kit's soft golds were too soft. The problem was solved in the corners and no more snaking down the straight.

The car was flying! I came off the rostrum well pleased but the motor was scorching. The kit comes with one pinion and that is all I had, so I had to think of something else because the car was clearly over geared, which was a shame because it handled the motor with ease.

The answer was a Demon Hack Attack stock motor with 36 degrees advance. I put this in but the acceleration was obviously not as good, the top end was close due to the high gearing, the handling was fine.

The day of the meeting I didn't practice because I was racing my scale saloon as well, so I went blind into the first heat. I then found somewhere else where you need thread lock - the diff assembly and the other sides wheel adapter are held onto the steel drive shaft with pinion size grub screws. These being mounted in metal and tightening onto metal worked loose on the diff side and the meshing came undone.

The second round saw this problem solved and I moved up to 4th place! The third saw me taken out with a broken wing when I was hit from behind (I did warn they were fragile), and guess who did not follow his own advice and have a spare? For a replacement I will use a Benetton wing, which are more flexible and similar in style, and do not touch the body when the chassis rolls, which the kit wing does because the extended side are very long. So, out came the super glue and Fender Mender. The final round saw this come unstuck so no improvement. In the end I was placed 8th in the A because others had improved.

The final came and I had done another repair to the wing. The car was going very well I climbed up to fourth place and was pushing for third but the end came too soon.

Well what can I say, mission accomplished I had made the A and finished fourth with a standard kit straight out of the box (and a stock motor) with the exception of the black front springs, which to buy are only a few pounds at the most. So do not think you need



to spend a lot to compete. Clean driving and good car set up can produce respectable results.

In the second part of this article I will tell you which Hop Up's I decided on and the difference they made. **RRCI**

Reviewers Kit:

SPEEDO:	MRT VFX
MOTOR:	Demon Hack Attack stock
CELLS:	Demon 1700 SCRC
RADIO:	Futaba FF3
BODY:	By Ken Huxtable

Likes

Instructions
Quality- easy build
Body and sticker set

Dislikes

Servo saver
Only two bearings included
Rear wing-too fragile

