



As the sleepy enthusiasts greet the Spring after hibernating for the Winter a whole host of new cars await them. No Mayfly's on Race Car this month as we bring you yet another top notch Mega Mix! We have gone for our usual

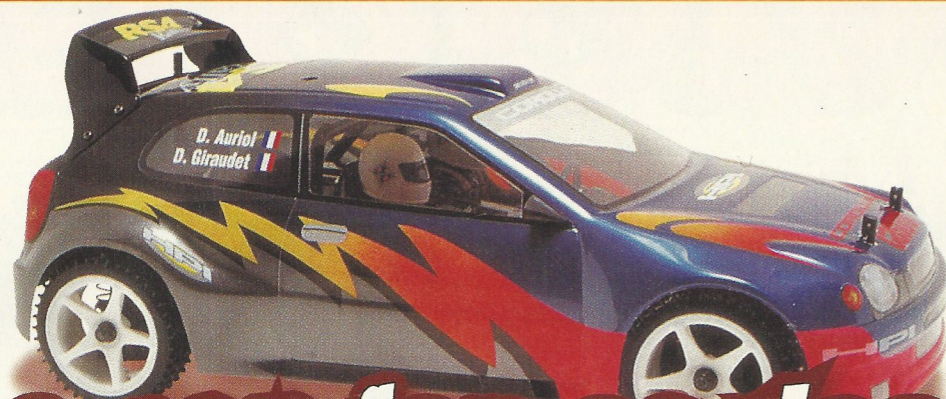
over indulgence - here goes.....
First up we have a Toyota Corolla WRC from HPI on their excellent RS4 Rally chassis. This may well be the most complete solution to building an R/C WRC car currently available but make no mistake - Yokomo, Tamiya and Kyosho have taken up the challenge to build the best WRC model out there!
Not sure what Carlos Sainz would make of Terry Atkinson's paint job on the Toyota but at least you should recognise the car OK when I run it in the Race Car/HPI Challenge race meetings!

Kyosho have something of a reputation for building a quality kit. Chris Deakin was VERY impressed by the TF3R '99 when he built it last month and the 1:8th scale Volvo S40, this month's cover car, is a cracker. The car was, literally, a joy to build.

ABC Hobby are yet another of the myriad Japanese model companies turning out very nicely engineered products. They don't currently have a UK distributor for their car range but after taking a look at two of the companies products we think that will change soon. The Carrera Mini, an 'M' chassis sized car, is very innovative and new (but experienced) man Mark Jackson was suitably impressed. The 1:24th DTM car is great fun, much more racer than toy it really is a pocket race car.

New reviewer, and very inexperienced - in R/C cars that is - Paul Darby, had the chance to re-create the spirit of the '68 Mustang used by Steve McQueen in the great car chase in the movie 'Bullitt'. Take a look at the Tamiya Ford Mustang Cobra with paint by Terry 'the paint' Atkinson it looks wonderful and somebody is going to win that shell!

Lastly another Toyota Corolla WRC but this time a front wheel drive Nitro from Kyosho, these things are a hoot to drive as David Elliot found out. Elsewhere Hugh Bright takes a look at the latest Steer-wheel radio from JR. Enough to keep you going until next month? Enjoy!



a car for carlos

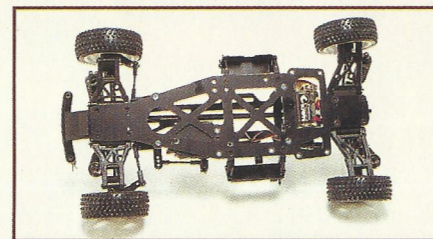
HPI RS4 Rally - Toyota Corolla

The works Toyota Corolla WRC was first tested towards the end of 1997. It was immediately apparent that it was 'on the pace' from day one much as the new Ford Focus has been competitive straight out of the box in '99. The Corolla won the first event of '98, the Monte Carlo Rally and looked set for a successful season. Only the brilliance of the Tommi Makinen/Mitsubishi Lancer combination and a freak engine failure on the last stage of the last rally of the season robbed Carlos Sainz of the '98 championship. Clearly the HPI RS4 Rally is based upon a car that has been successful from the start, and a model design (the RS4) that has also proved popular and effective. So with this heritage, how does it perform?

New family member

The RS4 chassis has been around for a few years. It follows what has almost become 'classic' touring car design. Twin deck, in carbon or FRP according to the model, twin belt drive, independent suspension via wishbones and oil filled - coil over shocks.

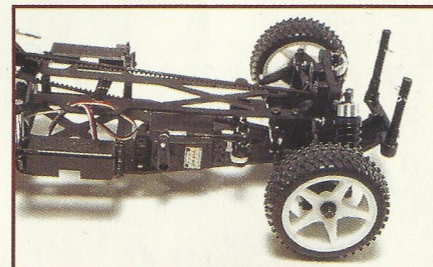
The RS4 Rally follows this recipe with a couple of extra ingredients. The suspension has a longer travel thanks to the extra long shocks provided and a bit of judicious trimming of the front upright. To add to the realism and provide some protection for the chassis a superbly moulded inner bodyshell is fitted. This inner shell keeps dirt and debris out of the vulnerable belts and pulleys and also helps to provide a more scale appearance with driver and co-driver moulded into the top half. I approve, big time.



The underside of the chassis is nicely countersunk

Built up area

I began the build by doing what I always try to do with a new kit, sitting and having a read through the instruction manual. I have been critical of HPI manuals in the past but this one was pretty good, clear and easy to follow. I wanted to build a particularly smooth car as this Corolla WRC was destined to be my race car for the Race Car/HPI Challenge series running in the standard rally car class. This explains why the bodywork is a Terry Atkinson special in the same style as the RS4 Sport/Ford F150 pickup we reviewed in the January issue of Race Car. Better get used to the paint job because another two cars destined for the race series are coming up soon and yup, same colours! The series caters for standard RS4s with ball race sets fitted. Guess what, the 'Rally' has a full ball race set as standard! Take



Futaba 9402 servo should make up for my dozey reactions, fast and smooth.

'HPI RS4 Rally is based upon a car that has been successful from the start'

a bow HPI for fitting the only legal and definite 'must have' hop-up as standard.
The actual kit build is very straightforward. Make sure you pay attention where left and right are indicated, otherwise your stabilising toe in at the rear end will become toe out and leave you with a well twitchy motor car!

Build up the diffs with plenty of grease and they will bed in nicely to give you a very smooth drive line. When you get to section 4 take your time and do a 'dry run' to assemble the shaft and pulleys without gluing them up. Once you are clear what goes where do the final assembly. Just a hint of light oil on the ballraces as you assemble the chassis and wipe off any excess.

When you assemble the upper arms and the steering arms take the time to make sure that they are absolutely even in length. This will pay off in a sweet and straight running car with no odd 'foibles'. Although the chassis is FRP rather than Carbon I still went around it with a smooth emery board to finish it off nice and smooth. Nice to see that the bottom chassis plate has fully recessed fixing screws - some models at twice the price still charge extra for a recessed chassis plate. I completed the kit build as per the instruction except that I used a little threadlock on the screw holding the spur gear in place.

I was very impressed by the simple 'turn lock' fittings for holding the inner shell in place. It means that you can drop off the under body in seconds for maintenance or chassis cleaning duties, neat.

I finished off the car by fitting the radio gear. I used my trusty JR756 radio and matching receiver and an ultra smooth Keyence A01 speedo. I popped in a fast Futaba 9402 servo to try to make up for my somewhat average reactions. Next on the list was a series specified HPI/Orion motor. I tried both the 18x3 and the 16x3 and decided that I liked the extra grunt of the 16x3 but I will have to watch out on the duration. The kit supplied pinion leaves the car overgeared for off-road use with the 16x3 so I will substitute a 26T pinion.

You must be kidding

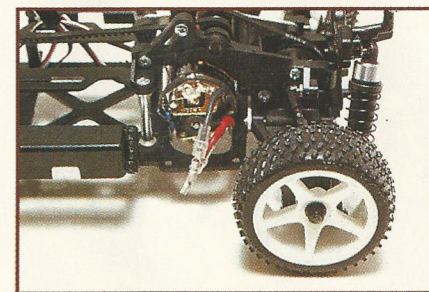
After the usual trundle up and down the nearest bit of tarmac to make sure everything worked OK it was off to Kiddy'. The excellent off road track at Kidderminster was the venue for a winter truck meet on the Sunday and as I had never, ever, run a truck, much less driven in an off road event I decided to suss it out on the Saturday. After making sure that my Truck was OK for competition the following day it was time to bring out the RS4. The Kiddy' track is a combination of dirt, astro, tarmac, grass and paved sections. It made an excellent Rally stage and the HPI took to it like a duck to water. I still had the front end travel restricted, this was a shame as the only problems I had were closely linked to a slight shortage of travel at the pointed end of the car.

Around the twisty infield section the car was superb and proved well able to keep up with a truck through the twiddly bits. Not bad considering it had just been sleeting and the track was still wet and icy!

If the racing calendar had any space at all I would be already organising the Race Car Rally series. This is FUN!

As I expected the duration off-road was marginal so I will swap the kit 31 tooth pinion for something around 26 tooth for off-road use. For on-road 31T may well prove spot on.

The car performed superbly. With the first round of the series is some three weeks away as I write this I am really looking forward to 'bleeding' the Rally in competition - I will let you know how we get on. **RRCI**



Above: the standard kit tyres are ideal for multi-surface racing.

Below: The neat HPI solution to the problem of debris in the drive system.



Tarmac or Dirt racer?

If you are intending to only use the 'Rally' on tarmac you might find the ground clearance a bit excessive. Section 12 includes an instruction to cut away the face of the hub carrier (A460). I ignored this in my initial build as I thought that it would make a useful down stop on the suspension. The result was a good handling car on tarmac but one which ran out of suspension travel on the loose. HPI know best, I recommend that you cut away the material as indicated.

I found that the best way to lower the car for tarmac duty was to fit the small washer from sprue 6817 (part 7 or 10) under the piston within the shock body. This effectively limits the travel of the shocker lowering the car. Ideally this would be used in conjunction with a stiffer spring but the kit springs are the only legal spring for the series so they will be used.

I have checked with HPI Europe and they have confirmed that limiting the travel in this way is legal for the race series. Do remember that the organisers may suddenly spring a mixed tarmac/loose driving surface on the Rally class so an ultra low car would in any case be left behind by the standard ride height competitors.

Quick Spec

1:10th scale electric rally car. Suitable for mild off road as well as on road use. Belt drive, 4WD system. Independent suspension with oil filled coil over shocks. Requires Paint for body, speed controller, two channel radio (27 or 40mHZ) one servo, Nicad pack and charger to complete.

Tester Kit

Team Orion Mach Mod TM51803 (18 x3) and TM51603 (16x3) motors
Team Orion Sport Pack cells
JR756 Transmitter and matching receiver
Futaba 9402 servo
Keyence A01 Speed controller
Terry 'the paint' Atkinson custom bodyshell

Likes

Looks
Neat design, inner shell
Choice of bodies

Dislikes

No instructions on how to lower the car for on-road use

May Flyers

