

Raising The Game...

REVIEWED BY
MARK CHRISTOPHER

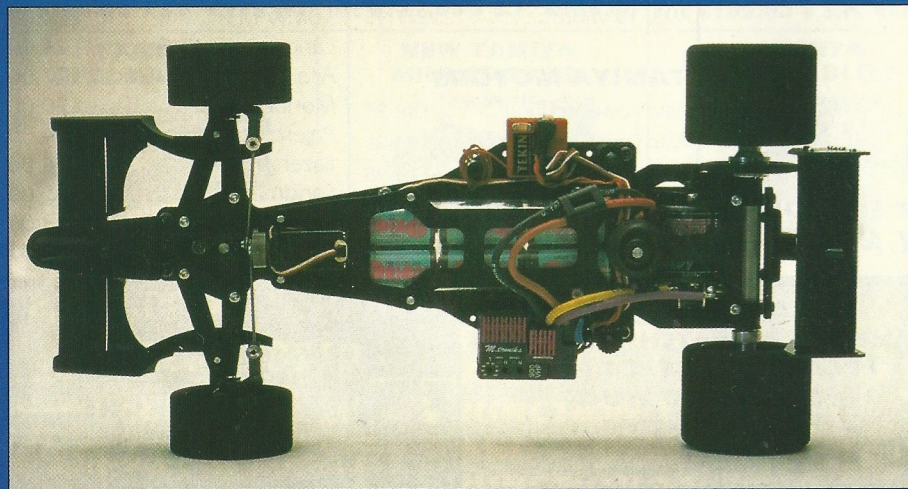
Corally's F1 Car

Having recently been bitten by the 'On Road' bug after taking part in Ashby's Winter Series (he won! Ed), I jumped at the chance of reviewing the new 1/10 Formula 1 car from the current World and European 1/12 scale Champions, Corally. The car is aimed at competing in the growing number of 'On Road' scale car

Classes, both for indoor carpet and outdoor tarmac racing, and is unique in that it takes quite a different approach to the design of the chassis and suspension compared to any of the other F1 cars presently on the market.

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The front wing's vortex extensions can be seen here, and the nicads running down the centre of the car. Note Corally's polarity conscious plug and socket.



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cars weren't released until Corally had thoroughly tried and tested them, but believe me, the wait was well worth it!

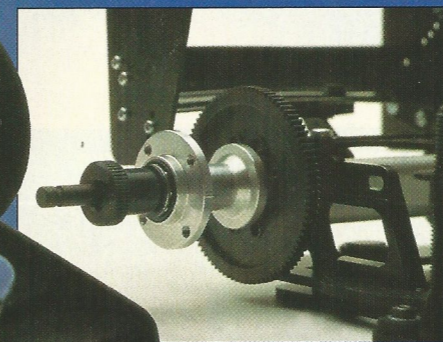
What Exactly Do You Get?

On opening the box, the most obvious thing you notice is that the chassis is pre-built, and already fitted with, in the case of the review car, NASCAR (American fitting) wheels, with Yellow compound foam tyres on the rear and Greens on the front. The car is also available with Corally's own design wheels, so owners of Corally Pro 10 cars can swap wheels/tyres easily.

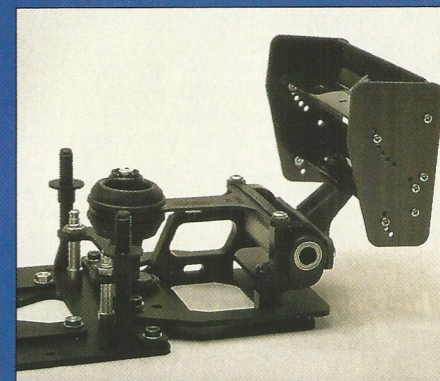
Along with the assembled chassis, you will also find a Torx screwdriver, spare 'E' clips, a body post, ride height adjusters, a decal sheet and, most important of all, the instruction manual. Now back to the car itself.

The Chassis

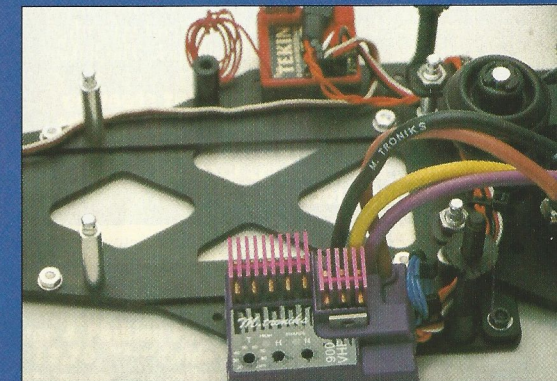
To help keep costs down, the standard kit's chassis parts are cut from black glass fibre, whilst the Pro version is produced in carbon fibre (graphite). The main chassis is designed to take the nicads down the centre line (in the same fashion as the Trinity and Yokomo Pro 10 World's winning cars) and both stick and saddle packs may be used. (Optional retaining strips are available if you don't wish to rigidly join your saddle packs together.) To increase rigidity, and



The super smooth ball diff and adjusting nut. The alloy wheel hub suits American NASCAR style wheels, whilst the car is also available using Corally's own wheels.



The 'Coral' alloy motor pod, rear damper, pivot balls and GRP rear 'leaf' spring (behind the body posts), plus Corally's own new mega-adjustable rear wing.



The saddle pack locating straps can be seen here between the M-troniks speedo and Tekin 27Mhz Micro receiver.

The Rear End

vary the amount of flex. The wishbones are cleverly connected to a centrally mounted damper which consists of a plastic sleeve mounted to an alloy post with two 'O' rings on it. Due to the clever way that the wishbones are connected, it also has an 'anti-roll' effect. Silicone damper syrup controls the up and down movement.

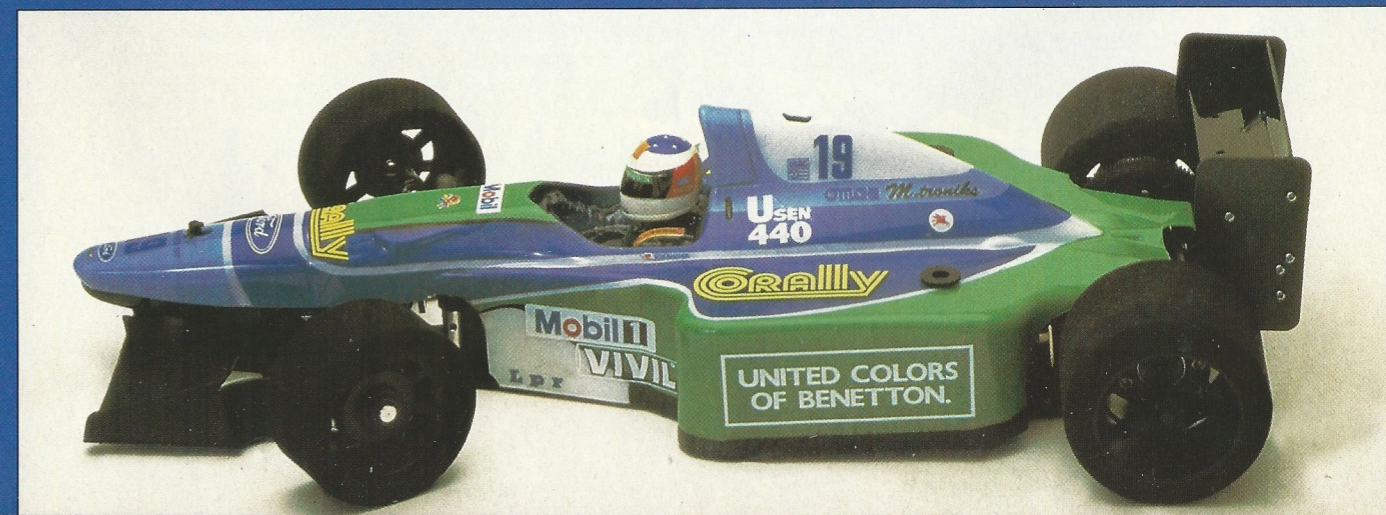
The suspension geometry can be altered by using Corally's wedge system, using the plastic wedges to alter the castor and camber by fitting them in various pre-drilled holes in the wishbones. This allows the geometry of each front wheel to be adjusted independently, e.g. for Oval circuit racing the inside wheel can be set to give positive camber and the outside wheel can be given negative. The ride height is also adjustable by placing washers above or below the steering blocks on the kingpins, giving four positions in all. The handling also benefits thanks to the front end's reactive castor design; as it loads up, the castor angle reduces.

The rear suspension is a totally new design consisting of a very rigid alloy motor mounting pod bolted to a lower plate. The latter is then located to another plate by two ball sockets, allowing the motor pod to rock freely from side to side. The front of this plate is attached to a strip of GRP bolted to the chassis at each end, the strip then acting as a leaf spring. Both the longitudinal and side to side movement is then controlled by a fully sealed, silicone syrup damper incorporated in the motor pod's top plate. The result is a free floating yet very smoothly damped rear suspension. Having worked on the rear damper, I found it a rather messy job, so I agree with the instruction manual's recommendation to merely top it up every other race meeting or so, with a full clean and rebuild every six months or so! 'Standard' and 'Hard' damper syrups are available to tune the handling.

The glass fibre rear axle is ballraced and very free running. A 90 tooth 48DP spur is provided in the

The Front Suspension

The front end features lower wishbones controlled by upper leaf springs (one each side) that



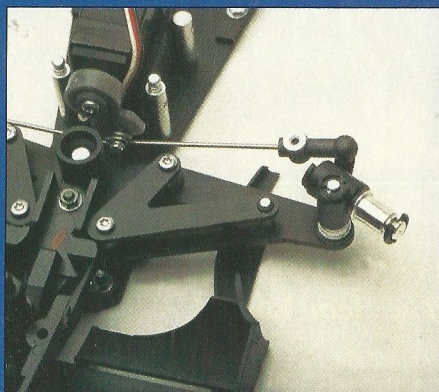
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'kit', together with a long boss 21 tooth pinion. The diff is very smooth and cleverly uses rubber 'O' rings to prevent the diff rings from slipping, ensuring even pressure on the balls. The wheels are removable without altering the diff's setting, whilst the diff's action is adjusted by the central nut, easily accessible within the wheel. The rear ride height is adjusted by three moulded axle bearing carriers, giving six differing ride heights.

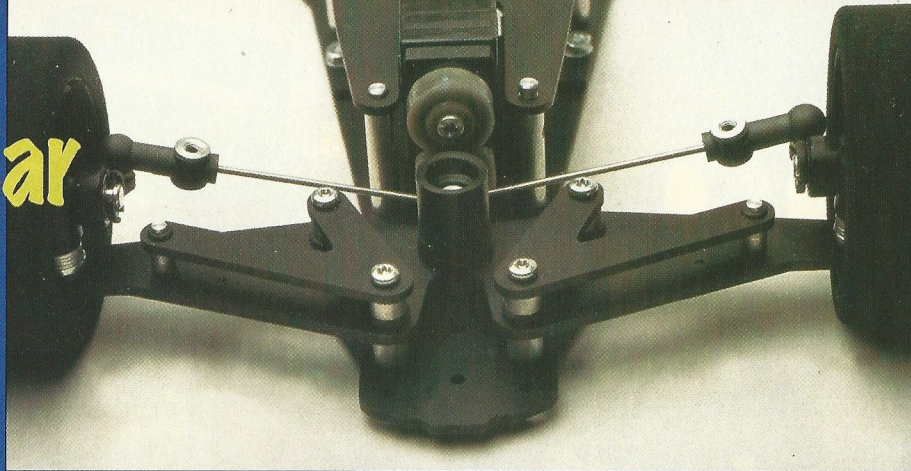
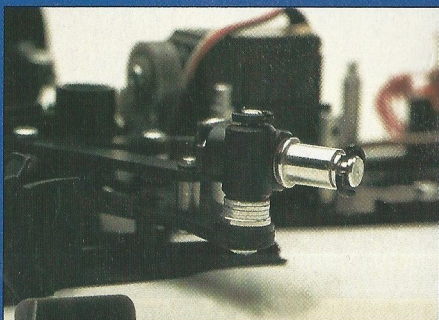
Radio Installation

The servo needs its mounting lugs cutting off, then it's mounted upright on the chassis' mounting plate with servo tape. I also used tie-wraps for added security. The instructions state that the servo needs to be mounted with the output shaft right in the centre of the car. This is so that when the steering linkage is fitted you'll end up with even steering on both left and right lock. The linkage is

The 'floating' centre point steering linkage allows trouble free straight line running. Note the use of live axles, the bearings located in the steering block.



The ride height is adjustable to cater for tyre wear, whilst the kingpin's castor/camber angle can be changed using Corally's unique 'wedge' system.



The front wishbones, leaf springs and silicone damper in front of the servo combine to give superb feel to the steering.

Corally's own centre point type, which at first seems to have quite a lot of free play to a driver used to ball-joints on both ends of a track rod, although later testing proved the system was faultless, ensuring perfect straight line running. I chose to fit a Futaba 9401 servo with a small Parma servo saver, a Tekin 27Mhz Micro receiver, and the latest M-troniks 900 VHF speedo, the 900's 7.5khz switching and anti-lock brakes just the job for On Road racing. An 18 quad motor was installed, and to power everything, M-troniks X-Cell Team SCRC nicads.

There was plenty of room on the chassis either side of the cells to mount the Rx and speedo using double sided tape.

The Bodyshell And Rear Wing

Any of the currently available F1 bodies and wings will fit the Corally, and as you read this, Corally should have put into production their own shell and rear wing set-up.

A Tamiya Benetton body was fitted, together with Corally's own super adjustable wing. The body was sent to Mike Parker of Blender Designs (01709) 898672, to be sprayed. In the photos you can see the extended vortex inducing side plates and also the multi-adjustable rear wing which offers two options for its mountings: One on the bottom plane, as in F1, and one as per Indy cars on the top plane.

As I Was Saying To Michael And Damon the Other Day...

This car is aimed at 'Seale' racing, so where better to give it its debut run than at an RRC On Road meeting at Stafford (a testing track for any car), whilst the weather was dry and warm.

The car was set up as per the kit instructions, using Tamiya's rear wing instead of the Corally version. The only alteration being the castor angle set at 6°. Once on the track, the first notable point was the sheer amount of both steering and rear end grip. During the qualifying Rounds I made several changes to the set-up as I became more at home with the car's handling, and the end result was that I qualified 2nd for the A Final. Not bad first time out really! At the start the throttle was nailed, the car shooting from 2nd on the grid into 1st place.

Going through the infield though, the car 'glitched' onto the grass, rejoining in 4th place. As the car really is easy to handle, I soon settled into a groove and eventually regained the lead, going on to win. I was more than pleased to win considering it was the first time a Corally F1 had raced in Britain!

Equipment Used In The Stafford Final

- Parma PSE Green rear tyres – full additive treatment.
- Parma PSE Blue front tyres – 1/2 treated with additive from inside edge.
- Corally multi-adjustable wing
- M-troniks 900 VHF speed control
- Genesis 16 triple motor – geared at 44.5mm per rev (I knew these were ballistic as the Ed used one in the Ashby Winter Series!).
- Overall effect: Awesome!

Impressive Or What!

As you can probably imagine from the result, I was thoroughly impressed with the car's performance. The car handles well both into and out of corners, and doesn't get 'skittish' when the throttle is nailed. The centre point steering always allowed a dead straight line to be followed down the straight, whilst the speed through the corners is something else!

The comprehensive instruction manual was easy to follow, and explained how each different set-up affects the car's handling (very informative for both beginners and seasoned racers). For those more used to Off Road type gear ratios, which I've found most certainly don't apply to On Road racing, a full set of gear ratio/mm per rev charts are included.

What do I think of it? I think you might have realised by now!

All of the photos published in this review were taken by Photron of Gainsborough. Tel (01427) 616341. Many thanks!

The Corally F1 car is manufactured by Corally B.V., Groene Kruislaan 53, 3319 RH Dordrecht-Holland., and is distributed by the trade by Mirage R/C Enterprises. Tel (01530) 272754.

It is now available from all Corally stockists (and is definitely eligible for the RRC On Road Series F1 Class!).

