Corally SPII Kit Review

Unlike the presentation of the Schumacher SP'C' car which was reviewed earlier in the season which was adequate, the Corally is smartly packaged and inside the box one finds not only a detailed 'step by step' manual but also a current catalogue, price list and a copious amount of promotional decals, ie. a similar sales push as found on opening the RC12L Associated Kit.

The building starts at the front end with the fitting of the 'joint balls' on which four collars pivot to give an extremely smooth wishbone movement. Before the wishbones are fitted, a rubber gaiter has to be inserted. When the wishbones are mounted to the chassis a damper post runs up through this gaiter and can be filled with damper fluid (provided) to give an excellent degree of damping. One word of warning here, make sure you remove all the excess flash from the outside of the gaiter, as this can cause the gaiter to tear as you push it through the wishbone (see figure 1).

The wishbones are held to their mounts by an 'O' ring, in fact the whole of the kit uses a large amount of 'O' rings. The later kits and mine included had a new set of 'O' rings which have a little tag on them to facilitate easy removal.

The wishbones are connected by an anti-roll bar which is clamped to the chassis and connected to the wishbone by the obviously named anti-roll bar fastening and an 'O' ring (see figure 2).

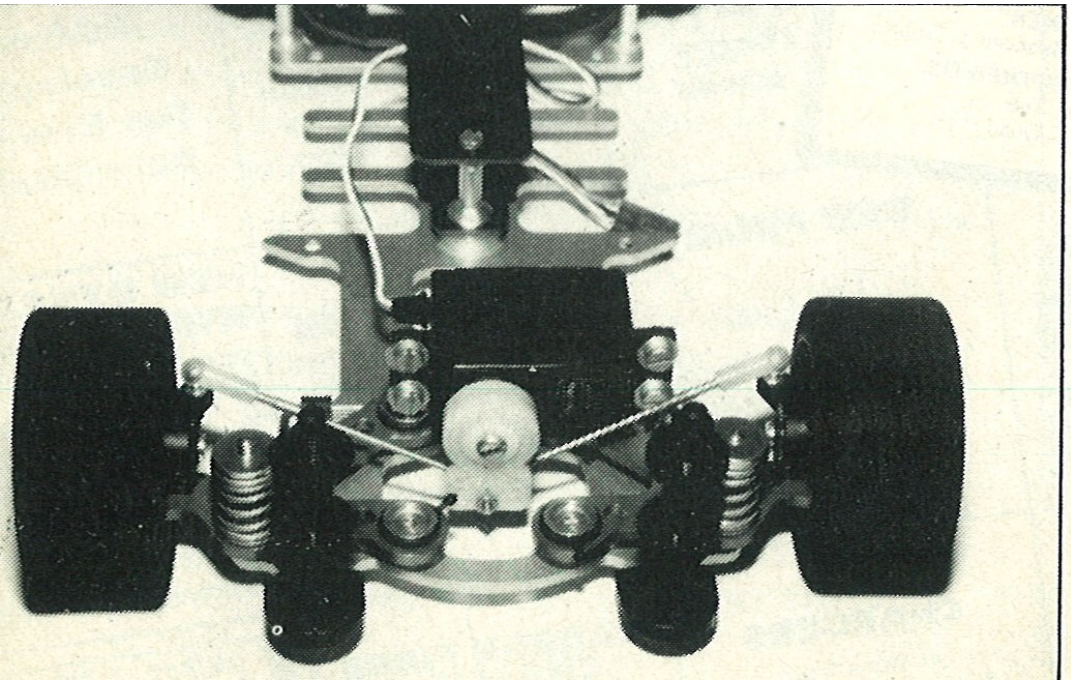
Suspension movement at the front is limited by a large spring on each wishbone which locates itself around the damper post and gaiter.

Now we move on to the rear end with the fitting of the T-bar. The T-bar pivots at the rear in an identical manner to the front wishbones and clamped solidly to the chassis at the front between a T-bar spacer and the front radio tray post (see figure 3).

In figure 3, F is a T-bar spacer washer which holds the T-bar away from the chassis. Moving backwards towards the rear of the car there are another three places where an additional spacer may be clamped to increase the amount of rear roll stiffness. The further back the additional spacer, the greater the rear roll stiffness. The 'all in one' rear blocks and motor pod can then be installed.

Before the radio tray is installed the rear damper post needs to be fitted securely and care must be taken not to damage the posts surface.

The rear damper assembly can then be finished. This is of an identical type to the



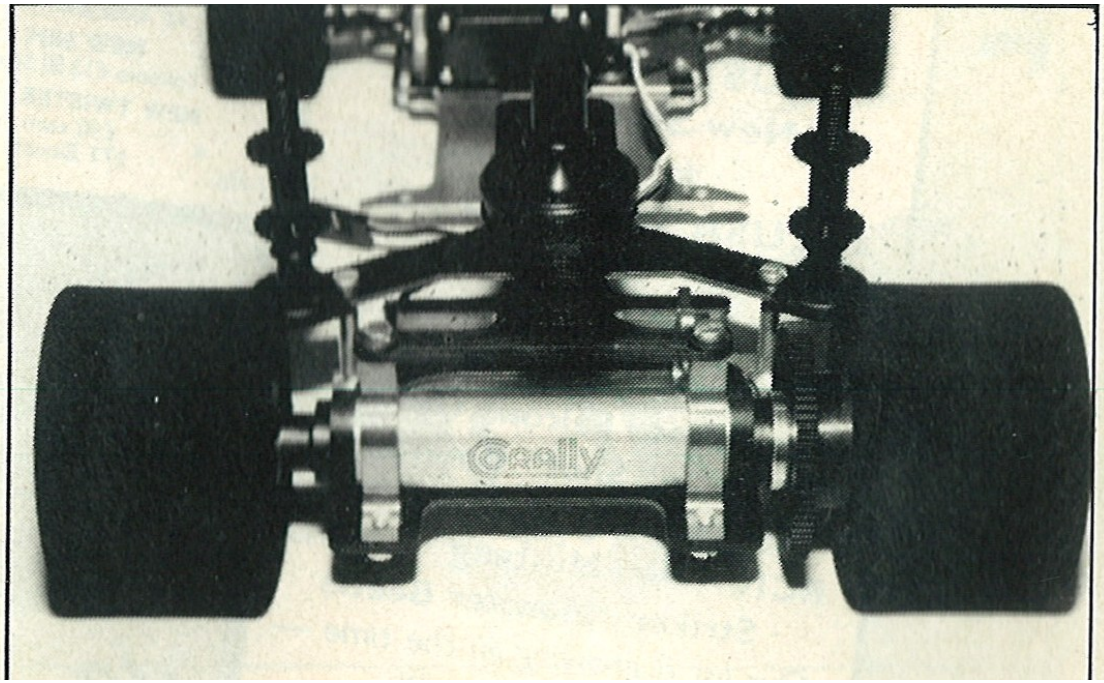

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FIGURE 1

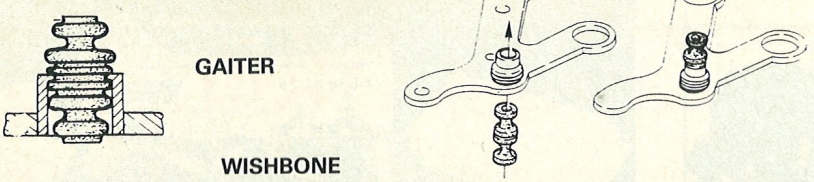


FIGURE 2

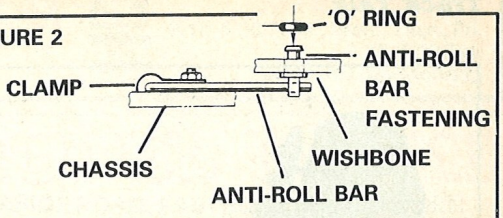


FIGURE 3

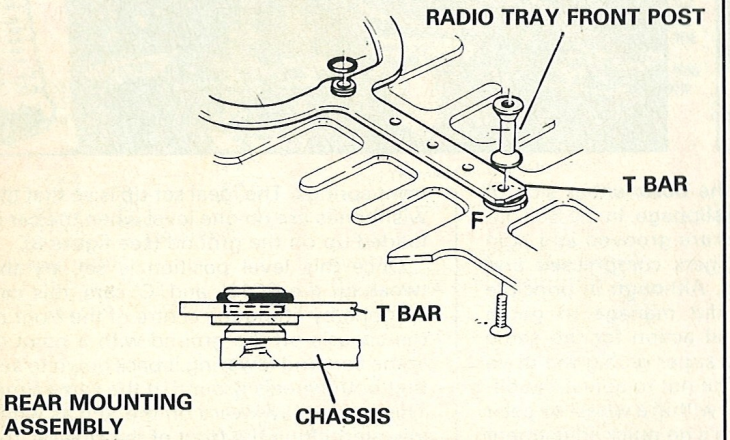


FIGURE 4

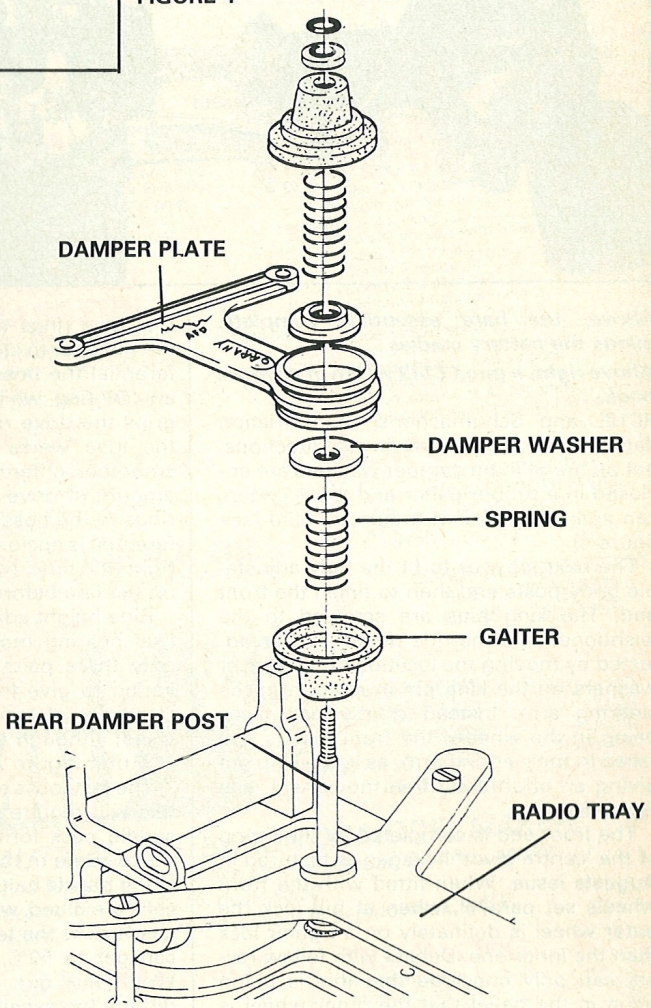


FIGURE 5 VARYING THE POSITION OF THE TWO SPACER WASHERS CAN VARY THE DEGREE OF FRONT RIDE HEIGHT

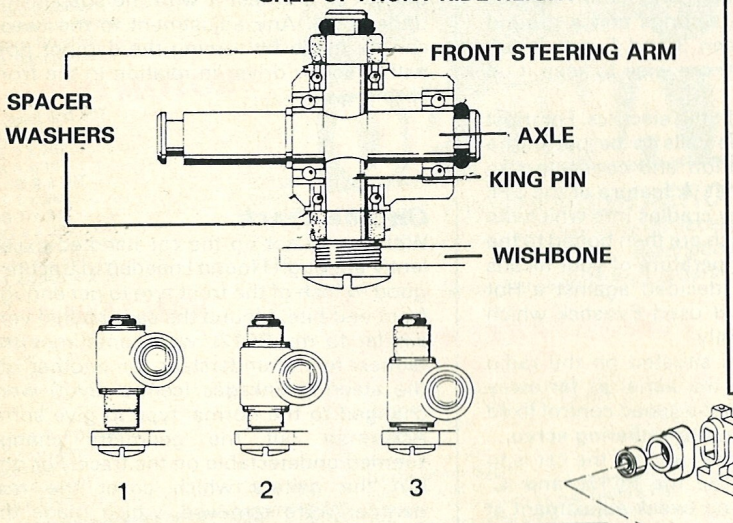


FIGURE 6

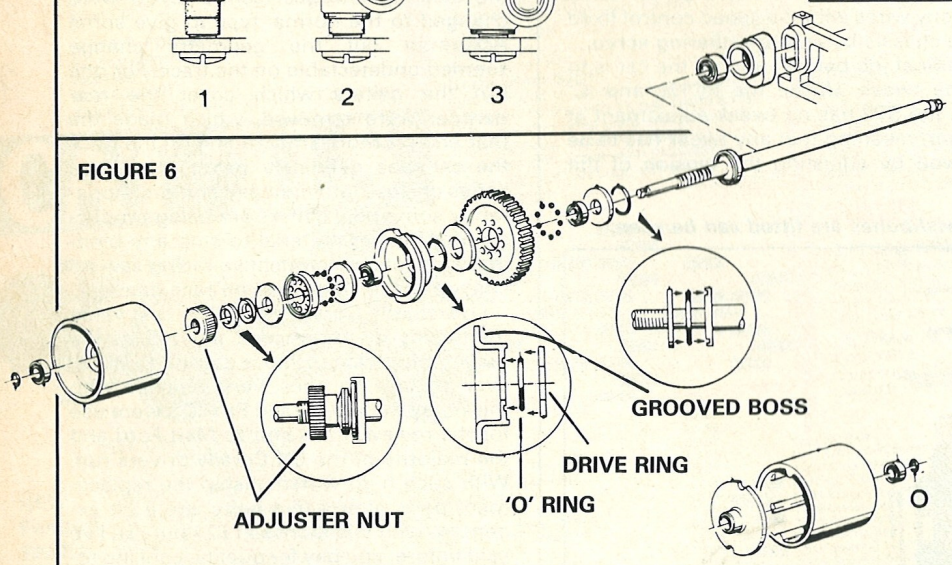


FIGURE 7 RIDEHEIGHT ADJUSTMENT

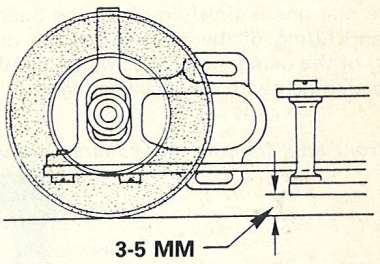
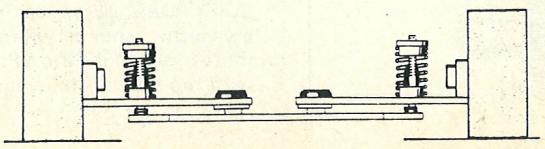
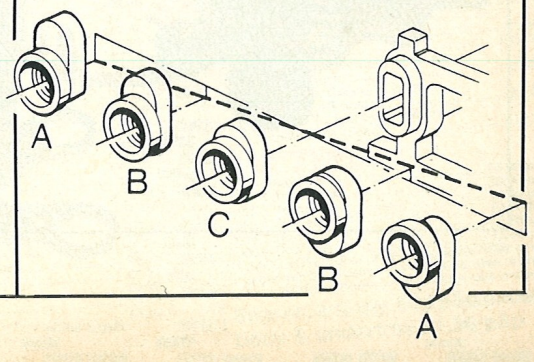
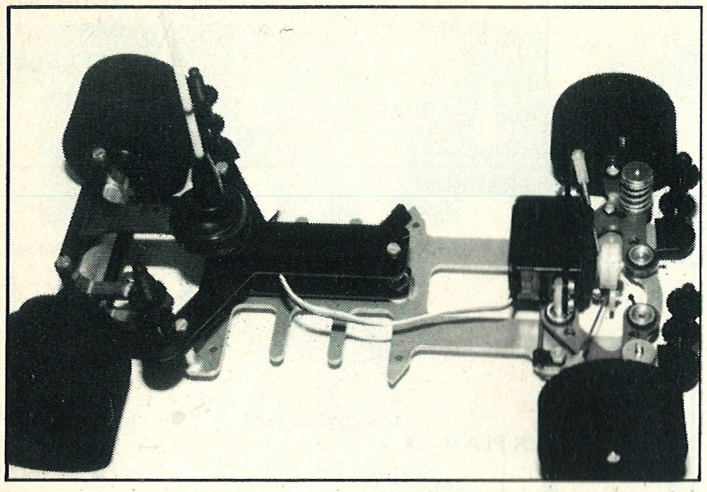


FIGURE 8 THE IDEAL SET-UP







Above, the bare essentials complete, minus the battery cradles.

Above right, a good £149 worth in anyones book.

RC12L and Schumacher's, ie. a friction damper which operates in all directions, but on the SPII the damper washers are enclosed in a rubber gaiter and these gaiters can again be filled with damper fluid (see figure 4).

The next job was to fit the fully adjustable body posts and then to finish the front end. The king pins are screwed to the wishbones and the ride height can be adjusted by moving the location of the spacer washers on the king pin in relation to the steering arm. Instead of the ball races being in the wheels, the front axle is ball raced in the steering arm, as is the king pin giving an effortlessly free movement (see figure 5).

The front end is completed by the fitting of the 'centre pivot' linkages as featured in Augusts issue. When fitted with the front wheels set parallel, when at full lock the outer wheel is definately on a tighter lock than the inner one. Debate with fellow racers can only conclude that this is being done in the belief that the outer wheel is doing far more work as the car rolls on to it, giving a tighter turning circle. If there's anyone out there that really understands the principle at stake here, I would love to hear from you.

The rear end is finished off by the building and fitting of the differential, the diff being of the usual 'ball type'. Most people will be familiar with the trick of supergluing the drive rings to the boss, either side of the diff gear to stop slippage. In the SPII differential the bosses are grooved and hold an 'O' ring which gets compressed and grips the drive ring. Although in principle the idea works I did manage to get a smoother differential action for the same amount of drive by super gluing the drive rings to the boss. The nut to adjust the differential is enclosed within a wheel so get it right first time, there's no quick adjustment on the line before the race (figure 6).

Ride height adjustment is made via 'cam like' bearing mounts. Although there are only three pairs their orientation can be varied to give five settings and a ground clearance of between 3 and 5 mm is advised, although you are wise to keep it up at 5 mm (figure 7).

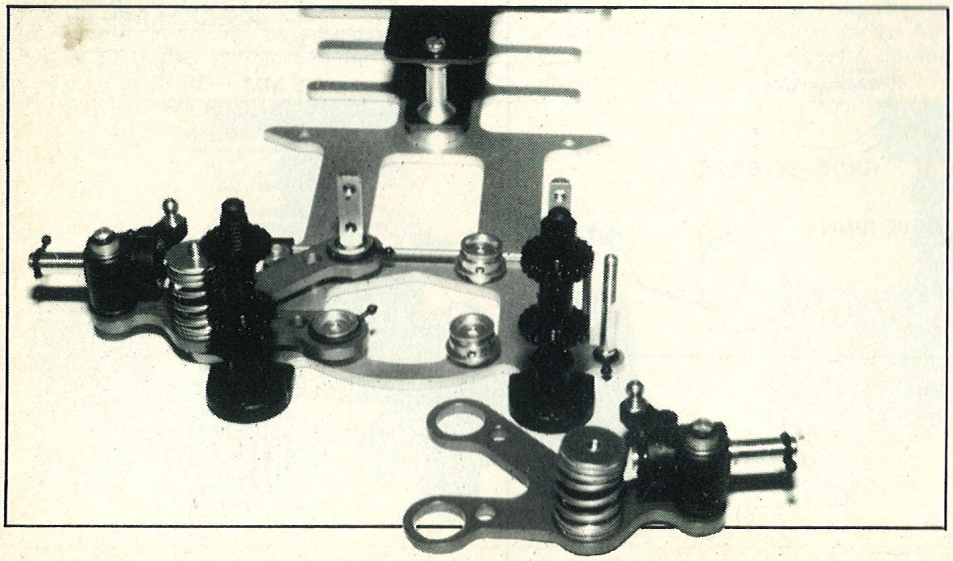
The last job is to fit the electrics. For most this will require the cells to be put into a saddle pack formation and connectors to do so come in the kit. A feature of the SPII is the plastic battery cradles into which the cells are glued, which are then bolted to the chassis. As the temperature of your nicads can get to 50°C, I decided against a Hot Weld Glue gun and used Evostick which did the job excellently.

The receiver was situated on the radio tray so as to keep the aerial as far away from any wires with the speed control fixed to the chassis behind the steering servo.

The final job before running the car is to set the tweak. Unlike the RC12L and 'C' Car's, the SPII has no tweak adjustment at the rear, meaning that any tweak has to be removed by adjusting the tension of the front springs. The ideal set-up is so that the wishbones are on one level when the car is loaded up on the ground (see figure 8).

Once this level position is set, try the tweak on the RC12L and 'C' cars, this can be done by lifting the centre of the front of the chassis off the ground with a point of some sort and lowering it back down to see that both wheels ground at the same time. This is more awkward on the SPII as when you start lifting the front of the chassis, the wishbones drop quite a bit due to the soft nature of the front suspension. For this end it is best to use a proper tweak board to set the tweak and test it with the suspension under load. Any adjustment to the tweak can be made by turning the damper post with a screw driver in relation to the front spring disk.

The front end, the pivoting collars onto which the wishbones are fitted can be seen.



On The Track

With the kit set up the car handled excellently although I found I needed to tractite a good ¾ inch of the front tyre to get enough front end bite. I found the car handled very similar to my RC12L with sometimes the faintest feel of understeer. On another run the steering linkages (centre pivot) were changed to the normal type to give some Ackerman but the geometry change seemed undetectable on the track. For one run the gaiters which cover the rear damper were removed, which made the rear end far more smooth and on the track the car was definately better through a series of close left, right, left corners. Apparently some new gaiters are being produced of a thinner material to stop any binding. Two lots of competitive racing saw no change in the tweak and no race damage.

Overall, the Corally SPII is the best value for money on the market at £149 as the quality of workmanship is second to none, even though no tyres were supplied with the kit, by the way Grand Prix 'C's were use for the review, the same as Matt Ford and the majority of the UK Corally drivers run. With such high workmanship the replacement parts after a 'big hefty' are a bit expensive with wishbones at £24 but like I've said before, you pay for quality. Looking towards the future, with more power now available with SCE's, the cars have got to be up to it and at the last Watford National with a separate class for people running SCE's Matt Fords car was handling his awesome speed without problem and there's no doubt the SPII's will be up their with the best at this years Worlds.