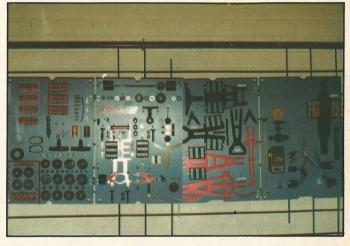
by Chris Evans



1987 Eurochampions car of Christian Kiel, once again winning no prizes for neatness.

cells (1200 mAh) we have at the moment. I believe all the new cells at present are from Tamiya, designated the EX, with some advertisements quoting 20%+ more capacity. If in the future the cells realise this extra capacity, and still provide the punch, I believe the whole face of 1/12 racing will



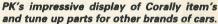


The victorious drivers; 1st (centre) Phil Davies, 2nd (left) Anders Nilsson, 3rd (right) Jürgen Lautenbach at the Eurochamps.

This "snip-it" of information should have gone into last month's issue but let me put the record right for everyone. No doubt you all know that a new Sanyo nicad has been developed, called the SCE. These new cells have a 1700 mAh capacity, compared to our normally rated 1200 mAh SC and SCR cells. At present there is alot of

Winners of the junior event; 1st (centre) Søren Christiansen, 2nd (left) Peter Harder, 3rd (right) Boris Küntzler. rumour and speculation about the new cells performance, ie. stacks of duration put no punch and so on. However, let us say the cells do give out virtually the same punch but give greater duration then these cells will obviously make our present SC's and SCR's obsolete, and much investment will be needed to replace cells but unfortunately this is the price of technology and you will never stop it.

At the moment, only a few selected outlets have the cells and it will take a few months yet before certain people get a large batch and start selecting and matching them and then a proper comparison can be drawn from them against the best



change. Just consider the last Nantwich National; everyone turns up on Saturday for modified, the grip is a bit low and the track bumpy and now you all have 20% extra power, and we are talking "Deathrace 2000" because even the most experienced driver with a well set up car is going to struggle to handle the extra power with our normal chassis set ups, which will I think see the development of some four wheel drive ½2 cars or at least four wheel independant suspension.

Ron Schuur's interesting TRC car.





As I've said before, the last bit is purely a personal opinion and we have to wait to see how good the new SCE's really are, however at the last Watford Carpet League on February 20th, a majority of the 1/12 area representatives, together with Chairman, John Ford and Secretary, Rob Roy felt a decision should be made on the SCE's use. At the moment there is no limit on the cells capacity (this rule was removed some years ago), only on its size with Sub C cells only, and therefore the SCE's are legal. However all of the committee present felt that at National level, it would be better, considering that we are half way through a season to suspend their use until the 1/12 conference in the summer when the situation can be reviewed and in an attempt to stop Joe Public rushing out to buy new packs of cells which he feels he needs to be competitive which might turn out to be less than up to his expectations.

As a final note, a meeting of EFRA representatives which took place at the European Championships in Denmark, also decided to put a 90 day hold on them until more information is available and hopefully the cells availability will have increased.

EFRA News

Having just received my latest EFRA (European Federation of Radio-Operated Model Automobiles) news letter, there are a few procedural changes that you might be interested in.

1. At European Championships, the delayed start procedure (AMB) will be used to start the heats. At 30 seconds all cars must be released by the mechanics at the start line. The start line will be 2 metres before the finish line (AMB loop). Cars must start in order as directed by the race director.

2. At EFRA Grand Prix's, if the delayed start procedure is not used, a 2 line grid start must be used with 2 metres between lines. Cars will alternate odd's and even's

The 1/12 International Calendar for 1988 at present is as follows.

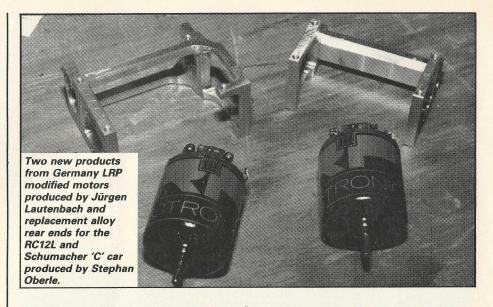
Austrian Grand Prix Dutch Grand Prix Baarn June 11/12
World ChampionshipsBaarn Aug 15-20
British Grand Prix Paris Oct 29/30

Schumacher SP'C' Track Test

So there I had it, one Schumacher SP'C' rolling chassis, sitting next to my faithful Associated RC12L. The first thing that strikes you is the shortwheel base on the Schumacher car, being about half an inch shorter than the 12L and I certainly started to panic about radio and speed controller installation. Fortunately this worrying was unneccessary as the Schumacher car has the steering servo positioned much further forward in relation to the kingpins than the 12L and so my Trans Am speed controller and Multiplex 9 channel, yes I said 9 channel receiver were neatly positioned on the chassis infront of the cells.

Even though the car was to be used at a club meeting on a small track, one of my best modifieds was fitted with cells to match to push the car to the limit straight away. In the kit the cells have to be clamped in with reinforced tape but the facility is available to have two nicad retaining straps fitted. With the completed chassis ready. I paused for thought.

Now with everything fitted the flexibility



of the chassis supplied was much in evidence, bringing back memories of the lexan cars of the early Eighties. It was plainly obvious that whatever chassis setting used would still mean plenty of chassis distortion under racing conditions but as this was the review kit I had to get on with it. In an attempt to reduce any undue stress on the chassis, I used the softest setting on the T piece, ie. the two 'O' rings together on the centre pivot. Finally before setting the tweak, the springs were adjusted on the front end so that when the car was sitting on the track, the wheels were sitting squarely. The final job is to set the tweak which is done by adjusting the two outer screws on the rear strap which holds the T piece to the chassis. Unlike the RC12L tweak system which only functions as a tweak adjustment, and rear roll stiffness has to be changed by changing the T bar, the Schumacher Tweak adjustment doubles as a rear roll stiffness adjustment. To enable the roll stiffness to be adjusted and set, a set-up "wedge" or "ramp" needs to be made. This is simply done using a small strip of aluminium or similar (Fig. 1), approximately 1.5 mm thick and 20 mm wide. The important part is to calibrate the top surface of the ramp and this is best done by either scribing the lines directly on to the aluminium or to prepare the scale on a piece of paper which can then be stuck to the ramp. A final word on ramp preparation is if you use the latter method of marking, put a layer of selotape over it as 'wet' tyres will soon make a mess of your calib-

Once your ramp is prepared, take one car, complete with well trued tyres, both pairs having the same diameter and one flat surface. Lift one of the rear wheels off the ground and slide the ramp under, in line with the axle until the tyre rests on the ramp around the 9 position. The corresponding front wheel will now be off the ground. Spin the front wheel and slowly withdraw the ramp and record the figure. Repeat the process on the opposite side of the car and the "name of the game" is to get the same reading from both sides. For example you try this first on the right hand side of the car and you get a reading of 5 on the ramp. When the left hand side of the car is tried the reading is only 4. To get both sides of the car to read 5, the tweak adjustment screw on the left should be loosened and vice versa.

Team Schumacher recommend a setting of between 3 and 4 for the 'C'-car and between 4 and 6 for the SPC and due to the flexible nature of my chassis I set the roll stiffness at 8, nothing like an extreme.

As a final tweak check, sit the car on a flat surface with the front of the chassis just overhanding the edge. Using a sharp point such as a needle or blade of a modelling knife, lift the front of the car up at a point in the centre of the chassis. Spin both front wheels and now lower the car until the tyres "ground" and again you are aiming to get both sides the same, hitting the ground at exactly the same time.

That was the car done and so it was off to the 1/12 club at Ashby for the last part of the review. The circuit is small, tight and a little bumpy in places, not forgetting a slightly damp area on the carpet on the sweeper. For the first run I only treated the inner 1/4 of each front tyre, as theoretically the car should generate more front end bite itself due to a more forward weight distribution compared to the 'C' car. Unfortunately this gave far too much understeer for the roll stiffness of 8 and treatment was increased to half the front tyres and away we went. The car was extremely responsive and would bite well into the sharpest of corners without any understeer or tendency to throw the rear end out and to be honest, an equal to my 12L and handled perfectly for the remaining rounds and final. Further comments on the chassis should be left at that since we all have different preferences for handling characteristics.

Overall, this latest Schumacher development is a step in the right direction, not just producing a new arrangement to keep up with fashion. Apart from the minor difficulties in construction, the car is fairly easy to maintain but regular replacement of glassfibre components is necessary to keep the car in "tip top" condition. In fact the chassis supplied, which was 0.075 in. (1.95 mm) did have a tweak in it after the car was stripped down after the race although Schumacher reliably inform me that all the latter chassis' are thicker. My original chassis is to be traded in for a thicker item, and a different, silicone 'O' ring roll stiffness configuration will be tried as this is the configuration Phil Davies used to become 1988 European Champion, At approximately £99 for a rolling chassis the SP'C' will compete with the best on the market so the final choice is yours.

1988 European Championships

This year saw the Championship held at the Herning Congress Centre, home of the Danish International and the site of the World Championships in 1984. Although the event was held over three days, plenty of time was necessary for travel as the ferry crossing alone takes about twenty hours.

Instead of previous years with a convoy of cars, this year Nigel Piltz had booked a coach for the whole team to travel together which also kept the cost down. The fun started on Wednesday morning with the coach picking everyone up on route down the M6, M1, then finally at Harwich, after a few too many detours round some dubious country lanes when we left the M1, its a good job no one argues with a coach.

The team consisted of Cecil Schumacher, Mick Langridge (Team Manager), Rob Roy, Chris Evans, David Gale, Glyn Pegler, Phil Davies, Pete Farmer, John Reid, Paul Ash, John Ash, Matt Ford, Ian Spashett and his partner Knowle who recorded the whole event on video, Nigel Piltz, Dave Towell, Chris Hardisty, Mike Haswell, Pete Riley, Mark Jewitt, Tim Dakin and parents and the driver Sam. Tony Wells and Richard Isherwood were also attending but they were making their own way over.

Unfortunately, when we reached Harwich at about 5 pm we were told the ferry was about seven hours late and so with "time to kill" we headed to the "coastal hive of activity" of Frinton-On-Sea, where the only action to be found was in the local tea shop. When we returned to the port at about 7 pm we were ushered to the Hospitality Suite but when we were still in there past midnight it was soon dubbed the Hostility Suite. The five hours were wasted away by free coffee, a pole position game on the Schumacher motor testing computer and a big discussion on the 'pro's and con's' of SCE cells.

At around 12.30 am we were finally on the ferry and given a free meal and then it was straight to the bar to off set the thoughts of sea sickness. The next morning brought some unpleasant news as Mick Langridge and lan Spashett had had £400 and £300 taken respectively from their rooms during the night, actually while they were asleep in their rooms. Fortunately the money or lan's credit cards were recovered and according to the Danish Police, its quite a regular occurance.

The rest of the morning was spent in the cinema watching the film Inner Space which centred around two special transistors for a miniaturisation and enlargement process which had much more than a passing resemblence to a couple of Parma anodised pinions, which brought much amusement.

The remainder of the crossing was once again spent in the bar where John Ash won the musical quiz, a sign of good things to come.

Passport control at the port was having a day off and we rolled straight off and about 1½ hours later we were in Herning. The hall was not open so we all checked in to the Motel Herning, then hit the town for a meal.

The next morning, it was business as normal as we got to the hall for the first rounds of controlled practice. The track that awaited us was far smaller than some of our larger national events and marked with approximately 2 in. square planks of timber, securely anchored to the carpet. At the registration, each driver was given a

rough provisional time schedule and also a memento of the meeting. The morning saw two rounds of controlled practice in heat formation, followed by the first technical inspection which was carried out by Lars Bucholtz.

Round one saw our own Phil Davies at the top of the leader board with 33 0.7, closely followed by '86 champion Mika Leppalahti (Associated), on 33 2.7 and Ander Nilsson (Corally) with 33 2.8. Phil, Mika and Anders all failed to improve in Round Two and it was Ulf Ebenhardt who managed to clip a tenth of a second off Phil's time, demoting him to second with his 12L, with Jurgen Lautenbach (SPC) moving into third spot with 33 2.1 and Dave Gale holding sixth with 33 3.4. In Round Three, Jurgen managed a 34 17.7 with Mika improving to 33 0.2 leaving Ulf and Phil in third and fourth respectively.

The next round saw four 34 lappers but fastest now was Ulf with 34 11.7, Mika still held second with 34 12.1 with Christian moving into third with 34 14.6. Jurgen slipped to fourth with his third round 34 17.7 while Phil held onto fifth with a 34 20.2. The final round though saw Phil fly round to turn a 34 10.2 although Ulf unfortunately had his car trod on by Mika during his last run but still finished up second. Mika held onto third with his 34 12.1 with Christian still in fourth while Kurt Steinbuchel moved up to fifth with a 34 13.8.

The A final filled out as follows:

1st	Phil Davies	34 10.2
2nd	Ulf Ebenhardt	34 11.7
3rd	Mika Leppalahti	34 12.1
4th	Christian Kiel	34 13.1
5th	Kurt Steinbüchel	34 13.8
6th	Stephan Oberle	34 14.4
7th	Jürgen Lautenbach	34 18.5
8th	Ander Nilsson	33 1.5

333.4

Remaining British 9th David Gale

Otti	David Gaio	00 0
14th	Tim Dakin	33 6.0
16th	Matt Ford	33 8.4
24th	Rob Roy	33 13.9
25th	Pete Farmer	33 14.4
26th	Glyn Pegler	33 14.5
35th	Jamie Booth	32 0.5
40th	Chris Evans	32 5.4
43rd	Peter Riley	32 8.9
49th	Richard Isherwood	32 13.1
53rd	Mark Jewitt	32 18.0
61st	John Reid	31 2.5
65th	Tone Wells	31 4.1
67th	Nigel Piltz	317.2
73rd	Chris Hardisty	31 10.1
74th	Paul Ash	31 10.5
77th	Dave Towell	31 18.6
97th	Ian Spashett	29 10.3
101st	Mike Haswell	29 13.6
105th	Mick Longridge	28 1.3

On the equipment front there were a few new items. Jürgen Lautenbach of LRP Flectronic had some modified motors on show. According to their catalogue the motors are especially developed and handwound for high competition races, balanced, trued, run in and timing adjusted but apparently the prices would be over our £40.00 price limit in this country. Mick Langridge did manage to get hold of one of the modifieds that they could supply within the price limit but believe me, this was rough. as closer inspection showed no balance or comm true and the wind looked no more than a factory 27 turn buggy armature. The LRP motors Jürgen and Stephan used were the LRP red, No. 5111, although no information on wire gauge or turn was available, only that the motor was a good all rounder, both on tight and fast tracks.

Stephan was exhibiting complete alloy rear ends for the Schumacher 'C' car and 12L, shortly to be available from SRM racing with myself, Rob Roy, Dave Gale and Glyn Pegler using them, full review next month. For the 12L differential, a ballrace can now be fitted to the spur gear, similar to the SRM conversion. Stephan was also offering a Schumacher diff. incorporating use of fine pitch gears and stiffened hubs so the wheels run 100% true.

The Corally SPII was on show, with two making the 'A' Final and this will be reviewed soon, as will a conversion for the Associated RC 12L.

Ron Schurr from America, is at present working in Denmark and was running the latest TRC car, comprising of a graphite chassis similar to the RC 12L, alloy beam front end as on the Delta and rear end using the 'C' car blocks and torque tube.

Running along side the main championship was a Youth championship, although there were only nine entrants. The youngest driver was Miki Jensen from Denmark who was only seven. The eventual winner was Søren Christiansen, despite Dave Gale stopping his car dead at full speed at the end of the straight wth a fine piece of foot work, as if trained at the F.A.'s School of Footballing Excellence.

Apart from the 'A' Finals which had three runs with the best two to count, the rest of us only got one run at a final.

In the 'L' Final, lan and Mike could only manage 5th and 6th with 29 6.7 and 29 16.5 respectively while Patric de Busscher won with 30 5.7. The next Brit up was Dave Towell in the 'J' Final but he went out after only six laps with Geir Bakken winning with 30 5 3

The 'I' Final saw our first win by Paul Ash with 31 11.7 with Chris Hardisty 6th with 30 78

Our next success was John Reid winning by over a lap in the 'H' Final with a 32 4.2 with Nigel Piltz and Tony Wells 6th and 7th with 31 19.0 and 28 0.0 respectively.

The 'G' Final featured Mark Jewitt but Mark 'blew-it' with 7th place with a 30 12.5 while a 32 7.2 was enough to win for Claus Holst.

In the 'F' Final, Peter Riley and Richard Isherwood could only manage 30 8.9 and 30 17.0 for 6th and 7th places with the honours going to Anders Ljungkvist with 33 10.2

The 'E' Final saw ½0 star Jamie Booth win with a 33 9.7 with myself in sixth with a 32 20.9.

The 'D' Final saw us once again take 6th and 7th place with Glyn Pegler (30 3.5) and Pete Farmer (29 0.0) with Jean Michel Fraisse winning with a 33 6.5.

Rob Roy unfortunately dumped in the 'C' Final, needing a push across the line (illegal, but taken in good spirit) as the race had finished a minute earlier and managed 3rd with a 32 0.0, while Constant Paul won with a 33 9.9.

The 'B' Final saw an excellent three way dice with Jose Rosas, David Gale and Tim Dakin, with the order finishing as this with times of 34 9.6, 34 11.6 and 34 17.2.

A Final

Phil held his pole position, followed by Ulf and Stephan. Within the next 2 laps Stephan passed Ulf but made an error on a corner which held up the chasing pack which allowed Phil to build a comfortable lead. At 1 minute down Phil had about a 20 yard lead and after 1½ minutes the order was Phil, Ulf, Jürgen, Stephan and Christian. At 2½ minutes the Jürgen passed Ulf and so did Stephan 30 seconds later and at half distance the order was Phil, Jurgen, Stephan, Christian, Ulf.

At 51/2 minutes Christian had caught Stephan and overtook him when Stephan ran wide on the sweeper, but at 6 minutes Phil was well clear.

This order of Phil, Jürgen, Christian remained the same to the end, and even though Phil started to dump in the last 45 seconds, he still hung on to win by seven seconds.

2nd Run; Once again Phil got the start and an immediate pile up on the first corner gave him an easy first lap. After lap 1 the order was Phil, Jürgen, Christian and Stephan and shortly after, having clipped a corner, Phil still held the lead. At the 1 minute stage Jürgen made a move which knocked Phil off line as well as leaving himself stuck on the track markings giving Christian the lead, so at 11/2 minutes it was Christian from Phil, Anders and Stephan. Christian's car didn't look as good as Phils around the corners but the punch his motor was developing from the corners was awesome but Phil was still managing to "hang in there". At 61/4 minutes Phil was really pressurising Christian but Christians punch through the infield kept an adequate gap. With 1 minute to go they were still going strong but 20 seconds later Christian had a mega dump and although Phil overtook him, he made an error which not only allowed Christian to still win, but allowed Anders and Jürgen to take 2nd and 3rd respectively.

3rd Run; Unfortunately Christian had speed controller problems at the start and although the Race Director and the drivers agreed to give him 5 minutes in an attempt to trace the fault, this was to no avail and the 1987 Champion did not start in the last run, which obviously removed some pressure from Phil.

Anyway, once again Phil got the start, followed by Mika who was being chased by Jürgen and Stephan. With 1 minute down Phil was slowly increasing his lead and 1 minute later he had the lead of the straight and the sweeper. At 2½ minutes, Jürgen passed Mika but by now Phil had a 6 second lead, and a 4½ minutes Jürgen was struggling to make an impression.

At the six minute mark Phil went a bit wide after passing a backmarker and spun off the curcuit which cut his lead down to the length of the straight. Moving into the final minute, Phil had once again pulled away from Jürgen dumping with 20 seconds to go with the final finishing order being Phil, being 4 seconds ahead of Mika with Jurgen a further 4½ seconds behind

and this was enough for Phil to become the 1988 European Champion.

Even though Phil was announced the winner as Phil Greeno, nothing could hide his pleasure and a great touch was the playing of the National Anthem when Phil had been presented with his trophy which brought a lump to everyones throat.

Thanks must go to the members of Midtjýdsk R/C Racing for an extremely smoothly run meeting, especially to the organising committee of Jan Juul, Kirsten Hansen and Hugo Hansen, the Race Director Jan Pieler and his assistant Finn Storgoard. The International referee was Fer Van Helden of Holland and the National referee was Jan Juul. Other assistance was provided by Karsten Schultz of KS-Data for result processing, Kirsten Hansen and Rajmond Jenson for the lap-timing, Dennis Hansen for Transmitter and Transponder control and Ole Gadegaard, the bilingual speaker.

1 1:Phil Davies	GB	345.5	34 13.0	34 1.0
2 8:Anders Nilsson	S	337.3	347.2	34 13.8
3 7: Jürgen Lautenbach	D	34 12.8	34 11.7	34 9.5
4 4:Christian Keil	D	33 2.1	34 3.9	0.00
5 3:Mika Leppalahti	SF	33 7.0	33 13.8	34 5.0
6 6:Stephan Oberle	D	33 5.6	34 13.9	33 11.7
7 5:Kurt Steinbüchel	DK	33 3.3	32 0.3	33 1.2
8 2:Ulf Fhenhardt	S	3393	3286	3368

Driver	Car	Motor	Ratio (mm per rev)	Tyres	Battery	Speed Controller Controller	Body	Any Other Information
Phil Davies	Schumacher SPC	Ree`py Brown Dot	35.6	TRC Green	Laser SRM SCR's	Schumacher FWD only	SCH Joj	
Ulf Ebenhartd	Assoc 12C12L	Sping/ Homebrew	NA	Assoc Green	Gates (GEC)	Andersson FWD only	SCH Toj	Receiver batt pack thick T peice
Mika Lappalati	Assoc RC12L	Reedy Green Dot	34.91	Assoc Green	Keil pushed SC	J8J laser	Assoc Toj	Thin T peice made from graphite
Christian Kiel	Assoc RC12L	Reedy Green Dot	36	Keil pushed Green	Ralph SC	Assoc Helbing	16 gauge Toj	Front Spring Thin T piece
Stephan Oberle	Schumacher SPC	LRP Red 'S'	34.0	CS'C' Greens	CS SC	CS Rocket	SCH Toj	Oberle Diff & rear end
Kurt Steinbüchel	Corally SP2	Steiner 25 Double Special	41.56	UFRA	Pk activated SC	CS Rocket	KIR COL	Note that gear ratio! a mild wind
Jürgen Lautenbach	SCHU SPC	LRP Red 'S'	33.0	CS'C' Greens	CS SC	CS Rocket	SCHU Toj	Oberle diff & rear end
Anders Nilson	Corally SP2	PK 23 Quad	34.05	TRC Greens	PK Activated SC	PK	Assoc Toj	