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New Year, New Gear!

World Class

The new Associated 12L -
Part 2

If you followed last month's article you should by now have the 12L 50% completed. Now let's finish the assembly and take to the tracks.



Who stole my wheels?

Shock Absorber

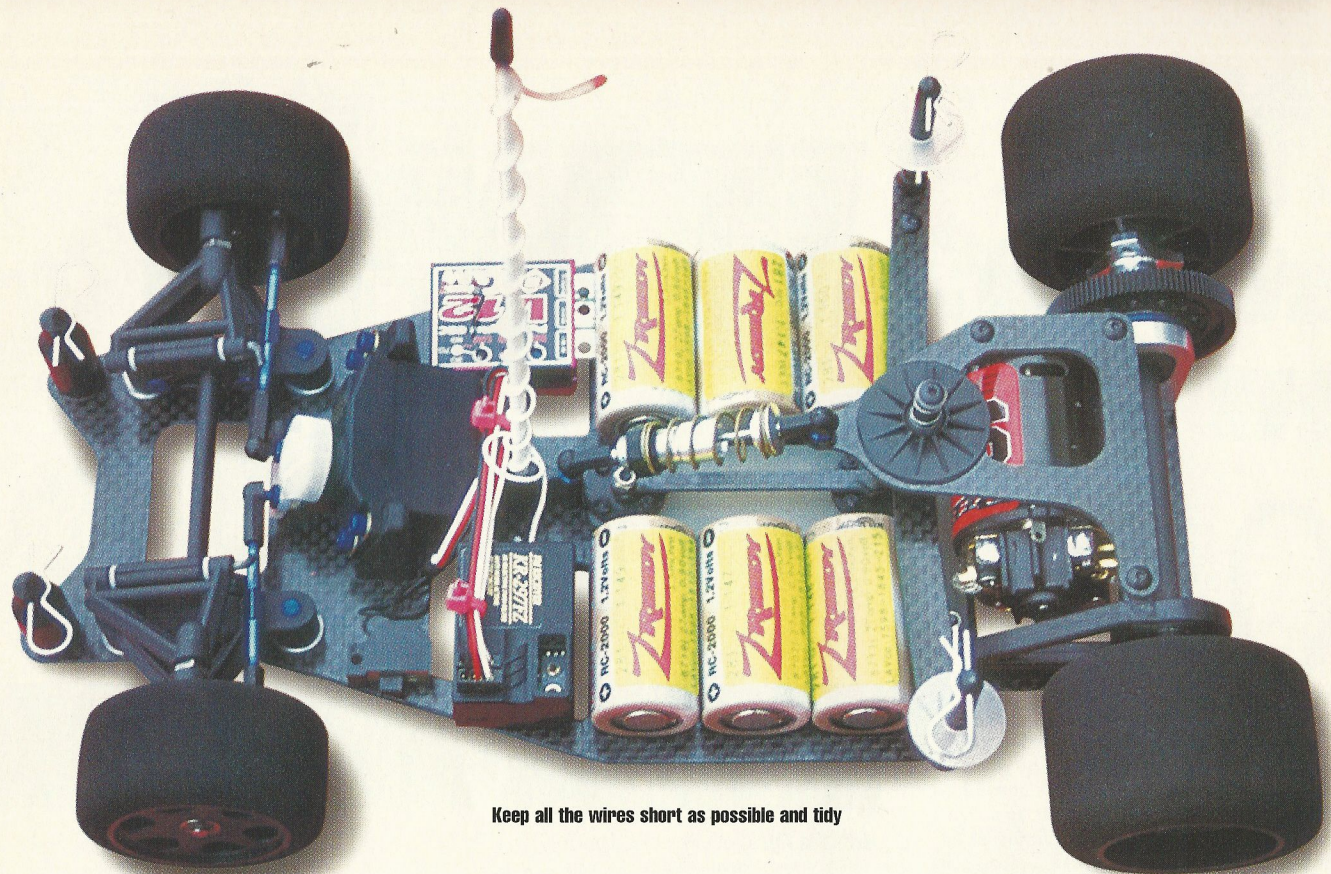
This little interesting component is I believe, one of the main features of the new L3, a revised suspension unit. Instead of the traditional piston and 'O' ring system, what they are

using is almost a sponge, with a plastic backing absorbing the oil before assembly. This is acting as a true damper system. With the actual shock absorber being larger than before, it is obviously more reliable and is more likely to be consistent between runs. This means less maintenance on the car, i.e. re-filling, re-springing and more durability in racing conditions. In the package are two springs, optional springs are available. Simply follow the instruction for assembly, it is straightforward. You do need to check the suspension and the shock absorber itself that it is clean and free of any swarf. Also make sure all

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Keep all the wires short as possible and tidy

the threads are clean and smooth. Take your time to fill the suspension unit up with oil and assemble carefully. Never rush to fit the ball joints onto the actual suspension unit, avoid bending the plastic or damage to the unit itself. Never use heavy duty pliers, it will go on by hand, just be patient with it. The recommended suspension oil is included in the kit. You may want to change the weight of the oil to driver preference, once you have tested it on the circuit. Check to see if you have the suspension at the correct lengths. When the car is complete and all electrics, motor and batteries are installed, you can adjust the preload by tensioning the spring. Oh, don't forget that little piece of wire in the bottom of the pack, don't throw it away, as it is your de-assembly kit so don't scrap it!

Rear Axle

Associated came up with a new design of the axle, light, very attractive with new titanium lightweight three bolt hooks. With weight saving in mind, and keeping the cost of the kit the same, clearly some possible refinements were not made. Not machining the alloy on the axle to fit a bearing for a spur gear was one of them, and leaving out one bearing from the outside hub was the other. However, apart from these two little items, this is a very well designed and manufactured differential system. Using the threading system on the left-hand side, and using a couple of shims out of the packet, you can have the axle spot on every time. It is just what you want in that last minute 'quick, change the bearing or axle' moment. Securing the wheel with the nut on the left-hand side is also an added bonus. The other thing I noticed, on the right hand side,

on the diff side of the axle, Associated decided only to use one bearing. On the outside of the diff, not sure that I entirely agree with this design due to the fact there is no bearing on the inside of the hub to keep the diff running true. As always, Associated would not have put it in the box if it had not been tested and tried out before hand. The Diff rings are the same as before as in the Stealth 2 but Associated have returned to using the small cone that fits on the inside of the bearing and then using bevel washers with a locknut. The diff action feels fine and I have not heard of any complaints by any of the team drivers. I think, at the end it comes down to personal preference.

The rear wheels are of a new design, using three bolts, securing the wheels onto the hubs. This gives you a slightly stronger wheel, with less flex. Therefore you establish more grip on the circuit. The down side for 1/12th drivers, as we always seem to acquire loads of wheels. Drivers will be reluctant to buy new wheels due to the garden shed already being full of them!

The front wheel is also of a new design with a spline effect in the middle preventing the bearings sinking into the inside of the wheel. This means another new fitting for my tyre truer! I still cannot understand why we get supplied with green tyres, we never use them. Mind you, a lot of the 12th racing in America is taking place outside, on tarmac, so they maybe using green tyres out there. If they would supply us with rims, we could put our own tyres on. I am not saying that they don't work, it is just that we don't use them here in the UK.

One new Associated L3 rolling chassis, ready for your radio equipment, battery and motor installation.

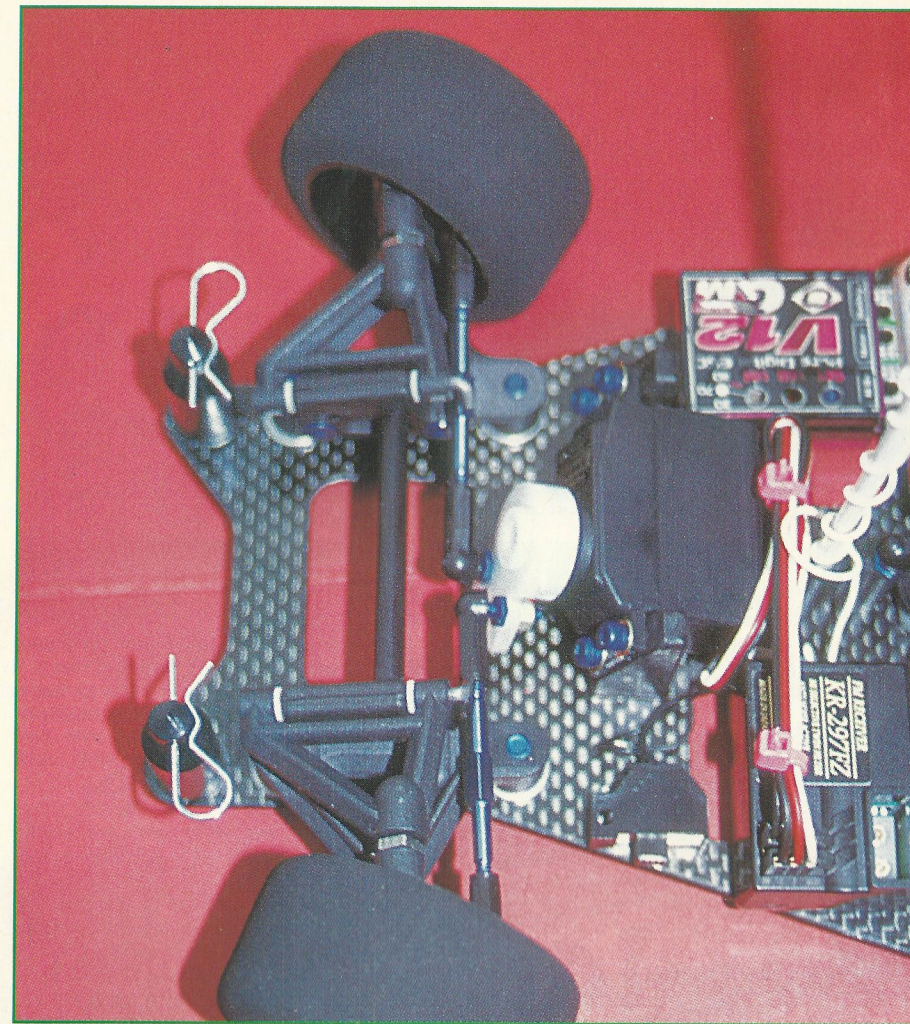
Electrics

Please choose your electrics carefully. Make sure you can fit in your speed controller and your receiver as far into the chassis as possible to prevent damage in a collision later on. This does not mean that 1/12th drivers drive dangerously but we drive very fast and close together. Make sure that all your wires are nice and neat, as well as secure. In later issues, we will be given you tips on installation, speed controllers, wiring etc., so stay with us.

One of the simple things to keep the weight down in the car, bearing in mind that we are running for 8 minutes, is to avoid excessive wiring, excessive solder on connections and so on. Make sure that relevant equipment is laid out neatly before installing it into the chassis. Check that the wires are the right length so they are not catching or snagging any other components in the car and ensure that the back end is free for movement. Basically make sure there is enough room for everything without contact.



The new shock absorber is larger than before



We built this part last month

One of the main problems with the radio such as interference or glitching, is actually caused by the motor. To avoid this, the tip is to take a small piece of aerial wire, secure it on to one of the bolts at the rear chassis brace and to the motor pod. This will earth the car and prevent any glitching due to static, which could be caused by the carpet. Also make sure the switch is secure on the chassis, where you can get to it. Try to keep the receiver wire way from any other wiring, going straight from the receiver straight to aerial and straight up.

1/12th racing is quite friendly when it comes to batteries or motor, so there not much requirement for a heat sink on the speed controller. Make sure the T-bar is free to move, the batteries are not too close and any wires are tidy. One handy place to install some of the radio wires - if you don't want to cut them down, is to secure them underneath the servo. If you take them through the servo post block and the servo itself, there is just enough room for a couple of wires. Loop them through and then back through again, making sure they are not trapped in any way.

Always make sure that Motor wires from the Speed controller to the Motor are not too tight. Do not restrict the rear pod from moving freely. You must make sure at all times that battery terminal connectors are not touching the chassis when in the car.

Track Test

Now the car is complete and built for the racetrack, everything has been checked and

is in place and the transmitter has been calibrated to the electrics in the car. The maiden run for the car is going to be Clay Cross, Chesterfield. I sorted my equipment out and put some cells on charge, I selected some Jaco rubber to fit on to the L3. I am going to run Jaco grey rears about 53.5 mm with Jaco purple fronts at 45.0 mm. The one thing to remember with 1/12th racing is with most of the cars, particularly the Associated, the smaller the tyres the better the car handles. I myself in the past have used a smaller 47.5 mm rears and found the car to be excellent, maintaining grip throughout the run.

The additive we are going to use is Paragon, which has just been given the go ahead by the 1/12th committee for this coming season. You need to apply the additive to the rear tyres about 45 minutes before you run and 20 minutes before to the front tyres. This will give you the required drying off time before your run.

The moment of truth, the L3 on the track for the first time. As always in Chesterfield, it is never expected that your car will perform 100% in the first run due to the lack of grip. My first few laps consist of nursing the car around the track, getting used to the racing line, as well as getting the car bedded in. The car seemed to be smooth, straight and fairly accurate. The one characteristic I have found in the past with an Associated car is that it instantly tells you what it is doing. The feedback comes straightway, and the L3 is no exception. I did feel that the L3 was carrying more corner speed even though we

faced poor track conditions. The car generally felt smoother and was slightly more predictable.

The Tri-Sonic 15 triple planted in to the back of the car, may have been a bit on the hot side for the track conditions but I persevered throughout the night.

The second run, the track had not improved a great deal but with some minor changes and adjustments to suit the car to the circuit the L3 performed well. The aim for the rest of the evening was to see how much grip I could find by adjusting the car. By round three the was an improvement on the car. Easier to drive and having slightly more grip at the rear end made the car even more predictable, making it possible to carry more corner speed. For the last run of the night I had chosen a 16 turn motor, a little bit milder to avoid losing grip later on in the race.

Conclusion

The L3 is very good, very refined and very smooth to drive. Even better to build than the previous LC, it gives consistent feedback to the driver. The differential axle system is a lot easier to use, and the rear suspension systems is a lot more refined and much more reliable. The option of the extra springs, giving the driver the extra little twig to suit his style when driving is a good one. The L3 has the added bonus of the car being even lighter, being even more competitive with minimal work to the car. More on the L3 and improving its performance in the future. **RRCI**

Quick Spec

1:12th scale On-track racing chassis kit. Carbon chassis. Requires Motor and speed controller, 2 channel Radio, Bodysell and paint, cells and charger to complete.

Testers Kit

KO Propo Vantage Radio system
Futaba 9602 steering servo
GM V12 Speed controller
Reedy Zappers 2000 batteries
Reedy Trisonic 15 triple
Kimbrough Spurgears and Pinions
KO Propo battery charging system
Jaco tyres
Protoform Nissan bodysell
Ground effects additive by Paragon
Battery tape by girlfriend
Technical advice - Associated Manual

Likes:

New shock
Better finished components

Dislikes:

Missing rear bearing
New wheel design cause spares problem

'The Hobby-Tech Touring Car sports a number of 'must have' attributes'

