

BY TERRY ATKINSON



WARNING! CAN BE ADDICTIVE!

Associated SC10 Kit, 1/10th 2WD Short Course Electric Truck

SHORT COURSE

If like me you're a bit of an armchair motor sport fan, then you will no doubt have watched the CORR or WSORR series on Motors TV. If you have then you will know what you're in for, if not, then you don't know what you've been missing!

Short Course (SC) trucks are a huge smash in the USA and are growing in popularity over here for the armchair viewers. Jumping on the success of this series, Associated have produced a 1/10th electric version of the SC truck to accompany the SC8 nitro version. The full size trucks race on purpose built dirt tracks and the races are full of action and carnage! What are we waiting for? Let's get this built and racing!!

SIZE IS EVERYTHING!

When I got the kit, I was a bit surprised at the size of the box for a 1/10th kit...it's huge, but when you open it up, you can see why. Because of the excellent 'scale' look of these kits, the shell has to be huge to cover the extended chassis and the replica wheels. The chassis is made specifically for the SC10 and is even longer than the T4 chassis, with loads of space on either side of the cells for the radio equipment. Down the centre of the chassis is where the cells sit, in a very long compartment and you are provided with two foam spacers, one large piece and another half the size, so that you can adjust the position of the cells either forward or rearward. The cells are held in place by a retainer unit that is hinged



Above: The SC10 wheels come in black or silver, with a scale outer rim



Above: SC10 tyres, note the difference in diameters



Above: Geared diff internals. Extra shims may be needed to get a good mesh

at the rear, and the front is held in place by two 'T-clamps', which take just a quarter turn to lock the retainer onto the cells. So no more fiddling around with clips or thumb screws.

STEERING/FRONT SUSPENSION

First thing up in the build is the steering assembly. And already this is where my first problem would arise. The majority of the assembly went together OK, but I had big problems getting the servo saver adjusting bolt to fit on straight and true. It took a few attempts and I found it difficult to do. So in the end I fitted the long steering bolt in first and used this as a guide to get the bolt to screw in straight. This worked fine and I don't know why I didn't try this method earlier.

The steering pivots on bushes, but I feel bearings would have been a nice touch, so remember not to tighten the steering bolts up too much or the steering won't do its job properly. It is the same steering set up that is on the B4 and T4 and can bind if over tightened.

All this sits on the front bulkhead that holds the wishbones in place. The long wishbones are the ones used on the T4, and the SC10 also uses the GT2 nitro truck's front caster blocks, which are 25 degrees and hold the trailing steering block via a steel kingpin, which is held in place with a retaining screw. Retaining screws also hold the pivot pins in place in the inner wishbone mount and the wishbones fitted brilliantly, dropping under their own weight without any modification at all. The front hinge pin brace is plastic, but can be upgraded to an aluminium version which I would recommend, as it strengthens the front end and stops the bulkhead from breaking in the event of an impact.

BUMP IT UP!

The front shock mounts are really tall, and are topped off by a 'cross-brace' to mount the bodyshell. In front of the shock mount is the front bumper assembly, which totally overpowers the front end and it's at this point you really get a feel for how large this kit is going to be. The bumpers are made of a really soft plastic to help absorb

those moments when you are 'rubbing' with the other SC10's on the track! Being soft plastic it makes them really easy to build and getting the screws into them was a piece of cake. Supporting the front bumper is a pretty large kicked up skid plate, so the SC10 looks like it will take some extreme angles when landing off of big jumps. The same plastic used on the bumper is used for the 'nerf bars' that attach to the side of the chassis, which help support the sides of the bodyshell.

GEARBOX

Surprisingly for an electric truck the SC10 uses a nitro style geared diff, while the ball diff from the B4 is an optional extra. The diffs contain two large sun gears and four smaller planetary gears. There are four shims, two for outside the diff that fit over the diff out drive and two that fit inside to space the gears correctly. After building the diff, I found it to be very notchy and generally feeling a bit rough. I re-built it 3-4 times and it still had the same feeling. I decided to do some research and found out that the diffs have indeed been a problem on some models and need two extra shims to help space the gears properly. CML have reassured us that future kits will include the shims and that they will provide shims for anyone if problems occur, assuring us that this is not something that has happened to all kits and lots have gone trouble free.



Above: The extended SC10 chassis looks familiar, but is longer than the B4 and T4 it is based on

The rest of the gearbox is a work of art, proving through many years of top level competition to be a robust unit that you can just build and leave, it is just so reliable. To top the transmission off there is the slipper clutch to save the gearbox from the punishment of a rough track and large throttle inputs. The instructions give you a very clear tip on how to set the slipper up, and I found this to be spot on to start with. Included are two spur gears, an 87t spur for modified and brushed and a 75t, which is recommended for brushless stock motors.



Left: Familiar steering and front end, but now swamped by that bumper!



Above: Adjustable slipper clutch and two spur gears supplied



Above: Gearbox contains the world renowned 'Stealth' gearbox

SHOCKS

The blue alloy shocks use preload spacer clips to alter the ride height, and filled with 30wt oil they are another trademark Associated component that provide great performance with minimal maintenance. They go together very well and Associated provide a very useful tool to help fit all of the washers and O-rings into the bottom of the shock bodies. Make sure you don't lose any of the e-clips though as Associated only provide the correct amount needed to complete the kit. One thing I did find difficult to assemble on the shocks were the ball joint/eyelet on the bottom of the shock shaft, so it may be worth pre-threading the ball joints with an M3 bolt before you assemble them onto the shock shafts.

REAR SUSPENSION

Again the rear suspension, like the front, has extra long wishbones from the T4 along with dog bone driveshafts. The rear hubs are taken from the B4 and are ball raced just like the main transmission and front wheels. In the instructions for the turnbuckle construction, it recommends that you set the turnbuckle at 71 mm from ball-cup to ball-cup but this gave the rear wheel a ridiculous amount of camber and I ended up setting it to 85 mm which looked OK until I put the bodyshell on, when it was obvious that it needed even more length, so this will be adjusted when the truck is fully



Above: The rubber mudflaps, possibly the coolest part on an R/C car...ever

complete. All of the rear suspension parts (including the gearbox) attach to the lower rear chassis plate and brace.

The rear shock tower is another tried and trusted component from the T4 truck, but instead of the rear body mounts fixing directly, it now has another huge bumper and brace which totally dominates the whole rear end. At first I thought that it would be a nightmare to access the rear drive-train because of this large assembly, but I tried it out when I had to get to the diff to fit the extra shims and I'm pleased to say that it only requires the removal of three more screws than normal, amazing! The rear bumper has one of the coolest parts I've seen in an R/C kit for years...the rear mudflaps! I'm easily pleased, sure, but they do look very much the part. They are the same rubber items found on the SC8 version, but don't look out of place at all, and just add that extra bit of realism to this kit.

WHEELY GOOD

When I first saw these trucks I thought that one of the good things about them was the high profile tyres for a good sense of realism. While the outer profile of the tyre is indeed high, the inner profile is much more like a normal buggy tyre and is quite low profile to reduce tyre squirm and improve the drivability. Other than that, they do look good from the outside although the silver finish might end up with a coat of black paint like most of the real SC trucks. The tyres are a 'block' pattern suited to loose dirt and fine gravel, which is where these trucks really belong.



Above: Despite the extra bumpers and body mounts, there are just three extra screws to remove, to get at the gearbox for maintenance



Above: On the loose, the scale driving experience of 2WD really grabs your attention

SHELL TIME

At first I thought it was a shell for an SC8, it is that big! It took me ages to think what to do with the shell design, so much so, that I'd finished the build before I settled on an idea for the shell design! It was a case of whether to go 'custom' or 'scale'. After many nights of research I decided to go with a scale look, as custom flames and bling just didn't look right. These trucks are made to look like the real thing, so it's only right that they should look the way they should. There will be pre-painted shells on the way for the SC10 in the future for you to give it that scale look if you don't have the skills to paint it yourself. I decided to paint it in the Radio Race Car scheme. It's only simple colours (apart from the airbrushed RRCi logo), but I think it looks absolutely spot on, and wouldn't look out of place on a full size CORR grid.

ELECTRIC...ORANGE?

CML kindly provided the grunt for the SC10 in the form of the new Novak Havoc 3s speed controller, and the Novak 'Ballistic' 8.5 brushless motor. The Havoc might not be the smallest speed controller around, but it really packs a top-notch specification. It has a one touch set-up for end point setting which is easy to use, as well as many set-up modes including minimum brake, drag brake, dead band, minimum drive, throttle curve, brake frequency, reverse disable, motor rotation direction, and a safety low voltage cut off to suit LiPo. In typical Novak fashion all



Middle: Blue alloy shocks keep the SC10 in check

Below: The unique battery brace is simplicity in itself...



these parameters are easily identified by different coloured flashing or static lights, and anyone familiar with the popular Novak range will find their way around the menus in familiar fashion. The fan on top is removable although I would recommend leaving it fitted, as these things can get rather warm. The Havoc 3s only has an 8.5 motor limit so is ideal for the SC10 and the 2WD style of racing.

The Novak Ballistic brushless motor is fully rebuildable, as every part of the motor can be stripped for maintenance, and a unique feature is the stator unit encasing the wire sections can be changed from 8.5 up to a 3.5 turn unit without having to buy a whole motor. The motor comes complete with the sensor wire, which plugs into the socket on the timing assembly, exiting the motor at 90 degrees so the wires don't have to be folded at a right angle. The motor timing is also adjustable by twisting the timing assembly and the position is easily noted with the label on the end of the motor.

FIRST RUN

For its first run I took my completed SC10 to the Mid-East Regional at Broxtowe. I got permission to run it between the qualifying and finals when the track was closed. First some slow runs to get some nice pictures, then it was time for some fun!

With a queue forming of people wanting to have a go with the SC10 it soon turned from a pleasant 'blast around' to see how the truck

Below: ...With quarter turn 'T-clamps' they are quick and easy to use



ASSOCIATED SC10 KIT, 1/10TH 2WD SHORT COURSE

performs, to a full-blown big air contest over the triple jumps! The winner of which ended up being Adam Skelding, getting the SC10 to make all sorts of shapes in the air, and somehow managing to land it...even after it was sideways and at a 90 degree angle to the ground! Even he was surprised to see it clear the jumps and land on its wheels.

After the fun it was time to get driving. Although it was a grass surface the SC10 had a proper CORR look to it. It squats as you accelerate and the suspension really compressed through the turns. It did have a tendency to grip roll on this high grip circuit, so maybe a slightly thicker oil in the rear shocks would help, though this isn't its intended racing surface, preferring the loose of a proper shale or gravel track. The slipper clutch settings in the manual were a bit light, aimed at a looser surface and less grip, so we ended up tightening it two full turns from the kit settings for dirt/clay/gravel. It was nice to have to learn a new driving style to suit the SC10, and once you hit the power it just wants to snake around wildly, so you have to feed the power on smoothly and not hit full tilt until it's in a straight line.

CONCLUSION

If you're looking for fun in the park with scale looks and strength built in then the SC10 is for you. If you're looking at a serious racer that needs skill to drive but is cheap to run, then this is also for you. BUT! You need to get the word spread around. These trucks are great fun and could bring lots of beginners into our hobby...it just needs to be seen to be appreciated. Being the type of kit that it is, it can be raced at off road or on road tracks, indoors or out! So there's no excuse for clubs not to run a class for these. It'll be a shame if it doesn't happen, as there are lots of SC10s around already. They just need a home to race.



Above: Before I added the cooling fan, the Novak 'Havoc 3s' has all the usual family features and can now handle 3s LiPo too!

Left: The 'Ballistic' 8.5 Novak motor was more than fast enough for the SC10



Above: The 'Ballistic' motor fully stripped down to reveal replaceable sensor and windings

The SC10 is VERY strong, as it took a huge amount of hammer during the jump contest, landing on its sides, rear or nose, along with the odd landing on its roof, and it is still in perfect condition. The 'nerf bars' protect the shell brilliantly in side impacts and the shell still looks brand new. Once the diff shims had been fitted the diff ran faultlessly and we had no problems concerning the gears stripping, so if yours doesn't have the extra shims in the kit contact CML. One thing I did find out was that the chassis is very exposed, when running the SC10 on a typical loose surface at the local BMX track, it threw all sorts of rubbish into the chassis and blocked the ESC fan with a small stone. Maybe a clear lexan buggy body clipped over the chassis beneath the truck shell would help keep everything clean.

Most of all the SC10 NEEDS a place to be raced. Although there are two or three clubs already running the SC10s, it needs clubs to form classes for this type of racing and to keep it 'stock'. It needs a simple set of rules with perhaps a motor limit though simply stipulating that only kit tyres must be used will limit performance to make motor choice irrelevant. With a level playing field like that, I think this truck could thrive! **RRCI**



Above: Electrics installed with plenty of room. Check out the side nerf rails and bumper set-up!



Below: Having a jump off at the regionals was fun, and a queue quickly formed!



QUICK SPEC

Class: 2WD 1/10th Electric Short Course Truck
Type: Self-Assembly Chassis Kit
Manufacturer: Associated
Price: £179.99 RRP

REQUIRED TO COMPLETE

Speed control: Novak Havoc 3s
 Radio: Futaba 3CVS 2.4 GHz
 Servo: KO Propo
 Motor: Novak Ballistic 8.5T
 Batteries: Reedy LiPo 5000 mAh
 Charger: Prolux Digi-charge 104

DISLIKES

No internal chassis cover
 Need places to race

LIKES

Simple design
 Strength
 Fun to drive
 AE Family DNA
 2WD Driving Style

CONTACT

More details from CML Distribution
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