



BEST 4X4 BY FAR

COVER
STORY

All sprayed up and ready to hit the track

ASSOCIATED B44 WORLD BEATER

Team Associated has won more IFMAR World Championships than all other manufacturers and for many a year rumours circulated they were to release a 4WD off-road buggy. But despite phenomenal success with their other designs (including nine World titles for their 2WD buggy, the RC10) – it never came to pass. Until now that is!

When the announcement was made on the run up to the recent World Championships held in Japan, the interest from the racing fraternity was huge. The lucky team drivers arrived in Ishikawa, built up their kits – and then proceeded to dominate the event, taking TQ and the top three positions as brought to you in last month's excellent event coverage. So it's already proved it can win at the highest level, but how does it stack up against the competition in the extremely busy arena that is the current 4WD market? With plenty of cars already out there it will have to prove to be good on numerous levels to be marked a success, so RRCi got hold of a kit to put it through its paces.

STRAIGHT UP THE MIDDLE

At first glance there may appear to be a similarity in layout to some other manufacturers – but this is certainly an Associated car. Using shaft drive, the spur gear is placed in the centre of the car; the motor is mounted front-right with the servo opposite and the cells side by side at the back of the chassis in saddle pack form. This seems to give the best dynamics and weight distribution for the current motors and cells.

Upon opening the B44 box, a few things sprung to mind as I familiarised myself with the kit. Firstly, there is very little moulding flash on the plastic parts compared to other kits I have built – saves a lot of time for those (like me) that like to keep things ultra tidy. Secondly the actual plastic used seems very substantial. It does not have much flex, but also does not appear at all brittle. I know their latest touring car, the TC5 is a very strong machine and it looks the B44 will continue that trend and as with Associated's new philosophy, there's no waiting for a 'Factory Team' car – this is it straight away! With titanium turnbuckles (blue of course), carbide diff balls and alloy threaded shocks along with some other neat little touches, it's definitely top spec.

Down to business, and the first port of call should always be the instruction manual. It is very well laid out with clear CAD drawings with text where required. Although this is unlikely to be a first car for anyone, even if it were absolutely no problems should be encountered during the build. All screws in the kit are good quality steel with imperial hex head fitting (apart from the motor), so I would advise a set of hex drivers would be a good purchase if you don't already own any, as using a simple Allen key can get rather tiring on the arm. Note that the now obligatory

hardware size gauge is on a sheet at the back of the manual – remember to fold this out (it is designed to do just that) to assist with the build if you can't identify screw sizes by eye – and lets face it, who can?! The initial car set up, and the one we decided to go with is recommended by multiple Worlds A-finalists and works Associated drivers Ryan Cavalieri and Ryan Mayfield, so it will be top notch but may require a little tweak to suit British tracks.

DRIVE IN

The B44 comes with two diffs and they are a piece of cake to build, and I normally hate doing diffs. The out-drives are steel but have been milled to lighten them, and be sure to pay attention to the shimming of the diffs as the amount of shims varies from left to right. The gears used are already proven products as the spur gear and slipper plates are the same as the B4 and the diff crown and pinion were originally found in the TC3 tourer. All the grease required is included and there is even a chart on how to best set the diff tension for no excess slippage – that is the job of the slipper clutch!

The slipper is an ingeniously simple design that works a treat. The slipper adjustment collar does not use a 'nyloc' nut, it has a rubber O-ring recessed into a collar that grips the threaded shaft and makes it SO easy to adjust the tension. This is normally difficult on a shaft drive car but all you have to do is place a 2 mm hex driver in the provided slot in the collar and rotate the rear wheels forward to tighten (or backwards to loosen). This can be done from above the car, or with a single small hole in the under-tray for access it will even be possible to do this on the grid without taking the shell off!

Now, it has been a while since I built a shaft drive car, and although I have not done it myself (honest) I have seen a diff put in the wrong way round – reversing drive and causing the car to speed off in the wrong direction! With the B44 it's not a problem as thoughtfully moulded into the casing is a little dimple, which prevents incorrect installation. A small point perhaps but it's the detail that counts these days. When assembled, the transmission may seem a little tight to start with but believe me it's not a problem and will soon free up to give a very low friction drive train.

FAMILY RESEMBLANCE

The shock absorbers are the usual Associated quality products complete with threaded shock bodies and titanium-nitride shock shafts. They are the same proven units seen on the B4 so you know they will work great. Just note that the spring cups have a different offset front to rear.

The turnbuckles are also stock Associated products – worth putting a dab of black grease on the threads to aid the fitting of the ball ends during the build as plenty of thread goes into the plastic ball cup (meaning the chance of the rod being pulled out in an accident is basically nil).

The driveshafts are the same design for the whole of the car, only the length of the dog-bone varies. They are VERY easy to build with a retaining spring clip to hold the pin and collet in – it's all over and done with in a matter of moments.

The carbon fibre used is, as you might expect, excellent and as with any car it's advisable to gently file the edges of the chassis and seal with a cyanoacrylate glue to help prevent any delaminating in the event of an accident. The plastic bulkheads (both front and rear) are basically extensions to the chassis, giving a solid mounting for the suspension components and are moulded to give a solid, sturdy fit around the chassis itself.

The steering is a lovely compact unit, with a couple of options for Ackerman. It sounds like hyperbole, and I never thought I would scrutinise a steering assembly but I noticed straight away it has less play than other steering I can remember – no slop at all. Very pleasing.

The front and rear suspension builds are fairly conventional with rubber shielded bearings continuing to be used throughout. On the hinge pins, Associated have again used the simple single screw to hold the hinge pin itself in rather than e-clips, much easier. The front inner pins also have the added brace of resting against the front bumper and are supported by an alloy brace for extra strength.

The wheelbase is adjustable using spacers where the rear hubs mount onto the wishbones (just like the B4 – and the rear wishbones are in fact a straight swap between B4 and B44). Just remove the outer hinge pin, change the shimming and replace – easy. Kit setting is 'short' but I have a feeling this may change for some bumpier tracks in the UK.

Another nifty little detail is that the front drive hex cannot fall off during maintenance as the hex slides on first with a roll pin through the axle to hold it on. The pin won't fall out and the hex can't come off – no worries about losing anything. This style of hex is the same as used on the Losi and the Yokomo cars and handily, wheels from both these manufacturers also fit on the B44. The rears have the same fitting as the B4 (and the Losi) so if you already have a 2WD then your rear wheels will fit fine.

The rear wing mount is somewhere else you find a neat piece of design. It mounts to both the shock tower and the upper bulkhead – locking into itself to give a neat modular build. Before you place the wing on, there are angled spacers that slide over the mount first. Pay attention to which way on you put these, they are wedge shaped and are used to vary the angle of the wing – generally used to alter the way the car flies through the air from jumps.

One of the great inventions of our time (in my opinion anyway) is used on the B44 – battery trays. No filing of the chassis is needed – they slot straight in – and are held with the posts. To hold the cells in, moulded plastic straps slide on the posts and these are clamped down with 'Factory Team' thumbscrews (sounds painful but it isn't) for a secure battery retention better than any brace and R-clip could offer.

Motor mount has handy slots for the screws, making sliding the motor in much easier



Battery trays create a more secure fit



Above: Proven Associated dampers are fitted to the B44

Below: Assembled gearbox – just waiting for the top casing to be fitted



Above: Drive shafts are CVD style and very easy to build

Below: The differentials are super smooth

The bodyshell is a fine example of the modern style of design and comes complete with a 6.5" wing and under-tray. The shell itself has two clips to hold it on – but it also has a mounting plate on either side of the chassis which not only gives you an extra place to secure the shell (using Velcro) but also helps stop any deformation during any 'incident' you may have, and it also allows you to run without the under-tray if required (for indoor running perhaps). The under-tray slides under the bumper at the front (helping prevent it being ripped off on rough ground) and is also bolted to the chassis through specific mounting holes. It all fits very well indeed, and a big thanks to Mark Stiles for the fantastic paint job he's done for this review (I didn't give him much time either!)

GETTING WIRED

Now it's ready for the electrics. As with any competition car the choice is open, and CML Distribution kindly supplied us with the latest offerings, a Novak 5.5 'Light' Brushless motor, Novak GTB speed controller, Associated XP DS1015 servo and set of SMC IB4200 cells. Installation was not difficult. I just bolted the servo straight in and adjusted the neutral point afterwards as access to the servo spline is easy – just guide your hex driver between front driveshaft and turnbuckle.

The GTB can be fitted either in front of the motor or just behind the servo – I plumped for in front of the motor to keep the wiring shorter and away from any moving parts – and there is plenty of clearance from the shell, even with the fan on. This leaves the receiver to sit behind the servo, and if your receiver isn't too large there is even space to mount a Personal Transponder too. The motor mount has open-ended slots to allow an easy fit for the motor itself. Just put the screws into the motor



Above: Front hub assembly is smooth yet solid



Above: Drive shafts are CVD style and very easy to build

Below: The differentials are super smooth

can a little way and then slide the motor into the mount, set the mesh and tighten the screws. This stops the hassle of trying to fit the screws into the motor whilst it's in the chassis. Top job!

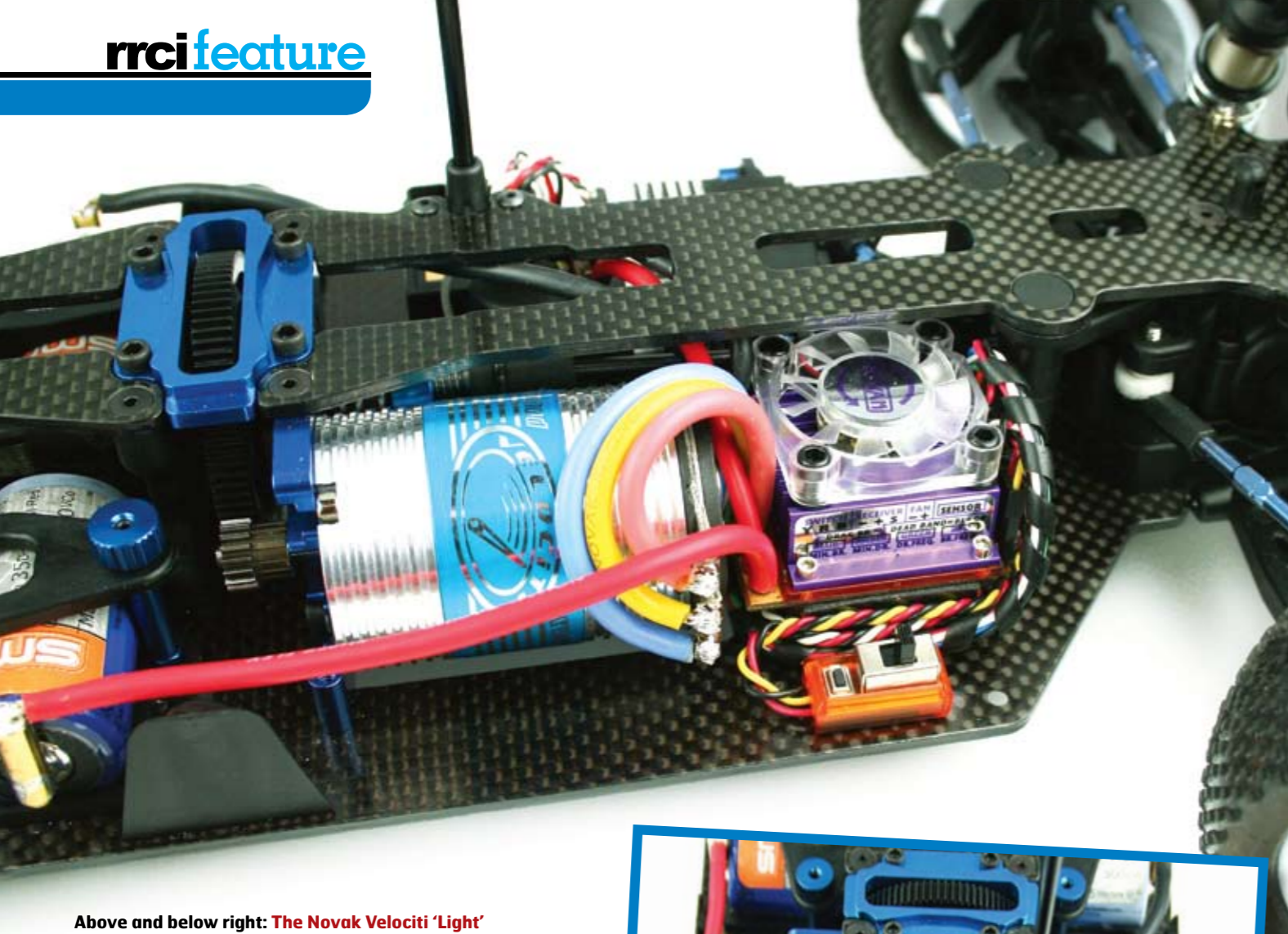
For gearing I just followed the recommendations in the instruction book and it proved to be spot on. Also in the manual there is a very useful section that tells you how all the available adjustments will affect the handling of the B44 – just what the metaphorical doctor ordered.

TRACK TIME

Now it was time to hit the track. Many thanks to the Swindon club who let me into their popular venue to give the B44 its first run. Historically used for 1/8th Rallycross, the club has plans to build tracks for both nitro and electric in the future so it seemed a great place to start. The track has a mixture of surfaces, but with the weather being rather 'seasonal' (i.e. wet) I elected to drive the shorter loop and keep mostly to the AstroTurf. I started with the kit tyres, Pro-Line Holeshots, which were surprisingly good seeing as their preferred surface is dirt and I felt confident with the car straight away. The Novak brushless system was giving oodles of power, more than enough for the conditions so we certainly weren't lacking any speed – it was time to give it large!

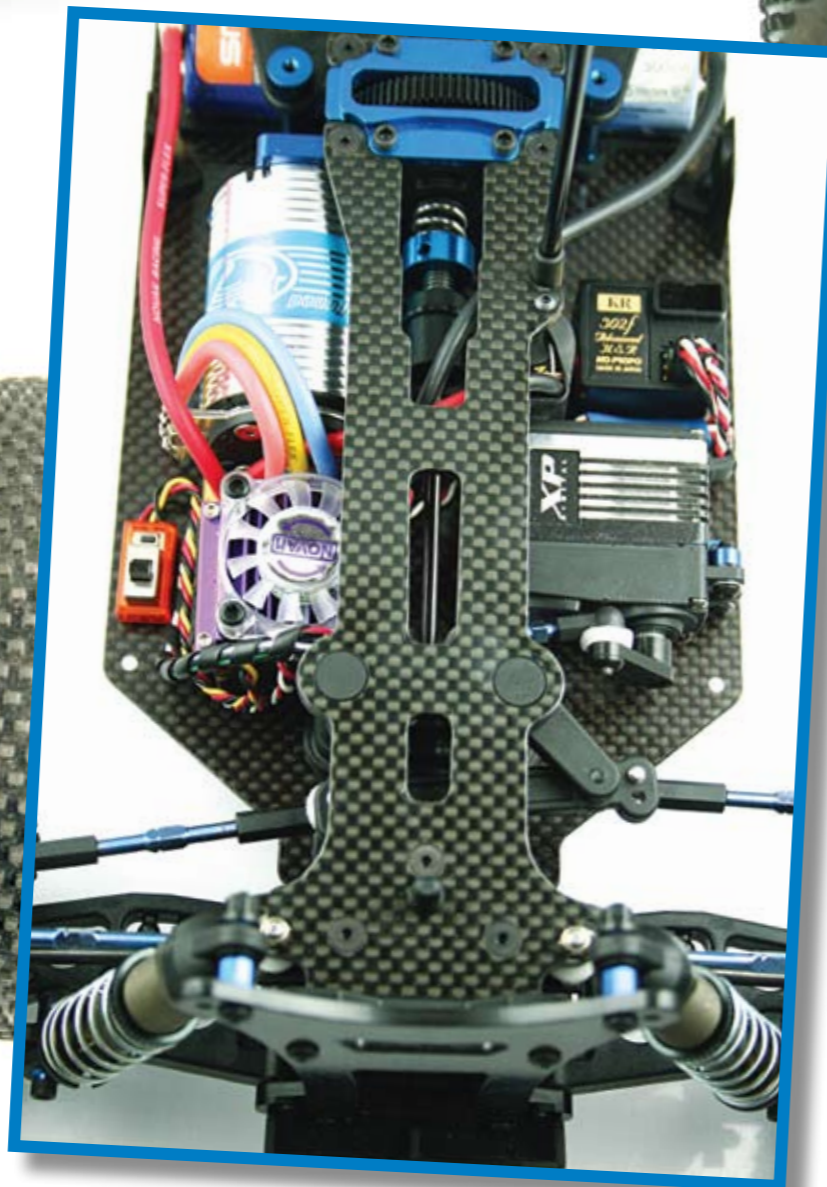
Acceleration was excellent without the car getting out of shape and I was instantly taken by the B44's jumping ability. This is something that has become increasingly important in off-road racing as drivers want more and more 'air time' and race venues are satisfying their needs, the B44 also seems to react faster to changes in throttle during flight than I was used to (changing the attitude of the car whilst in the air), no doubt due to the efficient shaft drive transmission.

Above: The B44 really looks the part and has plenty of room for the electrics



Above and below right: The Novak Velociti 'Light' 5.5t and GTB fits a treat and really shifts!! The Holy Grail that is neat wiring is not hard to achieve

Below: The new moulded rear wishbones also fit the B4, and have a new mounting for the optional B44 anti-roll bar



A change of tyres to Ballistic Buggy mini-spikes suited the track conditions better giving more grip. A slight tightening of the slipper allowed more power to go down on track giving even more confidence. Tight lines were now no problem at all and I've never had a car that was SO easy to jump (did I mention that already!) and the B44 proved to be responsive and agile. The shocks were perhaps a little over damped – good for the jumps, but not so good for the rougher sections – but this can be easily rectified.

At this point the weather took a turn for the worse, curtailing the test, so I used the time to think about what other items might be needed by the people who will buy this kit. A front one-way will prove to be a popular addition for many drivers to give an option for the faster tracks, and of course a set of shock springs will always be helpful – otherwise I am struggling...I'm sure options will become available but in my view, this car just doesn't NEED them.

The B44 has already proved itself to be a great car, and having built and driven one I can see why. If there is one thing Team Associated has historically done, it is to release cars only when they are ready. With spares backup already in place (all the parts arrived at the distributors the same time as the kits) and the competitive pricing, the B44 is an extremely attractive proposition for club and national racer alike. Quite simply this car is ready and able to win out the box! I'll be campaigning the B44 in the BRCA 1/10th Off Road Nationals that I cover for RRCi throughout the season, so expect to see a lot more of it! I can't wait!



QUICK SPEC

Class: 1/10th 4WD Off Road Electric
Type: Self-assembly chassis kit
Manufacturer: Associated
Price: £249.99 RRP

REQUIRED AND RECOMMENDED

Radio: KO Universe
 Servo: AE XP DS1015
 Battery: SMC IB4200
 ESC: Novak GTB
 Motor: Novak Velociti 'Light' 5.5t
 Tyres: Pro-Line Holeshots
 Charger: Robitronic Overloader

DISLIKES
 Access to diffs

LIKES
 Factory spec kit
 Motor mount access
 Quality of mouldings
 Slipper design and access
 Battery mounts
 Responsive

CONTACT

More details from
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