

Born *for the* USA

The new Fireblade USA employs conventional shock set up that Schumacher say makes the USA 'compete at the highest level'

One of the first Schumacher Fireblade USA kits was constructed at the factory and dispatched to us at Racer. At first glance, the Schumacher Fireblade template has been retained in the design, with the slim double deck chassis and three spoke wheels. Under closer inspection though, the changes are more evident with a revised gearbox position, new front and rear suspension, new steering geometry and chassis tweaks. Beginning at the rear of the car, Schumacher have incorporated a new gearbox location that moves the motor approximately 3mm closer to the middle of the car. This ties in with the revision to the cell layout within the chassis that allows the cells to be positioned further back. This retains the balance but eliminates pendulation and the risk of pulling wheelies which may look good but will unfortunately lead to an

increase in lap times. A standard layshaft without a slipper clutch embraces the gearbox which will provide the wheels with all the power the motor has to offer. Fitting the optional slipper clutch will make the car more driveable while for ultra slippery surfaces, the addition of the Schumacher Visco-drive will help even more and is often used by the Team on dirt tracks.

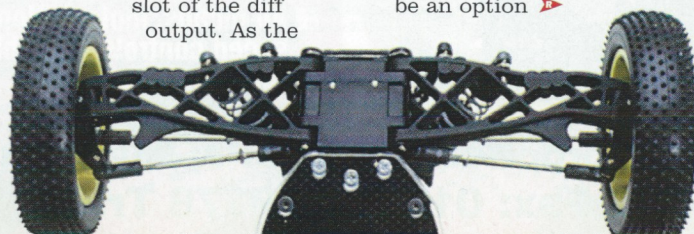
BLADE RUNNER

Attached to either end of the ball differential alloy outputs are Blade driveshafts. These have been included on all the latest Schumacher cars and are designed to be maintained rather than replaced throughout their lifetime. At the internal end of the shaft, a plastic Blade clips onto the metal pin which works in the slot of the diff output. As the

Blade piece wears, a new one can simply be clipped into position. This is at a fraction of the cost of replacing the entire driveshaft.

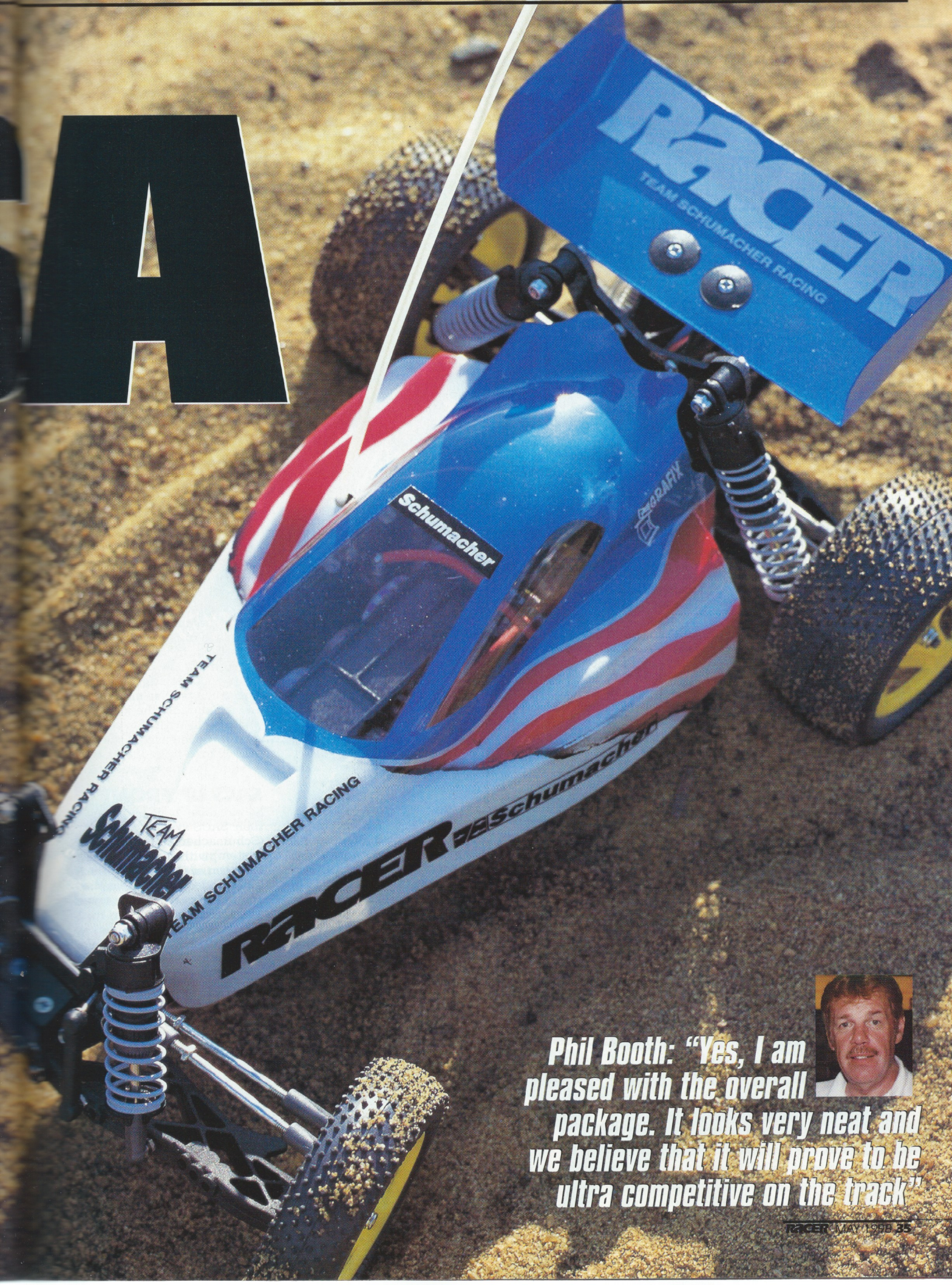
IN OR OUT

Moving further down, the long rear suspension arms are angled with three degrees inboard toe in. In the production kits, it will be possible to change the inboard setting to an outboard one by fitting alternative hubs and brackets. As well as these options, the level of anti squat is also adjustable between 1.5 degrees or 3 degrees. Once again, all the parts necessary to implement this change are included in the box. To allow a rear roll bar to be fitted, neat fittings have been moulded into each of the rear wishbones. The roll bar will be an option ▶



COST: €184.99 **SPEC:** 2WD S1 COMPOSITE CHASSIS **CLASS:** OFF ROAD RACER

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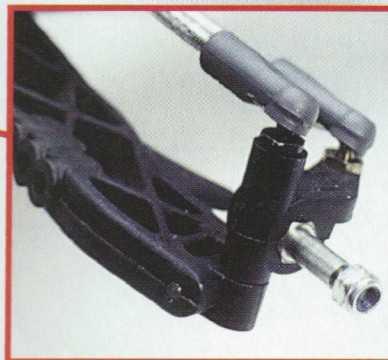
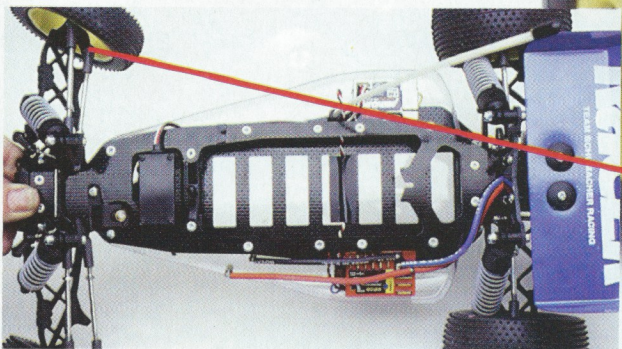


Phil Booth: "Yes, I am pleased with the overall package. It looks very neat and we believe that it will prove to be ultra competitive on the track"

likes & dislikes

✓ Adjustability
Original design theory

✗ No slipper clutch
Plastic shock absorbers



ABOVE: Schumacher active caster system that helps the car steer positively

available under the 'Speed Secrets' range. At the hub, there are three choices of wheelbase, depending upon the position of the hub spacers. This determines the angle of the driveshaft which could be angled forwards, straight or backwards; each setting has an effect on the way the car accelerates.

COMPOSITE CAMBER CHANGES

Just in front of the gearbox is the revised front bulkhead. This provides a mounting for the rear camber link, shock

towers and rear wing mount. The previous Fireblade kits used a two piece design but now, small improvements incorporate just the one piece of the S1 composite material. A number of holes allow the camber link to be positioned for more or less camber change.

Although the name USA puts many minds thinking that the car was designed for the States, it is not the true reason. There are seven slots in the chassis to accept seven

cells, currently being forced out of racing classes in the US. With the hole for the extra cell, the weight distribution can be changed easily and quickly. The options are a plenty with cells forward, backward or split with an empty slot in the middle. This gives a totally new weight distribution set up that ties into the new gearbox position. Fixed around the battery slots are five plastic gates that support the top chassis unlike the previous Fireblade that just had three. Increased stiffness is the result which show up the suspension changes more effectively. The gates are fixed to the upper and lower chassis levels, of which the shape is very familiar but with some small alterations to the front and rear with the steering assembly in particular. The steering servo bolts into the USA

vertically with the output facing the undertray. The chassis is in fact cut away to allow the arm to rotate through the arc. Tolerances are particularly tight here but with some precise moulding and production, the idea works well. With this vertical fixing, it has enabled the battery area to be increased to allow for the seven slots.

SACS UP FRONT

Schumacher have employed their SACS system, (Schumacher Active Caster System) with the USA which has been seen on their other 2WD models. This alters the amount of caster at the wheel as the front suspension compresses and rebounds.

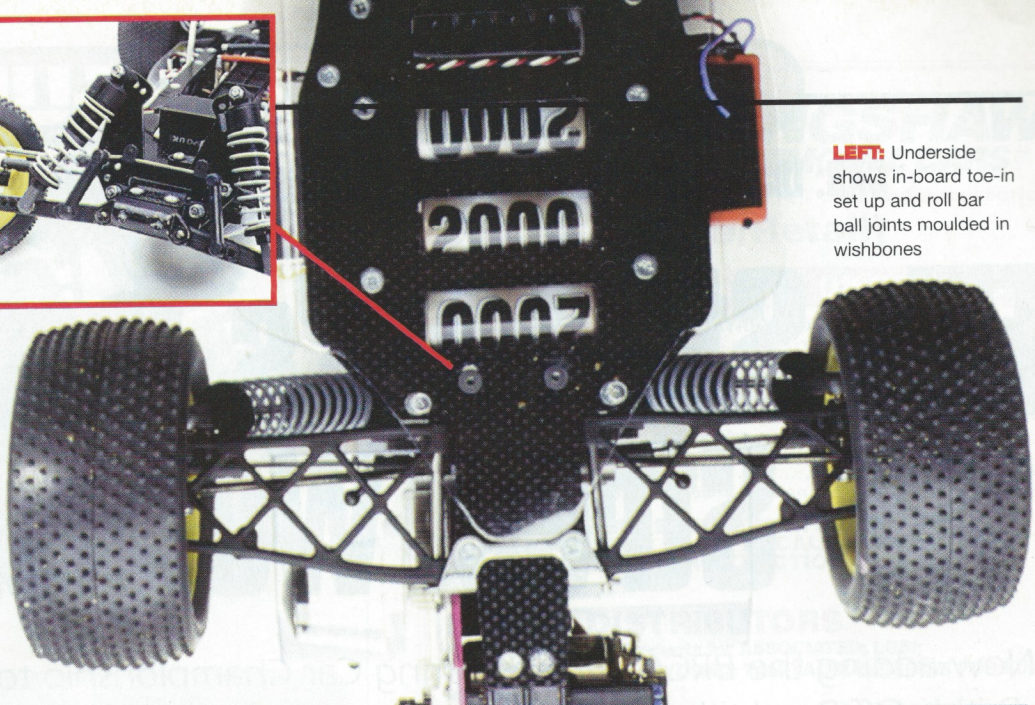




LEFT: Underside shows in-board toe-in set up and roll bar ball joints moulded in wishbones

BASIC OPTIONS

- Titanium turnbuckles
- Alloy shock absorbers
- Slipper clutch
- Visco drive
- Spring tuning set
- Front roll bar
- Rear roll bar
- Caster blocks



specification

- 2WD drivetrain
- Independent suspension
- Oil filled plastic shock absorbers
- Ball differential
- Fully ball raced
- Blade universal joint driveshafts

racer rating

KIT SPEC	89%
RACEABILITY	93%
OVERALL	93%



summary

Changing back to upright mounted shocks brings the car back into convention, that may have previously put some prospective customers off. After initial testing, the USA can certainly put in the lap times and with a new, young and enthusiastic Race Team at Schumacher, the future looks bright for Schumacher. Racer got it's hands on the USA before most of the testing in public had been done. This means we haven't been able to race the car but we have watched Schumacher team drivers in action with the car. So far it looks as though the changes have brought definite improvements, the car certainly able to produce fast lap times. The best thing about the Fireblade is that it's made in the UK, many of the parts can be mixed between it's 4WD Cat brother and it could well pull a surprise in 1998

The Research and Development Team at Schumacher feel that their system improves power on steering which is a common fault of 2WD kits, especially as they exit the corner. 15 degree SACS blocks are included as standard although there will be a 0 degree alternative. All new wishbones are fitted up front that will be compatible for all the Fireblade models, allowing upright or laydown shocks to be fitted. Moving the fixing point between these two holes will alter the action of the roll bar, stiffening or softening the movement. All four shock absorbers bodies are moulded in plastic, with cartridge style seals.

Alloy versions will be a worthwhile replacement for these as the upgrades are hard coated for longer, more consistent performance. The standards shafts and seals will fit straight into the alloy bodies without any need for further expense. Grey springs slide over the shocks to suit the majority of tracks. We chose to adopt a USA theme with our kit, superbly airbrushed by Grafix. **R**

ABOVE: Fireblade stays looking very similar but this new version is the best yet from Schumacher

WHAT WE USED

- KO Propo PS2015 FET servo
- Novak Mercury 40mHz receiver
- Novak Cyclone speed control
- Trinity D3 12x5 motor
- Trinity VIS RC2000 battery
- Pactra paint