

[Roger Mills' explanation about front shock positions and general front end on FS](#)

I've been working hard over the past few weeks on set-ups for the FS after running largely the same car all summer.

One thing I have done which has really helped the car is move to the outer hole on the front wishbone, readjusting shock length to maintain the same droop.

The main reason for going for this change is wanting to achieve the relationship between wheel bump speed and damper piston velocity you get from a more inclined shock.

I tried the inner hole on the tower but found that it was limiting me to using just the stiffest spring (#75 lime green) on the front to give me the smooth steering response I was after, we all know how much front end the FS can generate!

By moving to the outer front wishbone hole and sticking with the middle hole on the tower I achieved what I wanted and put myself back into the middle of the spring range as moving a hole on the wishbones is approximately 2 spring grades.

This meant that I was now using a #65 yellow instead of a #75 lime green (and #60 dark yellow where I would have run a #70 silver previously).

This option is particularly useful on really high grip surfaces (like Silverstone was for the F3s) and fresh carpet.

I've also been trying to run the front axle height low (spacer in low position under castor block) with the droop also adjusted back to normal. This is to effectively lower the front roll centre for a given ride height which smoothes the car out again.

Finally is reduced Ackerman (removing all spacers between ball stud and rack), again with the aim of making the car smoother.

The last two have been as a direct result of conversations with Nick Caro who has spent a lot of the summer improving his FS base setup, with some really good results along the way. Nick is really flying with this car now.

Now people who don't know the FS might think that its an oversteering monster to require such taming but as we know this isn't the case at all, but neither does it lack steering.

What I have tried to do is produce a car with the same ultimate amount of front end bite late in the corner but one which does it in the smoothest and most progressive way possible.

I now have the car to the point I no longer feel the need to run a front one-way, amazing when you consider that all my 4wd cars since the mid 80s have had one-ways in, but still maintains all the late corner steering I had running one! Taking me a little getting used to but when you string it all together it makes the car much quicker around a lap and easier to be consistent with.

The FS just gets better and better with every turn of the wrench.

The last thing I have been playing with is changing the up/down travel balance.

By using the longer shock eyelets from the RB5-SP2 on all 4 shocks and modifying the towers so that maximum up-travel is achieved just a fraction before the driveshafts contact the outdrive edges I feel the car is a little more forgiving to "iffy" landings from big jumps, especially those where there is a corner right at the landing point.

Obviously as with all the other changes mentioned here I have reset the droop levels to the same as kit, front slightly less than rear too.

I feel this will be an advantage now we are heading indoors to the tight tracks for the winter and has given no noticeable negatives under normal conditions.

Hopefully towers will be available to accommodate this in the next few weeks, they should also correct the arc made as you adjust the shock inclination so that at a 'typical' ride height there is no change in droop across the range of inclinations.

Also for those of you that haven't tried the slipper "pinned" with matching (we favour white) pads in then go and try it. Again it makes the car feel a little more consistent and easier to push with. I was a little concerned that it might lock the rear end of the car in a little too much, previously I'd only pinned the slipper in very slippery conditions. This has proven not to be the case, the front is still nice and aggressive but now you can get on the throttle earlier mid corner = faster lap times.