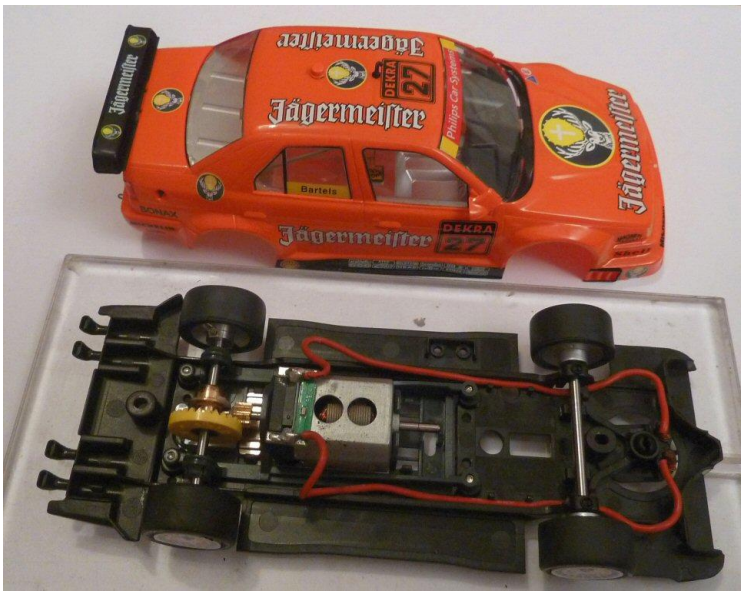
Tune and Track Test

So now for something different. Setting up a Slot.it classic DTM saloon car. I have opened up one each of the Opel Calibra and Alfa 155 V6. Later this year a Mercedes 190 model will be added to the range.

With us hosting the **DTM Classic** at Thunder Road Raceway in September, this article can also serve both as a quick-start guide for anyone coming to the event.



Like the Slot.it Group C cars, these are configured as inline - as they are just too narrow to host other configurations. The pod is typical 4 screw mount, 0.5mm offset - which means the rear axle is 0.5mm higher than the motor shaft, to create the result that the car can sit a little lower than would otherwise be possible.

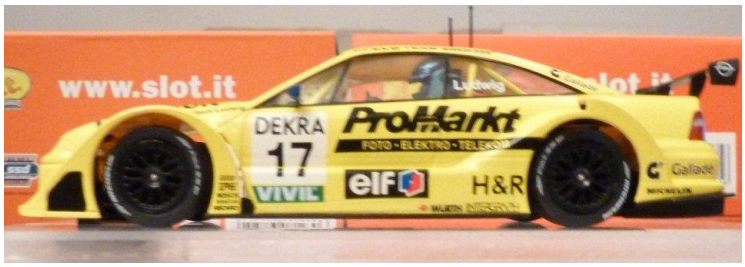
The motor is a new one developed with this class in mind, and has specs of 21,000 rpm 150g/cm torque 7.9 watts, compared to the rebadged "orange bell" replacement MX16 at 23,000 rpm 170g/cm torque for 9.8 watts which is the standard motor for Group C and classics models.

So these DTM cars are a little milder to drive, and well suited to home tracks as well as club racing. For plastic track racing, there is the usual magnet mounted at rear - and able to be moved between the rear and forward positions in the pod to change handling characteristics to your preference.

Wheels fitted are 15.8 x 8.3mm both end, the fronts being plastic, the rears alloys as usual. Gearing also typical 9:28, so the final ratio at the wheels is a little lower than for Group C, due to the hubs being that notch smaller than the 16.5s on Group C cars. Tyres at both ends are C1 formula, which is typical for plastic tracks, but for our wood racing in NZ, a change to softer rubber such as F22 or N22 is usual.

There are the usual holes at top and underside of the chassis at front to add grub screws for fixing the front axle ride height.

In mirror of the real cars, length is around 150mm, width just 58/59mm, and height 39 - 44mm, so they can be rolled more easily then low GT and sports cars. Setting these up for balance and grip is quite different.



With the stock cars, the outside tyre diameter was 19.2mm. With the PT1171N22 fitted it was 19.75mm, but after glue and true it came back to 19.4mm As I have set the pod screws up ¾ turn off of tight, the pod sits a fraction up from flush with the chassis, and the rear chassis ride height is about the same as stock.

The front of the Alfa is lower at 18.2mm after truing unglued fronts, and on the Opel it is 18.85mm

I have swapped the stock braid for SP18 tinned copper braid, - soft and a shade thinner, and fitted 6mm grub screws under the front axle to lift it, and 3mm grub screws above the axle in the front holders, so it is pinned and cannot rock, but spins freely.

As little as 1/16th turn can be the difference between catching and floppy. I have set the front ride height so that the guides sit as deep as possible in the slot – as shown below.

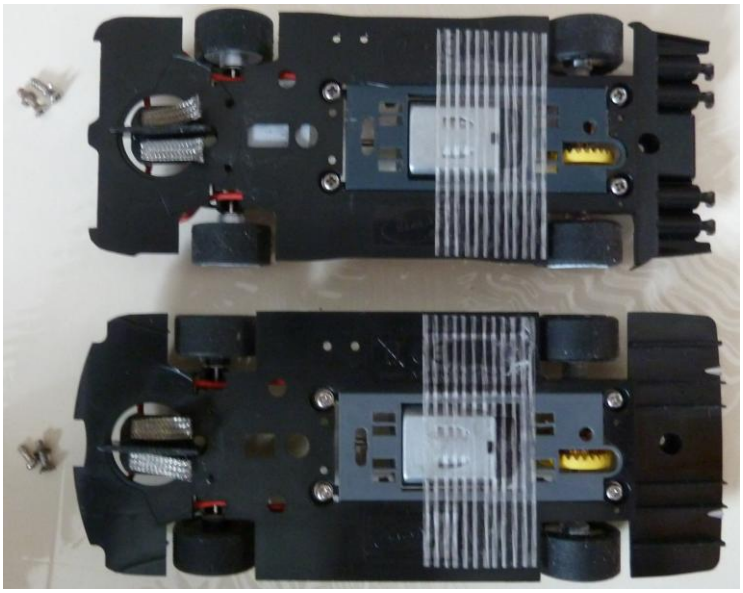
The Opel is 1.5mm wider in the rear track than the Alfa, and also sits lower. It weighs just 1 gram more.

Wanting to equalize the test cars for the **DTM Classic** in September, I added 8 grams weight to the Alfa, taking its total weight to 76 grams, while leaving the Opel stock. This lowered the COG on the Alfa nicely. A little lead behind the guide plants the front, some either side for stability, and a tiny bit at rear to encourage controlled sliding before roll.

The track owner of Thunderslot Raceway Mac & I ran both cars on his centre two lanes in this initial configuration. On his favourite red lane he was able to get the Alfa around in 7.405 fairly easily, then switching to the Opel, gradually worked it down to 7.29.

Meanwhile on Yellow lane, which is usually just slightly slower than red, I drove the Opel first and got it down to 7.39, then switched to the Alfa and dropped my best time down to 7.32, 0.07 faster than the Opel, and close to Mac's best time for the Opel on red lane.

Overall, I think these setups have them very close to level. If you are considering entering the DTM Classic, check out the details on the link at the right side menu on the website.



I taped the underside of both pods after loosening them one full turn. The loose pod de-stresses the chassis, encourages some "tip" for improved bite in corners, while the tape acts as a dampener, softening any sudden movement. Both cars were set up blind by me and taken to the track as a decent first guess. I think I have the result close enough, that depending upon your driving style you may be quicker with either car. One thing I did not do, is flatten the chassis on a steel plate. Entrants in the DTM Classic are welcome to do so.

I don't think the weight in the Alfa takes much from straight line performance on that track, what counts is cornering speed, smoothness, tyre bite and acceleration out of the corner.

If I had to choose either one right now for race day, I would take the Alfa as I liked the degree of predictability and forgiveness when slightly over-cooked into a corner, - it just flicks the back out slightly and leans. Others may prefer the Opel. Having also run the Alfa on the "Black Widow"; I enjoy the leeway it gives if you get the corner speed slightly wrong.

So the rules for the DTM 2018 will have the Opel running un-weighted, and the Alfa with a max weight of 77 grams. Entries are open and coming in quickly, so please signal your intentions as soon as possible for a place.

UPDATE: As at 2020, I have measured and set up and tested the Mercedes against the other models. It's core statistics are almost identical to the Alfas. It has the similar height and the same width of rear track as the CA40 and CA45 Alfas – 1mm wider than the CA35 Alfa tested above.

After retesting all cars, and watching them in club competition for over a year, I have the Alfas and Mercedes all set with a maximum car weight of 80 grams, the Opel set un-weighted (magnet may be retained).