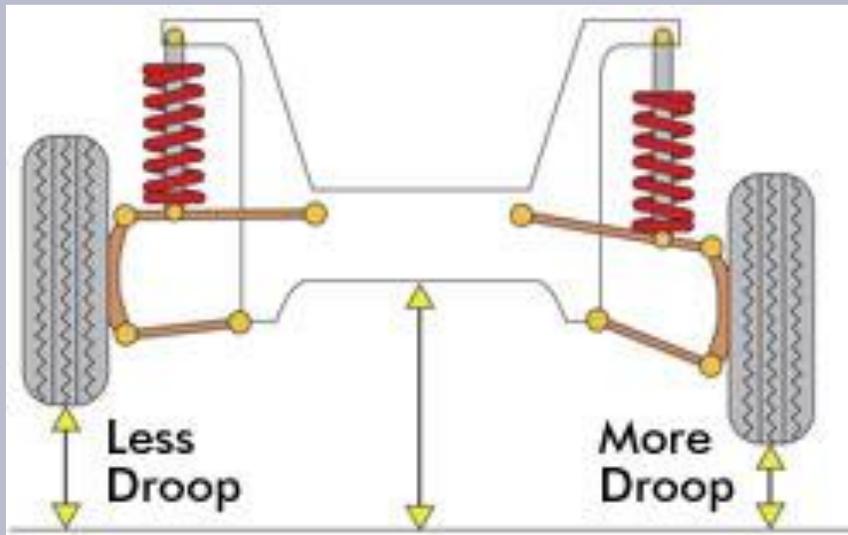


HOW TO No. 3 --- Droop Setting

DROOP IS OFTEN FELT AN EVEN MORE CRITICAL SETUP PARAMETER TO GET RIGHT THAN RIDE HEIGHT; EVEN SO, IT IS OFTEN OVERLOOKED.

Droop is the difference between ride height and the maximum height the chassis can be lifted, with the tires still touching the ground. So as the chassis moves up, the tires will still stay on the ground for a set amount of chassis movement, this amount of chassis movement is your droop. This means that the longer this distance is, or the more droop you run, the more the car can roll, and the more the tires follow the track surface. When you accelerate with a lot of droop, the front wheels will also stay loaded (keep in contact with the track), as the front rises and the weight shifts back onto the rear tires. In general, more droop results in more grip, and calmer steering. Less droop results in greater corner speed, more sudden loss of traction, and more aggressive steering. The drawback of driving with a lot of droop is that the car will be more likely to traction roll, or at least go up on two wheels and feel squirmy and may lose rear grip in corners suddenly. Also, if it does roll it will all happen very quickly and will be difficult to save.



Tools Needed.

TOOLS: Pliers, Hex driver, usually 2mm, Setup board/flat surface and for easy adjustment a droop gauge and block set

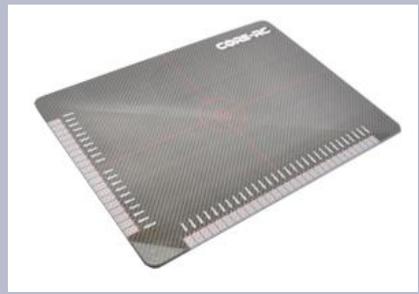
There many ways that people measure and set their droop, I find a droop set with gauge and chassis blocks one of the simplest. However whatever method you use make sure you adjust Droop Screws so the droop is equal on both left and right sides. I have not listed any actual settings for droop as these will alter with the make of car and the track. For these settings please refer to the manufactures setup sheets or information from other drivers.



Droop Gauge and Block Set



Hex Drivers



Setup Board (Flat surface)

How to Adjust:

Firstly, remove the wheels, detach the shocks and the anti-roll bars.

Most cars use droop screws in the arms that touch the chassis and limit down-travel. Droop Screws limit how far the wishbones travel downward (which determines how far upwards the chassis travels). For detailed information on adjusting the Droop Screws of your car, refer to the appropriate set-up manuals for your car.

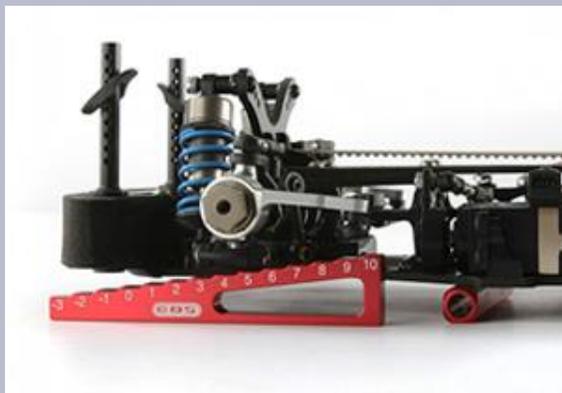
Please note: on some models, such as the VBC there is raised area under the block that will have to be taken into account when measuring the droop against the gauge. Again see the car manufactures instructions on the relevant value

Measuring Droop:

Place the droop gauge support blocks on the set-up board, and then place the chassis on the support blocks. (Make sure the chassis is solidly mounted on the support blocks so it won't move.)

Lift and drop the suspension arms so that they settle in their lowest positions.

Using the droop gauge, measure the droop value.



Measure at the bottom of the front steering blocks and the bottom of the rear hub carriers. Adjust the droop by turning the droop screws

Positive numbers indicate the distance (in mm) ABOVE the level of the support blocks (or, above the bottom of the chassis). Negative numbers indicate the distance (in mm) BELOW the level of the support blocks (or, below the bottom of the chassis).

Adjusting Your Droop:

Increase or Decrease by turning the droop screws in or out the front droop screws so the front lower arm raises up slightly. Adjust until the requires setting is reached.

The rear droop is adjusted in the same way.

REMEMBER: whatever method you use make sure you adjust Droop Screws so the droop is equal on both left and right sides.

Now the droop has been set the shocks can be re-attached. At this point we need to re-check the droop again! Why you ask! Well the overall length of the shocks can affect the droop, if the length of the shock is too short then then it will not allow the suspension arms to have full movement. Adjust the length of the shocks to allow for this so the droop setting is the same with the shocks on or off. Again as with the droop make sure that your shocks are both the same length.

To adjust lengths, shock limiters offer the greatest accuracy, but it's very time-consuming to disassemble your shocks every time you want to alter droop. For minor setting changes, there's always the old ball-end trick: screw your shock end in or out a turn or two for quick testing. Remember, this is often a weak point in a vehicle so make sure you don't screw out too far!



Do not unscrew too far as it can make it weak

Droop is not something you can set and forget. Many things can alter settings so it's best to check it whenever you have done any adjustments on your car. Once you get into this adjustment it will become a lot easier and quick to do.

As mentioned these guides are just that "A guide" so if you find other ways that suit you then use the method that gives you the best results.