aRockerMin	Minimum rotation of the rocker.*
xRackMax	Maximum displacement of the steering rack.
xRackMin	Minimum displacement of the steering rack.
rWheelDesign	Radius of the wheel as it appears on the design drawings. Used to calculate suspension kinematics.

- Some notes about rocker limits:
- The kinematics curves are calculated at a fixed number of points between aRockerMin & Max, therefore higher resolution kinematics can be obtained by avoiding an unnecessarily large range.
- Prior to setup we drive the suspension components between aRockerMin & Max to make sure the forces produced are sensible. If the rocker limits are too relaxed causing the suspension to be driven deep into very stiff bump or droop stops, you might run into problems because the force produced will be too high. Likewise relaxed limits might put your suspension into a position where it binds.
- During car setup there needs to be enough headroom within aRockerMin & Max in order to shim the car, and run through the speed range.
- For Dynamic Lap, we use the rocker limits in the early iterations to keep the solution in a sensible operating window. They are not hard limits (for this use bump or droop stops), they are just guidance.

In summary, the rocker limits should cover the range of motion you expect to use, plus a little bit of headroom.

Parameters

The coordinates of the pickup points must all be entered in the car coordinate system, as defined in coordinates. In addition to the pickup points, the external geometry defines the stiffness and damping of the steering rack, flexure stiffnesses, setup camber and toe angles, and external compliances as listed in the table below.

Parameter	Definition
aToeSetup	The toe angle at setup (the angle between the hub x-axis and the car x-axis).
aCamberSetup	The camber angle at setup (the angle between the hub z-axis and the car z-axis).
kRack	Stiffness of the steering rack (front suspension only).
cRackDamping	Steering rack damping coefficient (front suspension only).
xFlexureNeutral	The position at which the flexure generates zero force.
kFlexure	Stiffness observed when moving the hub vertically relative to the chassis with no force in the pushrod.
daCamber_d**Tyre	Ratio between Fx, Fy, Fz or Mz applied at the contact patch, and change in wheel camber angle.
daToe_d**Tyre	Ratio between Fx, Fy, Fz or Mz applied at the contact patch, and change in wheel toe angle.

Internal Suspension

The internal suspension comprises two main classes of parameter:

1. The pickup points of all the internal suspension components in the suspension design position.
2. The physical properties of the suspension components themselves.

Geometry

The internal suspension pickup points comprises a complete list of pickup points for *all components that could ever be fitted*. Many of these are mutually exclusive (such as T-Type and U-Type anti-roll bar geometries), so users may choose any components from the list in the table below. The minimum requirement is that sufficient suspension components are present to support the weight of the car.

PickUp Point	Definition
rTorsionBarAnchor	Point at which the torsion bars are either anchored to the chassis or to the cross-link mechanism.
rCrossLink	Connection point for the torsion bar cross link.
rCornerSpring	The position of the corner spring attachment to the rocker.